Oracle® Fusion Middleware

Using Oracle GoldenGate Studio

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Preface

This preface describes the document accessibility features and conventions that are used in *Oracle GoldenGate Studio Documentation*.

Documentation Accessibility

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

Accessible Access to Oracle Support

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

Related Information

The Oracle GoldenGate Product Documentation Libraries are found at

https://docs.oracle.com/en/middleware/goldengate/index.html

Additional Oracle GoldenGate information, including best practices, articles, and solutions, is found at:

Oracle GoldenGate A-Team Chronicles

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.

1
Introducing Oracle GoldenGate Studio

Oracle GoldenGate Studio allows you to quickly create, modify, validate, deploy, and reuse Oracle GoldenGate designs.
Topics:

1.1 Introduction

Oracle GoldenGate Studio enables you to design and deploy high-volume, real-time replication by automatically handling table and column mappings, allowing drag and drop custom mappings, generating best practice configurations from templates, and contains context-sensitive help. With Oracle GoldenGate Studio, users new to Oracle GoldenGate can start replicating data with minimal effort while experienced users have access to GoldenGate's advanced replication options. Users new to Oracle GoldenGate can start replicating data with minimal effort. Oracle GoldenGate Studio provides you with the following abilities:

- Quickly create, modify, validate, deploy, and reuse Oracle GoldenGate best practice designs.
- Define data flows once and deploy to numerous locations.
- Graphically filter, map, and transform data.
- Apply global rules and exceptions.

1.2 How Do I Get Started?

To understand what is available in the product and documentation, Oracle recommends that you familiarize yourself with the Concepts and Terminology and the Oracle GoldenGate Commands and Parameters that you can use with the Properties Inspector so that you have an understanding of what are available in the product and documentation.

You can follow the basic steps outlined below to create and deploy your replications:

OGG Roadmap Summary

Roadmap of Tasks

1. Begin by adding new database and Oracle GoldenGate connections to your Global Resource Library, see Understanding Projects.
2. Use the wizards to create a Project, Replication Solution, and Deployment Profile. By default each wizard invokes the next. Solutions define the replicat process. The Solution and Deployment Profile wizards provide you with preconfigured templates, see Understanding Solutions.
3. Solution objects own Mapping groups, which describe the logical view of the replication process. Use the **AutoMap** button or manually map the schema, table, and column mappings and then assign them to your replication paths, see Understanding Mapping Groups.

4. Create Mapping groups and assign them to the appropriate replication paths. You can reuse the Solution Mapping groups in multiple replication paths for that solution and the Global Mapping groups across multiple replication paths across the project, see Understanding Mapping Groups.
5. Add, remove, and fine tune any Oracle GoldenGate option or parameter, see Using the Properties Inspector.
6. Deploy the Solution online to live Oracle GoldenGate instances or generate the parameter and obey files locally for manual deployment, see, Understanding Deployment Profiles.
7. Define any additional physical resources and assign them to your deployment profiles through the drag and drop option from the Global Resource Library to the Deployment Profile diagram, see Understanding Deployment Profiles.
8. Solutions also own one or more Deployment Profiles, which describe the physical attributes of a particular replicat deployment. You can create multiple deployment profiles. For example, separate profiles for development, testing, and production for a single Solution, see Understanding Deployment Profiles.
9. View deployment history information, see Understanding Deployment Profiles.
10. Start, stop, and monitor all physical processes, see Monitoring .
11. Export solutions and mappings to XML files that can be imported by other Oracle GoldenGate Studio users, see Using the Projects Navigator.

2
Using the Interface

Learn how to use the interface to easily create, modify and deploy Oracle GoldenGate replication solutions.
Topics:

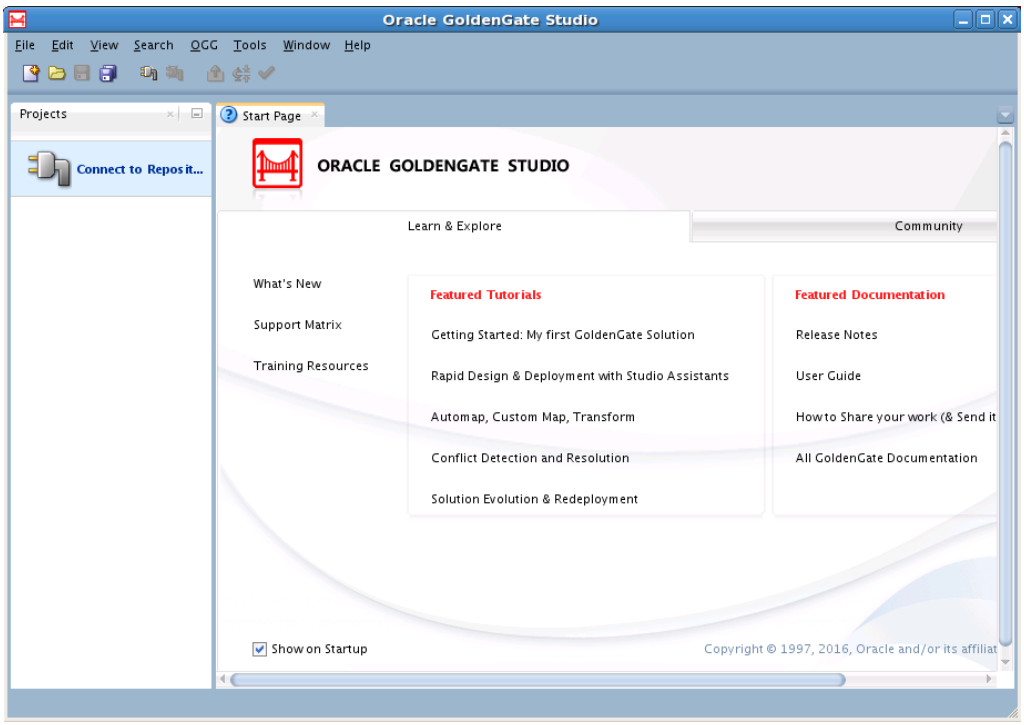
2.1 Understanding the User Interface Basics

Oracle GoldenGate provides a highly optimized user interface for easy creation, modification, and deployment of Oracle GoldenGate replication solutions.

There are two visible sections that appear when Oracle GoldenGate Studio is started. The Projects Navigator is visible on the left and the Start Page is visible on the right.

Screens shown in this guide may differ from your implementation, depending on the skin and icons used. Any differences are cosmetic.

Figure 2-1 Oracle GoldenGate Studio Main Window



The interface includes the tabbed editor area with a selection of other windows. The primary windows that are used with the editor area when you design and deploy Oracle GoldenGate replication solutions are:

- Projects Navigator

- Resources Navigator
- Properties Inspector
- Components Window
- Log Messages Window
- Security Navigator

You can also use the **Tab** key to change focus within a component and the keyboard shortcut **Ctrl+Tab** to change focus between different components.

2.1.1 Oracle GoldenGate Studio Repository Login

Use the Oracle GoldenGate Studio Repository login to connect to Oracle GoldenGate Studio. The required connection details are:

Studio Connection

- **LoginName**: Oracle GoldenGate Studio login name defined in the repository.
- **User**: Oracle GoldenGate Studio user name.
- **Password**: Oracle GoldenGate Studio user password.

Database Connection

- **User**: The name of the repository.
- **Password**: The password for the repository.
- **Driver List**: The name of the selected driver.
- **Driver Name**: Name of the login defined to the repository.
- **URL**: For Oracle database, this is the URL of the driver. For MySQL database, this is the repository name which is same as **User**.

  For example, if the **User** is `TEST_REP0`, the **URL** should also be `TEST_REP0`.

You can click **New** to create a new Oracle GoldenGate Studio login. You save your first repository connection definition by using a secure wallet. The secure wallet is password protected, see Deleting a Secure Wallet.

Click **Edit** to modify the existing Oracle GoldenGate Studio login with the Repository Connection Information Editor.

Click **Copy** to copy a current login definition.

Click **Delete** to delete an existing Oracle GoldenGate Studio login.

For more information on repository database tables, see description of repository tables.

Note:

- To improve performance, the repository database needs to be in the same LAN as the machine using Oracle GoldenGate Studio.
- Oracle GoldenGate Studio supports Oracle and MySQL database for repository.
- To create the repository with MySQL 5.7 database, use the following command:

```
set @@global.show_compatibility_56=ON;
```

Privileges Required to Create Repository

The following privileges are required for create the repository:

```
grant dba to oggstd;
GRANT EXECUTE ON DBMS_LOB TO oggstd with grant option;
GRANT EXECUTE ON DBMS_OUTPUT TO oggstd with grant option;
GRANT EXECUTE ON DBMS_STATS TO oggstd with grant option;
grant execute on sys.dbms_aq to oggstd with grant option;
grant execute on sys.dbms_aqadm to oggstd with grant option;
grant execute on sys.dbms_aqin to oggstd with grant option;
grant execute on sys.dbms_aqjms to oggstd with grant option;
grant execute on sys.dbms_aqadm to oggstd with grant option;
grant execute on sys.dbms_aq to oggstd with grant option;
grant execute on utl_file to oggstd with grant option;
grant execute on dbms_lock to oggstd with grant option;
grant select on sys.V_$INSTANCE to oggstd with grant option;
grant select on sys.GV_$INSTANCE to oggstd with grant option;
grant select on sys.V_$SESSION to oggstd with grant option;
grant select on sys.GV_$SESSION to oggstd with grant option;
grant select on dba_scheduler_jobs to oggstd with grant option;
grant select on dba_scheduler_job_run_details to oggstd with grant option;
grant select on dba_scheduler_running_jobs to oggstd with grant option;
grant select on dba_aq_agents to oggstd with grant option;
grant execute on sys.DBMS_SHARED_POOL to oggstd with grant option;
grant select on dba_2pc_pending to oggstd with grant option;
grant select on dba_pending_transactions to oggstd with grant option;
grant execute on DBMS_FLASHBACK to oggstd with grant option;
grant execute on dbms_crypto to oggstd with grant option;
GRANT EXECUTE ON DBMS_REPUTIL TO oggstd WITH GRANT OPTION;
GRANT execute on dbms_job to oggstd with grant option;
grant select on pending_trans$ to oggstd with grant option;
grant select on dba_scheduler_job_classes to oggstd with grant option;
GRANT SELECT ON SYS.DBA_DATA_FILES TO oggstd WITH GRANT OPTION;
GRANT SELECT ON SYS.V_$ASM_DISKGROUP TO oggstd WITH GRANT OPTION;
```

2.1.2 Menu Options

The menu options available in Oracle GoldenGate Studio are as follows:

2.1.2.1 The File Menu

Use this menu for file related activities, such as:

Menu option	Description
New:	Use to create a new project, solution, deployment profile, mapping group, data server connection, Oracle GoldenGate instance connection, and global mapping group.
Open:	Use to open a file.
Close:	Use to close the current editor tab.
Close All	Use to close all the open editor tabs.
Delete:	Use to delete the currently selected object. If nothing is selected, this is grayed out.
Save:	Use to save any changes done in the current editor tab.
Save All:	Use to save the changes in all open editor tabs.
Page Setup, Print, Print Preview, Print Area:	Use to set up the print options.
Exit:	Use to quit Oracle GoldenGate Studio.

2.1.2.2 The Edit Menu

Use the Edit menu for editing locally generated parameter and obey files. Any edits to these files not retained in the repository and are overwritten the next time the files are generated. Functions include:

Menu Option	Description
Cut:	Use to cut the selected item.
Copy:	Use to copy the selected item.
Paste:	Use to paste the selected item.
Delete:	Use to delete the selected item.
Duplicate Selection:	This is grayed out.
Multi-Cursor:	Use to enable the multi-cursor functionality. This menu is available when a text file is opened in the editor.
Select All:	Use to select the available on-screen items.
Block Selection:	Use to select a text block. This menu is available when a text file is opened in the editor.
Properties:	Use to open the Properties Inspector for an item.

2.1.2.3 The View Menu

Use the View menu for viewing the toolbar, the status bar, and the related viewing areas. Functions include:

Menu Option	Description
Editor:	Use to display the options available for editor.
Show Toolbars:	Use to view different toolbars such as Main, Code Editor, Properties, and Structure.
Show Status Bar:	Use to display the status bar.
Refresh:	Use to refresh the viewing area. If you refresh the editor tab, a dialog box displays to confirm if you wish to revert back to the last saved copy. You can use this method as an alternative to the undo operation.
Full Screen:	Use to display the product in full screen mode.
Show Only Editor:	Use to display only the editor area.

2.1.2.4 The Search Menu

Use the Search menu to find individual items in Oracle GoldenGate Studio. The available options are:

Menu Option	Description
Find:	Use to find a particular item.
Find Next:	Use to find the next instance of a particular item.
Find previous:	Use to find the previous instance of a particular item.

2.1.2.5 The Diagram Menu

Use the Diagram menu to view and optimize the diagrams. This menu is visible only when the Solution Editor or the Deployment Profile editor is selected. The options include:

Menu Option	Description
Upload GoldenGate Files...:	Use to upload the Oracle GoldenGate files. The specified location must exist to complete this operation.
Generate GoldenGate Files...:	Use to generate the Oracle GoldenGate files. The specified location must exist to complete this operation.

Menu Option	Description
Deploy:	Use to deploy the solution. The status of the deployment action is displayed in the messages log. Online deployment is possible at a solution level, Oracle GoldenGate instance level, host level, and processes level. This option is enabled only when an Oracle GoldenGate instance is associated with an actual Oracle GoldenGate instance resource.
Validate Deployment Profile:	Use to validate the deployment profile. The validation checks if any database specific options were incorrectly used. For example, if you indicate in the Oracle GoldenGate connection that the database is Oracle but try to deploy to SQL Server, the validation connects to the Oracle GoldenGate instance and a warning is displayed in messages log, if any Oracle specific options like integrated capture were used.
Synchronize Profile with solution:	Use to synchronize the deployment profile with a solution. This option is enabled only when the profile is not synchronized with the solution.
Start:	Use to start the selected process
Start...:	Use to start the selected process with additional options.
Stop:	Use to stop the selected process.
Kill:	Use to terminate the selected process.

Menu Option	Description
Alter Command:	Use the Alter command to display either the `Alter EXTRACT` or the `Alter REPLICAT` dialog boxes. Use the **Alter Extract** dialog box to: • change the attributes of an Extract group created with the `ADD EXTRACT` command. • Increment a trail to the next file in the sequence. • Upgrade to an integrated capture configuration. • Downgrade from an integrated capture configuration. • Position any given IBM for a journal at a specific journal sequence number. • Position any given Informix logical log at a specific LSN. Use the **Alter Replicat** dialog box to change the attributes of a Replicat group that was created with the `ADD REPLICAT` command: • A **Non Integrated** option switches Replicat from integrated mode to non-integrated mode. • An **Integrated** option switches Replicat from non-integrated mode to integrated mode.
Optimize Graphic Size:	Use to set the optimal size of the graphic element.
Bring to Front:	Use to bring the selected graphic to the top layer.
Send to Back:	Use to send the selected graphic to the bottom layer
Zoom:	Use to select the selected graphic to the required zoom level. You can select a defined zoom level, zoom in, zoom out, fit window, or zoom to a selected level.

2.1.2.6 The OGG Menu

Use the Oracle GoldenGate (OGG) menu includes the following options:

Menu Option	Description
Connect:	Use to connect to the repository.
Disconnect:	Use to disconnect from the repository.

Menu Option	Description
Repository Information:	Use to display detailed information about the Studio connection and Database connection. The Studio connection includes the Studio Login Name and password that was defined while creating the repository. One account can have the SUPERVISOR privilege while other accounts are non supervisor. SUPERVISOR is able to create and modify other users. The Database connection includes the database user name for the repository schema and the associated password, driver name (oracle.jdbc.OracleDriver), and the JDBC URL.
Change Current User's Password:	Use to change the password for the current user. User have to type both, the existing and the new password.
Solution:	Use to synchronize all profiles for a solution.
Deployment:	Use for online deployment, generate the Oracle GoldenGate parameter and obey files for offline deployment, and to validate the deployment profile.

2.1.2.7 The Tools Menu

The Tools menu includes the following option:

- **Preferences**: Use to set the preferences. See Setting Your Preferences section for more information.

2.1.2.8 The Window Menu

Use the window menu to display different window within the editor. The available options are:

Menu Option	Description
Projects Navigator:	Use to display the Projects Navigator window. You can view all the available projects, solutions, deployment profiles, and mapping groups.
Security Navigator:	Use to display the Security Navigator window. This is greyed out for a non supervisor user.
Components:	Use to display the Components window. Components are only displayed when the Solution diagram editor is selected.
Extension Diagnostics	Use to display the extension logs.
Log:	Use to display the Log Messages Explorer.
Properties:	Use to display the Properties Navigator window.

Menu Option	Description
Resources:	Use to display the Resources Navigator window. The main components are Global Mappings, OGG Instances, and Database Connections.
Structure:	Use to view the structural representation of data of the selected profile. The Structure window is enabled only when the Solution and Deployment Profile diagrams are selected.
Thumbnail:	Use to display a representation of the current diagram for quick navigation to a specific element on the diagram.
Configure Window	This menu item consists of a list of sub menu items to set the window behavior such as minimize, maximize, float and so on.
Reset Windows To Factory Settings:	Use to reset all windows to their default layout.
Assign File Accelerator:	Use to assign the file accelerators.
Close Profile *profile name*:	Use to close the active window. This menu item depends on what is selected.
Close All Documents:	Use to close all open documents within the editor.
Close other documents:	Use to close other documents.
Documents	Use to display the documents window, which lists all available documents. You can switch to a particular document, sort, save, or close a document.

2.1.2.9 The Help Menu

The help menu includes the following options:

Menu Option	Description
Search:	Use to search the online help system.
Table of Contents:	Use to display the table of contents for the online help system.
Documentation Library:	Use to open a browser window with a link to the related documentation.
Start Page	Use to display the Oracle GoldenGate product information page. You can learn and explore the tutorials and help topics from this page.
OGG Studio Forum:	Use to open a browser window with a link to Oracle GoldenGate studio forum posts.
Oracle Technology Network:	Use to open a browser window with a link to Oracle Technology Network.
About:	Use to display the About dialog box with version information.

2.2 Setting Your Preferences

You can set the preferences for Oracle GoldenGate Studio including the environment, audit behavior, and display.

The main components of this window are:

- Environment: Use to set the undo level, navigation level, and look and feel. All warning messages can be reset from here.
  - Log: Each activity can be logged. You can set the directory for saving log files, maximum number of log lines, and log color options.
- Audit: This is grayed out.
- Code Editor: Use to open the editor.
- Database: Use to configure different database options. You can also select the JDBC driver from the list of registered drivers, add a new driver, or delete an existing driver.
- Diagrams: Use to set the options for diagrams.
  - Annotation: Use to set the annotation options like color and font.
- Parameter Editor: Use to open the parameter editor.
- Web Browser and Proxy: Use to configure web browsers, proxy settings and internet files.
  - Web Browsers: Use to set the default web browser.
  - Proxy Settings: Use to configure the proxy settings such as no proxy, system default proxy, automatic proxy settings, and manual proxy settings.
  - Internet Files: Use to enable cookies and clear all existing cookies.

2.2.1 How to Set Preferences

To set preferences, do the following:

1. In the Oracle GoldenGate Studio window, from the **Tools** menu, select **Preferences**.
2. Modify individual items as per requirement.

2.3 Using the Keyboard Navigation

This section describes the common methods of moving the cursor in Oracle GoldenGate Studio.

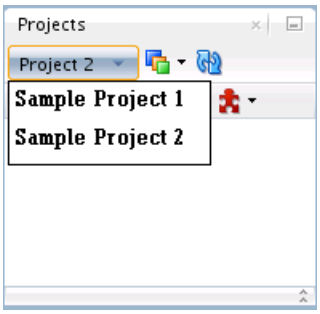
- Cursor control
- Operate Buttons
- Select Checkboxes
- Dropdown Lists and Combo Boxes
- List Boxes

- Radio Buttons
- Shuttles
- Sliders
- Spin Controls
- Text Fields
- Navigating Complex Controls

2.4 Using the Projects Navigator

The Projects Navigator to browse and select existing solutions and solution components such as **Deployment Profiles** and **Mapping Groups**. The list of all active projects are available through the **Project** drop-down option. You can refresh the current project by using the **Refresh Projects Window** button.

Figure 2-2 Projects Navigator



You can perform the following project related tasks by using the **Project Menu:**

- Open project: Opens the editor for the selected project. If no project is selected, this is grayed out.
- New project: Create a new project.
- Duplicate project: Duplicate an existing project and edit it after duplication.
- Delete project: Delete an existing project.
- Import project: Import a project XML file that was exported from Oracle GoldenGate Studio.
- Export project: Export a project to an XML file.

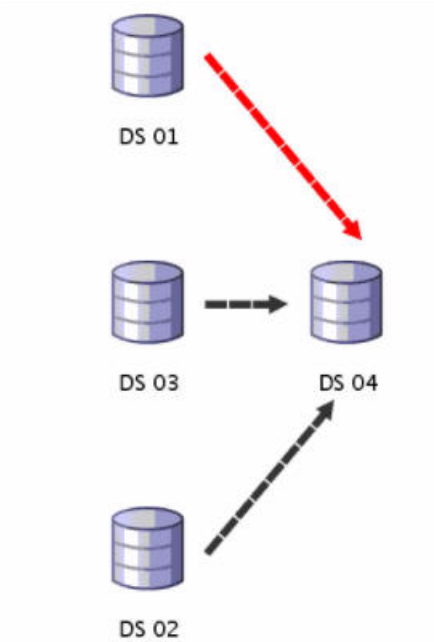
2.5 Using the Editor Area

The editor area is used to visualize the organization and flow of the logical replication solution with the physical objects for the physical deployment profile. You can add data server and replication path components visually by using the drag-and-drop operation to evolve the solution. The deployment profile architecture can be changed by selecting any part of the replication path in the deployment profile diagram and selecting the desired architecture template from the Properties Inspector.

Both the solution and deployment profile editors have an **Overview** tab. The Solution Overview tab contains the solution definition and description and deployment summary for all deployment profiles that are associated to that solution. The Deployment Profile Editor Overview tab contains the deployment profile description, deployment history for this profile only, monitoring, and deployment configuration options.

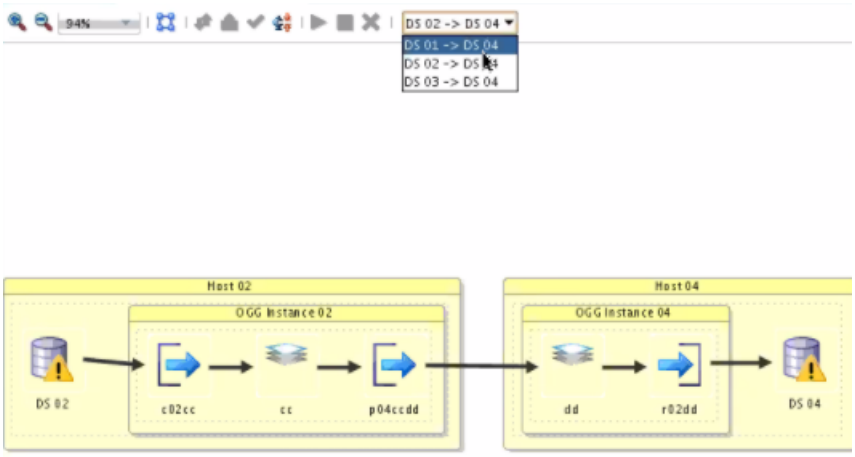
If using a Bidirectional, Consolidation, or Distribution solution template, a single replication path is shown and scaled in the deployment view to improve readability. You can use the drop-down to select the required replication path.

Figure 2-3 Multiple Replication Paths in Design View



The replication paths are displayed as **DS 01 -> DS 04**, **DS 02 -> DS 04**, and **DS 03 -> DS 04** in the editor area.

Figure 2-4 Drop Down List in Deployment View



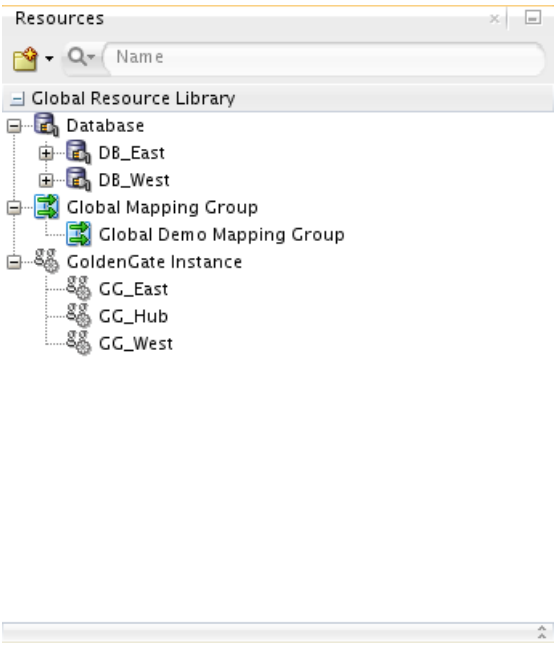
2.6 Using the Resources Navigator

The resources navigator, or the global resource library lists all the available resources such as:

- Database: All the available databases.
- Views: Create new views.
- Global Mapping Group: Global mapping groups can be assigned to any replication path of any solution across all projects. Mapping groups created for a solution in the Projects Navigator can be copied to the global mapping groups or created directly from the Resources Navigator.
- Oracle GoldenGate Instance: The available Oracle GoldenGate instances.

The Resources Navigator looks like:

Figure 2-5 Resources Navigator

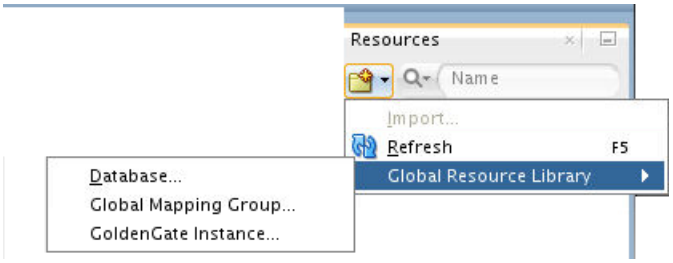


There are three ways to add a new global resource:

- If any type of resource is not added then you can add it by selecting the **New** button in the Resources Navigator toolbar.
- Add it by select the New button in the Oracle GoldenGate Studio toolbar.
- You also can select **New** under File menu, and then select the resource type you want to add.

If a resource type has already been added, you right-click the resource category and select New *Resource Type*. You can add a Global Mapping Group by right-clicking a mapping group in the Projects Navigator and selecting Copy to Global Resource Library.

Figure 2-6 Adding New Resources through Resources Navigator



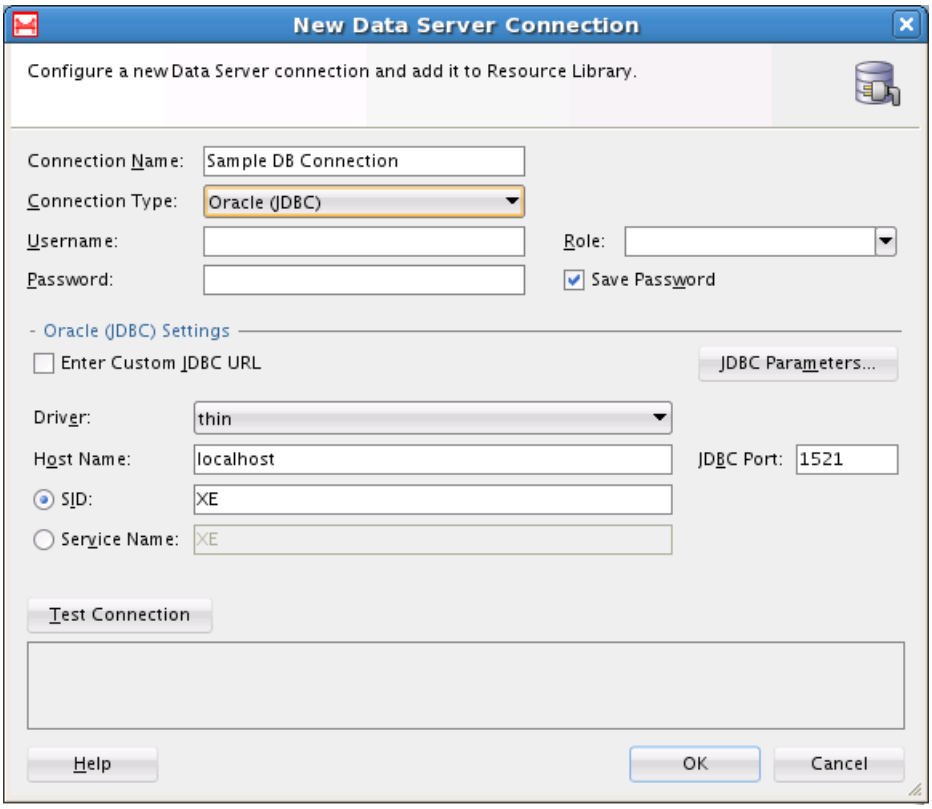
You can change the properties of existing resources by using the **Properties** context menu. You can also use the keyboard shortcut **Ctrl+Tab** to navigate to Resources Navigator, use the **Tab** and **arrow** keys to select the particular resource, and use **Shift + F10** to view the context menu.

2.6.1 Adding a New Database Connection

New database connections are used only for table metadata to facilitate table mapping and are not used to define connections used by capture and apply processes. Capture and apply connections are defined in the Properties Inspector in the Deployment Profile.

A new database connection wizard looks as follows:

Figure 2-7 New Database Connection



To add a new data server connection:

1. Select the Database resource type in the Resources Navigator window and right-click to select **New Database Connection**.
2. In the New Data Server Connection window, add the following:
   a. Connection Name: The name of the new connection. The resource is listed in the Resources Navigator with the name mentioned here.
   b. Connection Type: Connection types are `Oracle (JDBC)`, `Generic JDBC`, `MySQL`, `SQLServer`, `DB2 UDB`, and `Teradata`. Changing of database type is not supported after connection is created.
   c. The User name and Password to connect to the database. If you uncheck **Save Password** check box during connection creation and if you want to expand the Database node after reconnecting to repository, Database node

expansion asks you to enter the password to show all the nodes for the database connection.

d. The role as `SYSDBA` or `SYSOPER`. This can be left blank when the user is not `SYS`. Else, you have to select the role.

e. The JDBC settings.

   By default, Oracle GoldenGate Studio provides drivers for Oracle, MySQL, SQL Server, Informix, Sybase, and DB2 UDB. Additional database drivers that are not provided with the product can be configured by using **Tools** menu, then **Preferences** , **Database**, and **JDBC Driver Options**. Once a data server connection is created, you can browse objects in the database in the Resources Navigator and you can use the information from the database navigator for mapping the tasks. Currently Oracle, MySQL, and SQLServer drivers are certified.

   To add the Teradata connection, you have to load the Teradata drivers as follows:

   i. In the New Data Server Connection window, select Teradata as the connection type.

   ii. Click the select Library button.

   iii. In the Select Library window, click the **New...** button.

   iv. In the Create Library window that opens, click on **Add Entry...** button.

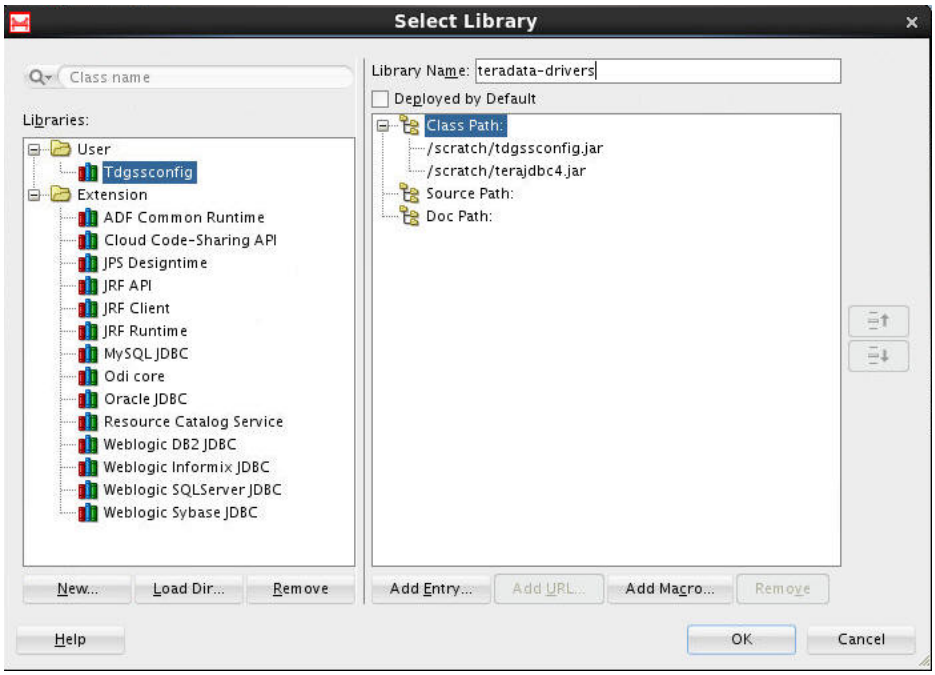
   v. In the Select Path Entry window that opens, browse to the location where the Teradata drivers are stored and select the drivers. Click the **Open** button.

   vi. Click **OK** if the drivers are correctly added under Class path.

   vii. In the Select Library window, you can see the newly added Teradata drivers. Click **OK**.

   viii. Provide a valid Username and Password and click **Test Connection** to perform a connection test or **OK** to proceed with the connection.

Figure 2-8 The Select Library Dialog



3. Click **OK** to create a new Database resource.

   You can also test the connection by using **Test Connection** button before you create the new resource.

> **Note:**
>
> Teradata is supported as a target only database but you can drag-and-drop Teradata tables as a source database in the mapping editor. This is possible as mapping is a logical concept and no check is performed by Oracle GoldenGate Studio.

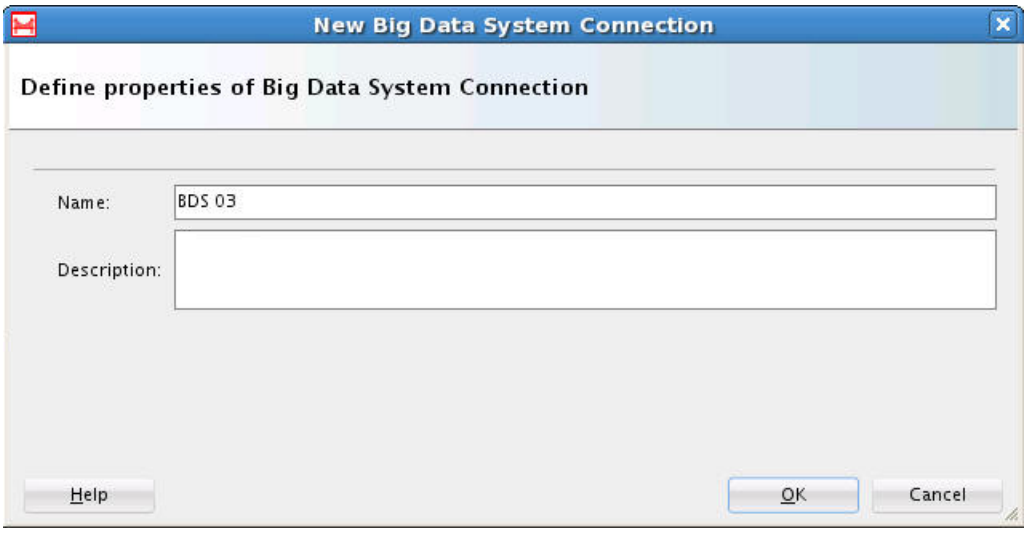
> **Note:**
>
> The `generate to` function for Teradata and DB2 UDB tables depend on JDeveloper functionality. DB2 UDB to DB2 UDB and Teradata to Teradata are not supported.

2.6.2 Adding a New Big Data System Connection

A new Big Data system can only be used as a target. Properties for the connection can be defined in the Properties Inspector in the Deployment Profile.

A new Big Data system connection wizard looks as follows:

Figure 2-9 New Big Data System Connection



To add a new Big Data system:

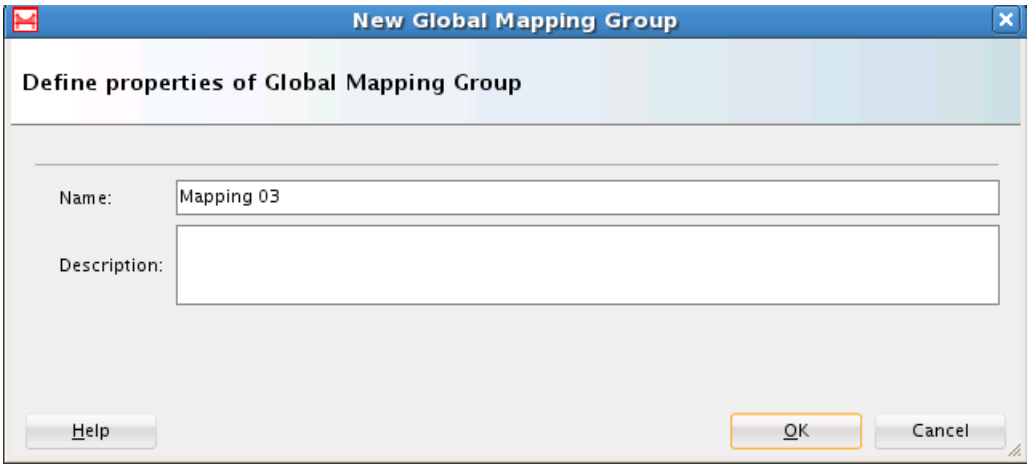
1. Select the Big Data System resource type in the Resources Navigator window and right-click to select **New Big Data System Connection**.
2. In the New Data Server Connection window, add the following:
   a. Name: The name of the new connection. The resource is listed in the Resources Navigator with the name mentioned here.
   b. Description: A short description about the new Big Data System.
3. Click **OK** to create a new Big Data System resource.

2.6.3 Adding a New Global Mapping Group

The New Global Mapping Group wizard defines a container for table mappings but does not guide you through the table mapping process. To learn more about defining table mapping see Understanding Mapping Groups.

A new Global Mapping Group wizard looks as follows:

Figure 2-10 New Global Mapping Group



To add a new Global Mapping group:

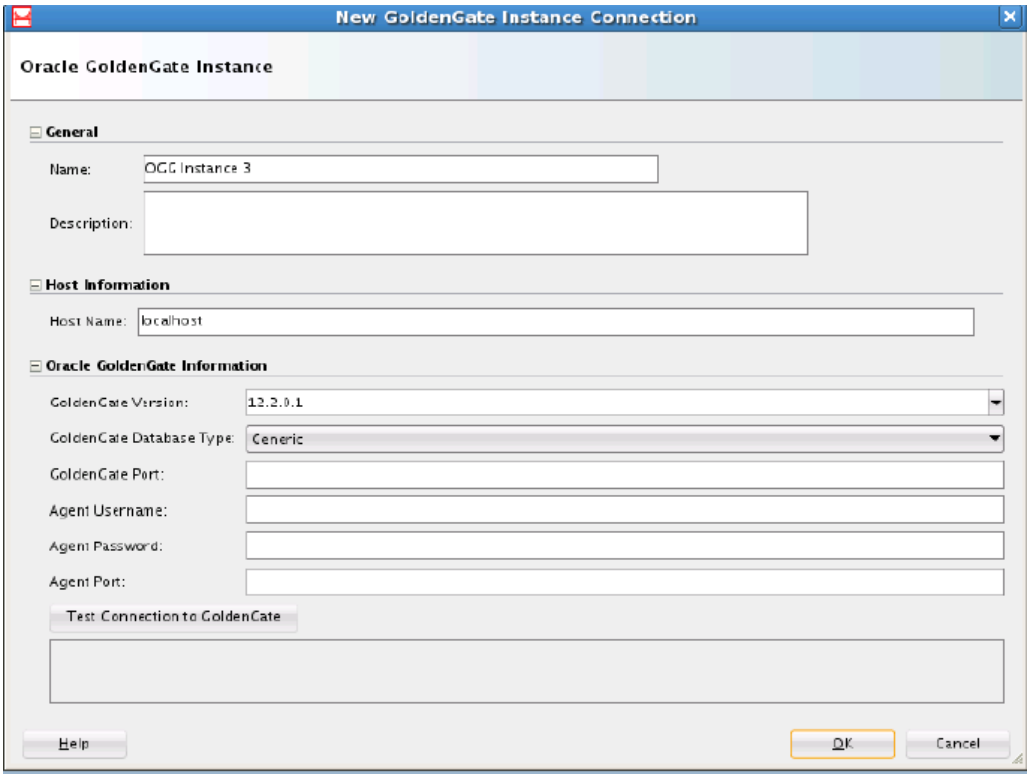
1. Click the **New** button on the Resources Navigator window or right click on the database icon and select **New Global Mapping Group Connection**.
2. Enter the name of the new connection.
3. Enter a short description to identify the resource.
4. Click **OK**.

2.6.4 Adding a New Oracle GoldenGate Instance

The Add a New Oracle GoldenGate Instance dialog defines a connection to an existing Oracle GoldenGate installation. This installation must already have the Oracle GoldenGate manager and `jAgent` the processes running.

A new Oracle GoldenGate Instance dialog looks as follows:

Figure 2-11 New Oracle GoldenGate Instance Connection



To add a new Oracle GoldenGate connection:

1. Click the **New** button on the Resources Navigator window or right click on the database icon and select **New Oracle GoldenGate Instance Connection**.
2. In **General** section, enter the name and description for the new connection.
3. In **Host Information** enter the Host Name. It is the DNS name of the server where Oracle GoldenGate is installed.
4. In the **Oracle GoldenGate Information** section enter the following:
   - **GoldenGate Version**: You can also select the version from the list while working offline. If there is an active connection and incorrect version is entered, the correct information is updated to overwrite the incorrect version when the **Test Connection to GoldenGate** button is placed.
   - **GoldenGate Database Type**: The database type for which the connection is created.
   - **GoldenGate Port**: The port number for the Oracle GoldenGate manager process.
   - **Agent Username**: The JAgent name as specified by the `jAgent.username` property in the `config.properties` file of the `jAgent` at the time of installation.
   - **Agent Password**: The password for the corresponding username.
   - **Agent Port**: The `jAgent` port as specified by the `jagent.jmx.port` property in the `config.properties` file of the `jAgent`. The recommended mode is `OEM`. If

the agent mode is `OEM`, then you have to use `jagent.rmi.port`. If the agent mode is `OGGMON`, then you have to use `jagent.jmx.port`.

5. Click **Test Connection to GoldenGate** to verify if the connection is working. The version and database type is automatically updated on successful connection.

2.7 Using a Custom Parameter File

Use this to upload an already existing or custom parameter files to Oracle GoldenGate Studio.

Oracle GoldenGate Studio supports uploading of existing parameter files for the Extract, Replicat, pump processes, and also for Oracle GoldenGate instance (manager and GLOBALS file).

To upload a parameter file, right-click the Extract or Replicat process and select **Upload GoldenGate File** menu item. In the Upload GoldenGate File dialog that is displayed, click **Browse**, select the particular parameter file to be uploaded, and click **Open**. Click **OK** to confirm the selection.

The corresponding values from the parameter file are updated in the **Properties Inspector**. All the values are available in **Properties Inspector** are parsed when a parameter file is uploaded.

Use this method only for online process and parameter level items `xx.prm`, and not for initial load process and obey level items `xx.oby`.

The comments in `.prm` file are not parsed in this method.

If Oracle GoldenGate Studio is not able to parse a particular parameter, then it does not stop parsing the custom parameter file and moves on to the next parameter. The Messages — Log is updated with the discarded parameter. You can view the Messages — Log by selecting the **Window** menu and then the **Log** menu . For errors such as Array Index Out of Bounds and Null Pointer Exception, the Oracle Diagnostic Logging (ODL) is updated instead of the Messages — Log.

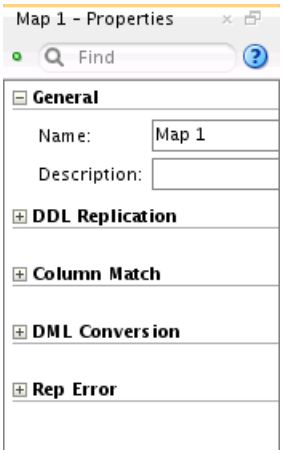
Note:

- Oracle GoldenGate Studio creates a new map whenever a parameter file is uploaded for the replicat process. Multiple new maps are created if you upload an updated version of the parameter file. To avoid this, delete any older maps associated with the particular parameter file before uploading the file again.
- In Oracle GoldenGate Studio, mapping in Extract side is not supported when using custom parameter file. Do not use the parameter `Target Definitions` in **Properties Inspector** for any Extract process. Before online deployment, you must follow the steps to create manual map for the online deployment.
- The maximum length for any parameter unit is 20 characters. You may receive an error if it exceeds the maximum length.
- To view the updated trail file name, you should save the profile and reopen it.
- Oracle GoldenGate Studio does not parse the `MAPEXCEPTION` parameter.

2.8 Using the Properties Inspector

The Properties Inspector to view and edit the attributes of the selected artifacts in the solution diagram, deployment profile diagram, and mapping editor. You can view a tool tip with a description of that particular parameter with the right-click option in the Properties Inspector of the Deployment Profile. The Properties Inspector is dynamic and the attributes correspond to the different types of items selected in the editor.

Figure 2-12 Properties Inspector



Oracle GoldenGate Commands and Parameters that you can use with the Properties Inspector contains a list of the options that can appear in the Properties Inspector of the Deployment View.

2.8.1 How to Use the Properties Inspector

To use the Properties Inspector, do as follows:

1. In Oracle GoldenGate Studio, navigate to **Window** menu and select **Properties** to display the Properties Inspector.
2. In the Solution Editor, Mapping Editor, or Deployment View select an item for which you want to change the property.
3. In the Properties Inspector, change the corresponding properties for that particular item. Some items, such as conflict resolution in the mapping editor, requires clicking a dynamic gear icon  that appears to the far right when you mouse over the attribute.
4. Save the changes by using the **Save** button on the toolbar or by using the **Save** option from **File** menu. The changes in the process parameters are available only after redeployment or after regeneration of the parameter files.

> **Note:**
>
> Oracle GoldenGate Studio does not validate the values entered by user in the Properties Inspector. You have to ensure correctness of values to avoid abnormal behavior.

2.8.1.1 Viewing or Modifying Big Data Properties File

You can now view or modify the Big Data properties file in Oracle GoldenGate Studio.

> **Note:**
>
> This is applicable to process properties only when the Big Data `ogginstance` is assigned as a resource.

To view or modify the Big Data Properties file:

1. In the Property Inspector, click **Edit** adjacent to the Big Data Property File field to display the content of the property file. Click **Browse** to select the file and then edit the content of the selected file in a dialog.
2. Make the required changes in the **Big Data Property File** dialog and click **OK** to save the changes.

3

Working with Solutions and Deployment Profiles

Learn how to use the solutions and deployment profiles to configure and manage your replication solutions using Oracle GoldenGate Studio.
Topics:

3.1 Understanding Projects

A project is a container for a replication solution. Once created, they are presented as a drop-down list at the top of the Projects Navigator. For more information, see Using the Projects Navigator.

3.1.1 Creating a Project

To create a Project, do as follows:

1. Click the **New** button on the toolbar, or from the **File** menu select **New**, or select **New Project...** from the Project Menu drop-down list in the Projects Navigator.
2. Select **Create New Project**, then click **OK**.
3. Enter a name for you project with an optional description, then click **Next**.
4. (Optional) you can deselect the **Continue to Solution Wizard**.
5. Click **OK**.

Your project is created and is displayed in the list of projects.

3.2 Understanding Solutions

Solutions represent the replication patterns supported by Oracle GoldenGate and are contained in a project. The concept of replication paths and mapping groups are all part of the logical definition of a solution. Once the logical design is in place, you can create multiple deployment profiles each with its own deployment template to match the physical elements of your replication environments. A single Oracle GoldenGate project can have multiple solutions.

One solution and its table mapping groups can be deployed to any number of physical locations.

A typical solution contains:

- Deployment Profiles: Describes the deployment architectural template, physical resources, and additional deployment options.
- Mapping Groups: A collection of source and target table mappings and its associated replication logic, such as filtering and conflict detection rules table from the Resources Navigator to the Mapping Editor. Then you can automatically generate the source and target table mapping associations between the **Source**

and **Target** using **Automap** or created by using the drag-and-drop between **Source** to **Target** and between **Target** to **Source**. Additionally, you can use wildcard characters (*) in the mappings at the schema and table level. For Oracle multitenant support you must edit the schema name manually to include the database name.

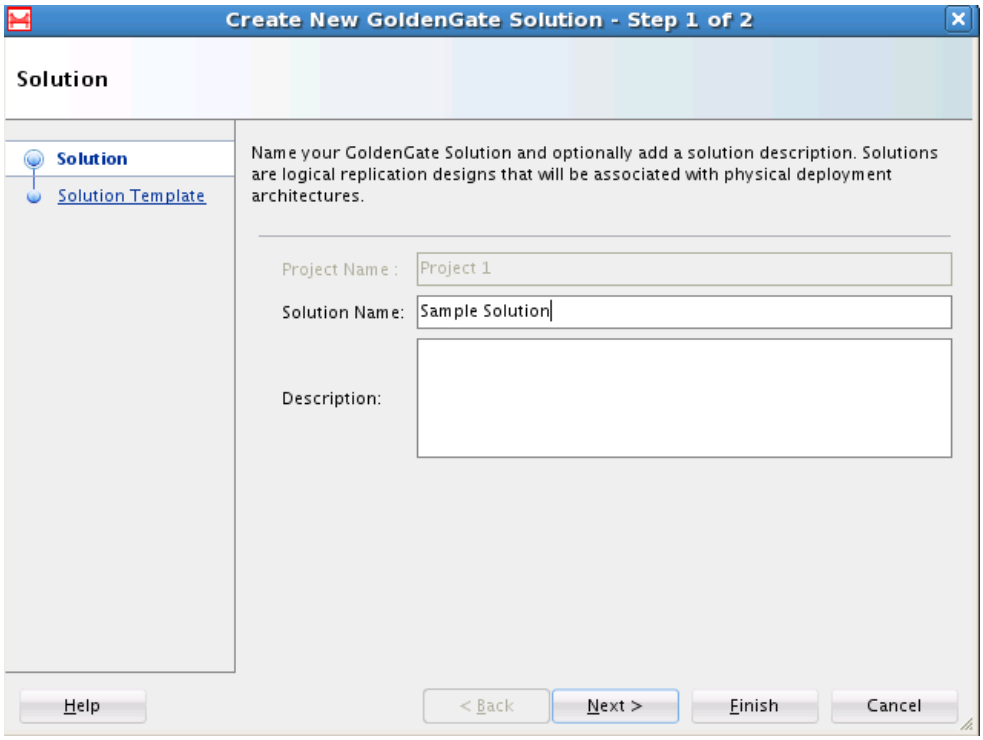
Readily available solution templates are available in Oracle GoldenGate Studio and they greatly reduce the time required to create and deploy a solution.

3.2.1 Creating a New Solution

You can create a new solution as follows:

1. In the Projects Navigator, right-click and select **New**.

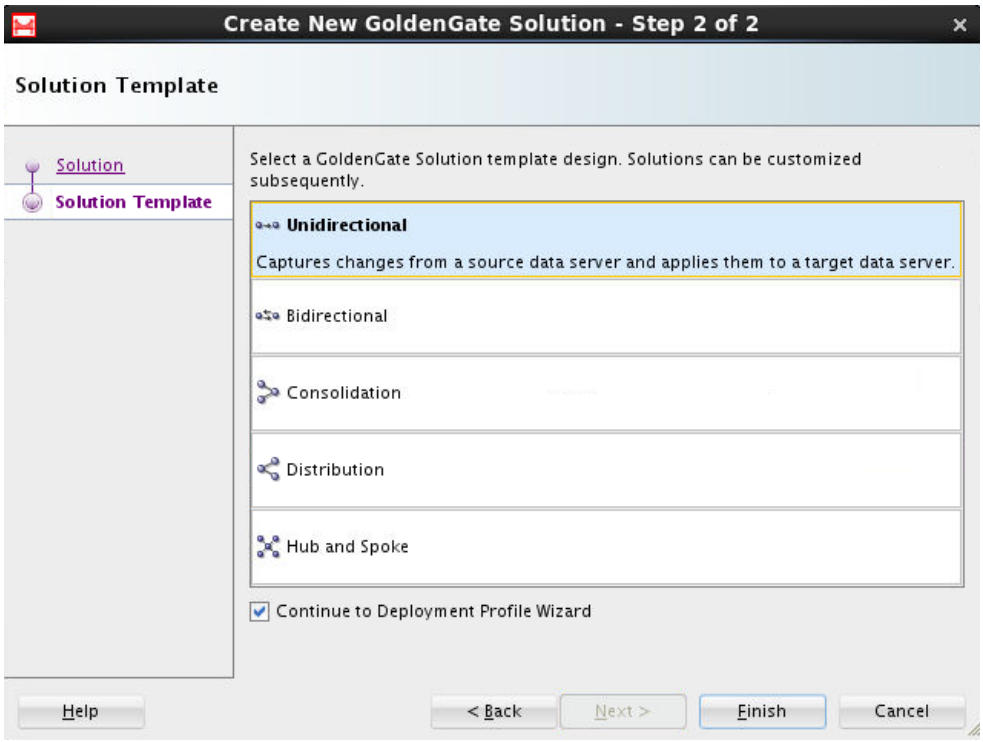
Figure 3-1 New Solution Dialog



2. Provide a name for the solution with an optional description, then click **Next**.
3. Select a solution template from Unidirectional, Bidirectional, Consolidation, Distribution, or Hub and Spoke. If you select Consolidation, Distribution, or Hub and Spoke, you have to enter the number of items.

   A description appears for the selected template.

Figure 3-2 New Solution Template



4. (Optional) you can deselect the **Continue with Deployment Profile Wizard** .
5. Click **Finish**.

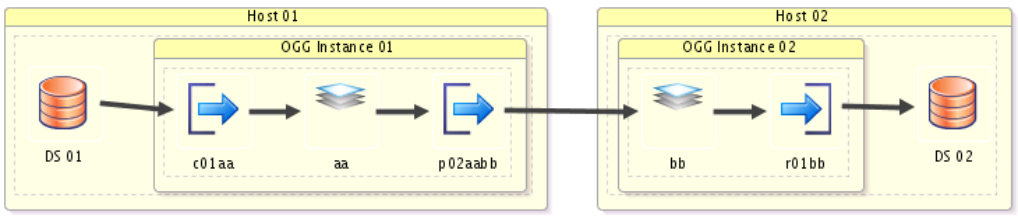
   Your solution is created in the open project and is displayed in the Solutions Navigator.

The default value is 2 for Consolidation and Distribution and 4 for Hub and Spoke. The maximum applicable value is 2000 for all the templates.

3.3 Understanding Deployment Profiles

The deployment profile is part of the Oracle GoldenGate Studio solution. It describes the physical attributes of the replication solution. There can be more than one deployment profile per solution. For example, one deployment profile for the development environment, one for the test environment, and one for production.

Figure 3-3 Sample Deployment Profile View



3.3.1 Components of the Deployment Profile

The different components of the deployment profile are:

3.3.1.1 Name of the Oracle GoldenGate profile

Use this component to add a name and optional description to the deployment profile.

3.3.1.2 Deployment Architecture Template

Use this component to define the architecture of deployment profile. When you use the Deployment Profile wizard the selected architecture template is applied to each and every replication path in the solution. However, in the Properties Inspector, individual replication paths may have different architecture templates.

In Consolidation or Distribution, if you change the deployment template from Source, Target to any other template, only the corresponding links will be changed to other templates and not the entire deployment profile diagram.

The available architecture templates are:
Source, Target: The source and target deployment environments contain Oracle GoldenGate instances that are local to the data servers. Capture and apply are both done locally.
Target Only (Remote Source): There is only one Oracle GoldenGate instance and it is local to the target data server. Capture is done remotely from the target.
Source Only (Remote Target): There is only one Oracle GoldenGate instance and it is local to the source data server. Apply is done remotely from the source.
Hub Only (Remote Source and Target): The Oracle GoldenGate instance is on staging servers. Capture and apply are both done remotely.
Select the number of hubs from the list box. The numerical values listed are 1, 2, and 3. Based on the number you select from the list box, the Hubs are listed on the **Physical Resources** page. For example, if you select 2 from the list box, then you can find the provision to select 2 Hubs on the **Physical Resources** page.
Source, Hub, and Target: There are at least 3 Oracle GoldenGate instances. One is local to the source data server and one is local to the target data server. Capture and apply are both done locally and data is transmitted through Oracle GoldenGate instances on hub between the two. Number of hubs can be selected from the list box. Based on the number you select from the list box, the Hubs are listed on the **Physical Resources** assignment page.
Hub, Target (Remote Source):There are two Oracle GoldenGate instances, one on a staging hub and one on the target data server. Capture is done remotely from the hub while apply is done locally at the target.
Source, Hub (Remote Target): There are two Oracle GoldenGate instances, one is on the source data server and one is on a staging hub. Capture is done locally from the source data server while apply is done remotely from the target data server from the hub.
Single Host (Local Source and Target): There is only one host and it contains both the Oracle GoldenGate instance and source and target data servers.

3.3.1.3 Assign Physical Resources

Use this component to assign your resources to the source, the target, and the hub (if applicable) of the replication path.

The resource assignment section contains:

Name section	Description
Replication Path:	It describes the data store mapping information.
Source:	Select the Data Server and Oracle GoldenGate Instance to use as the source of each replication path.
Target:	Select the Data Server and Oracle GoldenGate Instance to use as the target of each replication path.
Hub	Select the Data Server and Oracle GoldenGate Instance to use as the hub of each replication path.

> **Note:**
>
> Resource assignment can be done through the Deployment Profile editor by dragging and dropping resources from the Resources Navigator to the appropriate diagram elements and through the Properties Inspector.

3.3.1.4 Deployment Configuration

Use this component to select several additional options such as initial load of all targets, and starting of Oracle Data Pump.

Initial load of all targets: If you must copy between systems before changes to the data are applied, select this option.
Start All Oracle GoldenGate Processes: Select the processes that should be started after deployment:

- Start Capture Process
- Start Pump Process
- Start Apply Process

> **Note:**
>
> Processes can be started only during online deployment.

- Replication Paths: Displays the selected replication path.

- OGG Initial Load: Start Oracle GoldenGate initial load processes.
- ODP Initial Load: Start the Oracle Data Pump initial load processes.

- Remote Link: Enables an export from a (source) database identified by a valid database link. The data from the source database instance is written to a dump file set on the connected database instance.
- Parallelism: Specifies the maximum number of threads of active execution operating on behalf of the export job. This execution set consists of a combination of worker processes and parallel I/O server processes.

3.3.2 Consolidation of Capture

Oracle GoldenGate Studio uses a single capture for a single database. This result in significant performance enhancement.

Single capture is mainly used in **Hub and Spoke** solution template and the following deployment architecture template:

- Source, Target
- Source Only
- Source, Hub, Target
- Source, Hub
- Single Host

To use multiple capture for a single database, multiple solutions must be created.

3.3.3 Toolbars in the Deployment Profile

The toolbar buttons are described in sequence with the following image:

Figure 3-4 Deployment Profile Toolbar

Some buttons Validate and Start are context-sensitive and change color when you enable them.

- **Zoom In**: Click to increase the size of the on-screen components.
- **Zoom Out**: Click to decrease the size of the on-screen components.
- **Percent View**: Click to set the view to a predefined percentage value.
- **Perform Layout**: Click to automatically rearrange the components in the deployment view in an organized way. You can save the layout by using the **Save** button in the toolbar or by selecting **Save File** menu. The data flow is from left to right.
- **Synchronize Profile with Solution**: Click to synchronize the deployment profile with a solution use this option only when the profile is not synchronized with the solution.

- **Deploy Solution**: Click to deploy the solution. The status of the deployment action is displayed in the Messages log. Online deployment is possible at solution level, Oracle GoldenGate instance level, host level, and processes level this option only when an Oracle GoldenGate instance is assigned with an actual Oracle GoldenGate instance resource.
- **Validate Deployment Profile**: Click to validate the deployment profile. The validation checks if any database specific options were incorrectly used. For example, if you indicated in the GoldenGate connection that the database is Oracle but try to deploy to SQL Server, the validation connects to the GoldenGate instance and a warning is displayed if any Oracle specific options like integrated capture were used. Validation warnings, if any, are displayed in the messages log.
- **View Report File**: Click to view the Report files.
- **Generate GoldenGate Files:** Click to choose a local directory in which GoldenGate files are generated.
- ***Start the Selected Process***: Click to start the selected process.
- **Stop the Selected Process**: Click to stop the selected process.
- **Kill the Selected Process**: Click to terminate the selected process.
- **Replication Path drop-down list**: Click to select the replication path. Only the components of one replication path at a time can be viewed.

3.3.4 Creating a New Deployment Profile

To create a new deployment profile:

1. **Name your Deployment Profile**: Provide a name for the deployment profile and click **Next**. Click **Finish** to creates a profile that defaults to the Replication Path, Source, and Target by using automatically generated names and settings for the solution.
2. **Deployment Template**: Select an architecture to be used as the template for the solution. The deployment architecture template describes where Oracle GoldenGate is installed in relation to the data servers. The selected template is applied to all replication paths and can be customized on a replication path-by-replication path basis subsequently. You can change a previously selected deployment architecture template by clicking the template link in the Deployment View and selecting a new template in the Properties Inspector.

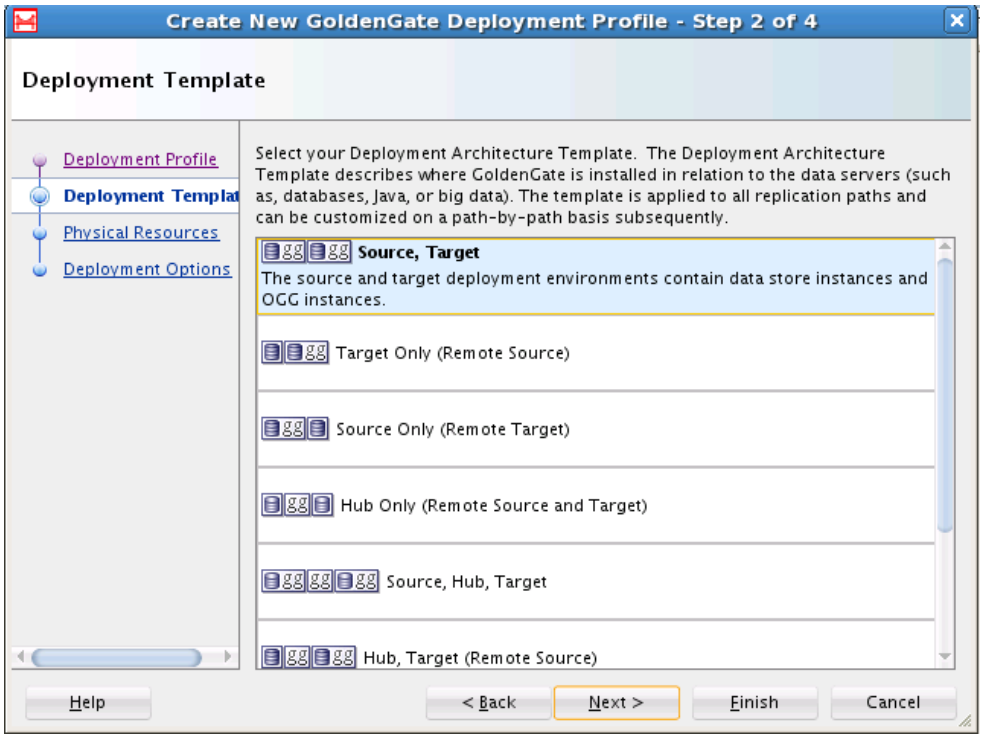
   Architecture templates available are:

Deployment Architecture Template	Description
Source, Target	The source and target deployment environments contain Oracle GoldenGate instances local to the data servers. Capture and apply are both done locally.
Target Only (Remote Source)	There is only one Oracle GoldenGate instance and it is local to the target data server. Capture is done remotely from the target.
Source Only (Remote Target)	There is only one Oracle GoldenGate instance and it is local to the source data server. Apply is done remotely from the source.

Deployment Architecture Template	Description
Hub Only (Remote Source and Target)	The Oracle GoldenGate instance is on staging servers. Capture and apply are both done remotely. Select the number of hubs from the list box. The numerical values listed are 1, 2, and 3. Based on the number you select from the list box, the Hubs are listed on the **Physical Resources** page. For example, if you select 2 from the list box, then you can find the provision to select 2 Hubs on the **Physical Resources** page.
Source, Hub, Target	There are at least 3 Oracle GoldenGate instances. One is local to the source data server and one is local to the target data server. Capture and apply are both done locally and data is transmitted through Oracle GoldenGate instances on hub between the two. Number of hubs can be selected from the list box. Based on the number you select from the list box, the Hubs are listed on the **Physical Resources** assignment page.
Hub, Target (Remote Source)	There are two Oracle GoldenGate instances, one on a staging hub and one on the target data server. Capture is done remotely from the hub while apply is done locally at the target.
Source, Hub (Remote Target)	There are two Oracle GoldenGate instances, one is on the source data server and one is on a staging hub. Capture is done locally from the source data server while apply is done remotely from the target data server from the hub.
Single Host (Local Source and Target)	There is only one host and it contains both the Oracle GoldenGate instance and source and target data servers.

Select the deployment architecture template from the list of available templates and click **Next**.

Figure 3-5 Deployment Architecture Template



The contents of the Physical Resources step is populated based on your deployment template selection.

3. **Assign Physical Resources**: Use this option to assign your resources to the source, target, and hub (if applicable) of the replication path.

Source

Select the Data Server and Oracle GoldenGate instance to use as the *source* of each replication path.

Target

Select the Data Server and Oracle GoldenGate instance to use as the *target* of each replication path.

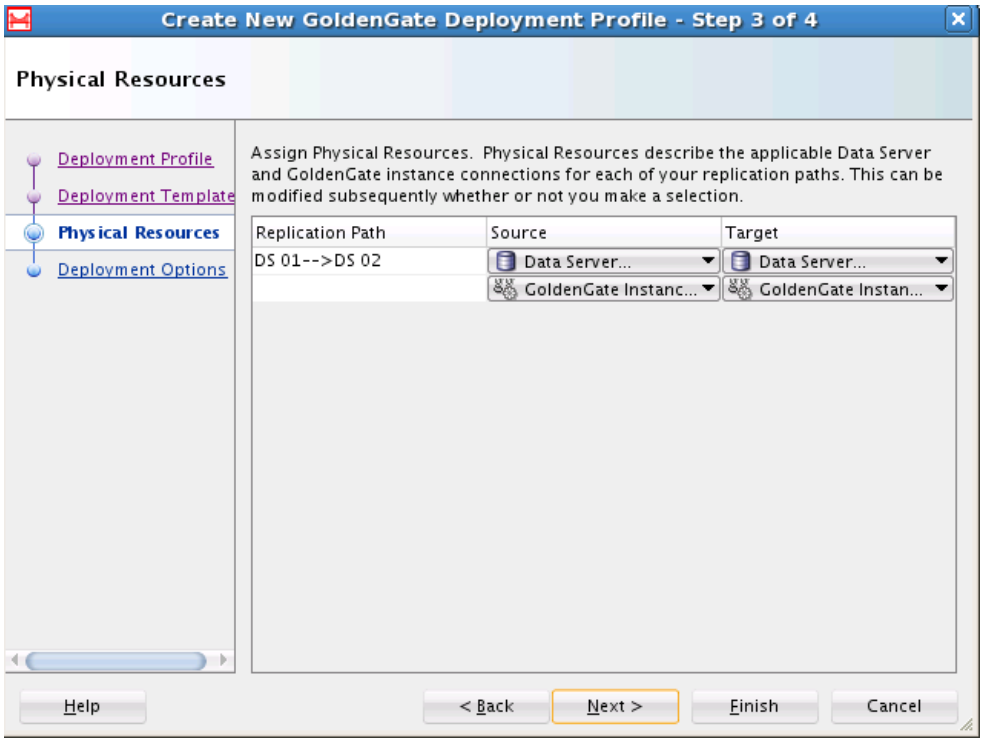
Hub

Select the Data Server and Oracle GoldenGate instance to use as the *hub* of each replication path.

> **Note:**
>
> Resource assignment can also be done through the Deployment Profile editor by dragging and dropping resources from the Resources Navigator to the appropriate diagram elements and through the Properties Inspector.

The deployment template is the same for all replication paths in a given solution. Some templates do not require data stores.

Figure 3-6 Physical Resources in Deployment Profile



4. **Deployment Options**: Select or deselect any applicable Oracle GoldenGate starting process deployment options.

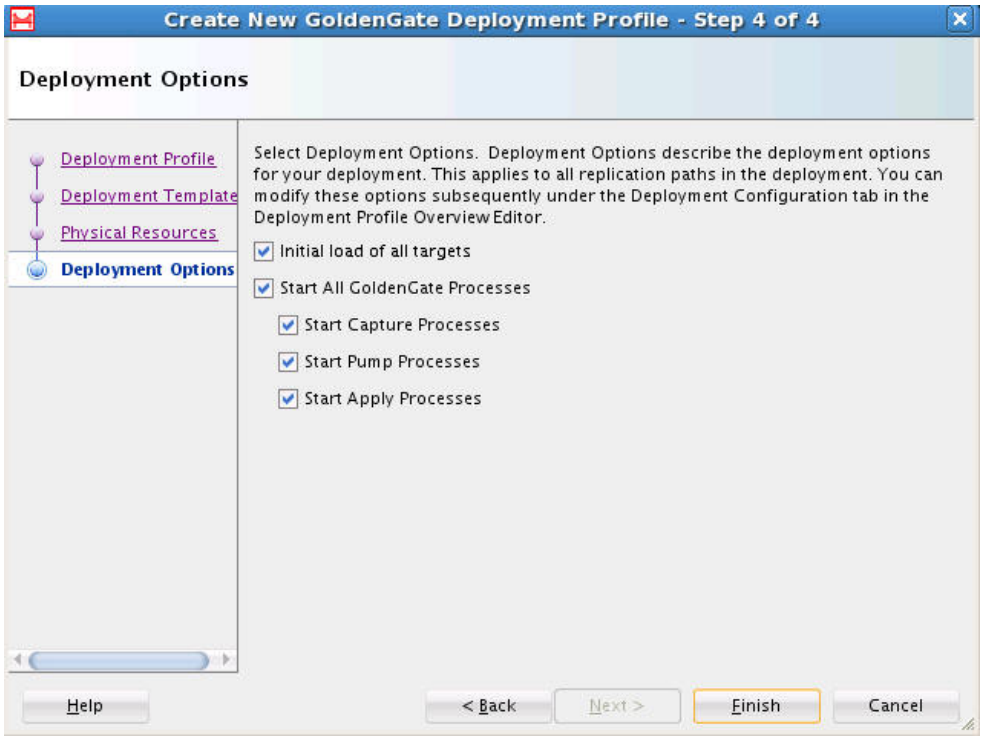
   Initial load of all targets
   If data between systems before changes to the data are applied, select this option.

   Start All Oracle GoldenGate Processes
   Select the processes that should be started after deployment. Processes available are:

   - Capture Processes
   - Pump Processes
   - Apply Processes

> **Note:**
>
> Processes can be started only during online deployment.

Figure 3-7 Deployment Options



Click **Finish.** Your deployment profile is created and added to the Solution.

4
Working with Mappings Groups

Learn how to use the local and global mappings groups to create, configure, copy, and manage your replication options by using Oracle GoldenGate Studio.
Topics:

4.1 Understanding Mapping Groups

In Oracle GoldenGate Studio, the term mapping group is used to explain a collection of source and target table mappings and its associated replication logic such as filtering and conflict detection rules. First, you must drag and drop or add the tables by using the keyboard shortcuts from the Resources Navigator to the Mapping Editor. Then you can automatically generate between **Source** and **Target** table mapping associations by using Automap option or by drag-and-drop operation or by using keyboard shortcuts between **Source** to **Target** and between **Target** to **Source**. Additionally, you can use wildcard characters (*) in the mappings at the schema and table level. If you drag and drop the schema name it automatically use a wildcard, indicating all tables. For more on wildcard logic see the *Reference for Oracle GoldenGate*

For Oracle multitenant support you must edit the schema name manually to include the pluggable database name, only the metadata from the database connections are used. This means mapping groups are logical constructs, which can be assigned to multiple replication paths. Mapping groups local to a solution can be associated with any replication path in that solution, while global mapping groups located in the global resource library, can be used for any replication path for any solution across all projects. When a mapping group is modified that change is reflected in all replication paths that references that mapping group. More than one mapping group can be assigned to a replication path.

For example, if you have 100 stores with the same application schema reporting back to a central data warehouse, you only have to define that mapping group once and you can apply it to all 100 replication paths. Any changes to that mapping group only needs to be made once and it is reflected in all 100 replication paths.

4.1.1 Schema and Table Mapping

Schemas are not directly mapped to other schemas. Tables in the schemas are mapped to other tables. To map all tables in a schema you can either highlight of the tables in the global resource library and drag and drop them into the mapping editor or you can drag and drop the schema name, which then uses a wildcard (*) for all tables. If replicating DDL and want to capture new tables then, always use a wildcard. You can use a wildcard with schema names. However, when you use a wildcard for schema names, some system schemas are automatically excluded. To see schema names that are implicitly excluded when you use wildcards, see olink:GWUAD-GUID-46CAAFC3-DCA5-4A20-9C60-8939EBD87E83 in *Administering Oracle GoldenGate*. When you use a wildcard for the schema name you can override the implicitly excluded schemas by explicitly listing the schema names.

To map tables or wildcards you can click the **Automap** button and any unmapped target table is mapped to a source table if the table names are the same regardless if they are in different schemas. Alternatively, in the mapping editor you can drag and drop source and target table names on each other to create the association.

Once tables are mapped you see the **Source** table name in the **Target** column **Mapped From**. Only the Source table names are listed in this column but a tool tip provides the source schema name. Double-click the Target table name or Mapped From table name takes you to the column mapping editor.

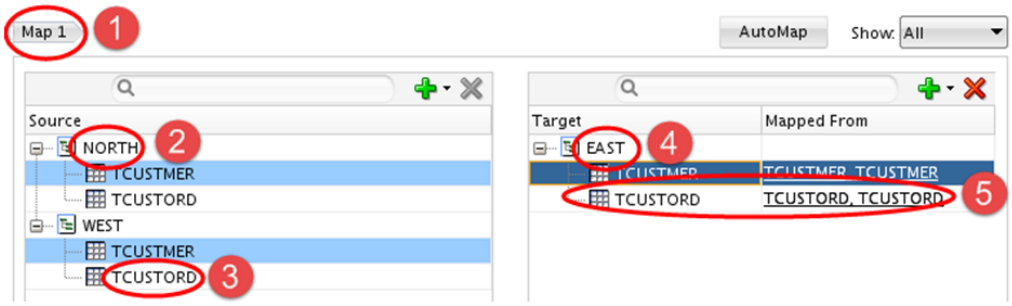
To use a pluggable database, first specify pluggable database name and then schema name in the following format `<PDB>.<SCHEMA>`. To use the replicat process from one pluggable database to another, you have to edit the `sourcecatalog` parameter in the Properties Inspector for the extract and replicat process. To use the replicat process for multiple pluggable databases, you have to edit the mapping editor schema to add the plugabble database name for the replication process.

Oracle Data Pump replication are usually done through databases, tablespaces, schema and table types. Currently, only table type is supported. It requires both, the schema name from a source and a target as well as the table name.

In the schema and table mapping editor you can define properties and logic for the entire mapping, source tables, and target tables. The following figure and the table shows the properties that can be edited based on where you click in the mapping editor.

> **Note:**
>
> Wildcard mapping are not supported with Oracle Data Pump. No errors are shown during deployment but the data on target side are not loaded.

Figure 4-1 Schema and Table Mapping



ID	UI Element	Properties
1	Map Breadcrumbs	Name and description, DDL replication, global column matching, DML conversions, and global replication error responses.

ID	UI Element	Properties
2	Source schema name	Database name, schema name, and exclude schema from source capture. The exclude schema is used when you have used a wildcard for all schemas but want to explicitly exclude certain schemas that would otherwise be included with the wildcard.
3	Source table name	Table name, exclude table from source capture, filter, Where clause, custom SQL execution, event actions, and additional custom properties. The table name cannot exceed 128 characters.
4	Target schema name	Target schema name and exclude schema from target apply.
5	Target table name and Mapped From	Target schema name and exclude table from target apply, exception handling, filter, DML conversion, Where clause, table specific replication error responses, custom SQL execution, coordinated apply thread (if applicable), coordinated apply thread range (if applicable), event actions, more settings, and additional custom properties. The table name cannot exceed 128 characters.

When you exclude table on source side a `tableexclude` parameter is written on source side but corresponding map statements are not be written to target side. Similarly, when you exclude table on target side a `mapexclude` parameter is written on target side , but corresponding table statements are not written to source side.

> **Note:**
>
> When you have more than one table mapped you need to drill into column mapping and select the table name to edit all the properties except exclude property. This allows you to apply different logic to different tables.

4.1.2 Column Mapping

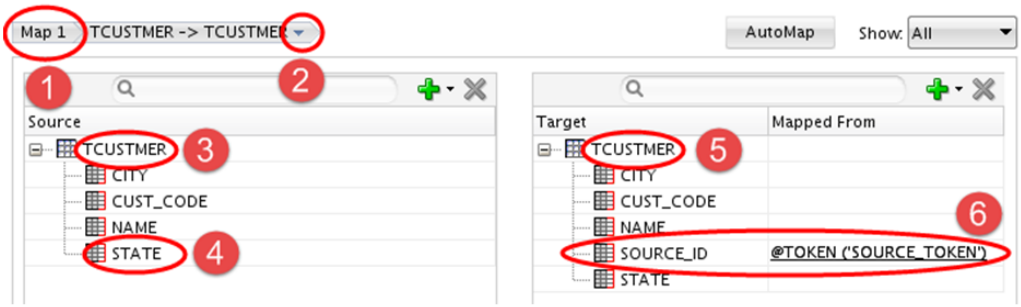
You can navigate to the column mapping from the table mapping editor. Double-click the Target table name or the **Mapped From** column, or right-click anywhere on the target row that contains the table name and chose **Edit Column Mapping** from the context menu.

The Oracle GoldenGate runtime engine automatically maps matching column names so, column mapping is not required. Column mapping works in the same way as table mapping and you can use Automap and drag-and-drop between **Source** and **Target**.

In the column mapping editor, you can define the properties and logic for the Source and Target tables and columns. The following figure and the table show the properties that can be edited based on where you click in the mapping editor. It also shows how to select individual table mappings when more than one table is mapped to a target table and how to navigate back to the schema and table mapping editor.

> **Note:**
>
> Selecting the table name in the column mapping editor provides the same options as clicking the table name in the schema and table mapping editor when there is only one source table mapped to the target table.

Figure 4-2 Column Mapping



ID	UI Elements	Properties
1	Map Breadcrumbs showing mapping group name	Select here to return to the schema and table mapping editor.
2	Map Breadcrumbs showing table mapping name	If there is more than one source table mapped to this target table, selecting here provides a drop-down list of those other mappings and you can navigate to them.
3	Source table name	Table name, exclude table from source capture, filter, Where clause, custom SQL execution, event actions, and additional custom properties.
4	Source column name	Column name, exclude column from source capture, force column to be used as (part of) the primary key.
5	Target table name	Target table name, exclude table mapping from target apply, force specific columns to be used as the key, exception handling, conflict detection, conflict resolution, filter, DML conversion, Where clause, table specific replication error responses, custom SQL execution, coordinated apply thread (if applicable), coordinated apply thread range (if applicable), event actions, more settings, and additional custom properties.
6	Target column name and Mapped From	Column name, mapped from (which can contain source column names or custom logic), force column to be used as (part of) the primary key, enable this column for update conflict detection, and enable this column for delete conflict detection.

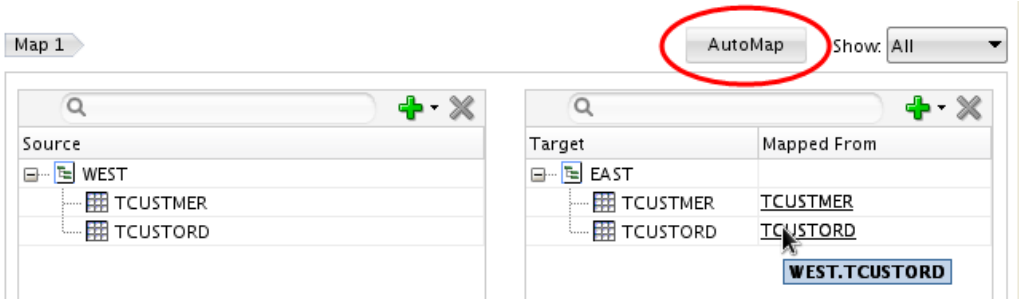
> **Note:**
>
> Primary key column overrides, conflict detection, and conflict resolution are only present in the column mapping editor.

4.1.3 Automap

The Automap feature automatically maps similarly named tables. Automapping assignments are created from the source to target and not the reverse. Automapping is not possible if the table structures are identical and the table names are different.

The mapping window looks as follows:

Figure 4-3 Automap



s

4.2 Creating a Mapping Group

To create a new local or global mapping group:

1. To create a mapping group that is local to the solution, select the Mapping Groups under that solution and right-click to select **New**. To create a global mapping group, right-click and select **Global Mapping Group** in the Resources Navigator. If the Resources Navigator has no global mapping groups then click the plus icon **+** in the Resources Navigator, select **Global Resource Library**, and then select **Global Mapping Group**.

   The **Create New Mapping Group** or **New Global Mapping Group** window opens.
2. Provide a name and optional description for the Mapping Group, and click **OK**.
3. If the mapping editor window does not open automatically, double-click the new mapping group in the Projects Navigator or Resources Navigator.
4. Add tables from the Global Resource Library by dragging and dropping them from the library into the source and target panes of the mapping editor.

   To select a list of tables you can use Shift-click on the first and last table in the set, use Control-click to select multiple individual tables, or use the **+** button in the source and target mapping editor panes to manually add schema and table names. In the column mapping editor the equivalent + button allows you to add columns manually.

5. Drag and drop the table or schema names from either the Source or Target pane to the other pane to create a source or target table mapping. If you drag the tables to a white area it does an exact 1:1 mapping. If you drag a table name from one pane to the other and drop it directly on the other table name, it creates an explicit mapping.

   For example, if table `EMP1` in Source is to be mapped with `EMP_BACK1` in Target, then drag `EMP1` from Source and drop it on `EMP_BACK1` at Target. Typically, the **Mapped From** field shows the Source table that is mapped with the target table. In this case the **Mapped From** field has `EMP1` value against the target table `EMP_BACK1`.

   You can also use the keyboard to perform the same action. When a source or target schema does not have a reference to any specific Resources Navigator schema and the name matches a particular database name in the Resources Navigator, a confirmation dialog is displayed to associate the resource. You can select **Yes** to complete the mapping.

   If you select a table as target in the Mapping Editor, which is not mapped, the Properties Inspector displays a **Mapped From** text box. You can enter the source table name which is validated against a valid source table references and can be mapped to target table if the source table is valid.

6. You can also use the **AutoMap** button to automatically create mappings for table names that are the same between **Source** and **Target**. Source tables can be mapped to more than one Target table and more than one Source table can be mapped to a single Target table.

4.3 Assigning Mapping Groups to a Replication Path

Mapping group is assigned in the solution editor. To assign a local or global mapping group to a replication path, drag the mapping group from the Projects Navigator or Global Resource Library and drop on the replication path or data server in the solution editor. If dropped onto a data server, the mapping group is automatically associated with every replication path connecting that data server. If dropped on the replication path arrow, the association is only for that path. You can drag the same mapping group and drop on multiple paths and data servers. These associations are by reference and not copies. Any change to the mapping group is automatically reflected in every replication patch associated with that mapping group.

To remove a mapping group from a replication path, select the replication path in the solution editor and in the Properties Inspector you see a list of all replication path mapping associations. Select the desired mapping group name and click the red **X** icon to delete. A confirmation dialog appears.

In the Properties Inspector of the replication path, there is a green **+** icon, which provides an alternative way to add an association between a mapping group and replication path. When you select the **+** icon, through a dialog box, you can add the association for local and global mappings to this replication path.

4.4 Copying And Sharing Mapping Groups

When you right-click a local solution mapping group you can see options to copy it to the Global Resource Library, make a copy (duplicate) of the selection within the same solution. You can right-click the global mapping group and export to an XML file that

can be imported by other Oracle GoldenGate users outside of your shared environment. The export map dialog supports character set and encryption settings.

You can import both local and global exported mapping groups by using the right-click option and select the appropriate Mapping Groups node in the Projects Navigator and selecting **Import**.

The different **Import Types** are:

- Duplication: This mode creates a new object (with a new internal ID).
- Synonym Mode `INSERT`: This mode tries to insert the same object (with the same internal ID).
- Synonym Mode `UPDATE`: This mode tries to modify the same object (with the same internal ID).
- Synonym Mode `INSERT_UPDATE`: If no object exists in the target Repository with an identical ID, this import mode will create a new object with the content of the export file. Already existing objects (with an identical ID) will be updated.

5
Deploying and Monitoring Your Solutions

Learn how to deploy and monitor your solutions either in Online of Offline mode in Oracle GoldenGate Studio. You can also edit any information regarding the deployment.
Topics:

5.1 Deploying Solutions

You can select to deploy your solution either in Online of Offline mode in Oracle GoldenGate Studio.

- Online Deploy: Online deployments require that the Oracle GoldenGate instances that are associated in the deployment profile have the manager, Oracle GoldenGate Monitor jAgent, and the performance metrics server starting from the Oracle GoldenGate 12.3 release onwards) is installed and running.
- Offline Deploy: Oracle GoldenGate Studio generates the Oracle GoldenGate replication parameter and obey files and saves them in a local directory.

The online deployment implicitly runs a validation check by pinging the Oracle GoldenGate instances that have been assigned as resources in the deployment profile and ensures that the minimum required parameters have been set for those data server types. Any parameter that is set and not related to the data server type to which you are deploying is ignored when generating the parameter and obey files.

You can also explicitly run a validation by selecting the green check mark icon in the deployment profile toolbar.

Before you write the configuration and command files, the jAgent backs up any files it is about to overwrite to the `dirtmp` directory of the Oracle GoldenGate instance. Any conflicting process is stopped. If you did not deselect the start option in the Deployment Configuration options, then the process is started once the new configuration files are created.

Once a deployment profile has been deployed you can view the deployment history and some monitoring metrics in the **Overview** tab under Deployment Profile next to the **Deployment View** tab. Deployment Configuration options can also be found in the **Overview** tab under Deployment Profile. Those options include starting all Oracle GoldenGate processes and performing full initial loads. Currently, partial initial loads are not supported.

You can enter the non-default location for Parameter file and Report file under the **Add** group of the Properties Inspector. By default (in both online as well as offline deployments), all the parameter files and report files get generated under the `dirprm/dirrpt` folder. If you want to deploy the parameter file or generate the report file in a non-default location, then enter values in the **Parameter File** and **Report File** text boxes of the Properties Inspector.

> **Note:**
>
> Ensure that the alternate report file location is pre-created with full privileges, so that Oracle GoldenGate Studio can deploy the process and generate report file without any issue.

These values are considered only for a first-time deployment.

5.1.1 Deploying a Solution

A solution can be deployed in several ways as follows:

1. Through the Deployment Profile Toolbar.
2. Through the context menu in the Deployment Profile editor.
3. Through the Projects Navigator Deployment Profile Node.

For example, to deploy a solution through the Projects Navigator:

1. In the Projects Navigator, select the Deployment Profile that you want to deploy and right-click to select **Deploy**.
2. Select between Deploy or Generate GoldenGate Files. Deploy is used for online deployment while the files generated by Oracle GoldenGate are used for offline deployment.
3. Follow the on screen instructions to continue with deployment.

For offline deployment, you can select a directory to save the deployment files.

5.1.2 Viewing Report Files and GGSERR.LOG Files

After the successful online deployment, the user can view the report file of the deployed process as well as Oracle GoldenGate error log file (`ggserr.log`) in the Oracle GoldenGate Studio interface.

- To view the report file, select the process in the **Deployment View**, right click, and then select the **View Report File** to display the report file. You can also download the report file.
- If you want to view the error log, then select the Oracle GoldenGate Instance component in the **Deployment View**, right click and select the **View GoldenGate Error Log**.

5.2 Overview

This tab is used to edit information regarding the name and description of the deployment profile, deployment history, and deployment configuration.

5.2.1 Definition

Use this tab to edit high level details of the deployment profile. The available fields are:

- Deployment Profile Name: You can view and edit the name of the deployment profile.

- Description: You can add or edit the description of the deployment profile.

5.2.2 Deployment History

It provides a historical record of past deployments for a project, solution, deployment, or a single deployment profile.You can use the **Select Columns** icon in the table's toolbar to tailor your view of the deployment history information. Columns can be re-ordered as per requirement.

The available columns are:

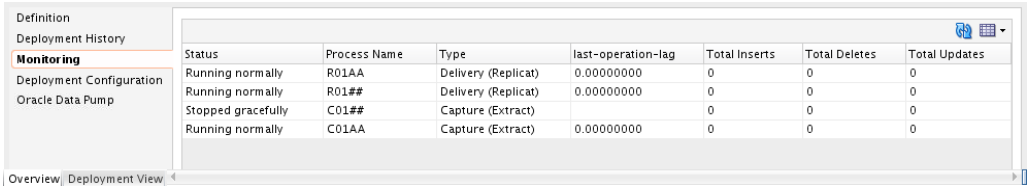
- Last Deployed
- Deployment Status
- Deployed By
- Comments
- Process Name
- Process Type
- Instance Name

5.2.3 Monitoring

Details information about the status of every process under Monitoring. Additionally, you can monitor the status of each process that is currently deployed on an Oracle GoldenGate instance, such as the status, type, and mode of processes.

The tab looks as follows:

Figure 5-1 Monitoring Tab



The available columns are:

- Status
- Process Name
- Type
- Last Operation Lag
- Mode
- last Operation Timestamp
- last Checkpoint Timestamp
- Total Inserts

- Total Deletes
- Total Updates
- Working Directory
- Start Time
- End of File
- Total Ignores
- Total Truncates
- Total Executed DDLs
- Total Discards
- Total Operations
- Input Checkpoint
- Output Checkpoint

> **Note:**
>
> The Monitoring tab displays information of whether or not the deployment process has successfully begun. If the deployment commands were successfully fired from Oracle GoldenGate Studio, then the Deployment process is also successful.

5.2.4 Deployment Configuration

Use this tab to view or edit the deployment options and physical resources.

You use the Deployment Settings check boxes to control the processes that must start automatically. The following settings can be configured:

Deployment Settings

- Start All GoldenGate Processes: Select this check box to start the Capture, Pump, and Apply processes.
- Start Pump Processes: Select this check box to start the Pump processes.
- Start Apply Processes: Select this check box to start the Apply processes.

Initial Load Settings

- Oracle GoldenGate: Select this check box to start the Oracle GoldenGate initial load process.
- Oracle Data Pump: Select this check box to start the Oracle Data Pump initial load process.

  If you select the **Start process** in deployment configuration screen, then the Change Data Capture (CDC) process starts automatically at the successful completion of Initial Load Deployment. If you do not select the **Start process** in deployment configuration screen, then the CDC process doesn't start automatically.

If Oracle GoldenGate Studio is closed before the automatic start of CDC process, then the CDC process will not start automatically. You can start the CDC process manually using System Change Number (SCN), or starting the CDC process manually from the monitoring screen. The SCN increments by one with every commit.

You can add the **Remote Link** (network link) and **Parallelism** in this dialog. By default, parallelism is set to one.

5.2.5 Oracle Data Pump

Oracle GoldenGate Studio uses the Oracle Data Pump API for the initial load. Oracle Data Pump API can transfer data using different methods. In Oracle GoldenGate Studio, the IMPORT of data using flashback SCN is used. The **Remote Link** (network link) is used to access the source Database.

During Online Deployment with Oracle Data Pump Initial Load ,Oracle GoldenGate Studio starts a PL/SQL procedure in the target database. This PL/SQL block invokes Oracle Data Pump job, providing it with Database Link to copy the data from source, SCN of source database, number of parallel threads to be launched, and log filename to log its activity. You have to provide the Database Link and Parallel values in the configuration screen while SCN of source database and log file name are provided by Oracle GoldenGate Studio. Oracle GoldenGate Studio also assumes `DATA_PUMP_DIR` directory to be created in target database, as this directory is used to create the log file. Oracle Data Pump table shows the current state of the Oracle Data Pump job. You can click on **View Activity Log** to view the content of the ODP Job `OGG_LOG` log file.

> **Note:**
>
> You can only use the default trail file directory `dirdat`. User defined trail file directories are not supported in Oracle GoldenGate Studio and are not parsed.

In parallel , CDC captures and replicat processes are deployed inOracle GoldenGate. The capture processes are started to capture the online transactions while Oracle Data Pump is progressing. Oracle GoldenGate Studio waits for Oracle Data Pump job to complete. After completion of the Oracle Data Pump job, if **Start Replicat** option was selected, Oracle GoldenGate Studio starts the replicat processes with the related SCN number shown in the Oracle Data Pump page of the particular process. If not, you have to manually start the process by clicking on **Start CDC Replicat** in the Oracle Data Pump window.

If you shut down Oracle GoldenGate Studio after completion of Deployment in Oracle GoldenGate but before Oracle Data Pump job is complete, you have to manually starts the Replicat by clicking on **Start CDC Replicat** in the Oracle Data Pump page or **Start with..** using the SCN shown in Oracle Data Pump page.

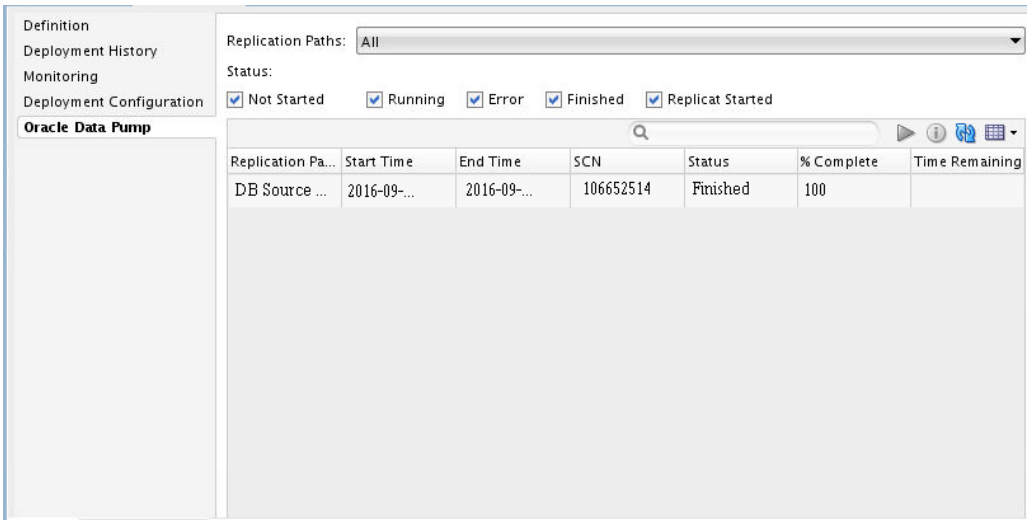
You can select the **Replication Paths** from the drop-down list and the status as **Not Started**, **Running**, **Error**, **Finished**, and **Replicat Started**. The status is displayed in tabular format. You can also use the toolbar to search, start the CDC Replicat, view the activity log, refresh table, and add or remove additional table columns.

The following table columns are displayed by default:

- Replication Paths
- Start Time
- End Time
- SCN
- Status
- % Complete
- Time Remaining

The **Time Remaining** column can be empty when Oracle Data Pump is running. This is not related to the normal functioning of the product.

The Oracle Data Pump window looks as follows:



6
Managing Security

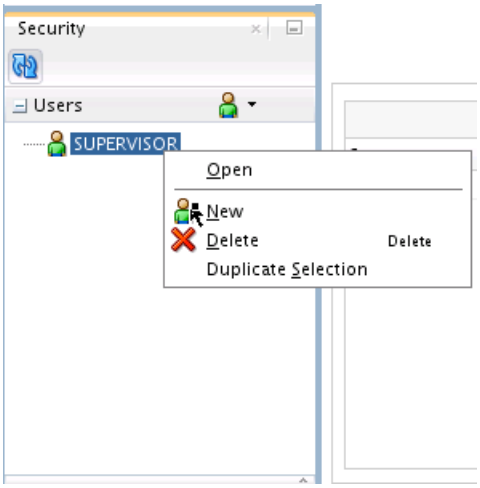
Learn how to manage the security for your replications by using Oracle GoldenGate Studio. Security manager allows you to create users, manage passwords and manage the security in Oracle GoldenGate Studio.
Topics:

6.1 Understanding Security in Oracle GoldenGate Studio

The Security Navigator to manage the Security in Oracle GoldenGate Studio. You can also use the Security Navigator to create users, manage password, and to set an account expiration date. Users in Oracle GoldenGate Studio can be Supervisor, or Administrator and non supervisors. There can be only one `SUPERVISOR` account that is created using RCU. Non supervisor users cannot access the Security Navigator window.

The Security Navigator looks as follows:

Figure 6-1 Security Navigator



6.2 Using the Security Navigator

The Security Navigator is available only for user with **SUPERVISOR** privilege which is the account created during repository creation. Non supervisor accounts can only change their own password using **Change Password** menu option under **OGG** menu.

You can do the following tasks by using the Security Navigator:

- Adding a New User.
- Modifying an Existing User.

- Deleting an User.

6.2.1 Adding a New User

To add a new user, do as follows:

1. Click the user button and select **New User**.
2. Click **Change Password**, type the **New Password**, type the same password in **Confirm Password**. You can also set the **Allow Expiration Date** to set a password expiration date (optional). If this is set, the user needs to change the password in the log in after the expiry date.
3. Click the **Save** button in the toolbar.

The change password dialog looks like:

Figure 6-2 Change Password Dialog

> **Note:**
>
> You can set the **Allow Expiration Date** option in the **Account Expiration** option to prevent the user from using the product after the expiry date. This is different from the **Allow Expiration Date** option in the **Change User Password** option dialog.

> **Note:**
>
> If you set the expiry date for the **SUPERVISOR** user an it expired, the **SUPERVISOR** user account cannot be enabled again.

6.2.2 Modifying an Existing User

To modify an existing user, do as follows:

1. Right-click on the user and select **Open**.
2. Modify the user name under **Name**.
3. Click the **Change Password**, type the new password and expiration date (optional).
4. Click the **Save** button in the toolbar.

> **Note:**
>
> This option is available only for users with **SUPERVISOR** privilege. It is identified by a red icon. Non-supervisor users are identified with a green icon.

6.2.3 Deleting an User

To delete an existing user, do as follows:

1. Highlight the user, right-click and select **Delete**.
2. In the confirmation dialog box, click **Yes**.

> **Note:**
>
> The user with supervisor privilege can delete any user with non supervisor privilege. **SUPERVISOR** account cannot be deleted.

6.3 Deleting a Secure Wallet

You cannot change the password for a secure wallet. If you need to reset a wallet password, you have to delete the wallet then recreate it as follows:

1. Close Oracle GoldenGate Studio.
2. Go to the `cache` directory in your Oracle GoldenGate Studio instance. The default directories are:
   - **Windows:** — `C:\Users\`*`username`*`\AppData\Roaming\oggstudio\oracledi\ewallet`
   - **UNIX and Linux:** — `~/.oggstudio/oracledi/ewallet`
3. Delete the wallet file. For example, `ewallet.p12`.
4. Create the wallet again.

7
Troubleshooting

Here are solutions to some of the common issues that may come across while using Oracle GoldenGate Studio.
Topics:

7.1 Positioning of Docked Windows

Issue: Multiple docked windows like Projects Navigator, Component pallets, and so on are misplaced and do not fit the main application window properly.

Solution: Navigate to the **Window** menu and click **Reset Windows To factory Settings**.

7.2 Performance Issues While Using Oracle GoldenGate Studio

Issue: Severe performance issue when you use Oracle GoldenGate Studio.

Solution: Ensure that the repository is installed in the same LAN.

7.3 Privilege Issue with Oracle GoldenGate Studio

Issue: Only **SUPERVISOR** user have object level privilege.

Solution: To prevent contention against the same set of objects, it is recommended that Projects and Solutions are well planned in terms of who is working on the same objects.

7.4 Syntax Errors with Generated Code

Issue: Syntax errors are present.

Solution: Check the version and database values of the data servers assigned to the deployment profiles generated Code is compatible with the assigned data servers.

Next, check to see if the code can be successfully parsed by the Oracle GoldenGate Core product. If the syntax is successfully parsed by that tool, then the Oracle GoldenGate Studio and Core files are compatible.

If it is not successfully parsed and the error is not in the mapping syntax, then you can contact Oracle Support.

7.5 Not Able to Add Resources

Issue: Not able to set add resources by using the drag-and-drop option.

Solution: Ensure that you are dropping the resources to correct targets and to the solution editor links instead of Mapping Group to Deployment Profile links. You can add physical resources only to the Deployment Profile view. The **Big Data System** and **Teradata** are target only databases. You can drag-and-drop target only databases as a source database in the mapping editor. This is possible as mapping is a logical concept and no check is performed by Oracle GoldenGate Studio.

A
Concepts and Terminology

Understand the concepts and terms associated with Oracle GoldenGate Studio.

Term	Description
Apply	An Oracle GoldenGate process that writes the changes captured in a trail file to a target data server.
AutoMap	Functionality that makes mapping recommendations based on pattern matching of schema, table and column names, and data types.
Bidirectional	Name of a solution template that has a single source and single target with replication paths in both directions.
Business Entity	Logical representation of data that records a business or agency activity, usually regarding the sale, distribution, or development of a product or a service.
Capture	An Oracle GoldenGate process that writes records relating to change data from a source system (database or JMS queue) into binary files (trails).
CDR	Conflict Detection and Resolution. A specific use case of error detection and response logic found typically in bidirectional and Active-Active solutions.
Column Mapping	The mapping of columns and fields between two tables or other data entities.
Conflict Detection	A specific use case of error detection.
Conflict Resolution	A specific use case of error response.
Connections	Information used to attach to a data server or Oracle GoldenGate instance.
Consolidation	Name of a solution template where many sources map to a single target.
Credential Store	The Oracle GoldenGate credential store manages user IDs and their encrypted passwords (together known as credentials) that are used by Oracle GoldenGate processes to interact with a database.
Data Entity	Typically a table but any data object that can be replicated including a sequence but not replicated logic such as procedures.
Data Server	Most commonly a database but can be any external (to GoldenGate) source or target of data (for example JMS). They contain information about data entities that are replicated (for example tables) as well as procedural logic that affect data for example triggers and procedures). Can be used as a source or target.
Data server login credentials	Username and password to access data server.
DDL	Data definition language statements that can be replicated between similar databases.
Deployment	Physical architecture bound to a logical design that contains one or more profiles.

Term	Description
Deployment Assistant	A sequence of dialog boxes that leads the user through creating a physical deployment, then allows the user to assign GoldenGate instances to the replication paths, and provides additional deployment options such as perform initial load.
Deployment History	Contains a historical manifest of deployments and can be viewed in the context of a project, solution, deployment, or a single deployment profile.
Deployment Profile	The physical architecture plus the physical properties of specific processes (their names, behavior options, environmental settings) It contains the details that binds the logical design to the physical architecture.
Deployment Template	The physical relationship of data servers, GoldenGate instances, and hosts.
Description	Text field that contains the name and description for a Project, Solution, or Deployment.
Distribution	Name of a solution template that has a single source and multiple targets.
Document Tab	Tabs along the top of the interface that display solutions, library mappings, and library logic.
Editor Tab	Tab located at the bottom of the interface that is subordinate to the Document Tab.
Exception Mapping	One or more auxiliary mappings that are invoked only when the primary mapping encounters an error.
Filter	Component of mapping to define rules to omit rows.
Folder	An interface construct used to select and visually organize related objects such as, mappings, logic, and connections.
Functions	Oracle GoldenGate built-in logic constructs that can act on change data or metadata resulting in the transformation, inclusion, or exclusion of column data. Used in the expression editor.
Oracle GoldenGate Agent	Heavy weight agent designed to monitor Oracle GoldenGate instances with minimal management capabilities.
Oracle GoldenGate Gallery	A sequence of dialog boxes that leads the user through creating new Oracle GoldenGate Studio Projects, Solutions, Deployments, and Connections.
Oracle GoldenGate Instances	The connection details for an Oracle GoldenGate Instance available in the Resources Navigator.
Oracle GoldenGate processes	Processes and services that are part of the GoldenGate instance used for capturing, transferring, modifying, and applying data.
Hub and Spoke	Name of a solution template. Distributed data model consisting of connections arranged like a wheel, in which all traffic moves along the spokes connected to the hub at the center.
Initial Load	The copying of data between systems before changes to that data are applied.
Library	A collection of shared mappings or logic code that can be used in more than one solution or project.
Logic library	Logic code used in mapping and error handling that can be used in more than one solution or project.
Logical Design	One or more data servers with connected replication paths.

Term	Description
Mapping Library	A collection of maps that can be used in more than one solution or project.
Mapping/Map	The assignment of one or more data entities to another or one or more statements to a data server.
Mappings	First-level construct containing the mapping of data entities, statements, and the associated logic that is not shared beyond the local solution.
Overview	Name of an editor level tab under solution that provides high-level details of the solution as well as control over the access privileges.
Parameters	The set of all configurable items relating to the runtime behavior of Oracle GoldenGate processes used in replicating and loading data. Broken down into several areas, the most significant relating to the mapping logic.
Project	The highest level object that contains Oracle GoldenGate solutions.
Project Wizard	A sequence of dialog boxes that leads the user through creating a new project.
Projects Navigator	The interface used to select Oracle GoldenGate Studio projects.
Properties Inspector	Shows attributes of selected artifacts and provide a means to change, add, or remove those attributes.
Replication Path	The path denoting one direction of change data as it moves between data servers. Two data servers can have from zero to two direct replication path connections, but only one path in each direction.
Replication Source	Data server from which data is read, copied, and transmitted.
Resource	Data Server and Oracle GoldenGate connections and mapping library.
Resource Assignment	The act of assigning physical resources.
Resources Navigator	Interface used to select Oracle GoldenGate Studio resources.
Schema Mapping	The mapping of schemas and tables.
Security Navigator	The interface used to select Oracle GoldenGate Studio security options.
Solution	A deployable object that represents a replication design. The design view describes data servers, replication paths, mappings, and a logical design. The deployment profile describes the resource assignments involved in the physical design. Solutions can contain more than one deployment profile. A single solution design can be deployed to any number of physical systems by creating a deployment profile for each physical system.
Solution Wizard	A sequence of dialog boxes that leads the user through creating a new solution by providing a menu of common solution templates, and then allows the user to add existing mappings, bind data server connections to the logical design, and finally include mappings from the mapping library.
Solution Navigator	The interface used to select Oracle GoldenGate Studio solutions, mappings, logic, and deployments.
Solution Templates	Preconfigured solution templates are provided.
Structure Panel	Auxiliary navigator to show any additional details beyond what higher level navigators allow.
Target	Data server to where data is written.

Term	Description
Trail	Sequenced set of binary files used to queue and read captured transactions by Oracle GoldenGate.
Unidirectional	Name of a solution template that has a source replicating a target.
Wallet	Digital Oracle wallet used to store encryption keys, this is managed and used by the Oracle GoldenGate processes to encrypt and decrypt data at rest and in flight.

B

Oracle GoldenGate Commands and Parameters that you can use with the Properties Inspector

Learn about the correlation between the Oracle GoldenGate commands and parameters that are run when you select the various options in the Properties Inspector.
See Oracle GoldenGate Commands and Oracle GoldenGate Parameter .

> **Note:**
>
> Deprecated Oracle GoldenGate parameters are not displayed or supported in Oracle GoldenGate Studio. You can review deprecated parameters in Release Notes for Oracle GoldenGate

B.1 Commands with Options

The Oracle GoldenGate commands with the specified options are listed in the following sections.

B.1.1 ADD EXTRACT Commands

For an explanation of the command, see the `ADD EXTRACT` command.

ADD EXTRACT Command	Oracle GoldenGate Studio Label
`ADD EXTRACT`	Add Extract
`SOURCEISTABLE`	Table
`TRANLOG`	Transaction Log
`INTEGRATED TRANLOG`	Integrated Capture Mode
`VAM`	Vendor Access Module
`EXTFILESOURCE`	Source File Name
`EXTTRAILSOURCE`	Source Trail Name

ADD EXTRACT Command	Oracle GoldenGate Studio Label
VAMTRAILSOURCE	VAM Trail Name
BEGINNOW	Now
EXTSEQNO	At Sequence Number
EXTRBA	Relative Byte Address
EOF	End of Log File
LSN	LSN
EXTRBA	Relative Byte Address
PAGE	Page
ROw	ROW
SEQNO	Sequence Number
SCN	System Change Number
THREADS	Threads
PASSIVE	Passive
PARAMS	Parameter File
REPORT	Report File
DESC	Description

B.1.2 ADD REPLICAT Commands

For an explanation of the command, see the ADD REPLICAT command.

ADD REPLICAT Options	Oracle GoldenGate Studio Label
ADD REPLICAT	Add Replicat
INTEGRATED	Integrated

ADD REPLICAT Options	Oracle GoldenGate Studio Label
COORDINATED	Coordinated
MAXTHREADS	Max Threads
SPECIALRUN	Special Run
EXTFILE	Extract File
EXTTRAIL	Extract Trail
BEGIN	Begin
NOW	Now
EXTSEQNO	Sequence Number
EXTRBA	Relative Byte Address
CHECKPOINTTABLE	Checkpoint Table
NODBCHECKPOINT	No Checkpoint Table
PARAMS	Parameter File
REPORT	Report File
DESC	Description

B.1.3 ADD EXTTRAIL Command

For an explanation of the command, see the `ADD EXTRAIL` command.

ADD EXTTRAIL Options	Oracle GoldenGate Studio Label
ADD EXT TRAIL	Add Extract Trail
EXTRACT	Extract
MEGABYTES	Megabytes
SEQNO	Sequence Number

B.1.4 ADD RMTTRAIL Command

For an explanation of the command, see the `ADD RMTTRAIL` command.

ADD RMTTRAIL Options	Oracle GoldenGate Studio Label
`ADD RMTTRAIL`	Add Remote Trail
`EXTRACT`	Extract
`MEGABYTES`	Megabytes
`SEQNO`	Sequence Number

B.1.5 REGISTER EXTRACT Command

For an explanation of the command, see the `REGISTER EXTRACT` command.

REGISTER EXTRACT Options	Oracle GoldenGate Studio Label
`REGISTER EXTRACT`	Register Extract
`DATABASE`	Database
`CONTAINER`	Container
`ADD CONTAINER`	Add Container
`DROP CONTAINER`	Drop Container
`LOGRETENTION`	Log Retention
`SCN`	System Change Number

B.1.6 START EXTRACT Command

For an explanation of the command, see the `START EXTRACT` command.

Start Extract Command	Oracle GoldenGate Studio Label
`START EXTRACT`	Start Extract
`ATCSN`	At CSN

Start Extract Command	Oracle GoldenGate Studio Label
AFTERCSN	After CSN

B.1.7 START REPLICAT Command

For an explanation of the command, see the START REPLICAT command.

Start Replicat Command	Oracle GoldenGate Studio Label
START REPLICAT	Start Replicat
SKIPTRANSACTION	Skip Transaction
ATCSN	At CSN
AFTERCSN	After CSN
FILTERDUPTRANSACTIONS	Filter Duplicate Transactions
THREADS	Threads

B.1.8 ADD TRANDATA Command

For an explanation of the command, see the ADD TRANDATA command.

Add Supplemental Logging Command	Oracle GoldenGate Studio Label
ADD SCHEMATRANDATA	Enable Schema Supplemental Logging
ALLCOLS	Logging Columns
ALLOWNONVALIDATEDKEYS	Allow Non-Validated Keys
ADD TRANDATA	Enable Table Supplemental Logging
COLS	Logging Columns
NOKEY	Suppress Primary Key Columns
INCLUDELONG	Include LONGVAR Columns
EXCLUDELONG	Exclude LONGVAR columns

B.2 Parameter Category Names

This section lists the parameter category names available for Oracle GoldenGate Studio.

- Add Extract Options
- Add Replicat Options
- Extract Registration
- Globals
- General
- Environment Variables
- Include
- Port Management
- Process Management
- Event Management
- Maintenance
- Processing Method
- Selection, Converting, and Mapping Data
- Routing Data
- Formatting Data
- Custom Processing
- Reporting
- Tuning
- Error Handling
- Rep Error
- Security
- Other
- Advanced
- Start Extract Options
- Start Replicat Options
- Supplemental Logging

For more information on parameter categories, see Oracle GoldenGate Parameters.

B.3 Units of Measure

This section describes the units of measure available for Oracle GoldenGate Studio.

Unit	Option
MS	Millisecond
CS	Centisecond
CSEC	Centisecond
CSECS	Centiseconds
S	Second
SEC	Second
SECOND	Second
SECS	Seconds
SECONDS	Seconds
M	Minute
MIN	Minute
MINUTE	Minute
MINS	Minutes
MINUTES	Minutes
H	Hour
HR	Hour
HOUR	Hour
HOURS	Hours
D	Day
DAY	Day
DAYS	Days

Unit	Option
WEEK	Week
WEEKS	Weeks
K	Kilobyte
KB	Kilobyte
MB	Megabyte
G	Gigabyte
GB	Gigabyte

B.4 Opposites

This section describes the opposites between Oracle GoldenGate parameters or options and Oracle GoldenGate Studio labels.

Oracle GoldenGate Parameters/Options	Oracle GoldenGate Studio Label
batchsql.nobatcherrormode	No Batch Error Mode
batchsql.nobypasspkcheck	Do not Bypass PK Check
batchsql.nocheckuniquekeys	Do not Check Unique Keys
batchsql.noerrorhandling	No Error Handling
bulkload.nologging	Disable Redo Logging
bulkload.noparallel	Disable Parallel Loading
dboptions.noallowlobdatatruncate	Disallow LOB Truncation
dboptions.noallowunusedcolumn	Disallow Unused Columns
dboptions.nocatalogconnect	No Separate Catalog Connection
dboptions.nofetchlobs	Disallow LOB Fetching
dboptions.nolimitrows	Do not Limit Rows

Oracle GoldenGate Parameters/Options	Oracle GoldenGate Studio Label
dboptions.noreparselobsql	Do not Reparse LOB SQL
dboptions.noshowwarnings	Do not Log Warnings
dboptions.noskiptemplob	Do not Skip Temp LOB
dboptions.nospthread	No Separate Connection For Stored Procedures
dboptions.nosuppresstriggers	Do not Suppress Triggers
ddloptions.CROSSRENAME	Cross Rename
ddloptions.ignoreapplops	Ignore Application Operations
ddloptions.ignorereplicates	Ignore Replicat Transactions
ddloptions.nomapderived	Disallow Derived Name Mapping
ddloptions.noreplicatepassword	Do not Replicate Password
ddloptions.noreport	Do not Log DDL Operations To Report File
disableheartbeat	Disable Heartbeat
disableheartbeattable	Disable Heartbeat Table
disablenewmanager	Disable New Manager
extfile.no_objectdefs	No Object Definitions
exttrail.no_objectdefs	No Object Definitions
fetchoptions.nodetaileddiagnostics	No Detailed Diagnostics
fetchoptions.nodiagnosticsonall	No Diagnostics On All
fetchoptions.nousediagnostics	Do not Use Diagnostics
fetchoptions.nousekey	Do not Use Key
fetchoptions.nouselatestversion	Do not Use Latest Version

Oracle GoldenGate Parameters/Options	Oracle GoldenGate Studio Label
`fetchoptions.nouserowid`	Do not Use Row ID
`fetchoptions.nousesnapshot`	Do not Use Snapshot
`fetchoptions.suppressduplicates`	Suppress Duplicates
`formatascii._noind`	No Ind
`formatascii._noop`	No Op
`formatascii._nots`	No TS
`formatascii.nonames`	Exclude Column Names
`formatxml.noinlineproperties`	Write Properties Outside XML Tab
`formatxml.notrans`	Exclude Commit Markers
`ignorealters`	Ignore Alters
`ignoreapplops`	Ignore Application Operations
`ignorecreates`	Ignore Creates
`ignoredeletes`	Ignore Deletes
`ignoredrops`	Ignore Drops
`ignoreinserts`	Ignore Inserts
`ignorereplicates`	Ignore Replicat Transactions
`ignoretruncates`	Ignore Truncates
`ignoreupdateafters`	Ignore Update After Images
`ignoreupdatebefores`	Ignore Update Before Images
`ignoreupdates`	Ignore Updates
`map.nohandlecollisions`	Do not Handle Collisions

Oracle GoldenGate Parameters/Options	Oracle GoldenGate Studio Label
map.noinsertappend	Do not Insert Append
map.noinsertmissingupdates	Do not Insert Missing Updates
map.nomapinvisiblecolumns	Do not Map Invisible Columns
map.notrimspaces	Do not Trim CHAR to VARCHAR Trailing Spaces
map.notrimvarspaces	Do not Trim VARCHAR to CHAR Trailing Spaces
no_use_traildefs	Do not Use Trail Definitions
noallowduptargetmap	Do not Allow Duplicate Target Map
noallowlargefloat	Do not Allow Large Float
noallownoopupdates	Do not Allow No-Operation Updates
noapplynoopupdates	Do not Apply No-Operation Updates
noassumetargetdefs	Do not Assume Target Definitions
noauditreps	Do not Audit Replicats
nobinarychars	Do not Use Binary Characters
nocachenullablecols	Do not Cache Nullable Columns
nocharsetconversion	Disable Character Set Conversion
nochecksequencevalue	Do not Check Sequence Values
nocomplexnullcond	No Complex Null Conditions
nocompressdeletes	No Compress Deletes
nocompressupdates	No Compress Updates
nodeletelogrecs	Do not Delete Log Records
nodynamicresolution	No Dynamic Resolution

Oracle GoldenGate Parameters/Options	Oracle GoldenGate Studio Label
`nodynsql`	No Dynamic SQL
`nofilterdups`	Do not Filter Duplicates
`nohandlecollisions`	Do not Handle Collisions
`noinsertappend`	No Insert Append
`noinsertdeletes`	Do not Insert Deletes
`noinsertmissingupdates`	Do not Convert Failed Updates To Inserts
`noinsertupdates`	Do not Insert Updates
`nolist`	Do not List Parameters in Report File
`nologallsupcols`	Do not Capture All Supplementally Logged Columns
`nomapinvisiblecolumns`	Do not Map Invisible Columns
`nooverridedups`	Do not Override Duplicates
`nopassthru`	Disable PassThru
`nopassthrumessages`	Disable PassThru Messages
`norestartcollisions`	Don't Restart Collisions
`nospacestonull`	Do not Convert Spaces to Null
`notcpsourcetimer`	Do Not Compensate For System Clock Differences
`notrimspaces`	Do not Trim CHAR to VARCHAR Spaces
`notrimvarspaces`	Do not Trim VARCHAR to CHAR Spaces
`noupdatedeletes`	Do not Convert Deletes To Updates
`noupdateinserts`	Do not Convert Inserts To Deletes
`nouseansisqlquotes`	Do not Use ANSI SQL Quotes

Oracle GoldenGate Parameters/Options	Oracle GoldenGate Studio Label
nousededicatedcoordinationthread	Do not Use Dedicated Coordination Thread
novarwidthnchar	Do not Treat NCHAR, NVARCHAR2, NCLOB As UTF-16
purgeoldextracts.no_use_checkpoints	Do not Use Checkpoints
reportcount.norate	Do not Report Rate
rmtfile.no_objectdefs	No Object Definitions
rmttrail.no_objectdefs	No Object Definitions
showsyntax.apply	Apply
statoptions.noreportdetail	No Operation Statistics
statoptions.noreportfetch	Do not Fetch Statistics
statoptions.noresetreportstats	Do not Reset Report Statistics
table.notrimspaces	Do not Trim CHAR to VARCHAR Spaces
table.notrimvarspaces	Do not Trim VARCHAR to CHAR Spaces
trail_seqlen_6d	Trail Sequence Length 6 digits
tranlogoptions._noarchivedlogonly	Do not Read Only From Archived Logs
tranlogoptions.ignoremetadatafromvam	Ignore Metadata From VAM
tranlogoptions.noapifilter	No API Filter
tranlogoptions.nocompletearchivedlogonly	No Complete Archived Log
tranlogoptions.nogetctasdml	Do not Get CTAS DML
tranlogoptions.nomanagesecondarytruncationpoint	Manage Secondary Truncation Point
tranlogoptions.nominefromactivedg	Do not Mine From Active Data Guard
tranlogoptions.nominefromsnapshotstby	Do not Mine From Standby Snapshots

Oracle GoldenGate Parameters/Options	Oracle GoldenGate Studio Label
tranlogoptions.noprepareforupgradetoie	Do not Prepare For Upgrade To Integrated Extract
tranlogoptions.nopurgeorphanedtransactions	Do not Purge Orphaned Transactions
tranlogoptions.nousenativeobjsupport	Do not Use Native Object Support
tranlogoptions.nouseprevresetlogsid	Do not Use Previous Reset Log SID
tranlogoptions.nouserexit	No User Exit

B.5 Other Oracle GoldenGate Parameters/Options

This section describes additional commands and parameter options for Oracle GoldenGate Studio.

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
a2e	ASCII to EBCDIC
accessrule	Access Rule
allocfiles	Allocate Memory Structures
allowduptargetmap	Allow Duplicate Target Map
allowinvisibleindexkeys	Allow Invisible Index Keys
allowlargefloat	Allow Large Float
allownonvalidatedkeys	Allow Non-Validated Keys
allownoopupdates	Allow No-Operation Updates
allowoutputdir	Allow Output Directory
applynoopupdates	Apply No-Operation Updates
asciimixedccsid	ASCII Mixed CCSID
asciitoebcdic	ASCII to EBCDIC
assumetargetdefs	Assume Target Definitions

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
assumetargetdefs.override	Override Target Defs
auditreps	Audit Replicats
autorestart	Auto Restart
autorestart.er	Extract/Replicat
autorestart.extract	Extract
autorestart.replicat	Replicat
autorestart.resetminutes	Reset Time (mins)
autorestart.retries	Retries
autorestart.waitminutes	Wait Time (mins)
autorestartinterval	Auto Restart Interval
autorestartmintime	Auto Restart Minimum Time
autostart	AutoStart
autostart.er	Extract/Replicat
autostart.extract	Extract
autostart.replicat	Replicat
batchsql	BatchSQL
batchsql.batcherrormode	Batch Error Mode
batchsql.batchesperqueue	Batches Per Queue
batchsql.batchtransops	Operations Per Transaction
batchsql.bypasspkcheck	Bypass PK Check
batchsql.bytesperqueue	Bytes Per Queue

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
batchsql.checkuniquekeys	Check Unique Keys
batchsql.errorhandling	Error Handling
batchsql.maxthreadqueuedepth	Max Thread Queue Depth
batchsql.numthreads	Number of Threads
batchsql.opsperbatch	Operations Per Batch
batchsql.opsperqueue	Operations Per Queue
batchsql.thread	Thread
batchsql.trace	Trace
begin	Begin
binarychars	Binary Characters
bootdelayminutes	Boot Delay (min)
bootdelayseconds	Boot Delay (secs)
br	Bounded Recovery
br.brdir	Directory
br.brfsoption	FS Option
br.brinterval	Interval
br.brkeepstalefiles	Keep Stale Files
br.broff	Off
br.broffonfailure	Off On Failure
bulkload	Bulk Load
bulkload.logging	Log To Redo

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
bulkload.noskipallindexes	Enable Index Maintenance
bulkload.parallel	Enable Parallel Loading
bulkload.skipallindexes	Skips Index Maintenance
bulkload.skipunusedindex	Skip Unusable Indexes
cachemgr	Cache Manager
cachemgr.cachebuffersize	Cache Buffer Size
cachemgr.cachedirectory	Cache Directory
cachemgr.cachefsoption	Cache File Sync Option
cachemgr.cachepageoutsize	Cache Page Outsize
cachemgr.cachesize	Cache Size
cachenullablecols	Cache Nullable Columns
catalogexclude	Catalog Exclude
catalogexclude.norename	No Rename
cdroptions	CDR Options
cdroptions.applymodcolonly	Apply Modified Columns Only
charmap	Character Map Override
charset	Parameter File Character Set
charsetconversion	Enable Character Set Conversion
checkminutes	Maintenance Check Minutes
checkparams	Check Parameter Syntax
checkpointsecs	Checkpoint Seconds

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
checkpointtable	Checkpoint Table
checksequencevalue	Check Sequence Values
cmdtrace	Command Trace
colmatch	Column Match
colmatch.names	Names
colmatch.prefix	Prefix
colmatch.reset	Reset
colmatch.suffix	Suffix
comment	Comment
complexnullcond	Complex Null Condition
compressdeletes	Compress Deletes
compressdeletes.fetchmissingcolumns	Fetch Missing Columns
compressupdates	Compress Updates
coordstatinterval	Coordinate Statistic Interval
coordtimer	Coordinate Timer
credentialstorelocation	Credential Store Location
cuserexit	C User Exit
cuserexit.includeupdatebefores	Include Update Before Images
cuserexit.params	Params
cuserexit.passthru	PassThru
dboptions	Database Options

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
dboptions.allowlobdatatruncate	Allow LOB Truncation
dboptions.allowunusedcolumn	Allow Unused Columns
dboptions.bindcharforbitaschar	Encode CCSID Data
dboptions.catalogconnect	Use Separate Catalog Connection
dboptions.catalogur	Catalog Uncommit Read
dboptions.connectionport	Connection Port
dboptions.decryptpassword	Decrypt Password
dboptions.decryptpassword.algorithm	Algorithm
dboptions.decryptpassword.aes128	AES128
dboptions.decryptpassword.aes192	AES192
dboptions.decryptpassword.aes256	AES256
dboptions.decryptpassword.blowfish	Blowfish
dboptions.decryptpassword.encryptkey	Encryption Key
dboptions.deferrefconst	Defer Referential Integrity Constraint
dboptions.disablecommitnowait	Disable Asynchronous Commits
dboptions.disablelobcaching	Disable LOB Caching
dboptions.emptylobstring	Empty LOB String
dboptions.enableinstantiationfiltering	Enable InstantiationCSN Filtering
dboptions.fetchbatchsize	Fetch Batch Size
dboptions.fetchcheckfreq	Fetch Check Freq
dboptions.fetchlobs	Fetch LOBs

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
dboptions.fetchretrycount	Fetch Retry Count
dboptions.fetchtimeout	Fetch Timeout
dboptions.host	Host
dboptions.integratedparams	Integrated Parameters
dboptions.integratedparams.ALLOW_DUPLICATE_ROWS	Allow Duplicate Rows
dboptions.integratedparams.APPLY_SEQUENCE_NEXTVAL	Apply Sequence Next Value
dboptions.integratedparams.BATCHSQL_MODE	Batch SQL Mode
dboptions.integratedparams.CDGRANULARITY	Conflict Detection Granularity
dboptions.integratedparams.COMMIT_SERIALIZATION	Commit Serialization
dboptions.integratedparams.COMPARE_KEY_ONLY	Compare Key Only
dboptions.integratedparams.COMPUTE_LCR_DEP_ON_ARRIVAL	Compute LCR Dependency On Arrival
dboptions.integratedparams.DISABLE_ON_ERROR	Disable On Error
dboptions.integratedparams.DISABLE_ON_LIMIT	Disable On Limit
dboptions.integratedparams.EAGER_SIZE	Eager Size
dboptions.integratedparams.ENABLE_XSTREAM_TABLE_STATS	Enable Table Statistics
dboptions.integratedparams.GROUPTRANSOPS	Group Transaction Operations
dboptions.integratedparams.HANDLECOLLISIONS	Handle Collisions
dboptions.integratedparams.IGNORE_TRANSACTION	Ignore Transaction
dboptions.integratedparams.MAXIMUM_SCN	Max SCN

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
dboptions.integratedparams.MAX_PARALLELISM	Max Parallelism
dboptions.integratedparams.MAX_SGA_SIZE	Max SGA Size
dboptions.integratedparams.MESSAGE_TRACKING_FREQUENCY	Message Tracking Frequency
dboptions.integratedparams.OPTIMIZE_PROGRESS_TABLE	Optimize Progress Table
dboptions.integratedparams.OPTIMIZE_SELF_UPDATES	Optimize Self Updates
dboptions.integratedparams.PARALLELISM	Parallelism
dboptions.integratedparams.PARALLELISM_INTERVAL	Parallelism Interval
dboptions.integratedparams.PRESERVE_ENCRYPTION	Preserve Encryption
dboptions.integratedparams.RTRIM_ON_IMPLICIT_CONVERSION	RTRIM On Implicit Conversion
dboptions.integratedparams.STARTUP_SECONDS	Startup Seconds
dboptions.integratedparams.SUPPRESSTRIGGERS	Suppress Triggers
dboptions.integratedparams.TIME_LIMIT	Time Limit
dboptions.integratedparams.TRACE_LEVEL	Trace Level
dboptions.integratedparams.TRANSACTION_LIMIT	Transaction Limit
dboptions.integratedparams.WRITE_ALERT_LOG	Write Alert Log
dboptions.legacylobreplication	Legacy LOB Replication
dboptions.limitrows	Limit Rows
dboptions.lobbufsize	LOB Buffer Size
dboptions.lobwritesize	LOB Write Size

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
dboptions.nofetchtimeout	No Fetch Timeout
dboptions.reparselobsql	Reparse LOB SQL
dboptions.sessionpoolincr	Session Pool Increase
dboptions.sessionpoolmax	Session Pool Max
dboptions.sessionpoolmin	Session Pool Min
dboptions.settag	Set Tag
dboptions.showinfomessages	Show Info Messages
dboptions.showwarnings	Show Warnings
dboptions.skiptemplob	Skip Temp LOB
dboptions.sourcedbname	Source DB Name
dboptions.sourcerootname	Source CDB Root Name
dboptions.spthread	SP Thread
dboptions.suppresstemporalupdates	Edit Temporal Updates
dboptions.suppresstriggers	Suppress Triggers
dboptions.tdspacketsize	TDS Packet Size
dboptions.trustedconnection	Trusted Connection
dboptions.useodbc	Use ODBC
dboptions.usereplicationuser	Use Replication User
dboptions.xmlbufsize	XML Buffer Size
ddl	DDL Operations
ddl.exclude	Exclude

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddl.exclude.all	All
ddl.exclude.allcatalogs	All Catalogs
ddl.exclude.allowemptyobject	Allow Empty Object
ddl.exclude.allowemptyowner	Allow Empty Owner
ddl.exclude.eventactions	EventActions
ddl.exclude.instr	Instring
ddl.exclude.instrcomments	Instring Comments
ddl.exclude.instrcommentswords	Instring Comments Words
ddl.exclude.instrwords	Instring Words
ddl.exclude.mapped	Mapped
ddl.exclude.objname	Object Name
ddl.exclude.objtype	Object Type
ddl.exclude.optype	Operation Type
ddl.exclude.other	Other
ddl.exclude.sourcecatalog	Source Catalog
ddl.exclude.staymetadata	Stay Metadata
ddl.exclude.unmapped	Unmapped
ddl.include	Include
ddl.include.all	All
ddl.include.allcatalogs	All Catalogs
ddl.include.allowemptyobject	Allow Empty Object

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddl.include.allowemptyowner	Allow Empty Owner
ddl.include.eventactions	EventActions
ddl.include.instr	Instring
ddl.include.instrcomments	Instring Comments
ddl.include.instrcommentswords	Instring Comment Words
ddl.include.instrwords	Instring Words
ddl.include.mapped	Mapped
ddl.include.objname	Object Name
ddl.include.objtype	Object Type
ddl.include.optype	Operation Type
ddl.include.other	Other
ddl.include.sourcecatalog	Source Catalog
ddl.include.staymetadata	Stay Metadata
ddl.include.unmapped	Unmapped
ddlerror	DDL Error
ddlerror.abendmissingobjects	Abend on Missing Objects
ddlerror.abendmissingtables	Abend on Missing Tables
ddlerror.error_code	Error Code
ddlerror.error_code.abend	Abend
ddlerror.error_code.discard	Discard
ddlerror.error_code.exclude	Exclude

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddlerror.error_code.exclude.all	All
ddlerror.error_code.exclude.allcatalogs	All Catalogs
ddlerror.error_code.exclude.allowemptyobject	Allow Empty Object
ddlerror.error_code.exclude.allowemptyowner	Allow Empty Owner
ddlerror.error_code.exclude.eventactions	Event Actions
ddlerror.error_code.exclude.instr	Instring
ddlerror.error_code.exclude.instrcomments	Instring Comments
ddlerror.error_code.exclude.instrcommentswords	Instruction Comments Words
ddlerror.error_code.exclude.instrwords	Instruction Words
ddlerror.error_code.exclude.mapped	Mapped
ddlerror.error_code.exclude.objname	Object Name
ddlerror.error_code.exclude.objtype	Object Type
ddlerror.error_code.exclude.optype	Operation Type
ddlerror.error_code.exclude.other	Other
ddlerror.error_code.exclude.sourcecatalog	Source Catalog
ddlerror.error_code.exclude.staymetadata	Stay Metadata
ddlerror.error_code.exclude.unmapped	Unmapped
ddlerror.error_code.ignore	Ignore
ddlerror.error_code.include	Include
ddlerror.error_code.include.all	All
ddlerror.error_code.include.allcatalogs	All Catalogs

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddlerror.error_code.include.allowemptyobject	Allow Empty Object
ddlerror.error_code.include.allowemptyowner	Allow Empty Owner
ddlerror.error_code.include.eventactions	Event Actions
ddlerror.error_code.include.instr	Instring
ddlerror.error_code.include.instrcomments	Instring Comments
ddlerror.error_code.include.instrcommentswords	Instruction Comments Words
ddlerror.error_code.include.instrwords	Instruction Words
ddlerror.error_code.include.mapped	Mapped
ddlerror.error_code.include.objname	Object Name
ddlerror.error_code.include.objtype	Object Type
ddlerror.error_code.include.optype	Operation Type
ddlerror.error_code.include.other	Other
ddlerror.error_code.include.sourcecatalog	Source Catalog
ddlerror.error_code.include.staymetadata	Stay Metadata
ddlerror.error_code.include.unmapped	Unmapped
ddlerror.error_code.retryop	Retry Operation
ddlerror.error_code.retryop.maxretries	Max Retries
ddlerror.error_code.retryop.retrydelay	Retry Delay
ddlerror.ignoremissingobjects	Ignore Missing Objects
ddlerror.ignoremissingtables	Ignore Missing Tables
ddlerror.norestartcollisions	Do Not Restart With HandleCollisions

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddlerror.restartcollisions	Restart With HandleCollisions
ddlerror.restartskip	Restart And Skip
ddlerror.skiptriggererror	Skip Trigger Error
ddloptions	DDL Options
ddloptions.NOADDTRANDATA	No Add Trandata
ddloptions.NOCAPTUREGLOBALTEMPTABLE	No Capture Global Temp Table
ddloptions.NOCROSSRENAME	No Cross Rename
ddloptions.USEPASSWORDVERIFIERLEVEL	Use Password Verifier Level
ddloptions.addtrandata	Add Trandata
ddloptions.addtrandata.abend	Abend
ddloptions.addtrandata.retryop	Retry Operation
ddloptions.addtrandata.retryop.maxretries	Max Retries
ddloptions.addtrandata.retryop.retrydelay	Retry Delay
ddloptions.captureglobaltemptable	Capture Global Template
ddloptions.defaultuserpassword	Default User Password
ddloptions.defaultuserpassword.aes128	AES128
ddloptions.defaultuserpassword.aes192	AES192
ddloptions.defaultuserpassword.aes256	AES256
ddloptions.defaultuserpassword.blowfish	Blowfish
ddloptions.defaultuserpassword.encryptkey	Encrypt Key
ddloptions.defaultuserpasswordalias	Default User Password Alias

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddloptions.defaultuserpasswordalias.domain	Domain
ddloptions.getapplops	Get Application Operations
ddloptions.getreplicates	Get Replicat Transactions
ddloptions.ignoremapping	Ignore Mapping
ddloptions.mapderived	Map Derived
ddloptions.mapschemas	Map Schemas
ddloptions.mapsessionschema	Map Session Schema
ddloptions.noremovecomments	Don't Remove Comments
ddloptions.notag	No Tag
ddloptions.password	Password
ddloptions.password.aes128	AES128
ddloptions.password.aes192	AES192
ddloptions.password.aes256	AES256
ddloptions.password.blowfish	Blowfish
ddloptions.password.encryptkey	Encryption Key
ddloptions.removecomments	Remove Comments
ddloptions.replicatepassword	Replicate Password
ddloptions.report	Log DDL Operations To Report File
ddloptions.target	Target
ddloptions.updatemetadata	Update Metadata
ddloptions.useownerforsession	Use Owner for Session

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddlrulehint	DDL Rule Hint
ddlsubst	DDL Substitution
ddlsubst.allcatalogs	All Catalogs
ddlsubst.allowemptyobject	Allow Empty Object
ddlsubst.allowemptyowner	Allow Empty Owner
ddlsubst.eventactions	Event Actions
ddlsubst.exclude	Exclude
ddlsubst.exclude.all	All
ddlsubst.exclude.mapped	Mapped
ddlsubst.exclude.other	Other
ddlsubst.exclude.unmapped	Unmapped
ddlsubst.include	Include
ddlsubst.include.all	All
ddlsubst.include.mapped	Mapped
ddlsubst.include.other	Other
ddlsubst.include.unmapped	Unmapped
ddlsubst.instr	Apply to String
ddlsubst.instrcomments	Comments
ddlsubst.instrcommentswords	Comment Words
ddlsubst.instrwords	Apply to Instructions
ddlsubst.objname	Object Name

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ddlsubst.objtype	DB Object Type
ddlsubst.optype	DDL Operation Type
ddlsubst.sourcecatalog	Source Catalog
ddlsubst.staymetadata	Stay meta data
ddlsubst.with	With
ddltable	DDL Table Name Override
decrypttrail	Decrypt Trail
decrypttrail.algorithm	Algorithm
decrypttrail.aes128	AES128
decrypttrail.aes192	AES192
decrypttrail.aes256	AES256
decrypttrail.keyname	Key Name
deferapplyinterval	Defer Apply Interval
defsfile	DEFGEN Definition File
defsfile.append	Append
defsfile.charset	Character Set
defsfile.format	Format Release
defsfile.format.level	Level
defsfile.format.release	Release
defsfile.purge	Purge
deletelogrecs	Delete Log Records

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
discardfile	Discard File
discardfile.append	Append
discardfile.maxbytes	Max Bytes
discardfile.megabytes	Megabytes
discardfile.purge	Purge
discardrollover	Discard Rollover
discardrollover.at	At
discardrollover.on	On
downcritical	Down Critical
downinfo	Down Info
downreporthours	Down Report Hours
downreportminutes	Down Report Minutes
dsoptions	Teradata Data Server Options
dsoptions.checkopcomplete	Check Op Complete
dsoptions.checktrandata	Check Trandata
dsoptions.committedtranlog	Committed Tranlog
dsoptions.createtranlog	Create Tranlog
dsoptions.excludetrans	Exclude Tranlog
dsoptions.excludeuser	Exclude User
dsoptions.excludeuserid	Exclude User ID
dsoptions.ignoremetadatafromvam	Ignore VAM Metadata

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
dsoptions.restartappend	Restart Append
dsoptions.sorttranlog	Sort Tranlog
dsoptions.vamcompatibility	VAM Compatibility
dumpddlcolumns	Dump DDL Columns
dumpddlloggroups	Dump DDL Log Groups
dumpddlobjects	Dump DDL Objects
dumpddlpartitions	Dump DDL Partitions
dumpddlprimarykeys	Dump DDL Primary Keys
dynamicportlist	Dynamic Port List
dynamicportreassigndelay	Dynamic Port Reassign Delay
dynamicresolution	Dynamic Resolution
dynsql	Dynamic SQL
ebcdicmixedccsid	EBCDIC Mixed CCSID
ebcdictoascii	EBCDIC to ASCII
enablecatalognames	Enable Catalog Names
enableheartbeat	Enable Heartbeat
enablemonitoring	Enable Monitoring
enablemonitoring.bdb	BDB (Berkeley DB)
enablemonitoring.lmdb	LMDB (Lightning DB)
enablemonitoring.shmid	SHMID (Shared Memory ID)
enablenewmanager	Enable New Manager

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
encrypttrail.0	Encrypt Trail
encrypttrail.1	Algorithm
encrypttrail.keyname	Key Name
end	End
eofdelay	EOF Delay (seconds)
eofdelaycsecs	EOF Delay (centiseconds)
etoldformat	ET Old Format
excludetag	Exclude Tag
excludewildcardobjectsonly	Exclude Wildcard Objects Only
extfile	Extract File
extfile.format	Format Release
extfile.level	Format Level
extfile.maxfiles	Max Files
extfile.megabytes	Megabytes
extfile.objectdefs	Object Definitions
extfile.purge	Purge
extfile.release	Release
extfile.trailbyteorder	Trail Byte Order
extract	Extract
exttrail	Trail
exttrail.format	Format Release

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
exttrail.level	Format Level
exttrail.objectdefs	Object Definitions
exttrail.release	Format Release
exttrail.trailbyteorder	Trail Byte Order
fetchoptions	Fetch Options
fetchoptions.detaileddiagnostics	Detailed Diagnostics
fetchoptions.diagnosticsonall	Diagnostics On All
fetchoptions.fetchpkupdatecols	Fetch PK Updates Columns
fetchoptions.inconsistentrow	Inconsistent Row
fetchoptions.maxfetchstatements	Max Fetch Statements
fetchoptions.missingrow	Missing Row
fetchoptions.nofetch	No Fetch
fetchoptions.nosuppressduplicates	No Suppress Duplicates
fetchoptions.usediagnostics	Use Diagnostics
fetchoptions.usekey	Use Key
fetchoptions.uselatestversion	Use Latest Version
fetchoptions.userowid	Use Row ID
fetchoptions.usesnapshot	Use Snapshot
fetchuserid	Fetch User ID
fetchuserid.algorithm	Algorithm
fetchuserid.encryptkey	Encrypt Key

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
fetchuserid.password	Password
fetchuserid.sysdba	Sysdba
filterdups	Filter Duplicates
flushcsecs	Flush Memory Buffer (csecs)
flushsecs	Flush (secs)
formatascii	Format ASCII
formatascii.bcp	MSSQL Bulk Load
formatascii.charset	Character Set
formatascii.date	Date Time Format
formatascii.delimiter	Delimiter
formatascii.extracols	Extra Columns
formatascii.ind	Include Before and After Ind
formatascii.names	Include Columns Names
formatascii.nohdrfields	Suppress Header Fields
formatascii.noquote	Exclude Quotes
formatascii.nullisspace	Convert Null to Blank
formatascii.op	Include Operation Type
formatascii.placeholders	Placeholders
formatascii.sqlloader	Oracle SQL Loader
formatascii.time	Time
formatascii.ts	Timestamp

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
formatsql	Write SQL Format File
formatsql.nonames	Omit Column Names
formatsql.nopkupdates	No PK Updates
formatsql.oracle	Oracle Date-Times
formatxml	Format XML
formatxml.encoding	Encoding
formatxml.inlineproperties	Write Properties Inline With XML Tab
formatxml.trans	Include Commit Markers
functionstacksize	Function Stack Size
genloadfiles	Generate Load Files
genloadfiles.charset	Character Set
getalters	Get Alters
getapplops	Get Application Operations
getcreates	Get Creates
getdeletes	Get Deletes
getdrops	Get Drops
getenv	Get Environment
getinserts	Get Inserts
getreplicates	Get Replicat Transactions
gettruncates	Get Truncates
getupdateafters	Get Update After Images

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
getupdatebefores	Get Updates Before Images
getupdates	Get Updates
ggschema	Schema Name
grouptransops	Group Transaction Operations
handlecollisions	Handle Collisions
handlecollisions.thread	Threads
handletpkupdate	Handle Transient Primary-Key Update
haveudtwithnchar	User Data Type Contains NCHAR
heartbeat_table	Heartbeat Table
ignore_unrecognized	Ignore Unrecognized
include	Include
initializeheap	Initialize Heap
insertallrecords	Insert All Records
insertappend	Insert Append
insertdeletes	Insert Deletes
insertmissingupdates	Convert failed updates to inserts
insertupdates	Insert Updates
jvmadditionalopts	JVM Additional Options
jvmclasspath	JVM Classpath
jvmcompiler	JVM Compiler
jvmentryclass	JVM Entry Class

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
jvmentrymethod	JVM Entry Method
jvmentrymethodarguments	JVM Entry Method Arguments
jvmentrymethodsignature	JVM Entry Method Signature
jvmlibrarypath	JVM Library Path
lagcriticalhours	Critical Hours Lag Threshold
lagcriticalminutes	Critical Minutes Lag Threshold
lagcriticalseconds	Critical Seconds Lag Threshold
laginfohours	Info Hours Lag Threshold
laginfominutes	Info Minutes Lag Threshold
laginfoseconds	Lag Info Seconds
lagreporthours	Report Hours Lag Threshold
lagreportminutes	Report Minutes Lag Threshold
lfmmemory	LFM (Long Field Memory)
lfmmemory.directory	Directory
lfmmemory.inittransram	Init Trans RAM
lfmmemory.ram	RAM
lfmmemory.ramincrement	RAM Increment
lfmmemory.transallsources	Trans All Sources
lfmmemory.transram	Trans RAM
list	List
lobmemory	LOB Memory

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
lobmemory.directory	Directory
lobmemory.inittransram	Init Trans RAM
lobmemory.ram	RAM
lobmemory.ramincrement	RAM Increment
lobmemory.transallsources	Trans All Sources
lobmemory.transram	Trans RAM
logallsupcols	Capture All Supplementally Logged Columns
logfilesbehind	Log Files Behind
logfilesbehindinfo	Log Files Behind Message
macro	Macro
macro.begin	Body
macro.params	Parameters
macrochar	Macro Character
mapexclude	Map Exclude
mapexclude.norename	No Rename
mapinvisiblecolumns	Map Invisible Columns
mapinvisiblecolumns.thread	Thread
markertable	Marker Table
masterkeyname	Master Key Name
masterkeyname.version	Version
maxabendrestarts	Max Abend Restarts

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
maxdiscardrecs	Max Discard Records
maxetcheckptsecs	Max Checkpoint Seconds
maxfetchstatements	Max Fetch Statements
maxfieldlen	Max Field Length
maxgroups	Max Process Groups
maxsqlstatements	Max SQL Statements
maxtaclrestarts	Max Tacl Restarts
maxtransops	Max Transaction Operations
maxtraprestarts	Max Trap Restarts
mgrservname	Manager Server Name
monitoring_heartbeat_timeout	Monitoring Heartbeat Timeout (secs)
nameccsid	DB Name CCSID
namematchexact	Exact Match
namematchignorecase	Ignore Case
namematchnowarning	No Name Match Warning
noasciiformat	No ASCII Format
nocatalog	Remove Catalog Name
nodiscardfile	Disallow Discard File
nodupmsgsuppression	Disallow Duplicate Message Suppression
noencrypttrail	Disallow Encrypt Trail
nosqlformat	No SQL Format

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
nostats	Disable Performance Statistics
notracetable	Disallow Trace Table
nouserid	No User ID
nousethreads	Disallow Use Threads
numfiles	Memory Structures Initial Number
obey	Obey
outputfileumask	Output File umask
overridedups	Override Duplicates
param_parse_error	Parameter Parsing Error
param_parse_error.force	Force
passthru	Enable PassThru
passthrumessages	Enable PassThru Messages
port	Port
preservetargettimezone	Preserve Target Timezone
ptkcapturebatchsql	Capture Batch SQL Statistics
ptkcapturecachemgr	Capture Cache Statistics
ptkcaptureift	Capture Inflight Transactions
ptkcapturenetwork	Capture Network Statistics
ptkcaptureprocstats	Enable Process/Thread Statistics
ptkcapturequeuestats	Capture Queue Statistics
ptkcapturetablestats	Capture Table Statistics

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
ptkirstatsfrequency	Statistics Frequency
ptkmaxtables	Max Tables for Statistics
ptkmonitorfrequency	Monitoring Collection Frequency (sec)
ptkspstats	Capture Superpool Statistics
ptktablepollfrequency	Poll Interval for Table Statistics
purgeddlhistory	Purge DDL_HISTORY
purgeddlhistory.frequencyhours	Frequency Hours
purgeddlhistory.frequencyminutes	Frequency Minutes
purgeddlhistory.maxkeepdays	Max Keep Days
purgeddlhistory.maxkeephours	Max Keep Hours
purgeddlhistory.minkeepdays	Minimum Keep Days
purgeddlhistory.minkeephours	Minimum Keep Hours
purgeddlhistoryalt	Purge DDL_HISTORY_ALT
purgeddlhistoryalt.frequencyhours	Frequency Hours
purgeddlhistoryalt.frequencyminutes	Frequency Minutes
purgeddlhistoryalt.maxkeepdays	Max Keep Days
purgeddlhistoryalt.maxkeephours	Max Keep Hours
purgeddlhistoryalt.minkeepdays	Minimum Keep Days
purgeddlhistoryalt.minkeephours	Minimum Keep Hours
purgemarkerhistory	Purge MARKER_HISTORY table
purgemarkerhistory.frequencyhours	Frequency Hours

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
purgemarkerhistory.frequencyminutes	Frequency Minutes
purgemarkerhistory.maxkeepdays	Max Keep Days
purgemarkerhistory.maxkeephours	Max Keep Hours
purgemarkerhistory.minkeepdays	Minimum Keep Days
purgemarkerhistory.minkeephours	Minimum Keep Hours
purgeoldextracts	Purge Old Extracts
purgeoldextracts.frequencyhours	Frequency Hours
purgeoldextracts.frequencyminutes	Frequency Minutes
purgeoldextracts.maxkeepdays	Max Keep Days
purgeoldextracts.maxkeepfiles	Max Keep Files
purgeoldextracts.maxkeephours	Max Keep Hours
purgeoldextracts.minkeepdays	Minimum Keep Days
purgeoldextracts.minkeepfiles	Minimum Keep Files
purgeoldextracts.minkeephours	Minimum Keep Hours
purgeoldextracts.usecheckpoints	Use Checkpoints
purgeoldhistory	Purge Old History
purgeoldhistory.maxkeepdays	Max Keep Days
purgeoldhistory.maxkeephours	Max Keep Hours
purgeoldhistory.minkeepdays	Minimum Keep Days
purgeoldhistory.minkeephours	Minimum Keep Hours
purgeoldtasks	Purge Old Tasks

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
purgeoldtasks.after	After
purgeoldtasks.er	Extract/Replicat
purgeoldtasks.extract	Extract
purgeoldtasks.replicat	Replicat
purgeoldtasks.usestopstatus	Use Top Status
randomrollbacks	Random Rollbacks
recoveryoptions	Recovery Options
recoveryoptions.appendmode	Append Mode
recoveryoptions.overwritemode	Overwrite Mode
reperror	Replicat Error
reperror.reset	Reset
repfetchedcoloptions	Replicat Fetched Column Options
repfetchedcoloptions.inconsistentrow	Inconsistent Row
repfetchedcoloptions.latestrowversion	Latest Row Version
repfetchedcoloptions.missingrow	Missing Row
repfetchedcoloptions.nofetch	Prevent Fetch
repfetchedcoloptions.redundantrow	Redundant Row
repfetchedcoloptions.setifmissing	Set If Missing
repfetchedcoloptions.snapshotrow	Snapshot Row
replacebadchar	Replaces Invalid Character
replacebadchar.abort	Abort

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
replacebadchar.enablefallback	Enable Fallback
replacebadchar.escape	Escape
replacebadchar.forcecheck	Force Check
replacebadchar.nowarning	No Warning
replacebadchar.null	Null
replacebadchar.skip	Skip
replacebadchar.space	Space
replacebadchar.substitute	Substitute
replacebadchar.unprintable	Unprintable
replacebadnum	Replace Invalid Numbers
replicat	Replicat
repobackupdir	Repository Backup Directory
repobackupfrequency	Repository Backup Frequency
reponumbackupsbeforefullbackup	Repository Backups Before Full Backup
report	Report
report.AT	At
report.ON	On
reportcount	Transaction Record Report Count
reportcount.every	Every
reportcount.rate	Report Rate
reportformatnoremote	Report Format No Remote

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
`reportrollover`	Report Rollover
`reportrollover.AT`	At
`reportrollover.ON`	On
`restartcollisions`	Restart Collisions
`restartinterval`	Restart Interval
`retrydelay`	Retry Delay
`rmtfile`	Remote File
`rmtfile.append`	Append
`rmtfile.format`	Format Release
`rmtfile.level`	Format Level
`rmtfile.maxfiles`	Max Files
`rmtfile.megabytes`	Megabytes
`rmtfile.objectdefs`	Object Definitions
`rmtfile.purge`	Purge
`rmtfile.release`	Format Release
`rmtfile.trailbyteorder`	Trail Byte Order
`rmthost`	Remote Host
`rmthost.compress`	Compress
`rmthost.compressthreshold`	Compress Threshold
`rmthost.cpu`	CPU
`rmthost.encrypt`	Encrypt

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
rmthost.hometerm	Device
rmthost.keyname	Key Name
rmthost.mgrport	Manager Port
rmthost.nostreaming	No Streaming
rmthost.params	Parameters
rmthost.password	Password
rmthost.port	Collector Port
rmthost.pri	Priority
rmthost.processname	Process Name
rmthost.socksproxy	Socks Proxy
rmthost.socksproxy.proxycsalias	Proxy Credential Store Alias
rmthost.socksproxy.proxycsdomain	Proxy Credential Store Domain
rmthost.streaming	Streaming
rmthost.tcpbufsize	TCP Buffer Size
rmthost.tcpflushbytes	TCP Flush Bytes
rmthost.timeout	Timeout
rmthost.user	User ID
rmthostoptions	Remote Host Options
rmthostoptions.compress	Compress
rmthostoptions.compressthreshold	Compress Threshold
rmthostoptions.encrypt	Encrypt

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
rmthostoptions.keyname	Key Name
rmthostoptions.nostreaming	No Streaming
rmthostoptions.params	Parameters
rmthostoptions.streaming	Streaming
rmthostoptions.tcpbufsize	TCP Buffer Size
rmthostoptions.tcpflushbytes	TCP Flush Bytes
rmthostoptions.timeout	Timeout
rmttask	Remote Task
rmttask.format	Format Release
rmttask.group	Group
rmttask.level	Format Level
rmttask.params	Parameters
rmttask.release	Format Release
rmttrail	Remote Trail
rmttrail.format	Format Release
rmttrail.level	Format Level
rmttrail.objectdefs	Object Definitions
rmttrail.release	Format Release
rmttrail.trailbyteorder	Trail Byte Order
rollover	Rollover
rollover.at	At

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
rollover.on	On
rollover.report	Report
schemaexclude	Exclude Replicat Schema
schemaexclude.norename	No Rename
sequence	Sequence
sessioncharset	Session Character Set
setenv	Set Environment
showsyntax	Show SQL Syntax
showsyntax.all	All
showsyntax.includelob	Include LOB
showsyntax.noapply	No Apply
sourcecatalog	Source Catalog
sourcecharset	Source Character Set
sourcecharset.character_set_name	Character Set Name
sourcecharset.db2zos	DB2 On z/OS
sourcecharset.override	Override
sourcecharset.passthru	PassThru
sourcedb	Source DB
sourcedb.credentialgroup	Credential Group
sourcedb.domain	Domain
sourcedb.encryptkey	Encrypt Key

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
sourcedb.password	Password
sourcedb.password.aes128	AES128
sourcedb.password.aes192	AES192
sourcedb.password.aes256	AES256
sourcedb.password.blowfish	Blowfish
sourcedb.sessioncharset	Session Character Set
sourcedb.sqlid	
sourcedb.sysdba	Sysdba
sourcedb.thread	Threads
sourcedb.userid	User ID
sourcedb.useridalias	User Alias
sourcedefs	Source Definitions
sourcedefs.override	Override
sourceisfile	Source Is File
sourceistable	Source Is Table
sourcetimezone	Source Timezone
spacestonull	Convert Spaces to Null
specialrun	Special Run
sqlduperr	SQL Duplicate Error
sqlexec	SQL Execution
sqlexec.every	Every

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
sqlexec.onexit	On Exit
sqlexec.thread	Thread
startupvalidationdelay	Startup Validation Delay (secs)
startupvalidationdelaycsecs	Startup Validation Delay (csecs)
statoptions	Statistic Options
statoptions.reportcharconv	Report Character Conversion
statoptions.reportdetail	Operation Statistics
statoptions.reportfetch	Fetch Statistics
statoptions.resetreportstats	Reset Report Statistics
statoptions.thread	Thread
syslog	Sys Log
syslog.all	All
syslog.error	Error
syslog.info	Info
syslog.none	None
syslog.warn	Warning
tableexclude	Exclude Table
tableexclude.norename	No Rename
targetdb	Target DB
targetdb.domain	Domain
targetdb.dsn	DSN

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
targetdb.encryptkey	Encrypt Key
targetdb.libfile	Library File
targetdb.password	Password
targetdb.password.aes128	AES128
targetdb.password.aes192	AES192
targetdb.password.aes256	AES256
targetdb.password.blowfish	Blowfish
targetdb.sessioncharset	Session Character Set
targetdb.set	Set
targetdb.sqlid	SQL ID
targetdb.sysdba	Sysdba
targetdb.thread	Threads
targetdb.userid	User ID
targetdb.useridalias	User Alias
targetdefs	Target Definitions
targetdefs.override	Override
tcpsourcetimer	Compensate For System Clock Differences
threadoptions	Thread Options
threadoptions.eofdelaycsecs	EOF Delay Centiseconds
threadoptions.eofdelayms	EOF Delay (ms)
threadoptions.except	Except

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
threadoptions.inqueuesize	Input Queue Size
threadoptions.outqueuesize	Output Queue Size
threadoptions.processthreads	Process Threads
threadoptions.select	Select
threadoptions.stacksize	Stack Size
tltrace	Transaction Log Trace
tltrace.data	Use Raw Format
tltrace.ddl	DDL
tltrace.debug	Debug
tltrace.file	File
tltrace.level	Level
tltrace.pause	Pause
trace	Trace
trace2	Trace2
traceapi	Trace API
tracetable.0	Trace Table
tracetable.1	Name
trail_seqlen_9d	Trail Sequence Length 9 digits
trailbyteorder	Trail Byte Order
trailcharset	Trail Character Set
trailcharset.replacebadchar	Replace Bad Character

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
trailcharsetascii	Trail Character Set ASCII
trailcharsetebcdic	Trail Character Set EBCDIC
trailcharsetunicode	Unicode Trail Character Set
tranlogoptions	Transaction Log Options
tranlogoptions.USE_ROOT_CONTAINER_TIMEZONE	Use Root Container Timezone
tranlogoptions._allowtablecompression	Allow Table Compression
tranlogoptions.activationidpadlen	Activation ID Pad Length
tranlogoptions.activesecondarytruncationpoint	Active Secondary Truncation
tranlogoptions.adgapplycheckfreq	ADG Apply Check Frequency
tranlogoptions.adgretrycount	ADG Retry Count
tranlogoptions.adgtimeout	ADG Timeout
tranlogoptions.allowdataloss	Allow Data Loss
tranlogoptions.allowtablecompression	Allow Table Compression
tranlogoptions.altarchivedlogformat	Alt Archive Log Format
tranlogoptions.altarchivelogdest	Alt Archive Log Destination
tranlogoptions.altlogdest	Alt Log Destination
tranlogoptions.altonlinelogs	Alt Online Logs
tranlogoptions.apifilter	API Filter
tranlogoptions.archivedlogonly	Archived Log Only
tranlogoptions.archiverestoreexecutable	Archive Restore Executable
tranlogoptions.archiverestoreparams	Archive Restore Parameters

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
tranlogoptions.asmbufsize	ASM Buffer Size
tranlogoptions.asmuser	ASM User
tranlogoptions.asmuser.aes128	AES128
tranlogoptions.asmuser.aes192	AES192
tranlogoptions.asmuser.aes256	AES256
tranlogoptions.asmuser.asmpassword	ASM Password
tranlogoptions.asmuser.blowfish	Blowfish
tranlogoptions.asmuser.encryptkey	Encrypt Key
tranlogoptions.asmuser.sysdba	Sysdba
tranlogoptions.asmuseralias	ASM User Alias
tranlogoptions.asmuseralias.domain	Domain
tranlogoptions.asynctransprocessing	Async Transaction Processing
tranlogoptions.bufsize	Buffer Size
tranlogoptions.checkpointretentiontime	Checkpoint Retention
tranlogoptions.checkpointtable	Checkpoint Table
tranlogoptions.checkposition	Check Position
tranlogoptions.checktablelevelsupplog	Checktable Level Suppl Log
tranlogoptions.completearchivedlogonly	Complete Archived Log
tranlogoptions.completearchivedlogtimeout	Complete Archived Log Timeout
tranlogoptions.convertucs2clobs	Convert UCS to CLOBS
tranlogoptions.createtranlog	Create Transaction Log

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
tranlogoptions.databaseidpadlen	Database ID Pad Len
tranlogoptions.dblogreader	DB Log Reader
tranlogoptions.dblogreaderbufsize	DB Log Reader Buffer Size
tranlogoptions.excludetag	Exclude Tag
tranlogoptions.excludetrans	Exclude Transaction
tranlogoptions.excludeuser	Exclude User
tranlogoptions.excludeuserid	Exclude User ID
tranlogoptions.failovertargetdestid	Failover Target Destination ID
tranlogoptions.fetchinlinesflob	Fetch Inline FS Lob
tranlogoptions.fetchlobonerror	Fetch LOB On Error
tranlogoptions.fetchpartiallob	Fetch Partial LOB
tranlogoptions.fetchpartialxml	Fetch Partial XML
tranlogoptions.fetchxmlonerror	Fetch XML On Error
tranlogoptions.filtertable	Filter Table
tranlogoptions.flush	Flush
tranlogoptions.forcefetchlob	Force Fetch LOB
tranlogoptions.getctasdml	Get CTAS DML
tranlogoptions.getmetadatafromvam	Get Metadata From VAM
tranlogoptions.handledlfailover	Handled Failover
tranlogoptions.iflockseconds	If Lock (secs)
tranlogoptions.ignoredatacapturechanges	Ignore Data Capture Changes

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
tranlogoptions.ignoredirectloadinserts	Ignore Direct Load Inserts
tranlogoptions.ignoregap	Ignore Gap
tranlogoptions.ignorekeyerror	Ignore Key Error
tranlogoptions.includeaux	Include AUX
tranlogoptions.includeregionid	Include Region ID
tranlogoptions.includeregionidwithoffset	Include Region ID With Offset
tranlogoptions.integratedparams	Integrated Parameters
tranlogoptions.legacylobreading	Legacy LOB Reading
tranlogoptions.logretention	Log Retention
tranlogoptions.logretention.days	Days
tranlogoptions.logsource	Log Source
tranlogoptions.logswitchmsg	Log Switch Message
tranlogoptions.managesecondarytruncationpoint	Manage Secondary Truncation Point
tranlogoptions.maxparallelrec	Max Parallel Records
tranlogoptions.maxreadsize	Max Read Size
tranlogoptions.maxwarneof	Max Warn EOF
tranlogoptions.minefromactivedg	Mine From Active DG
tranlogoptions.minefromsnapshotstby	Mine From Snapshots
tranlogoptions.mininguser	Mining User
tranlogoptions.mininguser.algorithm	Algorithm
tranlogoptions.mininguser.aes128	AES128

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
tranlogoptions.mininguser.aes192	AES192
tranlogoptions.mininguser.aes256	AES256
tranlogoptions.mininguser.blowfish	Blowfish
tranlogoptions.mininguser.encryptkey	Encrypt Key
tranlogoptions.mininguser.miningpassword	Mining Password
tranlogoptions.mininguser.sysdba	Sysdba
tranlogoptions.mininguseralias	Mining User Alias
tranlogoptions.mininguseralias.domain	Domain
tranlogoptions.noadgtimeout	No ADG Timeout
tranlogoptions.noasynctransprocessing	No Async Transaction Processing
tranlogoptions.noddlchangewarning	No DDL Change Warning
tranlogoptions.noflush	No Flush
tranlogoptions.noignoredatacapturechanges	Do Not Ignore Data Capture
tranlogoptions.norequirelongdatacapturechanges	Do Not Require Long Data Capture
tranlogoptions.onephase	One Phase
tranlogoptions.pathmap	Path Map
tranlogoptions.pollinterval	Poll Interval
tranlogoptions.prepareforupgradetoie	Prepare For Upgrade To IE
tranlogoptions.purgeorphanedtransactions	Purge Orphaned Transactions
tranlogoptions.queryretrycount	Query Retry Count
tranlogoptions.readqueuesize	Read Queue Size

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
tranlogoptions.requirelongdatacapturechanges	Require Long Data Capture
tranlogoptions.resetlogsidpadlen	Reset Logs ID Pad Length
tranlogoptions.restartappend	Restart Append
tranlogoptions.seqpadlen	Sequence Pad Length
tranlogoptions.server	Server
tranlogoptions.skipdirloadinsert	Skip DIR Load Insert
tranlogoptions.startatactivelsn	Start At Active LSN
tranlogoptions.threadpadlen	Thread Pad Length
tranlogoptions.transcleanupfrequency	Trans Cleanup Frequency (min)
tranlogoptions.truncpointoff	Truncation Point Off
tranlogoptions.tslookupbeginlri	Timestamp Lookup Start
tranlogoptions.tslookupendlri	Timestamp Lookup Stop
tranlogoptions.unprivileged	Unprivileged
tranlogoptions.usenativeobjsupport	Use Native Object Support
tranlogoptions.useocithreads	Use OCI Threads
tranlogoptions.useprevresetlogsid	Use Previous Reset Log SID
tranlogoptions.userexit	User Exit
tranlogoptions.validateinlinesflob	Validate Inline FS Lob
tranlogoptions.vamcompatibility	VAM Compatibility
transactiontimeout	Transaction Timeout
transmemory	Transaction Memory

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
transmemory.directory	Directory
transmemory.inittransram	Initial Trans RAM
transmemory.ram	RAM
transmemory.ramincrement	RAM Increment
transmemory.transallsources	Trans All Sources
transmemory.transram	Trans RAM
trimspaces	Trim CHAR to VARCHAR Spaces
trimvarspaces	Trim VARCHAR to CHAR Spaces
unlockedtrailfiles	Unlocked Trail Files
updatedeletes	Update Deletes
updateinserts	Update Inserts
updaterecordformat	Update Record Format
upreporthours	Up Report Hours
upreportminutes	Up Report Minutes
use_traildefs	Use Trail Definitions
usededicatedcoordinationthread	Use Dedicated Coordination Thread
useipv4	IPV4
useipv6	IPV6
userid	Userid
userid.password	Password
userid.password.algorithm	Algorithm

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
`userid.password.aes128`	AES128
`userid.password.aes192`	AES192
`userid.password.aes256`	AES256
`userid.password.blowfish`	Blowfish
`userid.password.encryptkey`	Encrypt Key
`userid.sysdba`	Sysdba
`userid.thread`	Threads
`useridalias`	User Alias
`useridalias.domain`	Domain
`useridalias.sysdba`	Sysdba
`useridalias.thread`	Threads
`usethreads`	Use Threads
`usetimeprefix`	Use Time Prefix
`usetimestampprefix`	Use Timestamp Prefix
`vam`	Vendor Access Module
`vam.params`	Parameters
`varwidthnchar`	Treat NCHAR, NVARCHAR2, NCLOB As UTF-16
`veridatareportage`	Veridata Report Age
`walletlocation`	Wallet Location
`warnlongtrans`	Warn Long Transaction
`warnlongtrans.checkinterval`	Check Interval

Oracle GoldenGate Parameter/Option	Oracle GoldenGate Studio Label
warnlongtrans.nousethreads	No Use Threads
warnlongtrans.uselastreadtime	Use Last Read Time
warnrate	Warn Rate
wildcardresolve	Resolve Wildcard
wildcardresolve.both	Intermediate and Dynamic Resolve
wildcardresolve.dynamic	Dynamic Resolve
wildcardresolve.ignoremissing	Ignore Missing
wildcardresolve.immediate	Immediate Resolve
xagenable	XAG Integration

C

Oracle Oracle GoldenGate Studio Accessibility Information

Oracle Oracle GoldenGate Studio provides a wide range of features that are designed to support accessibility. Our goal is to make Oracle Products, Services, and supporting documentation accessible to the disabled community.

This appendix contains the following:

- Oracle GoldenGate Studio Features that Support Accessibility
- Highly Visual Features of Oracle GoldenGate Studio

C.1 Oracle GoldenGate Studio Features that Support Accessibility

Oracle GoldenGate Studio provides a wide range of features that are designed to support accessibility. Our goal is to make Oracle Products, Services, and supporting documentation accessible to the disabled community.

Oracle GoldenGate Studio Features that Support Accessibility

The Oracle Accessibility Program web page provides information on how to configure and use the accessibility features of Oracle GoldenGate Studio.

Oracle Oracle GoldenGate Studio supports accessibility features. For additional accessibility information about Oracle products, including information on how to configure and use them, see the Oracle Accessibility Program page at: Oracle's Accessibility Program.

Oracle's goal is to ensure that disabled end-users of our products can perform the same tasks, and access the same functionality as other users. Oracle Oracle GoldenGate Studio provides a number of features that are designed to support accessibility goals.

C.1.1 Keyboard Access

Oracle GoldenGate Studio features support keyboard access to several menu and toolbar functionality so that users may navigate between windows and work with them, or invoke resources.

Oracle GoldenGate Studio features support keyboard access to Oracle GoldenGate Studio functionality; a summary is provided below. The mnemonic keys used to open menus and choose commands are included in all procedural topics. Please refer to the keyboard navigation topics for a summary of how keys are assigned within Oracle GoldenGate Studio and the lists of accelerator keys provided for commands.

The following menu and toolbar functionality is provided through keyboard access:

- Users can navigate to and invoke all menu items.
- All toolbar functions are accessible through menu items.
- All menus and menu items have unique and functioning mnemonic keys.
- All context menus within the windows and source editor can be invoked.
- Frequently used menu items have unique accelerator keys.

The following functionality is available in Oracle GoldenGate Studio dialogs and wizards:

- You can navigate to and invoke all controls within all wizards and dialogs.
- The order in which the Tab key causes focus to flow is consistent and logical.
- Mnemonic keys are provided for controls where appropriate.

C.1.2 Screen Reader Readability

Screen readers in Oracle GoldenGate Studio ensure that menus and menu items, toolbar items, hint text, open windows and components, status text, controls within wizards, dialogs, and runtime applications are read.

The following is a summary of screen readability in Oracle GoldenGate Studio, when it's used with a screen reader:

When used with menus and toolbars:

- All menus and menu items are read.
- All toolbar items, including the window toolbar items, are read.
- The hint text on all toolbar items is read.

When used with dialogs and wizards:

- All controls within all wizards and dialogs are read.
- Hint text is read.

When used with runtime applications:

- All controls within all runtime applications are read.

C.1.3 Flexibility in Font and Color Choices

For users who are visually challenged, Oracle GoldenGate Studio offers options in font color, font size, and background color on user interfaces.

The user interface in Oracle GoldenGate Studio improves usability for people who are visually impaired by offering flexibility in color and font choices. The following font and color features are included:

- Users can specify both the font and the size in which the font displays for editors.
- All features of the product have black text on a white or gray background.
- Colored text, underlining or images are never used as the only method of conveying information.

C.1.4 No Dependency on Blinking Cursor and Animation

By limiting its dependence on the use of a blinking cursor and animation, Oracle GoldenGate Studio ensures greater feature accessibility.

Oracle GoldenGate Studio makes minimal use of a blinking cursor and animation. No features in Oracle GoldenGate Studio use blinking indicators, with the exception of the cursor in the source editor. No features rely on animated sequences.

C.1.5 Screen Magnifier Usability

The Oracle GoldenGate Studio user interface works well with screen magnifiers. All features of the product can be magnified by a screen magnifier.

C.2 Highly Visual Features of Oracle GoldenGate Studio

Oracle GoldenGate Studio supports some very visual features. Visually challenged users can access the UI, the visual editors, and the Components window using the equivalent functionality in Oracle GoldenGate Studio.

Oracle GoldenGate Studio includes features that are highly visual, and these features have equivalent functionality that is available to people who are blind or visually impaired:

- The UI and visual editors. The source editor provides equivalent functionality, as pages and UI elements can be completely designed and coded in the source editor.
- The Components window. The source editor provides equivalent functionality, as elements and tags that can be selected from the Components window can also be entered in the source editor.

You can add a component from the Components window to the UI or visual editor using keystrokes.

Oracle GoldenGate Studio also includes modeling features. It is possible to create, edit and move elements on a diagram using only keystrokes.