

Getting current Precise for Oracle application information

This section includes the following topics:

- [About the Current tab](#)
- [How the Current tab is structured](#)
- [How the Current tab can help you identify performance problems](#)

About the Current tab

The Current tab displays near real-time information on all sessions that were connected to your Oracle database during the last minute. You can use this tab to monitor your system's current activities and resource consumption and to identify performance problems, such as sessions involved in locks, as they occur.

The Current tab provides answers to the following types of questions: How many sessions are currently running? or Why doesn't my application work when I click OK?

Using the Current tab, you can monitor current connections to your Oracle instance, check the state of each connection, and identify the resources currently utilized by each session. Further investigation of each session provides a thorough understanding of the SQL statement being executed, the login name executing the statement, the program, and the resource utilization for the session.



If you are working with Oracle Applications, SAP, PeopleSoft, or Siebel and ERP support is installed, the Current tab displays information on the current Oracle activity in relation to the ERP application and users, and specific information on executed views and transactions.

See "Precise Interpoint - how resource consumption of packaged applications is examined" on page 40.

In the Current tab, data on a current session is continuously updated to provide information on what happened during the last minute. Because the displayed session information is derived from a dynamic application, it is recommended to regularly refresh the screen, either manually or automatically, to ensure that the information displayed is up-to-date.



The Current tab displays information on the last minute of activity. For example, if you have worked at your screen for ten minutes and then refresh the information displayed on your screen, you will be able to view new information that occurred during the last minute of activity. Similarly, any items that were previously displayed, but have had no activity in the very last minute (rather than the 10 minutes since the last refresh) will not be displayed again, and so will disappear from the screen.

You can set the display to automatically refresh every few minutes; refresh can either be enabled or disabled from the Settings dialog box. If it is enabled, the display will be refreshed every <n> minutes, where <n> is the number specified in the Settings dialog box.

See "About configuring general settings" on page 27, "How most tabs are structured" on page 22, and "About the Dashboard tab" on page 43.

How the Current tab is structured

The Current tab displays information on a selected entity and its associated entities. For example, if the selected entity is a Session, its associated entities are Statements. The selected entity is always reflected in the Tab heading, which serves as a point of orientation. The highest-level entity you can view information for in the Current tab is an Instance. You can view another instance by selecting it from the Instance list. When you open the Current tab from any tab, it always displays information on the instance level, even if the currently selected entity is not an instance.

About the Main area in the Current tab

The Main area shows comprehensive information on the selected entity. You can choose from several views to examine the entity from different angles. For example, if you are analyzing a session entity, you can focus exclusively on the data displayed in the overview, such as, In Oracle data (default), or choose to view the text for the current statement being run by the session.

About the Association area in the Current tab

The Association area provides corresponding information on the entities associated with the selected entity (displayed in the Main area). For example, you can associate with the Active Sessions related to the selected instance. The selection you make is reflected in the Association area only; the Main area remains unchanged. For some entities, tabs above the Association area enable you to view additional information. For example, the tabs displayed for a session entity are: General, In Oracle, and Connection. Clicking a tab displays different table columns with the same type of associated entities.

From the Association area, you can also drill down to another entity by clicking a table row. A drill down affects the entire tab. When you drill down to another entity, the Tab heading displays the new selection, the Main area displays information on the newly selected entity, and the Association area displays the entities associated with the selected entity.

For example, when you want to view information on a specific active session, from the Association controls, click Active Sessions. The Association area changes to display session-related information. Note that the Tab heading and the Main area remain unchanged.

If you want detailed information on an active session, in the Association area, click the row of the session that you want to view detailed information for. The Tab heading indicates the newly selected entity; the Main area displays In Oracle information on the session you drilled down to, and the Association area shows information on the statements associated with this session. See "About Precise for Oracle tabs" on page 21 and "About the Dashboard tab" on page 43.

About examining entities in the Current tab

The Current tab displays information on different entities. This section provides an overview of all entities, their meaning, and their views.

The following entities can be examined in the Current tab:

- Instance
- Session
- Statement

About the Instance entity

The Instance entity shows a summary of all sessions connected to Oracle during the last minute.

Getting an overview of current Instance activities

The Instance Overview displays information on the activity of the instance in the Main area. The following table describes the information displayed in the Instance Overview.

Table 1 Instance Overview

Item	Description
Sessions	Displays information on the following items: • Connected. Number of sessions that were connected to the Oracle instance during the last minute. • Active. Number of sessions that were connected to the Oracle instance during the last minute and spent time executing In Oracle. • Locked. Number of locked sessions. • Sessions via Dedicated Server. Number of sessions that were connected to the Oracle instance using an Oracle dedicated server process (or shadow process) during the last minute. • Sessions via Shared Server. Number of sessions that were connected to the Oracle instance using an Oracle multi-threaded server process (MTS) during the last minute. • Active Sessions In Oracle. Average In Oracle time of active sessions during the last minute. Equals the total In Oracle time divided by the number of active sessions. The format is: hh:mm:ss.s
Parallelism	Displays information on the following items: • Idle Parallel Servers. Number of PQ servers that have not been used in the last minute. • Active Parallel Servers. Number of PQ servers that have been used in the last minute.
In Oracle (Last Minute)	Displays information on the following items: • Sub-State. In Oracle sub-state. • Bar graph. Graphical representation of the Time column. • Time. Amount of time that sessions were in this state. • %. Percentage of time that sessions were in this state. • Sessions. Number of sessions in each state. A session may be in more than one state during one minute. See "In Oracle" on page 36.
Overall Activity (Last Minute)	A pie chart illustrating the overall activity of all sessions during the last minute. See "Overall activity" on page 35.
Work Types (Last Minute)	If the chosen instance has ERP support installed, this tab also displays a pie chart of work types.

About associating an Instance with other entities

You can associate an Instance, in the Main area of the Current tab, with the following entities in the Association area:

- **Current Sessions.** A list of all sessions that were connected during the last minute.
- **Active Sessions.** A list of all sessions that were connected and spent some time executing In Oracle during the minute.

These lists of sessions are each divided into different sets of information, showing different aspects of the sessions. Each set is accessed by a tab.

The following table describes the information shown on Instance Association tabs.

Table 2 Instance Association tabs

Tab	Columns
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General	Displays the following table columns: • Icon. Indicates the current sub-state. • Icon. Enables the Kill Session process. • Program. Name of the program connected to Oracle. • Session ID. Session ID or number. • Oracle Process ID. OS-assigned process ID of the Oracle server process. • Serial #. Oracle serial number, which, along with the session ID, uniquely identifies a session. • In Oracle. Bar chart showing the In Oracle breakdown for the session. • Sub-State. Snapshot of the current In Oracle wait sub-state. • Wait Event. Snapshot of the current Oracle wait event. • Tune icon. Allows launching the SQL tab in the context of the current statement. • Text. Portion of any SQL statement that is actually being executed at the time of the refresh; otherwise, it is blank. See "In Oracle" on page 36.
In Oracle	Displays the following table columns: • Icon. Indicates the current sub-state. • Session ID. Session ID or number. • Oracle Process ID. OS-assigned process ID of the Oracle server process. • In Oracle. Bar chart showing the Oracle breakdown for the session. • Using CPU. In Oracle wait state. • I/O wait. In Oracle wait state. • Application Lock wait. In Oracle wait state. • Commit & Checkpoint wait. In Oracle wait state. • Communication wait. In Oracle wait state. • Internal Lock wait. In Oracle wait state. • Oracle Server wait. In Oracle wait state. • Operating System wait. In Oracle wait state. • RAC/OPS/Other wait. In Oracle wait state. See "In Oracle" on page 36.
Connection	Displays the following table columns: • Icon. Indicates the current sub-state. • Session ID. Session ID or number. • Oracle Process ID. The ID of the Oracle server process. This ID is assigned by the operating system. • Oracle Process Type. Any of the following: ◦ Dedicated: Indicates a multi-threaded server ◦ Shared: Indicates a server that is not multi-threaded ◦ Parallel: Indicates that the session is a sub-session of another session • Connect Time. The date and time that the session got connected to Oracle. • Work Type. Group of Oracle activities. Only relevant when an Interpoint is installed. See "About the Dashboard tab" on page 43. • ERP. Indicates the kind of Interpoint that is used. Can be OA (Oracle Applications), SAP, PS (PeopleSoft), or SBL (Siebel). If no Interpoint is installed, N/A is displayed. • Host User. The name of the host user. The information in this column is derived from Oracle's v\$session table. • User. The name of the user. The information in this column is derived from Oracle's v\$session table. • Program. The name of the program. The information in this column is derived from Oracle's v\$session table. • Machine. The name of the machine. The information in this column is derived from Oracle's v\$session table. • Module. The name of the module. The information in this column is derived from Oracle's v\$session table. • Action. The name of the action. The information in this column is derived from Oracle's v\$session table. • Terminal. The terminal name of the operating system. The information in this column is derived from Oracle's v\$session table. • Status. Status of the session. See "In Oracle" on page 36.



Precise for Oracle retrieves the displayed information from Oracle's V\$SESSION table. If this table does not contain relevant data for a specific cell in the Association table, this cell is not populated with data.

By clicking a row in the Association table, you can drill down to the specific session. See "About the Session entity" on page 56.

About the Kill Session process

The Kill Session process is executed by the Kill Session button. This button enables you to kill the selected session. You can instruct Oracle to execute this command immediately (using the Oracle Alter System Kill Session Immediate command) or during the time of less activity (using the Oracle Alter System Kill Session command).

To perform the Kill Session during the time of less activity

1. On the general tab of the Instance Association, select the session that needs to be killed.
2. Click **Kill Session**.
3. In the dialog, insert the Oracle DBA user name and password.

4. Click **OK**.

To perform the Kill Session immediately

1. On the general tab of the Instance Association, select the session that needs to be killed.
2. Click **Kill Session**.
3. In the dialog, insert the Oracle DBA user name and password.
4. Mark **Kill immediately**.
5. Click **OK**.

About the Session entity

The Session entity displays information on a single connection with Oracle.

About the overview of current and active sessions

The Session Overview displays general information on the session.

The following table describes the information displayed in a Session Overview.

Table 3 Session Overview

View area	Description
Session	Displays information for the following items: • Serial #. Oracle serial number, which, along with the session ID, uniquely identifies a session. • Connected Time. Time that the session connected to Oracle. • Duration. Duration of the session since it connected. • Sampling Start Time. Time that the Collector started sampling this session. • Sampling Duration. Duration that the Collector has sampled this session. • Oracle Process ID. Process ID of the Oracle server or shadow process. • Client Process ID. Process ID of the client or application process, if it is running on the same server as the instance; otherwise, it is zero. • Oracle Process Type. Type of Oracle server process: Dedicated or MTS. See "In Oracle" on page 36.
Connection	Displays information for the following items: • Program. Name of the program connected to Oracle. • Module. Current Oracle module, if Oracle Modules and Actions are used. • User. Name of the Oracle user. • Host User. Name of the OS user connected to Oracle. • Machine. Name of the machine connected to Oracle. • Terminal. Name of the terminal connected to Oracle. • Sub-State. Snapshot of the In Oracle wait state. • Wait Event. Snapshot of the Oracle wait event. This is equivalent to the EVENT column in the V\$SESSION_WAIT table. • Open + Fetches. The number of times that the Collector encountered the session either opening or fetching from a cursor. See "Executions vs. opens and fetches" on page 39.
In Oracle (Last Minute)	Displays information for the following items: • Sub-StateIn. Oracle sub-state. • Bar graph. Graphical representation of the Time column. • Time. Amount of time the session was in this state. • %. Percentage of time the session was in this state.

About the text of a current or active session

The Text view displays the SQL text for the statement that the session is currently executing, if any.

About associating a session with other entities

You can associate a Session, in the Main area of the Current tab, to different entities in the Association area. The information displayed is divided into different sets that show different aspects of the entity. Each set is accessed by a tab.

The following table describes the entities that are available in the Association area.

Table 4 Association area entities

Entity	Description
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Statements	Displays a list of statements run by the session during the last minute.
Sessions Involved in Lock	Displays a list of other sessions locking or locked by this session during the last minute. Three of the tabs displayed here are the same as those displayed for a regular session. In addition, the Lock tab displays locking information that is equivalent to the information displayed in Oracle's V\$SESSION_WAIT table (For more information, see the Oracle documentation).
Parallel Query Server Sessions	Displays Parallel Query Coordinator or Parallel Query Slave sessions associated with this session during the last minute. The tabs displayed here are the same as those displayed for a regular session. See "About associating an Instance with other entities" on page 53.



If you drill down to a Parallel Query Server process, the Main area displays information on this session. You can then identify the Parallel Query Coordinator Session using the Association controls.

The following table explains the information that is displayed on the tabs in the Association area, when the Statements entity is selected.

Table 5 Statements Association area table

Tab	Columns
Statement	Displays the following table columns: • Statement. Unique identifier assigned by the Collector to the SQL statement. • Hash Value. Value assigned to the statement by Oracle. • In Oracle. Bar graph showing the In Oracle breakdown. • Tune icon. Allows launching the SQL tab in the context of the current statement. Clicking elsewhere in the row drills down to the statement in Current tab. • Text. Portion of the SQL text for the statement. Note that if the cursor is moved over the text, then a tool-tip appears containing the full text of the statement. See "Statement identifier vs. Oracle hash value" on page 39. See "In Oracle" on page 36.
In Oracle	Displays the following table columns: • Statement. Unique identifier assigned by the Collector to the SQL statement. • In Oracle. Bar chart showing the In Oracle breakdown for the session. • Using CPU. In Oracle wait state. • I/O wait. In Oracle wait state. • Application Lock wait. In Oracle wait state. • Commit & Checkpoint wait. In Oracle wait state. • Communication wait. In Oracle wait state. • Internal Lock wait. In Oracle wait state. • Oracle Server wait. In Oracle wait state. • Operating System wait. In Oracle wait state. • RAC/OPS/Other wait. In Oracle wait state. See "Statement identifier vs. Oracle hash value" on page 39. See "In Oracle" on page 36.
Statistics	Displays the change in Oracle statistics for the statements in the last minute. See "Oracle statistics usage within Precise for Oracle" on page 40.

The following table explains the information that is displayed on the Lock tab in the Association area, when the Sessions Involved in Lock entity is selected.

Table 6 Lock tab information

Column	Description
Program	Name of the program connected to Oracle.
Session ID	ID of the session.
In Oracle (Last Minute)	Bar chart showing the In Oracle breakdown for the session.
Status	Indicates whether the session is waiting for or holding the lock.
type	Transaction type: TX, TM, and so on. This information is derived from the P1 parameter in the V\$SESSION_WAIT table.
Mode	Transaction mode: Exclusive, Shared, and so on. This information is derived from the P1 parameter in the V\$SESSION_WAIT table.
ID1	This information is equivalent to P2 parameter in the V\$SESSION_WAIT table.
ID2	This information is equivalent to P3 parameter in the V\$SESSION_WAIT table.

Object	Locked object, if appropriate.
Text	Portion of SQL text for the session being locked.

About the Statement entity

The Statement entity, in the Current tab, displays information on a single SQL statement that has been run by a session in the last minute or is still running. You cannot associate a statement with any other entity. This implies that if the Main area displays information on a statement, the Association area remains blank. See "About Precise for Oracle tabs" on page 21. Getting an overview of current Statement entities

The Statement Overview displays general information on a single SQL statement. The following table describes the information displayed in a Statement Overview.

Table 7 Statement Overview

View area	Description
Statement	Displays information on the following items: • Hash Value. Oracle hash value. • In Oracle (Sum.). Total time spent In Oracle. • Opens + Fetches. Number of times sessions opened and fetched from a cursor for this statement.
In Oracle (Last Minute)	• Sub-State. In Oracle sub-state. • Bar graph. Graphical representation of the Time column. • Time. Amount of time sessions were in this state. • %. Percentage of time that sessions were in this state. • Sessions. Number of sessions in each state. Note a session may be in more than one state during a minute.
Overall Activity (Last Minute)	A pie chart illustrating the overall activity of the statement during the last minute. See "Overall activity" on page 35.
Text	The SQL text of the statement.

About the text of a statement

The Text view displays the SQL text of the statement.

About statement-related statistics changes

The Statistics view displays a list of the changes that occurred in the Oracle statistics for the statement during the last minute. See "Oracle statistics usage within Precise for Oracle" on page 40.

The following table describes the information displayed in the Statement Statistics view.

Table 8 Statement Statistics view

Column	Description
Statistic	Oracle statistic name
Value	Statistic value

How the Current tab can help you identify performance problems

You can identify a performance problem by doing one or more of the following:

- [Examining resource consumption of an entire instance](#)
- [Examining a single connection](#)
- [Resolving a locking situation](#)

Examining resource consumption of an entire instance

The Current tab displays near real-time information on all sessions that were connected to your Oracle database during the last minute. Usually you will use this tab to monitor the system's current activities and resource consumption, and to identify performance problems, such as sessions involved in locks as they occur.

The following example shows how to examine resource consumption of an instance. By examining the current activity at an instance level of display, you can see how it is currently behaving and determine if there is an overall problem that affects all sessions or if there is a problem with specific sessions. For this example, the Main area of the Current tab shows the top two sub-states (in the Sub-State column) for the instance's In Oracle time as Using CPU and Redo Log Buffer Wait.

To examine resource consumption of an entire instance

1. In the Instance list, choose the instance you want to analyze.
Do one of the following:
 - On the View controls in the Main area, click **Overview**. This will show you a breakdown of resource consumption for the last minute.
 - On the View controls, click **Statistics** to analyze the current statistics of the selected instance.
2. In the Main area, check for any unproductive wait states. In our example, the sessions on average (in the % column) are spending roughly a third of their time (34.91%) waiting on the redo log buffer.
3. To further investigate, launch the Statistics tab. View the Statistics tab to look for system events that relate to the redo log buffer. Launch to the Statistics tab, in context, to view additional statistical information for any selected instance.
4. In the Association area, move the cursor over the In Oracle bar in the list of Active Sessions to display a ToolTip that shows which sessions are spending the majority of their time waiting on Redo Log Buffer Wait.
5. Check how much time is spent using CPU. If all other wait states have been eliminated, obviously this will be 100%; therefore, it is important to look at the actual time (in hh:mm:ss), in the Main area, as well as the percentage value. High CPU usage can indicate excessive logical I/O operations.
6. To further investigate, open the Activity tab. Try tuning any SQL with a high Using CPU time and high values for the statistics consistent gets and db block gets.

Examining a single connection

You can also monitor current connections to your Oracle instance, check the state of each connection, and identify the resources currently utilized by each session.

The following example shows how to examine a single connection. For this example, the Association area of the Current tab displays the sub-state Using CPU in the Active Sessions list. To examine a single connection

1. In the Instance list, choose the instance you want to analyze.
2. In the Association area, drill down to the session whose connection you want to analyze. For an example, click the top session ID 10 (in the Session ID column), in the Active Sessions list, for the sub-state Using CPU. In this example, we see all the statements that the selected Session entity has executed in the last minute, or is possibly still executing. The top statement is mainly using CPU and waiting for I/O.
3. Continue your analysis by examining its resource breakdown. To further investigate, in the Association area, click the Tune icon in the row of the top statement. Clicking the Tune icon opens the SQL tab for tuning this statement.

Resolving a locking situation

You can view any sessions that are locked in the Current tab. Then you can fully investigate the situation to determine the type of lock and which session is holding the lock.

In the Main area, the following example shows three sessions (shown in the Sessions column) that have waited for a row lock over the last minute. The time waited (shown in the Time column) is 1 minute 57 seconds or 100% of the total In Oracle time for the instance.

In the Association area, three active sessions are in the state of a row lock wait. For our example, Session 117 (the top locked session shown in the Association area) is attempting to execute and UPDATE on the CUSTOMER table (shown in the Program column).

To resolve a locking situation

1. In the Instance list, choose the instance you want to analyze.
2. On the Association controls, in the Association area, you can associate Session 117 with the other Sessions involved in the lock. For an example, Session ID124 is holding the lock in Exclusive mode.
3. Using the Association controls, you can now drill down to see the statements being executed by the session that is holding the lock (Session ID 124).

For our example, in the Main area, you can see that the holding session (for Duration) has not run any statements in the last 15-minute time slice, meaning that the UPDATE to the CUSTOMER table (for Program) was executed earlier but that the session has not yet issued a COMMIT to release the row lock.