

Foglight™ for Siebel Systems 5.5.4

User and Reference Guide



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Legend

 **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

 **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.

 **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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Introducing Foglight for Siebel Systems

This chapter provides a general overview of the components and agents which comprise Foglight for Siebel Systems. The SiebelServer Agent monitors Siebel activity by connecting to, and querying, the Siebel system.

- [Foglight for Siebel Systems Overview](#)
- [Foglight for Siebel Systems Dashboards](#)
- [Foglight for Siebel Systems Agent](#)

Foglight for Siebel Systems Overview

Foglight for Siebel Systems extends the Foglight foundation product with a specialized agent designed to assist Siebel eBusiness Applications by providing application health status and capacity planning information. The Foglight solution for Siebel eBusiness Applications monitors the availability and performance of the different entities that comprise the Siebel eBusiness Application environment. Important information about the Web servers, Siebel gateway server, Resonate Schedulers, Siebel servers, database and network is monitored at a configurable frequency by the Foglight agents. The overall health and performance of the Siebel environment is presented at any current or historical time.

Foglight for Siebel Systems Dashboards

These dashboards provide a visual representation of the status of the major components of the Siebel agent. They allow you to determine any potential bottlenecks in Siebel system performance. For more information, see [Foglight for Siebel Systems Summary Dashboard](#) on page 7.

Foglight for Siebel Systems Agent

Foglight for Siebel Systems includes the SiebelServer Agent, which monitors the collection of data by the Siebel web-enabled management system. For more information, see [About the Foglight SiebelServer Agent](#) on page 9.

The SiebelServer Agent allows the Siebel administrator to gather information and answer questions about the Siebel servers in the Siebel environment:

- Is the Siebel server up and running?
- Can the Siebel server connect to the Siebel database and/or the gateway server?
- Do I have enough Siebel servers?
- Are the Siebel components properly distributed?
- Is an individual Siebel server process consuming too many of the host's CPU or memory resources?
- Are all the enabled Siebel components assigned to the Siebel server online or running?
- Has a Siebel task exited with error?
- Has a particular error occurred in one of the numerous Siebel task logs?
- Is a Siebel component's number of running tasks nearing the maximum number allowed?

- Has an application object manager encountered any errors?
- Are the Transaction Router, Transaction Merger, and Transaction Processor running?

Foglight for Siebel Systems Summary Dashboard

This chapter describes how to deploy a summary dashboard and outlines the information provided by the summary dashboard.

- [Overview](#)
- [Introducing the Summary Dashboard](#)

Overview

A summary dashboard aids in the monitoring, analysis, and investigation of Siebel performance.

When you deploy the Foglight for Siebel Systems Foglight for Siebel, a monitoring dashboard enables you to view, at a glance, your Siebel performance. This dashboard is a visual representation of the status of the major components of the Siebel agents. It allows you to determine any potential bottlenecks in database performance.

Introducing the Summary Dashboard

The Siebel Servers Summary dashboard shows the health of all of the Siebel Server databases being monitored by the Foglight Management Server.

To access the summary dashboard from Foglight, go to **Dashboards > SiebelServers Home > Siebel Servers - Summary**. The Siebel Application Server(s) Summary opens.

Table 1. Siebel Servers Summary dashboard columns

Column	Definition
Health	Health of the Siebel Application Server based on the highest severity alert.
Siebel Server	Siebel Application server name.
Agent Instance	SiebelServer agent instance name.
Host Name	The name of the physical computer that is hosting the SiebelServer Agent instance.
F	Number of Fatal severity alarms triggered by this agent instance. The dwell shows the most recent Fatal alarms raised by this agent, sorted by severity. Use the drilldowns to manage the alarms.

Table 1. Siebel Servers Summary dashboard columns

Column	Definition
C	Number of Critical severity alarms triggered by this agent instance. The dwell shows the most recent Fatal alarms raised by this agent, sorted by severity. Use the drilldowns to manage the alarms.
W	Number of Warning severity alarms triggered by this agent instance. The dwell shows the most recent Fatal alarms raised by this agent, sorted by severity. Use the drilldowns to manage the alarms.
Availability	<p>Availability of Siebel Application Server. Shows either green or red. Green indicates that the Siebel Server is:</p> <ul style="list-style-type: none"> Running. <p>Red indicates one of the following status conditions:</p> <ul style="list-style-type: none"> Unavailable Starting Up Shutting Down Shutdown Not Available Connect Failed Handshake Failed Login Failed Disconnected.
CPU Utilization (%)	Percentage of CPU memory consumed by all Siebel Application Server processes running on the agent instance host.
Memory Utilization (%)	Percentage of physical memory consumed by all Siebel Application Server processes running on the agent instance host.
Interactive Tasks	Total number of interactive Siebel Application Server component tasks that are running.
Running Tasks	Total number of Siebel Application Server Component Tasks that are running.
Agent State	<p>Agent state of the SiebelServer agent instance.</p> <p>When the agent instance is running, the following status message appears:</p> <ul style="list-style-type: none"> Collecting Data <p>When the agent instance is running but not collecting data, the following status messages appear:</p> <ul style="list-style-type: none"> Starting Stopped Stopping Unknown
Health State	<p>Health state of the SiebelServer Agent instance. Possible states are:</p> <ul style="list-style-type: none"> OK Broken
Views	Links to graphical and tabular views displaying data collected by the SiebelServer Agent instance.
Data	Link to tables containing data collected by the SiebelServer Agent instance.

About the Foglight SiebelServer Agent

This chapter provides a general overview of the Foglight SiebelServer Agent. It also describes the properties and investigations for the agent.

- [SiebelServer Agent Overview](#)
- [SiebelServer Agent Properties](#)
- [SiebelServer Agent Investigations](#)

SiebelServer Agent Overview

The SiebelServer Agent is deployed on the monitored host where the Siebel server resides. This agent uses the Siebel Server Manager Command-line Interface combined with operating system process information and file scraping to collect its data.

The availability of the Siebel eBusiness Application depends upon the availability of each Siebel server in the environment. When a Siebel server is unavailable, every enabled Siebel component assigned to that Siebel server is also unavailable. Furthermore, if a Siebel component is assigned to only one Siebel server and that server becomes unavailable, the work being performed by those components stops.

For example, if the Siebel server that is assigned the Siebel Remote components such as the Transaction Router, Transaction Merger, and Transaction Processor becomes unavailable, every Siebel Remote user assigned to that Siebel server would be unable to synchronize.

SiebelServer Agent Properties

When an agent connects to the Foglight Management Server, it is provided with sets of properties that it uses to configure its correct running state.

Each agent is provided with a combination of two types of properties: agent properties and shareable properties. Default versions of these properties are installed with the Foglight for Siebel. However, you can edit the default shareable and agent properties, configure agent properties that apply only to a specific agent instance, and create edited clones of shareable properties that are used by a subset of the agents of a certain type.

For more information about working with agent properties, see the Foglight *Administration and Configuration Help*.


The SiebelServer Agent is shipped with default properties that can be modified to suit your system requirements.

Agent properties described in this section comprise:

- [Setting the Collection Rate](#) on page 10
- [Setting the Siebel Information Properties](#) on page 10
- [Setting the SiebelServer Log Information Properties](#) on page 11

To modify agent properties:

- 1 Ensure that the navigation panel on the left is open.

To open the navigation panel, click the right-facing arrow on the left .

- 2 On the navigation panel, under Dashboards, select **Administration > Agents > Agent Properties**.
- 3 In the Agent Properties dashboard, in the Namespace > Type pane, select **Legacy > SiebelServer**.

A list of agent properties appears in the SiebelServer pane.

Setting the Collection Rate


The collection rate, or sample frequency, is the number of seconds between the end of one collection period and the start of the next. The SiebelServer Agent uses a Sample Frequency list, allowing you to set a different sample frequency for each table associated with the agent. For example, you can change the sample frequency to every five minutes to reduce Foglight server disk requirements.

Use the SiebelServer Collection Rate properties to set the sample frequency for each table.


To set the collection rate:

- 1 Go to the **Collection Rate** set of properties.
- 2 Enter the sample frequency in seconds in the **Sample Frequency** box. The sample frequency is the rate at which the bulk of the metrics get collected.

The default is 300 seconds. The minimum frequency limit is 60 seconds.


 **IMPORTANT:** Setting the sample frequency to less than 60 seconds causes increased performance overhead and is strongly discouraged.

- 3 Select the **Sample Frequency List (seconds)** that you want to update.

 **CAUTION:** Do not add or delete tables in the `SiebelServer_Freq_List`. Doing so may result in lost or corrupted data. Only existing tables should be modified.

- 4 Click **Edit**.
A secondary property list appears.
- 5 Add an entry to the list by clicking **Add Row**.

Fill in the dialog box fields.

 **NOTE:** The default time, in seconds, for the sample frequency is shown for each table.

- 6 Click **Save Changes**.
- 7 Click **Save**.
- 8 Go to [Setting the Siebel Information Properties](#) to enter information about the SiebelServer instance.


Setting the Siebel Information Properties

Use the SiebelServer Siebel Info agent properties to enter data relating to the Siebel server.

To set the SiebelServer properties:

- 1 Go to the **Siebel Info** set of properties.
- 2 Type the name of the Siebel gateway server in the **Gateway Server Name** box. The gateway server name is case sensitive on Unix-based Siebel servers. If the gateway server is running on a port other than the default of 2320, enter the name of the Siebel gateway followed by the port number. For example, Gateway Server: Port Number.

- 3 Type the name of the Siebel enterprise server in the **Enterprise Name** box. The Enterprise Name is case sensitive on Unix-based Siebel servers.
- 4 Type the name of the Siebel server in the **Siebel Server** box. The Siebel server name is case sensitive on Unix-based Siebel servers.
- 5 Type the full path to the directory where the Siebel Server Manager executable is located in the **Siebel Server Manager Directory** box. On Windows, `svrmgr` resides in `SIEBEL_HOME\siebsrvr\bin`, and on UNIX it is located in `SIEBEL_HOME/bin`.
- 6 Type the name of a Siebel application user with Siebel administrator responsibilities in the **Siebel Administrator ID** box.
- 7 Type the password for the Siebel application user with Siebel administrator responsibilities in the **Siebel Administrator Password** box.
- 8 Type the SQL*Net Alias (Oracle) or the name (DB2 and SQL Server) of the Siebel database in the **Database Alias/Name** box.
- 9 Type the number of Siebel operating system processes to monitor for highest memory resource utilization in the **Number of Top Siebel OS Process to Monitor** box.
The default value is five and the maximum value is 11.
- 10 Click the **Enable Debug Flag** radio button:
 - True—to enable the ServerMgr component parameter `debugflags=8191`.
 - False—to disable the ServerMgr component parameter `debugflags=8191`.

 **NOTE:** Enabling the `debugflags` parameter allows the agent to correlate all the Siebel operating system processes to the associated Siebel component.
- 11 Click **Save**.
- 12 Go to [Setting the SiebelServer Log Information Properties](#) to enter data relating to the Siebel server logs.

Setting the SiebelServer Log Information Properties


Use the SiebelServer Siebel Log Info agent properties to enter data relating to the Siebel server logs.

To set the Siebel log information properties:

- 1 Go to the **Siebel Log Info** set of properties.
- 2 Type the full path to the directory where the Siebel Server and Component Log files are located in the **Siebel Server Log Directory** box.
- 3 Click the **Monitor Siebel Server Log** radio button:
 - True—to enable monitoring of the Siebel server log files.
 - False—to disable monitoring of the Siebel server log files.

The default is False.

- 4 Select the **Siebel Server Trap List** that you want to update.

 **CAUTION:** Do not use **Add** or **Delete** unless directed to do so by Customer Support.

- 5 Click **Edit**.
A secondary property list appears.
- 6 Add an entry to the list by clicking **Add Row**.
Fill in the dialog box fields.
 - a **Enabled**—mark to monitor logs for the listed item.

- b **Search_String**—the name of the text string, or error, to search for in the Siebel server log file.
- c **Msg_Severity**—the severity of the error message (INFORMATIONAL, WARNING, CRITICAL, or FATAL).
- d **User_Message**—a user-defined message describing what the error means to the Siebel administrator.


7 Click **Save Changes**.

8 Click the **Monitor Component Log** radio button:

- **True**—to enable monitoring of the Siebel component log files.
- **False**—to disable monitoring of the Siebel component log files.

The default is **False**.

9 Select the agent **Component Trap List** that you want to update.

 **CAUTION:** Do not use **Add** or **Delete** unless directed to do so by Customer Support.

10 Click **Edit**.

A secondary property list appears.

11 Add an entry to the list by clicking **Add Row**.

Fill in the dialog box fields.

- a **Enabled**—mark to monitor task logs for the listed Siebel Component Alias.
- b **Component_Alias**—name of the Siebel component alias that the Siebel administrator wants to monitor for task log errors.
- c **Search_String**—the name of the text string, or error, to search for in the Component task log file.
- d **Msg_Severity**—the severity of the error message (for example, INFORMATIONAL, WARNING, CRITICAL, or FATAL).
- e **User_Message**—a user defined message describing what the error means to the Siebel administrator.

12 Click **Save Changes**.

13 Click the **Monitor Siebel Crash Logs** radio button:

- **True**—to enable monitoring of the Siebel crash logs.
This enables you to monitor the existence of new Application Object Manager Crash Logs. The existence of a new Crash Log indicates that an Application Object Manager has crashed.
- **False**—to disable monitoring of the Siebel crash logs.

The default is **False**.

14 Type the full path to the directory where the Application Object Manager Crash Logs are located in the **Crash Log Directory** box.


In Windows, the default location is *SIEBEL_HOME\siebsrvr\bin*.

In UNIX, the default location is *SIEBEL_HOME/bin*.

15 Click the **Remove ServerMgr Log Files** radio button:

- **True**—to remove all generated *ServerMgr_TaskID.log* files in the directory per sampling interval. Foglight uses the Siebel Server Manager to collect Siebel availability and performance statistics. Siebel Server Manager generates one or more *ServerMgr_TaskID.log* file per sampling interval.
- **False**—to disable removal of the generated *ServerMgr_TaskID.log* files.

The default is **False**.

 **NOTE:** Siebel Server Manager log files generated by other Siebel administrators are deleted during the log clean-up process.

SiebelServer Agent Investigations

This section describes the following investigations:

- [Investigating Siebel Server Performance](#)
- [Investigating Siebel Component Performance](#)
- [Investigating Siebel Server Load](#)
- [Investigating Siebel Component Load](#)
- [Investigating Siebel Server SQL Performance](#)
- [Investigating Siebel Component SQL Performance](#)
- [Investigating Siebel Server Availability](#)

Investigating Siebel Server Performance

When a Siebel task operation completes, task level statistics that are gathered dynamically during the operation of a task roll up to the component level. Statistics for all enabled components assigned to a Siebel server are rolled up to the server level. Siebel server statistics are cumulative, for example, since the server started. These statistics can be used to monitor the progress and performance of a Siebel server.

To start with the Sieb_Srvr_Overview graph view:

- Open the Sieb_Srvr_Overview graph view which correlates the Siebel server's cumulative response time with its cumulative utilization and throughput.

Investigating Siebel Component Performance

When a Siebel task completes its operation, task level statistics, gathered dynamically during the operation of each task, roll up to the Siebel component level. These statistics can be used to monitor the performance of each enabled Siebel component. Siebel stores component statistics as cumulative statistics, that is, since the Siebel server started.

The Foglight SiebelServer Agent collects both cumulative and delta Siebel component statistics. Foglight calculates Siebel component statistic deltas by determining the change in the individual statistics since the last collection, then stores the delta values in the Foglight repository along with the cumulative value for selected statistics.

To start with the Sieb_Comp_Statistics graph view:

- Use the Sieb_Comp_Statistics graph view to analyze the amount of throughput and resource consumption each enabled Siebel component contributes to the Siebel server's total throughput and resource consumption since startup.

Investigating Siebel Server Load

The Siebel eBusiness application environment is typically comprised of multiple Siebel servers with each Siebel server being assigned multiple Siebel components. It is important that all the Siebel servers comprising the Siebel enterprise share the load and one or more Siebel servers are not overutilized while others in the enterprise remain underutilized.

The Foglight SiebelServer Agent collects statistics to enable the Siebel administrator the ability to correlate the Siebel server's response time, utilization, and throughput.

To start with the Sieb_Srvr_Utilization_Overview graph view:

- Open the Sieb_Srvr_Utilization_Overview graph view which provides information about object manager response time, resource utilization, and the number of running and interactive tasks.

Investigating Siebel Component Load

If the Siebel administrator suspects that a Siebel server is overloaded, an analysis of each operating system process that comprises the Siebel server should be performed.

The Foglight SiebelServer Agent calculates CPU and memory utilization statistics for each operating system process that comprises the Siebel server. For Siebel 7 enterprises, this agent is able to correlate the `siebtsh` executables that run multi threaded processes or MTServers with the corresponding Siebel component. There is one `siebtsh` executable for each MTServer that is currently running.

Even though the Foglight SiebelServer Agent calculates CPU and memory utilization statistics for each operating system process, the agent uses the **Number of Top Siebel OS Process to Monitor** agent property value to determine the number of top processes to store in the Foglight repository for each collection. Foglight sorts by memory percentage when determining the top processes to store in the Foglight repository.

To start with the Sieb_Proc_Utilization graph view:

- Open the Sieb_Proc_Utilization graph view which monitors CPU and memory resource usage.

Investigating Siebel Server SQL Performance

When a Siebel task is completed, task level statistics gathered dynamically during the operation of a task roll up to the component level. Statistics for all enabled components assigned to a Siebel server are rolled up to the Siebel server level. Siebel server statistics are cumulative, that is, since the Siebel server started. Among the many statistics that are gathered and rolled up to the Siebel server level are statistics on the time that the Siebel server has spent parsing, executing, and fetching SQL statements.

Siebel Support Web provides the following SQL time definitions:

- **SQL Parse Time.** The number of seconds spent translating the SQL statements into an execution plan. This time includes checking for proper security authorization and checks for the existence of tables, columns, and other referenced objects.
- **SQL Execute Time.** For SELECT statements, the amount of time spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, the amount of time spent modifying the data.
- **SQL Fetch Time.** For SELECT statements only, the amount of time spent retrieving the rows returned by the query.

The Foglight SiebelServer Agent collects delta SQL parse, SQL execute, and SQL fetch statistics for the Siebel server. Foglight calculates the deltas by determining the change in the individual statistic since the last collection and stores the delta value in the Foglight repository. This allows the Siebel administrator to identify peak SQL usage time periods.

To start with the Sieb_Srvr_SQLTime graph view:

- Open the Sieb_Srvr_SQLTime graph view which monitors SQL parse, fetch, and execute collection times.

Investigating Siebel Component SQL Performance

When a Siebel task completes its operation, task level statistics gathered dynamically during the operation of each task, roll up to the component level. Among the many statistics gathered and rolled up to the Siebel component level are statistics on the time that the Siebel component spent parsing, executing, and fetching SQL statements. Siebel server statistics are cumulative, that is, since the Siebel server started.

The Foglight SiebelServer Agent collects delta SQL parse, execute, and fetch statistics for each enabled Siebel component. Foglight calculates the deltas by determining the change in the individual cumulative statistic since the last collection and stores the delta value in the Foglight repository. This allows the Siebel administrator to identify peak SQL usage time periods for each Siebel component.

To start with the Sieb_Comp_SQLTime graph view:

- Open the Sieb_Comp_SQLTime graph view which tracks the amount of time spent translating, identifying, and retrieving SQL statements.

Investigating Siebel Server Availability

The availability of the Siebel eBusiness Application depends upon the availability of each Siebel server in the environment. When a Siebel server is unavailable, every enabled Siebel component assigned to that Siebel server is also unavailable. Furthermore, if a Siebel component is only assigned to one Siebel server and that Siebel server becomes unavailable, the work being performed by those components stops. For example, if the Assignment Manager is used to assign leads from the corporate web site to the appropriate account team, and the Siebel server that runs the Assignment Manager component is unavailable, the new web leads are not assigned to an account team.

The Foglight SiebelServer Agent collects availability statistics on the Siebel server, Siebel component groups, and Siebel components assigned to the Siebel server. These availability statistics not only allow the Siebel administrator to be alerted when an availability issue is encountered, but also generate views/reports on the overall availability of the Siebel eBusiness Application environment for management.

The Foglight SiebelServer Agent calculates the Siebel server's availability percentages.

The Siebel server's availability is calculated as follows:

- 100 percent if the SiebelServerStatus = "Running" .
- Zero percent for all other values.

The Siebel server's database connection availability is calculated as follows:

- 100 percent if the Siebel server is able to log into the Siebel database as the Siebel administrator.
- Zero percent for all other values.

The Siebel server's gateway server connection availability is calculated as follows:

- 100 percent if the Siebel server is able to connect to the Siebel gateway server.
- Zero percent for all other values.

To start with the Sieb_Srvr_Availability_Overview graph view:

- Open the Sieb_Srvr_Availability_Overview graph view which provides database and availability information about each Siebel server.

Foglight for Siebel Systems Reference

Foglight for Siebel Systems extends Foglight with a specialized agent designed to assist Siebel eBusiness Applications by providing application health status and capacity planning information. This Foglight solution for Siebel eBusiness Applications monitors the availability and performance of the different entities that comprise the Siebel eBusiness Application environment.

- [SiebelServer Agent Views](#)
- [SiebelServer Agent Rules](#)
- [SiebelServer Agent Data Tables](#)

SiebelServer Agent Views

Foglight for Siebel ships with predefined views to help you monitor your server environment. In this guide, the description of the views are listed in alphabetical order.

The SiebelServer Agent view descriptions are listed in this section:

- [Sieb_Comp_Availability Graph View](#)
- [Sieb_Comp_Detail Graph View](#)
- [Sieb_Comp_Group_Availability Graph View](#)
- [Sieb_Comp_SQLExecute_Detail Graph View](#)
- [Sieb_Comp_SQLFetch_Detail Graph View](#)
- [Sieb_Comp_SQLParse_Detail Graph View](#)
- [Sieb_Comp_SQLTime Graph View](#)
- [Sieb_Comp_Statistics Graph View](#)
- [Sieb_Comp_Tasks Graph View](#)
- [Sieb_Proc_Memory_Detail Graph View](#)
- [Sieb_Proc_Utilization Graph View](#)
- [Sieb_Srvr_Availability_Overview Graph View](#)
- [Sieb_Srvr_Detail Graph View](#)
- [Sieb_Srvr_Overview Graph View](#)
- [Sieb_Srvr_SQLTime Graph View](#)
- [Sieb_Srvr_Utilization_Overview Graph View](#)
- [Sieb_Task_Detail Table View](#)

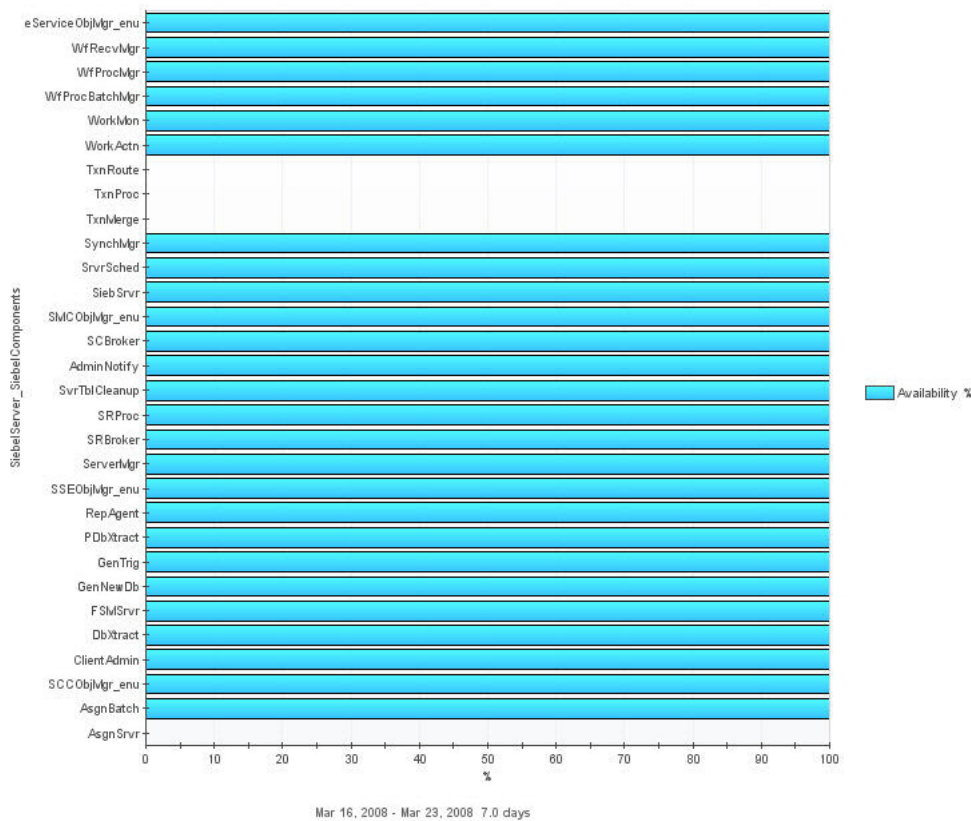
Sieb_Comp_Availability Graph View

Purpose

The Foglight SiebelServer Agent calculates the availability of the individual Siebel components as follows:

- If ComponentAlias = "TxnRoute" or "TxnMerge" or "TxnProc" and ComponentState = "Running" ComponentStateAvailability = 100 percent.
- For all other components, Availability = 100 percent if ComponentState = Online or Running.
- Zero percent for all other values.

Figure 1. Siebel Component Availability



The availability is calculated at 100 percent for the Siebel Remote components. These three components must be running at all times to ensure a continuous synchronization process:

- Transaction Router.
- Transaction Merger.
- Transaction Processor.

If the Siebel administrator determines a Siebel component is not expected to be unavailable, the Siebel Server Manager should be used to restart the component. If the component does not restart as expected, the Component task logs can be used to diagnose why the Siebel component is not starting. Contact Siebel Support if restarting the Siebel component does not restore the component to 100 percent availability.

Description of the View

Data Displayed	Availability %. The availability percentage of each enabled Siebel component group assigned to the Siebel server.
Where to go next	n/a.

Sieb_Comp_Detail Graph View

Purpose

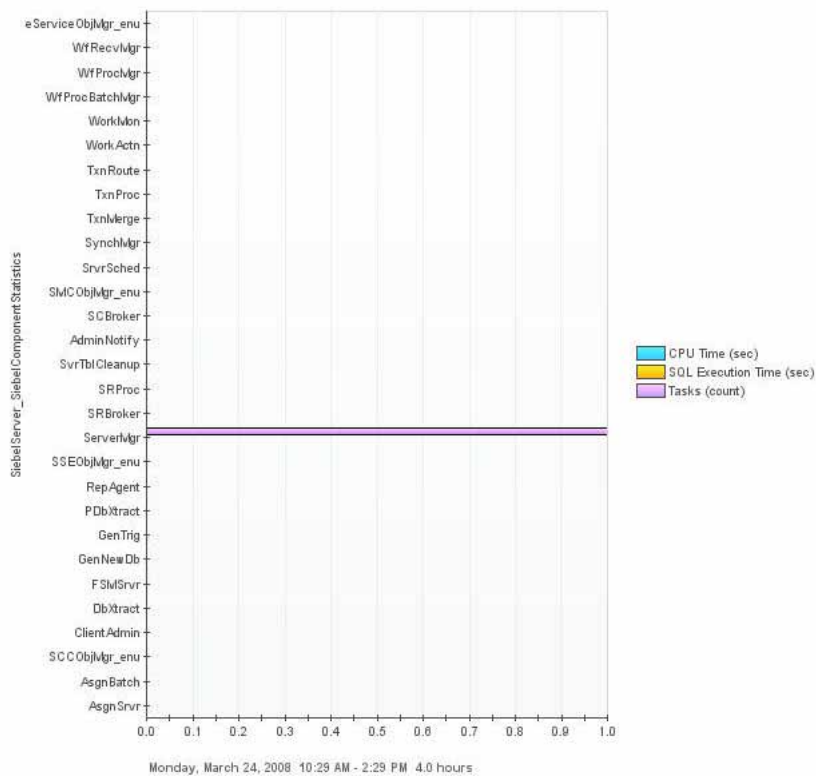
When a Siebel task completes its operation, task level statistics that are gathered dynamically during the operation of a task roll up to the Siebel component level. These statistics can be used to monitor the progress and performance of each enabled Siebel component. Siebel stores component statistics as cumulative statistics, that is, since the Siebel server started.

The Foglight SiebelServer Agent calculates Siebel component statistic deltas by determining the change in the individual cumulative statistic since the last collection. The delta values are stored in the Foglight repository. This allows the Siebel administrator to analyze how the enabled Siebel components performed over time and identify peak usage time periods.

When the Siebel administrator identifies a peak usage time period for the Siebel server, use this graph to identify which Siebel components contribute the most to server utilization by identifying the Siebel components with the highest CPU and SQL execute times during the peak time period.

When the Siebel administrator identifies the Siebel components that consume the most resources or produce the most throughput since startup with the [Sieb_Comp_Statistics Graph View](#), use the [Sieb_Comp_Detail Graph View](#) to determine if Siebel component contribution occurs at one time period or as a recurring trend. Siebel components that contribute to the server's resource utilization on a reoccurring basis should be examined more closely to determine the root cause. Corrective measures should be taken because the Siebel component will continue to contribute to the Siebel server's poor performance.

Figure 2. Siebel Component Statistics Since Last Collection



If a batch component is found to be running simultaneously with a high number of interactive tasks such as object managers, the Siebel administrator should consider running the batch component during a time period when a smaller number of interactive tasks are running. Another alternative is to move the batch component to a Siebel server dedicated to batch components, or to a Siebel server with more available resources.

Use the Sieb_Comp_Detail graph to correlate each enabled Siebel component's utilization and throughput for each refresh interval.

Description of the View

Data Displayed	CPU Time (sec). Total CPU time, in seconds, for all the component's tasks since the last collection.
	SQL Execution Time (sec). Total time, in seconds, that the Siebel component spent performing SQL execute operations since the last collection. For SELECT statements, this is the amount of time spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, this is the amount of time spent modifying the data.
	Tasks (count). Total number of Siebel tasks started since the last collection.
Where to go next	Drill down on: <ul style="list-style-type: none"> • CPU Time (sec) bar or Tasks (count) bar. For more information, see Sieb_Comp_SQLTime Graph View on page 23. This display is used to analyze the SQL execute, SQL parse, and SQL fetch times for a particular Siebel component. • SQL Execution Time (sec) bar. For more information, see Sieb_Task_Detail Table View on page 35. This display is used to identify the Siebel tasks that are currently running for batch and background Siebel components.

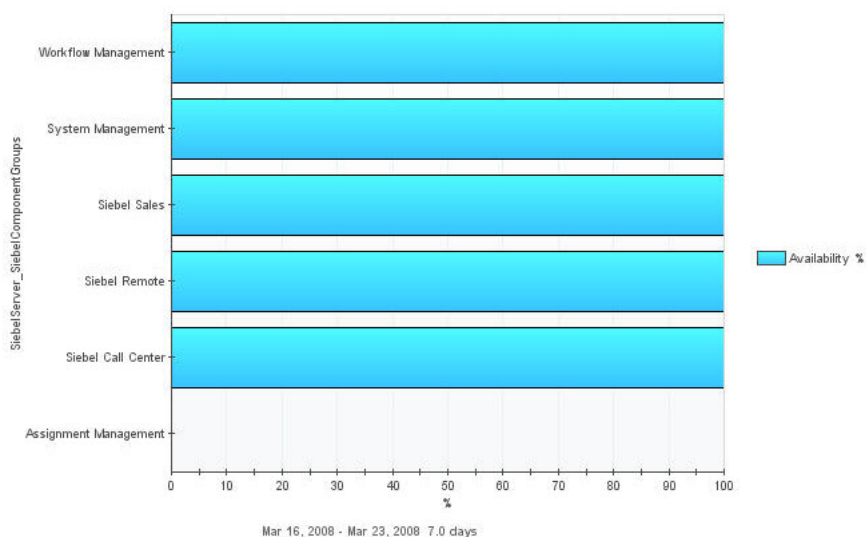
Sieb_Comp_Group_Availability Graph View

Purpose

The Foglight SiebelServer Agent calculates the availability of the Siebel component group as follows:

- 100 percent if the ComponentGroupState = Online or Running.
- Zero percent for all other values.

Figure 3. Siebel Component Group Availability



If the Siebel administrator determines a Siebel component group is experiencing an unscheduled outage, the Siebel Server Manager should be used to start the component group.

Description of the View

Data Displayed	Availability %. The availability percentage of each enabled Siebel component group assigned to the Siebel server.
Where to go next	Drill down on Availability % bar. For more information, see Sieb_Comp_Availability Graph View on page 17. This display is used to identify the individual Siebel component availability for the particular Siebel component group.

Sieb_Comp_SQLExecute_Detail Graph View

Purpose

When a Siebel task completes its operation, task-level statistics that are gathered dynamically during the operation of a task roll up to the Siebel component level. Among the many statistics that are gathered and rolled up to the Siebel component level are statistics on the total time that the Siebel component spends executing SQL, the average time it spends executing and the number of execute operations.

This graph correlates SQL Execute statistics for each refresh interval.

The Foglight SiebelServer Agent collects delta SQL execute time, average SQL execute time and the number of SQL executions for each enabled Siebel component. Foglight calculates the deltas by determining the change in the individual cumulative statistic since the last collection. The delta value is stored in the Foglight repository. This allows the Siebel administrator to identify peak SQL execute time periods for each Siebel component.

When the Siebel administrator identifies a peak SQL execute time period, use this graph to determine if a small number of operations contributed to the total SQL execute time. If the number of operations is low compared to the total amount of time spent executing versus a high number of operations contributing to the same execute time, this indicates that the database is spending more time identifying the rows for SELECT statements that require a sort or use FOR UPDATE or performing INSERT, UPDATE, and DELETES.

The amount of time it takes to update the Siebel database is impacted by the number of indexes that must be updated every time a record is inserted, updated, or deleted because all the indexes for the table must also be updated. Siebel Systems does not support the removal of indexes that are created during installation without guidance from Siebel Support or Siebel Expert Services. However, if the Siebel administrator creates additional indexes to increase SELECT performance, the SQL execute time may be negatively impacted. Monitoring the SQL execute statistics after the addition of any indexes helps the Siebel administrator determine if the additional indexes are having an unacceptable negative impact on the SQL execute times, i.e., time to perform modifications to the data.

Description of the View

Data Displayed	SQL Execute Time (sec). The number of seconds since the last collection spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, this is the amount of time spent modifying the data since the last collection.
	Avg SQL Execute Time (sec). Average number of seconds since the last collection spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, this is the amount of time spent modifying the data since the last collection.
	SQL Executes (count). Number of executes since the last collection.
Where to go next	n/a.

Sieb_Comp_SQLFetch_Detail Graph View

Purpose

When a Siebel task completes its operation, task-level statistics that are gathered dynamically during the operation of a task roll up to the Siebel component level. Among the many statistics that are gathered and rolled up to the Siebel component level are statistics on the total time that the Siebel component spends fetching SQL, the average time it spends fetching and the number of fetch operations.

The Siebel Component SQL Fetch Detail graph correlates SQL Fetch statistics for each refresh interval.

The Foglight SiebelServer Agent collects delta SQL fetch time, average SQL fetch time and the number of SQL fetches for each enabled Siebel component. Foglight calculates the deltas by determining the change in the individual cumulative statistic since the last collection. The delta value is stored in the Foglight repository. This allows the Siebel administrator to identify peak SQL fetch time periods for each Siebel component.

When the Siebel administrator identifies a peak SQL fetch time period, use this graph to determine if a small number of operations contributed to the total SQL fetch time. If the number of operations is low compared to the total amount of time spent fetching, this indicates the Siebel component is issuing a number of large queries that return a large number of rows such as in list applets. If the Siebel component is an object manager, the Siebel administrator should verify that the object manager's applets are configured with the optimal join specifications and indexes.

If the Siebel administrator identifies a high number of operations contributing to the fetch time, this indicates that the Siebel component is performing a number of small queries that return a small number of rows such as in detail applets. Since there are a larger number of SQL statements being issued, a low SQL parse time for the same time period indicates that the statements are being reused in the database cache.

Description of the View

Data Displayed	SQL Fetch Time (sec). For SELECT statements only, the number of seconds since the last collection spent retrieving the rows returned by the query.
	Avg SQL Fetch Time (sec). For SELECT statements only, the average number of seconds since the last collection spent retrieving the rows returned by the query.
	SQL Fetches (count). Number of fetch operations since the last collection.
Where to go next	n/a.

Sieb_Comp_SQLParse_Detail Graph View

Purpose

When a Siebel task completes its operation, task level statistics gathered dynamically during the operation of a task roll up to the Siebel component level. These statistics include the total time that the Siebel component spends parsing SQL, the average time it spends parsing and the number of parse operations.

The Foglight SiebelServer Agent collects the delta SQL parse time, the average SQL parse time and the number of SQL parses for each enabled Siebel component. Foglight calculates the deltas by determining the change in the individual cumulative statistic since the last collection. The delta value is stored in the Foglight repository. This allows the Siebel administrator to identify peak SQL parse time periods for each Siebel component.

When the Siebel administrator identifies a peak SQL parse time period, use the [Sieb_Comp_SQLParse_Detail Graph View](#) to determine if a small number of operations contributed to the total SQL parse time. If the number of operations is low compared to the total amount of time spent parsing versus a high number of operations contributing to the same parsing time, this indicates that the database is not reusing SQL statements in the database cache but re-parsing them, thus increasing the total elapsed time for the SQL statement.

Since Siebel dynamically generates SQL statements and makes use of bind variables, the Siebel administrator is limited in being able to positively affect the SQL parse time. However, if the Siebel database is Oracle, there are two initialization parameters that can be adjusted to decrease the SQL parse time:

- **SESSION_CACHED_CURSORS.** Set this Oracle parameter to a value between 20 and 50. This causes Oracle to remember previously parsed SQL and, if the user session requests a parse of a SQL statement in the cache, then Oracle avoids the parse.
- **CURSOR_SHARING.** Set this Oracle parameter to FORCE. This causes Oracle to substitute literals in SQL statements with bind variables, allowing otherwise unique SQL to be reused.

Description of the View

Data Displayed	SQL Parse Time (sec). The number of seconds since the last collection spent translating the SQL statements into an execution plan. This time includes checking for proper security authorization and checks for the existence of tables, columns, and other referenced objects.
	Avg SQL Parse Time (sec). Average number of seconds since the last collection spent translating the SQL statements into an execution plan. This time includes checking for proper security authorization and checks for the existence of tables, columns, and other referenced objects.
	SQL Parses (count). Number of parse operations since the last collection.
Where to go next	n/a.

Sieb_Comp_SQLTime Graph View

Purpose

When a Siebel task completes its operation, task level statistics gathered dynamically during the operation of a task roll up to the component level. Among the many statistics gathered and rolled up to the Siebel component level are statistics on the time that the Siebel component spent parsing, executing, and fetching SQL statements. Siebel server statistics are cumulative, i.e., since the Siebel server started.

The Foglight SiebelServer Agent collects delta SQL parse, execute, and fetch statistics for each enabled Siebel component. Foglight calculates the deltas by determining the change in the individual cumulative statistic since the last collection. The delta value is stored in the Foglight repository. This allows the Siebel administrator to identify peak SQL usage time periods for each Siebel component.

SQL parse time should be low, indicating a well-designed component that is parsing the SQL statement once but executing it multiple times.

High SQL execute time in relation to a low SQL fetch time indicates that the component is spending more time performing INSERT, UPDATE, and DELETE statements than SELECT statements.

Low SQL execute time in relation to a high SQL fetch time indicates that the component is spending more time performing SELECT statements than INSERT, UPDATE and DELETE statements.

Is the Siebel component's contribution to the Siebel server's SQL Time happening once or as a reoccurring trend? Siebel components that contribute to the server's SQL Time on a reoccurring basis should be examined closely to ensure the component is optimally configured.

Description of the View

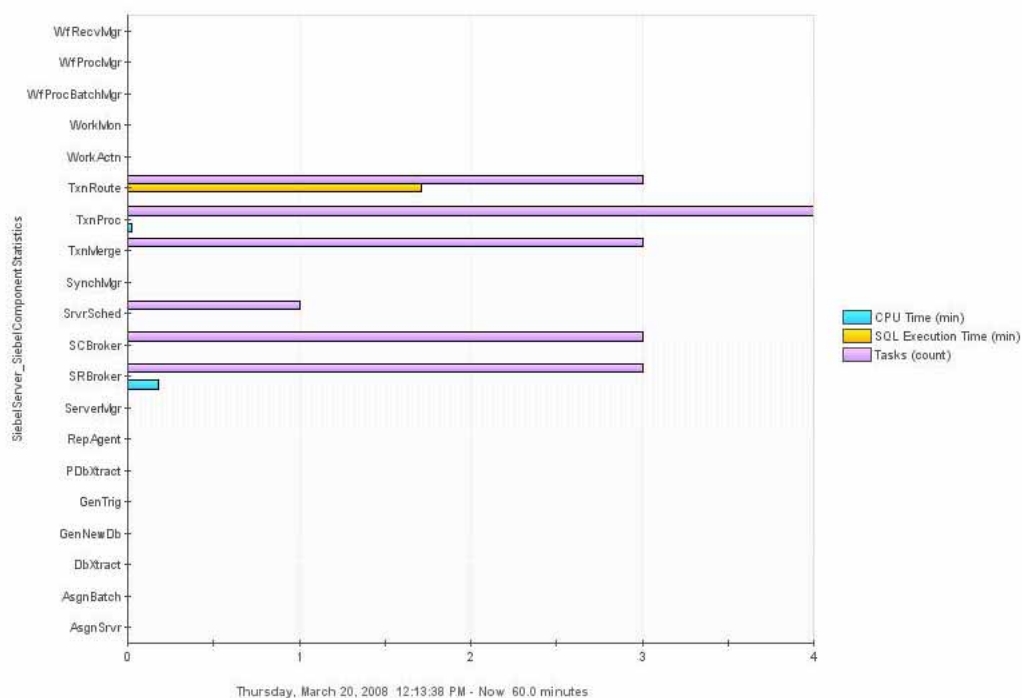
Data Displayed	SQL Parse Time (sec). The number of seconds since the last collection spent translating the SQL statements into an execution plan. This time includes checking for proper security authorization and checks for the existence of tables, columns, and other referenced objects.
	Avg SQL Parse Time (sec). Average number of seconds since the last collection spent translating the SQL statements into an execution plan. This time includes checking for proper security authorization and checks for the existence of tables, columns, and other referenced objects.
	SQL Parses (count). Number of parse operations since the last collection.
Where to go next	Drill down on: <ul style="list-style-type: none"><li data-bbox="488 1402 1385 1514">• SQL Parse Time (sec) bar. For more information, see Sieb_Comp_SQLParse_Detail Graph View on page 22. This display is used to analyze the SQL parse time, average SQL parse time, and number of SQL parses for a particular Siebel component during the same time range.<li data-bbox="488 1529 1385 1641">• SQL Execute Time (sec) bar. For more information, see Sieb_Comp_SQLExecute_Detail Graph View on page 20. This display is used to analyze the SQL execute time, average SQL execute time and the number of SQL executes for a particular Siebel component during the same time range.<li data-bbox="488 1657 1385 1769">• SQL Fetch Time (sec) bar. For more information, see Sieb_Comp_SQLFetch_Detail Graph View on page 21. This display is used to analyze the SQL fetch time, average SQL fetch time and the number of SQL fetches for a particular Siebel component during the same time range.

Sieb_Comp_Statistics Graph View

Purpose

When a Siebel task completes its operation, task-level statistics that are gathered dynamically during the operation of a task roll up to the Siebel component level. These statistics can be used to monitor the progress and performance of each enabled Siebel component. Siebel stores component statistics as cumulative statistics, i.e., since the Siebel server started.

Figure 4. Siebel Component Statistics Since Startup



The Foglight SiebelServer Agent collects both cumulative and delta Siebel component statistics. Foglight calculates Siebel component statistic deltas by determining the change in the individual statistic since the last collection. The delta values are stored in the Foglight repository along with the cumulative value for selected statistics.

Use the Sieb_Comp_Statistics graph to analyze the amount of throughput and resource consumption that each enabled Siebel component contributes to the Siebel server’s total throughput and resource consumption since startup.

Description of the View

Data Displayed	<p>CPU Time (min). Total CPU time (minutes) for all the component’s tasks since the Siebel server started.</p> <hr/> <p>SQL Execution Time (min). Total time (minutes) the Siebel component spent performing SQL execute operations since the Siebel server started. For SELECT statements, the amount of time spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, the amount of time spent modifying the data.</p> <hr/> <p>Tasks (count). Total number of Siebel tasks started since the Siebel server started.</p>
Where to go next	Drill down on:

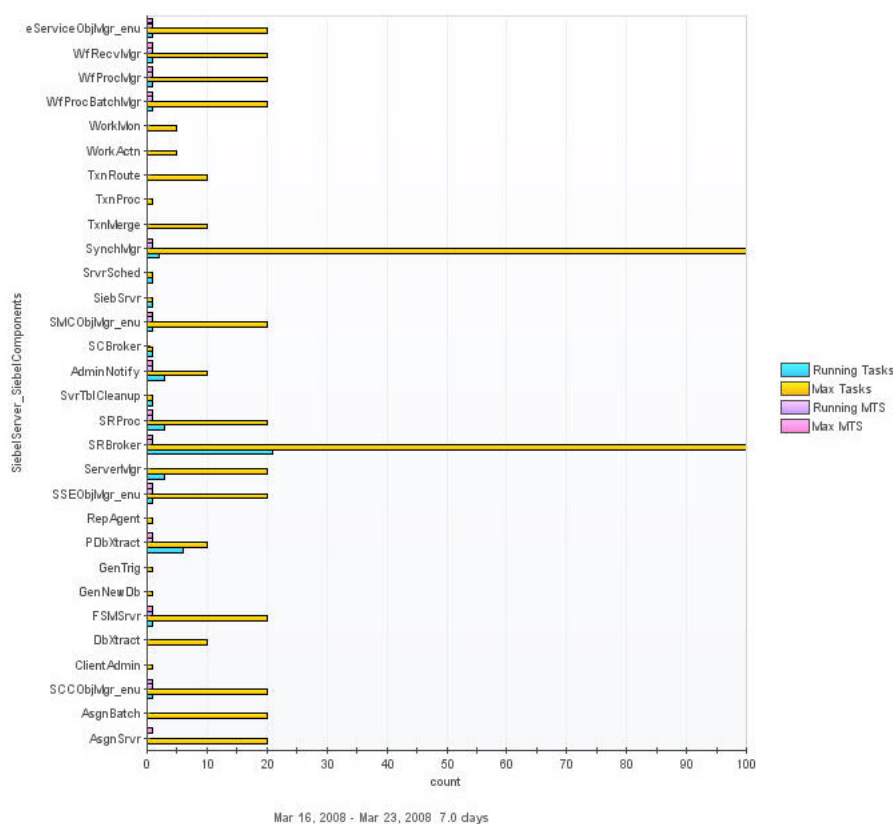
- CPU Time (min) or Tasks bar. For more information, see [Sieb_Comp_Detail Graph View](#) on page 18. This display is used to analyze the Siebel component throughput and resource utilization since the last collection.
- SQL Execution Time (min) bar. For more information, see [Sieb_Comp_SQLTime Graph View](#) on page 23. This display is used to identify the time that Siebel components spent parsing, executing, and fetching SQL statements.

Sieb_Comp_Tasks Graph View

Purpose

Each Siebel component has a maximum task parameter that represents the maximum number of tasks and users that can run concurrently.

Figure 5. Siebel Component Tasks Snapshot



The Siebel server supports both multiprocessor and multithreaded components, and can operate components in background, batch, and interactive modes. Multiprocess components have one operating system process for each of the Siebel component's corresponding running tasks. By default, all background mode Siebel components are multiprocessor. Multithreaded components, such as Siebel object managers (SOM) have multithreaded operating system processes where tasks and client sessions run as threads within the individual operating system process. Each multithreaded operating system process is called an MTS server.

For batch and interactive mode Siebel components that have multithreading enabled, the Maximum MT Servers parameter represents the maximum number of multithreaded server processes that can run concurrently. The number of tasks that can run in each server process is determined by the value of the Maximum Tasks parameter divided by Max MT Servers.

The Foglight SiebelServer Agent collects the task and MTS server statistics for each enabled Siebel component:

Description of the View

Data Displayed	Running Tasks. Current number of running tasks.
	Max Tasks. Maximum number of tasks defined for the component.
	Running MTS. Current number of MTServers.
	Max MTS. Maximum number of MTServers defined for the component.
Where to go next	Drill down on: <ul style="list-style-type: none"> • Running Tasks bar. For more information, see Sieb_Task_Detail Table View on page 35. This display is used to identify the Siebel tasks that are currently running for batch and background Siebel components. • Max Tasks, Running MTS, or Max MTS bar to isolate the analysis to an individual Siebel component.

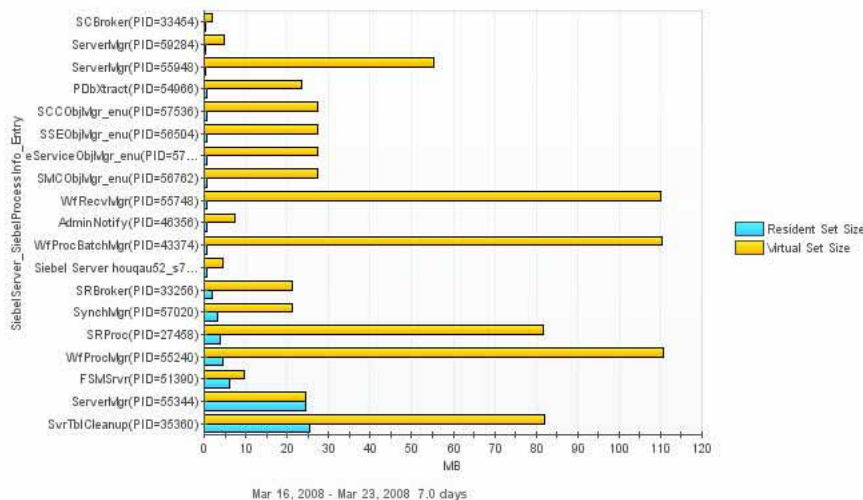
Siebel Support Web provides many resources detailing how to optimally set these parameters.

Sieb_Proc_Memory_Detail Graph View

Purpose

If the Siebel administrator suspects that a Siebel server is overloaded, an analysis of each operating system process that comprises the Siebel server should be performed.

Figure 6. Siebel Server Process Memory Utilization Snapshot



The Foglight SiebelServer Agent calculates CPU and memory utilization statistics for each operating system process that comprises the Siebel server. For Siebel 7 enterprises, this agent is able to correlate the `siebtsh` executables that run multithreaded processes or MTServers with the corresponding Siebel component. There is one `siebtsh` executable for each MTServer that is currently running.

Even though the Foglight SiebelServer Agent calculates CPU and memory utilization statistics for each operating system process, the agent uses the Number of Top Siebel operating system Process to Monitor, an agent property value, to determine the number of top processes to store in the Foglight repository for each collection. Foglight sorts by memory percentage when determining the top processes to store in the Foglight repository.

If the Siebel administrator identifies a Siebel server with high memory utilization or an individual Siebel server operating system process is consuming a large percentage of memory.

If a Siebel object manager component is found to be consuming a large amount of memory resources and the number of running tasks is high, the Siebel administrator should investigate whether the object manager's Max Tasks, Max MTServers, and RecycleFactor parameters are correctly set. Siebel Support Web provides many resources detailing how to optimally set these parameters. Other options the Siebel administrator should consider are distributing the object manager across multiple Siebel servers. This is done by assigning the Siebel component to one or more Siebel servers and using Resonate to perform load balancing between the Siebel servers.

Description of the View

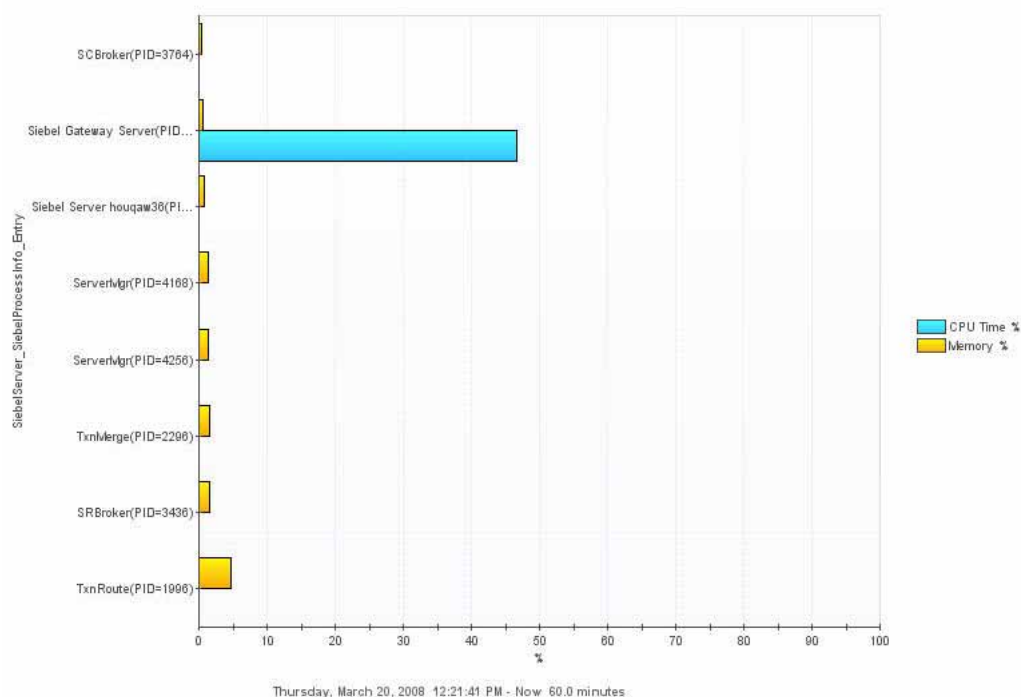
Data Displayed	<p>Resident Set Size. ResidentSetSize for the individual Siebel operating system processes, i.e., the amount of Siebel process address space (in Kilobytes) currently in the main memory. Main memory includes RAM plus ROM but does not include cache.</p>
	<p>Virtual Set Size. VirtualSetSize for the individual Siebel operating system processes, i.e., the amount of virtual memory used by the process in Kilobytes.</p>
Where to go next	n/a.

Sieb_Proc_Utilization Graph View

Purpose

If the Siebel administrator suspects that a Siebel server is overloaded, an analysis of each operating system process that comprises the Siebel server should be performed.

Figure 7. Siebel Server Process Utilization Snapshot



The Foglight SiebelServer Agent calculates CPU and memory utilization statistics for each operating system process that comprises the Siebel server. For Siebel 7 enterprises, this agent is able to correlate the siebmtsh executables that run multithreaded processes or MTServers with the corresponding Siebel component. There is one siebmtsh executable for each MTSERVER that is currently running.

Even though the Foglight SiebelServer Agent calculates CPU and memory utilization statistics for each operating system process, the agent uses the Number of Top Siebel operating system Process to Monitor, an agent property, value to determine the number of top processes to store in the Foglight repository for each collection. Foglight sorts by memory percentage when determining the top processes to store in the Foglight repository.

If a Siebel object manager component is found to be consuming a large amount of memory resources and the number of running tasks is high, the Siebel administrator should investigate whether the object manager's Max Tasks, Max MTServers, and RecycleFactor parameters are correctly set. The Siebel Support Web provides many resources detailing how to optimally set these parameters. Other options the Siebel administrator should consider are distributing the object manager across multiple Siebel servers. This is done by assigning the Siebel component to one or more Siebel servers and using Resonate to perform load balancing between the Siebel servers.

If the Siebel component that is consuming a large amount of the CPU or memory resources is a batch or background component such as the Assignment Manager, the Siebel administrator should consider reassigning this component to a Siebel server with more available resources, by reassigning it with the Siebel Server Manager.

If the Siebel component is a member of the Siebel Remote component group, the Siebel administrator should investigate whether Siebel Remote can be tuned on this Siebel server or if one or more additional Siebel servers should be dedicated to the Siebel Remote component group.

Description of the View

Data Displayed	CPU Time %. CPU consumption for the top operating system processes that comprise the Siebel server.
	Memory %. Memory consumption for the top operating system processes that comprise the Siebel server.
Where to go next	Drill down to: <ul style="list-style-type: none"> • CPU % bar to isolate the CPU analysis to an individual Siebel server operating system process. • Memory % bar. For more information, see Sieb_Proc_Memory_Detail Graph View on page 26. This display is used to analyze the memory consumption for an individual Siebel server operating system process.

To continue your investigation:

- Drill down on the CPU % bar to isolate the CPU analysis to an individual Siebel server operating system process.

Sieb_Srvr_Availability_Overview Graph View

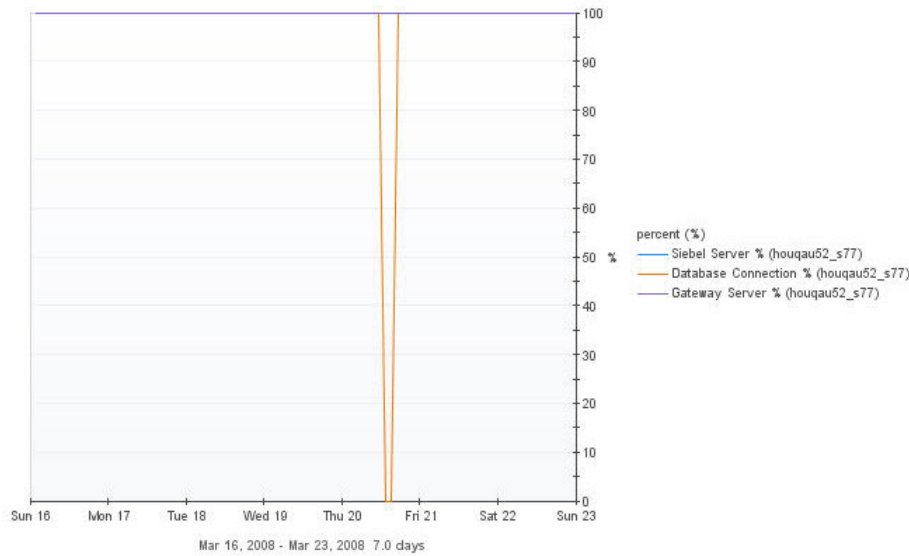
Purpose

The Sieb_Srvr_Availability_Overview graph is used to view the availability percentage of:

- Siebel server's status.
- Siebel server's ability to connect to the Siebel database.
- Siebel server's ability to connect to the gateway server.

The availability of the Siebel eBusiness Application depends on the availability of each Siebel server in the environment. When a Siebel server is unavailable, every enabled Siebel component assigned to that Siebel server is also unavailable. Furthermore, if a Siebel component is only assigned to one Siebel server and that one Siebel server becomes unavailable, the work being performed by those components stops. For example, if the Assignment Manager is used to assign leads from the corporate web site to the appropriate account team, and the Siebel server that runs the Assignment Manager component is unavailable, the new web leads are not assigned to an account team.

Figure 8. Siebel Server Availability



The Foglight SiebelServer Agent collects availability statistics on the Siebel server, Siebel component groups, and Siebel components assigned to the Siebel server. These availability statistics not only allow the Siebel administrator to be alerted when an availability issue is encountered, but also generate views/reports on the overall availability of the Siebel eBusiness Application environment for management.

If the Siebel server is reported as having zero percent availability, the Siebel Server Manager should be used to restart the server. Other options include restarting the Siebel Server service on Windows Siebel servers, or use `start_server` on Unix-based Siebel servers. Contact Siebel Support if restarting the server does not restore it to 100 percent availability.

It is important for the Siebel administrator to not only monitor the availability of the Siebel database, but to monitor the ability of the Siebel server to connect to the database. If the database is available, but the Siebel server is unable to login, all the enabled Siebel components assigned to the server are not able to service user requests. To verify the Siebel server's ability to connect to the database as the Siebel administrator, use a database utility located on the Siebel server such as SQL*Plus or ISQL to connect to the database. Contact the Siebel database administrator for help with diagnosing any connectivity issues.

It is equally important for the Siebel server to have connectivity to the gateway server. The gateway server provides persistent backing of SiebelServer configuration information, including definitions and assignments of components, operational parameters, and connectivity information. If the gateway server becomes unavailable, new Siebel components cannot be started or added, and server administration functions become limited. However, all components and object managers currently running continue to do so. If the Siebel gateway server itself becomes unavailable, the Siebel administrator receives an alert that the gateway server is unavailable, but also an alert from the Siebel servers that connection to the gateway server is lost. In this case, the Siebel administrator should restart the Siebel gateway server. However, if the Siebel administrator only receives alerts that the Siebel server lost connectivity to the Siebel gateway server, this possibly indicates that the network connectivity is lost between the two hosts. The NetMonitor Agent can be used to monitor the network connectivity between all the monitored hosts that comprise the Siebel eBusiness Application environment.

Description of the View

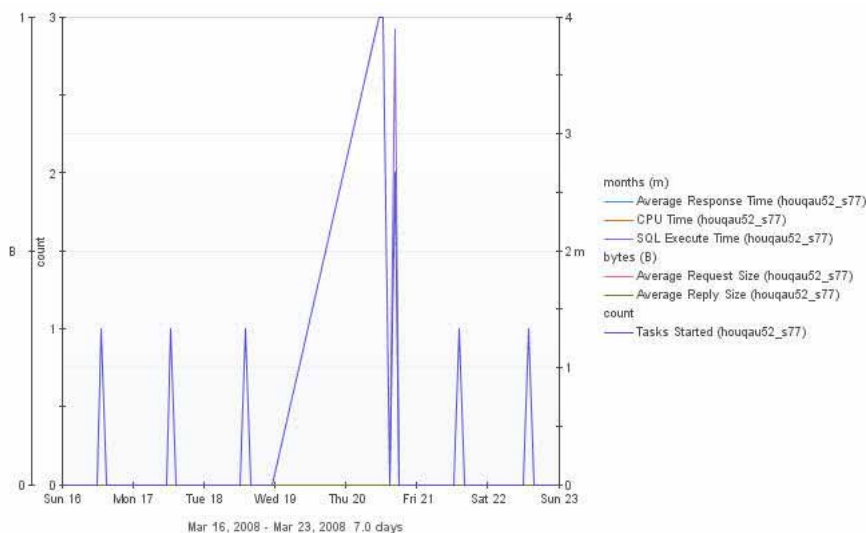
Data Displayed	<p>Siebel Server %. Siebel server availability is calculated as follows:</p> <ul style="list-style-type: none"> • 100 percent if the SiebelServerStatus = Running. • Zero percent for all other values.
	<p>Database Connection %. Server database connection availability is calculated as follows:</p> <ul style="list-style-type: none"> • 100 percent if the Siebel server is able to log into the Siebel database as the Siebel administrator. • Zero percent for all other values.
	<p>Gateway Server %. Server gateway server connection availability is calculated as follows:</p> <ul style="list-style-type: none"> • 100 percent if the Siebel server is able to connect to the Siebel gateway server. • Zero percent for all other values.
Where to go next	<p>Drill down on Siebel Server % bar. For more information, see Sieb_Comp_Group_Availability Graph View on page 20. This displays the availability of the Siebel component groups for the Siebel server during the same time range.</p>

Sieb_Srvr_Detail Graph View

Purpose

When a Siebel task is completed, task level statistics gathered dynamically during the operation of the task roll up to the component level. Statistics for all enabled components assigned to a Siebel server are rolled up to the server level. Siebel stores server statistics as cumulative statistics, i.e., since the Siebel server started. These statistics can be used to monitor the progress and performance of a Siebel server.

Figure 9. Siebel Server Overview Since Last Collection



The Foglight SiebelServer Agent calculates Siebel server statistic deltas by determining the change in the individual cumulative statistic since the last collection and stores the delta values in the Foglight repository. This allows the Siebel administrator to analyze how the Siebel server performs over time and identify peak usage time periods.

Use the Sieb_Srvr_Detail graph to correlate the Siebel server's response time with its utilization and throughput for each refresh interval.

At what time period does the Siebel server's response time become unacceptable? Is this a one-time occurrence or does it occur on a regular basis? Did the number of tasks started increase as response time started to decline? If the response time declines as the Siebel server's throughput increases on a regular basis, the Siebel administrator should investigate if this is related to increased user activity during the time period in question. For example, increased throughput may occur between 8:00 AM and 9:00 AM due to users connecting to Siebel for the morning, or between 12:00 PM and 1:00 PM due to users reconnecting after lunch. Often these types of usage patterns cannot be avoided, but the Siebel administrator should ensure that the Siebel components' load is balanced to compensate for increased activity during those peak periods.

It is useful to identify what time of day the Siebel server has the lowest throughput, because this is the optimal time to run batch components such as the Enterprise Integration Manager (EIM) or the Assignment Manager without an impact on the majority of users.

Description of the View

Data Displayed	Average ResponseTime (months). Average object manager response time since the last collection.
	CPU Time (months). Total CPU time (seconds) for all the Siebel server's tasks since the last collection.
	SQL Execute Time (months). Total time (months) the Siebel server spent performing SQL execute operations since the last collection. For SELECT statements, the amount of time spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, the amount of time spent modifying the data.
	Average Request Size (bytes). Average size (bytes) of reply messages since the last connection.
	Average Reply Size (bytes). Average size (bytes) of request messages since the last collection.
	Tasks Started (count). Number of Siebel tasks started since the last collection.
Where to go next	Drill down to: <ul style="list-style-type: none"> • SQL Execute Time line. For more information, see Sieb_Srvr_SQLTime Graph View on page 32. This display is used to analyze the Siebel server SQL execute, parse and fetch time during the same time range as the Sieb_Srvr_Detail graph. • CPU Time or Tasks Started line. For more information, see Sieb_Comp_Detail Graph View on page 18. to This display is used to analyze the utilization and throughput for each enabled Siebel component during the same time range as the Sieb_Srvr_Detail Graph View on page 30.

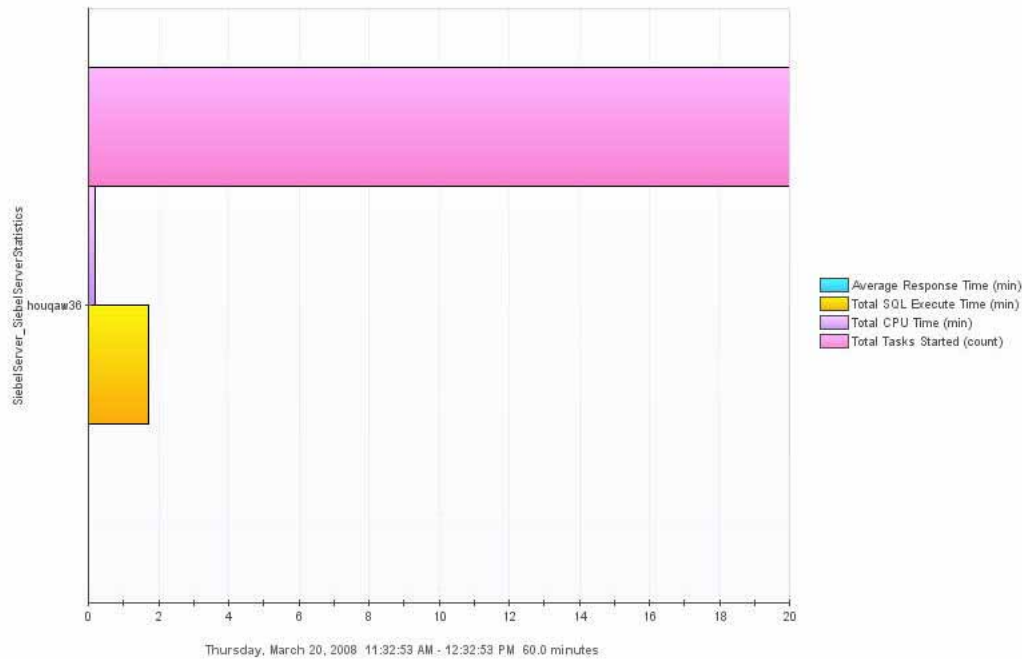
Sieb_Srvr_Overview Graph View

Purpose

When a Siebel task completes its operation, task-level statistics that are gathered dynamically during the operation of a task roll up to the component level. Statistics for all enabled components assigned to a Siebel server are rolled up to the Siebel server level. Siebel stores server statistics as cumulative statistics, i.e., since the Siebel server started. These statistics can be used to monitor the progress and performance of a Siebel server.

The Sieb_Srvr_Overview graph correlates the Siebel server's cumulative response time with its cumulative utilization and throughput.

Figure 10. Siebel Server Overview Since Startup



Use the Siebel Server Overview graph as a progress indicator for the individual Siebel server.

Description of the View

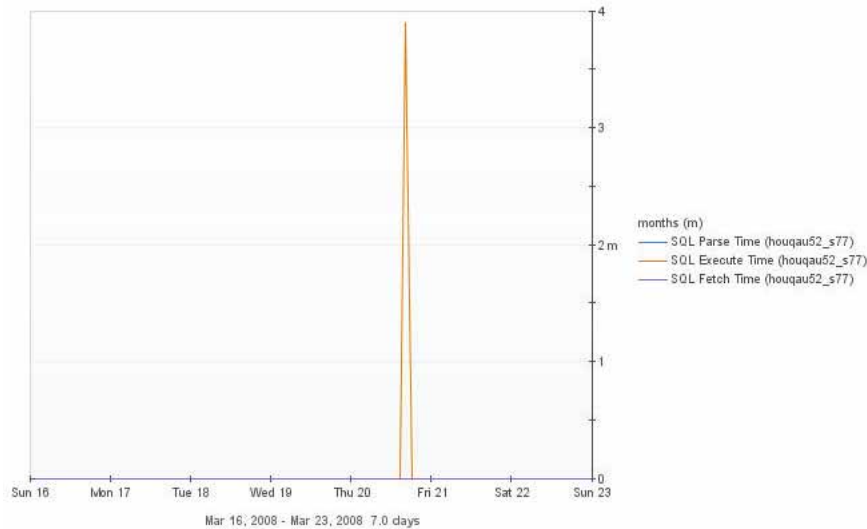
Data Displayed	Average Response Time (min). Average object manager response time, in minutes, since the Siebel server started.
	Total SQL Execute Time (min). Total CPU time, in minutes, for all the server's tasks since the Siebel server started.
	Total CPU Time (min). Total time, in minutes, that the Siebel server spent performing SQL execute operations since the server started. For SELECT statements, this is the amount of time spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, this is the amount of time spent modifying the data.
	Total Tasks Started (count). Total number of Siebel tasks started since the Siebel server started.
Where to go next	Drill down on Average Response Time (min) bar, Total SQL Execute Time (min) bar, Total CPU Times (min) bar, or Tasks Started bar. For more information, see Sieb_Srvr_Detail Graph View on page 30. This displays the correlation of the Siebel server's response time with its utilization and throughput for each refresh interval.

Sieb_Srvr_SQLTime Graph View

Purpose

When a Siebel task completes its operation, task-level statistics that are gathered dynamically during the operation of a task roll up to the component level. Statistics for all enabled components assigned to a Siebel server are rolled up to the Siebel server level. Siebel server statistics are cumulative statistics, i.e., since the Siebel server started. Among the many statistics that are gathered and rolled up to the Siebel server level are statistics on the time that the Siebel server spends parsing, executing, and fetching SQL statements.

Figure 11. Siebel Server SQL Time Since Last Collection



The Foglight SiebelServer Agent collects delta SQL parse, SQL execute, and SQL fetch statistics for the Siebel server. Foglight calculates the deltas by determining the change in the individual statistic since the last collection. The delta value is stored in the Foglight repository. This allows the Siebel administrator to identify peak SQL usage time periods.

This graph correlates the following Siebel server statistics for each refresh interval:

- SQL parse time since the last collection.
- SQL execute time since the last collection.
- SQL fetch time since the last collection.

Use the Sieb_Srvr_SQLTime graph to analyze how efficiently the Siebel server is interfacing with the Siebel database.

A low SQL parse time indicates a well-designed application that is parsing the SQL statement once but executing it multiple times. Since Siebel dynamically generates SQL statements and makes use of bind variables, the Siebel administrator is limited in being able to positively affect the SQL parse time. However, if the SQL parse time is high and the Siebel database is Oracle, there are two initialization parameters that can be adjusted to decrease the SQL parse time:

- **SESSION_CACHED_CURSORS**. Set this Oracle parameter to a value between 20 and 50. This causes Oracle to 'remember' previously parsed SQL and if the user session requests a parse of a SQL statement in the cache, then Oracle avoids the parse.
- **CURSOR_SHARING**. Set this Oracle parameter to FORCE. This causes Oracle to substitute literals in SQL statement with bind variables, which allows an otherwise unique SQL to be reused.

High SQL execute time in relation to a low SQL fetch time indicates that more time is being spent performing INSERT, UPDATE, and DELETE statements than SELECT statements.

Low SQL execute time in relation to a high SQL fetch time indicates that more time is being spent performing SELECT statements than INSERT, UPDATE and DELETE statements.

Description of the View

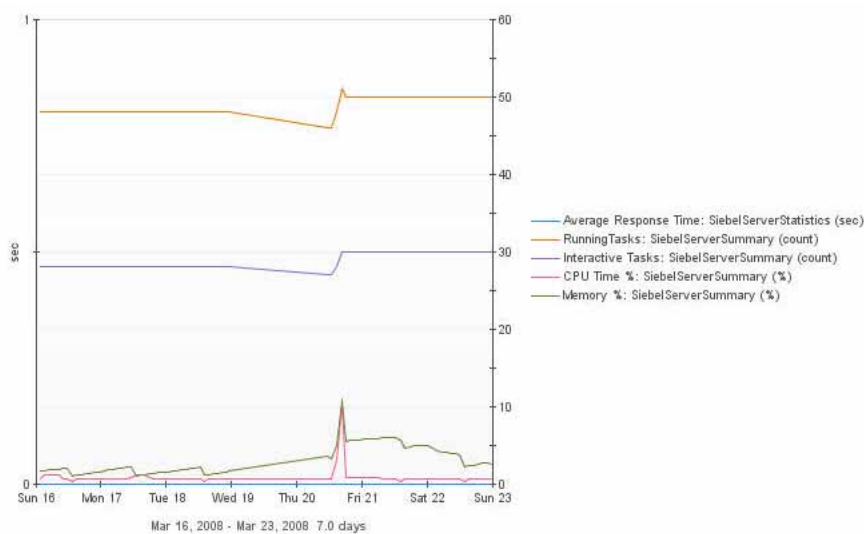
Data Displayed	<p>SQL Parse Time (months). The number of months spent translating the SQL statements into an execution plan. This time includes checking for proper security authorization and checks for the existence of tables, columns, and other referenced objects.</p> <hr/> <p>SQL Execute Time (months). For SELECT statements, the amount of time spent identifying the rows if the statement requires a sort or uses FOR UPDATE. For INSERT, UPDATE, and DELETE statements, the amount of time spent modifying the data.</p> <hr/> <p>SQL Fetch Time (months). For SELECT statements only, the amount of time spent retrieving the rows returned by the query.</p> <hr/>
Where to go next	Drill down on any line. For more information, see Sieb_Comp_SQLTime Graph View on page 23. This display is used to analyze the SQL execute, parse, and fetch to identify which Siebel components are contributing the most to the server's SQL times.

Sieb_Srvr_Utilization_Overview Graph View

Purpose

The Siebel eBusiness application environment is typically comprised of multiple Siebel servers with each Siebel server being assigned multiple Siebel components. It is important that all the Siebel servers that comprise the Siebel enterprise share the load, and one or more Siebel servers are not overutilized while others in the enterprise remain underutilized.

Figure 12. Siebel Server Utilization Snapshot



The Foglight SiebelServer Agent collects statistics to enable the Siebel administrator to correlate the Siebel server's response time, utilization, and throughput.

High CPU consumption alone does not indicate that the Siebel server is overloaded. The server is designed to use all the CPU resources that are available no matter the number of running tasks or object manager sessions. However, excessively high memory utilization by the Siebel server can cause the Siebel server to crash, or limit the number of users who can be serviced by the object managers assigned to the Siebel server.

Is the average response time acceptable? Does it stay within the acceptable range as the number of tasks and object manager sessions increase? As long as the average response time remains acceptable, the Siebel server is not overloaded. It becomes overloaded when its ability to service the running tasks and object manager sessions

with an acceptable average response time starts to decline. A sustained decline in the average response time signals an overloaded Siebel server.

Use the `Sieb_Srvr_Utilization_Overview` graph to determine if the Siebel server is overloaded by correlating the average response time with the number of tasks or object manager sessions the Siebel server is running.

Description of the View

Data Displayed	<p>Average Response Time. Siebel server's average object manager response time.</p> <hr/> <p>Running Tasks. Total number of tasks the Siebel server is running.</p> <hr/> <p>Interactive Tasks. Number of interactive sessions the Siebel server is running. This includes object manager sessions and other interactive tasks such as the Synchronization Manager and the Server Manager.</p> <hr/> <p>CPU Time %. Total amount of operating system CPU time the Siebel server is consuming</p> <hr/> <p>Memory %. Total amount of operating system memory the Siebel server is consuming</p>
Where to go next	<p>Drill down on:</p> <ul style="list-style-type: none"> • One of the bars: Average Response Time (min), Total SQL Execute Time (min), Total CPU Times (min), or Tasks Started. For more information, see Sieb_Srvr_Detail Graph View on page 30. This displays the correlation of the Siebel server's response time with its utilization and throughput for each refresh interval. • CPU Time % line or Memory % line. For more information, see Sieb_Proc_Utilization Graph View on page 27. This display is used to analyze the resource utilization for the individual operating system process that comprises the Siebel server. • Avg Response Time line. For more information, see Sieb_Srvr_Detail Graph View on page 30. This display is used to analyze the Siebel server response time, resource utilization, and throughput since the last collection. • RunningTasks line or Interactice Tasks line. For more information, see Sieb_Comp_Tasks Graph View on page 25. This display is used to analyze the number of running tasks, max tasks, running MTServers and max MTServers for each enabled component.

Sieb_Task_Detail Table View

Purpose

The Foglight SiebelServer Agent collects status data for each background and batch Siebel tasks that are currently running, and all Siebel tasks that exited with errors.

Figure 13. Siebel Task Detail table

EndTime	Component Alias	Task ID	Task OS PID	Task Run Mode	Task Start Time	Status
3/20/08 12:34 PM	TxnMerge	8388610	2296	Background	2008-03-20 11:15:43	Running
3/20/08 12:34 PM	TxnRoute	7340034	1996	Background	2008-03-20 11:15:43	Running
3/20/08 12:34 PM	SCBroker	2097154	3764	Background	2008-03-20 11:15:16	Running
3/20/08 12:34 PM	SrvrSched	1048580	276	Background	2008-03-20 11:15:13	Running
3/20/08 12:34 PM	SiebSrvr	1048577	276	Background	2008-03-20 11:15:08	Running
3/20/08 12:29 PM	TxnMerge	8388610	2296	Background	2008-03-20 11:15:43	Running
3/20/08 12:29 PM	TxnRoute	7340034	1996	Background	2008-03-20 11:15:43	Running
3/20/08 12:29 PM	SCBroker	2097154	3764	Background	2008-03-20 11:15:16	Running
3/20/08 12:29 PM	SrvrSched	1048580	276	Background	2008-03-20 11:15:13	Running

Use the Siebel Task Detail table to identify the Siebel tasks that are currently running or exited with errors at a specified time period.

If the Siebel administrator identifies a peak usage time period for the Siebel server or an individual Siebel component, use this table view to identify all of the currently running background or batch tasks, or tasks that exit during that peak usage time period.

If a Siebel task exits with an error, examine the task's log file to determine what error caused the Siebel task to exit.

If multiple batch Siebel tasks are running during the peak usage time period and the Siebel administrator can change when the task is started, the Siebel administrator should consider distributing the batch tasks across non-peak usage time periods. Another option is to reassign the Siebel task's corresponding component to a Siebel server with more available resources, using the Siebel Server Manager.

Description of the View

Data Displayed	End Time. The time that a server is shut down. This value is only available when the server is shutdown within the Siebel Server Manager.
	Component Alias. Name of the Siebel component alias being monitored.
	Task ID. For SELECT statements only, the amount of time spent retrieving the rows returned by the query.
	Task OS PID. Operating System process id (PID) that is running this task.
	Task Run Mode. Task's run mode, i.e., Batch, Background, Interactive.
	Task Start Time. Time the task started.
	Status. Current run state for the Siebel task, i.e., Running, Paused, Stopping, etc.
Where to go next	n/a.

SiebelServer Agent Rules

Foglight for Siebel Systems includes some built-in rules that monitor the health of your Siebel eBusiness applications environment. In this guide, the rules are organized in alphabetical order by agent.

This section contains the rules for the SiebelServer Agent:

- [Sieb_Comp_AOMErrors Rule](#)
- [Sieb_Comp_Inter_Task Rule](#)
- [Sieb_Comp_Merge_Avail Rule](#)
- [Sieb_Comp_MTServers Rule](#)
- [Sieb_Comp_Proc_Avail Rule](#)
- [Sieb_Comp_Route_Avail Rule](#)
- [Sieb_Comp_Route_Task Rule](#)
- [Sieb_Comp_State Rule](#)
- [Sieb_Crash_Log Rule](#)
- [Sieb_DB_Connect_Avail Rule](#)
- [Sieb_GW_Connect_Avail Rule](#)
- [Sieb_Log_Msg Rule](#)
- [Sieb_Srvr_Avail Rule](#)
- [Sieb_Srvr_CPU_Util Rule](#)
- [Sieb_Srvr_Memory_Util Rule](#)

- [Sieb_Srvr_NoDBConnRetry Rule](#)
- [Sieb_Srvr_NoDLRbkRetry Rule](#)
- [Sieb_Srvr_NoXhaustRetry Rule](#)
- [Sieb_Srvr_Proc_CPUTime Rule](#)
- [Sieb_Srvr_Proc_Memory Rule](#)
- [Sieb_Task_Status Rule](#)

Sieb_Comp_AOMErrors Rule

Purpose

The Sieb_Comp_AOMErrors (Application Object Manager) rule determines if a Siebel Object Manager encountered errors.

Scope

SiebelServer_SiebelComponentStatistics

Rule Definition

Condition	State	Action
#AOMErrors# != 0	Warning	Log message

Interpreting the Rule

The Sieb_Comp_AOMErrors:WARNING alert is generated when the SiebelServer Agent detects that an object manager encountered an error. When the Siebel administrator receives this alert, they should check the corresponding task log to determine the cause of the error.

The SiebelServer Agent can monitor each Siebel component task for errors, thus enabling the Siebel administrator to also be alerted of the exact error that occurred. Use the Component Logs Message Trap List agent property to enable this functionality for each Siebel component.

Sieb_Comp_Inter_Task Rule

Purpose

The Sieb_Comp_Inter_Task (interactive task) rule determines when the number of running tasks is nearing the maximum number of tasks allowed for interactive Siebel components.

Scope

SiebelServer_SiebelComponents

Rule Definition

Condition	State	Action
<code>#ComponentRunMode# == "Interactive" && (#RunningTasks# >= (f4registry("InterTaskPercentWarning") * #MaxTasks#))</code>	Warning	Log message
<code>#ComponentRunMode# == "Interactive" && (#RunningTasks# >= (f4registry("InterTaskPercentCritical") * #MaxTasks#))</code>	Critical	Log message, email Siebel administrator

Interpreting the Rule

Each Siebel component has a maximum task parameter that represents the number of tasks/users that can run concurrently. When the component's number of running tasks hits the maximum, no additional tasks can instantiate until at least one currently running task completes. Since interactive tasks are either object managers that service the Siebel web client or synchronization manager tasks that service remote users, the inability for new tasks to be instantiated results in a denial of service for Siebel users.

The `Sieb_Comp_Inter_Task` rule alerts the Siebel administrator when the number of running tasks nears the maximum tasks defined for a Siebel component. When this alert is received, the Siebel administrator can increase the maximum task parameter or assign the Siebel component to an additional Siebel server to increase the number of tasks the Siebel component can accommodate across the Siebel enterprise. Refer to Siebel support documentation for more information on setting the maximum task parameter.

- ⓘ **NOTE:** `InterTaskPercentWarning` is a `Foglight_Registry` entry with a default value of 0.70 and `InterTaskPercentCritical` has a default value of 0.90. Use the *Foglight Registry* to change thresholds for rules by modifying registry entries.

Views that render data that this rule is based on:

- [Sieb_Comp_Tasks Graph View](#) on page 25.

Sieb_Comp_Merge_Avail Rule

Purpose

The `Sieb_Comp_Merge_Avail` (merger availability) rule determines when the Transaction Merger, which is critical to the successful operation of Siebel Remote or Siebel Replication, is not currently running.

Scope

`SiebelServer_SiebelComponents`

Rule Definition

Condition	State	Action
<code>scope.get("ComponentAlias") == "TxnMerge" && #ComponentState# != "Running"</code>	Critical	Log message, email Siebel administrator

Interpreting the Rule

The Transaction Merger Siebel component is vital to successful Siebel Remote operation because it applies transactions to the Siebel database server that are uploaded into the appropriate Application server inbox by a Siebel Remote mobile user. The application of these transactions to the Siebel database takes place after the synchronization session finishes and the mobile client disconnects.

The `Sieb_Comp_Merger_Avail:CRITICAL` alert indicates that there are no Transaction Merger tasks currently running, i.e., no transactions are being applied to the Siebel database. If the Siebel administrator has not intentionally stopped the Transaction Merger, the Siebel administrator should start one or more Transaction Merger tasks with the Siebel Server Manager.

Views that render data that this rule is based on:

- [Sieb_Comp_Availability Graph View](#) on page 17.

Sieb_Comp_MTServers Rule

Purpose

The `Sieb_Comp_MTServers` (multithreaded) servers) rule determines if the Siebel Component's running multithreaded service is equal to the minimum defined in the Siebel Component's Parameters.

Scope

SiebelServer_SiebelComponents

Rule Definition

Condition	State	Action
<code>(#RunningMTS# < #MinMTS#) && (#ComponentState# != "Shutdown" && #ComponentState# != "Offline")</code>	Critical	Log message, email Siebel administrator

Interpreting the Rule

The Siebel server supports both multiprocess and multithreaded components. Multi-process components have one operating system process for each of the Siebel component's corresponding running tasks. By default, all background mode Siebel components are multiprocess. Multi-threaded components, such as Siebel object managers (SOM), have multithreaded operating system processes where tasks and client sessions run as threads within the individual operating system process. Each multithreaded operating system process is called an MTSERVER.

For batch and interactive mode Siebel components that have multithreading enabled, the Minimum MTServers parameter represents the minimum number of multithreaded server processes that should be running.

The `Sieb_Comp_MTServers` alert is generated when the number of running MTServers does not at least equal the number of minimum MTServers that is defined for the Siebel component. The severity of the alert increases as the difference between the number of running MTServers and minimum MTServers increases. This alert does not fire for the Siebel components with a run state of Shutdown or Offline. It is normal for Siebel components that are shutdown or offline to have zero minimum MTServers running. Refer to Siebel support documentation for more information on setting the minimum MTSERVER parameter.

Views that render data that this rule is based on:

- [Sieb_Comp_Tasks Graph View](#) on page 25.

Sieb_Comp_Proc_Avail Rule

Purpose

The Sieb_Comp_Proc_Avail (process availability) rule determines when the Transaction Processor, which is critical to the successful operation of Siebel Remote or Siebel Replication, is not currently running.

Scope

SiebelServer_SiebelComponents

Rule Definition

Condition	State	Action
scope.get("ComponentAlias") == "TxnProc" && #ComponentState# != "Running"	Critical	Log message, email Siebel administrator

Interpreting the Rule

The Transaction Merger Siebel component is vital to successful Siebel Remote operation because it scans the master transaction log on the Siebel database server and prepares transactions for visibility checking and routing by a Transaction Router. The `Sieb_Comp_Proc_Avail:CRITICAL` alert indicates that there are no Transaction Processor tasks currently running, i.e., no transactions are being checked for visibility and prepared for routing by a Transaction Router. If the Siebel administrator has not intentionally stopped the Transaction Merger, the Siebel administrator should start a Transaction Processor task with the Siebel Server Manager.

Views that render data that this rule is based on:

- [Sieb_Comp_Availability Graph View](#) on page 17.

Sieb_Comp_Route_Avail Rule

Purpose

The Sieb_Comp_Route_Avail (router availability) rule determines when the Transaction Router, which is critical to the successful operation of Siebel Remote or Siebel Replication, is not currently running.

Scope

SiebelServer_SiebelComponents

Rule Definition

Condition	State	Action
scope.get("ComponentAlias") == "TxnRoute" && #ComponentState# != "Running"	Critical	Log message, email Siebel administrator

Interpreting the Rule

The Transaction Router Siebel component is vital to successful Siebel Remote operation because it performs visibility checking and routing of transactions from the *.dx* files created in the *txnproc* directory by the Transaction Processor.

The `Sieb_Comp_Route_Avail:CRITICAL` alert indicates that there are no Transaction Router tasks currently running, i.e., no transactions are being routed from the *.dx* files to the Siebel Remote users' outboxes. If the Siebel administrator does not intentionally stop the Transaction Router, one or more Transaction Router tasks should be started with the Siebel Server Manager.

Views that render data that this rule is based on:

- [Sieb_Comp_Availability Graph View](#) on page 17.

Sieb_Comp_Route_Task Rule

Purpose

The `Sieb_Comp_Route_Task` (router task) rule determines if the Transaction Router, which is critical to the successful operation of Siebel Remote and Siebel Replication, has the desired number of Transaction Router tasks currently running. For example, if the Siebel administrator expects 26 Transaction Routers to be running in parallel, this rule shows if all 26 Transaction Routers are currently running.

Scope

SiebelServer_SiebelComponents

Rule Definition

Condition	State	Action
<code>scope.get("ComponentAlias") == "TxnRoute" && (#RunningTasks# <= (f4registry("RouteTaskPercentWarning") * #MaxTasks#))</code>	Warning	Log message
<code>scope.get("ComponentAlias") == "TxnRoute" && (#RunningTasks# < (f4registry("RouteTaskPercentCritical") * #MaxTasks#))</code>	Critical	Log message, email Siebel administrator

Interpreting the Rule

The Transaction Router Siebel component is a vital entity to the success of Siebel Remote operation because it performs visibility checking and routing of transactions from the *.dx* files created in the *txnproc* directory by the Transaction Processor. There must be at least one Transaction Router running on each Siebel server running the Siebel Remote component group. For better performance, multiple Transaction Routers can run on the same Siebel server. It is common for the Siebel administrator to set the maximum number of Transaction Routers to equal the desired number of running Transaction Routers. If the desired number of Transaction Routers is not running, a large backlog occurs increasing the latency time between the time an update is made to the Siebel database, to the time the update is successfully routed to the appropriate mobile users' outboxes.

The `Sieb_Comp_Route_Task` alert is received when the number of running Transaction Routers does not equal the maximum defined. The severity of the alert increases as the difference between the number of running Transaction Routers and the maximum number of Transaction Routers increases. When this alert is received, the Siebel administrator should use the Siebel Server Manager to start additional Transaction Routers.

- NOTE: `RouteTaskPercentWarning` is a `Foglight_Registry` entry with a default value of .90 and `RouteTaskPercentCritical` has a default value of 0.70. Use the Foglight Registry to change thresholds for rules by modifying registry entries.

Views that render data that this rule is based on:

- [Sieb_Comp_Tasks Graph View](#) on page 25.

Sieb_Comp_State Rule

Purpose

The `Sieb_Comp_State` rule determines when Siebel Components other than Transaction Router, Transaction Merger, and Transaction Processor are not currently online or running.

Scope

`SiebelServer_SiebelComponents`

Rule Definition

Condition	State	Action
<code>(scope.get("ComponentAlias") != "TxnMerge" && scope.get("ComponentAlias") != "TxnProc" && scope.get("ComponentAlias") != "TxnRoute") && (#ComponentState# != "Running" && #ComponentState# != "Online")</code>	Critical	Log message, email Siebel administrator

Interpreting the Rule

A Siebel component can be in one of five states: Running, Online, Offline, Shutdown, or Unavailable. The Siebel component state definitions are:

- Running**—indicates that tasks are currently running for the server component on the Siebel Server, and new tasks are allowed to start (up to the value of the Maximum Tasks parameter for the component). When the Siebel Server starts, all background mode components for which processes are started by default (that is, components with a Default Tasks parameter set to a nonzero value) start.
- Online**—indicates that tasks are currently not running for the server component, but new tasks may be started through the Siebel Server Manager. New tasks can also start in response to client requests, for interactive-mode components. When the Siebel Server starts, all components for which processes are not started by default are online. When a new task is started for the component, the component state changes to Starting Up.
- Offline**—indicates that new tasks may not be started for the component, though current running tasks can continue running (for background-mode components) or run to completion (for batch-mode and interactive-mode components).
- Shutdown**—indicates that processes are not running for the component and new tasks may not be started. Each task running when the component shuts down is stopped as soon as possible. All components are set to Shutdown when the Siebel Server shuts down, with the exception of the Server Manager component, which remains Online in order to perform administrative commands executed by the Siebel Server Manager. Background mode components that are set to Shutdown but have a Default Tasks parameter set to a nonzero value may be set to Online or Started.

- **Unavailable**—indicates that processes are not running for the component when a server process should be running. Multi-threaded server components can go into an Unavailable component state when the Min MT Servers parameter is set to a value greater than zero and no server processes are actually running for that component. In this case, the server component may exit with error and become unavailable because it failed to initialize. Server components may also go into this state if the database connection is down. In this case, you need to restart the server.

The `Sieb_Comp_State:CRITICAL` alert is raised when a Siebel component other than Transaction Router, Transaction Merger, and Transaction Processor are not 'Online' or 'Running'. If the Siebel administrator has not intentionally stopped the Siebel component, the Siebel administrator should start the Siebel component with the Siebel Server Manager.

Views that render data that this rule is based on:

- [Sieb_Comp_Availability Graph View](#) on page 17.

Sieb_Crash_Log Rule

Purpose

The `Sieb_Crash_Log` rule determines if a Siebel object manager crash log has been created. The creation of the log signals that an object manager crashed, causing the users who are currently using the crashed object manager to encounter a service interruption.

Scope

SiebelServer_SiebelLogMsg

Rule Definition

Condition	State	Action
SiebelServer.SiebelLogMsg.Severity=="CRASHLOG"	Warning	Log message

Interpreting the Rule

In Siebel 7 enterprises, when the object managers crash, a crash log is created in the `SIEBEL_HOME/bin` directory. The existence of a new crash log signals that an object manager has crashed.

The `Sieb_Crash_Log:WARNING` alert indicates that the SiebelServer Agent detects a new crash log during the last refresh interval. The Siebel administrator can use the crash log to determine which object manager task crashed and correlate how many users are affected by the crash. Siebel Support can be contacted for help in deciphering the crash logs.

Sieb_DB_Connect_Avail Rule

Purpose

The `Sieb_DB_Connect_Avail` (connection availability) rule determines when the Siebel Server is unable to connect to the Siebel Database.

Scope

SiebelServer_SiebelServerHealth

Rule Definition

Condition	State	Action
#DatabaseAvailability# != 100	Critical	Log message, email Siebel administrator

Interpreting the Rule

The `Sieb_DB_Connect_Avail:CRITICAL` alert indicates that the Siebel server is unable to login to the Siebel database. To verify the server's ability to connect to the database as the Siebel administrator, use a database utility located on the Siebel server such as SQL*Plus or ISQL to connect to the database. Contact the Siebel Database administrator to diagnose any connectivity issues. You should also verify that the Siebel administrator user id being used by the SiebelServer Agent is still assigned the Siebel administrator responsibility inside the Siebel application.

Views that render data that this rule is based on:

- [Sieb_Srvr_Availability_Overview Graph View](#) on page 28.

Sieb_GW_Connect_Avail Rule

Purpose

The `Sieb_GW_Connect_Avail` (Gateway Server connection availability) rule determines when the Siebel Server is unable to connect to the Gateway Server.

Scope

SiebelServer_SiebelServerHealth

Rule Definition

Condition	State	Action
#GatewayServerAvailability# != 100	Critical	Log message, email Siebel administrator

Interpreting the Rule

The `Sieb_GW_Connect_Avail:CRITICAL` alert status indicates that the Siebel server is unable to connect to the Siebel gateway. If this happens, verify that the Siebel gateway is running by checking the status of the Siebel Gateway Name Server service on Windows Siebel servers or run `list_ns` on Unix-based Siebel servers. If the Siebel gateway process is running, make sure that the Siebel server is able to ping the Siebel gateway name. The Siebel gateway could be running, but the Siebel server could have lost network connectivity between the Siebel server host and the host running the Siebel gateway.

Tip If this alert is received during the initial configuration of the SiebelServer Agent, verify that the Gateway Server Name is correct. The agent is unable to distinguish between a Siebel gateway that is not running and an incorrect Siebel gateway name.

Views that render data that this rule is based on:

- [Sieb_Srvr_Availability_Overview Graph View](#) on page 28.

Sieb_Log_Msg Rule

Purpose

The Sieb_Log_Msg (log message) rule determines if a Siebel Component Task Log encounters an error as defined in the SiebelComponent_Msg_List in the SiebelServer Agent properties.

Scope

SiebelServer_SiebelLogMsg

Rule Definition

SiebelServer.SiebelLogMsg.Severity=="WARNING"	Warning	Log message
SiebelServer.SiebelLogMsg.Severity=="CRITICAL"	Critical	Log message, email Siebel administrator
SiebelServer.SiebelLogMsg.Severity=="FATAL"	Fatal	Log message, email Siebel administrator

Interpreting the Rule

The Sieb_Log_Msg alert indicates that the SiebelServer Agent detects one of the errors that the Siebel administrator specified for monitoring in the Siebel component tasks logs. The Siebel administrator is provided the entire line from the Siebel component log where the error was encountered. The Siebel administrator should view the entire corresponding Siebel component task log with Siebel the Server Manager, or at the operating system level, to further diagnose the cause of the error. Siebel Support can be contacted for additional help in resolving the issue.

Sieb_Srvr_Avail Rule

Purpose

The Sieb_Srvr_Avail (availability) rule determines when the Siebel server is unavailable.

Scope

SiebelServer_SiebelServerHealth

Rule Definition

Condition	State	Action
#SiebelServerAvailability# != 100	Fatal	Log message, email Siebel administrator

Interpreting the Rule

When a Sieb_Srvr_Avail:FATAL alert is received, the Siebel administrator's reaction is based on the Siebel server's status as described below:

- Gateway Failure—indicates that the Siebel server is unable to connect to the Siebel gateway. In this case, make sure that the Siebel gateway is running by checking the status of the Siebel Gateway Name Server service on Windows Siebel servers or run `list_ns` on Unix-based Siebel servers. If the Siebel gateway process is running, verify that the Siebel server is able to ping the Siebel gateway name. The

Siebel gateway could be running, but the Siebel server could have lost network connectivity between the Siebel server host and the host running the Siebel gateway.

- **Unavailable**—indicates that the Siebel server is shutdown or did not complete startup. If the shutdown is unintentional, use Siebel Server Manager to restart the Siebel server. You can also restart the Siebel server service on Windows Siebel servers or use `start_server` on Unix-based Siebel servers.
- **Connect Failed**—indicates that the Siebel server may be unable to make a connection to the Siebel database. This is due to an error with the ODBC DSN, such as an invalid database name.
- **Login Failed**—indicates that the Siebel server is unable to login to the Siebel database. To verify the server's ability to connect to the database as the Siebel administrator, use a database utility located on the Siebel server, such as SQL*Plus or ISQL, to connect to the database. Contact the Siebel Database administrator to diagnose any connectivity issues. You should also verify that the Siebel administrator user id being used by the SiebelServer Agent is still assigned the Siebel administrator responsibility inside the Siebel application.

Contact Siebel Support for further information on restoring the Siebel server to 100 percent availability.

Views that render data that this rule is based on:

- [Sieb_Srvr_Availability_Overview Graph View](#) on page 28.

Sieb_Srvr_CPU_Util Rule

Purpose

The `Sieb_Srvr_CPU_Util` (CPU utility) rule determines when the processes associated with the Siebel Server are consuming a majority of the available CPU resources on the monitored host.

Scope

SiebelServer_SiebelServerSummary

Rule Definition

Condition	State	Action
<code>#TotalPercentCPUTime# >= f4registry("TotalPercentCPUWarning")</code>	Warning	Log message
<code>#TotalPercentCPUTime# > f4registry("TotalPercentCPUCritical")</code>	Critical	Log message, email Siebel administrator

Interpreting the Rule

Under normal conditions, the Siebel server should be consuming minimal CPU resources. Therefore, when a `Sieb_Srvr_CPU_Util` alert is received, the Siebel administrator should use the [SiebelServer Agent Views](#) to analyze which Siebel components are consuming the most memory.

Once the components have been identified, use the [SiebelServer Agent Views](#) to analyze statistics for the time period when that component consumed a high amount of the CPU resources.

If the high-consumption component is a batch or background component, such as the Assignment Manager, the Siebel administrator might consider reassigning this Siebel component to a server with more available resources. You can accomplish this by reassigning the Siebel component to a different server with Siebel Server Manager.

If the component is a member of the Siebel Remote component group, the Siebel administrator should investigate whether Siebel Remote can be tuned on this Siebel server or if additional servers should be dedicated to the Siebel Remote component group.

- NOTE: TotalPercentCPUWarning is a Foglight_Registry entry with a default value of 80.00 and TotalPercentCPUCritical has a default value of 90.00. Use the Foglight Registry to change thresholds for rules by modifying registry entries.

Views that render data that this rule is based on:

- [Sieb_Srvr_Utilization_Overview Graph View](#) on page 34.

Sieb_Srvr_Memory_Util Rule

Purpose

The Sieb_Srvr_Memory_Util (memory utility) rule determines when the processes associated with the Siebel Server are consuming too many of the available memory resources on the monitored host.

Scope

SiebelServer_SiebelServerSummary

Rule Definition

Condition	State	Action
#TotalPercentMemory# >= f4registry("TotalPercentMemoryWarning")	Warning	Log message
#TotalPercentMemory# > f4registry("TotalPercentMemoryCritical")	Critical	Log message, email Siebel administrator

Interpreting the Rule

The Sieb_Srvr_Memory_Util alert indicates excessively high memory utilization by the Siebel server. This can cause the server to crash or limit the number of users who can be serviced by the object managers assigned to the server.

Use the [SiebelServer Agent Views](#) to identify the operating system processes and the associated Siebel component that are consuming the most resources.

If a Siebel object manager component is consuming a large amount of memory resources and the number of running tasks is high, the Siebel administrator should investigate to determine whether the object manager's Max Tasks, Max MTServers, and RecycleFactor parameters are correctly set. Siebel Support Web provides many resources detailing how to optimally set these parameters. Another option is to distribute the object manager across multiple Siebel servers. This is done by assigning the Siebel component to one or more servers and using Resonate to perform load balancing between servers.

If the Siebel component that is consuming a large amount of the memory resources is a batch or background component, such as the Assignment Manager, the Siebel administrator could consider reassigning this Siebel component to a server with more available resources. You can accomplish this using the Siebel Server Manager.

If the Siebel component is a member of the Siebel Remote component group, the Siebel administrator should investigate whether Siebel Remote can be tuned on this Siebel server, or if one or more additional Siebel servers should be dedicated to the Siebel Remote component group.

- ⓘ **NOTE:** `TotalPercentMemoryWarning` is a `Foglight_Registry` entry with a default value of 80.00 and `TotalPercentMemoryCritical` has a default value of 90.00. Use the Foglight Registry to change thresholds for rules by modifying registry entries.

Views Which Render the Data on Which This Rule is Based

- [Sieb_Srvr_Utilization_Overview Graph View](#) on page 34.

Sieb_Srvr_NoDBConnRetry Rule

Purpose

The `Sieb_Srvr_NoDBConnRetry` rule determines when the Siebel Server attempts to recover from a database connection loss.

Scope

`SiebelServer_SiebelServerStatistics`

Rule Definition

Condition	State	Action
<code>#NumberDBConnRetries# > 0</code>	Warning	Log message

Interpreting the Rule

Receiving a `Sieb_Srvr_NoDBConnRetry:WARNING` alert indicates that one of the enabled Siebel components assigned to the Siebel server has encountered an error during the last refresh interval because it lost connection to the database and attempted to recover. If this occurs, the Siebel administrator should examine the component log files to diagnose which Siebel task encountered the error and resolve any issues. If the task is unable to connect to the database, it is not able to perform its designated function.

The `SiebelServer` Agent can monitor each component task log for `RecovDBConn` errors enabling the Siebel administrator to also be alerted about the exact error that occurred. Use the `Component Logs Message Trap List` agent property to enable this functionality for each Siebel component.

Sieb_Srvr_NoDLRbkRetry Rule

Purpose

The `Sieb_Srvr_NoDLRbkRetry` rule determines when the Siebel Server attempts to recover from a deadlock rollback.

Scope

`SiebelServer_SiebelServerStatistics`

Rule Definition

Condition	State	Action
#NumberDLRbkRetries# > 0	Warning	Log message

Interpreting the Rule

Receiving a `Sieb_Srvr_NoDLRbkRetry:WARNING` alert indicates that one of the enabled Siebel components assigned to the Siebel server encountered an error during the last refresh interval because it attempted to recover from a deadlock rollback. If this occurs, the Siebel administrator should examine the component log files to diagnose which Siebel task encountered the error and resolve any issues. If the task exhausts its attempts to recover, it is not able to perform its designated function.

The SiebelServer Agent can monitor each component task log for `RecovDLRbk` errors. Use the Component Logs Message Trap List agent property to enable this functionality for each Siebel component.

Sieb_Srvr_NoXhaustRetry Rule

Purpose

The `Sieb_Srvr_NoXhaustRetry` rule determines when the Siebel Server exhausts its number of retries for a component.

Scope

SiebelServer_SiebelServerStatistics

Rule Definition

Condition	State	Action
#NumberExhaustedRetries# > 0	Warning	Log message

Interpreting the Rule

The `Sieb_Srvr_NoXhaustRetry:WARNING` alert indicates that one of the enabled Siebel components assigned to the Siebel server exhausted its recovery attempts. The number of times the Siebel component attempts to recover is determined by the Number of Retries component parameter. The Siebel administrator should examine the component log files to diagnose which Siebel task encountered the error and resolve any issues.

The SiebelServer Agent can monitor each component task log for `RecovTry` and `RecovErr` errors enabling the Siebel administrator to also be alerted of the exact error that occurred. Use the Component Logs Message Trap List agent property to enable this functionality for each Siebel component.

Sieb_Srvr_Proc_CPUTime Rule

Purpose

The `Sieb_Srvr_Proc_CPUTime` (process CPU time) rule determines when an individual process associated with the Siebel Server is consuming too many of the available CPU resources on the monitored host.

Scope

SiebelServer_SiebelProcessInfo

Rule Definition

Condition	State	Action
SiebelServer.SiebelProcessInfo.PercentCPUTime > #WORLD::PercentCPUWarning#	Warning	Log message
SiebelServer.SiebelProcessInfo.PercentCPUTime > #WORLD::PercentCPUCritical#	Critical	Log message, email Siebel administrator

Interpreting the Rule

Under normal conditions, an individual Siebel server operating system process should not consume large percentages of the host's CPU resources. Therefore, a `Sieb_Srvr_Proc_CPUTime` alert indicates a potentially serious problem with one of the Siebel components.

If the Siebel component that is consuming a large amount of the CPU resources is a batch or background component, such as the Assignment Manager, the Siebel administrator could consider reassigning this Siebel component to a Siebel server with more available resources. You can accomplish this using the Siebel Server Manager.

If the Siebel component is a member of the Siebel Remote component group, the Siebel administrator should investigate whether Siebel Remote can be tuned on this Siebel server or if additional Siebel servers should be dedicated to the Siebel Remote component group.

- ④ **NOTE:** #WORLD::PercentCPUWarning# is a Foglight_Registry entry with a default value of 30.00 and #WORLD::PercentCPUCritical# has a default value of 60.00. Use the Foglight Registry to change thresholds for rules by modifying registry entries.

Views that render data that this rule is based on:

- [Sieb_Proc_Utilization Graph View](#) on page 27.

Sieb_Srvr_Proc_Memory Rule

Purpose

The `Sieb_Srvr_Proc_Memory` (process memory) rule determines when an individual process associated with the Siebel Server is consuming too many of the available memory resources on the monitored host.

Scope

SiebelServer_SiebelProcessInfo

Rule Definition

Condition	State	Action
SiebelServer.SiebelProcessInfo.PercentMemory > #WORLD::PercentMemoryWarning#	Warning	Log message

SiebelServer.SiebelProcessInfo.PercentMemory > #WORLD::PercentMemoryCritical#	Critical	Log message, email Siebel administrator
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Interpreting the Rule

The `Sieb_Srvr_Proc_Memory` alert indicates excessively high memory utilization by an individual Siebel operating system process. This can cause the Siebel server to crash or limit the number of users who can be serviced by the object managers assigned to the Siebel server.

If a Siebel object manager component is consuming a large amount of memory resources and the number of running tasks is high, the Siebel administrator should investigate whether the object manager's Max Tasks, Max MTServers, and RecycleFactor parameters are correctly set. Siebel Support Web provides many resources detailing how to optimally set these parameters. Another option is to include distributing the object manager across multiple Siebel servers. This is accomplished by assigning the Siebel component to other Siebel servers and using Resonate to perform load balancing between the servers.

If the Siebel component that is consuming a large amount of the memory resources is a batch or background component, such as the Assignment Manager, the Siebel administrator could consider reassigning this Siebel component to a Siebel server with more available resources. You can do this using the Siebel Server Manager.

If the Siebel component is a member of the Siebel Remote component group, the Siebel administrator should investigate whether Siebel Remote can be tuned on this Siebel server or if additional Siebel servers should be dedicated to the Siebel Remote component group.

- NOTE: #WORLD::PercentMemoryWarning# is a Foglight_Registry entry with a default value of 30.00 and #WORLD::PercentMemoryCritical# has a default value of 60.00. Use the Foglight Registry to change thresholds for rules by modifying registry entries.

Views that render data that this rule is based on:

- [Sieb_Proc_Utilization Graph View](#) on page 27.

Sieb_Task_Status Rule

Purpose

The `Sieb_Task_Status` rule determines if a Siebel Component completes with a condition other than a normal completion such as Exited with Error or Killed.

Scope

SiebelServer_SiebelTasks

Rule Definition

Condition	State	Action
SiebelServer.SiebelTasks.TaskStatus != "Running"	Critical	Log message, email Siebel administrator

Interpreting the Rule

A server component task may be in one of four fundamental states: Running, Paused, Stopping, or Completed. The Siebel task state definitions are:

- **Running**—indicates that the task is executing normally. While the task is running, it periodically updates its task status, and sends a component-generated message that indicates the task progress or phase of operation.
- **Background mode component tasks** run until stopped manually, or until the Siebel Server or the component shuts down.
- **Batch mode component tasks** run to completion when their assigned unit of work is done.
- **Interactive mode component tasks** run until the client signs off from the connection or until the task, component, or server is shut down. The Siebel administrator may explicitly pause or stop any currently running component task.
- **Paused**—indicates that the task is temporarily placed in a suspended state. A paused task does not exclusively hold any shared system resources (such as file locks or database locks), or expend any processor or I/O cycles. You may choose to pause a running task to temporarily free up the system in order to process other critical tasks without having to restart the entire task. You may then resume or stop the paused task.
- **Stopping**—indicates that the component task is instructed to stop, or the component or server is being shut down. Occasionally, the shutdown process may take a while, in which case you may issue another Stop command, and the shutdown is forced (this state may appear as Forcing Shutdown). After a task is instructed to stop, it may not be resumed.
- **Completed**—indicates that the component process is no longer running. After a process is completed, it may not be restarted, though you may start a new task for the same component. Several variations exist for the Completed state, depending on the manner in which the task finished processing:
 - **Completed** indicates that the task ran to completion and exited normally (batch mode and interactive mode tasks only).
 - **Exited with Error** indicates that the task encountered an error during its processing, such as bad input values or database errors. In this case, the Task Status field displays the error identifier for the error that occurred.
 - **Killed** indicates that the process was not able to shut down cleanly, and you forced the task to shut down.

A `Sieb_Task_Status` alert is generated when a Siebel task status is not equal to 'Running'. When the Siebel administrator receives a `Sieb_Task_Status` alert stating a Siebel task has 'Exited with Error', the Siebel administrator should check the corresponding task log to determine the cause.

The SiebelServer Agent can monitor each Siebel component task log for errors that lead a Siebel task to exit. This enables the Siebel administrator to be alerted of the exact error that occurred. Use the 'Component Logs Message Trap List' agent property to enable this functionality for each Siebel component.

Views that render data that this rule is based on:

- [Sieb_Task_Detail Table View](#) on page 35.

SiebelServer Agent Data Tables

The Foglight for Siebel Systems Foglight for Siebel collects data and stores it in specific tables. In this guide, the description of the tables are organized by agent.

The SiebelServer Agent tables collect and store error messages about the agent and the Siebel Server, as well as basic server level information, such as the start time and current status of a server.

The SiebelServer Agent contains the following tables. Select the table name to view the field definitions.

- [Siebel Component Groups Data Table](#)
- [Siebel Component Statistics Data Table](#)
- [Siebel Components Data Table](#)

- [Siebel Log Message Data Table](#)
- [Siebel Process Information Data Table](#)
- [Siebel Server Health Data Table](#)
- [Siebel Server Statistics Data Table](#)
- [Siebel Server Summary Data Table](#)
- [Siebel Tasks Data Table](#)

Siebel Component Groups Data Table

The fields in this table are as follows:

Field	Description
ComponentCount	The number of Siebel components included in the component group.
ComponentGroup	The full name of the component group.
ComponentGroupAlias	A short name or alias for the component group.
ComponentGroupAvailability	A numeric value (100 = online or running and zero = all other values) that represents the component group run state.
ComponentRunState	The current run state for the Siebel component group (Online, Offline, Shutdown, etc.).

Siebel Component Statistics Data Table

The fields in this table are as follows:

Field	Description
AOMErrors	The number of Application Object Manager (AOM) errors in the session since the last collection.
AvgSQLExecTime	Average time (seconds) the Siebel component spent performing SQL execute operations since the last collection.
AvgSQLFetchTime	Average time (seconds) the Siebel component spent performing SQL fetch operations since the last collection.
AvgSQLParseTime	Average time (seconds) the Siebel component spent performing SQL parse operations since the last collection.
CPUTime	The amount of CPU time, in seconds, for all component tasks since the last collection.
ComponentAlias	A short name or alias for the Siebel component.
GroupAlias	A short name or alias for the Siebel component group that the Siebel component belongs to.

NumberSQLExecutes	The number of SQL execution operations since the last collection.
NumberSQLFetches	The number of SQL fetch operations since the last collection.
NumberSQLParses	The number of SQL parse operations since the last collection.
NumberSleeps	The number of sleeps, in seconds, for component tasks since the last collection.
SQLExecuteTime	The number of SQL execution operations since the last collection.
SQLFetchTime	The number of SQL fetch operations since the last collection.
SQLParseTime	The number of SQL parse operations since the last collection.
SleepTime	The amount of time, in seconds, that component tasks spent sleeping since the last collection.
Tasks	The number of Siebel component tasks started since the last collection.
TotalCPUTime	The total amount of CPU time, in seconds, for all component tasks since the Siebel server started.
TotalSQLExecuteTime	The total amount of time, in seconds, the component spent performing SQL execute operations since the Siebel server started.
TotalTasks	The total number of component tasks started since the Siebel server started.

Siebel Components Data Table

The fields in this table are as follows:

Field	Description
ComponentAlias	A short name or alias for the Siebel component.
ComponentGroup	The Siebel component group associated with the component.
ComponentName	The full name of the component.
ComponentRunMode	Mode the component's tasks are executed in (i.e., Background, Batch, or Interactive).
ComponentState	Current run state for the Siebel component (Online, Shutdown, Unavailable, etc.).
ComponentStateAvailability	A numeric value (100 = online or running and zero = all other values) that represents the component run state.

MaxMTS	The maximum number of active servers for a multithreaded service. This value indicates the maximum number of operating system processes that are spawned to support component tasks.
MaxTasks	The number of tasks that can be instantiated for the component.
MinMTS	The minimum number of active servers for a multithreaded service. This value indicates the minimum number of operating system processes that are spawned to support component tasks.
RunningMTS	The current number of active servers for a multithreaded service. This value indicates how many operating system processes are currently spawned to support component tasks.
RunningTasks	The current number of concurrent tasks that are instantiated for the component.

Siebel Log Message Data Table

The fields in this table are as follows:

Field	Description
LogFileName	The name of the log file that contains the text string (error).
MsgText	The actual text from the Siebel log file where the search string specified in the agent properties was found.
Severity	The severity of the text string as determined by the Siebel administrator (i.e., Informational, Warning, Critical, or Fatal).
UsrMessage	A user-defined message that describes what the error means to the Siebel administrator.

Siebel Process Information Data Table

The fields in this table are as follows:

Field	Description
ComponentAlias	A short name or alias for the Siebel component.
PercentCPUTime	Percentage of CPU time being used by the Siebel process at the time of collection.
PercentMemory	The percentage of resident set size in use at the time of collection.
ProcessID	The operating system identification number assigned to the process.

ProcessImageName	The name of the Siebel component or entity associated with the process.
ProcessName	The operating system or executable name for the process.
ResidentSetSize	Amount of the Siebel process' address space (bytes) that is currently in main memory. Main memory includes RAM plus ROM; however, it does not include cache.
VirtualSetSize	Amount of virtual memory used by the process in Kilobytes.

Siebel Server Health Data Table

The fields in this table are as follows:

Field	Description
DatabaseAlias	Database Name/Alias for the Siebel Enterprise. Value retrieved from agent properties.
DatabaseAvailability	Numeric value representing the Siebel server's ability to connect to the Siebel database (100 = True or zero = False).
EndTime	The time that a server is shut down. This value is only available when the server is shutdown within the Siebel Server Manager.
EnterpriseServer	Name of the Siebel enterprise that the Siebel server belongs to. Value retrieved from agent properties.
GatewayServer	Name of the gateway server for the Siebel enterprise. Value retrieved from agent properties.
GatewayServerAvailability	A value (100 = true and 0 = false) that indicates if the server can connect to the gateway server at the present time.
SiebelServer	The name of the Siebel server.
SiebelServerAvailability	A value (100 = running and zero = all other values) that represents the run state of the server.
SiebelServerPID	The operating system process id (PID) for the Siebel server.
SiebelServerStatus	The current state of the server. The possible status types include: Running, Shutdown, Unavailable, Login Failed, Handshake Failed, Not Available, Connect Failed, and Gateway Failure.
SiebelServerUpTime	The number of Days, Hours, Minutes and Seconds the Siebel Server is running.
StartTime	The time that the server started.

Siebel Server Statistics Data Table

The fields in this table are as follows:

Field	Description
AvgConnectTime	The average time that Object Manager sessions are connected since the last collection.
AvgReplySize	The average size (bytes) of reply messages since the last connection.
AvgRequestSize	The average size (bytes) of request messages since the last collection.
AvgResponseTime	The average Object Manager response time since the last collection.
AvgSQLExecTime	The average amount of time, in seconds, that the server spends performing SQL execute operations since the last collection.
AvgSQLFetchTime	The average amount of time, in seconds, that the server spends performing SQL fetch operations since the last collection.
AvgSQLParseTime	The average amount of time, in seconds, that the server spends performing SQL parse operations since the last collection.
AvgThinkTime	The average amount of end-user think time between requests since the last collection.
CPUTime	The total CPU time (seconds) for all the Siebel server's tasks since the last collection.
ElapsedTime	Total elapsed or running time (seconds) for all the Siebel server's tasks since the last collection.
NumberDBConnRetries	The number of retries resulting from database connection termination since the last collection.
NumberDLRbkRetries	The number of retries resulting from deadlock rollbacks since the last collection.
NumberExhaustedRetries	The number of times that retries have been exhausted since the last collection.
NumberReplyMessages	The number of reply messages sent by the server since the last collection.
NumberRequestMessages	The number of request messages sent by the server since the last collection.
NumberSQLExecutes	The number of SQL execute operations since the last collection.
NumberSQLFetches	The number of SQL fetch operations since the last collection.
NumberSQLParses	The number of SQL parse operations since the last collection.
NumberSleeps	The total number of sleeps for all tasks since the last collection.
SiebelServer	The name of the Siebel server.

SQLExecuteTime	The amount of time, in seconds, spent performing SQL execute operations since the last collection.
SQLFetchTime	The amount of time, in seconds, spent performing SQL fetch operations since the last collection.
SQLParseTime	The amount of time, in seconds, spent performing SQL parse operations since the last collection.
SleepTime	The total amount of time (seconds) for all the Siebel component's tasks spent sleeping since the last collection.
Tasks	The total number of Siebel component tasks started since the last collection.
TotalAvgConnectTime	The average time the Object Manager sessions are connected since the Siebel server started.
TotalAvgRequestPerSession	The average number of requests per Object Manager session since the Siebel server started.
TotalAvgResponseTime	The average Object Manager response time since the Siebel server started.
TotalCPUTime	The total CPU time (seconds) for all the Siebel Server's Tasks since the Siebel server started.
TotalReplySize	The total size, in bytes, of all reply messages since the last connection.
TotalRequestSize	The total size, in bytes, of all request messages since the last connection.
TotalResponseTime	The total response time, in seconds, for the Object Manager since the last connection.
TotalSQLExecuteTime	The total time (seconds) the Siebel server spent performing SQL execute operations since the Siebel server started.
TotalTasks	The total number of Siebel component tasks started since the Siebel server started.
TotalThinkTime	The total client think time, in seconds, or the total amount of elapsed time between client requests since the Siebel server started.

Siebel Server Summary Data Table

The fields in this table are as follows:

Field	Description
SiebelServer	The name of the Siebel server.
TotalObjMgrSessions	The total number of Interactive tasks running on the Siebel server at the time of collection.
TotalPercentCPUTime	The total percentage of CPU time being used by all the Siebel processes at the time of collection.

TotalPercentMemory	The total percentage of resident set size used by all the Siebel processes at the time of collection.
TotalRunningTasks	The total number of tasks running on the Siebel server at the time of collection.

Siebel Tasks Data Table

The fields in this table are as follows:

Field	Description
ComponentAlias	A short name or alias for the Siebel component.
GroupAlias	A short name or alias for the Siebel component group associated with the component.
OSTaskPID	The operating system process id (PID) that is running this task.
TaskAvailability	A numeric value (100 = Running and zero = all other values) that represents the current task status.
TaskEndTime	The Mode the task is executed in (Background, Batch, or Interactive).
TaskID	A numeric identification code for the Siebel component task. This field is concatenated with the ComponentAlias field to create a unique identifier for the Component Event Log.
TaskRunMode	The current mode when the task is executed. The possible modes are Background, Batch, or Interactive.
TaskStartTime	The time that the task starts.
TaskStatus	The current status of the task. The status categories include Running, Paused, Stopping, Completed, Exited with Error, and Killed.

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Technical Support Resources

Technical support is available to customers who have purchased Dell software with a valid maintenance contract and to customers who have trial versions. To access the Support Portal, go to <http://software.dell.com/support/>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. In addition, the portal provides direct access to product support engineers through an online Service Request system.

The site enables you to:

- Create, update, and manage Service Requests (cases)
- View Knowledge Base articles
- Obtain product notifications
- Download software. For trial software, go to [Trial Downloads](#).
- View how-to videos
- Engage in community discussions
- Chat with a support engineer