Oracle® GoldenGate Installing, Configuring, and Upgrading Oracle GoldenGate Monitor Agent





Oracle GoldenGate Installing, Configuring, and Upgrading Oracle GoldenGate Monitor Agent, 12c (12.2.1.2.0)

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Preface

This document describes how to install and configure standalone Oracle GoldenGate Monitor Agent 12c (12.2.1.2.0). This document also provides detailed requirements and various design considerations when installing and configuring Oracle GoldenGate Monitor Agent as a standalone component.

Audience

This document is intended personnel installing, configuring, and running Oracle GoldenGate Monitor.

Documentation Accessibility

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Related Documents

For more information, see the following documents in the Oracle GoldenGate Monitor 12c (12.2.1) documentation set:

- Administering Oracle GoldenGate Monitor
- Using Oracle GoldenGate Monitor
- Installing and Configuring Oracle GoldenGate Monitor
- Upgrading to Oracle GoldenGate Monitor 12.2.1
- Release Notes for Oracle GoldenGate Monitor

Conventions

The following text conventions are used in this document:



Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.



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About Oracle GoldenGate Monitor Agent

Oracle GoldenGate Monitor Agent collects and sends information to the Server and Enterprise Manger Plug-In for Oracle GoldenGate. Before you begin the installation, find out the minimum system and network requirements and what pre-installation tasks you must first complete.

- Introduction to Oracle GoldenGate Monitor Agent
- Installation Roadmap
- Prerequisites
- Downloading Oracle GoldenGate Monitor Agent

Introduction to Oracle GoldenGate Monitor Agent

Oracle GoldenGate Monitor Agent (formerly JAgent) collects information about an associated instance and sends it to the Oracle GoldenGate Monitor Server and Enterprise Manager Plug-In for Oracle GoldenGate. For Oracle GoldenGate release 11.2.1 and later, the Oracle GoldenGate Monitor Agent is a separate Java agent (sometimes referred to as a standalone agent) and has no C sub-agent.

The agent is a separate download and requires a separate installation process described in this document. You must install Oracle GoldenGate Monitor Agent 12c (12.2.1) to ensure full functionality and take advantage of all command and control features (for example, edit, stop, and display logs).

Installation Roadmap

Oracle GoldenGate Monitor Agent as a separate product from other components on the Oracle GoldenGate Management Pack. For all non-z/OS platforms, you will use the Oracle Universal Installer (OUI). For the z/OS platform you will use a set of separate binaries provided with the distribution and use these sections:

- Installing Oracle GoldenGate Monitor Agent
- Installing Oracle GoldenGate Monitor Agent for z/OS

Once the Oracle GoldenGate Monitor Agent product installation is successful, you need to create instances and configure their properties, based on the operating system and platform, as described in these sections:

- Creating and Configuring an Oracle GoldenGate Monitor Agent Instance
- Creating and Configuring an Oracle GoldenGate Monitor Agent Instance

Prerequisites

Before installing Oracle GoldenGate Monitor Agent ensure that the following prerequisites are met:

- Install the Oracle GoldenGate Core product. For database-specific installation instructions, see the Oracle GoldenGate for Windows and UNIX documentation library. For Oracle database, see Fusion Middleware Installing and Configuring Oracle GoldenGate for Oracle Database.
- Install and configure Oracle GoldenGate Monitor if you are planning to monitor your Oracle GoldenGate instance using Oracle GoldenGate Monitor. For instructions, see Installation and Configuration Roadmap.
- Install Oracle Enterprise Manager Plug-In for Oracle GoldenGate to monitor your Oracle GoldenGate instance using Oracle Enterprise Manager Plug-In for Oracle GoldenGate. For instructions, see Oracle Enterprise Manager Oracle GoldenGate System Monitoring Plug-in Installation Guide.
- Install a supported Java Runtime Environment (JRE). Oracle GoldenGate Monitor Agent releases 12.1.3.0.0, 12.1.3.0.1, and 12.2.1 requires JRE 1.8. For instructions, see the Java documentation for the release you are installing.
- Configure the full path for the Java Runtime Environment (JRE) when installing Oracle GoldenGate Monitor Agent on Windows with Java version 8.
- Ensure that for Oracle GoldenGate 12.3.x, the minimum required JAgent version is 12.2.1.2.171115.
- For Oracle GoldenGate 12.x and older, ensure to use thecreate datasource command for starting the JAgent. For Oracle GoldenGate 12.3.x and newer, in case of a fresh installation, the datastore is managed internally, and you don't have to execute the CREATE DATASOURCE command.
- Review the Release Notes for Known Issues and related workaround before installing the product.

Downloading Oracle GoldenGate Monitor Agent

Download the Oracle GoldenGate Monitor Agent product from the Oracle Software Delivery Cloud website as follows:

1. Enter the Oracle Software Delivery Cloud link into a web browser:

http://edelivery.oracle.com/

2. Click Sign-in/Register.



If you are not already logged in, the Oracle Single Sign-On page appears. Enter your Oracle user id and password and click **Sign In**.

The Terms & Restrictions page appears.

3. Select the Oracle Software Delivery Cloud Trial License Agreement and the Export Restrictions check boxes, and then click Continue.

The Media Pack Search page appears.

- 4. On the Media Pack Search page, do the following:
 - a. From the Select Product Pack drop-down list, select Oracle Management Pack for Oracle Goldengate.



- **b.** From the **Platform** drop-down list, select the platform on which you are installing Oracle GoldenGate Monitor Agent.
- c. Click Continue.
- **5.** The latest release is automatically selected so click **Continue**.
- 6. Review and accept the terms and restrictions then click **Continue**.
- 7. Click the individual file names or click **Download All** to begin the download.
- 8. Extract the ZIP file to a temporary directory.

Note:

Before installing the software, review the release notes for any new features, new requirements, or bug fixes that affect your current configuration.



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Installing and Configuring Oracle GoldenGate Monitor Agent

Use this step by step guide to install and configure Oracle GoldenGate Monitor Agent for all non-z/OS platforms.

If you are installing Oracle GoldenGate Monitor Agent on a z/OS platform, see Installing Oracle GoldenGate Monitor Agent for z/OS.

This chapter contains the following sections:

- Installing Oracle GoldenGate Monitor Agent
- Creating and Configuring an Oracle GoldenGate Monitor Agent Instance
- Starting Multiple Oracle GoldenGate Monitor Instances
- How do I Configure JAgent to Support Remote Monitoring Using JMX Server

Installing Oracle GoldenGate Monitor Agent

Use the Oracle Universal Installer (OUI) to install Oracle GoldenGate Monitor Agent for all non-z/OS platforms. Perform the following steps:

- 1. Start the Installer
- 2. Install the Product
- 3. Install Available Patches

Start the Installer

To start the installation program:

- 1. Log in to your system.
- 2. Go to the directory where you downloaded the installation program.
- 3. Launch the installation program by invoking <code>java -jar</code> from the JDK directory on your system, as shown in the following table:

For this Operating System	Use this command	
Unix	<pre>\$ java -jar -Xmx1024m /path/to/jar/file/ogg_generic.jar</pre>	
Windows	C:\ java -jar -Xmx1024m ogg_generic.jar	

Where $ogg_generic.jar$ is the name of the file that you downloaded for your operating system.

When the installation program appears, you are ready to begin the installation. See Install the Product for a description of each installation program screen.



Oracle GoldenGate Monitor installer will not run on shared disk.

Install the Product

To install the product, navigate through the Installer screens, providing the necessary information as described on the following table. This table lists the screens in the order they will appear and provides instructions for completing any necessary fields. If you want further information on any screen, click its name in the left-hand column.

Screen	Description
Welcome	This screen introduces you to the product installer.
	Click Next.
Installation Location	Use this screen to specify the location of your Oracle home directory.
	 Type or browse and select the Oracle Home location (that is, the path where you have installed WebLogic Server+JRF) and Coherence.
	Click View to see the products installed under the selected Oracle Home.
	3. Click Next.
Installation Type	Use this screen to select an installation type.
	1. Select Oracle Golden Gate Monitor Agent.
	2. Click Next.
Prerequisite Checks	This screen verifies that your system meets the minimum necessary requirements.
	If there are any warning or error messages, you can refer to one of the documents referenced in "Verifying Certification, System Requirements, and Interoperability" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i> . Click Next .
Installation Summary	Use this screen to verify the installation options you selected. Note: To display an individual component's approximate installed size, click its name.
	Click Install.
Installation Progress	This screen shows the progress of the installation. When the progress bar reaches 100%, the installation is complete. Be aware that the Generating Libraries process can take up to 70% of the total installation time on some systems. When the installation progress is 100%, click Next .



Screen	Description
Installation Complete	This screen appears at the conclusion of the installation and provides a summary of the products and features that were installed.
	Click Finish.
	With this step, OUI installs the Oracle GoldenGate Monitor Agent binaries and configuration files, along with OUI specific file set, in the <code>OGG_AGENT_INST_HOME</code> directory.

Install Available Patches

1. Enter the My Oracle Support link into a web browser:

http://support.oracle.com

2. Click Sign In....



If you are not already logged in, the Oracle Single Sign-On page appears. Enter your Oracle user id and password and click **Sign In**.

The Dashboard page appears.

- 3. Click the Patches & Updates tab.
- Search for Management Pack for Oracle GoldenGate patches for your operating system.
- 5. Unzip the downloaded file.
- 6. Follow the instructions in the README.txt file, from the patch ZIP file, to verify that the patch is needed for your system and how to install the patch.

Creating and Configuring an Oracle GoldenGate Monitor Agent Instance

This section describes the procedures for creating and configuring an Oracle GoldenGate Monitor Agent instance for non-z/OS platforms. This process requires these six steps:

- 1. Create the Oracle GoldenGate Monitor Agent Instance
- 2. Update the Configuration Properties
- 3. Create Wallet Credentials
- 4. Copy the SSL Certificate Files
- 5. Start the Oracle GoldenGate Monitor Agent
- 6. Check Oracle GoldenGate Monitor Agent Instance Log Files





These procedures are for non-z/OS applications. If you are installing Oracle GoldenGate Monitor Agent for the z/OS platform, see Creating and Configuring an Oracle GoldenGate Monitor Agent Instance.

Create the Oracle GoldenGate Monitor Agent Instance

1. Go to the directory that contains the Oracle GoldenGate Monitor Agent creation Script, createMonitorAgentInstance.sh. For example:

cd /u01/app/oracle/product/wls/oggmon/ogg_agent

2. Run the script:

For this Operating System	Use this command
Unix	<pre>\$./createMonitorAgentInstance.sh</pre>
Windows	C:\ createMonitorAgentInstance.bat

The system responds:

Please enter absolute path of Oracle GoldenGate home directory :

3. Enter the absolute path to your Oracle GoldenGate home directory. For example, /u01/ogg/replication/oggcore1.

The system responds:

Please enter absolute path of OGG Agent instance :

4. Enter the directory that contains your Oracle GoldenGate Monitor Agent instance, which can be an existing directory. For example, /u01/ogg/agents/oggmon/agent1. This directory should be different than the Oracle GoldenGate home directory to avoid overwriting your Oracle GoldenGate Monitor Agent JAR and configuration files the next time you install or patch Oracle GoldenGate.



For Windows, you must ensure that you provide the absolute JDK8 directory path explicitly or the Monitor Agent cannot connect to the Monitor server. This directory path can also be defined in the <code>jagent.prm</code> file.

The Oracle GoldenGate Monitor Agent Instance directory can be an existing directory location. In that case, you are prompted:

OGG Agent instance directory already exists, do you want to overwrite the contents (yes \mid no)".



If you choose yes, the execution of the script will continue and all the contents related to Oracle GoldenGate Monitor Agent will be overwritten on that location. If you choose no, the execution of the script will stop.

The system responds:

Please enter unique name to replace timestamp in startMonitorAgent script.

5. Enter the unique name that you want to replace the timestamp in the startMonitorAgent.sh Script file.

You can create additional instances using this same process though you *must* ensure that you create them in unique directories. For example, you can point a new Monitor Agent instance to the same Oracle GoldenGate Instance directory (such as, /u01/ogg/replication/oggcorel) or a different Oracle GoldenGate Monitor Agent Instance, and the Oracle GoldenGate Monitor Agent Instance directory must always be a new directory (such as, /u01/ogg/agents/oggmon/agent2). The Oracle GoldenGate Monitor Agent reports Oracle GoldenGate monitoring statistics to the Oracle GoldenGate Monitor Server based on how it is configured.



Ensure that for Oracle GoldenGate 12.3.x, the minimum required JAgent version is 12.2.1.2.171115.

Update the Configuration Properties

Oracle GoldenGate Monitor Agent operates in one of two modes, Oracle GoldenGate Monitor Server or Oracle GoldenGate Enterprise Management Plug-In. You set the configuration properties for the mode you want to operate in using the following steps:

- If you are using Oracle GoldenGate Monitor Server (not Oracle GoldenGate Enterprise Management Plug-In), copy the oggmon.properties file from the OGG_MONITORSERVER_DOMAIN/config/monitorserver/cfg directory to the OGG_AGENT_INST_HOME/cfg directory of all of your Oracle GoldenGate Monitor Agent Instances, where OGG_AGENT_INST_HOME is the absolute path to your Oracle GoldenGate Monitor Agent Instance.
- 2. Edit the OGG_AGENT_INST_HOME/cfg/Config.properties file.
- Review and set the properties for one of the following modes:

Oracle GoldenGate Monitor (OGGMON):

jagent.host=

Use the default or change to the complete hostname or IP of the machine where Oracle GoldenGate Monitor Agent (jagent) is running.

jagent.jmx.port=

Use the default or change to your preferred port.

monitor.host=

Set to the hostname you set during your Oracle GoldenGate Monitor Server installation in monitor.properties.



monitor.jmx.port=

Set to the port you set during your Oracle GoldenGate Monitor Server installation in monitor.properties.

monitor.jmx.username=

Set to the user name you provided during your Oracle GoldenGate Monitor Agent installation

jagent.username=

Set a jagent user name.

agent.type.enabled=

Ensure it is set to oggmon.

jagent.backward.compatibility=

Ensure it is set to false.

jagent.ssl=

Ensure it is set to false.

Or

Oracle GoldenGate Enterprise Management Plug-In (OEM):

jagent.host=

Use the default or change to the complete hostname or IP of the machine where Oracle GoldenGate Monitor Agent (jagent) is running.

jagent.username=

Set a jagent user name.

jagent.rmi.port=

Use the default or change to a specific port.

agent.type.enabled=

Set it to OEM.

jagent.backward.compatibility=

Ensure it is set to false.

jagent.ssl=

Ensure it is set to false.

4. Close and save the file.

The oggmon.properties file is required to create the wallet. For instructions, see "Edit Monitor Properties" in *Installing and Configuring Oracle GoldenGate Monitor*.





If you use the Oracle GoldenGate Monitor UI to change a configuration file, you must reopen the file by clicking the **Edit** button. The tab title is changed to prefix with an asterisk symbol (*), which means that the text area is in edit mode. If you change any value and navigate to other sections without saving, then a confirmation dialog is displayed to inform you to save the change. Otherwise, the changed value is not retained and no messages are displayed.

Create Wallet Credentials

Navigate to the OGG_AGENT_INST_HOME/bin directory, and then use one of the following sections to create the Oracle Wallet for your operating mode, Oracle GoldenGate Monitor *or* Oracle GoldenGate Enterprise Management Plug-In.

Creating an Oracle GoldenGate Monitor Wallet

- 1. Delete any existing dirwlt directory.
- 2. Ensure that the oggmon.properties file is copied into the cfg directory.
- **3.** Start creating the wallet credentials:

For this Operating System	Use this command
Unix	<pre>\$./pw_agent_util.sh -create</pre>
Windows	C:\ pw_agent_util.bat -create

Enter and confirm a user password for your jagent.username property.

```
Please create a password for Java Agent: Please confirm password for Java Agent:
```

5. Enter and confirm a user password for your monitor.jmx.username property.

Please enter Monitor Server JMX password:

Please confirm Monitor Server JMX password:

The system responds:Jan 06, 2014 5:17:22 PM oracle.security.jps.JpsStartup start INFO: Jps initializing. Jan 06, 2014 5:17:24 PM oracle.security.jps.JpsStartup start INFO: Jps started. Wallet is created successfully.

This creates the wallet cwallet.sso and cwallet.sso.lck files in dirwlt in the OGG_AGENT_INST_HOME/cfg directory.

Creating an Oracle GoldenGate Enterprise Management Plug-In Wallet

1. Start creating the wallet credentials:



For this Operating System	Use this command
Unix	<pre>\$./pw_agent_util.sh -jagentonly</pre>
Windows	C:\ pw_agent_util.bat -jagentonly

2. Enter and confirm a user password for your jagent.username property.

```
Please create a password for Java Agent: Please confirm password for Java Agent:
```

The system responds:

```
Jan 06, 2014 5:17:22 PM oracle.security.jps.JpsStartup start INFO: Jps initializing. Wallet is created successfully.
```

This creates the wallet cwallet.sso and cwallet.sso.lck files in dirwlt in the $OGG_AGENT_INST_HOME$ directory.

Copy the SSL Certificate Files



This step is required only if the Oracle GoldenGate Monitor Agent is running in SSL mode.

Go to the <code>OGG_AGENT_INST_HOME/direct</code> and copy the Keystore and Truststore files.

After copying the keystore and truststore files, do the following:

- Using the pw_agent_util.sh (or .bat, on Windows) utility, update the wallet with keystore and truststore passwords, as described in "Updating Oracle GoldenGate Monitor Agent Passwords".
- 2. Update the jagent.keystore and jagent.truststore values in the config.properties file; for example:

```
jagent.keystore.file=jagentKeyStore
jagent.truststore.file=jagentTrustStore
```

Note:

If you are using a self-signed certificate, you can use the same file for both keystore file and truststore. If you are using a third-party signed certificate, you need to update your property file with the appropriate keystore and trust store files.



Prepare the Oracle GoldenGate Monitor Agent Instance for Monitoring

- 1. Create a file named globals in the ogg_home directory, if this file does not exist.
- 2. Edit the GLOBALS file.
- 3. Add ENABLEMONITORING on a new line.
- 4. Close and save the file.



Starting with Oracle GoldenGate 12.3.x, the datastore is managed internally. Therefore, you can skip Step 5 for Oracle GoldenGate 12.3.x and newer versions.

5. Create the datastore using the CREATE DATASOURCE command:

GGSCI> CREATE DATASTORE

Note:

All processes should be stopped before creating the datastore. You can also add autostart jagent to the mgr.prm file.

Note:

The SHM ID should be added with the CREATE DATASTORE command.

CRAETE DATASTORE SHM ID <unique positive integer>

For example:

CREATE DATASTORE SHM ID 100

Note:

For Oracle GoldenGate 12.x and older, use the CREATE DATASOURCE and DELETE DATASOURCE commands to recreate datastore in case of BDB corruption.

Start the Oracle GoldenGate Monitor Agent

Go to the Oracle GoldenGate GGSCI console and start Oracle GoldenGate Monitor Agent by executing the start jagent command:

GGSCI> start jagent



Check Oracle GoldenGate Monitor Agent Instance Log Files

Once you have completed the preceding steps and Oracle GoldenGate Monitor Agent is running, the Oracle GoldenGate Monitor Agent log details will be written to ogg_agent.log, which is in OGG_AGENT_INST_HOME/logs.

Starting with 12.2.1.2.0 release, Oracle GoldenGate Agent log file only includes errors and warnings. You can edit the <code>oggmon/Monitor/jagent/src/main/cfg/logging-config.xml</code> file to customize the log level.

Starting Multiple Oracle GoldenGate Monitor Instances

To monitor the Oracle GoldenGate Core instance through Oracle GoldenGate Monitor and Oracle GoldenGate Enterprise Manager Plug-in, multiple Oracle GoldenGate Monitor instances can be installed.

To run multiple Oracle GoldenGate Monitor Agent Instances from a single install Oracle GoldenGate Core instance:

- 1. Install the Oracle GoldenGate Core product.
- Install standalone Oracle GoldenGate Monitor Agent instance 1 pointing to Oracle GoldenGate Core Instance. You can set the mode=OEM.
- 3. Configure Oracle GoldenGate Agent properties (Config.properties) as required for OGGPLG 12.1.0.2.0 which is under OGG_AGENT_HOME1/cfg directory.
 - The absolute path of Oracle GoldenGate home directory: OGG_CORE_HOME
 - absolute path of first OGG Agent instance directory: OGG_AGENT_HOME1
- 4. Change the **mgr.host** to the host name of the machine where Manager is running and mgr.port to the mgr port of the OGGCORE instance.
- 5. Make a copy of the JAVA command from OGG Core instance which is available in OGG CORE_HOME/dirprm/jagent.prm file.
- **6.** Create a standalone Oracle GoldenGate Monitor Agent Instance 2 pointing to the same Oracle GoldenGate Core Instance You can set the **mode =OGGMON**.
 - The absolute path of Oracle GoldenGate home directory: OGG_CORE_HOME
 - The absolute path of second OGG Agent instance directory: OGG_AGENT_HOME2



If the **jagent.prm** is already exists under <code>ogg_CORE_HOME/dirprm/</code> the **jagent.prm** file will be replaced with the latest **jagent.prm** file.

- Configure Oracle GoldenGate Agent properties (config.properties) as need for Monitor 12.1.3 which is under OGG_AGENT_HOME2/cfg directory.
- 8. Start Oracle GoldenGate Monitor Agent instance 2 from GGSCI.
- 9. Execute the Java command copied in step 5 for the Monitor agent instance 1 from OGG_AGENT_HOME1 folder created in step 3 or run the script



startMonitorAgentInstance_*.sh present under OGG_AGENT_HOME2/bin from the OGG_CORE HOME location for starting the Monitor agent instance 1.

For example: OGG_AGENT_HOME2/bin/startMonitorAgentInstance_*.sh



JAgent should be always be started from the OGG_CORE_HOME location because internally based on the **usr.dir** (the directory where Java was run) system property are used from setting the OGGC CORE location.

How do I Configure JAgent to Support Remote Monitoring Using JMX Server

You must configure the JAgent to support remote monitoring using JMX Server.

To configure the JAgent to support remote monitoring using JMX Server.

- 1. Edit the Config.properties file.
 - a. Set jagent.rmi.port for OEM mode
 - b. Set jagent.jmx.port for OGGMON mode
 - c. Set agent.type.enabled = OEM or OGGMON
- 2. Optional: Add the following parameters only when Oracle GoldenGate and JAgent are running on cloud or within a firewall.
 - a. The jmx.enable.remote.monitoring = true or false.
 - **b.** The jmx.broker.port = default (any valid port number).
- **3. Set** jmx.enable.remote.monitoring = true.
- 4. Set jmx.broker.port = any valid firewall enabled port.

It uses two ports, either the <code>jagent.rmi.port</code> or <code>jagent.jmx.port</code> as the registry port depending on <code>agent.type.enabled</code> property, and <code>jmx.broker.port</code> as the communication port.

5. Optional: Enable SSH tunneling for the ports.

```
a. ssh -i opc_rsa -f opc@192.0.2.1 -L 9020:192.0.2.1:9020 -N
b. ssh -i opc_rsa -f opc@192.0.2.1 -L 5559:192.0.2.1:5559 -N
c. ssh -i opc_rsa -f opc@192.0.2.1 -L 7809:192.0.2.1:7809 -N
```

The IP 192.0.2.1 is the public IP address of the cloud device.



You must repeat the command sequence if the client system is restarted.



Installing and Configuring Oracle GoldenGate Monitor Agent for z/OS and DB2 for i

Use this step by step guide to install and configure Oracle GoldenGate Monitor Agent for the z/OS and DB2 for i platforms.

This chapter contains the following sections:

- Installing Oracle GoldenGate Monitor Agent for z/OS
- Installing Oracle GoldenGate Monitor Agent for DB2 for i
- Install Available Patches
- Creating and Configuring an Oracle GoldenGate Monitor Agent Instance

Installing Oracle GoldenGate Monitor Agent for z/OS

The Oracle GoldenGate Monitor Agent product distribution contains the file <code>ogg_agentzos.tar</code>, which you will use to install Oracle GoldenGate Monitor Agent on z/OS platforms. Use this procedure:

- 1. Create a directory to install Oracle GoldenGate Monitor Agent binaries; for this example, we will call that directory /apps/products/ogg-agent-zos-home/.
- 2. Navigate to /apps/products/ogg-agent-zos-home and untar ogg_agent-zos.tar:

```
$ tar xzf ogg_agent-zos.tar
```

You will see a new directory, ogg_agent-zos, under /apps/products/ogg-agent-zos-home/. This ogg_agent-zos directory contains all Oracle GoldenGate Monitor Agent binaries and its configuration and scripts files. On z/OS platforms, this directory (/apps/products/ogg-agent-zos-home/ogg_agent-zos) and is your OGG_AGENT_INST_HOME directory.

Installing Oracle GoldenGate Monitor Agent for DB2 for i

The Oracle GoldenGate Monitor Agent product distribution contains the file <code>ogg_agent_generic.tar</code>, which you will use to install Oracle GoldenGate Monitor Agent on DB2 for i platforms. Use this procedure:

- Create a directory to install Oracle GoldenGate Monitor Agent binaries; for this example, we will call that directory /apps/products/ogg-agent-ibmi-home/
- 2. Navigate to /apps/products/ogg-agent-ibmi-home and untar ogg_agent_generic.tar:

```
$ tar xvf ogg_agent_generic.tar && rm ogg_agent_generic.tar
```

You will see all Oracle GoldenGate Monitor Agent binaries and its configuration and scripts files. On DB2 for i platforms, this directory (/apps/products/ogg-agent-ibmi-home) is your OGG AGENT_BASE_HOME.

Install Available Patches

1. Enter the My Oracle Support link into a web browser:

http://support.oracle.com

2. Click Sign In....



If you are not already logged in, the Oracle Single Sign-On page appears. Enter your Oracle user id and password and click **Sign In**.

The Dashboard page appears.

- 3. Click the Patches & Updates tab.
- 4. Search for **Management Pack for Oracle GoldenGate** patches for your operating system.
- 5. Unzip the downloaded file.
- 6. Follow the instructions in the README.txt file, from the patch ZIP file, to verify that the patch is needed for your system and how to install the patch.

Creating and Configuring an Oracle GoldenGate Monitor Agent Instance

This section describes the procedures for creating and configuring an Oracle GoldenGate Monitor Agent instance. This process is comprised of these six steps:

- 1. Create the Instance
- 2. Update the Configuration Properties
- 3. Create Wallet Credentials
- Copy the SSL Certificate Files
- 5. Start the Oracle GoldenGate Monitor Agent
- 6. Check Oracle GoldenGate Monitor Agent Instance Log Files

Create the Instance

1. Go to the directory that contains the Oracle GoldenGate Monitor Agent creation Script, createMonitorAgentInstance.sh. For example:

cd OGG_AGENT_BASE-HOME

2. Run the script:

 $./{\tt createMonitorAgentInstance.sh}$



The system responds:

Please enter absolute path of Oracle GoldenGate home directory :

3. Enter the absolute path to your Oracle GoldenGate home directory. For example, /u01/ogg/replication/oggcore1.

The system responds:

Please enter absolute path of OGG Agent instance :

4. Enter the directory that contains your Oracle GoldenGate Monitor Agent instance, which can be an existing directory. For example, /u01/ogg/agents/oggmon/agent1. This directory should be different than the Oracle GoldenGate home directory to avoid overwriting your Oracle GoldenGate Monitor Agent JAR and configuration files the next time you install or patch Oracle GoldenGate.

The Oracle GoldenGate Monitor Agent Instance directory can be an existing directory location. In that case, you are prompted:

OGG Agent instance directory already exists, do you want to overwrite the contents (yes \mid no)".

If you choose yes, the execution of the script will continue and all the contents related to Oracle GoldenGate Monitor Agent will be overwritten on that location. If you choose no, the execution of the script will stop.

The system responds:

Please enter unique name to replace timestamp in startMonitorAgent script.

5. Enter the unique name that you want to replace the timestamp in the startMonitorAgent.sh script file.

You can create additional instances using this same process though you *must* ensure that you create them in unique directories. For example, you can point a new Monitor Agent instance to the same Oracle GoldenGate Instance directory (such as, /u01/ogg/replication/oggcorel) or a different Oracle GoldenGate Monitor Agent Instance, and theOracle GoldenGate Monitor Agent Instance directory must always be a new directory (such as, /u01/ogg/agents/oggmon/agent2). The Oracle GoldenGate Monitor Agent reports Oracle GoldenGate monitoring statistics to the Oracle GoldenGate Monitor Server based on how it is configured. For example, the Oracle GoldenGate Monitor Agent and Oracle GoldenGate instance configuration and communication.

Update the Configuration Properties

Oracle GoldenGate Monitor Agent operates in one of two modes, Oracle GoldenGate Monitor Server or Oracle GoldenGate Enterprise Management Plug-In. You set the configuration properties for the mode you want to operate in using the following steps:

- Once you have completed the steps in the preceding sections, copy the oggmon.properties file from the OGG_MONITORSERVER_DOMAIN/config/monitorserver/cfg directory to the OGG_AGENT_INST_HOME/cfg directory of all of your Oracle GoldenGate Monitor Agent Instances.
- 2. Edit the OGG_AGENT_INST_HOME/cfg/Config.properties file.
- **3.** Review and set the properties for one of the following modes:

Oracle GoldenGate Monitor (OGGMON):



jagent.host=

Use the default or change to the complete hostname or IP of the machine where Oracle GoldenGate Monitor Agent (jagent) is running.

jagent.jmx.port=

Use the default or change to your preferred port.

monitor.host=

Set to the hostname you provided during your Oracle GoldenGate Monitor Agent installation.

monitor.jmx.port=

Set to the port you provided during your Oracle GoldenGate Monitor Agent installation.

monitor.jmx.username=

Set to the user name you provided during your Oracle GoldenGate Monitor Agent installation

jagent.username=

Set a jagent user name.

agent.type.enabled=

Ensure it is set to oggmon.

jagent.backward.compatibility=

Ensure it is set to false.

jagent.ssl=

Ensure it is set to false.

Or

Oracle GoldenGate Enterprise Management Plug-In (OEM):

jagent.host=

Use the default or change to the complete hostname or IP of the machine where Oracle GoldenGate Monitor Agent (jagent) is running.

jagent.username=

Set a jagent user name.

jagent.rmi.port=

Use the default or change to a specific port.

agent.type.enabled=

Set it to OEM.

jagent.backward.compatibility=

Ensure it is set to false.

jagent.ssl=

Ensure it is set to false.

4. Close and save the file.



The oggmon.properties file is required to create the wallet. For instructions, see "Edit Monitor Properties" in *Installing and Configuring Oracle GoldenGate Monitor*.

Create Wallet Credentials

Navigate to the $ogg_agent_inst_home/bin$ directory, and then use one of the following sections to create the Oracle Wallet for your operating mode, Oracle GoldenGate Monitor or Oracle GoldenGate Enterprise Management Plug-In.

Creating an Oracle GoldenGate Monitor Password File

- 1. Delete any existing dirwlt directory.
- 2. Ensure that the oggmon.properties file is copied into the cfg directory.
- 3. Start creating the wallet credentials:
- 4. ./pw_agent_util.sh -create
- 5. Enter and confirm a user password for your jagent.username property.

```
Please create a password for Java Agent: Please confirm password for Java Agent:
```

6. Enter and confirm a user password for your monitor.jmx.username property.

```
Please enter Monitor Server JMX password:
```

 Please confirm Monitor Server JMX password: The system responds: Password is stored successfully

This creates the Password properties file in the OGG AGENT INST HOME directory.

Creating an Oracle GoldenGate Enterprise Management Plug-In Wallet

- Start creating the wallet credentials:
- 2. ./pw_agent_util.sh -jagentonly
- 3. Enter and confirm a user password for your jagent.username property.

```
Please create a password for Java Agent: Please confirm password for Java Agent:
```

The system responds:

```
Jan 06, 2014 5:17:22 PM oracle.security.jps.JpsStartup start INFO: Jps initializing. Wallet is created successfully.
```

This creates the wallet cwallet.sso and cwallet.sso.lck files in dirwlt in the OGG_AGENT_INST_HOME directory.



Copy the SSL Certificate Files



This step is required only if the Oracle GoldenGate Monitor Agent is running in SSL mode.

Go to the <code>ogg_agent_inst_home/dircrt</code> and copy the Keystore and Truststore files.

After copying the keystore and truststore files, do the following:

- 1. Using the $pw_agent_util.sh$ (or .bat, on Windows) utility, update the wallet with keystore and truststore passwords, as described in "Updating Oracle GoldenGate Monitor Agent Passwords".
- 2. Update the jagent.keystore and jagent.truststore values in the config.properties file; for example:

```
jagent.keystore.file=jagentKeyStore
jagent.truststore.file=jagentKeyStore
```

Prepare the Oracle GoldenGate Monitor Agent Instance for Monitoring

- Create a file named GLOBALS in your Oracle GoldenGate home directory, if this file does not exist.
- 2. Edit the GLOBALS file.
- 3. Add ENABLEMONITORING on a new line.
- 4. Close and save the file.
- 5. Create the datastore using the **CREATE DATASTORE** command:

GGSCI> CREATE DATASTORE

Start the Oracle GoldenGate Monitor Agent

Go to the Oracle GoldenGate Core GGSCI console, and start the Oracle GoldenGate Monitor Agent by executing the start jagent command:

GGSCI> start jagent

Check Oracle GoldenGate Monitor Agent Instance Log Files

Once you have completed the preceding steps and Oracle GoldenGate Monitor Agent is running, the Oracle GoldenGate Monitor Agent log details will be written to the ogg_agent.log file, which is in ogg_AGENT_INST_HOME/logs.



4

Upgrading Oracle GoldenGate Monitor Agent

Use this step by step process to upgrade your Oracle GoldenGate Monitor Agent from 11*g* to 12*c* or to upgrade the original JAgent that was delivered with 12*c*.



Do *not* follow the instructions in this chapter if you have installed Oracle GoldenGate Monitor Agent 12c for the first time; the upgrade occurs automatically.

Use the following tasks to upgrade your existing Oracle GoldenGate Monitor Agent($sogg_{HOME/dirjar}$) 11g to 12c:

Task 1 Obtain Oracle GoldenGate Monitor Agent

Obtain the product distribution by following the instructions in Downloading Oracle GoldenGate Monitor Agent.

Task 2 Backup the Existing Oracle GoldenGate Monitor Agent

Create a backup copy of your entire pre-upgrade Oracle GoldenGate Monitor Agent environment before you upgrade by copying the following to a backup location:

- OGG_HOME/cfg directory
- OGG_HOME/dirjar directory
- OGG_HOME/pw_agent_util.* files
- OGG_HOME/jagent.* files
- OGG_HOME/dirwlt directory

Task 3 Configuring the JRE

Configure your JRE as follows:

- 1. Set your \$JAVA_HOME environment variable to use your installed JRE.
- 2. Set \$JAVA_HOME/bin first in your \$PATH environment variable.
- 3. Verify that \$JAVA_HOME and \$JAVA_HOME/bin are setup correctly by running the following command:

```
java -version
```

The Java version is displayed and should be similar to the following:

```
java version "1.8.0_40"
Java(TM) SE Runtime Environment (build 1.8.0_40-b19)
Java HotSpot(TM) 64-Bit Server VM (build 24.60-b09, mixed mode)
```



Task 4 Installing Oracle GoldenGate Monitor Agent

Install Oracle GoldenGate Monitor Agent in a separate, standalone location using the instructions in one of the following dependent on your database:

For non-z/OS platforms, use Installing and Configuring Oracle GoldenGate Monitor Agent .

For z/OS platforms, use Installing and Configuring Oracle GoldenGate Monitor Agent for z/OS and DB2 for i .

Task 5 Stopping JAgent

Go to the Oracle GoldenGate Core GGSCI terminal and stop the Oracle GoldenGate Monitor Agent by executing the stop jagent command:

GGSCI>stop jagent

Verify that there are no remaining jagent processes after by running the following command:

ps -ef |grep jagent

Use the kill -9 command to stop if any stray jagent processes.

Task 6 Copying Files to the New Agent Directories

Copy the existing \$Monitor_Server_Domain/config/monitorserver/cfg directory, including all content, to the new Agent directory, \$AGENT_HOME/cfg_templates.

Task 7 Creating the Instance

Use one of the following subsections to either create or upgrade your Monitor instance:

11g Upgrades: Creating a New Instance

Create a new instance using the instructions in one of the following dependent on your operating system:

For non-z/OS platforms, use Create the Oracle GoldenGate Monitor Agent Instance. For z/OS platforms, use Create the Instance.

This modifies the <code>\$OGG_HOME/dirprm/jagent.prm</code> file as in the following example:

COMMAND java -Dconfig.dir=/home/oracle/oggmon_agent/oggmon/cfg Djava.util.logging.config.class=oracle.core.ojdl.logging.LoggingConfiguration Doracle.core.ojdl.logging.config.file=/home/oracle/oggmon_
agent/oggmon/cfg/logging-config.xml -Doracle.core.ojdl.logging.componentId=JAGENT jar -Xms512m -Xmx1024m /home/oracle/oggmon_agent/oggmon/ogg_agent/dirjar/jagent.jar

In this example, the jagent that will now be used is in /home/oracle/oggmon_agent/oggmon/ogg_agent/dirjar/jagent.jar and its configuration file is in the /home/oracle/oggmon_agent/oggmon/cfg directory.

12c Upgrades: Upgrading the Existing Instance

Run the Monitor Agent upgrade utility by entering the following command:

1. Go to the \$AGENT_HOME directory. For example:

cd /u01/app/oracle/product/wls/oggmon/ogg_agent

2. Run the upgrade script:

For this Operating System	Use this command
Unix	\$./upgradeToMonitorAgent1221.sh From JAgent Version



For this Operating System	Use this command
Windows	C:\ upgradeToMonitorAgent1221.bat From JAgent Version

For example: To upgrade from version 12.2.1.0.0 to version 12.2.1.2.0 use the command ./upgradeToMonitorAgent1221.sh 12.2.1.0.0



An error is displayed if the JAgent version is not provided.

The system responds:

Please enter absolute path of Oracle GoldenGate home directory:

3. Enter the absolute path to your Oracle GoldenGate home directory. For example, /u01/ogg/replication/oggcore1.

The system responds:

Please enter absolute path of OGG Agent instance :

4. Enter the directory that contains your Oracle GoldenGate Monitor Agent instance, which can be an existing directory. For example, /u01/ogg/agents/oggmon/agent1. This directory should be different than the Oracle GoldenGate home directory to avoid overwriting your Oracle GoldenGate Monitor Agent JAR and configuration files the next time you install or patch Oracle GoldenGate.

Note:

For Windows, you must ensure that you provide the absolute JDK8 directory path explicitly or the Monitor Agent cannot connect to the Monitor server. This directory path can also be defined in the <code>jagent.prm</code> file.

The Oracle GoldenGate Monitor Agent Instance directory can be an existing directory location. In that case, you are prompted:

OGG Agent instance directory already exists, do you want to overwrite the contents (yes \mid no)".

If you choose yes, the execution of the script will continue and all the contents related to Oracle GoldenGate Monitor Agent will be overwritten on that location. If you choose no, the execution of the script will stop.

The system responds:

Please enter unique name to replace timestamp in startMonitorAgent script.

5. Enter the unique name that you want to replace the timestamp in the startMonitorAgent.sh script file.



Once the Monitor Agent upgrade completes successfully, the Monitor Agent wallet credentials are also updated.



If you want to install a second instance of the JAgent, then ensure to remove <code>\$OGG_HOME/dirprm/jagent.prm</code>, and then run the <code>CreateMonitorAgentInstance.sh</code> Script again.

Task 8 Starting the Agent

Go to the Oracle GoldenGate Core GGSCI terminal and restart the Oracle GoldenGate Monitor Agent by executing the following commands:

stop manager

start manager start jagent

Monitor the new Agent log file, \$AGENT_HOME/logs/ogg_agent.log and resolve any issues.

If you are using the Oracle GoldenGate EM Plug-in, after <code>jagent</code> starts correctly you must restart the Oracle Enterprise Manager (OEM) Agent then login to the OEM 12c console to ensure that the out of sync status issues for Oracle GoldenGate registered targets are resolved.

Task 9 Removing the Previous Oracle GoldenGate Monitor Agent Software Remove the previous Oracle GoldenGate Monitor Agent software that was bundled with Oracle GoldenGate Software by deleting the following:

- OGG_HOME/cfg directory
- OGG_HOME/dirjar directory
- OGG_HOME/pw_agent_util.* files
- OGG_HOME/jagent.* files
- (Optional) If you do not store anything related to Oracle GoldenGate Instance in Oracle Wallet, then delete the OGG_HOME/dirwlt directory.



Installation Screens

See images and descriptions of the Oracle GoldenGate Monitor Agent screens used by the Oracle Universal Installer (OUI). These can help you understand the installation process.

- Welcome
- **Installation Location**
- **Installation Type**
- **Prerequisite Checks**
- **Installation Summary**
- **Installation Progress**
- **Installation Complete**

Welcome

This screen introduces you to the product installer.

Oracle Fusion Middleware 12c GoldenGate Monitor & Veridata Installation - Step 1 of 8 ORACLE Welcome FUSION MIDDLEWARE Welcome Welcome to the Oracle Fusion Middleware 12c (12.2.1.2.0) GoldenGate Monitor and Veridata Auto Updates Installation Location Use this installer to install GoldenGate Monitor and Veridata 12c into an existing Oracle Home Installation Type Before proceeding, ensure that you have installed Oracle Fusion Middleware Infrastructure 12c. Prerequisite Checks For more information, see $\underline{\text{Install}}$, $\underline{\text{Patch}}$, $\underline{\text{and Upgrade}}$ in the Oracle Fusion Middleware documentation library. Installation Summary Installation Progress Context-sensitive online help is available from the \underline{H} elp button Installation Complete Copyright © 2015, Oracle and/or its affiliates. All rights reserved. < gack Next > Einish Cancel

Figure 5-1 Welcome Screen

This page provides two important pieces of information:

Help

- A navigation pane on the left that summarizes the tasks the installer will help you complete. Each item in the navigation pane represents a specific installer screen that will prompt you for information required to install the software.
- Information about any prerequisites you might need to perform before continuing with the installation.

Review the information on this screen carefully to be sure you have performed all the necessary prerequisites.

Installation Location

Use this screen to specify the location of your Oracle home directory.

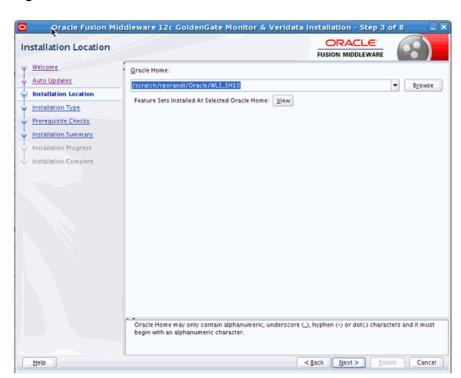


Figure 5-2 Installation Location

If you have an existing directory into which one or more Oracle products have already been installed, that directory can be viewed in the drop-down list. You can see which products are installed in that particular directory by clicking View next to "Features Sets Installed at Selected Oracle Home."

If you want your product to be installed in a new directory, type the full path of your new directory in the Oracle Home field; the installer will create the specified directory for you.

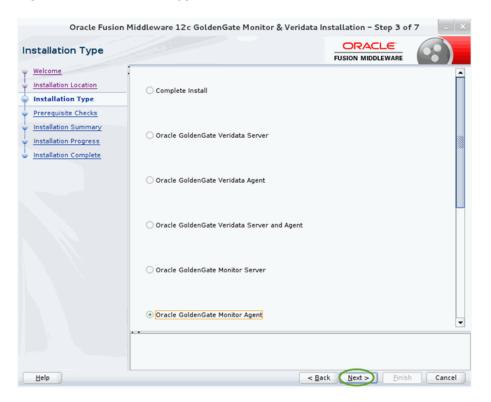
If you are installing Oracle Fusion Middleware Infrastructure, then the Oracle Common home (oracle_common) directory will be created inside the specified Oracle home directory. The Oracle Common home contains services that are shared across all Oracle Fusion Middleware products.



Installation Type

Use this screen to specify the installation type, which defines which products and features are installed.

Figure 5-3 Installation Type



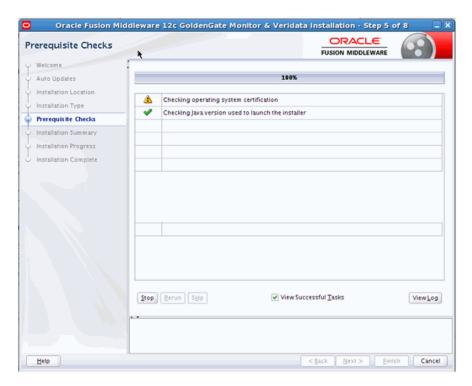
The options you see on this screen will differ depending on the product you are installing. For this product, select **Oracle GoldenGate Monitor Agent**.

Prerequisite Checks

This screen analyzes the host computer to ensure that specific operating system prerequisites have been met.



Figure 5-4 Prerequisite Checks



The following table describes the options on this screen:

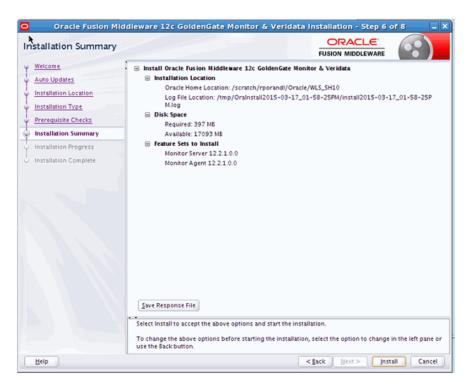
Button	Description
Stop	Click this button to stop prerequisite checking for all components.
Rerun	Click this button if you have encountered any warning or error messages, addressed them appropriately, and want to try the prerequisite checking again.
Skip	Click this button to ignore any error or warning messages and continue with the installation.
View Successful Tasks	This check box is selected by default, and shows the list of tasks in the main part of the screen as they are completed.
	De-select this check box if you do not want to see the list of tasks.
View Log	Click this button to open a separate window containing a detailed log file of the prerequisite checking.

Installation Summary

This screen contains a list of the feature sets you selected for installation, along with the approximate amount of disk space to be used by the feature sets once installation is complete.



Figure 5-5 Installation Summary



You can click an individual component to display its approximate installed size.

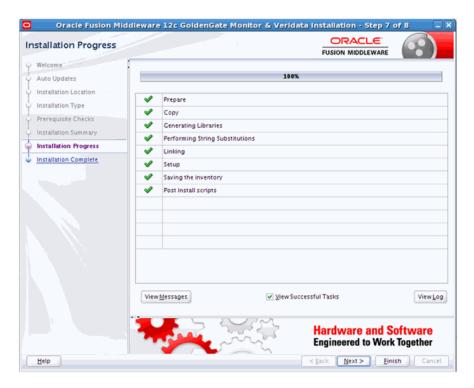
Click **Save Response File** to save this configuration to a response file, which can be used later in a silent install situation. See Chapter 2, "Using the Oracle Universal Installer in Silent Mode" in *Oracle Fusion Middleware Installing Software with the Oracle Universal Installer* for more information about response file and silent installation.

Installation Progress

This screen shows the progress of the installation. When the progress bar reaches 100%, the installation is complete.



Figure 5-6 Installation Progress



The following table describes the options on this screen.

Button	Description
View Messages	Click View Messages to see the installer messages at the bottom of the screen, where the billboard is located. Click the button again to return to the billboard.
View Successful Tasks	This check box is selected by default, and shows the list of tasks in the main part of the screen as they are completed.
	De-select this check box if you do not want to see the list of tasks.
View Log	Click View Log to see the installer log; the log will be displayed in a separate window.

Installation Complete

This screen appears at the conclusion of the installation and provides a summary of the products and features that were installed.



Figure 5-7 Installation Complete



