

# Oracle® Enterprise Manager

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

Release 2.1

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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 TimesTen supports Oracle TimesTen In-Memory Database Release 11.2.1.5.0 or later.

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

## 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.

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

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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*.

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

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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, choose **Start > Control Panel > 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.

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.odbci.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 pull-down 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.   |
| 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 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.   |

| <b>Database attribute</b>   | <b>Description</b>  |
|---|---|
| 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.  |
| 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 duplicate 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).   |

| <b>Database attribute</b>  | <b>Description</b>  |
|--|---|
| Whether real memory should be locked during data store load      | Specifies whether connections to a shared database should lock real memory during database loading.   |
| 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 and/or executed locally in TimesTen.   |
| 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.   |
| 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 pull-down 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:

| <b>Metric</b>  | <b>Description</b>   |
|--|--|
| 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).        |
| 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).         |

| <b>Metric</b>  | <b>Description</b>  |
|--|---|
| 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.  |
| 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.  |

| <b>Metric</b>   | <b>Description</b>   |
|---|--|
| 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.                                  |
| 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 - DB connects exceeding configured number of conns  | Cumulative number of database connection thresholds exceeded.                  |
| 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.                                     |

| <b>Metric</b>  | <b>Description</b>   |
|--|--|
| DB - Inserts into hash indexes during DB recovery index rebuild  | Number of rows inserted into hash indexes during index rebuild phase of database recovery.                               |
| 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.  |
| GRID - Number of grid members that have attached so far          | Number of attach operations.   |

| <b>Metric</b>  | <b>Description</b>  |
|--|---|
| 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.   |
| 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.  |

| <b>Metric</b>  | <b>Description</b>  |
|--|---|
| 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.  |
| 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.  |

| <b>Metric</b>   | <b>Description</b>  |
|---|---|
| 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.   |
| 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.   |

| <b>Metric</b>  | <b>Description</b>                                       |
|--|--|
| 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.                   |
| 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 pull-down 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:

| <b>Metric</b>                                       | <b>Description</b>  |
|---|---|
| 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.                                       |
| 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.                                |

| <b>Metric</b>                                       | <b>Description</b>   |
|---|--|
| 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.             |
| 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 Activity Reports**
  - Log Activity
  - Transactions Activity
  - Space Usage (% full)
  - Log Buffer Bytes
- **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 SQL Operation Reports**
  - SQL Operations
- **TimesTen IMDB Connections Reports**
  - Current Connections
  - Connection Rate
- **TimesTen IMDB Table Activity Reports**

- Rows Processed
- **TimesTen IMDB Lock Activity Reports**
  - Locks Granted Immediately vs Wait
  - Locks Timeouts and Deadlocks
- **TimesTen IMDB PLSQL Reports**
  - Pin Hit Ratio
  - PL/SQL Invalidations and Reloads
- **TimesTen IMDB Cache Grid Activity Reports**
  - Cache Grid Global Hit Percent
  - Cache Grid Attaches and Detaches
  - Cache Grid Hits and Misses
- **TimesTen IMDB AWT Activity Reports**
  - AWT Commits
  - AWT Rows per Batch
  - AWT Throughput

## 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 -23.

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 (OTN):

[http://www.oracle.com/technology/documentation/timesten\\_doc.html](http://www.oracle.com/technology/documentation/timesten_doc.html)

For information on the TimesTen utilities including `ttStatus` and `ttIsq1`, refer to the *Oracle TimesTen In-Memory Database Reference*.

For information on TimesTen installation, refer to the *Oracle TimesTen In-Memory Database Installation Guide*.

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

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Oracle Enterprise Manager System Monitoring Plug-in for Oracle TimesTen In-Memory Database Installation Guide, Release 2.1  
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