

Examining Precise for J2EE statistical information

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About the Statistics workspace

The Precise for J2EE Collector collects performance metrics provided by WebSphere, WebLogic, and other application servers. These application server metrics are displayed in the Statistics workspace.

 The information collected can be modified in the Monitor Settings dialog box. For more information, see "Configuring Statistics Settings" on page 45.

The application servers collect the metrics and provide an interface for the Precise for J2EE Collector to obtain them. Depending on the application server, the Precise for J2EE Collector may log into the administrative server of the monitored JVM to gather the metrics or obtain the metrics in other ways. These metrics provide an important source of performance data for Database Connection Pools, EJB Pools and Caches, Sessions, and Threads. Precise for J2EE identifies a set of similar metrics using a Group Name. For example, the Database Connection Pool group includes many metrics describing a Database Connection Pool such as maximum capacity, active connections, and so on.

The Statistics workspace enables you to provide answers to such questions as, "Does the JVM spend too much time in the garbage collection process?"

 Precise for J2EE collects general metrics such as garbage collection, memory and CPU for all monitored JVMs. Additional set of metrics - JMX metrics are collected for some Application Servers like WebLogic, WebSphere, Tomcat etc. See support matrix for more information. Enabling JMX metrics collection might require execution of additional action items.

How the Statistics workspace is structured

The Statistics workspace displays information on a selected entity and its associated entities. For example, it is possible to associate with all counters that are related to a specific instance, by selecting the Counters entity from the Association controls.

About the Main area in the Statistics workspace

The Main area includes two view options - Memory and GC and CPU Consumption - each containing overtime graphs displaying different aspects of the selected entity's performance. Select the desired view from the drop-down list underneath the workspace heading.

About the Memory and GC view

The Memory and GC view includes the following overtime graphs:

- **Avg. Heap Usage.** This bar graph displays the breakdown between free and used heap in the selected time frame, and any JVM starts and restarts that occur. Hovering over a breakdown bar will display a ToolTip with the following information for that time slice: used heap, free heap, total allocation heap, max allowed heap, max used heap, and min used heap.
- **GC Time %.** This bar graph displays the relative time spent in garbage collection out of the total response time in the selected time frame, and any JVM starts and restarts that occur.
- **Maximum Used Heap.** This line graph displays and compares the maximum allowed and maximum used heap size in the selected time frame.
- **Minimum Used Heap.** This line graph displays the minimum used heap size in the selected time frame. Hovering at any point in the graph displays the time slice date and time and the numerical value of the minimum used heap size.

About the CPU Consumption view

The CPU Consumption view includes the following overtime graph:

- **CPU Consumption.** This bar graph displays the CPU consumption percentage rate in the selected time frame, and any JVM starts and restarts that occur.

About the Association area in the Statistics workspace

The Association area provides corresponding information for the entities associated with the selected entity (displayed in the Main area). You can view information for one type of entity at a time, such as instances only, by selecting an item from the Association controls. The selection you make is reflected in the Association area only; the Main area remains unchanged.

From the Association area, you can also drill down to another entity by clicking a row in the table. A drilldown affects the whole workspace. When you drill down to another entity, the Workspace heading displays the new selection; the Main area displays an overtime line graph about the newly selected entity, and the Association area displays the entities associated with the selected entity.

For example, it is possible to associate to all instances that are related to a specific server or all counters that have been collected for a specific server, by selecting the appropriate row from the Association controls.

If you want detailed information on a specific server counter, in the Association area, click the row of the counter that you want to view detailed information for. The Workspace heading indicates the newly selected entity, and the Main area displays an overtime graph for the counter you drilled down to. There is no Association area data for a counter.