

A decorative banner with a dark blue background and glowing, abstract light patterns in shades of green and blue, resembling a stylized globe or data flow.

# Systemwalker User's Guide - Systemwalker User Management and Single Sign-On

UNIX/Windows(R)

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# Preface

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## **Purpose of This Document**

This document explains how to install the Systemwalker User Management function and the Systemwalker Single Sign-On function.

Use this document for the Windows, Solaris, and Linux versions of Systemwalker products.

## **Intended Readers**

This document is intended for people who will use the Systemwalker User Management function and the Single Sign-On function to manage common users and single sign-on operations for various Systemwalker products.

This document assumes that you are familiar with how to work with an operating system and GUIs and you have basic knowledge of TCP/IP and directory services (Active Directory or LDAP).

## **Abbreviations and Generic Terms Used**

- All of the following are referred to collectively as "Windows 7":
  - Windows(R) 7 Home Premium
  - Windows(R) 7 Professional
  - Windows(R) 7 Enterprise
  - Windows(R) 7 Ultimate
- All of the following are referred to collectively as "Windows Server 2008 R2":
  - 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
  - Microsoft(R) Windows Server(R) 2008 R2 Standard without Hyper-V(TM)
  - Microsoft(R) Windows Server(R) 2008 R2 Enterprise without Hyper-V(TM)
  - Microsoft(R) Windows Server(R) 2008 R2 Datacenter without Hyper-V(TM)
- All of the following are referred to collectively as "Windows Server 2008 Foundation":
  - Microsoft(R) Windows Server(R) 2008 R2 Foundation
  - Microsoft(R) Windows Server(R) 2008 Foundation
- All of the following are referred to collectively as "Windows Server 2008 Server Core" or "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
- All of the following are referred to collectively as "Windows Server 2008 STD":
  - Microsoft(R) Windows Server(R) 2008 Standard

- Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM)
- All of the following are referred to collectively as "Windows Server 2008 DTC":
  - Microsoft(R) Windows Server(R) 2008 Datacenter
  - Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM)
- All of the following are referred to collectively as "Windows Server 2008 EE":
  - Microsoft(R) Windows Server(R) 2008 Enterprise
  - Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM)
- All of the following are referred to collectively as "Windows Server 2003 STD":
  - 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
- All of the following are referred to collectively as "Windows Server 2003 DTC":
  - 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
- All of the following are referred to collectively as "Windows Server 2003 EE":
  - 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
- All of the following are referred to collectively as "Windows(R) 2000":
  - Microsoft(R) Windows(R) 2000 Professional operating system
  - Microsoft(R) Windows(R) 2000 Server operating system
  - Microsoft(R) Windows(R) 2000 Advanced Server operating system
  - Microsoft(R) Windows(R) 2000 Datacenter Server operating system
- All of the following are referred to collectively as "Windows NT(R)":
  - Microsoft(R) Windows NT(R) Server network operating system Version 4.0
  - Microsoft(R) Windows NT(R) Workstation operating system Version 4.0
  - Microsoft(R) Windows NT(R) Server network operating system Version 3.51
  - Microsoft(R) Windows NT(R) Workstation operating system Version 3.51
- All of the following are referred to collectively as "Windows(R) XP":
  - Microsoft(R) Windows(R) XP Professional x64 Edition
  - Microsoft(R) Windows(R) XP Professional
  - Microsoft(R) Windows(R) XP Home Edition

- All of the following are referred to collectively as "Windows Vista":
  - Microsoft(R) Windows Vista(R) Home Basic
  - Microsoft(R) Windows Vista(R) Home Premium
  - Microsoft(R) Windows Vista(R) Business
  - Microsoft(R) Windows Vista(R) Enterprise
  - Microsoft(R) Windows Vista(R) Ultimate
- Microsoft(R) Windows(R) Millennium Edition is referred to as "Windows(R) Me".
- Microsoft(R) Windows(R) 98 operating system and Microsoft(R) Windows(R) 98 Second Edition are referred to as "Windows(R) 98".
- Microsoft(R) Windows(R) 95 operating system and Microsoft(R) Windows(R) 95 Second Edition are referred to as "Windows(R) 95".
- The term "Windows Server 2003 STD(x64)" is used to refer to both of the following:
  - Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition
  - Microsoft(R) Windows Server(R) 2003, Standard x64 Edition
- The term "Windows Server 2003 DTC(x64)" is used to refer to both of the following:
  - Microsoft(R) Windows Server(R) 2003 R2, Datacenter x64 Edition
  - Microsoft(R) Windows Server(R) 2003, Datacenter x64 Edition
- The term "Windows Server 2003 EE(x64)" is used to refer to both of the following:
  - Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition
  - Microsoft(R) Windows Server(R) 2003, Enterprise x64 Edition
- Microsoft(R) Windows(R) 2000 Server operating system is referred to as "Windows(R) 2000 Server".
- Microsoft(R) Windows(R) XP Professional x64 Edition is referred to as "Windows(R) XP x64".
- Versions of Systemwalker products that run on Windows or Itanium-compatible versions of Windows are referred to as "Windows".
- Articles specific to Systemwalker products that run on Itanium-compatible versions of Windows are referred to as "Windows for Itanium".
- Articles specific to Systemwalker products that run on Windows Server 2003 STD(x64), Windows Server 2003 DTC(x64), or Windows Server 2003 EE(x64) are referred to as "Windows x64".
- Oracle Solaris is referred to as "Solaris".
- Versions of Systemwalker products that run on Solaris are referred to as "Solaris".
- Versions of Systemwalker products that run on Linux or Itanium-compatible versions of Linux are referred to as "Linux". Articles specific to Systemwalker products that run on Itanium-compatible versions of Linux are referred to as "Linux for Itanium".
- Versions of Systemwalker products that run on Linux or Linux for Intel64 compatible versions of Linux are referred to as "Linux". Articles specific to Systemwalker products that run on Linux for Intel64 compatible versions of Linux are referred to as "Linux for Intel64".
- Versions of Systemwalker products that run on Solaris or Linux are referred to as "UNIX".
- Microsoft(R) Cluster Server and Microsoft(R) Cluster Service are referred to as "MSCS".

## **Notes on screens for Linux**

The screenshots shown in this manual are from Red Hat Enterprise Linux 5. The appearance of the windows you see, such as for version information, may be different from that in Red Hat Enterprise Linux 6.

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# Contents

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Chapter 1 Overview.....	1
1.1 Functional Overview.....	1
1.2 Functional Configuration.....	1
1.3 Operation Configuration.....	3
1.3.1 Using the Systemwalker User Management Function.....	3
1.3.2 Using the Systemwalker Single Sign-On Function.....	4
1.3.3 Using Cluster Environments.....	6
1.4 Supported Products.....	8
1.5 Coexistence with Other Products.....	8
Chapter 2 Installation Design.....	11
2.1 Designing a Systemwalker Authentication Repository.....	11
2.1.1 Deciding the Directory Service to be Used as Systemwalker Authentication Repository.....	11
2.1.2 Designing the Tree.....	11
2.1.3 Estimating Disk Space Requirements.....	12
2.1.4 Preparing Certificates.....	13
2.1.5 Investigating Migration from Existing Operations.....	14
2.2 Designing Systemwalker Common Users.....	14
2.2.1 Deciding User IDs.....	14
2.2.2 Deciding Passwords.....	14
2.2.3 Deciding Organizations.....	15
2.2.4 Deciding Groups.....	15
Chapter 3 Installation.....	16
3.1 Overall Flow of Installation Procedures.....	19
3.2 Creating an Environment for the Systemwalker Single Sign-On Server.....	20
3.2.1 Installing the Systemwalker Single Sign-On Server.....	20
3.2.2 Creating an SSL Environment.....	35
3.2.3 Creating an Environment for the Systemwalker Authentication Repository.....	40
3.2.4 Creating an Environment for the Web Server Used for the Authentication Server.....	47
3.2.5 Creating an Environment for the Authentication Server.....	51
3.3 Setting up the Connection Destination Systemwalker Authentication Repository.....	63
3.4 Creating an Environment for Systemwalker Single Sign-On Agent.....	64
3.4.1 Installing the Systemwalker Single Sign-On Agent.....	64
3.4.2 Setting up the Systemwalker Single Sign-On Agent.....	66
3.5 Registering Systemwalker Common Users.....	94
3.6 Setting up the Web Browser.....	97
3.7 Installation Procedure for Cluster Environments.....	97
3.7.1 Creating an Environment for the Systemwalker Single Sign-On Server.....	97
3.7.2 Setting up the Connection Destination Systemwalker Authentication Repository.....	112
3.7.3 Setting up the Systemwalker Single Sign-On Agent.....	113
3.7.4 Registering Systemwalker Common Users.....	113
3.7.5 Setting up the Web Browser.....	113
Chapter 4 Operation.....	114
4.1 Logging in to Systemwalker Products.....	114
4.2 Managing Systemwalker Common Users.....	115
4.2.1 Adding Systemwalker Common Users.....	115
4.2.2 Changing Systemwalker Common Users.....	116
4.2.3 Deleting Systemwalker Common Users.....	117
4.3 Backup and Restoration.....	118
4.3.1 Backing up the Environment Settings.....	118
4.3.2 Backing up the Systemwalker authentication repository.....	119
4.3.3 Restoring the Environment Settings.....	121
4.3.4 Restoring the Systemwalker Authentication Repository.....	121

4.4 Changing the Operating Environment.....	123
4.4.1 Changing the Operating Environment for the Systemwalker Single Sign-On Server.....	123
4.4.2 Changing the Operating Environment for Systemwalker Single Sign-On Agent.....	130
4.4.3 Changing the Operating Environment for the Systemwalker Authentication Repository .....	131
4.4.4 Adding Products as the Target for Single Sign-On.....	131
4.4.5 Removing Products from the Target for Single Sign-On.....	132
4.5 What to Do If the Systemwalker Single Sign-On Server Has Stopped.....	133
4.6 What to Do If the Systemwalker Authentication Repository Has Stopped.....	133
<b>Chapter 5 Uninstallation.....</b>	<b>136</b>
5.1 Deleting the Systemwalker Single Sign-On Agent Settings.....	136
5.1.1 When Interstage HTTP Server Is Used.....	136
5.1.2 When Microsoft(R) Internet Information Services Is Used.....	137
5.1.3 When Apache2.0.x Is Used.....	148
5.2 Uninstalling the Systemwalker Single Sign-On Agent.....	149
5.3 Deleting the Connection Destination Systemwalker Authentication Repository Settings.....	150
5.4 Deleting the Systemwalker Single Sign-On Server Settings.....	151
5.5 Deleting the Systemwalker Authentication Repository Settings.....	152
5.5.1 When the Interstage Directory Service Is Used.....	153
5.5.2 When Active Directory Is Used.....	153
5.6 Deleting the SSL Environment.....	154
5.7 Uninstalling the Systemwalker Single Sign-On Server [Windows].....	155
5.8 Uninstalling Interstage Application Server.....	156
<b>Chapter 6 Reference.....</b>	<b>164</b>
6.1 Command Reference.....	164
6.1.1 swidmg_bkrs (Backup and Restoration Command).....	164
6.1.2 swidmg_set_repository (Connection Destination Systemwalker Authentication Repository Setup Command).....	165
6.1.3 swidmg_set_ssoagent (Systemwalker Single Sign-On Agent Setup Command).....	169
6.1.4 swidmg_user_mng (User Management Command).....	172
6.1.5 F4AMsetup (Systemwalker Single Sign-On Function Setup Command).....	180
6.2 File Format.....	181
6.2.1 User Registration Information File.....	181
6.2.2 User Deletion Information File.....	183
6.2.3 User Change Information File.....	184
6.2.4 User Reference Information File.....	186
6.3 List of Messages.....	187
6.3.1 Messages Relating to the Connection Destination Systemwalker Authentication Repository Setup Command.....	187
6.3.2 Messages Relating to the User Management Command.....	200
6.3.3 Messages Relating to the Systemwalker Single Sign-On Agent Setup Command.....	211
6.3.4 Messages Relating to the Backup and Restoration Command.....	219
6.3.5 Messages Relating to the Installer for the Systemwalker Single Sign-On Server [Windows].....	226
6.3.6 Messages Relating to the Installer for the Systemwalker Single Sign-On Server [UNIX].....	232
6.3.7 Messages Relating to the F4AMsetup Command.....	238
6.3.8 Messages Relating to Single Sign-On Authentication.....	241
6.4 Port Numbers.....	247
<b>Appendix A How to Collect Maintenance Information.....</b>	<b>249</b>
<b>Glossary.....</b>	<b>250</b>

# Chapter 1 Overview

This chapter presents an overview and configuration of the Systemwalker User Management function and the Systemwalker Single Sign-On function.

## 1.1 Functional Overview

This chapter presents an overview of the Systemwalker User Management function and the Systemwalker Single Sign-On function.

### Systemwalker User Management function

This function manages "common users" (users who use more than one Systemwalker product). For each product, this function registers which common users can use the product.

Using the Systemwalker User Management function allows the following operations that use common users.

- Managing (registering, changing, deleting and viewing) common users from different Systemwalker products
- Logging in to different Systemwalker products using a common user account

The common users that are managed using the Systemwalker User Management function are referred to as "Systemwalker common users".

### Systemwalker Single Sign-On function

This function is used to construct single sign-on systems that bring together the Web consoles for various Systemwalker products in environments that use the Systemwalker User Management function.

Using the Systemwalker Single Sign-On function allows Systemwalker common users to use the Web consoles for different Systemwalker products seamlessly.

## 1.2 Functional Configuration

The configuration of the Systemwalker User Management function and the Systemwalker Single Sign-On function is as follows:

- Systemwalker User Management function
  - [Systemwalker authentication repository](#)
- Systemwalker Single Sign-On function
  - [Systemwalker authentication repository](#)
  - [Systemwalker Single Sign-On Server](#)
  - [Systemwalker Single Sign-On Agent](#)

### Systemwalker authentication repository

The Systemwalker authentication repository is a directory for centrally managing information about the users that use the system (hereafter referred to as "common user information").

The following products can be used as a Systemwalker authentication repository.

- Interstage Directory Service
- Active Directory

If the Systemwalker Single Sign-On function is used and Active Directory is used as the Systemwalker authentication repository, an Interstage Directory Service system must also be created to store information about access permission to the public URL.

### Systemwalker Single Sign-On Server

The Systemwalker Single Sign-On Server consists of the following servers:



- Authentication server

This server requests a user ID and password from a user in order to authenticate that user.

By comparing the user ID and password provided by the user with the existing user information on the repository server, it determines whether the Single Sign-On system can be used.

- Repository server

This server manages the following two types of information.

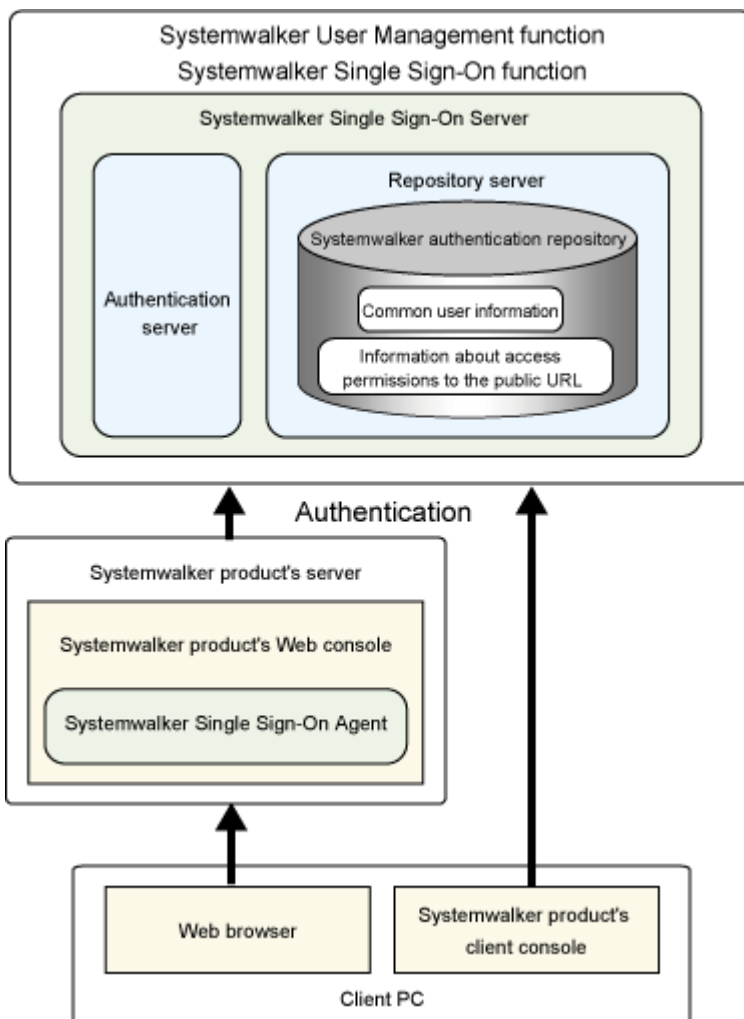
- Information required for user authentication (user IDs and passwords)
- Information for allowing access to the path for the public URLs for the Web consoles of Systemwalker products

The repository server extracts these two types of information in response to requests from the authentication server, and then notifies the information to the authentication server.

### Systemwalker Single Sign-On Agent

The Systemwalker Single Sign-On Agent determines whether user authentication is required. If authentication is required, the Systemwalker Single Sign-On Agent requests it from the authentication server.

The following diagram shows the overall configuration.



## 1.3 Operation Configuration

---

This section explains the operation configuration where the Systemwalker User Management function and the Systemwalker Single Sign-On function are used.

### 1.3.1 Using the Systemwalker User Management Function

---

Using the Systemwalker User Management function improves security and usability because it eliminates the need for users who use multiple Systemwalker products to remember multiple IDs and passwords.

Administrators can also enjoy better usability because user information is consolidated in a single location, and so if user information needs to be changed then the changes only need to be made in a single location.

#### Required software

A directory service is required as a Systemwalker authentication repository for storing user information.

The following products can be used as the directory service.

- Interstage Directory Service

Use the version of Interstage Directory Service that is included in either of the following products:

- Interstage Application Server Enterprise Edition V9.2 or later, which is included with Systemwalker Centric Manager V13.4.0 or later
- Interstage Application Server Standard-J Edition/Enterprise Edition V8.0 or later

- Active Directory

If Active Directory is used as the Systemwalker authentication repository, the following operating systems are supported:

- Windows Server 2008 Server Core
- Windows Server 2008 STD
- Windows Server 2008 DTC
- Windows Server 2008 EE
- Windows Server 2008 Foundation
- Windows Server 2008 R2
- Windows Server 2003 STD
- Windows Server 2003 DTC
- Windows Server 2003 EE



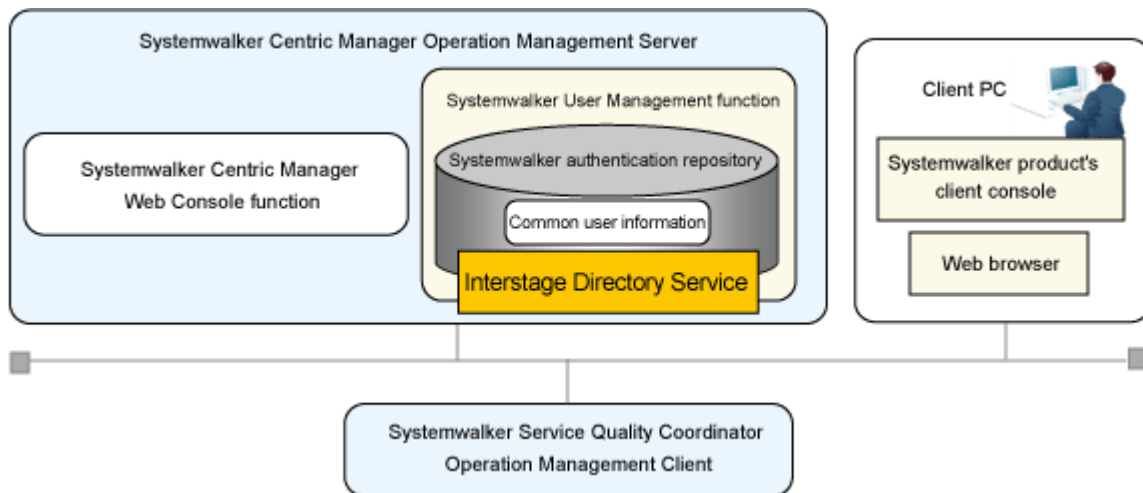
Note that multi-domain environments are not supported if Active Directory is used as the Systemwalker authentication repository.

#### Operation configuration where only the Systemwalker User Management function is used

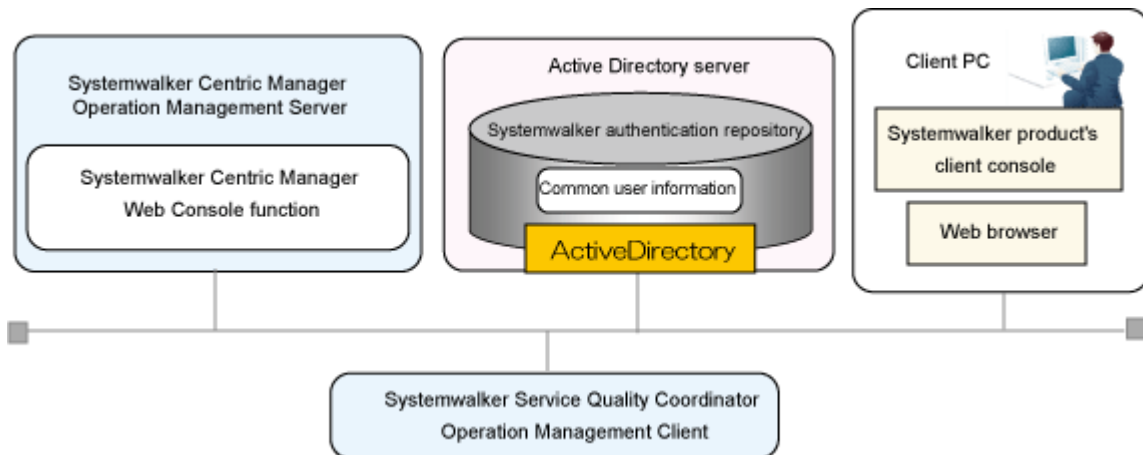
This section presents the operation configuration where only the Systemwalker User Management function is used.

- When the Interstage Directory Service is used as the Systemwalker authentication repository

Common user information is managed by the Interstage Directory Service.



- When Active Directory is used as the Systemwalker authentication repository Common user information is managed by Active Directory.



### 1.3.2 Using the Systemwalker Single Sign-On Function

Single sign-on results in seamless operations where users do not have to sign in again every time they use the Web console for a different Systemwalker product.

#### Required software

Either of the following products is required to use the Systemwalker Single Sign-On function:

- Systemwalker Centric Manager V13.4.0 or later
- Interstage Application Server Standard-J Edition/Enterprise Edition V9.0.0 or later



.....  
 If Active Directory is used as the Systemwalker authentication repository for storing user information, use Interstage Application Server Standard-J Edition/Enterprise Edition V9.1.0 or later.  
 .....

The following Web browsers can be used with the Systemwalker Single Sign-On function.

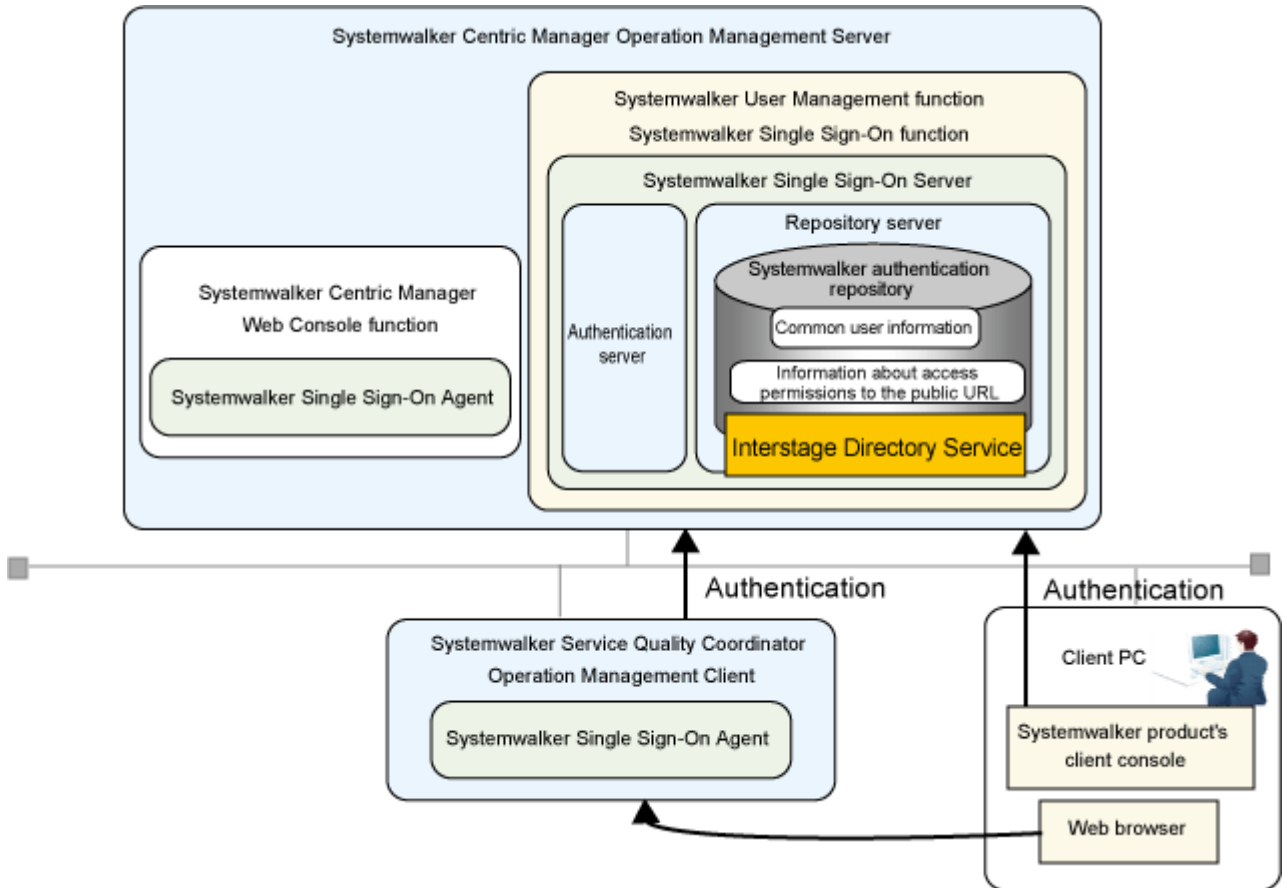
- Microsoft(R)Internet Explorer 6.0/7.0/8.0

### Operation configuration for the Systemwalker Single Sign-On function

This section presents the operation configuration when the Systemwalker Single Sign-On function is used.

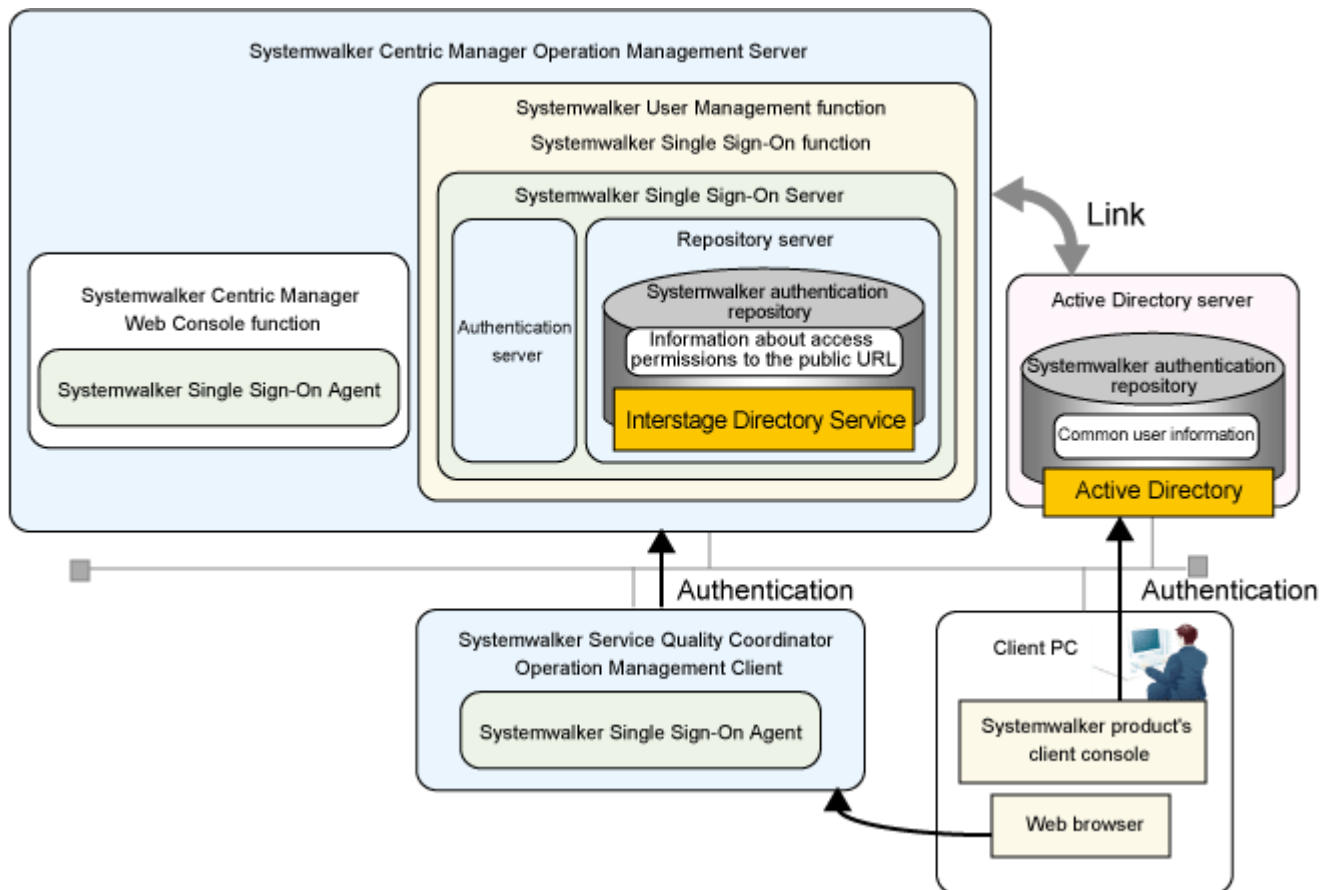
- When the Interstage Directory Service is used as the Systemwalker authentication repository

Common user information and information about access permissions to public URLs is centrally managed by the Interstage Directory Service.



- When Active Directory is used as the Systemwalker authentication repository

Common user information is managed by Active Directory, and information about access permissions to public URLs is managed by the Interstage Directory Service.



### 1.3.3 Using Cluster Environments

This section explains the operation configuration where the Systemwalker User Management function and the Systemwalker Single Sign-On function are used in cluster systems.

#### Point

##### The purpose of cluster systems

A "cluster system" is a highly reliable system configuration that connects multiple servers in order to ensure high availability for servers and the jobs running on those servers.

Redundant nodes are prepared in case faults occur during operations, so that these redundant nodes can take over jobs when faults occur with active nodes. (This transition action is referred to as a "failover".)

This prevents jobs from stopping due to node failures, allowing highly reliable business systems to be constructed.

In cluster systems, the node that is operating is referred to as the "active node", while the redundant nodes that are on standby in case a failure occurs are referred to as "standby nodes".

##### Operation configuration for cluster systems

The Systemwalker User Management function and the Systemwalker Single Sign-On function support 1:1 active/standby configurations.

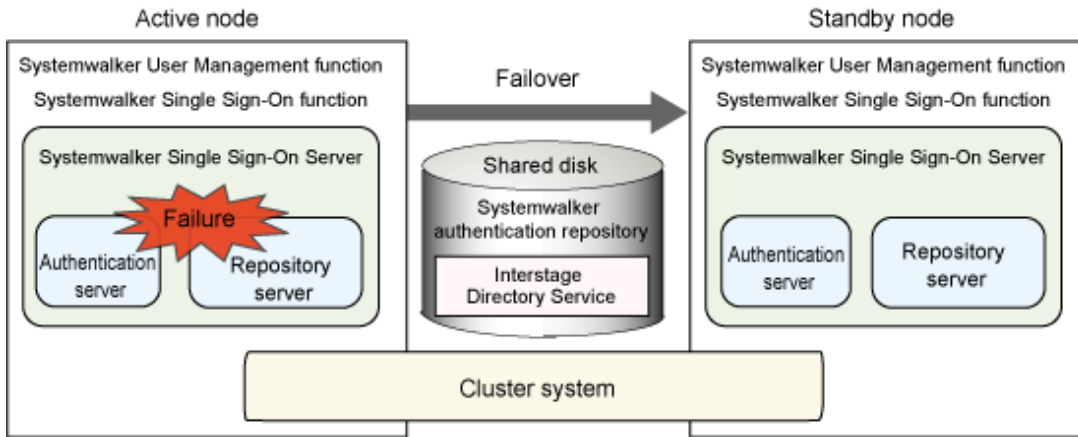
A 1:1 active/standby configuration is a cluster system with two nodes, an active node and a standby node. This configuration delivers high availability because jobs are always running on one node or the other.

## Note

When using the Systemwalker User Management function and the Systemwalker Single Sign-On function, use a 1:1 active/standby configuration as the cluster system configuration for all Systemwalker products.

If the Systemwalker User Management function and Systemwalker Single Sign-On function are not used, different Systemwalker products can be operated using different cluster system configurations.

The following diagram shows a 1:1 active/standby configuration.



## Target cluster systems

The following cluster systems can be used:

OS type	Cluster system
Windows Server 2008 DTC Windows Server 2008 EE Windows Server 2008 for Itanium-Based Systems Windows Server 2008 Foundation Windows Server 2008 R2	Microsoft(R) Cluster Service or Microsoft(R) FailOver Clustering that is included in the following products: <ul style="list-style-type: none"> <li>- Microsoft(R) Windows Server(R) 2008 Enterprise</li> <li>- Microsoft(R) Windows Server(R) 2008 Datacenter</li> <li>- Microsoft(R) Windows Server(R) 2008 for Itanium-Based Systems</li> </ul>
Windows(R) 2000 Windows Server 2003 STD Windows Server 2003 DTC Windows Server 2003 EE	Microsoft(R) Cluster Service that is included in the following products: <ul style="list-style-type: none"> <li>- Microsoft(R) Windows(R) 2000 Advanced Server</li> <li>- Microsoft(R) Windows(R) 2000 Datacenter Server</li> <li>- Microsoft(R) Windows Server(R) 2003, Enterprise Edition</li> <li>- Microsoft(R) Windows Server(R) 2003, Datacenter Edition</li> <li>- Microsoft(R) Windows Server(R) 2003, Enterprise x64 Edition</li> <li>- Microsoft(R) Windows Server(R) 2003, Datacenter x64 Edition</li> <li>- Microsoft(R) Windows Server(R) 2003, Enterprise Edition for Itanium-based Systems</li> <li>- Microsoft(R) Windows Server(R) 2003, Datacenter Edition for Itanium-based Systems</li> </ul>
Solaris 10	PRIMECLUSTER Enterprise Edition 4.1A40/4.2A00 PRIMECLUSTER HA Server 4.1A40/4.2A00

OS type	Cluster system
	PRIMECLUSTER Clustering Base 4.1A40/4.2A00 Sun Cluster 3.1/3.2
Solaris 9	PRIMECLUSTER Enterprise Edition 4.1A10/4.1A20/4.1A30/4.1A40/4.2A00 PRIMECLUSTER HA Server 4.1A10/4.1A20/4.1A30/4.1A40/4.2A00 PRIMECLUSTER Clustering Base 4.1A10/4.1A20/4.1A30/4.1A40/4.2A00 Sun Cluster 3.0/3.1/3.2
Linux for Itanium	PRIMECLUSTER Enterprise Edition 4.1A40/4.2A00/4.2A30/4.3A00 PRIMECLUSTER HA Server 4.1A40/4.2A00/4.2A30/4.3A00
Linux(x86)	PRIMECLUSTER Enterprise Edition 4.2A30 PRIMECLUSTER HA Server 4.2A30 PRIMECLUSTER Clustering Base 4.2A30
Linux(Intel64)	PRIMECLUSTER Enterprise Edition 4.2A30 PRIMECLUSTER HA Server 4.2A30 PRIMECLUSTER Clustering Base 4.2A30

## 1.4 Supported Products

The Systemwalker User Management function and the Systemwalker Single Sign-On function support the following Systemwalker products:

- Systemwalker Centric Manager V13.4.0 or later
- Systemwalker Service Quality Coordinator V13.4.0 or later

## 1.5 Coexistence with Other Products

This section explains the software products that cannot coexist with the Systemwalker User Management function or the Systemwalker Single Sign-On function, and the software products for which care is required when they coexist with these functions.

### Software that cannot be installed on the same machine

The following are the software products that cannot coexist with the Systemwalker User Management function or the Systemwalker Single Sign-On function.

#### **Systemwalker Single Sign-On Server**

- Interstage

Product name	Version and level	Remarks
Interstage Application Server (*1)	V1.0 or later	Multiple instances of this product cannot be installed on the same operating system, regardless of the versions, levels and editions.
Interstage Web Server	V9.0 or later	
Interstage Business Application Manager	V1.0L10 V1.0L20 V1.0L21 V2.0.0	
Interstage Security Director (*2)	V3.0 or later	
Interstage Apworks	V6.0 or later	
Interstage Studio	V9.0 or later	

Product name	Version and level	Remarks
INTERSTAGE WEBCOORDINATOR	V4.0 or later	
Interstage Apcoordinator	V5.0 or later	
Interstage Business Application Server	V8.0 or later	
Interstage Application Framework Suite	V6.0 or later	

\*1)

Interstage Application Server has different product names, depending on the version and level, as follows:

- INTERSTAGE (V2.x or earlier)
- INTERSTAGE Application Server (V4.x or earlier)

\*2)

The CORBA Service (ObjectDirector) provided by Interstage Application Server and the CORBA Service (ObjectDirector) included in the IIOP application gateway function provided by Interstage Security Director are mutually exclusive.

- Systemwalker

Product name	Version and level
Systemwalker CentricMGR (Operation Management Client)	V5.0 or later
Systemwalker Centric Manager (Operation Management Client)	V11.0 or later
Systemwalker PKI Manager	V12.0L10
SystemWalker/PkiMGR	V10.0L20

- Other

Product name	Version and level
InfoProxy for Middleware	V1.0 or later
ObjectDirector for Windows NT	V3.0 or later
InfoCA	V1.0L10
PKI Manager	V1.0L10
Enterprise PKI Manager	V1.0L10

### Systemwalker Single Sign-On Agent

To install the following products after the Systemwalker Single Sign-On Agent has been installed, uninstall the Systemwalker Single Sign-On Agent first. To use the Systemwalker Single Sign-On function, install Interstage Single Sign-on Business server when installing the following products.

- Interstage

Product name	Version and level
Interstage Application Server (*1)	V1.0 or later
Interstage Web Server	V9.0 or later
Interstage Apworks	V6.0 or later
Interstage Studio	V9.0 or later



Product name	Version and level
Interstage Business Application Server	V8.0 or later
Interstage Application Framework Suite	V6.0 or later

\*1)

Interstage Application Server has different product names, depending on the version and level, as follows:

- INTERSTAGE (V2.x or earlier)
- INTERSTAGE Application Server (V4.x or earlier)

### **Software for which care is required**

The following are software products for which care is required when they coexist with the Systemwalker User Management function or the Systemwalker Single Sign-On function.

### **When installing Systemwalker products on the same server as Interstage Application Server earlier than V8**

The Systemwalker User Management function can be used, but the Systemwalker Single Sign-On function cannot be used.

### **When installing Systemwalker products on a server where Interstage Application Server V8 or later has been installed**

To use the Systemwalker Single Sign-On function, use the Interstage Application Server installer to select **Interstage Single Sign-on Business server** when installing Interstage Application Server, and then use Interstage Application Server to set up a Systemwalker Single Sign-On Agent.

### **When installing a Systemwalker Single Sign-On Server after Systemwalker Centric Manager has been installed**

Install a Systemwalker Single Sign-On Server by referring to the *Systemwalker Centric Manager User's Guide - Running Interstage, Symfoware and ObjectDirector*.

### **When installing Interstage Application Server after a Systemwalker Single Sign-On Agent has been installed**

- Before installing Interstage Application Server, uninstall the Systemwalker Single Sign-On Agent.  
Refer to "[Uninstalling the Systemwalker Single Sign-On Agent](#)" for information on how to uninstall the Systemwalker Single Sign-On Agent.
- To use the Systemwalker Single Sign-On function, select **Interstage Single Sign-on Business server** when installing Interstage Application Server, and then use Interstage Application Server to set up a business server.

### **If the 64-bit versions of Systemwalker products (for the Windows or Linux version) are mixed with the regular 32-bit versions**

It is not possible to set up the Systemwalker Single Sign-On Agent.

# Chapter 2 Installation Design

The following preparation tasks are required to install a system where the Systemwalker User Management function and the Systemwalker Single Sign-On function are used.

1. Designing a Systemwalker authentication repository
  - Deciding the directory service to be used as the Systemwalker authentication repository
  - Designing the tree
  - Estimating disk space requirements
  - Preparing certificates
  - Investigating migration from existing operations
2. Designing Systemwalker common users
  - Deciding user IDs
  - Deciding passwords
  - Deciding organizations
  - Deciding groups

## 2.1 Designing a Systemwalker Authentication Repository

This section explains how to design a Systemwalker authentication repository to manage common user information.

### 2.1.1 Deciding the Directory Service to be Used as Systemwalker Authentication Repository

Select either of the following two directory services to be used as the Systemwalker authentication repository:

- Interstage Directory Service
- Active Directory

### 2.1.2 Designing the Tree

Decide the public directory and the user storage directory for storing common user information.

- Public directory

This is the initial directory for connecting to the Interstage Directory Service or Active Directory. A directory under the public directory is used as the Systemwalker authentication repository.

- User storage directory

This directory stores information about the users that can use Systemwalker products. This is the base directory for operations such as registering and searching for users.

Tree design examples are shown below.

#### When the Interstage Directory Service is used as the Systemwalker authentication repository

If the Interstage Directory Service is used as the Systemwalker authentication repository, only the public directory needs to be decided.

The user storage directory will be created under the public directory as "ou=User".

The following example shows how to set up the public directory and the user storage directory.

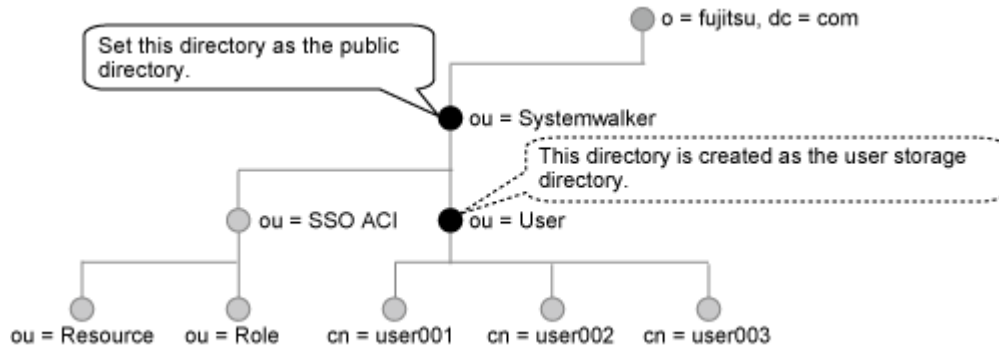
Example:

For the kind of configuration shown in the figure below, decide on the public directory as follows:

- Public directory: ou=Systemwalker, o=fujitsu, dc=com

The user storage directory will be created as follows:

- User storage directory: ou=User, ou=Systemwalker, o=fujitsu, dc=com



### When Active Directory is used as the Systemwalker authentication repository

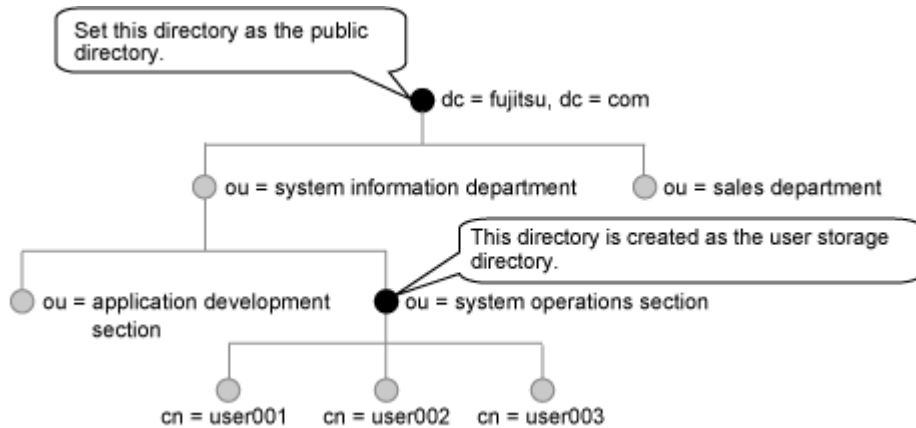
To use Active Directory, decide on both the public directory and the user storage directory.

The following example shows how to set up the public directory and the user storage directory.

Example:

For the kind of configuration shown in the figure below, decide on the public directory and the user storage directory as follows:

- Public directory: dc=fujitsu, dc=com
- User storage directory: ou=system operations section, ou=system information department, dc=fujitsu, dc=com



### 2.1.3 Estimating Disk Space Requirements

- Disk space required for installation

The disk space required for installation is as follows:

Function	Space (MB)
Systemwalker User Management function	20
Systemwalker Single Sign-On Agent	20

- Disk space required for the Systemwalker authentication repository

The disk space required for the Systemwalker authentication repository is as follows:

- When using the Interstage Directory Service

The following disk space (MB) is required:

$0.64 \times \text{number of Systemwalker common users} + 200$
--

- When using Active Directory

Approximately 5 KB per user is required when users are registered from Systemwalker products.

Note that the values given by these formulas are simply guides. Be sure to provide plenty of extra disk space.

## 2.1.4 Preparing Certificates

---

For the following operations, certificates (CA and site certificates) are required to perform SSL communications when accessing the authentication server and the Systemwalker authentication repository.

- When the Systemwalker Single Sign-On function is used
- When only the Systemwalker User Management function is used and the Interstage Directory Service is used as the Systemwalker authentication repository

This section explains how to prepare certificates.

### When simple certificates for Systemwalker are used

To use simple certificates for Systemwalker, there is no need to prepare certificates in advance, because a certificate environment is created at installation time.

### When certificates other than simple certificates for Systemwalker are used

To use certificates other than simple certificates for Systemwalker, prepare the following certificates by referring to "Authentication and Encrypted Communications through Support for SSL" in the *Interstage Application Server Security System Guide*.

- When the Interstage Directory Service is used to manage users
  - A certificate for the Interstage Directory Service
  - A certificate for authentication server
- When Active Directory is used to manage users
  - A certificate for Active Directory
  - A certificate for authentication server

Apart from simple certificates for Systemwalker, certificates and CLR issued by the following certificate authorities are also supported.

- Systemwalker PkiMGR

V10.0L10 or later of the Windows version

10.0 or later of the Solaris version

This is Fujitsu's software for managing certificates in Internet and intranet environments.

- VeriSign, Inc.

Secure Server ID and Secure Server ID EV (EV SSL certificates) are supported.

- Cybertrust, Inc.  
SureServer for SSL certificates are supported.

## **2.1.5 Investigating Migration from Existing Operations**

---

If the Systemwalker User Management function and the Systemwalker Single Sign-On function are to be used as a result of adding Systemwalker products or upgrading existing Systemwalker products, consider migrating the existing user information.

The system used for user IDs must be unified in order to use the Systemwalker User Management function and the Systemwalker Single Sign-On function to unify authentication for all Systemwalker products.

If user IDs are not unified, the following problems will occur when an attempt is made to use these functions.

- Users will need to use different user IDs for each product, and will not be able to use multiple products as a common user.
- If multiple users have been using the same user ID for different products, it will not be possible to migrate existing user information.

The following procedure is an example of how to resolve these problems.

1. The administrator creates a rule for determining a unique user ID for each user ((such as using employee numbers as user IDs, for example).)
2. The administrator changes the existing user IDs for each product according to this rule.
3. The administrator makes environment settings for connecting to the Systemwalker authentication repository on all of the servers where the products are running.
4. The administrator creates a CSV file containing information about all users in order to register the user information with the Systemwalker authentication repository. The administrator then uses the Systemwalker authentication repository user management command to register the user information. At this point, the administrator notes the initial password for each user.
5. The administrator informs each user (that will use the Systemwalker products) of their user ID and password, and prompts them to change their password from the Systemwalker products.

## **2.2 Designing Systemwalker Common Users**

---

This section explains how to design Systemwalker common users.

### **2.2.1 Deciding User IDs**

---

Decide on user IDs.

Specify user IDs using between 1 and 32 bytes.

The following characters can be used:

- Letters
- Numbers
- Symbols ( \_ - . )

### **2.2.2 Deciding Passwords**

---

Decide on passwords.

Specify passwords using between 8 and 50 bytes.

The following characters can be used:

- Letters
- Numbers
- Symbols (! \$ ' ( ) ~ ` { } \_ - ^ .)

## 2.2.3 Deciding Organizations

---

Decide which organizations each user belongs to.

Select organizations from under the user storage directory in the tree that was designed in "[Designing the Tree](#)".

## 2.2.4 Deciding Groups

---

Decide which groups each Systemwalker common user belongs to.

- When the Interstage Directory Service is used as the Systemwalker authentication repository  
Select a group that was created earlier.
- When Active Directory is used as the Systemwalker authentication repository  
Select either a group that was created earlier or a default group (such as "Domain Admins").

# Chapter 3 Installation

This chapter explains how to install the Systemwalker User Management function and the Systemwalker Single Sign-On function.

Refer to "[Installation Procedure for Cluster Environments](#)" for details on how to install these functions in cluster environments.

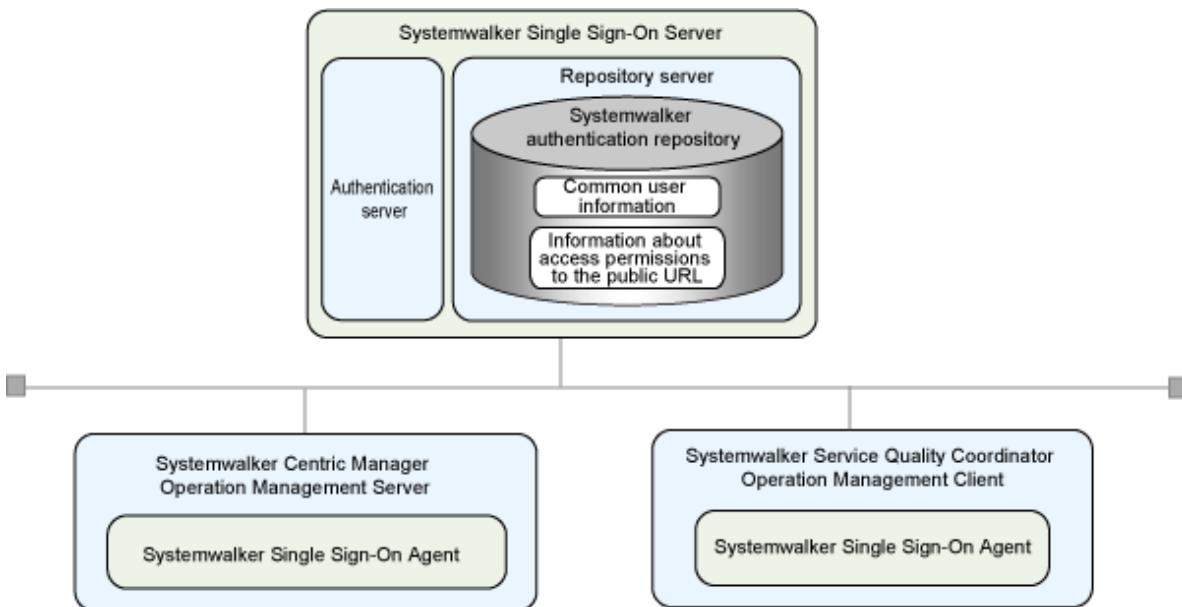
Note that the examples in this chapter and subsequent chapters (such as command execution examples and screen item setting examples) are based on the following example environments.

- [When the Interstage Directory Service is used as the Systemwalker authentication repository](#)
- [When Active Directory is used as the Systemwalker authentication repository](#)

## When the Interstage Directory Service is used as the Systemwalker authentication repository

The installation procedures used when the Interstage Directory Service is used as the Systemwalker authentication repository are explained using the following sample configuration.

### Sample configuration



### Systemwalker Single Sign-On Server

Item	Example
Host name	REPOSERVER.fujitsu.com

### Certificate environment

Item	Example
Certificate	Simple certificate for Systemwalker
Certificate nickname	SystemwalkerCert
Validity period	7,300 days

### Web server used for the authentication server

Item	Example
Web server name	swAuth

Item	Example
Port number	40000

Systemwalker authentication repository (Interstage Directory Service)

Item	Example
Repository name	swrepo
Port number	636
Administrator DN	CN=Administrator, DC=fujitsu, DC=com
Password	password
Public directory	DC=fujitsu, DC=local
User storage directory	OU=system operations section, OU=system operations department, DC=fujitsu, DC=local

Web consoles for Systemwalker products

**Systemwalker Centric Manager**

Item	Example
Port number	80
Protected path	/Systemwalker/ /MpScript/

**Systemwalker Service Quality Coordinator**

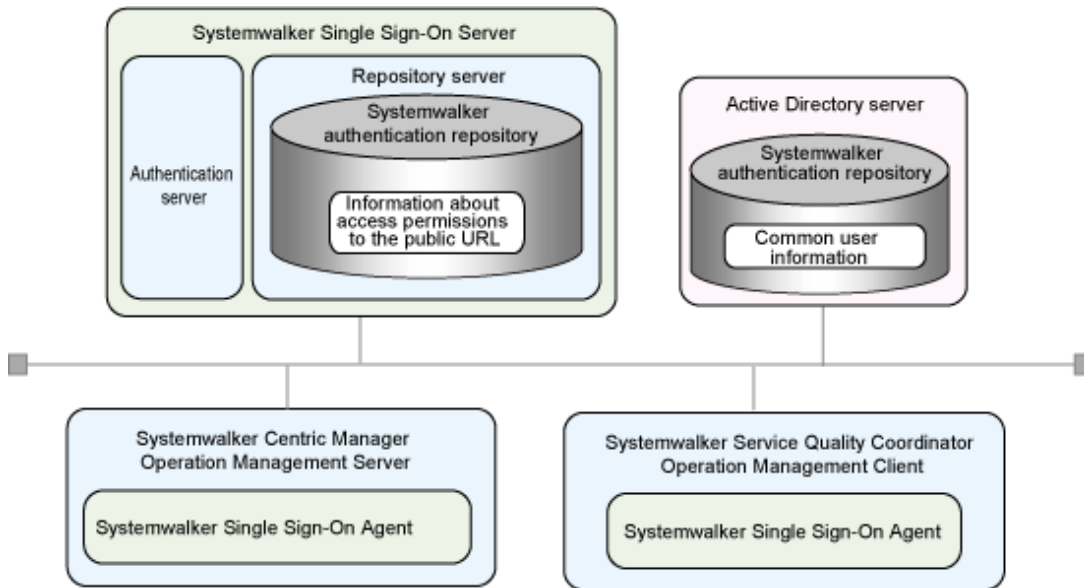
Item	Example
Port number	80
Protected path	/SSQC/

**When Active Directory is used as the Systemwalker authentication repository**

The installation procedures used when Active Directory is used as the Systemwalker authentication repository are explained using the following sample configuration.

**Sample configuration**





**Systemwalker Single Sign-On Server**

Item	Example
Host name	SWSSO.fujitsu.com

**Certificate environment**

Item	Example
Certificate	Simple certificate for Systemwalker
Certificate nickname	SystemwalkerCert
Validity period	7,300 days

**Web server used for the authentication server**

Item	Example
Web server name	swAuth
Port number	40000

**Approval information storage directory**

Item	Example
Repository name	swrepo
Port number	389
Administrator DN	CN=Administrator, DC=fujitsu, DC=com
Password	password
Public directory	DC=fujitsu, DC=com

**Systemwalker authentication repository (Active Directory)**

Item	Example
Host name	REPOSERVER.fujitsu.com
Port number	636

Item	Example
Administrator DN	CN=Administrator, CN=Users, DC=fujitsu, DC=com
Password	password
Public directory	DC=fujitsu, DC=local
User storage directory	OU=system operations section, OU=system operations department, DC=fujitsu, DC=local

Web consoles for Systemwalker products

#### Systemwalker Centric Manager

Item	Example
Port number	80
Protected path	/Systemwalker/ /MpScript/

#### Systemwalker Service Quality Coordinator

Item	Example
Port number	80
Protected path	/SSQC/

## 3.1 Overall Flow of Installation Procedures

---

This section explains the flow of the procedures for installing the Systemwalker User Management function and the Systemwalker Single Sign-On function.

If only the Systemwalker User Management function is to be used, perform only the items marked with an asterisk (\*).

Refer to "[Installation Procedure for Cluster Environments](#)" for details on how to install these functions in cluster environments.

### Creating an Environment for the Systemwalker Single Sign-On Server

1. [Installing the Systemwalker Single Sign-On Server](#) (\*)
2. [Creating an SSL Environment](#) (\*)
3. [Creating an Environment for the Systemwalker Authentication Repository](#) (\*)
4. [Creating an Environment for the Web Server Used for the Authentication Server](#)
5. [Creating an Environment for the Authentication Server](#)



### [Setting up the Connection Destination Systemwalker Authentication Repository\\_](#)(\*)



### [Creating an Environment for Systemwalker Single Sign-On Agent](#)



### [Registering Systemwalker Common Users](#)



[Setting up the Web Browser](#)

## 3.2 Creating an Environment for the Systemwalker Single Sign-On Server

---

This section explains the procedure for creating an environment for the Systemwalker Single Sign-On Server.

### Overall flow of the procedure for creating an environment for the Systemwalker Single Sign-On Server

[Installing the Systemwalker Single Sign-On Server](#)



[Creating an SSL Environment](#)



[Creating an Environment for the Systemwalker Authentication Repository](#)



[Creating an Environment for the Web Server Used for the Authentication Server](#)



[Creating an Environment for the Authentication Server](#)

### 3.2.1 Installing the Systemwalker Single Sign-On Server

---

This section explains the procedure for installing the Systemwalker Single Sign-On Server.

- [Installing on a Windows server](#)
- [Installing on a Solaris server](#)
- [Installing on a Linux server](#)

#### Installing on a Windows server

Use the following procedure to install the Systemwalker Single Sign-On Server.

1. Log on to the computer where the Systemwalker Single Sign-On Server is to be installed.

To install the Systemwalker Single Sign-On Server on the following Windows systems, log on as a user belonging to the local Administrators group.

- Windows(R) 2000
- Windows Server 2003 STD/Windows Server 2003 EE

- Windows Server 2008 STD/Windows Server 2008 EE/Windows Server 2008 for Itanium-Based Systems/Windows Server 2008 Foundation/Windows Server 2008 R2

If the installation environment is a domain controller, log on as a user belonging to the built-in local Administrators group.

2. Insert the CD-ROM for the Systemwalker Single Sign-On Server into the drive, and execute the following installation command.

For local installation, execute the installation command from the CD-ROM; and for network installation, execute it from a drive connected to the network.

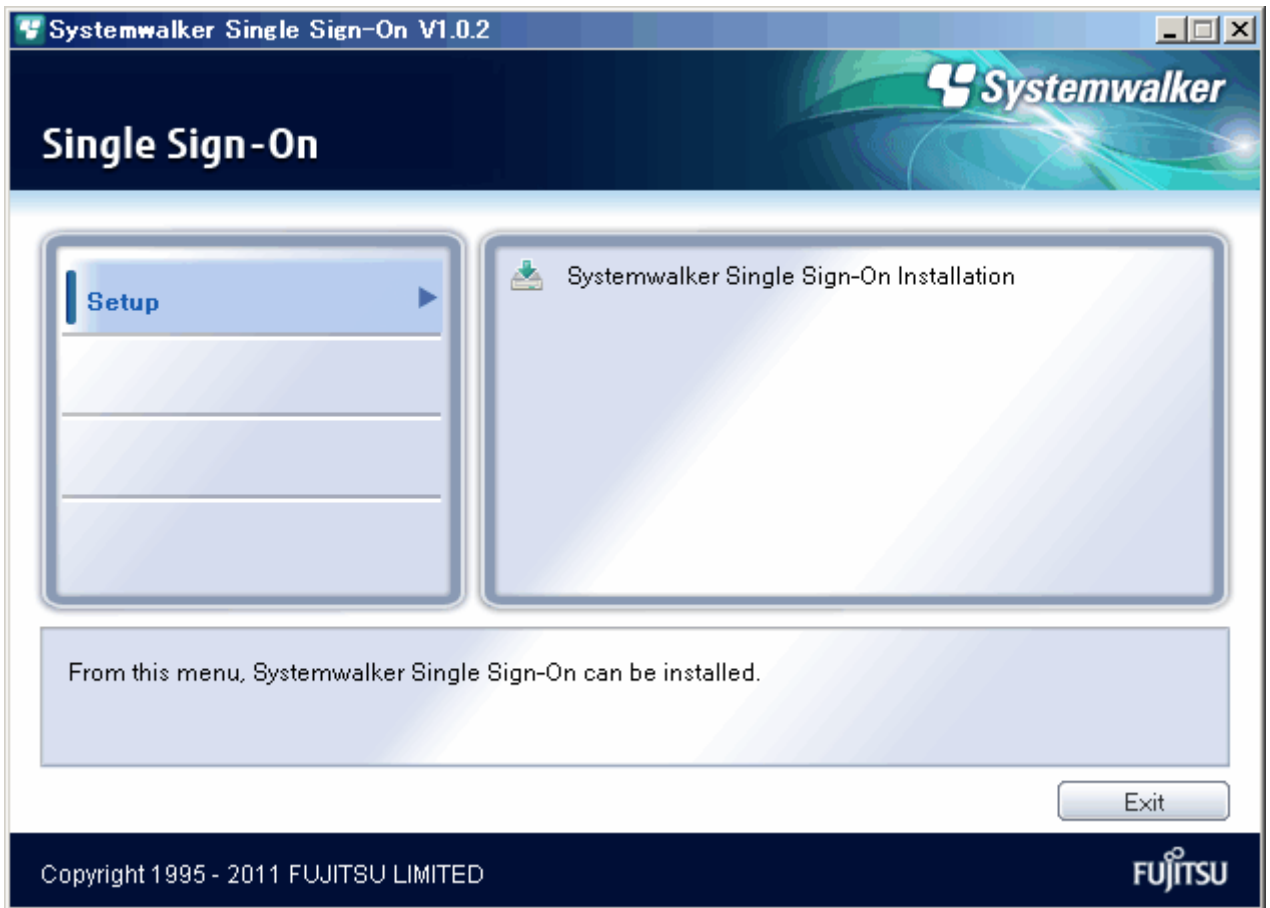
```
<The first CD-ROM or the drive connected to the network>\swsetup.exe
```

 **Point**

**Installation using Autorun**

When you insert the first CD-ROM of the Systemwalker Single Sign-On Server into the drive, the Autorun function opens an installation window even if you do not execute the installation command. Follow the instructions in the window.

3. Click **Installation** in the **Setup** window shown below.



4. Click the **Next** button in the window shown below.

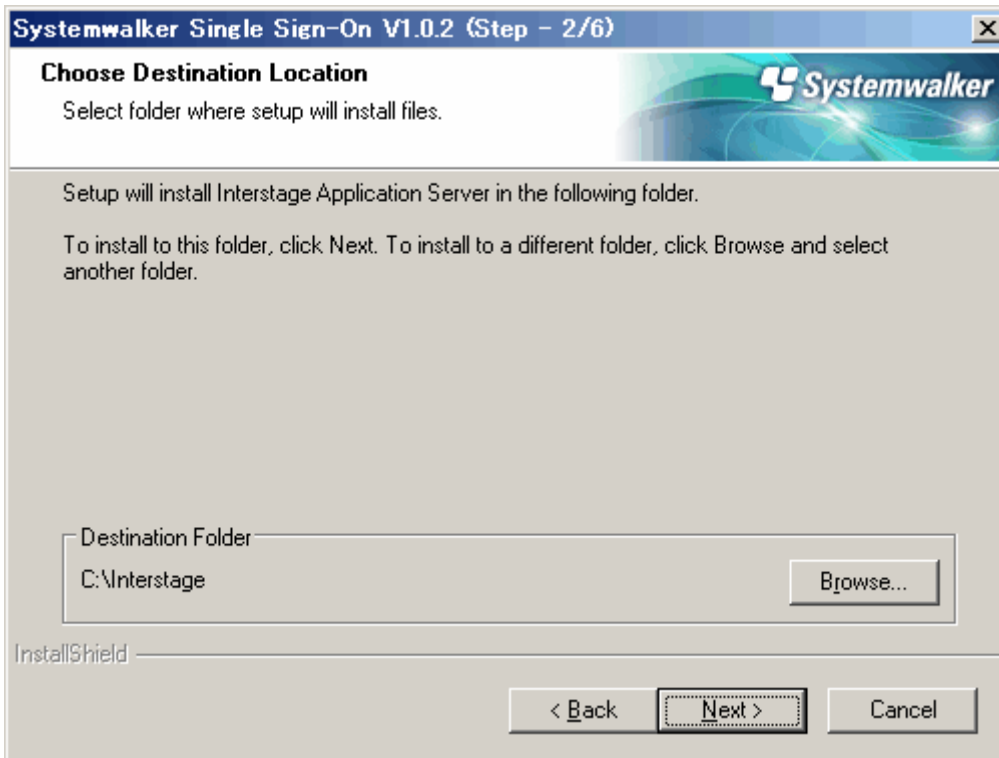


5. Select the folder where Interstage Application Server is to be installed.

In the window shown below, specify the installation drive and folder, and then click the **Next** button.

Up to 30 characters of the following types can be used to specify the installation folder.

- Alphanumeric characters
- Spaces
- Symbols (- \_)



6. Specify the port number used by Interstage Application Server.

### Note

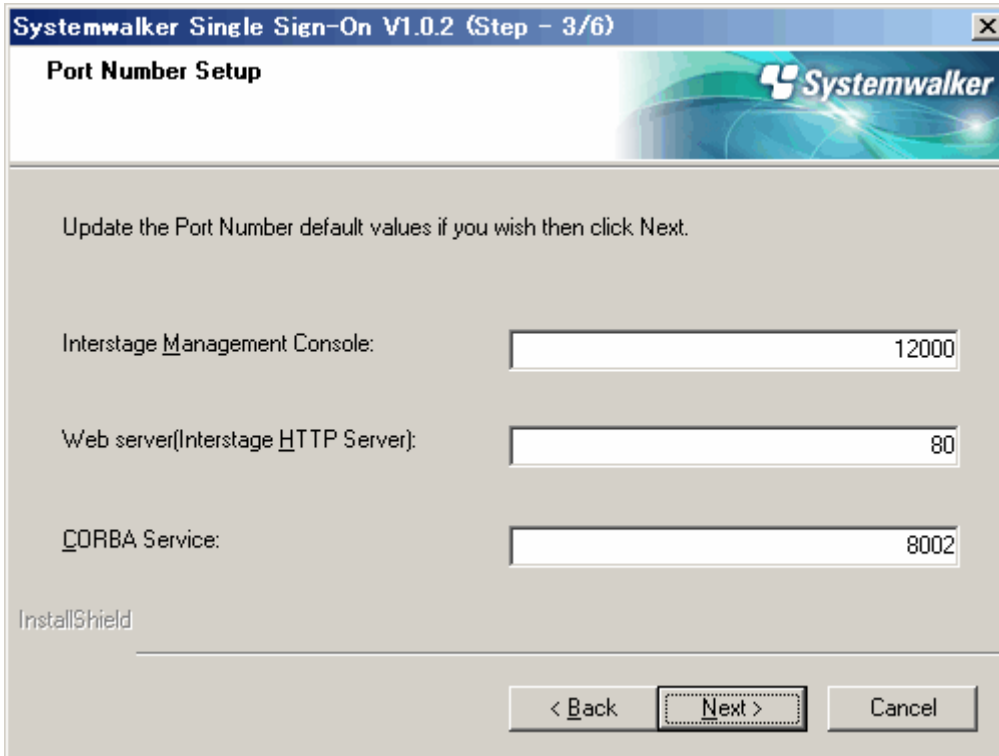
Do not specify the following port numbers.

- Port numbers that are currently operating

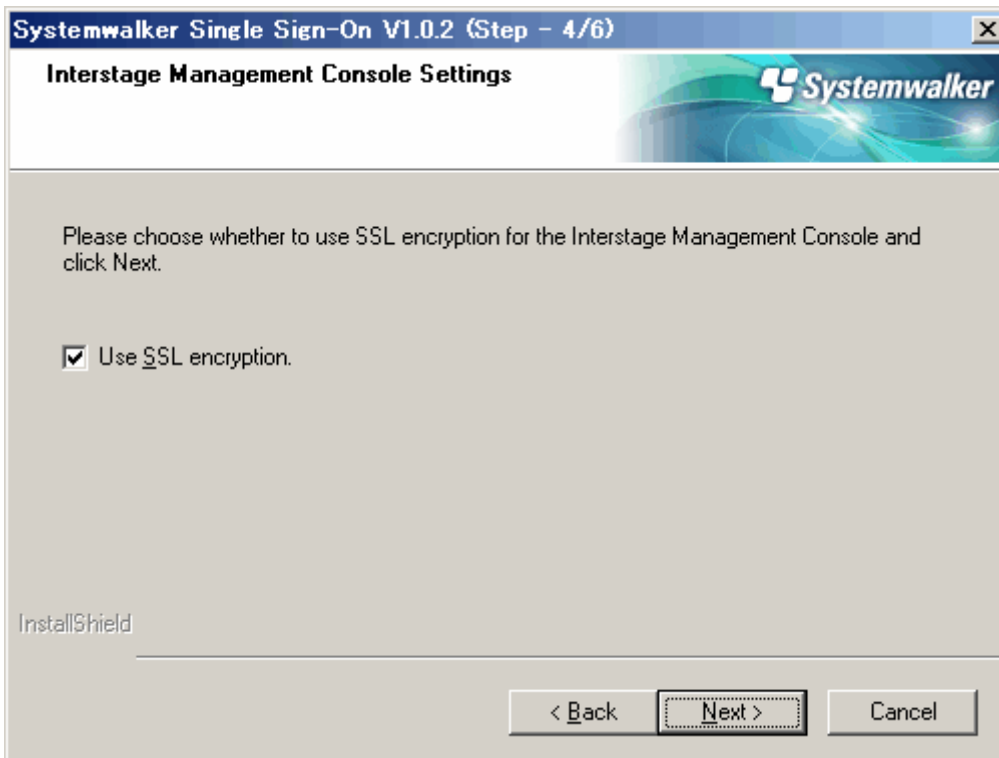
The following command can be used to check which port numbers are currently being used.

```
> netstat -a -n
```

- Port numbers that are temporarily used by the operating system (ephemeral ports)



7. To connect to the Interstage Management Console via SSL, select the **Use SSL encryption** check box.

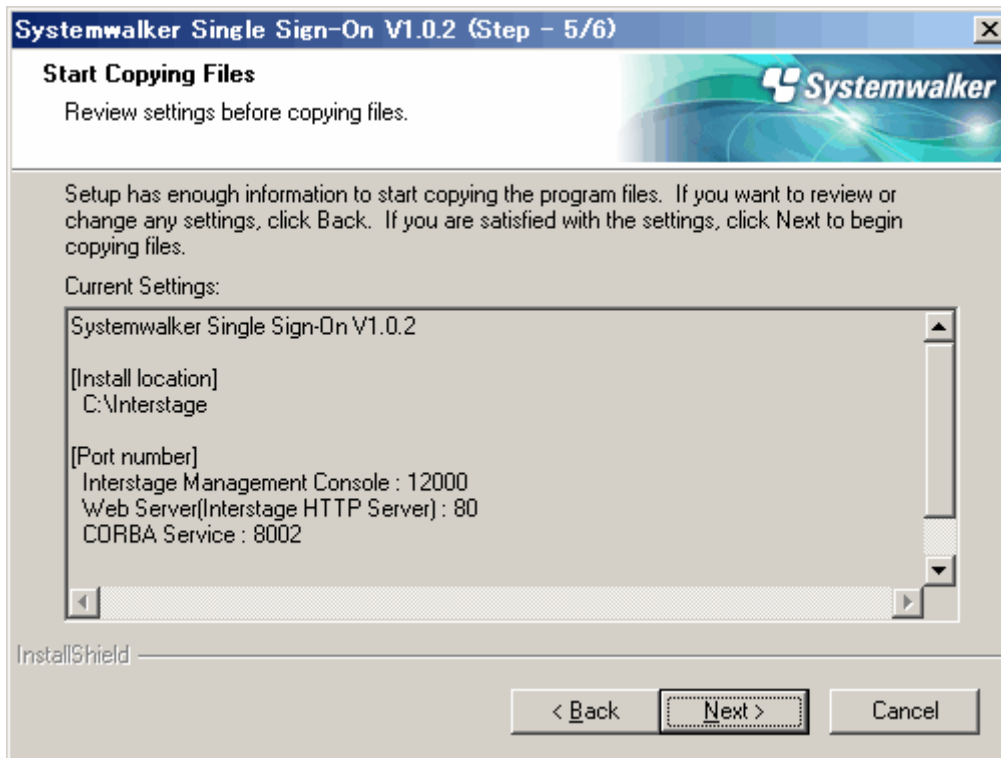


8. Check the settings in the window shown below, and click the **Next** button.  
When the **Next** button is clicked, the installation will start.

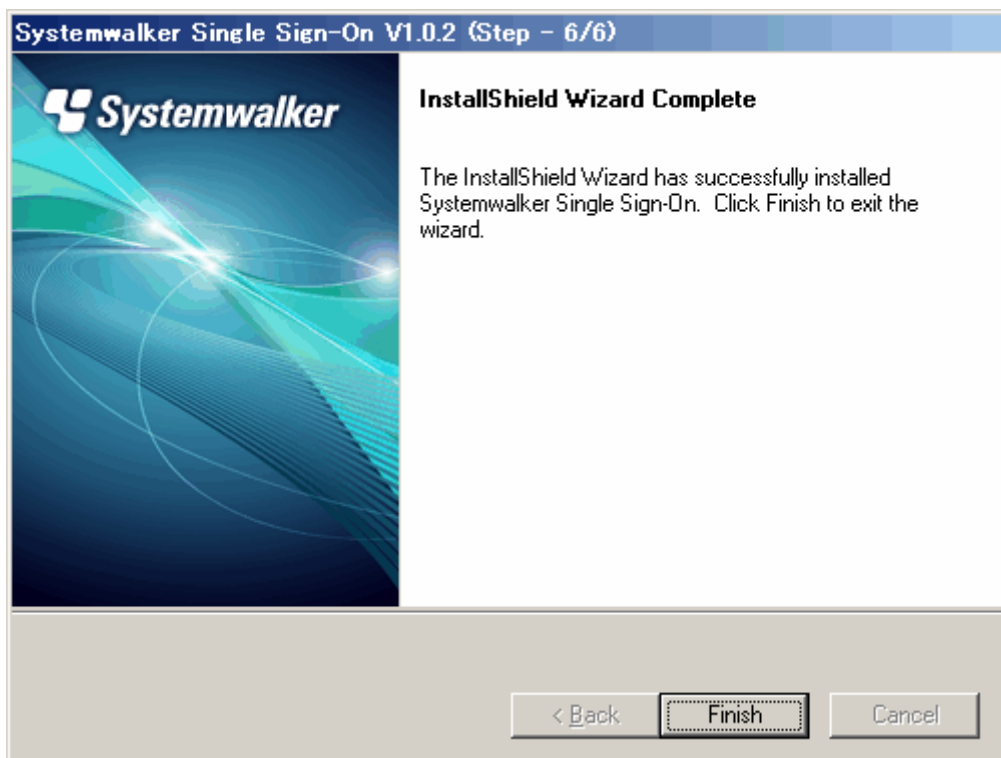
**Settings to check**

- Version and level
- **Install location**

- Port number
- Interstage Management Console Settings



9. After installation is completed, the window shown below is displayed. Click the **Finish** button.



### Installing on a Solaris server

Use the following procedure to install the Systemwalker Single Sign-On Server.



In order for the Systemwalker Single Sign-On Server to run correctly, the IPC resources must be tuned appropriately. If the IPC resources have not been tuned, estimate the resource requirements and tune the resources by referring to the *Interstage Application Server Tuning Guide* before performing the installation.

## Note

### When installing in the global zone

- If there are non-global zones, the installation or uninstallation may fail unless all of the non-global zones have been set up correctly. Make sure that none of the following situations apply to any of the non-global zones before performing the installation or uninstallation.
  - Zones have been defined using the `zonecfg(1M)` command, but non-global zones have not been installed using the `zoneadm(1M)` command.
  - A non-global zone has been installed using the `zoneadm(1M)` command, but the non-global zone has only been booted without the initial settings (such as the password and host name) being entered.
  - A non-global zone is in the process of being installed or removed
- If there are non-global zones, perform the installation or uninstallation while all of the non-global zones are running (that is, all of the non-global zones are displayed as "running" when the `zoneadm` command is executed). However, do not perform any operations with non-global zones while the installation or uninstallation is in progress.

### When installing in non-global zones

The non-global zones where Systemwalker Single Sign-On Servers are installed must be whole root zones.

Also, if a non-global zone is created, do not specify settings for `inherit-pkg-dir`.

When a non-global zone is first created, there is no root password. Specify environment settings for the zone by doing a `zlogin` with the "`zlogin -C`" command.

Note that the following command can be executed in the global zone to check whether a non-global zone is a whole root zone.

```
# /usr/sbin/zonecfg -z <zone name> info inherit-pkg-dir
```

If the `inherit-pkg-dir` settings are not displayed when the command above is executed, the zone is a whole root zone.

### Constructing a cluster system

To operate the Systemwalker Single Sign-On Server as a cluster system, install it on the global zone.

## Point

If "?" or "q" is specified in the **Systemwalker Single Sign-On Setup** window:

- "?": The help menu will be displayed.
- "q": The setup processing will be canceled.

#### 1. Log in as superuser.

Log in as superuser on the server where a Systemwalker Single Sign-On Server is to be installed.

#### 2. Insert the installation CD-ROM.

Insert the installation CD-ROM in the drive. If the volume management daemon is not running, mount the CD-ROM.

## Note

### Notes on the device name for the CD-ROM device

Check the device name for the CD-ROM device in advance, as this can vary depending on the environment.

```
/usr/sbin/mount -F hfs -o ro /dev/~ /cdrom
```

Remarks: The device name (/dev/~) may vary depending on the system. If /cdrom or /mnt/cdrom does not exist, create it beforehand.

- 3. Execute the installation command.

Execute the installation command for the Systemwalker Single Sign-On Server.

```
# <Mount point of the CD-ROM>/swsetup
```

- 4. A welcome screen will be displayed.

Press the <Enter> key when the following screen is displayed.

```
=====
                        Systemwalker Single Sign-On Setup
                          V1.0.2
                    All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

Welcome to Systemwalker Single Sign-On Setup!!
This program installs Systemwalker Single Sign-On on your system.

Press Enter.
```

- 5. Select the directory where Interstage Application Server is to be installed.

To change the installation directory, press "y". To leave the settings unchanged, press either "n" or the <Enter> key.

```
=====
                        Systemwalker Single Sign-On Setup
                          V1.0.2
                    All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Destination Directory >>

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

-----
Do you want to change the settings? (default: n) [y,n,?,q] ==> y
```

- 6. If "y" is specified in the **Specify Destination Directory** screen

Specify an installation directory.

Specify the installation directory in the following screen using alphanumeric characters and then press the <Enter> key,

```
=====
                        Systemwalker Single Sign-On Setup
                          V1.0.2
                    All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Destination Directory >>

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

```

-----
Specify the installation directory.
Program install directory. (default: /opt) [?,q] ==> /opt2

Fixed configuration directory. (default: /etc/opt) [?,q] ==> /etc/opt2

Modifying configuration directory. (default: /var/opt) [?,q] ==> /var/opt2

```

7. If "y" is specified in the **Specify Destination Directory** screen

Reconfirm the installation directory.

If an installation directory is specified, the following screen will be displayed. To change the installation directory again, press "y". To leave the settings unchanged, press either "n" or the <Enter> key.

```

=====
                Systemwalker Single Sign-On Setup
                        V1.0.2
        All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Destination Directory >>

Program install directory      : /opt2
Fixed configuration directory   : /etc/opt2
Modifying configuration directory : /var/opt2

-----
Do you want to change the settings? (default: n) [y,n,?,q] ==> n

```

8. Specify the port number used by Interstage Application Server.

The following command can be used to check which port numbers are currently being used. Do not specify any of the port numbers that are displayed by this command.

```
# netstat -an
```

To change the port number, press "y". To leave the settings unchanged, press either "n" or the <Enter> key.

```

=====
                Systemwalker Single Sign-On Setup
                        V1.0.2
        All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Port Number >>

Interstage Management Console      : 12000
Web server(Interstage HTTP Server) : 80
CORBA Service                       : 8002

-----
Do you want to change the settings? (default: n) [y,n,?,q] ==> y

```

9. If "y" is specified in the **Specify Port Number** screen

Specify port numbers.

Specify port numbers in the following screen using numeric characters only and then press the <Enter> key,

```

=====
                Systemwalker Single Sign-On Setup
                        V1.0.2
        All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

```

```

<< Specify Port Number >>

Interstage Management Console      : 12000
Web server(Interstage HTTP Server) : 80
CORBA Service                       : 8002

-----
Specify the port number.
Interstage Management Console(default: 12000) [?,q] ==> 12001

Web server(Interstage HTTP Server)(default: 80) [?,q] ==> 8080

CORBA Service(default: 8002) [?,q] ==> 8003

```

10. If "y" is specified in the **Specify Port Number** screen

Reconfirm the port number.

If port numbers are specified, the following screen will be displayed. To change the port numbers again, press "y". Otherwise press "n" or the <Enter> key to leave the port numbers unchanged.

```

=====
Systemwalker Single Sign-On Setup
V1.0.2
All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Port Number >>

Interstage Management Console      : 12001
Web server(Interstage HTTP Server) : 8080
CORBA Service                       : 8003

-----
Do you want to change the settings? (default: n) [y,n,?,q] ==> n

```

11. Select the security operating mode for the Interstage Management Console.

Press "y" to change the security operating mode for the Interstage Management Console. To leave the settings unchanged, press either "n" or the <Enter> key.

```

=====
Systemwalker Single Sign-On Setup
V1.0.2
All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Security Operating Mode >>

SSL encryption communication : To use

-----
Do you want to change the settings?(default: n) [y,n,?,q] ==> y

```

12. If "y" is specified in the **Specify Operating Mode** screen

Specify the security operating mode.

Specify a number (0 or 1) in the following screen to determine whether to use SSL communications, and then press the <Enter> key.

```

=====
Systemwalker Single Sign-On Setup
V1.0.2

```

```

All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====
<< Security Operating Mode >>

SSL encryption communication : To use

-----
Specify the security operating mode.
SSL encryption communication(default: To use) [?,q,0:Not to use,1:To use] ==> 0

```

13. If "y" is specified in the **Specify Operating Mode** screen

Reconfirm the security operating mode.

If security operating mode is specified, the following screen will be displayed. To change the security operating mode again, press "y". To leave the settings unchanged, press "n" or the <Enter> key.

```

=====
Systemwalker Single Sign-On Setup
V1.0.2
All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====
<< Security Operating Mode >>

SSL encryption communication : Not to use

-----
Do you want to change the settings?(default: n) [y,n,?,q] ==> n

```

14. Check the setup information.

In the following screen, press "y" to start the installation or "n" to cancel the installation.

```

=====
Systemwalker Single Sign-On Setup
V1.0.2
All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====
<< Verify Installation Information >>

[Destination Directory]
Program install directory      : /opt2
Fixed configuration directory   : /etc/opt2
Modifying configuration directory : /var/opt2

[Port Number]
Interstage Management Console   : 12001
Web server(Interstage HTTP Server) : 8080
CORBA Service                   : 8003

[Security Operating Mode]
SSL encryption communication     : Not to use

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

```

15. The installation process will be terminated.

After installation is completed successfully, the window shown below will be displayed. Press the <Enter> key.

```

=====
Systemwalker Single Sign-On Setup
V1.0.2

```

```
=====
This product has been installed successfully.
To run this program, you need to restart the system and construct
an environment for this product first.
```

16. Restart the system.

The system must be restarted to use the Systemwalker Single Sign-On Server.

The following example shows the command for restarting the system.

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

17. Set up environment variables by executing either of the following commands:

- /opt/FJSVisas/bin/setISASEnv.sh
- /opt/FJSVisas/bin/setISASEnv.csh

For the Bourne shell or bash

Use the dot command to execute the setISASEnv.sh shell on each computer involved in the operation.

```
./opt/FJSVisas/bin/setISASEnv.sh
```

For the C shell

Use the source command to execute the setISASEnv.csh shell on each computer involved in the operation.

```
source /opt/FJSVisas/bin/setISASEnv.csh
```

## Installing on a Linux server

Use the following procedure to install the Systemwalker Single Sign-On Server.

In order for the Systemwalker Single Sign-On Server to run correctly, the IPC resources must be tuned appropriately. If the IPC resources have not been tuned, estimate the resource requirements and tune the resources by referring to the *Interstage Application Server Tuning Guide* before performing the installation.



If "?" or "q" is specified in the **Systemwalker Single Sign-On Setup** window:

- "?": The help menu will be displayed.
- "q": The setup processing will be canceled.

1. Log in as superuser.

Log in as superuser on the server where a Systemwalker Single Sign-On Server is to be installed.

2. Insert the installation CD-ROM.

Insert the installation CD-ROM in the drive. If the volume management daemon is not running, mount the CD-ROM.



### Notes on the device name for the CD-ROM device

Check the device name for the CD-ROM device in advance, as this can vary depending on the environment.

```
/usr/sbin/mount -F hfs -o ro /dev/~ /cdrom
```

Remarks: The device name (/dev/~) may vary depending on the system. If /cdrom or /mnt/cdrom does not exist, create it beforehand.

- 3. Execute the installation command.

Execute the installation command for the Systemwalker Single Sign-On Server.

```
# <Mount point of the CD-ROM>/swsetup
```

- 4. A welcome screen will be displayed.

Press the <Enter> key when the following screen is displayed.

```
=====
                        Systemwalker Single Sign-On Setup
                          V1.0.2
                    All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

Welcome to Systemwalker Single Sign-On Setup!!
This program installs Systemwalker Single Sign-On on your system.

Press Enter.
```

- 5. Check the directory where Interstage Application Server is to be installed.

Check the installation directory in the **Specify Destination Directory** screen, and then press the <Enter> key.

```
=====
                        Systemwalker Single Sign-On Setup
                          V1.0.2
                    All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< 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.
```

- 6. Specify the port number used by Interstage Application Server.

The following command can be used to check which port numbers are currently being used. Do not specify any of the port numbers that are displayed by this command.

```
# netstat -an
```

To change the port number, press "y". To leave the settings unchanged, press either "n" or the <Enter> key.

```
=====
                        Systemwalker Single Sign-On Setup
                          V1.0.2
                    All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Port Number >>

Interstage Management Console      : 12000
Web server(Interstage HTTP Server) : 80
```

```

CORBA Service                               : 8002
-----
Do you want to change the settings? (default: n) [y,n,?,q] ==> y

```

7. If "y" is specified in the **Specify Port Number** screen

Specify port numbers.

Specify port numbers in the following screen and then press the <Enter> key,

```

=====
                Systemwalker Single Sign-On Setup
                    V1.0.2
                All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Port Number >>

    Interstage Management Console           : 12000
    Web server(Interstage HTTP Server)      : 80
    CORBA Service                           : 8002

-----
Specify the port number.
    Interstage Management Console(default: 12000) [?,q] ==> 12001

    Web server(Interstage HTTP Server)(default: 80) [?,q] ==> 8080

    CORBA Service(default: 8002) [?,q] ==> 8003

```

8. If "y" is specified in the **Specify Port Number** screen

Reconfirm the port number.

If port numbers are specified, the following screen will be displayed. To change the port numbers again, press "y". To leave the settings unchanged, press "n" or the <Enter> key.

```

=====
                Systemwalker Single Sign-On Setup
                    V1.0.2
                All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Specify Port Number >>

    Interstage Management Console           : 12001
    Web server(Interstage HTTP Server)      : 8080
    CORBA Service                           : 8003

-----
Do you want to change the settings? (default: n) [y,n,?,q] ==> n

```

9. Select the security operating mode for the Interstage Management Console.

Press "y" to change the security operating mode for the Interstage Management Console. To leave the settings unchanged, press either "n" or the <Enter> key.

```

=====
                Systemwalker Single Sign-On Setup
                    V1.0.2
                All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Security Operating Mode >>

```



```

SSL encryption communication : To use
-----
Do you want to change the settings?(default: n) [y,n,?,q] ==> y

```

10. If "y" is specified in the **Specify Operating Mode** screen

Specify the security operating mode.

Specify a number (0 or 1) in the following screen to determine whether to use SSL communications, and then press the <Enter> key.

```

=====
                Systemwalker Single Sign-On Setup
                    V1.0.2
                All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Security Operating Mode >>

                SSL encryption communication : To use
-----
Specify the security operating mode.
SSL encryption communication(default: To use) [?,q,0:Not to use,1:To use] ==> 0

```

11. If "y" is specified in the **Specify Operating Mode** screen

Reconfirm the security operating mode.

If security operating mode is specified, the following screen will be displayed. To change the security operating mode again, press "y". To leave the settings unchanged, press "n" or the <Enter> key.

```

=====
                Systemwalker Single Sign-On Setup
                    V1.0.2
                All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Security Operating Mode >>

                SSL encryption communication : Not to use
-----
Do you want to change the settings?(default: n) [y,n,?,q] ==> n

```

12. Check the setup information.

In the following screen, press "y" to start the installation or "n" to cancel the installation.

```

=====
                Systemwalker Single Sign-On Setup
                    V1.0.2
                All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

<< Verify Installation Information >>

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

[Port Number]
Interstage Management Console   : 12001
Web server(Interstage HTTP Server) : 8080

```

```
CORBA Service : 8003

[Security Operating Mode]
SSL encryption communication : Not to use

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

13. The installation process will be terminated.

After installation is completed successfully, the window shown below will be displayed. Press the <Enter> key.

```
=====
                        Systemwalker Single Sign-On Setup
                          V1.0.2
    All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995 - 2011
=====

This product has been installed successfully.
To run this program, you need to restart the system and construct
an environment for this product first.
```

14. Restart the system.

The system must be restarted to use the Systemwalker Single Sign-On Server.

The following example shows the command for restarting the system.

```
# cd /
# /sbin/shutdown -r now
```

15. Set up environment variables by executing either of the following commands:

- /opt/FJSVisas/bin/setISASEnv.sh
- /opt/FJSVisas/bin/setISASEnv.csh

For the Bourne shell or bash

Use the dot command to execute the setISASEnv.sh shell on each computer involved in the operation.

```
./opt/FJSVisas/bin/setISASEnv.sh
```

For the C shell

Use the source command to execute the setISASEnv.csh shell on each computer involved in the operation.

```
source /opt/FJSVisas/bin/setISASEnv.csh
```

### 3.2.2 Creating an SSL Environment

To use simple certificates for Systemwalker, use the following procedure to create the certificate environment required for SSL communications.

It is necessary to create the simple certificate environment for Systemwalker only when the following operating modes are used:

- When the Systemwalker Single Sign-On function is used
- When only the Systemwalker User Management function is used and the Interstage Directory Service is used as the Systemwalker authentication repository

Note also that these steps are not required if certificates other than simple certificates for Systemwalker are used, but in this case it is still necessary to prepare certificates beforehand. Refer to "[Preparing Certificates](#)" for details on how to prepare certificates.

Use the following procedure to create an environment for simple certificates for Systemwalker.

## Note

[Solaris/Linux]

Before executing the command below, specify the installation path to the JDK or JRE in the JAVA\_HOME environment variable.

For the Bourne shell or bash

```
JAVA_HOME=/opt/FJSVawjkb/jdk5;export JAVA_HOME
```

For the C shell

```
setenv JAVA_HOME /opt/FJSVawjkb/jdk5
```

1. Create a certificate by executing the following command on the Systemwalker Single Sign-On Server.

```
scsmakeenv -n <nickname> -v <valday>
```

-n <nickname>

Specify a nickname for the private key. Specify between 1 and 32 characters, where the first character must be an alphanumeric character.

Note that nicknames that are already being used cannot be specified. Note also that nicknames are not case-sensitive.

The following characters can be used for nicknames:

- Alphanumeric characters
- Symbols (- ( ) [ ] \_)

-v <valday>

Specify a value between 1 and 7300 days for the validity period of the certificate. The default value is 365 days.

The certificate cannot be used after the validity period expires. In this case, the certificate will need to be recreated, so it is recommended that the maximum value be specified.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVisscs/bin

[Input items required when the command is executed]

When this command is first executed, a password must be registered to access the Interstage certificate environment.

Specify a password using between 6 and 128 characters. The following characters can be used:

- Alphanumeric characters
- Symbols (+, -, . / < = > ( ) [ ] \_)
- Spaces

If this is not the first time this command has been executed, enter the password that was registered previously.

After the password is entered, the following message will be displayed, prompting for information such as a name and so on.

Do not omit these items.

Message	Input value
What is your first and last name?	Name For site certificates, enter the domain name or IP address
What is the name of your organizational unit?	Organization unit (for example, department name)
What is the name of your organization?	Organization (for example, company name)
What is the name of your City or Locality?	City or locality (for example, city, suburb, town, or village)
What is the name of your State or Province?	Sate or Province (for Japan, enter the name of the Prefecture)
What is the two-letter country code for this unit?	Country code(ISO3166) For Japan, this is 'jp'.

The following characters can be used for input values. However, the country code must be specified using two letters, as specified in ISO3166.

- Alphanumeric characters
- Symbols (, - . / : ? ' + = # ; ( ) < >)
- Spaces  
Any blank spaces specified at the beginning or end of a string will be deleted. Also, the command may not run correctly if multiple spaces are specified consecutively, or if only a blank space is specified.

Refer to "SSL Environment Setting Commands" in the *Interstage Application Server Reference Manual (Command Edition)* for details on this command.

[Execution example]

- Certificate nickname: SystemwalkerCert
- Validity period for the certificate: 7300 days
- Name: AuthServer.fujitsu.com
- Organizational unit: Systemwalker
- Organization: Fujitsu Ltd.
- City/locality: Yokohama
- State/province: Kanagawa
- Country code: jp

```

> scsmakeenv -n SystemwalkerCert -v 7300
Password:
Input X.500 distinguished names.
What is your first and last name?
[Unknown]:AuthServer.fujitsu.com
What is the name of your organizational unit?
[Unknown]:Systemwalker
What is the name of your organization?
[Unknown]:Fujitsu Ltd.
What is the name of your City or Locality?
[Unknown]:Yokohama
What is the name of your State or Province?
[Unknown]:Kanagawa
What is the two-letter country code for this unit?
[Un]:jp

```

```
Is <CN= AuthServer.fujitsu.com, OU=Systemwalker, O=Fujitsu Ltd., L=Yokohama, ST=Kanagawa,
C=jp> correct?
[no]:yes
SCS: INFO: scs0102: Self-sign certificate was issued
```

2. Start the Interstage Management Console.

Use the following procedure.

How to start the Interstage Management Console

a. Start a Web browser and enter the following URL.

- For communications with SSL encryption

```
https://<host name>:<port number>/IsAdmin/
```

- For communications without SSL encryption

```
http:// <host name>:<port number>/IsAdmin/
```

**<host name>:**

Specify the host name or IP address of the server where the Systemwalker Single Sign-On Server or Interstage Application Server is installed.

**<port number>:**

Specify the port number for the Interstage HTTP Server for the Interstage Management Console.

The port number for the Interstage HTTP Server is set up when it is installed.

The default value is 12000.



.....  
SSL-encrypted communications are selected when Systemwalker Single Sign-On Server or Interstage Application Server is installed.  
.....

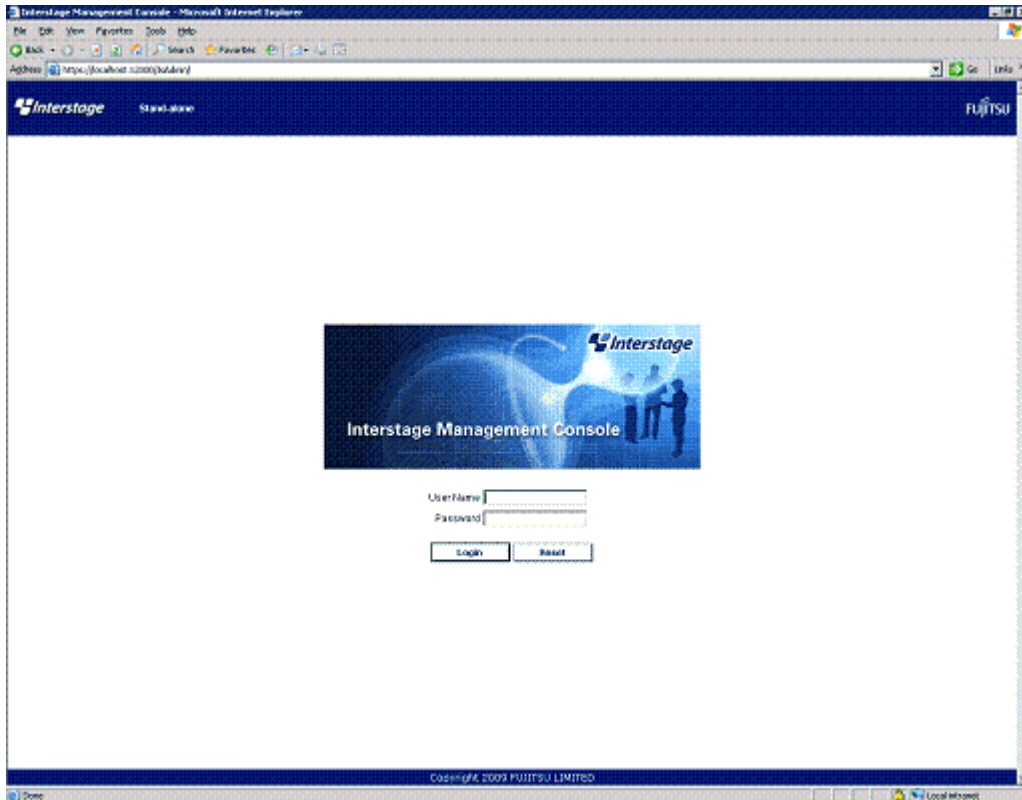
b. Enter the user name and password of the user in the **Interstage Management Console** window, and then click the **Login** button.

[Windows]

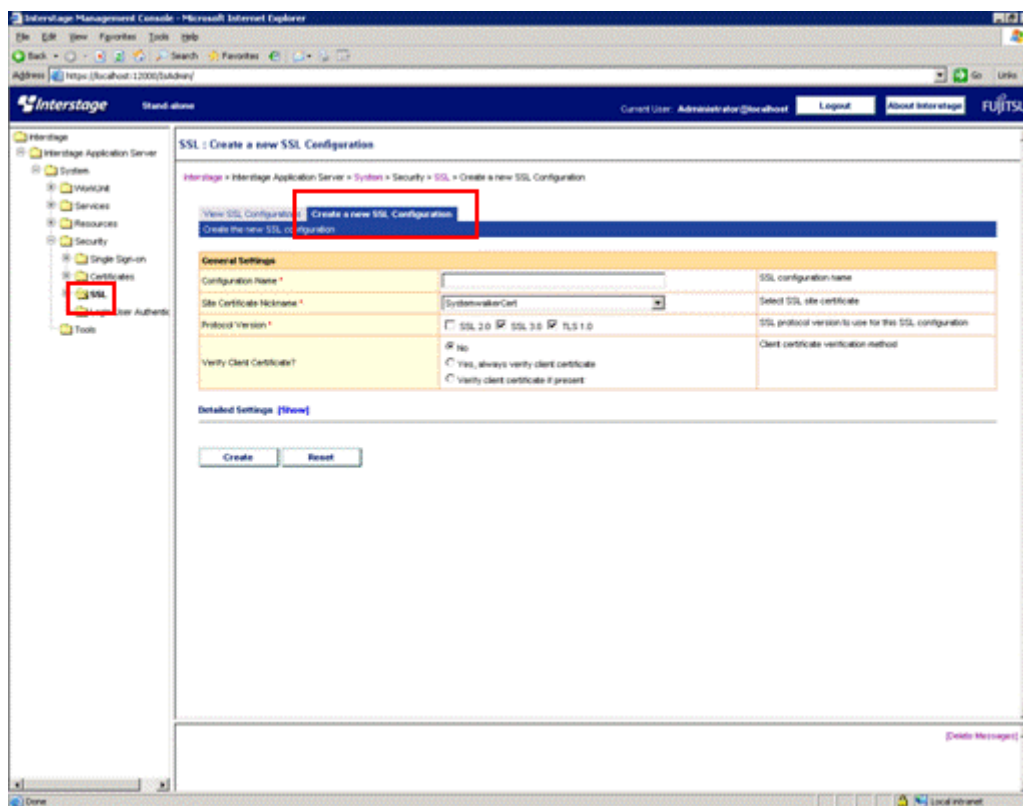
Specify a user that belongs to the Administrators group on the local computer.

[UNIX]

Specify the root user (superuser) on the local computer.



3. In the **Interstage Management Console** window, select **System >> Security >> SSL** and then click the **Create a new SSL Configuration** tab.



4. Specify each item as below, and then click the **Create** button.

#### General Settings

- **Configuration Name**

Specify the SSL configuration name when a new certificate is created. Specify a name that does not conflict with an existing SSL configuration name, using between 1 and 32 of the following characters:

- Alphanumeric characters
- Symbols ( - ( ) [ ] \_ )

- **Site Certificate Nickname**

Select the nickname that was specified with the scsmakeenv command in step 1.

### 3.2.3 Creating an Environment for the Systemwalker Authentication Repository

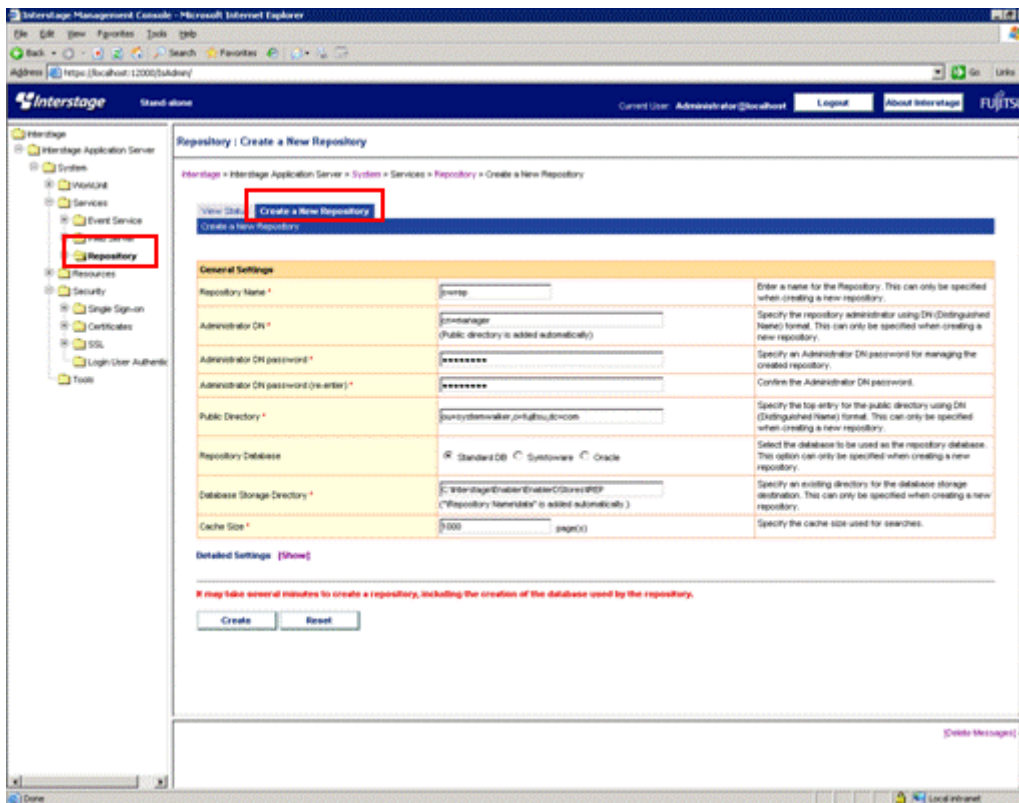
This section explains the procedure for creating the Systemwalker authentication repository.

- [When the Interstage Directory Service is used](#)
- [When Active Directory is used](#)

When the Interstage Directory Service is used

Use the following procedure to create an environment for the Systemwalker authentication repository.

1. Start the Interstage Management Console.  
Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.
2. In the **Interstage Management Console** window, select **System >> Services >> Repository** and then click the **Create a New Repository** tab.



3. Specify each item as below, and then click the **Create** button.

- **General Settings**

- **Repository Name**

Specify a repository name to identify the Systemwalker authentication repository, using a string that is up to eight bytes long.

The following characters can be used:

- Alphanumeric characters
- Symbols (\_)

The first character must be a letter. If upper-case letters are specified, they will be converted into their lower-case equivalents. The default value is "rep*nnn*", where *nnn* is a serial number 001, 002, 003, etc.

Be sure to specify the **Repository Name** item. This can only be specified when creating a new repository.



For Windows: DOS device names cannot be specified as repository names.

- **Administrator DN**

Specify the DN (distinguished name) for the administrator who will manage the Systemwalker authentication repository to be created, using a DN format string that is up to 512 bytes long. The string specified in the **Public Directory** field will be appended to the specified administrator DN.

The following attributes can be specified for the RDNs (relative distinguished names) that are the components of the DN format: "cn", "ou", "o", "c", "l" and "dc".

The following characters can be specified as attribute values for the RDNs (relative distinguished names) that are the components of the DN format:

- Alphanumeric characters
- Symbols (- . \_)

Place an equals sign ("=") between the attribute names and the attribute values for the RDNs (relative distinguished names) that are the components of the DN format.

To specify multiple RDNs (relative distinguished names), separate each RDN with a comma (",").

The default value is "cn=manager".

Be sure to specify the **Administrator DN**. This can only be specified when creating a new repository.

**Example:**

"cn=manager"

"cn=manager, ou=managergroup"



Multiple attributes cannot be used to specify the RDNs (relative distinguished names) for the administrator DN. For example, multiple attributes cannot be specified using a plus sign ("+"), as in "cn=taro+sn=fujitsu".

- **Administrator DN password**

Specify the password for the administrator who will manage the Systemwalker authentication repository to be created, using a string that is up to 128 bytes long. The following characters can be used:

- Alphanumeric characters
- Symbols (, + = - . \_)



Be sure to specify the **Administrator DN password**.

- **Administrator DN password (re-enter)**

Specify the same string as was specified for the **Administrator DN password**.

Be sure to specify the **Administrator DN password (re-enter)**.

- **Public Directory**

Specify the top entry to publish the Systemwalker authentication repository, using a DN format string that is up to 512 bytes long.

The following attributes can be specified for the RDNs (relative distinguished names) that are the components of the DN format: "cn", "ou", "o", "c", "l" and "dc".

The following characters can be used as attribute values for the RDNs (relative distinguished names) that are the components of the DN format.

- Alphanumeric characters
- Symbols (- . \_)

Place an equals sign ("=") between the attribute names and the attribute values for the RDNs (relative distinguished names) that are the components of the DN format.

To specify multiple RDNs (relative distinguished names), separate each RDN with a comma (",").

The default value is "ou=interstage, o=fujitsu, dc=com".

Be sure to specify the **Public Directory**. This can only be specified when creating a new repository.

**Example:**

"ou=interstage, o=fujitsu, dc=com"

"c=jp"

 **Note**

Multiple attributes cannot be used to specify the RDNs (relative distinguished names) for the public directory. For example, multiple attributes cannot be specified using a plus sign ("+"), as in "cn=taro+sn=fujitsu".

- **Repository Database**

Select **Standard DB**.

- **Database Storage Directory**

Specify the full path to the directory where the database is stored.

Specify the path using up to 192 bytes for the Windows version and up to 242 bytes for the UNIX version.

For the storage directory, specify a directory that has been created beforehand. The database will actually be stored in the "*<repository name>/data*" subdirectory of the specified directory (for the Windows version this is "*<repository name>\data*").

The following characters can be used:

[Windows]

- Alphanumeric characters
- Symbols (\$ & ' + - . = @ \_ ` ~ [ ] { } : / \)
- Spaces

[UNIX]

- Alphanumeric characters
- Symbols (/ - \_ ~)

Multi-byte character encodings cannot be used. For the Windows version, ":" can only be specified as part of the drive letter, and "\" can only be specified as a directory separator. To specify a drive, include "\" as in "C:\ ". The default values are as follows:

OS	Location
Windows	<Interstage installation directory>\Enabler\EnablerDStores\IREP
Solaris	/var/opt/FJSVena/EnablerDStores/FJSVirep
Linux	/var/opt/FJSVena/DStores/FJSVirep

Be sure to specify **Database Storage Directory**. This can only be specified when creating a new repository.

### Note

Make sure that the database storage directory has sufficient space before specifying this setting. If a directory other than the default directory is specified for the database storage directory, take care with respect to the permission settings.

[Windows]

When specifying a database storage directory other than the one that is displayed by default, grant "full control" access permissions to the members of the Administrators group for all of the directories in the path to the storage directory (from the topmost directory right down to the bottommost directory).

[UNIX]

When specifying a database storage directory other than the one that is displayed by default, set the owner for all of the directories in the path to the storage directory (from the topmost directory right down to the bottommost directory) to "oms", and specify settings so that the owner is allowed to "read", "write" and "execute" files in all of these directories.

The setup procedure is given below. (In this example, the database storage directory is "/data/user".)

a) Create the database storage directory if it has not been created yet. By specifying the -p option, any directories leading up to the specified directory that do not exist will also be created.

```
mkdir -p /data/user
```

b) Specify "read", "write" and "execute" permissions for the directory. By specifying the -R option, the permissions are also set up recursively for all of the subdirectories below the specified directory.

```
chmod -R 700 /data
```

c) Specify "oms" as the owner of the directory. By specifying the -R option, the owners are also set up recursively for all of the subdirectories below the specified directory.

```
chown -R oms /data
```

#### - Cache Size

Specify the size (in pages) of the cache for processing searches. Specify a value between 100 and 65535. One page is 4 KB. The default value is "1000" pages. Be sure to specify this item.

4. Click the **Show** link for **Detailed Settings**.

5. Specify each item as below, and then click the **Create** button.

#### - Port number

Specify the port number used for non-SSL communications. This can be specified only when creating a new Systemwalker authentication repository. This value cannot be changed once the repository has been created.

- **Enable SSL encryption?**

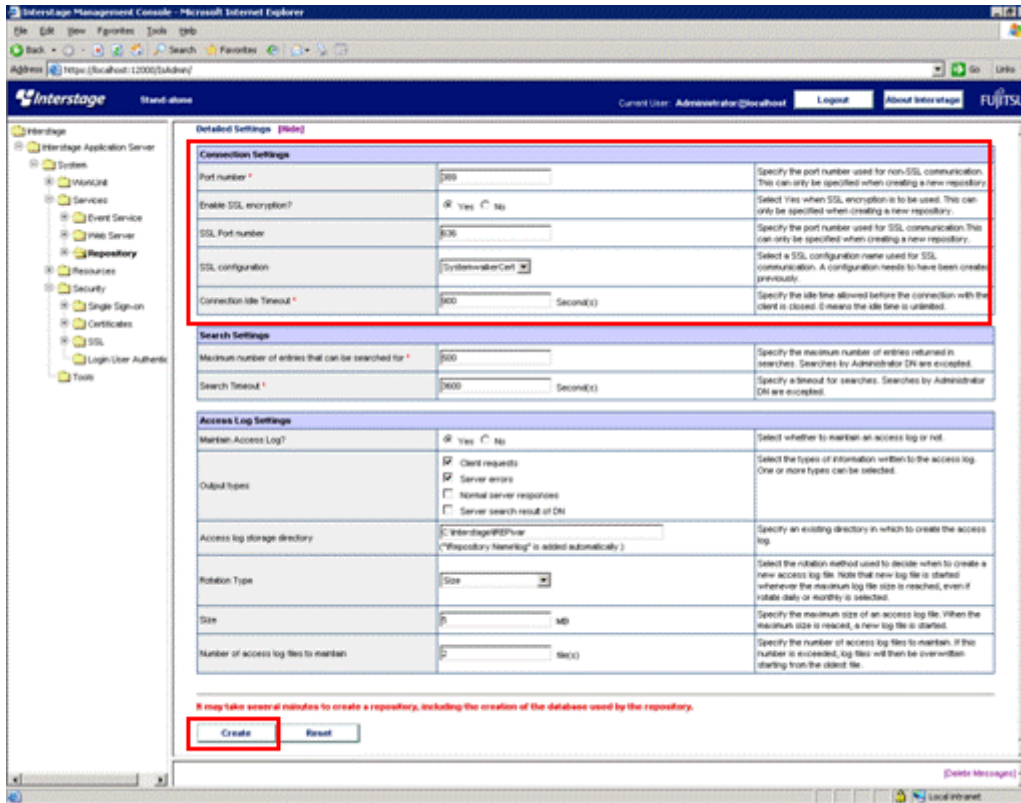
Specify whether to perform SSL communications. This can be specified only when creating a new Systemwalker authentication repository. This value cannot be changed once the repository has been created.

- **SSL Port number**

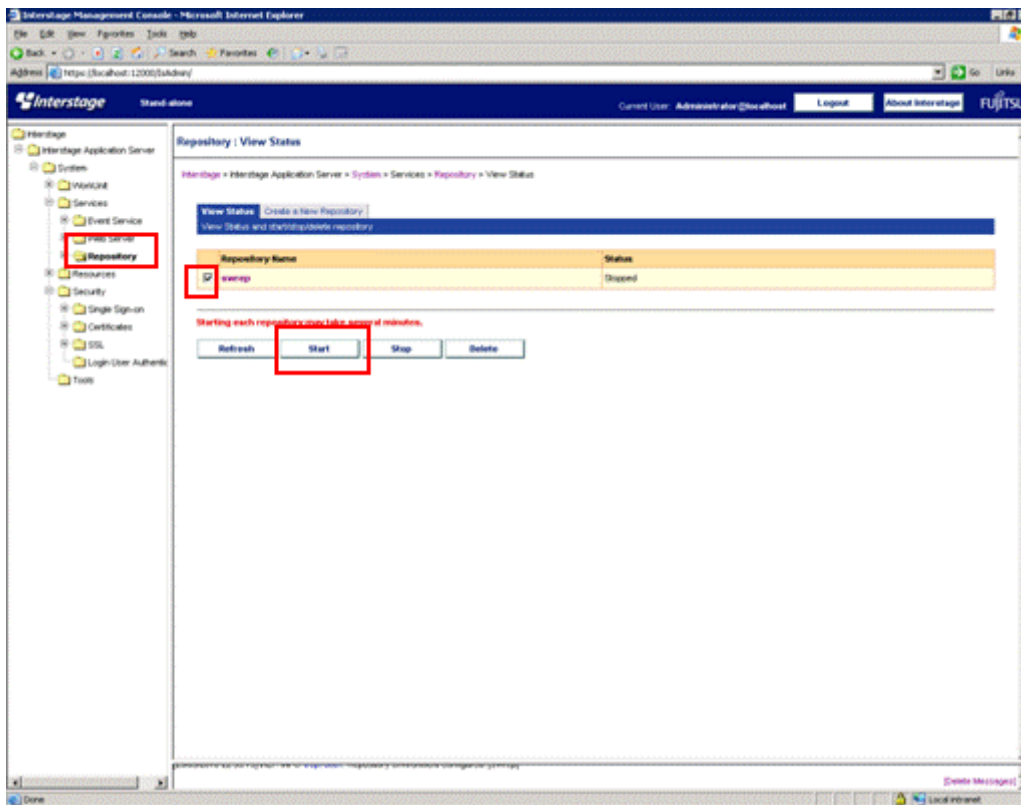
Specify the port number used for SSL communications. This can be specified only when creating a new Systemwalker authentication repository. This value cannot be changed once the repository has been created.

- **SSL configuration**

Decide which SSL definition to use for SSL communications.



- In the **Interstage Management Console** window, select the check box for the Systemwalker authentication repository that has just been created, and then click the **Start** button.



- Copy the file that contains the settings for the initial data for the Systemwalker authentication repository to an arbitrary directory and then edit this file.

The following tables show the Systemwalker products that contain this settings file, and the storage location of the settings file.

[Systemwalker products that contain the settings file]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\sample\ldif\schema_for_ids.ldf
UNIX	/opt/FJSVswaic/sample/ldif/schema_for_ids.ldf

Change all of the "DC=X" parts of the lines in the settings file that start with "dn" to match the environment.

For example, if the public directory has been specified as "dc=fujitsu,dc=com", replace the "DC=X" part with "DC=fujitsu,DC=com".

- Use the following command to import the initial data to the Systemwalker authentication repository.

```
ldapmodify -p <port number> -D <administrator DN> -w <administrator DN password> -a -f <path to the initial data file>
```

-p:

Specify the TCP port number for the repository.

If this option is omitted, or if "0" is specified, the value will be 389.

-D:

Specify the administrator DN for the repository.

Here, specify the value that was specified for the **Administrator DN** in step 3.

-w:

Specify the administrator DN password for the repository.

Here, specify the value that was specified for the **Administrator DN password** in step 3.

-a:

By specifying this option, all input entries that do not contain an LDIF change type statement (a "changetype" line) will be processed as add (an entry will be added).

-f:

For the file parameter, specify a file that contains update information for entries.

Here, specify the path to the initial data file that was edited in step 6.

The ldapmodify command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirepc/bin

## When Active Directory is used

Use the following procedure to create an environment for the Systemwalker authentication repository.

To use the Systemwalker Single Sign-On function, perform the steps described in "[When the Interstage Directory Service is used](#)" as well.

### Point

- If the operation involves replicating the Active Directory database, these settings must be specified for each Active Directory database.
- By default, the maximum number of objects that are returned from a single search using Active Directory is set to 1000. If Active Directory manages more than 1,000 users, groups and organizations, increase the value for MaxPageSize in the LDAP policy for Active Directory.
- When registering a Systemwalker user, specify it within MaxPageSize in the LDAP policy for Active Directory. If you need to specify a Systemwalker user that exceeds MaxPageSize, increase the upper limit for MaxPageSize first, and then register that Systemwalker user.

#### 1. Create Active Directory.

Refer to the relevant Microsoft documentation for details on how to create Active Directory.

#### 2. Create a certificate environment for connecting to Active Directory.

Install a certificate service on the server where Active Directory will run. Refer to the relevant Microsoft documentation for details on how to install a certificate service.

#### 3. Extend the schema for Active Directory.

Use the following procedure to extend the schema for Active Directory.

- a. Copy the settings file for schema extension to an arbitrary directory on the Active Directory server.

The following tables show the Systemwalker products that contain the settings file for schema extension, and the storage location of the settings file.

[Systemwalker products that contain the settings file]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\sample\ldif\schema_for_ad.ldf
UNIX	/opt/FJSVswaic/sample/ldif/schema_for_ad.ldf

- b. Execute the ldifde command on the Active Directory server.

**Example:**

When the settings file for schema extension has been copied to "C:\tmp", the port number is "389" and the domain name is "ad.local".

```
ldifde -i -f C:\tmp\schema_for_ad.ldf -s localhost -t 389 -k -c "DC=X" "DC=ad,DC=local"
```

### 3.2.4 Creating an Environment for the Web Server Used for the Authentication Server

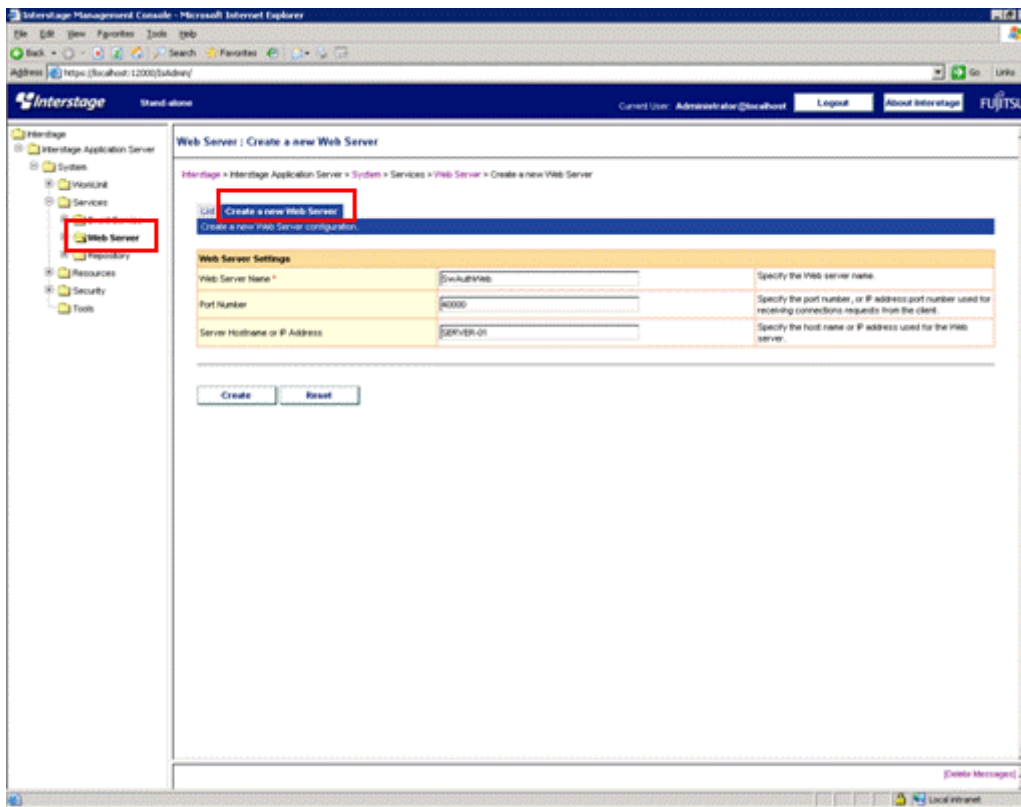
---

Use the following procedure to create a Web server to be used for the authentication server.

1. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

- In the **Interstage Management Console** window, select **System >>Services >> Web Server** and then click the **Create a new Web Server** tab.



- Specify each item as below, and then click the **Create** button.

- **Web Server Settings**

- **Web Server Name**

Enter the name of the Web server to be created, using up to 64 bytes.

The following characters can be used:

- Alphanumeric characters
- Symbols (-)

The first and last characters must be alphanumeric characters.

Be sure to specify the **Web Server Name**.

 **Note**

It is not possible to enter the name of a Web server that already exists.

For Windows, the name is not case-sensitive.

For UNIX, the name is case-sensitive.

- **Port Number**

Enter the port number that will receive connection requests from clients.

Values between 1 and 65535 can be entered for the port number. The IP address and port number can also be specified using "<IP address>:<port number>" format.

Specify the IP address using the "xxx.xxx.xxx.xxx" format (where each "xxx" is a number between 0 and 255, which cannot be omitted). For Solaris, IPv6 addresses can be specified by enclosing the address in square brackets ("[]").

If this item is omitted, the value will be set to "80".

 **Note**

The same port number can be specified for multiple Web servers, but only one of those Web servers can run at any given time. To have multiple Web servers running at the same time, specify a different port number for each Web server, or specify port numbers using the "<IP address>:<port number>" format.

Note that the default value for the port number of the "FJapache" Web server that is created at installation time is "80".

- **Server Hostname or IP Address**

Enter the host name or IP address of the server. For the Windows version, specify a string that is up to 255 bytes long. For the Linux and Solaris versions, specify a string that is up to 106 bytes long.

To specify the IP address, use the "xxx.xxx.xxx.xxx" format (where each "xxx" is a number between 0 and 255, which cannot be omitted).

If this item is omitted, the value will be set to the host name that is found by searching for the IP address that has been set up for the machine.

 **Note**

It is not possible to specify an IPv6 address for the host name or IP address of the server.

The following characters and symbols cannot be used:

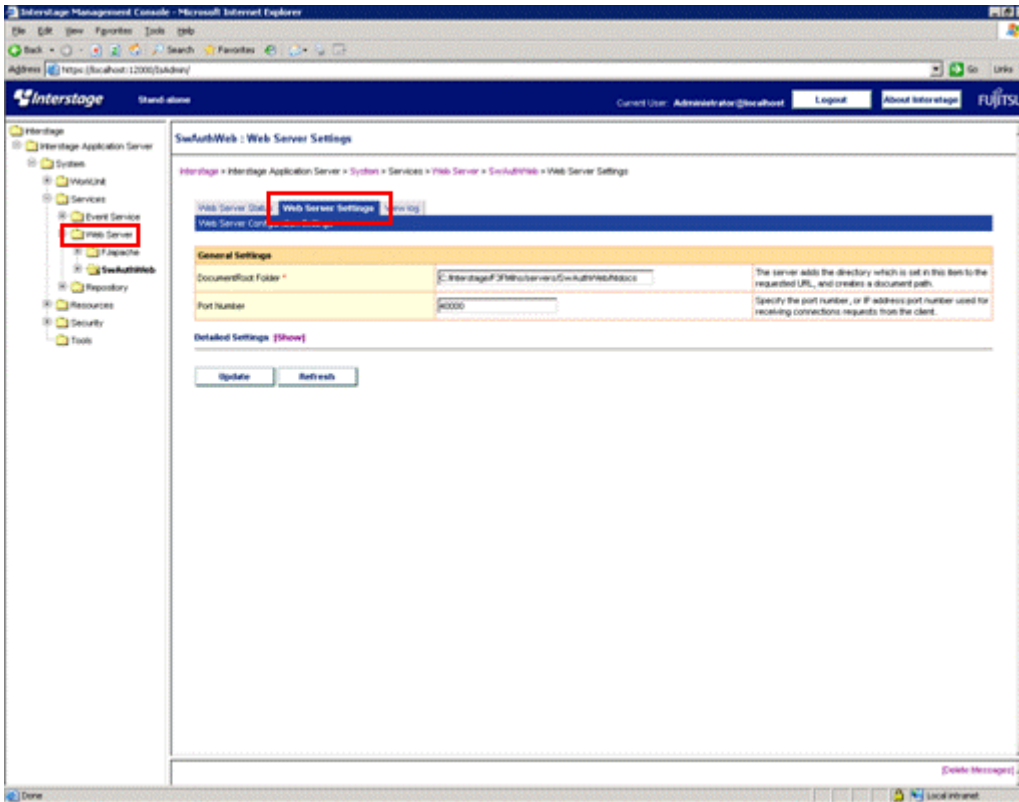
- Multi-byte characters
- Spaces
- Symbols (# " /)

4. In the **Interstage Management Console** window, select **System >> Services >> Web Server >> <Web server name> (\*1)**, and then click the **Web Server Settings** tab.

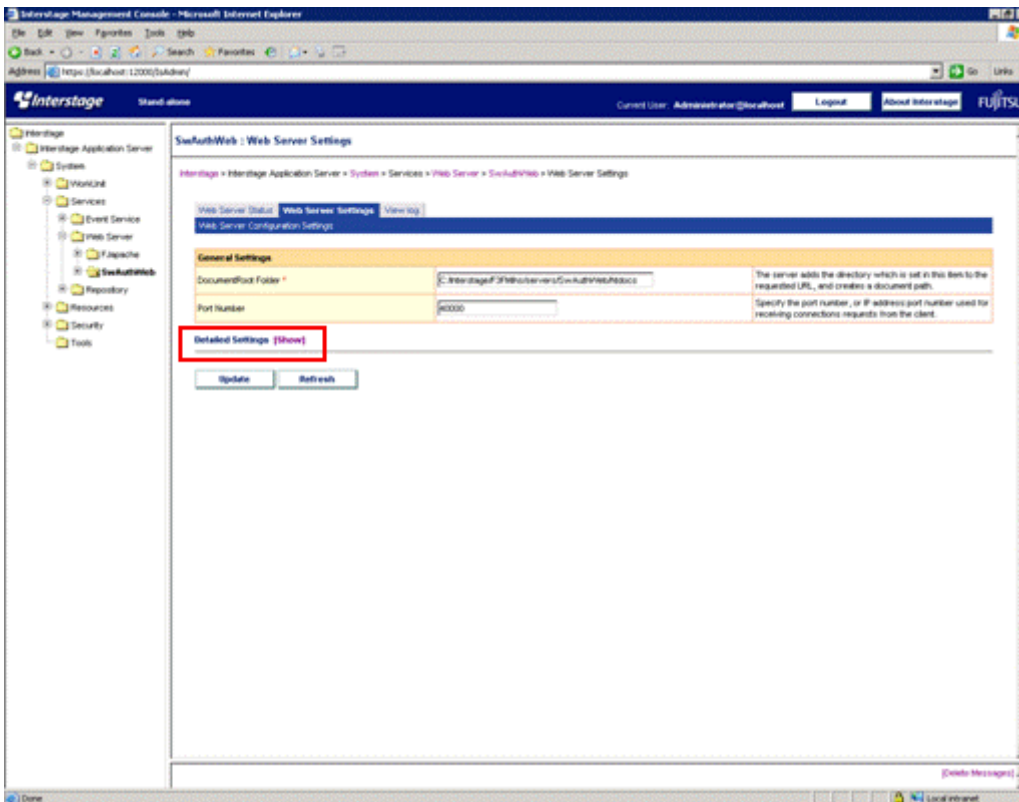
\*1:

For <Web server name>, select the Web server name that was entered in step 3.





5. Click the **Show** link for **Detailed Settings**.



6. Set up the following items and click the **Update** button.

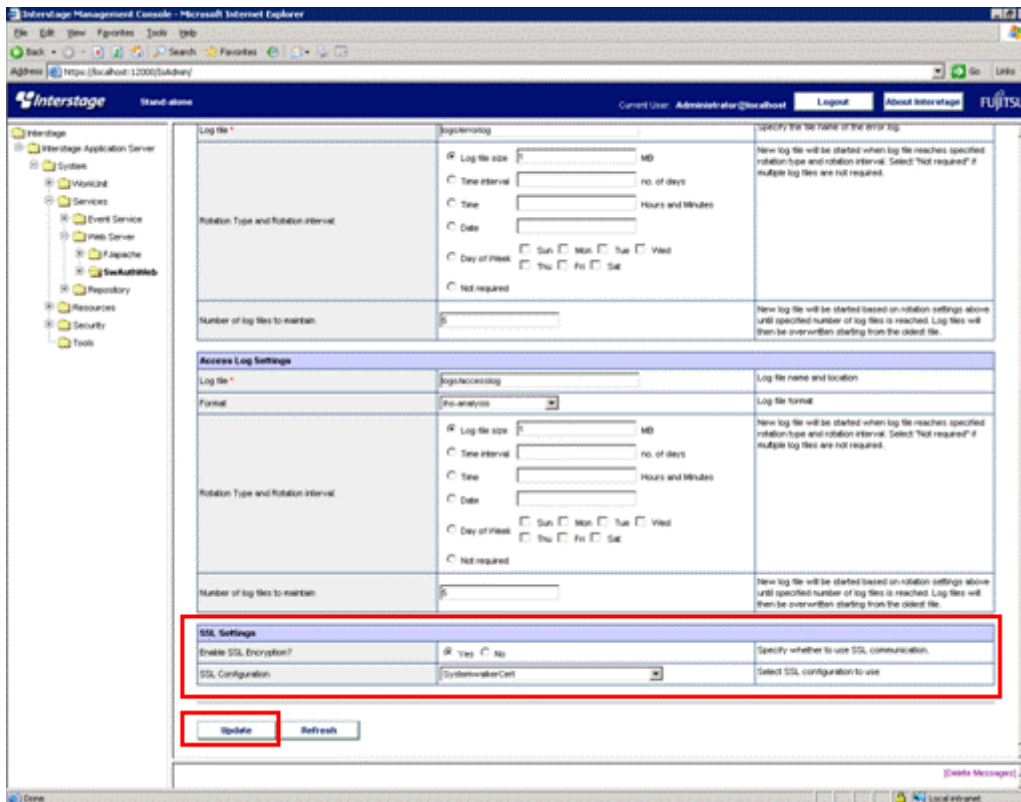
- **SSL**

- **Enable SSL Encryption?**

Select whether to perform SSL communication. Select **Yes**.

- **SSL Configuration**

If SSL communication is to be performed, use the drop-down list to select which SSL configuration to use. Select the SSL configuration that was specified in "[Creating an SSL Environment](#)".



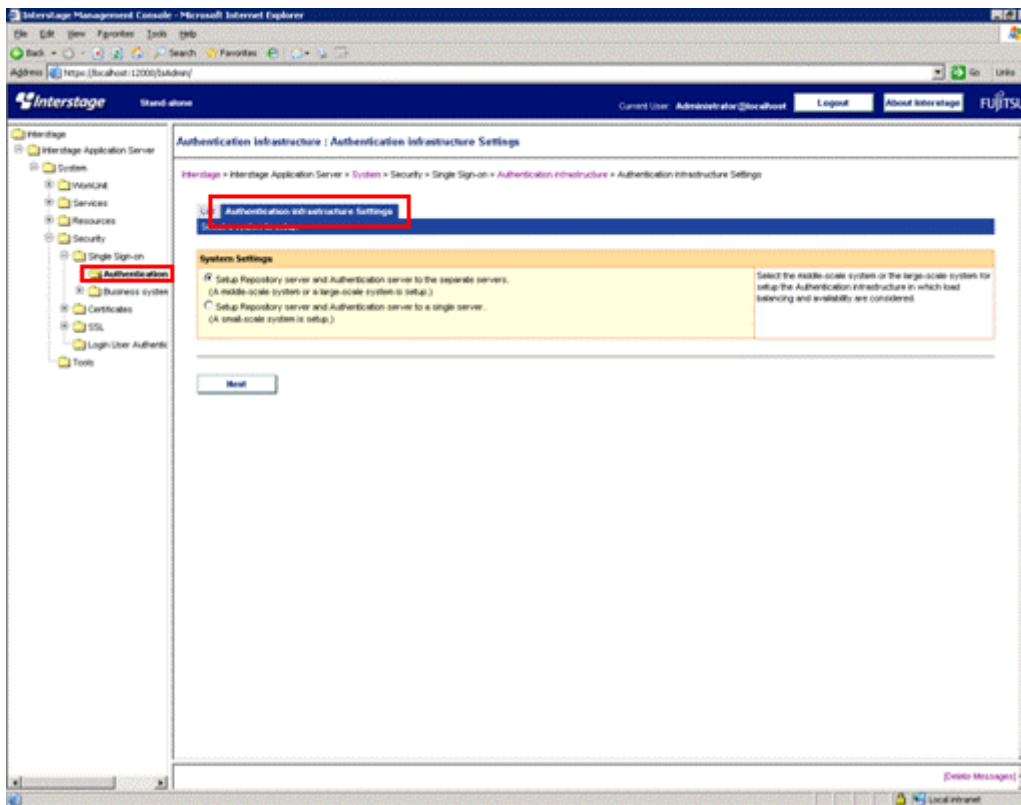
### 3.2.5 Creating an Environment for the Authentication Server

Use the following procedure to create an environment for the authentication server.

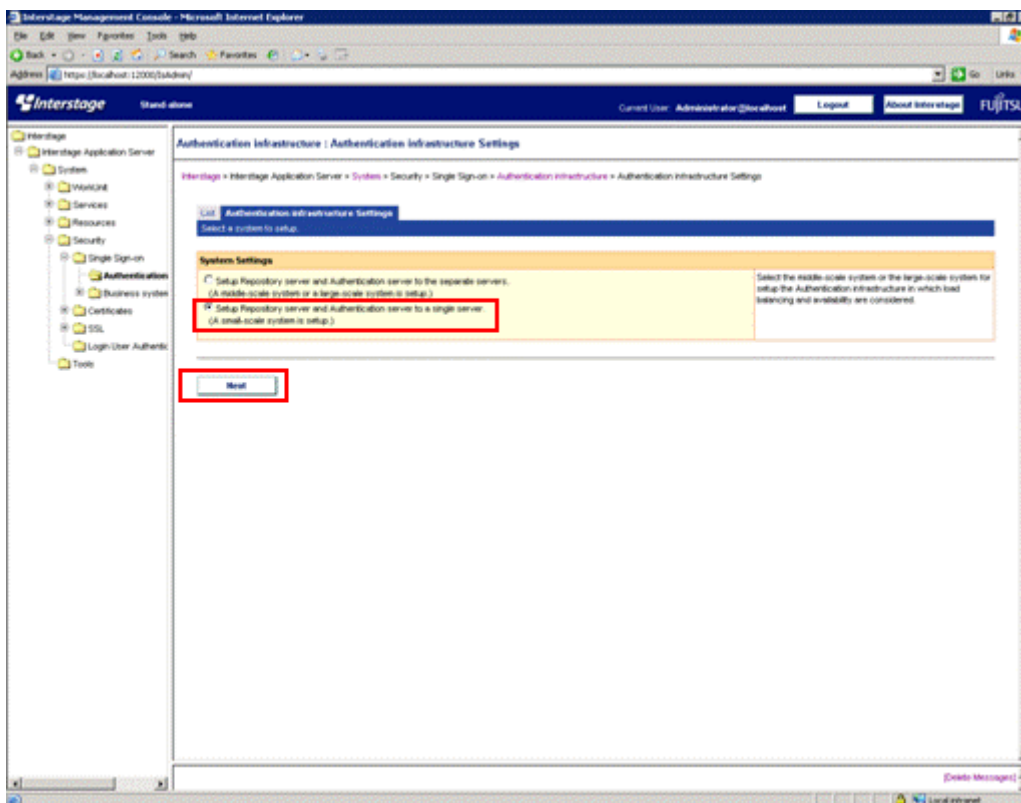
1. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

2. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Authentication infrastructure**, and then click the **Authentication infrastructure Settings** tab.



3. In the **Interstage Management Console** window, select **Setup Repository server and Authentication server to a single server** and then click the **Next** button.



4. In the **Interstage Management Console** window, select the directory service that stores common user information, and then click the **Next** button.

- When the Interstage Directory Service is used

Select **Interstage Directory Service**.

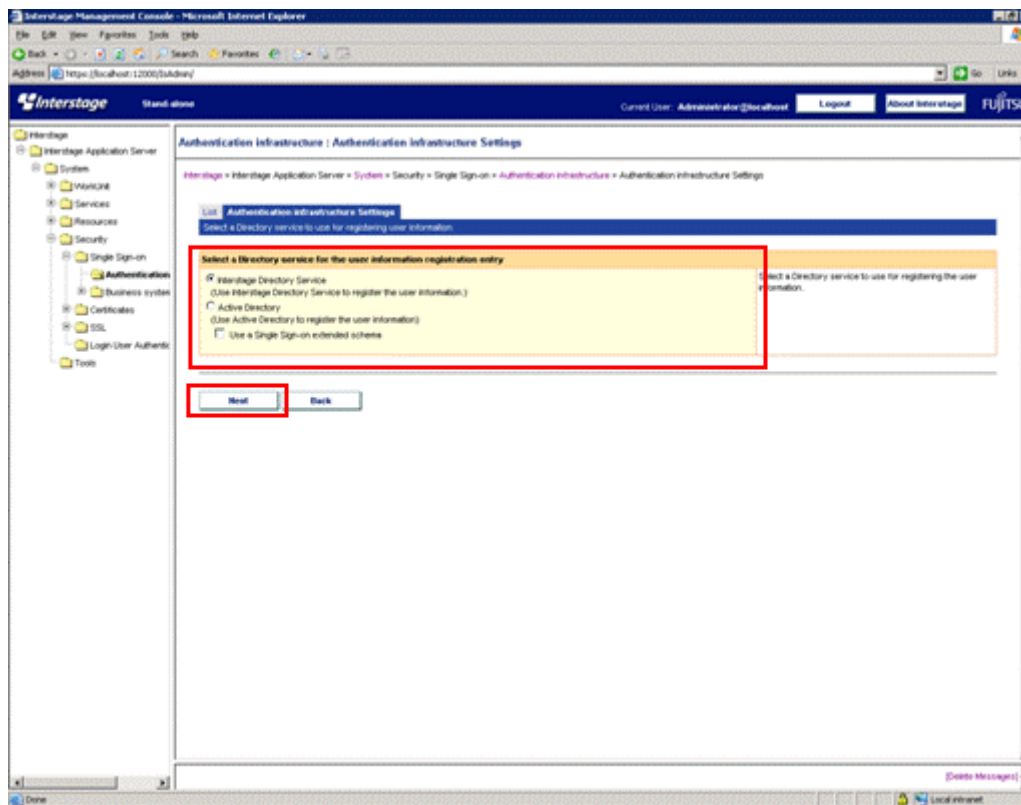
- When Active Directory is used

Select **Active Directory** and then select the **Use a Single Sign-on extended schema** check box.

### Point

To use Active Directory to authenticate users that already exist on Active Directory or users that have been added by methods other than the user management command, specify the following attributes.

Attribute	Attribute value
ssoAuthType	basicAuth
ssoCredentialTTL	0
ssoFailureCount	0
ssoUserStatus	good



5. Set up the following items:

- **Authentication infrastructure URL**

This item displays the URL of the authentication infrastructure for receiving accesses from business systems.

Specify the FQDN (host name + domain name) using up to 255 bytes.

The following characters can be used:

- Alphanumeric characters

- Symbols (. -)

However, these symbols cannot be specified at the beginning or end of the string.

Data cannot be entered using IPv6 format.

Numbers between 1 and 65535 can be specified for the port number.

- **Repository server (update system) URL**

Specify the host name (including the FQDN) and port number of the repository server (for the update system) that will be made available to the authentication server. Be sure to specify this item.

- Host name

Between 1 and 255 bytes of the following characters can be specified. Data cannot be entered using IPv6 format.

- Alphanumeric characters
- Symbols (. -)

The following symbols cannot be specified at the beginning or end of the string.

- Port number

Values between 1 and 65535 can be specified. The default value is "10550".

- **Web Server used**

Select which Web server will be used by the repository server and the authentication server. Be sure to select a Web server for the **Web Server used** item. The Web server that has been created as a Single Sign-On Server will not be displayed as an option.

When a Web server is selected, the host information and SSL status of the selected Web server will be displayed.

Specify the port number of the repository server (for the update system). Be sure to specify the port number.

Values between 1 and 65535 can be specified, and the default value is "10550".

The authentication server is created on the main host of the selected Web server.

The repository server is created on the virtual host for the selected Web server that uses the specified port number (the port number specified for the **\_default\_** item).

- **Active Directory Settings**

When using Active Directory for the Systemwalker authentication repository, specify the following connection information for Active Directory.

To use Active Directory as the directory service where user information is registered, be sure to specify the **Active Directory Settings** item.

- **Directory service URL**

Specify the schema, host name (including the FQDN) and port number for Active Directory.

Specify the host name using up to 255 bytes.

The following characters can be used:

- Alphanumeric characters
- Symbols (. -)

However, these symbols cannot be specified at the beginning or end of the string.

Data cannot be entered using IPv6 format.

Values between 1 and 65535 can be specified for the port number, and the default value is "636".



.....  
An environment for SSL communications must be set up if LDAPS communications are to be used between Active Directory and the Systemwalker Single Sign-On Server.  
.....

- **Connection DN**

Specify the DN (distinguished name) for the Active Directory user.

Specify a string between 1 and 576 bytes long.

The specified user must have the following privileges.

	Privileges required
If the extended schema for the Single Sign-On function is not used	Permission to view information about all users that use the Single Sign-On function
If the extended schema for the Single Sign-On function is used	Permissions to view and update information about all users that use the Single Sign-On function

**Example:**

When the connection DN is "Administrator"

The "Administrator" user belongs to the "Users" container, so specify the connection DN as follows:

CN=Administrator,CN=Users,DC=fujitsu,DC=com
---

- **Connection DN password**

Specify the password for the user whose DN (distinguished name) was specified for **Connection DN**, using up to 128 bytes.

The following characters can be used:

- Alphanumeric characters
- Symbols
- Spaces

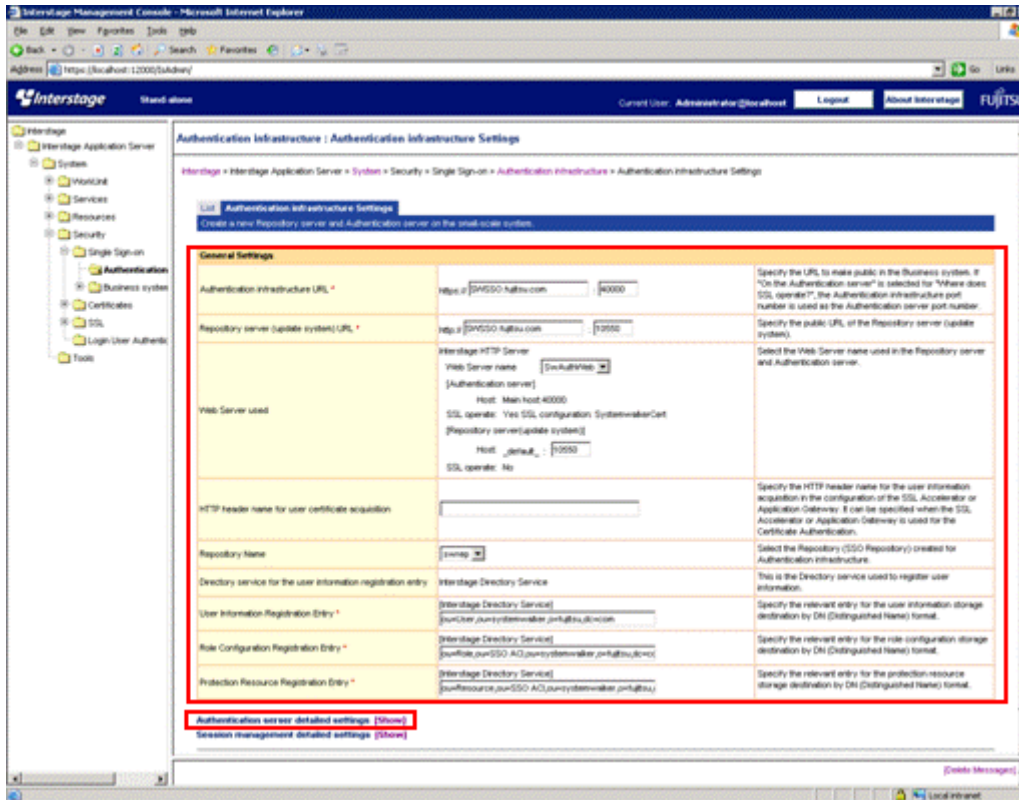
- **SSL configuration**

If ldaps has been selected as the URL scheme for the directory service, select which SSL configuration to use for SSL communications.

- **User Information Registry Entry**

Specify the directory where user information is stored. Be sure to specify the **User Information Registry Entry** item.

Specify a string between 1 and 576 bytes long.



6. Click the **Show** link for **Authentication server detailed settings**.

7. Set up the following items, and then click the **Show** link for **Session management detailed settings**.

- **Enable HTTP communication in Business system?** in **Communication Settings with Business system**

Select either "HTTP" or "HTTPS" according to the communications method that is used to access the Web console for Systemwalker products.

Note that the default value for the HTTP communications method for Systemwalker products is "HTTP".

- **Authentication method** in **Authentication method Setting**

Select **Password/Certificate authentication**.

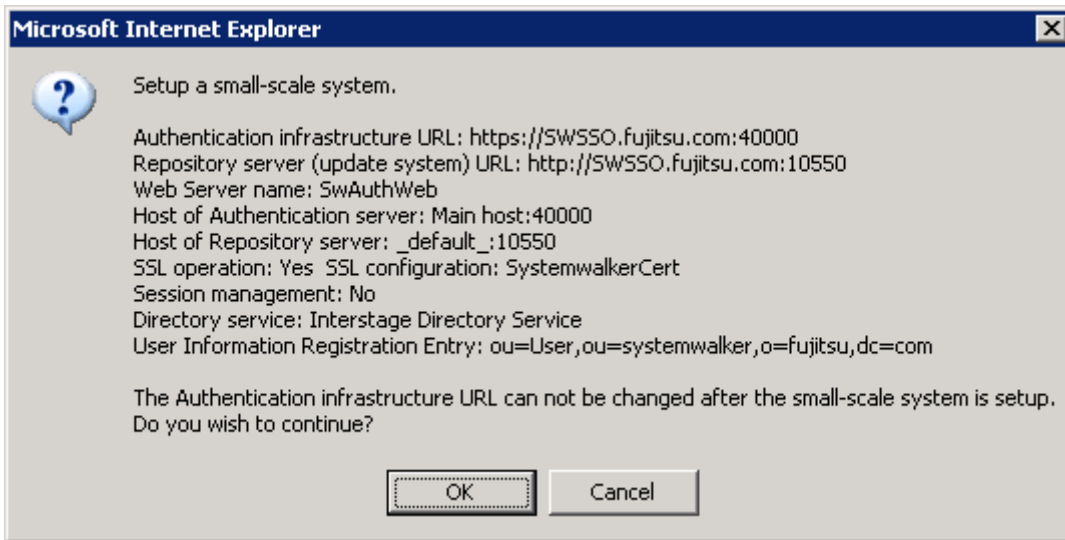
- **Input User ID/Password** in **Password Authentication Settings**

Select **Form authentication page**.

8. Set up the following items and click the **Create** button.

- **Use Session management?** in **Session management Setting**

9. Select **No**. The following confirmation window will be displayed. Check the settings and then click the **OK** button.



10. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Authentication infrastructure >> Repository server >> Protection resource** and then click the **Create a New Site configuration** tab.
11. Specify the **FQDN and Port number** items under **Site Configuration Settings**, and then click the **Create** button.

Specify the public URL for Systemwalker (except for the scheme part that indicates the protocol).

Be sure to specify the FQDN and port number.

Specify the FQDN (host name + domain name) using up to 255 bytes.

The following characters can be used:

- Alphanumeric characters
- Symbols (. -)

However, these symbols cannot be specified at the beginning or end of the string.

Data cannot be entered using IPv6 format.

Numbers between 1 and 65535 can be specified for the port number.

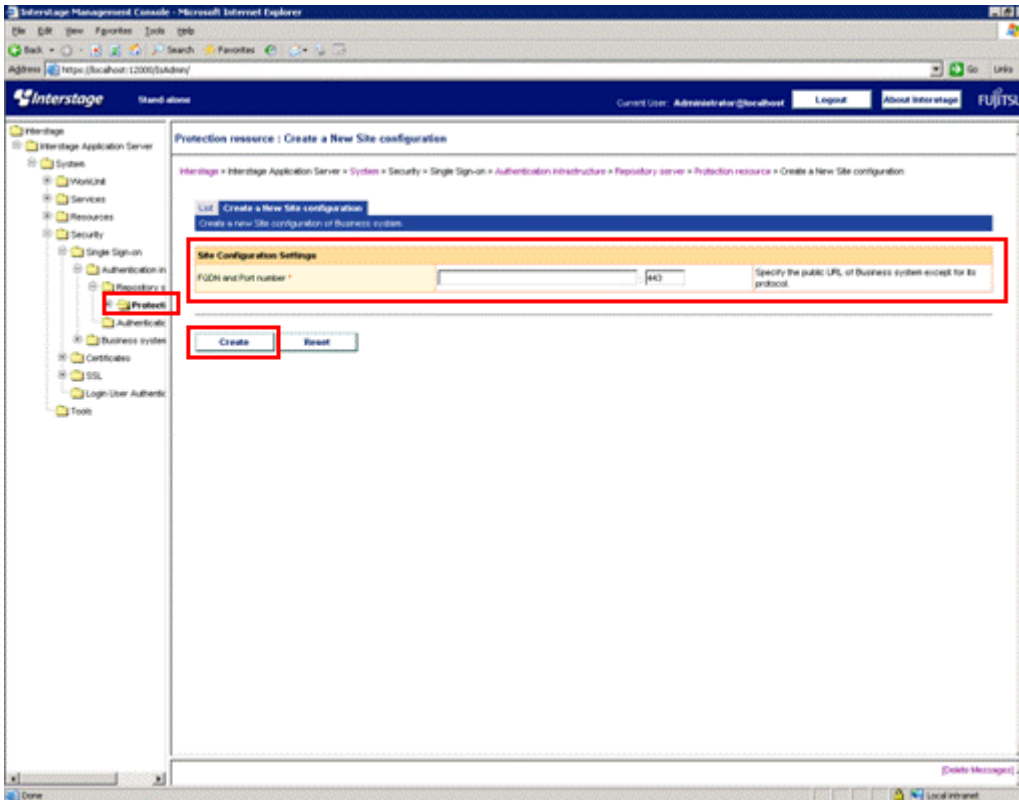
The default value is "443".

**Example:**

If the public URL for Systemwalker is "https://www.fujitsu.com:443", for example, specify the following values.

- FQDN: "www.fujitsu.com"
- Port number: "443"





12. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Authentication infrastructure >> Repository server >> Protection resource >> <FQDN: Port number> >> Protection path**, and then click the **Create a New Path configuration** tab.
13. Set up the **Path** item under **Path Configuration Settings**.

Specify the path to be authorized. Be sure to specify the **Path** item.

Specify a string between 1 and 256 bytes long.

Note that the public URLs for Systemwalker products are as follows:

Systemwalker product	Public URL
Systemwalker Centric Manager	/Systemwalker/ /MpScript/
Systemwalker Service Quality Coordinator	/SSQC/

## Point

### The number of characters

Because the Unicode UTF-8 character encoding is used, calculate the number of characters that can be used on the basis that one single-byte alphanumeric character uses one byte, and other characters use between one and four bytes.

## Point

### Windows versions of Systemwalker products

- The 8.3 format file names that are automatically generated from long file names cannot be specified in URL paths.
- A period (".") cannot be specified at the end of the *<folder name>/<file name>* strings that are specified in URL paths.

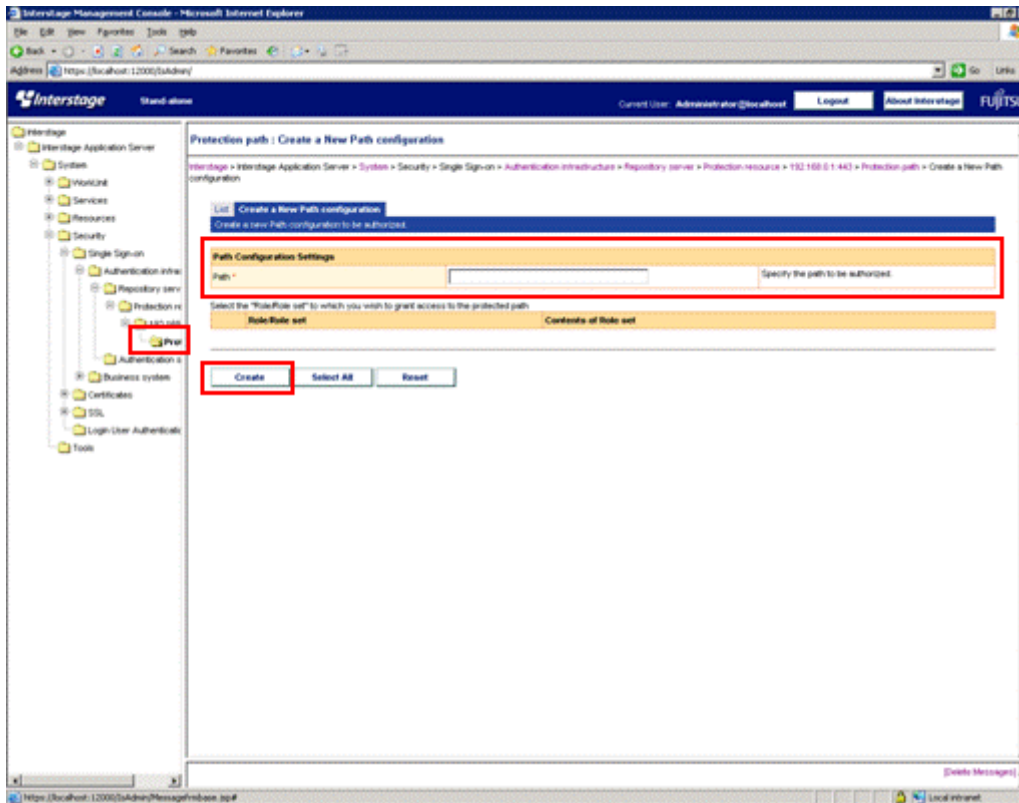
## Note

### Path specifications

- Path strings must start with a forward slash "/".
- To specify a directory, place a forward slash ("/") at the end of the string.
- To authorize an entire site configuration, specify only a single forward slash ("/") for the path.
- Strings containing the following substrings cannot be specified: "///", "/./" and "../".
- Strings ending with the following substrings cannot be specified: "/" and "/..".
- Strings that end in a blank space cannot be specified.
- For the path, specify the part of the path that follows the public URL for Systemwalker.

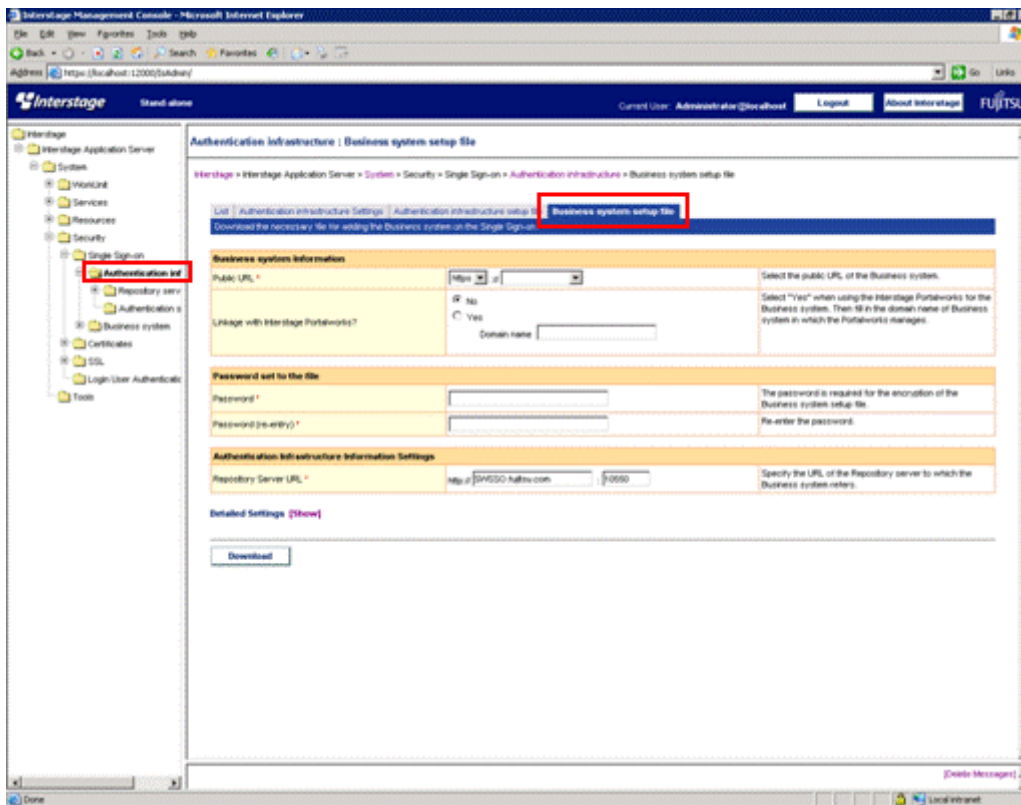
### Example:

If the path "/admin/" is added to a site configuration where the public URL for the business system is "https://www.fujitsu.com:443", the "https://www.fujitsu.com:443/admin/" directory and all of its subdirectories will be protected.



14. Click the **Create** button.

- In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Authentication infrastructure**, and then click the **Business system setup file** tab.



- Specify the **Public URL** item under **Business system information**.  
Specify the protocol (scheme) for the public URL for Systemwalker, and the site definition.  
Be sure to specify the **Public URL** item.
- Specify settings for **Password set to the file**.
  - **Password**  
Specify the password that is used to encrypt the business system setup file.  
Be sure to specify the **Password** item.
  - **Password (re-entry)**  
Enter the password again.  
Be sure to specify the **Password (re-entry)** item.
- Specify the **Repository Server URL** under **Authentication Infrastructure Information Settings**.  
Specify the FQDN (host name + domain name) of the URL for the repository server, as well as the port number.  
Be sure to specify the **Repository Server URL** item.  
Specify the FQDN (host name + domain name) using up to 255 bytes.  
The following characters can be used:
  - Alphanumeric characters
  - Symbols (. -)
 However, these symbols cannot be specified at the beginning or end of the string.  
Data cannot be entered using IPv6 format. Numbers between 1 and 65535 can be specified for the port number.

19. Download the business system setup file by clicking the **Download** button. Copy the business system setup file to an arbitrary location for the following Systemwalker products, for which Web consoles have been installed.

This business system setup file is used in "[Setting up the Systemwalker Single Sign-On Agent](#)".

Systemwalker product	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

20. Change the default login screen for Interstage to the login screen for Systemwalker.



### Note

Do not specify this setting if a single sign-on environment has already been created on a business system where the Systemwalker Single Sign-On function has not been installed.

Change the login screen by copying the files that are stored for the following Systemwalker products to either the server where the Systemwalker Single Sign-On Server has been installed or the server where Interstage Application Server has been installed.

Systemwalker product	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

Use the following procedure to copy the files.

- a. Copy all of the files stored in the "Source 1" directory below to the "Destination 1" directory.

[Source 1]

The following storage directory for each Systemwalker product

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\sample\SSO\AuthServer\template
UNIX	/opt/FJSVswaic/sample/SSO/AuthServer/template

[Destination 1]

The following directory on the server where the Systemwalker Single Sign-On Server has been installed or the server where Interstage Application Server has been installed

OS	Location
Windows	<Interstage installation directory>\F3FMssossoatcag\pub\template
UNIX	/etc/opt/FJSVssaac/pub/template/

- b. Copy all of the files stored in the "Source 2" directory below to the "Destination 2" directory.

[Source 2]

The following storage directory for each Systemwalker product

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\sample\SSO\AuthServer\htdocs
UNIX	/opt/FJSVswaic/sample/SSO/AuthServer/htdocs

[Destination 2]

The following directory on the server where the Systemwalker Single Sign-On Server has been installed or the server where Interstage Application Server has been installed

OS	Location
Windows	<Interstage installation directory>\F3FMihs\servers\<Web server name for the authentication server>(*1)\htdocs
UNIX	/var/opt/FJSVihs/servers/<Web server name for the authentication server>(*1)/htdocs

\*1)

The Web server name for the authentication server is the Web server name that was entered in step 3 of "Creating an Environment for the Web Server Used for the Authentication Server".

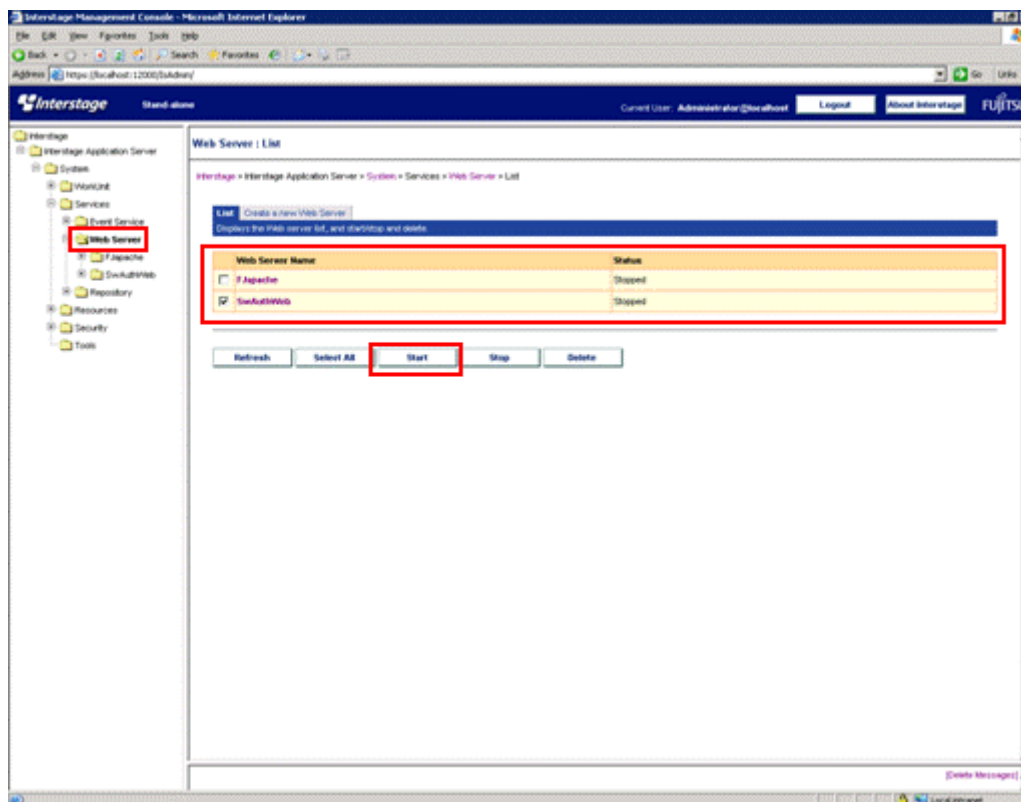
21. In the **Interstage Management Console** window, select **System >> Services >> Web Server**.

22. Select a Web server for the authentication server, and then click the **Start** button.

If the Web server starts successfully, the following message will be displayed in the Interstage Management Console.

[Date/Time]...Web server name: <Web server name for the authentication server>

If the Web server fails to start, take action according to the message that is displayed.



23. For the Windows version, set up the service dependency relationships between the Systemwalker authentication repository and the Web server used for the authentication server.

Set up the service dependency relationships by executing the following command:

ssosetsvc <Systemwalker authentication repository name> <Web server name used for the authentication server>

For <Systemwalker authentication repository name>, specify the repository name that was specified in step 3 of "When the Interstage Directory Service is used" under "Creating an Environment for the Systemwalker Authentication Repository".

For <Web server name used for the authentication server>, specify the Web server name that was specified in step 3 of "Creating an Environment for the Web Server Used for the Authentication Server".

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin

### 3.3 Setting up the Connection Destination Systemwalker Authentication Repository

This section explains how to set up connection information for the Systemwalker authentication repository for each of the servers for Systemwalker products.



If multiple Systemwalker products are installed on the same machine, specify these settings when one of the following Systemwalker products is installed.

Product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server
Systemwalker Service Quality Coordinator	Operation Management Client

Specify the environment settings for using the Systemwalker authentication repository by executing the `swidmg_set_repository` command (the connection destination Systemwalker authentication repository setup command).

The `swidmg_set_repository` command is stored in the following location.

[Command location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

The following example shows how to execute the `swidmg_set_repository` command.

#### Example 1)

When the Interstage Directory Service is used as the Systemwalker authentication repository

- Host name: REPOSERVER.fujitsu.com
- Port number: 636
- User ID: CN=Administrator, CN=Users, DC=fujitsu, DC=com
- Password: password
- Public directory: DC=fujitsu, DC=com
- User storage directory: OU=system operations section, OU=system operations department, DC=fujitsu, DC=com

```
swidmg_set_repository SET -h REPOSERVER.fujitsu.com -id
"CN=Administrator,CN=Users,DC=fujitsu,DC=com" -pw password -publicdir "DC=fujitsu,DC=com"
-userdir "OU=system operations section,OU=system operations department,DC=fujitsu,DC=com" -t IDS
```

#### Example 2)

When Active Directory is used as the Systemwalker authentication repository

- Host name: REPOSERVER.fujitsu.com
- Port number: 636
- User ID: CN=Administrator, CN=Users, DC=fujitsu, DC=com
- Password: password
- Public directory: DC=fujitsu, DC=com
- User storage directory: OU=system operations section, OU=system operations department, DC=fujitsu, DC=com

```
swidmg_set_repository SET -h REPOSERVER.fujitsu.com -id
"CN=Administrator,CN=Users,DC=fujitsu,DC=com" -pw password -publicdir "DC=fujitsu,DC=com"
-userdir "OU=system operations section,OU=system operations department,DC=fujitsu,DC=com" -t AD
```

Refer to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" for details on the swidmg\_set\_repository command.

### Point

Some Systemwalker products may need to be restarted.

To determine whether to restart a particular Systemwalker product, refer to the manual for that product that describes the procedure for using the Systemwalker authentication repository.

## 3.4 Creating an Environment for Systemwalker Single Sign-On Agent

This section explains the procedure for creating an environment for the Systemwalker Single Sign-On Agent.

### Overall flow of the procedure for creating an environment for the Systemwalker Single Sign-On Agent

[Installing the Systemwalker Single Sign-On Agent](#)



[Setting up the Systemwalker Single Sign-On Agent](#)

### Note

- For environments where Interstage Application Server or a Systemwalker Single Sign-On Server has been installed:  
Do not install the Systemwalker Single Sign-On Agent.  
Perform only the procedure described in "[Setting up the Systemwalker Single Sign-On Agent](#)".
- If the 64-bit versions of Systemwalker products (for the Windows or Linux version) are mixed with the regular 32-bit versions  
You cannot set up the Systemwalker Single Sign-On Agent.

### 3.4.1 Installing the Systemwalker Single Sign-On Agent

This section explains how to install the Systemwalker Single Sign-On Agent.

Install the Systemwalker Single Sign-On Agent by executing the following F4AMsetup command (the command for setting up the Systemwalker Single Sign-On function).

Execute this command only once even if multiple Systemwalker products have been installed.

```
F4AMsetup -i -p <installed product name> -s -o SSO
```

The following tables show the execution and storage locations of the F4AMsetup command, and the parameters to specify for the names of the installed products.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client\setup
UNIX	/opt/FJSVswaic/client/setup

[Parameters to specify for the names of the installed products]

Systemwalker product name	Parameters to specify for the names of the installed products
Systemwalker Centric Manager	SWCMGR
Systemwalker Service Quality Coordinator	SWSQC

Refer to the "[F4AMsetup \(Systemwalker Single Sign-On Function Setup Command\)](#)" for details on the F4AMsetup command.

## Point

- If you wish to install a Systemwalker Single Sign-On Server or Interstage Application Server after a Systemwalker Single Sign-On Agent has been installed, uninstall the Systemwalker Single Sign-On Agent first.
- Customizing IPC key values for System V IPC resources

The Systemwalker Single Sign-On Agent uses the System V IPC resources provided by the operating system (message queues, semaphores and shared memory resources) to communicate between processes.

These IPC resources are identified uniquely within the system by values (known as IPC key values) that are specified when the resources are created.

IPC key values must be unique within the system, but arbitrary values can be used, which means that the values sometimes conflict with the values used by other products or applications that use IPC resources.

If an IPC key value conflict occurs, the Systemwalker Single Sign-On Agent will notify the user of this fact by outputting the following message.

[Message]

```
SSO: ERROR: sso00205: Could not get IPC resource due to duplicated key. ServerKind=(%s1) Kind=(%s2) Id=(%s3) Detail=(%s4) Code=(%s5)
```



[Variable information]

%s1: Server name or command name

%s2: Server type

%s3: Job Server ID0

%s4: Maintenance information

%s5: Maintenance information

In this case, the functions of the Systemwalker Single Sign-On Agent services that use the IPC resources corresponding to these IPC key values cannot be used.

To resolve this kind of situation, the IPC key values used by the Systemwalker Single Sign-On Agent can be customized using the method shown below. Taking this action makes it possible to operate the Systemwalker Single Sign-On Agent when a message is output notifying that an IPC key value conflict has occurred.

#### How to define IPC key values

IPC key values are made up of four bytes (32 bits), but arbitrary values can be defined for the low-order 12 bits (three hexadecimal digits) so that they do not conflict with the IPC key values used by other products. Note that the remaining high-order 20 bits are determined by the Systemwalker Single Sign-On Agent.

Create a new definition file for the IPC key values as follows, and specify the low-order 12 bits of the IPC key values using three hexadecimal digits.

Define the IPC key values so that they do not conflict with other values on the system.

Note that if the definition file contains anything other than three hexadecimal digits, the Systemwalker Single Sign-On Agent will operate in the same way as it would if IPC key values were not specified.

[Common definition file]

OS	Common definition file
Solaris	/var/opt/FJSVisas/system/default/FJSVisas/etc/ipc_key
Linux	/var/opt/FJSVisas/system/default/FJSVisas/etc/ipc_key

Example:

If the definition file is created as below and the high-order 20 bits used by the Systemwalker Single Sign-On Agent are set to "0x01280", the IPC key values will be "0x01280FFF" when displayed in hexadecimal.

FFF
-----

---

## 3.4.2 Setting up the Systemwalker Single Sign-On Agent

This section explains how to set up the Systemwalker Single Sign-On Agent.

Note that if a Systemwalker product uses a cluster configuration, the Systemwalker Single Sign-On Agent should be set up by downloading the business system setup file to both the active node and the standby node.

The setup method for the Systemwalker Single Sign-On Agent depends on which Systemwalker products are used, and the type of HTTP server where the Web console for Systemwalker products runs.

#### - For Systemwalker Centric Manager

Set up the Systemwalker Single Sign-On Agent by referring to the following sections:

- [When Interstage HTTP Server is used](#)
- [When Microsoft\(R\) Internet Information Service is used](#)
- [When Apache 2.0.x is used](#)

- **For Systemwalker Service Quality Coordinator**

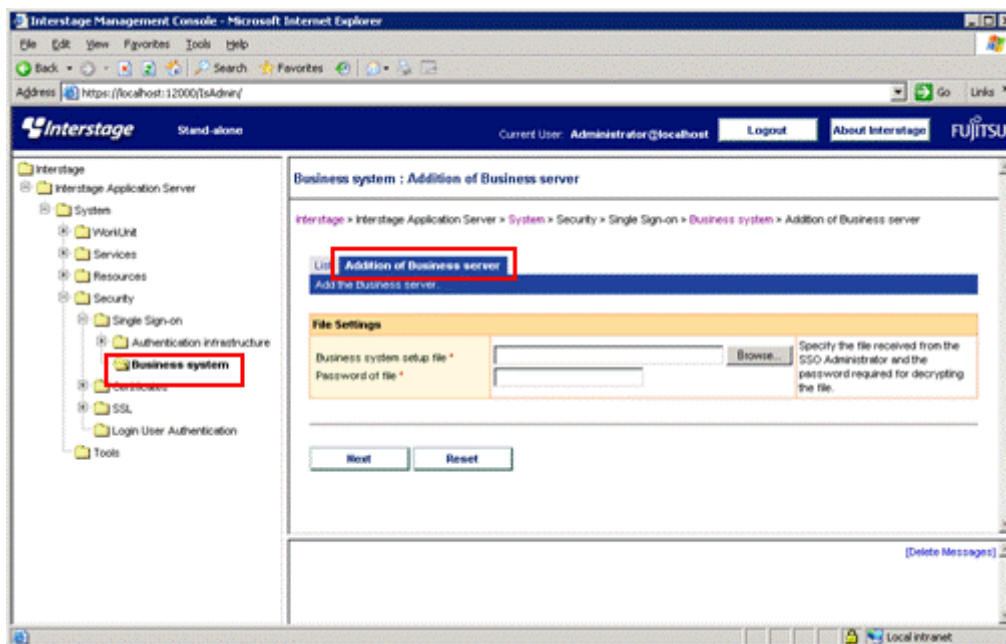
Set up the Systemwalker Single Sign-On Agent by referring to the following sections:

- [When Interstage HTTP Server is used](#)
- [When Microsoft\(R\) Internet Information Services is used](#)

**When Interstage HTTP Server is used**

Use the following procedure to set up the Systemwalker Single Sign-On Agent.

1. Start the Interstage Management Console.  
Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.
2. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system**, and then click the **Addition of Business server** tab.



3. Specify each item as below, and then click the **Next** button.
  - **File Settings**
    - **Business system setup file**  
Specify the business system setup file that was downloaded and copied when the environment for the authentication server was created.
    - **Password of file**  
Specify the password that was specified when the business system setup file was downloaded.
4. Specify each item as below, and then click the **Add** button.
  - **General Settings**
    - **Business system Name**  
Specify an arbitrary name for the business system. Be sure to specify this item.  
The name of the business system can be specified using between 1 and 32 bytes of the following characters:
      - Alphanumeric characters
      - Symbols (- \_ ( ) [ ])The default value is "Business $nnn$ " (where  $nnn$  is a number).

- **Web Server used**

Specify the Interstage HTTP Server to use with the Systemwalker products.

- **When updating Access Control Information?**

Select **Execute when Business server is started**.

5. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system >> <Business system name>**, and then click the **Settings** tab.  
 <Business system name> is the business system name that was specified in step 4.
6. Click the **Show** link for **Detailed Settings**.
7. Select **Yes** for **Notify User Information?** and then click the **Update** button.
8. Restart the Interstage HTTP Server to use with the Systemwalker products.

**When Microsoft(R) Internet Information Services is used**

The setup procedure varies depending on whether the Systemwalker product is located on the same server as the Systemwalker Single Sign-On Server or Interstage Application Server.

- [If the Systemwalker product is not located on the same server](#)
- [If the Systemwalker product is located on the same server](#)

If the Systemwalker product is not located on the same server

Use the following procedure to set up the Systemwalker Single Sign-On Agent.

1. Specify environment settings using the following command on the servers where the Web consoles for the Systemwalker products are installed. Specify the business system setup file that was downloaded and copied when the environment for the authentication server for the Systemwalker Single Sign-On Server was created.

```
swidmg_set_ssoagent SET -f <business system setup file> -p <password> -f <business system setup file> -p <password>...
```

The command execution location and storage location are as follows:

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJVSswaic/client

Refer to the "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" for details on the swidmg\_set\_ssoagent command.

 **Point**

.....  
 If there are multiple business system setup files, specify multiple command options.  
 .....

2. Include the Systemwalker Single Sign-On Agent into Microsoft(R) Internet Information Services.
  - [When Microsoft\(R\) Internet Information Services 6.0 is used](#)

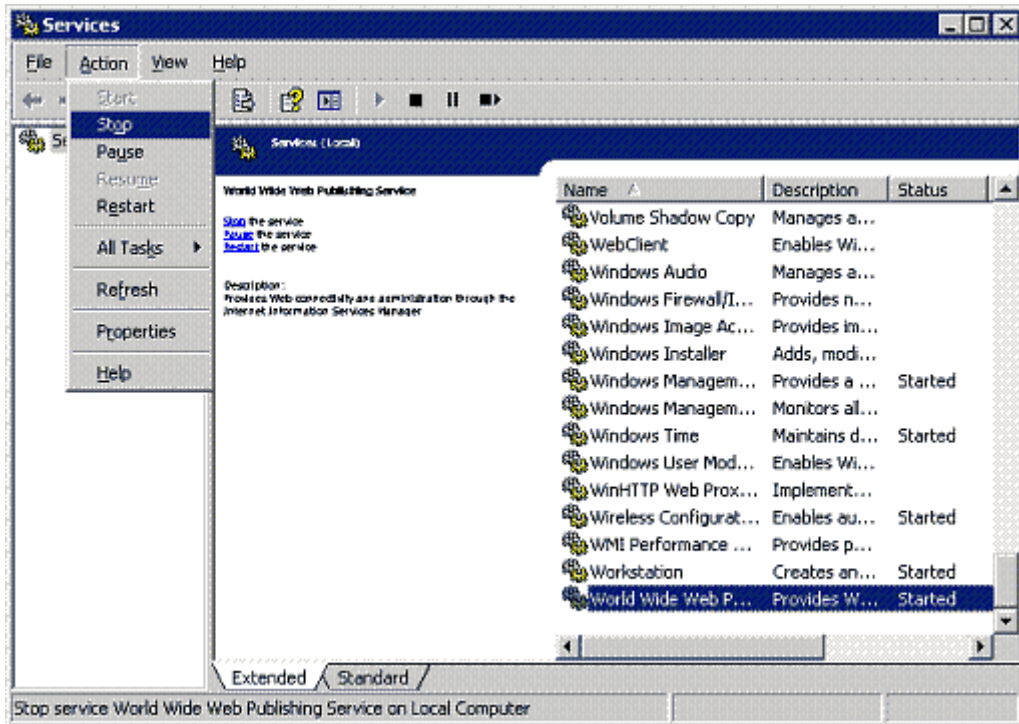
- When Microsoft(R) Internet Information Services 7.0 is used

When Microsoft(R) Internet Information Services 6.0 is used

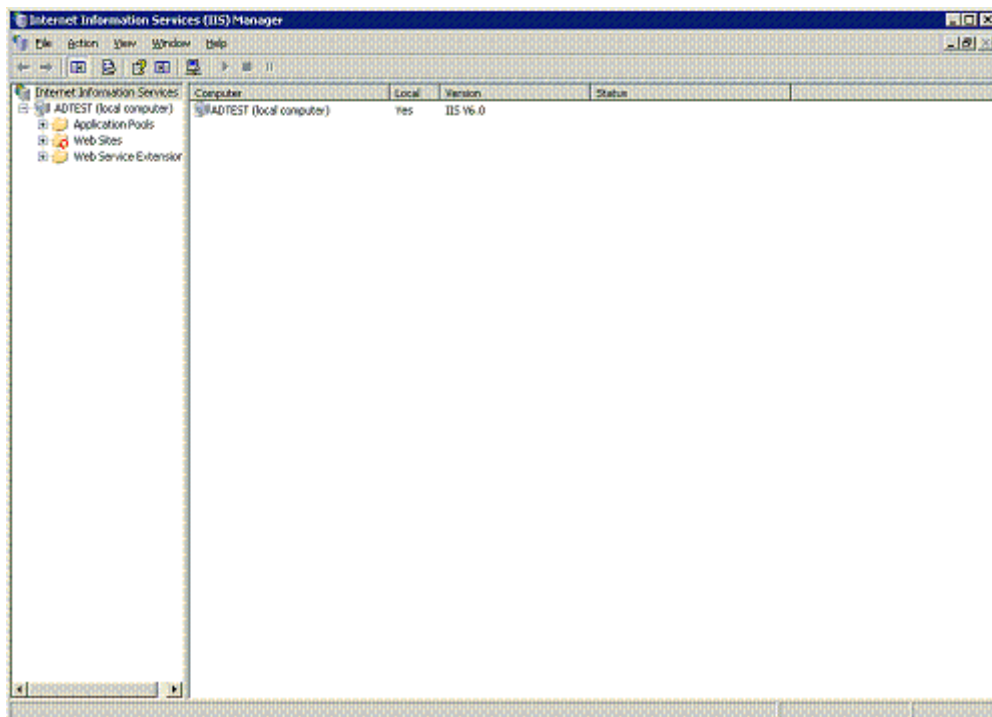
Use the following procedure to include the Systemwalker Single Sign-On Agent.

- Open the **Services** dialog box by selecting **Programs, Administrative Tools** and then **Services** from the **Start** menu, and check whether the **World Wide Web Publishing Service** is running.

If World Wide Web Publishing Service is already running, select the **World Wide Web Publishing Service**, and then select **Stop** from the **Action** menu.

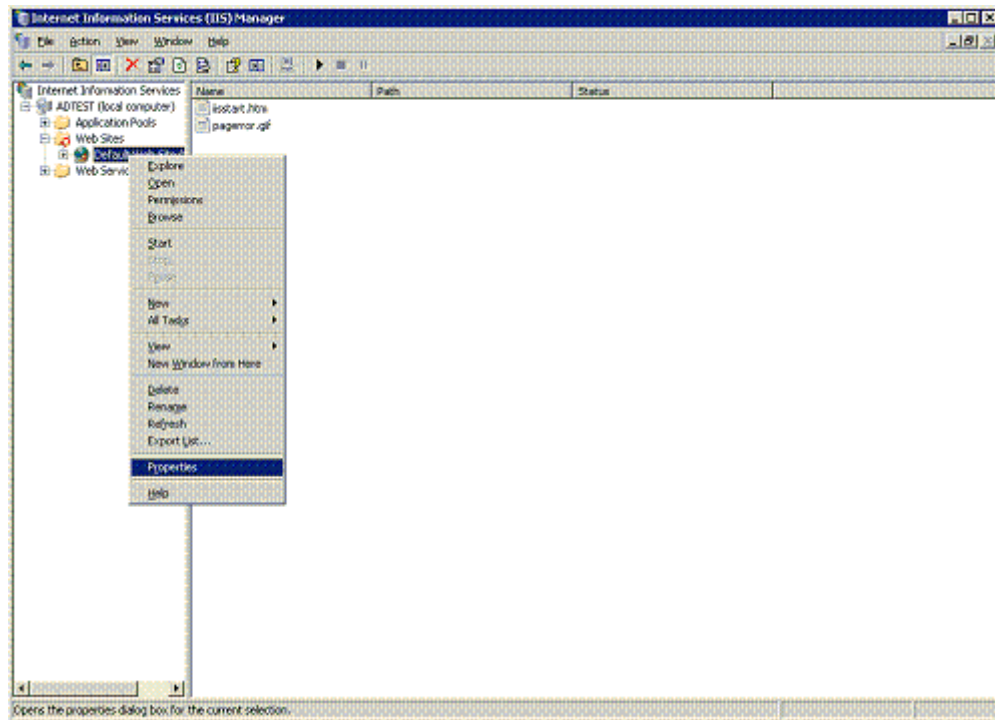


- From the **Start** menu, select **Programs >> Administrative Tools >> Internet Information Services (IIS) Manager**.



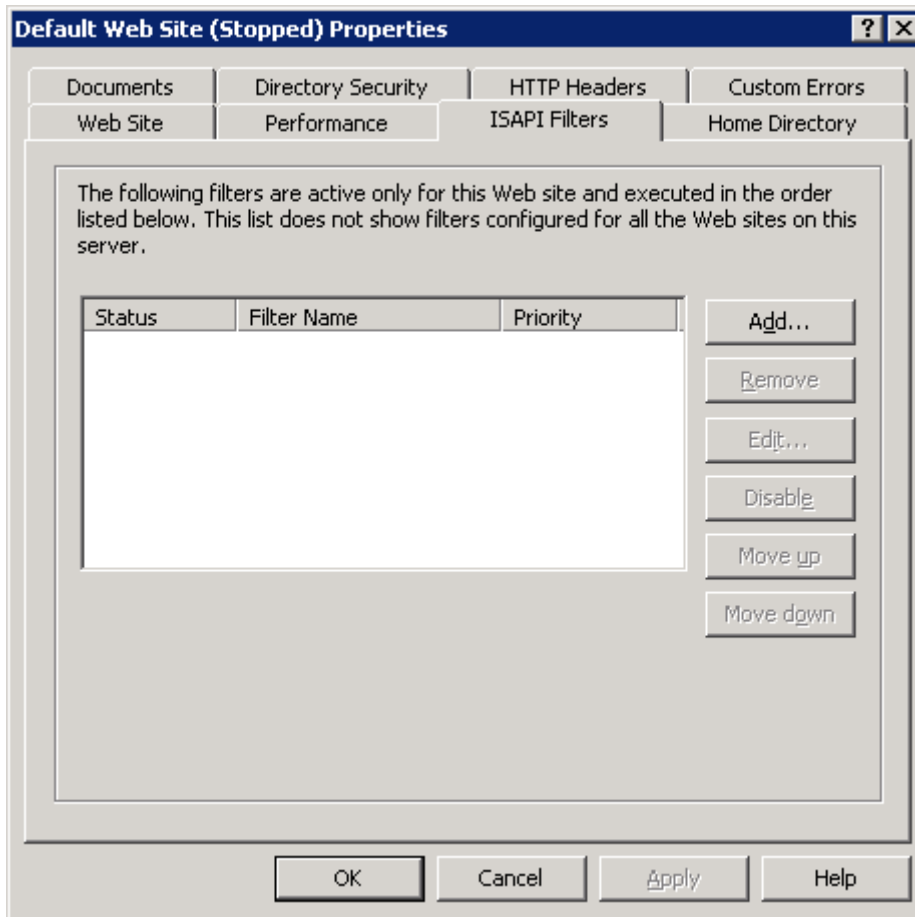
- c. Select the Web site where the Systemwalker Single Sign-On Agent is to be included.

In the following example, the Systemwalker Single Sign-On Agent will be included in a Web site called "Default Web Site".



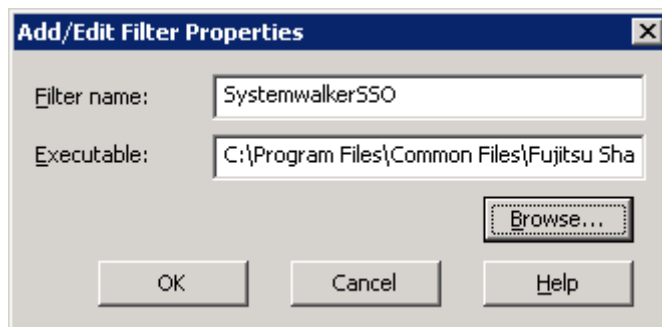
- d. Open the Properties sheet by selecting **Properties** from the pop-up menu. Select the **ISAPI Filters** tab on the Properties sheet and then click the **Add** button.

If any ISAPI filters are already set up, after adding the business server program to the ISAPI filters, change the order so that the Systemwalker Single Sign-On Agent program appears at the top.



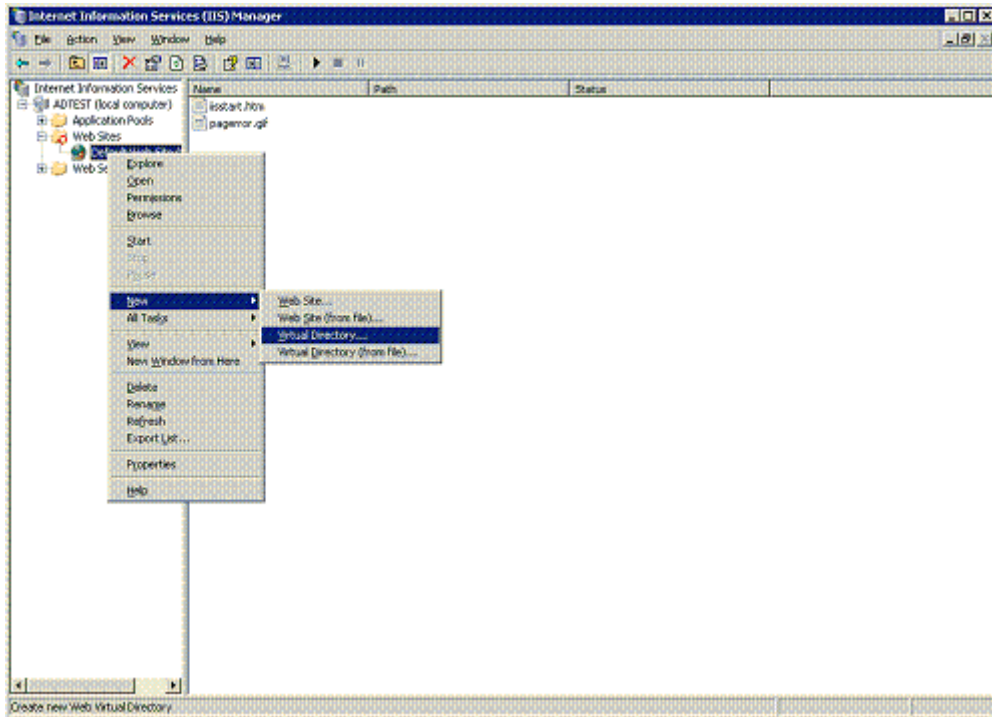
- e. Enter the filter name, and specify the absolute path to the Systemwalker Single Sign-On Agent program in the **Executable** field.

In the following example, "SystemwalkerSSO" is specified as the filter name, and "%F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMss0\ssoatzag\lib\F3FMSSOatziis.dll" is specified as the executable file. Click the **OK** button after specifying these settings.

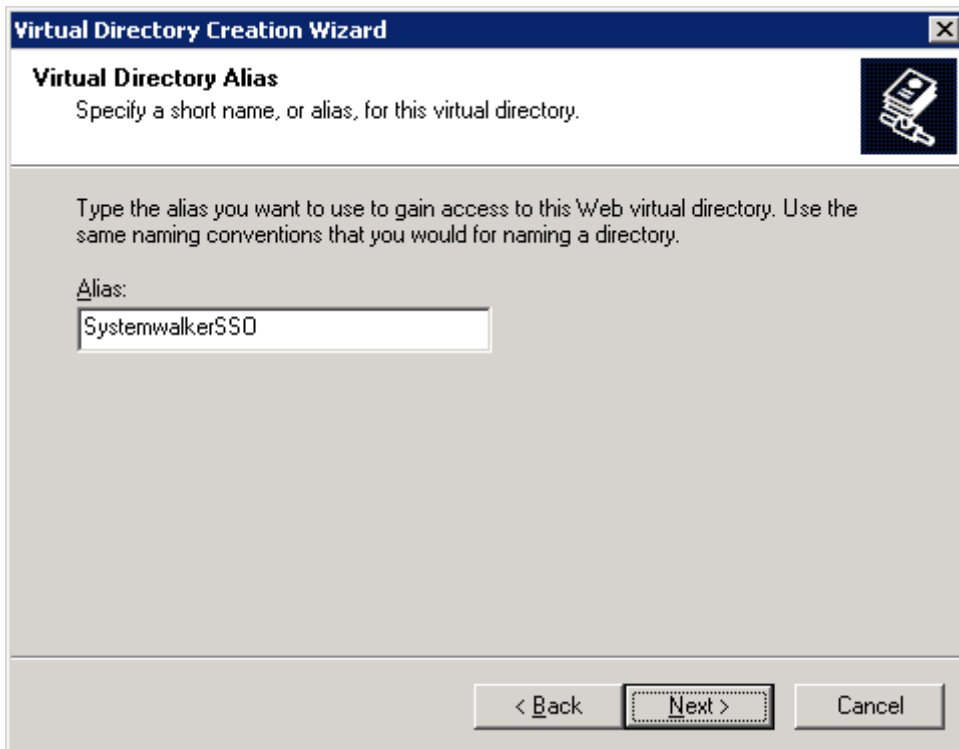


- f. Select the Web site where the Systemwalker Single Sign-On Agent is to be included.

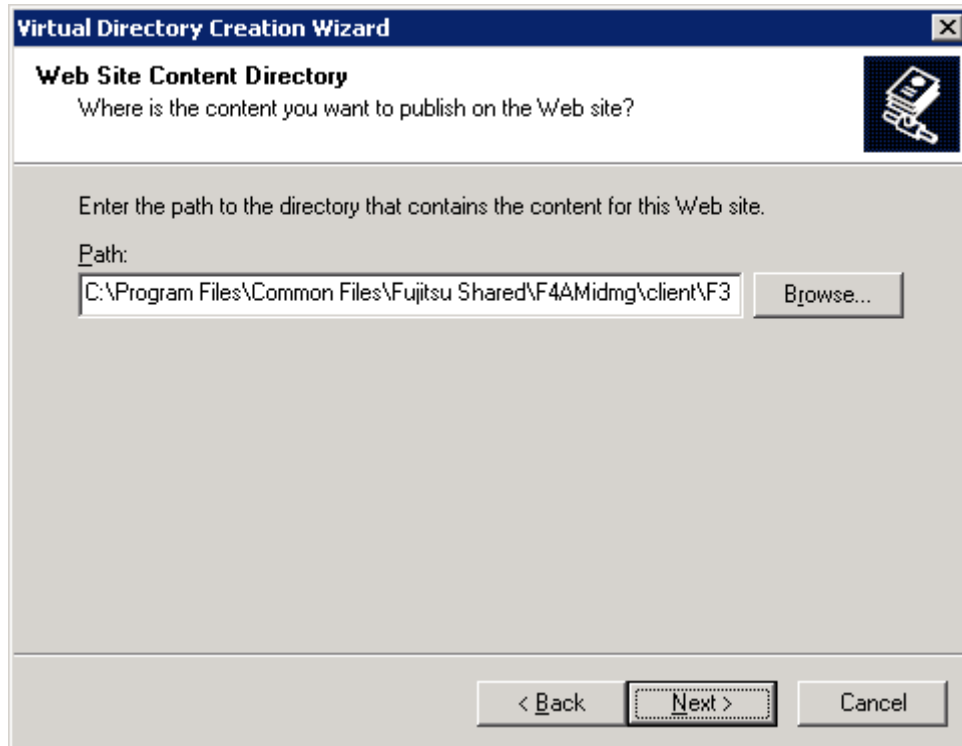
Start the **Virtual Directory Creation Wizard** by selecting **New** and then **Virtual Directory** from the pop-up menu.



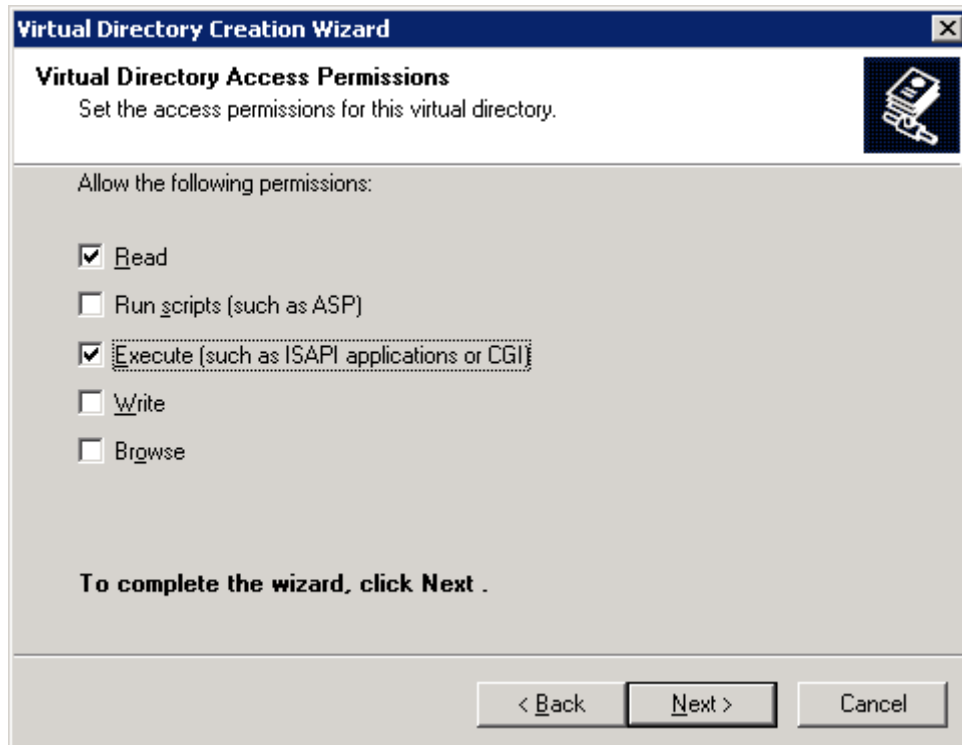
g. Specify "SystemwalkerSSO" as the virtual directory alias.



- h. Specify the directory containing the Systemwalker Single Sign-On Agent program in the **Web Site Content Directory** window. In the following example, "%F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMssso\ssoatzag\lib" is specified as the path.

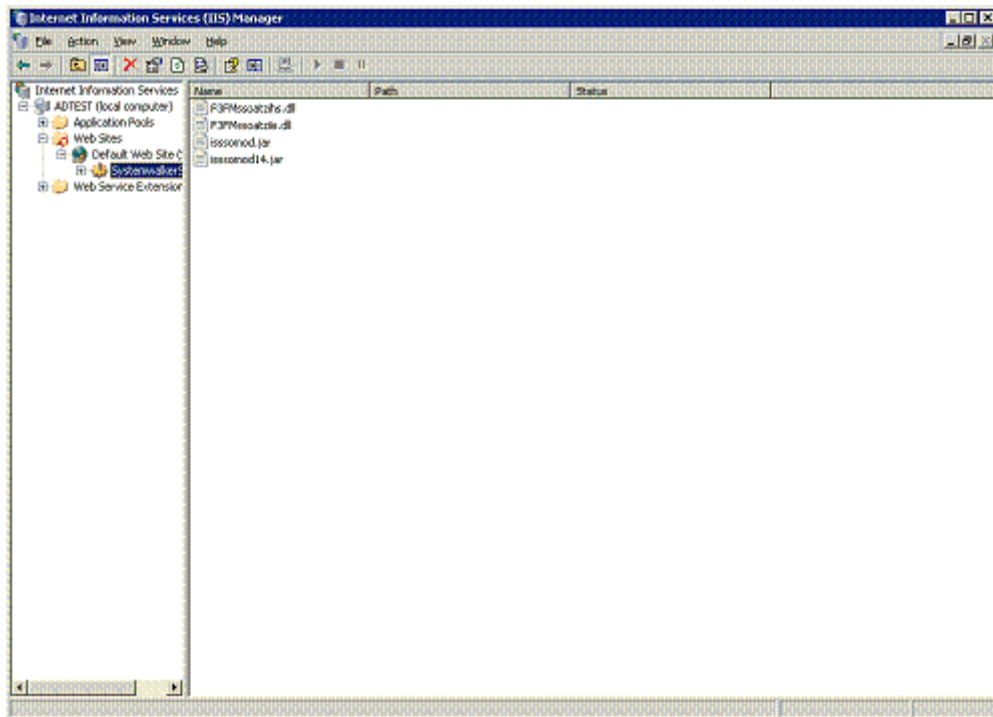


- i. Select **Read** and **Execute (such as ISAPI applications or CGI)** as the access permissions for the virtual directory.

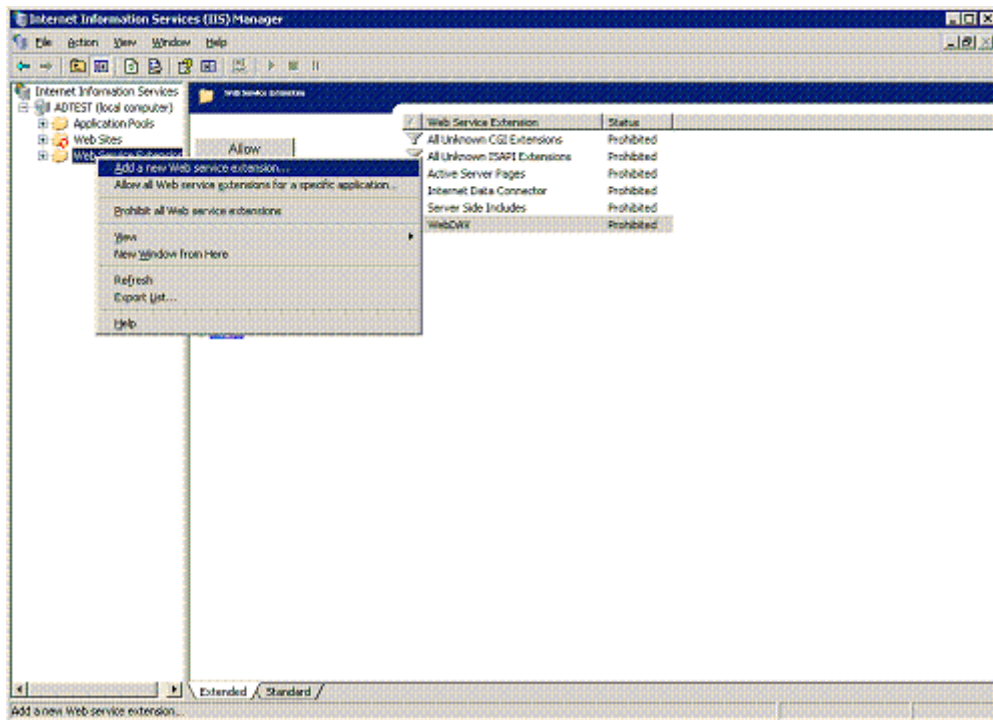




j. Click **Next** to close the **Virtual Directory Creation Wizard**.

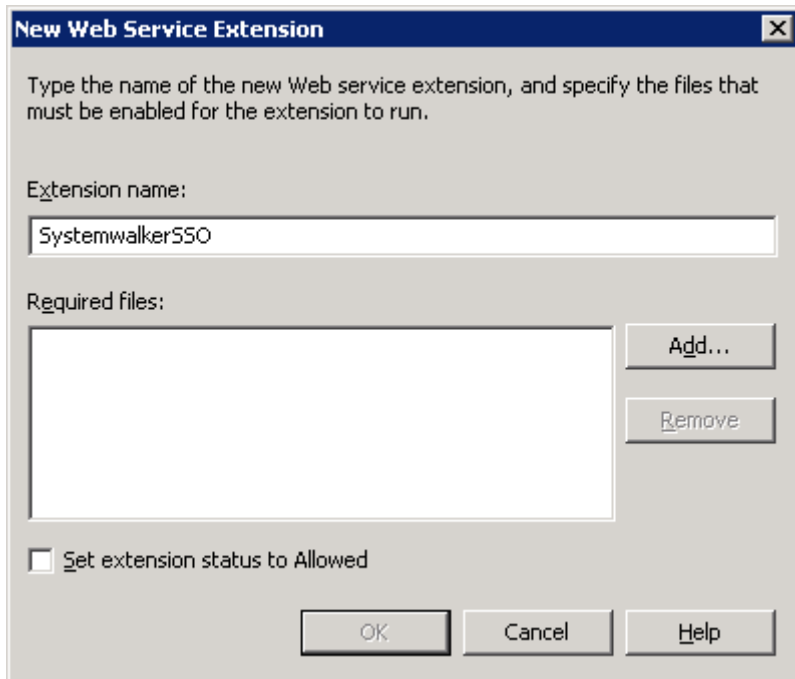


k. Add the Systemwalker Single Sign-On Agent file to the Web service extensions.  
Select **Web Service Extension** and then select **Add a new Web service extension** from the pop-up menu.



l. Specify the extension name.

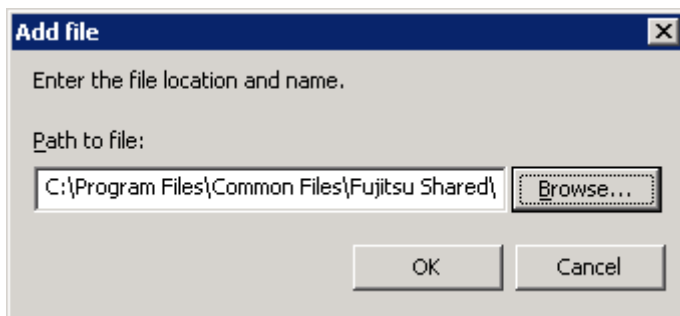
In the following example, "SystemwalkerSSO" is specified as the extension name.



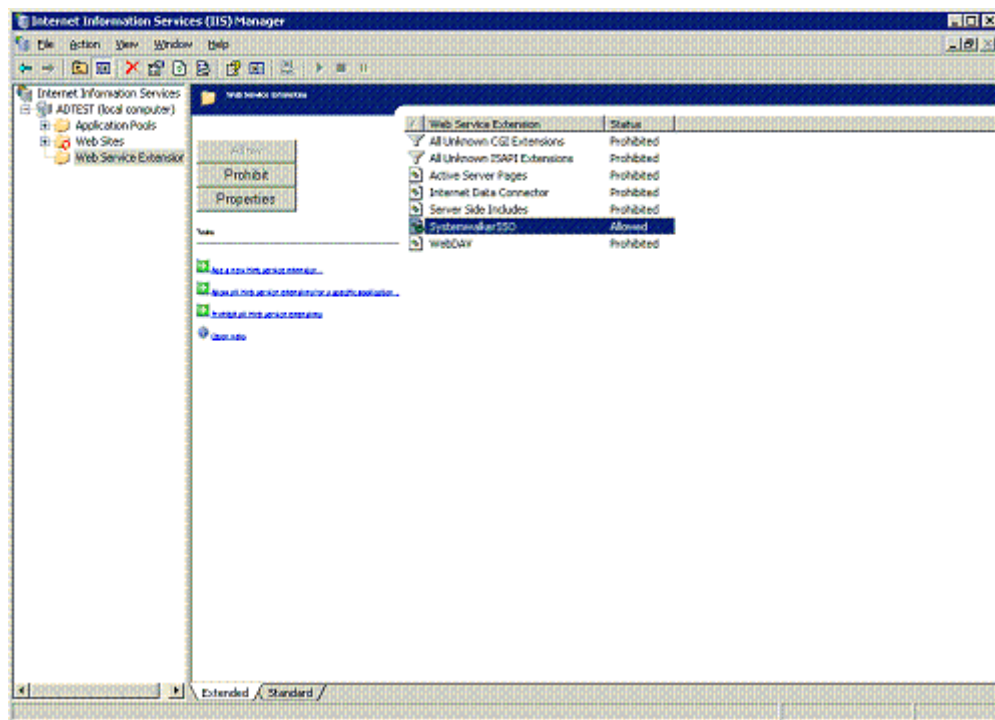
- m. Specify the absolute path to the Systemwalker Single Sign-On Agent program in the **Add file** window that is displayed by clicking the **Add** button.

In the following example, "%F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMso\ssoatzag\lib\F3FMsoatzis.dll" is specified as the path.

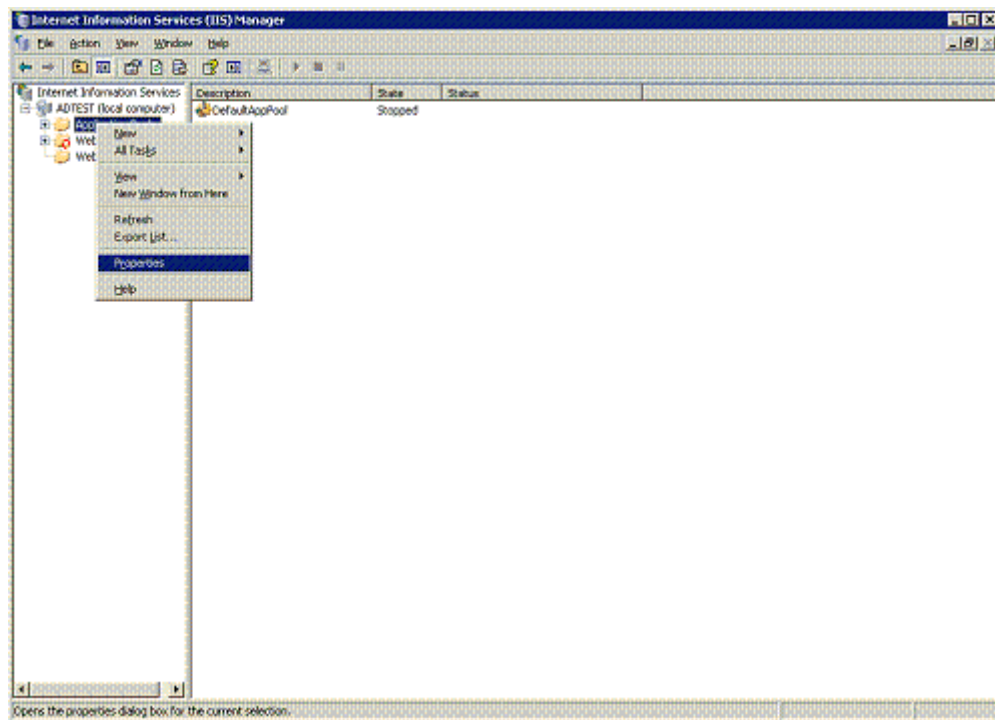
Click the **OK** button after specifying these settings.



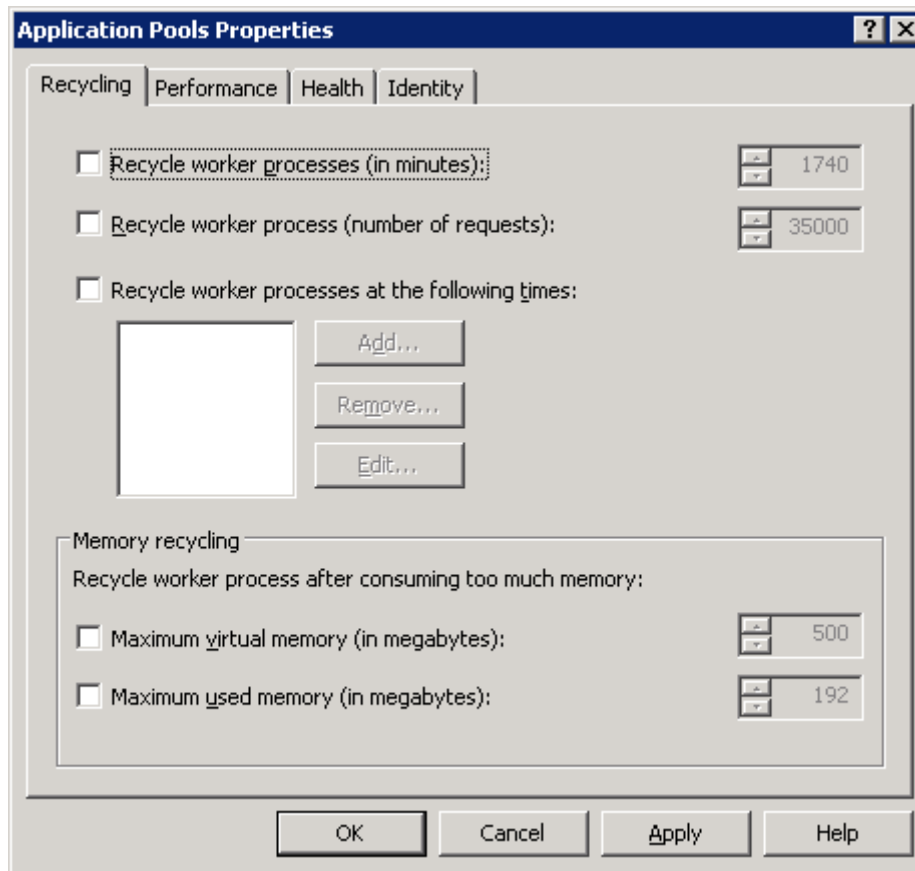
- n. Select the **Set extension status to Allowed** check box.



- o. Select **Application Pools**.



- p. Open the Properties sheet by selecting **Properties** from the pop-up menu. Select the **Recycling** tab, and then deselect all of the check boxes.



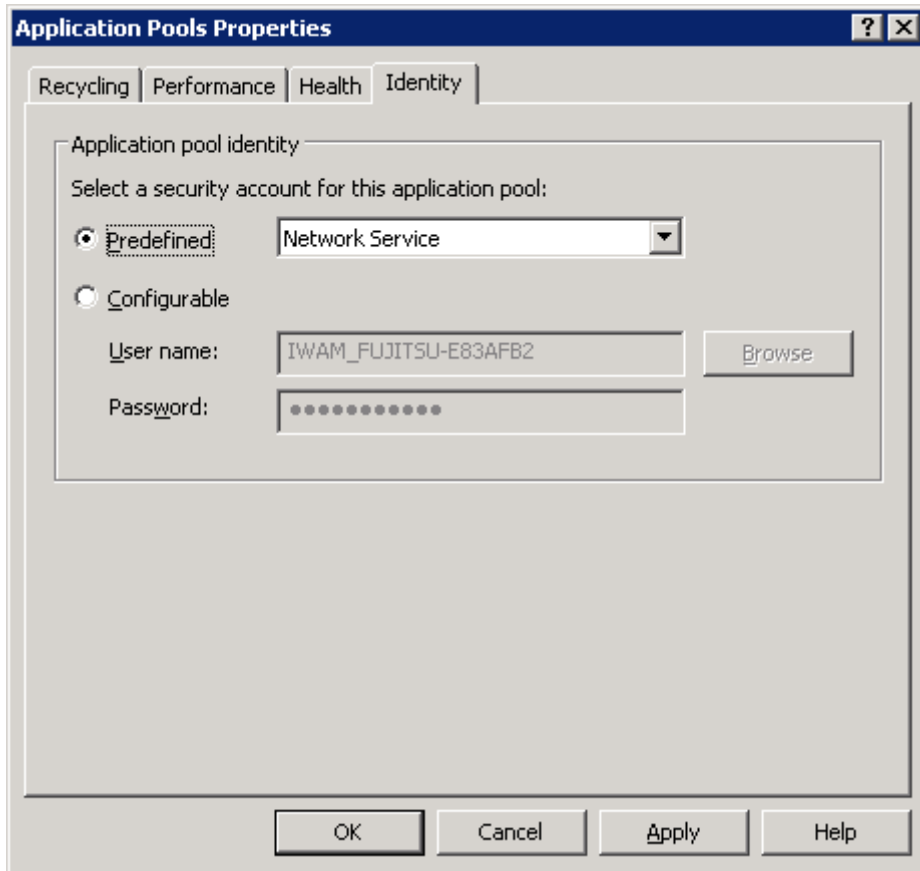
- q. Click the **Performance** tab in the **Application Pools Properties** window, and set the value of the **Maximum number of worker processes** field in the **Web garden** frame to "1".

The screenshot shows the 'Application Pools Properties' dialog box with the 'Performance' tab selected. The dialog has four tabs: 'Recycling', 'Performance', 'Health', and 'Identity'. The 'Performance' tab contains several settings:

- Idle timeout:** A checked checkbox for 'Shutdown worker processes after being idle for (time in minutes):' with a spinner box set to 20.
- Request queue limit:** A checked checkbox for 'Limit the kernel request queue (number of requests):' with a spinner box set to 1000.
- Enable CPU monitoring:** An unchecked checkbox. Below it are three settings:
  - 'Maximum CPU use (percentage):' with a spinner box set to 100.
  - 'Refresh CPU usage numbers (in minutes):' with a spinner box set to 5.
  - 'Action performed when CPU usage exceeds maximum CPU use:' with a dropdown menu set to 'No action'.
- Web garden:** A section containing 'Maximum number of worker processes:' with a spinner box set to 1.

At the bottom of the dialog are four buttons: 'OK', 'Cancel', 'Apply', and 'Help'.

- r. Select the **Identity** tab, and then specify either "Network Service" or "Local System" for the **Application pool identity**. In the following example, "Network Service" is selected. Click the **OK** button after specifying these settings.



- s. Specify access permissions so that the selected security account has full control for the following folder.

```
%F4AM_INSATLL_PATH\F4AMidmg\client\conf
\SSENV
```

- t. If an x86 version of a Systemwalker product has been installed on the following operating systems, execute the cscript command to import the 32-bit ISAPI filter.

[Operating systems]

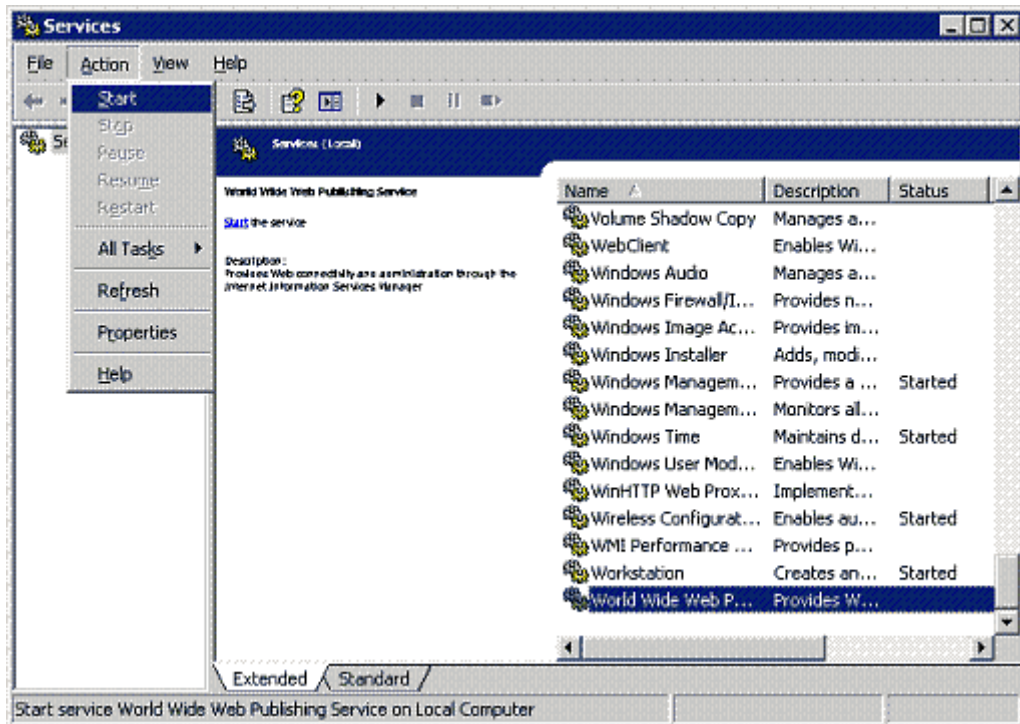
- Windows Server 2003 STD x64 Edition
- Windows Server 2003 DTC x64 Edition
- Windows Server 2003 EE x64 Edition

[Command to execute]

```
cscript %SystemDrive%\inetpub\AdminScripts\adsutil.vbs set w3svc/AppPools/
Enable32bitAppOnWin64 1
```

- u. Start World Wide Web Publishing Services when the above tasks have been completed.

From the **Start** menu, select **Programs >> Administrative Tools >> Services**. Select **World Wide Web Publishing Service**, and then select **Start** from the **Action** menu.

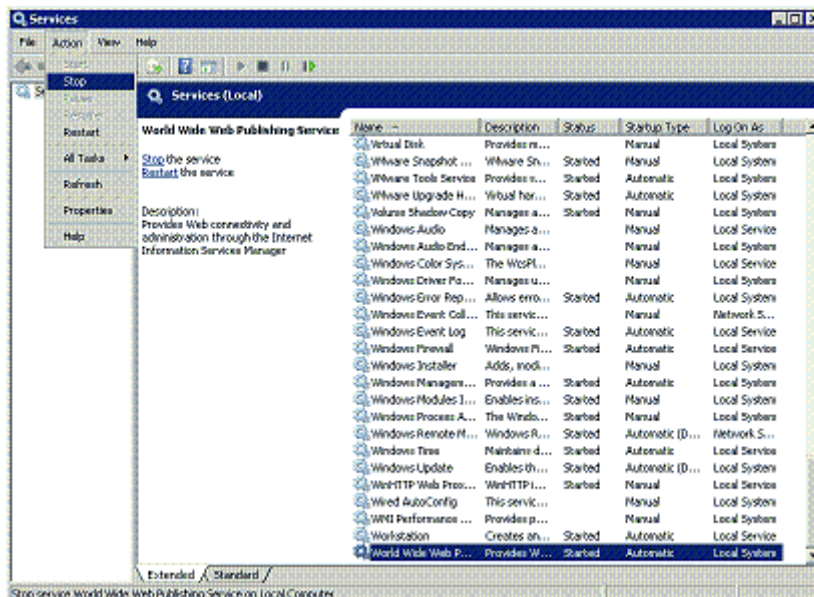


When Microsoft(R) Internet Information Services 7.0 is used

Use the following procedure to include the Systemwalker Single Sign-On Agent.

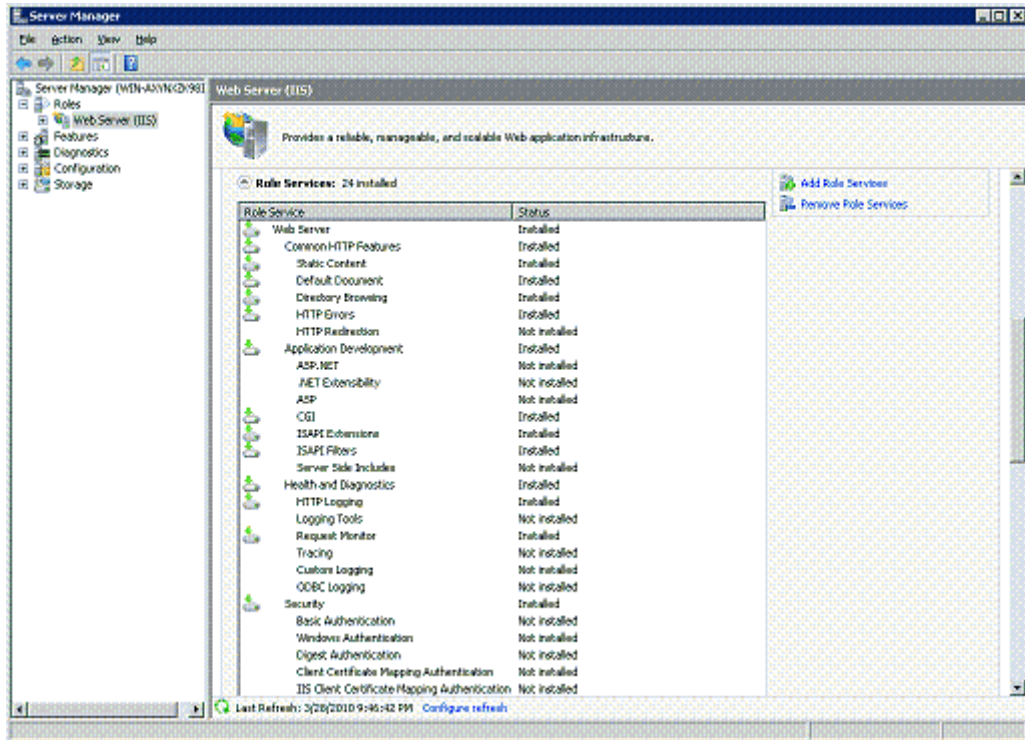
- a. Open the **Services** dialog box by selecting **Programs, Administrative Tools** and then **Services** from the **Start** menu, and check whether the **World Wide Web Publishing Service** is running.

If **World Wide Web Publishing Service** is already running, select the World Wide Web Publishing Service, and then select **Stop** from the **Action** menu.

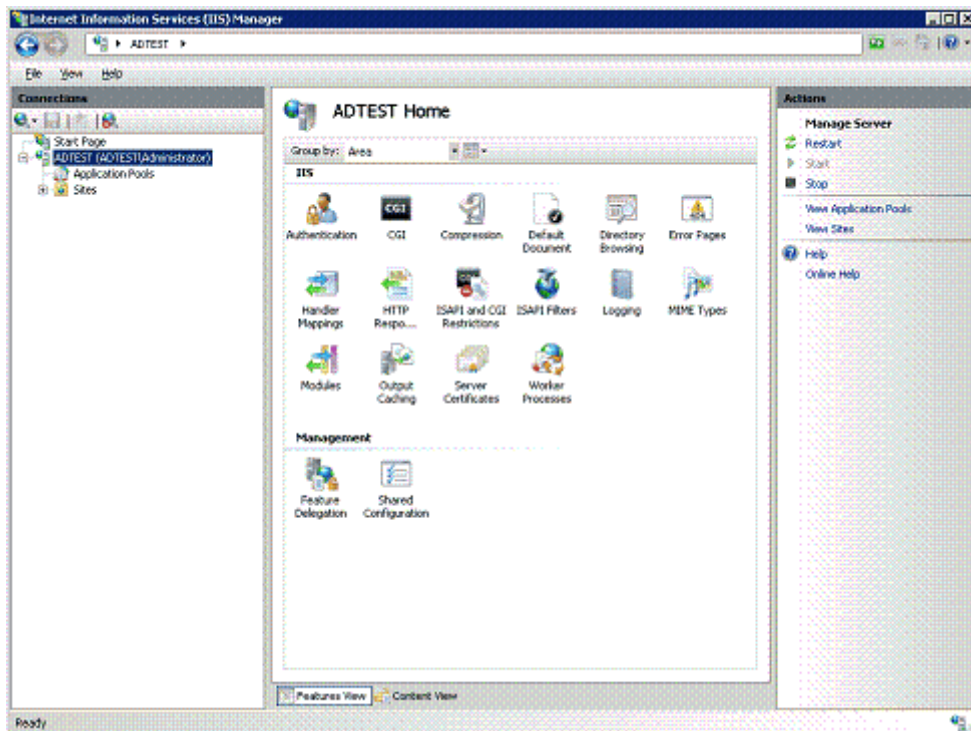


- b. Start the **Server Manager** window by selecting **Programs >> Administrative Tools >> Server Manager** from the **Start** menu, and then select **Roles >> Web Server (IIS)**. Check whether the following role services have been installed on the Web server, and install them if they have not been installed yet.

- ISAPI Extensions
- ISAPI Filters

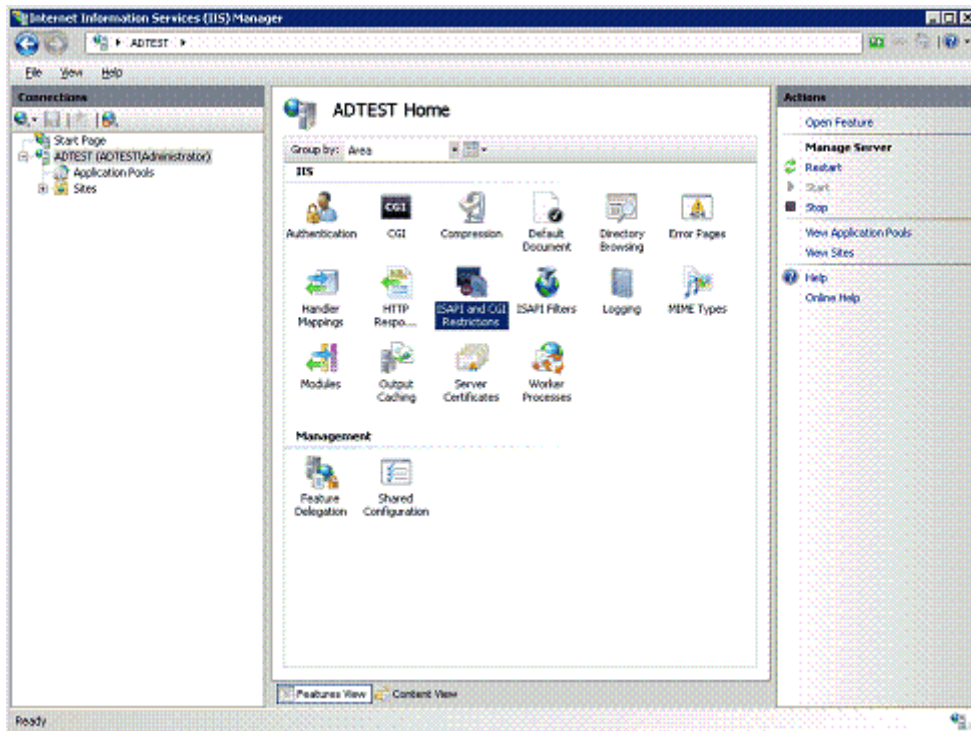


c. Select **Administrative Tools** and then **Internet Information Service (IIS) Manager** from the **Start** menu.

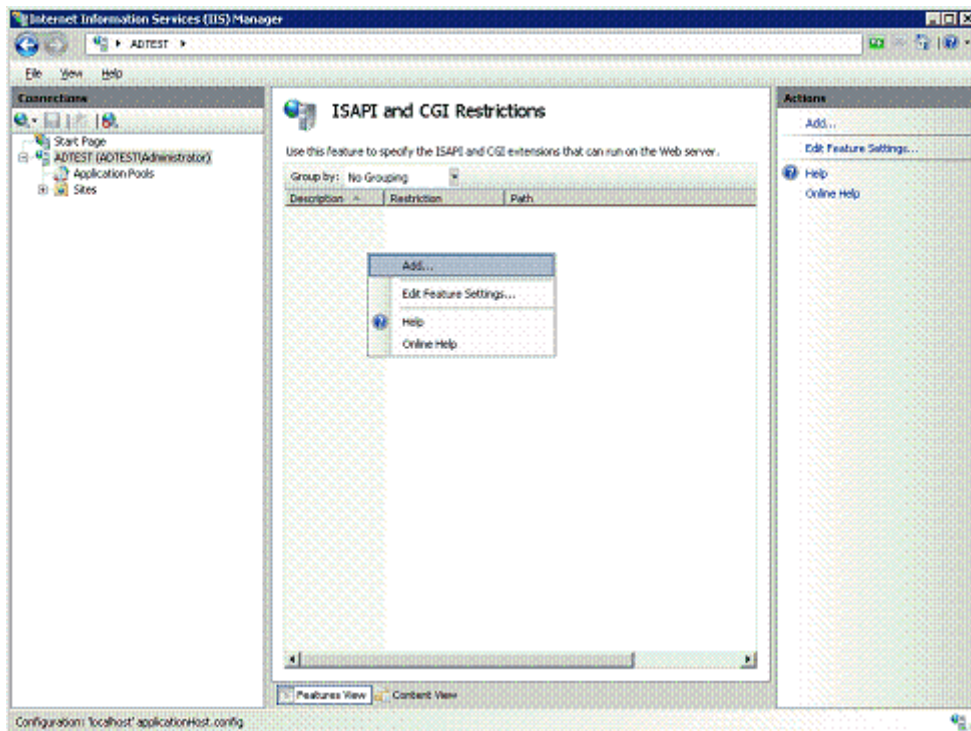




- d. Select the host name and then double-click on **ISAPI and CGI Restrictions** in the **Features View**.



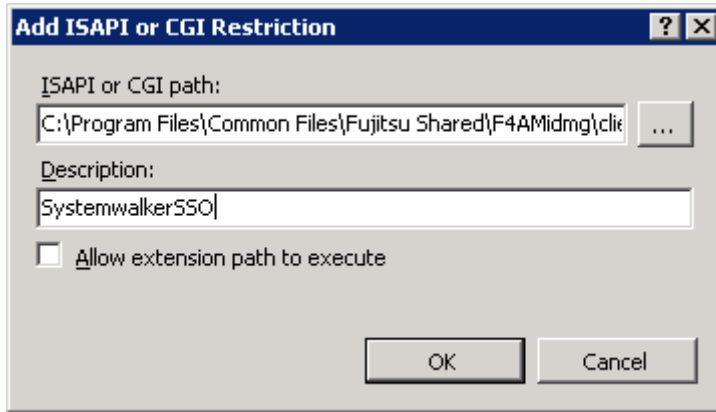
- e. Add a restriction to the list of **ISAPI and CGI Restrictions**. Right-click on the list in the **ISAPI and CGI Restrictions** window and then select **Add** from the pop-up menu.



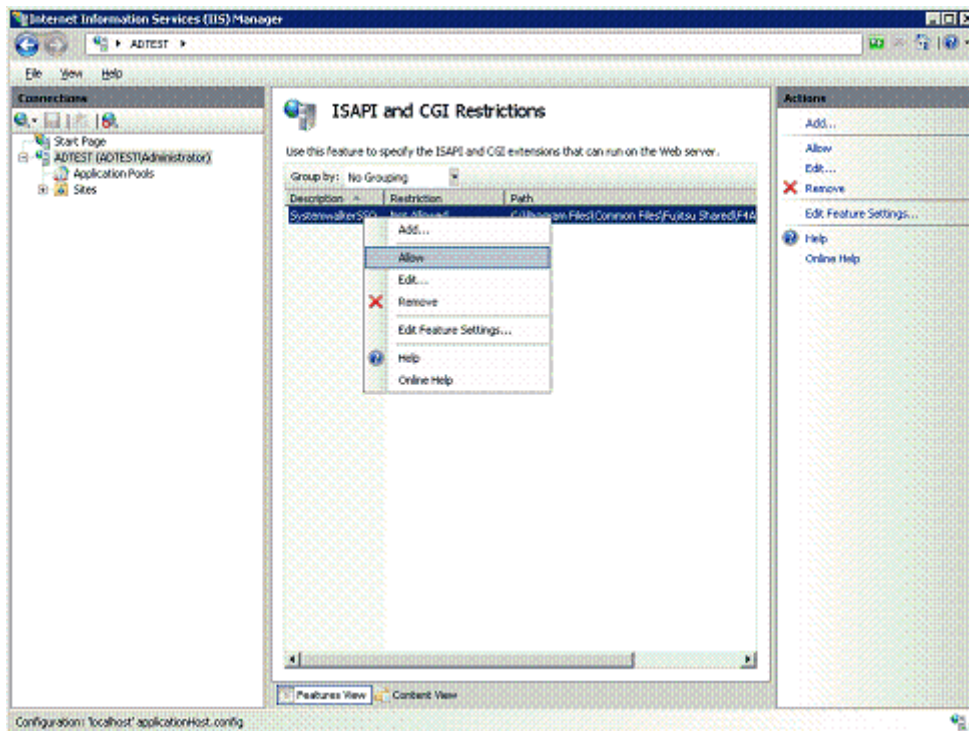
- f. Specify the absolute path to the Systemwalker Single Sign-On Agent program in the **ISAPI or CGI path** field, and enter a description in the **Description** field.

Click the **OK** button after specifying these settings.

In the following example, "%F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMss\soatzag\lib\F3FMsssoatziis.dll" is set in the **ISAPI or CGI path** field, and "SystemwalkerSSO" is set in the **Description** field.



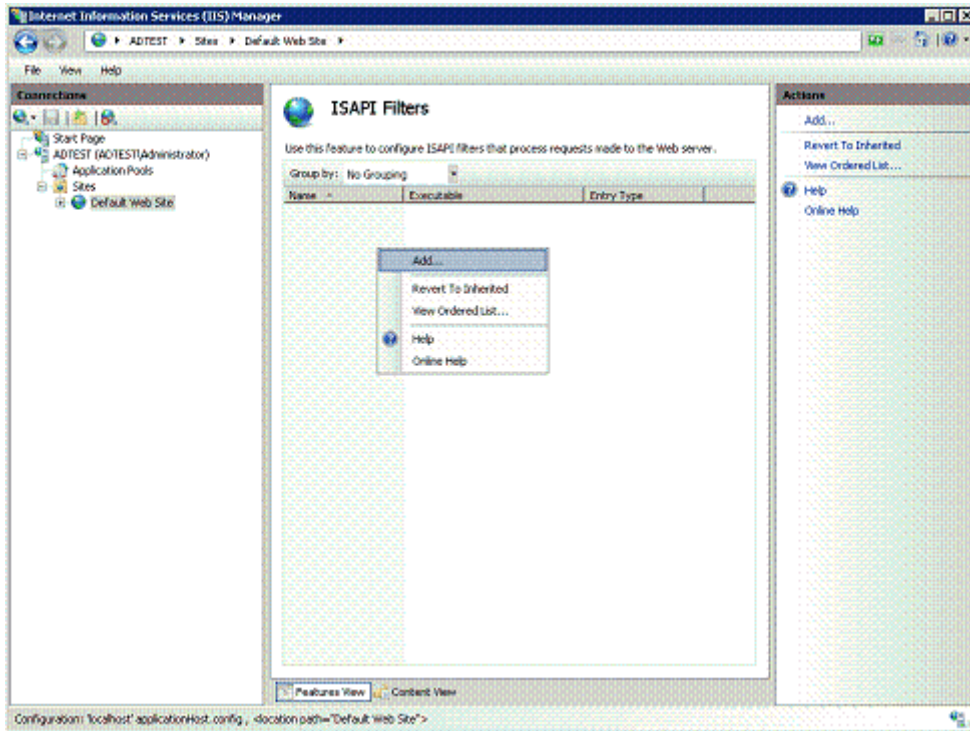
g. Change the settings to allow the added ISAPI, as shown below.



h. Select the site where the Systemwalker Single Sign-On Agent is to be included, and then double-click on **ISAPI Filters** in the **Features View**.

i. Add an ISAPI filter. Right-click on the list in the **ISAPI Filters** window and then select **Add** from the pop-up menu.

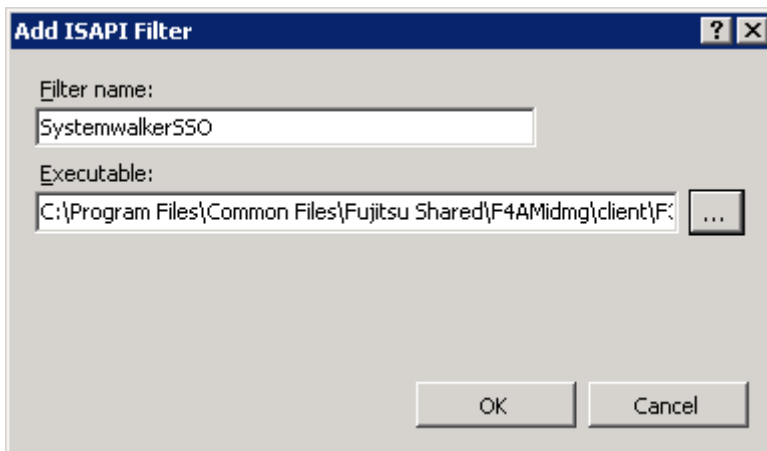
In the following example, the Systemwalker Single Sign-On Agent will be included in a site called "Default Web Site".



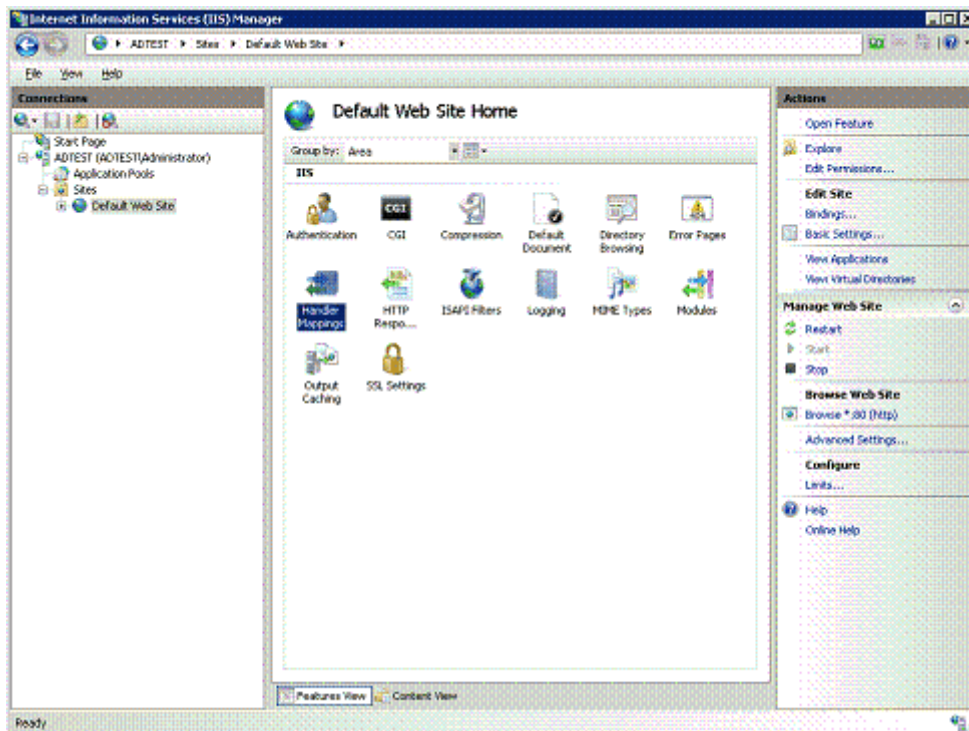
j. Specify the absolute path to the Systemwalker Single Sign-On Agent program in the **Add ISAPI Filter** window.

In the following example, "SystemwalkerSSO" is specified as the filter name, and "%F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMssossoatzag\lib\F3FMssozziis.dll" is specified as the executable file.

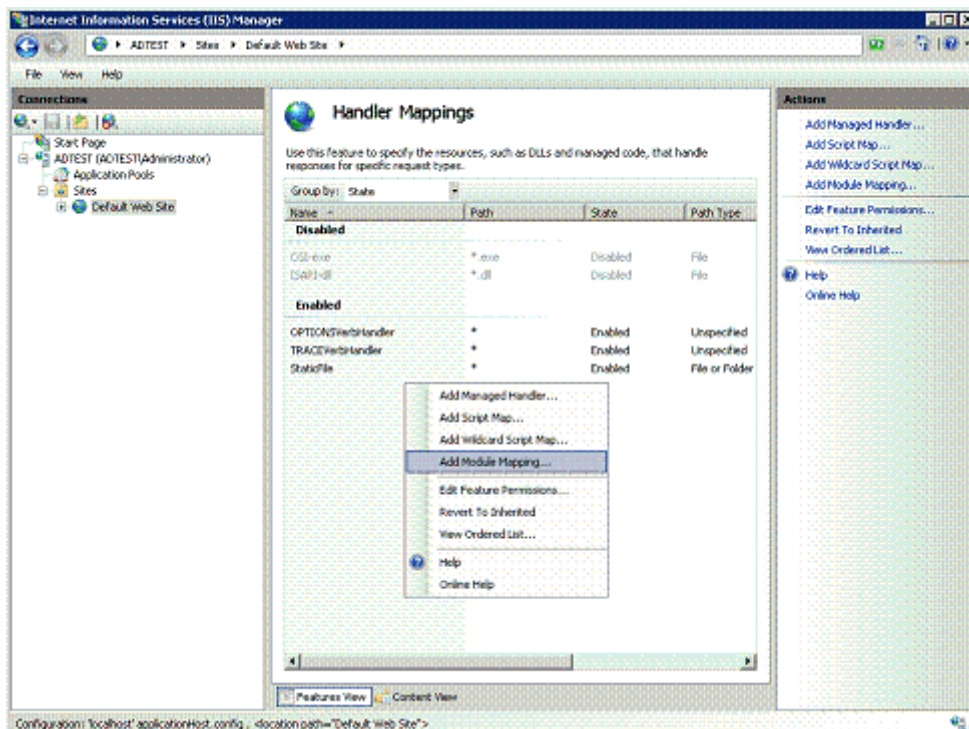
Click the **OK** button after specifying these settings.



- k. Select the site where the Systemwalker Single Sign-On Agent is to be included, and then double-click on **Handler Mappings** in the **Features View**.



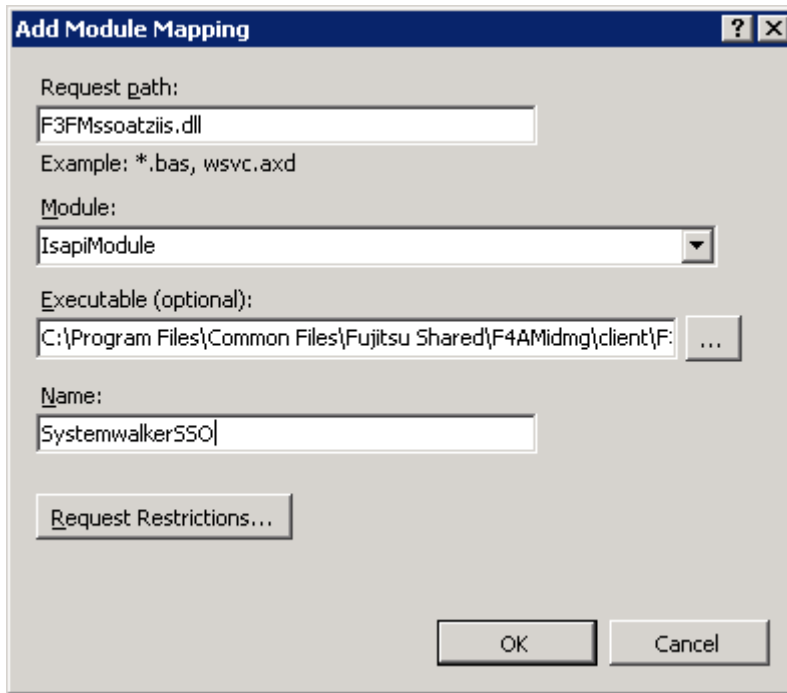
- l. Add a module mapping. Right-click on the list in the **Handler Mappings** window and then select **Add Module Mapping** from the pop-up menu.



- m. Specify "F3FMsssoatziis.dll" in the **Request path** field, "IsapiModule" in the **Module** field, and the absolute path to the Systemwalker Single Sign-On Agent program in the **Executable (optional)** field.

In the following example, "%F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMssso\sssoatzag\lib\F3FMsssoatziis.dll" is set in the **Executable** field, and "SystemwalkerSSO" is set in the **Name** field.

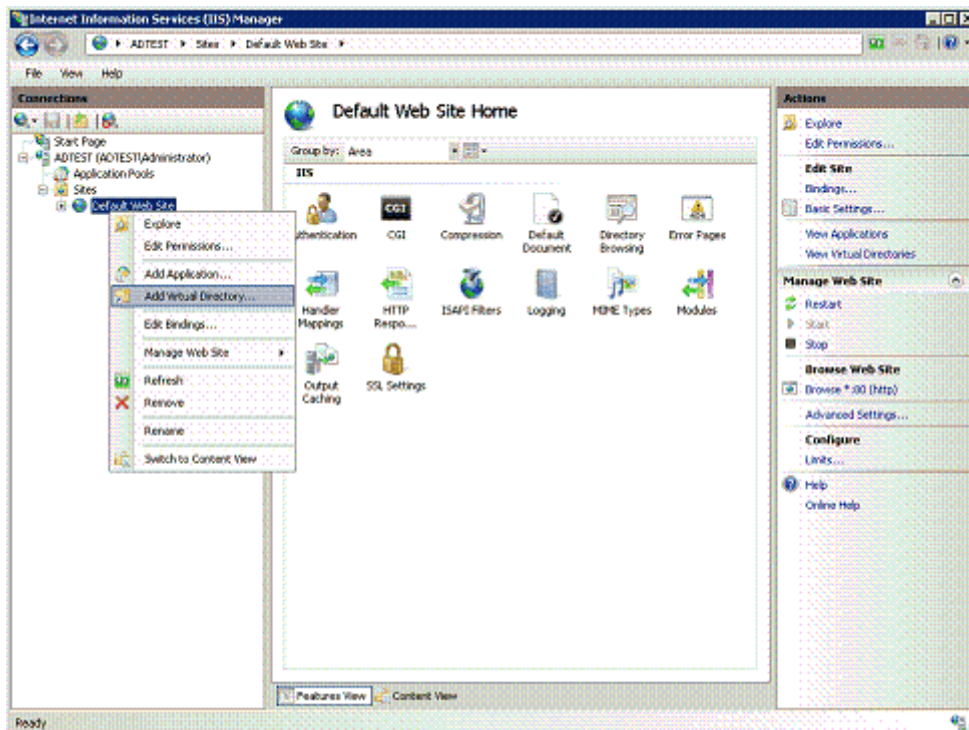
Click the **OK** button after specifying these settings.



- n. After the **OK** button is clicked, the **Add Module Mapping** dialog box is displayed.  
Select the **Yes** button.

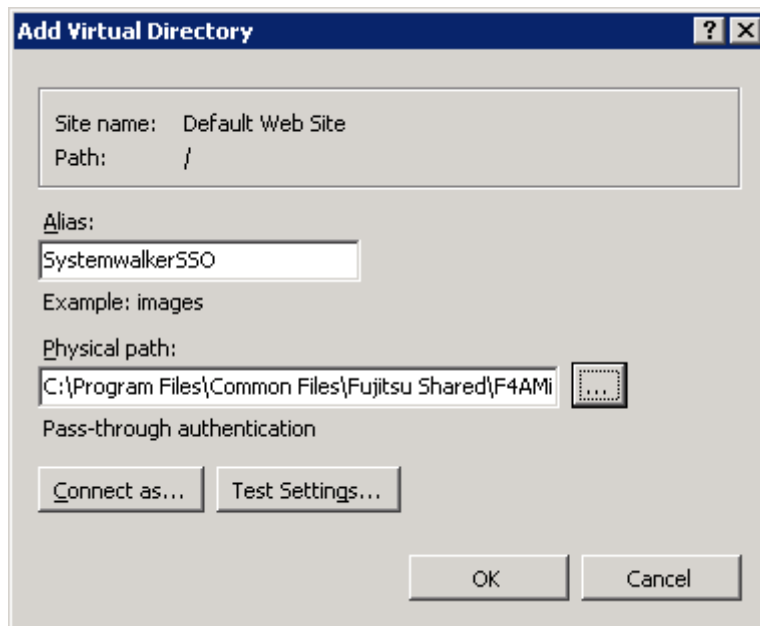
- o. Select the Web site where the Systemwalker Single Sign-On Agent is to be included.

Right-click on the **Default Web Site** folder in the **Connections** tree of the **Internet Information Services (IIS) Manager** window, and then select **Add Virtual Directory** from the pop-up menu.

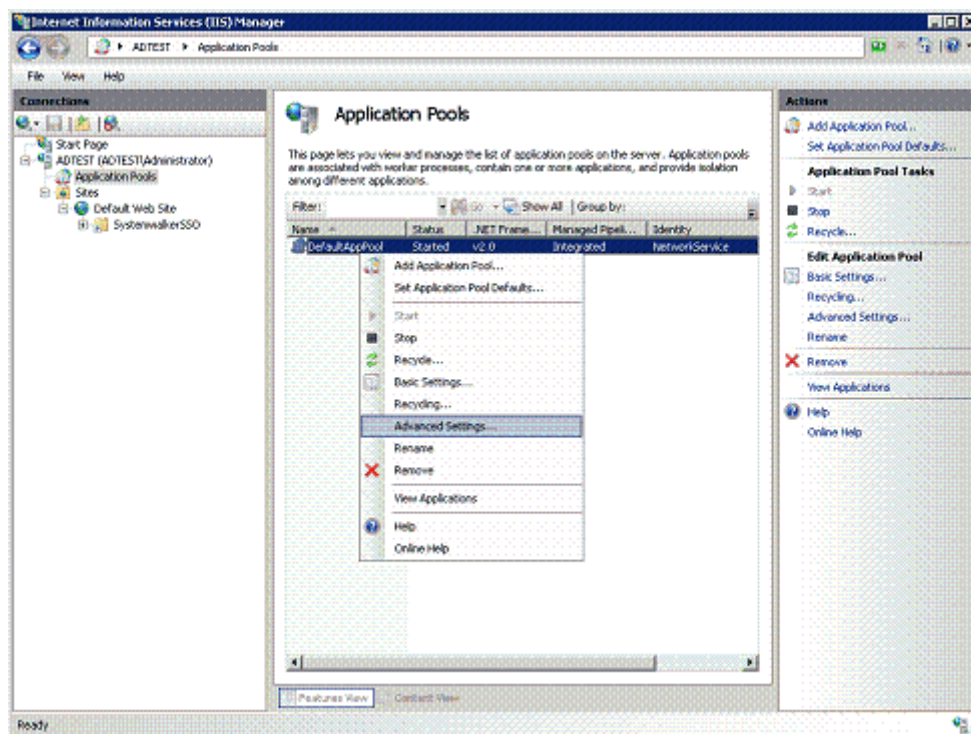


- p. Specify "SystemwalkerSSO" as the alias for the virtual directory in the **Alias** field, and specify the absolute path to the Systemwalker Single Sign-On Agent program in the **Physical path** field. In the following example,

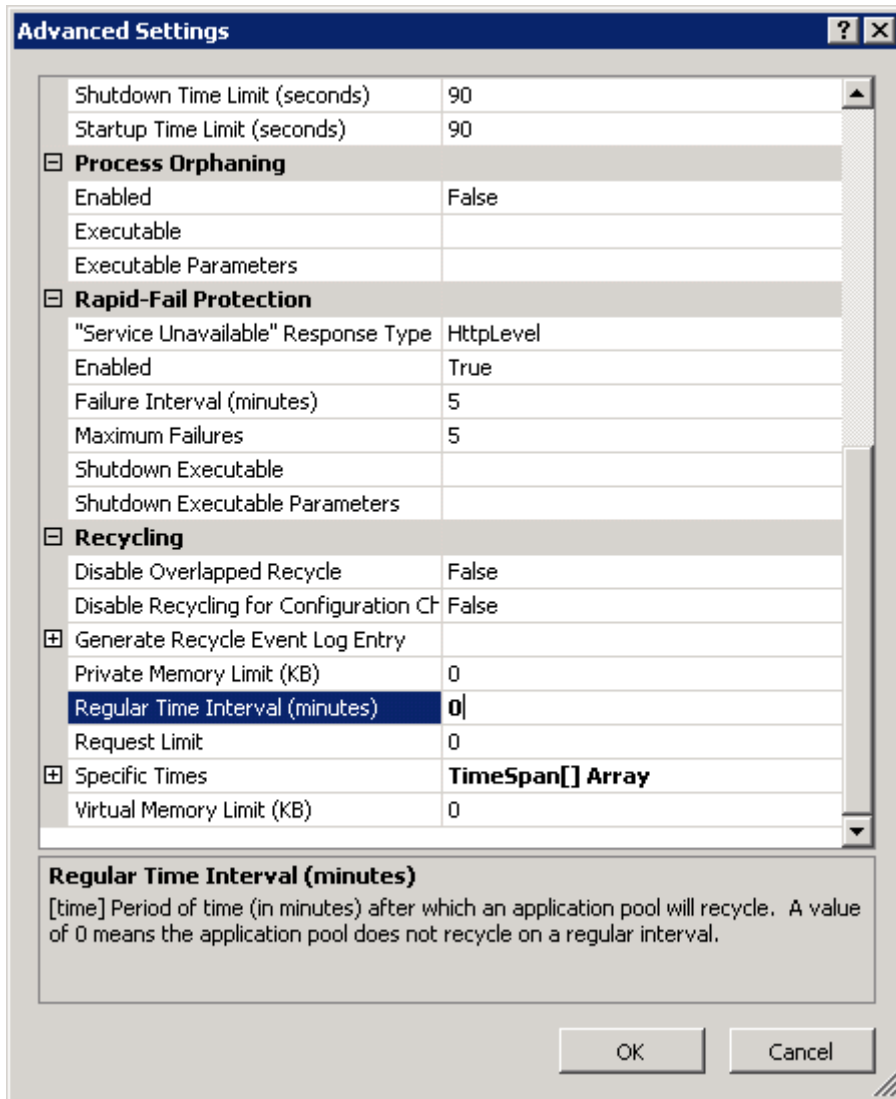
"%F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMssossoatag\lib" is specified as the physical path. Click the **OK** button after specifying these settings.



- q. Select **Application Pools** in the **Connections** tree and then right-click on the application pool to be used and select **Advanced Settings** from the pop-up menu.



- r. In the **Advanced Settings** window, set **Idle Time-out** under **Process Model** to "0", **Maximum Worker Processes** under **Process Model** to "1", **Identity** to "NetworkService" or "LocalSystem", and **Regular Time Interval (minutes)** under **Recycling** to "0", then click the **OK** button.



- s. Use the security account selected using **Identity** under **Process Model** to set up access permissions so that the following folder can be accessed using full control.

```
%F4AM_INSATLL_PATH\F4AMidmg\client\conf\SSENV
```

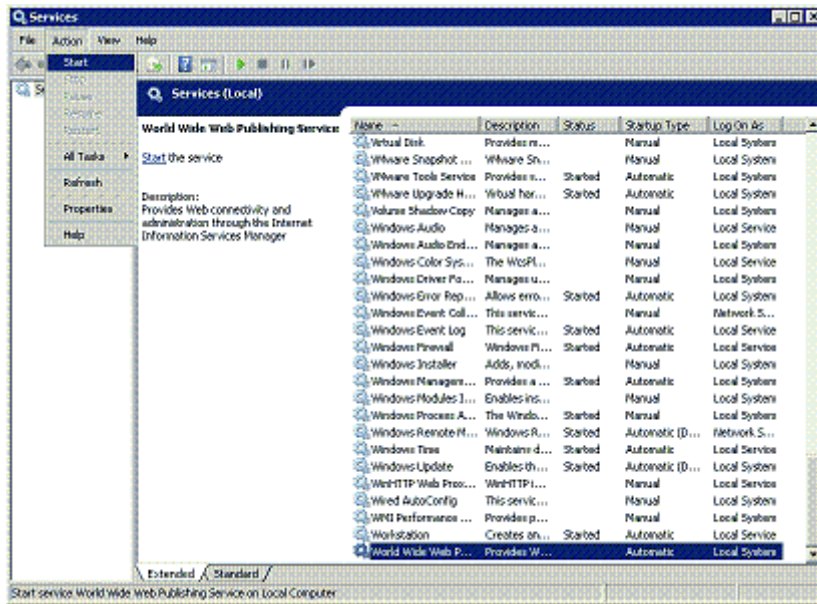
- t. If an x86 version of a Systemwalker product has been installed on the following operating systems, set **Enable 32-Bit Applications** under **General** to "True".

[Operating systems]

- Windows Server 2008 Server Core x64 Edition
- Windows Server 2008 STD x64 Edition
- Windows Server 2008 DTC x64 Edition
- Windows Server 2008 EE x64 Edition
- Windows Server 2008 Foundation
- Windows Server 2008 R2 x64 Edition

- u. Start Microsoft(R) Internet Information Services after the above tasks have been completed.

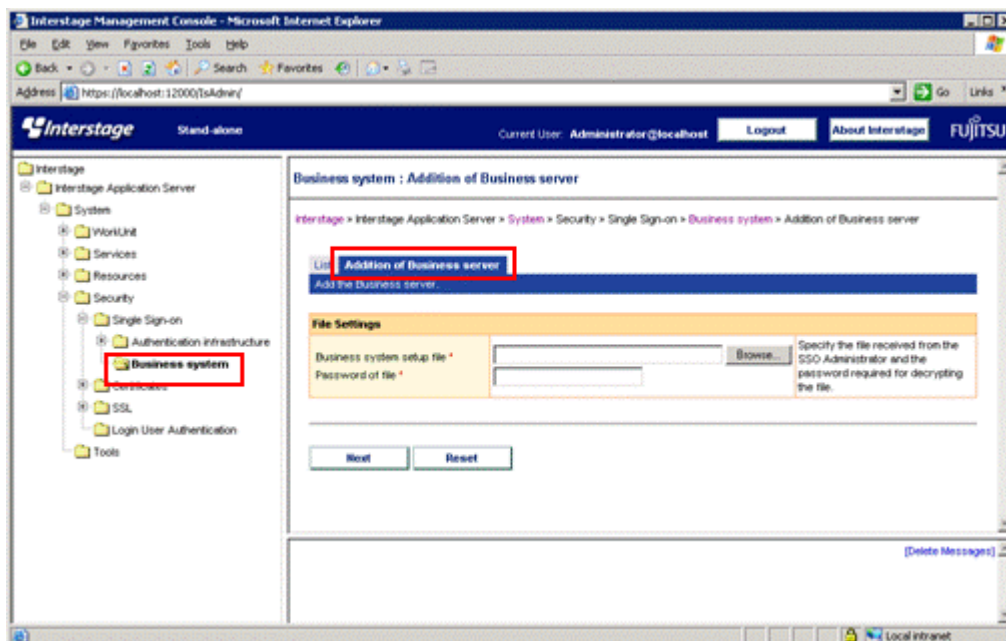
From the **Start** menu, select **Programs >> Administrative Tools >> Services**. Select **World Wide Web Publishing Service**, and then select **Start** from the **Action** menu.



If the Systemwalker product is located on the same server

Use the following procedure to set up the Systemwalker Single Sign-On Agent.

1. Start the Interstage Management Console.  
Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.
2. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system**, and then click the **Addition of Business server** tab.



3. Specify each item as below, and then click the **Next** button.

#### File Settings



- **Business system setup file**

Specify the business system setup file that was downloaded and copied when the environment for the authentication server was created.

- **Password of file**

Specify the password that was specified when the business system setup file was downloaded.

4. Specify each item as below, and then click the **Add** button.

**General Settings**

- **Business system Name**

Specify an arbitrary name for the business system. Be sure to specify this item.

The name of the business system can be specified using between 1 and 32 bytes of the following characters:

- Alphanumeric characters
- Symbols (- \_ ( ) [ ])

The default value is "Business $nnn$ " (where  $nnn$  is a number).

- **Web Server used**

Select **Others (Excluding Interstage HTTP Server)**, and then specify the port number used by the Microsoft(R) Internet Information Service.

- **When updating Access Control Information?**

Select **Execute when Business server is started**.

5. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system >> <Business system name>**, and then click the **Settings** tab.

<Business system name> is the business system name that was specified in step 4.

6. Click the **Show** link for **Detailed Settings**.

7. Select **Yes** for **Notify User Information?** and then click the **Update** button.

8. Include the business server by referring to either "**When Microsoft(R) Internet Information Services 6.0 is used**" or "**When Microsoft(R) Internet Information Services 7.0 is used**".

Here, replace the "%F4AM\_INSTALL\_PATH%\F4AMidmg\client" part of the path to the files and directories specified in each step with the Interstage installation directory.

However, do not make this replacement for the following folder:

%F4AM\_INSATLL\_PATH%\F4AMidmg\client\conf\SSENV

## When Apache 2.0.x is used



### Note

To use Apache 2.0.x, download the source program published by Apache Software Foundation, and use an Apache Web server that has been built by specifying the following "configure" option.

The expat-devel package may be required when executing the make command. Install the package as needed.

```
#!/configure --prefix=<Installation directory>
# make
# make install
```

The setup procedure varies depending on whether the Systemwalker product is located on the same server as the Systemwalker Single Sign-On Server or Interstage Application Server.

- If the Systemwalker product is not located on the same server
- If the Systemwalker product is located on the same server

If the Systemwalker product is not located on the same server

Use the following procedure to set up the Systemwalker Single Sign-On Agent.

1. Specify environment settings using the following command on the servers where the Web consoles for the Systemwalker products are installed.

Specify the business system setup file that was downloaded and copied when the environment for the authentication server for the Systemwalker Single Sign-On Server was created.

```
swidmg_set_ssoagent SET -f <business system setup file> -p <password> [-f <business system setup file> -p <password>...]
```

[Command location]

OS	Installation directory
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

Refer to the "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" for details on the swidmg\_set\_ssoagent command.

2. Add the following entry to "httpd.conf".

[Windows]

```
LoadModule ssoatzihs_module "%F4AM_INSTALL_PATH%\F4AMidmg\client\F3FMssso\sssoatzag\lib\F3FMsssoatzihs.dll"
ISSsoBusinessSystemName <system name>
```

[UNIX]

```
LoadModule ssoatzihs_module "/opt/FJSVsssoaz/lib/ssoatzihs.so"
ISSsoBusinessSystemName <system name>
```

The "system name" is displayed in the execution results for the swidmg\_set\_ssoagent command, which was executed in step 1. Check the protected paths for the products that use Apache, and also check the system names.

The protected paths for each Systemwalker product are as follows:

Product name	Protected path
Systemwalker Centric Manager	/Systemwalker/ /MpScript/

Example:

When Apache is used as the Web server for the Web console for Systemwalker Centric Manager and the execution result of the swidmg\_set\_ssoagent command is as follows:

```
////////////////////////////////////
The following systems were registered.
[Setting-1]
System Name: Systemwalker001
Protected paths: /Systemwalker/
```

[Windows]

Add the following entry to "httpd.conf".

```
LoadModule ssoatzihs_module "%F4AM_INSTALL_PATH%\F4AMidmg\client\F3FMsso\ssoatzag
\lib\F3FMsssoatzihs.dll"
ISSsoBusinessSystemName Systemwalker001
```

[UNIX]

Add the following entry to "httpd.conf".

```
LoadModule ssoatzihs_module "/opt/FJSVsssoaz/lib/ssoatzihs.so"
ISSsoBusinessSystemName Systemwalker001
```

3. Restart the Web server.

If the Systemwalker product is located on the same server



#### For Linux server

If the Systemwalker product is located on the same server as the Systemwalker Single Sign-On Server or Interstage Application Server, set up the Systemwalker Single Sign-On Agent by referencing "[If the Systemwalker product is not located on the same server](#)" after execute the following procedure:

1. Log in as superuser.
2. Copy the swidmg\_set\_ssoagent command (Systemwalker Single Sign-On Agent setup command) using the following command:

```
cp /opt/FJSVswaic/client/setup/pkg/swidmg_set_ssoagent /opt/FJSVswaic/client/
```

3. Set up execution permissions for the swidmg\_set\_ssoagent command (Systemwalker Single Sign-On Agent setup command) using the following command:

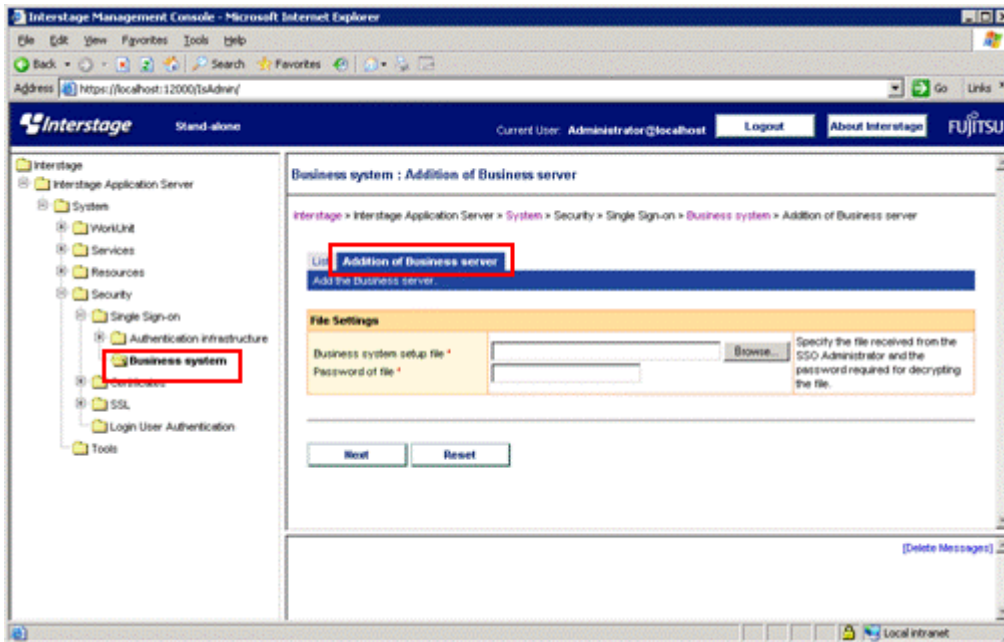
```
chmod u+x /opt/FJSVswaic/client/swidmg_set_ssoagent
```

Use the following procedure to set up the Systemwalker Single Sign-On Agent.

1. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

- In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system**, and then click the **Addition of Business server** tab.



- Specify each item as below, and then click the **Next** button.

#### File Settings

- **Business system setup file**

Specify the business system setup file that was downloaded and copied when the environment for the authentication server was created.

- **Password of file**

Specify the password that was specified when the business system setup file was downloaded.

- Specify each item as below, and then click the **Add** button.

#### General Settings

- **Business system Name**

Specify an arbitrary name for the business system. Be sure to specify this item.

The name of the business system can be specified using between 1 and 32 bytes of the following characters:

- Alphanumeric characters
- Symbols ( - \_ ( ) [ ] )

The default value is "Business $nnn$ " (where  $nnn$  is a number).

- **Web Server used**

Select **Others (Excluding Interstage HTTP Server)**, and then specify the port number used by the Web server for the Systemwalker products.

- **When updating Access Control Information?**

Select **Execute when Business server is started**.

- In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system >> <Business system name>**, and then click the **Settings** tab.

<Business system name> is the business system name that was specified in step 4.

- Click the **Show** link for **Detailed Settings**.

7. Select **Yes** for **Notify User Information?** and then click the **Update** button.

8. Add the following entry to "httpd.conf".

For "*system name*", specify the business system name that was specified in step 4.

[Windows]

```
LoadModule ssoatzihs_module "Interstage<Interstage installation directory>\F3FM\so\soatzag\lib
\F3FM\ssoatzihs.dll"
ISSsoBusinessSystemName <system name>
```

[UNIX]

```
LoadModule ssoatzihs_module "/opt/FJSV\ssoaz/lib/ssoatzihs.so"
ISSsoBusinessSystemName <system name>
```

9. Restart the Web server.

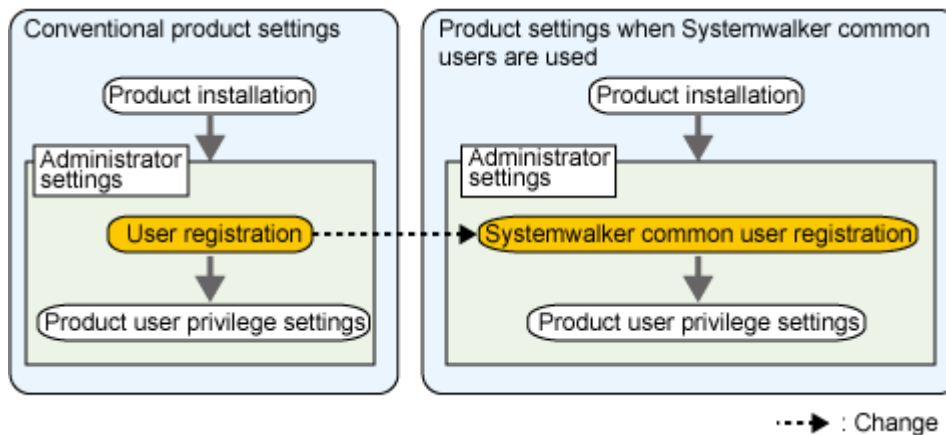
## 3.5 Registering Systemwalker Common Users

This section explains how to register Systemwalker common users for each Systemwalker product.

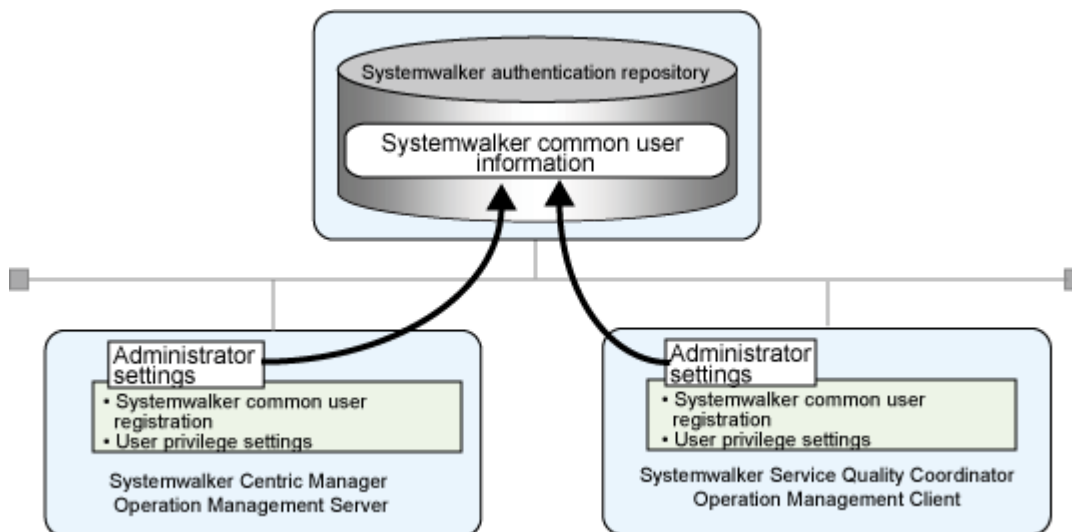
When setting up each product, the administrator registers the common users and specifies the user privileges for each product.

This section presents the overall flow of setting up Systemwalker products (contrasting the conventional flow with the flow that is used when Systemwalker common users are used) and a schematic diagram for specifying administrator settings using a Systemwalker authentication repository. It also explains how to register Systemwalker common users.

### Product setup flow



## Schematic diagram for administrator settings using a Systemwalker authentication repository



## How to register Systemwalker common users

Use either of the following methods to register Systemwalker common users for each product being used.

- [Registering new Systemwalker common users](#)
- [Upgrading Systemwalker products and migrating existing users](#)

### Registering new Systemwalker common users

Use the following procedure to register new Systemwalker common users.

1. Use the `swidmg_user_mng` command (the user management command) to register Systemwalker common users.

The following example shows how to execute the `swidmg_user_mng` command.

#### Example:

When the following user is registered

User ID: `swoperator`

Password: `password`

Products used: Systemwalker Centric Manager, Systemwalker Service Quality Coordinator

Organization name: `OU=system operations section, OU=system operations department, DC=fujitsu, DC=com`

```
swidmg_user_mng ADD -id swoperator -password password -product "CMGR,SQC" -ou "OU=system operations section,OU=system operations department,DC=fujitsu,DC=com"
```

Refer to "[swidmg\\_user\\_mng \(User Management Command\)](#)" for details on the `swidmg_user_mng` command.

2. Set up privileges and other items by referring to the manuals for each Systemwalker product.

### Upgrading Systemwalker products and migrating existing users

Use the following procedure to register Systemwalker common users.

1. Back up the operating system users that are used by each Systemwalker product.

2. Create groups that each Systemwalker common user belongs to.

- When the Interstage Directory Service is used as the Systemwalker authentication repository

Create groups using the Entry Management Tool on the server where a Systemwalker Single Sign-On Server or Interstage Application Server is installed.

When the groups are being created, there will be a prompt asking for the "member" required attribute to be entered, so enter the DNs for the users to be migrated.

**Example:**

When the user name is CMGRUser001

```
CN=CMGRUser001,OU=system operations section,OU=system operations
department,DC=fujitsu,DC=com
```

To add multiple users, enter "member" attributes by clicking the **Add attribute** button.

Refer to the *Interstage Directory Service Operator's Guide* and Help for the Entry Management Tool for details.

- When Active Directory is used as the Systemwalker authentication repository

Refer to the relevant Microsoft documentation for details on how to add groups.

3. Write user information to a user registration information file (a CSV file).

Example:

When the following Systemwalker products use the following users

- Systemwalker Centric Manager: CMGRUser001
- Systemwalker Service Quality Coordinator: SQCUser001
- The user that uses all of these products: SWUser

[User registration information file]

```
"CMGRUser001","password","OU=system operations section,OU=system operations
department,DC=fujitsu,DC=com","SWGROUPE","CMGR"
"SQCUser001","password","OU=system operations section,OU=system operations
department,DC=fujitsu,DC=com","SWGROUPE","SQC"
"SWUser","password","OU=system operations section,OU=system operations
department,DC=fujitsu,DC=com","SWGROUPE","CMGR,SQC"
```

In this example, each user belongs to the group "SWGROUPE".

Refer to "[User Registration Information File](#)" for details on user registration information files.

 **Point**

.....  
The password is an initial password that is registered by the administrator. Inform Systemwalker users that user registration has occurred, and prompt them to change the initial password.  
.....

4. Use the swidmg\_user\_mng command (the user management command) to register Systemwalker common users.

 **Point**

.....  
The execution results of the user management command are output to the standard output. If a CSV file is used to add numerous users, use the redirect function to output the execution results to a file.  
.....

Example:

When the user registration information file has been saved as "C:\tmp\user.csv"

```
swidmg_user_mng ADD -f C:\tmp\user.csv
```

Refer to "[swidmg\\_user\\_mng \(User Management Command\)](#)" for details on the swidmg\_user\_mng command.

5. Set up privileges and other items by referring to the manuals for each Systemwalker product.

## 3.6 Setting up the Web Browser

---

Specify the following Web browser settings.

- Allow cookies to be received.
- Enable Javascript.
- To use a proxy server, specify settings so that both the Systemwalker Single Sign-On Server and the Systemwalker Web server are accessed via the proxy server.
- Enable the use of SSL 3.0 and TLS 1.0.

## 3.7 Installation Procedure for Cluster Environments

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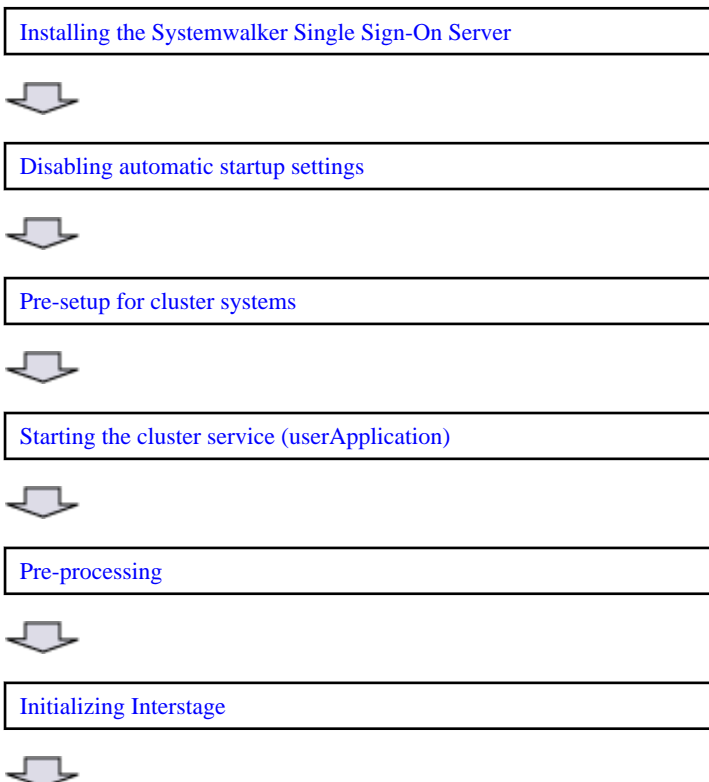
This section explains the procedure for creating an environment for the Systemwalker Single Sign-On Server in cluster configurations. Both the Systemwalker Single Sign-On Server and the Systemwalker Single Sign-On Agent support only 1:1 active/standby configurations.

### 3.7.1 Creating an Environment for the Systemwalker Single Sign-On Server

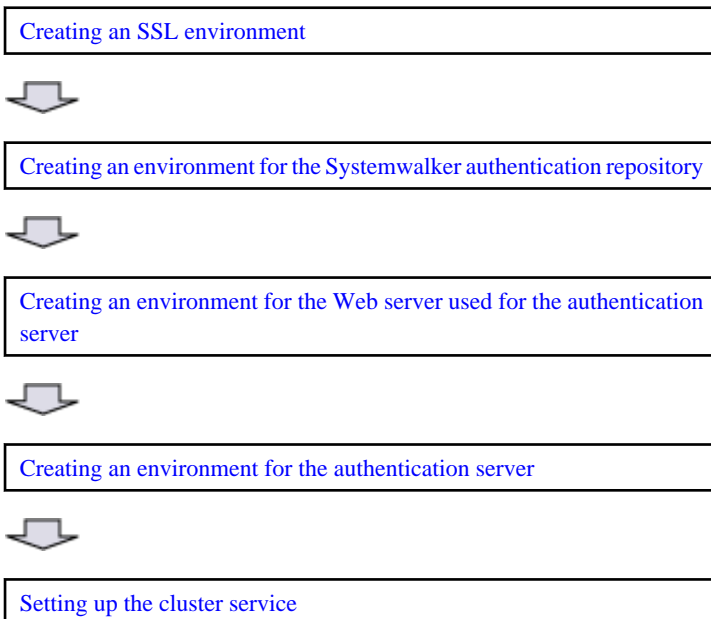
---

Perform the following setup tasks after installing the Systemwalker Single Sign-On Server but before setting up Systemwalker Centric Manager.

[Overall flow of the procedure for creating an environment for the Systemwalker Single Sign-On Server]







Each step of the procedure is explained below.

## Installing the Systemwalker Single Sign-On Server

Install the Systemwalker Single Sign-On Server on both the active node and the standby node by referring to "[Installing the Systemwalker Single Sign-On Server](#)".

### Note

Install the Systemwalker Single Sign-On Server to the same path on both nodes in the cluster configuration, so that both nodes have the same resource configuration.

## Disabling automatic startup settings

Immediately after the Systemwalker Single Sign-On Server is installed, it is set up so that the services or daemons that comprise the Systemwalker User Management function and the Systemwalker Single Sign-On function start automatically when the machine starts.

For machines in cluster environments, decisions about whether to start the necessary services or daemons are made by each individual cluster product, so the automatic startup settings that were entered when the Systemwalker Single Sign-On Server was installed need to be disabled.

This section explains the procedure for disabling the automatic startup settings.

[Windows]

Use the following procedure to disable the Interstage automatic startup settings.

1. Check the **Startup type** for the following services, and change the startup type to "Manual" if it has been set to "Automatic".
  - OD\_start
  - ObjectTransactionService
  - FJapache
  - INTERSTAGE
2. Check the status of these services, and stop any services that are "Started".

[UNIX]

When the Systemwalker Single Sign-On Server package is installed, the following shells are stored as symbolic links.

- The start shell that is called when the server starts
- The stop shell that is called when the server stops

For cluster environments, move these shells to a different directory so that they are not called.

The following files need to be moved.

[Solaris]

Storage directory	Files to be moved (start shell and stop shell)
/etc/rc0.d	K00stopis K00stopod K00FJSVirep K17FJapache
/etc/rc1.d	K17FJapache
/etc/rc2.d	S99startis S99startod S99FJSVirep K17FJapache
/etc/rc3.d	S51FJapache
/etc/rcS.d	K17FJapache

[Linux]

Storage directory	Files to be moved (start shell and stop shell)
/etc/rc0.d	K18FJSVirep K14FJapache
/etc/rc1.d	K18FJSVirep K14FJapache
/etc/rc2.d	S99startis S82FJSVirep S99startod S86FJapache
/etc/rc3.d	S99startis S82FJSVirep S99startod S86FJapache
/etc/rc4.d	S99startis S82FJSVirep S99startod S86FJapache

Storage directory	Files to be moved (start shell and stop shell)
/etc/rc5.d	S99startis S82FJSVirep S99startod S86FJapache
/etc/rc6.d	K18FJSVirep K14FJapache



### Note

No action is required for any of the services above that has not been installed.

## Pre-setup for cluster systems

Perform the following steps as a pre-setup for the cluster system.

- Install the cluster system.
- Set up the cluster initialization configuration.

Refer to the manual for the cluster product for details on how to install the cluster system and how to set up the cluster initialization configuration.

This section explains the following notes for when the pre-setup for the cluster system is performed.

- Settings for the shared disk device
- Network settings (IP addresses)
- Notes relating to node names [UNIX]

### Settings for the shared disk device

- Enable the shared disk device to be used as a file system.
- The shared disk device will be required in subsequent steps. Register the shared disk device with the cluster service (for PRIMECLUSTER, this means registering it with "userApplication") so that it can be used.

### Network settings (IP addresses)

- The Systemwalker Single Sign-On function assumes that IP addresses will be inherited, so specify takeover network settings as well.
- The IP addresses will be required in subsequent steps. Register the takeover IP addresses with the cluster service (for PRIMECLUSTER, this means registering them with "userApplication") so that they can be used.

### Notes relating to node names [UNIX]

- PRIMECLUSTER supports a node name takeover function, but this function cannot be used with Interstage.
- Do not specify the same node name for the active node and the standby node. Check the node names using the following method.

[Solaris]

Check the content of the /etc/nodename file.

[Linux]

Check the "HOSTNAME" settings in /etc/sysconfig/network.

- The state transition procedure provided by Interstage is for hot standby configurations, and does not run correctly in node name takeover environments.

## Starting the cluster service (userApplication)

Use the following procedure to start the cluster service (userApplication).

### Point

Before starting the cluster service (userApplication), make sure that both the shared disk and takeover IP address can be used. Refer to "Pre-setup for cluster systems" for details on the shared disk and takeover IP address.

1. Create the cluster service (for PRIMECLUSTER, this is a "userApplication") for Interstage.
2. Register the takeover IP address and shared disk with the cluster service.
3. Start the cluster service.

## Pre-processing

On both the active node and the standby node, use the OD\_set\_env command to specify the host name that will be embedded when object references are generated.

At this point, the IP address that is inherited by the cluster service must be specified for the host name.

The OD\_set\_env command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>ODWIN\bin
Solaris	/opt/FSUNod/bin
Linux	/opt/FJSVod/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the OD\_set\_env command.

### Example:

When the IP address inherited by the cluster service is 100.100.100.100

```
OD_set_env -n 100.100.100.100
```

## Initializing Interstage

Use the following procedure to initialize Interstage.

1. Stop Interstage

If Interstage is running, stop it.

### Example:

```
isstop -f
```

The Interstage stop command (isstop) is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
Solaris	/opt/FSUNtd/bin
Linux	/opt/FJSVtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the Interstage stop command (isstop).

## 2. Generate an Interstage system definition file

Execute the isgendef command to generate Interstage system definition files on both the active node and the standby node.

Before generating the Interstage system definition files, it is necessary to decide the scale of the Interstage system that will run in the cluster system.

### Example:

When the system scale is "large"

```
isgendef large
```

The isgendef command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
Solaris	/opt/FSUNtd/bin
Linux	/opt/FJSVtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the isgendef command.

## 3. Register the Interstage system definition file

Execute the isregistdef command to register the Interstage system definition files on both the active node and the standby node.

### Example:

```
isregistdef
```

The isregistdef command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
Solaris	/opt/FSUNtd/bin
Linux	/opt/FJSVtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the isregistdef command.

## 4. Initialize Interstage on the active node

Initialize Interstage on the active node.

Before initializing Interstage by executing the isinit command, it may be necessary to set up definitions for the Interstage operating environment, depending on which functions are used. Also, factors such as the configuration and functions being used should be taken into account when specifying the operation mode.

### Example:

```
isinit -f type1
```

The isinit command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
Solaris	/opt/FSUNtd/bin
Linux	/opt/FJSVtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the isinit command.

### Note

- When PRIMECLUSTER is used

In the Interstage operating environment definitions, do not specify the host name used by the CORBA Service ("Corba Host Name").

- When Sun Cluster is used [Solaris]

To specify the host name used by the CORBA Service ("Corba Host Name") in the Interstage operating environment definitions, specify either the takeover IP address for the default system and the extended system, or the host name corresponding to the takeover IP address.

#### 5. Initialize Interstage on the standby node

Make the standby node the active node by failing the cluster over, and then initialize Interstage.

Specify the "-w" option when executing the isinit command.

Use the same Interstage operating environment definition settings and operation mode as were used when the active node was initialized.

#### Example:

```
isinit -f -w type1
```

The isinit command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
Solaris	/opt/FSUNtd/bin
Linux	/opt/FJSVtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the isinit command.

#### 6. Check the settings

Check that the CORBA Service environment for the cluster system has been set up correctly as a result of initializing Interstage.

Perform the following check on both the active node and the standby node.

- a. Start Interstage.

#### Example:

```
isstart
```

The Interstage start command (isstart) is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
Solaris	/opt/FSUNtd/bin
Linux	/opt/FJSVtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the Interstage start command (isstart).

- b. Check the host name and IP address information by executing the OD\_or\_adm command.

The environment has been set up correctly if host names such as "NameService" and "InterfaceRepository" in the execution results of the command match the takeover IP addresses that were specified in "Pre-processing".

The OD\_set\_env command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>ODWIN\bin
Solaris	/opt/FSUNod/bin
Linux	/opt/FJSVod/bin

**Example:**

Execution results of the "OD\_or\_adm" command

```
> OD_or_adm -l
ImplementationRepository IDL:FJ/ImplementationRep:1.0 (Local host name:8002:1.0:)
FJ_LightInterfaceRepository IDL:FJ/Repository:1.0 (Local host name:8002:1.0:)
FJ_ORB_admin IDL:OM_ORB/admin:1.0 (Local host name:8002:1.0:)
nill_oref
InterfaceRep IDL:CORBA/InterfaceRep:1.0 (Takeover IP address:8002:1.0:)
InterfaceRepLock IDL:CORBA/IrOBF/backup:1.0 (Takeover IP address:8002:1.0:)
InterfaceRepository IDL:CORBA/Repository:1.0 (Takeover IP address:8002:1.0:)
NameService IDL:CosNaming/NamingContextExt:1.0 (Takeover IP address:8002:1.0:)
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the OD\_or\_adm command.

**Creating an SSL environment**

Create an SSL environment on the server where the Systemwalker Single Sign-On Server has been installed.

To use simple certificates for Systemwalker, use the following procedure to create a certificate environment.

To use certificates other than simple certificates for Systemwalker, create a certificate environment by referring to the *Interstage Application Server High Availability System Guide*.

1. Set up the active node
  - a. Create a certificate environment for the active node by referring to "Creating an SSL Environment".
  - b. Execute the scsexppfx command to back up the certificate environment that has been created.

The scsexppfx command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSSVisscs/bin

In the following command execution example, the following conditions hold.

- Nickname: Systemwalker

**Example:**

[Windows]

When the certificate environment is backed up to "C:\tmp\Cert.p12"

```
scsexppfx -n Systemwalker -f C:\tmp\Cert.p12
```

>Password: (\*1)

>PKCS#12 Password: (\*2)

>Retype: (\*2)

>SCS: INFO: scs0107: Site certificate and private key was exported <C:\MyCert.p12>

[UNIX]

When the certificate environment is backed up to "/tmp/Cert.p12"

```
scsexppfx -n Systemwalker -f /tmp/Cert.p12
```

>Password: (\*1)

>PKCS#12 Password: (\*2)

>Retype: (\*2)

>UX: SCS: INFO: scs0107: Site certificate and private key was exported </tmp/Cert.p12>

\*1)

Enter the password for accessing the Interstage certificate environment. The password that is entered is not displayed.

\*2)

Enter the password for protecting PKCS#12 data. For the "Retype" prompt, enter the same password again in order to confirm the password that was entered. Note that the password that is entered is not displayed.

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the scsexppfx command.

2. Set up the standby node

- a. Create a certificate environment by executing the scsmakeenv command.

The storage location and execution example of the scsmakeenv command are shown below.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSSVisscs/bin

**Example:**

```
scsmakeenv -e
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the scsmakeenv command.



- b. Execute the scsimppfx command to restore the certificate file that was backed up earlier.  
The storage location and execution example of the scsimppfx command are shown below.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVisscs/bin

**Example:**

When the backup certificate file is "C:\tmp\Cert.p12"

```
scsimppfx -f C:\tmp\Cert.p12
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the scsimppfx command.

- c. Specify the settings by referring to step 4 in "Creating an SSL Environment". For the **Configuration name**, specify the same configuration name as was specified for the active node.

**Creating an environment for the Systemwalker authentication repository**

Create an environment for the Systemwalker authentication repository.

- [When the Interstage Directory Service is used as the Systemwalker authentication repository](#)
- [When Active Directory is used as the Systemwalker authentication repository](#)

**When the Interstage Directory Service is used as the Systemwalker authentication repository**

The following operations are explained below.

- [Creating an environment for the Systemwalker authentication repository](#)
- [Updating the Systemwalker authentication repository](#)
- [Deleting the Systemwalker authentication repository](#)

Creating an environment for the Systemwalker authentication repository

Use the following procedure to create an environment for the Systemwalker authentication repository.

To use the Systemwalker Single Sign-On function, perform only step 1-a.

To use only the Systemwalker User Management function, perform the entire procedure.

1. Set up the active node

Use the following procedure to set up the active node.

- a. Create a Systemwalker authentication repository by referring to "[Creating an Environment for the Systemwalker Authentication Repository](#)".

For **Database Storage Directory** under **General Settings** and **Access log storage directory** under **Access Log Settings**, specify paths on the shared disk.

- b. Back up repository information to a directory by executing the irepbacksys command.

The irepbacksys command is stored in the following location.

[Storage location]

OS	Location
Windows	<Interstage installation directory>\bin

OS	Location
UNIX	/opt/FJSVirep/bin

The following example shows how to execute the irepbacksys command.

**Example:**

[Windows]

When the repository name is "swrepo" and the backup directory is "c:\tmp\swrepo\_back"

```
irepbacksys -d c:\tmp\swrepo_back -R swrepo -confonly
```

[UNIX]

When the repository name is "swrepo" and the backup directory is "/tmp/swrepo\_back"

```
irepbacksys -f /tmp/swrepo_back -R swrepo -confonly
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the irepbacksys command.

2. Set up the certificate environment on the standby node

Fail the cluster over, copy the settings file (that was backed up on the active node) to the standby node, and then execute the ireprestsyst command.

The ireprestsyst command is stored in the following location.

[Storage location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirep/bin

The following example shows how to execute the ireprestsyst command.

**Example:**

[Windows]

When the repository name is "swrepo" and the backup directory is "c:\tmp\swrepo\_back"

```
ireprestsyst -d c:\tmp\swrepo_back -R swrepo -confonly
```

[UNIX]

When the repository name is "swrepo" and the backup directory is "/tmp/swrepo\_back"

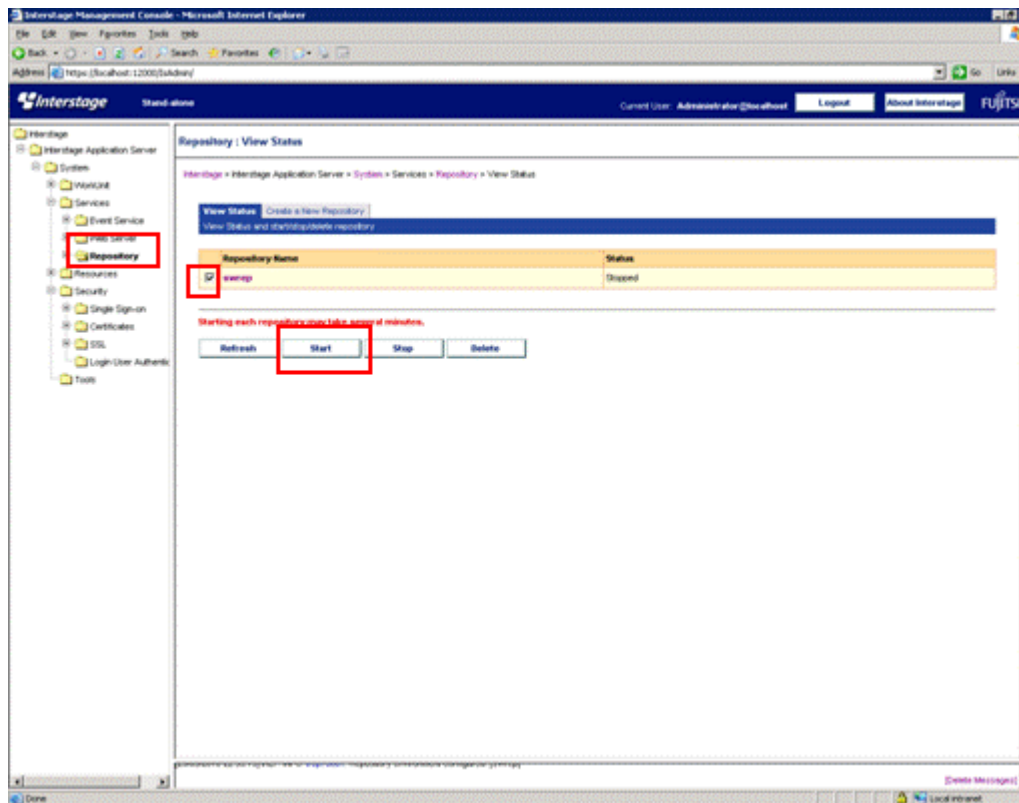
```
ireprestsyst -f /tmp/swrepo_back -R swrepo -confonly
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ireprestsyst command.

3. Fail the cluster over, and then start the Systemwalker authentication repository on the active node.

In the **Interstage Management Console** window, select **System >> Services >> Repository**, select the check box for the Systemwalker authentication repository that has just been created, and then click the **Start** button.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.



### Updating the Systemwalker authentication repository

Use the following procedure to update the Systemwalker authentication repository.

[Windows]

1. To update a repository operating under an MSCS cluster environment, place the universal services and resources for the target repository (that has been registered with MSCS) offline.
2. Use the Interstage Management Console to stop the repository on the active node, and then update and start it again.
3. Fail the cluster over to the standby node, and then repeat step 2 on the standby node.
4. If the repository was updated in step 1, place the resources that were taken offline back online again.

[UNIX]

1. Use the Interstage Management Console to stop the repository on the active node first, and then update and start it again.
2. Fail the cluster over to the standby node, and then repeat step 1 on the standby node.

### Deleting the Systemwalker authentication repository

Use the following procedure to delete the Systemwalker authentication repository.

[Windows]

1. Remove the environment for the authentication server on both nodes. Refer to "[Creating an Environment for the Web Server Used for the Authentication Server](#)" for details on how to remove the environment for the authentication server.
2. To delete a repository operating under an MSCS cluster environment, delete the universal services and resources for the target repository that has been registered with MSCS.
3. Use the Interstage Management Console to stop the repository on the active node, and then delete it.
4. Fail the cluster over to the standby node, and then repeat step 3 on the standby node.

[UNIX]

1. Remove the environment for the authentication server on both nodes. Refer to "[Creating an Environment for the Web Server Used for the Authentication Server](#)" for details on how to remove the environment for the authentication server.

2. Use the Interstage Management Console to stop the repository on the active node, and then delete it.
3. Fail the cluster over to the standby node, and then repeat step 2 on the standby node.

### Note

If a mistake is made with the deletion procedure, the cluster service may not fail over correctly.

## When Active Directory is used as the Systemwalker authentication repository

Use the following procedure to create an environment for the Systemwalker authentication repository.

1. Create an environment for the Systemwalker authentication repository by referring to the relevant Microsoft manual.
2. To use the Systemwalker Single Sign-On function, set up information about access permissions to the public URL by referring to "Creating an environment for the Systemwalker authentication repository". [Creating an environment for the Systemwalker authentication repository](#)

## Creating an environment for the Web server used for the authentication server

Create an environment for the Web server used for the authentication server on the server where the Systemwalker Single Sign-On Server has been installed.

This section explains how to create and delete an environment for the Web server used for the authentication server.

### How to create an environment

Use the following procedure to create a Web server to be used for the authentication server.

1. Set up the active node

Create a Web server for the authentication server on the active node by referring to "[Creating an Environment for the Web Server Used for the Authentication Server](#)". Specify the settings on the local disk. For the **Server Hostname or IP Address** item, specify the takeover IP address.

2. Back up the information for the Web server to a directory by executing the `ihsbackup` command.

The `ihsbackup` command is stored in the following location.

[Storage location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVihs/bin/

The following example shows how to execute the `ihsbackup` command.

#### Example:

[Windows]

When the backup directory is "c:\tmp"

```
ihsbackup -d c:\tmp -t all
```

[UNIX]

When the backup directory is "/tmp"

```
/opt/FJSVihs/bin/ihsbackup -d /tmp -t all
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the `ihsbackup` command.

## How to delete the environment

Use the following procedure to delete the environment for the authentication server.

1. Use the Interstage Management Console to delete the repository server on the active node.
2. Fail the cluster service over, and then use the Interstage Management Console to delete the repository server on the standby node.
3. Delete the Systemwalker authentication repository on both nodes.

### Note

If a mistake is made with the removal procedure, the cluster service may not fail over correctly.

## Creating an environment for the authentication server

Create an environment for the authentication server on the server where the Systemwalker Single Sign-On Server has been installed.

Use the following procedure to create an environment for the authentication server.

1. Set up the active node
  - a. Create a Systemwalker Single Sign-On Server by referring to "[Creating an Environment for the Authentication Server](#)".

For the **Authentication Infrastructure URL** and the **Repository server (update system) URL**, specify the takeover IP address.

If the Systemwalker product is in a cluster configuration, set up the public URL specification on both the active node and the standby node.

- b. Back up the authentication server environment

Use the `ssbackup` command to back up the settings information.

The storage location and execution example of the `ssbackup` command are shown below.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVssocm/bin

### Example:

[Windows]

When the backup directory is "c:\tmp\ssobackup"

```
ssobackup -f c:\tmp\ssobackup -sv -ac
```

[UNIX]

When the backup directory is "/tmp/ssobackup"

```
ssobackup -f /tmp/ssobackup -sv -ac
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the `ssbackup` command.

- c. Back up the information for the Systemwalker authentication repository by referring to step 1b in "[Creating an environment for the Systemwalker authentication repository](#)".

2. Set up the standby node

- a. On the standby node, restore the information for the Systemwalker authentication repository that was backed up on the active node, by referring to step 2 of "[Creating an environment for the Systemwalker authentication repository](#)".
- b. Copy the Web server settings file for the authentication server (that was backed up on the active node in "[Creating an environment for the Web server used for the authentication server](#)") to the standby node.

Copy the following directory (which is created in the directory where information is backed up using the `ihsbackup` command) to the standby node.

OS	Directory to copy to the standby node
Windows	IHS
UNIX	FJSVihs

- c. Execute the `ihsrestore` command.

The storage location and execution example of the `ihsrestore` command are shown below.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVihs/bin/

**Example:**

[Windows]

When the backup directory is "c:\tmp"

```
ihsrestore -d c:\tmp -t all
```

[UNIX]

When the backup directory is "/tmp"

```
ihsrestore -d /tmp -t all
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the `ihsrestore` command.

- d. Change the login screen by referring to step 20 in "[Creating an Environment for the Authentication Server](#)".
- e. Copy the settings file (that was backed up on the active node) to the standby node, and then execute the `ssorestore` command.

The storage location and execution example of the `ssorestore` command are shown below.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVssocm/bin

**Example:**

[Windows]

When the backup directory is "c:\tmp\ssobackup"

```
ssorestore -f c:\tmp\ssobackup
```

[UNIX]

When the backup directory is "/tmp/ssobackup"

```
ssorestore -f /tmp/ssobackup
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ssorestore command.

## Setting up the cluster service

Refer to the *Interstage Application Server High Availability System Guide* for details on the settings that have to be specified for cluster products. However, the following points must be observed when specifying the settings.

- If the Interstage Directory Service is used as the Systemwalker authentication repository and the Systemwalker Single Sign-On function is used, the content of the state transition procedure for the Interstage Directory Service must be modified.[Solaris/Linux]
- For cluster services, session management operations are not performed by the Systemwalker Single Sign-On function. Do not specify settings for managing sessions for Interstage Single Sign-On.

## 3.7.2 Setting up the Connection Destination Systemwalker Authentication Repository

Set up the connection destination Systemwalker authentication repository when the following Systemwalker product is used.

Product name	Installation type
Systemwalker Centric Manager	Operation Management Server
	Section Management Server
	Job Server

The Operation Management Client for Systemwalker Service Quality Coordinator does not support cluster systems, and so settings are not required.

Use the following procedure to set up the connection destination Systemwalker authentication repository.

1. Set up the active node
  - a. Set up the Systemwalker Single Sign-On Agent and the connection destination Systemwalker authentication repository by referring to "[Setting up the Systemwalker Single Sign-On Agent](#)" and "[Setting up the Connection Destination Systemwalker Authentication Repository](#)".
  - b. Use the swidmg\_bkrs command to back up the environment settings from the active node.

The storage location and execution example of the swidmg\_bkrs command are shown below.

[Command location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

### Example:

When the backup directory for settings information is "c:\tmp\swidmg"

```
swidmg_bkrs -b -d c:\tmp\swidmg
```

Refer to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" for details on the swidmg\_bkrs command.

2. Set up the standby node

Copy the settings file (that was backed up on the active node) to the standby node, and then execute the swidmg\_bkrs command.

The storage location and execution example of the swidmg\_bkrs command are shown below.

[Command location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

**Example:**

When the backup directory is "C:\tmp"

```
swidmg_bkrs -r -d C:\tmp
```

Refer to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" for details on the swidmg\_bkrs command.

### 3.7.3 Setting up the Systemwalker Single Sign-On Agent

---

Use the following procedure to set up the Systemwalker Single Sign-On Agent.

1. Set up the active node

Set up the Systemwalker Single Sign-On Agent on the active node by referring to "[Setting up the Systemwalker Single Sign-On Agent](#)".

2. Set up the standby node

Set up the Systemwalker Single Sign-On Agent on the standby node by referring to "[Setting up the Systemwalker Single Sign-On Agent](#)".

### 3.7.4 Registering Systemwalker Common Users

---

Register Systemwalker common users by referring to "[Registering Systemwalker Common Users](#)".

### 3.7.5 Setting up the Web Browser

---

Set up the Web browser by referring to "[Setting up the Web Browser](#)".



# Chapter 4 Operation

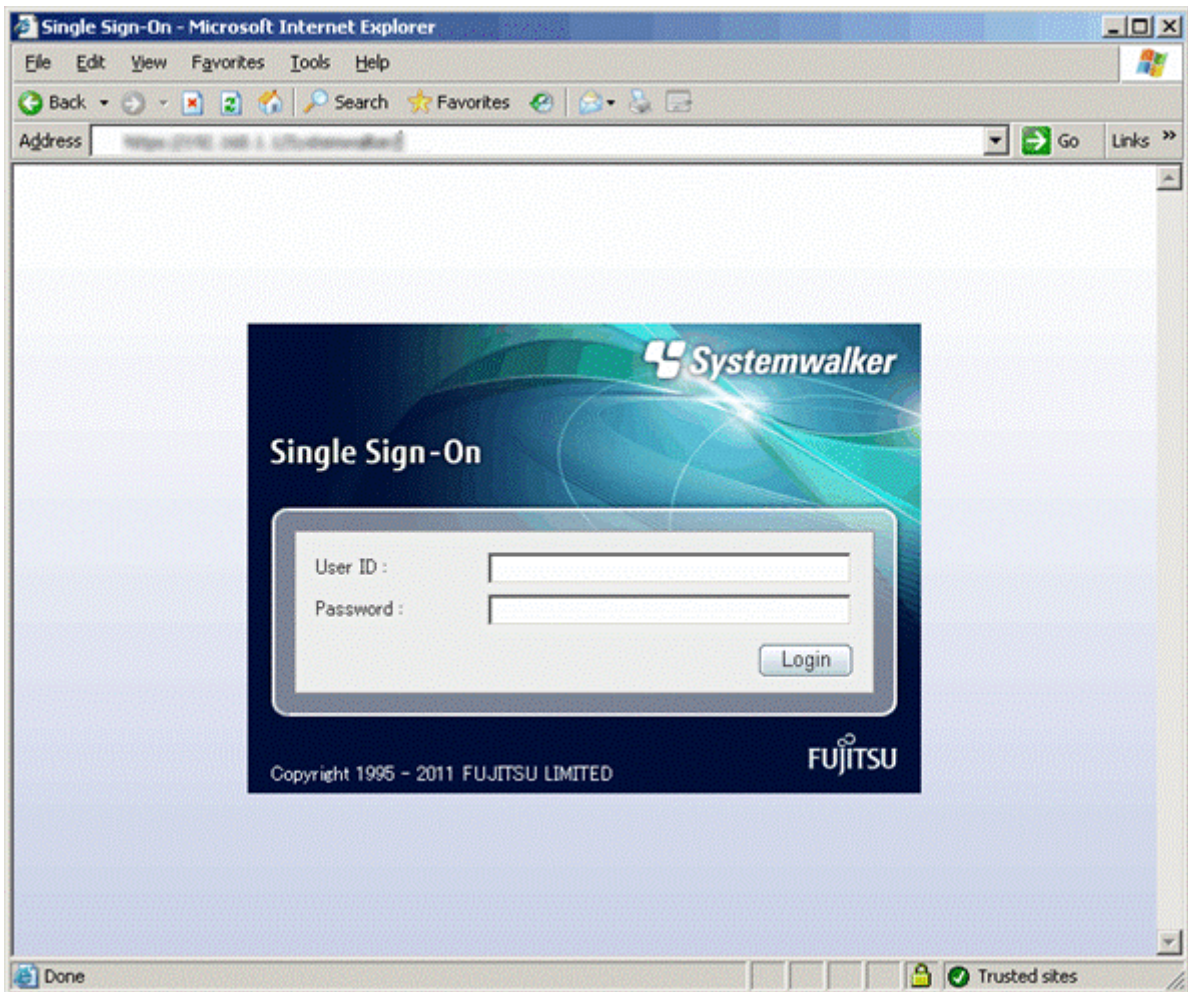
This chapter explains how to operate systems that use the Systemwalker User Management function and the Systemwalker Single Sign-On function.

## 4.1 Logging in to Systemwalker Products

This section explains how to log in to Systemwalker products.

1. Connect to the URL for the Systemwalker product.

If the Systemwalker Single Sign-On function has already been set up, the following login window will be displayed.



2. Enter the Systemwalker common user ID and password, and then click the **Login** button.

### Point

#### Using the Systemwalker Single Sign-On function in multiple windows

When using the Systemwalker Single Sign-On function in multiple windows, authentication information is passed to a window newly opened depending on the type of the Web browser to be used or how the window is opened.

In case authentication information is passed, you can use the Web browser as the same user. In case authentication information is not passed, you should use the Web browser as a different user.

## 4.2 Managing Systemwalker Common Users

---

This section explains how to manage (add, change and delete) Systemwalker common users.

Use the `swidmg_user_mng` command to manage Systemwalker common users.

The execution location and storage location of the `swidmg_user_mng` command are as follows.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/optFJSVswaic/client

Refer to "[swidmg\\_user\\_mng \(User Management Command\)](#)" for details on the `swidmg_user_mng` command.

### 4.2.1 Adding Systemwalker Common Users

---

This section explains how to add Systemwalker common users using the `swidmg_user_mng` command.

By specifying an input file (user registration information file) with the `swidmg_user_mng` command, multiple Systemwalker common users can be registered with a single operation.

Use the following procedure to add Systemwalker common users.

1. Add Systemwalker common users by executing the `swidmg_user_mng` command.



.....  
The execution results of the user management command are output to the standard output. If a CSV file is used to add numerous users, use the redirect function to output the execution results to a file.  
.....

Refer to "[User Registration Information File](#)" for details on user registration information files.

In this command execution example, the following user is registered.

- User ID: swoperator2
- Password: password
- Product used: Systemwalker Centric Manager
- Organization name: OU=system operations section, OU=system operations department, DC=fujitsu, DC=com

Example of how to execute the command using a user registration information file

[Windows]

User registration information file: C:\tmp\user.csv

```
swidmg_user_mng ADD -i C:\tmp\user.csv
```

[UNIX]

User registration information file: /tmp/user.csv

```
swidmg_user_mng ADD -i /tmp/user.csv
```

#### Sample user registration information file (user.csv)

```
"swoperator2","password","OU=system operations section, OU=system operations department,  
DC=fujitsu, DC=com",",", "CMGR"
```

Example of how to execute the command without using a user registration information file

```
swidmg_user_mng ADD -id swoperator -password password -product "CMGR" -ou "OU=system  
operations section, OU=system operations department, DC=fujitsu, DC=com"
```

2. Specify the privileges and other items for the Systemwalker common users that have been added, by referring to the manuals for each Systemwalker product.

## 4.2.2 Changing Systemwalker Common Users

---

This section explains how to change the following information for Systemwalker common users using the swidmg\_user\_mng command.

- Password
- Organization name
- Group name

By specifying an input file (user change information file) with the swidmg\_user\_mng command, information about multiple Systemwalker common users can be changed with a single operation.

Refer to "[User Change Information File](#)" for details on user change information files.

The following command execution example shows how to change the password for the following Systemwalker common user, who has already been registered.



### Point

The execution results of the user management command are output to the standard output. If a CSV file is used to change information for numerous users, use the redirect function to output the execution results to a file.

- User ID: swoperator
- New password: password2
- Product used: Systemwalker Centric Manager

Example of how to execute the command using a user change information file

[Windows]

User change information file: C:\tmp\user.csv

```
swidmg_user_mng MODIFY -i C:\tmp\user.csv
```

[UNIX]

User change information file: /tmp/user.csv

```
swidmg_user_mng MODIFY -i /tmp/user.csv
```

#### User change information file (user.csv)

```
"swoperator","passowrd2",",",", "CMGR"
```

Example of how to execute the command without using a user change information file

```
swidmg_user_mng MODIFY -id swoperator -password password2 -product CMGR
```

 **Point**

.....  
If the Systemwalker common user to be changed has been registered so that the user can use multiple products, specify any one of those products with the "-product" option.  
.....

### 4.2.3 Deleting Systemwalker Common Users

---

This section explains how to delete Systemwalker common users using the swidmg\_user\_mng command.

By specifying an input file (user deletion information file) with the swidmg\_user\_mng command, multiple Systemwalker common users can be deleted with a single operation.

Refer to "[User Deletion Information File](#)" for details on user deletion information files.

The following command execution example shows how to delete the following Systemwalker common user, who has already been registered.

 **Point**

.....  
The execution results of the user management command are output to the standard output. If a CSV file is used to delete numerous users, use the redirect function to output the execution results to a file.  
.....

- User ID: swoperator
- Product used: Systemwalker Centric Manager

Example of how to execute the command using a user deletion information file

[Windows]

User deletion information file: C:\tmp\user.csv

```
swidmg_user_mng DELETE -i C:\tmp\user.csv
```

[UNIX]

User deletion information file: /tmp/user.csv

```
swidmg_user_mng DELETE -i /tmp/user.csv
```

User deletion information file (user.csv)

```
"swoperator","CMGR"
```

Example of how to execute the command without using a user deletion information file

```
swidmg_user_mng DELETE -id swoperator -product CMGR
```

 **Point**

.....  
If the Systemwalker common user to be deleted uses multiple products, the user will not be deleted from the Systemwalker authentication repository until the user stops using all these products.  
.....

## 4.3 Backup and Restoration

This section explains how to back up and restore systems that use the Systemwalker User Management function and the Systemwalker Single Sign-On function.

### Note

Back up and restore the Systemwalker Single Sign-On function and the Systemwalker User Management function at the same time as the other Systemwalker products are backed up and restored.

#### [Backup procedure]

1. Back up the environment settings. (\*)
2. Back up the Systemwalker authentication repository.

#### [Restoration procedure]

1. Restore the environment settings. (\*)
2. Restore the Systemwalker authentication repository.

Asterisks (\*) indicate steps that are performed for environments where only Systemwalker Service Quality Coordinator has been installed.

For environments where the following Systemwalker product has been installed, there is no need to perform these steps because the settings information for the connection destination Systemwalker authentication repository and the Systemwalker Single Sign-On function is backed up and restored at the same time as the Systemwalker product is backed up and restored.

- Systemwalker Centric Manager

### 4.3.1 Backing up the Environment Settings

For environments where only Systemwalker Service Quality Coordinator has been installed, back up the settings information for the connection destination Systemwalker authentication repository and the Systemwalker Single Sign-On function by executing the `swidmg_bkrs` command.

The command execution location and storage location are as follows:

#### [Command execution location]

Systemwalker product name	Installation type
Systemwalker Service Quality Coordinator	Operation Management Client

#### [Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

Refer to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" for details on the `swidmg_bkrs` command.

The following example shows how to execute the `swidmg_bkrs` command.

#### **Example:**

#### [Windows]

When the backup directory for settings information is "c:\tmp\swidmg"

```
swidmg_bkrs -b -d c:\tmp\swidmg
```

[UNIX]

When the backup directory for settings information is "/tmp/swidmg"

```
swidmg_bkrs -b -d /tmp/swidmg
```

### 4.3.2 Backing up the Systemwalker authentication repository

This section explains how to back up the Systemwalker authentication repository.

- [When the Interstage Directory Service is used](#)
- [When Active Directory is used](#)

#### When the Interstage Directory Service is used

Use the following procedure to back up the Systemwalker authentication repository.

1. Stop the services for each Systemwalker product that is using the Systemwalker authentication repository.



See

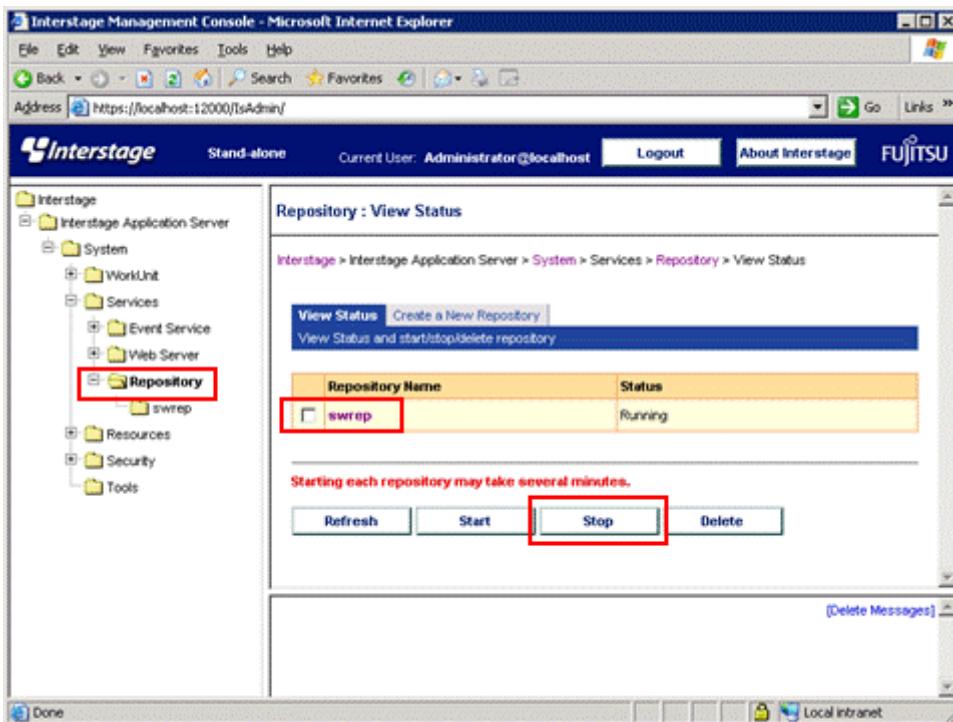
Refer to the manual for the Systemwalker product for details on how to stop the services.

2. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

3. In the **Interstage Management Console** window, select **System >> Services >> Repository**.

4. Select the repository name that was specified when the Systemwalker authentication repository was created, and then click the **Stop** button.



5. Use the following command to back up the data from the Systemwalker authentication repository.

- [Windows]

```
irepbacksys -d <backup destination> -R <Systemwalker authentication repository name>
```

- [UNIX]

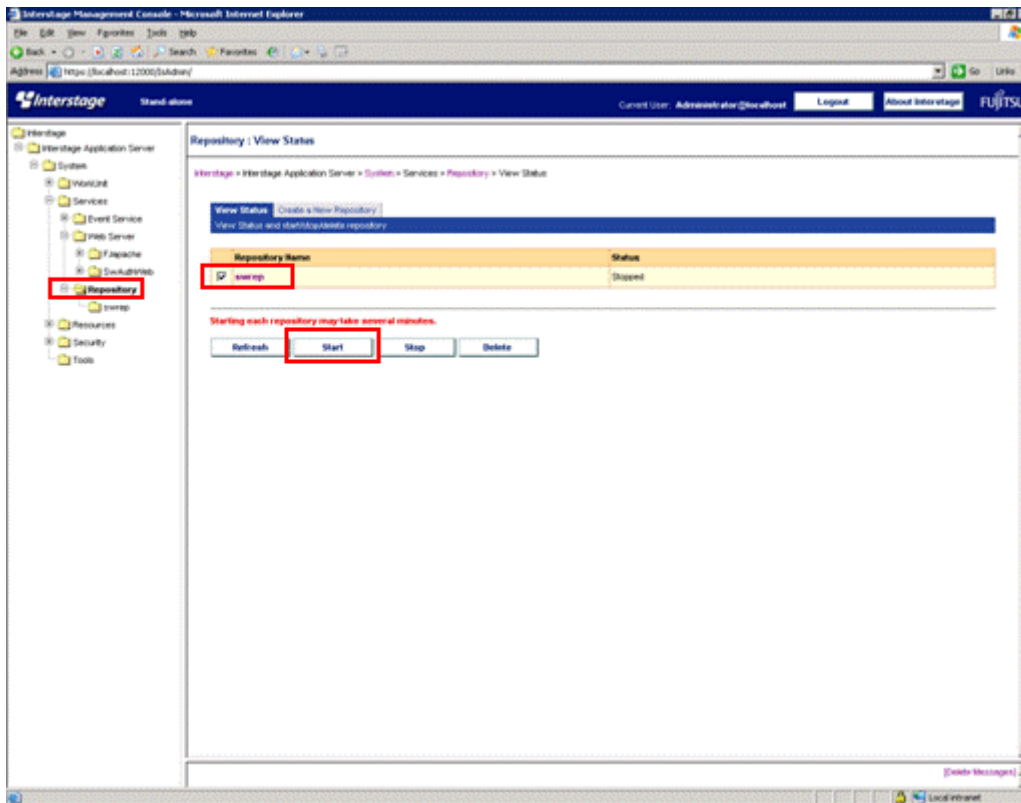
```
irepbacksys -f<backup file name>-R <Systemwalker authentication repository name>
```

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirep/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the irepbacksys command.

6. In the **Interstage Management Console** window, select **System >> Services >> Repository**.
7. Select the repository name that was specified when the Systemwalker authentication repository was created, and then click the **Start** button.



8. Start the services for each Systemwalker product that is using the Systemwalker authentication repository.



See

Refer to the manual for the Systemwalker product for details on how to start the services.

## When Active Directory is used

Use the following procedure to back up the Systemwalker authentication repository.

1. Back up the Systemwalker authentication repository by referring to "[When the Interstage Directory Service is used](#)".

2. For common user information managed by Active Directory, use Windows functions to back up the information.

### 4.3.3 Restoring the Environment Settings

---

For environments where only Systemwalker Service Quality Coordinator has been installed, restore the settings information for the connection destination Systemwalker authentication repository and the Systemwalker Single Sign-On function by executing the `swidmg_bkrs` command.

The `swidmg_bkrs` command is executed in the following location.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Service Quality Coordinator	Operation Management Client

Refer to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" for details on the `swidmg_bkrs` command.

The following example shows how to execute the `swidmg_bkrs` command.

**Example:**

[Windows]

When the backup directory is "C:\tmp"

```
swidmg_bkrs -r -d C:\tmp
```

[UNIX]

When the backup directory is "/tmp"

```
swidmg_bkrs -r -d /tmp
```

### 4.3.4 Restoring the Systemwalker Authentication Repository

---

This section explains how to restore the Systemwalker authentication repository.

- [When the Interstage Directory Service is used](#)
- [When Active Directory is used](#)

#### When the Interstage Directory Service is used

Use the following procedure to restore the Systemwalker authentication repository.

1. Stop the services for each Systemwalker product that is using the Systemwalker authentication repository.



See

.....  
Refer to the manual for the Systemwalker product for details on how to stop the services.  
.....

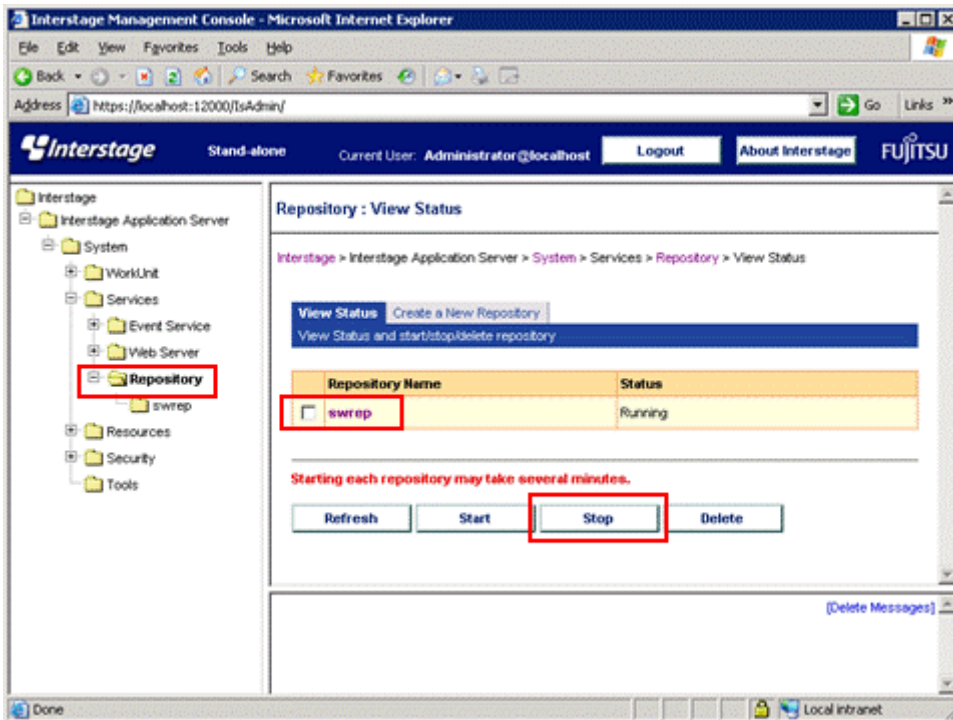
2. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

3. In the **Interstage Management Console** window, select **System >> Services >> Repository**.



4. Select the repository name that was specified when the Systemwalker authentication repository was created, and then click the **Stop** button.



5. Use the following command to restore the data from the Systemwalker authentication repository.

- [Windows]

```
ireprepsys -d <backup destination> -R <Systemwalker authentication repository name>
```

- [UNIX]

```
ireprepsys -f <backup file name> -R <Systemwalker authentication repository name>
```

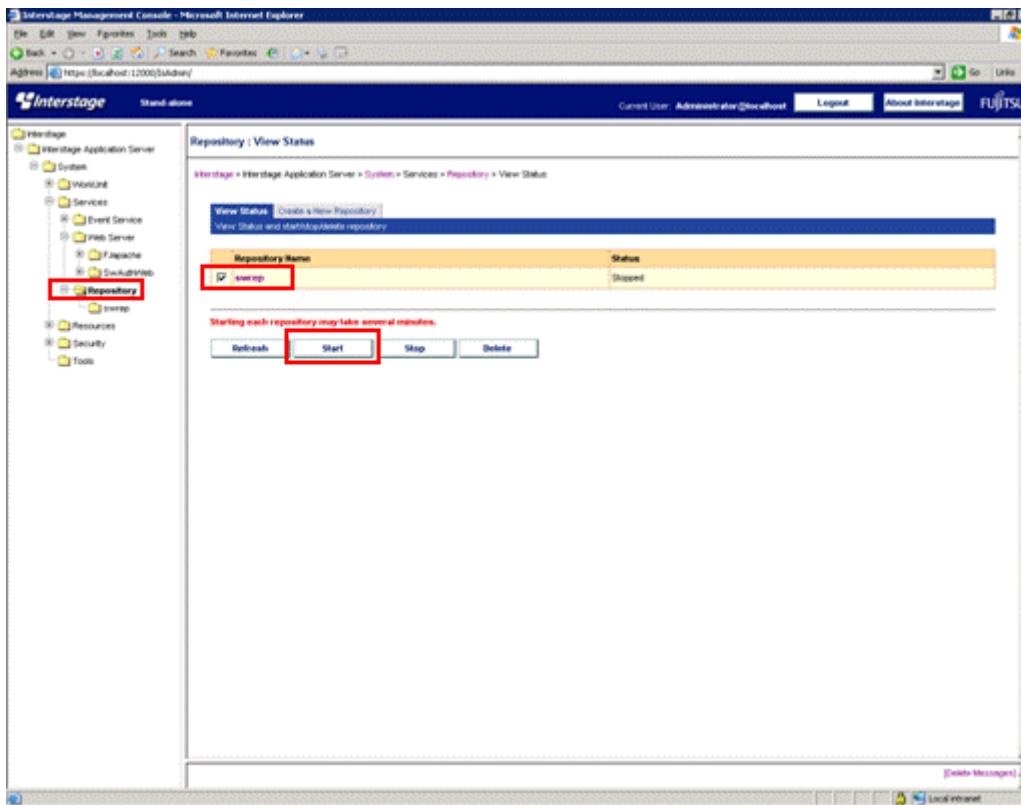
[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirep/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ireprepsys command.

6. In the **Interstage Management Console** window, select **System >> Services >> Repository**.

7. Select the repository name that was specified when the Systemwalker authentication repository was created, and then click the **Start** button.



8. Start the services for each Systemwalker product that is using the Systemwalker authentication repository.



See

Refer to the manual for the Systemwalker product for details on how to start the services.

### When Active Directory is used

Use the following procedure to restore the Systemwalker authentication repository.

1. For common user information managed by Active Directory, use Windows functions to restore the information.
2. Restore the Systemwalker authentication repository in the same way as when the Interstage Directory Service is used.

## 4.4 Changing the Operating Environment

This section explains how to change the operating environment for systems that use the Systemwalker User Management function and the Systemwalker Single Sign-On function.

### 4.4.1 Changing the Operating Environment for the Systemwalker Single Sign-On Server

This section explains how to make the following changes in the operating environment for the Systemwalker Single Sign-On Server.

- Changing the host name, IP address or port number
- Changing the certificate

- Migrating to another system

## Changing the host name, IP address or port number

Delete the environment for the Systemwalker Single Sign-On Server by referring to "[Deleting the Systemwalker Single Sign-On Server Settings](#)" and then recreate an environment for the Systemwalker Single Sign-On Server by referring to "[Creating an Environment for the Systemwalker Single Sign-On Server](#)".

## Changing the certificate

When the certificate expires, authentication can no longer be performed. Obtain another certificate file and import it to the Systemwalker Single Sign-On Server by referring to "Certificate Management" under "Authentication and Encrypted Communications through Support for SSL" in the *Interstage Application Server Security System Guide*.

## Migrating to another system

Use the following procedure to migrate to another system.

1. Install a Systemwalker Single Sign-On Server and a Systemwalker authentication repository on the destination server.
  - Systemwalker Single Sign-On Server  
Install the Systemwalker Single Sign-On Server on the destination server by referring to "[Installing the Systemwalker Single Sign-On Server](#)".
  - Systemwalker authentication repository  
Install the Systemwalker authentication repository on the destination server by referring to "[Creating an Environment for the Systemwalker Authentication Repository](#)".
2. Create the certificate environment that was created on the source system, by referring to "[Creating an SSL Environment](#)".
3. Back up the Systemwalker authentication repository.
  - [When the Systemwalker Single Sign-On function is used](#)
  - [When only the Systemwalker User Management function is used](#)

### When the Systemwalker Single Sign-On function is used

This section explains how to back up the Systemwalker authentication repository when the Systemwalker Single Sign-On function is being used.

- When the Interstage Directory Service is used

Export the common user information by executing the following command on the server where the Systemwalker Single Sign-On Server or Interstage Application Server has been installed.

[Windows]

```
ldapsearch - <host name> -p <port number> -D <administrator DN> -w <password> -b <public directory> "(objectclass=*)" > <output file path> (*1)
```

[UNIX]

```
ldapsearch -h <host name> -p <LDAP port number> -D <DSA administrator DN> -w <password for the DSA administrator DN> -b <top entry> "(objectclass=*)" > <output file path> (*1)
```

(\*1) Any path can be defined for the output file path.

The ldapsearch command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin

OS	Location
UNIX	/opt/FJSVirepc/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ldapsearch command.

**Example:**

When the authorization information directory has been created as follows:

- Host name: SWSSO.fujitsu.com
- Port number: 389
- Administrator DN: CN=Administrator, DC=fujitsu, DC=com
- Password: password

[Windows]

When the directory for storing LDIF files is "C:\tmp\dir.ldif"

```
ldapsearch -h SWSSO.fujitsu.com -p 389 -D CN=Administraotr,DC=fujitsu,DC=com -w password -b DC=fujitsu,DC=com "(objectclass=*)" > C:\tmp\dir.ldif
```

[UNIX]

When the directory for storing LDIF files is "/tmp/dir.ldif"

```
ldapsearch -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w password -b DC=fujitsu,DC=com "(objectclass=*)" > /tmp/dir.ldif
```

- When Active Directory is used

Export the data from Active Directory by referring to the relevant Microsoft manual, and then export authorization information by executing the following command on the server where the Systemwalker Single Sign-On Server or Interstage Application Server has been installed.

[Windows]

```
ldapsearch -h <host name> -p <port number> -D <administrator DN> -w <password> -b <public directory> "(objectclass=*)" > <output file path> (*1)
```

[UNIX]

```
ldapsearch -h <host name> -p <LDAP port number> -D <DSA administrator DN> -w <password for the DSA administrator DN> -b <top entry> "(objectclass=*)" > <output file path> (*1)
```

(\*1) Any path can be defined for the output file path.

The ldapsearch command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVidsdk/C/bin/

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ldapsearch command.

**Example:**

When the authorization information directory has been created as follows:

- Host name: SWSSO.fujitsu.com
- Port number: 389

- Administrator DN: CN=Administrator, DC=fujitsu, DC=com
- Password: password
- Public directory: DC=fujitsu, DC=com

[Windows]

When the directory for storing LDIF files is "C:\tmp\dir.ldif"

```
ldapsearch -h SWSSO.fujitsu.com -p 389 -D CN=Administratr,DC=fujitsu,DC=com -w password -b DC=fujitsu,DC=com "(objectclass=*)" > C:\tmp\dir.ldif
```

[UNIX]

When the directory for storing LDIF files is "/tmp/dir.ldif"

```
ldapsearch -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w password -b DC=fujitsu,DC=com "(objectclass=*)" > /tmp/dir.ldif
```

When only the Systemwalker User Management function is used

This section explains how to back up the Systemwalker authentication repository when only the Systemwalker User Management function is being used.

- When the Interstage Directory Service is used

Export the common user information by executing the following command on the server where the Systemwalker Single Sign-On Server or Interstage Application Server has been installed.

[Windows]

```
ldapsearch -h <host name> -p <port number> -D <administrator DN> -w <password> -b <public directory> "(objectclass=*)" ><output file path> (*1)
```

[UNIX]

```
ldapsearch -h <host name> -p <port number> -D <administrator DN> -w <password> -b <public directory> "(objectclass=*)" > <output file path> (*1)
```

(\*1) Any path can be defined for the output file path.

The ldapsearch command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirepc/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ldapsearch command.

**Example:**

When the common user information directory has been created as follows:

- Host name: SWSSO.fujitsu.com
- Port number: 389
- Administrator DN: CN=Administrator, DC=fujitsu, DC=com
- Password: password
- Public directory: DC=fujitsu, DC=com

[Windows]

When the directory for storing LDIF files is "C:\tmp\dir.ldif"

```
ldapsearch -h SWSSO.fujitsu.com -p 389 -D CN=Administratr,DC=fujitsu,DC=com -w password -b DC=fujitsu,DC=com "(objectclass=*)" > C:\tmp\dir.ldif
```

[UNIX]

When the directory for storing LDIF files is "/tmp/dir.ldif"

```
ldapsearch -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w password -b DC=fujitsu,DC=com "(objectclass=*)" > /tmp/dir.ldif
```

- When Active Directory is used

Export common user information by referring to the relevant Microsoft manual.

#### 4. Import the Systemwalker authentication repository data to the new environment.

- [When the Systemwalker Single Sign-On function is used](#)
- [When only the Systemwalker User Management function is used](#)

When the Systemwalker Single Sign-On function is used

Use the following procedure to import the Systemwalker authentication repository data.

- **When the Interstage Directory Service is used**

Import the authorization information and common user information to the Interstage Directory Service by executing the following command on the server where the Systemwalker Single Sign-On Server or Interstage Application Server has been installed.

[Windows]

```
ldapmodify -h <host name> -p <port number> -D <administrator DN> -w <password> -c -a -f <input file path> (*1)
```

[UNIX]

```
ldapmodify -h <host name> -p <port number> -D <administrator DN> -w <password> -c -a -f <input file path> (*1)
```

\*1 For <input file path>, specify the path to the output file that was specified when the Systemwalker authentication repository was backed up.

The ldapmodify command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirepc/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ldapmodify command.

#### Example:

When the authorization information directory has been created as follows:

- Host name: SWSSO.fujitsu.com
- Port number: 389
- Administrator DN: CN=Administrator, DC=fujitsu, DC=com
- Password: password

- Public directory: DC=fujitsu, DC=com

[Windows]

When the directory for storing LDIF files is "C:\tmp\dir.ldif"

```
ldapmodify -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w
password -c -a -f C:\tmp\dir.ldif
```

[UNIX]

When the directory for storing LDIF files is "/tmp/dir.ldif"

```
ldapmodify -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w
password -c -a -f /tmp/dir.ldif
```

#### - When Active Directory is used

After importing the common user information exported from the old environment by referring to the relevant Microsoft manual, import the authorization information and common user information to the Interstage Directory Service by executing the following command on the server where the Systemwalker Single Sign-On Server or Interstage Application Server has been installed.

[Windows]

```
ldapmodify -h <host name> -p <port number> -D <administrator DN> -w <password> -c -a -f
<input file path> (*1)
```

[UNIX]

```
ldapmodify -h <host name> -p <port number> -D <administrator DN> -w <password> -c -a -f
<input file path> (*1)
```

\*1: For *<input file path>*, specify the path to the output file that was specified when the Systemwalker authentication repository was backed up.

The ldapmodify command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirepc/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ldapmodify command.

#### Example:

When the authorization information directory has been created as follows:

- Host name: SWSSO.fujitsu.com
- Port number: 389
- Administrator DN: CN=Administrator, DC=fujitsu, DC=com
- Password: password
- Public directory: DC=fujitsu, DC=com

[Windows]

When the directory for storing LDIF files is "C:\tmp\dir.ldif"

```
ldapmodify -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w
password -c -a -f C:\tmp\dir.ldif
```

[UNIX]

When the directory for storing LDIF files is "/tmp/dir.ldif"

```
ldapmodify -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w password -c -a -f /tmp/dir.ldif
```

When only the Systemwalker User Management function is used

Use the following procedure to import the Systemwalker authentication repository data.

**- When the Interstage Directory Service is used**

Import the common user information to the Interstage Directory Service by executing the following command on the server where the Systemwalker Single Sign-On Server or Interstage Application Server has been installed.

[Windows]

```
ldapmodify -h <host name> -p <port number> -D <administrator DN> -w <password> -c -a -f <input file path> (*1)
```

[UNIX]

```
ldapmodify -h <host name> -p <port number> -D <administrator DN> -w <password> -c -a -f <input file path> (*1)
```

\*1 For <input file path>, specify the path to the output file that was specified when the Systemwalker authentication repository was backed up.

The ldapmodify command is stored in the following location.

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVirepc/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ldapmodify command.

Example:

When the common user information directory has been created as follows:

- Host name: SWSSO.fujitsu.com
- Port number: 389
- Administrator DN: CN=Administrator, DC=fujitsu, DC=com
- Password: password
- Public directory: DC=fujitsu, DC=com

[Windows]

When the directory for storing LDIF files is "C:\tmp\dir.ldif"

```
ldapmodify -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w password -c -a -f C:\tmp\dir.ldif
```

[UNIX]

When the directory for storing LDIF files is "/tmp/dir.ldif"

```
ldapmodify -h SWSSO.fujitsu.com -p 389 -D CN=Administrator,DC=fujitsu,DC=com -w password -c -a -f /tmp/dir.ldif
```



- **When Active Directory is used**

Import the common user information exported from the old environment by referring to the relevant Microsoft manual.

## 4.4.2 Changing the Operating Environment for Systemwalker Single Sign-On Agent

If the host name, IP address and port number for the server where the following products are installed have been changed, the host name, IP address and port number must also be changed for the operating environment for the Systemwalker Single Sign-On Agent.

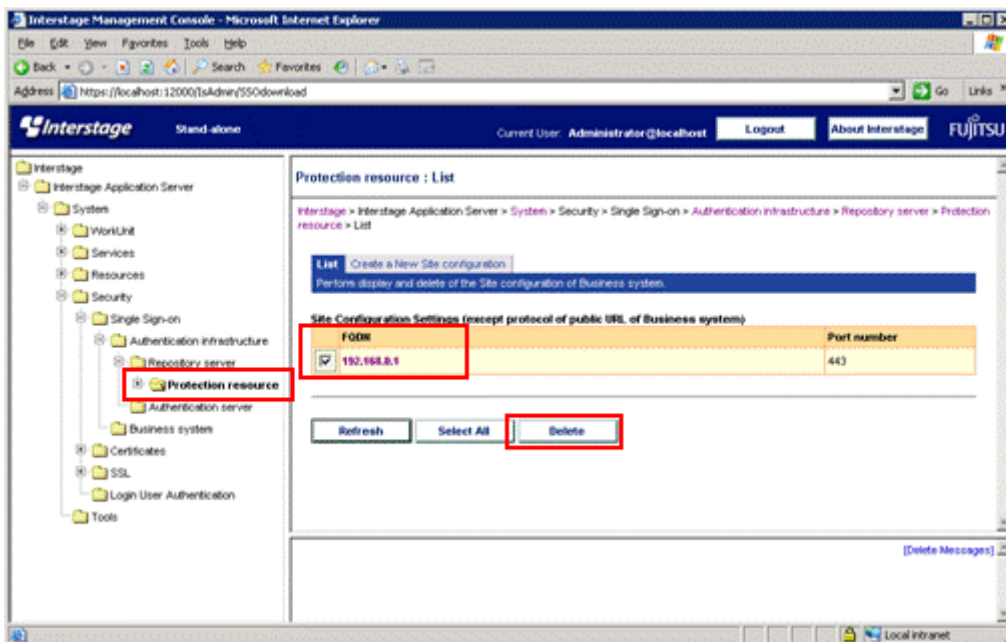
Product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

This section explains how to change the host name, IP address and port number in the operating environment for the Systemwalker Single Sign-On Agent.

### Changing the host name, IP address and port number

Use the following procedure to change the host name, IP address and port number.

1. Start the Interstage Management Console.  
Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.
2. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Authentication infrastructure >> Repository server >> Protection resource**.
3. Select the FQDN to change, and then click the **Delete** button.



4. Download the business system setup file by referring to steps 14 to 22 in "[Creating an Environment for the Authentication Server](#)".
5. Execute the following command on the computer where the Systemwalker Single Sign-On Agent has been installed

```
swidmg_set_ssoagent UPDATE -f <business system setup file> -p <password>
```

The execution location and storage location of the swidmg\_set\_ssoagent command are as follows.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

Refer to the "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" for details on the swidmg\_set\_ssoagent command.

### 4.4.3 Changing the Operating Environment for the Systemwalker Authentication Repository

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This section explains how to change the operating environment for the Systemwalker authentication repository.

#### Adding or deleting Active Directory databases

If the number of Active Directory databases used as the Systemwalker authentication repository has changed (that is, if changes have been made to a replication operation), use the swidmg\_set\_repository command (the connection destination Systemwalker authentication repository setup command) to change the settings.

The execution location and execution example of the swidmg\_set\_repository command are shown below.

[Command execution location]

Product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server
Systemwalker Service Quality Coordinator	Operation Management Client

#### Example:

When the host name of the Active Directory database to be added is "SWREPO2.fujitsu.com"

```
swidmg_set_repository ADDHOST -h SWREPO2.fujitsu.com
```

Refer to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" for details on the swidmg\_set\_repository command (the connection destination Systemwalker authentication repository setup command).

### 4.4.4 Adding Products as the Target for Single Sign-On

---

This section explains how to add Systemwalker products to a Systemwalker Single Sign-On Server that has already started operating.

For example, if the Web console for Systemwalker Service Quality Coordinator is to be added to a Systemwalker Single Sign-On environment that consists of Systemwalker Centric Manager system, perform the following procedure.

1. The task to perform on the computer where the Systemwalker Single Sign-On Server has been installed  
Specify the protected path and download the business system setup file by referring to steps 6 to 9 in "[Creating an Environment for the Authentication Server](#)", and then copy the business system setup file to the server where the Systemwalker product to be added has been installed.
2. The task to perform on the computer where the Systemwalker Single Sign-On Agent has been installed  
Set up the Systemwalker Single Sign-On Agent by referring to "[Setting up the Systemwalker Single Sign-On Agent](#)".

## 4.4.5 Removing Products from the Target for Single Sign-On

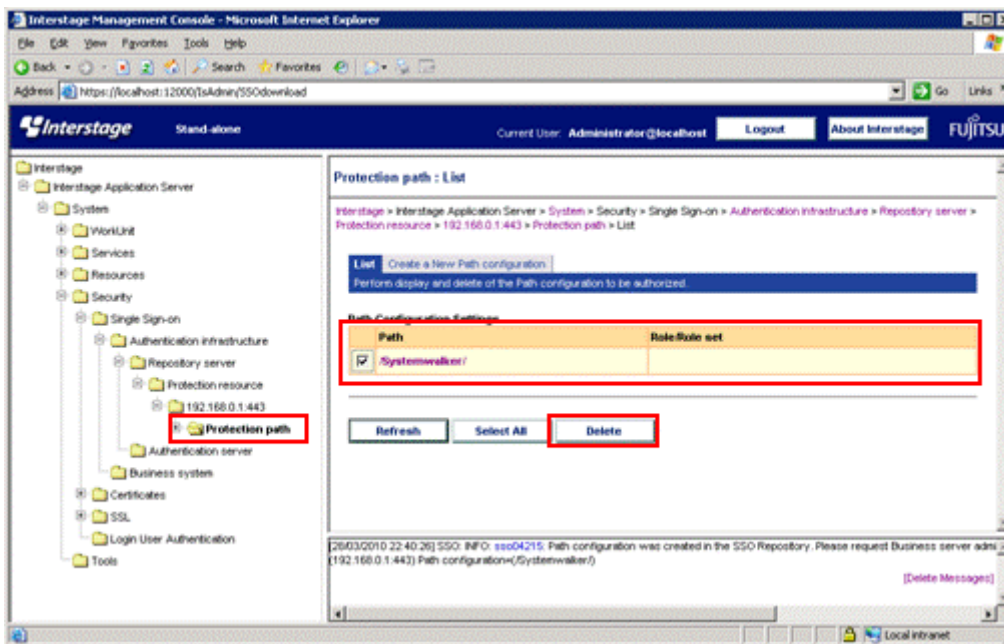
This section explains how to remove a product from the target for Systemwalker Single Sign-On in an operating environment where the Systemwalker Single Sign-On function is being used.

- [The task to perform on the computer where the Systemwalker Single Sign-On Server has been installed](#)
- [The task to perform on the computer where the Systemwalker Single Sign-On Agent has been installed](#)

### The task to perform on the computer where the Systemwalker Single Sign-On Server has been installed

Perform the following procedure.

1. Start the Interstage Management Console.  
Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.
2. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Authentication infrastructure >> Repository server >> Protection resource >> <FQDN:Port number> >> Protection path**.
3. Select the protected path to the product to delete, and then click the **Delete** button.



### The task to perform on the computer where the Systemwalker Single Sign-On Agent has been installed

Delete the control information for the Systemwalker Single Sign-On Agent by referring to the following information:

- When Interstage HTTP Server is used  
Remove the Systemwalker Single Sign-On Agent by referring to the *Interstage Application Server Single Sign-on Operator's Guide*.  
Note that in the *Interstage Application Server Single Sign-on Operator's Guide*, the Systemwalker Single Sign-On Agent is described as a "Business Server".

- When Microsoft(R) Internet Information Services is used

Remove the Systemwalker Single Sign-On Agent by referring to steps 1 to 4 in "[When Microsoft\(R\) Internet Information Services is Used](#)".

## 4.5 What to Do If the Systemwalker Single Sign-On Server Has Stopped

---

If the Systemwalker Single Sign-On Server becomes unavailable for some reason (such as a server shutdown due to a fault or regular maintenance), single sign-on operations must be stopped temporarily.

In this case, the Systemwalker Single Sign-On function can be stopped by removing the Systemwalker Single Sign-On Agent from the servers where the following Systemwalker products have been installed, so that only the Systemwalker User Management function can be used.

Product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server
Systemwalker Service Quality Coordinator	Operation Management Client

This section explains how to remove the Systemwalker Single Sign-On Agent from each Web server that is being used as a Web console for Systemwalker products.

- When Interstage HTTP Server is used

Remove the Systemwalker Single Sign-On Agent by referring to the *Interstage Application Server Single Sign-on Operator's Guide*.

Note that in the *Interstage Application Server Single Sign-on Operator's Guide*, the Systemwalker Single Sign-On Agent is described as a "Business Server".

- When Microsoft(R) Internet Information Services is used

Remove the Systemwalker Single Sign-On Agent by referring to the "[When Microsoft\(R\) Internet Information Services is Used](#)".

## 4.6 What to Do If the Systemwalker Authentication Repository Has Stopped

---

If the Systemwalker authentication repository becomes unavailable for some reason, the Systemwalker User Management function and the Systemwalker Single Sign-On function cannot be used.

In this case, the connection destination repository settings must be disabled, and the authentication method must be changed back to separate authentication for each Systemwalker product (the authentication method that was used in the old version).

Once the Systemwalker authentication repository has recovered, enable the connection destination settings again, and restart operations using the Systemwalker User Management function and the Systemwalker Single Sign-On function.

This section explains how to disable and enable the connection destination repository settings.

- [Disabling the connection destination repository settings](#)
- [Enabling the connection destination repository settings](#)

### Disabling the connection destination repository settings

Use the following procedure to disable the connection destination repository settings.

1. Execute the following command:

```
swidmg_set_repository DISABLE
```

The execution location and storage location of the swidmg\_set\_repository command are as follows.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

Refer to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" for details on the swidmg\_set\_repository command.

2. Register users with each Systemwalker product that they will log in to.

Refer to the manual for the Systemwalker product for details on how to register users.

3. Perform authentication from the Web console for each Systemwalker product.



Some Systemwalker products may need to be restarted.

To determine whether to restart a particular Systemwalker product, refer to the manual for that product that describes the procedure for using the Systemwalker authentication repository.

## Enabling the connection destination repository settings

Use the following procedure to enable the connection destination repository settings.

1. Execute the following command:

```
swidmg_set_repository ENABLE
```

The execution location and storage location of the swidmg\_set\_repository command are as follows.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

Refer to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" for details on the `swidmg_set_repository` command.

2. If any of the users that were registered in step 2 of the procedure for disabling the connection destination repository settings are no longer required, delete them.

 **Point**

.....

Some Systemwalker products may need to be restarted.

To determine whether to restart a particular Systemwalker product, refer to the manual for that product that describes the procedure for using the Systemwalker authentication repository.

.....

# Chapter 5 Uninstallation

This chapter explains how to uninstall the Systemwalker User Management function and the Systemwalker Single Sign-On function.

## [Overall flow for the uninstallation procedure]

Asterisks (\*) indicate steps that are implemented for each Systemwalker product.



## 5.1 Deleting the Systemwalker Single Sign-On Agent Settings

This section explains how to delete the Systemwalker Single Sign-On Agent.

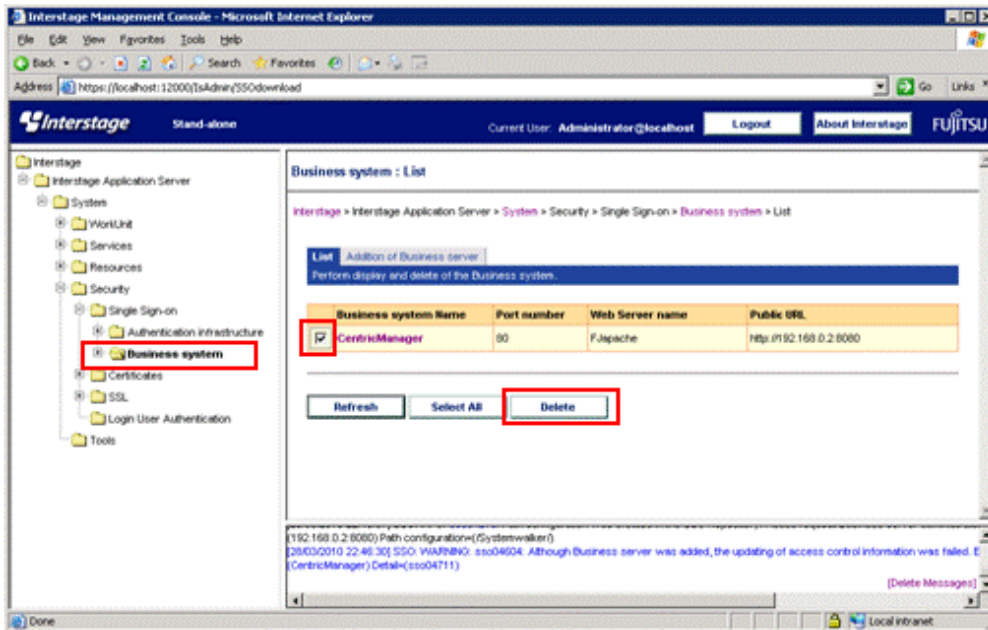
The deletion procedure depends on the type of the Web server being used.

### 5.1.1 When Interstage HTTP Server Is Used

1. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

- In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system**. Then select the check box for the business system to be deleted, and click the **Delete** button.



- Restart the Interstage HTTP Server used by the Systemwalker product.

## 5.1.2 When Microsoft(R) Internet Information Services Is Used

The deletion procedure varies depending on whether the Systemwalker product is located on the same server as the Systemwalker Single Sign-On Server or Interstage Application Server.

- If the Systemwalker product is not located on the same server
- If the Systemwalker product is located on the same server

If the Systemwalker product is not located on the same server

Use the following procedure to delete the Systemwalker Single Sign-On Agent.

- Delete the settings information for the Systemwalker Single Sign-On Agent by executing the following command on the client or server where the Web console for the Systemwalker product has been installed.

```
swidmg_set_ssoagent DELETE
```

Execute the swidmg\_set\_ssoagent command on the following Systemwalker products, for which a Web console has been installed.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Installation directory
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client



Refer to the "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" for details on the swidmg\_set\_ssoagent command.

2. Select the name of the system to be deleted, and then press the <Enter> key.

```
The following systems are registered.
[Setting-1]
System Name :Systemwalker001
Protected path :/Systemwalker/

[Setting-2]
System Name :Systemwalker002
Protected path :/Systemwalker2/

What environment settings among to be deleted? (If multiple settings would be deleted, separate each
by ",".)
SELECT ==> 1
```

3. Confirm the name of the system to be deleted, and press "y" and then the <Enter> key.

```
The following environment would be deleted.
[Setting-1]
System Name :Systemwalker001
Protected path : /Systemwalker/

Would the environment delete process be initiated ? [ y: initiate, n: terminate, r: correction]
SELECT ==> y
```

4. After the processing is completed, the following message will be displayed.

```
[2009/08/27 12:00:00] FSP_FJSVswaic: INFO: 13005: Deleting the environment ended normally.
```

5. Delete the Systemwalker Single Sign-On Agent function that has been registered with Microsoft(R) Internet Information Services.

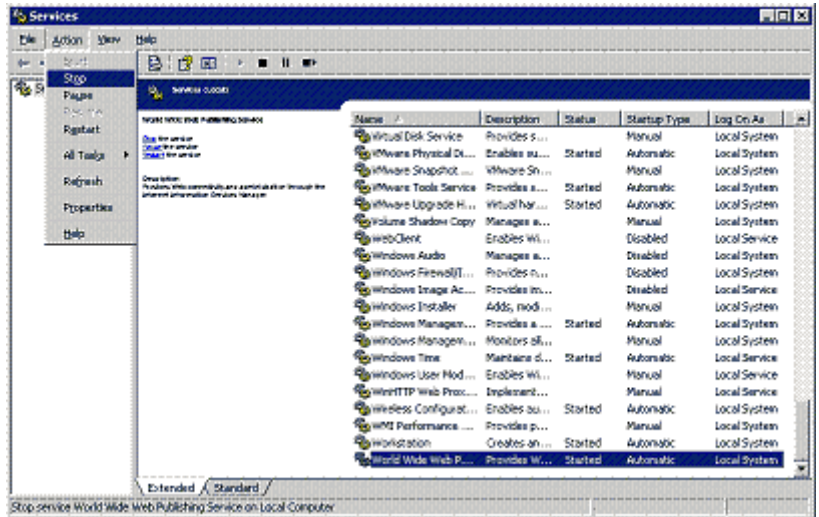
- [For Microsoft\(R\) Internet Information Services 6.0](#)
- [For Microsoft\(R\) Internet Information Services 7.0](#)

For Microsoft(R) Internet Information Services 6.0

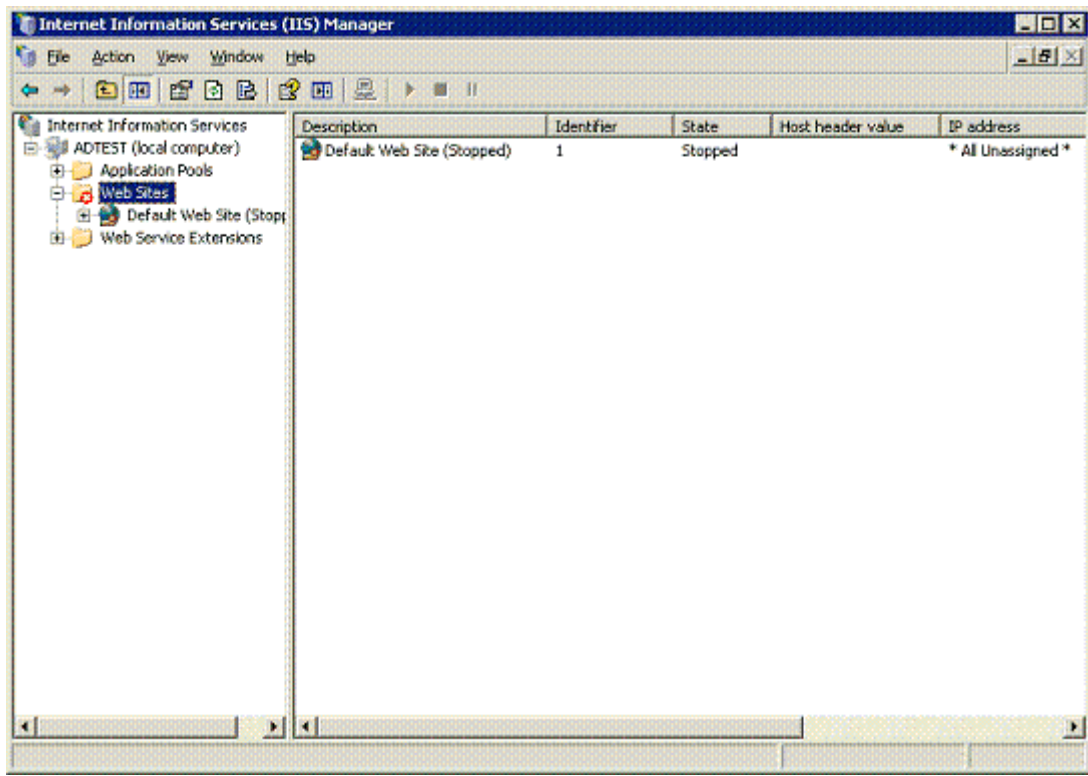
Use the following procedure to delete the Systemwalker Single Sign-On Agent function.

- a. Open the **Services** dialog box by selecting **Programs, Administrative Tools** and then **Services** from the **Start** menu, and check whether the **World Wide Web Publishing Service** is running.

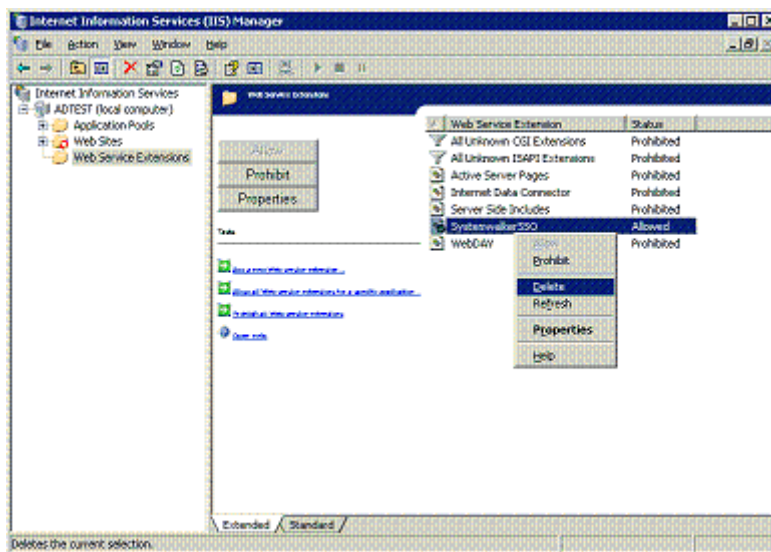
If World Wide Web Publishing Service is already running, select the **World Wide Web Publishing Service**, and then select **Stop** from the **Action** menu.



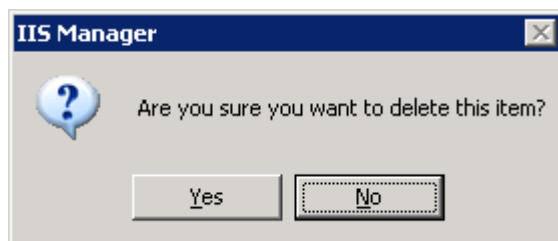
b. From the **Start** menu, select **Programs >> Administrative Tools >> Internet Information Services (IIS) Manager**.



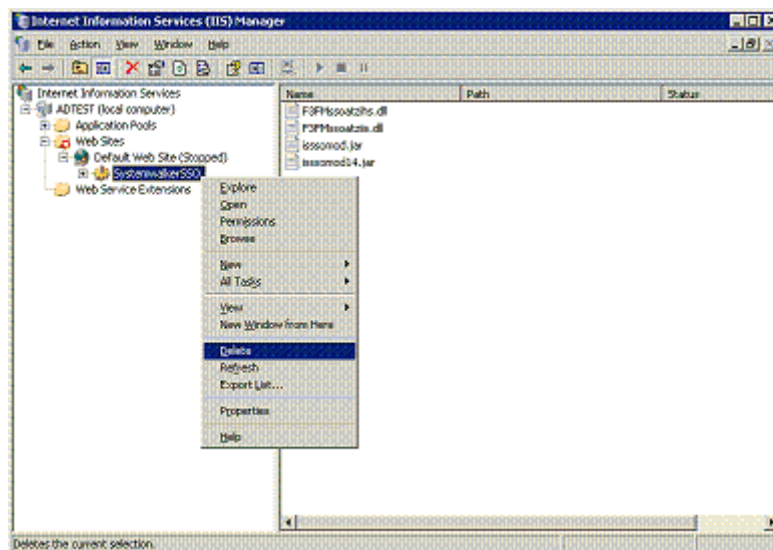
- c. Right-click **SystemwalkerSSO** from the list of Web service extensions, and then select **Delete** from the pop-up menu.



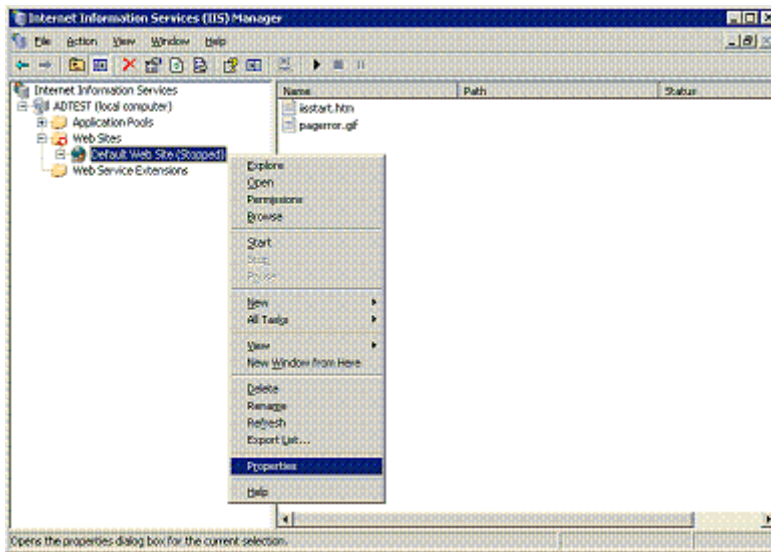
- d. Select **Yes** in the **IIS Manager** window that is displayed as a result of selecting **Delete**.



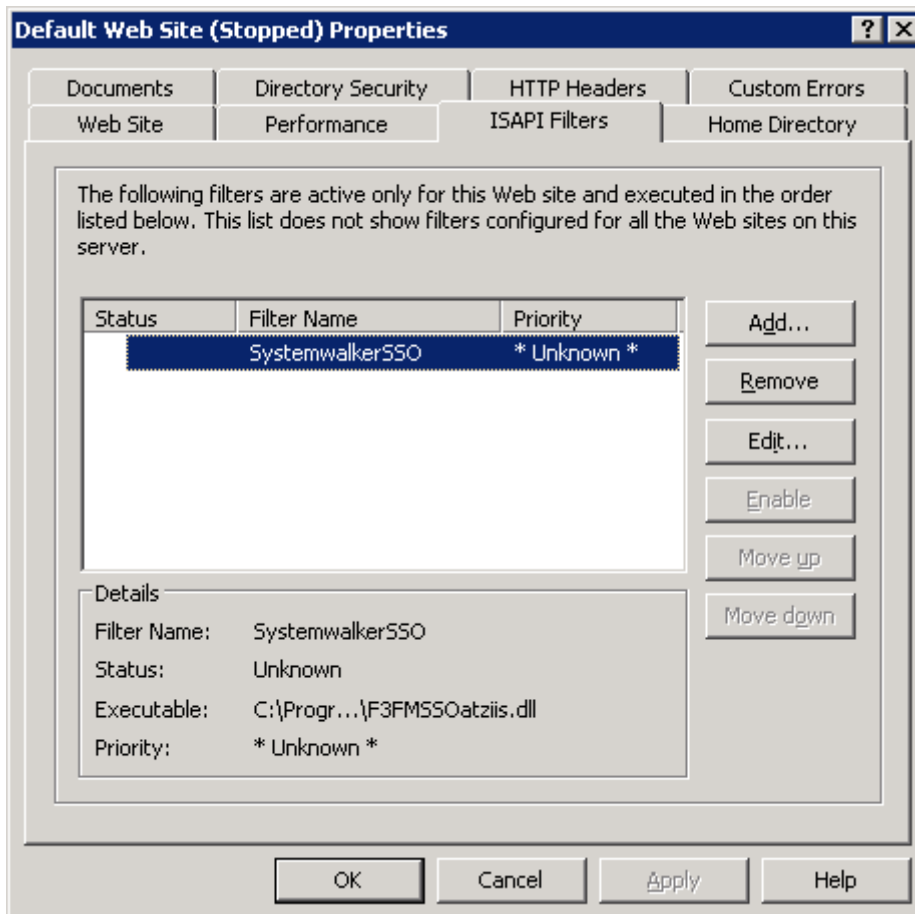
- e. Right-click the **SystemwalkerSSO** virtual directory, and then select **Delete** from the pop-up menu.



- f. Open the Properties sheet by right-clicking on **Default Web Site** and then selecting **Properties** from the pop-up menu.

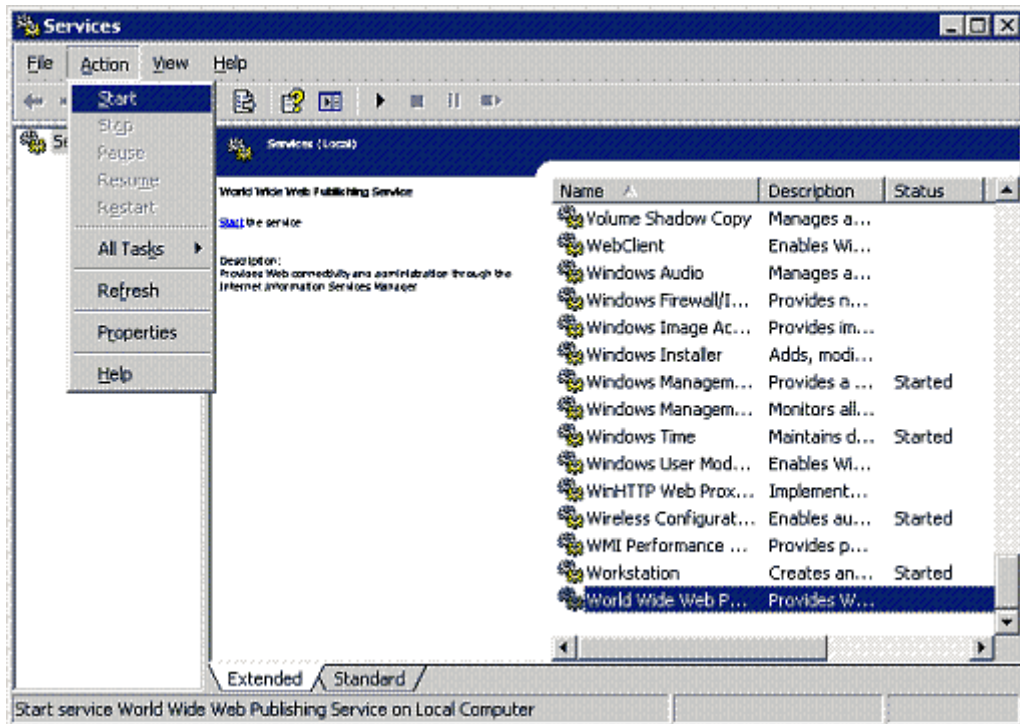


- g. Select the **ISAPI Filters** tab, and then select **SystemwalkerSSO** and click the **Remove** button.



- h. Start World Wide Web Publishing Services when all these steps have been completed.

From the **Start** menu, select **Programs >> Administrative Tools >> Services**. Select the **World Wide Web Publishing Service**, and then select **Start** from the **Action** menu.

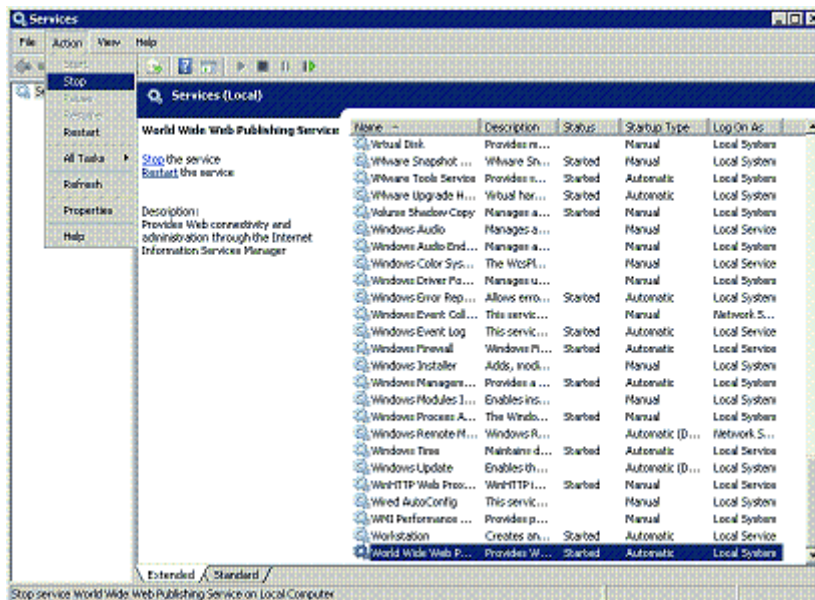


For Microsoft(R) Internet Information Services 7.0

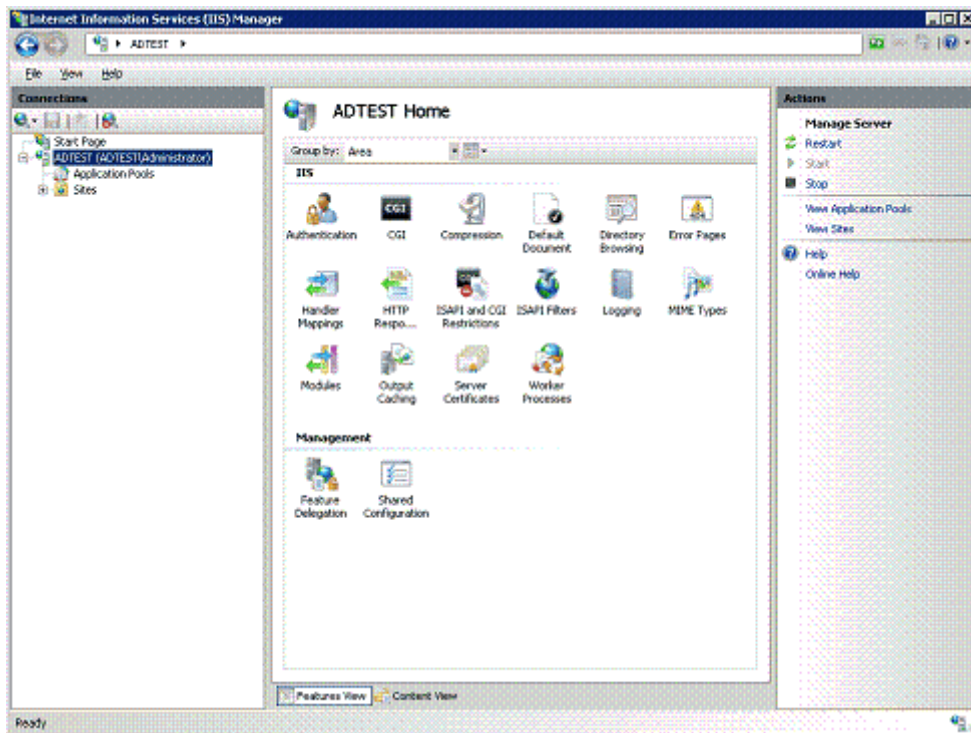
Use the following procedure to delete the Systemwalker Single Sign-On Agent.

- a. Open the **Services** dialog box by selecting **Programs, Administrative Tools** and then **Services** from the **Start** menu, and check whether the **World Wide Web Publishing Service** is running.

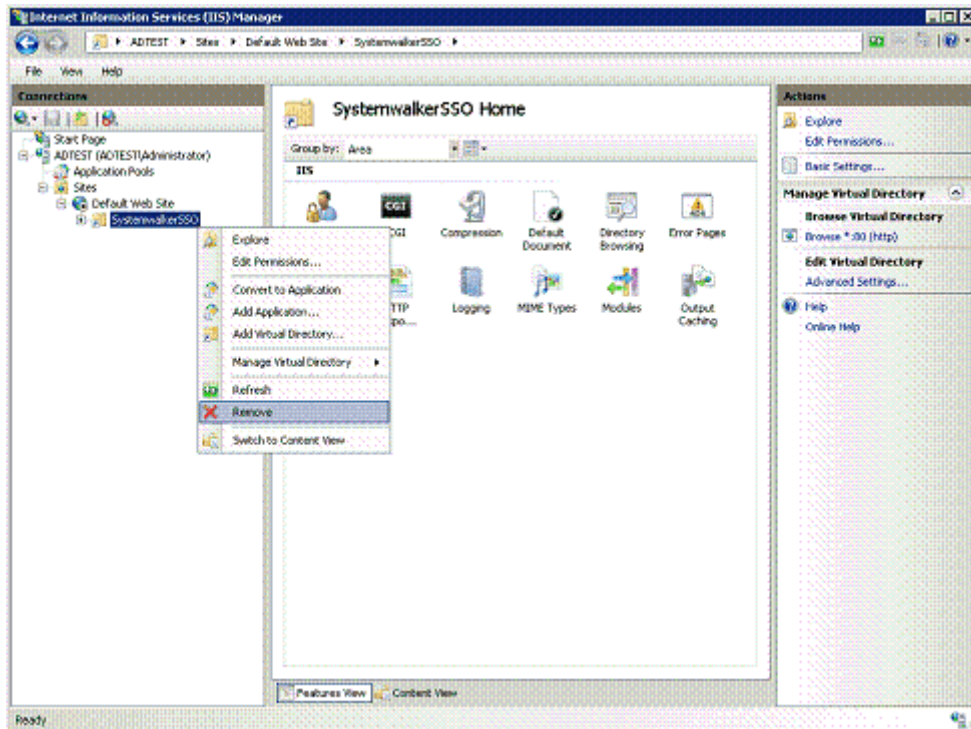
If **World Wide Web Publishing Service** is already running, select the **World Wide Web Publishing Service**, and then select **Stop** from the **Action** menu.



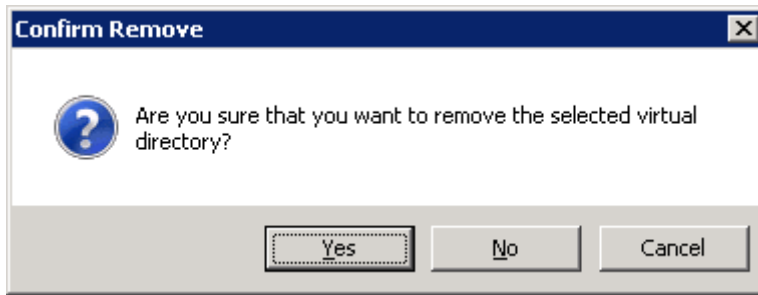
- b. From the **Start** menu, select **All Programs >> Administrative Tools >> Internet Information Services (IIS) Manager**.



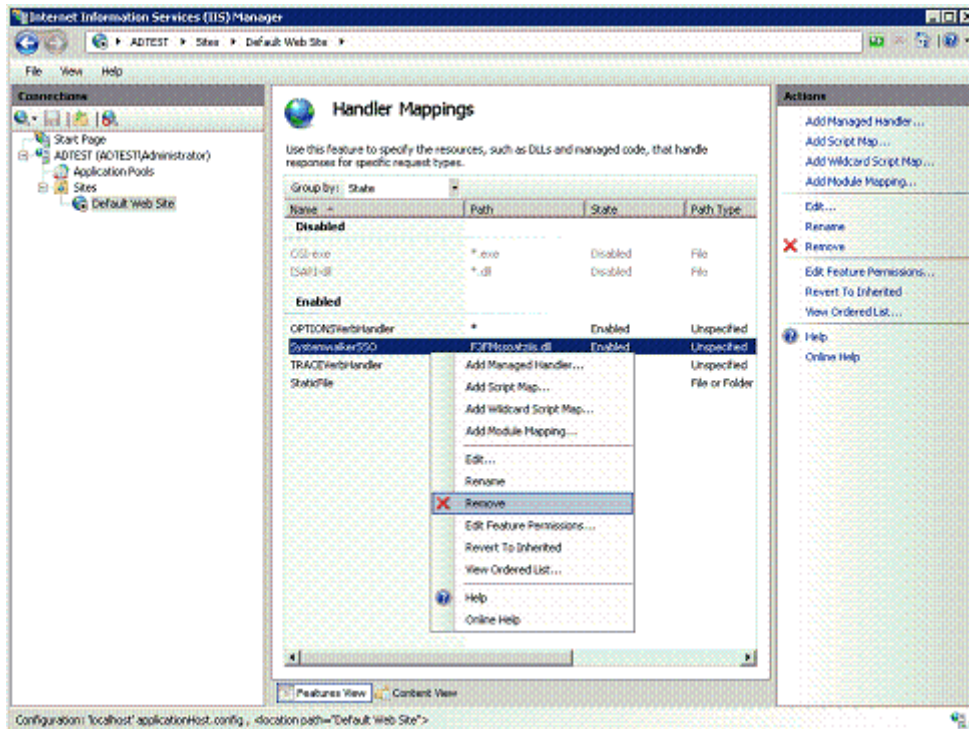
- c. Right-click the **SystemwalkerSSO** virtual directory, and then select **Delete** from the pop-up menu.



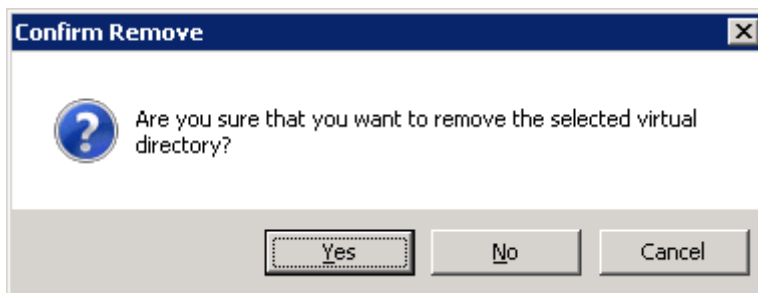
- d. Select **Yes** in the **Confirm Remove** window that is displayed.



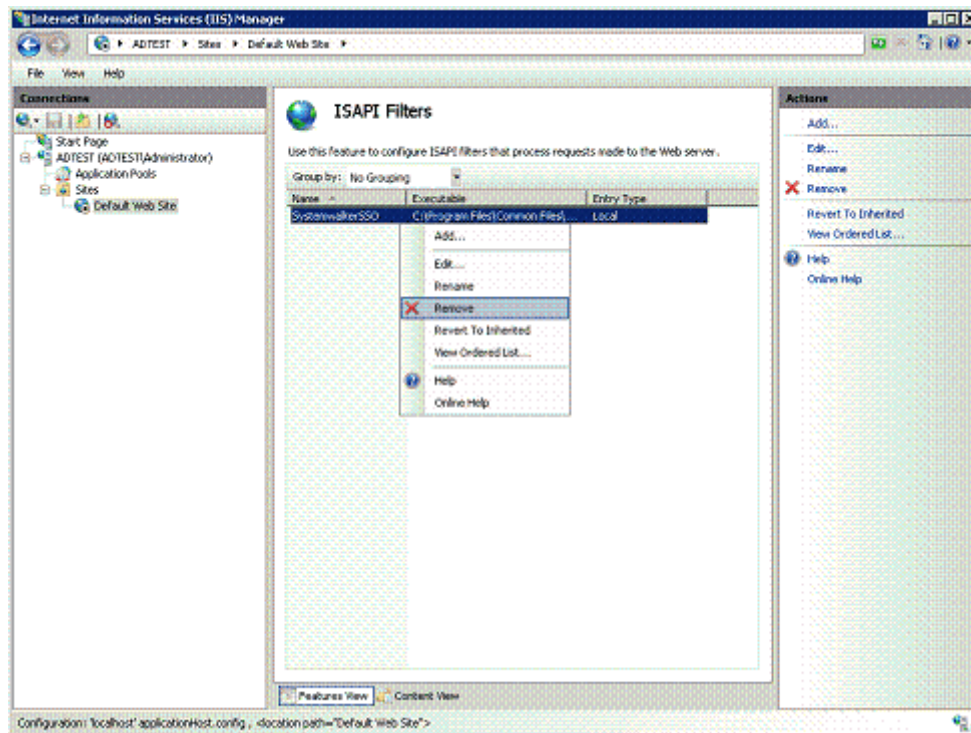
- e. Select the site where Systemwalker is included, and then double-click on **Handler Mappings** in the **Features View**. Right-click on **SystemwalkerSSO** and then select **Remove** from the pop-up menu.



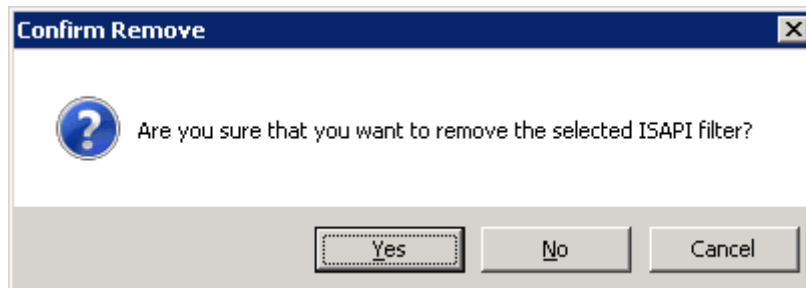
- f. Select **Yes** in the **Confirm Remove** window that is displayed.



- g. Select the site where Systemwalker is included, and then double-click on **ISAPI Filters** in the **Features View**. Right-click on **SystemwalkerSSO** and then select **Remove** from the pop-up menu.

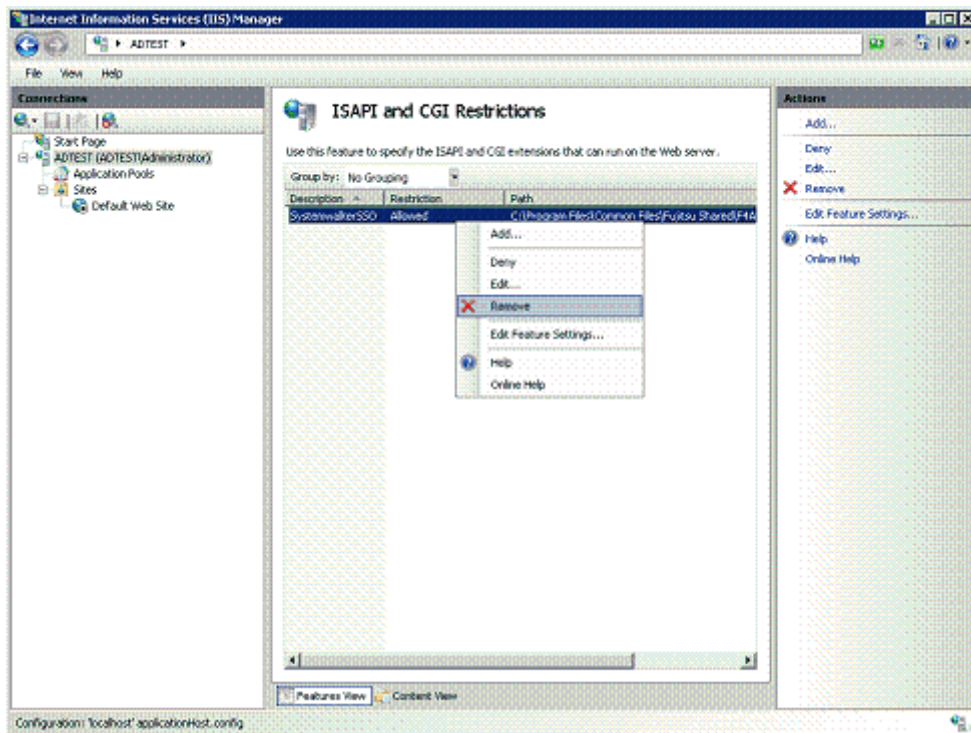


- h. Select **Yes** in the **Confirm Remove** window that is displayed.

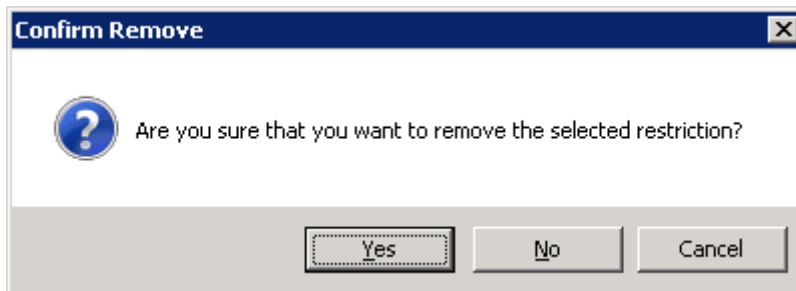




- i. Select the site where Systemwalker is included, and then double-click on **ISAPI and CGI Restrictions** in the **Features View**. Right-click on **SystemwalkerSSO** and then select **Remove** from the pop-up menu.

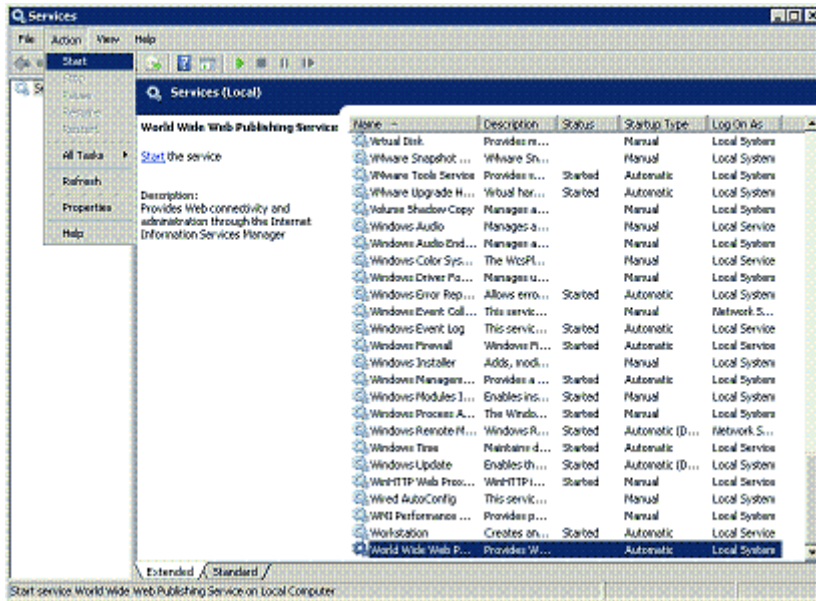


- j. Select **Yes** in the **Confirm Remove** window that is displayed.



- k. Start World Wide Web Publishing Services when all these steps have been completed.

From the **Start** menu, select **Programs >> Administrative Tools >> Services**. Select the **World Wide Web Publishing Service**, and then select **Start** from the **Action** menu.



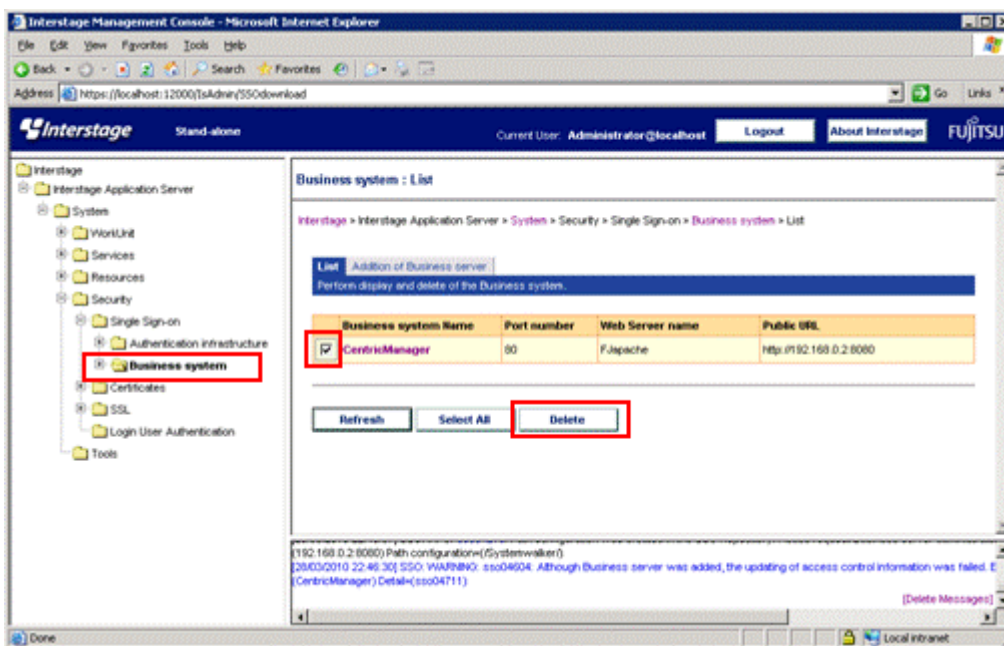
If the Systemwalker product is located on the same server

Use the following procedure to delete the Systemwalker Single Sign-On Agent.

1. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

2. In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system**. Then select the check box for the business system to be deleted, and click the **Delete** button.



3. Delete the business server by referring to "[For Microsoft\(R\) Internet Information Services 6.0](#)" or "[For Microsoft\(R\) Internet Information Services 7.0](#)", as appropriate.

4. Restart the Microsoft(R) Internet Information Services used by the Systemwalker product.

### 5.1.3 When Apache2.0.x Is Used

The deletion procedure varies depending on whether the Systemwalker product is located on the same server as the Systemwalker Single Sign-On Server or Interstage Application Server.

- [If the Systemwalker product is not located on the same server](#)
- [If the Systemwalker product is located on the same server](#)

If the Systemwalker product is not located on the same server

Use the following procedure to delete the Systemwalker Single Sign-On Agent.

1. Delete the settings information for the Systemwalker Single Sign-On Agent by executing the following command on the server where the Web console for the Systemwalker product has been installed.

```
swidmg_set_ssoagent DELETE
```

[Command location]

OS	Installation directory
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

Refer to the "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" for details on the swidmg\_set\_ssoagent command.

2. Select the name of the system to be deleted, and then press the <Enter> key.

```
The following systems are registered.
[Setting-1]
System Name :Systemwalker001
Protected path :/Systemwalker/
System Name :Systemwalker002
Protected path :/MpScript/
What environment settings among to be deleted? (If multiple settings would be deleted, separate each by ",".)
SELECT ==> 1
```

3. Confirm the name of the system to be deleted, and press "y" and then the <Enter> key.

```
The following environment would be deleted.
[Setting-1]
System Name : CentricManager
Protected path : /Systemwalker/
Would the environment delete process be initiated ? [ y: initiate, n: terminate, r: correction]
SELECT ==> y
```

4. After the processing is completed, the following message will be displayed.

```
Deleting the environment ended normally.
```

5. Delete the following entry from the httpd.conf file.

For "*system name*", specify the business system name that was specified in step 3.

[Windows]

```
LoadModule ssoatzihs_module "%F4AM_INSTALL_PATH%\F4AMidmg\client\F3FMssso\ssoatzag\lib
\F3FMsssoatzihs.dll"
ISSsoBusinessSystemName <system name>
```

[UNIX]

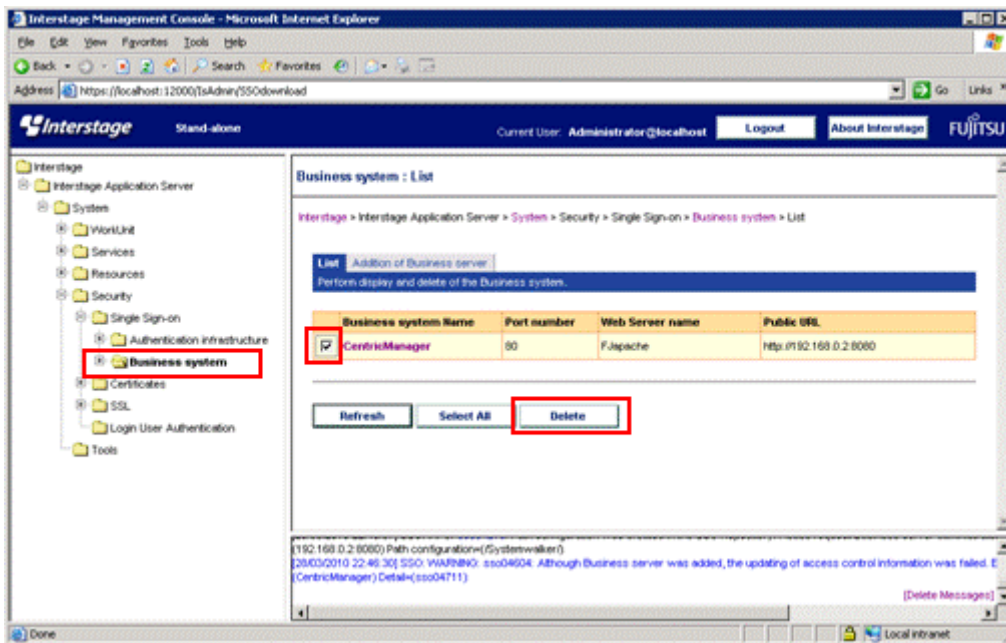
```
LoadModule ssoatzihs_module "/opt/FJSVsssoaz/lib/ssoatzihs.so"
ISSsoBusinessSystemName <system name>
```

- Restart the Web server.

If the Systemwalker product is located on the same server

Use the following procedure to delete the business server.

- Start the Interstage Management Console.  
Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.
- In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Business system**. Then select the check box for the business system to be deleted, and click the **Delete** button.



- Delete the following entry from the httpd.conf file.

For "*system name*", specify the business system name that was specified in step 2.

[Windows]

```
LoadModule ssoatzihs_module "<Interstage installation directory>\F3FMssso\sssoatzag\lib\F3FMsssoatzihs.dll"
ISSsoBusinessSystemName <system name>
```

[UNIX]

```
LoadModule ssoatzihs_module "/opt/FJSVsssoaz/lib/ssoatzihs.so"
ISSsoBusinessSystemName <system name>
```

- Restart the Web server.

## 5.2 Uninstalling the Systemwalker Single Sign-On Agent

This section explains how to uninstall the Systemwalker Single Sign-On Agent.

After the settings for the Systemwalker Single Sign-On Agent have been deleted, uninstall the Systemwalker Single Sign-On Agent by executing the F4AMsetup command (Systemwalker Single Sign-On function setup command).

Execute this command only once even if multiple Systemwalker products have been installed.

```
F4AMsetup -u -p <installed product name> -s -o SSO
```

The following tables show the execution and storage locations of the F4AMsetup command, and the parameters to specify for the names of the installed products.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Location
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client\setup
UNIX	/opt/FJSVswaic/client/setup

[Parameters to specify for the names of the installed products]

Systemwalker product name	Parameters to specify for the names of the installed products
Systemwalker Centric Manager	SWCMGR
Systemwalker Service Quality Coordinator	SWSQC

Refer to the "[F4AMsetup \(Systemwalker Single Sign-On Function Setup Command\)](#)" for details on the F4AMsetup command.

## 5.3 Deleting the Connection Destination Systemwalker Authentication Repository Settings

This section explains how to delete the settings for the connection destination Systemwalker authentication repository from each of the servers for Systemwalker products.



Delete the settings for the connection destination Systemwalker authentication repository only when all the Systemwalker products are no longer used.

Execute the following command to delete the settings.

```
swidmg_set_repository UNSET
```

The execution location and storage location of the swidmg\_set\_repository command are as follows.

[Command execution location]

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server
Systemwalker Service Quality Coordinator	Operation Management Client

[Storage location]

OS	Installation directory
Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

Refer to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" for details on the swidmg\_set\_repository command.

## 5.4 Deleting the Systemwalker Single Sign-On Server Settings

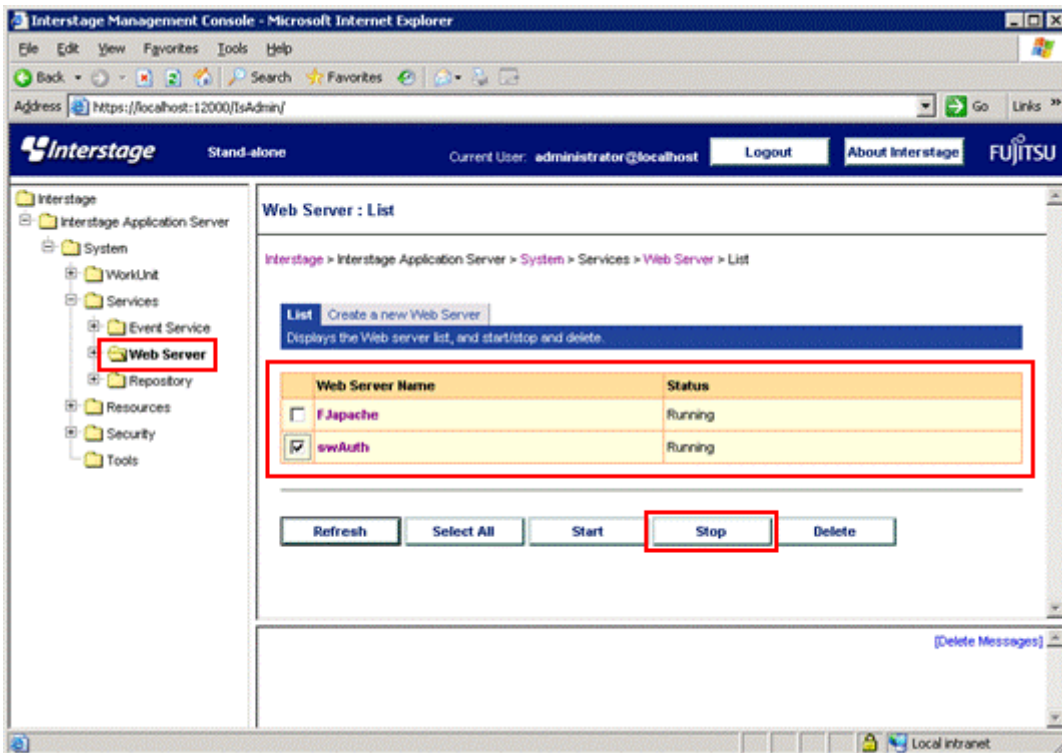
This section explains how to delete the Systemwalker Single Sign-On Server.

Use the following procedure to delete the Systemwalker Single Sign-On Server.

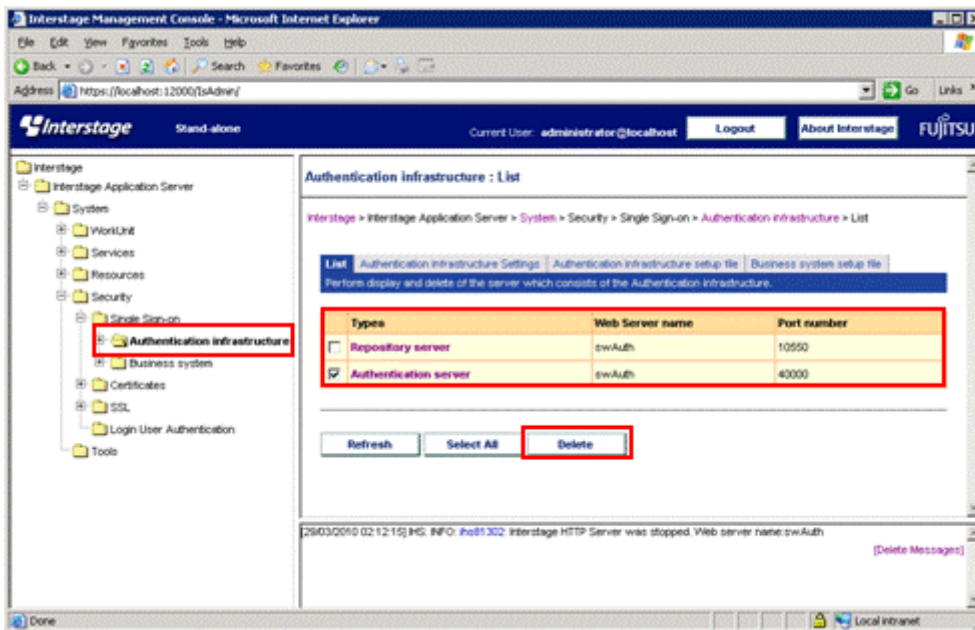
1. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

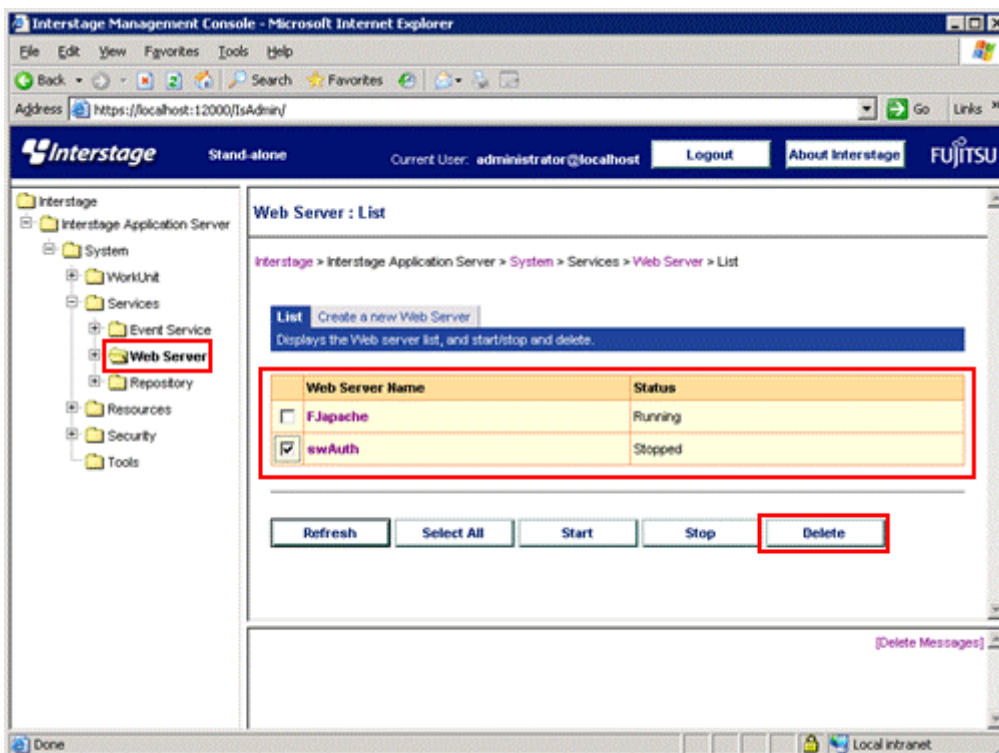
2. In the **Interstage Management Console** window, select **System** >> **Services** >> **Web Server**. Select the check box for the Web server that has been constructed for the authentication server, and then click the **Stop** button.



- In the **Interstage Management Console** window, select **System >> Security >> Single Sign-on >> Authentication infrastructure**. Then select the check boxes for **Repository server** and **Authentication server**, and click the **Delete** button.



- In the **Interstage Management Console** window, select **System >> Services >> Web Server**. Select the check box for the Web server that was stopped in step 2, and then click the **Delete** button.



## 5.5 Deleting the Systemwalker Authentication Repository Settings

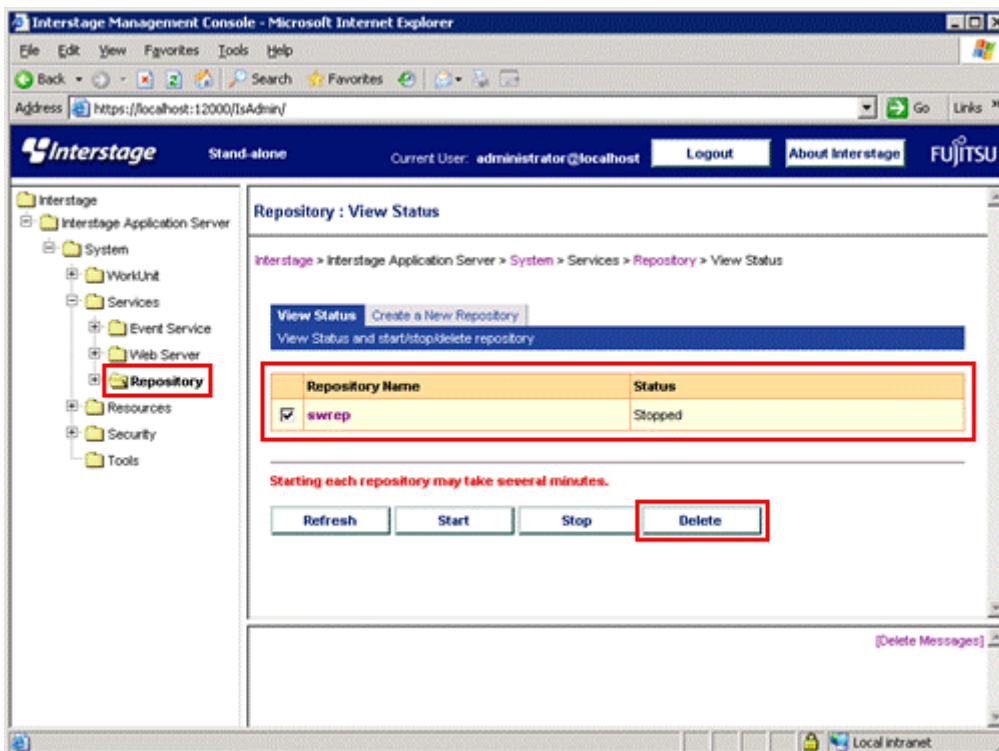
The method for deleting the Systemwalker authentication repository settings depends on the operating mode.

- If both the Systemwalker Single Sign-On function and the Systemwalker User Management function are being used and the Interstage Directory Service is being used for Systemwalker User Management:  
Delete the Systemwalker authentication repository by referring to "[When the Interstage Directory Service Is Used](#)".
- If both the Systemwalker Single Sign-On function and the Systemwalker User Management function are being used and Active Directory is being used for Systemwalker User Management:  
Delete the Systemwalker authentication repository by referring to "[When Active Directory Is Used](#)" and "[When the Interstage Directory Service Is Used](#)".
- If only the Systemwalker User Management function is being used and the Interstage Directory Service is being used for Systemwalker User Management:  
Delete the Systemwalker authentication repository by referring to "[When the Interstage Directory Service Is Used](#)".
- If only the Systemwalker User Management function is being used and Active Directory is being used for Systemwalker User Management:  
Delete the Systemwalker authentication repository by referring to "[When Active Directory Is Used](#)".

## 5.5.1 When the Interstage Directory Service Is Used

If the Interstage Directory Service is used as the Systemwalker authentication repository, use the following procedure to delete the settings for the Systemwalker authentication repository.

1. Start the Interstage Management Console.  
Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.
2. In the **Interstage Management Console** window, select **System** >> **Services** >> **Repository**. Then select the repository used by the Systemwalker product and click the **Stop** button. Then, click the **Delete** button.



## 5.5.2 When Active Directory Is Used

Delete the settings for the Systemwalker authentication repository by referring to the relevant Microsoft manual.



## 5.6 Deleting the SSL Environment

This section explains how to delete the SSL communication environment.

- [When simple certificates for Systemwalker are used](#)
- [When certificates other than simple certificates for Systemwalker are used](#)

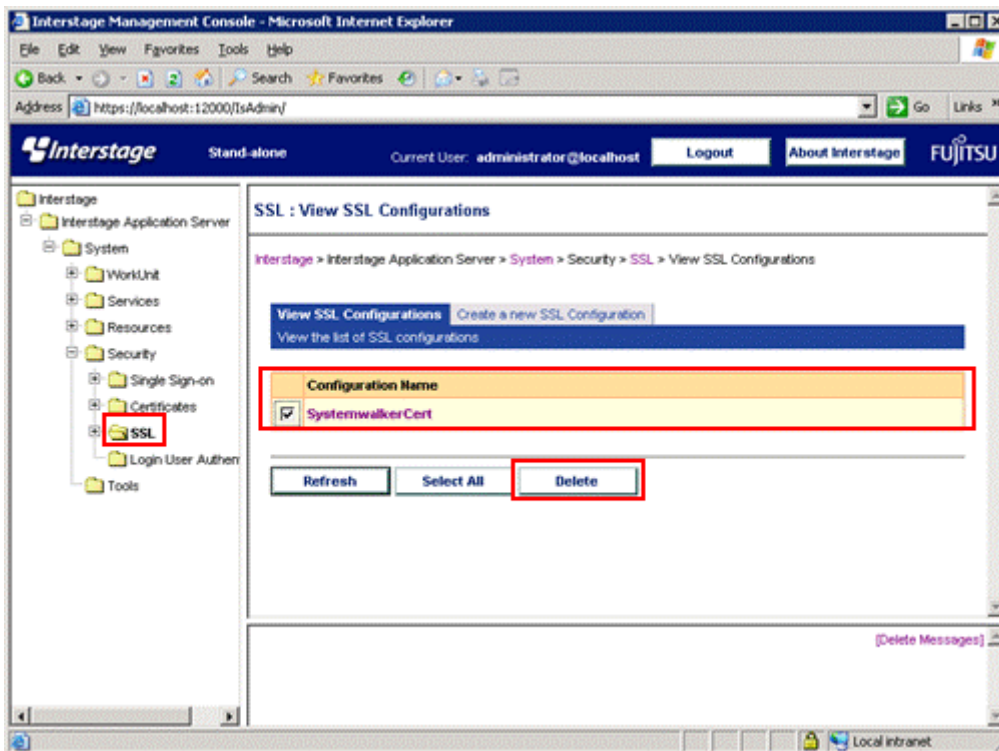
### When simple certificates for Systemwalker are used

Use the following procedure to delete the SSL environment.

1. Start the Interstage Management Console.

Refer to "[How to start the Interstage Management Console](#)" for details on how to start the Interstage Management Console.

2. In the **Interstage Management Console** window, select **System >> Security >> SSL**. Select the check box for the SSL environment that was created for the Systemwalker product, and then click the **Delete** button.



3. Execute the following command to delete the certificate:

```
scsdelete -n SystemwalkerCert
```

[Command location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	<Interstage installation directory>/bin

[Execution example]

```
scsdelete -n SystemwalkerCert
Password:
SCS: INFO: scs0103: Certificate was deleted
```

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the scsdelete command.

## When certificates other than simple certificates for Systemwalker are used

When certificates other than simple certificates for Systemwalker are being used, delete the SSL environment by referring to "Authentication and Encrypted Communications through Support for SSL" in the *Interstage Application Server Security Operator's Guide*.

## 5.7 Uninstalling the Systemwalker Single Sign-On Server [Windows]

---

This section explains how to uninstall the Systemwalker Single Sign-On Server from Windows servers.

For the UNIX version, this step is not required because the Systemwalker Single Sign-On Server is uninstalled when Interstage Application Server is uninstalled. Refer to "[Uninstalling Interstage Application Server](#)" for details on how to uninstall Interstage Application Server.

### Uninstalling from Windows servers

Use the following procedure to uninstall the Systemwalker Single Sign-On Server.

1. Log on to the computer from which the Systemwalker Single Sign-On Server is to be uninstalled.

To uninstall the Systemwalker Single Sign-On Server from the following Windows systems, log on as a user belonging to the local Administrators group.

- Windows(R) 2000
- Windows Server 2003 STD/Windows Server 2003 EE
- Windows Server 2008 STD/Windows Server 2008 EE/Windows Server 2008 for Itanium-Based Systems/Windows Server 2008 Foundation/Windows Server 2008 R2

If the installation environment is a domain controller, log on as a user belonging to the built-in local Administrators group.

2. Start the uninstaller.

- When the operating system is other than Windows Server 2008

Select **Control Panel** and then **Add/Remove Programs** from the **Start** menu.

- When the operating system is Windows Server 2008

Select **Control Panel** and then **Programs /Functions** from the **Start** menu, and run the uninstaller in administrator mode.

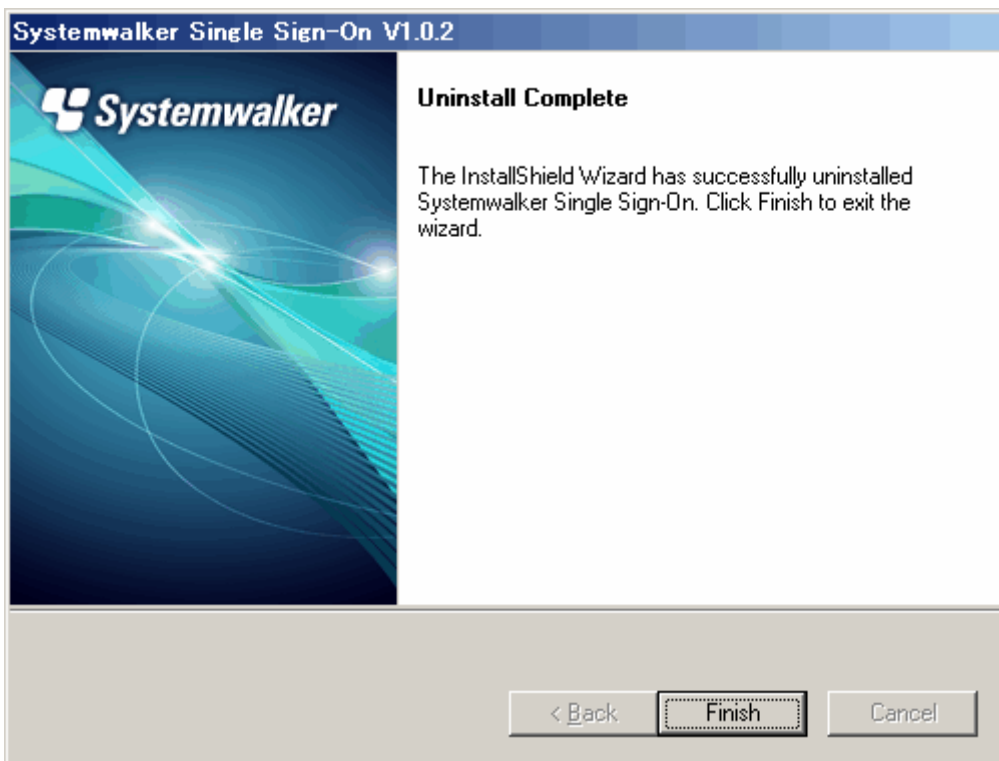
3. Select **Systemwalker Single Sign-On** and click the **Remove** button.

4. A message will be displayed confirming whether to continue with the uninstallation processing.

To continue with the uninstallation, click **Yes**. Otherwise click **No** to cancel the uninstallation.



5. A message will be displayed indicating that the uninstallation is complete, so click the **Finish** button.



## 5.8 Uninstalling Interstage Application Server

---

This section explains how to uninstall Interstage Application Server.

- [Uninstalling from Windows servers](#)
- [Uninstalling from Solaris servers](#)
- [Uninstalling from Linux servers](#)



### Note

Make sure that no other products are using Interstage Application Server before uninstalling it.

For the Windows and Linux versions, refer to Readme for details on how to uninstall Interstage Application Server. For the Solaris version, refer to the *Interstage Application Server Installation Guide*.

### Uninstalling from Windows servers

Use the following procedure to uninstall Interstage Application Server.

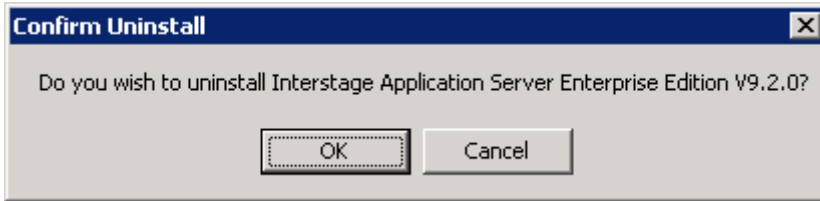
1. Log on to the computer from which Interstage Application Server is to be uninstalled.

To uninstall Interstage Application Server from the following Windows systems, log on as a user belonging to the local Administrators group.

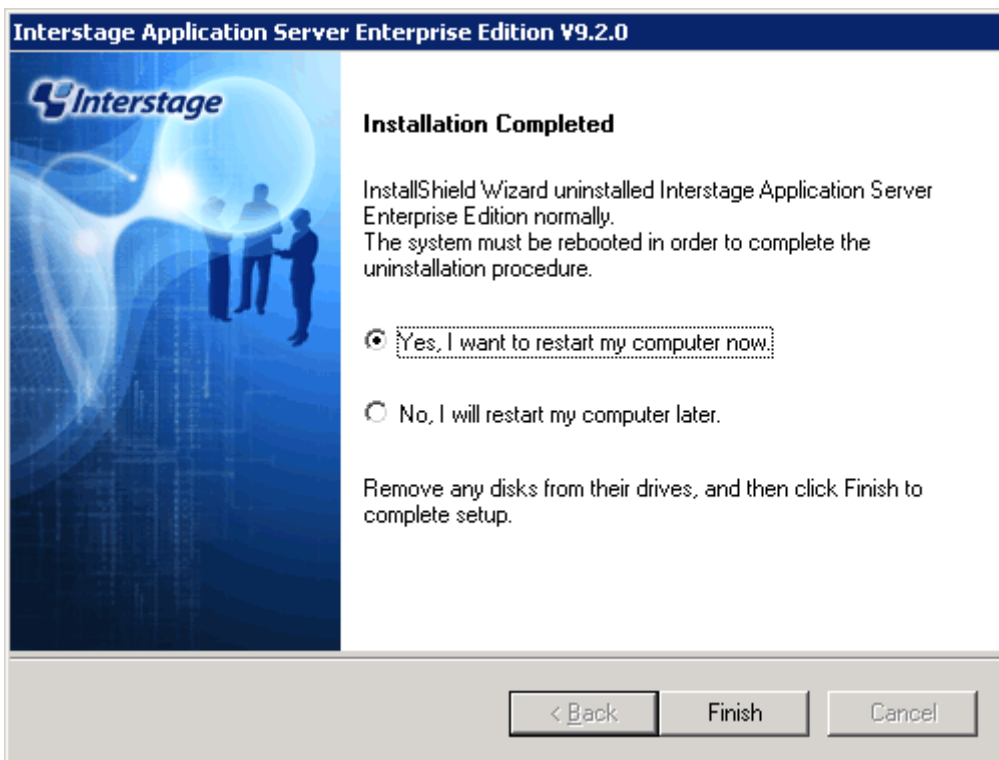
- Windows(R) 2000
- Windows Server 2003 STD/Windows Server 2003 EE
- Windows Server 2008 STD/Windows Server 2008 EE/Windows Server 2008 for Itanium-Based Systems/Windows Server 2008 Foundation/Windows Server 2008 R2

If the installation environment is a domain controller, log on as a user belonging to the built-in local Administrators group.

2. Start the uninstaller.
  - When the operating system is other than Windows Server 2008  
Select **Control Panel** and then **Add/Remove Programs** from the **Start** menu.
  - When the operating system is Windows Server 2008  
Select **Control Panel** and then **Programs /Functions** from the **Start** menu, and run the uninstaller in administrator mode.
3. Select **Interstage Application Server Enterprise Edition V9.2.0** and click the **Change/Remove** button.
4. A message will be displayed confirming whether to continue with the uninstallation processing.  
To continue with the uninstallation, click **OK**. Otherwise click **Cancel** to cancel the uninstallation.



5. The uninstallation process will be terminated.  
A message will be displayed indicating that the uninstallation is complete, and asking whether to restart the computer.  
Restart the computer, either now or later.



## Uninstalling from Solaris servers

Use the following procedure to uninstall Interstage Application Server.



### Notes on uninstalling the CORBA Service

The CORBA Service (FSUNod) included in Interstage is also used by the following products. If the CORBA Service is being used by other products, specify individual packages rather than specifying "all" in step 6, and do not select the FJSVod package.

- Systemwalker Centric Manager Operation Management Server

If the CORBA Service still remains after Interstage has been uninstalled, it can be uninstalled using the following procedure.

1. Check whether any products are using the CORBA Service

Check whether the following product has been installed. If this product has been installed, do not uninstall the CORBA Service.

- Systemwalker Centric Manager Operation Management Server

2. Uninstall the CORBA Service.

Use the pkgrm command to uninstall the CORBA Service.

```
# pkgrm FSUNod <RETURN>
```

### Notes on uninstalling FJSVmee and FJSVslr

The FJSVmee and FJSVslr packages are sometimes included with non-Interstage Fujitsu products, such as Systemwalker Centric Manager. If products that include the FJSVmee and FJSVslr packages have been installed on the server machine where Interstage is being uninstalled, do not specify "all" in step 6. Instead, specify individual packages but do not select the FJSVmee and FJSVslr packages.

1. Log in as superuser.

Log in as superuser on the server where the Systemwalker Single Sign-On Server is to be uninstalled.

2. Stop the application server if the CORBA Service is running.

Execute the following command:

```
# isstop -f
```

The isstop command is stored in the following location.

[Command location]

OS	Location
Solaris	/opt/FSUNtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the isstop command.

3. Stop the service for using the Interstage Management Console if it is running.

Execute the following command:

```
# ismngconsolestop
```

The ismngconsolestop command is stored in the following location.

[Command location]

OS	Location
Solaris	/opt/FJSVsgui/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the `ismngconsolestop` command.

4. Insert the CD-ROM in the CD-ROM drive.

If the volume management daemon is not running, mount the CD-ROM.

```
# mount -F hfsfs -o ro /~ <Mount point of the CD-ROM>
```

### Note

Check the device name for the CD-ROM ("/dev/~") in advance, as this can vary depending on the system.

5. Start the uninstaller.

Move to the mount point for the CD-ROM, and execute the special uninstallation command for this software (`uninstall.sh`) to start the uninstallation.

The method for starting the uninstaller is as follows:

```
# cd <Mount point of the CD-ROM>
# ./uninstall.sh
```

6. Select which packages to uninstall.

In the screen for selecting packages to uninstall, enter "all" and then press the <Enter> key.

```
+-----+
| Interstage Application Server Enterprise Edition V9.2.0 |
|                                     |
|               All Rights Reserved, Copyright(c) FUJITSU 2009 |
+-----+
Packages:
*  1 FJSVjssrc      Interstage JServlet Session Registry Client
*  2 FJSVjssrs      Interstage JServlet Session Registry Server
*  3 FJSVmqd        MessageQueueDirector base
*  4 FJSVisspl      Interstage Sample Integration
*  5 FJSVisgui      Interstage Management Console
*  6 FJSVxmlpc      Fujitsu XML Processor
*  7 FJSVisjee      Interstage Java EE
*  8 FJSVsvmon      Web Service Monitor
*  9 FJSVjs5        Interstage JServlet (Tomcat 5.5 based servlet service)
* 10 FJSVj2ee       Interstage J2EE Common Resource
* 11 FJSVjms        Interstage JMS
* 12 FJSVejb        Interstage EJB Service
* 13 FJSVisjmx      Interstage JMX Service
* 14 FJSVapcst      Interstage Apcoordinator - Struts
* 15 FJSVwebc       Interstage Apcoordinator - Webcoordinator
* 16 FJSVbcco       Interstage Apcoordinator - Bccoordinator
* 17 FJSVihs        Interstage HTTP Server
* 18 FJSVes         ObjectDirector/EventService
* 19 FJSVisscs      Interstage Secure Communication Service
* 20 FJSVjs2su      Interstage JServlet (OperationManagement)
* 21 FJSVsmee       S/MIME & EE Certificate Management Package
* 22 FJSVslcr       Securecrypto Library RunTime
* 23 FJSVena        Enabler Repository for enterprise content knowledge and document management
* 24 FJSVirep       Interstage Directory Service
* 25 FJSVssofs      Interstage Single Sign-on Federation Service
* 26 FJSVfsvl       Single Sign-on Federation Service Library Package
* 27 FJSVssocm      Interstage Single Sign-on Common Library
* 28 FJSVsssoaz     Interstage Single Sign-on Business server
* 29 FJSVsssoac     Interstage Single Sign-on Authentication server
* 30 FJSVssosv     Interstage Single Sign-on Repository server
* 31 FJSVporb       ObjectDirector[Portable-ORB]
```

```

* 32 FJSVots      ObjectTransactionService
* 33 FJSVirepc    Interstage Directory Service Software Development Kit
 34 FJSVjdk6      Fujitsu Java Development Kit 6
* 35 FJSVjdk5    Fujitsu Java Development Kit
* 36 FJSVod       ObjectDirector
* 37 FJSVextp    Transaction Processing Monitor
* 38 FJSVisas    Interstage Application Server Management Function
* 39 FJSVtd       TransactionDirector
Please select packages. When you choose more than one, please separate with ",". [?,??,all,q]:

```

7. A message will be displayed confirming whether to continue with the uninstallation processing.

To continue with the uninstallation, enter "y". Otherwise enter "q" to cancel the uninstallation.

```

Uninstall information:
  Uninstallation packages:
    FJSVjssrc FJSVjssrs FJSVmqd FJSVisspl FJSVisgui FJSVxmlpc FJSVsvmon FJSVjs5 FJSVj2ee
FJSVjms FJSVejb FJSVisjmx FJSVapcst FJSVwebc FJSVbcco FJSVihs FJSVes FJSVisscs FJSVjs2su
FJSVsmee FJSVscldr FJSVena FJSVirep FJSVssofs FJSVfsvl FJSVssocm FJSVssoaz FJSVssoac FJSVssosv
FJSVporb FJSVots FJSVirepc FJSVjdk5 FJSVod FJSVextp FJSVisas FJSVtd

Do you want to proceed with the uninstallation ? [y,q]:

```

8. The uninstallation process will be terminated.

The following message will be displayed indicating that the uninstallation has completed.

```

Uninstallation of "Interstage Application Server" has ended.

```

9. Restart the system.

The following example shows the command for restarting the system.

**Example:**

```

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

```

## Uninstalling from Linux servers

Use the following procedure to uninstall Interstage Application Server.



### Note

#### Notes on uninstalling the CORBA Service

The CORBA Service (FJSVod) included in Interstage is also used by the following product. If the CORBA Service is being used by other products, specify individual packages rather than specifying "all" in step 6, and do not select the FJSVod package.

- Systemwalker Centric Manager Operation Management Server

If the CORBA Service still remains after Interstage has been uninstalled, it can be uninstalled using the following procedure.

1. Check whether any products are using the CORBA Service.

Check whether the following product has been installed. If this product has been installed, do not uninstall the CORBA Service.

- Systemwalker Centric Manager Operation Management Server

2. Uninstall the CORBA Service.

Use the rpm command to uninstall the CORBA Service.

```

# rpm -e --nodeps FJSVod <RETURN>

```

## Notes on uninstalling FJSVsmee and FJSVslcr

The FJSVsmee and FJSVslcr packages are sometimes included with non-Interstage Fujitsu products, such as Systemwalker Centric Manager. If products that include the FJSVsmee and FJSVslcr packages have been installed on the server machine where Interstage is being uninstalled, do not specify "all" in step 6. Instead, specify individual packages but do not select the FJSVsmee and FJSVslcr packages.

---

1. Log in as superuser.

Log in as superuser on the server where the Systemwalker Single Sign-On Server is to be uninstalled.

2. Stop the application server if the CORBA Service is running. Execute the following command:

```
# isstop -f
```

The isstop command is stored in the following location.

[Command location]

OS	Location
Linux	/opt/FJSVtd/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the isstop command.

3. Stop the service for using the Interstage Management Console if it is running.

Execute the following command:

```
# ismngconsolestop
```

The ismngconsolestop command is stored in the following location.

[Command location]

OS	Location
Linux	/opt/FJSVisgui/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on the ismngconsolestop command.

4. Insert the CD-ROM in the CD-ROM drive.

If the volume management daemon is not running, mount the CD-ROM.

```
# mount -t iso9660 -r /dev/cdrom <Mount point of the CD-ROM>
```

### Note

Check the device name for the CD-ROM ("/dev/~") in advance, as this can vary depending on the system.

---

5. Start the uninstaller.

Move to the mount point for the CD-ROM, and execute the special uninstallation command for this software (uninstall.sh) to start the uninstallation.

The method for starting the uninstaller is as follows:

```
# cd <Mount point of the CD-ROM>
# ./uninstall.sh
```

6. Select which packages to uninstall

In the screen for selecting packages to uninstall, enter "all" and then press the <Enter> key.



```

+-----+
| Interstage Application Server Enterprise Edition V9.2.0 |
|
|           All Rights Reserved, Copyright(c) FUJITSU 2009 |
|-----+
Packages:
* 1 FJSVjssrc      Interstage JServlet Session Registry Client
* 2 FJSVjssrs      Interstage JServlet Session Registry Server
* 3 FJSVmqqd       MessageQueueDirector base
* 4 FJSVisspl      Interstage Sample Integration
* 5 FJSVisgui       Interstage Management Console
* 6 FJSVxmlpc      Fujitsu XML Processor
* 7 FJSVisjee       Interstage Java EE
* 8 FJSVsvmon      Web Service Monitor
* 9 FJSVjs5         Interstage JServlet (Tomcat 5.5 based servlet service)
* 10 FJSVj2ee       Interstage J2EE Common Resource
* 11 FJSVjms        Interstage JMS
* 12 FJSVejb        Interstage EJB Service
* 13 FJSVisjmx      Interstage JMX Service
* 14 FJSVapcst      Interstage Apcoordinator - Struts
* 15 FJSVwebc       Interstage Apcoordinator - Webcoordinator
* 16 FJSVbcco       Interstage Apcoordinator - Bccoordinator
* 17 FJSVihS        Interstage HTTP Server
* 18 FJSVes         ObjectDirector/EventService
* 19 FJSVisscs      Interstage Secure Communication Service
* 20 FJSVjs2su      Interstage JServlet (OperationManagement)
* 21 FJSVsmee       S/MIME & EE Certificate Management Package
* 22 FJSVslcr       Securecrypto Library RunTime
* 23 FJSVena        Enabler Repository for enterprise content knowledge and document management
* 24 FJSVirep       Interstage Directory Service
* 25 FJSVssofs      Interstage Single Sign-on Federation Service
* 26 FJSVfsvl       Single Sign-on Federation Service Library Package
* 27 FJSVssocm      Interstage Single Sign-on Common Library
* 28 FJSVsssoaz     Interstage Single Sign-on Business server
* 29 FJSVsssoac     Interstage Single Sign-on Authentication server
* 30 FJSVssosv      Interstage Single Sign-on Repository server
* 31 FJSVporb       ObjectDirector[Portable-ORB]
* 32 FJSVots        ObjectTransactionService
* 33 FJSVirepc      Interstage Directory Service Software Development Kit
* 34 FJSVjdk6       Fujitsu Java Development Kit 6
* 35 FJSVjdk5       Fujitsu Java Development Kit
* 36 FJSVod         ObjectDirector
* 37 FJSVextp       Transaction Processing Monitor
* 38 FJSVisas       Interstage Application Server Management Function
* 39 FJSVtd         TransactionDirector
Please select packages. When you choose more than one, please separate with ",". [?,??,all,q]:

```

7. A message will be displayed confirming whether to continue with the uninstallation processing.

To continue with the uninstallation, enter "y". Otherwise enter "q" to cancel the uninstallation.

```

Uninstall information:
  Uninstallation packages:
    FJSVjssrc FJSVjssrs FJSVmqqd FJSVisspl FJSVisgui FJSVxmlpc FJSVsvmon FJSVjs5 FJSVj2ee
FJSVjms FJSVejb FJSVisjmx FJSVapcst FJSVwebc FJSVbcco FJSVihS FJSVes FJSVisscs FJSVjs2su
FJSVsmee FJSVslcr FJSVena FJSVirep FJSVssofs FJSVfsvl FJSVssocm FJSVsssoaz FJSVsssoac FJSVssosv
FJSVporb FJSVots FJSVirepc FJSVjdk5 FJSVod FJSVextp FJSVisas FJSVtd
Do you want to proceed with the uninstallation ? [y,q]:

```

8. The uninstallation process will be terminated.

The following message will be displayed indicating that the uninstallation has completed.

```
Uninstallation of "Interstage Application Server" has ended.
```

9. Restart the system.

The following example shows the command for restarting the system.

**Example:**

```
# cd /  
# /usr/sbin/shutdown -r now
```

# Chapter 6 Reference

## 6.1 Command Reference

### 6.1.1 swidmg\_bkrs (Backup and Restoration Command)

#### Description

This command backs up and restores environments for the Systemwalker User Management function and the Systemwalker Single Sign-On Agent.

#### Synopsis

swidmg_bkrs	-b -d <backup directory> [-s] [-help]
swidmg_bkrs	-r -d <backup directory> [-s] [-help]
swidmg_bkrs	-help

#### Options

-b:

Backs up the operating environment.

-r:

Restores the operating environment.

-d:

Specifies the backup directory.

-s:

Executes the backup or restoration in silent mode.



.....  
If this option is specified, no confirmation messages will be displayed during the backup or restoration.  
.....

-help:

Displays the usage.

#### Return Values

0:

Normal termination

Other than 0:

Abnormal termination

#### Command Location

Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

## Privilege Required/Execution Environment

[Windows]

- Administrator privileges are required.

[UNIX]

- System administrator (superuser) privileges are required.

## Cautions

- This command cannot be executed doubly.

## Usage example 1 (Backup)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_bkrs" -b -d c:\tmp\swidmg
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_bkrs -b -d /tmp/swidmg
```

## Usage example 2 (Restoration)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_bkrs" -r -d c:\tmp\swidmg
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_bkrs -r -d /tmp/swidmg
```

## 6.1.2 swidmg\_set\_repository (Connection Destination Systemwalker Authentication Repository Setup Command)

---

### Description

This command sets up the environment for connecting to the Systemwalker authentication repository from Systemwalker products.

Execute this command immediately after installing each Systemwalker product.

### Point

- To perform replication operations using Active Directory for the Systemwalker authentication repository, execute this command with the "ADHOST" option on each machine where replication operations are to be performed.
- Some Systemwalker products may need to be restarted.  
To determine whether to restart a particular Systemwalker product, refer to the manual for that product that describes the procedure for using the Systemwalker authentication repository.

### Synopsis

swidmg_set_repository	SET -h <host name> [-p <port number>] -id <user ID> -pw <password> -publicdir <public directory> -userdir <user storage directory> -t {AD IDS} [-help]
swidmg_set_repository	UNSET [-help]

swidmg_set_repository	ADDDHOST -h <host name> [-h <host name>][-help]
swidmg_set_repository	DELETEHOST {-h <host name> [-h <host name>]...   -all } [-help]
swidmg_set_repository	ENABLE [-help]
swidmg_set_repository	DISABLE [-help]
swidmg_set_repository	CHECK [-help]
swidmg_set_repository	REFER [-help]
swidmg_set_repository	-help

## Options

### SET:

Specify this option to set up an environment for connecting to the Systemwalker authentication repository.

**-h <host name>:**

Specifies the host name of the server where the Systemwalker authentication repository operates, using fully qualified domain name (FQDN) format.

**-p <port number>:**

Specifies the port number for the directory server to be used as a Systemwalker authentication repository. If this option is omitted, "636" will be set as the port number.

**-id <user ID>:**

Specifies the user ID of the user that accesses the Systemwalker authentication repository, in DN format and enclosed in double-quotes.

To add, change or delete users in the Systemwalker authentication repository, the user must have administrator privileges for the Systemwalker authentication repository (for Active Directory, this means "Administrator" privileges and for the Interstage Directory Service this means the DN for the administrator).

#### Example:

"CN=Administrator,CN=Users,dc=fujitsu,dc=com"

**-pw <password>:**

Specifies the password for the user specified by the "-id" option.

**-publicdir <public directory>:**

Specifies the public directory for the Systemwalker authentication repository. enclosed in double-quotes.

**-userdir <user storage directory>:**

Specifies the user storage directory for the Systemwalker authentication repository, enclosed in double quotes.

**-t {AD|IDS}:**

Specifies the type of the directory server to be used as a Systemwalker authentication repository.

**AD:**

Specifies that Active Directory be used as the Systemwalker authentication repository.

**IDS:**

Specifies that the Interstage Directory Service be used as the Systemwalker authentication repository.

**-help:**

Displays the usage for the SET option.

### UNSET:

Deletes the environment settings for connecting to the Systemwalker authentication repository.

-help:

Displays the usage for the UNSET option.

#### ADDDHOST:

Specify this option to add a connection destination Systemwalker authentication repository if replication operations are being performed for the Active Directory database that is being used as the Systemwalker authentication repository.

-h *<host name>*:

Specifies the host name for the Active Directory database to be added, using FQDN format.

-help:

Displays the usage for the ADDHOST option.

#### DELETEHOST:

Specify this option to delete a connection destination Systemwalker authentication repository if replication operations are being performed for the Active Directory database that is being used as the Systemwalker authentication repository.

-h *<host name>*:

Specifies the host name for the Active Directory database to be deleted, using FQDN format.

-all:

Deletes all hosts.

-help:

Displays the usage for the DELETEHOST option.

#### ENABLE:

Enables settings that were temporarily disabled with the DISABLE option.

-help:

Displays the usage for the ENABLE option.

#### DISABLE:

Temporarily disables connections to the Systemwalker authentication repository.

-help:

Displays the usage for the DISABLE option.

#### CHECK:

Checks whether it is possible to connect to the Systemwalker authentication repository.

-help:

Displays the usage for the CHECK option.

#### REFER:

Displays the settings.

-help:

Displays the usage for the REFER option.

-help:

Displays the usage for all the options.

### Return Values

0:

Normal termination

Other than 0:

Abnormal termination

### Command Location

Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

### Privilege Required/Execution Environment

[Windows]

- Administrator privileges are required.

[UNIX]

- System administrator (superuser) privileges are required.

### Cautions

- This command cannot be executed doubly.

### Usage example 1 (Environment settings)

In the following example, the environment for the Systemwalker authentication repository is as follows:

- OS: Windows
- Systemwalker authentication repository type: Active Directory
- FQDN: AD-Server001.fujitsu.com
- Connection port number: 636
- User ID: CN=Administrator, CN=Users, DC=fujitsu, DC=com
- Password: administrator
- Public directory: DC=fujitsu, DC=com
- User storage directory: ou=System, DC=fujitsu, DC=com

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_repository" SET -h AD-Server001.fujitsu.com -p 636 -id "CN=Administrator,CN=Users,dc=fujitsu,dc=com" -pw administrator -publicdir "DC=fujitsu,DC=com" -userdir "OU=System,OU=fujitsu,DC=com" -t AD
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_repository SET -h AD-Server001.fujitsu.com -p 636 -id "CN=Administrator,CN=Users,dc=fujitsu,dc=com" -pw administrator -publicdir "DC=fujitsu,DC=com" -userdir "OU=System,OU=fujitsu,DC=com" -t AD
```

### Usage example 2 (Deleting the environment settings)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_repository" UNSET
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_repository" UNSET
```

### Usage example 3 (Adding a host)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_repository" ADDHOST -h AD-Server002.fujitsu.com
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_repository ADDHOST -h AD-Server002.fujitsu.com
```

### Usage example 4 (Deleting a host)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_repository" DELETEHOST -h AD-Server002.fujitsu.com
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_repository DELETEHOST -h AD-Server002.fujitsu.com
```

### Usage example 5 (Enabling the settings)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_repository" ENABLE
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_repository ENABLE
```

### Usage example 6 (Disabling the settings)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_repository" DISABLE
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_repository DISABLE
```

### Usage example 7 (Looking up the environment settings)

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_repository" REFER
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_repository REFER
```

## 6.1.3 swidmg\_set\_ssoagent (Systemwalker Single Sign-On Agent Setup Command)

---

### Description

This command enables single sign-on between the Web consoles for Systemwalker products.



Execute this command on the servers where the Web console modules for the Systemwalker products have been installed.

## Synopsis

swidmg_set_ssoagent	SET -f <business system setup file> -p <password> [-f <business system setup file> -p <password> ...] [-help]
swidmg_set_ssoagent	DELETE [-help]
swidmg_set_ssoagent	UPDATE -f <business system setup file> -p <password> [-f <business system setup file> -p <password> ...] [-help]
swidmg_set_ssoagent	-help

## Options

### SET:

Specify this option to set up the Systemwalker Single Sign-On Agent.

-f:

Specifies the full path to the business system setup file that has been downloaded from the Interstage Management Console. This option cannot be omitted.

-p:

Specifies the password for the business system setup file.

-help:

Displays the usage for the SET option.

### DELETE:

Specify this option to delete the settings for the Systemwalker Single Sign-On Agent.

-help:

Displays the usage for the DELETE option.

### UPDATE:

Specify this option to add settings for the Systemwalker Single Sign-On Agent.

-f:

Specifies the full path to the business system setup file that has been downloaded from the Interstage Management Console. This option cannot be omitted.

-p:

Specifies the password for the business system setup file.

-help:

Displays the usage for the UPDATE option.

-help:

Displays the usage for all the options.

## Return Values

0:

Normal termination

Other than 0:

Abnormal termination

## Command Location

Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

**Privilege Required/Execution Environment**

[Windows]

- Administrator privileges are required.

[UNIX]

- System administrator (superuser) privileges are required.

**Cautions**

- This command cannot be executed doubly.

**Usage example 1 (Environment settings)**

To set up the Systemwalker Single Sign-On Agent using the business system setup file that was created on the Systemwalker Single Sign-On server

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_ssoagent" SET -f c:\work\sso-bus-infra -p systemwalker
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_set_ssoagent SET -f /work/sso-bus-infra -p systemwalker
```

**Usage example 2 (Deleting the environment)**

To delete the operating environment

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_ssoagent" DELETE

////////////////////////////////////
The following systems are registered.
[Setting-1]
System Name: Systemwalker001
Protected paths: /Systemwalker/

What environment settings among to be deleted? (If multiple settings would be deleted, separate each by ",")

SELECT ==> 1

////////////////////////////////////
The following environment would be deleted.
[Setting-1]
System Name: Systemwalker001
Protected paths: /Systemwalker/

Would the environment delete process be initiated ? [ y: initiate, n: terminate, r: correction]
SELECT ==> y
////////////////////////////////////
```

[UNIX]

```

/opt/FJSVswaic/client/swidmg_set_ssoagent DELETE

////////////////////////////////////
The following systems are registered.
[Setting-1]
System Name: Systemwalker001
Protected paths: /Systemwalker/

What environment settings among to be deleted? (If multiple settings would be deleted, separate each by ",".)

SELECT ==> 1

////////////////////////////////////
The following environment would be deleted.
[Setting-1]
System Name: Systemwalker001
Protected paths: /Systemwalker/

Would the environment delete process be initiated ? [ y: initiate, n: terminate, r: correction]
SELECT ==> y
////////////////////////////////////

```

**Usage example 3 (Updating the environment)**

To update the settings for the Systemwalker Single Sign-On Agent using the business system setup file if the settings have been changed on the Systemwalker Single Sign-On Server

[Windows]

```

"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_set_ssoagent" UPDATE-f c:\work\sso-bus-infra -p
systemwalker

```

[UNIX]

```

/opt/FJSVswaic/client/swidmg_set_ssoagent UPDATE-f /work/sso-bus-infra -p systemwalker

```

**6.1.4 swidmg\_user\_mng (User Management Command)**

**Description**

This command is used to manage "common users" (users that use one or more Systemwalker products). Common users need to be registered with each product that they will use.

- Registering users with products
 

This command registers common users with the specified products. Common users need to be registered with each product that they will use.

Multiple users can be registered as a batch by specifying an input file.
- Deleting users from products
 

This command deletes common users from the specified products. Common users need to be deleted from each product that they will no longer use.

Multiple users can be deleted as a batch by specifying an input file.
- Changing user information
 

This command changes information for the specified users.

Multiple user information can be changed as a batch by specifying an input file.

- Searching for users

This command searches for users according to specified conditions, and displays a list of the search results.

## Synopsis

swidmg_user_mng	ADD -product <product name> -id <user ID> [-password <password>] [-ou <organization name>] [-group <group name>] [-f] [-help]
swidmg_user_mng	ADD-i <input file name> [-f] [-help]
swidmg_user_mng	DELETE -product <product name> -id <user ID> [-help]
swidmg_user_mng	DELETE-i <input file name> [-help]
swidmg_user_mng	MODIFY -id <user ID> [-password <password>] [-ou <organization name>] [-group <group name>] -product <product name> [-help]
swidmg_user_mng	MODIFY-i <input file name> [-help]
swidmg_user_mng	SEARCH [-id <user ID>] [-ou <organization name>] [-group <group name>] [-o <output file name>] [-d] [-help]
swidmg_user_mng	-help

## Options

ADD:

Specify this option to register a user with a product.



When using Active Directory for the Systemwalker authentication repository, do not specify a user that exceeds MaxPageSize in the LDAP policy for Active Directory.

If you need to specify a user that exceeds MaxPageSize, increase the upper limit for MaxPageSize first, and then register that user.

-product <product name>:

Specifies the name of the Systemwalker product that the user will use, enclosed in double-quotes. Multiple product names can be specified.

The following product names can be used:

- For Systemwalker Centric Manager  
"CMGR"
- For Systemwalker Service Quality Coordinator  
"SQC"

**Example:**

"CMGR,SQC"



Product names specified in this option are used to manage Systemwalker users on the Systemwalker authentication repository.

As for the functions available for Systemwalker users, set user privileges with each product after authentication has finished.

-id <user ID>:

Specifies user IDs using between 1 and 32 bytes.

The following characters can be used:

- Letters
- Numbers
- Symbols ( \_ - . )

### Note

If the Systemwalker Single Sign-On function is used and Active Directory is used as the Systemwalker authentication repository, specify user IDs using no more than 20 bytes.

`-password <password>`:

Specifies the password for the user using between 8 and 50 bytes.

The following characters can be used:

- Letters
- Numbers
- Symbols ( ! \$ ' ( ) ~ ` { } \_ - ^ . )

Passwords must include at least one letter and at least one number.

If this option is omitted, the behavior will be as follows:

- If the user specified by the "-id" option has been registered in the Systemwalker authentication repository:  
The user will be registered as an additional user for the product specified by the "-product" option.
- If the user specified by the "-id" option has not been registered with the Systemwalker authentication repository:  
The command will return an error.

### Point

If Active Directory is used as the Systemwalker authentication repository, passwords may be required as described below, depending on the password policy settings for Active Directory.

- Passwords must be at least six characters long.
- Characters from at least three of the following five categories must be included:
  - Uppercase letters
  - Lowercase letters
  - Numbers
  - Non-alphabetic characters ( ! \$ # % etc.)
  - Unicode characters
- The password must not contain any more than two characters from the user name.

If the user name is less than three characters long, it is likely that the password will be rejected, so this check is not executed.

When checking the full name of the user, some characters (commas, periods, dashes, hyphens, underscores, spaces, hash symbols, and tabs) are treated as separators that split the name into smaller tokens.

For each token that is three or more characters long, the command checks whether the token is included in the password and, if so, rejects the change to the password.

For example, the name "Erin M. Hagens" is split into three tokens: "Erin", "M" and "Hagens". The second token is ignored, because it is only one character long.

This means that such users cannot change their password to a password that contains "erin" or "hagens" somewhere in the password.

These checks are not case-sensitive.

**-ou <organization name>:**

Specifies the name of the organization that the user belongs to, in DN format and enclosed in double-quotes.

If this option is omitted, the user will be created on the base DN that was specified with the connection destination Systemwalker authentication repository setup command.

**Example:**

"OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com"

**-group <group name>:**

Specifies the name of the group that the user belongs to, enclosed in double-quotes. Multiple group names can be specified.

If this option is omitted, the settings will be entered as follows, depending on the type of Systemwalker authentication repository.

- For Active Directory

The "Domain Users" group will be specified.

- For Interstage Directory Service

The user will not be specified as belonging to any group.

**Example:**

"Administrators,Users"

**-i <input file name>:**

Multiple users can be registered as a batch by specifying a file (user registration information file) where information about the users to be added has been entered. If this option is specified, the other options will be ignored.

Refer to "[User Registration Information File](#)" for details on user registration information files.

 **Point**

.....  
The execution results of the user management command are output to the standard output. If a CSV file is used to add numerous users, use the redirect function to output the execution results to a file.  
.....

**-f:**

Specifying this option makes it possible to register users forcibly. Take care using this option, because if the user already exists the existing user information will be updated.

**-help:**

Displays the usage for the ADD option.

**DELETE:**

Specify this option to delete users for each product.

 **Point**

.....  
If the Systemwalker common user to be deleted uses multiple products, the user will not be deleted from the Systemwalker authentication repository until the user stops using all these products.  
.....

**-product <product name>**

Specifies the Systemwalker product name, enclosed in double-quotes. Multiple product names can be specified.

The following product names can be used:

- For Systemwalker Centric Manager

"CMGR"

- For Systemwalker Service Quality Coordinator  
"SQC"

**Example:**

"CMGR,SQC"

**-id <user ID>:**

Specifies the ID of the user to be deleted.

**-i <input file name>:**

Multiple users can be deleted as a batch by specifying a file (user deletion information file) where information about the users to be deleted has been entered. If this option is specified, the other options will be ignored.

Refer to "[User Deletion Information File](#)" for details on user deletion information files.

 **Point**

.....  
The execution results of the user management command are output to the standard output. If a CSV file is used to delete numerous users, use the redirect function to output the execution results to a file.  
.....

**-help:**

Displays the usage for the DELETE option.

**MODIFY:**

Specify this option to change user information in the Systemwalker authentication repository.

**-id <user ID>:**

Specifies the ID of the user for which user information is to be changed.

**-password <password>:**

Specifies the password for the user. If this option is omitted, the password will not be changed.

**-ou <organization name>:**

Specifies the name of the organization that the user belongs to, in DN format and enclosed in double-quotes.

If this option is omitted, the organization for the user will not be changed.

**Example:**

"OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com"

**-group <group name>:**

Specifies the name of the group that the user belongs to, enclosed in double-quotes. Multiple group names can be specified.

If this option is omitted, the group that the user belongs to will not be changed.

**Example:**

"Administrators,Users"

**-product <product name>**

Specify one of the products that the specified user uses. The following product names can be used:

- For Systemwalker Centric Manager  
"CMGR"
- For Systemwalker Service Quality Coordinator  
"SQC"

**-i** *<input file name>*:

Multiple users can be updated as a batch by specifying a file (user change information file) where information about the users to be updated has been entered. If this option is specified, the other options will be ignored.

Refer to "[User Change Information File](#)" for details on user change information files.

## Point

.....  
The execution results of the user management command are output to the standard output. If a CSV file is used to change information for numerous users, use the redirect function to output the execution results to a file.  
.....

**-help**:

Displays the usage for the MODIFY option.

## SEARCH:

Specify this option to search for a user from the Systemwalker authentication repository. This option searches for users registered in the Systemwalker authentication repository according to specified conditions, and displays a list of the search results.

**-id** *<user ID>*:

Specifies the user ID to be used as the user search condition.

**-ou** *<organization name>*:

Specifies an organization name as the user search condition, in DN format.

If this option is omitted, the user will be searched from the base DN that was specified with the connection destination Systemwalker authentication repository setup command.

### **Example:**

"OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com"

**-group** *<group name>*:

Specifies the group name to be used as the user search condition. Multiple group names can be specified.

If this option is omitted, the search will return users that meet the search conditions from any group.

### **Example:**

"Administrators,Users"

**-o** *<output file name>*:

Outputs the user search results to a file.

**-d**:

Displays detailed information about the user search results.

**-help**:

Displays the usage for the SEARCH option.

**-help**:

Displays the usage for all the options.

## Return Values

0:

Normal termination

Other than 0:

Abnormal termination



## Command Location

Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client
UNIX	/opt/FJSVswaic/client

## Privilege Required/Execution Environment

[Windows]

- Administrator privileges are required.

[UNIX]

- System administrator (superuser) privileges are required.

## Cautions

- When specifying passwords with the "-password" option of this command, take care to ensure that the password is not seen by other people.  
Similarly, set up file access permissions so that other people cannot view the input file specified with the "-i" option.
- This command cannot be executed doubly.

## Usage example 1 (Registering users)

In this example, a user that meets the following conditions is registered.

- User ID: user001
- Password: user001
- Organization ID: OU=System Information Department, OU=Fujitsu Limited, DC=fujitsu, DC=com
- Group: Administrators, Users
- Product used: CMGR

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_user_mng" ADD -id user001 -password user001 -ou "OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com" -group "Administrators,Users" -product "CMGR"
```

[UNIX]

```
/opt/FJSVswaic/client\swidmg_user_mng ADD -id user001 -password user001 -ou "OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com" -group "Administrators,Users" -product "CMGR"
```

## Usage example 2 (Registering users as a batch)

In this example, a CSV file is used to register multiple users as a batch.

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_user_mng" ADD -i C:\work\addlist.csv
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_user_mng ADD -i /work/addlist.csv
```

## Usage example 3: Deleting users

In this example, a user that meets the following conditions is deleted.

- User ID: user001
- Product used: CMGR

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_user_mng" DELETE -id user001 -product CMGR
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_user_mng DELETE -id user001 -product CMGR
```

#### Usage example 4: Deleting users as a batch

In this example, a CSV file is used to delete multiple users as a batch.

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_user_mng" DELETE -i C:\work\deletelist.csv
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_user_mng DELETE -i /work/deletelist.csv
```

#### Usage example 5: Changing users

In this example, the user "user001" is added to another group and his password is changed.

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_user_mng" MODIFY -id user001 -password modpassword -group "Administrators"
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_user_mng MODIFY -id user001 -password modpassword -group "Administrators"
```

#### Usage example 6: Changing users as a batch

In this example, a CSV file is used to change multiple users as a batch.

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_user_mng" MODIFY -i c:\work\modifylist.csv
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_user_mng MODIFY -i /work/modifylist.csv
```

#### Usage example 7: Searching for users

This example shows how to search for users based on the organization that they belong to.

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\swidmg_user_mng" SEARCH -ou "OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com"
```

[UNIX]

```
/opt/FJSVswaic/client/swidmg_user_mng SEARCH -ou "OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com"
```

## 6.1.5 F4AMsetup (Systemwalker Single Sign-On Function Setup Command)

### Description

This command installs and uninstalls the Systemwalker Single Sign-On Agent.

### Synopsis

F4AMsetup	-i -p <product name> -s -o SSO
F4AMsetup	-u -p <product name> -s -o SSO

### Options

-i:

Installs the Systemwalker Single Sign-On Agent.

-u:

Uninstalls the Systemwalker Single Sign-On Agent.

-p <product name>

Specifies the name of the Systemwalker product being used.

The following product names can be used:

- For Systemwalker Centric Manager  
"SWCMGR"
- For Systemwalker Service Quality Coordinator  
"SWSQC"

If multiple Systemwalker products have been installed on the same machine, specify one of the Systemwalker products being used.

-s:

This option is for silent installation.

-o SSO:

Installs or uninstalls the Systemwalker Single Sign-On Agent.

### Return Values

0:

Normal termination

Other than 0:

Abnormal termination

### Command Location

Windows	%F4AM_INSTALL_PATH%\F4AMidmg\client\setup
UNIX	/opt/FJSVswaic/client/setup

## Privilege Required/Execution Environment

[Windows]

- Administrator privileges are required.

[UNIX]

- System administrator (superuser) privileges are required.

## Usage example 1 (Installation)

When Systemwalker Centric Manager is being used

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\setup\F4AMsetup" -i -p SWCMGR -s -o SSO
```

[UNIX]

```
/opt/FJSVswaic/client/setup/F4AMsetup -i -p SWCMGR -s -o SSO
```

## Usage example 2 (Uninstallation)

When Systemwalker Centric Manager is being used

[Windows]

```
"%F4AM_INSTALL_PATH%\F4AMidmg\client\setup\F4AMsetup" -u -p SWCMGR -s -o SSO
```

[UNIX]

```
/opt/FJSVswaic/client/setup/F4AMsetup -u -p SWCMGR -s -o SSO
```

## 6.2 File Format

---

### 6.2.1 User Registration Information File

---

File Name

Any name (\*.\*)

Description

This file is specified as an input file when the "ADD -i" option is specified with the swidmg\_user\_mng command.

File Location

Windows	Any folder
UNIX	Any directory

File Format

```
"user ID", "password", "organization name", "group name", "product name"
```

Parameters

*user ID:*

Specifies the ID of the user to be registered, using up to 32 bytes. This cannot be omitted.

The following character types can be used:

- Letters
- Numbers
- Symbols ( \_ - . )

*password:*

Specifies the password for the user to be registered, using between 8 and 50 bytes. This option is required when new users are registered.

The following character types can be used:

- Letters
- Numbers
- Symbols ( ! \$ ' ( ) ~ ` { } \_ - ^ . )

Passwords must include at least one letter and at least one number.

If this option is omitted, the behavior will be as follows:

- If the user specified in "*user ID*" has been registered with the Systemwalker authentication repository:  
The user will be registered as an additional user for the product specified in "*product name*".
- If the user specified in "*user ID*" has not been registered with the Systemwalker authentication repository:  
The `swidmg_user_mng` command will return an error.

 **Point**

If Active Directory is used as the Systemwalker authentication repository, passwords may be required as described below, depending on the password policy settings for Active Directory.

- Passwords must be at least six characters long.
- Characters from at least three of the following five categories must be included:
  - Uppercase letters
  - Lowercase letters
  - Numbers
  - Non-alphabetic characters ( ! \$ # % etc.)
  - Unicode characters
- The password must not contain any more than two characters from the user name.

If the user name is less than three characters long, it is likely that the password will be rejected, so this check is not executed.

When checking the full name of the user, some characters (commas, periods, dashes, hyphens, underscores, spaces, hash symbols, and tabs) are treated as separators that split the name into smaller tokens.

For each token that is three or more characters long, the command checks whether the token is included in the password and, if so, rejects the change to the password.

For example, the name "Erin M. Hagens" is split into three tokens: "Erin", "M" and "Hagens". The second token is ignored, because it is only one character long.

This means that such users cannot change their password to a password that contains "erin" or "hagens" somewhere in the password.

These checks are not case-sensitive.

*organization name:*

Specifies the name of the organization that the user belongs to, using up to 2,048 bytes.

Specify the organization name using DN format.

If this option is omitted, the user will be created on the base DN that was specified with the connection destination Systemwalker authentication repository setup command.

**Example:**

```
"OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com"
```

*group name:*

Specifies the name of the group that the user to be registered belongs to, using up to 512 bytes.

Multiple group names can be specified.

If this option is omitted, the settings will be entered as follows, depending on the type of Systemwalker authentication repository.

- For Active Directory

The "Domain Users" group will be specified.

- For Interstage Directory Service

The user will not be specified as belonging to any group.

**Example:**

```
"Administrators,Users"
```

*product name:*

Specifies the name of the product that the user to be registered will use. This cannot be omitted.

Multiple product names can be specified.

The following product names can be used:

- For Systemwalker Centric Manager

```
"CMGR"
```

- For Systemwalker Service Quality Coordinator

```
"SQC"
```

**Example:**

```
"CMGR,SQC"
```

Reference

[swidmg\\_user\\_mng \(User Management Command\)](#)

Cautions

- Lines that start with a hash symbol ("#") are treated as comments.

Example

```
#"UserID","Password","Organization Unit","Group","Product"
"user001","password","OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,
DC=com","Administrators,Users","CMGR,SQC"
"user002","password","OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,
DC=com","Users","SQC"
```

## 6.2.2 User Deletion Information File

---

File Name

Any name (\*.\*)

Description

This file is specified as an input file when the "DELETE -i" option is specified with the swidmg\_user\_mng command.

File Location

Windows	Any folder
UNIX	Any directory

#### File Format

```
"user ID", "product name"
```

#### Parameters

##### *user ID:*

Specifies the ID of the user to be deleted, using up to 32 bytes. This cannot be omitted.

##### *product name:*

Specifies the name of the product that the user to be deleted has been using. This cannot be omitted.

The following product names can be used:

- For Systemwalker Centric Manager  
"CMGR"
- For Systemwalker Service Quality Coordinator  
"SQC"

##### **Example:**

"CMGR, SQC"

#### Reference

[swidmg\\_user\\_mng \(User Management Command\)](#)

#### Cautions

- Lines that start with a hash symbol ("#") are treated as comments.

#### Example

```
#"UserID", "Product"
"user001", "CMGR, SQC"
"user002", "SQC"
```

## 6.2.3 User Change Information File

---

#### File Name

Any name (\*.\*)

#### Description

This file is specified as an input file when the "MODIFY -i" option is specified with the swidmg\_user\_mng command.

#### File Location

Windows	Any folder
UNIX	Any directory

#### File Format

```
"user ID", "password", "organization name", "group name", "product name"
```

#### Parameters

##### *user ID:*

Specifies the ID of the user to be registered, using up to 32 bytes.

The following character types can be used:

- Letters
- Numbers
- Symbols ( \_ - . )

*password:*

Specifies the password for the user to be registered, using between 8 and 50 bytes. This option is required when new users are registered.

The following characters can be used:

- Letters
- Numbers
- Symbols ( ! \$ ' ( ) ~ ` { } \_ - ^ . )

Passwords must include at least one letter and at least one number.

If this option is omitted, the password will not be changed.

 **Point**

If Active Directory is used as the Systemwalker authentication repository, passwords may be required as described below, depending on the password policy settings for Active Directory.

- Passwords must be at least six characters long.
- Characters from at least three of the following five categories must be included:
  - Uppercase letters
  - Lowercase letters
  - Numbers
  - Non-alphabetic characters ( ! \$ # % etc.)
  - Unicode characters
- The password must not contain any more than two characters from the user name.

If the user name is less than three characters long, it is likely that the password will be rejected, so this check is not executed.

When checking the full name of the user, some characters (commas, periods, dashes, hyphens, underscores, spaces, hash symbols, and tabs) are treated as separators that split the name into smaller tokens.

For each token that is three or more characters long, the command checks whether the token is included in the password and, if so, rejects the change to the password.

For example, the name "Erin M. Hagens" is split into three tokens: "Erin", "M" and "Hagens". The second token is ignored, because it is only one character long.

This means that such users cannot change their password to a password that contains "erin" or "hagens" somewhere in the password.

These checks are not case-sensitive.

*organization name:*

Specifies the name of the organization that the user belongs to, using up to 2,048 bytes.

Specify the organization name using DN format.

If this option is omitted, the user will be created on the base DN that was specified with the connection destination Systemwalker authentication repository setup command.

**Example:**

"OU=System Information Department,OU=Fujitsu Limited,DC=fujitsu,DC=com"



*group name:*

Specifies the name of the group that the user to be registered belongs to, using up to 512 bytes.

Multiple group names can be specified.

If this option is omitted, the settings will be entered as follows, depending on the type of Systemwalker authentication repository.

- For Active Directory

The "Domain Users" group will be specified.

- For Interstage Directory Service

The user will not be specified as belonging to any group.

**Example:**

"Administrators,Users"

*product name:*

Specify the name of the product or products that user to be registered will use. This cannot be omitted.

Multiple product names can be specified.

The following product names can be used:

- For Systemwalker Centric Manager

"CMGR"

- For Systemwalker Service Quality Coordinator

"SQC"

**Example:**

"CMGR,SQC"

Reference

[swidmg\\_user\\_mng \(User Management Command\)](#)

Cautions

- Lines that start with a hash symbol ("#") are treated as comments.
- To skip a password, organization name or group name, enter "".

Example

```
#"UserID","Password","Organization Unit","Group","Product"  
"user001","modpassword","OU=Operation Management Section,OU=System Information Department,OU=Fujitsu  
Limited,DC=fujitsu,DC=com","Users","CMGR"  
"user002","","","Administrators", ""
```

## 6.2.4 User Reference Information File

---

File Name

Any name (\*.\*)

Description

This file is specified as an output file when the "SEARCH -o" option is specified with the swidmg\_user\_mng command.

File Location

Windows	Any folder
UNIX	Any directory

## File Format

```
"user ID", "organization name", "group name", "product name"
```

## Parameters

### *user ID:*

Specifies the user ID for the user

### *organization name:*

Specifies the name of the organization that the user belongs to.

### *group name:*

Specifies the name of the group that the user belongs to.

### *product name:*

Specifies the name of the product that the user will use.

## Reference

[swidmg\\_user\\_mng \(User Management Command\)](#)

## Output example

In the following output example, the organization and group were not specified.

```
#"userID", "OU", "Group Name", "Product Name"  
"user001", "OU=System Operation Management Section,DC=System Information Department,OU=Fujitsu  
Limited,DC=fujitsu,DC=com", "Domain Users", "CMGR"  
"OU=System Operation Management Section,DC=System Information Department,OU=Fujitsu  
Limited,DC=fujitsu,DC=com", "Administrators", "CMGR"
```

## 6.3 List of Messages

---

### 6.3.1 Messages Relating to the Connection Destination Systemwalker Authentication Repository Setup Command

---

#### **FSP\_FJSVswaic: INFO: 11000: Setting the environment started.**

##### [Description]

The processing for setting up the environment has started.

##### [Corrective Measures]

This message simply indicates that the command has started, and no action is required.

#### **FSP\_FJSVswaic: INFO: 11001: Deleting the environment started.**

##### [Description]

The processing for deleting the environment has started.

##### [Corrective Measures]

This message simply indicates that the command has started, and no action is required.

#### **FSP\_FJSVswaic: INFO: 11002: Adding the host started.**

##### [Description]

The processing for adding the host has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11003: Deleting the host started.**

[Description]

The processing for deleting the host has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11004: Enabling the Systemwalker Authentication Repository environment started.**

[Description]

The processing for enabling the Systemwalker authentication repository environment has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11005: Disabling the Systemwalker Authentication Repository environment started.**

[Description]

The processing for disabling the Systemwalker authentication repository environment has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11006: Referring the Systemwalker Authentication Repository environment started.**

[Description]

The processing for referring to the Systemwalker authentication repository environment has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11007: Checking the Systemwalker Authentication Repository environment started.**

[Description]

The processing for checking the Systemwalker authentication repository environment has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11008: Setting the environment ended normally.**

[Description]

The processing for setting up the environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11009: Deleting the environment ended normally.**

[Description]

The processing for deleting the environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11010: Setting the environment was canceled.**

[Description]

The processing for setting up the environment has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11011: Adding the host terminated normally.**

[Description]

The processing for adding the host has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11012: Deleting the host terminated normally.**

[Description]

The processing for deleting the host has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11013: Deleting the host was canceled.**

[Description]

The processing for deleting the host has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11014: Enabling the Systemwalker Authentication Repository environment terminated normally.**

[Description]

The processing for enabling the Systemwalker authentication repository environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11015: Disabling the Systemwalker Authentication Repository environment terminated normally.**

[Description]

The processing for disabling the Systemwalker authentication repository environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11016: Referring the Systemwalker Authentication Repository environment terminated normally.**

[Description]

The processing for referring to the settings for the Systemwalker authentication repository environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11017: Checking the Systemwalker Authentication Repository environment terminated normally.**

[Description]

The processing for checking the settings for the Systemwalker authentication repository environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 11900: The system environment setting was already finished. Are you sure you want to reset the environment? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to reset the environment, otherwise enter "n".

---

**FSP\_FJSVswaic: INFO: 11901: The specified host or IP Address is currently used. Are you sure you want to delete it? Host Name or IP Address=[%1](y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[Parameter]

%1: Host name or IP address

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to delete the host name (or IP address), otherwise enter "n".

---

**FSP\_FJSVswaic: INFO: 11902: The process to delete the host started. Are you sure you want to delete it? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to delete the host, otherwise enter "n".

---

**FSP\_FJSVswaic: INFO: 11903: The process to delete all hosts started. Are you sure you want to delete it? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to delete all of the hosts, otherwise enter "n".

---

**FSP\_FJSVswaic: INFO: 11904: %1 was set as connecting host .**

[Description]

The connected Systemwalker authentication repository has been changed.

[Parameter]

% 1: Host name or IP address

[Corrective Measures]

This message simply indicates that the connected host has been switched, and no action is required.

---

**FSP\_FJSVswaic: WARNING: 21000: Specified host was not set in the environment. Host Name or IP Address=[%1]**

[Description]

The specified host name or IP address of the host to be deleted has not been set up.

[Parameter]

% 1: Host name or IP address

[System Action]

The system stops the processing for deleting the host.

[Corrective Measures]

Check the specified host name or IP address, and then try again.

---

**FSP\_FJSVswaic: ERROR: 41000: Invalid number of command arguments. Number of Arguments=[%1]**

[Description]

The number of arguments or argument keywords specified with the command is invalid.

[Parameter]

% 1: Invalid number of arguments or argument keywords

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct number of arguments in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 41001: Invalid argument. Argument=[%1]**

[Description]

There is an error with an argument specified with the command.

[Parameter]

%1: Specified argument

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct argument in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 41002: Invalid argument. argument=[%1] value=[%2]**

[Description]

There is an error with an argument specified with the command.

[Parameter]

%1: Specified argument

%2: Specified argument value

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" in the "[Command Reference](#)" section.

Execute the command again after specifying the correct argument in accordance with the synopsis.

If there is no problem with the synopsis for the command, a value that cannot be processed has been specified as an argument value. Check which values can be specified, by referring to the information about the options for the command.

---

**FSP\_FJSVswaic: ERROR: 41003: An argument is specified dublicately. argument=[%1]**

[Description]

An argument is specified more than once.

[Parameter]

%1: Duplicate argument

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" in the "[Command Reference](#)" section.

Execute the command again after eliminating any redundant options.

---

**FSP\_FJSVswaic: ERROR: 41004: The argument exceeded the size limit. Argument=[%1] limit-size=[%2] specified-size=[%3]**

[Description]

The string length of the specified argument has exceeded the maximum limit.

[Parameter]

%1: Specified argument

%2: Maximum size

%3: Specified argument size

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the options for the command that has been executed, by referring to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" in the "Command Reference" section.

Execute the command again after specifying a string that is not longer than the maximum number of characters that can be specified.

---

**FSP\_FJSVswaic: ERROR: 41005: A required argument is missing. Argument=[%1]**

[Description]

A required argument is missing.

[Parameter]

%1: Required argument

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" in the "Command Reference" section.

Execute the command again after adding the required argument.

---

**FSP\_FJSVswaic: ERROR: 41006: This option cannot be specified because the Interstage Directory Service is set in the Systemwalker Authentication Repository.**

[Description]

The command cannot be executed with the ADDHOST option because the Interstage Directory Service has been selected as the Systemwalker authentication repository.

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_repository \(Connection Destination Systemwalker Authentication Repository Setup Command\)](#)" in the "Command Reference" section.

Execute the command again after specifying the correct argument in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 41007: The Systemwalker Authentication Repository environment has not been configured. Please execute the SET Option.**

[Description]

The environment for the Systemwalker authentication repository has not been set up.



[System Action]

The system stops the command processing.

[Corrective Measures]

Set up the environment by executing the command with the SET option, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 41100: swidmg\_set\_repository was already started.**

[Description]

Only one instance of the connection destination Systemwalker authentication repository setup command can run at a time. The command could not be started, because another instance of the command was already running.

[System Action]

The system stops the command processing.

[Corrective Measures]

If necessary, execute the command again after the command that is currently being executed has completed.

---

**FSP\_FJSVswaic: ERROR: 41101: You don't have right to set the Systemwalker Authentication Repository.**

[Description]

You do not have the privileges to execute the connection destination Systemwalker authentication repository setup command.

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again as a user with the following privileges.

- Windows: Administrator privileges
- UNIX: System administrator (superuser) privileges

---

**FSP\_FJSVswaic: ERROR: 51000: Setting the environment failed.**

[Description]

The processing for setting up the environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51001: Deleting the environment failed.**

[Description]

The processing for deleting the environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51002: Adding the host failed.**

[Description]

The processing for adding the host has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51003: Deleting the host failed.**

[Description]

The processing for deleting the host has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51004: Enabling the Systemwalker Authentication Repository environment failed.**

[Description]

The processing for enabling the Systemwalker authentication repository environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51005: Disabling the Systemwalker Authentication Repository environment failed.**

[Description]

The processing for disabling the Systemwalker authentication repository environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51006: Referring the Systemwalker Authentication Repository environment failed.****[Description]**

The processing for referring to the environment settings for the Systemwalker authentication repository has failed.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51007: Checking the Systemwalker Authentication Repository environment failed.****[Description]**

The processing for checking the environment settings for the Systemwalker authentication repository has failed.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51100: Copying the file failed. Source=[%1] Destination=[%2] Detail=[%3]****[Description]**

Copying the file failed.

**[Parameter]**

%1: Path to the source file

%2: Path to the target file

%3: Error details

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

An error occurred while the command was being executed to copy from the source file to the target file.

Check the error details indicated in the message, remove the cause of the error, and then execute the command again. If the cause of the error is unknown, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 51101: Reading the definition file failed. File=[%1] Section=[%2] Key=[%3]****[Description]**

Reading the definition file has failed.

**[Parameter]**

%1: File pathname

%2: Section name

%3: Key

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the specified file path is correct, and also check whether the access permissions for the file have been set up.

If the problem still occurs even after the cause of the error has been removed, collect data using the Maintenance Information Collection Tool, and then contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 51102: Writing the definition file failed. File=[%1] Section=[%2] Key=[%3]**

[Description]

Writing the definition file has failed.

[Parameter]

%1: File pathname

%2: Section name

%3: Key

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the specified file path is correct, and also check whether the access permissions for the file have been set up.

If the problem still occurs even after the cause of the error has been removed, collect data using the Maintenance Information Collection Tool, and then contact Fujitsu technical support.

Refer to "[Appendix A How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 51103: Creating the directory failed. Directory=[%1]**

[Description]

Creating the directory has failed.

[Parameter]

%1: Directory pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the status of the parent directory of the directory indicated in the message.

If write permissions have not been allocated for the parent directory, set up write permissions for the directory.

---

**FSP\_FJSVswaic: ERROR: 51200: Executing the command failed. Command=[%1] Detail=[%2]**

[Description]

Executing the command has failed.

[Parameter]

%1: Command name

%2: Details about the error, or the return value for the command in %1

[System Action]

The system stops the command processing.

[Corrective Measures]

Check that execution permissions have been set up correctly on the system for the command displayed. If execution permissions have been set up correctly, check whether the command is executed correctly when started in standalone mode.

If the problem still occurs after the command execution has been checked, collect data using the Maintenance Information Collection Tool, and then contact Fujitsu technical support.

Refer to "[Appendix A How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 51201: Creating the SSL Environment failed.**

[Description]

The processing for creating the SSL communication environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51300: Connecting to Systemwalker Authentication Repository failed. Please Check the host.**

[Description]

Connecting to the Systemwalker authentication repository has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the Systemwalker authentication repository has failed. If it is still running, check whether it is possible to connect to the network. After confirming that there is no connection problem, execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51301: Systemwalker Authentication Repository is in busy state.**

[Description]

The Systemwalker authentication repository is in a busy state.

[System Action]

The system stops the command processing.

[Corrective Measures]

The Systemwalker authentication repository is in a high load state. Wait for a while, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51302: Time out had occurred in connecting to the Systemwalker authentication repository.**

[Description]

A timeout occurred while the Systemwalker authentication repository was being connected.

[System Action]

The system stops the command processing.

[Corrective Measures]

The Systemwalker authentication repository is in a high load state. Wait for a while, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51303: SystemwalkerMemory was insufficient while connecting to Systemwalker Authentication Repository.**

[Description]

Memory became insufficient while the Systemwalker authentication repository was being connected.

[System Action]

The system stops the command processing.

[Corrective Measures]

Either install additional memory, or stop any applications that are not required. Then, execute the command again.

---

**FSP\_FJSVswaic: ERROR: 51304: Connecting to Systemwalker Authentication Repository failed. Please reset the connecting information.**

[Description]

Authentication using the Systemwalker authentication repository has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command with the SET option again, and set up the correct user ID and password.

---

**FSP\_FJSVswaic: ERROR: 51400: Loading library failed. Library=[%1] Detail=[%2]**

[Description]

Loading the library indicated in the message has failed.

[Parameter]

%1: Name of the library file that failed to load

%2: Error details

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the library file indicated by the message exists.

If it exists, restart the system.

If the problem still occurs, or if the library file does not exist, collect maintenance information and contact Fujitsu technical support.

Refer to "[Appendix A How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 51401: Getting the address for function failed. Library=[%1] Function=[%2] Detail=[%3]**

[Description]

Obtaining the address of the library function indicated in the message has failed.

[Parameter]

%1: Library file name

%2: Function name

%3: Error details

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the library file indicated by the message exists.

If it exists, restart the system.

If the problem still occurs, or if the library file does not exist, collect maintenance information and contact Fujitsu technical support.

Refer to "[Appendix A How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 51402: Environment is in abnormal state. Please reconstruct the environment. Details = [%1]**

[Description]

The files required for the Systemwalker User Management function and the Systemwalker Single Sign-On function are missing.

[Parameter]

%1: Error details

[System Action]

The system stops the command processing.

[Corrective Measures]

Collect maintenance information and contact Fujitsu technical support.

Refer to "[Appendix A How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 51999: An internal error has occurred.**

[Description]

An internal error occurred during the processing.

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the Systemwalker product has been installed correctly. Also, check whether the server has enough memory and disk space for the command to run. If the problem cannot be resolved, collect maintenance information and contact Fujitsu technical support.

Refer to "[Appendix A How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

## 6.3.2 Messages Relating to the User Management Command

---

**FSP\_FJSVswaic: INFO: 12000: Adding the user started.**

[Description]

The processing for registering the user started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12001: Deleting the user started.**

[Description]

The processing for deleting the user has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12002: Modifying the user started.**

[Description]

The processing for modifying the user has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12003: Searching the user started.**

[Description]

The processing for searching for the user has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12004: Adding the user ended normally.**

[Description]

The processing for registering the user has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12005: Adding the user was canceled.**

[Description]

The processing for registering the user has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12006: Deleting the user ended normally.**

[Description]

The processing for deleting the user has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12007: Deleting the user was canceled.**

[Description]

The processing for deleting the user has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12008: Modifying the user ended normally.**



[Description]

The processing for modifying the user has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12009: Modifying the user was canceled.**

[Description]

The processing for modifying the user has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12010: Searching the user ended normally.**

[Description]

The processing for searching for the user has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12011: Searching the user was canceled.**

[Description]

The processing for searching for the user has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 12900: Are you sure you want to add a user forcibly? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to register the user forcibly, otherwise enter "n".

---

**FSP\_FJSVswaic: INFO: 12901: Are you sure you want to delete the user? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to delete the user, otherwise enter "n".

---

**FSP\_FJSVswaic: INFO: 12902: The file already exists. Are you sure you want to overwrite it? (y/n)**  
**File=[%1]**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[Parameter]

%1: File pathname

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to overwrite the file, otherwise enter "n".

---

**FSP\_FJSVswaic: INFO: 12903 : Are you sure you want to start modifying the user? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to modify the user, otherwise enter "n".

---

**FSP\_FJSVswaic: WARNING: 22000: The user does not found. UserID=[%1] Organizational Unit=[%2] Group=[%3]**

[Description]

The user was not found.

[Parameter]

%1: User ID

%2: Organization name

%3: Group name

[System Action]

The system continues the command processing.

[Corrective Measures]

Review the search conditions and then execute the command again.

---

**FSP\_FJSVswaic: WARNING: 22001: Errors has occurred during deleting users. Please confirm the error users list, and perform proper operations for these error users.**

[Description]

The processing for deleting the user has failed.

[System Action]

The system continues the command processing.

[Corrective Measures]

Take the action displayed in the error users list, and then execute the command again. If a CSV file has been specified, eliminate the users that have been deleted successfully before executing the command.

If Active Directory is being used as the Systemwalker authentication repository, and the action displayed in the error users list is "The entries of Systemwalker authentication repository exceed the maximum entry number to be searched as defined. Please update the

definition of the maximum entry number to be searched more than possible maximum number.", the maximum number of searches for Active Directory may have been exceeded. In this case, increase the MaxPageSize value for the LDAP policy in Active Directory, and then execute the command again.

---

**FSP\_FJSVswaic: WARNING: 22002: Errors has occurred during adding users. Please confirm the error users list, and perform proper operations for these error users.**

**[Description]**

The processing for registering the users has failed.

**[System Action]**

The system continues the command processing.

**[Corrective Measures]**

Take the action displayed in the error users list, and then execute the command again. If a CSV file has been specified, eliminate the users that have been deleted successfully before executing the command.

If Active Directory is being used as the Systemwalker authentication repository, and the action displayed in the error users list is "The entries of Systemwalker authentication repository exceed the maximum entry number to be searched as defined. Please update the definition of the maximum entry number to be searched more than possible maximum number.", the maximum number of searches for Active Directory may have been exceeded. In this case, increase the MaxPageSize value for the LDAP policy in Active Directory, and then execute the command again.

---

**FSP\_FJSVswaic: WARNING: 22003: Errors has occurred during modifying users. Please confirm the error users list, and perform proper operations for these error users.**

**[Description]**

The processing for modifying the users has failed.

**[System Action]**

The system continues the command processing.

**[Corrective Measures]**

Take the action displayed in the error users list, and then execute the command again. If a CSV file has been specified, eliminate the users that have been deleted successfully before executing the command.

If Active Directory is being used as the Systemwalker authentication repository, and the action displayed in the error users list is "The entries of Systemwalker authentication repository exceed the maximum entry number to be searched as defined. Please update the definition of the maximum entry number to be searched more than possible maximum number.", the maximum number of searches for Active Directory may have been exceeded. In this case, increase the MaxPageSize size for the LDAP policy in Active Directory, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 42000: Invalid number of command arguments. Number of Arguments=[%1]**

**[Description]**

The number of arguments or argument keywords specified with the command is invalid.

**[Parameter]**

%1: Invalid number of arguments or argument keywords

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct number of arguments in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 42001: Invalid argument. Argument=[%1]****[Description]**

There is an error with an argument specified with the command.

**[Parameter]**

%1: Specified argument

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct argument in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 42002: An argument is specified dublicately. argument=[%1]****[Description]**

An argument is specified more than once.

**[Parameter]**

%1: Duplicate argument

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#)Execute the command again after eliminating any redundant options.

---

**FSP\_FJSVswaic: ERROR: 42003: The argument exceeded the size limit. Argument=[%1] limit-size=[%2] specified-size=[%3]****[Description]**

The string length of the argument has exceeded the maximum limit.

**[Parameter]**

%1: Specified argument

%2: Maximum size

%3: Specified argument size

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the options for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#)Execute the command again after specifying a string that is not longer than the maximum number of characters that can be specified.

---

**FSP\_FJSVswaic: ERROR 42004: A required argument is missing. Argument=[%1]****[Description]**

A required argument is missing.

[Parameter]

%1: Required argument

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#) Execute the command again after adding the required argument.

---

**FSP\_FJSVswaic: ERROR: 42005: Both -i and %1 options cannot be specified at the same time.**

[Description]

A parameter that cannot be specified together with the "-i" parameter was specified.

[Parameter]

%1: Parameter that cannot be specified with the "-i" parameter

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#) Execute the command again after eliminating the parameter that cannot be specified with the "-i" parameter.

---

**FSP\_FJSVswaic: ERROR: 42006: "-password" option is missing in newly registration command.**

[Description]

A password was not specified when a new user was registered.

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#) Execute the command again after specifying a password.

---

**FSP\_FJSVswaic: ERROR: 42007: Unacceptable letter types are used in the User ID. User ID=[%s]. Acceptable letter types are alphabets ("a" to "z" and "A" to "Z"), numbers ("0" to "9"), underscores (\_), dashes (-), and periods (.).**

[Description]

An invalid string was specified as the user ID.

[Parameter]

%1: User ID

[System Action]

The system stops the command processing.

#### [Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#)Execute the command again after checking a string that can be specified.

---

### **FSP\_FJSVswaic: ERROR: 42008: Unacceptable letter types are used for the password.**

#### [Description]

An invalid string was specified as the password.

#### [System Action]

The system stops the command processing.

#### [Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#)Execute the command again after checking a string that can be specified.

---

### **FSP\_FJSVswaic: ERROR: 42009: Character strings size for the parameter is smaller than the defined minimum size. Parameter name=[%1], defined minimum size=[%2], specified parameter string size=[%3].**

#### [Description]

The string length of the specified argument is below the minimum length.

#### [Parameter]

%1: Specified argument

%2: Minimum size

%3: Specified argument size

#### [System Action]

The system stops the command processing.

#### [Corrective Measures]

Check the options for the command that has been executed, by referring to "[swidmg\\_user\\_mng \(User Management Command\)](#)" in the "[Command Reference](#)" section. [6.1.4 swidmg\\_user\\_mng \(User Management Command\)](#)Execute the command again after specifying a string that is not smaller than the minimum number of characters that can be specified.

---

### **FSP\_FJSVswaic: ERROR: 42100: swidmg\_user\_mng was already started.**

#### [Description]

Only one instance of the user management command can be executed at a time. The command could not be started, because another instance of the command was already running.

#### [System Action]

The system stops the command processing.

#### [Corrective Measures]

Execute the command again after the command that is currently being executed has completed.

---

### **FSP\_FJSVswaic: ERROR: 42101: You don't have right to manage users.**

#### [Description]

You do not have the privileges to execute the user management command.

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again as a user with the following privileges.

- Windows: Administrator privileges
- UNIX: System administrator (superuser) privileges

---

**FSP\_FJSVswaic: ERROR: 42200: Specified file does not exist. File=[%1]**

[Description]

The file indicated in the message does not exist.

[Parameter]

%1: File pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again after specifying the correct file.

---

**FSP\_FJSVswaic: ERROR: 42301: The confirmation process for settings of Systemwalker Authentication Repository was failed. Details = [%1]**

[Description]

The processing for confirming the settings for the Systemwalker authentication repository has failed.

[Parameter]

%1: Error details

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether settings have been specified with the connection destination Systemwalker authentication repository setup command, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52000: Adding the user failed.**

[Description]

The processing for registering the user has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52001: Deleting the user failed.**

[Description]

The processing for deleting the user has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52002: Modifying the user failed.**

[Description]

The processing for modifying the user has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52003: Searching the user failed.**

[Description]

The processing for searching for the user has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

If Active Directory is being used as the Systemwalker authentication repository, and the error message displayed before this message is "The entries of Systemwalker authentication repository exceed the maximum entry number to be searched as defined. Please update the definition of the maximum entry number to be searched more than possible maximum number.", the maximum number of searches for Active Directory may have been exceeded. In this case, increase the MaxPageSize size for the LDAP policy in Active Directory, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52100: Checking existence of the directory or file failed. Target=[%1]**

[Description]

Checking the existence of the directory or file indicated in the message has failed.

[Parameter]

%1: Path to the file or directory

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again after specifying the correct file or directory.

---

**FSP\_FJSVswaic: ERROR: 52101: Opening the file failed. File=[%1]**

[Description]

The processing for opening the file indicated in the message has failed.



[Parameter]

%1: File pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the file exists. If the file exists, it is possible that software such as anti-virus software may have temporarily prevented access to the file while it was scanning the file, so wait a while and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52102: Reading the file failed. File=[%1]**

[Description]

Reading the file indicated in the message has failed.

[Parameter]

%1: File pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the file exists. If the file exists, check the read permissions. It is also possible that software such as anti-virus software may have temporarily prevented access to the file while it was scanning the file, so wait a while and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52103: Writing the file failed. File=[%1]**

[Description]

Writing to the file indicated in the message has failed.

[Parameter]

%1: File pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the file exists. If the file exists, check the write permissions. It is also possible that software such as anti-virus software may have temporarily prevented access to the file while it was scanning the file, so wait a while and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 52200: Loading library failed. Library=[%1] Detail=[%2]**

[Description]

Loading the library indicated in the message has failed.

[Parameter]

%1: Path to the library

%2: Error details

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the library file indicated by the message exists. If it exists, restart the system.

If the problem still occurs, or if the library file does not exist, collect maintenance information and contact Fujitsu technical support.  
Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 52201: Getting the address of the function failed. Library=[%1] Function=[%2] Detail=[%3]****[Description]**

Obtaining the address of the library function indicated in the message has failed.

**[Parameter]**

%1: Path to the library

%2: Function name

%3: Error details

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check whether the library file indicated by the message exists. If it exists, restart the system.

If the problem still occurs, or if the library file does not exist, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information. [Appendix A How to Collect Maintenance Information](#)

---

**FSP\_FJSVswaic: ERROR: 52999: An internal error has occurred.****[Description]**

An internal error occurred during the processing.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check whether the Systemwalker product has been installed correctly. Also, check whether the server has enough memory and disk space for the command to run. If the problem cannot be resolved, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information. [Appendix A How to Collect Maintenance Information](#)

### 6.3.3 Messages Relating to the Systemwalker Single Sign-On Agent Setup Command

---

**FSP\_FJSVswaic: INFO: 13000: Setting the environment started.****[Description]**

The processing for setting up the environment has started.

**[Corrective Measures]**

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13001: Setting the environment was canceled.****[Description]**

The processing for setting up the environment has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13002: Setting the environment ended normally. Restart the Web server used by the Systemwalker product.**

[Description]

The processing for setting up the environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13003: Deleting the environment started.**

[Description]

The processing for deleting the environment has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13004: Deleting the environment was canceled.**

[Description]

The processing for deleting the environment has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13005: Deleting the environment ended normally.**

[Description]

The processing for deleting the environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13006: Updating the environment started.**

[Description]

The processing for updating the environment has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13007: Updating the environment was canceled.**

[Description]

The processing for updating the environment has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13008: Updating the environment was canceled.**

[Description]

The processing for updating the environment has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 13100: The system environment setting was already finished. Are you sure you want to reset the system environment? (y/n) System=[%1]**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[Parameter]

%1: System name that has already been set up

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to reset the environment, otherwise enter "n".

---

**FSP\_FJSVswaic: WARNING: 23000: The system environment have not been set, so there is no need to delete the environment.**

[Description]

The environment has not been set up.

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute this command only if the environment has already been set up.

---

**FSP\_FJSVswaic: ERROR: 43000: Invalid number of command arguments. Number of Arguments=[%1]**

[Description]

The number of arguments or argument keywords specified with the command is invalid.

[Parameter]

%1: Invalid number of arguments or argument keywords

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct number of arguments in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 43001: Invalid argument. Argument=[%1]**

[Description]

There is an error with an argument specified with the command.

[Parameter]

%1: Specified argument

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" in the "[Command Reference](#)" section. [6.1.3 swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)Execute the command again after specifying the correct argument in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 43002: An argument is specified duplicately. argument=[%1]**

[Description]

An argument is specified more than once.

[Parameter]

%1: Duplicate argument

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" in the "[Command Reference](#)" section. [6.1.3 swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)Execute the command again after eliminating any redundant options.

---

**FSP\_FJSVswaic: ERROR: 43003: A required argument is missing. Argument=[%1]**

[Description]

A required argument is not specified.

[Parameter]

%1: Required argument

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)" in the "[Command Reference](#)" section. [6.1.3 swidmg\\_set\\_ssoagent \(Systemwalker Single Sign-On Agent Setup Command\)](#)Execute the command again after adding the required argument.

---

**FSP\_FJSVswaic: ERROR: 43100: swidmg\_set\_ssoagent is already started.**

[Description]

Only one instance of the Systemwalker Single Sign-On Agent setup command can run at a time. The command could not be started, because another instance of the command was already running.

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again after the command that is currently being executed has completed.

---

**FSP\_FJSVswaic: ERROR: 43101: You don't have right to set the Systemwalker Single Sign-on Agent.**

[Description]

You do not have the privileges to execute the Systemwalker Single Sign-on Agent setup command.

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again as a user with the following privileges.

- Windows: Administrator privileges
- UNIX: System administrator (superuser) privileges

---

**FSP\_FJSVswaic: ERROR: 43200: Password is incorrect.**

[Description]

The specified password does not match the password specified in the business system setup file.

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the password specified in the business system setup file, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53000: Setting the environment failed.**

[Description]

The processing for setting up the environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53001: Deleting the environment failed.**

[Description]

The processing for deleting the environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53002: Updating the environment failed.**

[Description]

The processing for updating the environment has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53100: Checking existence of the directory or file failed. Target=[%1]**

[Description]

Checking the existence of the directory or file indicated in the message has failed.

[Parameter]

%1: Path to the file or directory

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again after specifying the correct file or directory.

---

**FSP\_FJSVswaic: ERROR: 53101: Reading the definition file failed. File=[%1] Section=[%2] Key=[%3]**

[Description]

Reading the definition file has failed.

[Parameter]

%1: File name

%2: Section name

%3: Key

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the specified file path is correct, and also check whether the access permissions for the file have been set up.

If the problem still occurs even after the cause of the error has been removed, collect data using the Maintenance Information Collection Tool, and then contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information. [Appendix A How to Collect Maintenance Information](#)

---

**FSP\_FJSVswaic: ERROR: 53102: Writing the definition file failed. File=[%1] Section=[%2] Key=[%3]**

[Description]

Writing the definition file has failed.

[Parameter]

%1: File name

%2: Section name

%3: Key

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the specified file path is correct, and also check whether the access permissions for the file have been set up.

If the problem still occurs even after the cause of the error has been removed, collect data using the Maintenance Information Collection Tool, and then contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information. [Appendix A How to Collect Maintenance Information](#)

---

**FSP\_FJSVswaic: ERROR: 53103: Copying the file failed. Source=[%1] Destination=[%2] Error=[%3]****[Description]**

Copying the file failed.

**[Parameter]**

%1: Source file

%2: Target file

%3: Error details

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

An error occurred while the command was being executed to copy from the source file to the target file.

The cause of the error is output to the "Error" field. Remove the cause of the error, and then execute the command again.

If the cause of the error is unknown, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 53104: Setting access right to a file was failed. File=[%1]****[Description]**

Setting access permissions for a file has failed.

**[Parameter]**

%1: File name

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

An error occurred while access permissions for the file were being set up. Check whether the command execution user can access the file indicated in the "File" field, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53200: Reading the Business system setup file failed. File=[%1] Detail=[%2]****[Description]**

Reading the business system setup file has failed.

**[Parameter]**

%1: File name

%2: Error details

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Download the business system setup file again, and then execute the command again.



---

**FSP\_FJSVswaic: ERROR: 53201: Maximum number of business systems to be specified is 32 and currently it is full. If a new system should be added, please remove unnecessary system first.**

[Description]

The maximum number of business systems that can be set up has been exceeded.

[System Action]

The system stops the command processing.

[Corrective Measures]

Remove any unnecessary business systems, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53202: A process to obtain a business system name was failed.**

[Description]

The process for obtaining a business system name from the settings file has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

Download the business system setup file again, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53203: Memory shortage occurred in setting Single-Sign-on Agent.**

[Description]

Memory became insufficient while the Systemwalker Single Sign-On Agent was being set up.

[System Action]

The system stops the command processing.

[Corrective Measures]

Either install additional memory, or stop any unnecessary applications. Then, execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53204: Reading of setting file was failed. File=[%1] Detail=[%2]**

[Description]

Reading the settings file has failed.

[Parameter]

%1: File name

%2: Error details

[System Action]

The system failed to read the settings file.

[Corrective Measures]

Download the business system setup file again, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 53999: An internal error has occurred.**

[Description]

An internal error occurred during the processing.

#### [System Action]

The system stops the command processing.

#### [Corrective Measures]

Check whether the Systemwalker product has been installed correctly. Also, check whether the server has enough memory and disk space for the command to run. If the problem cannot be resolved, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information. [Appendix A How to Collect Maintenance Information](#)

## 6.3.4 Messages Relating to the Backup and Restoration Command

---

### **FSP\_FJSVswaic: INFO: 14000: Backup started.**

#### [Description]

The backup processing has started.

#### [Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

### **FSP\_FJSVswaic: INFO: 14001: Restore started.**

#### [Description]

The restore processing has started.

#### [Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

### **FSP\_FJSVswaic: INFO: 14002: Backup ended normally.**

#### [Description]

The backup processing has terminated normally.

#### [Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

### **FSP\_FJSVswaic: INFO: 14003: Backup was canceled.**

#### [Description]

The backup processing has been canceled.

#### [Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

### **FSP\_FJSVswaic: INFO: 14004: Restore ended normally.**

#### [Description]

The restore processing has been terminated normally.

#### [Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

### **FSP\_FJSVswaic: INFO: 14005: Restore was canceled.**

#### [Description]

The restore processing has been canceled.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 14100: Are you sure you want to start backup? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Press "y" to perform backup processing, otherwise press "n".

---

**FSP\_FJSVswaic: INFO: 14101: Are you sure you want to start restore? (y/n)**

[Description]

This message asks for confirmation about whether it is OK to start the command processing.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

Enter "y" to perform restore processing, otherwise enter "n".

---

**FSP\_FJSVswaic: ERROR: 44000: Invalid number of command arguments. Number of Arguments=[%1]**

[Description]

The number of arguments or argument keywords specified with the command is invalid.

[Parameter]

%1: Invalid number of arguments or argument keywords

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct number of arguments in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 44001: Invalid argument. Argument=[%1]**

[Description]

There is an error with an argument specified with the command.

[Parameter]

%1: Specified argument

[System Action]

The system stops the command processing.

Corrective Measures

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct argument in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 44002: An argument is specified dublicately. argument=[%1]****[Description]**

An argument is specified more than once.

**[Parameter]**

%1: Duplicate argument

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" in the "[Command Reference](#)" section.

Execute the command again after eliminating any redundant options.

---

**FSP\_FJSVswaic: ERROR: 44003: A required argument is missing. Argument=[%1]****[Description]**

A required argument is not specified.

**[Parameter]**

%1: Required argument

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after adding the required argument.

---

**FSP\_FJSVswaic: ERROR: 44004: Both -b and -r options cannot be specified at the same time.****[Description]**

Both -b and -r options cannot be specified at the same time.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct arguments in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 44005: The -b or -r parameter is not specified.****[Description]**

Either the "-b" option or the "-r" option has not been specified.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check the synopsis for the command that has been executed, by referring to "[swidmg\\_bkrs \(Backup and Restoration Command\)](#)" in the "[Command Reference](#)" section. Execute the command again after specifying the correct arguments in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 44100: swidmg\_bkrs is already started.****[Description]**

Only one instance of the backup or restore command can be executed at a time. The command could not be started, because another instance of the command was already running.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Execute the command again after the command that is currently being executed has completed.

---

**FSP\_FJSVswaic: ERROR: 44101: You don't have right to execute the command.****[Description]**

You do not have the privileges to execute the backup or restore command.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Execute the command again as a user with the following privileges.

- Windows: Administrator privileges
- UNIX: System administrator (superuser) privileges

---

**FSP\_FJSVswaic: ERROR: 54000: Backup failed.****[Description]**

The backup processing has failed.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 54001: Restoring failed.****[Description]**

The restore processing has failed.

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

This message indicates that the command has terminated abnormally. Take action based on the messages that were displayed before this message, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 54100: Checking existence of the directory or file failed. Target=[%1]****[Description]**

Checking the existence of the directory or file indicated in the message has failed.

[Parameter]

%1: Path to the file or directory

[System Action]

The system stops the command processing.

[Corrective Measures]

Execute the command again after specifying the correct file or directory.

---

**FSP\_FJSVswaic: ERROR: 54101: Creating the directory failed. Directory=[%1]**

[Description]

Creating the directory has failed.

[Parameter]

%1: Directory pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the status of the parent directory of the directory indicated in the message.

If write permissions have not been allocated for the parent directory, set up write permissions for the directory.

---

**FSP\_FJSVswaic: ERROR: 54102: Creating the backup information failed.**

[Description]

Creating the file of backup information has failed.

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the following file exists.

[Windows]

`%F4AM_INSTALL_PATH%\F4AMidmg\client\conf\swidmg.ini`

[UNIX]

`/etc/opt/FJSVswaic/client/conf/swidmg.ini`

If the file exists, execute the command again. If this file does not exist, and the problem still persists, collect maintenance information and send it to Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 54103: Creating the file of backup information failed. File=[%1]**

[Description]

Writing to the file indicated in the message has failed.

[Parameter]

%1: File pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

If write permissions have not been allocated for the directory in the file path indicated in the message, set up write permissions for the directory and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 54104: File of backup information does not exist. File=[%1]**

[Description]

The file indicated in the message does not exist.

[Parameter]

%1: File pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the directory that was specified when the restoration was executed is correct, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 54105: The directory to be restored does not exist. Directory=[%1]**

[Description]

The directory indicated in the message does not exist.

[Parameter]

%1: Directory pathname

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the directory indicated in the message exists, and then execute the command again.

---

**FSP\_FJSVswaic: ERROR: 54106: Reading the definition file failed. File=[%1] Section=[%2] Key=[%3]**

[Description]

Reading the definition file has failed.

[Parameter]

%1: File name

%2: Section name

%3: Key

[System Action]

The system stops the command processing.

[Corrective Measures]

Check whether the specified file path is correct, and also check whether the access permissions for the file have been set up.

If the problem still occurs even after the cause of the error has been removed, collect data using the Maintenance Information Collection Tool, and then contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 54107: Writing the definition file failed. File=[%1] Section=[%2] Key=[%3]****[Description]**

Writing to the definition file has failed.

**[Parameter]**

%1: File name

%2: Section name

%3: Key

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

Check whether the specified file path is correct, and also check whether the access permissions for the file have been set up.

If the problem still occurs even after the cause of the error has been removed, collect data using the Maintenance Information Collection Tool, and then contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 54108: Copying the file failed. Source=[%1] Destination=[%2] Detail=[%3]****[Description]**

Copying the file has failed.

**[Parameter]**

%1: Path to the source file

%2: Path to the target file

%3: Error details

**[System Action]**

The system stops the command processing.

**[Corrective Measures]**

An error occurred while the command was being executed to copy from the source file to the target file.

Check the error details indicated in the message, remove the cause of the error, and then execute the command again.

If the cause of the error is unknown, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information. [Appendix A How to Collect Maintenance Information](#)

---

**FSP\_FJSVswaic: ERROR: 54109: Copying the Directory failed. Source=[%1] Destination=[%2] Detail=[%3]****[Description]**

Copying the directory has failed.

**[Parameter]**

The system stops the command processing.

**[System Action]**

%1: Path to the source directory

%2: Path to the target directory



%3: Error details

#### [Corrective Measures]

An error occurred while the command was being executed to copy from the source directory to the target directory. Check the error details indicated in the message, remove the cause of the error, and then execute the command again.

If the cause of the error is unknown, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

### **FSP\_FJSVswaic: ERROR: 54999: An internal error has occurred.**

#### [Description]

An internal error occurred during the processing.

#### [System Action]

The system stops the command processing.

#### [Corrective Measures]

Check whether the Systemwalker product has been installed correctly. Also, check whether the server has enough memory and disk space for the command to run. If the problem cannot be resolved, collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information. [Appendix A How to Collect Maintenance Information](#)

---

## **6.3.5 Messages Relating to the Installer for the Systemwalker Single Sign-On Server [Windows]**

---

### **FSP\_FJSVswaic: INFO: 16000: Interstage Application Server, valid version for Systemwalker Single Sign-on Server, is already installed. So there is no need to install again. Installation process terminated normally.**

#### [Description]

A version of Interstage Application Server that can be used as the Systemwalker Single Sign-On Server is already installed, so there is no need to install it again.

#### [System Action]

The system stops the installation process.

#### [Corrective Measures]

Construct the Systemwalker Single Sign-On Server using the Interstage Application Server that has already been installed.

---

### **FSP\_FJSVswaic: INFO: 16500: Systemwalker Single Sign-on function is removing. Are you sure to be removed?**

#### [Description]

This message asks for confirmation about whether to continue with the uninstallation.

#### [Corrective Measures]

To continue with the uninstallation, select "Yes".

---

### **FSP\_FJSVswaic: WARNING: 26000: The specified install directory is not writable. Please specify writable directory.**

#### [Description]

The specified installation directory is not write-enabled.

[Corrective Measures]

Specify a write-enabled directory.

---

**FSP\_FJSVswaic: WARNING: 26001: The specified directory in the installation target contains resources relate to Interstage Application Server. Please delete the specified directory and specify again, or specify different directory.**

[Description]

The Systemwalker Single Sign-On Server cannot be installed in the specified installation directory because it already contains resources relating to Interstage Application Server.

[Corrective Measures]

Delete the specified directory, or specify a different directory.

---

**FSP\_FJSVswaic: WARNING: 26100: Not numeric character was found in port number for Interstage Management console. Please specify number between 1 and 65535. Port number in parameter: [%1]**

[Description]

A non-numeric string has been specified for the port number.

[Parameter]

%1: Port number

[Corrective Measures]

Specify a number for the port number.

---

**FSP\_FJSVswaic: WARNING: 26101: Out of range number was found in port number for Interstage Management console. Specify a number between 1 and 65535. Port number in parameter: [%1]**

[Description]

The value specified for the port number is outside the range of values that can be specified.

[Parameter]

%1: Port number

[Corrective Measures]

For the port number, specify a number between 1 and 65535.

---

**FSP\_FJSVswaic: WARNING: 26102: The port number specified for Interstage Management console is already used by other process. Please specify not used port number. Port number in parameter: [%1]**

[Description]

A port number that is already being used has been specified.

[Parameter]

%1: Port number

[Corrective Measures]

Specify a port number that is not used.

---

**FSP\_FJSVswaic: WARNING: 26103: Not numeric character was found in port number for Web Server (Interstage HTTP Server). Please specify number between 1 and 65535. Port number in parameter: [%1]**

[Description]

A non-numeric string has been specified for the port number.

[Parameter]

%1: Port number

[Corrective Measures]

Specify a number for the port number.

---

**FSP\_FJSVswaic: WARNING: 26104: Out of range number was found in port number for Web Server (Interstage HTTP Server). Please specify number between 1 and 65535. Port number in parameter: [%1]**

[Description]

The value specified for the port number is outside the range of values that can be specified.

[Parameter]

%1: Port number

[Corrective Measures]

For the port number, specify a number between 1 and 65535.

---

**FSP\_FJSVswaic: WARNING: 26105: The port number specified for Web Server (Interstage HTTP Server) is already used by other process. Please specify not used port number. Port number in parameter: [%1]**

[Description]

A port number that is already being used has been specified.

[Parameter]

%1: Port number

[Corrective Measures]

Specify a port number that is not used.

---

**FSP\_FJSVswaic: WARNING: 26106: Not numeric character was found in port number for CORBA Services. Please specify number between 1 and 65535. Port number in parameter: [%1]**

[Description]

A non-numeric string has been specified for the port number.

[Parameter]

%1: Port number

[Corrective Measures]

Specify a number for the port number.

---

**FSP\_FJSVswaic: WARNING: 26107: Out of range number was found in port number for CORBA Services. Please specify number between 1 and 65535. Port number in parameter: [%1]**

[Description]

The value specified for the port number is outside the range of values that can be specified.

[Parameter]

%1: Port number

[Corrective Measures]

For the port number, specify a number between 1 and 65535.

---

**FSP\_FJSVswaic: WARNING: 26108: The port number specified for CORBA Services is already used by other process. Please specify not used port number. Port number in parameter: [%1]**

[Description]

A port number that is already being used has been specified.

[Parameter]

%1: Port number

[Corrective Measures]

Specify a port number that is not used.

---

**FSP\_FJSVswaic: ERROR: 46000: The installation was initiated by user without system Administrator commission. Please login by user with system Administrator commission, and initiate installation again. This installation process is terminated.**

[Description]

The user that is currently logged in does not have system administrator privileges.

[System Action]

The system stops the installation process.

[Corrective Measures]

Log in as a user with system administrator privileges, and perform the installation again.

---

**FSP\_FJSVswaic: ERROR: 46001: Systemwalker Single Sign-On could not be installed. Please confirm the supported Operating Systems and Service Packs. The installation process terminated.**

[Description]

An attempt was made to install the Systemwalker Single Sign-On Server on an unsupported operating system, or in an environment where the required Service Packs have not been applied.

[System Action]

The system stops the installation process.

[Corrective Measures]

Install the Systemwalker Single Sign-On Server on a supported operating system. If the required Service Packs have not been applied, apply them before attempting the installation again.

---

**FSP\_FJSVswaic: ERROR: 46100: Some version of Interstage Application Server, which could not be used for Systemwalker Single Sign-on, is already installed. Please uninstall the Interstage Application Server, and install again. The installation process is terminated.**

[Description]

An attempt was made to install the Systemwalker Single Sign-On Server in an environment where a version of Interstage Application Server that cannot be used for Systemwalker Single Sign-On has been installed.

[System Action]

The system stops the installation process.

[Corrective Measures]

To construct a Systemwalker Single Sign-On system, uninstall the existing version of Interstage Application Server, and then attempt the installation again.

---

**FSP\_FJSVswaic: ERROR: 46200: Systemwalker Single Sign-On function could not accept over-write installation. Please uninstall currently installed function, and install the function again.**

[Description]

An attempt was made to install the Systemwalker Single Sign-On function over the top of an existing installation.

[System Action]

The system stops the installation process.

[Corrective Measures]

To construct a Systemwalker Single Sign-On system, uninstall the existing version of Interstage Application Server and Systemwalker Single Sign-On function, and then attempt the installation again.

---

**FSP\_FJSVswaic: ERROR: 56000: The process to create silent installation file of Interstage Application Server was failed. The installation process is terminated. Please confirm the user has right to write the following file, and initiate installation again. File=[%1]**

[Description]

The process to create silent installation files for Interstage Application Server has failed.

[Parameter]

%1: File pathname

[System Action]

The system stops the installation process.

[Corrective Measures]

Check the write permissions for the parent directory of the file indicated in the message. If the user does not have write permissions, assign write permissions before installing again.

---

**FSP\_FJSVswaic: ERROR: 56001: The process to install of Interstage Application Server was failed. There is a possibility that the Interstage Application Server is installed incompletely, so please uninstall the Interstage Application Server completely, and then start installation again. Details = [%1]**

[Description]

The process to install Interstage Application Server has failed.

[Parameter]

%1: Detailed error number

[System Action]

The system stops the installation process.

[Corrective Measures]

There is a possibility that Interstage Application Server may not have been installed completely, so check if Interstage Application Server has been installed. If Interstage Application Server has been installed, uninstall it first and then install it again.

---

**FSP\_FJSVswaic: ERROR: 56100: Registry information creation is failed. Please confirm the user has system administrator commission, and start installation again. The installation process is terminated.**

[Description]

Creating a registry has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

Check that the user who performs the installation has system administrator privileges, and then perform the installation again.

---

**FSP\_FJSVswaic: ERROR: 56101: Registry value reading is failed. Please confirm the user has system administrator commission, and start installation again. The installation process is terminated.**

[Description]

Reading registry data has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

Check that the user who performs the installation has system administrator privileges, and then perform the installation again.

---

**FSP\_FJSVswaic: ERROR: 56102: The process to obtain used port number is failed. Please confirm that command "netstat -n -a" could be executed normally, then start installation again. The installation process is terminated.**

[Description]

The process to obtain a used port number has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

Check that the user who performs the installation has system administrator privileges and that "netstat -n -a" can be executed from a command prompt, and then perform the installation again.

---

**FSP\_FJSVswaic: ERROR: 56999: An internal error has occurred. The installation process is terminated.**

[Description]

An internal error occurred during the processing.

[System Action]

The system stops the installation process.

[Corrective Measures]

Collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**[FSP\_FJSVswaic: WARNING: 26200] The Systemwalker Single Sign-on Agent is already installed in the system. If you make settings of Systemwalker Single Sign-on Agent, please delete the settings. Please confirm the Web server, that is used as Web console by Systemwalker products, is stopped. Do you wish to continue the process?**

[Description]

An attempt was made to install a Systemwalker Single Sign-On Server in an environment where a Systemwalker Single Sign-On Agent has been installed.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

If a Systemwalker Single Sign-On Agent has been set up, delete the settings by referring to "[Deleting the Systemwalker Single Sign-On Agent Settings](#)".

After the settings have been deleted, check that the Web server used by the Web console for the Systemwalker product is not running, and then perform the installation again.

---

**[FSP\_FJSVswaic: ERROR: 56200] The ObjectDirector is already installed in the system. Please refer the "Systemwalker Centric Manager User's Guide - Running Interstage, Symfoware and ObjectDirector" and uninstall the ObjectDirector, then install the product again.**

[Description]

ObjectDirector has been installed, and ObjectDirector is a program for which care is required when it exists on the same machine as Systemwalker Single Sign-On. ObjectDirector must be uninstalled.

[System Action]

The system stops the installation process.

[Corrective Measures]

Uninstall ObjectDirector by referring to the *Systemwalker Centric Manager User's Guide - Running Interstage, Symfoware and ObjectDirector*, and then attempt the installation again.

---

**[FSP\_FJSVswaic: ERROR: 56202] The ObjectDirector is active in the system. Please uninstall the ObjectDirector, and reboot the system after the uninstallation process is finished.**

[Description]

ObjectDirector has been installed, and ObjectDirector is a program for which care is required when it exists on the same machine as Systemwalker Single Sign-On. ObjectDirector must be uninstalled.

[System Action]

The system stops the installation process.

[Corrective Measures]

Uninstall ObjectDirector, and then restart the system.

---

**[FSP\_FJSVswaic: ERROR: 56300] The uninstalling process of Ssystemwalker Single Sign-on Agent was failed.**

[Description]

Uninstalling the Systemwalker Single Sign-On Agent has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

Check that the Web server used by the Web console for the Systemwalker product is not running. Stop the Web server if it is running, and then attempt the installation again.

If the problem with the installation still persists even after the Web server has been stopped, collect the following files and contact Fujitsu technical support.

- %WINDIR%\f4amswidmsgsv.log
- %WINDIR%\f4amswidmsgsv(old).log
- %WINDIR%\f4amissetup.iss
- %WINDIR%\f4amissetup.log

There is no need to collect files that do not exist.

---

## 6.3.6 Messages Relating to the Installer for the Systemwalker Single Sign-On Server [UNIX]

---

---

**Interstage Application Server, valid version for Systemwalker Single Sign-on Server, is already installed. So there is no need to install again. Installation process terminated normally.**

[Description]

A version of Interstage Application Server that can be used as the Systemwalker Single Sign-On Server is already installed, so there is no need to install it again.

[System Action]

The system stops the installation process.

[Corrective Measures]

Construct the Systemwalker Single Sign-On Server using the Interstage Application Server that has already been installed.

---

**Some version of Interstage Application Server, which could not be used for Systemwalker Single Sign-on, is already installed. Please uninstall the Interstage Application Server, and install again. The installation process is terminated.**

[Description]

An attempt was made to install the Systemwalker Single Sign-On Server in an environment where a version of Interstage Application Server that cannot be used for Systemwalker Single Sign-On has been installed.

[System Action]

The system stops the installation process.

[Corrective Measures]

To construct a Systemwalker Single Sign-On system, uninstall the existing version of Interstage Application Server, and then attempt the installation again.

---

**The process to create silent installation file of Interstage Application Server was failed. The installation process is terminated. Please confirm the user has right to write the following file, and initiate installation again.**

[Description]

The process to create silent installation files for Interstage Application Server has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

Check the write permissions for the /tmp directory. If the user does not have write permissions, assign write permissions before installing again.

---

**The process to install of Interstage Application Server was failed. There is a possibility that the Interstage Application Server is installed incompletely, so please uninstall the Interstage Application Server completely, and then start installation again.**

[Description]

The process to install Interstage Application Server has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

Interstage Application Server may not have been installed completely. Check if Interstage Application Server has been installed. If Interstage Application Server has been installed, uninstall it first and then install it again.



---

**"/ cannot follow another '/.****[Description]**

There is a problem with the specification for the installation directory.

**[Corrective Measures]**

Specify the correct installation directory.

---

**Installation destination specified is not a directory.****[Description]**

There is a problem with the specification for the installation directory.

**[Corrective Measures]**

Specify the correct installation directory.

---

**The directory name must begin with '/.****[Description]**

There is a problem with the specification for the installation directory.

**[Corrective Measures]**

Specify the correct installation directory.

---

**Installation destination must be specified separately.****[Description]**

There is a problem with the specification for the installation directory.

**[Corrective Measures]**

Specify the correct installation directory.

---

**Please enter the port number within the range of 1-65535.****[Description]**

The value specified for the port number is outside the range of values that can be specified.

**[Corrective Measures]**

For the port number, specify a number within the range of values that can be specified.

---

**Please enter 0(not to use) or 1(to use) for the Security Operating Mode.****[Description]**

There is a problem with the specification for the security operating mode.

**[Corrective Measures]**

Specify a value that can be specified for the security operating mode.

---

**Acquisition of an environment variable (LANG) or reading of a file went wrong.****[Description]**

Obtaining the system locale has failed.

**[System Action]**

The system stops the installation process.

### [Corrective Measures]

Check whether the LANG environment variable has been set up, and then execute the command again.

If the problem persists, collect the following files and contact Fujitsu technical support.

- /tmp/systemwalker\_swssoinst.log
- /tmp/swssoinst.err
- /tmp/systemwalker\_swssoinst.err

There is no need to collect files that do not exist.

---

### **Failed to load 'swsetup.ini'.**

#### [Description]

Reading the swsetup.ini file has failed.

#### [System Action]

The system stops the installation process.

### [Corrective Measures]

Check whether the command execution user has read permissions for the /tmp/FJSVswais directory and the files below, and then execute the command again.

If the problem persists, collect the following files and contact Fujitsu technical support.

- /tmp/systemwalker\_swssoinst.log
- /tmp/swssoinst.err
- /tmp/systemwalker\_swssoinst.err

There is no need to collect files that do not exist.

---

### **The installer or the uninstaller is already running.**

#### [Description]

Only one instance of the installer or the uninstaller can run at a time. The command could not be started, because another instance of the command was already running.

#### [System Action]

The system stops the installation process.

### [Corrective Measures]

Execute the command again after the installer or uninstaller that is currently running has completed.

---

### **You are not a super user.**

#### [Description]

The user that is currently logged in does not have system administrator (superuser) privileges.

#### [System Action]

The system stops the installation process.

### [Corrective Measures]

Either log on as a system administrator (superuser) or use the su command to become a system administrator (superuser), and then execute the command again.

---

### **'/opt', '/etc/opt' or '/var/opt' is not a directory.**

[Description]

"/opt", "/etc/opt" or "/var/opt" is not a directory.

[System Action]

The system stops the installation process.

[Corrective Measures]

If "/opt", "/etc/opt" or "/var/opt" is not a directory, change it to a directory and then execute the command again.

---

**Setup has detected that the SELinux function is enabled. Setup is unable to install this product while the SELinux function is enabled. You need to disable the SELinux function first to install this product.**

[Description]

This product cannot be installed because the SELinux function is enabled.

[System Action]

The system stops the installation process.

[Corrective Measures]

Disable the SELinux function and then execute the command again.

---

**The following directory is loopback mounted from the global zone to share file systems among zones. If you proceed the current installation, the process may fail or the installed product may not work properly. It is recommended to unmount the directory before installing the product.**

[Description]

The directory indicated in the message has been set up as a loopback directory.

[System Action]

The system asks for confirmation about whether to continue with the processing.

[Corrective Measures]

To continue with the processing, press "y". Otherwise press "n".

---

**The following directory is inherited from the global zone and its contents are read-only. If you proceed the current installation, the process may fail or the installed product may not work properly. It is recommended to remove inheritance before installing the product.**

[Description]

The directory indicated in the message has been set up as read-only.

[System Action]

The system asks for confirmation about whether to continue with the processing.

[Corrective Measures]

To continue with the processing, press "y". Otherwise press "n".

---

**The specified install directory is loopback mounted from the global zone to share file systems among zones. If you proceed the current installation, the process may fail or the installed product package may not work properly. It is recommended to unmount the directory before installing the product package.**

[Description]

The directory that has been specified as the installation directory indicated in the message has been set up as a loopback directory.

[System Action]

The system asks for confirmation about whether to continue with the processing.

[Corrective Measures]

To continue with the processing, press "y". Otherwise press "n".

---

**The specified install directory is inherited from the global zone, and its contents are read-only. If you proceed the current installation, the process may fail or the installed product package may not work properly. It is recommended to remove inheritance before installing the product package.**

[Description]

The directory that has been specified as the installation directory indicated in the message has been set up as read-only.

[System Action]

The system asks for confirmation about whether to continue with the processing.

[Corrective Measures]

To continue with the processing, press "y". Otherwise press "n".

---

**The Systemwalker Single Sign-on Agent is already installed in the system. If you make settings of Systemwalker Single Sign-on Agent, please delete the settings. Please confirm the Web server, that is used as Web console by Systemwalker products, is stopped. Do you wish to continue the process?**

[Description]

An attempt was made to install a Systemwalker Single Sign-On Server in an environment where a Systemwalker Single Sign-On Agent has been installed.

[System Action]

The system waits for a response to be entered.

[Corrective Measures]

If a Systemwalker Single Sign-On Agent has been set up, delete the settings by referring to "[Deleting the Systemwalker Single Sign-On Agent Settings](#)".

After the settings have been deleted, check that the Web server used by the Web console for the Systemwalker product is not running, and then perform the installation again.

---

**The ObjectDirector is already installed in the system. Please refer the "Systemwalker Centric Manager User's Guide - Running Interstage, Symfoware and ObjectDirector" and uninstall the ObjectDirector, then install the product again.**

[Description]

ObjectDirector has been installed, and ObjectDirector is a program for which care is required when it exists on the same machine as Systemwalker Single Sign-On. ObjectDirector must be uninstalled.

[System Action]

The system stops the installation process.

[Corrective Measures]

Uninstall ObjectDirector by referring to the *Systemwalker Centric Manager User's Guide - Running Interstage, Symfoware and ObjectDirector*, and then attempt the installation again.

---

**The ObjectDirector is active in the system. Please uninstall the ObjectDirector, and reboot the system after the uninstallation process is finished.**

[Description]

ObjectDirector has been installed, and ObjectDirector is a program for which care is required when it exists on the same machine as Systemwalker Single Sign-On. ObjectDirector must be uninstalled.

[System Action]

The system stops the installation process.

[Corrective Measures]

Uninstall ObjectDirector and then restart the system.

---

**The SMEE or SCLR is already installed in the system.  
Please uninstall the SMEE or SCLR, then install the product again.**

[Description]

SMEE has been installed, and SMEE is a program for which care is required when it exists on the same machine as Systemwalker Single Sign-On. SMEE must be uninstalled.

[System Action]

The system stops the installation process.

[Corrective Measures]

First make sure that SMEE and SCLR are not being used by other products. Then uninstall SMEE and attempt the installation again.

---

**The uninstalling process of Sysytemwalker Single Sign-on Agent was failed.**

[Description]

Uninstalling the Systemwalker Single Sign-On Agent has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

Check that the Web server used by the Web console for the Systemwalker product is not running. Stop the Web server if it is running, and then attempt the installation again.

If the problem with the installation still persists even after the Web server has been stopped, collect the following files and contact Fujitsu technical support.

- %WINDIR%\f4amswidmgsv.log
- %WINDIR%\f4amswidmgsv(old).log
- %WINDIR%\f4amissetup.iss
- %WINDIR%\f4amissetup.log

There is no need to collect files that do not exist.

## 6.3.7 Messages Relating to the F4AMsetup Command

---

**FSP\_FJSVswaic: INFO: 15000: Installing the Systemwalker Single Sign-On Agent started.**

[Description]

Installing the Systemwalker Single Sign-On Agent has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 15001: Uninstalling the Systemwalker Single Sign-On Agent started.**

[Description]

Uninstalling the Systemwalker Single Sign-On Agent has started.

[Corrective Measures]

This message simply indicates that the command has started, and no action is required.

---

**FSP\_FJSVswaic: INFO: 15002: Installing the Systemwalker Single Sign-On ended normally. If you wish to install Interstage Application Server to the same system environment, please uninstall Systemwalker Single Sign-on agent first.**

[Description]

The installation process has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 15003: Uninstalling the Systemwalker Single Sign-On Agent ended normally.**

[Description]

The uninstallation process has terminated normally.

[Corrective Measures]

This message simply indicates that the command has terminated, and no action is required.

---

**FSP\_FJSVswaic: INFO: 15004: Systemwalker Single Sign-On Agent is not installed.**

[Description]

The Systemwalker Single Sign-On Agent was not uninstalled because it has not been installed in the first place.

[System Action]

The system does not perform uninstallation processing.

[Corrective Measures]

Perform the uninstallation in an environment where the Systemwalker Single Sign-On Agent has been installed.

---

**FSP\_FJSVswaic: ERROR: 55000: Installing the Systemwalker Single Sign-On Agent failed.**

[Description]

Installing the Systemwalker Single Sign-On Agent has failed.

[System Action]

The system stops the installation process.

[Corrective Measures]

The Systemwalker Single Sign-On Agent may have been installed incompletely. Uninstall the Systemwalker Single Sign-On Agent and then install it again.

---

**FSP\_FJSVswaic: ERROR: 55001: Uninstalling the Systemwalker Single Sign-On Agent failed.**

[Description]

Uninstalling the Systemwalker Single Sign-On Agent has failed.

[System Action]

The system stops the uninstallation process.

[Corrective Measures]

Collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

**FSP\_FJSVswaic: ERROR: 55002: Interstage Application Server that cannot be operated has been installed. So Systemwalker Single Sign-On Agent could not be installed**

[Description]

A version of Interstage Application Server that cannot be used as the Systemwalker Single Sign-On Server has been installed, so the Systemwalker Single Sign-On Agent could not be installed.

[System Action]

The system stops the command processing.

[Corrective Measures]

Upgrade to Interstage Application Server V8.0 or later. When upgrading, select "Interstage Single Sign-on Business server" as part of the installation.

---

**FSP\_FJSVswaic: ERROR: 55003: It is not necessary to install the single Systemwalker Single Sign-On Agent.**

[Description]

A Systemwalker Single Sign-On Agent, or Interstage Application Server V8.0 or later has been installed, so there is no need to install a Systemwalker Single Sign-On Agent.

[System Action]

The system stops the command processing.

[Corrective Measures]

If Interstage Application Server V8.0 or later has been installed, use the Interstage Application Server installer to install Interstage Single Sign-On Business Server.

---

**FSP\_FJSVswaic: ERROR: 54000: Invalid argument.**

[Description]

The parameters specified with the command are incorrect.

[System Action]

The system stops the command processing.

[Corrective Measures]

Check the synopsis for the command that has been executed, by referring to "[F4AMsetup \(Systemwalker Single Sign-On Function Setup Command\)](#)" in the "Command Reference" section. Execute the command again after specifying the correct arguments in accordance with the synopsis.

---

**FSP\_FJSVswaic: ERROR: 55999: An internal error has occurred.**

[Description]

An internal error occurred during the processing.

[System Action]

The system stops the command processing.

[Corrective Measures]

Collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

## 6.3.8 Messages Relating to Single Sign-On Authentication

---

**The user was already authenticated. Please initiate Systemwalker Administrator window from web browser.**

[Description]

A user who has already been authenticated accessed the form authentication page.

[System Action]

The system stops the processing.

[Corrective Measures]

Start screen operations from the Systemwalker Web console.

---

**The login process is completed.**

[Description]

The logout process is completed.

---

**Last sign-on time : MM/DD/YYYY hh:mm:ss**

[Description]

This message notifies the time and date of the last login.

---

**Do you really want to logout?**

[Description]

This message confirms whether to log out.

[System Action]

The system confirms whether to log out.

[Corrective Measures]

To log out, click the Logout button.

---

**Time-out had occurred, so the session is unavailable.**

[Description]

The authentication operation must be performed again because a timeout has occurred (the idle monitoring time has elapsed).

[System Action]

The system stops the processing.

[Corrective Measures]

Perform authentication from the Systemwalker Web console again.

---

**This user has already been login. Do you wish to once logout and login again?**

[Description]

The user has already logged in, and so this message confirms whether the user wants to log in again.

[System Action]

The system confirms whether to log in.



[Corrective Measures]

To log in, click the Login button.

---

**Your account is assumed to be waiting for authentication in another window or page... If there are no other authentication in progress, click the following button to continue the authentication process.**

[Description]

Either authentications have been performed from multiple pages at the same time, or there has been an access to a protected resource during authentication.

[System Action]

The system confirms whether to continue with the authentication process.

[Corrective Measures]

To log in, click the Login button.

---

**Logout was canceled.**

[Description]

The logout operation was canceled on the logout confirmation page.

[System Action]

The system has canceled the logout process.

---

**Login was canceled.**

[Description]

The forced login operation has been canceled on the forced login confirmation page.

[System Action]

The system has canceled the login process.

---

**Welcome to Systemwalker Single Sign-on. The Single Sign-on authentication was completed.**

[Description]

The user has logged in directly from the form authentication page, without accessing any protected resources.

[Corrective Measures]

Log in from the Systemwalker Web console.

---

**User ID or password is incorrect. Please confirm you user ID and password, then login again.**

[Description]

The user ID or password is incorrect, or the common user information corresponding to the certificate cannot be found.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the user ID and the password, and then log in from the Systemwalker Web console again.

---

**Authentication has been expired. Please close the Web browser window, and login again.**

[Description]

The authentication operation must be performed again because the certificate information is invalid due to expiry or some other reason.

[System Action]

The system stops the processing.

[Corrective Measures]

Log in from the Systemwalker Web console again .

---

**Certificate authentication is needed.**

[Description]

No certificate was presented, an incorrect certificate was presented, or the common user information corresponding to the certificate was not found.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the certificate and then log in from the Systemwalker Web console again.

---

**The specified certificate is invalid. Please obtain a valid certificate and register it. After registering the certificate, please close web browser windows and login again.**

[Description]

The specified certificate is damaged, or information that identifies the Systemwalker common user was not found in the certificate.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the certificate and then log in from the Systemwalker Web console again.

---

**The specified certificate was expired. Please obtain a new certificate and register it. After registering the certificate, please close web browser windows and login again.**

[Description]

The certificate has expired.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the certificate and then log in from the Systemwalker Web console again.

---

**The specified certificate was revoked. Please obtain a valid certificate and register it. After registering the certificate, please close web browser windows and login again.**

[Description]

The specified certificate has expired.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the certificate and then log in from the Systemwalker Web console again.

---

**User was locked out. Please release the lock of the user ID specified at login. After releasing the lock, please close web browser windows and login again.**

[Description]

The user has been locked out because the number of password entry failures reached the specified limit.

[System Action]

The system stops the processing.

[Corrective Measures]

Release the lockout for the Systemwalker common user, and then log in from the Systemwalker Web console again.

---

**User has already been locked. Please release the lock of the user ID specified at login. After releasing the lock, please close web browser windows and login again.**

[Description]

The user has been locked out, and so cannot access resources managed by the Systemwalker Single Sign-On function.

[System Action]

The system stops the processing.

[Corrective Measures]

Release the lockout for the Systemwalker common user, and then log in from the Systemwalker Web console again.

---

**The user is duplicately registered to the repository. Please confirm the Systemwalker authentication repository that the common user of Systemwalker is registered duplicately or not. After confirm it, please close web browser windows and login again.**

[Description]

The user cannot access the specified resource because the identification information for the user has been registered in the repository more than once.

[System Action]

The system stops the processing.

[Corrective Measures]

Check whether the same user has been registered in the Systemwalker authentication repository more than once. If so, delete one of the user registrations that is not required. Then have the user log in from the Systemwalker Web console again.

---

**The user is not available now. Please release the lock of the user ID specified at login. After releasing the lock, please close web browser windows and login again.**

[Description]

The user is invalid because either the validity period has not started or the validity period has passed. Invalid users cannot access resources managed by the Interstage Single Sign-On function.

[System Action]

The system stops the processing.

[Corrective Measures]

Enable the Systemwalker common user that has been disabled. Then have the user log in from the Systemwalker Web console again.

---

**The user has not been found. Please confirm the Systemwalker authentication repository that the common user of Systemwalker is registered or not. After confirm it, please close web browser windows and login again.**

[Description]

Common user information for this user could not be found in the Systemwalker authentication repository.

[System Action]

The system stops the processing.

[Corrective Measures]

Check whether the user has been registered as a Systemwalker common user in the Systemwalker authentication repository, and then have the user log in from the Systemwalker Web console again.

---

**The assigned user is not Login now.**

[Description]

The following URL was accessed by an unauthenticated user.

- [Authentication infrastructure URL]/ssoatcag?fj-is-sso-request=sign-off
- [Authentication infrastructure URL]/ssoatcag?fj-is-sso-request=last-signon-time

The authentication infrastructure URL can be checked by starting the Interstage Management Console and selecting **System >> Security >> Single Sign-On >> Authentication infrastructure >> Repository server** and checking **Repository server detailed settings** on the **Settings** tab.

[System Action]

The system stops the processing.

[Corrective Measures]

Log in from the Systemwalker Web console again.

---

**This user has already signed-on, so new sign-on was failed. Please sign-on again after sign-out currently login user.**

[Description]

A user that was already logged in tried to log in again. Multiple simultaneous logins are not allowed, and so the login operation failed.

[System Action]

The system stops the processing.

[Corrective Measures]

Close the Web browser and then log in from the Systemwalker Web console again.

---

**The ordinary logout process was failed. Please close all related web browser windows.**

[Description]

The logout operation failed because the information required to log out was lost.

[System Action]

The system stops the processing.

[Corrective Measures]

Close the Web browser.

---

**Click the link below to open the Authentication window. Check that the authentication server is correct, and then complete the authentication procedure.**

[Description]

- Authentication was performed on POST request.

- An idle monitoring timeout occurred during a POST request.
- The validity period of the authentication information had expired when the POST request was made.
- A POST request was sent at the time of the first access to the business system.

[System Action]

The system displays authentication server information.

[Corrective Measures]

If the authentication server is correct, perform authentication.

---

**Authentication was successful. Please initiate Systemwalker Administrator window from web browser.**

[Description]

An authentication operation on a POST request was canceled, and then another authentication operation was performed.

---

**The specified user don't have right to access the web console. Please confirm the setting of the user.**

[Description]

The user cannot access the Systemwalker Web console because the user does not have a role that requires accessing the Web console.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the access permissions for the Systemwalker common user, and then log in from the Systemwalker Web console again.

---

**The browser does not accept cookies. The browser does not accept cookies. Please confirm the setting of the browser.**

[Description]

The Web browser does not allow cookies.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the Web browser settings and then log in from the Systemwalker Web console again.

---

**Authentication has been expired. Please close the Web browser window, and login again.**

[Description]

The authentication operation must be performed again because the certificate information is invalid due to expiry or some other reason.

[System Action]

The system stops the processing.

[Corrective Measures]

Close the Web browser and then log in from the Systemwalker Web console again.

---

**Authentication is needed. Please try again after authentication. Please close the Web browser window, and login again.**

[Description]

There is no authentication information.

[System Action]

The system stops the processing.

[Corrective Measures]

Close the Web browser and then log in from the Systemwalker Web console again.

---

**Authentication information is invalid. Please close the Web browser window, and login again.**

[Description]

There is no authentication information. The IP address used to access the authentication server during authentication may be different from the IP address used to access the business server.

[System Action]

The system stops the processing.

[Corrective Measures]

Close the Web browser and then log in from the Systemwalker Web console again.

---

**Requested path is invalid form.**

[Description]

File names in 8.3 format, which are generated from long file names, are not supported. Also, URLs that include file or folder names that end in a period (".") are not supported either.

[System Action]

The system stops the processing.

[Corrective Measures]

Check the alias of the Systemwalker Web console and take action if necessary. After taking action, log in from the Systemwalker Web console again.

---

**An internal error has occurred. Please close the Web browser window, and login again.**

[Description]

An internal error has occurred with single sign-on operations.

[System Action]

The system stops the processing.

[Corrective Measures]

Collect maintenance information and contact Fujitsu technical support.

Refer to "[How to Collect Maintenance Information](#)" for details on how to collect maintenance information.

---

## 6.4 Port Numbers

The following ports are required to use the Systemwalker User Management function and the Systemwalker Single Sign-On function.

These port numbers must be unique within the network.

If the port numbers in the following table are already being used, specify different numbers so that the port numbers are unique within the network.

No.	Communication destination	Listen port	Service name	Protocol	Sending port	Communication source	Usage timing
1	Systemwalker authentication repository	636	AD or IDS	LDAPS	Not fixed	Management console for each product User management command	When performing authentication When managing users
2	Authentication server	443	Authentication server	HTTPS	Not fixed	Browser	When using Web consoles for each product

# Appendix A How to Collect Maintenance Information

This appendix explains how to collect maintenance information for the Systemwalker User Management function and the Systemwalker Single Sign-On function.

## When problems occur with the servers where Systemwalker Centric Manager is installed

The Maintenance Information Collection Tool for Systemwalker Centric Manager also collects maintenance information for the Systemwalker User Management function and the Systemwalker Single Sign-On function.

If a problem occurs on a server where Systemwalker Centric Manager is installed, collect maintenance information by referring to the manuals for Systemwalker Centric Manager.

The following table shows the applicable installation types for the Systemwalker product.

Systemwalker product name	Installation type
Systemwalker Centric Manager	Operation Management Server Section Management Server Job Server

## If a problem occurs on the computer where only Systemwalker Service Quality Coordinator is installed

The installation type for Systemwalker Service Quality Coordinator is the Operation Management Client.

As well as the data specified in the Systemwalker Service Quality Coordinator manual, collect the following data manually:

- Event log
- %F4AM\_INSTALL\_PATH%\F4AMidmg\client\log\\*.\*
- %F4AM\_INSTALL\_PATH%\F4AMidmg\client\conf\swidmg.ini
- %F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMssso\ssoatzag\conf\ssoatzag.conf
- %F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMssso\ssocm\etc\opelog\opelog
- %F4AM\_INSTALL\_PATH%\F4AMidmg\client\F3FMssso\ssocm\etc\opelog\opelog.old
- %WINDIR%\System32\LogFiles

Note: %F4AM\_INSTALL\_PATH% and %WINDIR% are environment variables. Use these environment variables to check the paths before collecting the data.

## If a problem occurs on the Systemwalker Single Sign-On Server or the server where Interstage Application Server is installed

Collect data by executing the following batch information collection tool command:

```
iscollectinfo -d [storage directory name]
```

The storage location for the batch information collection tool command (iscollectinfo) is shown below.

[Location]

OS	Location
Windows	<Interstage installation directory>\bin
UNIX	/opt/FJSVisas/bin

Refer to the *Interstage Application Server Reference Manual (Command Edition)* for details on how to use the iscollectinfo command.



# Glossary

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## authentication server

A server that requests a user ID/password from a user in order to authenticate that user. By comparing the user ID/password provided by the user with the existing user information on the repository server, it determines whether the Single Sign-On function can be used.

## business system setup file

A file that stores information required when setting up a Systemwalker Single Sign-On Agent. Download it from the Systemwalker Single Sign-On Server.

## certificate authority (CA)

An institution that manages the issuance of certificates. Certificates are required to perform encryption of communication data and mail and to serve as digital signatures for Internet communications and electronic mail. Once they have been issued, the certificate authority also manages the certificates. The certificate authority adds its own electronic signature to the issued certificate, and verifies that the certificate was issued by the certificate authority.

## directory service

A service that systematically organizes (in a tree) and manages the names and associated attributes of various physical/logical resources distributed inside and outside an organization. The resources are organized and managed according to the organizational structure, geographical classifications, etc. The directory service also updates and references these names and attributes.

## Distinguished Name (DN)

An entry that represents an object and whatever was defined as the RDN column of its parent entry. Each name must be unique within the Directory Information Tree (DIT).

Example: "cn=user001,o=fujitsu,dc=com"

## Interstage Directory Service (IDS)

Through centralized management of various resources that were previously decentrally managed, the Interstage Directory Service provides an LDAP-based Directory Service that can reduce not only operations/management costs, but also development costs.

## LDAP

LDAP (Lightweight Directory Access Protocol) is an Internet-standard, directory access protocol operating on TCP/IP. By using this protocol, it is possible to search and refer to a directory service directly from an LDAP client such as a web browser.

## protected path

A path that users can access only after it has been confirmed that they are allowed to access that path. When a user accesses a resource under such a path, authentication is performed using Single Sign-On.

## Relative Distinguished Name (RDN)

A name used to distinguish an entry that is a directly under a parent entry. Each RDN must be unique within that sibling relationship.

Example: "o=fujitsu"

## repository server

A repository server manages information required for user authentication, such as user IDs and passwords, and information used to authorize access to a Systemwalker public URL path. Upon request from the authentication server, the repository server retrieves both user information and public URL access authorization information required for authentication from the Systemwalker authentication repository. This information is then forwarded to the authentication server.

## Systemwalker authentication repository

A directory that manages information (common user information) for the users of a system. The Interstage Directory Service (IDS) or Active Directory can be used as the Systemwalker authentication repository.

---

### Systemwalker common user

A user that is used when a management console for a Systemwalker product (such as a Web console or a client console) is used.

---

### Single Sign-On

A service function that makes it possible to receive all services (even if there are multiple servers providing web services, etc. and they are decentralized on the network) once user authentication is verified by the authentication server.

---

### Single Sign-On Agent

A Single Sign-on Agent determines whether user authentication is required. If authentication is required, the Single Sign-on Agent requests it from the authentication server.