Systemwalker

Systemwalker Service Quality Coordinator

Troubleshooting Guide

Windows/Solaris/Linux

Preface

Purpose of this manual

This manual explains how to respond to problems that may occur with Systemwalker Service Quality Coordinator V15.0.1.

Target audience

This document is intended for users with an understanding of basic Service Quality Coordinator operations and functions who will administer Service Quality Coordinator systems.

Organization of Systemwalker Service Quality Coordinator manuals

The Systemwalker Service Quality Coordinator manuals are organized as follows:

- Systemwalker Service Quality Coordinator Technical Guide

  Provides an overview of the functions of Systemwalker Service Quality Coordinator.

- Systemwalker Service Quality Coordinator Installation Guide

  Explains how to install and set up Systemwalker Service Quality Coordinator.

- Systemwalker Service Quality Coordinator User's Guide

  Explains how to use the functions of Systemwalker Service Quality Coordinator.

- Systemwalker Service Quality Coordinator User's Guide (Console Edition)

  Explains how to use those functions related to console windows.

- Systemwalker Service Quality Coordinator User's Guide (Dashboard Edition)
  Explains how to user dashboard functions.

- Systemwalker Service Quality Coordinator Reference Guide

  Explains commands, data formats, messages and so on.

- Systemwalker Service Quality Coordinator Troubleshooting Guide

  Explains how to handle any problems that may occur.

- Systemwalker Service Quality Coordinator User's Guide (Website Management Functions Edition)

  Explains the Systemwalker Service Quality Coordinator functions that relate to analyzing Web usage and monitoring Web content tampering.

- Systemwalker Service Quality Coordinator User's Guide (Systemwalker User Management and Single Sign-On Edition)

  Explains how to install and use the Systemwalker User Management and Systemwalker Single Sign-On functions when Systemwalker Service Quality Coordinator is to be used.

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

  Explains how to install the Systemwalker User Management function and the Systemwalker Single Sign-On function.

- Systemwalker Service Quality Coordinator Glossary

  This manual explains Systemwalker Service Quality Coordinator terminology.

Positioning of this document

This manual is common to the following Systemwalker Service Quality Coordinator products for Windows, Linux and Oracle Solaris:

- Systemwalker Service Quality Coordinator Enterprise Edition V15.0.1

- Systemwalker Service Quality Coordinator Standard Edition V15.0.1

Abbreviations

- The term "Windows Server 2012" refers to the following products:

  - Microsoft(R) Windows Server(R) 2012 Foundation

  - Microsoft(R) Windows Server(R) 2012 Standard

  - Microsoft(R) Windows Server(R) 2012 Datacenter

- The term "Windows Server 2008" refers to the following products:

  - Microsoft(R) Windows Server(R) 2008 R2 Foundation

  - Microsoft(R) Windows Server(R) 2008 R2 Standard

  - Microsoft(R) Windows Server(R) 2008 R2 Enterprise

  - Microsoft(R) Windows Server(R) 2008 R2 Datacenter

  - Microsoft(R) Windows Server(R) 2008 Foundation

  - Microsoft(R) Windows Server(R) 2008 Standard

  - Microsoft(R) Windows Server(R) 2008 Enterprise

  - Microsoft(R) Windows Server(R) 2008 Datacenter

  - Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM)

  - Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM)

  - Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM)

  - Microsoft(R) Windows Server(R) 2008 Standard Server Core

  - Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM) Server Core

  - Microsoft(R) Windows Server(R) 2008 Enterprise Server Core

  - Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM) Server Core

  - Microsoft(R) Windows Server(R) 2008 Datacenter Server Core

  - Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM) Server Core

- The term "Windows Server 2003" refers to the following products:

  - Microsoft(R) Windows Server(R) 2003 R2, Standard Edition

  - Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition

  - Microsoft(R) Windows Server(R) 2003 R2, Datacenter Edition

  - Microsoft(R) Windows Server(R) 2003, Standard Edition

  - Microsoft(R) Windows Server(R) 2003, Enterprise Edition

  - Microsoft(R) Windows Server(R) 2003, Datacenter Edition

- The term "Windows 8" refers to the following products:

  - Windows(R) 8

  - Windows(R) 8 Pro

  - Windows(R) 8 Enterprise

- The term "Windows 7" refers to the following products:

  - Windows(R) 7 Home Premium

- Windows(R) 7 Professional

- Windows(R) 7 Enterprise

- Windows(R) 7 Ultimate

- The term "Windows Vista" refers to the following products:

    - Windows Vista(R) Home Basic

    - Windows Vista(R) Home Premium

    - Windows Vista(R) Business

    - Windows Vista(R) Enterprise

    - Windows Vista(R) Ultimate

- The term "Windows XP" refers to the following products:

    - Microsoft(R) Windows(R) XP Home Edition

    - Microsoft(R) Windows(R) XP Professional Edition

- Windows Server 2003 and Windows Server 2008 are referred to as "Windows Server 2008 and earlier".

- Windows Server 2008 and Windows Server 2012 are referred to as "Windows Server 2008 and later".

- Windows XP, Windows Vista, and Windows 7 are referred to as "Windows 7 and earlier".

- Windows Vista, Windows 7 and Windows 8 are referred to as "Windows Vista and later".

- Windows Server 2008 and earlier and Windows 7 and earlier are referred to as "Windows Server 2008/Windows 7 and earlier".

- Windows Server 2008 and later and Windows Vista and later are referred to as "Windows Server 2008/Windows Vista and later".

- Microsoft(R) SQL Server(TM) is abbreviated as "SQL Server".

- Microsoft(R) Cluster Server is abbreviated as "MSCS".

- Oracle Solaris might be described as Solaris, Solaris Operating System, or Solaris OS.

- Oracle Solaris zone might be described as Solaris container.

- Oracle WebLogic Server is abbreviated as "WebLogic Server".

- Oracle Database is abbreviated as "Oracle".

- Systemwalker Centric Manager is abbreviated as "Centric Manager".

- Systemwalker Resource Coordinator is abbreviated as "Resource Coordinator".

- Interstage Application Server is abbreviated as "Interstage".

- Symfoware Server is abbreviated as "Symfoware".

- VMware(R) ESX(R) is abbreviated as "VMware ESX" or "ESX".

- VMware(R) ESXi(TM) is abbreviated as "VMware ESXi" or "ESXi".

- VMware(R) vCenter(TM) is abbreviated as "VMware vCenter" or "vCenter".

- VMware vSphere(R) is abbreviated as "VMware vSphere".

- Versions of Systemwalker Service Quality Coordinator that operate under Windows are referred to as "Windows versions".

- Versions of Systemwalker Service Quality Coordinator that operate under Solaris are referred to as "Solaris versions".

- Versions of Systemwalker Service Quality Coordinator that operate under Linux are referred to as "Linux versions".

- Solaris and Linux versions of Systemwalker Service Quality Coordinator are referred to collectively as "UNIX versions".

- The term "Agent" is used to refer to articles common to both Agent for Server and Agent for Business.

Conventions used in this document

- Edition-specific information

This manual deals mainly with the Standard Edition and Enterprise Edition of Systemwalker Service Quality Coordinator. The following symbols appear in the title or text of an article to distinguish between the Standard Edition (standard specification) and the Enterprise Edition.

EE This indicates that the article relates specifically to Systemwalker Service Quality Coordinator Enterprise Edition.

SE This indicates that the article relates specifically to Systemwalker Service Quality Coordinator Standard Edition.

Also, Systemwalker Service Quality Coordinator Enterprise Edition referred to as "EE", and Systemwalker Service Quality Coordinator Standard Edition referred to as "SE".

- Information specific to Windows or UNIX versions

This document contains information common to both Windows versions and UNIX versions of Systemwalker Service Quality Coordinator. Information specific to only the Windows versions and information specific to only the UNIX versions are distinguished from common information by attaching the following symbols:

[Windows]

This indicates that the article relates specifically to Windows versions.

[UNIX]

This indicates that the article relates specifically to UNIX versions.

The symbols **[Solaris], [Linux], [AIX], and [HP-UX]** are used to distinguish Solaris and Linux versions of Systemwalker Service Quality Coordinator.

If notice should be paid, the information is distinguished from common information by attaching the following symbols:

S This indicates that the article relates specifically to Solaris versions.

L This indicates that the article relates specifically to Linux versions.

Symbols

The symbols used with commands are explained below.

[Entry example]

[PARA = { a | b | c | ...}]

[Meaning of each symbol]

Symbol	Meaning
[]	Items enclosed in square brackets are optional.
{}	Select one of the items enclosed in braces ({ }).

Symbol	Meaning
__	When all optional items enclosed in square brackets ([ ]) are omitted, the default value indicated by an underscore (_) is used.
|	Select one of the items separated by vertical bars.
...	The item immediately before the ellipsis (...) can be repeatedly specified.

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This guide uses screenshots in accordance with Microsoft Corporation's guidelines.

Acknowledgement

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)

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Contents

Chapter 1 Troubleshooting Procedure

Fujitsu recommends that the maintenance information needed to investigate the cause of problems be collected before using the troubleshooting methods explained in this manual to resolve problems that occur with Systemwalker Service Quality Coordinator. Collecting maintenance information immediately after a problem occurs makes it possible to investigate the problem and isolate its cause.

Use the following procedure after a problem occurs.

1. If there is a possibility that a problem may have occurred, collect maintenance information before doing anything else. Refer to "Appendix A Collecting Maintenance Information" for more information about collecting maintenance information.

2. Perform the various check and action procedures described in this document to resolve the problem that has occurred.

3. If the problem has been resolved, carry on with operations as normal.

4. If the problem failed to be resolved, send the maintenance information collected in step 1 to a Fujitsu SE, and request an investigation.

Many of the troubleshooting methods described in this document involve restarting Systemwalker Service Quality Coordinator. For information about how to restart Systemwalker Service Quality Coordinator, refer to "Appendix B How to Start and Stop Resident Processes".

Note that the default locations for the variable file storage directory and installation directory for Service Quality Coordinator are as follows.

Installation directory

[Windows]

C:\Program Files\SystemwalkerSQC

[UNIX]

/opt/FJSVssqc

Variable file storage directory

[Windows]

C:\SystemwalkerSQC\

[UNIX]

/var/opt/FJSVssqc

Chapter 2 Troubleshooting Related to Overall Systemwalker Service Quality Coordinator Behavior

This chapter explains how to respond to problems that relate to the overall behavior of Systemwalker Service Quality Coordinator.

2.1 An error message is output to the event log/syslog and Systemwalker Service Quality Coordinator stops (insufficient disk capacity)

Error messages

[Windows]

Event ID	Type	Message
3704	Error	Free disk space on path %1 reached critical level of %2 MB

[UNIX]

Event ID	Type	Message
DSA3704E	Error	Free disk space on path %1 reached critical level of %2 MB

%1: The directory that does not have enough space

%2: The size of the warning threshold/critical threshold.

Checkpoint

Check if there is only a small amount of free space left.

Cause

Systemwalker Service Quality Coordinator monitors the amount of free disk space for the variable file storage directory by using the thresholds shown in the table below and stops automatically if the amount of free space drops below the critical threshold level.

Warning level	Critical level
50MB	10MB

If the amount of free disk space drops below the critical level, the error message below will be output and Systemwalker Service Quality Coordinator will stop.

Note that if the amount of free disk space drops below the warning level, the warning message below will be output, but Systemwalker Service Quality Coordinator will continue running.

[Windows]

Event ID	Type	Message
3650	Warning	Free disk space on path %1 reached warning level of %2 MB.

[UNIX]

Event ID	Type	Message
DSA3650W	Warning	Free disk space on path %1 reached warning level of %2 MB

%1: The directory that does not have enough space

%2: The size of the warning threshold

Action method

Resolve the problem using either of the following methods:

- Increase the amount of free space to more than 10 MB by deleting unnecessary files on the disk where the variable file storage directory is located.

- Change the variable file storage directory to a disk with more spare capacity.

Impact

If the Manager stops, data will stop being sent from Agents to the Manager, and so data files will accumulate on Agents, placing pressure on the Agents' disks. Also, if "Push" operations are being performed, the following error message will appear repeatedly in the syslog on the Agent.

DSA_Forwarder: DSA2700E: Unable to connect to the server. All 30 attempts failed.

If an Agent stops, performance information can no longer be collected, and so data for the stopped Agent will stop being displayed in the Summary, Drilled-Down and Report windows.

Chapter 3 Troubleshooting Relating to Collecting Operating System Performance Information

This chapter explains how to respond to problems that relate to collecting performance information about operating systems.

3.1 I cannot collect WIN_NET_SYSTEM or UX_NET_SYSTEM information

Problem

A timeout occurred while information was being collected with the "netstat -an" command, and the following warning message may have been output.

[Windows]

> Maximum command process time of 70 seconds exceeded. Command aborted: netstat -an

[UNIX]

> DSA3073W:Maximum command process time of 70 seconds exceeded. Command aborted: netstat -an

Cause

This problem occurred because the "netstat -an" command, which gets the value of WIN_NET_SYSTEM or UX_NET_SYSTEM, took more than 70 seconds to complete.

This problem may have occurred due to one of the following reasons:

- The amount of information being output was very large, so that the information took a long time to output.

- The system load was high.

Checkpoint

Execute the "netstat -an" command, and check the behavior from when the command starts executing until the command finishes outputting.

1. If the command always completes within 70 seconds:

   No action is required. If the above message is output, this is probably because the system temporarily had a high load at that time.

2. Otherwise:

   If the command outputs the results without waiting but does not finish outputting within 70 seconds, then the information for the "netstat -an" command cannot be collected. Use following action method to make settings so that this information is not collected.

Action method

Suppress information collection using the "netstat -an" command.

As a result, WIN_NET_SYSTEM and UX_NET_SYSTEM values will not be fetched, and therefore collection of information on the number of TCP connections will cease.

[Procedure]

1. Stop Systemwalker Service Quality Coordinator.

    [Windows]

    Stop the Systemwalker SQC DCM service.

    [UNIX]

    Execute the following command.

    ```
    # /etc/rc0.d/K00ssqcdcm stop_wait
    ```

2. Change the collection policy.

    Change the "template.dat" file in the following location.

    - Target file

       [Windows]

       ```
       <Variable file storage directory >\control\template.dat
       ```

       [UNIX]

       ```
       /etc/opt/FJSVssqc/template.dat
       ```

    - Target section [ATTR::OS]

       Delete the "NETSTATA" collection item, as below.

       ```
       [ATTR::OS]
       GROUP="SAR,DF,NET,VMSTAT,IOSTAT,MPSTAT,PS,SWAP,SWAPL,PRSTAT,NETSTA
       TA,IPCS"
       ```

       ↓

       ```
       [ATTR::OS]
       GROUP="SAR,DF,NET,VMSTAT,IOSTAT,MPSTAT,PS,SWAP,SWAPL,PRSTAT,I
       PCS"
       ```

3. Delete the file below.

    [Windows]

    ```
    < Variable file storage directory >\spool\NETSTATA\*.stderr
    ```
    ```
    < Variable file storage directory >\spool\NETSTATA\*.stdout
    ```

    [UNIX]

    ```
    /var/opt/FJSVssqc/temp/NETSTATA/*.stderr
    ```
    ```
    /var/opt/FJSVssqc/temp/NETSTATA/*.stdout
    ```

4. Apply the policy.

   Apply the policy by executing the sqcSetPolicy command as below.

   Refer to "sqcSetPolicy (Policy Application Command)" in the *Reference Guide* for more information about this command.

   [Windows]

   ```
   <Installation directory>\bin\sqcSetPolicy.exe [-h <host name>] [-p <IP address>]
   ```

   [UNIX]

   ```
   # /opt/FJSVssqc/bin/sqcSetPolicy.sh [-h <host name>] [-p <IP address>]
   ```

5. Start Systemwalker Service Quality Coordinator.

   [Windows]

   Start the Systemwalker SQC DCM service.

   [UNIX]

   Execute the following command.

   ```
   # /etc/rc2.d/S99ssqcdcm start
   ```

Chapter 4 Troubleshooting Relating to Managing the Volume of Web Transactions

This chapter explains how to respond to problems that relate to managing the volume of Web transactions.

4.1 I cannot perform analysis with Web transaction volume management

Problem

If the log files being analyzed with Web transaction volume management are being rotated, analysis may not be possible if the Path statement in the definition file is not specified correctly.

Cause

The "Path" statement in the definition file allows Web transaction volume management to identify the most recent log file as the log file to be analyzed. So, if the "Path" statement is not specified correctly, Web transaction volume management may fail to detect and analyze the most recent log file.

Checkpoint

Check for any errors in the definitions for rotating the log files to be analyzed.

Action method

Check the rotation method used for Web service log files, and specify the "Path" correctly in the definition file for Web transaction volume management.

Common methods for rotating log files for Web services are listed below.

1. Using the logrotate tool

   If the logrotate tool is used, logs will be rotated as follows:
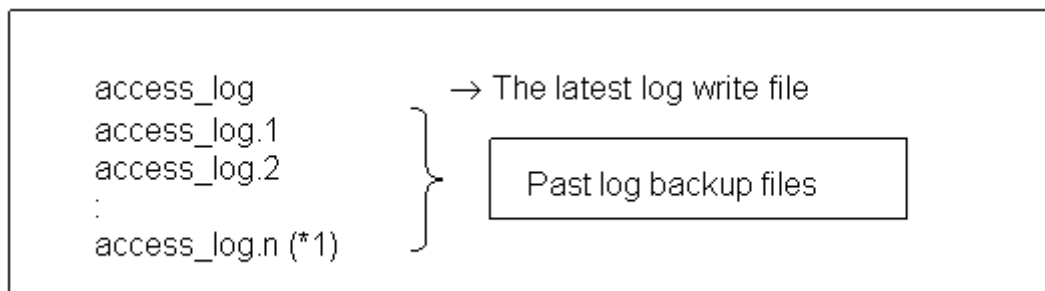
   Example:

   *1: Here, "n" is the number of logs being rotated.

If the logrotate tool is used, the most recent log is written to "access_log", so specify the full path to "access_log" in the "Path" statement in the transaction definition file, as follows:

Example:

```
[RequestLog]

Service=www2

Type=web

Path=/usr/local/apache/logs/access_log

Format=Common
```

2. Using Internet Information Service (IIS) rotation

   For IIS, logs are rotated as follows:

   Example:
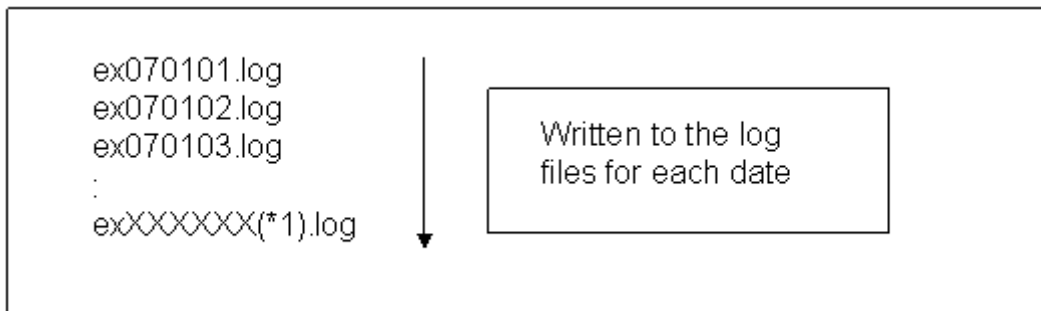
   For IIS log rotation, a log file is created for each date (*2). The most recent logs will be written to "exXXXXXX(*1).log", and so it is not possible to specify the log file name. In this case, use a wildcard ('*') to specify the logs to be analyzed.

   Specify the full path to the log file in the "Path" statement in the transaction definition file, using a wildcard ('*') for the XXXXXX(*1) part. Using a wildcard ('*') makes it possible to specify multiple log file names.

   *1: "XXXXXX" is the latest date

   *2: Assuming that "Daily (D)" has been specified as the new log period in the IIS settings.

   Example:

```
[RequestLog]

Service=www2

Type=web

Path=C:\WINNT\system32\LogFiles\W3SVC\ex*.log

Format=Common
```

Note

Log files cannot be analyzed by Web transaction volume management if they are rotated as follows:

3. If logs are written to the log files "access_log.0", " access_log.1", "access_log.2", ..., " access_log.n" in this order and then the sequence returns to access_log.0".

   Example:

```
access_log.0
access_log.1
access_log.2
:
access_log.n (*1)

*1: "n" represents the portion of a log that is rotated.
```

To perform Web transaction volume management, change the settings so that log files are rotated using either of the following methods.

- By specifying the "Path" statement as in the example using the logrotate tool

- By specifying the "Path" statement as in the example for Internet Information Service (IIS)

4.2 The message " Can not read the transaction log watcher definition file. (line=nnn, code=311)" is displayed when I execute the "tlawatch -c" command

Checkpoint

Check if there are more than 20 definition blocks ([RequestLog] definitions).

Cause

The maximum number of definition blocks for Web transaction volume management is 20.

Action method

Reduce the number of definition blocks to 20 or less.

4.3 Web transaction volume management graphs are not displayed in the Summary window or the Drilled-Down window

Cause

This problem may have occurred due to the following reasons:

SQC may not have access to the target Web server.

The most recent log file may not have been defined correctly in the "Path" definition in the definition file for the transaction management function.

Action method

Take the following actions:

- Check whether SQC has access to the target Web server, and check whether graphs and so on are displayed when SQC does have access.

- Check whether the most recent log file has been defined correctly in the "Path" definition in the transaction management function definition file. Check for spelling mistakes and so on.

Chapter 5 Troubleshooting Relating to Linking to Oracle Database Server

This chapter explains how to respond to problems that relate to linking to Oracle Database Server.

5.1 I cannot collect Oracle performance information

Problem

Oracle performance information cannot be collected without performing various settings.

Checkpoint

Check the definitions for collecting Oracle performance information.

Cause

Oracle performance information is not collected automatically. Various settings are required to collect performance information.

Action method

Use the following procedure to check whether the settings for collecting Oracle performance information have been made correctly.

1. Setting up the "template.dat" file

2. Creating and applying policies

3. Checking the operational status of Oracle

4. Taking the actions required for Oracle 10g R2

Each of these steps is explained in detail below.

1. Setting up the "template.dat" file

   To collect Oracle performance information, the following items must be set up in the "template.dat" file.

   - SID

   - User ID

   - Password

   - Oracle version

   - ORACLE_HOME

   Set up the "template.dat" file including the fixed items, as shown in the table below.

Item	Definition content	Definition example
[ORA]	This is the section name. This cannot be changed if only one instance is monitored.	[ORA]

Item	Definition content	Definition example
	If two or more instances are monitored, make the first section name [ORA] and make the names of the second and subsequent sections [ORA*n*], where *n* is a number.	
DCAID	This is a fixed ID for monitoring Oracle, and cannot be changed.	DCAID="ORA"
INTERVAL	This is the collection interval. The units are minutes. This item cannot be changed.	INTERVAL=5
SID	Specify the "Oracle instance name". Specify this item accurately, making sure that the case (upper- and lower-case) is correct.	SID="ORCL"
USERNAME	Enter the ID of the user (the administrator user to which the DBA role has been assigned) that accesses Oracle and gets information from the dynamic performance view. Specify this item accurately, making sure that the case (upper- and lower-case) is correct.	USERNAME="system"
PASS	Enter the password for the user (the administrator user to which the DBA role has been assigned) that accesses Oracle and gets information from the dynamic performance view. Specify this item accurately, making sure that the case (upper- and lower-case) is correct.	PASS="manager"
VER	Enter the version of the Oracle instance to be monitored, using "X.X.X" format, where each X is a number.	VER="10.2.0"
ORAHOME	Specify the content of the ORACLE_HOME environment variable for the instance of Oracle to be monitored. Note: Do not add a slash "/" to the end of the path specification (as shown in the incorrect example below) or else monitoring will not run correctly. ORAHOME="/opt/oracle/product/10.2.0/"	ORAHOME="/opt/oracle/product/10.2.0"

Note: Double quotes (") are not mandatory.

The "template.dat" file is stored in the following locations.

[Windows]

<Variable file storage directory>\control\template.dat

[UNIX]

/etc/opt/FJSVssqc/template.dat

2. Creating and applying policies

Policies must be created and applied after the "template.dat" file is set up. After the policies are applied, configuration information is sent to the Manager, so execute **Get configuration information** on the operation management client in order to reflect the new configuration information to the Management Console.

3. Checking the operational status of Oracle

   To collect Oracle performance information, Oracle instances must be running and accessible. Use a command such as SQL*PLUS to check whether Oracle is running and accessible.

4. Necessary treatment for Oracle 10g R2

   Performance information might not be collected along with the following messages because security has been strengthened in Oracle 10g R2.

   > DSA_Cmd: DSA0543E: Bad data received from command 'sqlplus': ORA-12546:
   >
   > TNS:permission denied

   If executed SQL*Plus and be able to log in by the user and the password setting in the template.dat file, please follow the information about the bug 4516865 of Oracle and deal with this problem.

5.2 Oracle performance information stops being collected

Messages

[Windows]

> Event ID:1304
>
> Too many attempts to start process. DCM cannot restart: ORA

[UNIX]

> DSA1304E: Too many attempts to start process. DCM cannot restart dsa_ora.

Cause

If five serious errors occur when Systemwalker Service Quality Coordinator connects to or is accessing Oracle after it has started, Systemwalker Service Quality Coordinator will decide that performance information cannot be collected. The Oracle information collection function will stop, and data will stop being collected.

Action method

To collect Oracle performance information again, eliminate the cause of the problem on the Oracle side, and then restart the Systemwalker Service Quality Coordinator service or daemon.

5.3 Error messages are output periodically on the standby node when Oracle is in a cluster configuration

Error messages

> DSA_Cmd: DSA0543E: Bad data received from command 'sqlplus': ORA-01034: ORACLE
> notavailable

Cause

If Oracle is running on a cluster configuration, an error is output because SQC cannot connect to the Oracle instance on the standby node.

Impact

An error message is output on the standby system where the Oracle instance is not running, and Oracle performance information is not collected.

Action method

In order to suppress this error message, settings must be made so that data is not collected while the Oracle instance is stopped.

From V13.0, a command for temporarily changing policies has been provided for this reason.

This error message can be suppressed by turning data collection on and off according to the operating status of the Oracle instance.

Refer to "sqcMdPolicy (Temporary Policy Change Command)" in the *Reference Guide* for more information.

5.4 I cannot monitor more than one Oracle instance

Cause

With the default settings, only one instance of Oracle can be monitored.

Action method

In order to monitor multiple Oracle instances, extra sections must be added as explained in the manual shown below. Specify the name of the first section in the "template.dat" file as [ORA], and the names of the second and subsequent sections as [ORA*n*].

Care is required, as making a mistake with the settings for monitoring more than one Oracle instance can result in failure to collect performance information.

[Manual reference]

"How to Set up Oracle Database Server" in the *User's Guide*.

Chapter 6 Troubleshooting Relating to Linking to Systemwalker Operation Manager

This chapter explains how to respond to problems that relate to linking to Systemwalker Operation Manager.

6.1 An error message is output when the cluster fails over

Error messages

[Windows]

```
6307:Processing stopped because an error occurred.(Details: 'CyclicLogFetcher::getNextFile()
current not found : k:\omgr\mpjobsch\jobdb\jobdb1.log', errno=02)
```

Cause

When linked to Systemwalker Operation Manager, Service Quality Coordinator collects performance information by analyzing the log files output by Systemwalker Operation Manager. For cluster systems, Systemwalker Operation Manager log files are placed on the shared disk, and so the Systemwalker Operation Manager linkage function for Service Quality Coordinator accesses the log files on the shared disk.

If a failover occurs during operations, the cluster software will demount the shared disk. As a result, the Systemwalker Operation Manager linkage function (which accesses the shared disk) will be canceled. When this happens, an error message is output.

Impact

When failovers occur, an error message is output on the active node. Also, if the Systemwalker Operation Manager linkage function is canceled more than five times after Systemwalker Service Quality Coordinator has started, an error message will be output and the Systemwalker Operation Manager linkage function will stop. Performance information will then no longer be able to be collected from Systemwalker Operation Manager.

Action method

If the Systemwalker Operation Manager linkage function is canceled no more than five times after Systemwalker Service Quality Coordinator starts, then the Systemwalker Operation Manager linkage function will be restarted automatically and so no action is required. The following message is output when the linkage function is restarted.

[Windows]

```
Event ID:1200

DSA has started. 'JLA' (dsa_cmd.exe)
```

If this error occurs five times or more, the following message will be output and the Systemwalker Operation Manager linkage function will stop. In this case, Systemwalker Service Quality Coordinator must be restarted to resume data collection.

[Windows]

```
Event ID:1304
```

```
Too many attempts to start process. DCM cannot restart
```

6.2 The multiplicity for all jobs appears as "0" even though jobs are being executed by Systemwalker Operation Manager

Cause

The function for linking to Systemwalker Operation Manager collects information such as job multiplicity by analyzing the operation record information file for Systemwalker Operation Manager. Systemwalker Operation Manager does not save the operation record information file by default, so it is necessary to change the settings so that this file is saved.

Impact

If settings have not been made to save the operation record information file for Systemwalker Operation Manager, the values of any items other than those shown below will always appear as "0".

 - Job net multiplicity for each subsystem (Field Name:maxjnetsub)

 - Job net multiplicity for each project (Field Name:maxjnetprj)

Action method

Check the settings for Systemwalker Operation Manager to see whether the operation record information file is being saved.

If not, change the settings so that the operation record information file is saved, and then restart Systemwalker Service Quality Coordinator.

6.3 The number of jobs that have exceeded the expected execution time appears as "0" even though job execution with Systemwalker Operation Manager has been delayed

Cause

The environment settings for Systemwalker Operation Manager may not have been set up to perform notification.

Impact

The number of jobs that have exceeded the expected execution time always appears as "0".

Action method

Check whether the following setting has been made in the **Controlling the desired status** section in the **Event Output** tab of the **Define Jobscheduler Startup Parameters** dialog box for Systemwalker Operation Manager.

 - **Notify when job is not terminated even after the specified time is lapsed**

Select this check box if it has not been selected.

Chapter 7 Troubleshooting Relating to Threshold Monitoring

This chapter explains how to respond to problems that relate to threshold monitoring.

7.1 Threshold violation alarms are not notified (1)

Checkpoint

1. Has the threshold monitoring definition (alertconfig.txt) been defined?

2. Are values in the threshold monitoring definition (alertconfig.txt) correct?

Cause

If the threshold monitoring definition (alertconfig.txt) has not been defined, or values in the threshold monitoring definition (alertconfig.txt) is not correct, threshold violation alarms are not notified.

Action method

1. Check whether the threshold monitoring definition (alertconfig.txt) has been defined.

   Threshold monitoring definition (alertconfig.txt) is recommended to be edited at the place other than the storage place. Check whether the threshold monitoring definition (alertconfig.txt) after modification is completed has been stored in the correct place described below.

   [Windows]

   <Variable file storage directory>\control\alertconfig.txt

   [Unix]

   /etc/opt/FJSVssqc/alertconfig.txt

1. Check whether values in the threshold monitoring definition (alertconfig.txt) are correct.

   Use sqcCheckAlertconfig (Threshold Monitoring Definition Check Command) to check whether definition values are correct. Refer to the "sqcCheckAlertconfig (Threshold Monitoring Definition Check Command)" in the *Reference Guide* for information about the command.

7.2 Threshold violation alarms are not notified (2)

Checkpoint

Check if a threshold violation alarm has already occurred.

If so, an alarm will not be notified again until the value drops back below the threshold.

Cause

The threshold monitoring function is behaving correctly.

Threshold alarm notification is explained below using a concrete example.

Example:

If the number of samples and the number of threshold violations are specified using the values below, alarms will be notified as shown in the figure below.

- Number of samples: 1

- Number of threshold violations: 1

In the figure below, the second item of performance data violates the threshold and an alarm is notified, so alarms are not notified even if the third and fourth data items violate the threshold.

The fifth data item drops back below the threshold, so an alarm will be notified again if the sixth data item violates the threshold.
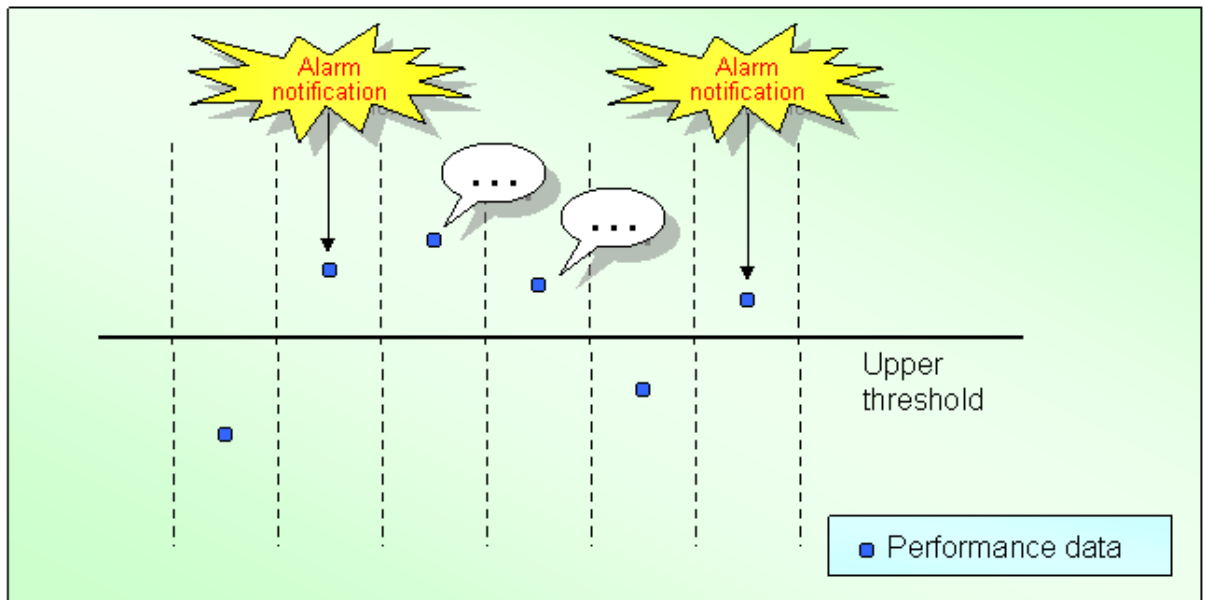
7.3 No alarms are notified unless the number of threshold violations (in the threshold monitoring definitions) is exceeded

Cause

The threshold monitoring function is behaving correctly.

Threshold violation alarms are not notified unless the threshold is violated more times than the maximum allowable number of threshold violations within the number of samples (as defined in the threshold monitoring definitions).

Action method

The relationship between the number of samples and the number of threshold violations (in the threshold monitoring definitions) is explained below using a concrete example. Check the threshold monitoring definitions by referring to this example.

Example:

Notifying alarms if the threshold is violated three times within three samples

- Number of samples: 3

- Number of threshold violations: 3

The performance data being sampled is the last few items of performance data, counting back from the current item by the specified number of samples.

(In the figure below, the performance data being sampled when data item (3) is collected, is data items (1), (2) and (3).)

If all three of the three data items being sampled exceed the upper threshold, an alarm is notified. In the following figure, this happens at item (9).
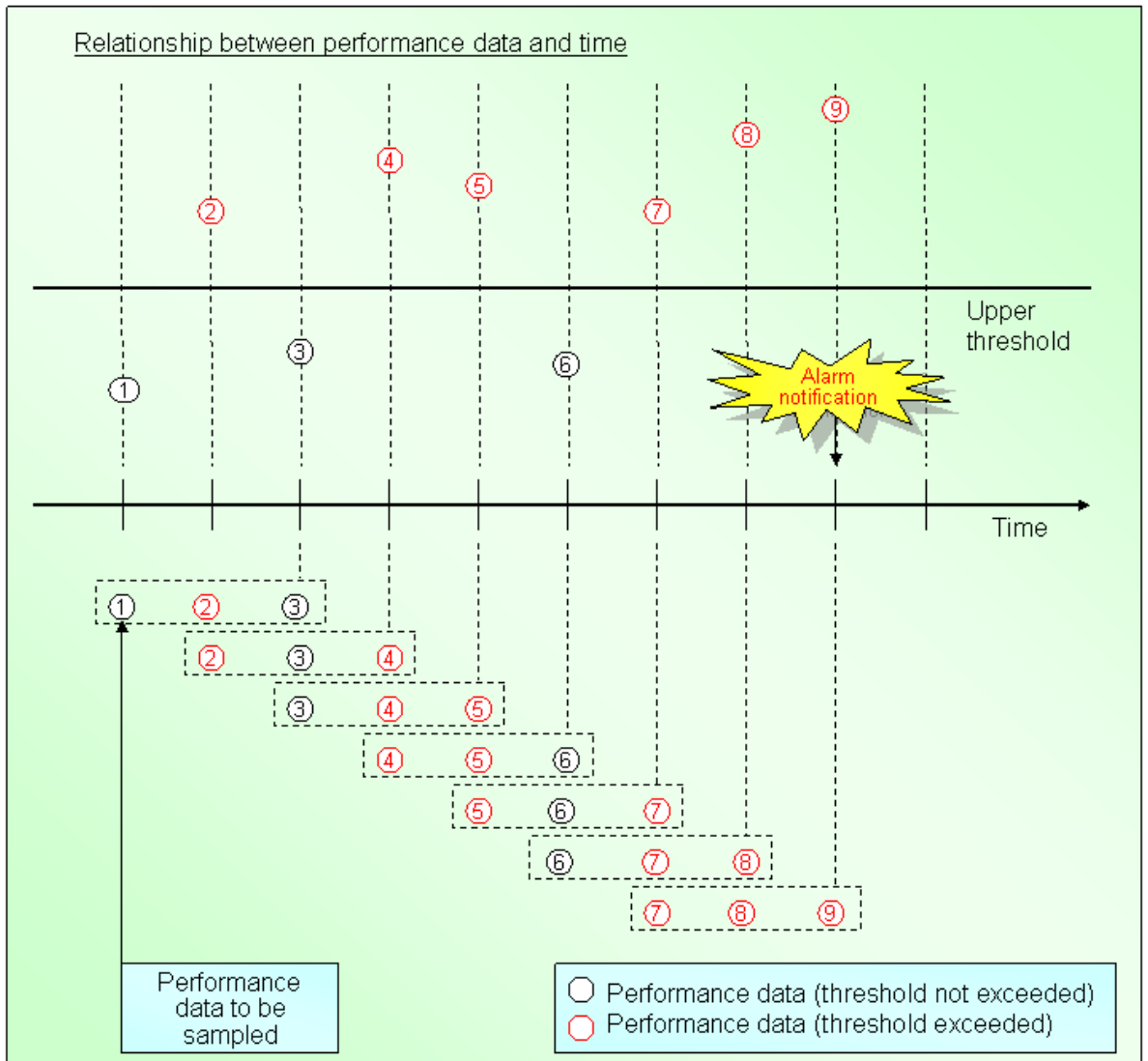
- Notifying alarms if the threshold is violated twice within three samples

  - Number of samples: 3

- Number of threshold violations: 2

The performance data being sampled is the last few items of performance data, counting back from the current item by the specified number of samples.

(In the figure below, the performance data being sampled when data item (3) is collected, is data items (1), (2) and (3).)

If two of the three performance data items being sampled violate the upper threshold, an alarm is notified. In the following figure, this happens at item (9).

Relationship between performance data and time
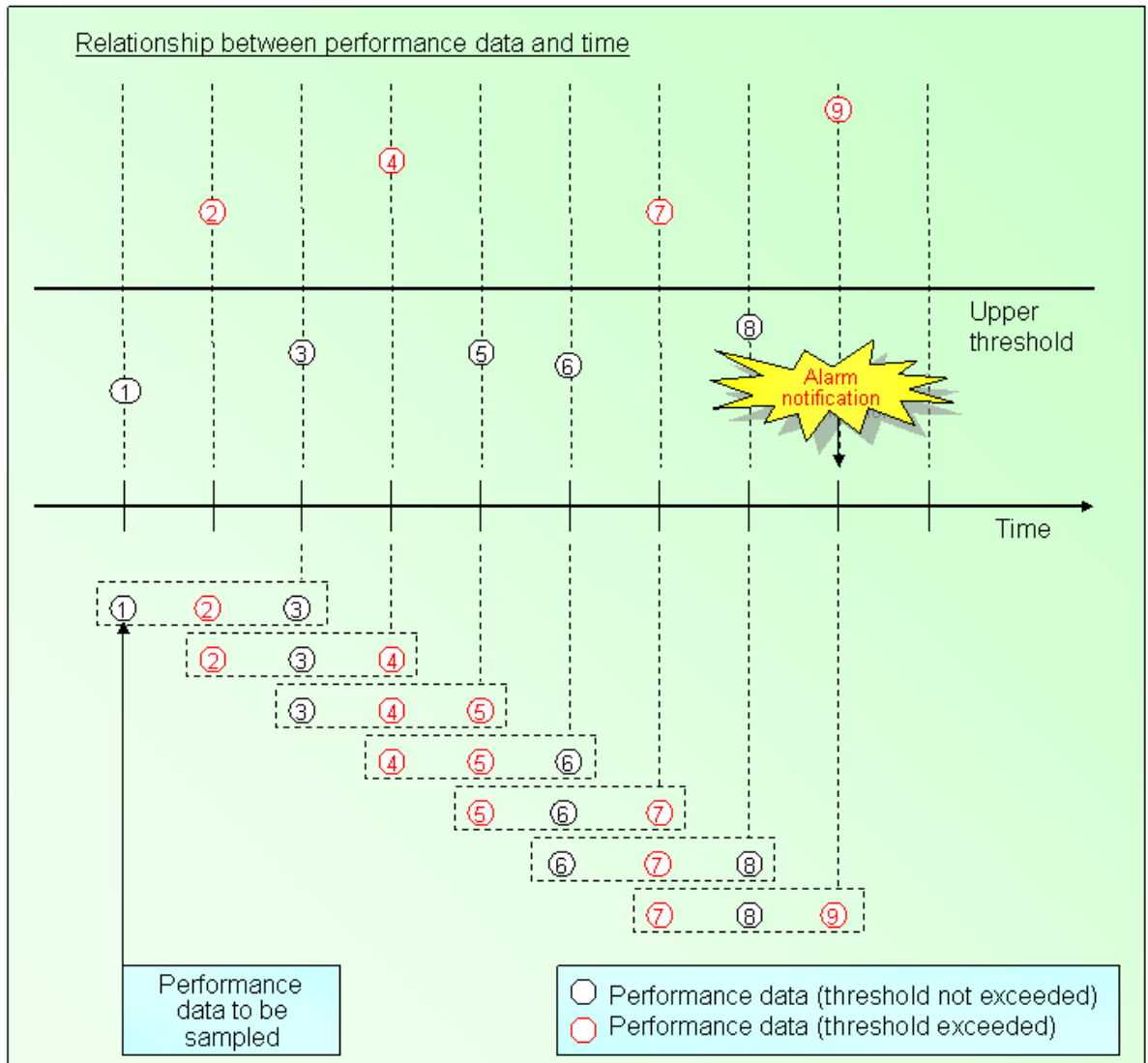
7.4 There are restrictions on the values that can be specified for the warning and error thresholds in the threshold monitoring definitions

Problem

There are restrictions on the values that can be specified for the warning and error thresholds in the threshold monitoring definitions.

Action method

The following kinds of values can be specified for the warning and error thresholds in the threshold monitoring definitions.

- Integers

- Real numbers (up to 15 decimal places can be specified)

- Negative values can also be specified.

7.5 I cannot monitor using only warning thresholds (or only error thresholds) in the threshold monitoring definitions

Cause

It is not possible to specify only warning thresholds or only error thresholds in the threshold monitoring definitions.

Both warning thresholds and error thresholds must be specified in the threshold monitoring definitions.

Action method

Consider taking the following actions:

- To specify only warning thresholds

  Specify a value for the error threshold that will not occur.

  Example:

  To monitor thresholds for CPU usage, specify "120%" for the error threshold.

- To specify only error thresholds

  Specify the same value for both the warning threshold and the error threshold.

Note
. . . .

When alarms are notified, warning messages and error messages will both be output.

If a value that cannot occur is specified for the warning threshold, alarms will not be notified even if the error threshold is violated.
. . . .

Example:

To monitor thresholds for CPU usage, specify "80%" for both the warning threshold and the error threshold.

Chapter 8 Troubleshooting Relating to Creating Reports

This chapter explains how to respond to problems that relate to creating reports.

8.1 Some reports are not displayed even though they have been created

Checkpoint

Check if Systemwalker Service Quality Coordinator Agent services have been stopped or restarted.

Cause

With Systemwalker Service Quality Coordinator, Agents collect performance information at fixed intervals. (For example, operating system information is collected at one minute intervals.) The summary data ("ten minute data", "one hour data" and "one day data") that is needed to display reports is then created based on the data that has been collected. In order to maintain the reliability of the summary data, summary data is only created if the data that is collected at one minute intervals meets the following conditions:

- To create "ten minute data", data must have been collected at least 70% within the ten minute period. (That is, there must be at least 7 "one minute" data.)

- To create "one hour data", data must have been collected at least 70% within the one hour period. (That is, there must be at least 42 "one minute" data.)

- To create "one day data", data must have been collected at least 1% within the one day period. (That is, there must be at least 15 "one minute" data.)

"One day data" can be created if there is at least one item of "one hour data" because the data that the "one day data" is based on is held on the disk

The times when this data is created are listed below.

- "Ten minute data" is created at 0, 10, 20, 30, 40 and 50 minutes past the hour, according to the clock on the Agent.

- "One hour data" is created every hour, on the hour.

- "One day data" is created at midnight (local time), every day.

The creation processing for "ten minute data" and "one hour data" all takes place within memory, so all of the information that has been created so far is cleared if the Agent stops. This may result in the conditions above not being met and the summary data needed to display reports not being created.

Action method

Consider adopting the following kind of operation:

- Operate Agents continuously without restarting them.

8.2 I cannot create a report(1)

Checkpoint

Check if you were trying to create a report around 2:00 AM.

Cause

Systemwalker Service Quality Coordinator executes maintenance processing once a day in order to delete data that has exceeded the retention period. This maintenance processing works as follows:

- Execution schedule

    By default, maintenance processing starts at 2:00 AM local time.

- Retention period for each type of data

    The following table shows the retention period for each type of performance data subject to maintenance processing.

Performance data	Retention period
Summary information	3 day
Ten minute data	7 days
One hour data	42 days
One day data	397 days

- Data to be deleted

    When the maintenance processing starts executing, any of the types of data above that exceeded their retention period for the first time on either the current day or the previous day will be deleted.

    This is to prevent operations from being affected by maintenance processing taking a long time if there is a large amount of data to be deleted (because, for example, maintenance has not been performed for a long time for some reason).

Impact

The PDB is locked while PDB maintenance is in progress. So, if an attempt is made to create a report during this time, a timeout may occur when the database is accessed to display the report, possibly resulting in failure to display the report.

Action method

Consider taking the following actions:

- Do not display reports while maintenance processing is in progress.

- Change the timeout period for report creation to a longer time.

- Change the maintenance startup time to a time that does not coincide with the report creation time.

8.3 I cannot create a report(2)

Checkpoint

If you created the report at the console, check whether a "CGI Timeout" error message was displayed.

Cause

A Web server is used from an operation management client to execute report creation processing as a CGI, which default timeout for Microsoft(R) Internet Information Services is five minutes. Therefore, if the report creation process takes more than five minutes, a CGI Timeout occurs and the report cannot be created.

Action method

Extend the IIS timeout value to 3600 seconds (for details, refer to "CGI timeout settings" in the *Installation Guide*).

8.4 Category names are not displayed in Analysis/Planning Window and Scheduled Report Registration Window

Problem

Category names are not displayed at **Category** field in **Analysis/Planning** Window and **Scheduled Report Registration** Window.
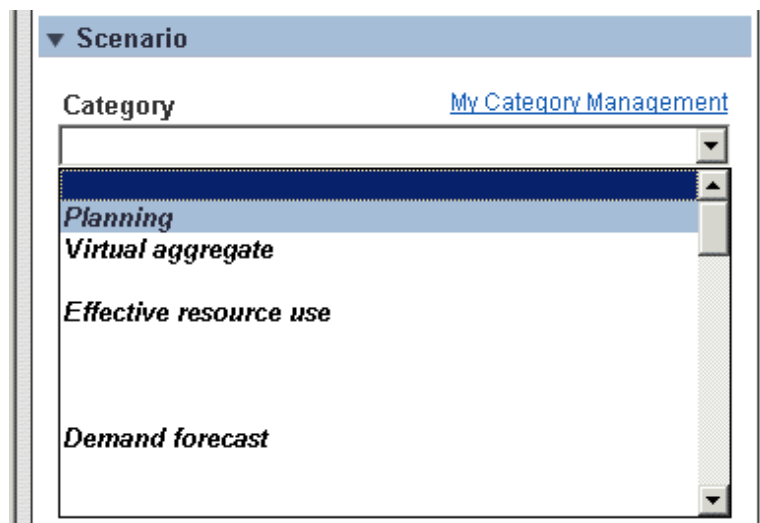
Checkpoint

Check if you are using Microsoft(R) Internet Explorer 6/7.

Cause

Microsoft(R) Internet Explorer 6/7 is not supported.

Action method

Please use Microsoft(R) Internet Explorer 8/9/10.

Refer to "Installation Conditions and Resource Estimation" in the *Installation Guide* for information on the supported browsers for the Operation Management Client.

Chapter 9 Troubleshooting Relating to Combining SQC with Other Software

This chapter explains how to respond to problems that relate to combining Systemwalker Service Quality Coordinator with other software programs.

9.1 Some Systemwalker Service Quality Coordinator operations sometimes produce error messages or take an extremely long time to process (when combined with anti-virus software)

Applicable software

This problem may occur on operating systems where anti-virus software is running.

Checkpoint

Check if the Systemwalker Service Quality Coordinator variable file storage directory is being scanned for viruses.

Cause

If the Systemwalker Service Quality Coordinator variable file storage directory is made subject to real-time scans by anti-virus software, then the temporary files used by Systemwalker Service Quality Coordinator will be scanned, and the CPU load caused by the anti-virus software may increase if a large amount of data is collected.

Also, if the variable file storage directory used by Systemwalker Service Quality Coordinator is made subject to virus scans, the anti-virus software may take possession of the files used by Systemwalker Service Quality Coordinator.

When Systemwalker Service Quality Coordinator tries to access these files, it may fail, and an operating error (such as an error message being displayed) may occur.

Impact

If the Systemwalker Service Quality Coordinator variable file storage directory is subject to real-time scans, the CPU load caused by the anti-virus software may increase.

If the Systemwalker Service Quality Coordinator variable file storage directory is subject to virus scans, Systemwalker Service Quality Coordinator behavior may become faulty.

Action method

Consider taking the following actions:

- Remove the Systemwalker Service Quality Coordinator variable file storage directory from the real-time scanning regime.

- Remove the Systemwalker Service Quality Coordinator variable file storage directory from the virus scanning regime.

9.2 Some Systemwalker Service Quality Coordinator operations sometimes produce error messages or take an extremely long time to process (due to conflict with backup processing)

Checkpoint

Check if the variable file storage directory for Systemwalker Service Quality Coordinator is being backed up.

Cause

If the Systemwalker Service Quality Coordinator variable file storage directory is made subject to backups, there may be a conflict between Systemwalker Service Quality Coordinator taking possession of these files and the backup software taking possession of the same files, causing Systemwalker Service Quality Coordinator to fail take possession of the files.

An error message may occur if the backup software attempts to take possession of a file that Systemwalker Service Quality Coordinator has already taken possession of.

On the other hand, if Systemwalker Service Quality Coordinator attempts to take possession of a file that the backup software has already taken possession of, the attempt will fail and an operating error (such as an error message being displayed) may occur.

Impact

If the Systemwalker Service Quality Coordinator variable file storage directory is made subject to backups, a fault may occur with either Systemwalker Service Quality Coordinator or the backup software.

Action method

Consider taking the following actions:

- Remove the Systemwalker Service Quality Coordinator variable file storage directory from the backup regime.

- Stop the Systemwalker Service Quality Coordinator service before backing up the SQC variable file storage directory.

Chapter 10 CPU Information for the Virtual Machine Function

This chapter explains the CPU information for the virtual machine function.

10.1 CPU Information for the Red Hat virtualization function(KVM) and the Red Hat Virtualization Function (Xen)

With the Red Hat virtualization function(KVM) and the Red Hat Virtualization Function (Xen) that can be used with Red Hat Enterprise Linux v5.0, if a physical CPU is shared by multiple domains, the CPU information collected for each domain may be larger than the actual value.

The following items are affected.

  - The CPU time and usage rate (SUM_PROC, UX_CPUBUSY, WIN_CPUBUSY)

  - The CPU time for each process (UX_PROCESS, WIN_PROCESS)

If one domain occupies the physical CPU exclusively, the correct information will be collected.

Refer to "Data Formats" in the *Reference Guide* for more information about these information items.

Chapter 11 How to Suppress Messages for PRIMECLUSTER and Oracle/Symfoware on the Standby Node

Problem

If there is an Systemwalker Service Quality Coordinator Agent on a system in a cluster configuration (using standby operations such as active/standby or mutual standby) and performance information for Symfoware Server or Oracle Database Server is being collected, database connection error messages are output on the standby node.

Details

If an Systemwalker Service Quality Coordinator Agent is running on a cluster configuration (using standby operations such as active/standby or mutual standby), performance information will be collected on both the active node and the standby node. However, the database instance on the standby node is stopped, and so connection error messages will be output repeatedly every time the SQC Agent attempts to connect to the database in order to collect performance information for Symfoware Server or Oracle Database Server.

Action method

In order to suppress the connection error messages on the standby node, register the Systemwalker Service Quality Coordinator "Temporary Policy Change" command on the cluster system so that it is executed as the instance starts and stops, thereby turning performance information collection on and off automatically.

- 11.1 Procedure for PRIMECLUSTER (Solaris)

- 11.2 Procedure for PRIMECLUSTER (Linux)

11.1 Procedure for PRIMECLUSTER (Solaris)

This section explains how to create a Cmdline resource and make settings for creating a cluster application by using the userApplication Configuration Wizard for the Web-based Admin View of the Solaris version of PRIMECLUSTER.

Refer to the PRIMECLUSTER manuals for more information about PRIMECLSUTER.

Procedure

For setup, perform the following tasks:

- 1. Create script files

- 2. Turn performance information collection off using sqcMdPolicy

- 3. Check the cluster application

- 4. Stop RMS

- 5. Delete the cluster application

- 6. Create a Cmdline resource

- 7. Create a cluster application

The detailed setup method is explained below.

1. Create script files

Create the "start" and "stop" scripts to be executed by the Cmdline resource on each node.

1. Log in as root.

2. Create a "start" script as follows:

   Storage folder name

/opt/FJSVssqc/bin

pcl_sqcMdPolicy_start.sh

   Edit

   ```
   #!/bin/Shunsaku
   /opt/FJSVssqc/bin/sqcMdPolicy.sh on -c Type -i Instance_name
   if [ $? != 0 ];then
   exit 1
   fi
   exit 0
   ```

   Type: Specify one of the following:

   - sym: Symfoware Server
   - ora: Oracle Database Server

   Instance_name: For Symfoware, specify the RDB system name. For Oracle, specify the Oracle instance name (SID).

   Example

   If the RDB system name for Symfoware Server is "RDBSYS1", specify as follows to turn performance information collection on.

/opt/FJSVssqc/bin/sqcMdPolicy.sh on -c sym -i RDBSYS1

   Execute sqcMdPolicy.sh multiple times if necessary.

3. Add execution permissions to the "start" script.

chmod +x pcl_sqcMdPolicy_start.sh

4. Create a "stop" script as follows:

Storage folder name

```
/opt/FJSVssqc/bin
```

```
pcl_sqcMdPolicy_stop.sh
```

Edit

```
#!/bin/sh
/opt/FJSVssqc/bin/sqcMdPolicy.sh off -c Type -i Instance_name
if [ $? != 0 ];then
exit 1
fi
exit 0
```

For information about the parameters for the sqcMdPolicy.sh command, refer to the content of the "start" script in Step 2.

5. Add execution permissions to the "stop" script.

```
# chmod +x pcl_sqcMdPolicy_stop.sh
```

Perform this procedure on all nodes.

2. Turn performance information collection off using sqcMdPolicy

Turn performance information collection off by executing the sqcMdPolicy command on all nodes to be registered with the cluster application.

```
# /opt/FJSVssqc/bin/sqcMdPolicy.sh off -c Type -i Instance_name
```

Type: Specify one of the following:

- sym: Symfoware Server
- ora: Oracle Database Server

Instance_name: For Symfoware, specify the RDB system name. For Oracle, specify the Oracle instance name (SID).

Example

If the RDB system name for Symfoware Server is "RDBSYS1", specify as follows to turn performance information collection off.

```
/opt/FJSVssqc/bin/sqcMdPolicy.sh off -c sym -i RDBSYS1
```

Execute sqcMdPolicy.sh multiple times if necessary.

3. Check the cluster application

The cluster application for which the monitored database resource has been set up needs to be temporarily deleted and then recreated, so check the userApplication attribute.

4. Stop RMS

Stop RMS if it is running, by referring to the PRIMECLUSTER manuals.

5. Delete the cluster application

Delete the cluster application for which the monitored database resource has been set up, if such a cluster application exists. At this point, select "Delete userApplication only".

Refer to the PRIMECLUSTER manuals for more information about how to delete cluster applications.

6. Create a Cmdline resource

This section explains how to create a Cmdline resource.

1. Select [Create Resource] from the top menu of the userApplication Configuration Wizard.

2. Select and set the resource type and resource name as follows.

    - Resource type: Cmdline

    - Resource name: SSQC_sqcMdPolicy

3. Select the SysNode for which the resource is to be set up. A "SysNode" is a node that corresponds to a CIP used by RMS.
    Select the SysNode for which the resource is to be set up from [Available SysNodes], and then click the [Add] button. To add all SysNodes, click the [Add All] button.

4. Select "Enter path" as the creation method for the Cmdline resource.

5. Enter the paths to each script under "CmdLine setup".

    - The "start" script

/opt/FJSVssqc/bin/pcl_sqcMdPolicy_start.sh

    - The "stop" script

/opt/FJSVssqc/bin/pcl_sqcMdPolicy_stop.sh

    - The "check" script

    [None]

6. Click the [Flag] button, and then specify "Yes" for [NULLDETECTOR] in the [Setting up Cmdline Flag] window. Making this setting will disable the "check" script.

7. Check the registration information for the "Cmdline" resource.

7. Create a cluster application

Create a cluster application for which the monitored database resource is set up. Set up the Cmdline resource during the creation procedure.

Create the cluster application

1. Select [Create userApplication] from the top menu of the userApplication Configuration Wizard.

2. Set up the userApplication name and the operation mode.

3. Set up these items to match the cluster application for which the monitored database resource is set up.

4. Select the SysNode.
   Set up these items to match the cluster application for which the monitored database resource is set up.

5. Set the cluster application attributes.
   Set up the attributes to match the cluster application for which the monitored database resource is set up.

6. Select the resource.
   Select the Cmdline resource created above.
   Set up any other resources to match the cluster application for which the monitored database resource is set up.

7. Check the registration information for the cluster application.

11.2 Procedure for PRIMECLUSTER (Linux)

This section explains how to create a Cmdline resource and make settings for creating a cluster application by using the RMS wizard for the Linux version of PRIMECLUSTER.

Refer to the PRIMECLUSTER manuals for more information about PRIMECLSUTER.

Procedure

For setup, perform the following tasks:

- 1. Create script files
- 2. Turn performance information collection off using sqcMdPolicy
- 3. Stop RMS
- 4. Create a Cmdline resource

The detailed setup method is explained below.

1. Create script files

Create the "start" and "stop" scripts to be executed by the Cmdline resource.

1. Log in as root.

2. Create a "start" script as follows:

   Storage folder name

   /opt/FJSVssqc/bin

   pcl_sqcMdPolicy_start.sh

   Edit

   ```
   #!/bin/sh
   /opt/FJSVssqc/bin/sqcMdPolicy.sh on -c Type -i Instance_name
   if [ $? != 0 ];then
   exit 1
   fi
   exit 0
   ```

   Type: Specify one of the following:

   - sym: Symfoware Server
   - ora: Oracle Database Server

   Instance_name: For Symfoware, specify the RDB system name. For Oracle, specify the Oracle instance name (SID).

   Example

   If the RDB system name for Symfoware Server is "RDBSYS1", specify as follows to turn performance information collection on.

   /opt/FJSVssqc/bin/sqcMdPolicy.sh on -c sym -i RDBSYS1

   Execute sqcMdPolicy.sh multiple times if necessary.

3. Add execution permissions to the "start" script.

   # chmod +x pcl_sqcMdPolicy_start.sh

4. Create a "stop" script as follows:

   Storage folder name

   /opt/FJSVssqc/bin

   pcl_sqcMdPolicy_stop.sh

Edit

```
#!/bin/sh
/opt/FJSVssqc/bin/sqcMdPolicy.sh off -c Type -i Instance_name
if [ $? != 0 ];then
exit 1
fi
exit 0
```

For information about the parameters for the sqcMdPolicy.sh command, refer to the content of the "start" script in Step 2.

5. Add execution permissions to the "stop" script.

```
# chmod +x pcl_sqcMdPolicy_stop.sh
```

2. Turn performance information collection off using sqcMdPolicy

Turn performance information collection off by executing the sqcMdPolicy command on all nodes to be registered with the cluster application.

```
# /opt/FJSVssqc/bin/sqcMdPolicy.sh off -c Type -i Instance_name
```

Type: Specify one of the following:

- sym: Symfoware Server
- ora: Oracle Database Server

Instance_name: For Symfoware, specify the RDB system name. For Oracle, specify the Oracle instance name (SID).

Example

If the RDB system name for Symfoware Server is "RDBSYS1", specify as follows to turn performance information collection off.

```
/opt/FJSVssqc/bin/sqcMdPolicy.sh off -c sym -i RDBSYS1
```

Execute sqcMdPolicy.sh multiple times if necessary.

3. Stop RMS

Stop RMS if it is running, by referring to the PRIMECLUSTER manuals.

4. Create a Cmdline resource

This section explains how to create a Cmdline resource.

1. Start the RMS Wizard.
   Execute the following command.
   At this point, specify the configuration file where the monitored database resource has been registered.
   In the following example, the name of the configuration file is "testconf".

   ```
   /opt/SMAW/SNAWRrms/bin/hvw -n testconf
   ```

   ### 📖 Note

   ....

   If the environment also contains other products, specify the configuration file common to all products. If a different specification is made, the settings information for other products that have already been set up may be erased.

   ....

2. Select "Application-Edit" from the "Main RMS management menu".

   ```
   node1: Main configuration menu, current configuration: testconf

   No RMS actiove in the cluster

   1) HELP 10) Configuration-Remove

   2) QUIT 11) Configuration-Freeze

   3) Application-Create 12) Configuration-Thaw

   4) Application-Edit 13) Configuration-Edit-Global-Settings

   5) Application-Remove 14) Configuration-Consistency-Report

   6) Application-Clone 15) Configuration-ScriptExecution

   7) Configuration-Generate 16) RMS-CreateMachine

   8) Configuration-Activate 17) RMS-CreateMachine

   9) Configuration-Copy

   Choose an action: 4
   ```

3. From the "Application selection menu", select the userApplication for which the configuration is to be changed.
   In the following example, "APP1" is selected.

   ```
   Edit: Application selection menu (restricted):
   1) HELP
   2) QUIT
   3) RETURN
   4) OPTIONS
   5) APP1
   Application Type: 5
   ```

4. The "turnkey wizard" will be displayed. Select "Cmdlines".

   ```
   Settings of turnkey wizard "STANDBY" (APP1:not yet consistent)
   1) HELP 9) Procedure:BasicApplication(-)
   ```

```
2) READ ONLY 10) Symfoware(-)
3) SAVE+EXIT 11) Procedure:SystemState3(-)
4) - 12) Procedure:SystemState2(-)
5) ApplicationName=APP1 13) Gls:Global-Link-Services(-)
6) Machines+Basics(app1) 14) LocalFileSystems(-)
7) CommandLines(-) 15) Gds:Global-Disk-Services(-)
8) Procedure:Application(-)
Choose the setting to process: 7
```

5. "CommandLines" will be displayed. Select "AdditionalStartCommand".

```
CommandLines (Cmd_App1:not yet consistent)
1) HELP 4) REMOVE+EXIT
2) - 5) AdditionalStartCommand
3) SAVE+EXIT 6) (ReturnCodes)
Choose the setting to process: 5
```

6. Select "FREECHOICE", and then enter the full path to the StartCommand to be executed.

```
1) HELP
2) RETURN
3) FREECHOICE
Set a start command: 3
>> /opt/FJSVssqc/bin/pcl_sqcMdPolicy_start.sh
```

7. "CommandLines" will be displayed. Select "StopCommands".

```
CommandLines (Cmd_App1:not yet consistent)
1) HELP 7) StopCommands[0]=none
2) - 8) CheckCommands[0]=none
3) SAVE+EXIT 9) CheckCommandsTimeouts[0]=none
4) REMOVE+EXIT 10) Flags[0]=DT300
5) AdditionalStartCommand 11) (ReturnCodes)
6) StartCommands[0]='xxxx'
Choose the setting to process: 7
```

8. Select "FREECHOICE", and then enter the full path to the StopCommand to be executed.

```
1) HELP
2) RETURN
3) FREECHOICE
Set a start command: 3
>> /opt/FJSVssqc/bin/pcl_sqcMdPolicy_stop.sh
```

9. "CommandLines" will be displayed. Select "Flags[0]".

```
CommandLines (Cmd_App1:not yet consistent)
1) HELP 7) StopCommands[0]='yyyy'
2) - 8) CheckCommands[0]=none
3) SAVE+EXIT 9) CheckCommandsTimeouts[0]=none
```

```
4) REMOVE+EXIT 10) Flags[0]=DT300
5) AdditionalStartCommand 11) (ReturnCodes)
6) StartCommands[0]='xxxx'
Choose the setting to process: 10
```

10. Select "SAVE+EXIT".

```
CommandLines (Cmd_App1:not yet consistent)
1) HELP 7) StopCommands[0]='yyyy'
2) - 8) CheckCommands[0]=none
3) SAVE+EXIT 9) CheckCommandsTimeouts[0]=none
4) REMOVE+EXIT 10) Flags[0]=DT300
5) AdditionalStartCommand 11) (ReturnCodes)
6) StartCommands[0]='xxxx'
Choose the setting to process: 3
```

11. The "turnkey wizard" will be displayed. Select "SAVE+EXIT".

```
Settings of turnkey wizard "STANDBY" (APP1:not yet consistent)
1) HELP 9) Procedure:BasicApplication(-)
2) READ ONLY 10) Symfoware(-)
3) SAVE+EXIT 11) Procedure:SystemState3(-)
4) - 12) Procedure:SystemState2(-)
5) ApplicationName=APP1 13) Gls:Global-Link-Services(-)
6) Machines+Basics(app1) 14) LocalFileSystems(-)
7) CommandLines(Cmd_APP1) 15) Gds:Global-Disk-Services(-)
8) Procedure:Application(-)
Choose the setting to process: 7
```

12. Select "Configuration-Generate" from the "Main RMS management menu."

```
node1: Main configuration menu, current configuration: testconf

No RMS actiove in the cluster

1) HELP 10) Configuration-Remove

2) QUIT 11) Configuration-Freeze

3) Application-Create 12) Configuration-Thaw

4) Application-Edit 13) Configuration-Edit-Global-Settings

5) Application-Remove 14) Configuration-Consistency-Report

6) Application-Clone 15) Configuration-ScriptExecution

7) Configuration-Generate 16) RMS-CreateMachine

8) Configuration-Activate 17) RMS-CreateMachine

9) Configuration-Copy

Choose an action: 7
```

13. Select "Configuration-Activate" from the "Main RMS management menu".

```
node1: Main configuration menu, current configuration: testconf
```

```
No RMS actiove in the cluster

1) HELP 10) Configuration-Remove

2) QUIT 11) Configuration-Freeze

3) Application-Create 12) Configuration-Thaw

4) Application-Edit 13) Configuration-Edit-Global-Settings

5) Application-Remove 14) Configuration-Consistency-Report

6) Application-Clone 15) Configuration-ScriptExecution

7) Configuration-Generate 16) RMS-CreateMachine

8) Configuration-Activate 17) RMS-CreateMachine

9) Configuration-Copy

Choose an action: 8
```

14. Close the RMS Wizard by selecting "QUIT" from the "Main RMS management menu".

```
node1: Main configuration menu, current configuration: testconf

No RMS actiove in the cluster

1) HELP 10) Configuration-Remove

2) QUIT 11) Configuration-Freeze

3) Application-Create 12) Configuration-Thaw

4) Application-Edit 13) Configuration-Edit-Global-Settings

5) Application-Remove 14) Configuration-Consistency-Report

6) Application-Clone 15) Configuration-ScriptExecution

7) Configuration-Generate 16) RMS-CreateMachine

8) Configuration-Activate 17) RMS-CreateMachine

9) Configuration-Copy

Choose an action: 8
```

Chapter 12 Troubleshooting Relating to Agent for Agentless Monitoring Management

This chapter explains how to deal with problems related to agent for Agentless Monitoring management.

12.1 I cannot collect performance information of an agent for Agentless Monitoring

Problem

The error message below might be output to the Manager, and Agentless Monitoring performance information might not be collected even though the system load of the agent is not high:

[Windows]

Event ID	Type	Message
2700	Error	Unable to connect to the server.

[UNIX]

Event ID	Type	Message
DSA2700E	Error	Unable to connect to the server.

Cause

When the system load is high and telnet and ssh communication becomes impossible, collection of performance information might become impossible. Even when the system load becomes lighter, this message might continue to be output.

Checkpoint

Have there been periods in the past with high system loads for the agent for Agentless Monitoring?

Action method

Restart the Manager Systemwalker SQC DCM service/dcmd process and check if collection of performance information has resumed.

Impact

Collection of performance information is not possible while this message is being output.

Chapter 13 Troubleshooting Relating to the Dashboard

This chapter explains how to deal with problems related to the dashboard.

13.1 Some items are not displayed in the dashboard graph legend

Cause

When there are a lot of legend items, their descriptions span multiple lines. If the chart window is too small, the second and subsequent lines might not be displayed.

Checkpoint

Is the chart window set to the default size?

Action method

All legend items are on the chart, but some are not displayed because the displayed chart window is too small. Change the chart window size, maximize the display, or similar.

13.2 Analytics Studio could not collect definitions from the dashboard server

Problem

The error message below might be output when "Collect definitions from server" is selected at the Analytics Studio:

Communications error

An error occurred during communication with the monitoring server.

Reason:

BPEP2210: Authentication of the repository failed. Target: [Repository] Details:

[java.net.ConnectException:Connection time out:connect]

Cause

The firewall is blocking communications between the Analytics Studio and the dashboard server.

Checkpoint

Is the firewall enabled?

Action method

Enable communication via the port(*) used for communication between the Analytics Studio and the dashboard server.

*) The port used by Interstage HTTP Server (Default: 80)

Chapter 14 Troubleshooting Relating to Linking to VMware

This chapter explains how to respond to problems that relate to linking to VMware.

14.1 I Cannot Obtain the Number of Packets for VMware ESX/ESXi Network Performance Information

Problem

In VMware ESX/ESXi, it is not always possible to obtain values for the vmnppckttr and vmnppcktrecv fields of VMW_NET for a resource representing a virtual network of each guest operating system (for example, "::cdboot").

Therefore, the values of the fields will not be displayed in the following windows and command output results:

- When the Monitoring window of the Console is displayed

- When a generic report of the Analysis/Planning window or Scheduled Report window of the Console is displayed

- When sqcPDBcout (CSV output command) is executed

Cause

This appears to be a VMware ESX/ESXi problem.

Information

. . . .

This has not been modified in VMware ESXi 4.1 Update 1.

This has been modified in VMware ESXi 5.0.

Check locations such as the VMware home page for the latest modification information.

. . . .

Appendix A Collecting Maintenance Information

Maintenance information is collected by collecting data using FJQSS (Information Collection Tool) or PMDiag (Systemwalker Service Quality Coordinator maintenance information collection tool), and by collecting other information.

FJQSS and PMDiag are functions for collecting the information needed to resolve problems that may occur with Systemwalker Service Quality Coordinator.

If the cause of a problem with Systemwalker Service Quality Coordinator is unknown, refer this appendix to collect information and then send it to a Fujitsu SE.

A.1 Collecting Maintenance Information using the Tools

This section explains how to collect information by using FJQSS and PMDiag.

With the Enterprise Manager/Manager/Proxy Manager/Agent/Operation Management Client, the maintenance information can be collected by using these tools.

A.1.1 Windows

Collecting maintenance information by using FJQSS

In normal circumstances, collect the maintenance information by using FJQSS.

- Other than Operation Management Client

    For Windows Server 2012

    Select [**FJQSS (Information Collection Tool)**] - [**Information Collection (Systemwalker Service Quality Coordinator)**] from [**All apps**] which displayed by right-click on empty area in [**Start**] screen.

    For Windows Server 2008 and earlier

    Select [**FJQSS (Information Collection Tool)**] - [**Information Collection (Systemwalker Service Quality Coordinator)**] from [**All Programs**] in [**Start**] menu.

- Operation Management Client

    For Windows Server 2012/Windows 8

    Select [**FJQSS (Information Collection Tool)**] - [**Information Collection (Systemwalker Service Quality Coordinator Operation Management Client)**] from [**All apps**] which displayed by right-click on empty area in [**Start**] screen.

    For Windows Server 2008/Windows 7 and earlier

    Select [**FJQSS (Information Collection Tool)**] - [**Information Collection (Systemwalker Service Quality Coordinator Operation Management Client)**] from [**All Programs**] in [**Start**] menu.

Refer to the manuals displayed in the menu below for information on FJQSS.

For Windows Server 2012/Windows 8

Select [**FJQSS (Information Collection Tool)**] - [**FJQSS User's Guide**] from [**All apps**] which displayed by right-click on empty area in [**Start**] screen.

For Windows Server 2008/Windows 7 and earlier

Select [**FJQSS (Information Collection Tool)**] - [**FJQSS User's Guide**] from [**All Programs**] in [**Start**] menu.

Information

If you log in to Windows 8 or Windows Server 2012 with the built-in Administrator account and you try to open "FJQSS User's Guide" (HTML) from the Apps menu, there might be a case that you can't open "FJQSS User's Guide" and the following message appears:

> This app can't open
>
> Internet Explorer can't be opened using the Built-in Administrator account. Sign in with a different account and try again.

You can avoid the case above with one of the following ways.

- Sign in with an account other than the built-in Administrator as the message says, then open "FJQSS User's Guide".

- Modify the option of Internet Explorer in the built-in Administrator account.
  The "Opening Internet Explorer" option is set to "Always in Internet Explorer" by default. Set this option to either of the following values:

  - Let Internet Explorer decide

  - Always in Internet Explorer on the desktop

Collecting maintenance information by using PMDiag

Collect the maintenance information by using PMDiag when instructed by Fujitsu SE.

1. Double-click on "PMDiag.exe" in Windows Explorer.

   "PMiag.exe" is stored in the "bin" subdirectory of the installation directory.

Note

Collecting information might take a while depending on the environment. When executing PMDiag.exe, [System information] might be displayed.

2. The following dialog box will be displayed.
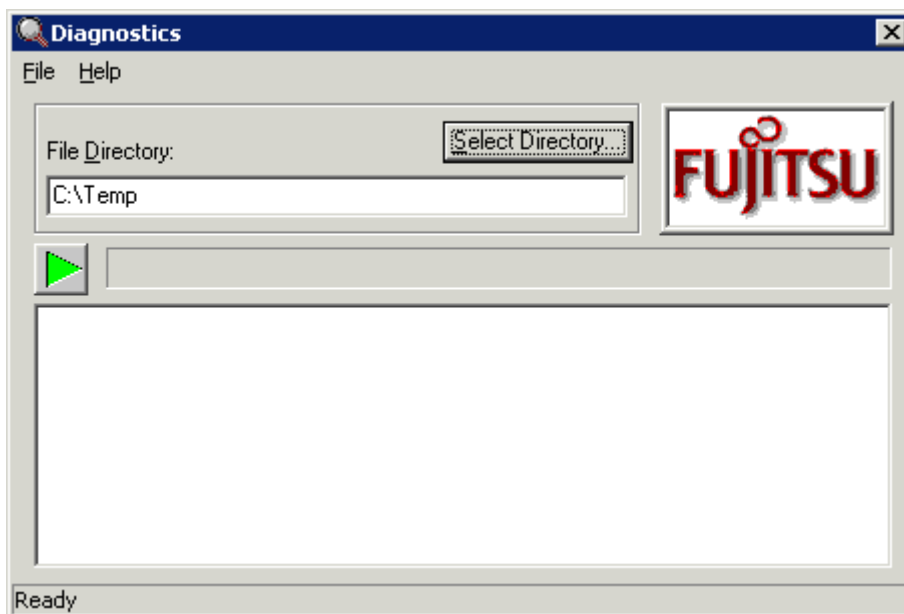
Specify the output directory and click on the green triangle to start the tool.

3. A message is output to the dialog box displayed in step 2, indicating that information collection has completed.

> Processing Completed Successfully ...
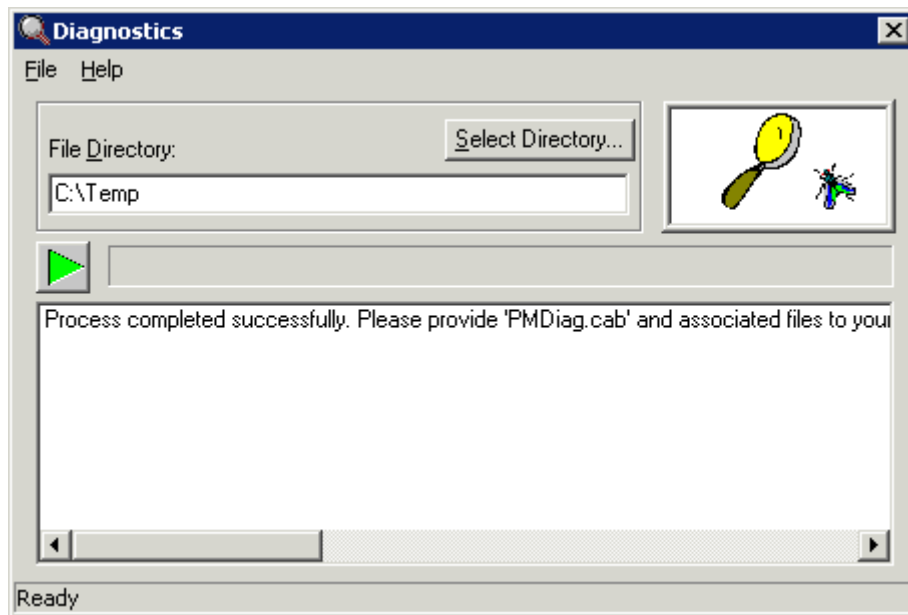
Following files will be created in the specified output directory.

- PMDiag?.cab

- PMDiag_trace?.cab

- PMDiag_ts?.cab (Only when specified by checkbox)

Multiple files may be created, depending on the amount of information.

Send these files to a Fujitsu SE.

'?' represents the file number. The initial file does not have a file number.

Example) PMDiag?.cab

PMDiag.cab

PMDiag2.cab

PMDiag3.cab

:

A.1.2 Solaris

Collect the maintenance information using PMDiag.

Perform these operations as the system administrator (superuser).

Execute "/opt/FJSVssqc/bin/pmdiag".

The following files will be created in the "/tmp" directory. Collect these files.

- pmdiag_*.tar.Z

- pmdiag_*.log

"*" represents the host name_time stamp. Display format of the time stamp is vary depending on the environment.

A.1.3 Linux

Collect the maintenance information using PMDiag.

Perform these operations as the system administrator (superuser).

Execute "/opt/FJSVssqc/bin/pmdiag".

The following files will be created in the "/tmp" directory. Collect these files.

- pmdiag_*.tar.gz

- pmdiag_*.log

"*" represents the host name_time stamp. Display format of the time stamp is vary depending on the environment.

A.2 Collecting Other Information

In addition to the information collected using the tool described in the previous section, collect extra information, depending on the nature of the problem, as below.

- Event log/syslog

  If the problem can be checked using a message, collect the event log (Windows) or syslog (Solaris/Linux).

- Screen shot

  If the problem can be checked on the screen, take a screen shot.

- Dr Watson's Log/dump file/core file

  If Systemwalker Service Quality Coordinator has terminated abnormally, collect Dr Watson's log, the dump file (Windows) or core file (Solaris/Linux) if these have been output.

Appendix B How to Start and Stop Resident Processes

This section explains how to start and stop resident processes.

Refer to "Starting and Stopping Resident Processes" in the *Reference Guide* for more information about processes, etc.

Manager

[Windows]

Start/stop the following service:

Systemwalker SQC DCM

📘 Point
. . . .
This process is started when using "Pull" method communications provided by this product.

Systemwalker SQC sqcschdle
. . . .

📘 Point
. . . .
If the policy distribution function is being used, use the following scripts to start and stop the processes.

Systemwalker SQC thttpd
. . . .

📒 Note
. . . .
When restarting the [Systemwalker SQC DCM] service, do not execute "Restart the service" from the Windows Services window.

First execute "Stop the service", then after waiting a while execute "Start the service".
. . . .

[UNIX]

Use the following scripts to start and stop the processes.

To start the processes:

```
/etc/rc2.d/S99ssqcdcm start
```

To stop the processes:

```
/etc/rc0.d/K00ssqcdcm stop
```

To stop the processes completely:

```
/etc/rc0.d/K00ssqcdcm stop_wait
```

📘 Point
. . . .
If the stop option (stop) is selected, this command completes without waiting for ending of the process.

If the complete stop (stop_wait) is selected, this command sends a finish signal, and completes after ending of running process.

When restarting the process, stop the process by using the complete stop option (stop_wait), and after command completion, start option (start) to start the process.

Point

This process is started when using "Pull" method communications provided by this product.

To start the processes:

```
/etc/rc2.d/S99ssqcsch start
```

To stop the processes:

```
/etc/rc0.d/K00ssqcsch stop
```

Point

If the policy distribution function is being used, use the following scripts to start and stop the processes.

To start the processes:

```
/opt/FJSVssqc/bin/ssqchttp start
```

To stop the processes:

```
/opt/FJSVssqc/bin/ssqchttp stop
```

Agent/Proxy Manager

[Windows]

Start/stop the following service:

Systemwalker SQC DCM

Point

If the Pull mode is to be used for communication and the policy distribution function is to be used, use the following script to start and stop the processes:

Systemwalker SQC thttpd

Note

When restarting the [Systemwalker SQC DCM] service, do not execute "Restart the service" from the Windows Services window.

First execute "Stop the service", then after waiting a while execute "Start the service".

[UNIX]

Use the following scripts to start and stop the processes.

To start the processes:

```
/etc/rc2.d/S99ssqcdcm start
```

To stop the processes:

```
/etc/rc0.d/K00ssqcdcm stop
```

To stop the processes completely:

```
/etc/rc0.d/K00ssqcdcm stop_wait
```

Point

If the stop option (stop) is selected, this command completes without waiting for ending of the process.

If the complete stop (stop_wait) is selected, this command sends a finish signal, and completes after ending of running process.

When restarting the process, stop the process by using the complete stop option (stop_wait), and after command completion, start option (start) to start the process.

Point

If the Pull mode is to be used for communication and the policy distribution function is to be used, use the following scripts to start and stop the processes.

To start the processes:

```
/opt/FJSVssqc/bin/ssqchttp start
```

To stop the processes:

```
/opt/FJSVssqc/bin/ssqchttp stop
```

Enterprise Manager

[Windows]

Start/stop the following service:

Systemwalker SQC DCM

Point

If the policy distribution function is being used, use the following scripts to start and stop the processes.

Systemwalker SQC thttpd

When restarting the [Systemwalker SQC DCM] service, do not execute "Restart the service" from the Windows Services window.

First execute "Stop the service", then after waiting a while execute "Start the service".

[UNIX]

Use the following scripts to start and stop the processes.

To start the processes:

```
/etc/rc2.d/S99ssqcdcm start
```

To stop the processes:

```
/etc/rc0.d/K00ssqcdcm stop
```

To stop the processes completely:

```
/etc/rc0.d/K00ssqcdcm stop_wait
```

🅿 Point

If the stop option (stop) is selected, this command completes without waiting for ending of the process.

If the complete stop (stop_wait) is selected, this command sends a finish signal, and completes after ending of running process.

When restarting the process, stop the process by using the complete stop option (stop_wait), and after command completion, start option (start) to start the process.

🅿 Point

If the policy distribution function is to be used, use the following script to start and stop the processes:

To start the processes:

```
/opt/FJSVssqc/bin/ssqchttp start
```

To stop the processes:

```
/opt/FJSVssqc/bin/ssqchttp stop
```