Oracle® Enterprise Manager

System Monitoring Plug-in for Oracle TimesTen In-Memory Database Installation Guide

Release 2.2

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The System Monitoring Plug-In for TimesTen IMDB extends Oracle Enterprise Manager Grid Control to add support for monitoring TimesTen databases.

The installation guide contains information to review before installing the System Monitoring Plug-In for TimesTen IMDB:

- Release support
- Installation prerequisites
- Setting credentials in Oracle Enterprise Manager
- Granting the Logon as a batch job privilege on Windows

The installation guide also contains the procedures necessary to install the plug-in, view data about your target instance (your database), and to uninstall the plug-in:

- Installing the System Monitoring Plug-in for TimesTen
- Viewing performance metrics for your TimesTen database
- Viewing reports for your TimesTen database
- Uninstalling the System Monitoring Plug-in for TimesTen

You can also find information about the location of Oracle TimesTen In-Memory Database documentation.

Release support

The System Monitoring Plug-in for Oracle TimesTen In-Memory Database release 2.2 supports the metrics in TimesTen release 11.2.2 and TimesTen release 11.2.1.5.0 or later. If you use release 2.2 of the plug-in with TimesTen release 11.2.1, metrics added to TimesTen release 11.2.2 may be zero or blank because these metrics are not supported in TimesTen release 11.2.1.

The plug-in also supports Oracle Enterprise Manager Agent:

- Release 11.1.0.1
- Release 10.2.0.5
- Release 10.2.0.4
- Release 10.2.0.3
- Release 10.2.0.2
- Release 10.2.0.1

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Installation prerequisites

Before installing the System Monitoring Plug-In for TimesTen:

- Install the Oracle Enterprise Manager Agent. Make sure the agent can successfully communicate with your Oracle Enterprise Manager Server and can upload data. For example, `Agent Availability` must be `UP`, `Last Load Time` should show a recent date/timestamp, and `Last Load Time` should get periodically updated.
- Install Oracle TimesTen In-Memory Database Release 11.2.1.5.0 or later.

> **Note:** The Oracle Enterprise Manager Agent must reside on the same machine as TimesTen.

When you install the System Monitoring Plug-In for TimesTen, you need to know:

- The name of your TimesTen instance
- The DSN
- The TimesTen username and password
  - The username and password are required when you configure the target instance. The target instance is defined as the instantiation of the System Monitoring Plug-In for TimesTen, monitoring a specific DSN.
  - The Oracle Enterprise Manager Agent Operating System User and the TimesTen Operating System User can be different as long as both users belongs to the TimesTen users group. For information on TimesTen users group, refer to the *Oracle TimesTen In-Memory Database Installation Guide.*

> **Note:** Be sure the TimesTen database specified by the instance and DSN is loaded.

For information on your TimesTen instance, run the `ttStatus` or `ttVersion` utility.

Setting credentials in Oracle Enterprise Manager

You need to set credentials in Oracle Enterprise Manager for the user that the agent runs as. You can either set default credentials (credentials are the same for all agents) or you can set different credentials for each agent (target credentials). Target credentials override default credentials.

To set credentials:

1. Choose **Preferences** located in the top right of the Oracle Enterprise Manager home page.
2. Choose **Preferred Credentials** located in the top left of Preferences.
3. Click the icon in the **Set Credentials** column in the row for the agent.

   You see the Agent Preferred Credentials page. You are ready to enter default and target credentials by entering the operating system username and password for the agent.

4. In the **Host UserName** column, type the username.
5. In the **Host Password** column, type the password.
6. Click **Apply**.

Granting the Logon as a batch job privilege on Windows

You need to set credentials for agents by setting the host username and host password in Oracle Enterprise Manager Grid Control. On Windows, you need to grant to the host username the `Logon as a batch job` privilege.

For more information on setting credentials, see "Setting credentials in Oracle Enterprise Manager" on page 2.

To grant the Logon as a batch privilege on Windows

1. Set your control panel to `classic view`.
2. From the desktop, select the **Start** menu, then select **Control Panel**, then select **Administrative Tools**.
3. Double click **Local Security Policy**.
4. Choose **Local Policies**.
5. Choose **User Rights Assignment**.
6. Double click **log on as a batch job**.

   The log on as a batch job Properties dialog appears.
7. Click **Add User or Group**.

   The Select Users or Group dialog appears. You are ready to enter the host username.
8. In **Enter the Object Names to Select**, type the host username.
9. Click **OK**.
10. Click **OK** on **log on as a batch job Properties** dialog.

Installing the System Monitoring Plug-in for TimesTen

To install the System Monitoring Plug-in for TimesTen:

- Import the plug-in
- Deploy the plug-in
- Create a target instance of the plug-in on the agent

To import the System Monitoring Plug-in for TimesTen

To begin the import process, you must first download the System Monitoring Plug-In for TimesTen from the Oracle Technology Network (OTN) and save the plug-in file (`TimesTen_plugin.jar`) to the machine where your browser is running.

Note: You can import both the TimesTen Plug-in 2.2 and the TimesTen Plug-in 2.1. However, you should not deploy both plug-ins to the same agent.

1. Download the System Monitoring Plug-In for TimesTen and save the file.

   You can now log in to the Oracle Enterprise Manager Grid Control from your browser.

2. Log in to the Oracle Enterprise Manager Grid Control.

   You see the Oracle Enterprise Manager Grid Control Login page.

3. In the **Username and Password** columns, type the username and password of the Super Administrator.

4. Press **Return** or click **Login**.

   You see the Oracle Enterprise Manager Grid Control home page.

5. Choose **Setup** located in the upper right corner of the Oracle Enterprise Manager Grid Control home page.

   The Oracle Enterprise Manager Setup page appears.

6. Choose **Management Plug-ins** located to the left of the page in the Overview of Setup panel section.

   The Management Plug-ins page appears.

7. Choose **Import** located in the middle of the Management Plug-ins page.

   The Import Management Plug-ins page appears.

8. Click **Browse** to locate the TimesTen_Plugin archive file.

   The TimesTen_Plugin archive file is the `.jar` file you downloaded.

9. Select the file.

   You see the path and filename of your TimesTen plug-in jar file in the text field named Management Plug-in Archive.

10. Click **List Archive**.

    The Management Plug-ins for Archive: TimesTen_Plugin.jar table appears at the bottom of the Import Management Plug-ins page. You see `timesten_imdb2` in the name column. You see a Select box in the Select column to the left of `timesten_imdb2`.

11. Click in the **Select** box located to the left of `timesten_imdb2`.

    You see a checkmark in the Select box.

    You are ready to Import the TimesTen Management Plug-in. Locate the OK button in the bottom right corner of the Management Plug-ins for Archive: TimesTen_Plugin.jar table.

12. Click **OK**.

    The process of importing the TimesTen Plug-in begins.

    The Setup page appears. You see the informational message: "One Management Plug-in has been successfully imported."

You are now ready to deploy the TimesTen Plug-in to one or more agents.

To deploy the System Monitoring Plug-In for TimesTen

You must deploy the System Monitoring Plug-In for TimesTen to one or more agents. After you successfully deploy the plug-in, the agent knows the plug-in exists. You then configure your TimesTen database as one of the targets for the agent and the agent begins the process of monitoring your target.

To deploy the plug-in, make sure you are on the Oracle Enterprise Manager Setup page.

In the bottom half of the page, you see the table describing information about the plug-in. You see column names Select, Name, Version, Deployed Agents, Description, Deployment Requirements, Deploy, Undeploy. In the Name column, you see `timesten_imdb2`. In the column Deployed Agents, you see 0 (if you have not previously deployed one or more agents). In the Description column, you see Management Plug-in for Oracle TimesTen In-Memory Database. In the Select column, you see a square box.

1. Click in the **Select** box located to the left of `timesten_imdb2`.

   You see a checkmark in the Select box. In the row for the Oracle TimesTen In-Memory Database Plug-in, you see the deploy icon in the Deploy column. The icon is in the same row as the plug-in.

2. Click the **deploy** icon in the Deploy column in the row for the Oracle TimesTen In-Memory Database Plug-in.

   The Deploy Management Plug-in: Select Targets page appears.

3. Click **Add Agents**.

   A dialog appears. You can now search for the known agents.

4. Click **Go**.

   You see a selection list of agents.

5. Click in the **Select box** for each agent you wish to deploy the plug-in to.

   You see a checkmark in the Select box for each agent you selected. You see the Select button to the right of the selection menu.

6. Click **Select**.

   You see the name of the deployment agent or agents. Locate the Next button to the right of text 'Step 1 of 3.'

7. Click **Next**.

   You see the Deploy Management Plug-in: Review page. This page briefly describes the deployment process. Locate the Finish button to the right of text 'Step 3 of 3.'

8. Click **Finish**.

   The Deploying Management Plug-in window appears. You see 'partially deployed.' Wait until this window is refreshed.

   The Setup page appears. You see the informational message: "Deploy operation completed."

   You see the number of agents deployed in the Deployed Agents column in the row for the System Monitoring Plug-in for TimesTen.

You are now ready to create a target instance.

To create a target instance

Create a target instance of the System Monitoring Plug-in for TimesTen on one or more agents. You can create a target instance for each unique DSN.

1. Choose **Agents** on Setup.

   The Agents page appears. You see the agent table. In the Name column, you see the agents you deployed the plug-in to.

2. Click the agent name in the Name column.

   The agent name page appears. You are now ready to select the System Monitoring Plug-in for TimesTen.

3. Open select list labeled **Add** and select **TimesTen In Memory Database** 11g.

4. Click **Go**.

   You see the Add TimesTen In-Memory Database page. You are now ready to enter values for the properties.

   In the * Name column, you create your target instance name. Define the name as a meaningful identifier. (For example, *`hostname_instance_DSN`*). The name can be any string including letters, numbers, and special characters.

5. In the *** Name** column, type the target instance name.

   You are now ready to enter the TimesTen instance name. Use the `ttStatus` utility if you cannot recall the instance name.

6. In the **TimesTen instance name** column, type the name of your TimesTen instance.

   You are now ready to enter the DSN. The DSN is located in your `sys.odbc.ini` file (on Linux/UNIX platforms) or in the ODBC Data Source Administrator (on the Windows platform).

7. In the **Data Source Name** column, type the DSN.

8. In the **TimesTen user name** column, type the TimesTen username.

9. In the **TimesTen password** column, type the TimesTen password.

   You are now ready to test your connection to make sure that your target instance is deployed successfully and configured properly.

10. Click **Test Connection**.

    You see the information message: "Test Successful." If you do not see the "Test Successful" message, make sure your instance name and DSN are correct and the TimesTen database for the DSN is loaded. Also, make sure the TimesTen username and TimesTen password are correct.

11. Click **OK**.

You are now ready to view information about the target instance that you created.

Viewing performance metrics for your TimesTen database

The System Monitoring Plug-in for TimesTen collects and displays information and performance metrics for your target TimesTen database including:

- Database information
- Instance information
- Performance data
- Performance rates
- Response

The metric information is located on the Oracle Enterprise Manager All Metrics page.

To navigate to the All Metrics page

1. Choose **Targets** on the Oracle Enterprise Manager home page.

   You see the Hosts page.

2. Select the host name.

   You see the name of your host at the top of the page.

3. Choose **Targets**.

   You see your target instance name in the name column and in the same row, in the type column, you see TimesTen In-Memory Database.

4. Click the target instance name located in the name column.

   The TimesTen In-Memory Database page appears, showing information about your database. You see several menu options located at the bottom of the page.

5. Choose **All Metrics**.

   You see the Oracle Enterprise Manager metrics page, showing the target instance name at the top of the page. You see menu options for database information, instance information, performance data, performance rates, and response. You can now view this information.

To view database information

To view database information for your database, choose **Database Information** on the Oracle Enterprise Manager Metrics page.

The Database Information page appears, showing information about your database. You can either page through the metrics or you can view all metrics by selecting SHOW All N from the menu:

Database attribute	Description
RAM residence policy	Ram residence policy (always, manual, inUse).
Replication policy	Replication policy (always, manual, norestart).
Replication agent running	1 if running; 0 if not running.
Cache agent policy	Cache agent policy (always, manual).
Cache agent running	1 if running; 0 if not running.
Time of first connection to data store	Time of first connection to the database.
Size in MB of the permanent partition of the data store	Size in MB of the permanent partition of the database.

Database attribute	Description
Threshold for warning when permanent partition low in memory	Threshold at which TimesTen returns a warning and throws an SNMP trap when the permanent partition of the database is low in memory.
Size in MB of the temporary partition of the data store	Size in MB of the temporary partition of the database.
Threshold for warning when temporary partition low in memory	Threshold at which TimesTen returns a warning and throws an SNMP trap when the temporary partition of the database is low in memory.
Enables AWT propagation method to be used on Oracle tables	Database attribute is `CacheAWTMethod`. Determines whether PL/SQL execution method or SQL array execution method is used for Asynchronous Writethrough propagation to apply changes to the Oracle server. If 0, SQL array execution method is used. If 1 (the default), PL/SQL execution method is used.
Enables cache grid	If set, cache grid is enabled.
Sets the maximum message wait time	Sets the maximum message wait time.
Frequency in seconds for background checkpoint	Frequency in seconds that TimesTen performs a background checkpoint.
Amount of data in log between background checkpoints	Amount of data in megabytes that collects in log between background checkpoints.
Max rate data written to disk during checkpoint	Maximum rate data is written to disk during a checkpoint operation.
Character encoding for the connection	Character encoding for the connection. May be different than database character set.
Expected upper bound for concurrent connections	Indicates the expected upper bound on the number of concurrent connections to the database.
Controls transactional commit behavior in relation to DDL	Controls transactional commit behavior in relation to DDL. If 0, Oracle. If 1, Timesten.
Active standby pair table creation replication	Database attribute is `DDLReplicationAction`. If set to '`INCLUDE`' (the default): When a table is created, the table is automatically added to the active standby pair scheme. If set to '`EXCLUDE`' : When a table is created, the table is not automatically included in the active standby pair.

Database attribute	Description
Level of DDL replication enabled	Database attribute is `DDLReplicationLevel`. If 1, replicates `ALTER TABLE ADD` or `DROP COLUMN` to the standby database. Does not replicate `CREATE` and `DROP` operations for tables, indexes or synonyms to the standby database. If 2 (the default), replicates creating and dropping of tables, indexes and synonyms.
Identifies the character set used by the data store	Identifies the character set used by the database.
Identifies the physical data store	Identifies the physical database.
TimesTen or Oracle binding for dup occurrences of parameter	Determines whether applications use TimesTen or Oracle parameter binding for duplicate occurrences of a parameter in a SQL statement. If 0, Oracle-style binding.
Commit operations should write log records to disk	If set (=1), commit operations write log records to disk.
Enables transparent load to dynamic cache groups	If set (=1), enables transparent load of Oracle data to dynamic cache groups.
Error returned upon transparent load failure	If set (=1), error message is returned if there is a transparent load failure.
Isolation level read committed or serializable	Specifies whether the isolation level is read committed or serializable. If 1, read committed.
Row-level or data store-level locking	Specifies whether the connection uses row-level locking (value = 0) or data store-level locking (value =1).
Lock wait interval	Lock wait interval for connection.
Terminate connect if recovery encounters defective log record	Determines whether the first connection to the database should proceed if TimesTen recovery encounters a defective log record. If 1, TimesTen continues after log is truncated.
The size of the internal log buffer in MB	Size of the internal log buffer in MB.
The number of log buffer strands	Number of log buffer strands.
The directory where transaction log files are stored	The directory where transaction log files are stored.
The transaction log file size in MB	Transaction log file size in MB.
Method used to write and sync log data to transaction log files	Method used to write and sync log data to transaction log files. If 1, buffered writes are used to write data to transaction log files.
Whether unneeded transaction log files deleted during checkpoint	If 1, transaction log files are deleted during a checkpoint operation.
What type of logging should be performed for the data store	Type of logging used for the database. Only logging to disk is supported (value = 1).
Whether real memory should be locked during data store load	Specifies whether connections to a shared database should lock real memory during database loading.

Database attribute	Description
The default length semantics configuration	Default length semantics configuration. Default is byte.
Is error reported for data loss from character type conversion	Determines if error is reported when there is data loss during an implicit or explicit character type conversion between `NCHAR/NVARCHAR2` and `CHAR/VARCHAR2` data.
The collating sequence to use for linguistic comparisons	Collating sequence to use for linguistic comparisons. Default is binary.
Oracle Service Name of Oracle instance from which data is loaded	Oracle Service Name of the Oracle instance from which data is to be loaded into a TimesTen database.
Whether PL/SQL compiler generates cross-reference information	Determines if PL/SQL compiler should generate cross-reference information.
Determines whether PL/SQL is enabled	Determines if PL/SQL is enabled. (1 = enabled).
Controls conditional compilation of PL/SQL units	Controls conditional compilation of PL/SQL units.
Maximum process heap memory PL/SQL can use for this connection	Specifies the maximum amount of process heap memory in MB that PL/SQL can use for the connection.
Location of PL/SQL memory segment	Virtual address of shared memory segment that is loaded into each process that uses the TimesTen "direct" drivers.
PL/SQL memory segment size	Size in megabytes of the shared memory segment used by PL/SQL.
Optimization level used to compile PL/SQL library units	Optimization level used to compile PL/SQL library units.
Time PL/SQL procedure can run before being terminated	Number of seconds a PL/SQL procedure runs before being automatically terminated.
SQL statement pass through to Oracle mode	Specifies if SQL statements are passed through to Oracle, executed locally in TimesTen, or both.
Specifies that disk space should be preallocated when created	Specifies that disk space for the database should be preallocated when creating the database.
Determines if commands are shared between connections	Determines if commands are shared between connections.
Whether error returned if query times out before executing	Indicates whether TimesTen should write a warning to the support log and throw an SNMP trap when execution time of a SQL statement exceeds the specified value. If 0, TimesTen does not return a warning.
Whether to enable installation of TAF FAN callbacks	Specifies whether to enable or disable installation of Transparent Application Failover (TAF) and Fast Application Failover (FAB) callbacks when using Oracle Real Application Clusters (Oracle RAC) with IMDB Cache.

Database attribute	Description
Number threads used to apply changes on active master data store	Number of threads used to apply changes on the active master database to the standby master database in an active standby pair replication scheme.
The number of threads used to rebuild indexes during recovery	Number of threads used to rebuild indexes during recovery.
Parallel replication apply ordering	Database attribute is `ReplicationApplyOrdering`. If 0 (the default), specifies commit ordering parallel replication. If 1, specifies user-managed track based parallel replication.
Number of tracks available for parallel replication	Database attribute is `ReplicationParallelism`. Possible values are between 1 and 64, indicating the number of tracks to replicate in parallel. The default is 1 indicating single-threaded replication.
Query timeout threshold	Time limit in seconds that the database can execute a SQL statement before timing out.
Specifies that the data store is not saved to disk	Specifies that database is not saved to disk.
The type mode for the data store	Type mode for database. If 0, Oracle type mode; If 1, TimesTen type mode.

For more information on your database settings and attributes, run the `ttStatus` utility. For documentation on the `ttStatus` utility, refer to the *Oracle TimesTen In-Memory Database Reference.*

To view instance information

To view information about your database instance, choose **Instance Information** on the Oracle Enterprise Manager Metrics page.

The Instance Information page appears, showing information about your TimesTen instance:

Name	Description
Instance name	TimesTen instance name.
Daemon port number	Daemon port number.
TimesTen version number	5-digit release number.
Platform type	Platform type. For example, Linux/86_32.
TimesTen server running	1 if running, 0 if not running.
TimesTen server PID	TimesTen server process ID.
TimesTen server port number	Server port number.

For more information on your TimesTen instance, run the `ttStatus` utility. For documentation on the `ttStatus` utility, refer to the *Oracle TimesTen In-Memory Database Reference.*

To view performance data

To view performance data for your database, choose **Performance Data** on the Oracle Enterprise Manager Metrics page.

The Performance Data page appears, showing the name of each performance metric and the value for the metric. You can either page through the metrics or you can view all metrics by selecting SHOW All N from the menu.

For information on the `SYS.MONITOR` system table, refer to the *Oracle TimesTen In-Memory Database System Tables and Limits Reference*.

Names and values described on the Performance Data page:

Metric	Description
CACHE - Autorefresh cycles completed successfully on TimesTen	Number of autorefresh cycles completed successfully on TimesTen.
CACHE - Number of autorefresh cycles that failed due to errors	Number of autorefresh cycles that failed because of errors.
CACHE - Rows deleted in TimesTen during autorefresh from Oracle	Number of rows deleted from TimesTen during autorefresh from the Oracle database.
CACHE - Full refreshes triggered during autorefresh operations	Number of full refreshes triggered during autorefresh operations.
CACHE - Rows inserted in TimesTen during autorefresh from Oracle	Number of rows inserted into TimesTen during autorefresh from the Oracle database.
CACHE - Rows updated in TimesTen during autorefresh from Oracle	Number of rows updated in TimesTen during autorefresh from the Oracle database.
CACHE - Number of AWT transactions committed on Oracle database	Number of AWT transactions committed on the Oracle database.
CACHE - Number of calls made to Oracle database for AWT	Number of calls made to the Oracle database for AWT.
CACHE - Number of rollbacks on Oracle database because of errors	Number of rollbacks on Oracle database because of errors.
CACHE - Number of PL/SQL block batches sent to Oracle database	Number of PL/SQL block batches sent to the Oracle database. (`CacheAWTMethod` = 1).
CACHE - Number of bytes sent to Oracle database in PL/SQL mode	Number of bytes sent to the Oracle database in PL/SQL mode (`CacheAWTMethod` = 1).
CACHE - Number of rows deleted on Oracle database in PL/SQL mode	Number of rows deleted from Oracle database in PL/SQL mode (`CacheAWTMethod` = 1).
CACHE - Number of rows inserted on Oracle database - PL/SQL mode	Number of rows inserted into Oracle database in PL/SQL mode (`CacheAWTMethod` = 1).
CACHE - Number of rows updated on Oracle database in PL/SQL mode	Number of rows updated on Oracle database in PL/SQL mode (`CacheAWTMethod` = 1).
CACHE - Times AWT transactions re-tried in case of an error	Number of times AWT transactions are re-tried on Oracle database.
CACHE - Number of batches sent to Oracle database in SQL mode	Number of batches sent to the Oracle database in SQL mode (`CacheAWTMethod` = 0).

Metric	Description
CACHE - Number of bytes sent to Oracle database in SQL mode	Number of bytes sent to the Oracle database in SQL mode (`CacheAWTMethod` = 0).
CACHE - Delete batches sent to Oracle database in SQL mode	Number of delete batches sent to the Oracle database in SQL mode (`CacheAWTMethod` = 0).
CACHE - Number of rows deleted on Oracle database in SQL mode	Number of rows deleted from the Oracle database in SQL mode (`CacheAWTMethod` = 0).
CACHE - Insert batches sent to Oracle database in SQL mode	Number of insert batches sent to the Oracle database in SQL mode (`CacheAWTMethod` = 0).
CACHE - Rows inserted on Oracle database in SQL mode	Number of rows inserted into Oracle database in SQL mode (`CacheAWTMethod` = 0).
CACHE - Update batches sent to Oracle database in SQL mode	Number updated batches sent to the Oracle database in SQL mode (`CacheAWTMethod` = 0).
CACHE - Rows updated on Oracle database in SQL mode	Number of rows updated on Oracle database in SQL mode (`CacheAWTMethod` = 0).
CACHE - TimesTen transactions propagated to Oracle database	Number of TimesTen transactions propagated to the Oracle database.
CACHE - Global dynamic cachegroup cache hits	Global dynamic cache group hits: Dynamic loads that find the data in the local grid member without requiring the data to be loaded from the Oracle database or another grid member.
CACHE - Global dynamic cachegroup cache misses	Global dynamic cache group misses: Dynamic loads that do not find data initially in the local grid member (either need to go to the Oracle database or another grid member).
CACHE - Times dynamic load miss load from Oracle DB	Number of times a dynamic load miss had to load the requested data from the Oracle database.
CACHE - Bytes loaded from Oracle servicing dynamic load misses	Total number of bytes loaded from the Oracle database for servicing dynamic load misses.
CACHE - Dynamic loads where not local but remote load ok	Dynamic loads that do not find data in the local grid member and successfully load the required data from another grid member.
CACHE - Data requests because of dynamic load on remote grid mem	Number of requests for data received by this grid member from another grid member (as a result of a dynamic load on the remote grid member).
CACHE - Data requests received where the data requested is dirty	Number of requests for data received by this grid member when the data requested is dirty (and must first be propagated to the Oracle database).
CACHE - Data requests received where locked by transaction	Number of requests for data received by this grid member when the data requested was locked by a transaction on this member.
CACHE - Data requests received where data not present	Number of requests for data received by this grid member when the data requested was not found in this member.

Metric	Description
CACHE - Local dynamic cachegroup cache hits	Local dynamic cache group hits: Number of dynamic loads that find the requested data in the database.
CACHE - Local dynamic cachegroup misses	Local dynamic cache group misses: Number of dynamic loads that do not find the requested data in the database and need to load the data from the Oracle database.
CACHE - Bytes loaded from Oracle servicing dyn load miss-local	Total number of bytes loaded from the Oracle database for servicing dynamic load misses for dynamic local cache groups.
CACHE - Data loads from Oracle DB servicing dynamic load misses	Number of data loads from the Oracle database when servicing dynamic load misses for dynamic local cache groups.
CACHE - Number of bytes flushed to Oracle	Number of bytes flushed to the Oracle database.
CACHE - Number of flush cache group executes	Number of flush cache group executions.
CACHE - Number of rows flushed to Oracle	Number of rows flushed to the Oracle database.
CACHE - Number of bytes sent to Oracle for SWT cache groups ops	Number of bytes sent to the Oracle database during SWT cache group operations.
CACHE - Number of rows in SWT cache groups deleted on Oracle	Number of rows in SWT cache groups deleted from Oracle database.
CACHE - Number of rows in SWT cache groups inserted on Oracle	Number of rows in SWT cache groups inserted into Oracle database.
CACHE - Number of rows in SWT cache groups updated on Oracle	Number of rows in SWT cache groups updated on Oracle database.
CKPT - Number of bytes of checkpoint files written	Number of bytes written for checkpointing.
CKPT - Number of checkpoint bytes written during DB recovery	Number of bytes written for checkpointing during database recovery.
CKPT - Number of checkpoints completed	Number of checkpoints completed.
CKPT - Number of fuzzy checkpoints completed	Number of fuzzy checkpoints completed.
CKPT - Number of checkpoint writes	Number of checkpoint writes.
CKPT - Start time of last checkpoint begun	Start time of last checkpoint begun.
CKPT - End time of last checkpoint begun	End time of last checkpoint begun.
CKPT - Type of last checkpoint begun	Type of last checkpoint begun. For example, fuzzy.
CKPT - Status of last checkpoint begun	Status of last checkpoint begun. For instance, completed.
CKPT - Whether last checkpoint begun had an error	Whether last checkpoint begun had an error.
CKPT - Bytes written during last checkpoint	Number of bytes written during last checkpoint.
CONNECTIONS - Number of database disconnects	Cumulative number of database disconnections.

Metric	Description
CONNECTIONS - Number of database connects established	Cumulative number of database connections established.
CONNECTIONS - Number of client-server connections established	Cumulative number of client/server connections established.
CONNECTIONS - Number of direct linked DB conns established	Cumulative number of direct-linked database connections established.
CONNECTIONS - Number of first database connections established	Number of first database connections established.
CONNECTIONS - DB connects exceeding configured number of conns	Cumulative number of database connection thresholds exceeded.
CS - Number of ALTER statements executed by server	Number of `ALTER` statements executed by server.
CS - Number of CREATE statements executed by server	Number of `CREATE` statements executed by server.
CS - Number of DELETE statements executed by server	Number of `DELETE` statements executed by server.
CS - Number of DROP statements executed by server	Number of `DROP` statements executed by server.
CS - Number of INSERT statements executed by server	Number of `INSERT` statements executed by server.
CS - Number of MERGE statements executed by server	Number of `MERGE` statements executed by server.
CS - Number of SELECT statements executed by server	Number of `SELECT` statements executed by server.
CS - Number of UPDATE statements executed by server	Number of `UPDATE` statements executed by server.
CS - Number of table rows deleted by server	Number of table rows deleted by server.
CS - Number of table rows inserted by server	Number of table rows inserted by server.
CS - Number of table rows updated by server	Number of table rows updated by server.
CS - Number of transaction rollbacks by server	Number of transaction rollbacks by server.
CS - Number of transactions committed by server	Number of transactions committed by server.
CS - Number of client/server disconnects	Number of client/server disconnects.
CS - Number of client/server round trips	Number of client/server roundtrips.
CS - Number of client/server bytes received by server	Number of client/server bytes received by server.
CS - Number of client/server bytes transmitted by server	Number of client/server bytes transmitted by server.
DB - Number of rows deleted from hash indexes	Number of rows deleted from hash indexes.
DB - Number of rows inserted into hash indexes	Number of rows inserted into hash indexes.
DB - Inserts into hash indexes during DB recovery index rebuild	Number of rows inserted into hash indexes during index rebuild phase of database recovery.

Metric	Description
DB - Number of rows fetched from hash indexes	Number of rows fetched from hash indexes.
DB - Rows fetched from hash indexes during replication ops	Number of rows fetched from hash indexes during replication operations.
DB - Number of hash indexes scanned	Number of hash indexes scanned.
DB - Number of hash indexes scanned during replication ops	Number of hash indexes scanned during replication operations (such as insert, update, and delete operations on tables).
DB - Number of deletes from range indexes	Number of rows deleted from range indexes.
DB - Number of inserts into range indexes	Number of rows inserted into range indexes.
DB - Inserts into range indexes during DB recovery index rebuild	Number of rows inserted into range indexes during index rebuild phase of database recovery
DB - Number of tuples fetched from range indexes	Number of rows fetched from range indexes.
DB - Rows fetched from range indexes during replication ops	Number of rows fetched from range indexes during replication operations.
DB - Number of range indexes scanned	Number of temporary indexes scanned.
DB - Range indexes scanned during replication operations	Number of temporary indexes scanned during replication operations.
DB - Number of updates on range indexes	Number of rows updated on range indexes.
DB - Number of indexes rebuilt	Number of indexes rebuilt.
DB - Number of temporary indexes created	Number of temporary indexes created.
DB - Number of rows fetched from temporary indexes	Number of rows fetched from temporary indexes.
DB - Rows fetched from temp indexes during replication ops	Number of rows fetched from temporary indexes during replication operations.
DB - Number of temporary indexes scanned	Number of range indexes scanned.
DB - Number temp indexes scanned during replication operations	Number of range indexes scanned during replication operations (such as insert, update, and delete operations on tables).
DB - Number of merge joins done	Number of merge joins done.
DB - Number of nested loop joins done	Number of nested loop joins done.
DB - Number of sorts done	Number of sorts done.
DB - Number of full table scans	Number of full table scans.
DB - Number of table rows deleted	Number of table rows deleted.
DB - Number of table rows inserted	Number of table rows inserted.
DB - Number of table rows read	Number of table rows read.
DB - Number of table rows updated	Number of table rows updated.
DB - Number of LRU aging commits done since db loaded	Number of LRU aging commits since the data store was loaded into memory.
DB - Number of LRU aging cycles completed since db loaded	Number of LRU aging cycles completed since the data store was loaded into memory.

Metric	Description
DB - Number times LRU aging high threshold rchd since db loaded	Number of times LRU aging high threshold has been reached since the data store was loaded into memory.
DB - Number times LRU aging low threshold rchd since db loaded	Number of times LRU aging low threshold has been reached since the data store was loaded into memory.
DB - Number of rows deleted during LRU aging since db loaded	Number of rows deleted during LRU aging since the data store was loaded into memory.
DB - Rows not deleted using LRU aging because of lock contention	Number of rows that were not deleted using LRU aging because of lock contention since the data store was loaded into memory.
DB - Number of time-based aging commits done since the db loaded	Number of time-based aging commits since the data store was loaded into memory.
DB - Number time-based aging cycles completed since db loaded	Number of time-based aging cycles completed since the data store was loaded into memory.
DB - Number rows deleted during time-based aging since db loaded	Number of rows deleted during time-based aging since the data store was loaded into memory.
DB - Rows not deleted using time-based aging - lock contention	Number of rows that were not deleted using time-based aging because of lock contention since the data store was loaded into memory.
GRID - Number of grid members that have attached so far	Number of attach operations.
GRID - Number of detach operations	Number of detach operations.
LOCK - Number of deadlocks	Number of deadlocks.
LOCK - Number of lock requests denied due to timeouts	Number of lock requests denied due to timeouts.
LOCK - Number of locks acquired for DML activity	Number of locks acquired for DML activity.
LOCK - Number of locks acquired for table scans	Number of locks acquired for table scans.
LOCK - Number of locks granted immediately	Number of locks granted immediately.
LOCK - Number of locks granted that required waiting	Number of locks granted that required waiting.
LOG - Last log file number	Number of last log file.
LOG - Number of bytes inserted into the log buffer	Number of bytes inserted into the log buffer.
LOG - Number of log records inserted into the log buffer	Number of log records inserted into the log buffer.
LOG - Total waits for inserts	Number of times a thread was delayed while trying to insert a log record into the log buffer because the log buffer was full. If this value is increasing, it generally indicates that the log buffer is too small.
LOG - Earliest log file currently	Earliest log file that currently exists in the database.
LOG - Most recent log file present	Most recent log file present.

Metric	Description
LOG - Number of file system reads	Number of file system reads.
LOG - Number of file system writes	Number of file system writes.
LOG - Number of log files generated so far	Number of log files generated so far.
LOG - Number of times the log is synched to disk	Number of times the log has been synchronized to disk.
LOG - Bytes read from log for commits	Number of bytes read from the log for commit processing.
LOG - File system reads for commits	Number of file system reads from the log for commit processing.
LOG - Number of bytes of log read during DB recovery	Number of log bytes read during database recovery.
MEMORY - MB of permanent space in use	Size of permanent partition currently in use.
MEMORY - Highest amount of permanent partition in use - MB	Highest amount of permanent data partition memory in use since the first connection to the database.
MEMORY - Percent of permanent space in use	Percent of the permanent partition space currently being used.
MEMORY - MB of temporary space in use	Size of temporary partition currently in use.
MEMORY - Highest amount of temporary partition in use - MB	Highest amount of temporary data partition memory in use since the first connection to the database.
MEMORY - Percent of temporary space in use	Percent of the temporary partition space currently being used.
PLSQL - Number of times lock requested for a PL/SQL object	Number of times a lock was requested for a PL/SQL object.
PLSQL - Number of times PL/SQL object's handle found in memory	Number of times a PL/SQL object's handle was found in memory.
PLSQL - Ratio of ttplsql_GetHits to ttplsql_Gets	Ratio of GetHits to Gets.
PLSQL - Number of times a PIN was requested for PL/SQL objects	Number of times a PIN was requested for PL/SQL objects.
PLSQL - Times all metadata pieces of library obj found in mem	Number of times all of the metadata pieces of the library object were found in memory.
PLSQL - Ratio of ttplsql_PinHits to ttplsql_Pins	Ratio of PinHits to Pins.
PLSQL - PINs of objs not 1st performed since obj handle created	Any PIN of an object that is not the first PIN performed since the object handle was created and which requires loading the object from the database.
PLSQL - Times objs marked invalid because dependent obj modified	Total number of times objects in the namespace were marked invalid because a dependent object was modified.
PLSQL - Total heap (MB) allocated to PL/SQL on this DB conn	Total amount of heap memory in Megabytes allocated to PL/SQL for the database connection.
PLSQL - Total number of times a deferred cleanup occurred	Number of times a deferred cleanup occurred.

Metric	Description
REP - Number of xacts replicated from this database	Number of replicated transactions generated on the local database that are being replicated to at least one peer database.
REP - Last log file number held by replication	Number of last log file held by replication.
STMT - Number of statement prepares	Number of statement prepares.
STMT - Number of cmd cache misses during statement prepare	Number of command cache misses during statement prepare.
STMT - Number of ALTER statements executed	Number of `ALTER` statements executed.
STMT - Total number of SQL statements executed	Number of SQL statements executed.
STMT - Number of CREATE statements executed	Number of `CREATE` statements executed.
STMT - Number of DELETE statements executed	Number of `DELETE` statements executed.
STMT - Number of DROP statements executed	Number of `DROP` statements executed.
STMT - Number of INSERT statements executed	Number of `INSERT` statements executed.
STMT - Number of MERGE statements executed	Number of `MERGE` statements executed.
STMT - Number of SELECT statements executed	Number of `SELECT` statements executed.
STMT - Number of UPDATE statements executed	Number of `UPDATE` statements executed.
STMT - Number of statement reprepares (forced or automatic)	Number of statement reprepares including forced and automatic.
STMT - Number of automatic statement reprepares	Number of automatic statement reprepares.
WORKLOAD - Total number of connections	Sum of all current active connections on the TimesTen database.
WORKLOAD - System connections	The sum of the current active sub-daemon, replication agent, and cache connect agent connections.
WORKLOAD - Client/Server connections	The number of current active client/server connections on the TimesTen database.
WORKLOAD - Direct linked connections	The number of current direct-linked connections on the database.
WORKLOAD - Number of commands prepared	Number of commands prepared (compiled).
WORKLOAD - Number of commands reprepared	Number of commands reprepared.
WORKLOAD - Number of cursor opens	Number of cursor opens.
WORKLOAD - Number of cursors closed	Number of cursor closed.
WORKLOAD - tpl fetches	Number of transparent loads in waiting.
WORKLOAD - tpl execs	Number of transparent loads executed.

Metric	Description
WORKLOAD - cache hits	Number of hits inside cache.
WORKLOAD - passthrough count	Number of passthrough operations executed.
WORKLOAD - most commonly executed SQL statement	Most commonly executed SQL statement.
WORKLOAD - 2nd most commonly executed SQL statement	2nd most commonly executed SQL statement.
WORKLOAD - 3rd most commonly executed SQL statement	3rd most commonly executed SQL statement.
WORKLOAD - 4th most commonly executed SQL statement	4th most commonly executed SQL statement.
WORKLOAD - 5th most commonly executed SQL statement	5th most commonly executed SQL statement.
WORKLOAD - 6th most commonly executed SQL statement	6th most commonly executed SQL statement.
WORKLOAD - 7th most commonly executed SQL statement	7th most commonly executed SQL statement.
WORKLOAD - 8th most commonly executed SQL statement	8th most commonly executed SQL statement.
WORKLOAD - 9th most commonly executed SQL statement	9th most commonly executed SQL statement.
WORKLOAD - 10th most commonly executed SQL statement	10th most commonly executed SQL statement.
WORKLOAD - most commonly prepared SQL statement	Most commonly prepared SQL statement.
WORKLOAD - 2nd most commonly prepared SQL statement	2nd most commonly prepared SQL statement.
WORKLOAD - 3rd most commonly prepared SQL statement	3rd most commonly prepared SQL statement.
WORKLOAD - 4th most commonly prepared SQL statement	4th most commonly prepared SQL statement.
WORKLOAD - 5th most commonly prepared SQL statement	5th most commonly prepared SQL statement.
WORKLOAD - most commonly reprepared SQL statement	Most commonly reprepared SQL statement.
WORKLOAD - 2nd most commonly reprepared SQL statement	2nd most commonly reprepared SQL statement.
WORKLOAD - 3rd most commonly reprepared SQL statement	3rd most commonly reprepared SQL statement.
WORKLOAD - 4th most commonly reprepared SQL statement	4th most commonly reprepared SQL statement.
WORKLOAD - 5th most commonly reprepared SQL statement	5th most commonly reprepared SQL statement.
XACT - Number of transactions committed	Number of durable and non-durable transaction committed.
XACT - Number of durable transaction commits	Number of durable transaction commits.

Metric	Description
XACT - Number of replication initiated transaction commits	Number of replication initiated transaction commits.
XACT - Number of XLA initiated transaction commits	Number of XLA initiated transaction commits.
XACT - Number of nondurable transaction commits	Number of nondurable transaction commits.
XACT - Number of durable replicated transaction commits	Number of durable replicated transaction commits.
XACT - Number of nondurable replicated transaction commits	Number of nondurable replicated transaction commits.
XACT - Number of transaction rollbacks	Number of transaction rollbacks.

To view performance rates

To view performance rates for your database, choose **Performance Rates** on the Oracle Enterprise Manager Metrics page.

The Performance Rates page appears, showing the name of each performance metric and the value for the metric. You can either page through the metrics or you can view all metrics by selecting SHOW All N from the menu.

Performance rates are expressed as a rate (for example, X times per minute). These rates are considered instantaneous rates because the value is the rate in the past minute or the per-minute rate (if you have changed the most recent collection interval to a value other than one minute).

Names and values described on the Performance Rates page:

Metric	Description
CACHE - Transactions propagated to Oracle per sec	Transactions propagated to the Oracle database per second.
CACHE - Transactions committed on Oracle per sec	Transactions committed on the Oracle database per second.
CACHE - Rows per batch in SQL mode	Rows per batch in SQL mode.
CACHE - Rows per batch in PLSQL mode	Rows per batch in PL/SQL mode.
CACHE - Total AWT MB per sec	Megabytes per second sent to the Oracle database.
CS - SELECT statements executed by server per sec	Number of `SELECT` statements executed by server per second.
CS - Table rows deleted by server per sec	Number of table rows deleted by server per second.
CS - Table rows inserted by server per sec	Number of table rows inserted by server per second.
CS - Table rows updated by server per sec	Number of table rows updated by server per second.
CS - Transaction rollbacks by server per sec	Number of transaction rollbacks by server per second.
CS - Transactions committed by server per sec	Number of transactions committed by server per second.

Metric	Description
CS - Client/server round trips per sec	Number of client/server roundtrips per second.
CS - Client/server bytes received by server per sec	Number of client/server bytes received by server per second.
CS - Client/server bytes transmitted by server per sec	Number of client/server bytes transmitted by server per second.
DB - Table rows deleted per minute	Table rows deleted per minute.
DB - Table rows inserted per minute	Table rows inserted per minute.
DB - Table rows read per minute	Table rows read per minute.
DB - Table rows updated per minute	Table rows updated per minute.
GRID - Cache Grid global hit percent	Cache grid global hit percent (percent is found in local grid member).
GRID - Cache Grid global hits per sec	Cache grid global hits per second.
GRID - Cache Grid global misses per sec	Cache grid global misses per second.
GRID - Cache Grid local hits per sec	Cache grid local hits per second.
GRID - Cache Grid local misses per sec	Cache grid local misses per second.
GRID - Cache Grid misses filled from Oracle per sec	Cache grid misses filled from Oracle per second.
GRID - Cache Grid attaches per minute	Cache grid attaches per minute.
GRID - Cache Grid detaches per minute	Cache grid detaches per minute.
LOCK - Deadlocks per minute	Number of deadlocks per minute.
LOCK - Lock timeouts per minute	Number of lock timeouts per minute.
LOCK - Immediate lock grants per minute	Number of non-blocking locks acquired per minute.
LOCK - Lock grants after wait per minute	Number of blocking locks acquired per minute.
LOCK - Percent locks granted immediately	Percent of locks granted immediately versus having to wait.
LOG - Log buffer waits per minute	Number of times per minute a thread had to wait because the log buffer was full.
LOG - Log reads from file system per minute	Number of times per minute a log read could not be satisfied from the in memory buffer.
LOG - Log flushes to file system per minute	Number of times per minute the log buffer was written to the file system.
LOG - Log bytes to disk per minute in MB	Number of MB of log that was written to disk per minute.
LOG - Log buffer MB inserted per sec	Number of megabytes inserted into the log buffer per second.
REP - Transactions replicated per minute	Number of transactions replicated to a peer per minute.
STMT - SELECT statements executed per sec	Number of `SELECT` statements executed per second.
STMT - INSERT statements executed per sec	Number of `INSERT` statements executed per second.

Metric	Description
STMT - UPDATE statements executed per sec	Number of `UPDATE` statements executed per second.
STMT - DELETE statements executed per sec	Number of `DELETE` statements executed per second.
STMT - MERGE statements executed per sec	Number of `MERGE` statements executed per second.
WORKLOAD - Connects per minute	Number of connections to the database per minute.
WORKLOAD - Disconnects per minute	Number of disconnections to the database per minute.
WORKLOAD - Number of commands prepared per minute	Number of SQL commands prepared (compiled) per minute.
WORKLOAD - Number of commands reprepared per minute	Number of SQL commands reprepared (recompiled) per minute.
WORKLOAD - Number of queries per second	Number of queries per second.
XACT - Transactions durably committed per second	Number of durable transactions committed per minute.
XACT - Transactions committed per second	Number of transactions committed per second.
XACT - Transaction rollbacks per sec	Number of transactions rolled back per second.

To view response information

To view response information, choose **Response** on the Oracle Enterprise Manager Metrics page.

The Response page appears, showing response information for your database including:

- Status (up or down)
- Response time (sec)
  - The time taken for the plug-in to query the TimesTen `SYS.MONITOR` table

Viewing reports for your TimesTen database

Reports are generated from the metric information that has been collected and stored in the Oracle Enterprise Manager repository.

To view reports

1. Choose **Targets** on the Oracle Enterprise Manager home page.

   You see the Hosts page.

2. Select the host name.

   You see the name of your host at the top of the page.

3. Choose **Targets**.

You see your target instance name in the name column and in the same row, in the type column, you see **TimesTen In-Memory Database**.

4. Click the target instance name located in the name column.

   The TimesTen In-Memory Database page appears, showing the target instance name at the top of the page. You see **Reports** below the target instance name.

5. Choose **Reports**.

   You see **View Report**. To the right of **View Report**, you see a drop down menu list. Each name in the menu list represents a group of reports. There are 10 groups of reports. Each group of reports contains a set of reports/graphs specific to the report grouping.

   The 10 group of reports and subgroups are:

   - **TimesTen IMDB AWT Activity Reports**
     - AWT Commits
     - AWT Rows per Batch
     - AWT Throughput
   - **TimesTen IMDB Cache Grid Activity Reports**
     - Cache Grid Global Hit Percent
     - Cache Grid Attaches and Detaches
     - Cache Grid Hits and Misses
   - **TimesTen IMDB Connections Reports**
     - Current Connections
     - Connection Rate
   - **TimesTen IMDB Activity Reports**
     - Log Activity
     - Transactions Activity
     - Space Usage (% full)
     - Log Buffer Bytes
   - **TimesTen IMDB Lock Activity Reports**
     - Locks Granted Immediately vs Wait
     - Locks Timeouts and Deadlocks
   - **TimesTen IMDB Transaction Log Reports**
     - Log Inserts Activity
     - Log Waits Activity
     - Completed Checkpoints
     - Checkpoint Bytes Written Activity
     - Recovery Activity
   - **TimesTen IMDB Memory Reports**
     - Permanent Memory Activity

  - Temporary Memory Activity
  - PL/SQL Memory Activity
- **TimesTen IMDB PLSQL Reports**
  - Pin Hit Ratio
  - PL/SQL Invalidations and Reloads
- **TimesTen IMDB SQL Operation Reports**
  - SQL Operations
- **TimesTen IMDB Table Activity Reports**
  - Rows Processed

Uninstalling the System Monitoring Plug-in for TimesTen

To uninstall the System Monitoring Plug-in for TimesTen:

- Remove all target instances of the plug-in
- Undeploy the plug-in
- Delete the plug-in

You must remove all target instances of the plug-in before you can undeploy the plug-in. For example, if you have three databases (three target instances) and two databases are deployed to one agent and the third database is deployed to a second agent, you must:

- Remove database 1 (the target instance) on agent 1.
- Remove database 2 (the second target instance) on agent 1.
- Remove database 3 (the third target instance) on agent 2.

You then undeploy and delete the plug-in from the Oracle Enterprise Manager Grid Control.

To remove the target instance of the System Monitoring Plug-in for TimesTen

For each target instance of the plug-in you wish to remove:

1. Choose **Targets** on the navigation bar from the home page.

   You see the Hosts page.

2. Choose **All Targets** located below Targets on the Hosts page.

   You see the All Targets page that shows you the list of all targets in the Oracle Enterprise Manager Grid Control including hosts, agents, and databases. You see the target instance name in the Name column. In the same row, you see, in the Type column, **TimesTen In Memory Database 11g**. Also in the same row, you see, in the Select column, an open circle.

3. Click in the **Select** circle.

   You see the target instance name selected.

4. Click **Remove** located at either the top or bottom of the select list.

You see the warning message: "You have chosen to remove *target_instance_name* (TimesTen In Memory Database 11g). Do you wish to proceed?"

5. Click **Yes** located to the right of the warning message.

   You see the confirmation message: "*Target_instance_name* (TimesTen In-Memory Database) has been deleted."

Your target instance is removed. Repeat Steps 1-5 to remove additional target instances of the Oracle TimesTen In-Memory Database Plug-in. If all target instances of the Oracle TimesTen In-Memory Database Plug-in are removed, you can undeploy and then delete the Oracle TimesTen In-Memory Plug-in from the Oracle Enterprise Manager Grid Control.

To undeploy the System Monitoring Plug-in for TimesTen

Undeploy the System Monitoring Plug-in for TimesTen from the agents and then delete the System Monitoring Plug-in for TimesTen from the Oracle Enterprise Manager Grid Control.

Make sure you have removed all target instances of the plug-in. For more information on the steps to remove a target instance, see "To remove the target instance of the System Monitoring Plug-in for TimesTen" on page 25.

You undeploy the System Monitoring Plug-in for TimesTen from the Setup Menu.

1. Choose **Setup** from the navigation bar located at the top of the page.

   The Oracle Enterprise Manager Setup page appears.

2. Choose **Management Plug-ins** located to the left of the page in the Overview of Setup panel section.

   The Management Plug-ins page appears.

   You see the table describing information about the System Monitoring Plug-in for TimesTen. You see column names Select, Name, Version, Deployed Agents, Description, Deployment Requirements, Deploy, Undeploy. In the Name column, you see `timesten_imdb2`. In the column Deployed Agents, you see the number of agents deployed for the plug-in. In the Description column, you see Management Plug-in for Oracle TimesTen In-Memory Database. In the Select column, you see a square box.

3. Click in the **Select** box located to the left of `timesten_imdb2`.

   You see a checkmark in the Select box. In the row for the System Monitoring Plug-in for TimesTen, you see the undeploy icon in the Undeploy column. The icon is in the same row as the plug-in.

4. Click the **Undeploy** icon in the Undeploy column in the row for the System Monitoring Plug-in for TimesTen.

   The Undeploy Management Plug-in page appears. You see the select table. In each row of the table, you see the names of the deployed agents. In the same row as the name of the deployed agent, you see the Select column. In the Select, you see a square box.

5. Click in the **Select** box located to the left of the deployed agent.

   You see a checkmark in the Select box.

6. Repeat Step 5 until you have selected all deployed agents for the System Monitoring Plug-in for TimesTen.

You see checkmarks in the Select boxes for the deployed agents.

7. Click **OK** located in the top right or bottom right of the table.

   The Undeploying Management Plug-in window appears. You see 'partially undeployed.' Wait until this window is refreshed.

   The Setup page appears. You see the informational message: "Undeploy operation completed."

   You see the number 0 in the Deployed Agents column in the row for the Oracle TimesTen In-Memory Database Plug-in.

   The agents are undeployed from the Oracle TimesTen In-Memory Database Plug-in. You can now delete the plug-in from the Oracle Enterprise Manager Grid Control.

To delete the System Monitoring Plug-In for TimesTen

When you delete the plug-in, you remove the plug-in from the Oracle Enterprise Manager Grid Control.

1. From Management Plug-ins, click the **Select** box in the Select column in the row for the plug-in `timesten_imdb2`.
2. Click **Delete** located above the column headers of the Management Plug-ins table.

   You see the confirmation message: "Are you sure you want to delete the following Management Plug-ins? `timesten_imdb2:2.1`"
3. Click **OK**.

   You see the confirmation message: "One Management Plug-in was successfully deleted."

You have successfully deleted the Oracle TimesTen In-Memory Database Plug-in.

Oracle TimesTen In-Memory Database documentation

TimesTen documentation is available on the product distribution media and on the Oracle Technology Network:

http://www.oracle.com/technetwork/products/timesten/documentation

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.