

Oracle® Enterprise Manager

System Monitoring Plug-in Installation Guide for IBM DB2 Database

10g Release 2 (10.2)

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This document provides a brief description about the Oracle System Monitoring Plug-in for IBM DB2 Database, details on the versions the plug-in supports, prerequisites for installing the plug-in, and step-by-step instructions on how to download, install, verify, and validate the plug-in.

Description

The Oracle System Monitoring Plug-in for IBM DB2 Database extends Oracle Enterprise Manager Grid Control to add support for managing IBM DB2 Database instances. By deploying the plug-in in your Grid Control environment, you gain the following management features:

- Monitor DB2 Database instances.
- Gather configuration data and track configuration changes for DB2 Database instances.
- Raise alerts and violations based on thresholds set on monitoring and configuration data.
- Provide rich out-of-box reports for the user interface based on the gathered data.
- Support monitoring of the DB2 Database by a remote Agent. For remote monitoring, the Agent does not need to be on the same computer as the DB2 Database.

Versions Supported

This plug-in supports the following versions of products:

- Enterprise Manager Grid Control 10g Release 2 or higher Management Service and Agent
- IBM DB2 Database version 8.1 Fix-pack 9 or higher

Prerequisites

The following prerequisites must be installed before you can use the plug-in:

- Oracle Enterprise Manager Grid Control 10g Release 2 or higher Management Service and Agent
- IBM DB2 Universal JDBC Type 4 driver for IBM DB2 Database (see "[Setting up the JDBC Driver](#)")

- IBM DB2 Universal Database

Setting up the JDBC Driver

The JDBC driver is available from IBM, and consists of the following files that the Agent must be able to access:

- db2jcc.jar
- db2jcc_javax.jar
- db2jcc_license_cu.jar

To set up the IBM DB2 Universal Type 4 JDBC driver, do the following:

1. Create a `jdbcdriver` directory under `agent/sysman/` and put the `.jar` files listed above in that directory.
2. Add the location of each individual driver `.jar` file to the `classpath.lst` file under the `$ORACLE_HOME/sysman/config` directory.
3. If the Agent is installed on a system that is part of an OS cluster, you need to edit the `classpath.lst` file under the `$ORACLE_HOME/<node_name>/sysman/config` directory, where `node_name` is the name of the system where the Agent is installed.

If the `classpath.lst` file does not exist, create the file. For example, the `classpath.lst` file in a UNIX environment might appear as shown in the following example:

```
/home/usera/agent/sysman/jdbcdriver/ibm/db2jcc.jar  
/home/usera/agent/sysman/jdbcdriver/ibm/db2jcc_javax.jar  
/home/usera/agent/sysman/jdbcdriver/ibm/db2jcc_license_  
cu.jar
```

Deploying the Plug-in

After you ensure that the prerequisites are met, follow these steps to deploy the plug-in:

1. Download the IBM DB2 Database Plug-in archive to your desktop or computer on which the browser is launched. You can download the archive from the Oracle Technology Network (OTN).
2. Log in to Enterprise Manager Grid Control as a Super Administrator.
3. Click the **Setup** link in the upper right corner of the Grid Control Home page, then click the **Management Plug-ins** link on the left side of the Setup page.
4. Click **Import**.
5. Click **Browse** and select the plug-in archive.
6. Click **List Archive**.
7. Select the plug-in and click **OK**.
8. Verify that you have set preferred credentials on all Agents where you want to deploy the plug-in.

9. In the Management Plug-ins page, click the icon in the **Deploy** column for the DB2 Database plug-in. The Deploy Management Plug-in wizard appears.
10. Click **Add Agents**, then select one or more Agents to which you want to deploy the plug-in. The wizard reappears and displays the Agent you selected.
11. Click **Next**, then click **Finish**.

If you see an error message stating that the preferred credential is not set up, go to the Preferences page and add the preferred credentials for the Agent target type.

Adding Instances for Monitoring

After successfully deploying the plug-in, follow these steps to add the plug-in target to Grid Control for central monitoring and management:

1. From the Agent home page where the plug-in was deployed, select the **IBM DB2 Database** target type from the **Add** drop-down list, then click **Go**. The Add IBM DB2 Database page appears.
2. Provide the following information for the properties:

- **Name** — Name for the plug-in
- **JDBC URL** — URL name for the DB2 JDBC Driver connectivity in the form:

```
jdbc:db2://<server>:<port>/<database>
```

The JDBC URL argument represents a data source. Parameter definitions are as follows:

- **jdbc:db2** — Indicates that the connection is to a DB2 UDB server.
- **server** — Domain name or IP address of the database server.
- **port** — TCP/IP server port number assigned to the database server, which is an integer between 0 and 65535.
- **database** — Database alias, which refers to the DB2 database catalog entry on the DB2 client.

The database name is determined by the DB2 server being used:

DB2 for Z/OS Server — If the connection is to a DB2 for z/OS server, `database` is the DB2 location name defined during installation. All characters in this value must be in uppercase. You can determine the location name by executing the following SQL statement on the server:

```
SELECT CURRENT SERVER FROM SYSIBM.SYSDUMMY1;
```

DB2 for Linux, Unix, and Windows Servers — If the connection is to DB2 UDB for Linux, UNIX, and Windows servers, `database` is the database name defined during installation.

DB2 for IBM Cloudscape Server — If the connection is to an IBM Cloudscape server, `database` is the fully-qualified name of the file that contains the database. This name must be enclosed in double quotation marks ("). For example:

"c:/databases/testdb"

- **JDBC Driver** — Name of the DB2 Universal JDBC Driver. You load the driver by invoking the Class.forName method:
`com.ibm.db2.jcc.DB2Driver`
 - **Username** — Valid user name for the database
 - **Password** — Password for the user
3. Click **Test Connection** to make sure the parameters you entered are correct.
 4. Reenter the encrypted parameters from step 2 if the connection test was successful, then click **OK**.

Note: After you deploy and configure the plug-in to monitor one or more targets in the environment, you can customize the monitoring settings of the plug-in. This alters the collection intervals and threshold settings of the metrics to meet the particular needs of your environment. If you decide to disable one or more metric collections, this could impact the reports that the metric is a part of.

Verifying and Validating the Plug-in

After waiting a few minutes for the plug-in to start collecting data, deploy the following steps to verify and validate that Enterprise Manager is properly monitoring the plug-in target:

1. Click the IBM DB2 Database target link from the Agent home page Monitored Targets table. The IBM DB2 Database home page appears.
2. Verify that no metric collection errors are reported in the Metrics table.
3. Ensure that reports can be seen by selecting the **Reports** property page.
4. Ensure that configuration data can be seen by clicking the **View Configuration** link in the Configuration section. If configuration data does not immediately appear, click **Refresh** in the View Configuration page.

Undeploying the Plug-in

Follow these steps to undeploy the plug-in from an Agent:

1. Log in to Enterprise Manager Grid Control as a Super Administrator.
2. Select the **Targets** tab, then the **All Targets** subtab.
3. Select the DB2 Database Plug-in target and click **Remove**. You must do this step for all instances of the plug-in.
4. Make sure that the preferred credentials are set on the Agents where the plug-in is deployed.
5. Click the **Setup** link in the upper right corner of the All Targets page, then click the **Management Plug-ins** link on the left side of the Setup page. The Management Plug-ins page appears.
6. Click the icon in the **Undeploy** column for the IBM DB2 Database plug-in. The Undeploy Management Plug-in page appears.

7. Check all the Agents that are currently deployed with the DB2 Database Management plug-in and click **OK**.

You must undeploy the plug-in from every Agent in the system to completely remove it from the enterprise.

8. Select the IBM DB2 Database Management Plug-in on the Management Plug-ins page and click **Delete**.

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