# Oracle GoldenGate Studio 12.2.1.3

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GOLDENGATE

*Oracle GoldenGate Studio enables you to design and deploy high-volume, real-time database 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 Oracle GoldenGate's advanced replication options.*

**ORACLE GOLDENGATE STUDIO**

**KEY FEATURES**

- Design and deploy high-volume, real-time replication across heterogeneous platforms in just a few clicks
- Best practice solution templates and wizards
- Automap tables and drag and drop custom maps
- Deploy the same solution to multiple locations
- Monitor active deployments with monitoring points and track deployment history
- Oracle Data Pump Instantiation support, auto coordination with GoldenGate CDC
- Design & Deploy OGG artifacts for Big Data Systems
- Scalable and complex architectures can be easily designed, deployed, and maintained
- Simulate Oracle GoldenGate environments by uploading parameter files to Studio

**KEY BENEFITS**

- Improve IT productivity by reducing the time to design and deploy new replication solutions.
- Best practice wizards with templates and auto mapping make real-time data integration easier to deploy throughout the enterprise.
- Development, QA and production teams can independently deploy the same replication solution in a shared environment ensuring continuity.

## Oracle GoldenGate Replication Overview

Day-old or even hours-old transactional data is now a competitive disadvantage. Having up to the minute – or second – data has helped usher an exciting new era of improved customer experience, operational efficiency, and business agility. More than 4,500 customers across the globe and nearly all of the fortune 100 companies have taken advantage of Oracle GoldenGate's unparalleled speed and reliability making it one of the leading real-time technologies of the era.

Time tested and proven, Oracle GoldenGate is a heterogeneous real-time database replication, integration, big data streaming, and high availability platform. It provides organizations real-time data integration for analytics, zero downtime migrations, cloud consolidations, real-time reporting replicas, and active-active data distribution for continuous availability.

## Oracle GoldenGate Studio Overview

In this 12.2.1.3 release, Oracle GoldenGate Studio provides wizards, templates, and a flow-based declarative user interface for designing and deploying database replication solutions across heterogeneous databases. This means that you can now quickly implement real-time replication across different databases without having to be an Oracle GoldenGate or database expert. As the real-time data requirements evolve you will discover easy access to the advanced Oracle GoldenGate Studio replication features such as filtering, transformations, and conflict detection and resolution.

Wizards will walk you through the seven simple steps to create a project, select a logical solution template, and create an associated deployment profile. Tables can be auto mapped and dragged and dropped between sources and targets allowing you to deploy solutions within minutes.

The full development life cycle is supported by ensuring continuity between development, quality assurance (QA), and production environments. You can do this because the same logical solution to be deployed to multiple physical locations so that a

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• All changes and history are stored securely in a central database repository.

## ORACLE GOLDENGATE STUDIO

Oracle GoldenGate Studio makes it easy to design and deploy real-time, high-volume replication solutions. It lays the foundation for more efficient operations, better competitive advantages and improved customer experiences that become possible with real-time data.

## RELATED PRODUCTS

The following products support and complement Oracle GoldenGate Studio

• Oracle GoldenGate

• Oracle GoldenGate Veridata

• Oracle Management Pack for Oracle GoldenGate

• Oracle GoldenGate for Big Data

• Oracle GoldenGate Cloud Service

single change is automatically reflected in all environments the next time you deploy. After deployment, you can monitor and control the physical processes that were deployed to ensure they are running and actively replicating data.

All design and deployment artifacts, as well as the deployment history, are securely stored in a central database repository. Teams can share the same repository allowing collaboration on projects. You can copy projects, solutions, and mapping groups within a single repository environment and between external repositories via XML files. For example, a consultant can design a solution, export it to XML, then a third party such as a customer or Oracle Support, can import the XML file into their Oracle GoldenGate Studio environment and instantly see the solution diagram and mapping details of the consultant's design. Oracle GoldenGate Studio also supports manual offline deployments by generating Oracle GoldenGate command line scripts and parameter files to a local file system.
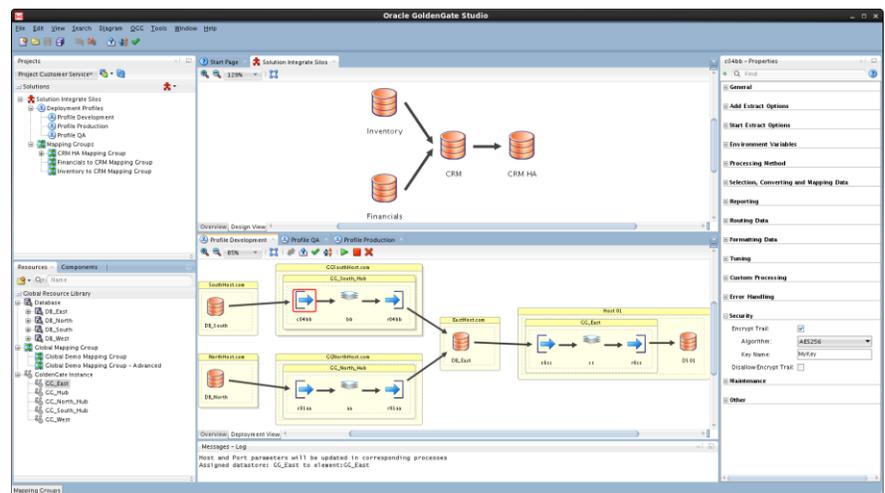


*Figure 1: Oracle GoldenGate Studio allows you to design your replication solutions logically (top diagram) and best practice templates fill in the underlying details (bottom diagram) while still providing access to advanced options.*

## Auto Mapping, Custom Mapping and Advanced Options

Auto mapping and drag and drop custom mapping enables you to quickly match source and target tables and columns. A set of table mappings are stored as a mapping group and since they are a logical construct they can be assigned to multiple replication paths. For example, if you have 100 stores with the same application schema and want to replicate them to a data warehouse, the mapping group is defined only once and can be referenced by all 100 replication paths. Adding a new table to all 100 paths requires only a single update to the referenced mapping group. This change is instantly available in all deployment profiles associated with the solution.

The Property Inspector for the mapping group contains advanced mapping options. These options include enabling DDL replication (for supported databases), filtering and data subsetting, transformation and DML conversions, conflict detection and resolution, custom SQL statements, error and exception handling, calling third party programs and scripts (event actions), key column overrides, and more.

## Heterogeneous Database Support

Oracle GoldenGate Studio supports heterogeneous databases like MySQL, SQL Server. IBM DB2 zOS, LUW and Teradata (Delivery only). It enables you to implement real-time replication solutions for supported heterogeneous databases. You can design heterogeneous databases as source and target then deploy the necessary Oracle GoldenGate artifacts to your Oracle GoldenGate instances. You can also generate Oracle GoldenGate artifacts using the manual offline mode.

The Mapping Editor allows you to drag and drop tables from heterogeneous database connections, which enables you to quickly match source and target tables and columns. The Property Inspector for heterogeneous database allows you to review and modify the specific parameters for each database. For example, supplemental logging parameters are different for different databases.

## Oracle Data Pump Instantiation & Big Data Support

Oracle GoldenGate Studio supports Oracle Data Pump (ODP) Instantiation with auto coordination between Oracle GoldenGate CDC and ODP processes. It enables you to design and deploy Oracle database environment with automatic coordination between Instantiation and CDC processes. It allows you to configure and monitor the ODP processes through Overview screen. You can also increase the throughput of ODP process by increasing the parallelism parameter. You just need to create Remote link and rest will be taken care by Oracle GoldenGate Studio. Oracle GoldenGate Studio already supports Oracle GoldenGate Instantiation method. It enables you to select either of the Instantiation method (Oracle GoldenGate Instantiation or ODP Instantiation) for each replication path, All replication path can have Instantiation processes running simultaneously.

Oracle GoldenGate Studio supports design and deployment of Oracle GoldenGate artifacts for Big Data targets. You can use Oracle GoldenGate for Big Data and Oracle GoldenGate for Application Adapter while designing and deploying solutions to Big Data targets. Oracle GoldenGate Studio allows you to attach your Big Data environment specific properties files to the product. It will then deploy it to OGG Instance along with other Oracle GoldenGate artifacts.

## Scalability and Reverse Engineering Support

Oracle GoldenGate Studio enables you to simulate the Oracle GoldenGate replication environment by uploading the Oracle GoldenGate parameter files to Studio. It creates data replication mappings and populates all of the Oracle GoldenGate properties in the properties inspector. In a complex replication environment, you can use the reverse engineering to help you design and deploy the Oracle GoldenGate artifacts in just one click.

When you have multiple Oracle GoldenGate Instances to design and deploy, Studio provides you the scalability to design your complex environment. Oracle GoldenGate Studio has certified consolidation, and broadcast solution templates to help you manage your complex environment. With the scalability enhancements, you can design one-way or two-way replication in the deployment diagram, and then have an option to select

another replication path from the same deployment diagram.  Hence, you can focus on an individual replication path using the clean and easy to use user interface.

## Summary

Oracle GoldenGate Studio dramatically simplifies the designing and deploying of Oracle GoldenGate real-time replication solutions. These solutions can be deployed directly to live Oracle GoldenGate instances or you can generate the Oracle GoldenGate files for manual deployments. Best practice wizards and auto mapping allow new and experienced users alike to create and deploy solutions in a matter of minutes thus dramatically reducing the time to realize the benefits of real-time data movement throughout your enterprise.

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