Systemwalker

FUJITSU

Systemwalker Service Quality Coordinator

User's Guide (Console Edition)

Windows/Solaris/Linux

Preface

Purpose of this manual

This manual explains how to use the operation windows for Systemwalker Service Quality Coordinator, such as the Console and the Admin Console window.

Target audience

This manual is intended for users who will monitor distributed systems, create reports, and perform operations and distribution activities on the Systemwalker Service Quality Coordinator operation management client/console.

Readers of this manual should also have a general understanding of basic operating system and GUI operations as well as a working knowledge of communications protocols such as TCP/IP and SMTP.

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 use 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 Glossary

  This manual explains Systemwalker Service Quality Coordinator terminology.

Organization of this manual

This manual is organized as follows:

- Chapter 1 Admin Console Window

  This chapter explains how to start the Admin Console, the configuration of the Admin Console window and the Setting View, how to set up management configuration definitions and how to make user definitions.

This chapter also explains how to start the Console, gives notes, and explains the features of the graphs displayed on the Console.

This chapter explains how to manipulate and invoke the Summary and Drilled-Down display Views.

This chapter explains how to create and register the analysis window and scheduled reports, and also explains the different analyses and reports and how to deal with errors.

This chapter explains how to deal with errors that might occur when trying to display the summary display, Drilled-Down display, and analysis/report window in the console, and also explains the "-1" that is displayed in service operation information.

This appendix contains explanations of the policy commands that are used to set up Systemwalker Service Quality Coordinator.

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 V13.5.0

- Systemwalker Service Quality Coordinator Standard Edition V13.5.0

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Abbreviations

- Microsoft® Windows NT® Server network operating system Version 4.0 and Microsoft® Windows NT® Workstation operating system Version 4.0 are abbreviated as "Windows NT®".

- Microsoft® Windows® 2000 Professional operating system, Microsoft® Windows® 2000 Server operating system, and Microsoft® Windows® 2000 Advanced Server operating system are all abbreviated as "Windows® 2000".

- Microsoft® Windows® 98 operating system is abbreviated as "Windows® 98".

- Microsoft® Windows® XP Professional is abbreviated as "Windows® XP".

- Microsoft® Windows Server® 2003 Enterprise Edition, Microsoft® Windows Server® 2003 Standard Edition and Microsoft® Windows Server® 2003 Web Edition are all abbreviated as "Windows® 2003".

- Microsoft® Windows Server® 2008 Enterprise and Microsoft® Windows Server® 2008 Standard are abbreviated as "Windows® 2008".

- Windows Vista® Home Basic, Windows Vista® Home Premium, Windows Vista® Business, Windows Vista® Enterprise and Windows Vista®Ultimate are abbreviated as "Windows Vista®".

- Windows® 7 Home Premium, Windows® 7 Professional, Windows® 7 Enterprise and Windows® 7 Ultimate are abbreviated as "Windows® 7".

- Microsoft® SQL Server is abbreviated as "SQL Server".

- Microsoft® Cluster Server is abbreviated as "MSCS".

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

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

- Symfoware Server is abbreviated as "Symfoware".

- Interstage Application Server is abbreviated as "Interstage".

- Oracle Database is abbreviated as "Oracle".

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

- 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 amd 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.

- 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, Linux, AIX, and HP/UX 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.

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 ({ }).
__	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.

Trademarks

Acknowledgement

May 2011

Request

Contents

Chapter 1 Admin Console Window

This chapter explains how to use the **Admin Console** window

The **Admin Console** window is made up of a **Console Definitions** and a **User Definitions**. Refer to the following file for details on how to start the **Admin Console** window

```
http://host name of the operation management client/SSQC/AdminConsole.html
```

In order to communicate with the management server, a virtual directory must be registered on the Web server. Refer to Section 5.3, "How to Set Up Basic Authentication for Operation Management Clients" in the *Installation Guide* when setting up basic authentication in the Admin Console.

🎯 Note

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- If the browser is equipped with a pop-up blocking function, the definition window will not open in a separate window. The pop-up blocking function should be disabled in such cases.

- The **Admin Console window** uses JavaScript. If JavaScript is not enabled, the definition window will not open in a separate window. JavaScript should be enabled in such cases.

- Do not perform operations in the **Admin Console** window using the pop-up context menu that appears when the right mouse button is clicked.

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The **Console Definitions** window initially appears as below.

Window configuration

- 1 -

Basic configuration

Admin Console is organized as shown in the following table.

Item No.	Component	Description
(1)	Global navigation	The toolbar provides the following menu: - **Manual** Opens the manual.
(2)	**Console Definitions** tab	This tab displays information about registered console definitions.
(3)	**User Definitions** tab	Create and change users in this tab.

The following sections present an overview of each of these windows.

1.1 Console Definitions Window

This section explains the **Console Definitions** window.

The **Console Definitions** window can be used to create and edit console definitions, and to display the **Setting View** and the **Console** window.

The **Console Definitions** window initially appears as below.

Window configuration
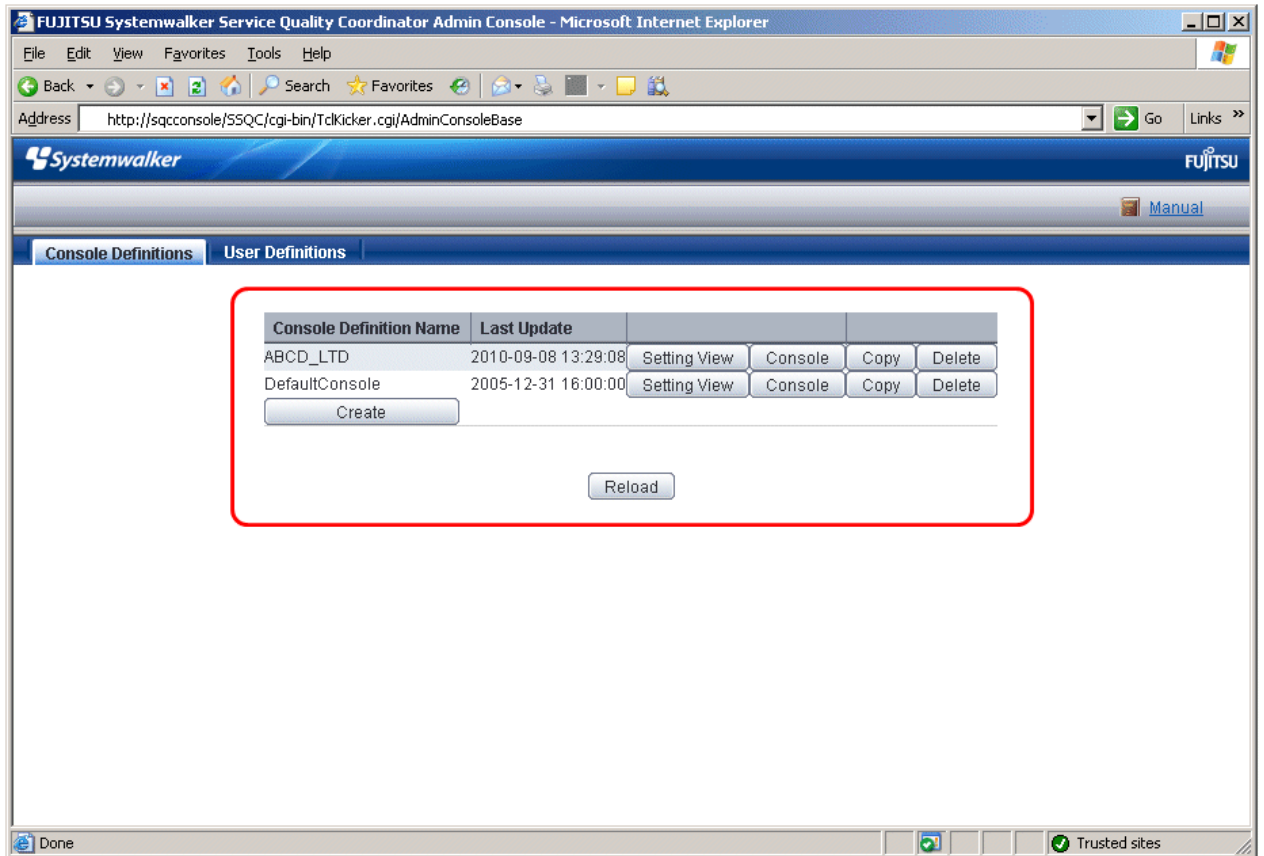
Basic operation

The **Console Definition** window contains a number of operation buttons.

The following table explains the operation of each button.

Button	Operation
Create	Creates a new console definition.
	After clicking this button, enter the name of the console definition to be created in the prompt that is displayed.
	Only the following characters can be used for console definition names: alphanumeric characters [a-z, A-Z, 0-9], hyphens ('-') and underscores ('_').
	However, hyphens ('-') cannot be used as the first character.
	Console definition names are not case sensitive.
	Console definition names must be no more than 64 characters long.
	Existing console definition names cannot be used.
Setting View	Starts the **Setting View** for console definitions.
Console	Starts the **Console** window.
Copy	Copies the specified console definition with the specified name.
	After clicking this button, enter the name of the console definition to be copied in the prompt that is displayed.

Button	Operation
	Existing console definition names cannot be used.
Delete	Deletes the specified console definition.
	However, "DefaultConsole" cannot be deleted.
Reload	Displays console definitions using the latest information.

P Point

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Starting time of Console gets longer according to the number of Agents.

It takes about 15 seconds when it manages 300 Agents, in case of that CPU of the Operation Management Client is Xeon 3.3 GHz only as a guide (It depends on CPU performance and other conditions).

To shorten starting time of Console, create multiple console definitions and divide the Agents to register.

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1.2 Setting View

This section explains the **Setting View**.

The **Setting View** is opened by clicking the **Setting View** button on the **Console Definitions** tab of the **Admin Console**.

Note

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When the definition window is started, the message below might be displayed.

Message from webpage

⚠ Master console definition has been updated.
Update console definitions from [Update Console Definitions].

OK
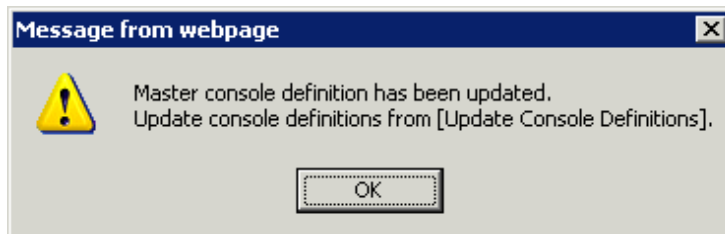
In this case, click **OK** and then click **Update Console Definition** on the displayed definition window.

The update might take a few moments, depending on the number of registered Agents.

....
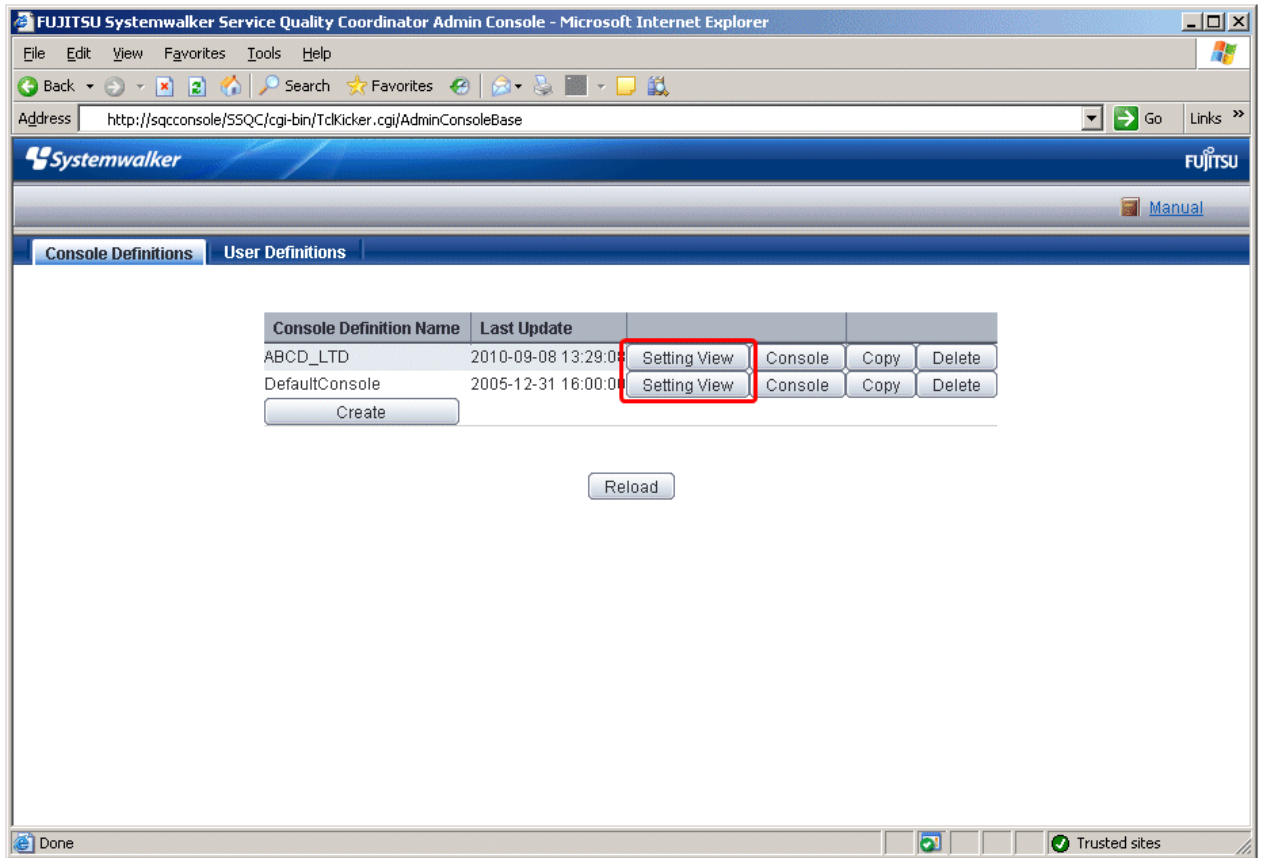
The **Setting View** will be displayed as below.

Window configuration
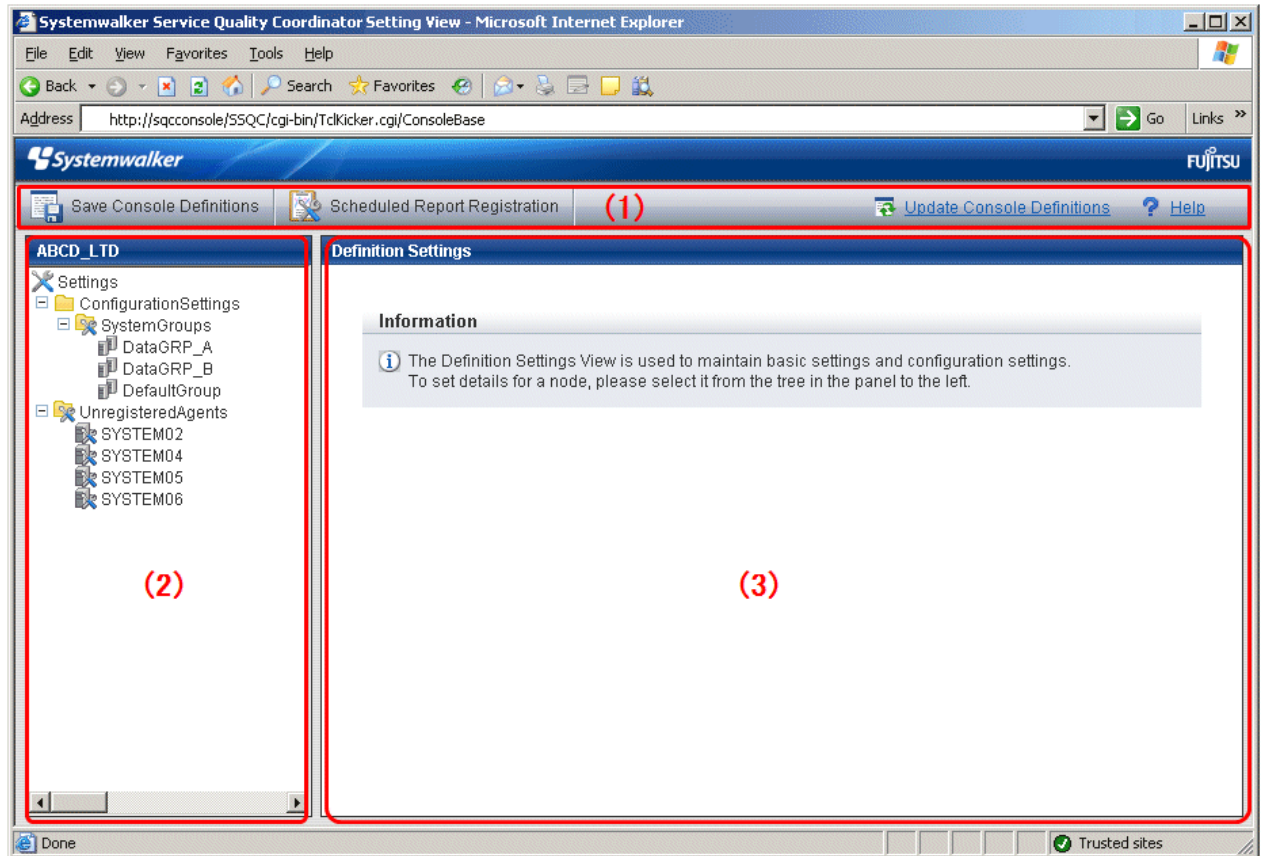
Procedure

The **Setting View** is organized as shown in the following table.

Item No.	Component	Description
(1)	Global navigation	The toolbar provides the following menus: - **Save Console Definitions** Saves the console definition. - **Register Scheduled Report** Opens a new Console window. - **Update Console Definition** Reloads console definitions. - **Help** Open the *User's Guide (Console Edition)*.
(2)	Tree display area	Displays the Systemwalker Service Quality Coordinator environment configuration in a tree structure.
(3)	Setting window display area	Displays the settings window that can be used to enter information.

Basic operation

The operation basically consists of selecting a node to set up in the **Definition window** tree on the left and then entering information in the settings window on the right.

Each setting window contains a number of operation buttons.

The following table explains the operation of buttons that function in the same way in different windows.

The following table shows the behavior of the buttons that are common to each setting window.

Button	Operation
Add	Opens an information window in its default state so that a new configuration definition can be added.
Edit	Opens an information window with existing information so that the existing configuration definition can be edited.
Delete	Deletes a configuration definition. If the **OK** button is clicked in response to the deletion prompt, the information will be deleted. **P Point** ··· The trees in any other Console windows that may be open at the same time are not updated automatically. It will be necessary to reload the tree using the procedures described in "3.1.2.1 Reloading the Summary tree"or "3.2.2.1 Reloading the Drilled-Down tree". ···
View	Opens an information display window.
Apply	Completes information entry and closes the window. At the same time, any information that has been added or modified will be applied to the local console definitions. **P Point** ··· The trees in any other Console windows that may be open at the same time are not updated automatically. It will be necessary to reload the tree using the procedures described in "3.1.2.1 Reloading the Summary tree"or "3.2.2.1 Reloading the Drilled-Down tree". ···
Reset	Clears any checkboxes that have been selected, and any text that has been entered.
Cancel	Cancels the information that has been entered and closes the window.
Close	Terminates viewing and closes the window.

- 1.2.1 Setting View tree

- 1.2.2 Management configuration definition (ConfigurationSettings)

- 1.2.3 Unregistered Agents Information (UnregisteredAgents)

1.2.1 Setting View tree

The **Setting View** tree consists of the following levels.

Level	Description
Top tree	This is the default level that is displayed when the **Setting View** opens. It displays **Settings**, which is the root of the tree, and the system groups. When the system group node is selected, the display switches to the system group tree.
System group tree	This tree displays the system group and the Proxy Managers and Agents under it. At the top of the system group tree is a **Back** node that can be used to return to the previous level. When the **Proxy Manager** or **Agent** node is selected, the display switches to the **Proxy Manager** or **Agent** tree.
Proxy Manger tree Agent tree	The tree displays the **Proxy Manager** or **Agent** and their subordinate configurations. With regard to SAN Storage, the AffinityGroup and RAIDGroup nodes are also divided into different levels. At the top of the tree is a **Back** node that can be used to return to the previous level.

The following table lists the icons that are used to display the nodes making up the tree.

Icon	Meaning
	Indicates the Setting function (the root of the tree).
	Indicates that the node is used to return to the previous level.
	Indicates a folder used to store collected information.
	Indicates a system group.
	Indicates individual servers such as Proxy Managers and Agents.
	Indicates an instance defined by a middleware product, etc.
	Indicates a node for which information is to be set.
	Indicates a related tool.

Setup items

The following table lists the setup items that are available for each node of the **Setting View** tree.

Tree configuration				Location of description
Settings				--
	ConfigurationSettings			"1.2.2 Management configuration definition (ConfigurationSettings)"
		SystemGroups		"1.2.2.1 SystemGroups"
			ProxyManagers	"1.2.2.2 ProxyManagers"
			RelationTools	"1.2.2.4 RelationTools"
			ManagedObject	--

Tree configuration						Location of description
					ResponseCondition	--
					WebSites	"1.2.2.6 WebSites"
					Resources(URL)	"1.2.2.7 Resources (URL)"
					ServiceCondition	--
					HTTP	"1.2.2.8 HTTP/PORT/DNS/SMTP"
					PORT	
					DNS	
					SMTP	
		Agents				"1.2.2.3 Agents"
			RelationTools			"1.2.2.4 RelationTools"
			ManagedObject			--
				Instances		--
					Resources	"1.2.2.5 Resources"
				Interstage(TxnAnalysis)		--
					Work Units	--
					TxnIDs	"1.2.2.9 TxnIDs"
				TxnAnalysis(Sync/Async/OssJava)		--
				TxnTime		--
					TxnIDs	1.2.2.10 TxnIDs for TxnAnalysis(Sync), TxnAnalysis(Async), and TxnAnalysis(OssJava)
	UnregisteredAgents					"1.2.3 Unregistered Agents Information (UnregisteredAgents)"

1.2.2 Management configuration definition (ConfigurationSettings)

The **ConfigurationSettings** folder in the **Settings** tree is used to set the configuration information of objects to be managed. Be sure to make the following settings.

- 1.2.2.1 SystemGroups

- 1.2.2.2 ProxyManagers

- 1.2.2.3 Agents

Make the following settings if necessary.

- 1.2.2.4 RelationTools

- 1.2.2.5 Resources

- 1.2.2.6 WebSites

- 1.2.2.7 Resources (URL)

- 1.2.2.8 HTTP/PORT/DNS/SMTP

- 1.2.2.9 TxnIDs

1.2.2.1 SystemGroups

This node registers system groups.

System groups are for organizing the multiple servers that make up the system being managed.

System groups are specified as display units in the summary, analysis, and scheduled report views.

Managed host must belong to a group.

The **System Group Settings** window is shown below.
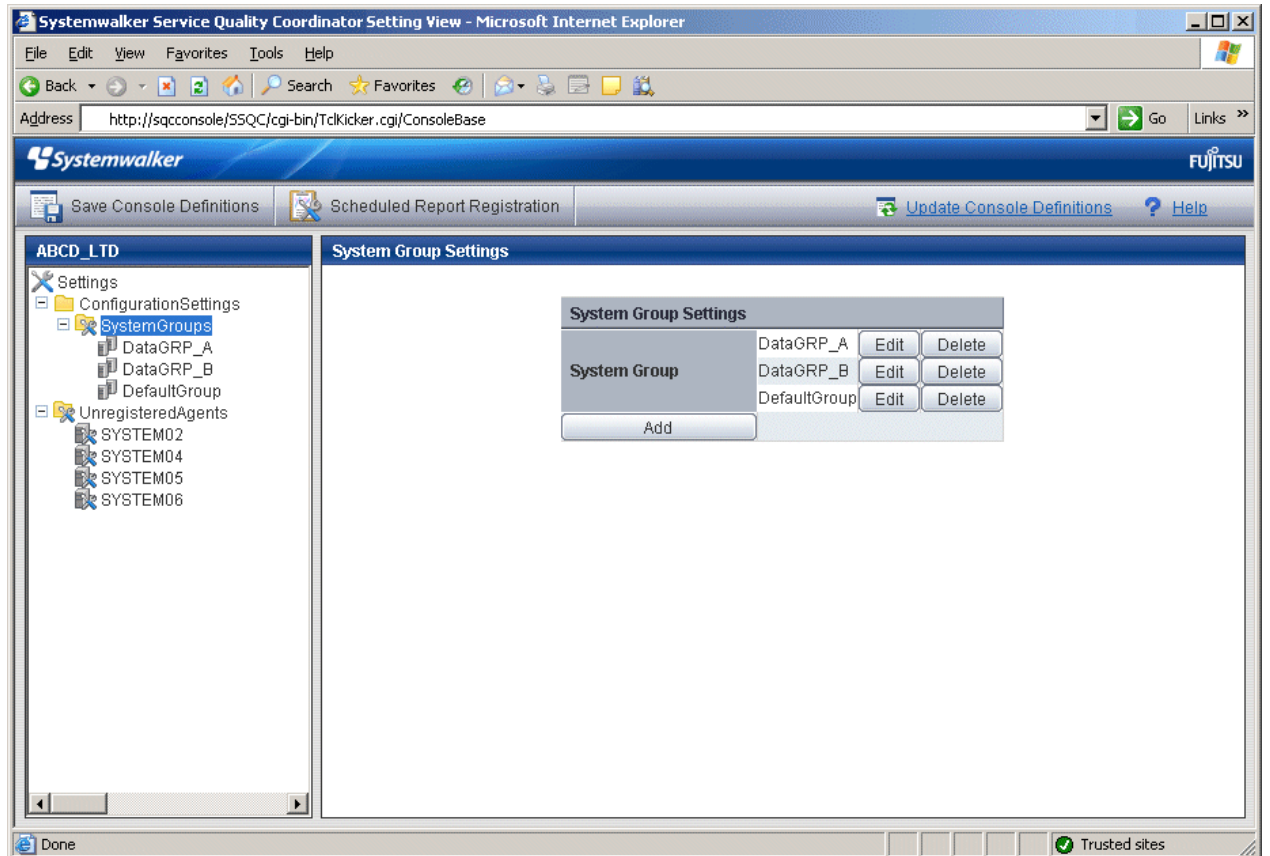
Procedure

1. Click the **Add** button to display the **System Group Information** window, and then set a system group name.

Node name	Setting item name	Description
SystemGroups	**System Group Name**	Set a display name that will be used to identify the system group. Set a name that is unique within the management configuration. Note, however, that it does not matter if the same name is also used as an Agent name or a Proxy Manager name. The following characters can be used for system group names: - Alphanumeric characters - Symbols (except for \ : , < > $ " ' [ ] = &)

Node name	Setting item name	Description
		Platform dependent characters can not be used. The system group name can be no longer than 64 characters.

2. When the systems group is registered, the ProxyManagers and Agents folders are created under the system group folder.

P Point
....

It takes longer time to display graphs including system group information like Summary view, according to the number of Agents registered to the system group.

It takes about 60 seconds when it manages 50 Agents, in case of that CPU of the Operation Management Client is Xeon 3.3 GHz only as a guide (It depends on the kind of monitor, period of data to be displayed, CPU performance of the Operation Management Client, and other conditions).

To shorten the time to display, create multiple system groups and divide the Agents to register.
....

1.2.2.2 ProxyManagers

This node registers Proxy Managers that will be managed.

If end user response information and server operational information is not to be collected, there is no need to set up this folder.

P Point
....
To collect information with a Manager and not a Proxy Manager, register the Manager as a Proxy Manager.
....

Proxy Manager registration can also be performed easily with the **Register Agent with System Group** window. Refer to "1.2.3 Unregistered Agents Information (UnregisteredAgents)" for details. Note that the **Register Agent with System Group** window cannot be used when "pull" operations are being performed. In such cases, use the **Proxy Manager Settings** window (shown below) instead.

Procedure

1. Click the **Add** button to display the **Proxy Manager Information** window, and then set information relating to the Proxy Manager.

Node name	Setting item name	Description
ProxyManagers	Proxy Manager Name	Specify the display name for identifying the Proxy Manager. Set a name that is unique within the management configuration. Note, however, that it does not matter if the same name is also used as a system group name or an Agent name. The following characters can be used for Proxy Manager names: - Alphanumeric characters - Symbols (except for \ : , < > $ " ' [ ] = &)

Node name	Setting item name	Description
		Platform dependent characters can not be used. The Proxy Manager name can be no longer than 64 characters.
	Host Name	Specify the identifier for the Proxy Manager. The same system name cannot be registered more than once within a single group, but identical host names can be registered in different groups. **🅿 Point** . . . . If a single Proxy Manager is used in multiple businesses, it is possible to create a system group for each business and to register the same Proxy Manager with each one. However, a different character string should be used in the ProxyManager name (display name). . . . . The identifier is a name that is displayed by the Policy Application Command. Refer to "A.3 sqcSetPolicy (Policy Application Command)" for details on the Policy Application Command.

2. Next, click either the **Update All** or the **Update Details** button to collect configuration information from the Proxy Managers. This configuration information is used for management purposes. If this operation is successful, the date and time that the configuration information was collected will be displayed to the left of the button.

📑 Note

. . . .

If the collection of configuration information fails, the collection date will not be updated. Check that the host name is correct, and that the Proxy Manager collection policy has been correctly created and applied.

If the following message appears in the **Collecting Configuration Information** window, the problems listed below may be the cause.

```
couldn't open socket: connection timed out
```

- The IP address of the Manager that was specified at installation time is incorrect.

- The Manager (its resident processes) is not running.

. . . .

3. When configuration information is collected, a folder named **ManagedObject** is created in the Proxy Manager that performed the collection.
The **ManagedObject** folder displays the following information targeted for collection by the Proxy Manager:

- End user response information

- Service operational information

🅿 Point

. . . .

The configuration information that is collected here refers to the managed object configuration information (response and configuration information for managed objects) explained in "A.2 Response/Operation Information Collection

Policy Setup Command" Therefore, collection policies described in "A.2 Response/Operation Information Collection Policy Setup Command" must be created and applied on either the Manager or the Proxy Manager in advance.

Also, the configuration information collection explained here must be performed each time collection policies are created and applied.

[For "Pull" communications]

For "pull" operations, another preliminary task must be performed before the settings in this window can be used to collect the configuration information. Perform the following procedure, and then click either the **Update All** or the **Update Details** button in the **Setting View**.

Procedure

Copy the managed object configuration information file from the managed server to the operation management client.

- The location of the file on the managed server is as follows:

[Windows]

Variable file directory\control\ManagedConf_XXXX.xml

[UNIX]

/etc/opt/FJSVssqc/ManagedConf_XXXX.xml

"XXXX" refers to the name that was specified with the *-h* option when the "A.3 sqcSetPolicy (Policy Application Command)" was executed. If the *-h* option was omitted, then this will be the host name of the system where this command was executed.

- Copy this file to the following location on the operation management client.

Installation directory\www\managedconf\ManagedConf_XXXX.xm

1.2.2.3 Agents

This node registers Agents that will be managed.

Point

Agent registration can also be performed easily with the **Register Agent with System Group** window. Refer to "1.2.3 Unregistered Agents Information (UnregisteredAgents)" for details. Note that the **Register Agent with System Group** window cannot be used when "pull" operations are being performed. In such cases, use the **Agent Settings** window (shown below) instead.

The **Agent Settings** window is shown below.

Procedure

1. Click the **Add** button to display the **Agent Information** window, and then set information relating to the Agent.

Node name	Setting item name	Description
Agents	**Agent Name**	Specify the display name for identifying the Agent.
		Set a name that is unique within the management configuration. Note, however, that it does not matter if the same name is also used as a system group name or a ProxyManger name.
		The following characters can be used for Agent names:
		- Alphanumeric characters
		- Symbols (except for \ : , < > $ " ' [ ] = &)
		Platform dependent characters can not be used.
		The Agent name can be no longer than 64 characters.

Node name	Setting item name	Description
	Host Name	Specify the identifier for the Agent.
		The same host name cannot be registered more than once within a single group, but identical system names can be registered in different groups.
		If a single Agent is used in multiple businesses, it is possible to create a system group for each business and to register the same Agent with each one. However, a different character string should be used in the Agent name (display name).
		The identifier is a name that is displayed by the Policy Application Command. Refer to "A.3 sqcSetPolicy (Policy Application Command)" for details on the Policy Application Command.
		🅿 Point
		For clustered Agent operations, specify either a physical host name or a physical IP address.

2. Next, click either the **Update Details** or the **Update All** button to collect the configuration information from the Agents on the managed server. This configuration information is used for management purposes. If this operation is successful, the date and time that the configuration information was collected will be displayed to the left of the button.

🅿 Point

If the collection of configuration information fails, the collection date will not be updated. Check that the host name is correct, and that the Agent collection policy has been correctly created and applied.

If the following message appears in the **Collecting Configuration Information** window, the problems listed below may be the cause.

```
couldn't open socket: connection timed out
```

- The IP address of the Manager that was specified at installation time is incorrect.

- The Manager (its resident processes) is not running.

3. When configuration information is collected, a folder named **ManagedObject** is created in the Agent that performed the collection.

The configuration information targeted for collection by the Agent will be displayed within the **ManagedObject** folder.

🅿 Point

The configuration information that is collected here refers to the managed object configuration information (resource configuration information) explained in "A.1 Server Resource Information Collection Policy Setup Command". Therefore, collection policies described in "A.1 Server Resource Information Collection Policy Setup Command" must be created and applied on the Agent in advance.

Also, the configuration information collection explained here must be performed each time collection policies are created and applied.

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[For "Pull" communications]

For "pull" operations, another preliminary task must be performed before the settings in this window can be used to collect the configuration information. Perform the following procedure, and then click either the **Update All** or the **Update Details** button in the **Setting View**.

Procedure

Copy the managed object configuration information file from the managed server to the operation management client.

- The location of the file on the managed server is as follows:

[Windows]

```
Variable file directory\control\ManagedConf_XXXX.xml
```

[UNIX]

```
/etc/opt/FJSVssqc/ManagedConf_XXXX.xml
```

"XXXX" refers to the name that was specified with the *-h* option when the "A.3 sqcSetPolicy (Policy Application Command)" was executed. If the *-h* option was omitted, then this will be the host name of the system where this command was executed.

- Copy this file to the following location on the operation management client.

```
Installation directory\www\managedconf\ManagedConf_XXXX.xml
```

1.2.2.4 RelationTools

When Proxy Managers and Agents are registered, a folder named "RelationTools" will be created.

To call the related tools (that can be called from URLs) from this product's Drilled-Down display, set up this folder as well.

The **Related Tool Settings** window is shown below.
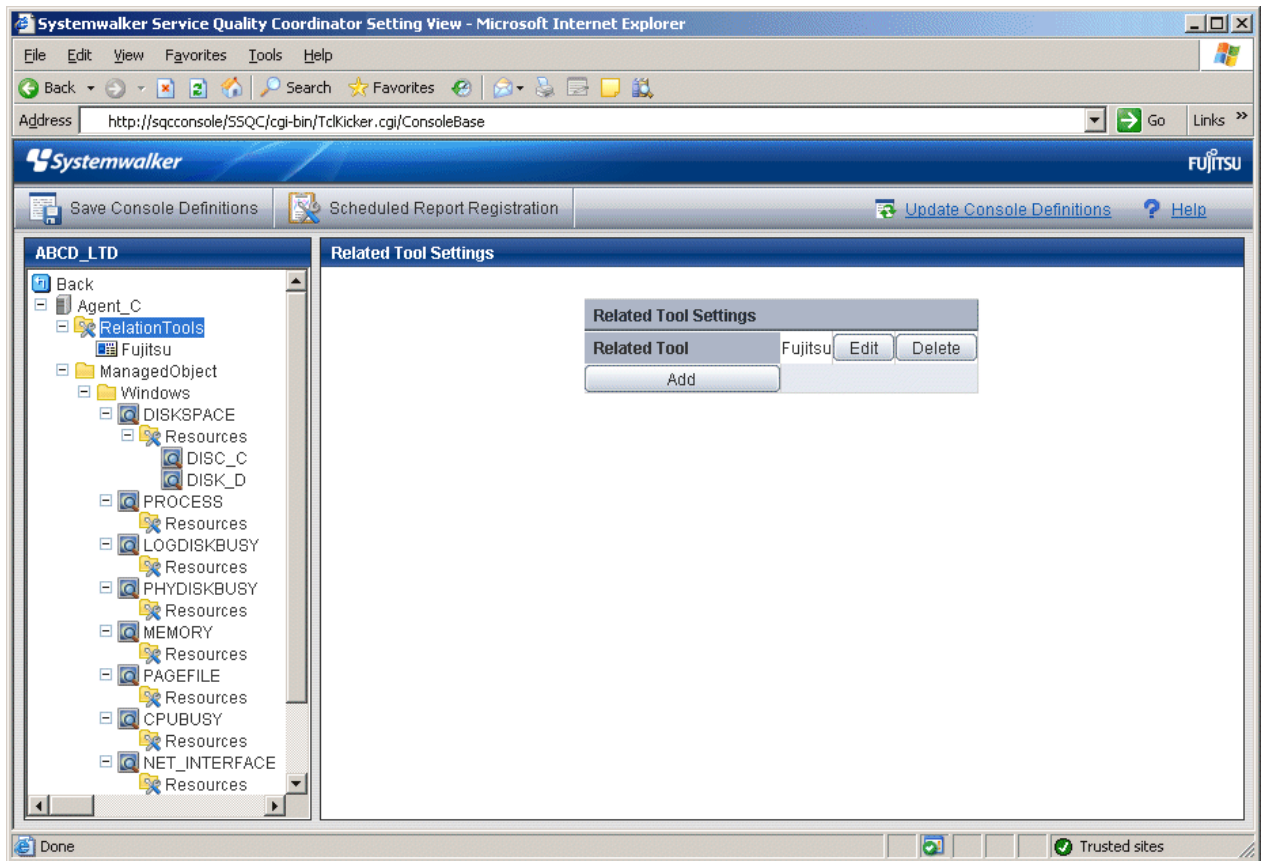
Procedure

Click the **Add** button to display the **Related Tool Information** window, and then set information relating to the related tool.

Node name	Setting item name	Description
RelationToo ls	**Related Tool Name**	Specify the display name for identifying the tool. The following characters can be used for related tool names: - Alphanumeric characters - Symbols (except for \ : , < > $ " ' [ ] = &) Platform dependent characters can not be used. The related tool name can be no longer than 64 characters. Existing related tool name cannot be used.
	URL	Specify the URL to call.

1.2.2.5 Resources

This node is defined when it is necessary to display more specific resource content than the standard display unit in the Drilled-Down display of this product.

Refer to "3.2.3.3 Displaying resources" for details on displaying resources with the Drilled-Down display function.

The **Resource Settings** window is shown below.
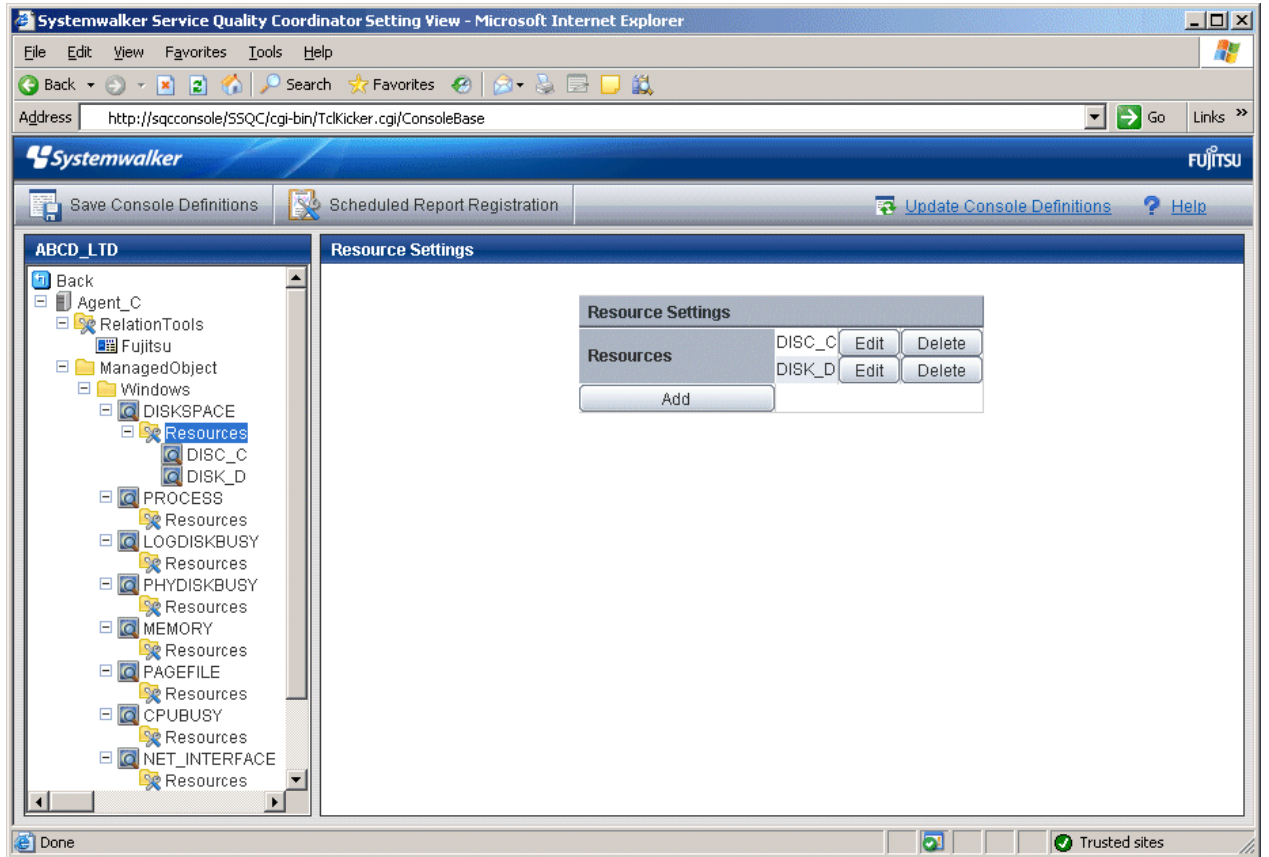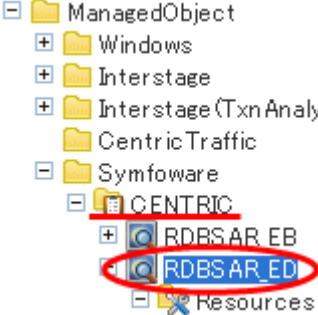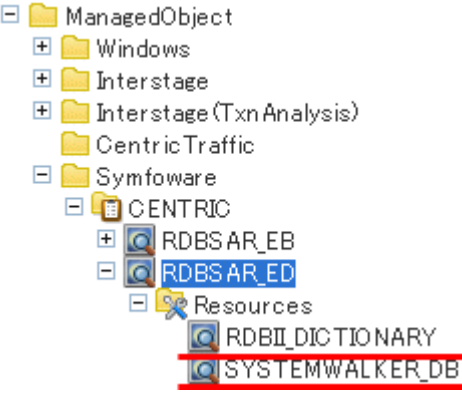
Procedure

1. Click the **Add** button to display the **Resource Information** window, and then set information relating to the resource.

Node name	Setting item name	Description
Resources	**Resource Name**	Specify the display name for identifying the resource.
		Set a name that is unique within the target **Resources** folder
		The following characters can be used for resource names:
		- Alphanumeric characters
		- Symbols (except for \ , < > $ " ' [ ] = &)
		Platform dependent characters can not be used.
		The resource name can be no longer than 64 characters.
	Resource ID	This is a character string displayed in the **Resource ID** column of the Drilled-Down display content that is used to filter display items by the resource.

Node name	Setting item name	Description
		If the resource ID consists of multiple strings separated by colons (":") and the separated strings appear in the Drilled-Down tree between the **ManagedObject** node and the target node as nodes that represent instances, specify the strings below the instance node. Example: When "RDBSAR_ED" is selected, the following strings are displayed in the **Resource ID** column of the Drilled-Down display content: In addition, "CENTRIC" appears in the tree as a node that represents an instance. In this case, specify "RDBII_DICTIONARY" and "SYSTEMWALKER_DB" that appear below "CENTRIC". Resource IDs can be filtered using a prefix. Instead of specifying the entire resource ID, it is possible to specify only the initial portion that needs to be matched. Specify a resource ID name that is unique within the **Resources** folder. Up to 64 characters (alphanumeric characters and symbols) can be used for the resource ID except for the following: \ , < > " $ ' [ ] = &

1.2.2.6 WebSites

By obtaining the configuration information, it becomes possible to check the configuration information relating to end user response management that was obtained from a Proxy Manager.

Precondition of function

This node is displayed only if "Managed object configuration information (response and managed object configuration information)" explained in "A.2 Response/Operation Information Collection Policy Setup Command" has been defined.

The **Web site operation status** window is shown below.
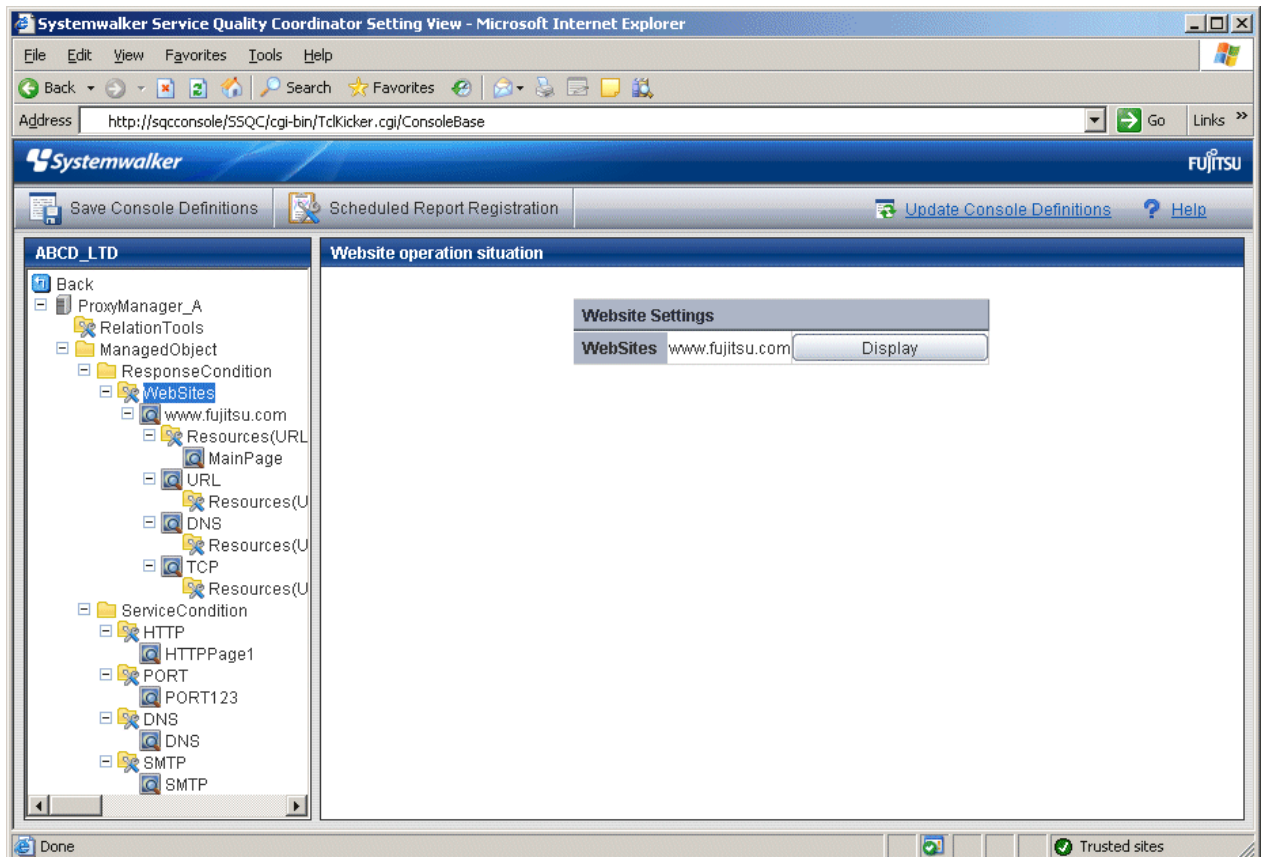
Procedure

1. Click the **View** button to display a Web site information window.
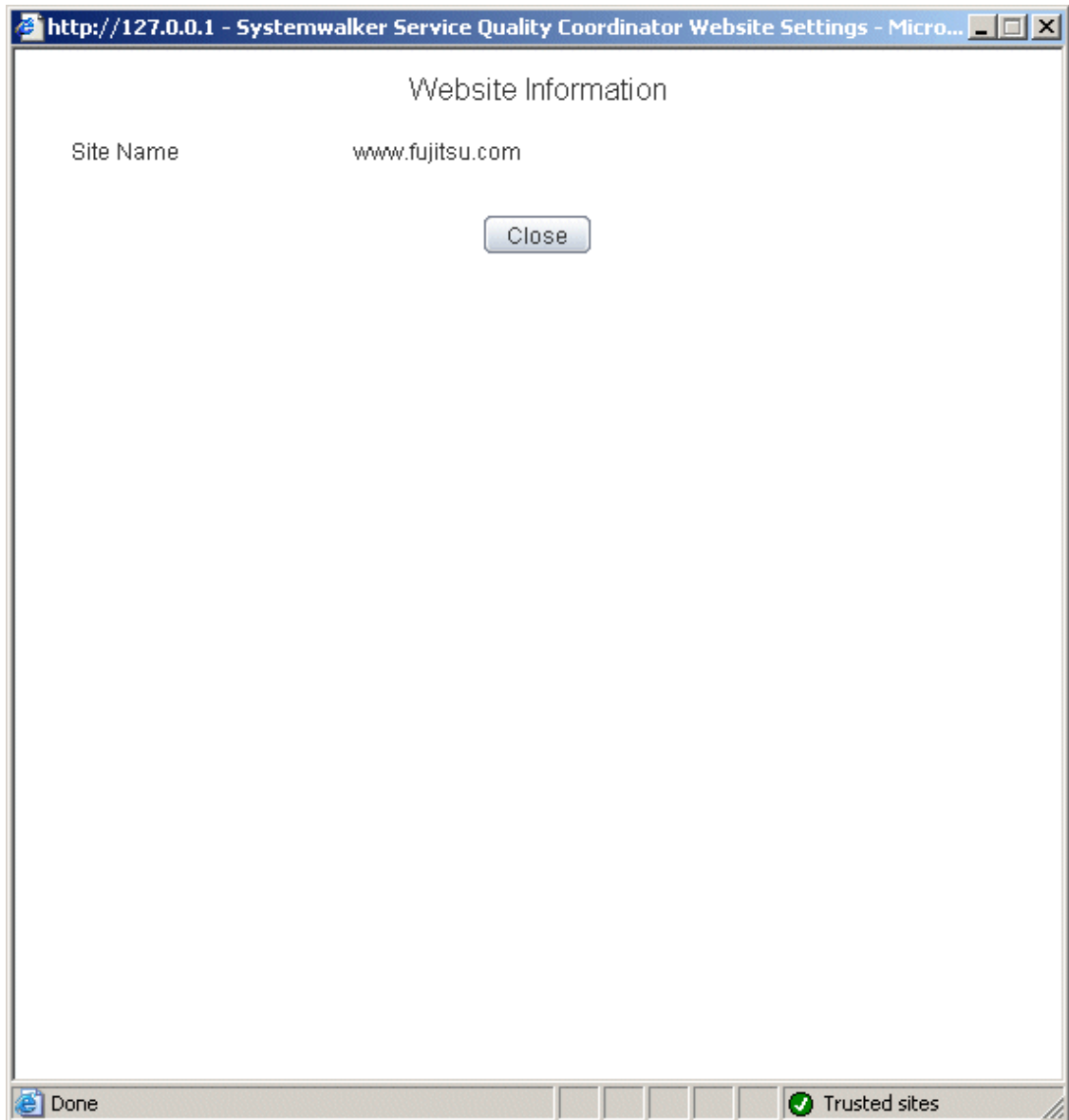
Node name	Display item name	Displayed content
WebSites	**Site Name**	Displays the site name defined by end user response management on a Manager or Proxy Manager.

1.2.2.7 Resources (URL)

This node is defined when it is necessary to display more specific resource content than the standard display unit in the Drilled-Down display of this product.

The URL of a Web page that has been fully downloaded (i.e., no error occurs when the Web page is displayed and the display is not interrupted) is set as a specific resource.

Refer to "3.2.3.3 Displaying resources" for details on displaying resources with the Drilled-Down display function.

The **Resource(URL) Settings** window is shown below.

Procedure

1. Click the **Add** button to display the **Resource(URL) Information** window, and then set information relating to the resource.

Node name	Setting item name	Description
Resources(URL)	**Resource Name**	Specify the display name for identifying the resource. Set a name that is unique within the target **Resources** folder The following characters can be used for resource names: - Alphanumeric characters - Symbols (except for \ , < > $ " ' [ ] = &) Platform dependent characters can not be used. The resource name can be no longer than 64 characters.

Node name	Setting item name	Description
	Resource ID (URL1) **Resource ID (URL2)**	Normally, set URL1 only. Note, however, that different URLs can point to the same Web page, as shown in the following example: http://www.fujitsu.com/SQC/ http://www.fujitsu.com/SQC/index.html To view these two URLs together as a single Web page, use URL2 in combination with URL1 and set as follows: URL1: /SQC/ URL2: /SQC/index.html Up to 64 characters (alphanumeric characters and symbols) can be used for the resource ID except for the following: $ \ " ' [ ] < > = & ^ | { } ( ) # * ; ? ,

1.2.2.8 HTTP/PORT/DNS/SMTP

These nodes can be used to verify the configuration information of service operation management that is collected from a Proxy Manager.

Precondition of function

These nodes are displayed only if "Managed object configuration information (response and managed object configuration information)" explained in "A.2 Response/Operation Information Collection Policy Setup Command" has been defined.

The **Service Operation Status** window is shown below.

Procedure

1. Click the **View** button to display a service information window.
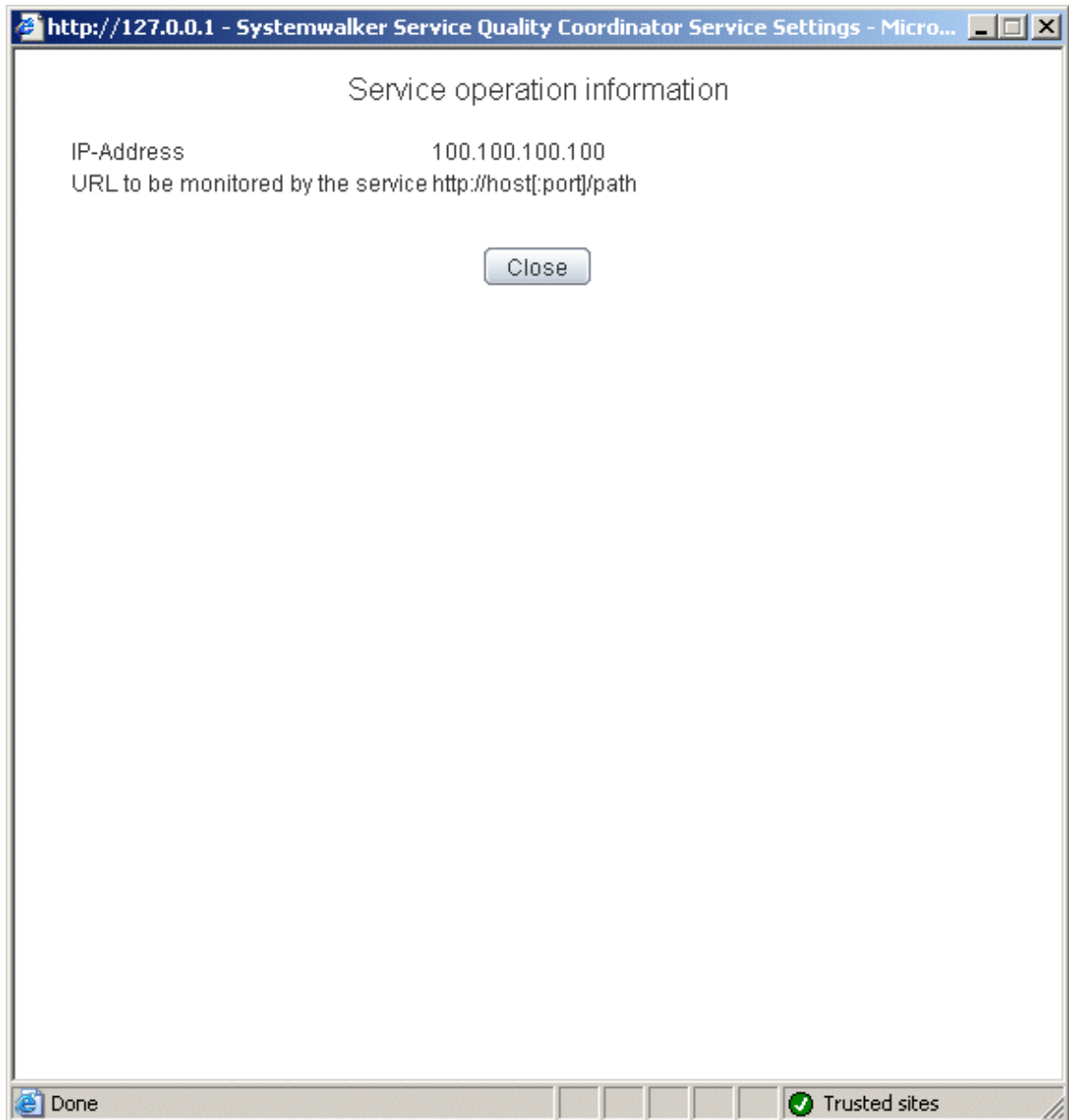
Node name	Display item name	Displayed content
HTTP	**IP-Address**	Displays the IP address defined by HTTP service operation management on a Manager or Proxy Manager.
	URL to be monitored by the service	Displays the URL to be subject to service monitoring defined by HTTP service operation management on a Manager or Proxy Manager.
PORT	**IP-Address**	Displays the IP address defined by port service operation management on a Manager or Proxy Manager.
	Port	Displays the port defined by port service operation management on a Manager or Proxy Manager.

Node name	Display item name	Displayed content
DNS	**IP-Address**	Displays the IP address defined by DNS service operation management on a Manager or Proxy Manager.
	Port	Displays the port defined by DNS service operation management on a Manager or Proxy Manager.
	Resolved DNS host name	Displays the host name resolved by DNS that is defined by DNS service operation management on a Manager or Proxy Manager.
SMTP	**IP-Address**	Displays the IP address defined by SMTP service operation management on a Manager or Proxy Manager.
	Port	Displays the IP address defined by SMTP service operation management on a Manager or Proxy Manager.

1.2.2.9 TxnIDs

This node is defined when it is necessary to display content that focuses on specific transaction IDs when displaying transaction breakdown analysis from the **Interstage(TxnAnalysis)** node in the Drilled-Down display of this product.

For an overview of transaction breakdown analysis, refer to Section 1.1.2, "Transaction breakdown analysis" in the *User's Guide* and "3.2.4.3 Interstage(TxnAnalysis)tree" of this manual.

The **Transaction ID Settings** window is shown below.

Procedure

1. Click the **Add** button to display the **Transaction ID Information** window, and then set a transaction ID.

Node name	Setting item name	Description
TxnIDs	**Transaction ID**	Confirm the multiple transaction IDs that are displayed when an upper level Work Unit node is selected, and then set the transaction ID to be viewed.
		Extract and specify the transaction ID part from the resource IDs displayed in the **Resource ID** column of the content displayed by selecting the Work Unit node.
		If the resource IDs appear as follows:
		"*Work Unit name:transaction ID:component type:...*" Then, specify the transaction ID in the following format:
		transaction number(process ID)

Node name	Setting item name	Description
		P **Point** · The transaction number is a serial number within the process. If Work Unit process concurrency is set to a value of 2 or more, there is a chance that the transaction number will be duplicated. For this reason, the process ID should be specified as well. · The transaction ID and subsequent resource IDs are filtered using their prefix. It is possible to specify the component type after the transaction ID. Set a transaction ID that is unique within the target TxnIDs folder. Up to 64 characters (alphanumeric characters and symbols) can be used for the transaction ID except for the following: \ , < > " $ ' [ ] = &

1.2.2.10 TxnIDs for TxnAnalysis(Sync), TxnAnalysis(Async), and TxnAnalysis(OssJava)

This node is defined when it is necessary to display content that focuses on specific transaction IDs when displaying transaction breakdown analysis from the **Interstage (Sync) Interstage (Async)** or **TxnAnalysis(OssJava)** node in the Drilled-Down display of this product.

For an overview of transaction breakdown analysis, refer to "3.2.4.3 Interstage(TxnAnalysis)tree" of this manual.

The **Transaction ID Settings** window is shown below.

Procedure

1. Click the **Add** button to display the **Transaction ID Information** window, and then set a transaction ID.

Node name	Setting item name	Description
TxnIDs	Transaction ID	Set the transaction ID by referring to the TransactionID_map in the Drilled-Down display window, which shows the correspondences between transaction IDs and the context IDs for transactions.

1.2.3 Unregistered Agents Information (UnregisteredAgents)

The UnregisteredAgents tree in the Settings tree displays the host names of Agents that have been fully installed on the Agent side but have not been registered with the management configuration definition on the operation management client side. (This also applies to agents for Agent-based Monitoring, agents for Agentless Monitoring and Proxy Managers.)

Point

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If Systemwalker Service Quality Coordinator is linked with Systemwalker Resource Coordinator (server provisioning) (refer to Section 1.7, "Linking to Systemwalker Resource Coordinator (server provisioning)"), a host name will be displayed in the form "*server group name-host name*" when server resource allocation (software image distribution to managed servers) is performed.

When an Agent that is displayed in the tree is selected, the **Register Agent with System Group** window will be displayed.

If this window is used to specify one or more system groups where Agents or Proxy Managers will be allocated, the Agents or Proxy Managers (or both) will be identified automatically, and they can then be collectively registered with appropriate system groups and their configuration information collected.

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If there is an unregistered Agent, the message "Unregistered Agent exists" will flash in the status bar of the **Setting View**, the **Console** window, and the **Analysis** window. This means that the existence of an unregistered Agent can be seen even if the **Setting View** is not open.

This message will stop being displayed when all unregistered Agents have been allocated to system groups.

1.2.3.1 Registering Information about Unregistered Agents

1.2.3.1.1 When Register Unregistered Agent in Bulk

Unregistered Agent can be distributed to the one specified system group in bulk. As a result, Agent or Proxy Manager (or the both) is distinguished automatically, and registration and collection of the configuration information are done together.

Starting

If Unregistered Agents tree is clicked on the definition display tree, [Register Agent to System Group] screen will be displayed.

Node name	Setting item name	Description
Unregistered Agents	System Group	Specify the system group of the registration destination.
	Display Name	This corresponds to the Agent name specified in the **Agent Information** window. Set a name that is unique within the management configuration. (The system name is set by default.) The following characters can be used for display names: - Alphanumeric characters - Symbols (except for \ : , < > $ " ' [ ] = &) Platform dependent characters can not be used. The display name can be no longer than 64 characters.

Procedure

1. Specify the system group of the registration destination

   If the system group is not yet registered, a group called "DefaultSystemGroup" will be displayed.

   The process of allocating Agents to DefaultSystemGroup will cause a system group named "DefaultSystemGroup" to be automatically created at the same time.

2. Check the check box of the Agent to distribute. If the checkbox on the table title is clicked, checkbox of all Agent will be on or off.

3. Click the **Apply** button.

   The following confirmation dialog box will be displayed.
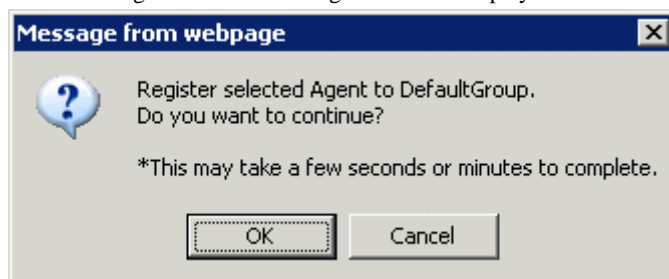
   Click the **OK** button, then the registration is done.

   Click the **Cancel** button to return to the original window without performing registration processing.

1.2.3.1.2 When Register Unregistered Agent Individually

Unregistered Agent can be distributed to the specified system groups. As a result, Agent or Proxy Manager (or the both) is distinguished automatically, and registration and collection of the configuration information are done together.

Starting

If an Agent displayed under the Unregistered Agents tree is clicked on the definition display tree, [Register Agent to System Group] screen will be displayed.

Node name	Setting item name	Description
Host name of unregistered agent	**System Group**	Select the checkbox for the system group to which the unregistered Agent is to be allocated.
	Display Name	This corresponds to the Agent name specified in the **Agent Information** window.
		Set a name that is unique within the management configuration. (The system name is set by default.)
		The following characters can be used for display names:
		- Alphanumeric characters
		- Symbols (except for \ : , < > $ " ' [ ] = &)
		Platform dependent characters can not be used.
		The display name can be no longer than 64 characters.

Procedure

Select the checkboxes for the system groups to which the unregistered Agents are to be allocated, and then click the **Apply** button below the image.

If the system group is not yet registered, a group called "DefaultSystemGroup" will be displayed.

The process of allocating Agents to DefaultSystemGroup will cause a system group named "DefaultSystemGroup" to be automatically created at the same time.

1.2.3.2 Deleting information about unregistered Agents

This section explains the procedure for deleting Agents (including Proxy Managers) listed in the UnregisteredAgents tree from Console.

Preconditions

This function is only valid if there is only one set of configuration management information registered in the PDB of the Manager environment that the operation management client is connected to. Agents will only be deleted from the PDB in the Enterprise Manager or Manager environment that the operation management client is connected to.

If there are multiple sets of configuration management information, use the sqcPDBerase command (described in Section 1.7.3, "sqcPDBerase (Data Deletion Command)" in the *Reference Guide*) to delete the data from the PDB so that it is not displayed.

If the operation management client is connected to a Manager in a two-tier configuration model, only the Manager that the operation management client is connected to will be affected.

Starting

1. If Unregistered Agents tree is clicked on the definition display tree, [Register Agent to System Group] screen will be displayed.

2. If [Unregistered Agent delete] tab is clicked, [Unregistered Agent delete] screen will be displayed.
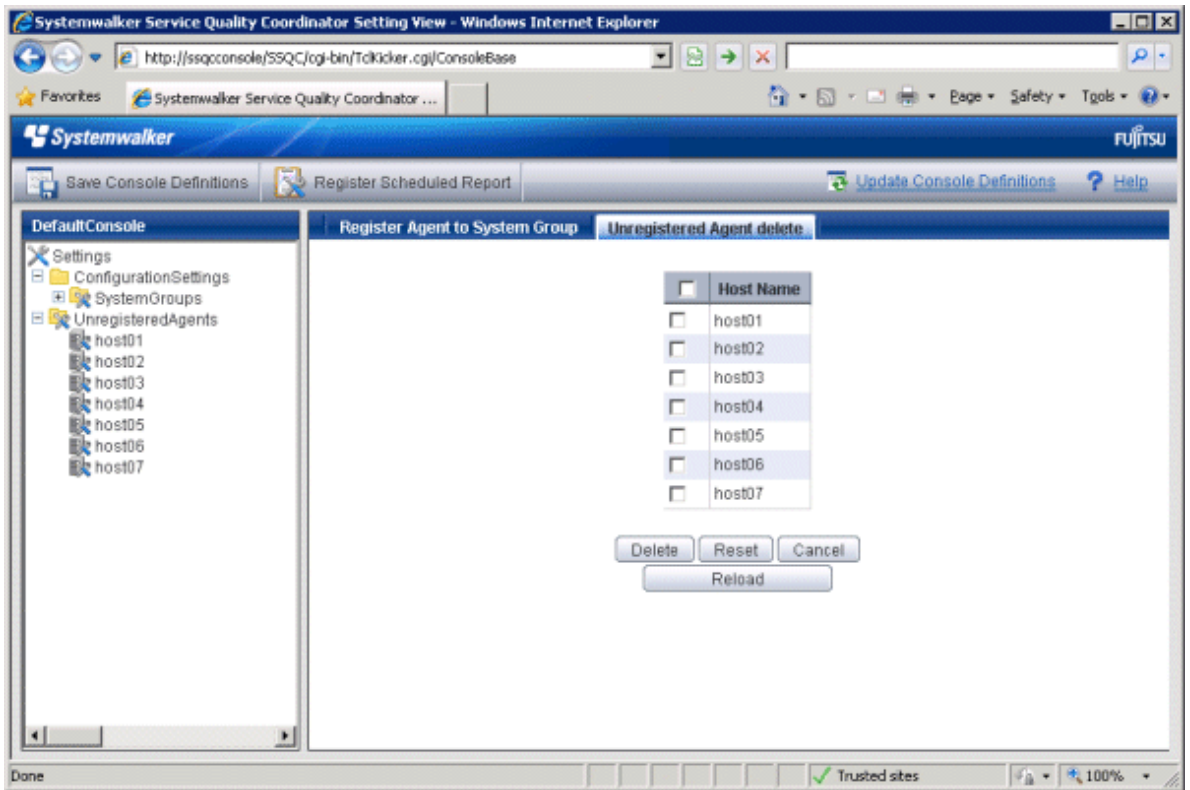
Node name	Setting item name	Setting content
UnregisteredAgents	**Delete**	Select the checkboxes for the unregistered Agents to be deleted.
	Host Name	The display names for the unregistered agents are displayed in the **Unregistered Agent List Registration** window.

Procedure

1. Click on the **Unregistered** tree to display the **Unregistered Agent List Registration** window in the pane on the right-hand side of the window.

2. Select which Agents to delete.

   Select the checkboxes on the left-hand side of the names of the unregistered Agents to be deleted. Multiple Agents can be specified.

3. Click on the **Delete** button at the bottom of the window.

   The following confirmation dialog box will be displayed.
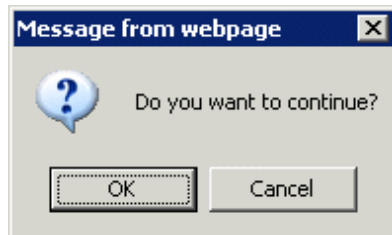
   Click the **OK** button to start the deletion processing.

   Click the **Cancel** button to return to the original window without performing deletion processing.

🅿 Point

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If the **Unregistered agent delete** tab is clicked in an environment where multiple console definitions have been made, a window will be displayed indicating that this function cannot be used.

. . . .
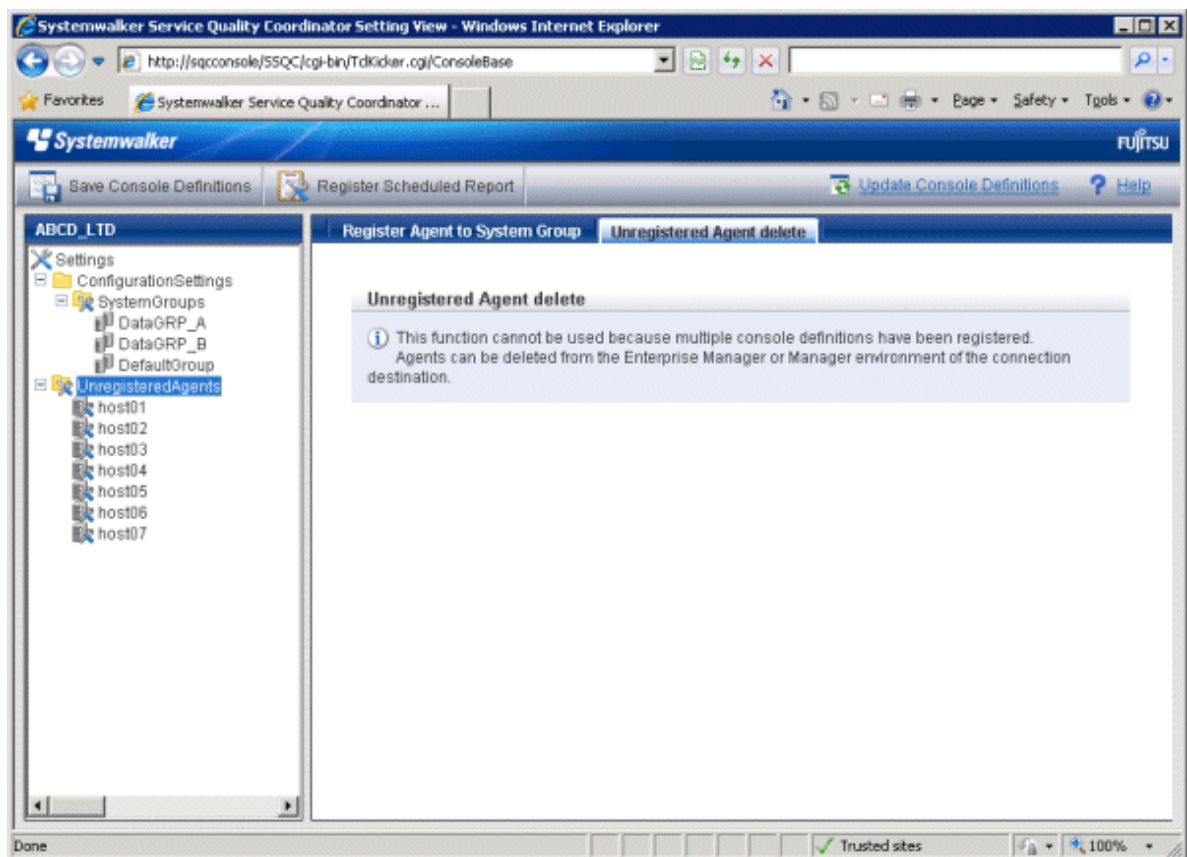
Deleting Agents and Proxy Managers that have already been registered with SystemGroups

1. Select the SystemGroups tree where the Agents or Proxy Managers are registered, and display the Agent/Proxy Manager list window.

2. Clicking on the **Delete** button next to the name of an Agent (or Proxy Manager) moves the Agent (or Proxy Manager) from the **SystemGroups** tree to the **UnregisteredAgents** tree.

3. Delete the Agent (or Proxy Manager) using the procedure in Section, "1.2.3.2 Deleting information about unregistered Agents".

Reregistering Agents or Proxy Managers that have been deleted

To enable Agents (or Proxy Managers) that have been deleted using this function to be registered in the Console again, execute "A.3 sqcSetPolicy (Policy Application Command)" in the environment for the Agent (or Proxy Manager).

1.3 User Definitions Window

This section explains the **User Definitions** window.

The **User Definitions** window can be used to create or edit user definitions, or to make settings for each user.

The **User Definitions** window is displayed by clicking the **User Definitions** tab in the **Management Console**.

Window Configuration
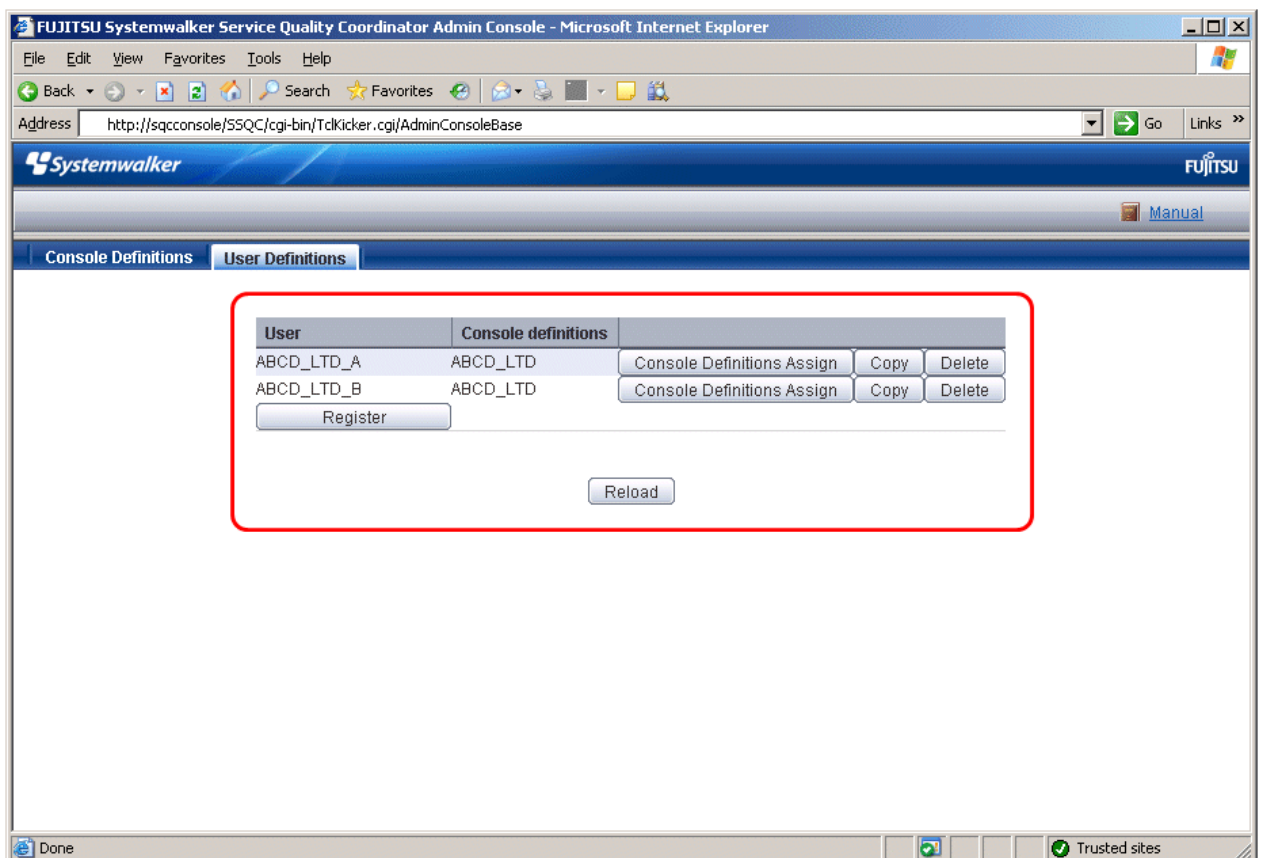
Basic operation

The **User Definitions** window contains a number of operation buttons.

The following table explains the operation of each button.

Button	Operation
Register	Registers a new user definition. After clicking this button, enter the name of the user definition to be created in the prompt that is displayed. The following characters can be used for user names: - Alphanumeric characters - Symbols (other than $\"',:[]<>=&/*?) Platform dependent characters can not be used. "AdminConsole" and "admin" cannot be used as a user name. User names are not case sensitive. The user name can be no longer than 64 characters. Existing user names cannot be used.
Console Definitions Assign	Assigns the console definition to be used by this user. Generates the HTML that is started when a user starts the Console. To set up basic authentication for the HTML that users start, refer to Section 5.3, "How to Set Up Basic Authentication for Operation Management Clients" in the *Installation Guide*.
Copy	Copies the specified user definition with the specified name. After clicking this button, enter the name of the user definition to be copied in the prompt that is displayed. Existing user names cannot be used. **Note** ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． Launch HTML cannot be copied. ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．
Delete	Deletes the specified user definition.
Reload	Displays user definitions using the latest information.

1.3.1 User Definition Registration

Select the console definition to be used from the **Register User Definition** window that appears when the **Console Definitions Assign** button is clicked.
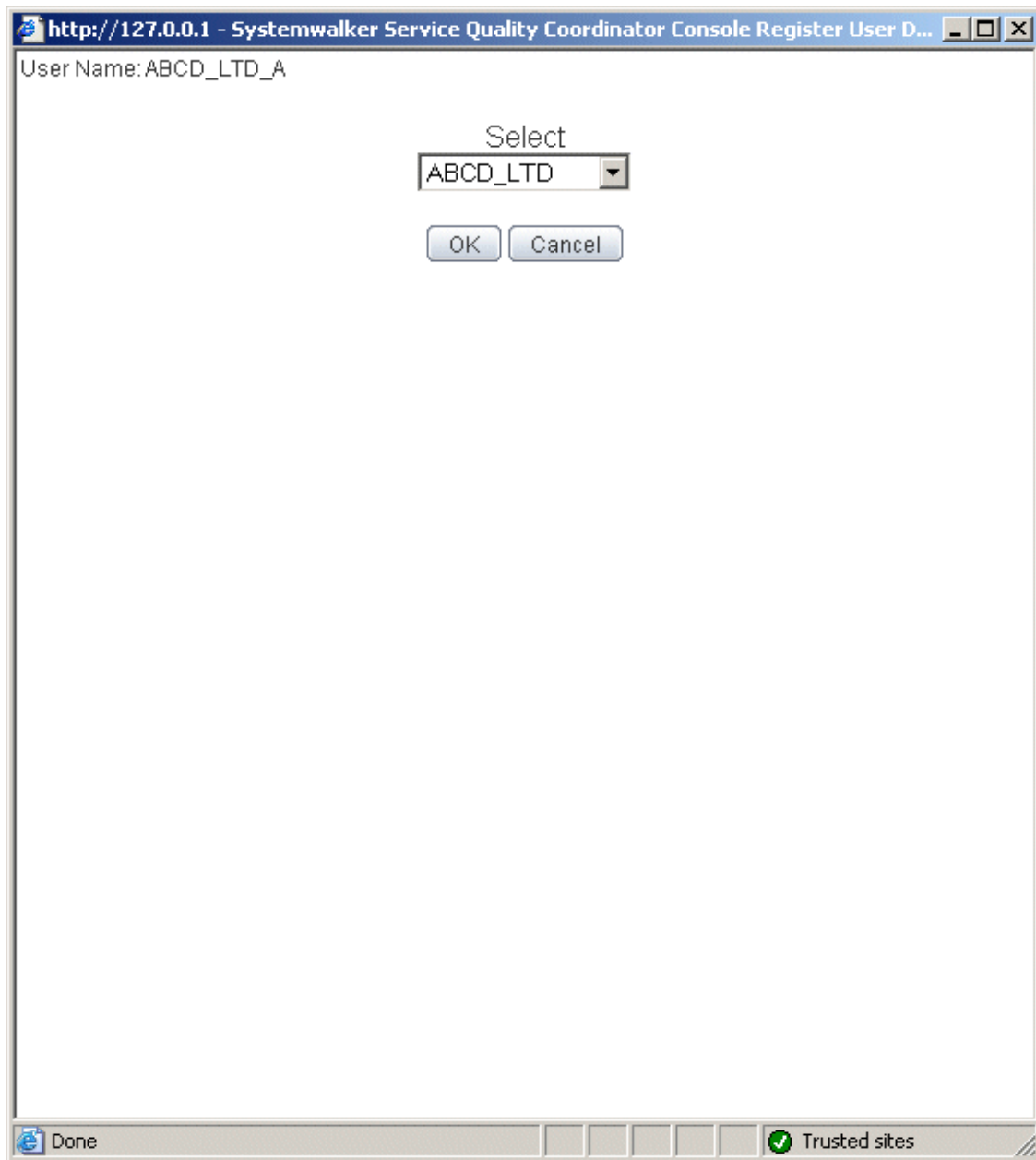
Setting item name	Description
Console Definitions	Select the console definition to be used from the list of current console definitions.

An html file with the user name is created when a user definition is registered, and at the same time, the Admin Console is reloaded and the console definition that has been assigned is added to the line for the user.

Chapter 2 Console

This chapter explains the Operation Management Client console.

This is the main window of the product. It is composed of the global header, the global navigation bar, and a display area. The display area contains the following three types of display, which are explained in chapters 3 and 4:

- **Monitoring** window

- **Analysis** window

- **Scheduled Report** View

Starting the Console

The **Admin Console** window is started by specifying the following URL in a Web browser.

> http://*Host name for operation management client*/SSQC/AdminConsole.html

Or

> http://host name of the operation management client/SSQC/XXX.html

The "XXX" part of the second URL is a user name that has been registered in "1.3 User Definitions Window".

To enter user names, first make basic authentication settings for each user by referring to Section 5.3, "How to Set Up Basic Authentication for Operation Management Clients" in the *Installation Guide*.

To start the Console from the Admin Console, click on the **Console** button on the **Console Definitions** tab of the **Admin Console** window.
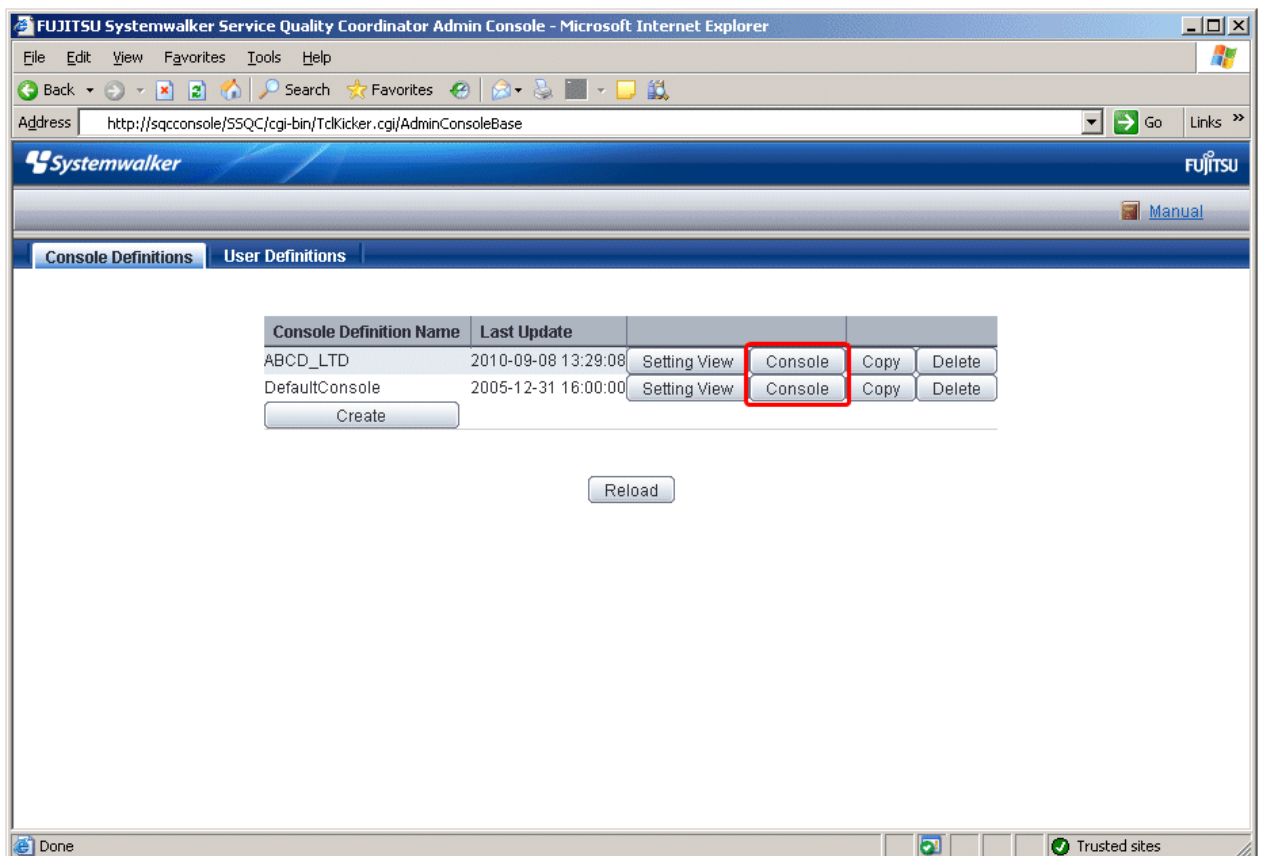
Note

- If the browser is equipped with a pop-up blocking function, the Console will not open in a separate window. The pop-up blocking function should be disabled in such cases.

- The Console uses JavaScript. If JavaScript is not enabled, the Console will not open in a separate window. JavaScript should be enabled in such cases.

- Do not use the pop-up context menu that is displayed when the right mouse button is clicked to perform operations on the Console window.

- When the Console is started, the message below might be displayed.
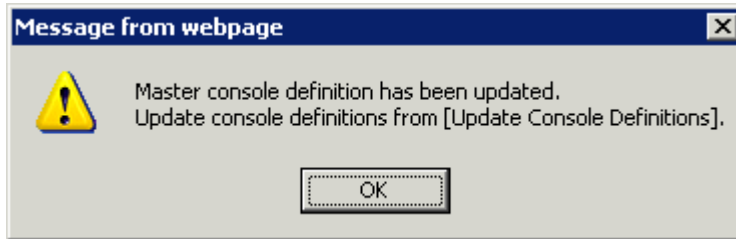
In this case, click **OK** and then click **Update Console Definition** on the displayed Console.
The update might take a few moments, depending on the number of registered Agents.

About the graphs

The graphs displayed in the console have the following peculiarities.

- When you display in line graphs information collected at different intervals from different agents (for example information from a server with an Agent installed and information from a server being monitored by an agent for Agentless Monitoring), the display may be affected. Create system groups of Agents that have the same collection intervals.

Example
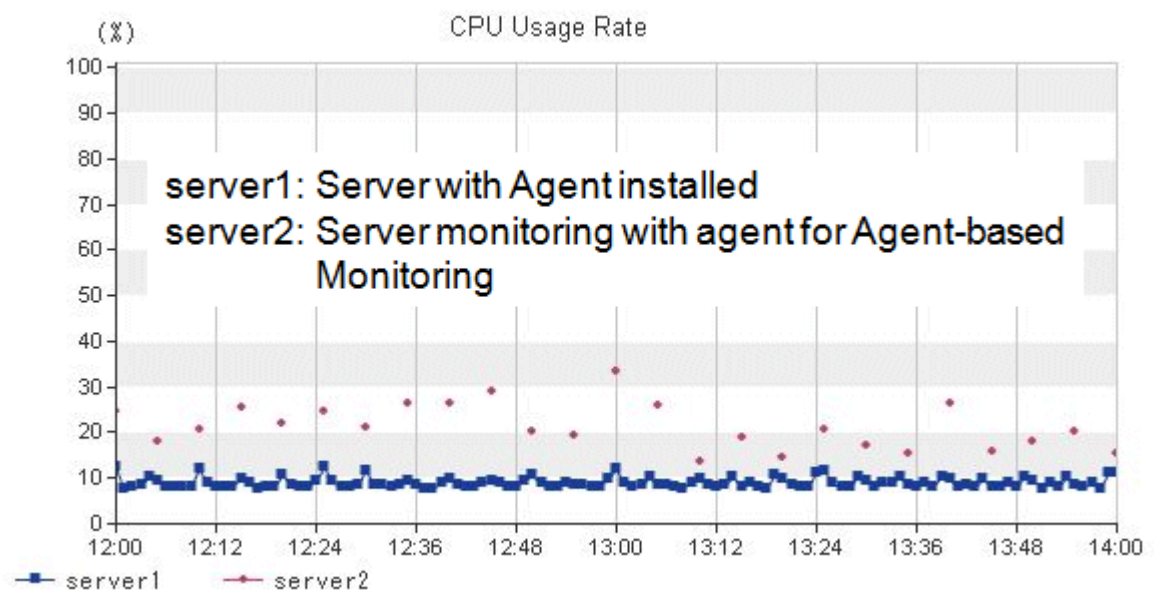
- In the summary view, when multiple Agents are displayed in a line graph and some of the Agents have been stopped, the times when they are stopped are not displayed.
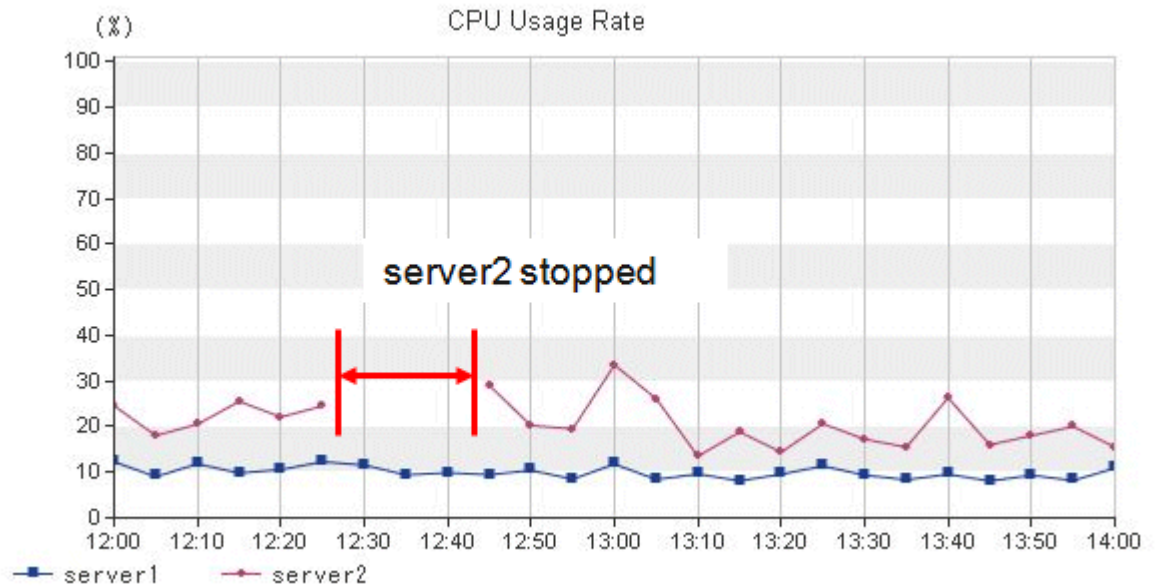
- In the summary view, when all monitored Agents have stopped and information is not being collected, the times when performance information is not being collected are not displayed in the line charts and area charts.

- In the analysis window and Scheduled Reports window, when Agents have stopped, the performance values at times when they are stopped are not displayed in the line charts and area charts.

Example
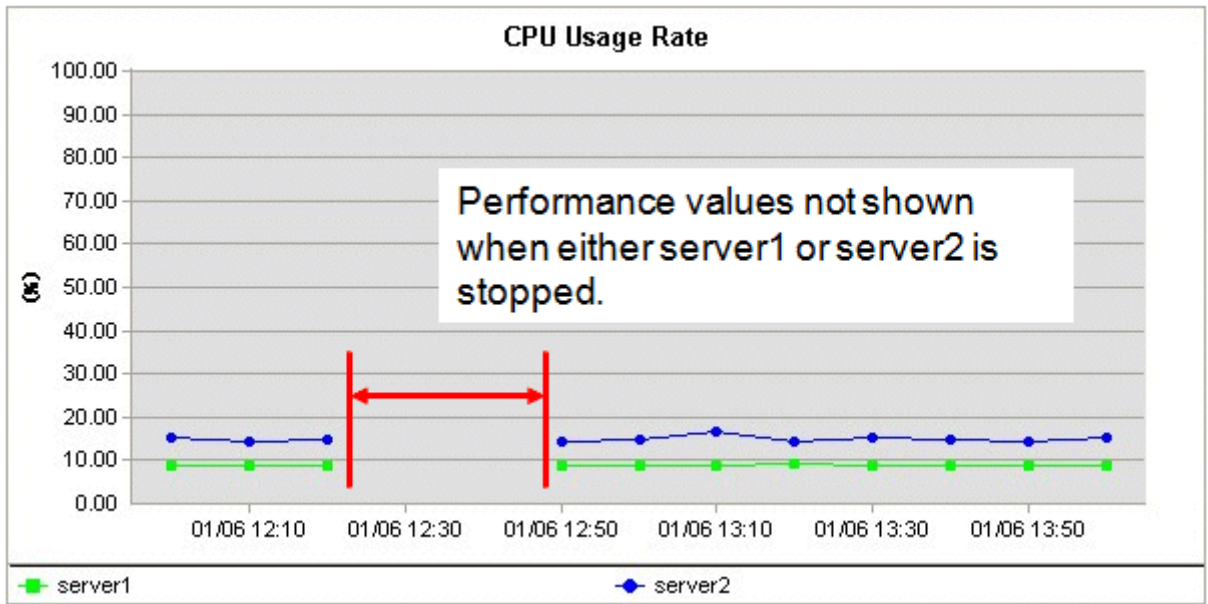
- In graphs other than those showing percentages in the full system inspection analysis/report and categorized diagnostic analysis/report, and in graphs in the detailed analysis/report, values may not be shown in the vertical axis of the graph. Look at the values in the tables to confirm.

  The above condition occurs when the performance values in the specified period are constantly "0".

Example
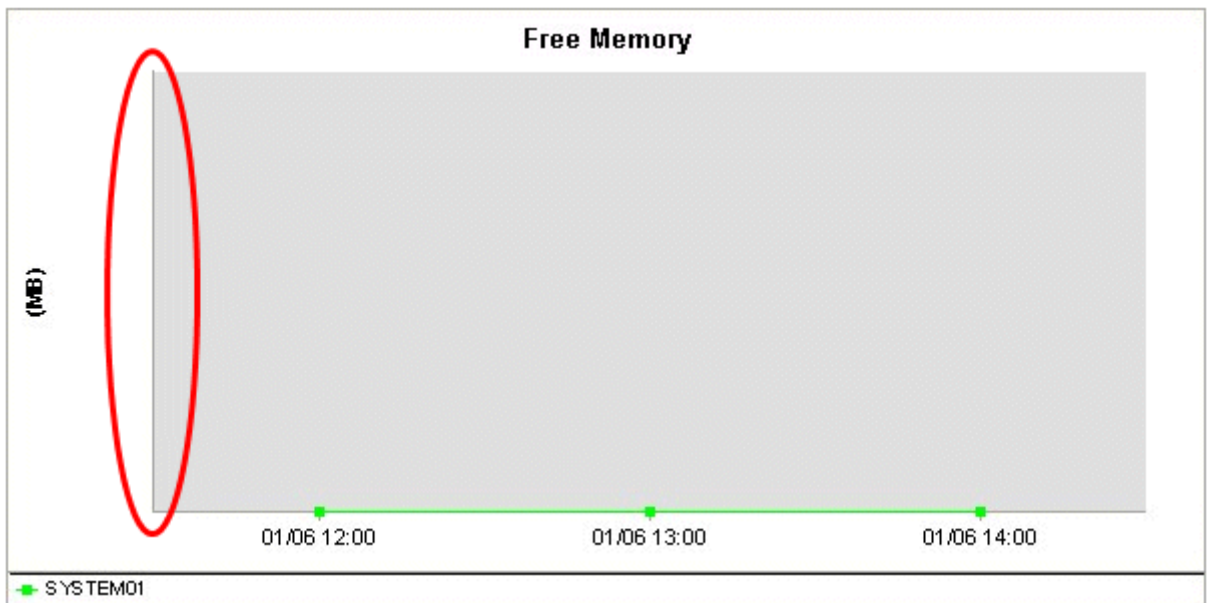
Chapter 3 Monitoring Window

The monitoring window is made up of a summary display, which allows the user to quickly grasp the operation status of the entire system, and the Drilled-Down display, which displays details when a problem occurs.

Starting

Start the **Console** by clicking the **Console** button on the **Console Definitions** tab of the **Admin Console** window.
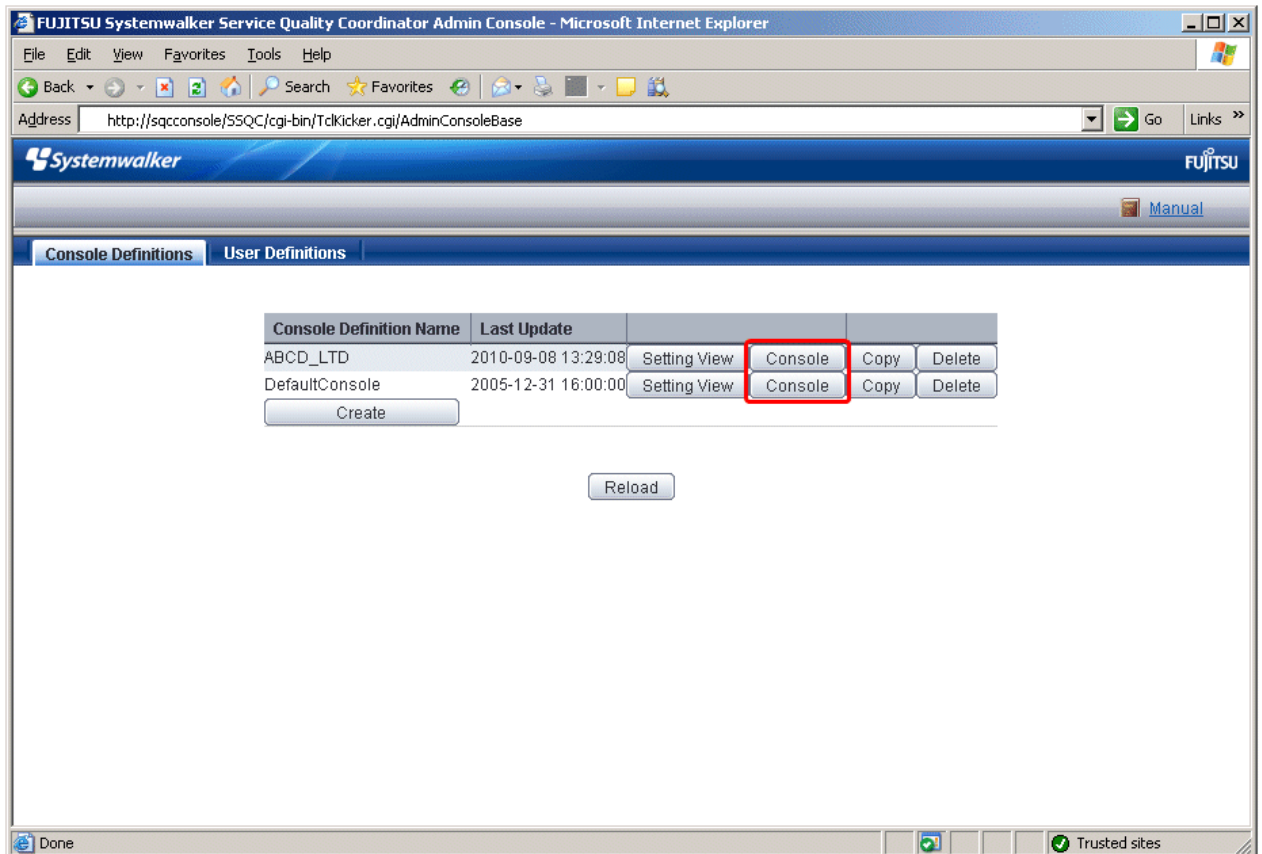
The console window can also be started by specifying its URL.

Click on the **Monitoring** menu in global navigation in the Console to start.
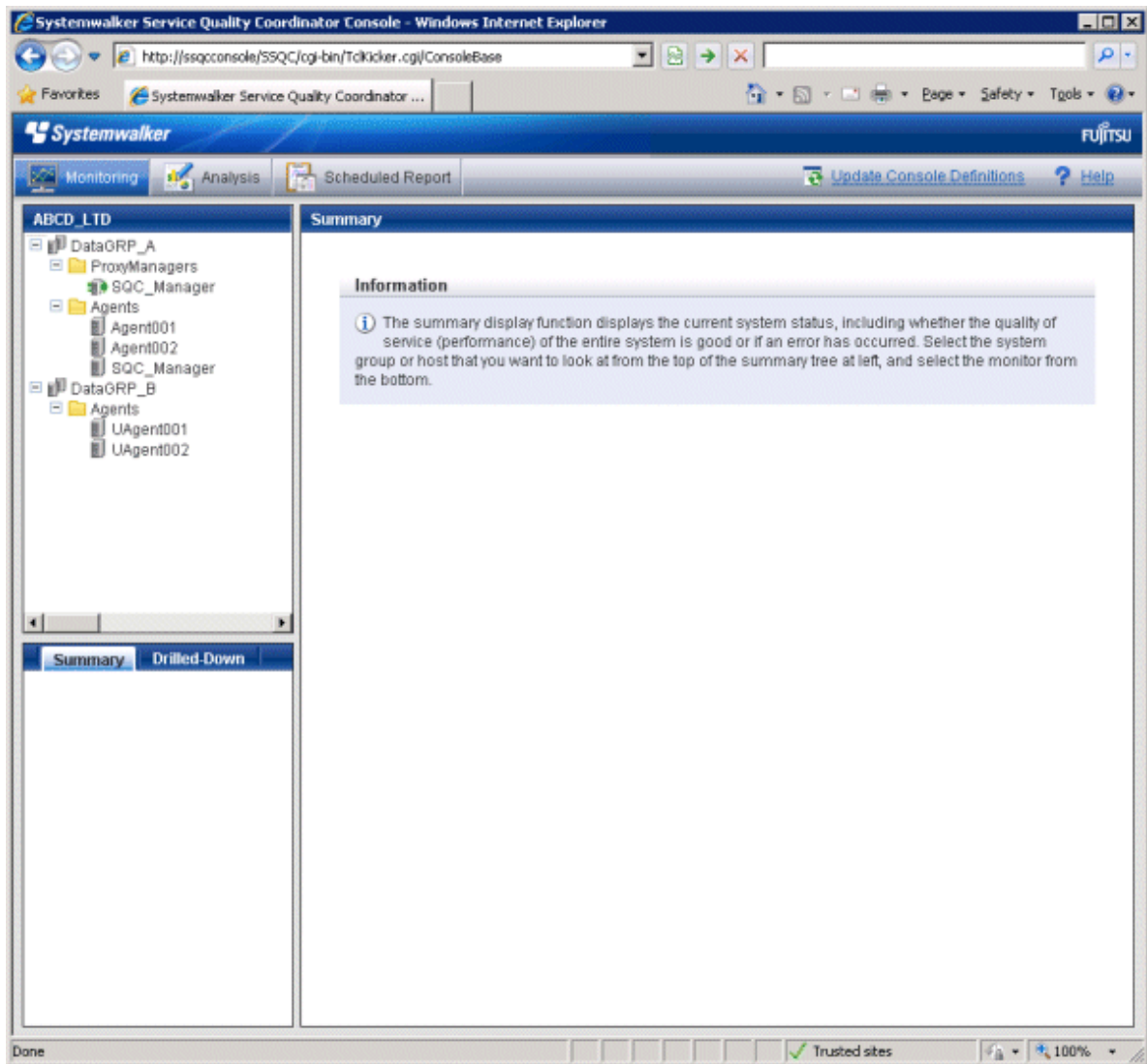
Note

- Do not perform operations in the analysis window using the context menu that appears when the right mouse button is clicked.

Window configuration

Once started, the following Monitoring window will appear.
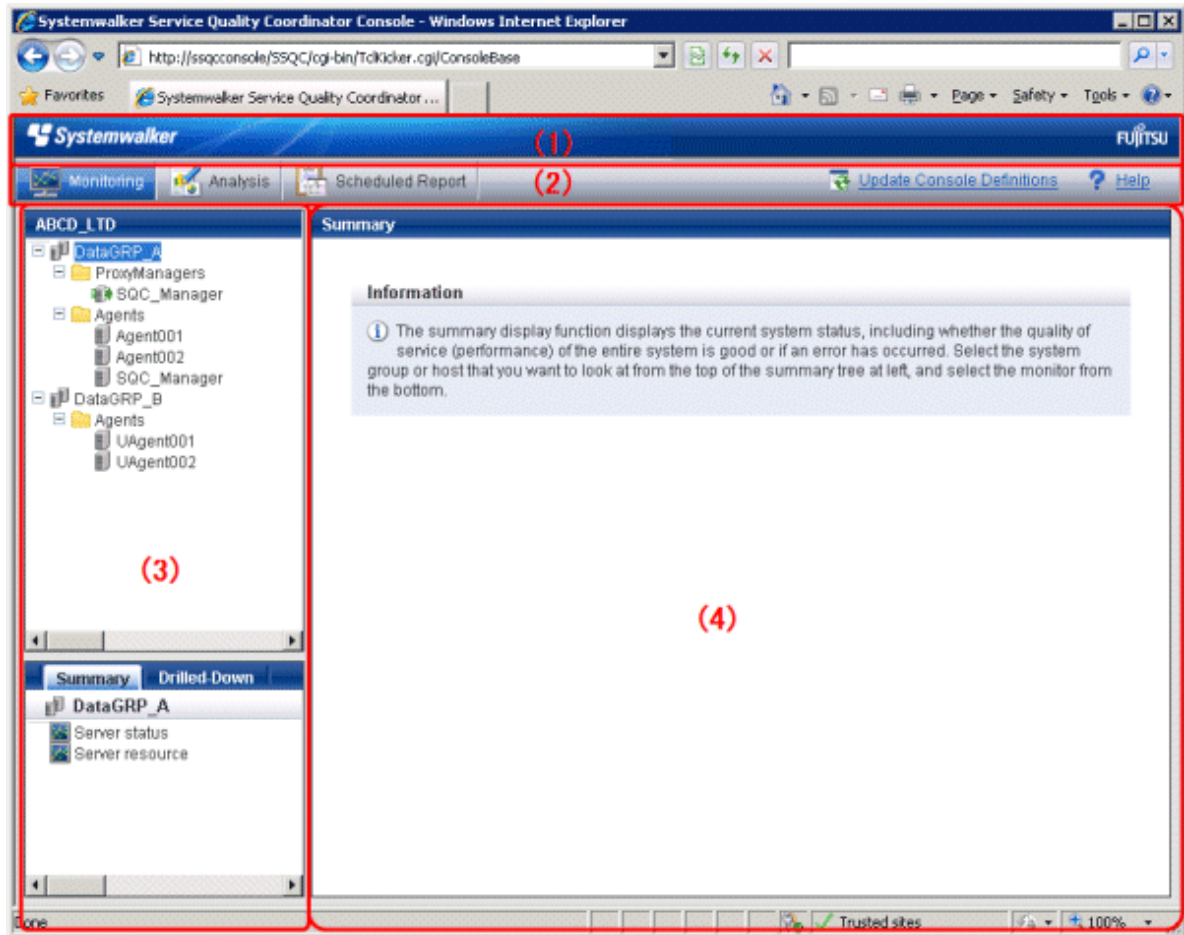
Basic configuration

The Console is organized as shown in the following table.

Item No.	Component	Description
(1)	Global Header	The Systemwalker and Fujitsu logos are displayed.
(2)	Global navigation	Global Navigation provides the following menus: - **Monitoring** Opens the monitoring window. Allows checks on the current status and isolates faults when they occur. - **Analysis** Opens the analysis window. Analyzes service quality over the medium to long term to limit future problems. - **Scheduled Report** Opens the scheduled report window. Displays reports about service levels for the customer or for capacity planning. - **Update Console Definition** Reloads the console definitions. - **Help** Opens the *User's Guide (Console Edition)*.

Item No.	Component	Description
(3)	Tree display area	The **Summary** view and the **Drilled-Down** display are displayed in tree structure. It is possible to switch between the two display functions by clicking the relevant tabs. By default, the **Summary** view will be displayed when the Console is first opened.
(4)	Content display area	When a node in the tree is selected, the corresponding content of the **Summary** or **Drilled-Down** display will appear in this area.

The **Console** provides two display functions: **Summary** view and **Drilled-Down** display.

These functions are explained in the following two sections.

3.1 Summary View

The **Summary** view displays representative information to enable the user to understand the current status of the entire system as a monitor.

The **Summary** view is explained below

3.1.1 Monitor types

The following table lists the types of monitors that are available.

It also indicates whether the monitor can be used for the different display targets.
(SG: System Group, PM: Proxy Manager, Agt: Agent)

SG	PM	Agt	Node name at the bottom part of Summary tree	Outline
			Monitor name	
Yes	No	No	Server Status	Agent status display
			AgentStatusMonitor	
Yes	Yes	No	Service operation	Summary of service operational information
			ServiceAvailMonitor	Operational status of the HTTP/DNS/SMTP/ PORT services (color-coded display)
Yes	Yes	No	End user response	Summary of end user response information

SG	PM	Agt	Node name at the bottom part of Summary tree	Outline
			Monitor name	
			UserResponseMonitor	End user response time
Yes	No	Yes	Server resource	Summary of server performance information
			ServerMonitor	CPU usage rate
				Free memory rate
				Disk I/O count
Yes	No	Yes	VMware(host)	VMware ESX/VMware ESXi physical performance information summary
			VMware(Physical)Monitor	CPU usage rate
				Available memory
				Disk I/O count
				P Point .... This graph makes it easy to see how much the physical CPU, disk, and memory are being used and how much is available. ....
No	No	Yes	VMware(guest piling)	VMware ESX/VMware ESXi virtual performance information stack graph
			VMware(Virtual)Stack Monitor	CPU usage rate
				Memory usage
				Disk I/O count
				P Point .... CPU usage rate is calculated with each physical CPU having a value of 100%.This means that the cumulative CPU usage rate of the CPUs of guest operating systems will be shown exceeding 100%. This graph makes it easy to see which guest OS is using the CPU, disk, and memory. It is possible to see information about the physical CPU, memory, and disk by displaying the CPU usage rate, available memory, and disk I/O count of "VMware(Physical)StackMonitor". ....
Yes	No	Yes	Hyper-V(host)	Hyper-V physical performance information summary
			HyperV(Physical)Monitor	CPU usage rate

SG	PM	Agt	Node name at the bottom part of Summary tree / Monitor name	Outline
				P Point This graph makes it easy to see how much the physical CPU is being used and how much is available. It is also possible to see information about the physical memory and disk by the available memory and disk I/O count of "ServerMonitor".
No	No	Yes	Hyper-V(guest piling) HyperV(Virtual)Stack Monitor	Hyper-V virtual performance information stack graph CPU usage rate **P** Point CPU usage rate is calculated with each virtual CPU having a value of 100%. This means that the cumulative CPU usage rate of the CPUs of guest operating systems will be shown exceeding 100%. This graph makes it easy to see which guest OS is using the CPU. It is possible to see information about the physical CPU, memory, and disk by displaying the CPU usage rate of "HyperV(Physical)Monitor" and the available memory and disk I/O count of "ServerMonitor".
No	No	Yes	Xen(guest piling) Xen(Virtual)StackMonitor	Red Hat Virtualization function virtual performance information stack graph CPU usage rate Memory usage Disk I/O count **P** Point CPU usage rate is calculated with each physical CPU having a value of 100%. This means that the cumulative CPU usage rate of the CPUs of guest operating systems will be shown exceeding 100%. This graph makes it easy to see which guest OS is using the CPU, disk, and memory. It is possible to see information about the physical CPU, memory, and disk by displaying

SG	PM	Agt	Node name at the bottom part of Summary tree / Monitor name	Outline
				the CPU usage rate, available memory, and disk I/O count of "ServerMonitor". •
Yes	No	Yes	Solaris Zone ZoneMonitor	Summary of Solaris Zone performance information CPU usage rate Memory usage rate **P Point** • If Solaris zones are bound to processor sets, the CPU usage will be 100% for each processor set. •
Yes	No	No	Solaris Zone(piling) ZoneStackMonitor	Stack graph for Solaris Zone performance information Stack graph for CPU usage rates Stack graph for memory usage rates **P Point** • If Solaris zones are bound to processor sets, the CPU usage will be 100% for each processor set. To display a stack graph for CPU usage rates, it is necessary to create a system group for each processor set. •
Yes	No	Yes	Web transaction WebTrnMonitor	Summary of Web transaction volume information Request count Traffic volume
Yes	No	Yes	Network TcpNetworkMonitor	Summary of Systemwalker Resource Coordinator (Network) performance information Transmission line problems (including adjoining lines)
Yes	No	Yes	Storage StorageMonitor	Summary of Systemwalker Resource Coordinator (Storage) performance information Maximum read response time Maximum write response time Maximum disk usage rate
Yes	No	Yes	Interstage(EJB) Interstage(EJB)Monitor	Summary of Interstage Application Server (EJB) performance information Maximum processing time for EJB applications

SG	PM	Agt	Node name at the bottom part of Summary tree	Outline
			Monitor name	
				Pending request count
Yes	No	Yes	Interstage(TD)	Summary of Interstage Application Server (TD) performance information
			Interstage(TD)Monitor	Maximum request processing time for objects
				Pending request count
Yes	No	Yes	Interstage(CORBA)	Summary of Interstage Application Server (CORBA) performance information
			Interstage(CORBA)Monitor	Maximum request processing time for implementation repository IDs
				Pending request count
Yes	No	Yes	Interstage(IJServer)	Summary of Interstage Application Server (IJServer) performance information
			Interstage(IJServer)Monitor	Maximum current heap usage rate for JavaVM
Yes	No	Yes	Interstage(IBAS async)	Summary of Interstage Business Application Server performance information
			TxnAsyncMonitor	The number of transactions that have been executed
				The average and maximum execution times for multiple instances of the same transaction
				The average and maximum execution times for all transactions that have been executed
Yes	No	Yes	Interstage(IBAS sync)	Summary of Interstage Application Framework Suite performance information
			TxnSyncMonitor	The number of transactions that have been executed
				The average and maximum execution times for multiple instances of the same transaction
				The average and maximum execution times for all transactions that have been executed
Yes	No	Yes	Interstage(IBAS OssJava	Summary of Interstage Business Application Server Open Java Framework performance information
			TxnOssJavaMonitor	The number of transactions that have been executed
				The average and maximum execution times for multiple instances of the same transaction
				The average and maximum execution times for all transactions that have been executed
Yes	No	Yes	Operation Manager	Summary of Systemwalker Operation Manager performance information
			OperationMgrMonitor	Change in job concurrency
				Change in the number of pending jobs

SG	PM	Agt	Node name at the bottom part of Summary tree	Outline
			Monitor name	
				Change in the number of completed jobs
				Change in the number of error jobs
Yes	No	Yes	MS-.NET	MS-.NET performance information summary
			MS-.NET_Monitor	The number of requests waiting to be processed
				The number of requests
Yes	No	Yes	SAP	SAP performance information summary
			SAP Monitor	Dialog response time
				Number of enqueue requests and queue length
				Background usage rate
				Number of RFC calls waiting to be executed
Yes	No	Yes	Symfoware	Summary of Symfoware Server performance information
			SymfowareMonitor	Buffer hit rate
				The number of times that the buffer has been used up
				SQL count
Yes	No	Yes	Oracle	Summary of Oracle Database Server performance information
			OracleMonitor	Buffer hit rate
				Exclusive control wait count
Yes	No	Yes	MS-SQL	MS-SQL performance information summary
			MS-SQL_Monitor	Buffer cache hit rate
				The number of deadlocks
				The number of transactions
Yes	No	Yes	User data	Information about user data
			UserDataMonitor	

System Group monitors collectively display information about Proxy Managers and Agents registered with the System Group.

Note that only those monitors that can be displayed for the display targets will appear in the tree.

Monitors for which correct configuration information cannot be collected will not appear in the tree, even if they do exist.

Refer to Section 3.2.2, "Manager" in the *Technical Guide* and Chapter 4, "Data Formats" in the *Reference Guide* for details on the information displayed in the Summary view.

3.1.2 Description of the Summary Tree

The summary tree is shown in two parts, upper and lower.

The following table lists the icons that are used to display the nodes making up the tree.

Icon	Meaning
	Indicates a system group.
	Indicates a folder used to store collected information.
	Indicates individual Proxy Manager hosts.
	Indicates individual Agent hosts.
	Indicates each monitor

3.1.2.1 Reloading the Summary tree

The following methods can be used to reload the Summary tree. The method that is selected depends on the objective.

Objective	Method
Default reload	The Summary tree can be reloaded in its default state by clicking the **Summary** tab.
Reload System Group, Proxy Manager or Agent tree	If the system group, Proxy Manager or Agent tree is displayed, the Monitor tree can be reloaded without changing the tree hierarchy by selecting the target node.

3.1.3 Basic operation
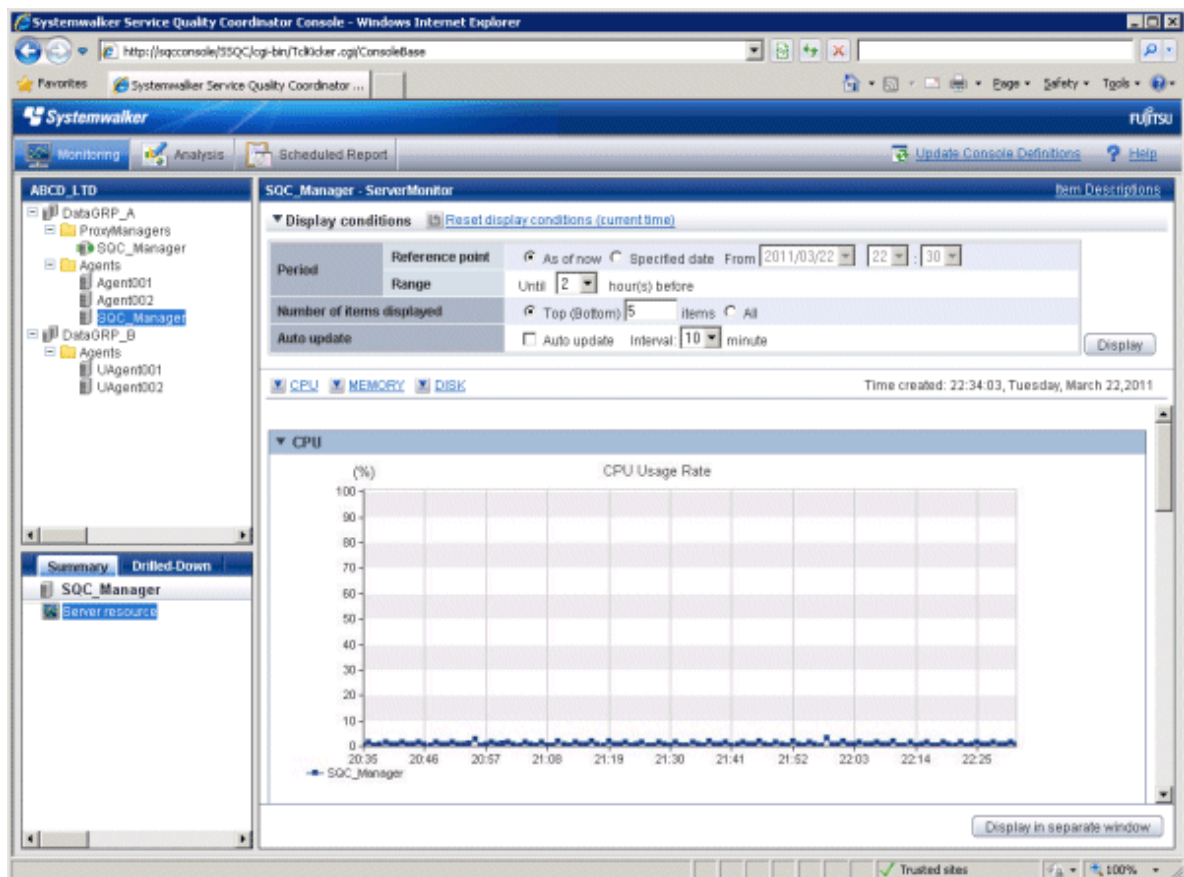
When the node indicating the monitor to be displayed is selected in the Summary tree on the left, the monitored content will be displayed on the right.

"Loading..." appears in the content display area while the content is being made.

While this message is displayed, the **Update** and **Auto Update** will be disabled.

3.1.3.1 Manual Update and Auto Update

The Monitor can be manually or automatically updated with the most recent information.

The options shown in the following table can be specified when performing the update process.

Option	Description
Reference point	Select the reference point for displaying the Monitor. The following reference points can be selected: **As of now**, **Specified date** If **As of now** is selected, the Monitor will be displayed with the current time as the reference point. If the **Specified date** is selected, any time up to three days before the current time can be selected as the reference point.
Range	Select the display range as the number of hours leading up to the present time or another specified time. The following display periods can be selected: 1, 2, 4, 8, 12, 18 and 24 hours The default period is 2 hours.
Number of items displayed	For the number of display items, either "All" or an arbitrary number of items can be specified. 🅿 Point . . . . When the number of display items is set, for performance information where high performance values can cause problems (e.g., with CPU usage), high numbers are shown, and vice versa. The number of data items to display in the report is about up to 20. . . . .
Auto Update/ Interval	To perform updates automatically, select the interval and check the check box. The following update intervals can be selected: 1, 3, 5 and 10 minutes The default value is 10 minutes. The count of the update time starts when the check box is checked. Moreover, the count starts again at that time when the update time is changed when the auto update is done. Note that if the current content of the **Monitoring** view is still being displayed when the next automatic refresh is due, then this next refresh will be skipped, and the content will be updated with the following refresh. Please remove the check on the check box when you stop the auto update.

To remove the need to specify the same option many times, once an option ([Reference point], [Range] and [Number of items displayed]) is specified, it is inherited by other monitors.

 Point

If it is necessary to open multiple Consoles to display different types of monitors at the same time and view them at different automatic update intervals, and if Internet Explorer is the browser being used, the different options can be specified by starting Internet Explorer separately from the **Start** menu.

 Note

The summary data for Agents that is held in the PDB is the summary data that has been received from the Agent for (up to) the latest retention period. The summary window in the **Admin Console** displays the summary data held in the PDB, so if an Agent is stopped, there may be differences in the display period, as compared to other Agents that are running.

 Note

The following kinds of problems may occur if an attempt is made to display the desired content (graphs or tables) in the **Summary** view, **Drilled-Down** display or **Analysis/Report** window of the **Console** using the **Display** or **Generate** button.

-   The operation may terminate with error code 1572864.

-   "Chart is unavailable" is displayed instead of the graph image.

-   The graph image may be left out (only graphs are not displayed).

-   The following error message may be displayed:

> "The specified CGI application misbehaved by not returning a complete set of HTTP headers. The headers it did return are: Unable to register TclNotifier window class"
>
> "ohd_update error."
>
> "Ohd file create error."

These problems may be due to insufficient space in the desktop heap for the operation management client. Increase the size of the desktop heap by referring to "5.1 Content Display Errors".

3.1.3.2 Opening targets in the Drilled-Down display

When a problem is discovered with the monitor, open the respective Drilled-Down display by clicking on the **Drilled-Down** tab with the monitor displayed, and then selecting the detailed view icon in the Drilled-Down display tree.

3.1.3.3 Display in another window and print

By clicking on the **Display in separate window** button in the lower right of the summary window, the monitor content in the current view is opened in a separate window.

This makes it possible to display another monitor in the console for comparison.

When the window is displayed separately, that window can then be printed by clicking the **Print** button.

3.1.4 Content-related operation methods

This section explains the operations that can be performed on displayed monitor content.

Table sorting

When the header section of any column in a table displayed in monitor content is selected, the table can be sorted using the selected column as the sort key.

Sorting can be toggled between ascending and descending order.

🅿 **Point**

. . . .

- Numerical sorts operate correctly only when all the values in the specified column are numerical values. Sorting cannot be performed correctly if the column contains non-numerical data such as null values.

- Date and time sorts cannot be performed correctly if the number of digits (yyyy/mm/dd hh:mm:ss, etc.) is not uniform throughout the column. Care must be taken when data has been imported from user data.

. . . .

Save in CSV Format

The following buttons is available at the bottom of the Monitor contents tables:

- Save in CSV format

  This link can be used to download the data in the range displayed in CSV format.

3.2 Drilled-Down Display

The **Drilled-Down Display** displays a variety of detailed information in chronological order based on the time that a problem occurred.

This section explains the Drilled-Down Display.

- 3.2.1 Drilled-Down Display Types

- 3.2.2 Description of the Drilled-Down Tree

- 3.2.3 Basic operation

- 3.2.4 How to perform operations relating to content

3.2.1 Drilled-Down Display Types

The Drilled-Down display supports the items listed in the following table.

Item	Outline
ResponseCondition	Detailed end user response information
ServiceCondition	Detailed service operation information
WebTrn	Detailed Web transaction volume information
Windows	Detailed Windows server performance information
Solaris	Detailed Solaris server performance information
Linux	Detailed Linux server performance information
Interstage	Detailed Interstage Application Server performance information
Interstage(TxnAnalysis)	Interstage transaction breakdown analysis

Item	Outline
TxnAnalysis(Sync)	Interstage Application Framework Suite transaction breakdown analysis
	Interstage Business Application Server transaction breakdown analysis
TxnAnalysis(Async)	Interstage Business Application Server transaction breakdown analysis
TxnAnalysis(OssJava)	Interstage Business Application Server Open Java Framework transaction breakdown analysis
Symfoware	Detailed Symfoware Server performance information
Oracle	Detailed Oracle Database Server performance information
OperationMGR	Detailed Systemwalker Operation Manager performance information
TcpNetwork	Detailed Systemwalker Resource Coordinator (Network) performance information
StorageResouce	Detailed Systemwalker Resource Coordinator (Storage)/ ETERNUS SF Storage Cruiser performance information
Workload	Detailed Workload Organizer performance information
UserData	Information about user data
MS-SQL	Detailed Microsoft SQL Server performance information
MS-.NET	Detailed Microsoft .NET performance information
ECO	Eco information
VMware	Detailed VMware ESX/VMware ESXi performance information
Hyper-V	Detailed Hyper-V performance information
Xen	Detailed Red Hat virtualization function (Xen) performance information

Refer to Section 3.2.2, "Manager" in the *Technical Guide* and Chapter 4, "Data Formats" in the *Reference Guide* for details about the information displayed in detail.

Point

"Data Formats" can also be access by clicking on the "Item descriptions" link at the top right of the detailed view.

3.2.2 Description of the Drilled-Down Tree

The Drilled-Down tree is shown in two parts, upper and lower.

The following table lists the icons that are used to display the nodes making up the tree.

Icon	Meaning
	Indicates a system group.
	Indicates a folder used to store collected information.
	Indicates individual Proxy Manager hosts.
	Indicates individual Agent hosts.

Icon	Meaning
	Indicates each Drilled-Down display item.
	Indicates an instance defined by a middleware product, etc.
	Indicates a related tool.
	Indicates a node for which information is being set. Settings are made in the same way as for the **Setting View**. Refer to "1.2 Setting View". ![Note icon] **Note** . . . . Settings for the Drilled-Down tree remain in effect until the Console is closed. Console definitions made here cannot be saved. To save Console definitions, use the **Setting View**. . . . .

3.2.2.1 Reloading the Drilled-Down tree

The following methods can be used to reload the Drilled-Down tree. The method that is selected depends on the objective.

Objective	Method
Default reload	The Drilled-Down tree can be reloaded in its default state by clicking the **Drilled-Down** tab.
Reload system group, Proxy Manager or Agent tree	If the system group, Proxy Manager or Agent tree is displayed, the Monitor tree can be reloaded without changing the tree hierarchy by selecting the target node.

3.2.3 Basic operation
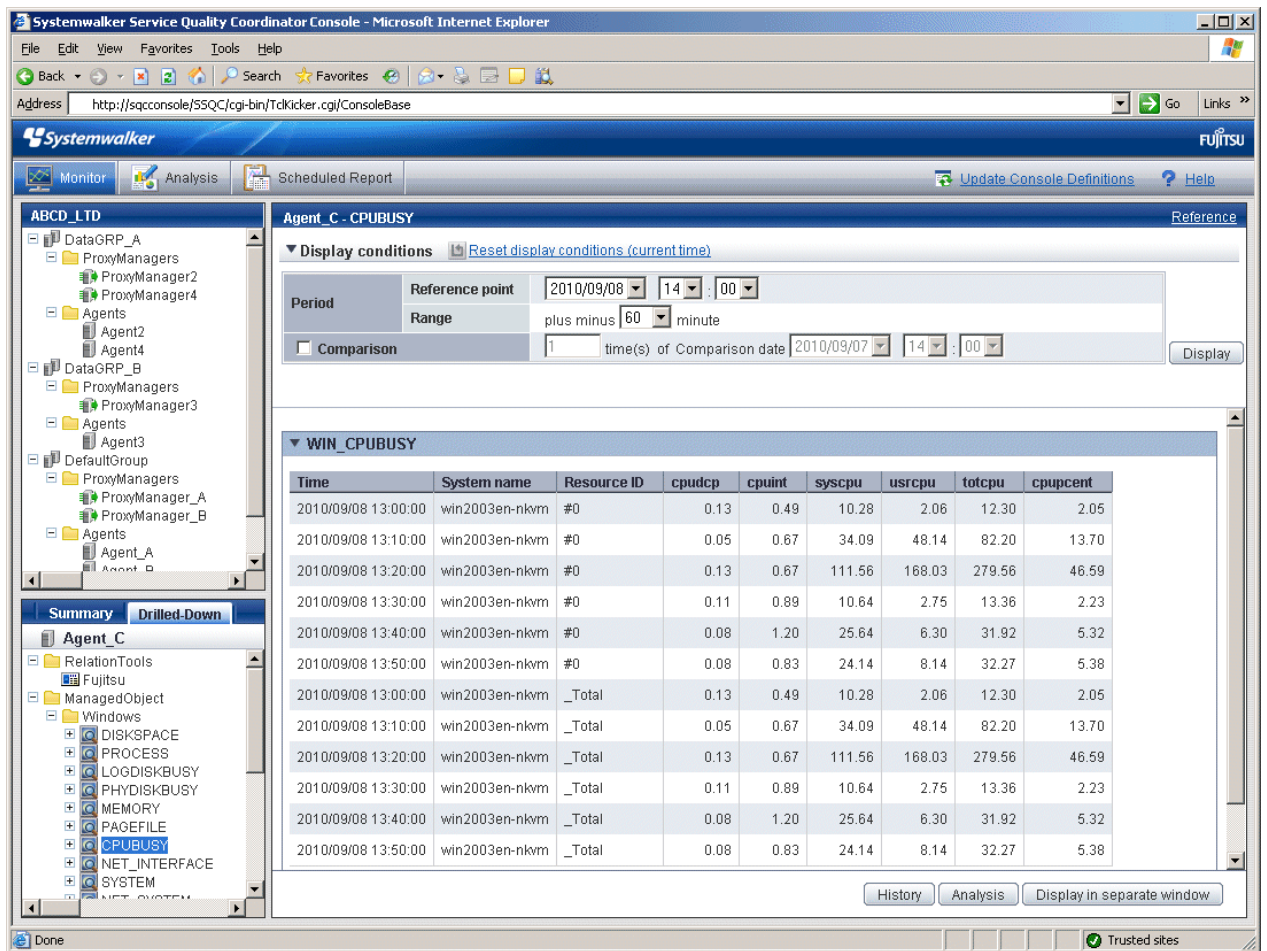
To display detailed content, select an item from the display targets in the Drilled-Down tree on the left, specify the options at the top of the right window and then click the **Display** button.

While the content is being generated, the message "Loading..." appears in the content display area.

While this message is displayed, the **Display** button will be disabled.

option

The following table lists the options that can be specified.

Option	Description
Reference point	Select the time that will be used as the starting point for the Drilled-Down display.
	A time up to one week prior to the present time can be selected. The current time is selected by default when the window is opened.
Range	This option is used to select how many minutes either side of the starting point will be used as the Drilled-Down display's range.
	The following display ranges can be selected:
	180, 120, 60, 30, 10 and 0 minutes
	The default is 60 minutes.

Option	Description
	If "0" (minutes) is selected, the time specified in the **Date** option will be indicated by a pinpoint.
Comparison date /Multiple	Comparison
	Put a check here if the Drilled-Down display is to be compared. The data from a specified period is compared to the data from the date selected as the **Comparison date**. Any time up to one week before the current time can be selected for **Comparison date**. The default is one day before the day when the window is opened.
	Specify a real number between 0.001 and 1000 for the multiplying factor. The default is 1.
	When a factor greater than 1 is specified, the information is emphasized if the data from the specified period is greater than that from the comparison date when multiplied by the factor.
	When a factor less than 1 is specified (between 0.999 and 0.001), the information is emphasized if the data from the specified period is less than that from the comparison date when multiplied by the factor.
	📋 **Note** .... As for the following Drilled-Down display items, this function is off the subject. ResponseCondition TxnAnalysis(Sync) TxnAnalysis(Async) TxnAnalysis(OssJava) Workload ....

To remove the need to specify the same option many times, once an option is specified, it is inherited by other Drilled-Down displays.

3.2.3.1 Display in another window and print

By clicking on the **Display in separate window** button in the lower right of the Drilled-Down display window, the Drilled-Down display content in the current view is opened in a separate window.

This makes it possible to display other items in the console for comparison.

When the window is displayed separately, that window can then be printed by clicking the **Print** button.

3.2.3.2 History

When the **History** button at the bottom right of the Drilled-Down display is clicked, the **Drilled-Down history list** window is displayed showing the details from the past two hours.
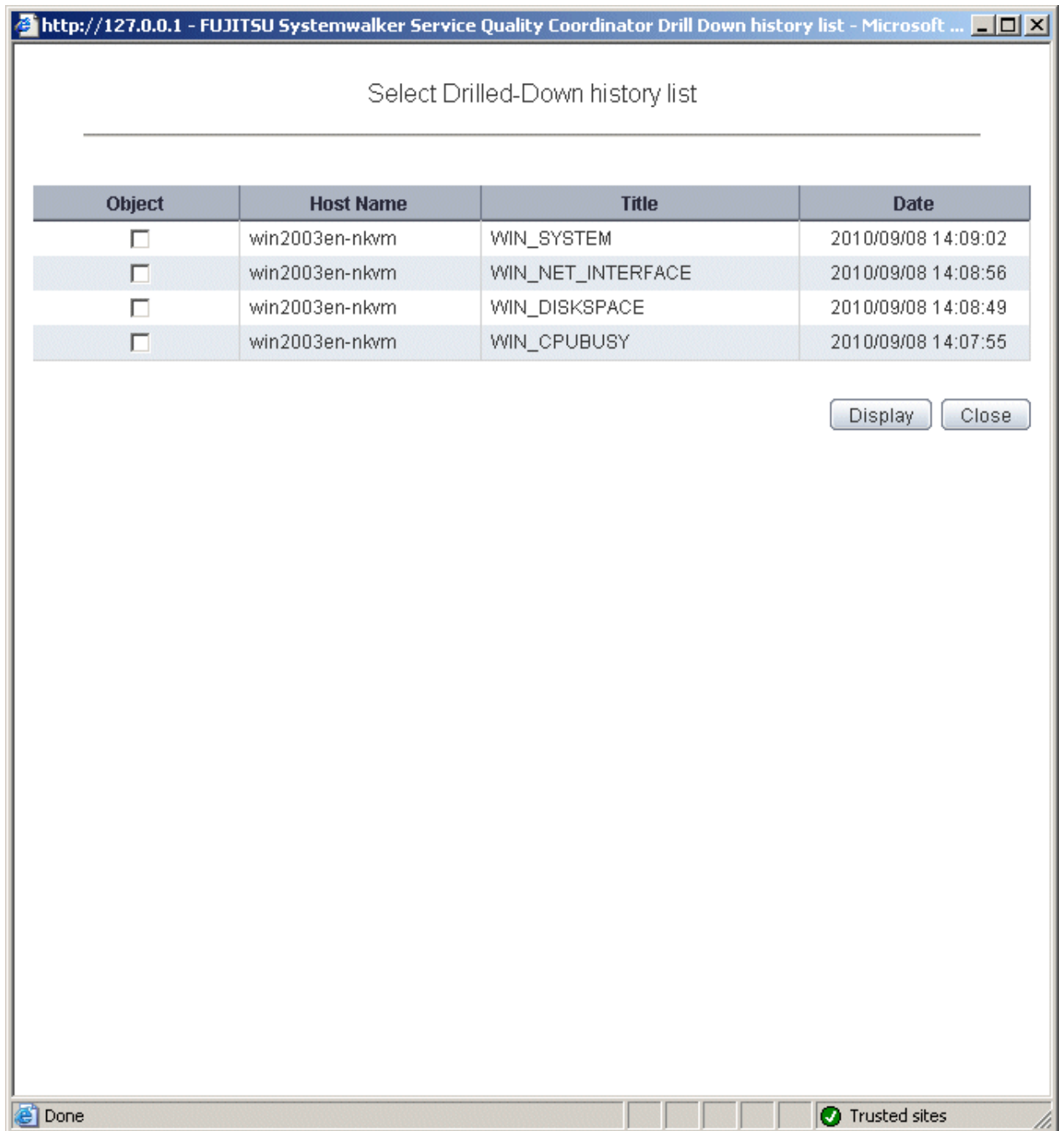
By selecting any of the check boxes shown in the list and clicking the **Show** button, the selected Drilled-Down display content can be displayed in a single window.

This enables multiple items to be listed together and compared.

3.2.3.3 Displaying resources

Some of the nodes in the **ManagedObject** folder created automatically by collecting configuration information contain a **Resources** folder.
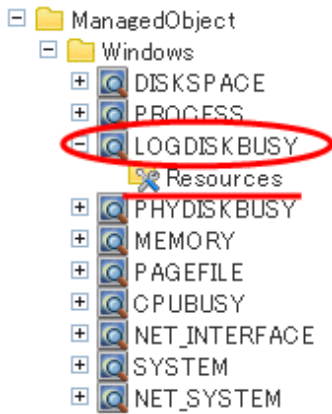
By defining resources for this type of node, the user can display. By defining resources for this type of node, the user can display the content of specific resources in the Drilled-Down display.

This is an example of the Drilled-Down display content displayed when the WIN_CPUBUSY node is selected.

Registering "Resource #0" as a resource node enables content to be displayed by targeting only "#0".
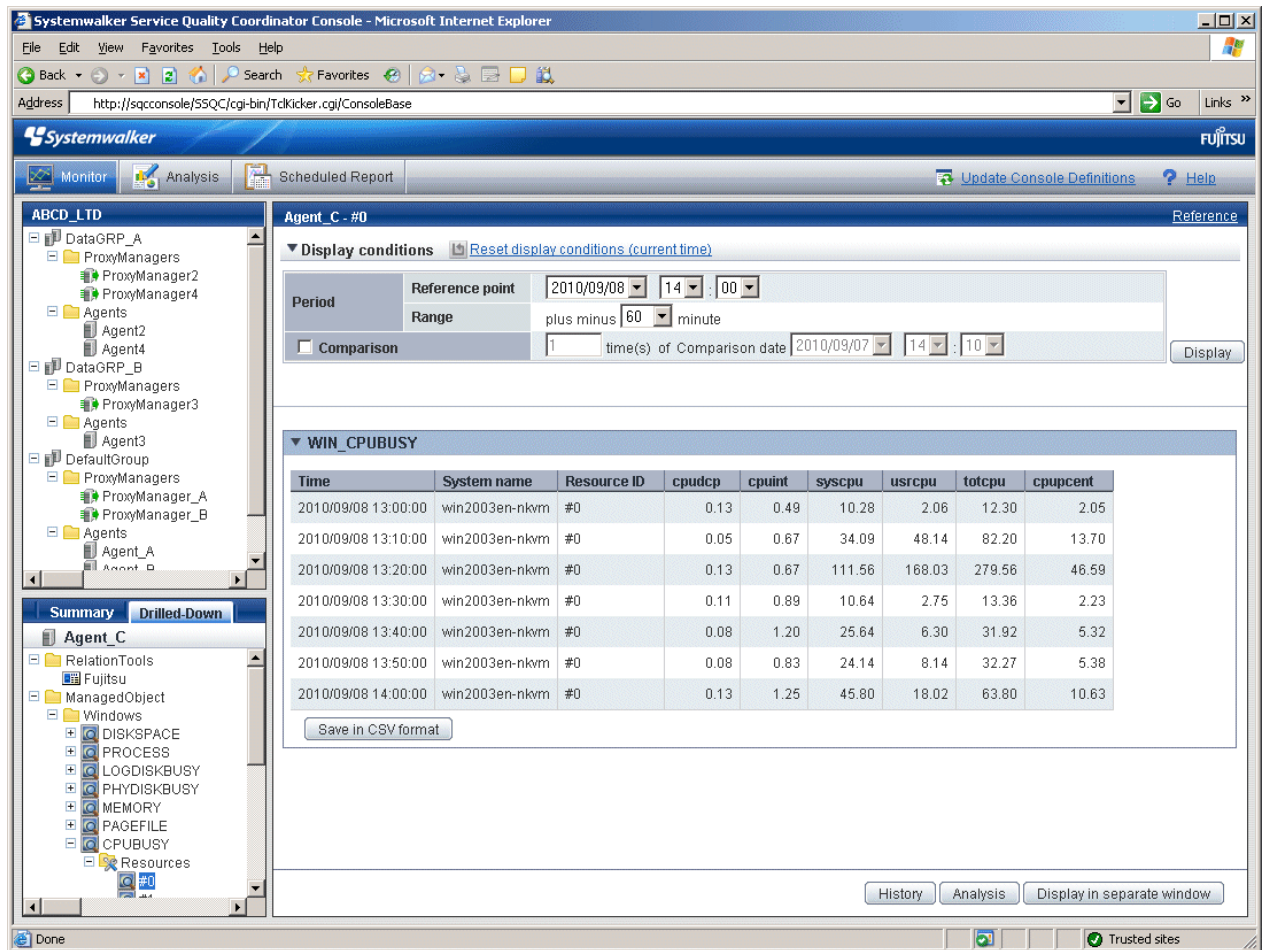
Refer to "1.2.2.5 Resources" for details on how to define resources.

3.2.3.4 Invoking related tools

If the RelationTools node is selected in the Drilled-Down tree, it is possible to invoke related tools that are registered with the **Setting** view.

Refer to "1.2.2.4 RelationTools" for details on how to define related tools.

3.2.4 How to perform operations relating to content

This section explains the operations that can be performed on displayed Drilled-Down display content.

3.2.4.1 Common operations

Table sorting

When the header section of any column in a table displayed in the Drilled-Down display content is selected, the table can be sorted using the selected column as the sort key.

Sorting can be toggled between ascending and descending order.

- Numerical sorts only operate correctly when all the values in the specified column are numerical values. Sorting cannot be performed correctly if the column contains non-numerical data such as Null values.

- Date and time sorts cannot be performed correctly if the number of digits (yyyy/mm/dd hh:mm:ss, etc.) is not uniform throughout the column. Care must be taken when data has been imported from user data.

Save in CSV Format

The following buttons are located underneath the Drilled-Down display content:

- **Save in CSV format**

- This link enables the displayed range of data to be downloaded in CSV format.

📘 Point

If Work Units under Interstage (TxnAnalysis) and data in TxnID units are downloaded and displayed in Excel, they will not be displayed correctly because the default display format of the collection time cell (sdattim) is "mm:ss.0". The display can be corrected by setting the display format of the cell to "yyyy/mm/dd hh:mm:ss.000" in the user definition.

Analysis

This link calls a Detailed Analysis window for displaying a graph of the data currently displayed.

3.2.4.2 WebSites tree

For end use response information, specific content can be displayed by setting the URLs of fully downloaded Web pages (i.e., no errors occur when the Web page is displayed, or the display is not canceled) as specific resources in Resources (URL) under WebSites or in nodes under WebSites (URL, DNS, TCP).

If an URL whose page is not fully downloaded is specified as a resource, the corresponding data will not be available and content will not be displayed.

Refer to "1.2.2.7 Resources (URL)" for details on setting specific resources in the Drilled-Down display.

📘 Point

By selecting a specific resource node under WebSites and clicking **Completion number of cases** among the items in the content table that is displayed, a new window will be opened and details about those completed items will be displayed as a data list.

And, by clicking **Elapsed Time** in the table items, an internal sequence information showing the Web page data being downloaded will be displayed.

3.2.4.3 Interstage(TxnAnalysis)tree

For transaction breakdown analysis information collected from Interstage Application Server, selecting a Work Unit node under the **Interstage(TxnAnalysis)** tree displays the breakdown analysis information for all translations for the Web applications (servlets and JSPs) and EJB applications executed in that Work Unit.

It is also possible to display breakdown analysis information focusing on a single transaction by specifying a specific transaction ID in **TxnIDs** under the Work Unit node.

Refer to "1.2.2.9 TxnIDs" for details on how to set specific transaction IDs.

Viewing transaction breakdown analysis content

This content displays the time between the start and termination of a component as the response time, and the time between one component invoking another component and control returning to the first component as the block time. These times are displayed for each J2EE application component running on each IJServer.

P Point

No block time is displayed for components that do not invoke other components.

The following screen shot shows the correspondence between the component sequence diagram and content.
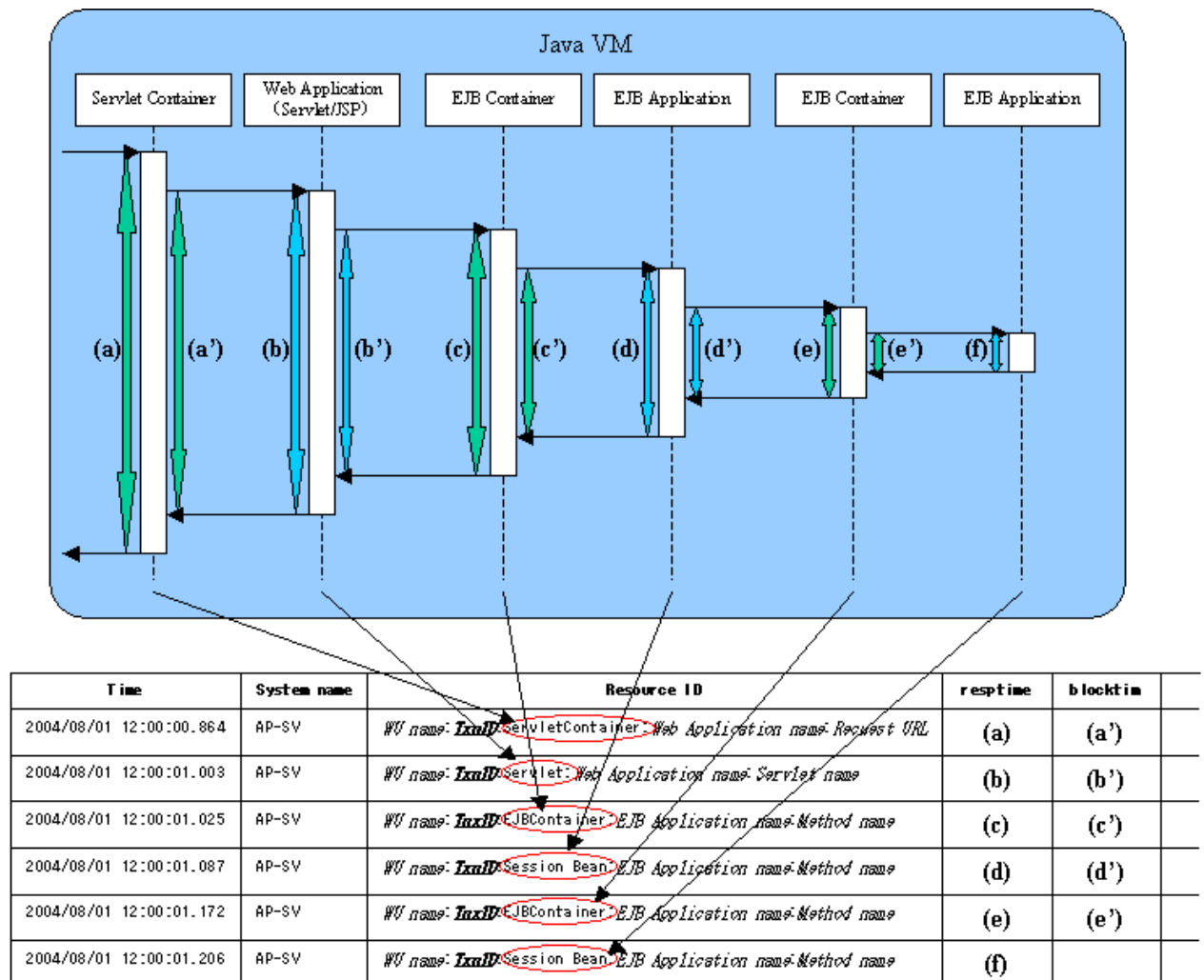
When a Work Unit node is selected, information about multiple transactions is displayed. Components that relate to single transactions can be identified by the ID indicated by *TxnID* in the resource ID.

When the node of a specific transaction ID that has been set is selected, only the information relating to the specific transaction ID will be displayed.

The resource ID format used in transaction breakdown analysis is explained below.

Resource ID format

The resource ID format for each component is shown below.

- Servlet container

> Work Unit name: transaction ID: ServletContainer: Web application name: Requested URL

- Web application (Servlet)

> Work Unit name: transaction ID: Servlet: Web application name: Servlet name

- Web application (JSP)

> Work Unit name: transaction ID:JSP: Web application name: Servlet name

- EJB container

> Work Unit name: transaction ID: EJBContainer: EJB application name: method name

- EJB application (Session Bean)

> Work Unit name: transaction ID: SessionBean: EJB application name: method name

- EJB application (Entity Bean)

> Work Unit name: transaction ID: EntityBean: EJB application name: method name

3.2.4.4 TxnAnalysis(Sync)/TxnAnalysis(Async)/TxnAnalysis(OssJava)tree

Transaction breakdown information that has been collected from Interstage Business Application Server, Interstage Application Framework Suite, or Interstage Business Application Server Open Java Framework can be displayed by selecting the TxnTime nodes under the main TxnAnalysis tree. There are two types of content: the analysis results over the multiple servers that execute transactions for each system group, and the breakdown analysis information for the transactions on each server.

Transaction breakdown analysis information can also be displayed for specific individual transactions by setting specific transaction IDs in the TxnIDs node under the TxnTime node.

Refer to "1.2.2.10 TxnIDs for TxnAnalysis(Sync), TxnAnalysis(Async), and TxnAnalysis(OssJava)" for details on how to set up specific transaction IDs.

Viewing transaction breakdown analysis content

This content shows information for two types of transactions: synchronous transactions and asynchronous transactions. Analysis results are displayed for each type of transaction, as shown below, including both analysis results for transactions on each separate server and analysis results for each system group over the multiple servers that execute the transactions. Analysis results are displayed for only the transactions whose processing has completed on all of the servers executing the transaction.

- Synchronous transactions (Interstage Application Framework Suite and Interstage Business Application Server)

    - The starting time, finishing time and execution time for each individual transaction on each server

    - The effective transaction time and the total communication time for the transaction

    - A list of correspondences between SSQC transaction IDs and Interstage context IDs

- Asynchronous transactions or Open Java Framework (Interstage Business Application Server)

    - The starting time, finishing time and execution time for each individual transaction on each server, as well as the number of activities

    - The effective transaction time

    - The starting times, finishing times and effective times for the activities in transactions

    - A list of correspondences between SSQC transaction IDs and Interstage context IDs

🖝 Note

Refer to "1.2.2.10 TxnIDs for TxnAnalysis(Sync), TxnAnalysis(Async), and TxnAnalysis(OssJava)" for information about "The effective transaction time and the total communication time for the transaction ", "The starting times, finishing times and effective times for the activities in transactions" and " A list of correspondences between SSQC transaction IDs and Interstage context IDs".

Term	Meaning
Transaction	Business applications that are executed on Interstage are collectively referred to as "transactions". This function performs analysis processing for the state of servers while transaction control is retained by Interstage.
Synchronous transaction	"Synchronous transactions" are transactions whose processing on Interstage is executed sequentially from start to finish. If processing requests are issued to other servers, the transaction waits for the results to be returned. Synchronous transactions can be executed using both Interstage Application Framework Suite and Interstage Business Application Server.
Asynchronous transaction	Unlike synchronous transactions, "asynchronous transactions" return immediately, without waiting for processing requests that have been issued to other servers to return. Requested processes are placed in Interstage queues and are executed in order. Asynchronous transactions can be executed using Interstage Business Application Server only.
Context ID	"Context ID" refers to the context ID section in the standard log.
Correlation ID	Refers to Correlation ID part within standard log.
Transaction execution time	For synchronous transactions, "transaction execution time" refers to the total time taken from the time when a transaction is called to the time when it returns, Accordingly, if a transaction passes through multiple servers, the time taken to pass through these servers is also counted as the execution time for the server that made the original call. For asynchronous transactions, "transaction execution time" refers to the total time taken from the time when a transaction is called to the time when all activities complete. (Part (3) in the following diagrams)
Effective transaction time	"Effective transaction time" refers to the time that a transaction spends actually running on a server. Accordingly, for synchronous transactions, if a processing request is issued to another server, neither communication time nor the time that a transaction spends executing on the other server are not counted as effective time. (Part (2) in the following diagrams)

Term	Meaning
Communication time	"Communication time" is the time that a transaction spends making processing requests and receiving processing results. (Part (3) in the following diagrams)

🔰 Note

··

"Context ID" is a term that is used with synchronous transactions. For asynchronous transactions, the term "correlation ID" is used.

··

  - Representation of execution time, effective time and communication time for a synchronous transaction (where the transaction is executed within a single server)
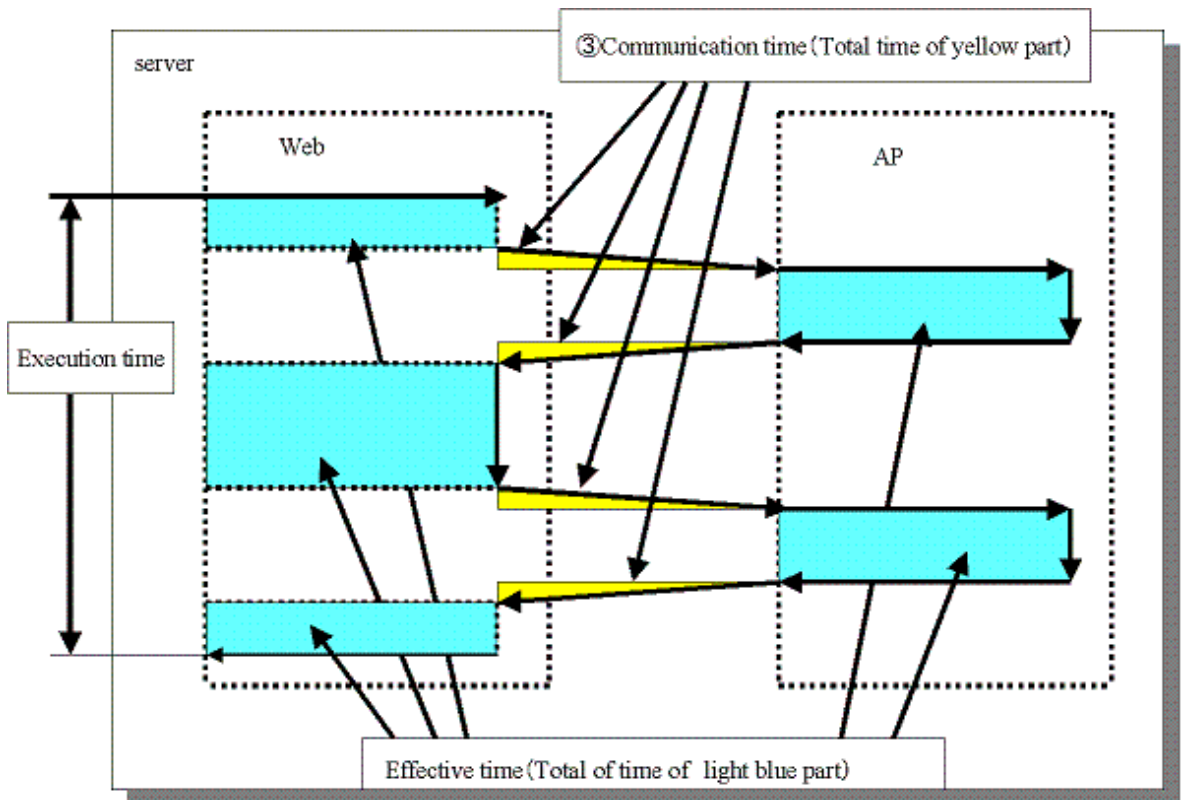
- Representation of execution time, effective time and communication time for a synchronous transaction (where the transaction is executed over multiple servers)
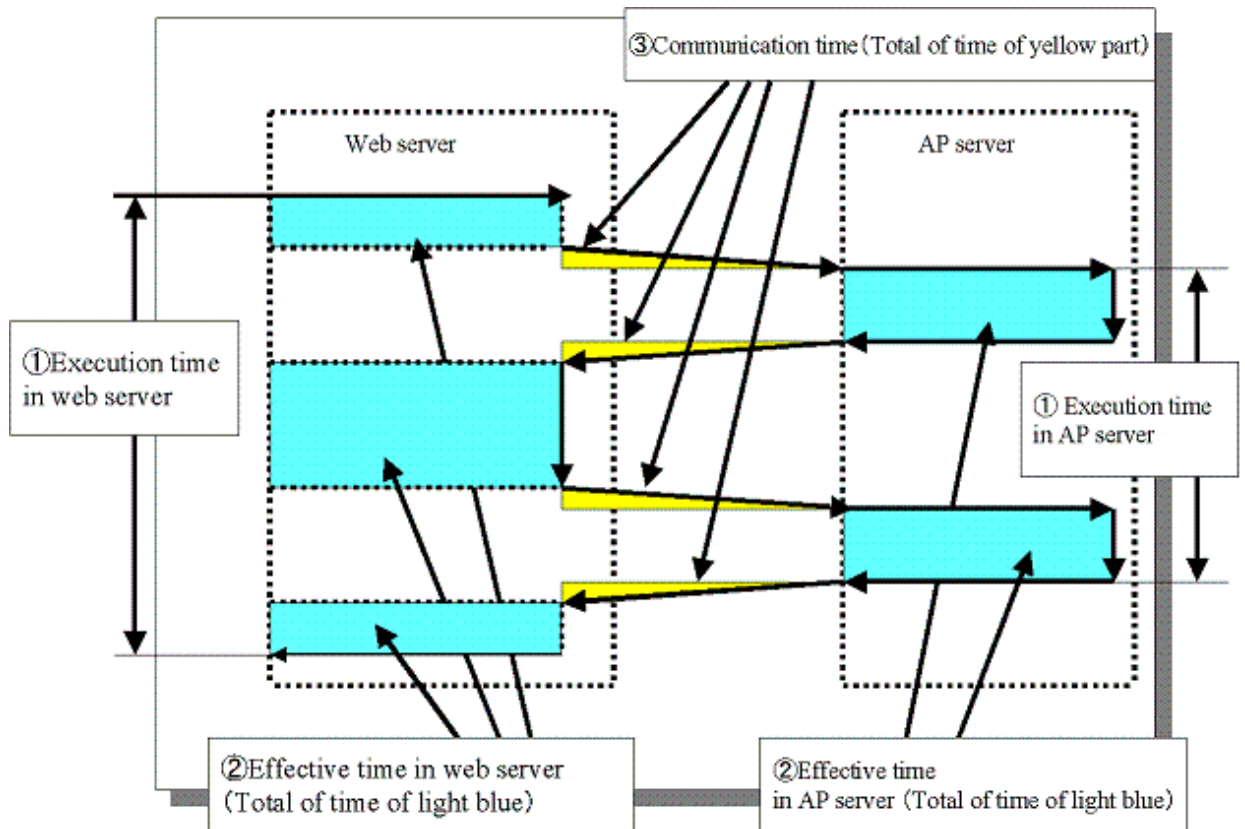
- Representation of execution time and effective time for an asynchronous transaction or Open Java Framework
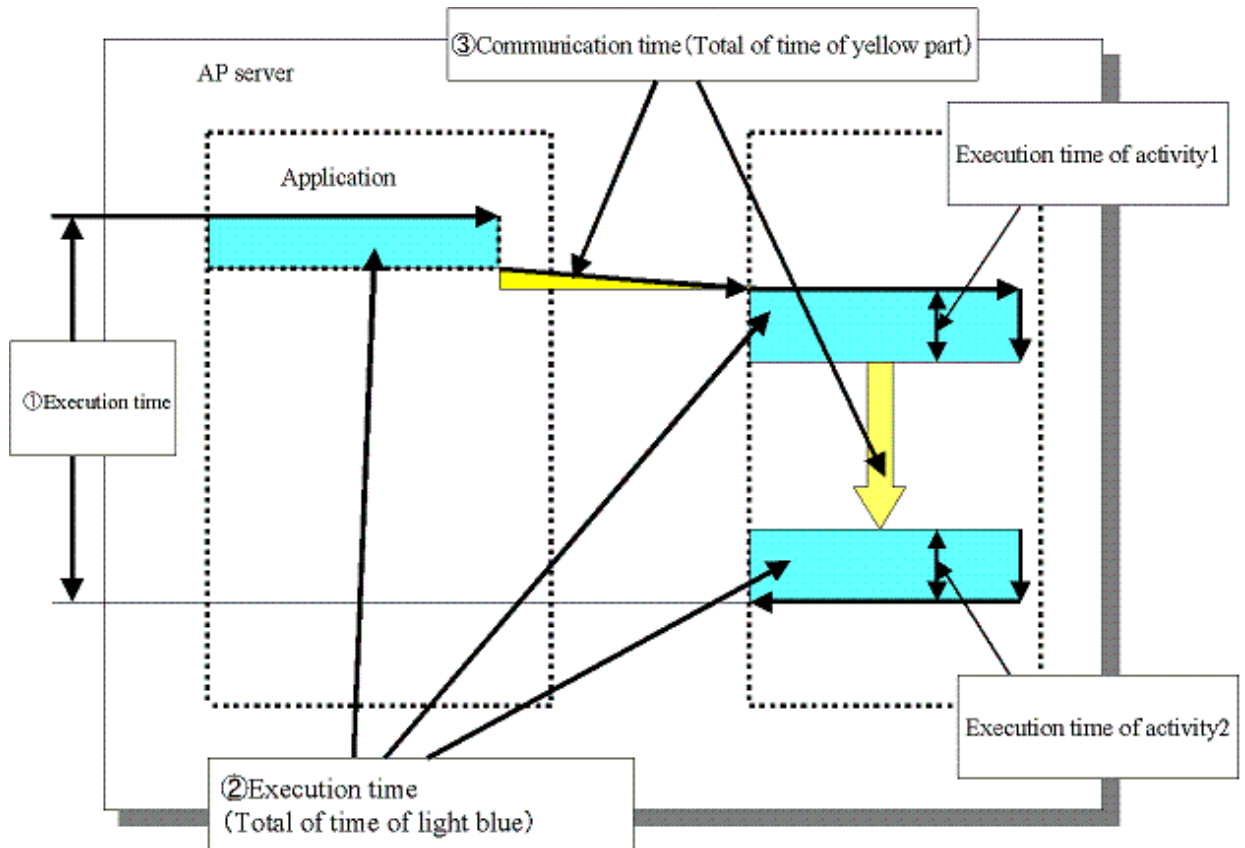
With the open Java framework, the processes performed by each of the subsystems (Struts, Spring, iBATIS) are treated as activities. The breakdown for each activity is displayed below:

Activity	Description	Applicable Log Output Occasion (message ID)
Model	M in the MVC model. Performs processes related to data and procedures.	Action-Class(8501) Spring-Controller(8542) Controller-Class(8543) Spring-Remote-App(8547)
View	V in the MVC model. Performs processes related to display and output	Struts-View(8502) Spring-View(8544)
Controller	C in the MVC model. Responds to user input, and performs distribution to Model and View.	ActionServlet(8500) Spring-MVC(8541)
Validator	Checks values entered by the user.	Struts-Validator(8503) Spring-Validator(8545)
DB Access	Input-output of data to and from databases.	iBATIS(8581)
Remote (communication time)	Time required for network communication for Spring remote processing.	Spring-Remote(8546)

Analyze the transactions from each performance log and the execution time, effective time, and communication time for each activity, and collect transaction performance information.

Information

The definitions for execution time, effective time, and communication time are as follows:

- Execution time: Time taken from invocation of a transaction until completion of all activities.

- Effective time: Time during which activities are actually running on the server.

- Communication time: Time taken for the communication to request processing and receive results in a transaction

3.3 Invoking Functions Directly

This section explains how to invoke the **Summary** view and **Drilled-Down** displays directly.

3.3.1 Invoking the Summary View

To invoke the summary view directly, add the following parameters.

---

http://*Host name for operation management client*/SSQC/XXX.html?
mode=monitor[&type=TARGET_TYPE&name=TARGET_NAME[&monitor=MONITOR_NAME]]

The "XXX" part of the URL is a user name that has been registered with the **Admin Console**.

To enter user names, first make basic authentication settings for each user by referring to Section 5.3, "How to Set Up Basic Authentication for Operation Management Clients" in the *Installation Guide*.

parameter

The meaning of each parameter is explained in the following table.

Parameter	Meaning
mode	Specifies the function to be invoked.
	When invoking the **Summary** view, this parameter is fixed as "monitor".
type	Specifies the type and name (display name) of the target to be displayed.
name	These two parameters are specified together as a set.
	The following types can be specified:
	"SystemGroup"
	"ProxyManager"
	"Agent"
	"Host"
	Point "Name" cannot specify some characters (such as #, ?, +, \ and $) in an URL directly. Use URL encoding to specify any of these characters.

Parameter	Meaning
	🔖 **Note** . . . . If "SystemGroup", "ProxyManager" or "Agent" is specified for "Type", and if the object corresponding to the display name specified for "Name" does not exist, the following message will be displayed in the lower part of the Summary tree of the Console from which the view was invoked. "The node selected is not exist." . . . .
monitor	Specifies the monitor name. The monitor names that can be specified are explained in "3.1.1 Monitor types".

The content invoked by each parameter differs according to the extent of the specification.

The following table lists the various parameter combinations.

Invoked content	mode	type	name	monitor
Summary view	Yes	No		No
Monitor target	Yes	Yes		No
Monitor content	Yes	Yes		Yes

Example of Summary view invocation

If only the "mode" parameter is specified, the Console will start up with the summary display function selected.

[Sample URL entry for invocation]

```
http://client_host/SSQC/User1.html?mode=monitor
```

[Sample startup window]
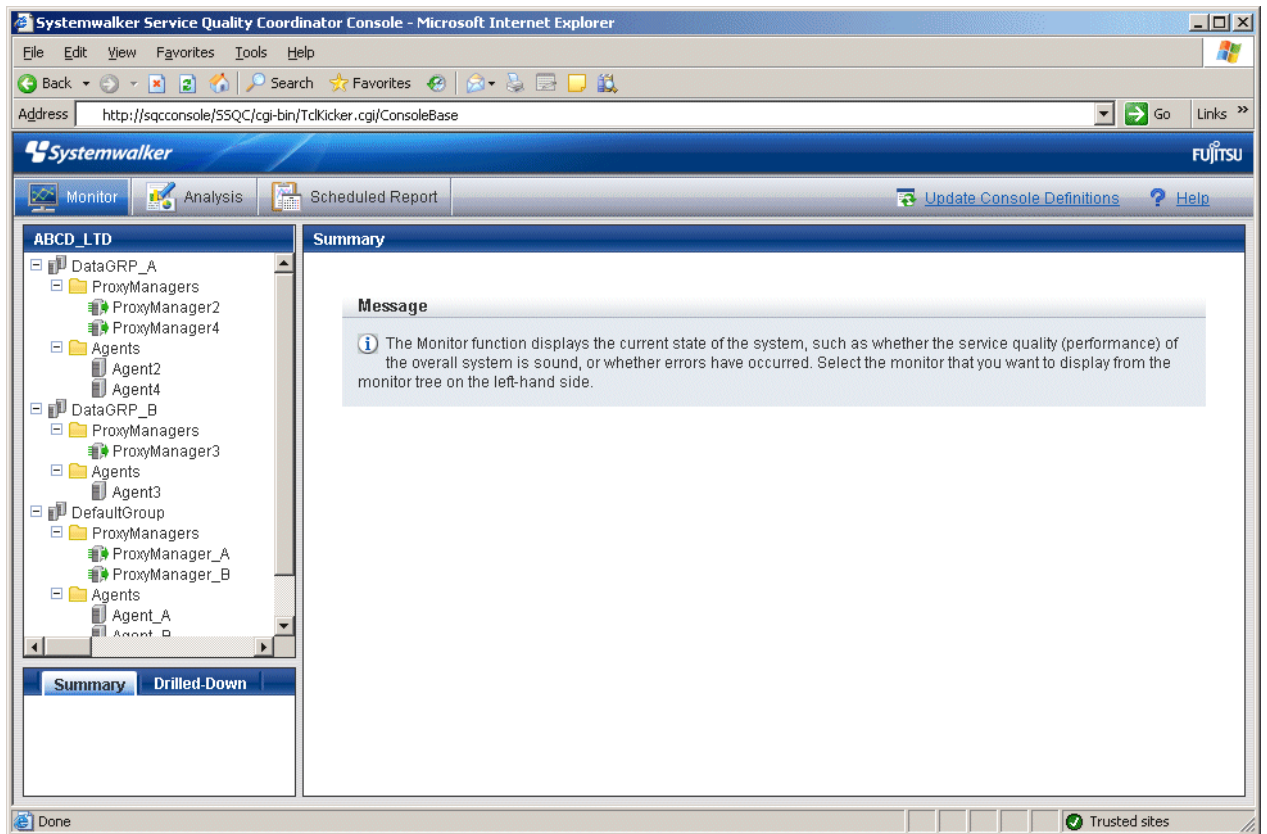
Example of monitor target invocation

When the "mode" and "type/name" parameters are specified, the Console will start with the targets selected in the Summary tree.

After the Console has opened, monitored content can be displayed simply by selecting the various nodes indicating the monitors in the tree.

[Sample URL entry for invocation]

http://client_host/SSQC/User1.html?mode=monitor&type=Agent&name=SQCMGR

[Sample URL entry for invocation]
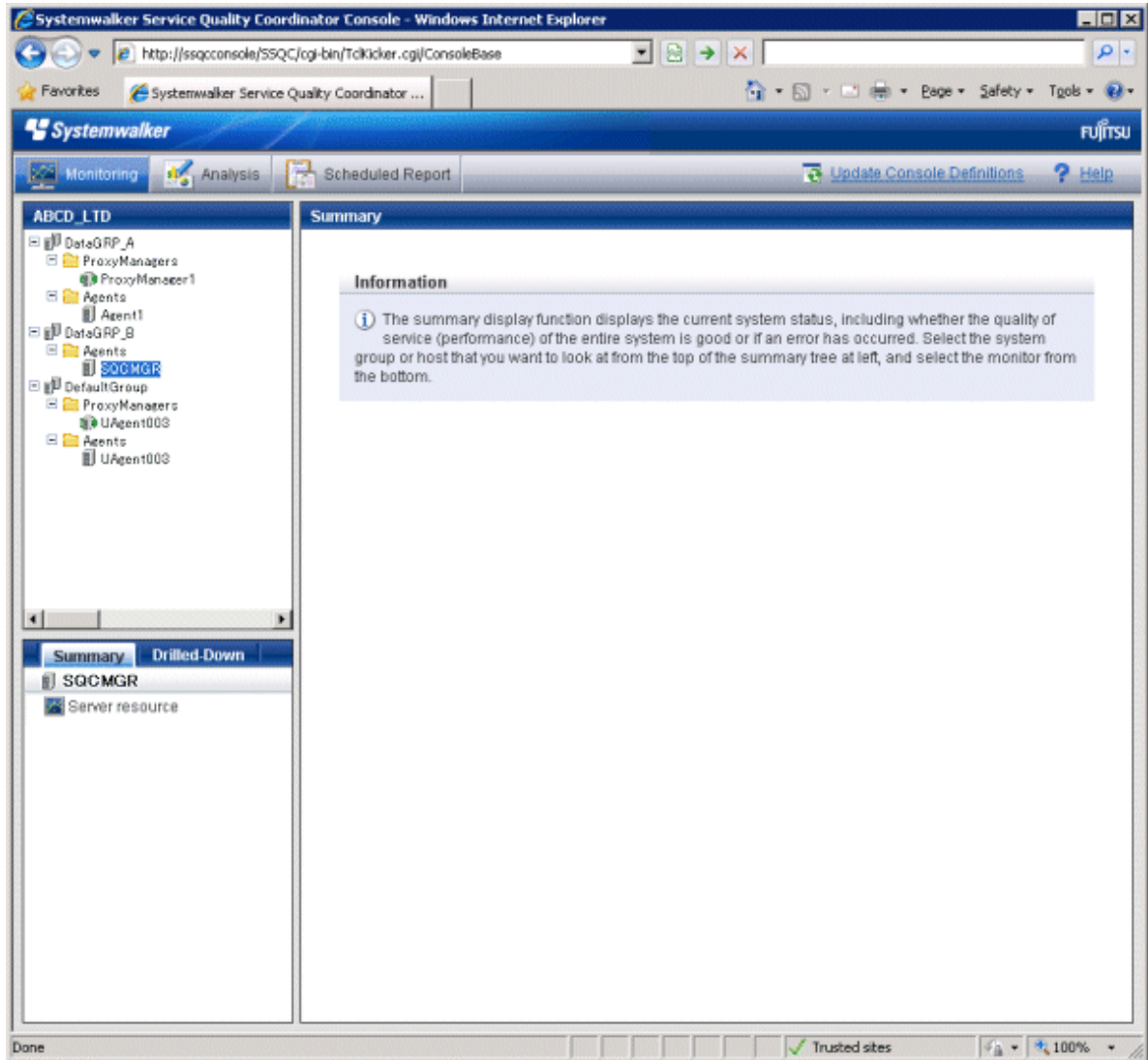
Example of monitored content invocation

When the "mode", "type/name" and "monitor" parameters are all specified, monitor content will be displayed directly.

[Sample URL entry for invocation]

```
http://client_host/SSQC/User1.html?
mode=monitor&type=Agent&name=Agent_C&monitor=ServerMonitor
```

[Sample startup window]
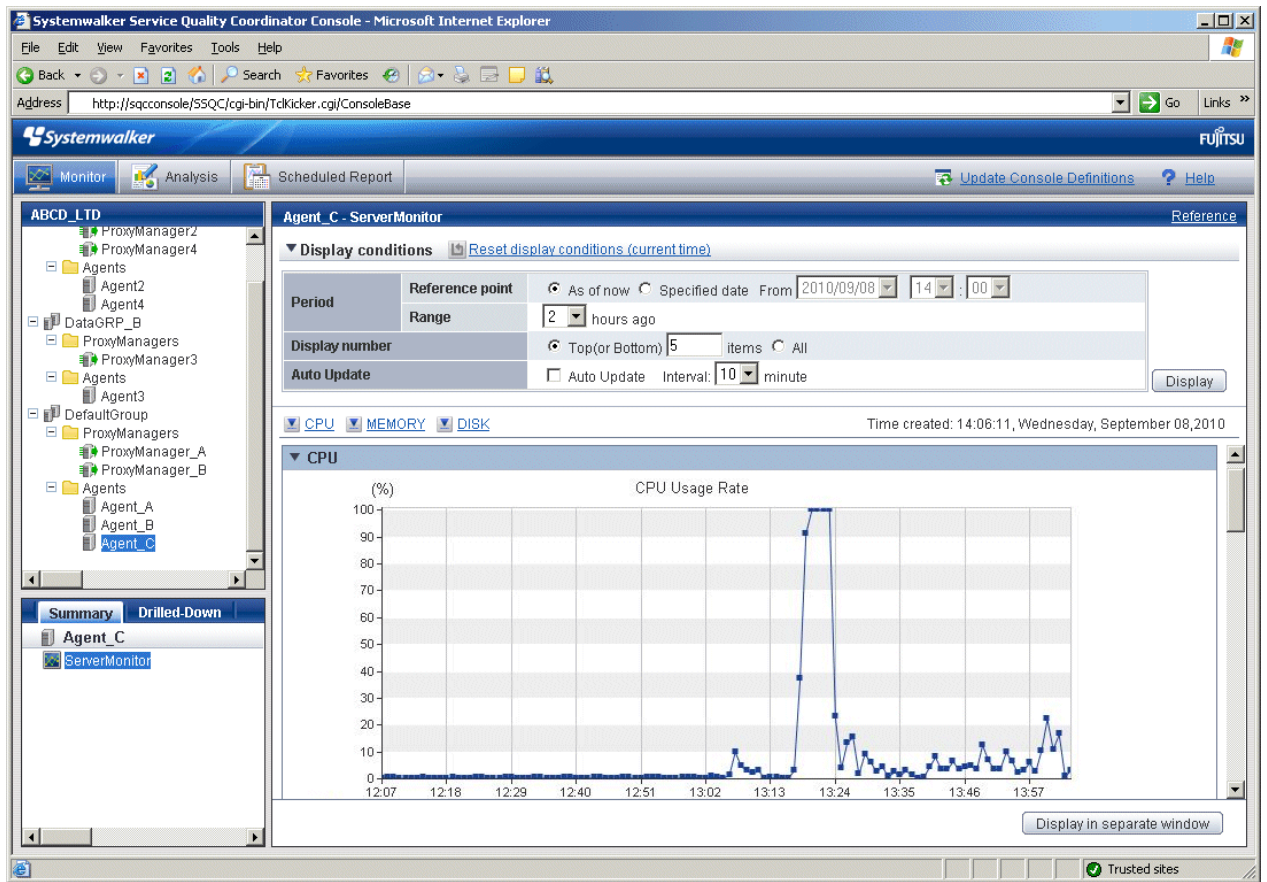
3.3.2 Invoking the Drilled-Down Display

To invoke the **Drilled-Down** display directly, add the following parameters.

> http://*Host name for operation management client*/SSQC/XXX.html?
> mode=drilldown[&type=TARGET_TYPE&name=TARGET_NAME]

The "XXX" part of the URL is a user name that has been registered with the **Admin Console**.

To enter user names, first make basic authentication settings for each user by referring to Section 5.3, "How to Set Up Basic Authentication for Operation Management Clients" in the *Installation Guide*.

parameter

The meaning of each parameter is explained in the following table.

Parameter name	Meaning
mode	Specifies the function to be invoked. When invoking the **Drilled-Down** view, this parameter is fixed as "drilldown".
type	Specifies the type and name (display name) of the target to be displayed.
name	These two parameters are specified together as a set. The following types can be specified: "SystemGroup" "ProxyManager"

Parameter name	Meaning
	"Agent" **P Point** "name" cannot specify some characters (such as #, ?, +, \ and $) in an URL directly. Use URL encoding to specify any of these characters. **Note** If "SystemGroup", "ProxyManager" or "Agent" is specified for "type", and if the object corresponding to the display name specified for "name" does not exist, the following message will be displayed in the lower part of the Summary tree of the Console from which the view was invoked: "The node selected is not exist."

The content invoked by each parameter differs according to the extent of the specification.

The following table lists the various parameter combinations.

Invoked content	mode	type	name
Drilled-Down display	Yes	No	
Drilled-Down display status target	Yes	Yes	

Example of Drilled-Down display invocation

If only the "mode" parameter is specified, the Console will start up with the Drilled-Down display function selected.

[Sample URL entry for invocation]

http://client_host/SSQC/User1.html?mode=drilldown

[Sample startup window]
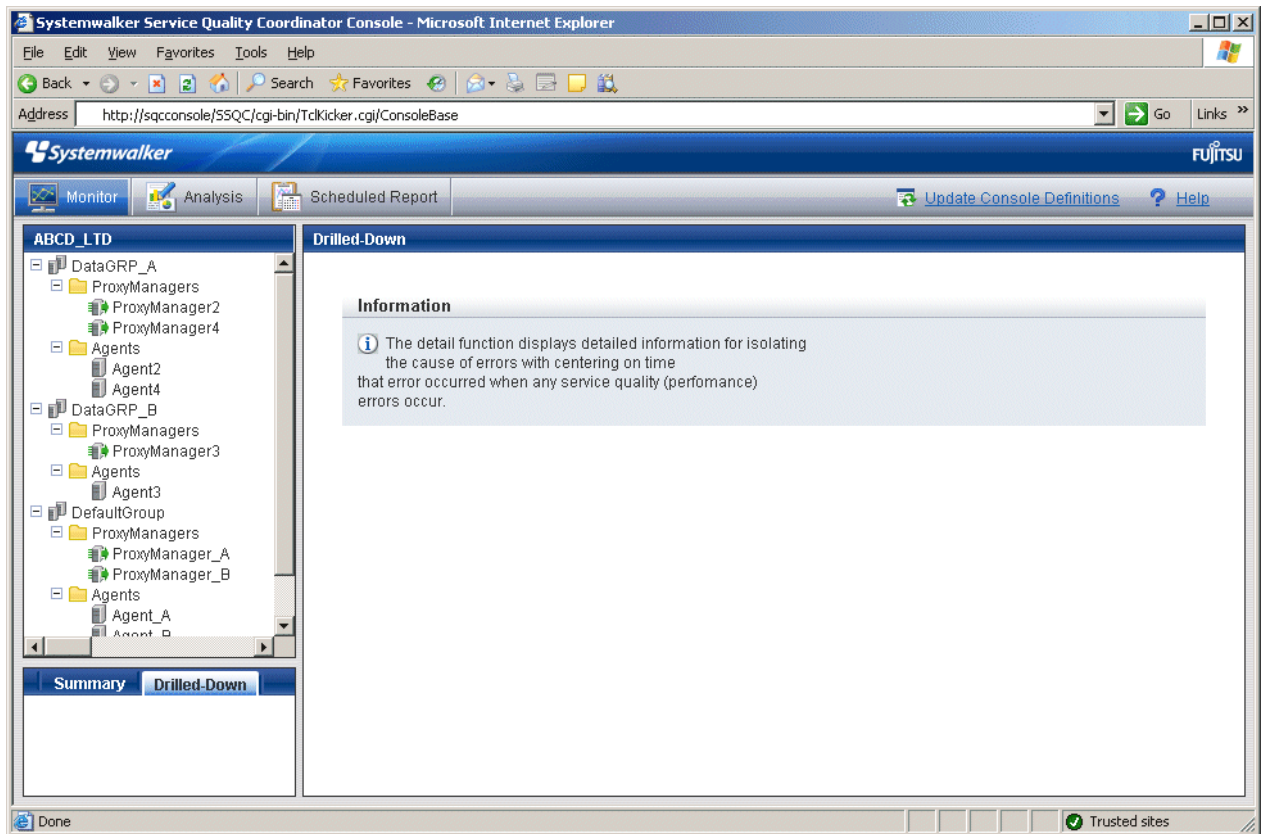
Example of Drilled-Down display target invocation

When the "mode" and "type/name" parameters are specified, the Console will start with the targets selected in the Drilled-Down tree.

After the Console has started, Drilled-Down display content can be displayed simply by selecting detailed parameters.

[Sample URL entry for invocation]

```
http://client_host/SSQC/User1.html?mode=drilldown&type=Agent&name=Agent_C
```

[Sample startup window]

Chapter 4 Analysis Window and Scheduled Report View

The analysis window and scheduled report view output regular reports for periodic reporting and inspection purposes to enable analysis of service quality over the medium to long term to avoid future problems.

The content output is the same for both the analysis window and scheduled report view.

The following three categories of reports are provided. Their selection depends on the precision of the information and the purpose of the report.

- Full system inspection analysis/report

- Categorized diagnostic analysis/report

- Detailed analysis/report

The following three types of analysis window and scheduled report view are available, as determined by the execution method:

- **Analysis** window**:** A window for generating and displaying reports when they are needed

- **Scheduled Report View**: A window for viewing reports that are issued automatically according to a schedule

- **Scheduled Report Registration View**: A window for registering scheduled reports

This chapter will provide an overview of each type of reports and views, and then explain the items that are common to both types.

4.1 Types of Analyses and Reports

Analyses and reports are divided into the following three categories according to their purpose.

Analyses and report category	Purpose
Full system inspection analysis/ report	This analysis and report enables system administrators to periodically inspect the operational status of the system. Analysis and reports are generated for individual system groups.
Categorized diagnostic analysis/ report	This analysis and report is for primary fault isolation of bottlenecks within servers where problems have occurred.

Analyses and report category	Purpose
	Analysis and reports are generated for individual servers, or for individual instances within servers.
Detailed analysis/report	This analysis and report is for checking detailed information in terms of particular data.

Each category of analysis and report is provided with a number of analysis and report types, which are differentiated by the type of information that is analyzed or reported.

The following table lists the different report types available for each report category.

4.1.1 Full System Inspection Analysis/Report

Reports that include UNIX in the analysis and report title are common to both Solaris and Linux.

Analysis and Report type	Outline
End user response	End user response information: - End user response
HTTP service	HTTP service operational information: - HTTP Operating rate
SMTP service	SMTP service operational information: - STMP Operating rate
DNS service	DNS service operational information: - DNS Operating rate
PORT service	PORT service operational information: - PORT Operating rate
Web transaction	Web transaction volume information: - Request count - Traffic - Error count - Request count
Windows server	Windows server performance information: - CPU usage rate - Free memory - Disk busy - Disk usage rate
UNIX server	UNIX server performance information: - CPU usage rate

Analysis and Report type	Outline
	- Free memory - Disk busy - Disk usage rate
Solaris Zone	Solaris zone performance information - CPU usage rate - Memory usage rate **P Point** • If Solaris zones are bound to processor sets, the CPU usage will be 100% for each processor set. •
Interstage(EJB)	Interstage Application Server (EJB) performance information: - Max processing times for EJB application
Interstage(TD)	Interstage Application Server (TD) performance information: - Max processing times for transaction application
Interstage(CORBA)	Interstage Application Server (CORBA) performance information: - Max processing times for CORBA application
Interstage(IJServer)	Interstage Application Server (IJServer) performance information: - Current values in the JavaVM heap information - Current values in the JavaVM Perm area information
Symfoware	Symfoware Server performance information: - Buffer hit ratio - Buffer Dry up - Deadlocks - SQL executions
Oracle	Oracle Database Server performance information: - Buffer cache hit ratio - Deadlocks
Operation Manager	Systemwalker Operation Manager performance information: - Job multiplicity - Number of execution waiting jobs - Number of jobs that have exceeded the predicted time - Number of completed jobs - Number of error jobs
Microsoft SQL Server	Microsoft SQL Server performance information: - Buffer cache hit ratio - Deadlocks - Transactions

Analysis and Report type	Outline
SAP	SAP NetWeaver performance information: - Dialog response time - Number of enqueue requests and queue length - Background usage rate - Number of RFC calls waiting to be executed
Microsoft .NET	Microsoft .NET performance information: - Requests count - Wait queues
VMware(Physical)	Detailed VMware ESX/VMware ESXi performance information: - CPU usage rate - Free memory - Disk I/O count **P Point** . . . . This report makes it easy to see how much the physical CPU, disk, and memory are being used and how much is available. . . . .
HyperV(Physical)	Detailed Hyper-V performance information: - CPU usage rate **P Point** . . . . This report makes it easy to see how much the physical CPU is being used and how much is available. It is also possible to see information about the physical memory and disk by displaying free memory and physical disk busy rate of "Windows Server" in the full system inspection analysis/report. . . . .
Distribution of rsc. usage cond. (Windows)	Distribution of resource usage condition (Windows): - CPU usage rate distribution - Memory usage rate distribution - Numbers of disk reads distribution - Numbers of disk writes distribution - Amount of network transmission distribution - Amount of network reception distribution **P Point** . . . . This report displays the resource usage status distribution of Windows servers registered in system groups.

Analysis and Report type	Outline
	If a resource was changed (for example because of memory being added within a specified period), only the post-change information for this server will be displayed.
Distribution of rsc. usage cond.(UNIX)	Distribution of resource usage condition (UNIX) - CPU usage rate distribution - Memory usage rate distribution - Numbers of disk reads distribution - Numbers of disk writes distribution **P Point** This report displays the resource usage status distribution of UNIX servers registered in system groups. If a resource was changed (for example because of memory being added within a specified period), only the post-change information for this server will be displayed.
List of rsc. usage cond. (Windows)	List of resource usage condition (Windows) - CPU usage rate - CPU used - Memory usage rate - Memory used - Disk I/O reads - Disk I/O writes - Amount of network transmission - Amount of network reception - Information of installed resource **P Point** This material is checked to confirm the allocation information and usage status for resources for Windows servers registered in system groups to determine server integration and virtualization. If a resource was changed (for example because of memory being added within a specified period), only the post-change information for this server will be displayed. The validity period will be displayed in [Information acquisition period] of [Information of installed resource]. If this was saved in Excel(R) format, the usage information for each resource will be displayed in a list on the [ALL] sheet.
List of rsc. usage cond. (UNIX)	List of resource usage condition (UNIX) - CPU usage rate - CPU used - Memory usage rate

Analysis and Report type	Outline
	- Memory used
	- Disk I/O reads
	- Disk I/O writes
	- Information of installed resource
	P **Point**
	This material is checked to confirm the allocation information and usage status for resources for UNIX servers registered in system groups to determine server integration and virtualization.
	If a resource was changed (for example because of memory being added within a specified period), only the post-change information for this server will be displayed. The validity period will be displayed in [Information acquisition period] of [Information of installed resource].
	If this was saved in Excel(R) format, the usage information for each resource will be displayed in a list on the [ALL] sheet.

For more details on the information displayed in analysis and reports, refer to Section 3.2.2, "Manager" in the *Technical Guide* and Chapter 4, "Data Formats" in the *Reference Guide*.

4.1.2 Categorized Diagnostic Analysis/Report

Reports that include UNIX in the analysis and report title are common to both Solaris and Linux.

Analysis and Report type	Outline
Web transaction Request	- Request status of each service (Request count, Time taken)
Web transaction hitserver	- Hitserver count
Web transaction hitclient	- Hitclient count
Web transaction hitremote	- Hitremote count
Web transaction Traffic	- Traffic of each service
Web transaction Error	- Error count of each service
Windows CPU	- CPU usage rate (User, System)
	- CPU queue length
Windows physical disk	- Disk Busy
	- Disk Queue
	- Service Times
Windows disk space	- Disk usage rate
Windows memory	- Available memory capacity
	- Number of page-in/page-out operations
Windows process	- CPU Time
	- Pagefile Size

Analysis and Report type	Outline
	- Working set Size
Windows CPU (Contour)	- A contour line graph of CPU use rate
Windows physical disk (Contour)	- A contour line of graph of Physical disk busy
Windows memory (Contour)	- A contour line of graph memory usage
UNIX CPU	- CPU usage rate (User, System) - CPU queue length ![icon] **Note** The CPU queue length is displayed if an analysis and report is made for a Solaris server.
UNIX physical disk	- Disk Busy - Disk Queue - Service Times
UNIX disk space	- Disk usage rate
UNIX memory	- Available memory capacity - Number of swap-in/swap-out operations ![icon] **Note** The number of swap-in/swap-out operations is displayed if an analysis and report is made for a Solaris server.
UNIX process	- CPU Time - Memory Usage
UNIX CPU (Contour)	- A contour line graph of CPU use rate
UNIX physical disk (Contour)	- Physical Disk Busy (Contour)
UNIX memory (Contour)	- A contour line of graph memory usage
Solaris Zone CPU	- CPU Usage Rate - CPU Usage Time ![icon] **Point** If Solaris zones are bound to processor sets, the CPU usage will be 100% for each processor set.
Solaris Zone memory	- Memory Usage Rate - Virtual Memory Size - Real Memory Size
Solaris Zone CPU (Contour)	- CPU Usage Rate (Contour)

Analysis and Report type	Outline
	P **Point** ·· If Solaris zones are bound to processor sets, the CPU usage will be 100% for each processor set. ··
Solaris Zone memory (Contour)	- Memory Usage Rate (Contour)
VMware(Virtual)	- CPU usage rate - Memory usage - Disk I/O count VMware ESX/VMware ESXi
HyperV(Virtual)	- CPU usage rate
Xen(Virtual)	- CPU usage rate - Memory usage - Disk I/O count
Interstage EJB application	- Processing time (avg/max/min) - Wait time (avg/max/min) - Number of received requests and the number of process wait requests - Amount of VM memory used - Number of sessions
Interstage CORBA application	- Processing time (avg/max/min) - Wait time (avg/max/min) - Number of received requests and the number of process wait requests
Interstage transaction application	- Processing time (avg/max/min) - Wait time (avg/max/min) - Number of received requests and the number of process wait requests
Interstage IJServer JVM	- JavaVM heap information (avg/max/min) - JavaVM perm information (avg/max/min) - Garbage collection information (avg/max/min)
Interstage IJServer JTA	- Transaction information (avg/max/min)
Interstage IJServer JDBC	- Connection pool information (avg/max/min) - Information about connection acquisition wait status (avg/max/min) - Information about establishment of physical connection (avg/max/min) - Information about establishment of connection from application (avg/max/min)
Interstage IJSserver SERVLET CONTAINER	- Number sum total of Threads(AVG/MAX/MIN)

Analysis and Report type	Outline
	- Number of Threads currently in progress(AVG/MAX/MIN)
Interstage IJSserver SERVLET WEBMODULE	- The effective number of Sessions(AVG/MAX/MIN)
Interstage IJSserver EVENT SERVICE	- Number of Connected consumers(AVG/MAX/MIN))
	- Number of Connected suppliers(AVG/MAX/MIN)
	- Number of Accumulated event data items(AVG/MAX/MIN)
Symfoware shared buffer	- Number of times the shared buffer was used up
	- Shared buffer hit rate
Symfoware log area	- BI Log Dry Up Count
	- Recovery Log Over Count
	- Transaction Entry Dry Up Count
Symfoware disk I/O	- Number of I/O operations for different database spaces
Oracle SGA	- Buffer cache hit rate
	- REDO log buffer cache
	- Library cache hit rate
	- Dictionary cache hit rate
Oracle PGA	- Memory sort hit rate
Oracle disk I/O	- Free tablespace
	- Database I/O
Oracle resource conflict	- Ratio of zero rollback segment wait time
Oracle tablespace	- Tablespace usage rate
Centric Manager traffic	- Line utilization rate
	- Number of octets
Centric Manager packet	- Number of packets
	- Discard packet rate
	- Error packet rate
Operation Manager Subsystem	- Job multiplicity of each Subsystem (Job multiplicity, Network/Distributed execution job multiplicity)
	- Job net multiplicity of each Subsystem
	- Number of execution waiting jobs of each Subsystem
	- Execution waiting time of each Subsystem
	- Number of jobs that have exceeded the predicted time of each Subsystem
	- Number of completed jobs
	- Number of error jobs
Operation Manager Queue	- Job multiplicity of each Queue (Job multiplicity, Network/Distributed execution job multiplicity)
	- Job net multiplicity of each Queue

Analysis and Report type	Outline
	- Number of execution waiting jobs of each Queue
	- Execution waiting time of each Queue
	- Number of jobs that have exceeded the predicted time of each Queue
Operation Manager Project	- Job multiplicity of each Project
	- Job net multiplicity of each Project
	- Number of execution waiting jobs of each Project
	- Execution waiting time of each Project
	- Number of jobs that have exceeded the predicted time of each Project
	- Number of completed jobs
	- Number of error jobs
Network Manager network traffic	- Input Network Utilization Rates
	- Output Network Utilization Rates
Network Manager CPU load	- CPU Usage Rate
Network Manager collision	- Number of Collisions
Network Manager CRC error	- Number of CRC Errors
Network Manager drop packet	- Number of Input Drop Packets
	- Number of Output Drop Packets
Network Manager transfer packet	- Number of Input Error Packets
	- Number of Output Error Packets
Network Manager discard packet	- Number of Input Discard Packets
	- Number of Output Discard Packets
Network Manager error packet	- Number of Input Error Packets
	- Number of Output Error Packets
Network Manager IP operating rates	- IP Operating Rate
Network Manager RTT	- RTT
	- Ping Loss Rates
TcpNetwork	- Number of TCP packets transferred
	- Size of TCP packets transferred
	- Resend rate, duplicated reception rate, packet loss rate
	- Network problem situation
Storage CM CPU usage rate	- CM CPU Usage Rate
Storage CM(ROE) CPU usage rate	- CM(ROE) CPU usage rate
Storage disk busy	- Disk Busy
Storage throughput	- Throughput
Storage IOPS	- IOPS(IO/sec.)

Analysis and Report type	Outline
Storage response time	- Read Response - Write Response
Storage cache hit rate	- Read Cache Hits - Write Cache Hits
NAS CPU usage rate	- NAS CPU usage rate
NAS NFS OPS	- NFS processing performance
NAS CIFS OPS	- CIFS processing performance
NAS HTTP OPS	- HTTP processing performance
NAS network traffic	- Amount of network input data - Amount of network output data
NAS DISK R/W data amount	- Amount of disk read data - Amount of disk write data
NAS tape R/W data amount	- Amount of tape read data - Amount of tape write data
Workload	- Amount of CPU resources allocated - Amount of CPU resources used
MS-SQL ACCESS METHOD	- Full Scan Count - Index Count
MS-SQL Server BUFFER	- Buffer cache hit ratio - Access Count
MS-SQL Server CMGR	- Cache hit rate - Hits Count
MS-SQL Server DATABASES	- Transaction Count - Active Transaction Count - Log Area Ratio
MS-SQL Server GENERALSTATISTICS	- Number of Connected Users
MS-SQL Server LOCKS	- Deadlocks Count
MS-SQL Server MEMORY	- Total Amount of Memory
MS-SQL Server STATISTICS	- Number of SQLS Batch Requests
MS-.NET ASP.NET	- Waiting Demands for Processing Count - Application Reboot Count - Worker Process Reboot Count
MS-.NET Applications	- Transaction Count - Number of Execution Requests - Sessions Count - Error Count
MS-.NET Remote procedure	- Total Number of Remote Procedure Calls

Analysis and Report type	Outline
Resource piling(Windows)	- CPU used - Memory used - Disk I/O reads - Disk I/O writes - Amount of network transmission - Amount of network reception ![P] **Point** ·· The resource usage status can be simulated if the selected servers are consolidated on one machine. If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated. A threshold value that will be tolerated can be set for the CPU and memory, and you can also check that the value is not greatly exceeded. ·· ![G] **Note** ·· - "CPU used" and "Memory used" are not displayed when the aggregation candidate server is monitored using the agent for Agentless Monitoring function or using the agent of previous versions and levels. - Install Agent to the virtual server when a virtual server is an aggregation candidate. ··
Resource piling(UNIX)	- CPU used - Memory used - Disk I/O reads - Disk I/O writes ![P] **Point** ·· The resource usage status can be simulated if the selected servers are consolidated on one machine. If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated. A threshold value that will be tolerated can be set for the CPU and memory, and you can also check that the value is not greatly exceeded. ··

Analysis and Report type	Outline
	Note - "CPU used" and "Memory used" are not displayed when the aggregation candidate server is monitored using the agent for Agentless Monitoring function or using the agent of previous versions and levels. - Install Agent to the virtual server when a virtual server is an aggregation candidate.
Estimated response time (Requests) **Note** This report can only be used in the analysis window.	- Delay analysis - Fluctuation in number of requests
Estimated response time (Servers) **Note** This report can only be used in the analysis window.	- Delay analysis - Fluctuation in number of servers

For more details on the information displayed in analysis and reports, refer to Section 3.2.2, "Manager" in the *Technical Guide* and Chapter 4, "Data Formats" in the *Reference Guide*.

4.1.3 Detailed Analysis/Report

Analysis and Report type	Outline
Time-series display	Displays specified field values as chronological graphs and tables.
Summary data time-series display	Display the summary data as a time-series graph or table.
Correlation display	Displays two specified field values as correlation graphs and regression line graphs.
Regression analysis display	Displays specified field values as regression line graphs.
Contour display	Displays specified field values as contour graphs. This assumes that data will be used over a long period of time (about one month)
Past/present time-series display	Displays a graph that allows hourly data from the past month and the past week to be compared side-by-side with the data for the base day **Note** This report can only be used in daily reports.

Analysis and Report type	Outline
Transition comparison display	Displays a graph that compares data trends for the specified date and time period.
Composite display	Displays a graph that allows two different items (such as response times and CPU usage) to be compared side-by-side.

For more details on the information displayed in analysis and reports, refer to Section 3.2.2, "Manager" in the *Technical Guide* and Chapter 4, "Data Formats" in the *Reference Guide*.

4.2 Analysis Window

This section explains how to use the **Analysis** window.

Starting

Start the Console by clicking the **Console** button on the **Console Definitions** tab of the **Admin Console** window.
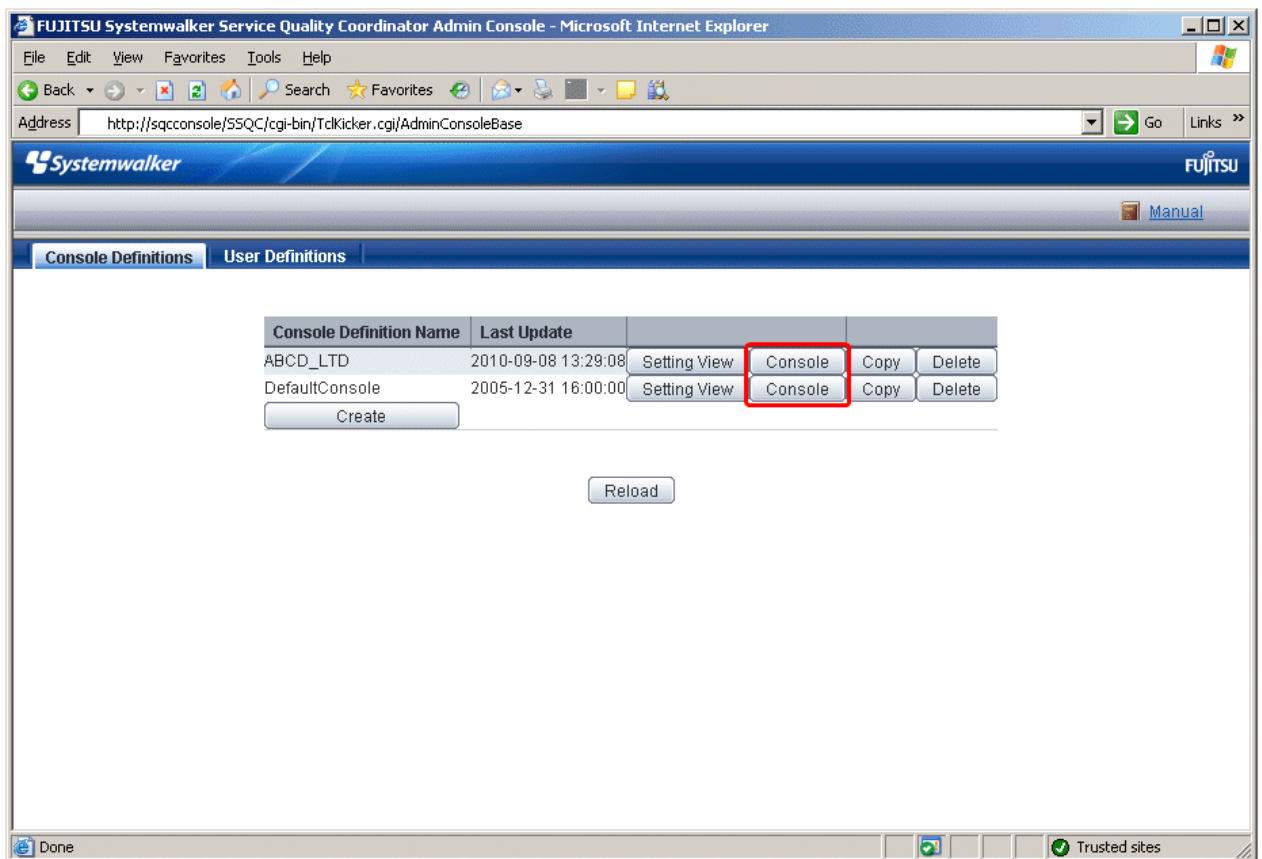
Or start the Console directly by specifying the URL.

Click on the **Analysis** menu from the global navigation bar in the Console to start.

![Note icon] **Note**

. . . .
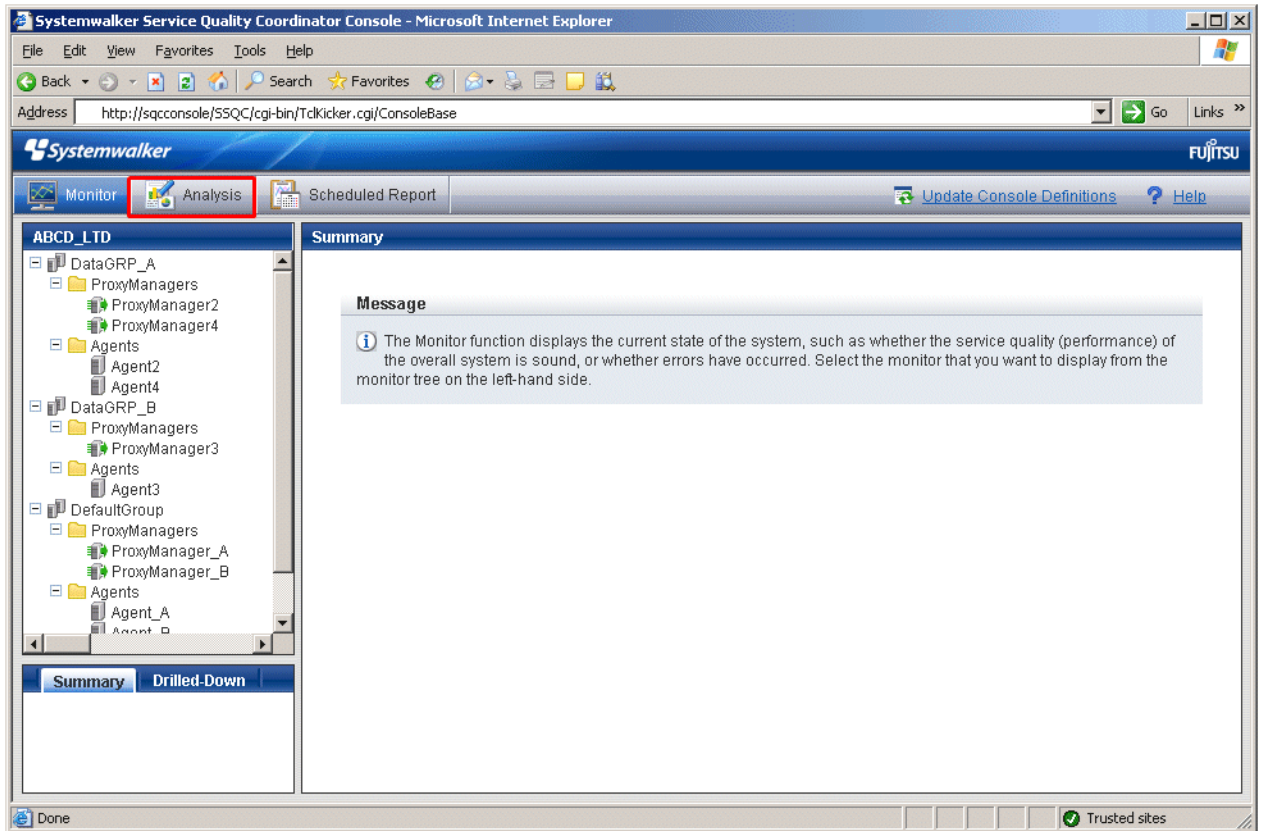
Do not perform operations in the **Analysis** window using the pop-up context menu that appears when the right mouse button is clicked.

. . . .

Window configuration

The **Analysis** window will appear as below.
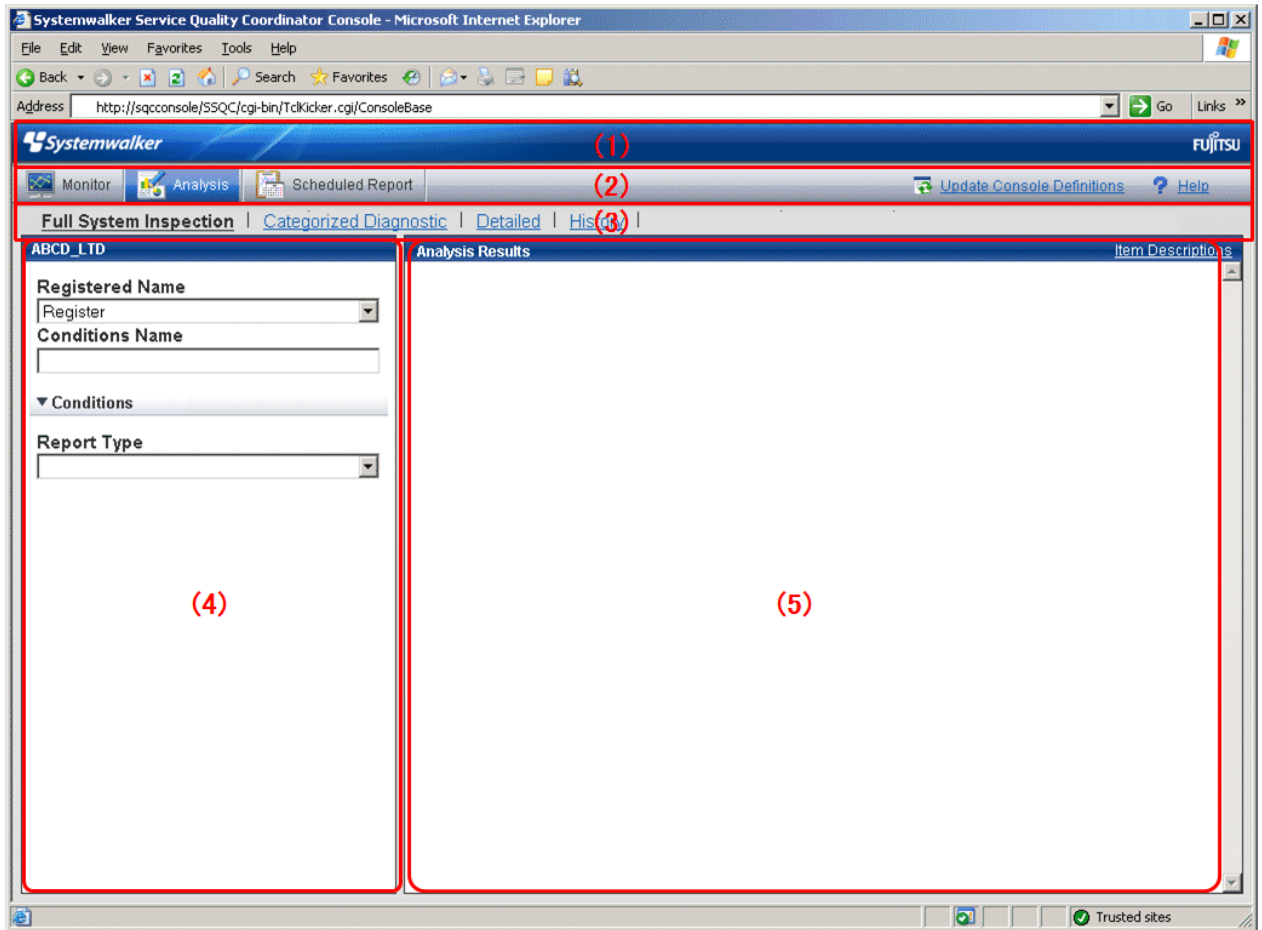
Basic configuration

The **Analysis** window is organized as shown in the following table.

Item No.	Component	Description
(1)	Global header	The Systemwalker and Fujitsu logos are displayed.
(2)	Global navigation bar	The menus are as follows: - **Monitoring** Opens the monitoring window. Allows checks on the current status and isolates faults when they occur. - **Analysis** Opens the analysis window. Analyzes service quality over the medium to long term to avoid future problems. - **Scheduled Report** Opens the scheduled report window. Displays reports about service levels for the customer or for capacity planning. - **Update Console Definition** Reloads the console definitions. - **Help** Opens the *User's Guide (Console Edition)*.
(3)	Menu area	The menus are as follows:

		- **Full System Inspection** This analysis window enables system administrators to periodically inspect the operational status of the system. Analysis is performed by system group. - **Categorized Diagnostic** This analysis window is for primary fault isolation of bottlenecks within servers where problems have occurred. Analysis is performed by server or by instances in the server. - **Detailed** This analysis window is for checking detailed information in terms of particular data. - **History** Can be used to display a history of previously created analysis windows
(4)	Analysis conditions area	Analysis conditions can be configured or registered in the full system inspection, categorized diagnostic and detailed analysis windows.
(5)	Content display area	Each content from full system inspection, categorized diagnostic and detailed analysis windows is displayed.

4.2.1 Full System Inspection, Categorized Diagnostic, and Detailed Analysis Windows

This section explains the **Full System Inspection Analysis**, **Categorized Diagnostic**, and **Detailed** analysis windows.

The following window appears when you select **Full System Inspection**, **Categorized Diagnostic**, or **Detailed** menu in the menu area of the analysis window.
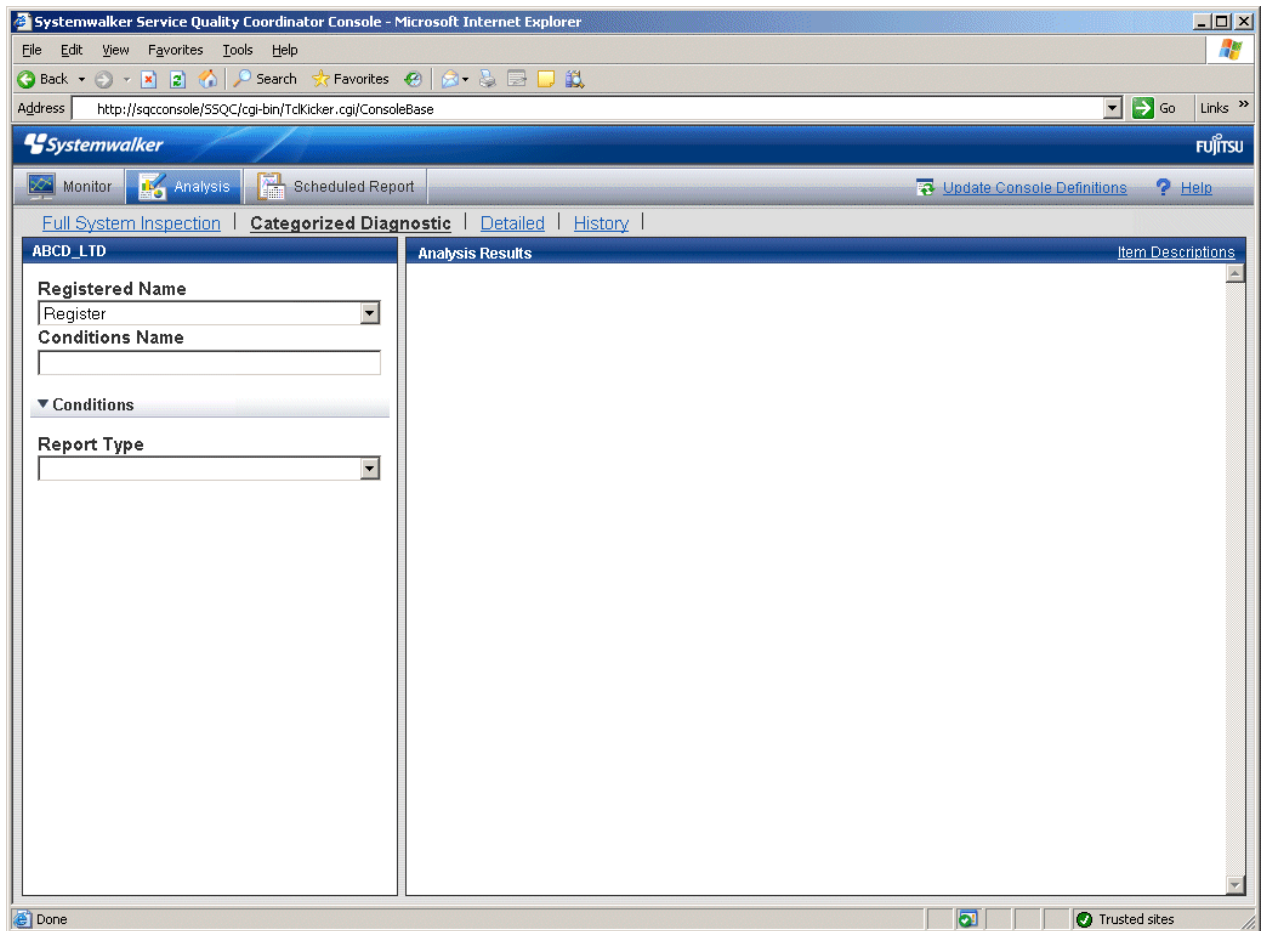
Basic operation

The **Full System Inspection**, **Categorized Diagnostic**, and **Detailed** analysis windows perform the following operation.

Operation	Description
Register analysis conditions	Registers any analysis conditions. Select **Register** in **Registered Name** and enter a condition name in **Category**. Enter the required analysis conditions, then items other than the dates for starting and finishing analysis are registered when the **Register** button is pressed.
Edit analysis conditions	Change the content of registered analysis conditions. Select the condition name to be edited in **Registered Name**. Enter the required analysis conditions, then items other than the dates for starting and finishing analysis are registered when the **Save Over Current** button is pressed.
Copy analysis conditions	Copies registered analysis conditions. Select the condition name to be copied in **Registered Name**. Enter the required analysis conditions, then the **Category** dialog appears when the **Register** button is pressed, so enter the condition name and click the **OK** button. Items other than the dates for starting and finishing analysis are registered.
Delete analysis conditions	Deletes a registered analysis condition. Select the condition name to be deleted in **Registered Name** and click the **Delete** button.

Operation	Description
Display analysis window	Displays the analysis window under the conditions displayed in the window. Conditions do not need to be registered. The content displayed is saved in the history.

See

. . . .

Refer to "4.3 How to Change the Analysis Conditions" for details on how to change the analysis conditions.

. . . .

4.2.2 Report History Window

This section explains the **Report History** window in the **Analysis** window.

The following window appears when the **Report History** item is selected in the menu area in the **Analysis** window.

Basic operation

The operation described above can be done in the **Report History** window.

Past analysis windows open in separate windows when lines in the list are clicked.

The analysis window history can store up to 50 reports.

If this number is exceeded, reports will be automatically deleted in chronological order.

P Point

If there are analysis windows that are not to be deleted, click the **Display** button to open the display window, then use the **File** menu of the browser to save the analysis windows to any folder.

4.3 How to Change the Analysis Conditions

This section explains how to change the analysis conditions.

Note

The following kinds of problems may occur if an attempt is made to display the desired content (graphs or tables) in the **Summary** view, **Drilled-Down display** view, or **Analysis** window of the **Console**.

- The operation terminates with error code 1572864.

- "Chart is unavailable" is displayed instead of the graph image.

- The graph image may be left out (only graphs are not displayed).

- The following error message may be displayed.

> "The specified CGI application misbehaved by not returning a complete set of HTTP headers. The headers it did return are: Unable to register TclNotifier window class"
>
> "ohd_update error."
>
> "Ohd file create error."

These problems may be due to insufficient space in the desktop heap for the operation management client. Increase the size of the desktop heap by referring to "5.1 Content Display Errors".

Window configuration

Basic operation

Item No.	Component	Description
(1)	Condition name	Identifier for registered analysis conditions.
(2)	Type specification	A specification relating to the analysis type.
(3)	Analysis target specification	A specification relating to the analysis target.
(4)	Specifications relating to the data interval and the number of display items	Specifies the data interval and the number of display items for the report. The way the number of display items is displayed depends on the report types specified in (2). CPU usage rates etc. are extracted by a high-ranking number to do the high CPU usage rates by the process in the troubleshooting. Available memory capacity is extracted by the low-ranking number to prevent the system down by insufficient memory. The number of data items to display in the report is about up to 20.
(5)	File output	Makes settings for file output from the analysis window.
(6)	Operation buttons (to register, edit, and	Buttons for registering, changing, and deleting the analysis conditions.

Item No.	Component	Description
	delete analysis conditions)	
(7)	Period specifications	Specifies the periods for analysis.
(8)	Operation button (to display)	Button for displaying the results of analysis as content.
(9)	Content display area	Each content from full system inspection, categorized diagnostic, and detailed analyze windows is displayed.

The following sections explain each item in more detail.

4.3.1 Condition Name and Registered Report Name

Specify a name to identify the analysis condition. It is still possible to analyze without specifying one.

Item name	Description
Registered Report Name Category	Specify a display name to identify the analysis conditions. This name is used in the history display and in the scheduled report list. When **Register** is selected in **Registered Report Name**, a **Category** input field appears. After registration, this appears as **Registered Report Name**. The following characters can be used for condition names: - Alphanumeric characters - Symbols (except for $ " ' [ ] < > / ? | ; : * \ & , . =) Platform dependent characters can not be used. The registered report name can be no longer than 36 characters.

4.3.2 Type Specification

Specify the type of analysis.

Item name	Description
Report Type	Specify the type.

Item name	Description
	Refer to "4.1 Types of Analyses and Reports" for details on the types that can be specified.

The items under **Report Type** are different for the full system inspection, categorized diagnostic, and detailed analysis windows.

The following table explains the specification types for each report type according to the category.

Category	Report type	Specification type
Full system inspection analysis	HTTP service	For service operational monitoring only
	SMTP service	
	DNS service	
	PORT service	
	Other	System group specification
Categorized diagnostic analysis	Web transaction Request	System group, host and resource ID specification
	Web transaction hitserver	
	Web transaction hitclient	
	Web transaction hitremote	
	Web transaction Traffic	
	Web transaction Error	
	Windows CPU	System group and host specification
	Windows physical disk	
	Windows disk space	
	Windows memory	
	Windows process	
	Windows CPU (contour)	
	Windows physical disk (contour)	
	Windows memory (contour)	
	UNIX CPU	
	UNIX physical disk	
	UNIX disk space	
	UNIX memory	
	UNIX process	
	UNIX CPU (Contour)	
	UNIX physical disk (Contour)	
	UNIX memory (Contour)	
	Solaris Zone CPU	
	Solaris Zone memory	
	Solaris Zone CPU (contour)	
	Solaris Zone memory (contour)	
	VMware(Virtual)	

Category	Report type	Specification type
	HyperV(Virtual)	
	Xen(Virtual) -	
	Interstage EJB application	System group, host and resource ID specification
	Interstage CORBA application	
	Interstage transaction application	
	Interstage IJServer JVM	
	Interstage IJServer JTA	
	Interstage IJServer JDBC	
	Interstage IJServer SERVLET CONTAINER	
	Interstage IJServer SERVLET WEBMODULE	
	Interstage IJServer EVENT SERVICE	
	ISI Sequence	
	ISI Queue	
	Symfoware shared buffer	
	Symfoware log area	
	Symfoware disk I/O	
	Symfoware database space usage rate	
	Oracle SGA	
	Oracle PGA	
	Oracle disk I/O	
	Oracle resource conflict	
	Oracle tablespace usage rate	
	Centric Manager traffic	System group and host specification
	Centric Manager packet	
	Operation Manager Subsystem	System group, host and resource ID specification
	Operation Manager Queue	
	Operation Manager Project	
	Network Manager network traffic	
	Network Manager CPU load	
	Network Manager collision	
	Network Manager CRC error	
	Network Manager drop packet	
	Network Manager transfer packet	
	Network Manager discard packet	
	Network Manager error packet	
	Network Manager IP operation	

Category	Report type	Specification type
	Network Manager RTT	
	TcpNetwork	
	Storage CM CPU usage rate	
	Storage CM(ROE) CPU usage rate	
	Storage disk usage rate	
	Storage throughput	
	Storage IOPS	
	Storage response times	
	Storage cache hit rate	
	NAS CPU usage rate	
	NAS NFS OPS	
	NAS CIFS OPS	
	NAS HTTP OPS	
	NAS network traffic	
	NAS DISK R/W data amount	
	NAS tape R/W data amount	
	Workload	
	MS-SQL ACCESS METHOD	
	MS-SQL Server BUFFER	
	MS-SQL Server CMGR	
	MS-SQL Server DATABASES	
	MS-SQL Server GENERALSTATISTICS	
	MS-SQL Server LOCKS	
	MS-SQL Server MEMORY	
	MS-SQL Server STATISTICS	
	MS-.NET ASP.NET	
	MS-.NET Applications	
	MS-.NET Remote procedure	
	SAP Enqueue(Request)	
	SAP Enqueue(QueLength)	
	SAP Dialog	
	SAP Spool	
	SAP Background	
	SAP Update	
	SAP Roll Paging	
	SAP Memory	
	SAP Buffers	
	Resource piling(Windows)	For resource piling only
	Resource piling(UNIX)	

Category	Report type	Specification type
	Estimated response time (Requests)	For response estimation analysis only
	Estimated response time (Servers)	
		P **Point**
		• • • • • • • • • • • • • • • • • • • •
		Estimated response time (Requests) and Estimated response time (Servers) can only be specified in analysis screen.
		• • • • • • • • • • • • • • • • • • • •
Detailed analysis	Time-series display	Detailed item specification
	Summary data time-series display	
	Correlation display	For correlation/composition only
	Regression analysis display	For regression analysis display only
	Contour display	For contour display only
	Past/present time-series display	For past/present time-series items only
	Transition comparison display	For transition comparison settings only
	Composite display	For correlation/composition only

The following table lists the content of the resource ID specification for each type.

Type	Resource ID
Web transaction Request	The following specified content differs according to the category:
Web transaction Traffic	For categorized diagnostic reports, specify the service name.
Web transaction Error	
Web transaction hitserver	For detailed reports, specify the service name and the URL connected by a colon (:).
Web transaction hitclient	Example:
Web transaction hitremote	imagine:/SSQC/console.html
	If only the service name is specified, all the data for that service name will be targeted for reporting.
	Note
	• •
	Only URLs that have been set up using "Inclusion" statements can be specified. Refer to Section 8.1.1, "Definition format" in the *User's Guide* for details.
	• •
Interstage EJB application	Specify the name of an EJB application. To monitor the performance of an EJB container, specify the name of the EJB container.
Interstage CORBA application	Specify the implementation repository ID.

Type	Resource ID
Interstage transaction application	Specify the object name.
Interstage IJServer JVM	Specify the object name.
Interstage IJServer JTA	
Interstage IJServer JDBC	
Interstage IJServer SERVLET WebModule	
Interstage IJServer EVENT SERVICE	
Symfoware shared buffer	Specify the RDB system name.
Symfoware log area	 📘 **Point**
Symfoware disk I/O	· Using alphanumeric characters is recommended. ·
Oracle SGA	Specify the instance name.
Oracle PGA	 📘 **Point**
Oracle disk I/O	· ·
Oracle resource conflict	Using alphanumeric characters is recommended. ·
Operation Manager Subsystem	Specify the subsystem name. Example: subsystem00
Operation Manager Queue	Specify the subsystem name and the queue name connected by a colon (:). Example: subsystem00:queue1
Operation Manager Project	Specify the subsystem name and the project name connected by a colon (:). Example: subsystem00:project5
Network Manager network traffic	Specify the node name and the host name connected by a colon (:). Example: node1:interface1
Network Manager CPU load	Specify the node name.
Network Manager collision	Specify the node name and the host name connected by a colon (:). Example: node1:interface1
Network Manager CRC error	
Network Manager drop packet	
Network Manager transfer packet	
Network Manager discard packet	

Type	Resource ID
Network Manager error packet	
Network Manager IP operating rates	Specify the node name.
Network Manager RTT	Specify the node name.
TcpNetwork	Specify the interface name.
Storage CPU usage rate	Specify the Storage ID and the CM ID connected by a colon (:). 00GR730#######GR73E02U####IA000003######:0x30000 **P** Point • This string is displayed in the resource ID column by selecting "CM" under "Storage" with the **Drilled-Down display** view. •
Storage disk busy	Specify the Storage ID and the Disk ID connected by a colon (:). 00GR730#######GR73E02U####IA000003######:0x0 **P** Point • This string is displayed in the "Resource ID" column by selecting "Disk" under "Storage" with the **Drilled-Down display** view. •
Storage throughput Storage IOPS	Specify the Storage ID and the RAIDGroup ID connected by a colon (:). Example: 00GR730#######GR73E02U####IA000003######:0x0 **P** Point • This string is displayed in the "Resource ID" column by selecting "RAIDGroup" under "Storage" with the **Drilled-Down display** view. •
Workload	Specify resource module names separated by a colon (:). Example 1: To specify a single module name module1: Example 2: To specify multiple module names module1:module2: If no name is specified, all modules will be targeted.

4.3.3 Analysis Target Specification

When a **Report Type** is specified, some of the following items are displayed. Exactly which items are displayed depends on the type that has been specified.

The items that are specified for each report type are explained below for the different specification types.

System group specification

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.

System group and host specification

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Host	Select the host to be analyzed from the drop-down list box. The list box displays the hosts that have been registered with the selected system group.

System group, host and resource ID specification

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Host	Select the host to be analyzed from the drop-down list box. The list box displays the hosts that have been registered with the selected system group.
Resource ID	The content specified for **Resource ID** depends on the type. The content that can be input for each type of report is explained below. Note that only alphanumeric characters and symbols (except for \,<>"$'[]=&) can be used. The maximum length is 128 characters.

For resource piling only

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Aggregation candidate	Specify the consolidation candidate host. The hosts registered in the selected system group is in pull-down display, so select the host. From line 5, lines can be added by clicking the [Add] button. The unwanted line can be deleted by clicking the [Del] button. A maximum of 24 machines can be specified. A host cannot be specified redundantly.

Item		Description
		🔰 **Note**
		- "CPU used" and "Memory used" are not displayed when the aggregation candidate server is monitored using the agent for Agentless Monitoring function or using the agent of previous versions and levels.
		- Install Agent to the virtual server when a virtual server is an aggregation candidate.
Aggregation target's information	Specify the aggregation target's Host / Direct input of installed resource	If the consolidation target host has already been registered in the system group, select [Specify the aggregation target's Host]. Amount of installed memory and CPU of the specified host are displayed in black line in displayed graph. Otherwise, select [Direct input of installed resource].
	Host	If [Specify the aggregation target's Host] was selected, the consolidation target host will be selected from the pull-down menu. The host specified as an aggregation candidate can not be specified.
	CPU Number of CPU Memory	If [Direct input of installed resource] was selected, specify the consolidation destination server CPU clock number (GHz), CPU number, and loaded memory capacity (GB) as numbers. - Specify a number between 0.001 and 1000 for the **CPU** (clock number). - Specify an integer between 1 and 1000 for the **Number of CPU**. - Specify a number between 0.001 and 1000 for the **Memory**. Information of the specified CPU and memory is displayed in black line as amount of installed in displayed graph.
	Permissible threshold (Optional) : CPU Memory	Specify the CPU and memory usage rates that will be tolerated on the consolidation destination server as a percentage. This can be omitted. If specified, displayed in red line in displayed graph.

For response estimation analysis only

Response estimation analyses are used to estimate response delays in each level of a three-tiered Web system consisting of a Web server, an application server and a database server when a variable value (increased request volume, number of additional servers) is specified.

The following environment must be in place before response estimation analysis can be generated:

- A system group containing at least one Agent must exist in each level of the system (Web server, application server and database server). Note, however, that if all the servers reside together in a single host machine, the system group can contain all three hosts together.

- The volume of Web transactions must be managed by the Agents making up the Web server level.

- The Agents within a single system group unit must all be running either Windows or UNIX.

The following table lists the input items.

Item		Description
System Group1 System Group2 System Group3		Specify the name of a system group where a Web server, application server and database server exist. The system group containing the Agent that manages the volume of Web transactions must always be specified in System Group 1. System Group 2 and 3 can be omitted. **P Point** . . . . The performance information that is used by the application server and the database server is CPU information. It is not always necessary to set up performance management for linkage middleware such as Interstage Application Server or Symfoware Server. . . . .
Service name		Specify the name (resource ID) of the service that manages Web transaction volumes. If omitted, all services will be extracted.
Variable values	Increase in the number of requests	Specify the increase in the number of requests as a multiple of the current value. If 1.0 (the default value) is specified, the current delay time will be reported.
	Number of additional servers	Specify the number of servers to be added to each system group. If 0 (the default value) is specified, the current delay time will be reported.
Business hours		Specify the business timeframe to be targeted for reporting.

For service operational monitoring only

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Report time slot	Specify the target time period for the operating rate calculations. Specify the starting time (hour/minute) and the finishing time (hour/minute) for operations. **Note** . . . . If "One day" has been selected as the data interval, the report time period specification will not take effect. . . . .

Detailed item specification

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.

Item	Description
Host	Select the host to be analyzed from the drop-down list box.
	The list box displays the hosts that have been registered with the selected system group.
	When ALL_SERVER is selected, all hosts in the system group are analyzed.
Category name	Specify the target category name and field name for the analysis.
Field name	For the field name, only options corresponding to the selected category name will be displayed.
Display by difference	If the **Display by difference** checkbox is selected, information for cumulative values can be displayed incrementally.
	Refer to Section 4.2, "Drilled-Down/Report Information" in the *Reference Guide* for details on the category names and field names that can be specified.
Resource ID	Specify the resource ID to be targeted for analysis.
	If nothing is specified, all resource IDs will be targeted.
	P Point
	....
	Resource IDs can be retrieved by right-truncating the resource ID according to a specified search string.
	Example:
	For example, if the two resource IDs "AAA123" and "AAA456" exist, both can be targeted by specifying "AAA".
	....
Graph size setting	Specify the size (in pixels) of the graph that will be output.
	Specify an integer between 200 and 1500.
	By default, the width is 700 pixels, and the height is 300 pixels. It is recommended that you specify a value that is equal to or greater than the default value.

Data intervals cannot be specified for summary data time-series display. When Agents that have different collection intervals are in the same system group, the graph display will be affected if ALL_SERVER is selected. If the **Display by difference** checkbox is selected, some servers will not be displayed. Create system groups of Agents that have the same collection intervals.

For correlation/composition only

Item		Description
System Group		Select the system group to be analyzed from the drop-down list box.
Data 1 specification	Host1	Select a host containing some of the data to be displayed from the drop-down list box.
		The list box displays the hosts that have been registered with the selected system group.
		When ALL_SERVER is selected, all hosts in the system group are targeted.
	Category name1	Specify one of the category name/field name pairs to be displayed.
	Field name1	

Item		Description
	Display by difference	For the field name, only options corresponding to the selected category name will be displayed.
		If the **Display by difference** checkbox is selected, information for cumulative values can be displayed incrementally.
		Refer to Section 4.2, "Drilled-Down/Report Information" in the *Reference Guide* for details on the category names and field names that can be specified.
	Resource ID1	Specify one of the resource IDs to be displayed.
		If nothing is specified, all resource IDs will be targeted.
		🅿 **Point**
		....
		Resource IDs can be retrieved by right-truncating the resource ID according to a specified search string.
		Example:
		If the two resource IDs "AAA123" and "AAA456" exist, both can be targeted by specifying "AAA".
		....
Data 2 specification	Host 2	Select a host containing some of the data to be displayed from the drop-down list box.
		The list box displays the hosts that have been registered with the selected system group.
		When ALL_SERVER is selected, all hosts in the system group are targeted.
	Category name2	Specify the other category name/field name to be displayed.
	Field name2	For the field name, only options corresponding to the selected category name will be displayed.
	Display by difference	If the **Display by difference** checkbox is selected, information for cumulative values can be displayed incrementally.
	Resource ID2	Specify one of the resource IDs to be displayed.
		If nothing is specified, all resource IDs will be targeted.
		🅿 **Point**
		....
		Resource IDs can be retrieved by right-truncating the resource ID according to a specified search string.
		....

For regression analysis display only

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Host	Select the host to be analyzed from the drop-down list box.

Item	Description
	The list box displays the hosts that have been registered with the selected system group.
	When ALL_SERVER is selected, all hosts in the system group are analyzed.
Category name	Specify the category name and field name to be analyzed.
Field name	For the field name, only options corresponding to the selected category name will be displayed.
Display by difference	If the **Display by difference** checkbox is selected, information for cumulative values can be displayed incrementally.
	Refer to Section 4.2, "Drilled-Down/Report Information" in the *Reference Guide* for details on the category names and field names that can be specified.
Resource ID	Specify the resource ID to be analyzed.
	If nothing is specified, all resource IDs will be targeted.
	P Point
	┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈
	Resource IDs can be retrieved by right-truncating the resource ID according to a specified search string.
	Example:
	If the two resource IDs "AAA123" and "AAA456" exist, both can be targeted by specifying "AAA".
	┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈

For contour display only

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Host	Select the host to be analyzed from the drop-down list box.
	The list box displays the hosts that have been registered with the selected system group.
	When ALL_SERVER is selected, all hosts in the system group are analyzed.
Category name	Specify the target category name and field name for the analysis.
Field name	For the field name, only options corresponding to the selected category name will be displayed.
Display by difference	If the **Display by difference** checkbox is selected, information for cumulative values can be displayed incrementally.
	Refer to Section 4.2, "Drilled-Down/Report Information" in the *Reference Guide* for details on the category names and field names that can be specified.
Resource ID	Specify the resource ID to be targeted for analysis.
	If nothing is specified, all resource IDs will be targeted.
	P Point
	┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈┈
	Resource IDs can be retrieved by right-truncating the resource ID according to a specified search string.
	Example:

Item	Description
	For example, if the two resource IDs "AAA123" and "AAA456" exist, both can be targeted by specifying "AAA".

For past/present time-series items only

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Host	Select the host to be analyzed from the drop-down list box. The list box displays the hosts that have been registered with the selected system group. When ALL_SERVER is selected, all hosts in the system group are analyzed.
Category name Field name Display by difference	Specify the category name and field name to be analyzed for the report. For the field name, only options corresponding to the selected category name will be displayed. If the **Display by difference** checkbox is selected, information for cumulative values can be displayed incrementally. Refer to Section 4.2, Drilled-Down/Report Information" in the *Reference Guide* for details on the category names and field names that can be specified.
Resource ID	Specify the resource ID to be analyzed. If nothing is specified, all resource IDs will be targeted. **P Point** Resource IDs can be retrieved by right-truncating the resource ID according to a specified search string. Example: If the two resource IDs "AAA123" and "AAA456" exist, both can be targeted by specifying "AAA".
Report base day	Specify the base day used for comparison in the analysis.

For transition comparison settings only

Item	Description
System Group	Select the system group to be analyzed from the drop-down list box.
Host	Select the host to be analyzed from the drop-down list box. The list box displays the hosts that have been registered with the selected system group. When ALL_SERVER is selected, all hosts in the system group are analyzed.
Category name Field name Display by difference	Specify the category name and field name to be analyzed for the report. For the field name, only options corresponding to the selected category name will be displayed. If the **Display by difference** checkbox is selected, information for cumulative values can be displayed incrementally.

Item	Description
	Refer to Section 4.2, "Drilled-Down/Report Information" in the *Reference Guide* for details on the category names and field names that can be specified.
Resource ID	Specify the resource ID to be analyzed. If nothing is specified, all resource IDs will be targeted. **P** **Point** . . . . Resource IDs can be retrieved by right-truncating the resource ID according to a specified search string. Example: If the two resource IDs "AAA123" and "AAA456" exist, both can be targeted by specifying "AAA". . . . .
Analysis time slot	Specify the time period for which transition comparison is to be performed. The starting time and finishing time for the analysis can be specified.

4.3.4 Specifications Relating to the Number of Display Items and Data Intervals

The following explains specifications relating to data intervals and the number of display items in analyses.

Item name	Description

Number of Items Displayed	Select the number of data items that will be displayed for analysis. The number of data items can be selected as follows:
	
	- Item number specification
	  An integer between 1 and 1000 can be entered for the number of items
	  In this case, only the specified number of data items will be displayed.
	
	- All items specification
	  All data will be displayed.

Data Interval	Select the data interval to be used for analysis.
	
	The following data intervals can be selected:
	
	- Ten minutes
	  Data retention period: 7 days
	  This period is suitable for analysis of approximately one day.
	
	- One hour
	  Data retention period: 6 weeks
	  This period is suitable for analysis of approximately one week.
	
	- One day
	  Data retention period: 53 weeks
	  This period is suitable for analysis of over one month.
	
	This specification is not available with some types.

Item name	Description
	📛 Note .... If a period prior to the data retention period is specified, no data will be displayed. ....

4.3.5 File Output Operations

Make settings for file output.

Item name	Description

Creates an Excel® file	Content is output in Excel® format.
	
	If the Operation Management Client's operating system is Windows Server® 2008, Windows Vista®, or Windows® 7, create the folder described below after installing the Operation Management Client.
	
	- Windows Server® 2008(x86), Windows Vista®, or Windows® 7
	
	  System drive:\Windows\System32\config\systemprofile\Desktop
	
	- Windows Server® 2008(x64)
	
	  System drive:\Windows\SysWOW64\config\systemprofile\Desktop
	
	📛 Note
	....
	This function is not available in the following analysis and report items.
	
	- Estimated response time (Requests)
	
	- Estimated response time (Servers)
	....
	
	When the **Creates an Excel® file** check box is checked, the **Save as Excel®** button becomes active at the bottom of the analysis and report content area. Click this button and the displayed content can be downloaded in Excel® format.
	
	📛 Note
	....
	Please disable redirecting of the clipboard when operating via remote desktop connection etc.
	....

4.3.6 Operation Buttons (to Register, Edit, and Delete Analysis Conditions/Scheduled Report)

The operation buttons are explained.

Button	Description
Register	Displayed when **Register** is selected in Registered Report Name. Registers new analysis conditions under the name specified in **Category**. Items other than the dates for starting and finishing analysis are registered.

Button	Description
Register	Displayed when a registered condition name other than **Register** is selected in Registered Report Name.
	Use when copying a condition for use. Registers new analysis conditions under the name specified in the dialog that appears when the **Register** button is pressed.
	Items other than the dates for starting and finishing analysis are registered.
Save Over Current	Displayed when a registered condition name other than **Register** is selected in Registered Report Name.
	Use when changing a condition.
	Items other than the dates for starting and finishing analysis are overwritten.
Delete	Displayed when a registered condition name other than **Register** is selected in Registered Report Name.
	Use when deleting a condition.

4.3.7 Period Specifications

Periods are explained.

Item name	Description
Period	Specify the period of the analysis.
	Select the minute, hour, day, month and year using a drop-down list box to specify the date and time that analysis will start and stop.

4.3.8 Operation Button (to Display)

The operation button is explained.

Button	Description
Display	The analysis window is generated based on the specified conditions.
	Analysis results are displayed in the content display area at the right of the analysis window, and they can also be viewed from the report history window.

"Loading..." appears in the content display area while the content is being made.

The **Display** button will be disabled while this message is being displayed.

4.4 Scheduled Report Registration View

This section explains how to use the **Scheduled Report Registration View**.

By registering scheduled reports and executing the Scheduled Report Creation Command, daily, weekly and monthly scheduled reports can be displayed in the "4.7 Scheduled Report View".

Starting the Scheduled Report Registration View

Open the **Setting View** by clicking the **Setting View** button on the **Console Definitions** tab of the **Admin Console**.
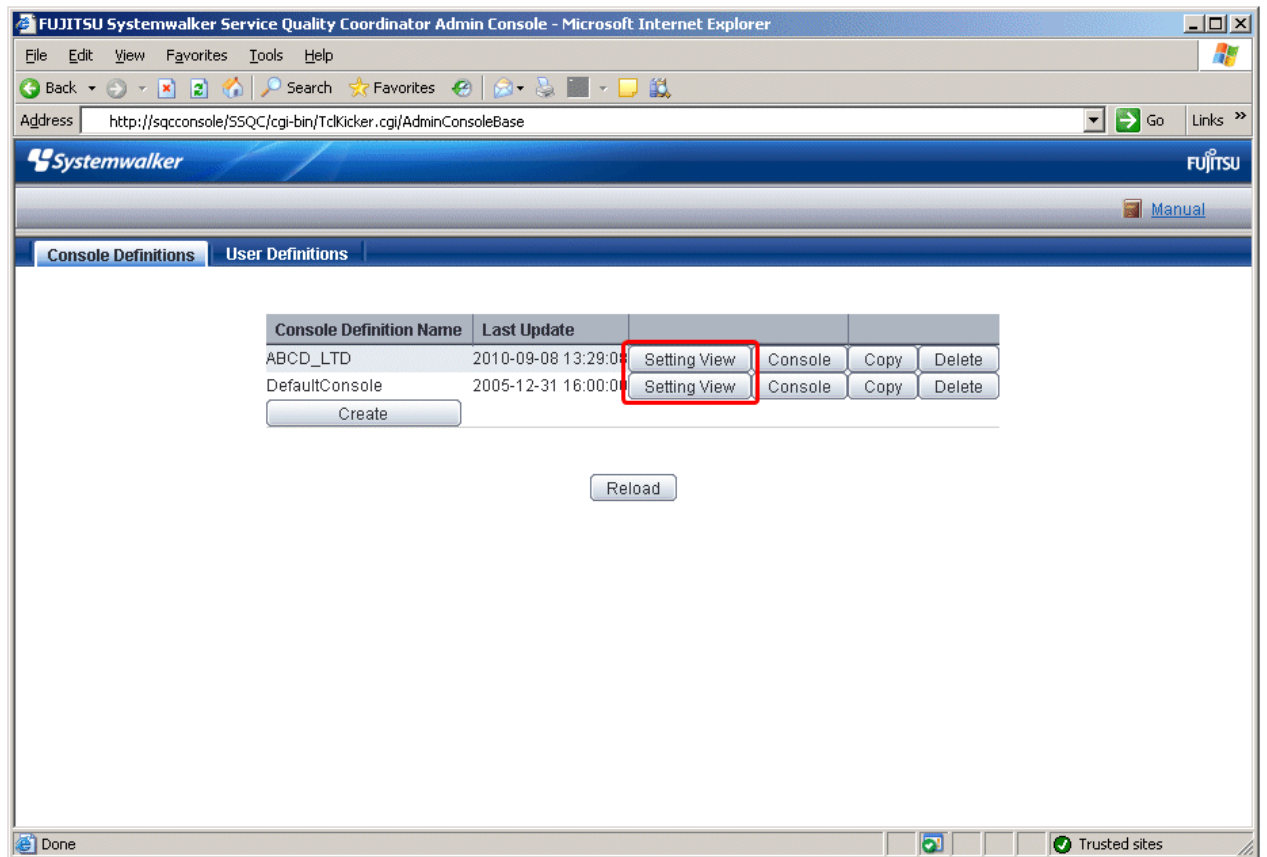
Select **Register Scheduled Report** menu from the global navigation bar in the Console window.

![Note icon] **Note**
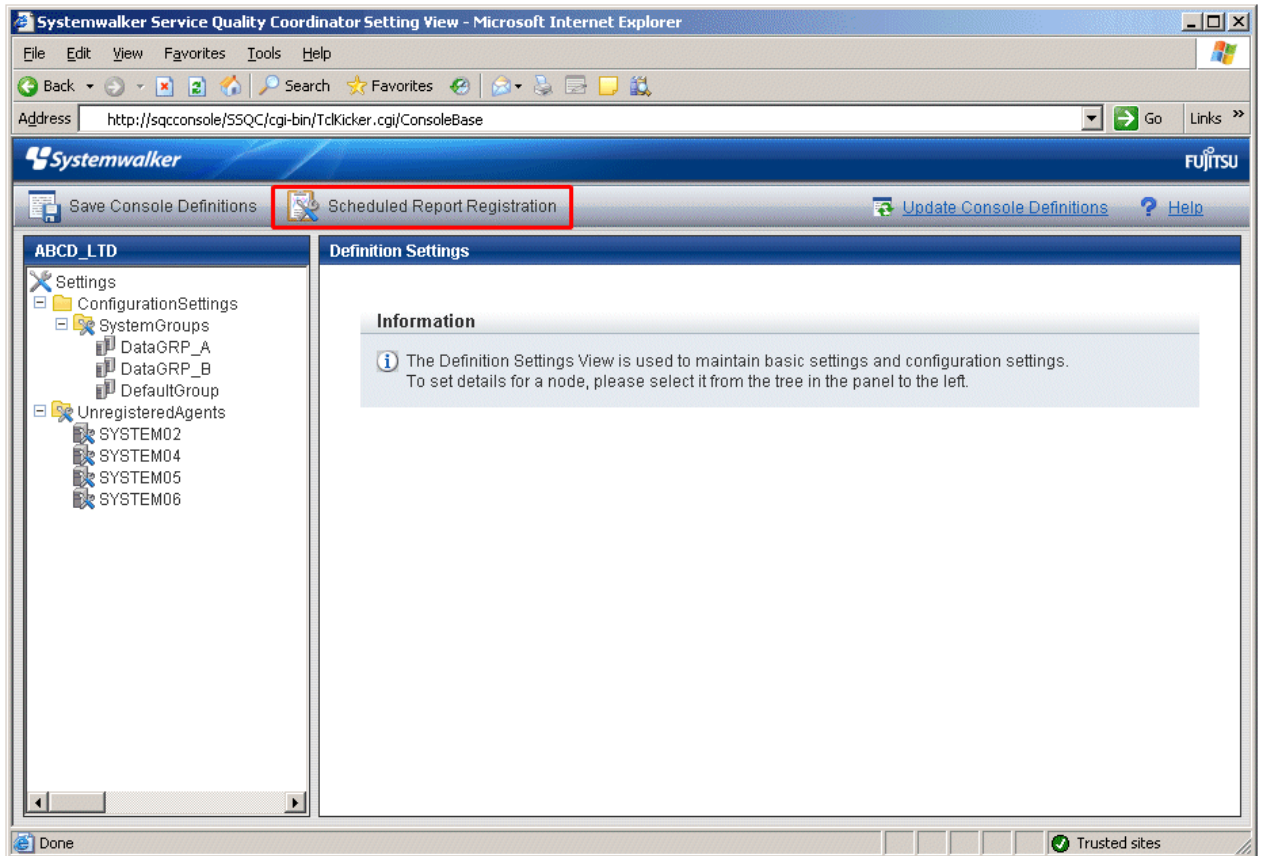
Do not perform operations in the **Scheduled Report Registration View** using the pop-up context menu that appears when the right mouse button is clicked.

Window configuration

The Scheduled Report Registration View will appear as below.
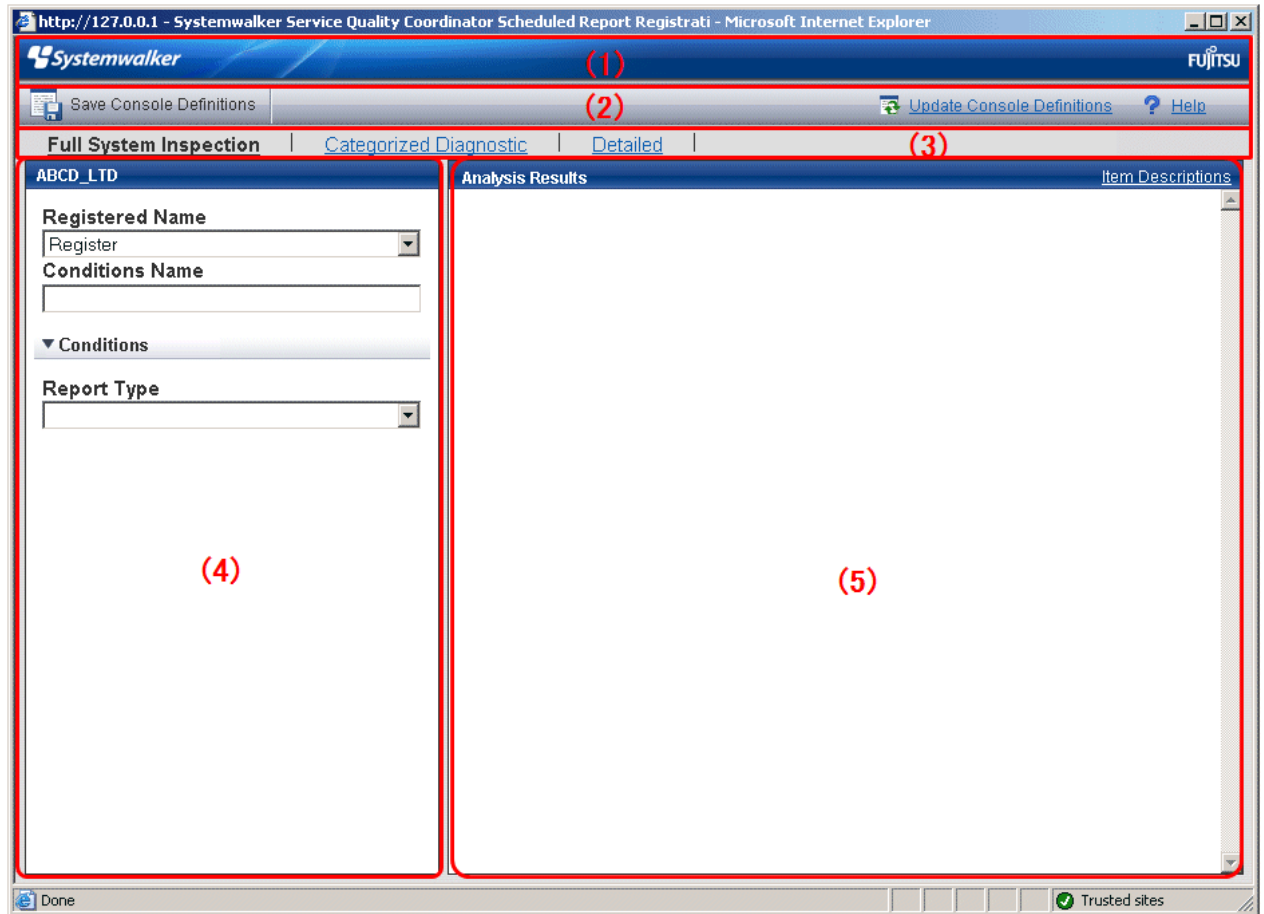
Basic configuration

The **Scheduled Report Registration View** is organized as shown in the following table.

Item No.	Component	Description
(1)	Global header	The Systemwalker and Fujitsu logos are displayed.
(2)	Global navigation bar	The menus are as follows: - **Save Console Definitions** Saves the console definitions - **Update Console Definitions** Reloads the console definitions - **Help** Opens *User's Guide (Console Edition)*.
(3)	Menu area	The menus are as follows: - **Full System Inspection** This analysis window enables system administrators to periodically inspect the operational status of the system. Analysis is performed by system group. - **Categorized Diagnostic** This analysis window is for primary fault isolation of bottlenecks within servers where problems have occurred. Analysis is performed by server or by instances in the server.

Item No.	Component	Description
		- **Details** This analysis window is for checking detailed information in terms of particular data.
(4)	Analysis conditions area	Report conditions can be set and registered in the full system inspection, categorized diagnostic, and detailed report windows.
(5)	Content display area	Each content from full system inspection, categorized diagnostic, and detailed reports is displayed.

Basic operation

The **Scheduled Report Registration View** tabs perform the following operation.

Operation	Description
Register report conditions	Registers any report conditions. Select **Register** in Registered Report Name and enter a condition name in **Category**. Enter the required report conditions, then items other than the dates for starting and finishing reports are registered when the **Register** button is pressed.
Edit report conditions	Change the content of registered report conditions. Select the condition name to be edited in Registered Report Name. Enter the required report conditions, then items other than the dates for starting and finishing reports are registered when the **Save Over Current** button is pressed.
Copy report conditions	Copies the content of registered report conditions. Select the condition name to be copied in Registered Report Name. Enter the required report conditions, then the dialog appears when the **Register** button is pressed, so enter the condition name and click the **OK** button. Items other than the dates for starting and finishing reports are registered.
Delete report conditions	Deletes a registered report condition. Select the condition name to be deleted in Registered Report Name and press the **Delete** button.
Test report conditions	Runs a test display to check that the specified report conditions are correct. Refer to "4.5 How to Use the Scheduled Report Registration View" for details on how to use the scheduled report registration view.

🅿 Point

If the registered content of a scheduled report is changed (registered, edited, copied or deleted) using the **Scheduled Report Registration View**, the **Save Console Definitions** button on the global navigation bar must be clicked.

4.5 How to Use the Scheduled Report Registration View

This section explains how to use the **Scheduled Report Registration View**.

Note

The following problems sometimes occur when users try to display the desired contents (graphs or tables) in the **Summary** view, **Drilled-Down display** view and report view in the **Console** window using the **Display** or **Generate** button.

- The operation terminates with error code 1572864.

- "Chart is unavailable" is displayed instead of the graph image.

- The graph image may be left out (only graphs are not displayed).

- The following error message may be displayed.

> "The specified CGI application misbehaved by not returning a complete set of HTTP headers. The headers it did return are: Unable to register TclNotifier window class"
>
> "ohd_update error."
>
> "Ohd file create error."

These problems may be due to insufficient space in the desktop heap for the operation management client. Increase the size of the desktop heap by referring to "5.1 Content Display Errors".

Window configuration

Item No.	Component	Description
(1)	Condition name	Specifies a name to identify the report.

Item No.	Component	Description
(2)	Type specification	A specification relating to the report type.
(3)	Report target specification	A specification relating to the target of the report.
(4)	Specifications relating to report formats and data intervals	Specifies the number of display items, report formats and data intervals for the report. CPU usage rates etc. are extracted by a high-ranking number to do the high CPU usage rates by the process in the troubleshooting. Available memory capacity is extracted by the low-ranking number to prevent the system down by insufficient memory. The number of data items to display in the report is about up to 20.
(5)	File output	Make settings for file output from the analysis window.
(6)	Operation buttons (to register, edit, and delete report conditions)	Buttons for registering, changing, and deleting the report conditions.
(7)	Specify periods for reports	Specify the periods for reports.
(8)	Operation button (preview)	Performs an operation on the report.
(9)	Content display area	Content from full system inspection, categorized diagnostic, and detailed analyses is displayed.

The following sections explain each item in more detail.

- 4.5.1 Condition Name
- 4.5.2 Type Specification
- 4.5.3 Report Target Specification
- 4.5.4 Specifications Relating to Report Format, Data Intervals, and the Number of Display Items
- 4.5.5 File Output Operations
- 4.5.6 Operation Buttons (to Register, Edit, and Delete Report Conditions)
- 4.5.7 Specify Periods for Reports
- 4.5.8 Operation Buttons (Preview)

4.5.1 Condition Name

Refer to "4.3.1 Condition Name and Registered Report Name".

4.5.2 Type Specification

Refer to "4.3.2 Type Specification". Read "report" where the word "analysis" is used.

4.5.3 Report Target Specification

Refer to "4.3.3 Analysis Target Specification". Read "report" where the word "analysis" is used.

4.5.4 Specifications Relating to Report Format, Data Intervals, and the Number of Display Items

The following explains specifications relating report format, data intervals, and the number of display items in reports.

Item name	Description

Number of Items Displayed	Select the number of data items that will be displayed when the report is made. The number of data items can be selected as follows:
	
	- Item number specification
	  A value between 1 and 1000 can be entered for the number of items
	  In this case, only the specified number of data items will be displayed.
	
	- All items specification
	  All data will be displayed.

Report formats	Select the report format. The following report formats can be selected: - Daily Generally data from 10-minute intervals is used. - Weekly Generally data from 1-hour intervals is used. - Monthly Generally data from 1-day intervals is used. **P Point** • This specification corresponds to the report format specified by an operand of the Scheduled Report Creation Command. If "Daily" is selected, reports will be created when "daily" is specified as the report format with the Scheduled Report Creation Command. Refer to "4.6.1 sqcMakeReport (Scheduled Report Creation Command)" for details on the Scheduled Report Creation Command. • This specification is not available with some types.

4.5.5 File Output Operations

Refer to "4.3.5 File Output Operations".

4.5.6 Operation Buttons (to Register, Edit, and Delete Report Conditions)

Refer to "4.3.6 Operation Buttons (to Register, Edit, and Delete Analysis Conditions/Scheduled Report)". Read "report" where the word "analysis" is used.

4.5.7 Specify Periods for Reports

Report periods are explained here.

Item name	Description
Period	Specify the period of the report for when test displays are performed.
	Select the minute, hour, day, month and year using a drop-down list box to select the date and time that the report will start and stop.

4.5.8 Operation Buttons (Preview)

The operation buttons are explained below.

Button	Description
Preview	Performs a test display of a report to verify that the content of the report is displayed correctly using the specified report conditions.
	Reports are displayed in the content display area on the right side of the report registration window.
	P Point
	This operation only performs a test display of a report. It is not added to the daily, weekly or monthly scheduled report displays.

While a report is being generated, the message "Loading..." will appear in the content display area.

The **Test** button will be disabled while this message is being displayed.

4.6 Manipulating Scheduled Reports

This section explains the commands that are used to create and delete scheduled reports that have been registered.

Refer to Section 1.6, "Scheduled Report Operation Command" in the *Reference Guide* for details.

This section also explains how to make backups of scheduled reports.

Note

Save up to about 5,000 scheduled reports for each console (depending on the operation management client disk performance).
If a larger number is saved, then the display of the scheduled report list might be slow or not possible.

4.6.1 sqcMakeReport (Scheduled Report Creation Command)

Execution environment

This command can be run on an operation management client.

Privileges required for execution

The privileges of a user belonging to the "Administrators" group are required to execute this command.

Function

This command creates a scheduled report that has been registered using the **Scheduled Report View**. If this command is registered with a scheduler, the operation can be performed automatically.

Created reports can be viewed in the **Scheduled Report View**.

Note

- - To execute this command under Windows Vista(R)/Windows(R) 7/Windows(R) 2008 environment, execute with the administrator privilege. Select [Start] button of Windows, [All Programs], [Accessories], [Command prompt], and select [Run as administrator] of the right click menu, and then execute this command.

- - To execute this command by registering it with Task Scheduler for the Windows Vista(R) /Windows(R) 7/Windows(R) 2008 environment, select the **General** tab of the **Properties** window for the task to be registered, and then select the **Run with highest privileges** checkbox.

Syntax

<Installation directory>\bin \sqcMakeReport	-c console_define [-g system_group] [-t begin_time | -w begin_day | -d begin_date] daily|weekly|monthly
<Installation directory>\bin \sqcMakeReport	-c console_define [-g system_group] [-s start_day -e end_day] daily|weekly|monthly

Operand

Specifies the report format (daily, weekly or monthly).

Options

-c console_define

Specifies the console definition name for the report to be created. This parameter cannot be omitted.

-g system_group

Specifies the system group name. Only registered scheduled reports whose conditions include the specified system group will be created. If this option is omitted, all scheduled reports that have been registered will be created.

Point

By registering the command with a scheduler with this option specified, report scheduling can be performed in system group units.

-t begin_time

Specifies the time (0 to 23) local time that a daily report will start. A daily report will be created from 24 hours of data that commences at the specified time. If this option is omitted, the starting time defaults to "0".

-w begin_day

Specifies the day of the week (Su, Mo, Tu, We, Th, Fr, Sa) that a weekly report will start. A weekly report will be created from 7 days of data that commences on the specified day of the week. If this option is omitted, the starting day defaults to Sunday ("Su").

-d begin_date

Specifies the date (1 to 28) that a monthly report will start. A monthly report will be created from one month of data that commences on the specified date. If this option is omitted, the starting date defaults to "1".

Data from a given day is displayed after 9:00 AM on the next day.

Refer to Section 1.6, "Scheduled Report Operation Command" in the *Reference Guide* for details on options and other information.

Usage example 1

The following example shows how to generate a daily report that begins at 9:00 am. It generates only reports where Business System A is specified for the registration conditions for scheduled reports.

> sqcMakeReport -c DefaultConsole -g Business System A -t 9 daily

Usage example 2

The following uses registered scheduled reports to generate a daily report for 01 September 2004.

> sqcMakeReport -c DefaultConsole -s 20040901 -e 20040901 daily

Note

・・・

When the Report Creation Command is executed, a number of pop-up messages such as the one shown below may open and then close on the Windows desktop momentarily.
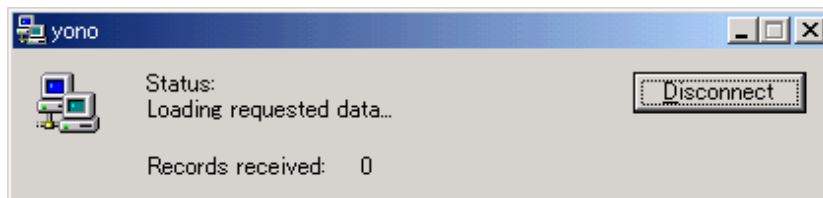
These windows are displayed when data is extracted from a PDB. They do not indicate a problem.

If the command terminates abnormally with exception code 0xe06d7363, the desktop heap may be insufficient. Increase the size of the desktop heap by referring to "5.1 Content Display Errors".
・・・

These pop-up windows can be prevented by specifying a different user from the usual login user in the "Run as:" option when registering the command with the scheduler.

After executing the scheduled report creation command, check the results in the "4.7 Scheduled Report View".

4.6.2 sqcDeleteReport (Scheduled Report Deletion Command)

Execution environment

This command can be run on an operation management client.

Privileges required for execution

The privileges of a user belonging to the "Administrators" group are required to execute this command.

Function

This command is used to delete scheduled reports that are older than the number of days for which reports are to be stored. If this command is registered with the scheduler, it will delete scheduled reports automatically.

> 📙 **Note**
> ···
> - To execute this command under Windows Vista(R)/Windows(R) 7/Windows(R) 2008 environment, execute with the administrator privilege. Select [Start] button of Windows, [All Programs], [Accessories], [Command prompt], and select [Run as administrator] of the right click menu, and then execute this command.
>
> - To execute this command by registering it with Task Scheduler for the Windows Vista(R) /Windows(R) 7/Windows(R) 2008 environment, select the **General** tab of the **Properties** window for the task to be registered, and then select the **Run with highest privileges** checkbox.
> ···

Syntax

```
sqcDeleteReport -c console_define -d retention_days -w retention_days -m retention_days
```

Options

-c console_define

Specifies the console definition name for the report to be deleted. This parameter cannot be omitted.

-d retention_days

Specifies the number of days (0 to 1500) to store daily reports.

-w retention_days

Specifies the number of days (0 to 1500) to store weekly reports.

-m retention_days

Specifies the number of days (0 to 1500) to store monthly reports.

> 🅿 **Point**
> ···
> If the number of days to store reports is set to 0, no reports in the specified report format will be deleted.
>
> Reports that were created more than XX days before the command was executed will be deleted (where "XX" is the number of retention days).
> ···

Usage example

The following example shows the options used to specify a daily report storage period of 10 days, a weekly report storage period of 60 days and a monthly report storage period of 365 days.

```
> sqcDeleteReport -c DefaultConsole -d 10 -w 60 -m 365
```

4.6.3 Example of registration with scheduler

Use the Scheduled Report Creation Command and the Scheduled Report Deletion Command by registering them with software equipped with a scheduler function, such as Systemwalker Operation Manager. This section explains how to register these commands with scheduling software, using the Windows Task Scheduler as an example.

Add a new task

Double-click the **Scheduled Tasks** icon in the Control Panel to run the Task Scheduler (in the case of Windows 2000).

Select **New** and then **Scheduled Task** from the **File** menu to add a new task.
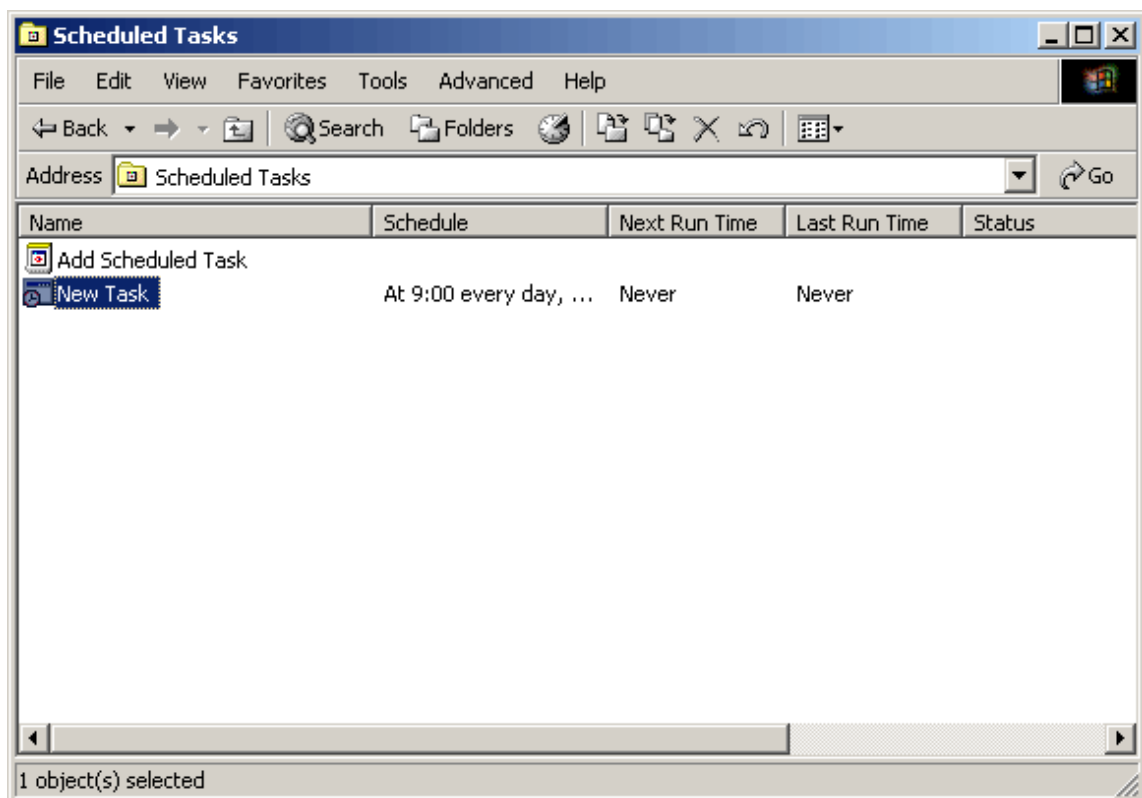
Specify a command

Right-click the new task and select **Properties** from the short-cut menu.

Select the **Task** tab, and specify in the **Run** field the Scheduled Report Creation Command (or Scheduled Report Deletion Command) with the options specified.
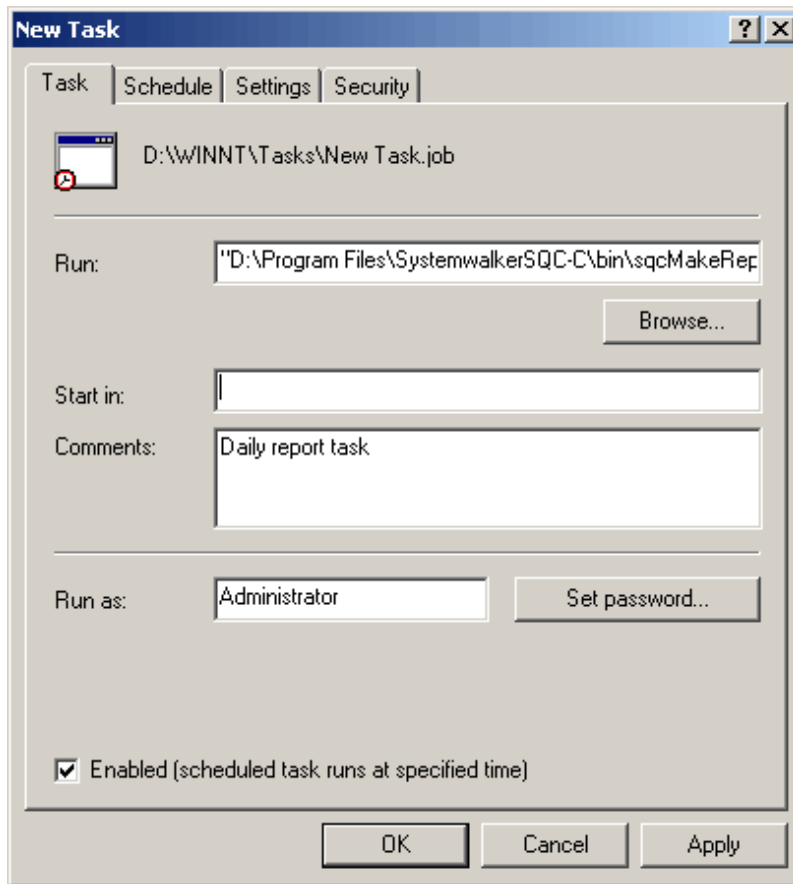
Example of an executable file name specification:

"C:\Program Files\SystemwalkerSQC-C\bin\sqcMakeReport.exe" -c DefaultConsole daily

Point

. . . .

Specify a user with administrator privileges in the **Run as** field.

. . . .

Set a schedule

Use the **Schedule** tab to specify the startup schedule of the Report Creation Command.

Click **OK** to finish setting the properties.
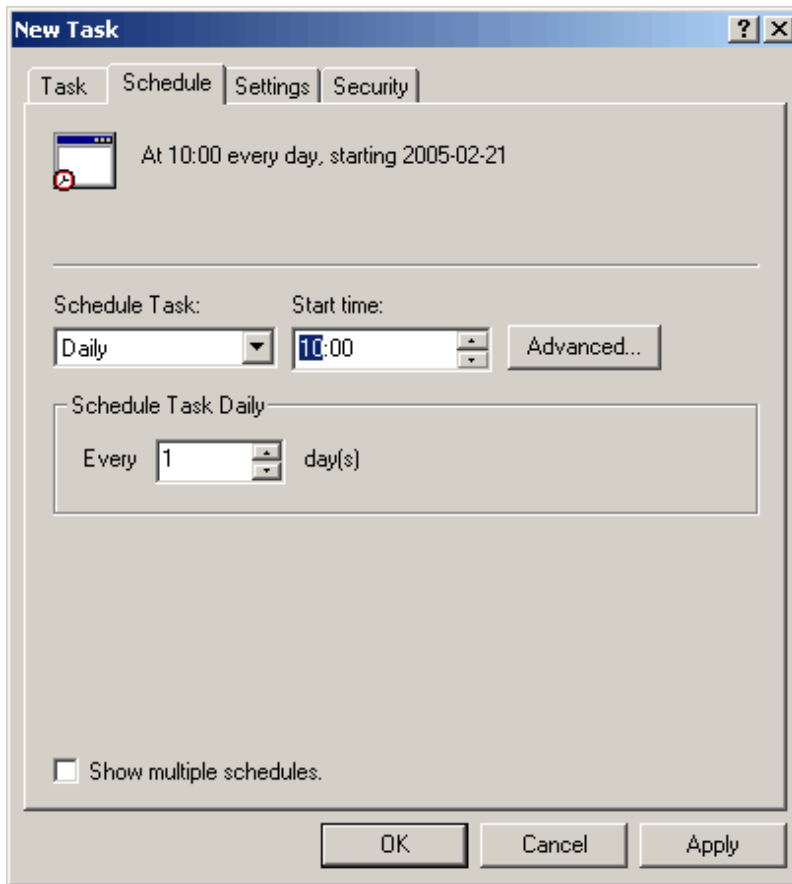
P Point

To create a daily report, select **Daily** in the **Schedule Task** drop-down list. To create a weekly or monthly task, select **Weekly** or **Monthly** as appropriate.

4.6.4 Backing up reports

In order to preserve disk space, Fujitsu recommends that old scheduled reports be automatically deleted by scheduling the "4.6.2 sqcDeleteReport (Scheduled Report Deletion Command)".

If it is necessary to retain past reports, the directory on the operation management client where the reports are stored can be backed up to another location.

Scheduled daily, weekly and monthly reports are stored in a directory named "*YYYYMMDDhhmmss_serial number*" under the following directories. (*YYYYMMDDhhmmss* is the date and time of report creation.)

- **Daily**

> *Installation directory*\www\html\ConsoleEnvironments*Console definition name*
> \history_slc_daily

- **Weekly**

> *Installation directory*\www\html\ConsoleEnvironments*Console definition name*
> \history_slc_weekly

- **Monthly**

> *Installation directory*\www\html\ConsoleEnvironments*Console definition name*
> \history_slc_monthly

Note

. . . .

If the save directory for analysis reports was changed using the method in "4.10 Storing Analysis and Reports", then it must be backed up.

. . . .

Example

> *Installation directory*\www\html\ConsoleEnvironments\DefaultConsole \history_slc_daily
> \20040921125900_1

To view a report that has been backed up, open the file named "report.html" in the appropriate directory.

Note

. . . .

- Only copy directories, and do not move them. To delete a directory from its original location, use the "4.6.2 sqcDeleteReport (Scheduled Report Deletion Command)".

- Even if a report that has been deleted with the Scheduled Report Deletion Command is restored to its original location, it will not appear in the list of reports. View such reports from the directory to which they have been copied.

- The date and time shown as part of the directory name (" *YYYYMMDDhhmmss_serial number*") is based on GMT.

. . . .

4.7 Scheduled Report View

This section explains how to use the **Scheduled Report View**.

Starting the Scheduled Report View

Open the **Scheduled Report View** by clicking the **Console** button on the **Console Definitions** tab of the **Admin Console**.
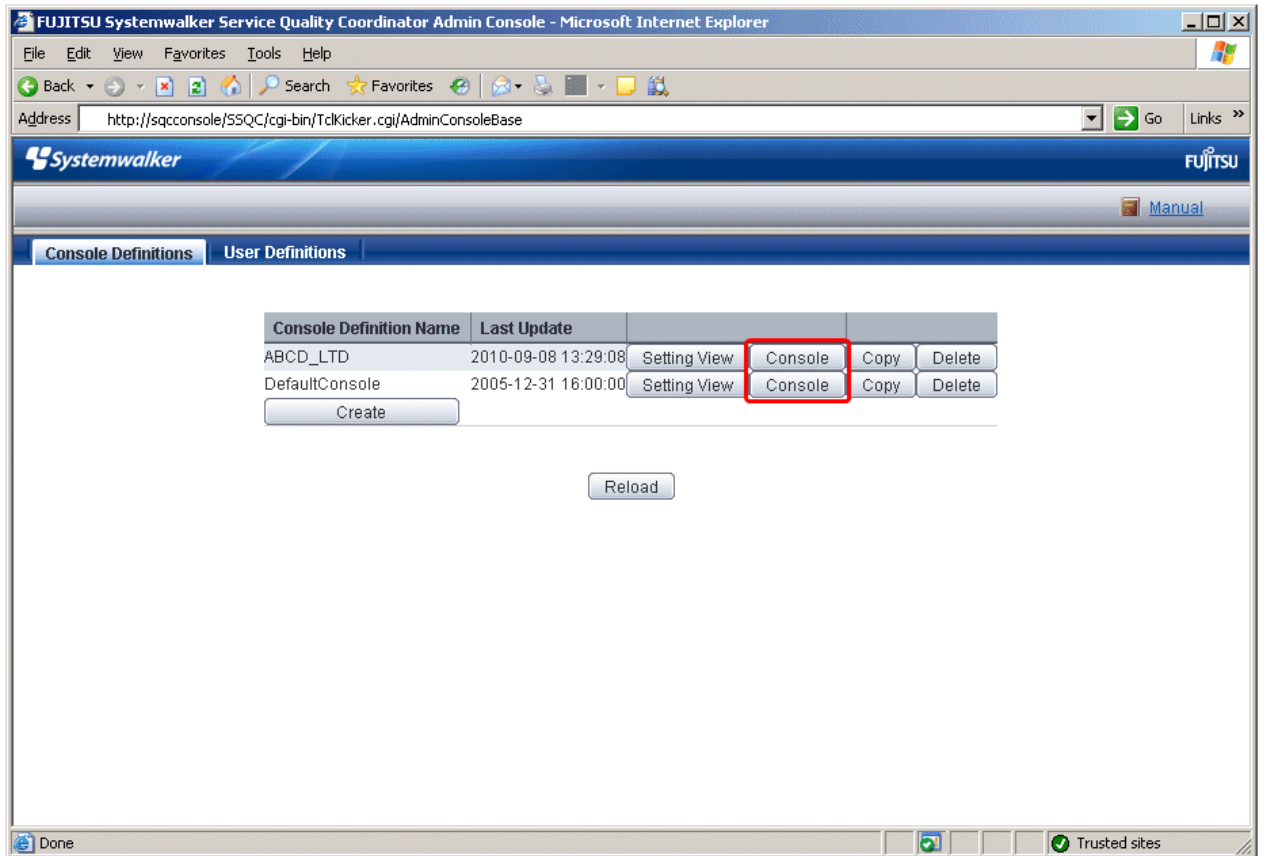
The **Scheduled Report View** is started by selecting **Scheduled Report** from the global navigation bar in the Console window.
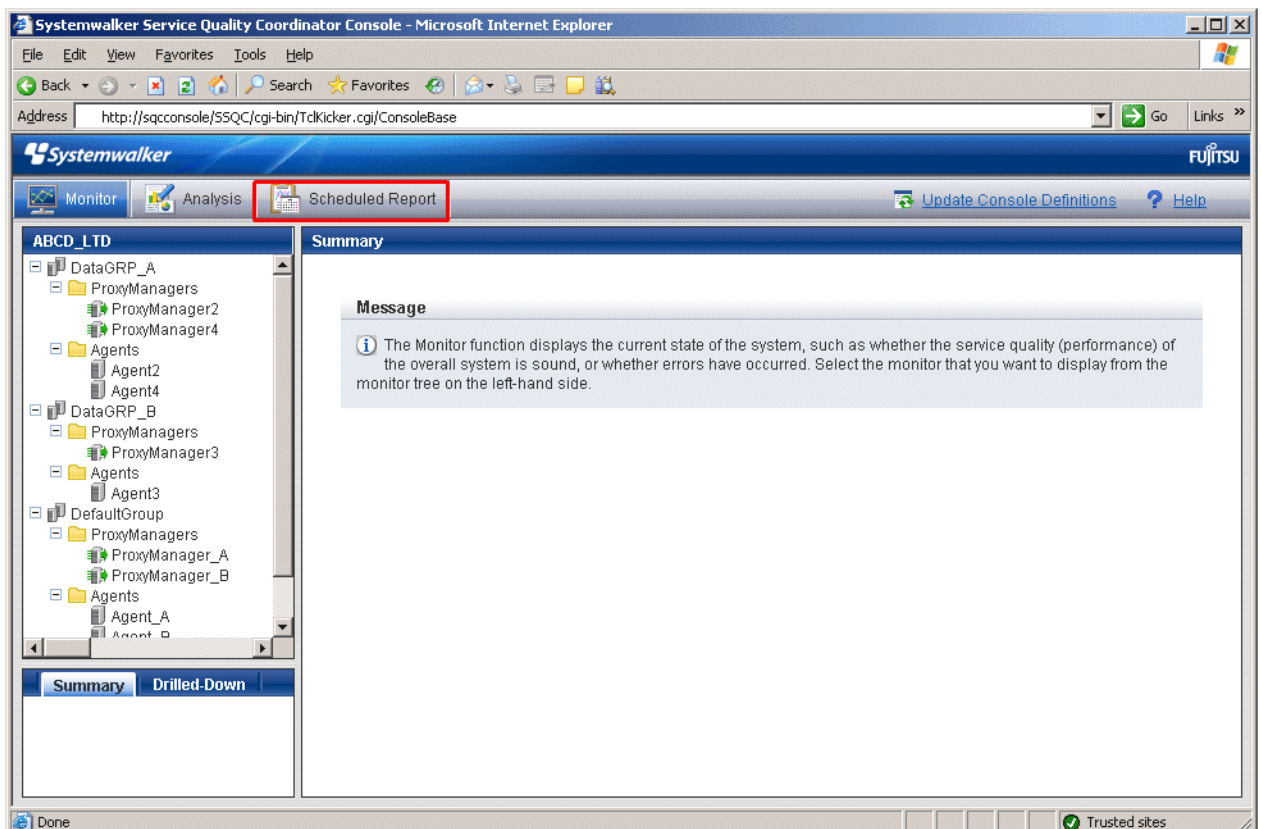
Note

Do not perform operations in the **Scheduled Report View** using the pop-up context menu that appears when the right mouse button is clicked.

Window configuration

The **Scheduled Report View** window will appear as below.
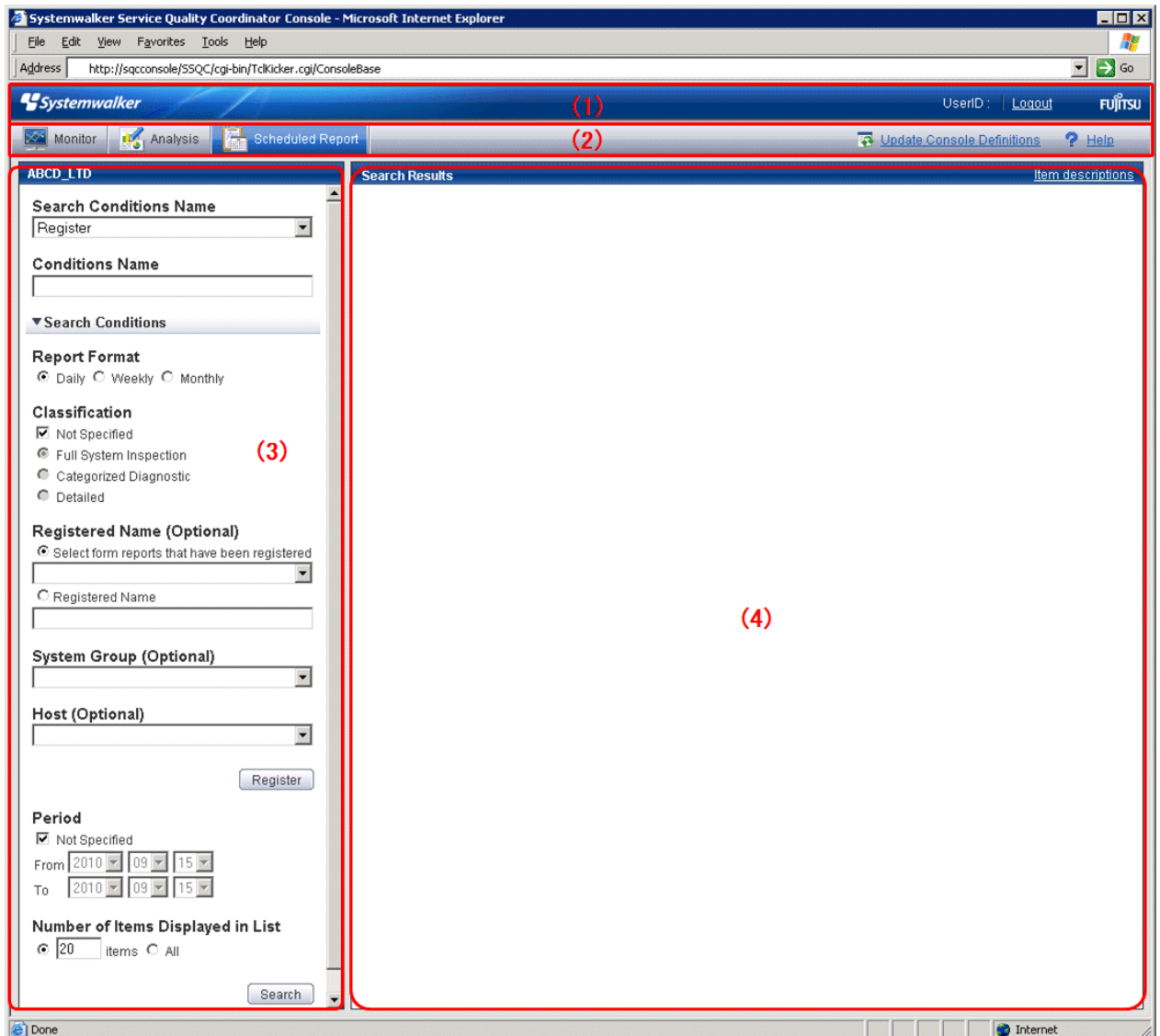
Basic configuration

The **Scheduled Report View** is organized as shown in the following table.

Item No.	Component	Description
(1)	Global header	The Systemwalker and Fujitsu logos are displayed.
(2)	Global navigation bar	The menus are as follows:

Item No.	Component	Description
		- **Monitoring** Opens the monitoring window. Allows checks on the current status and isolates faults when they occur. - **Analysis** Opens the analysis window. Analyzes service quality over the medium to long term to avoid future problems. - **Scheduled Report** Open the scheduled report window. Displays reports about service levels for the customer or for capacity planning. - **Update Console Definition** Reloads the console definitions - **Help** Opens *User's Guide (Console Edition)*.
(3)	Search conditions area	Set the search conditions to display the daily, weekly and monthly scheduled reports that were created in "4.6.1 sqcMakeReport (Scheduled Report Creation Command))". Search conditions can be registered.
(4)	Scheduled reports list area	Scheduled reports are listed according to the search conditions specified in (3).

4.7.1 Search Conditions Area

The search conditions area is explained.

Basic operation

Item No.	Component	Description
(1)	Search condition name	Identifier for registered search conditions. Currently registered search conditions can be selected from a drop-down list box. Select **Register** to register new conditions. Searches are possible even without registering conditions.
(2)	Condition name	Displayed when **Register** is selected in Search Conditions Name. The following characters can be used for search condition names: - Alphanumeric characters - Symbols (except for $ " ' [ ] < > / ? | ; : * \ & , . =) Platform dependent characters can not be used. The registered report name can be no longer than 36 characters.
(3)	Report formats	Select daily, weekly, or monthly.
(4)	Category	Full system inspection, categorized, or detailed reports can be specified.

Item No.	Component	Description
(5)	Registered report name (any)	Registered report names can be specified. Currently registered report names can be selected from a drop-down list box. If a report is not registered, it is possible to input its name directly to specify it.
(6)	System group (any)	System groups can be specified.
(7)	Host (any)	Hosts can be specified.
(8)	Period	Report periods can be specified. Ensure the period that includes the scheduled reports you want to retrieve is specified. For example, to retrieve the weekly report for August 31 to September 6, make the report start date before August 31 and the report finish date after September 6.
(9)	Number of reports to display	Specify the number of reports to display in scheduled reports list display area. Either specify all reports or a number of reports. - Report number specification A value between 1 and 1000 can be entered. The specified number of reports will be displayed on one page. - All items specification All scheduled reports are displayed on one page.
(10)	Operation buttons display area	- **Registered** Displayed when **Register** is selected in Search Conditions Name. Registers new search conditions under the name specified in **Conditions Name**. - **Register** Displayed when a registered condition name other than **Register** is selected in Search Conditions Name. Use when copying a condition for use. Registers new search conditions under the name specified in the dialog that appears when the **Register** button is pressed. - **Save Over Current** Displayed when a registered condition name other than **Register** is selected in Search Conditions Name. Use when changing a condition. - **Delete** Displayed when a registered condition name other than **Register** is selected in Search Conditions Name. Use when deleting a condition. - **Search** Searches for scheduled reports under the specified conditions. The retrieved scheduled reports are displayed in scheduled reports list display area at the right.

4.7.2 Scheduled Reports List Display Area

This section explains the scheduled reports list display area.

Scheduled reports open in separate windows when lines in the list are clicked.

From the viewpoint of disk space maintenance, it is recommended that reports be deleted automatically by scheduling regular execution of the Scheduled Report Deletion Command

Refer to "4.6.2 sqcDeleteReport (Scheduled Report Deletion Command)" and "4.6.3 Example of registration with scheduler" for details on automatic deletion methods.

Point
. . . .
If it is necessary to keep a report, click the **Display** button to open the display window, then use the **File** menu of the browser to save the report to any folder.

Folders to which reports have been saved can also be backed up in their entirety.

Refer to "4.6.4 Backing up reports" for details.
. . . .

Basic operation

Any value for page number can be entered in the range of existing pages.

4.8 Content-related Operation Methods

This section explains the operations that can be performed on displayed analysis and report content.

Table sorting

When the header section of any column in a table displayed in analysis and report content is selected, the table can be sorted using the selected column as the sort key.

Sorting can be toggled between ascending and descending order.

> **Note**
>
> - Numerical sorts only operate correctly when all the values in the specified column are numerical values. Sorting cannot be performed correctly if the column includes non-numerical data such as null values.
>
> - Date and time sorts cannot be performed correctly if the number of digits (yyyy/mm/dd hh:mm:ss, etc.) is not uniform throughout the column. Care must be taken when data has been imported from user data.

Save in CSV Format/Save in Excel® Format/Print

The following buttons can be found at the bottom of the analysis and report content area.

- **Save in CSV Format**
  This enables the displayed range of data to be downloaded in CSV format.

- **Save as Excel®**
  Displayed when the **Creates an Excel® file** check box is checked in the analysis window display and when scheduled reports are created. This enables the displayed content to be downloaded in Excel® format.

- **Print**
  This is used to print the displayed content.

4.9 How to Evaluate Categorized Diagnostic Analysis/Report

This section explains how to analyze the analysis and reports displayed as categorized diagnostic analysis/report.

Reports that include UNIX in the analysis and report title are common to both Solaris and Linux.

4.9.1 Web transaction Request

Item	Description	Evaluation
Request status of each service (Request count, Time taken)	Allows the request status in each service to be ascertained and compared.	Check deviations and peaks in the number of requests in each service and the time required by requests. If the number of requests in each service or the time required by requests exceeds the expected value, the user can consider measures such as adding another Web server.

4.9.2 Web transaction Traffic

Item	Description	Evaluation
Traffic of each service	Allows the volume of traffic in each service to be ascertained and compared.	Check deviations and peaks in the volume of traffic in each service. If the volume of traffic exceeds the expected value, the user can consider measures such as adding another Web server.

4.9.3 Web transaction Error

Item	Description	Evaluation
Error count of each service	Allows the number of errors in each service to be ascertained and compared.	Check how often errors are occurring in each service.

4.9.4 Web transaction hitserver

Item	Description	Evaluation
Hitserver count	Allows the number of server hits in each service to be ascertained and compared.	Check how often server hits are occurring in each service.

4.9.5 Web transaction hitclient

Item	Description	Evaluation
Hitclient count	Allows the number of client hits in each service to be ascertained and compared.	Check how often client hits are occurring in each service.

4.9.6 Web transaction hitremote

Item	Description	Evaluation
Hitremote count	Allows the number of remote hits in each service to be ascertained and compared.	Check how often remote hits are occurring in each service.

4.9.7 Windows CPU

Item	Description	Evaluation
CPU usage rate (User, System)	Allows CPU usage rates to be ascertained and compared.	Check deviations and peaks in CPU usage rates. If the CPU usage rate consistently exceeds 80%, a CPU bottleneck may be degrading performance, or such a problem may be about to occur. It is necessary to consider taking measures such as increasing or upgrading the CPUs, adjusting the application execution schedule, or relocating some applications to a different server. Warning level: CPU usage rate > 80 %
CPU queue length	Allows the number of CPU queue requests to be ascertained and compared.	If the number of CPU queue requests is consistently high, increasing the number of CPUs may be more effective than upgrading the CPU. Conversely, if the CPU usage rate is high when there are no queue requests, it indicates that the CPU performance is not enough to handle single processes, so a processor upgrade is recommended. Warning level: CPU queue length > 2

4.9.8 Windows physical disks

Item	Description	Evaluation
Disk Busy	Allows the physical disk load status to be ascertained and compared.	It can be used to ascertain the load deviation and load peaks of each disk. If the physical disk busy rate exceeds 60 % intermittently, the disk load is causing a bottleneck and performance problems are either occurring now or may occur in the future. Warning level: Physical disk busy >= 60 %
Disk Queue Service Times	Allows the number of physical disk queue requests to be ascertained and compared.	It can be used to ascertain the deviation and peaks of I/O requests for each disk. If the number of physical disk queue requests is two or more, the disk load is causing a bottleneck and performance problems are either occurring now or may occur in the future. It is necessary to take measures such as distributing the disk load or adding disks. Warning level: Number of physical disk queue requests >= 2

4.9.9 Windows disk space

Item	Description	Evaluation
Disk usage rate	Allows the disk usage status to be	It can be used to ascertain the usage deviation and load peaks of each disk.

Item	Description	Evaluation
	ascertained and compared.	

4.9.10 Windows memory

Item	Description	Evaluation
Available memory capacity	Allows available memory capacity to be ascertained and compared.	It can be used to ascertain the deviation and peaks of available memory capacity. If the amount of available memory space approaches 4 MB intermittently, insufficient memory is causing a bottleneck, and performance problems are either occurring now or may occur in the future. Warning level: Available memory capacity < 4 MB
Number of page-in/page-out operations	Allows the frequency of paging operations to be ascertained and compared.	Take measures with reference to the graph.

4.9.11 Windows process

Item	Description	Evaluation
CPU Time	A graph showing the CPU time expended on different processes.	This graph makes it possible to identify processes that consume much CPU time.
Pagefile Size	A cumulative graph of the pagefile required for different processes.	In the case of a computer that has a high rate of virtual memory usage, this analysis makes it possible to identify which processes consume a large amount of virtual memory.
Working set Size	A cumulative graph showing the size of the workspace used by different processes.	In the case of a computer that has a high rate of physical memory usage rate, this analysis makes it possible to identify which processes consume a large amount of physical memory.

4.9.12 Windows CPU (Contour)

Item	Description	Evaluation
CPU usage rate	Allows CPU usage rates to be ascertained and compared.	The rise and fall of the CPU usage rate is represented by contour lines. These enable the user to visually grasp peaks and deviations in the usage rate. This analysis is premised on long-term data usage of approximately one month.

4.9.13 Window s physical disk (Contour)

Item	Description	Evaluation
Disk Busy	Allows the physical disk busy rate to be ascertained and compared.	The rise and fall of the physical disk busy rate is represented by contour lines. These enable the user to visually grasp peaks and deviations in the physical disk busy rate. This analysis is premised on long-term data usage of approximately one month.

4.9.14 Windows memory (Contour)

Item	Description	Evaluation
Available memory capacity	Allows the memory usage status to be ascertained and compared.	The rise and fall of available memory capacity is represented by contour lines. These enable the user to visually grasp peaks and deviations in memory usage. This analysis is premised on long-term data usage of approximately one month.

4.9.15 UNIX CPU

Item	Description	Evaluation
CPU usage rate (User, System)	Allows CPU usage rates to be ascertained and compared.	Check deviations and peaks in CPU usage rates. If the CPU usage rate consistently exceeds 80%, a CPU bottleneck may be degrading performance, or such a problem may be about to occur. It is necessary to consider taking measures such as increasing or upgrading the CPUs, adjusting the application execution schedule, or relocating some applications to a different server. Warning level: CPU usage rate > 80 %
CPU queue length	A composite graph showing the CPU queue length and the execution wait time rate.	If CPU queue length > 10 or if CPU execution wait time rate > 90% and (the number of queue requests) / (the number of processors) > 2, response may be being degraded because multiple processes are waiting for CPU allocation. If it is not possible to perform interactive job tuning or to restrict the number of concurrent processes, the user should consider increasing the number of CPUs. If CPU execution wait time rate > 90% and the number of queue requests < 1, a single program may be monopolizing the CPU. If there are no problems with the interactive job response, etc., there is no need to perform tuning. If there is a problem, lower the priority of the program that is monopolizing the CPU. Note that if there are any other resources that

Item	Description	Evaluation
		are experiencing a bottleneck, increasing the number of CPUs is unlikely to improve the situation. Warning level: CPU execution wait time rate > 90% and the number of queue requests < 1 📑 **Note** .... This information is displayed when a Solaris server is analysis and reported. ....

4.9.16 UNIX physical disk

Item	Description	Evaluation
CPU usage rate (User, System)	Allows CPU usage rates to be ascertained and compared.	Check deviations and peaks in CPU usage rates. If the CPU usage rate consistently exceeds 80%, a CPU bottleneck may be degrading performance, or such a problem may be about to occur. It is necessary to consider taking measures such as increasing or upgrading the CPUs, adjusting the application execution schedule, or relocating some applications to a different server. Warning level: CPU usage rate > 80 %
CPU queue length	A composite graph showing the CPU queue length and the number of queue requests	If CPU queue length > 10 or if CPU execution wait time rate > 90% and (the number of queue requests) (the number of processors) > 2, response may be being degraded because multiple processes are waiting for CPU allocation. If it is not possible to perform interactive job tuning or to restrict the number of concurrent processes, the user should consider increasing the number of CPUs. If CPU execution wait time rate > 90% and the number of queue requests < 1, a single program may be monopolizing the CPU. If there are no problems with the interactive job response, etc., there is no need to perform tuning. If there is a problem, lower the priority of the program that is monopolizing the CPU. Note that if there are any other resources that are experiencing a bottleneck, increasing the number of CPUs is unlikely to improve the situation. Warning level: CPU execution wait time rate > 90% and the number of queue requests < 1

Item	Description	Evaluation
		Note This information is displayed when a Solaris server is reported.
Service Times	Service times can be checked and compared.	Service time refers to the average time that is required to process a single I/O request completely. It includes the time to wait for the completion of processing for existing requests in an I/O queue. Warning level: Service time >= 30(ms)

4.9.17 UNIX disk space

Item	Description	Evaluation
Disk usage rate	Allows the disk usage status to be ascertained and compared.	It can be used to ascertain the usage deviation and load peaks of each disk.

4.9.18 UNIX memory

Item	Description	Evaluation
Available memory capacity	Allows the memory usage status to be ascertained and compared.	It can be used to ascertain the deviation and peaks of available memory capacity. If the amount of available memory intermittently approaches the value of the kernel parameter "lotsfree" (unit: KB), insufficient memory may be causing a bottleneck and performance problems are either occurring now or they may occur in the future. Warning level: Available memory capacity < lotsfree
Number of swap-in/swap-out operations	Allows the occurrence of swapping operations to be ascertained and compared.	When only swap-in operations are occurring A temporary shortage of memory has caused swapped-out processes to be swapped in. This does not indicate a problem. When only swap-out operations are occurring A temporary shortage of memory has caused an unnecessary process to be swapped out. This does not indicate a problem. This kind of problem occurs when a large number of processes are created temporarily. When both swap-in and swap-out operations occur

Item	Description	Evaluation
		In current versions of UNIX, it is normal for no swapping to occur. If both swap-in and swap-out operations occur, it is likely that the system is suffering from a serious memory shortage and it will be necessary to install more memory.

> 📋 **Note**
> ....
> This information is displayed when a Solaris server is analyzed and reported.
> ....

4.9.19 UNIX process

Item	Description	Evaluation
CPU Time	A graph showing the CPU time for each process.	This graph makes it possible to identify processes that consume a large amount of CPU time.
Memory Usage Rate	A cumulative graph showing the memory usage rate for different processes.	In computers that are suffering from insufficient memory, this graph can be used to identify which processes are causing the problem.

> 📋 **Note**
> ....
> The graph of a memory use rate according to the process top 10 is not displayed in Linux.
> ....

4.9.20 UNIX CPU (Contour)

Item	Description	Evaluation
CPU usage rate	Allows CPU usage rates to be ascertained and compared.	The rise and fall of the CPU usage rate is represented by contour lines. These enable the user to visually grasp peaks and deviations in the usage rate. This analysis is premised on long-term data usage of approximately one month.

4.9.21 UNIX physical disk (Contour)

Item	Description	Evaluation
Physical Disk Busy (Contour)	Allows the physical disk busy rate to be ascertained and compared.	The rise and fall of the physical disk busy rate is represented by contour lines. These enable the user to visually grasp peaks and deviations in the physical disk busy rate.

Item	Description	Evaluation
		This analysis is premised on long-term data usage of approximately one month.

4.9.22 UNIX memory (Contour)

Item	Description	Evaluation
Available memory capacity	Allows available memory capacity to be ascertained and compared.	The rise and fall of available memory capacity is represented by contour lines. These enable the user to visually grasp peaks and deviations in memory usage. This analysis is premised on long-term data usage of approximately one month.

4.9.23 Solaris Zone CPU

Item	Description	Evaluation
CPU Usage Rate	Allows CPU usage rates to be ascertained.	This item can be used to ascertain the CPU usage trends and peaks for Solaris zones.
CPU Usage Time	Allows CPU times to be ascertained.	This item can be used to ascertain the CPU time trends and peaks for Solaris zones.

4.9.24 Solaris Zone memory

Item	Description	Evaluation
Memory Usage Rate	Allows memory usage rates to be ascertained.	This item can be used to ascertain the memory usage trends and peaks for Solaris zones.
Virtual Memory Size	Allows virtual memory size to be ascertained.	This item can be used to ascertain the virtual memory size trends and peaks for Solaris zones.
Real Memory Size	Allows real memory size to be ascertained.	This item can be used to ascertain the real memory size trends and peaks for Solaris zones.

4.9.25 Solaris Zone CPU (Contour)

Item	Description	Evaluation
CPU Usage Rate (Contour)	Allows CPU usage rates to be ascertained.	The rise and fall of the CPU usage rate is represented by contour lines. These enable the user to visually grasp peaks and deviations in the CPU usage rate. This analysis is premised on long-term data usage of approximately one month.

4.9.26 Solaris Zone memory (Contour)

Item	Description	Evaluation
Memory Usage Rate (Contour)	Allows memory usage rates to be ascertained.	The rise and fall of the memory usage rate is represented by contour lines. These enable the user to visually grasp peaks and deviations in the memory usage rate. This analysis is premised on long-term data usage of approximately one month.

4.9.27 Interstage EJB application

Item	Description	Evaluation
Processing time (avg/max/min)	The maximum, minimum and mean processing times for EJB applications.	When the maximum processing time for an entire period (one day) is long and the mean processing time is close to the maximum processing time The following causes are possible: There is a performance-related problem with the server application. The load on the system is high. Review the server applications and the system, giving particular attention to the above factors. When the maximum, minimum and mean processing times within a specific period are long The load on the system may be high during a specific time period. Measure the performance information of other server applications as well to confirm the load status. When the maximum processing time is long but the mean processing time is short and close to the minimum processing time The following causes are possible: The system load became high temporarily. There is a performance-related problem with a server application under specific conditions. Review the system and server applications, giving particular attention to the above factors.
Wait time (avg/max/min)	The maximum, minimum and mean times from when a client receives a request until a method commences processing.	When the maximum, minimum and mean wait times during a specific period are long The load on the system may be high during a specific time period. Measure the performance information of other server applications as well to confirm the load status. When the maximum wait time is long but the mean wait time is short and close to the minimum wait time The following causes are possible:

Item	Description	Evaluation
		The system load became high temporarily.
		There is a performance-related problem with a server application under specific conditions.
		Review the system and server applications, giving particular attention to the above factors.
		When the maximum wait time and the mean wait time are long throughout a performance monitoring period
		The performance of a server application is not sufficient to handle the number of requests from a client. Take measures to raise the performance of server applications, such as increasing the number of concurrent processes in the Work Unit definition.
Number of received requests and the number of process wait requests	The cumulative number of processes that have been handled by the object since performance monitoring began, and the maximum number of requests that had to await processing by the object.	When there are many processes and process wait requests within a specific period

The number of requests to a server application within a specific period has increased. If the performance of a server application is not sufficient to handle the number of requests from a client, take measures to raise the performance of server applications, such as increasing the number of concurrent processes in the Work Unit definition. Measure the performance information of other server applications as well to confirm the load status.

When the number of process wait requests is large but the mean wait time is short

Use the *isinfobj* command to regularly check the queue status, and also check the load status during the collection interval. |
| Amount of VM memory used | Maximum and mean values of the amount of VM memory used | If a large amount of VM memory is being used, there may be a memory leak. Review the server applications with a view to identifying objects that can be deleted. |
| Number of sessions | The number of current EJB objects | If the number of EJB objects becomes larger than the number of connected clients, the "remove" method may not have been issued to the "create" method. Review the client applications. |

4.9.28 Interstage CORBA application

Item	Description	Evaluation
Processing time (avg/max/min)	The maximum, minimum and mean processing times for CORBA applications.	When the maximum processing time for an entire period (one day) is long and the mean processing time is close to the maximum processing time

The following causes are possible: |

Item	Description	Evaluation
		There is a performance-related problem with the server application.
		The load on the system is high.
		When the maximum, minimum and mean processing times within a specific period are long
		The load on the system may be high during a specific time period. Measure the performance information of other server applications as well to confirm the load status.
		When the maximum processing time is long but the mean processing time is short and close to the minimum processing time
		The following causes are possible:
		The system load became high temporarily.
		There is a performance-related problem with a server application under specific conditions.
		Review the system and server applications, giving particular attention to the above factors.
Wait time (avg/ max/min)	The maximum, minimum and mean times from when a client receives a request until an operation commences processing.	When the maximum, minimum and mean wait times during a specific period are long
		The load on the system may be high during a specific time period. Measure the performance information of other server applications as well to confirm the load status.
		When the maximum wait time is long but the mean wait time is short and close to the minimum wait time
		The following causes are possible:
		The system load became high temporarily.
		There is a performance-related problem with a server application under specific conditions.
		Review the system and server applications, giving particular attention to the above factors.
		When the maximum wait time and the mean wait time are long throughout a performance monitoring period
		The performance of a server application is not sufficient to handle the number of requests from a client. Take measures to raise the performance of server applications, such as increasing the number of concurrent processes in the Work Unit definition.
Number of received requests and the number of process wait requests	The cumulative number of processes that have been handled by the object since performance monitoring began,	When there are many processes and process wait requests within a specific period
		The number of requests to a server application within a specific period has increased. When the performance of a server application is not sufficient to handle the number of requests from a client, take

Item	Description	Evaluation
	and the maximum number of requests that had to await processing by the object.	measures to raise the performance of server applications, such as increasing the number of concurrent processes in the Work Unit definition. Measure the performance information of other server applications as well to confirm the load status.
		When the number of process wait requests is large but the mean wait time is short
		Use the *isinfobj* command to regularly check the queue status, and also check the load status during the collection interval.

4.9.29 Interstage transaction application

Item	Description	Evaluation
Processing time (avg/max/min)	The maximum, minimum and mean processing times for transaction applications.	When the maximum processing time for an entire period (one day) is long and the mean processing time is close to the maximum processing time
		The following causes are possible:
		There is a performance-related problem with the server application.
		The load on the system is high.
		When the maximum, minimum and mean processing times within a specific period are long
		The load on the system may be high during a specific time period. Measure the performance information of other server applications as well to confirm the load status.
		When the maximum processing time is long but the mean processing time is short and close to the minimum processing time
		The following causes are possible:
		The system load became high temporarily.
		There is a performance-related problem with a server application under specific conditions.
		Review the system and server applications, giving particular attention to the above factors.
Wait time (avg/max/min)	The maximum, minimum and mean times from when a client receives a request until an object commences processing.	When the maximum, minimum and mean wait times during a specific period are long
		The load on the system may be high during a specific time period. Measure the performance information of other server applications as well to confirm the load status.
		When the maximum wait time is long but the mean wait time is short and close to the minimum wait time

Item	Description	Evaluation
		The following causes are possible:
		The system load became high temporarily.
		There is a performance-related problem with a server application under specific conditions.
		Review the system and server applications, giving particular attention to the above factors.
		When the maximum wait time and the mean wait time are long throughout a performance monitoring period
		The performance of a server application is not sufficient to handle the number of requests from a client. Take measures to raise the performance of server applications, such as increasing the number of concurrent processes in the Work Unit definition.
Number of received requests and the number of process wait requests	The cumulative number of processes that have been handled by the object since performance monitoring began, and the maximum number of requests that had to await processing by the object.	When there are many processes and process wait requests within a specific period

The number of requests to a server application within a specific period has increased. When the performance of a server application is not sufficient to handle the number of requests from a client, take measures to raise the performance of server applications, such as increasing the number of concurrent processes in the Work Unit definition. Measure the performance information of other server applications as well to confirm the load status. |

4.9.30 Interstage IJServer JVM

Item	Description	Evaluation
JavaVM heap information (avg/ max/min)	Displays JavaVM heap information.	Check deviations and peaks in the heap information.
JavaVM perm information (avg/ max/min)	Displays JavaVM Perm area information.	Check deviations and peaks in the Perm area information.
Garbage collection information (avg/ max/min)	Displays JavaVM garbage collection information.	Check deviations and peaks in the frequency of garbage collection.

4.9.31 Interstage IJServer JTA

Item	Description	Evaluation
Transaction information (avg/ max/min)	Displays information about transactions used by applications.	Check deviations and peaks in transaction counts.

4.9.32 Interstage IJServer JDBC

Item	Description	Evaluation
Connection pool information (avg/ max/min)	Information about JDBC connections that are pooled by Interstage.	Check deviations and peaks in connection counts.
Information about connection acquisition wait status (avg/max/min)	When an attempt is made to obtain a connection from the pool but the maximum number of connections has already been reached, the system will wait for the connection timeout period until a connection is returned. This information relates to waiting for the connection to be returned.	Check deviations and peaks in the frequency of connection waiting and the number of threads that are waiting for a connection.
Information about establishment of physical connection (avg/max/min)	Information about established connections and discarded connections	Check deviations and peaks in the number of established connections.
Information about connections established by applications (avg/max/min)	Information about connections used by applications	Check deviations and peaks in the number of allocated connections, etc.

4.9.33 Interstage IJServer SERVLET Container

Item	Description	Evaluation
Number sum total of Threads(AVG/ MAX/MIN)	Information about the total number of threads	Check deviations and peaks in thread counts.
Number of Threads currently in	Information about the number of	Check the number of threads currently being processed.

Item	Description	Evaluation
progress(AVG/ MAX/MIN)	threads currently being processed.	

4.9.34 Interstage IJServer SERVLET WebModule

Item	Description	Evaluation
The effective number of Sessions(AVG/ MAX/MIN)	Information about the number of valid sessions	Check the number of valid sessions.

4.9.35 Interstage IJServer EVENT SERVICE

Item	Description	Evaluation
Number of Connected consumers(AVG/ MAX/MIN))	Information about the number of connected consumers	Check the number of connected consumers.
Number of Connected suppliers(AVG/ MAX/MIN)	Information about the number of connected suppliers	Check the number of connected suppliers.
Number of Accumulated event data items(AVG/ MAX/MIN)	Information about the number of accumulated event data items	Check the number of accumulated event data items.

4.9.36 Symfoware shared buffer

Item	Description	Evaluation
Number of times the shared buffer was used up	The number of times that no unused buffers were available.	Fine-tune the shared buffer.
Shared buffer hit rate	The rate at which the shared buffer was hit (%).	Fine-tune the shared buffer. Note that when application programs that mainly access a wide area of the table are executed without the addition of indexes, the on-buffer hit rate will become 0% or something similar, but this does not indicate a problem.

4.9.37 Symfoware log area

Item	Description	Evaluation
BI Log Dry Up Count	Indicates if the BI log area has been used up	Increase the size of the BI log area.
Recovery Log Over Count	The number of times that the recovery log overflowed and a checkpoint occurred	Check the size of the recovery log, and increase it as necessary.
Transaction Entry Dry Up Count	Indicates if the transaction entries have been used up	Increase the number of transaction entries.

4.9.38 Symfoware disk I/O

Item	Description	Evaluation
Number of I/O operations for different database spaces	The number of I/O operations for each database space during a specified period of time	Take measures with reference to the graph.

4.9.39 Symfoware Database space

Item	Description	Evaluation
Symfoware database space	Allows the database space usage status to be ascertained and compared.	It can be used to ascertain the usage deviation and load peaks of each database space.

4.9.40 Oracle Tablespace

Item	Description	Evaluation
Oracle tablespace	Allows the tablespace usage status to be ascertained and compared.	It can be used to ascertain the usage deviation and load peaks of each tablespace.

4.9.41 Oracle SGA

Item	Description	Evaluation
Buffer cache hit rate	The role of buffer caches is to reduce the number of accesses to the disk (data files).	Increase the value of the initialization parameter "DB_BLOCK_BUFFERS" or "DB_CACHE_SIZE" that specifies the size of the buffer cache. Note:

Item	Description	Evaluation
		- "DB_CACHE_SIZE" is a new initialization parameter that was added in Oracle9i. - Pay attention to the remaining physical memory capacity.
REDO log buffer cache	The REDO log buffer cache stores the information that is written to the online REDO log.	If processing to write to the REDO log buffer cache enters a wait state, increase the value of the initialization parameter "LOG_BUFFERS". If I/O processing performed from the REDO log buffer cache to a disk enters a wait state, move the REDO log file to a dedicated disk or a high-speed RAID device. If the REDO log file is located on the file system, consider using direct I/O or moving to a raw device. If Oracle8 or earlier is being used and latch waiting occurs to the REDO log buffer cache, decrease the value of the initialization parameter "LOG_SMALL_ENTRY_MAX_SIZE". If the above tuning is not effective, increase the value of the initialization parameter "LOG_SIMULTANEOUS_COPIES".
Library cache hit rate	The library cache stores the SQL statements that have been analyzed and can be executed.	Increase the value of the initialization parameter "SHARED_POOL_SIZE". Pay attention to the remaining physical memory capacity.
Dictionary cache hit rate	The dictionary cache stores data dictionary information such as the status of file space for database segments (indexes, sequence, tables, etc.) and object permissions.	Increase the value of the initialization parameter "SHARED_POOL_SIZE". Pay attention to the remaining physical memory capacity.

4.9.42 Oracle PGA

Item	Description	Evaluation
Memory sort hit rate	Sorts should be performed in memory whenever possible. Sorting in memory is far quicker than using the disk.	Increase the value of the initialization parameter "SORT_AREA_SIZE" or "PGA_AGGREGATE_TARGET". Note: - "PGA_AGGREGATE_TARGET" is a new initialization parameter that was added in Oracle9i. - Pay attention to the remaining memory capacity. - Because changes to the above initialization parameter can change the execution plans for optimizing all SQL statements, be wary of

Item	Description	Evaluation
		changing the value, unless the memory sort hit rate has become a major problem.

4.9.43 Oracle disk I/O

Item	Description	Evaluation
Amount of free table space area	Displays the minimum value for the available table space capacity.	Expand or add data files.
Volume of database I/O	Displays the volume of database I/O.	Take measures with reference to the graph.

4.9.44 Oracle resource conflict

Item	Description	Evaluation
Ratio of zero rollback segment wait time	Ideally, rollback segment header waiting should be kept to zero or a very small amount.	If rollback segments are being used, more should be added as the number is insufficient. Note: If the UNDO table space is being used in Oracle9i or later, tuning will take place automatically.

4.9.45 CentricManager traffic

Item	Description	Evaluation
Line utilization rate	Allows the line utilization rate to be ascertained and compared.	Check deviations and peaks in the line utilization rate.
Number of octets	Allows the number of octets to be ascertained and compared.	Check deviations and peaks in the number of octets.

4.9.46 CentricManager packet

Item	Description	Evaluation
Number of packets	Allows the number of packets to be ascertained and compared.	Check deviations and peaks in the number of packets.
Discard packet rate	Allows the discard packet rate to be	It can be used to identify interfaces that have a large number of packets that cannot be sent for

Item	Description	Evaluation
	ascertained and compared.	reasons other than data errors (insufficient buffer size, etc.).
Error packet rate	Allows the error packet rate to be ascertained and compared.	It can be used to identify interfaces that have a large number of packets that cannot be sent because of data errors.

4.9.47 Operation Manager Subsystem

Item	Description	Evaluation
Job multiplicity of each Subsystem (Job multiplicity, Network/ Distributed execution job multiplicity)	Allows the maximum job concurrency (concurrency of jobs and network/ distributed execution jobs) in different subsystems to be ascertained and compared.	Check deviations and peaks in the job concurrency of different subsystems. If the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, review job schedules and reduce the level of concurrency.
Job net multiplicity of each Subsystem	Allows the maximum job net concurrency in different subsystems to be ascertained and compared.	Check deviations and peaks in the job net concurrency of different subsystems.
Number of execution waiting jobs of each Subsystem	Allows the maximum number of pending jobs in different subsystems to be ascertained and compared.	Check deviations and peaks in the number of pending jobs in different subsystems. If the number of pending jobs is large, review the job execution schedule.
Execution waiting time of each Subsystem	Allows the maximum execution wait time in different subsystems to be ascertained and compared.	Check deviations and peaks in the job execution wait times of different subsystems. If the execution wait time is long and the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, take measures to reduce the level of job concurrency.
Number of jobs that have exceeded the predicted time of each Subsystem	Allows the number of jobs with execution time overruns in different subsystems to be ascertained and compared.	Check deviations and peaks in the number of jobs with execution time overruns in different subsystems. If the number of jobs with execution time overruns is large and the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, take measures to reduce the level of job concurrency.
Number of completed jobs by subsystem	Allows the number of completed jobs in different subsystems to be ascertained and compared.	Check deviations and peaks in the number of completed jobs in different subsystems. The number of completed jobs by subsystem also includes the following number of error jobs by subsystem.
Number of error jobs by subsystem	Allows the number of error jobs in different	Check the number of error jobs in different subsystems.

Item	Description	Evaluation
	subsystems to be ascertained.	

4.9.48 Operation Manager Queue

Item	Description	Evaluation
Job multiplicity of each Queue (Job multiplicity, Network/ Distributed execution job multiplicity)	Allows the maximum job concurrency (concurrency of jobs and network/ distributed execution jobs) in different queues to be ascertained and compared.	Check deviations and peaks in the job concurrency of different queues. If the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, review job schedules and reduce the level of concurrency.
Job net multiplicity of each Queue	Allows the maximum job net concurrency in different queues to be ascertained and compared.	Check deviations and peaks in the job net concurrency of different queues.
Number of execution waiting jobs of each Queue	Allows the maximum number of pending jobs in different queues to be ascertained and compared.	Check deviations and peaks in the number of pending jobs in different queues. If the number of pending jobs is large, review the job execution schedule.
Execution waiting time of each Queue	Allows the maximum execution wait time in different queues to be ascertained and compared.	Check deviations and peaks in the job execution wait times of different queues. If the execution wait time is long and the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, take measures to reduce the level of job concurrency.
Number of jobs that have exceeded the predicted time of each Queue	Allows the number of jobs with execution time overruns in different queues to be ascertained and compared.	Check deviations and peaks in the number of jobs with execution time overruns in different queues. If the number of jobs with execution time overruns is large and the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, take measures to reduce the level of job concurrency.

4.9.49 Operation Manager Project

Item	Description	Evaluation
Job multiplicity of each Project	Allows the maximum job concurrency in different projects to be ascertained and compared.	Check deviations and peaks in the job concurrency of different projects. If the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a

Item	Description	Evaluation
		warning level, review job schedules and reduce the level of concurrency.
Job net multiplicity of each Project	Allows the maximum job net concurrency in different projects to be ascertained and compared.	Check deviations and peaks in the job net concurrency of different projects.
Number of execution waiting jobs of each Project	Allows the maximum number of pending jobs in different projects to be ascertained and compared.	Check deviations and peaks in the number of pending jobs in different projects. If the number of pending jobs is large, review the job execution schedule.
Execution waiting time of each Project	Allows the maximum execution wait time in different projects to be ascertained and compared.	Check deviations and peaks in the job execution wait times of different projects. If the execution wait time is long and the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, take measures to reduce the level of job concurrency.
Number of jobs that have exceeded the predicted time of each Project	Allows the number of jobs with execution time overruns in different projects to be ascertained and compared.	Check deviations and peaks in the number of jobs with execution time overruns in different projects. If the number of jobs with execution time overruns is large and the CPU usage rate, available memory capacity, disk usage rate, or some other item exceeds a warning level, take measures to reduce the level of job concurrency.
Number of completed jobs by project	Allows the number of completed jobs in different projects to be ascertained and compared.	Check deviations and peaks in the number of completed jobs in different projects. The number of completed jobs by project also includes the following number of error jobs by project.
Number of error jobs by project	Allows the number of error jobs in different project to be ascertained.	Check the number of error jobs in different projects.

4.9.50 NetworkManager network traffic

Item	Description	Evaluation
Input Network Utilization Rates	Allows the network traffic situation to be ascertained.	These items display the average and maximum network traffic values, and the time when the maximum traffic occurred. Use the displayed analysis and report to locate and correct problems.
Output Network Utilization Rates		

4.9.51 NetworkManager CPU load

Item	Description	Evaluation
CPU Usage Rate	Allows the CPU usage rates to be ascertained.	This item displays the average and maximum CPU usage rates, and the time when the maximum CPU usage occurred. Use the displayed analysis and report to locate and correct problems.

4.9.52 NetworkManager collision

Item	Description	Evaluation
Number of Collisions	Allows the number of collisions that have occurred to be ascertained.	This item displays the average and maximum numbers of collisions, and the time when the maximum number of collisions occurred. Use the displayed analysis and report to locate and correct problems.

4.9.53 NetworkManager CRC error

Item	Description	Evaluation
Number of CRC Errors	Allows the number of CRC errors that have occurred to be ascertained.	This item displays the average and maximum numbers of CRC errors, and the time when the maximum number of CRC errors occurred. Use the displayed analysis and report to locate and correct problems.

4.9.54 NetworkManager drop packet

Item	Description	Evaluation
Number of Input Drop Packets	Allows the number of dropped packets that have occurred to be ascertained.	These items display the average and maximum numbers of dropped packets, and the time when the maximum number of dropped packets occurred. Use the displayed analysis and report to locate and correct problems.
Number of Output Drop Packets		

4.9.55 NetworkManager transfer packet

Item	Description	Evaluation
Number of Input Error Packets	Allows the number of sent and received packets to be ascertained.	These items display the average and maximum numbers of sent and received packets, and the time when the maximum number of sent and received packets occurred. Use the displayed analysis and report to locate and correct problems.
Number of Output Error Packets		

4.9.56 NetworkManager discard packet

Item	Description	Evaluation
Number of Input Discard Packets	Allows the number of discarded packets to be ascertained.	These items display the average and maximum numbers of discarded packets, and the time when the maximum number of discarded packets occurred. Use the displayed analysis and report to locate and correct problems.
Number of Output Discard Packets		

4.9.57 NetworkManager error packet

Item	Description	Evaluation
Number of Input Error Packets	Allows the number of error packets to be ascertained.	These items display the average and maximum numbers of error packets, and the time when the maximum number of error packets occurred. Use the displayed analysis and report to locate and correct problems.
Number of Output Error Packets		

4.9.58 NetworkManager IP operating rates

Item	Description	Evaluation
IP Operating Rate	Allows the IP operating rates to be monitored.	This item displays the average IP operating rate, the downtime length and the downtime frequency. Use the displayed analysis and report to locate and correct problems.

4.9.59 NetworkManager RTT

Item	Description	Evaluation
RTT	Allows the RTT (msec) and the ping loss rate to be monitored.	This item displays the average and maximum RTT values, and the average and maximum ping loss rates. Use the displayed analysis and report to locate and correct problems.
Ping Loss Rates		

4.9.60 TcpNetwork

Item	Description	Evaluation
Number of TCP packets transferred	Allows the number of packets sent and received by each network interface to be ascertained and compared.	If application processing performance is poor even though there are no problems with server resources (CPU, memory, disk), network performance may be causing a bottleneck.
Size of TCP packets transferred	Allows the size of packets sent and	Take measures with reference to the graph.

Item	Description	Evaluation
	received by each network interface to be ascertained and compared.	
Resend rate, duplicated reception rate, packet loss rate	Allows the resend rate, the duplicated reception rate and the packet loss rate for each network interface to be ascertained and compared.	Take measures with reference to the graph.
Network problem situation	Allows the occurrence of network problems for each network interface to be ascertained and compared.	Take measures with reference to the graph.

4.9.61 Storage CM CPU usage rate

Item	Description	Evaluation
CM CPU Usage Rate	Allows the CM CPU usage rate to be ascertained and compared.	Check deviations and peaks in the CM CPU usage rate. When the CPU usage rate of one or more CMs is 85% or greater, and the CPU usage rates of the remaining CMs are 75% or greater, there is the possibility that all CMs are under a high load.

4.9.62 Storage Disk busy

Item	Description	Evaluation
Disk Busy	Allows the disk usage rates of each RAID group to be ascertained and compared.	Check deviations and peaks in the disk usage rate. When the disk usage rate is 80% or greater, high-load applications may be concentrated in the same RAID group. Alternatively, the RAID configuration of the relevant RAID group may not be suitable.

4.9.63 Storage throughput

Item	Description	Evaluation
Throughput	Allows the read and write throughput of each RAID group to be ascertained and compared.	Check deviations and peaks in the throughput.

4.9.64 Storage IOPS

Item	Description	Evaluation
IOPS	Allows the read and write IOPS (IO per second) of each RAID group to be ascertained and compared.	Check deviations and peaks in the IOPS.

4.9.65 Storage response time

Item	Description	Evaluation
Read Response Write Response	Allows the read and write response times of each RAID group to be ascertained and compared.	Check deviations and peaks in the response time.

4.9.66 Storage cache hit rate

Item	Description	Evaluation
Read Cache Hits Write Cache Hits	Allows the read and write cache hit rates of each RAID group to be ascertained and compared.	Check deviations and peaks in the cache hit rate.

4.9.67 NAS CPU usage rate

Item	Description	Evaluation
NAS CPU usage rate	CPU usage rates can be viewed/ compared.	Used to grasp CPU usage rate bias and peaks.

4.9.68 NAS NFS OPS

Item	Description	Evaluation
NFS processing performance	NFS handling performances can be viewed /compared.	Used to grasp NFS handling performance bias and peaks.

4.9.69 NAS CIFS OPS

Item	Description	Evaluation
CIFS processing performance	CIFS handling performances can be viewed /compared.	Used to grasp CIFS handling performance bias and peaks.

4.9.70 NAS HTTP OPS

Item	Description	Evaluation
HTTP processing performance	HTTP handling performances can be viewed /compared.	Used to grasp HTTP handling performance bias and peaks.

4.9.71 NAS network traffic

Item	Description	Evaluation
Amount of network input data Amount of network output data	Network traffic statuses can be viewed /compared.	Used to grasp network traffic bias and peaks.

4.9.72 NAS Amount of DISK R/W data

Item	Description	Evaluation
Amount of reading data from disk Amount of writing data to disk	Disk read and write data amounts can be viewed /compared.	Used to grasp disk read and write data amount bias and peaks.

4.9.73 NAS Amount of tape R/W data

Item	Description	Evaluation
Amount of reading data from tape Amount of writing data to tape	Tape read and write data amounts can be viewed /compared.	Used to grasp tape read and write data amount bias and peaks.

4.9.74 Workload

Item	Description	Evaluation
Amount of CPU resources allocated	Allows the amount of CPU resources used for a single resource module to be ascertained and compared.	Take measures with reference to the graph.

Item	Description	Evaluation
Amount of CPU resources used	Allows the amount of allocated CPU resources and the amount of used CPU resources for a single resource module to be ascertained and compared.	Take measures with reference to the graph.

4.9.75 MS-SQL ACCESS METHOD

Item	Description	Evaluation
Full Scan Count Index Count	Allows the access method for MS-SQL to be ascertained and compared.	Take measures with reference to the graph.

4.9.76 MS-SQL Server BUFFER

Item	Description	Evaluation
Buffer Cache Hit Count	Enables the number of MS-SQL buffer cache hits to be determined.	Take measures with reference to the graph.
Access Count	Enables the number of MS-SQL accesses to be determined.	Take measures with reference to the graph.

4.9.77 MS-SQL Server CMGR

Item	Description	Evaluation
Cache hit rate	Enables the MS-SQL cache hit rate to be determined.	Take measures with reference to the graph.
Hits Count	Enables the number of MS-SQL hits to be determined.	Take measures with reference to the graph.

4.9.78 MS-SQL Server DATABASES

Item	Description	Evaluation
Transaction Count	Enables the number of MS-SQL transactions to be determined.	Take measures with reference to the graph.
Active Transaction Count	Enables the number of MS-SQL active transactions to be determined.	Take measures with reference to the graph.
Log Area Ratio	Enables the MS-SQL log area ratio to be determined.	Take measures with reference to the graph.

4.9.79 MS-SQL Server GENERALSTATISTICS

Item	Description	Evaluation
Number of Connected Users	Allows the number of connected users for MS-SQL to be ascertained.	Take measures with reference to the graph.

4.9.80 MS-SQL Server LOCKS

Item	Description	Evaluation
Deadlocks Count	Allows the number of deadlocks for MS-SQL to be ascertained.	Take measures with reference to the graph.
Number of standby waiting lock requests	The number of MS-SQL standby waiting lock requests can be understood.	Also referring to the graph too before making decision.

4.9.81 MS-SQL Server MEMORY

Item	Description	Evaluation
Total Amount of Memory	Allows the memory capacity for MS-SQL to be ascertained.	Take measures with reference to the graph.

4.9.82 MS-SQL SQL STATISTICS

Item	Description	Evaluation
Number of SQLS Batch Requests	Allows the number of requests for MS-SQL to be ascertained.	Take measures with reference to the graph.

4.9.83 MS-.NET ASP.NET

Item	Description	Evaluation
Waiting Demands for Processing Count	Allows the number of requests waiting to be processed for MS-SQL to be ascertained.	When the maximum processing time for an entire period (one day) is long and the mean processing time is close to the maximum processing time The following causes are possible: There is a performance-related problem with the server application.

Item	Description	Evaluation
		The load on the system is high.
		Review the server applications and the system, giving particular attention to the above factors.
		When the maximum, minimum and mean processing times within a specific period are long
		The load on the system may be high during a specific time period. Measure the performance information of other server applications as well to confirm the load status.
		When the maximum processing time is long but the mean processing time is short and close to the minimum processing time
		The following causes are possible:
		The system load became high temporarily.
		There is a performance-related problem with a server application under specific conditions.
		Review the system and server applications, giving particular attention to the above factors.
Application Reboot Count	Allows Application Reboot Count to be ascertained.	Take measures with reference to the graph.
Worker Process Reboot Count	Allows Worker Process Reboot Count to be ascertained.	Take measures with reference to the graph.

4.9.84 MS-.NET Applications

Item	Description	Evaluation
Transaction Count	The number of MS-.NET transactions can be checked.	Take measures with reference to the graph.
Execution Request Count	The number of MS-.NET execution requests can be checked.	Take measures with reference to the graph.
Active Transaction Count	The number of active MS-.NET sessions can be checked.	Take measures with reference to the graph.
Total Error Count	The total number of MS-.NET errors can be checked.	Take measures with reference to the graph.

4.9.85 MS-.NET Remote procedure

Item	Description	Evaluation
Total Number of Remote	Allows the total number of remote procedure calls for MS-SQL to be ascertained.	Take measures with reference to the graph.

Item	Description	Evaluation
Procedure Calls		

4.9.86 SAP Enqueue(Request)

Item	Description	Evaluation
Enqueue requests	The number of enqueue requests can be tracked and compared.	Track and compare trends and peaks in the number of enqueue requests.
Enqueue Requests Errors	The number of enqueue request errors can be tracked and compared.	Track and compare trends and peaks in the number of enqueue request errors.
Dequeue Requests	The number of dequeue requests can be tracked and compared.	Track and compare trends and peaks in the number of dequeue requests.
Dequeue Requests Errors	The number of dequeue request errors can be tracked and compared.	Track and compare trends and peaks in the number of dequeue request errors.
Exclusion Lock Wait Time	The time that parallel processes spend waiting to access lock table can be tracked and compared.	Track and compare the time that parallel processes spend waiting to access lock table.
Server Time	The time spent in the enqueue server can be tracked and compared.	Track and compare trends and peaks in the time spent in the enqueue server.
Runtime of Data Collector	The time that the data collector (the RSCOLL00 program) spends executing can be tracked and compared.	Track and compare trends and peaks in the time that the data collector (the RSCOLL00 program) spends executing.

4.9.87 SAP Enqueue(QueLength)

Item	Description	Evaluation
Queue Length	The queue length for enqueue server monitoring objects can be tracked and compared.	Track and compare trends and peaks in the queue length for enqueue server monitoring objects.
Utilization (Lock owner)	The usage rates for lock owners within lock tables can be tracked and compared.	Track and compare trends and peaks in the usage rates for lock owners within lock tables.
Utilization(Lock arguments)	The usage rates for lock arguments within lock tables can be tracked and compared.	Track and compare trends and peaks in the usage rates for lock arguments within lock tables.
Utilization(Elementary Locks)	The usage rates for elementary locks within lock tables can be tracked and compared.	Track and compare trends and peaks in the usage rates for elementary locks within lock tables.

Item	Description	Evaluation
Errors	The number of errors that occur with enqueue work processes can be tracked and compared.	Track and compare trends and peaks in the number of errors that occur with enqueue work processes.

4.9.88 SAP Dialog

Item	Description	Evaluation
Response Time	The response times for the Dialog Service can be tracked and compared.	Track and compare trends and peaks in the response times for the Dialog Service.
Front End Wait Time	Front-end standby time can be tracked and compared.	Track and compare trends and peaks in front-end standby times.
Dispatcher Wait Time	The dispatcher standby times for each dialog step can be tracked and compared.	Track and compare trends and peaks in the dispatcher standby times for each dialog step.
Load / Generation Time	The load/generation times for GUI objects can be tracked and compared.	Track and compare trends and peaks in the load/ generation times for GUI objects.
Roll Time	Roll times can be tracked and compared.	Track and compare trends and peaks in roll times.
DB Request Time	The processing times for logical database requests can be tracked and compared.	Track and compare trends and peaks in the processing times for logical database requests.
Load Factor	The rate of load that Dialog processes place on the application server can be tracked and compared.	Track and compare trends and peaks in the rate of load that Dialog processes place on the application server .
Dialog Steps	The number of Dialog steps can be tracked and compared.	Track and compare trends and peaks in the number of Dialog steps.

4.9.89 SAP Spool

Item	Description	Evaluation
Load Factor	The load rate for spool work processes can be tracked and compared.	Track and compare trends and peaks in the load for spool work processes.
Errors	The number of errors that occur with spool work processes can be tracked and compared.	Track and compare trends and peaks in the number of errors that occur with spool work processes.

4.9.90 SAP Background

Item	Description	Evaluation
Load Factor	The load rate for background work processes can be tracked and compared.	Track and compare trends and peaks in the load rate for background work processes.
Errors	The number of errors that occur with background work processes can be tracked and compared.	Track and compare trends and peaks in the number of errors that occur with background work processes.

4.9.91 SAP Update

Item	Description	Evaluation
Response Time	The response times for each Dialog step for SAP Update Tasks (V1) can be tracked and compared.	Track and compare trends and peaks in the response times for each Dialog step for SAP Update Tasks (V1).
Dispatcher Wait Time	The dispatcher standby times in dispatcher queues for SAP Update Tasks (V1) can be tracked and compared.	Track and compare trends and peaks in the dispatcher standby times in dispatcher queues for SAP Update Tasks (V1).
Load Factor(V1)	The load rate for update task work processes for SAP Update Tasks (V1) can be tracked and compared.	Track and compare trends and peaks in the load rate for update task work processes for SAP Update Tasks (V1).
Errors(V1)	The number of errors that have occurred for Update 1 work process can be tracked and compared.	Track and compare trends and peaks in the number of errors that have occurred for Update 1 work process.
Load Factor(V2)	The load rate for Update 2 task work processes for SAP Update Tasks (V2) can be tracked and compared.	Track and compare trends and peaks in the load rate for Update 2 task work processes for SAP Update Tasks (V2).
Errors(V2)	The number of errors that have occurred for Update 2 work process can be tracked and compared.	Track and compare trends and peaks in the number of errors that have occurred for Update 2 work process.

4.9.92 SAP Roll Paging

Item	Description	Evaluation
Paging Area Utilization	The paging area usage rate can be tracked and compared.	Track and compare trends and peaks in the paging area usage rate.
Roll Area Utilization	The roll area usage rate can be tracked and compared.	Track and compare trends and peaks in the roll area usage rate.

4.9.93 SAP Memory

Item	Description	Evaluation
Extended Memory Utilization	The usage rate for extended memory can be tracked and compared.	Track and compare trends and peaks in the usage rate for extended memory.
Heap Memory Utilization	The usage rate for heap memory can be tracked and compared.	Track and compare trends and peaks in the usage rate for heap memory.
Management Slots Utilization	The usage rate for EM management slots can be tracked and compared.	Track and compare trends and peaks in the usage rate for EM management slots.
Work Processes	The number of work processes in PRIV mode can be tracked and compared.	Track and compare trends and peaks in the number of work processes in PRIV mode.

4.9.94 SAP Buffers

Item	Description	Evaluation
Buffer Utilization	The buffer usage rate can be tracked and compared.	Track and compare trends and peaks in the buffer usage rate.

4.9.95 VMware(Virtual)

Item	Description	Evaluation
CPU Usage Rate	Allows CPU usage by guest OSs to be ascertained.	CPU usage rates by guest OSs are stacked for display. This graph makes it easy to see which guest is using the CPU. CPU usage rate is calculated with each physical CPU having a value of 100%. This means that the cumulative CPU usage rate of the CPUs of guest operating systems will be shown exceeding 100%.
Memory Usage	Allows memory usage by guest OSs to be ascertained.	Memory usage by guest OSs are stacked for display. This graph makes it easy to see which guest is using the memory.
Disk I/O count	Allows disk I/O by guest OSs to be ascertained.	Disk I/O by guest OSs are stacked for display. This graph makes it easy to see which guest is using the disk.

🅿 Point
. . . .

Monitoring guest operating systems with Agents enables the system manager to see what is happening with virtual CPUs, memories, and disks.

It is also possible to see information about the physical CPU, memory, and disk by displaying "VMware(Physical)" in the full system inspection analysis/report.

When virtual resources are running low and physical resources are available, the manager can see which guests are using the resources in this report and reallocate resources if necessary.
∙∙

4.9.96 Hyper-V(Virtual)

Item	Description	Evaluation
CPU Usage Rate	Allows CPU usage by guest OSs to be ascertained.	CPU usage rates by guest OSs are stacked for display. This graph makes it easy to see which guest is using the CPU. CPU usage rate is calculated with each physical CPU having a value of 100%. This means that the cumulative CPU usage rate of the CPUs of guest operating systems will be shown exceeding 100%.

P **Point**
∙∙

Monitoring guest operating systems with Agents enables the system manager to see what is happening with virtual CPUs.

It is also possible to see information about the physical CPU by displaying "Hyper-V(Physical)" in the full system inspection analysis/report.

When virtual resources are running low and physical resources are available, the manager can see which guests are using the resources in this report and reallocate resources if necessary.
∙∙

4.9.97 Xen(Virtual)

Item	Description	Evaluation
CPU Usage Rate	Allows CPU usage by guest OSs to be ascertained.	CPU usage rates by guest OSs are stacked for display. This graph makes it easy to see which guest is using the CPU. CPU usage rate is calculated with each physical CPU having a value of 100%. This means that the cumulative CPU usage rate of the CPUs of guest operating systems will be shown exceeding 100%.
Memory Usage	Allows memory usage by guest OSs to be ascertained.	Memory usage by guest OSs are stacked for display. This graph makes it easy to see which guest is using the memory.
Disk I/O count	Allows disk I/O by guest OSs to be ascertained.	Disk I/O by guest OSs are stacked for display. This graph makes it easy to see which guest is using the disk.

P **Point**
∙∙

Monitoring guest operating systems with Agents enables the system manager to see what is happening with virtual CPUs, memories, and disks.

It is also possible to see information about the physical CPU, memory, and disk by displaying "Unix Server" in the full system inspection analysis/report.

When virtual resources are running low and physical resources are available, the manager can see which guests are using the resources in this report and reallocate resources if necessary.

4.9.98 Resource piling(Windows)

Item	Description	Evaluation
CPU used	The CPU usage can be simulated if the selected servers are consolidated on one machine.	If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated. If a tolerated threshold value (CPU) was set, this checks that the value is not greatly exceeded.
Memory used	The memory usage can be simulated if the selected servers are consolidated on one machine.	If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated. If a tolerated threshold value (memory) was set, this checks that the value is not greatly exceeded.
Disk I/O reads	The number of disk I/O (read) can be simulated if the selected servers are consolidated on one machine.	If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated.
Disk I/O writes	The number of disk I/O (write) can be simulated if the selected servers are consolidated on one machine.	
Amount of network transmission	The amount of network transmission can be simulated if the selected servers are consolidated on one machine.	
Amount of network reception	The amount of network reception can be simulated if the selected servers are consolidated on one machine.	

4.9.99 Resource piling(UNIX)

Item	Description	Evaluation
CPU used	The CPU usage can be simulated if the selected servers are consolidated on one machine.	If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated. If a tolerated threshold value (CPU) was set, this checks that the value is not greatly exceeded.
Memory used	The memory usage can be simulated if the selected servers are consolidated on one machine.	If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated. If a tolerated threshold value (memory)

Item	Description	Evaluation
		was set, this checks that the value is not greatly exceeded.
Disk I/O reads	The number of disk I/O (read) can be simulated if the selected servers are consolidated on one machine.	If a value will be too great throughout a period of time or there is a time zone bias, consider the combinations of the servers that will be consolidated.
Disk I/O writes	The number of disk I/O (write) can be simulated if the selected servers are consolidated on one machine.	

4.9.100 Estimated response time (Requests)

Item	Description	Evaluation
Delay analysis	Allows the average delay times in each level of an N-level architecture to be estimated when responses to requests sent from a client in an N-level architecture are returned.	Determine the degree of influence that the components of each server have on response. **Note** Blank values in the table indicate that the element cannot be analyzed.
Fluctuation in number of requests	Makes it possible to estimate how much the average delay time will change as the request frequency increases.	Estimate the effect of provisioning. **Note** Blank values in the table indicate that the element cannot be analyzed.

4.9.101 Estimated response time (Servers)

Item	Description	Evaluation
Delay analysis	Allows the average delay times in each level of an N-level architecture to be estimated when responses to requests sent from a client in an N-level architecture are returned.	Determine the degree of influence that the components of each server have on response. **Note** Blank values in the table indicate that the element cannot be analyzed.
Fluctuation in number of servers	Makes it possible to estimate how much the average delay time will change as the number of servers increases.	Estimate the effect of provisioning. **Note** Blank values in the table indicate that the element cannot be analyzed.

4.10 Storing Analysis and Reports

This section explains how to store analysis and reports.

Analysis and report storage location

Past analysis results and registered analysis conditions and scheduled reports are stored in the following directory for each console definition.

```
<installation directory>\www\html\ConsoleEnvironments\console definition name
```

A definition file can also be created to change the storage location.

Definition File

```
<installation directory>\control\sqcSetcondir.ini
```

File format

```
["Console definition name 1"]

Alias= "Console definition name 1"

Localpath= "Management Folder 1"
```

Settings example

```
["TenantA"]

Alias="TenantA"

Localpath="c:\tenantA"

["TenantB"]

Alias="TenantB"

Localpath="c:\tenantB"
```

Storing analyses and reports

- Information will not be deleted from this directory even if the console definition is deleted from the **Console Definition** window.

- If a new console definition is created with the same name while the directory with this console definition name still exists, the existing analysis and report information will be inherited.
  Console definition names added here are not case sensitive.

- If a console definition is copied using the **Console Definitions** window, registered analysis conditions and scheduled reports will be copied as well. However, past analysis and reports (histories) will not be copied.

Chapter 5 Notes Relating to Errors

This section explains errors that may occur when an attempt is made to display the Summary View and Drilled-Down displays and the Analysis/Report window of the Console, and how to respond to these errors. It also explains the "-1" display in the service operational information.

5.1 Content Display Errors

The following problems sometimes occur when users try to display the desired contents (graphs or tables) in the **Summary** view and **Drilled-Down** displays and the **Analysis/Report** view of the **Console**.

- The error code 1572864 is displayed instead of the graph image.

- "Chart is unavailable" is displayed instead of the graph image.

- The graph image drops out (only the graph is not displayed).

- The following error message is displayed.

> "The specified CGI application misbehaved by not returning a complete set of HTTP headers.
> The headers it did return are: Unable to register TclNotifier window class"
>
> "ohd_update error."
>
> "Ohd file create error."

In addition, an exception is sometimes issued with the code shown below when the report creation command (sqcMakeReport.exe) is executed.

- 0xe06d7363

- 0xc0000005

These problems may occur because the desktop heap on the operation management client is not large enough. In this case, increase the size of the desktop heap using the following method.

5.1.1 How to Increase the Size of the Desktop Heap

> 📙 Note
> ....
>
> Making errors in editing the registry can lead to problems such as Windows not starting. Be very careful while editing the registry.
>
> Changing the desktop heap affects the entire system, therefore make sure that there are no system operation problems after the change.
> ....

1. Start the registry editor. (REGEDT32.EXE)

2. Display the following key from the HKEY_LOCAL_MACHINE sub-tree.

   ```
   \System\CurrentControlSet\Control\Session Manager\SubSystems
   ```

3. Modify the SharedSection parameter settings in the Windows values.

   Increase the third value (shown in red in the example below) in multiples of 256 or 512 to somewhere between 1024 and 2048.

   Depending on the system, an error message (such as "abnormal program termination") may be displayed when the Console is started if the value specified is too large, and the window may not open. In this case, adjust the specified value within the range indicated.

   Depending on the system, there may be three or four values separated by commas. In both cases, increase the third value.

   [Before]

   ```
   %SystemRoot%\system32\csrss.exe ObjectDirectory=\Windows
   SharedSection=1024,3072,512 Windows=On
   SubSystemType=Windows ServerDll=basesrv,1
   ServerDll=winsrv:UserServerDllInitialization,3
   ServerDll=winsrv:ConServerDllInitialization,2 ProfileControl=Off
   MaxRequestThreads=16
   ```

   [After]

   ```
   %SystemRoot%\system32\csrss.exe ObjectDirectory=\Windows
   SharedSection=1024,3072,1024 Windows=On
   SubSystemType=Windows ServerDll=basesrv,1
   ServerDll=winsrv:UserServerDllInitialization,3
   ServerDll=winsrv:ConServerDllInitialization,2 ProfileControl=Off
   MaxRequestThreads=16
   ```

4. Restart the system.

5.1.2 Other content display errors

In addition, the following error codes may occur when an attempt is made to display content.

In such cases, perform the checks and actions indicated:

Error code	Check item	Action
268435520	If "Create an Excel® file" in the analysis window is selected, has Microsoft®	When content is to be output in Excel® format, Microsoft® Excel must be installed on the Operation Management Client. Refer to Section 2.3.2.1,

Error code	Check item	Action
	Excel been installed on the Operation Management Client?	"Operating OS and related software" in the *Installation Guide* for details.
536870912	Has Microsoft® Internet Information Services been set up correctly?	If the correct settings have not been made, set up Microsoft® Internet Information Services again by referring to Section 5.2.1, "Microsoft® Internet Information Services" in the *Installation Guide*.
	Has the target data been collected?	If not even one item of the target data has been collected, make settings so that the data is collected.
1074003968	Is the Manager service running?	Start the Manager service if it is not running already.
	Can the name of the Manager be resolved from the operation management client?	If the name cannot be resolved, add the name and IP address of the Manager to the hosts file on the operation management client.
1074266112	Has the power to the Manager been turned off?	Turn the power to the Manager on if it has been turned off.
	Has the IP address of the Manager been set up incorrectly on the operation management client?	The IP address/host name of the Manager is specified in the following registry key. Check if the content of this key is correct. \\HKEY_LOCAL_MACHINE\SOFTWARE\Fujitsu\SQC-C\CurrentVersion\Settings\ManagerIP-Address If the content is incorrect, specify the correct IP address/host name using the method described in Section 6.4.2, "Changing the IP Address/Host Name of the Manager that Is Recognized by Operation Management Clients" in the *Installation Guide*.
1342308384	If the Operation Management Client's operating system is Windows Server® 2008, Windows Vista®, or Windows® 7, has the folder described in "4.3.5 File Output Operations" been created?	If the Operation Management Client's operating system is Windows Server® 2008, Windows Vista®, or Windows® 7, check that the folder described in "4.3.5 File Output Operations" has been created.
1342308416	If "Create an Excel® file" in the analysis window is selected, has Microsoft® Excel been installed on the Operation Management Client?	When content is to be output in Excel® format, Microsoft® Excel must be installed on the Operation Management Client. Refer to Section 2.3.2.1, "Operating OS and related software" in the *Installation Guide* for details.

5.2 If "-1" is displayed as service operational information

Operational information for various services can be displayed in the **Summary** view and **Drilled-Down** displays and the **Analysis/Report** view of the **Console**.

The following table shows the values that are displayed as operational information, and the meanings of these values.

Service	Value	Meaning
HTTP, DNS, SMTP	0 or more	This value indicates the response time for the service.
	-1	This value indicates that either the service has stopped, or there is an error with a definition in the management target configuration information file.
Any port	0	The port is operating.
	-1	This value indicates that either the port has stopped, or there is an error with a definition in the management target configuration information file.

If "-1" is displayed for a monitored service even though it should be running, there may be an error with a definition in the management target configuration information file.

Set up the managed object configuration information file correctly by referring to "A.2 Response/Operation Information Collection Policy Setup Command".

See

Refer to Chapter 6, "Response and Managed Object Configuration Information (ServiceConf.xml)" in the *User's Guide* for details on monitored services.

5.3 Application errors with tclsh84

The tcl84.exe application may produce the following kind of application error on a Manager or an Agent.

"The application failed to initialize properly (0xc0000142)."

This problem may occur because the desktop heap on the Manager or Agent is not large enough. In this case, increase the size of the desktop heap using the method explained in "5.1.1 How to Increase the Size of the Desktop Heap".

5.4 Event ID 2003

For Microsoft Windows 2000 Server and Microsoft Windows 2000 Advanced Server, a warning message with event ID 2003 may be displayed in the application event log.

This is a problem with Windows, and Microsoft has announced a workaround. Refer to the following URL for details.

http://support.microsoft.com/kb/267831/en-us

5.5 Failure to collect server performance information

Server performance information may not be displayed (may not be collected) for the various display functions in the Console window. This is a problem with Windows, and Microsoft has announced a workaround. Refer to the following URL for details.

http://support.microsoft.com/kb/248993/en-us

5.6 PDB maintenance processing

Any data in the PDB that has exceeded the retention period (described in Section 3.2.2, "Manager" in the *Technical Guide*) will be deleted from the PDB as part of the PDB maintenance processing that is executed at 2:00 AM each day.

While PDB maintenance processing is in progress, access to the PDB (such as executing PDB commands or displaying the Summary view and Drilled-Down displays and the Analysis/Report view of the Console) may become temporarily impossible.

In this case, repeat the operation after the PDB maintenance processing has completed.

5.7 If Management Console buttons become inoperable

Description of problem

When Internet Explorer 7 is used to operate buttons on Systemwalker Service Quality Coordinator's Management Console, the message "This website is using a scripted window to ask you for information. If you trust this website, click here to allow scripted windows." may appear in Internet Explorer's Information Bar and the Management Console buttons may become inoperable.

Cause

This message appears because Internet Explorer 7 is designed to block popup windows that are generated separately by javascript.

Action

Click Internet Explorer's Information Bar and select **Temporarily Allow Scripted Windows**.

5.8 If messages output by Systemwalker Service Quality Coordinator fail to appear in the status bar

Description of problem

When Systemwalker Service Quality Coordinator's Management Console is displayed in Internet Explorer 7, messages output by Systemwalker Service Quality Coordinator may fail to appear in the status bar.

Cause

Internet Explorer 7 features a new security item that determines whether to allow status bar updates by means of scripts. The default settings of this item are as follows:

- Do not allow updates in the "Internet" zone

- Allow updates in the "Local intranet" zone

In some cases, automatic detection of the intranet may also malfunction and cause the Management Console to operate at the security level of the Internet zone. All of these reasons can prevent messages from appearing in the status bar.

Action

1. Select **Internet Options** from the **Tools** menu of Internet Explorer 7.

2. When the **Internet Options** window appears, click the **Security** tab and select the **Local intranet** zone.

3. Click the **Sites** button to display the **Local intranet** dialog box and then clear the **Automatically detect intranet network** check box and select all the remaining check boxes. Click the **OK** button to apply the settings.

5.9 If a dialog box appears when the user attempts to copy a report

Description of problem

1. Click the **Copy** button in the **Analysis screen** view and the **Scheduled Report Registration** View.

2. Enter a report name in the report name input dialog box that appears and click the **OK** button.

3. A new window containing no information will appear together with a dialog box entitled **The webpage you are viewing is trying to close the window. Do you want to close this window?**.

Note that even when this problem occurs, the report copy process will be executed normally.

Cause

Internet Explorer 7 or later features security enhancements relating to window closures that are performed using javascript. As a result of these enhancements, window closures that occurred automatically in earlier versions of Internet Explorer now have to be performed manually.

Action

When the dialog box entitled **The webpage you are viewing is trying to close the window. Do you want to close this window?** appears, click the **Yes** button to close the window manually. Note, however, that leaving the window open will not have any adverse effect on operation.

5.10 When Images and Characters Are not Displayed Correctly

Images and characters may not be displayed correctly if the browser's "zoom" setting is not 100%.

Change the setting to 100% if this occurs.

Appendix A Setup Commands and Resident Processes

This appendix explains the various setup commands and how to start and stop resident processes.

Refer to Section 1.1, "Policy Commands" in the *Reference Guide* for details.

A.1 Server Resource Information Collection Policy Setup Command

This section explains the Server Resource Information Collection Policy Creation Command.

Refer to Section 1.1.1, "sqcRPolicy (Server Resource Information Collection Policy Creation Command)" in the *Reference Guide* for more information.

Required privileges

[Windows]

The user must have the privileges of a member of the Administrators group.

[UNIX]

The user must have the privileges of the system administrator (superuser).

[Windows]

For Windows systems, to collect disk-related performance information, the *diskperf* Windows command must be executed beforehand to enable information to be collected. This command is used as follows:

```
diskperf -y
```

Refer to the Windows help for details on the *diskperf* command. Before using this command, be sure to enable both physical drives and logical drives.

Point

- The system must be restarted after settings are made using the diskperf command.

- The diskperf command must be executed before the Systemwalker Service Quality Coordinator DCM service starts (before performance information starts being collected).

Format

   1. **Create a server resource information collection policy**

      [Windows]

```
Installation directory\bin\sqcRPolicy.exe
```

[UNIX]

```
/opt/FJSVssqc/bin/sqcRPolicy.sh
```

Refer to "A.3 sqcSetPolicy (Policy Application Command)" and apply the policy next.

Point

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When the Server Resource Information Collection Policy Creation Command (sqcRPolicy) or sqcCtrlPolicy.exe -e RP (Remote Policy Operation Command) is executed, a file named "MiddlewareConf.xml" is created. To delete a managed object, edit the content of MiddlewareConf.xml by referring to Chapter 3, "Resource Configuration Information (MiddlewareConf.xml)" in the *Reference Guide*.

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A.2 Response/Operation Information Collection Policy Setup Command

This section explains the Response/Operation Information Collection Policy Setup Command.

Refer to Section 1.1.2, "sqcAPolicy (Response/Operation Information Collection Policy Setup Command)" in the *Reference Guide* for more information.

Required privileges

[Windows]

The user must have the privileges of a member of the Administrators group.

[UNIX]

The user must have the privileges of the system administrator (superuser).

Format

1. **Create response/operation information collection policy**

   [Windows]

   ```
   Installation directory\bin\sqcAPolicy.bat
   ```

   [UNIX]

   ```
   /opt/FJSVssqc/bin/sqcAPolicy.sh
   ```

Refer to "A.3 sqcSetPolicy (Policy Application Command)" and apply the policy next.

A.3 sqcSetPolicy (Policy Application Command)

Once policies have been prepared, they can be applied. The specification for the Policy Application Command is explained below.

Refer to Section 1.1.3, "sqcSetPolicy (Policy Application Command)" in the *Reference Guide* for details.

Privileges required for execution

[Windows]

The privileges of a user belonging to the "Administrators" group are required to execute this command.

[UNIX]

The privileges of a system administrator (superuser) are required to execute this command.

Syntax

[Windows]

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

[UNIX]

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

Options

-h <host name>

Use this option to specify a system name to change the managed system name.

Also, use this option to specify a system name for the managed system in the following kinds of cluster operations:

- Where the server is a Manager and information about resources within the server is to be collected.

=> Specify the inheritance node.

- Where the server is an Agent in a cluster system that uses node name inheritance.

=> Specify node name of each Agent.

If this option is omitted, host name which is set at the installation or the system name which was set at the last -h option will be used as system name.

Host name will not be updated automatically, so use this option to change the host name.

Note

If this command is re-executed or an Agent is reinstalled where an operating environment for this product already exists and an Agent has already been registered, then use the same system name as was used before if the *-h* option is specified.

If the system name has to be changed for some reason, first delete the previous system name information from the PDB using the data deletion command explained in Section 1.7.3, "sqcPDBerase (Data Deletion Command)" in the *Reference Guide*. However, in this case, performance information that has already been collected cannot be displayed.

-p <IP address>

In the dashboard, management target is managed by using IP address.

When using the dashboard, be sure to specify IP address of the management target by using this option after installation. Specify the IP address of the connection Manager or Enterprise Manager which is available for connection.

Specify the inheritance node if the cluster system is being used.

If this option is omitted, IP address which was set at the last -p option will be used.

IP address will not be updated automatically, so use this option to change the IP address.

Note

If this command is executed at the first time after the installation, and if this option is omitted, IP address will be set by the address which is automatically collected. However, if multiple IP addresses are existed, IP address which can communicate with the connection Manager or Enterprise Manager might not be acquired. Be sure to specify IP address of the management target by using -p option.

Note

From Systemwalker Service Quality Coordinator V13.3.0 onwards, the service or daemon no longer needs to be stopped before executing the Policy Application Command.

However, before using the "-h" option or "-p" option, service or daemon needs to be stopped. Execute the Policy Application Command after stopping the service or daemon by referring to "A.4 Starting and Stopping Resident Processes".

If the services or daemons are running and performance data for various middleware is being collected when the Policy Application Command is executed, then the collection of this performance data will be temporarily suspended while policies are applied. Collection of this performance data will start again after the policies have been finished being applied.

A.4 Starting and Stopping Resident Processes

This section explains how to start and stop resident processes.

Refer to Chapter 2, "Starting and Stopping Resident Processes" of the *Reference Guide* for more information about processes and so on.

Manager

[Windows]

Start or stop the following service:

- Systemwalker SQC DCM

Point

If communications using the "Pull" method are to be used, start or stop the following service:

- Systemwalker SQC sqcschdle

If the policy distribution function is to be used, start or stop the following service as well:

- Systemwalker SQC thttpd

Refer to "A.5 Automatic Startup Settings for the thttpd Service/Daemon" for information about how to make the thttpd service or daemon start automatically.

 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 communications using the "Pull" method are to be used, use the following scripts to start or stop the processes.

To start the processes:

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

To stop the processes:

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

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

To start the processes:

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

To stop the processes:

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

Refer to "A.5 Automatic Startup Settings for the thttpd Service/Daemon" for information about how to make the thttpd service or daemon start automatically.

Agent/Proxy Manager

[Windows]

Start or stop the following service:

- Systemwalker SQC DCM

Point

If both the policy distribution function and communications using the "Pull" method are to be used, start or stop the following service:

- Systemwalker SQC thttpd

Refer to "A.5 Automatic Startup Settings for the thttpd Service/Daemon" for information about how to make the thttpd service or daemon start automatically.

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 or 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.

If both the policy distribution function and communications using the "Pull" method are to be used, use the following scripts to start or stop the processes.

To start the processes:

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

To stop the processes:

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

Refer to "A.5 Automatic Startup Settings for the thttpd Service/Daemon" for information about how to make the thttpd service or daemon start automatically.

Enterprise Manager

[Windows]

Start or stop the following service:

- Systemwalker SQC DCM

If the policy distribution function is to be used, start or stop the following service:

- Systemwalker SQC thttpd

Refer to "A.5 Automatic Startup Settings for the thttpd Service/Daemon" for information about how to make the thttpd service or daemon start automatically.

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 or 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 scripts to start or stop the processes:

To start the processes:

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

To stop the processes:

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

Refer to "A.5 Automatic Startup Settings for the thttpd Service/Daemon" for information about how to make the thttpd service or daemon start automatically.

. . . .

A.5 Automatic Startup Settings for the thttpd Service/ Daemon

This section explains the procedure for starting the thttpd service/daemon when both the policy distribution function and communications using the "Pull" method are to be used.

Required privileges

[Windows]

The user must have the privileges of a member of the Administrators group

[UNIX]

The user must have system administrator (superuser) privileges.

Procedure

[Windows]

1. Select [Administrative Tools] and then [Services] from the Control Panel.

2. Select [Systemwalker SQC thttpd], and then open the [Properties] window.

3. In the [General] tab, change the [Startup type] to [Automatic].

[UNIX]

Set up a startup script by executing the following commands:

```
# cd /etc/rc2.d

# ln -s /opt/FJSVssqc/bin/ssqchttp S99ssqchttp
```

Set up a stop script by executing the following commands:

```
# cd /etc/rc0.d

# ln -s /opt/FJSVssqc/bin/ssqchttp K00ssqchttp
```