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ORMB-EBS Integration Guide

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Preface

About This Document

This guide explains how to install the integration package to integrate Oracle E-Business Suite (EBS) Revenue Accounting General Ledger and Accounts Payable with the Oracle Revenue Management and Billing (ORMB) application.

You must go through this guide thoroughly before you begin installation of the integration package.

Intended Audience

This document is intended for the following audience:

- End-Users
- System Administrators
- Consulting Team
- Implementation Team

Organization of the Document

The information in this document is organized into the following sections:

Section No.	Section Name	Description
1	Installing the Oracle EBS and ORMB Integration Package	Lists and describes the software requirements, pre-installation tasks and the installation steps to install the integration package for integrating Oracle EBS with the ORMB application. It also lists the post-installation tasks and explains how to manage the ODI environment.

Related Documents

You can refer to the following documents for more information:

- Oracle Revenue Management and Billing Implementation Guide for EBS RMB Integration.
- Oracle E-Business Suite Revenue Accounting General Ledger and Accounts Payable Installation Guide for Release V12.2.6
- Oracle Revenue Management and Billing Installation Guide for Release V2.6.0.1.0
- Oracle Data Integrator 12c Documentation

Contents

1.	Installing the Oracle EBS and ORMB Integration Package.....	1
1.1	Software Requirements	1
1.2	Pre-Installation Tasks	1
1.3	Installation Steps.....	2
1.4	Installing the Integration.....	6
1.4.1	Run the Installation Script	6
1.5	Post Installation Tasks.....	8
1.5.1	Connecting to the Work Repository	8
1.5.2	Viewing the objects of the Work Repository.....	10
1.6	Configure the Applications.....	20
1.7	Managing the ODI Environment	20

1. Installing the Oracle EBS and ORMB Integration Package

This section explains the procedure to install the integration package for integrating the Oracle E-Business Suite (EBS) Revenue Accounting General Ledger and Accounts Payable with the Oracle Revenue Management and Billing (ORMB) application. It lists and describes the software requirements, and the pre-installation and post-installation tasks that are required for the integration. In addition, it describes how you can manage the ODI environment.

You must install the integration package before configuring the applications for running the integrated functionality. The integration package is installed on top of the Oracle Data Integrator (ODI) tool. This integrated functionality enables the Oracle EBS Revenue Accounting General Ledger and Accounts Payable, and the ORMB application to interact with the middleware to initiate the housed services.

1.1 Software Requirements

Before installing the integration package, verify that the following software is properly installed and configured:

Note: Please refer to your product specific installation instructions for complete details.

1. Oracle Revenue Management and Billing – Application version 2.6.0.1.0 installed on an Oracle database.
2. Oracle E-Business Suite Revenue Accounting General Ledger and Accounts Payable – Application version 12.2.6 installed on an Oracle database.
3. Oracle Data Integrator version 12.2.1.3.0 (Standalone Installation and Developer Installation or Java EE Installation and Developer Installation).

1.2 Pre-Installation Tasks

Before you begin installing the integration package, complete the following tasks:

- Ensure that Oracle Data Integrator 12.2.1.3.0 is installed and running.
(Refer to the document *Installing and Configuring Oracle Data Integrator Guide*).

Oracle Data Integrator installed should have the following components:

- Agent
 - Designer
 - Operator
 - Security Manager
 - Topology Manager
 - SDK
- Ensure that the database for ODI is created.

- Ensure that the Repository Creation Utility (RCU) has been run to create the master and work repository schemas on the ODI Database. Refer to the **Creating the Master and Work Repository Schema** section in the *Installing and Configuring Oracle Data Integrator Guide*.
- Ensure you have the tnsnames.ora entry for the databases related to ORMB, EBS and ODI repositories.

1.3 Installation Steps

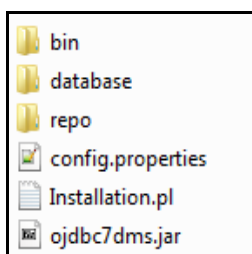
Note: The following utility provided as deliverable is created to import ODI Artifacts.

Perform the following steps to install the integration package:

1. Download the patch number 28995937 file from My Oracle Support.

Note: This patch is not an upgrade for any earlier releases, it has to be newly installed.

2. Extract the patch number 28995937 in the folder/directory (for e.g. D:\). This extracted folder contains the RMB_EBS_INSTALL_HOME.zip.
3. Extract the RMB_EBS_INSTALL_HOME.zip. The folder structure of the extracted files is as shown below:



Note: Ensure there are no spaces in the directory names for installation.

4. Review the database scripts related to static data required for integration `IntegrationLookupData.sql`. Refer to the implementation guide on details for each of these values.
5. Set the following environment variables for Unix and Windows OS:

Variable	Example
Linux and Windows OS	
INT_INSTALL_HOME	Set this to the directory where RMB_EBS_INSTALL_HOME.zip is extracted. Examples: Unix/Linux: export INT_INSTALL_HOME=/scratch/RMB_EBS_INSTALL_HOME/ Windows: set INT_INSTALL_HOME=D:\RMB_EBS_INSTALL_HOME\
ODI_INST_HOME	Set this to the ODI installation directory Examples:

Variable	Example
	Unix/Linux: export ODI_INST_HOME= /scratch/ODI_12.2.1.3.0 Windows: D:\ODI_12.2.1.3.0
PATH	PATH=<ORACLE_HOME>/perl/bin;<ORACLE_HOME>/bin;%PATH%
LD_LIBRARY_PATH	Set this variable in case of Unix/Linux only. LD_LIBRARY_PATH=\$ORACLE_HOME/lib

Note: The syntax for `INT_INSTALL_HOME` changes depending on whether you are installing on Linux or Windows. The following sections refer to this as `$INT_INSTALL_HOME` in the Linux syntax. However, if you are installing on Windows, it should be referred to as: `%INT_INSTALL_HOME%`. Wherever `$INT_INSTALL_HOME` is mentioned in this document please replace with `%INT_INSTALL_HOME%` for Windows. Make sure that `JAVA_HOME` and `ORACLE_HOME` are set as were used at time of ODI installation.

6. Modify the `$INT_INSTALL_HOME\config.properties` file and ensure that the values are relevant to the server where the integration product will be installed. The following table lists the properties available in `config.properties` file along with their usage. The default values are specified wherever applicable.

Property	Description	Example
ODI Repository Supervisor Information		
<code>odiSupervisorUser</code>	Supervisor user as provided while running the RCU	SUPERVISOR
<code>odiSupervisorPassword</code>	Supervisor Password as provided while running the RCU	SUPERVISOR
ODI Master Repository Database Information		
<code>masterRepositoryJdbcUrl</code>	Master Repository Database url	<code>jdbc:oracle:thin:@<host>:<port>:<SID></code>
<code>masterRepositoryJdbcDriver</code>	Oracle Driver	<code>oracle.jdbc.OracleDriver</code>
<code>masterRepositoryJdbcUser</code>	Master Repository database schema user	<code>DEV_ODI_REPO</code>
<code>masterRepositoryJdbcPassword</code>	Master Repository database schema password	Password

Property	Description	Example
ODI Work Repository Database Information		
workRepositoryJdbcUrl	Work Repository Database url	jdbc:oracle:thin:@<host>:<port>:<SID>
workRepositoryJdbcDriver	Oracle Driver	oracle.jdbc.OracleDriver
workRepositoryJdbcUsername	Work Repository database schema user	DEV_ODI_REPO
workRepositoryJdbcPassword	Work Repository database schema password	Password
workRepositoryName	Work Repository Name as provided while running the RCU	ODIWORK
RMB Database credentials		
rmbUser	RMB Database User	<rmb_db_username>
rmbPass	RMB Database Password	<rmb_db_pwd>
rmbJdbcUrl	RMB database URL	jdbc:oracle:thin:@<host>:<port>:<SID>
EBS Database credentials		
ebsUser	EBS Database User	<ebs_db_username>
ebsPass	EBS Database Password	<ebs_db_pwd>
ebsJdbcUrl	EBS database URL	jdbc:oracle:thin:@<host>:<port>:<SID>
ODI Repository Details		
repoType	This is the work repository type to be created. In case of Development repository enter "DEVELOPMENT" or if type execution enter "EXECUTION" for production deployment	DEVELOPMENT or EXECUTION
workRepoPath	Work repository path based on the installation directory. (No Change Required)	../repo/WorkRepo.zip

Property	Description	Example
masterRepoPath	Master repository path based on the installation directory. (No Change Required)	../repo/MasterRepo.zip
scenariosPath	Scenarios path based on the installation directory. (No Change Required)	../repo

Note: \$ INT_INSTALL_HOME/ folder contain the perl file for running the installation.

```
odiSupervisorUser=SUPERVISOR
odiSupervisorPassword=<<ODI_SUPERVISOR_PASSWORD>>

masterRepositoryJdbcUrl=jdbc:oracle:thin:@<<ODI_HOST_NAME>>:<<ODI_PORT>>:<<ODI_SID>>
masterRepositoryJdbcDriver=oracle.jdbc.OracleDriver
masterRepositoryJdbcUser=DEV_ODI_REPO
masterRepositoryJdbcPassword=<<MASTER_REPOSITORY_PASSWORD>>

workRepositoryJdbcUrl=jdbc:oracle:thin:@<<ODI_HOST_NAME>>:<<ODI_PORT>>:<<ODI_SID>>
workRepositoryJdbcDriver=oracle.jdbc.OracleDriver
workRepositoryJdbcUsername=DEV_ODI_REPO
workRepositoryJdbcPassword=<<Work_REPOSITORY_PASSWORD>>
workRepositoryName=ODIWORK

rmbUser=CISADM
rmbPass=<<ORMB_DB_PASSWORD>>
rmbJdbcUrl=jdbc:oracle:thin:@<<ORMB_HOST>>:<<ORMB_PORT>>:<<SID>>

ebsUser=APPS
ebsPass=<<EBS_DB_PASSWORD>>
ebsJdbcUrl=jdbc:oracle:thin:@<<EBS_HOST>>:<<PORT>>:<<SID>>

# DEVELOPMENT or EXECUTION
repoType=DEVELOPMENT

workRepoPath=../repo/WorkRepo.zip
masterRepoPath=../repo/MasterRepo.zip
scenariosPath=../repo
```

Sample config.properties file

1.4 Installing the Integration

1.4.1 Run the Installation Script

After you set the environment variables, install the integration package as per the following steps:

1. Open a command prompt and execute the command:
`cd RMB_EBS_INSTALL_HOME\`
2. Execute: `perl Installation.pl` to invoke the deployment script.
`<RMB_EBS_INSTALL_HOME> perl Installation.pl`

The deployment script displays menu options as shown in the figure below:-

```

C:\windows\system32\cmd.exe - perl Installation.pl
D:\ORMB\U2.5.0.1.0\RMB_EBS_INSTALL_HOME>perl Installation.pl
Current Working Dir is :
D:\ORMB\U2.5.0.1.0\RMB_EBS_INSTALL_HOME
1 - Import ODI Artifacts
2 - Run Integration Artifacts on RMB
3 - Run Integration Artifacts on EBS
4 - To run all the above steps (1 to 3)
5 - Review your config.properties
6 - Exit
  
```

Note: Execute Steps 1 to 3 individually or Execute Step 4 which will run all steps from 1 to 3 in the sequence defined. Ensure all configuration settings are done in config.properties prior to running all the steps.

This completes the end to end RMB-EBS integration installation by performing the following tasks:

Step 1

Deploys the integration artifacts in the ODI repositories.

Step 2

Creates database tables/data required for RMB EBS integration on RMB schema.

Table Name	Description
INTEGRATION_LOOKUP_TABLE	A lookup table to store all the configuration parameters used by the ODI processes. This table is also used to configure the email addresses to be notified if errors occur. This table is seeded with data at the time of integration product installation.
INTEGRATION_ERROR_STORE	The table is used to hold the information regarding the errors encountered during integration transactions. A record is inserted for each error encountered by the ODI Flows. The mail notification process, accesses this table to get the error information needed to construct the notification email. This table is delivered with no data.

Step 3

Creates database procedures and functions required for RMB EBS integration on EBS schema.

Table Name	Description
DATABASE LINK	A database link is created which is used by the ODI processes for integration.

Step 4

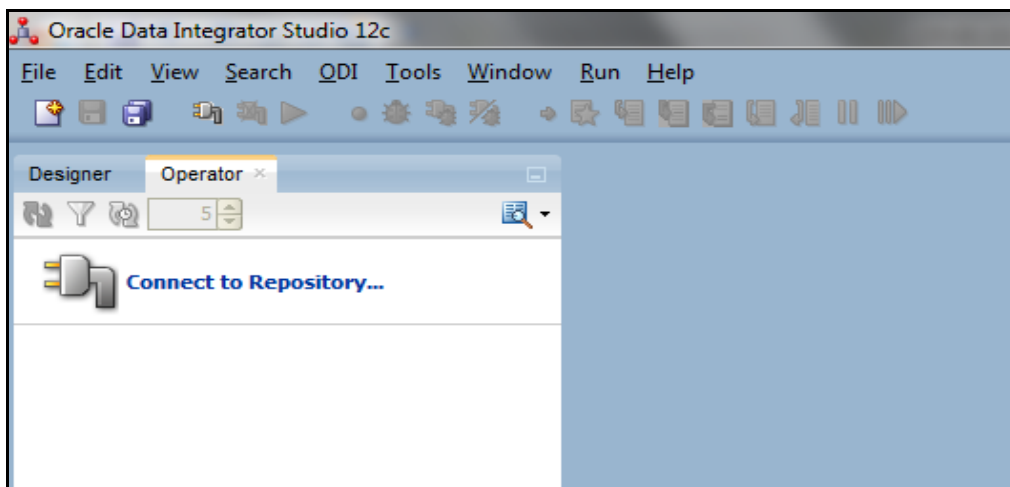
Execute steps 1 to 3 in the sequence defined.

1.5 Post Installation Tasks

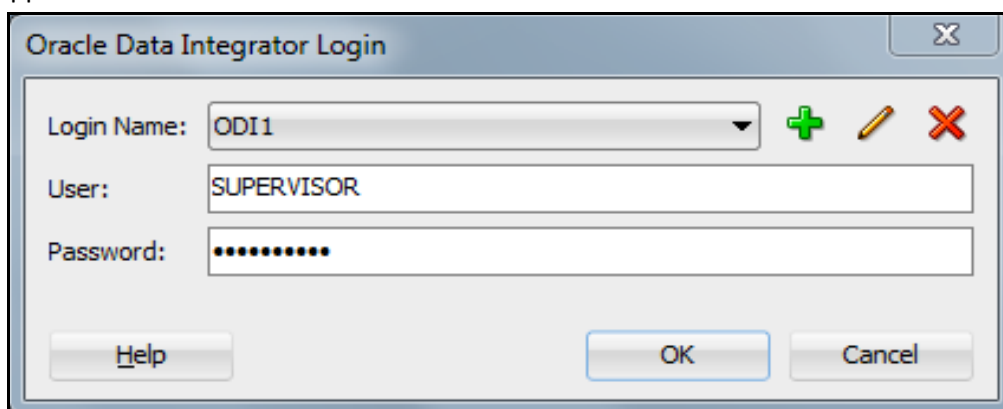
After successfully running the installation scripts you must complete the following tasks to finalize the installation.

1.5.1 Connecting to the Work Repository

1. Launch the ODI Studio. The **Oracle Data Integrator** screen appears.




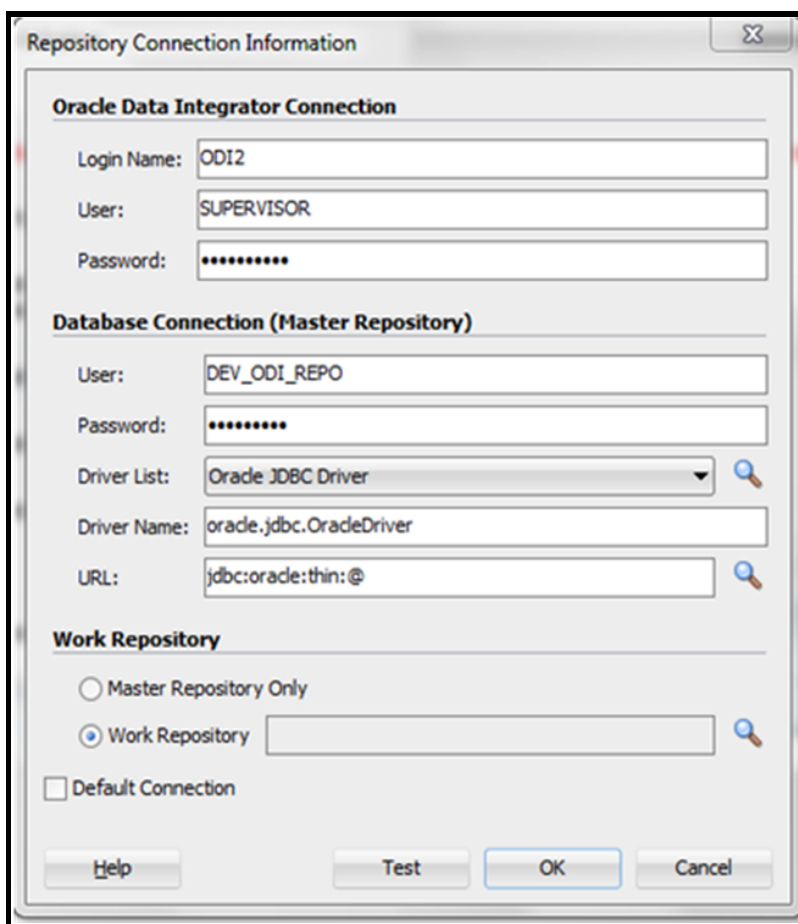
2. Click the **ODI** menu option and click **Connect**. The **Oracle Data Integrator Login** dialog box appears.



The **Oracle Data Integrator Login** dialog box contains the following fields:

Field Name	Description	Mandatory (Yes or No)
Login Name	Used to select the login name that you want to use to connect to the work repository.	Yes
User	Indicates the ODI admin user name through which the connection will be established.	Yes
Password	Indicates the ODI admin password through which the connection will be established.	Yes

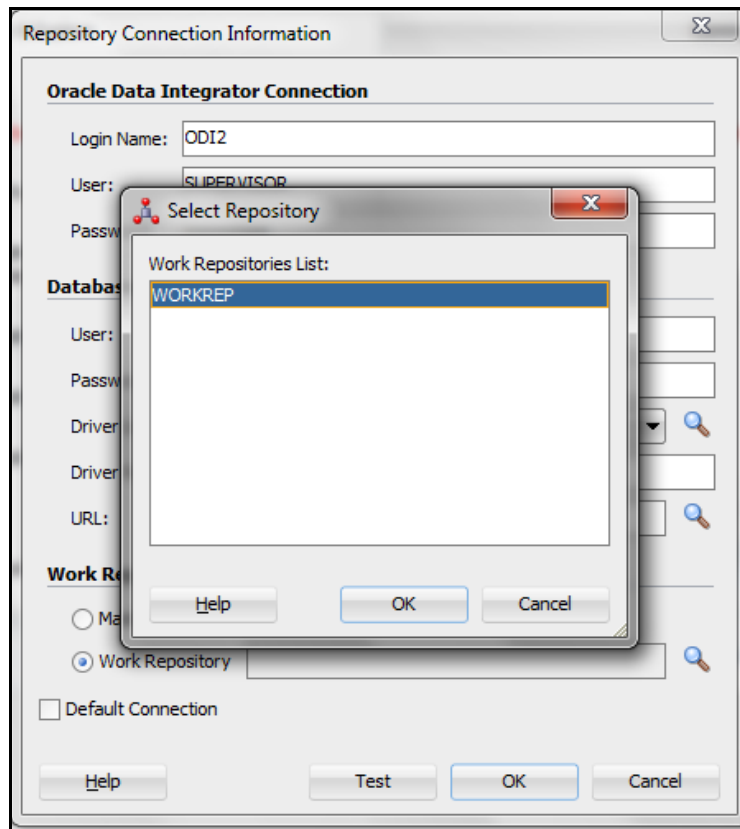
- Click the **New** icon  on the **Oracle Data Integrator Login** dialog box. The **Repository Connection Information** dialog box appears.
- Enter the repository connection information for the master repository user SUPERVISOR (set password to SUPERVISOR). Refer to the **Connecting to the Work Repository** section in the *Installing and Configuring Oracle Data Integrator Guide*.



The image shows the 'Repository Connection Information' dialog box. It is divided into three sections: 'Oracle Data Integrator Connection', 'Database Connection (Master Repository)', and 'Work Repository'. The 'Oracle Data Integrator Connection' section has fields for 'Login Name' (ODI2), 'User' (SUPERVISOR), and 'Password' (masked with dots). The 'Database Connection (Master Repository)' section has fields for 'User' (DEV_ODI_REPO), 'Password' (masked with dots), 'Driver List' (Oracle JDBC Driver), 'Driver Name' (oracle.jdbc.OracleDriver), and 'URL' (jdbc:oracle:thin:@). The 'Work Repository' section has radio buttons for 'Master Repository Only' and 'Work Repository' (selected), and a checkbox for 'Default Connection'. At the bottom are buttons for 'Help', 'Test', 'OK', and 'Cancel'.

Section	Field	Value
Oracle Data Integrator Connection	Login Name	ODI2
	User	SUPERVISOR
	Password	*****
Database Connection (Master Repository)	User	DEV_ODI_REPO
	Password	*****
	Driver List	Oracle JDBC Driver
	Driver Name	oracle.jdbc.OracleDriver
	URL	jdbc:oracle:thin:@
Work Repository	Master Repository Only	<input type="radio"/>
	Work Repository	<input checked="" type="radio"/> <input type="text"/>
	Default Connection	<input type="checkbox"/>

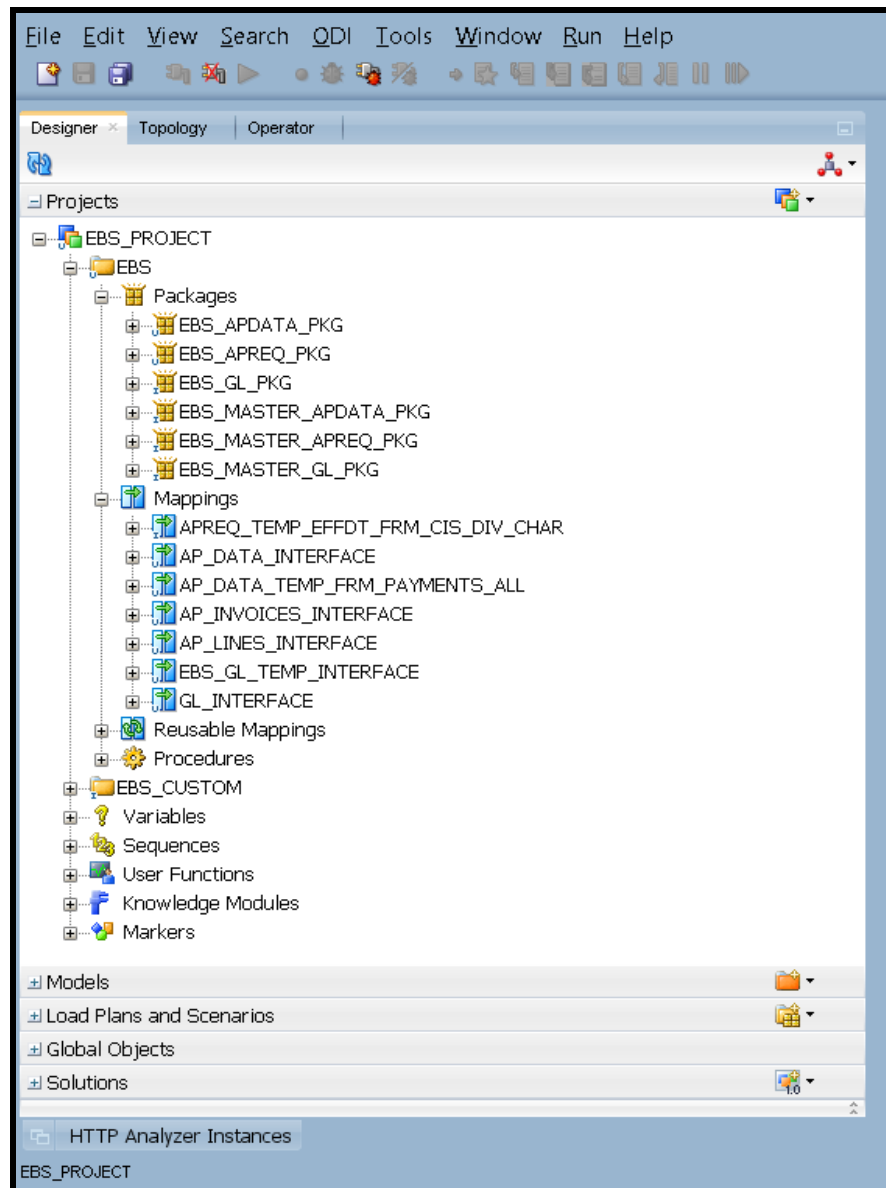
- Select the work repository name from the **Work Repositories List** as mentioned in *config.properties*.



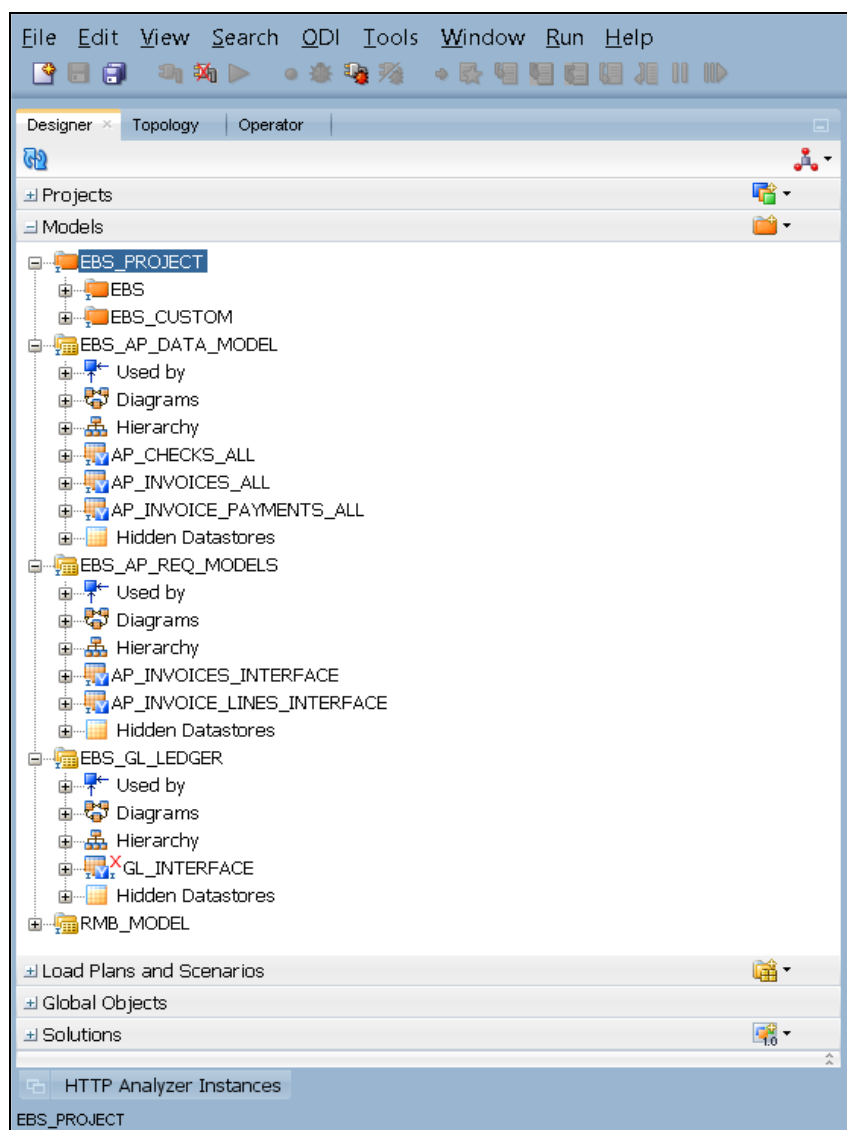
1.5.2 Viewing the objects of the Work Repository

1. Log into Work Repository with proper credentials (User: SUPERVISOR & Password: SUPERVISOR). Open **Designer** tab to check that the Model/Packages/Interface/Scenario objects are available.

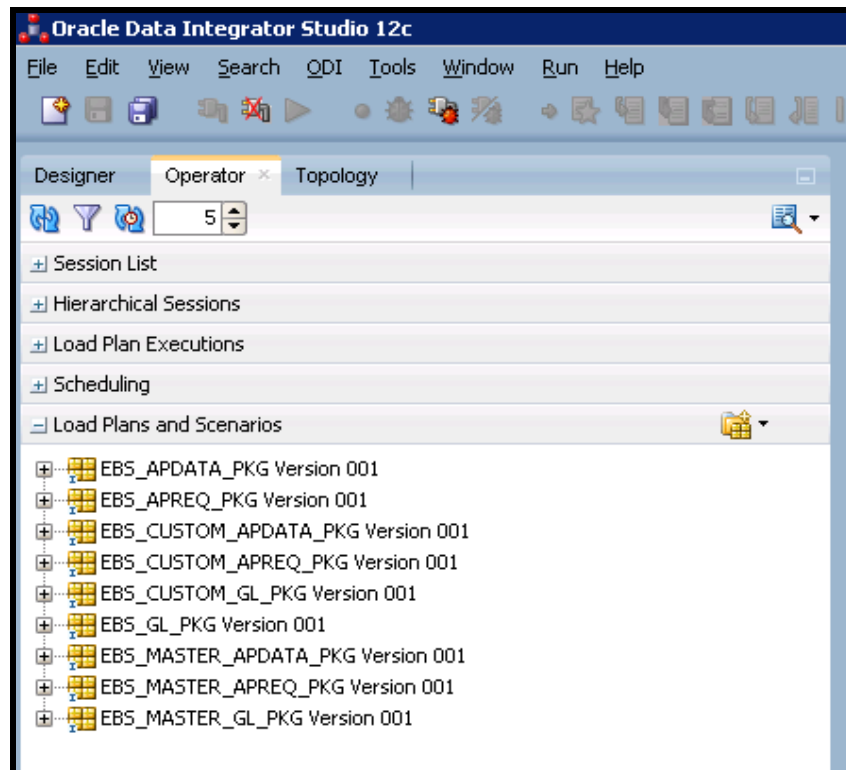
If Work Repository type is selected as “DEVELOPMENT”, you can view the EBS_PROJECT in your setup in the **Designer** tab.



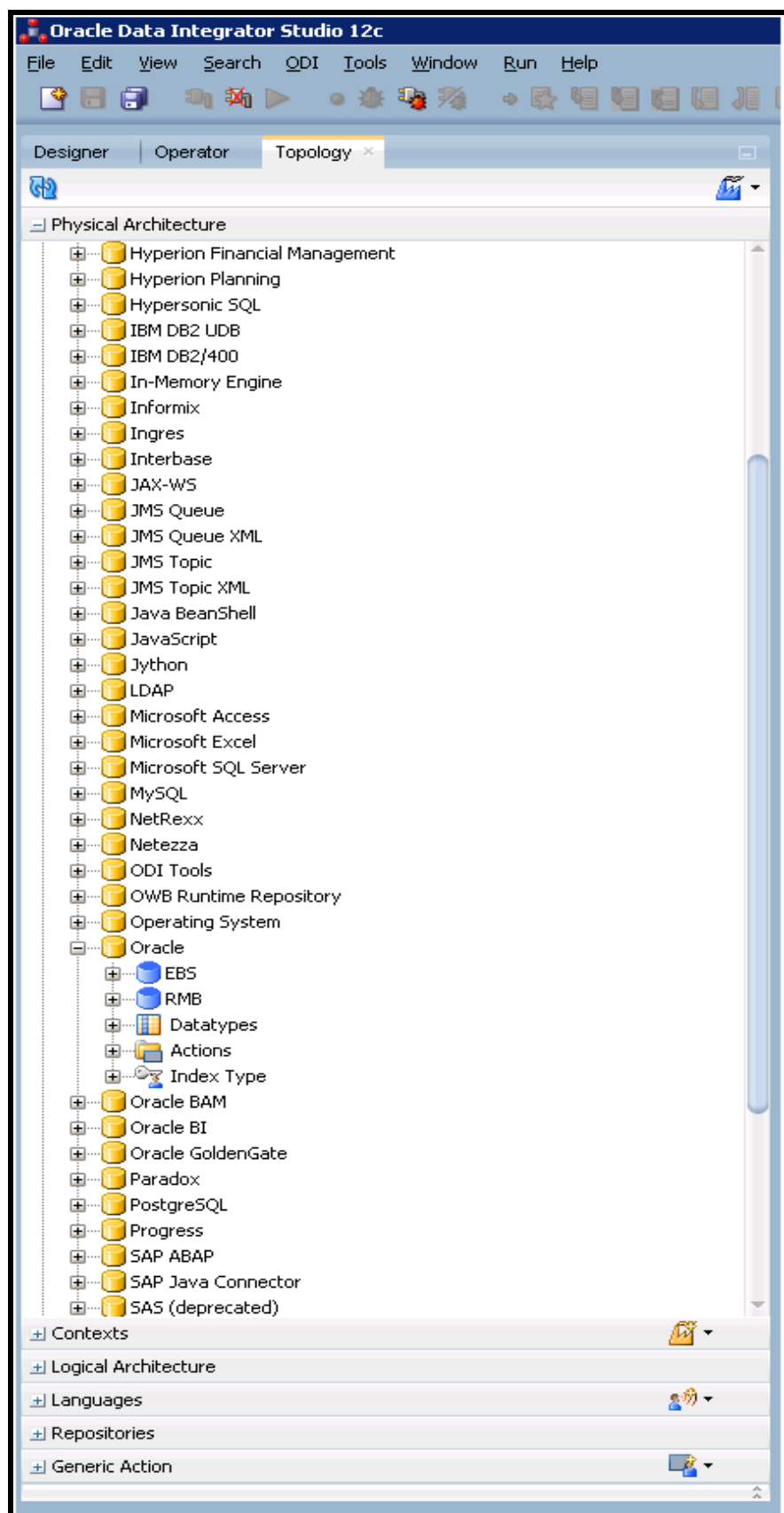
2. Under the **Designer** tab, click and expand **Models** section to view the model for EBS/RMB.



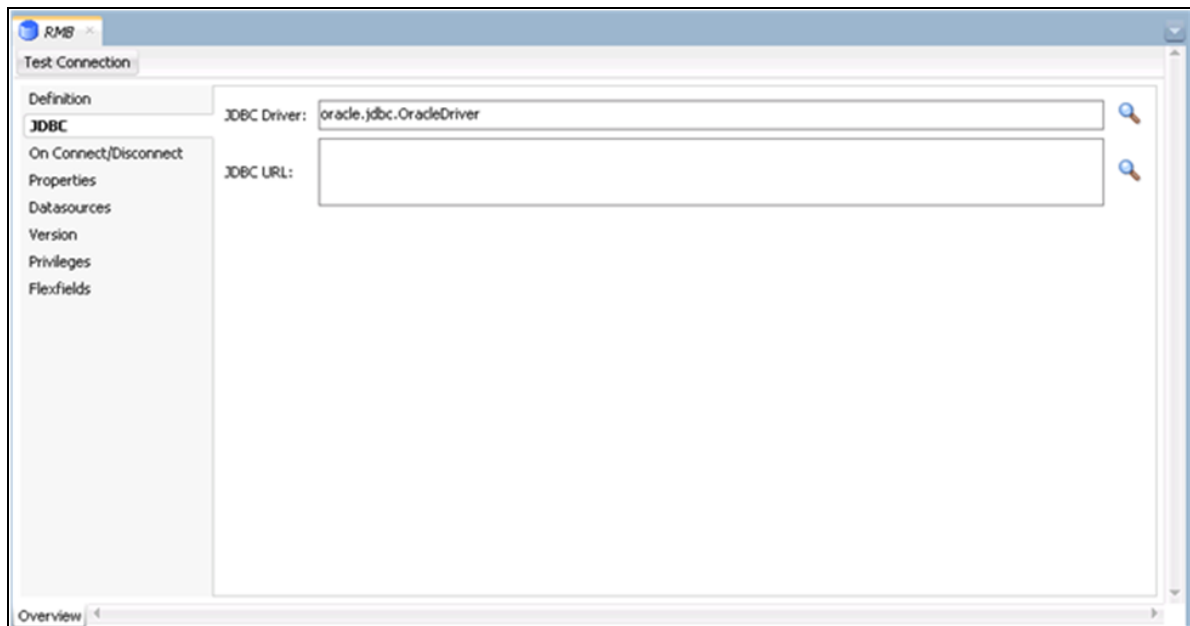
In case Work Repository type was selected as “EXECUTION” (for production deployments) in the **Operator** tab, you can view the **Scenarios** under the **Load Plans and Scenarios** section as shown below.



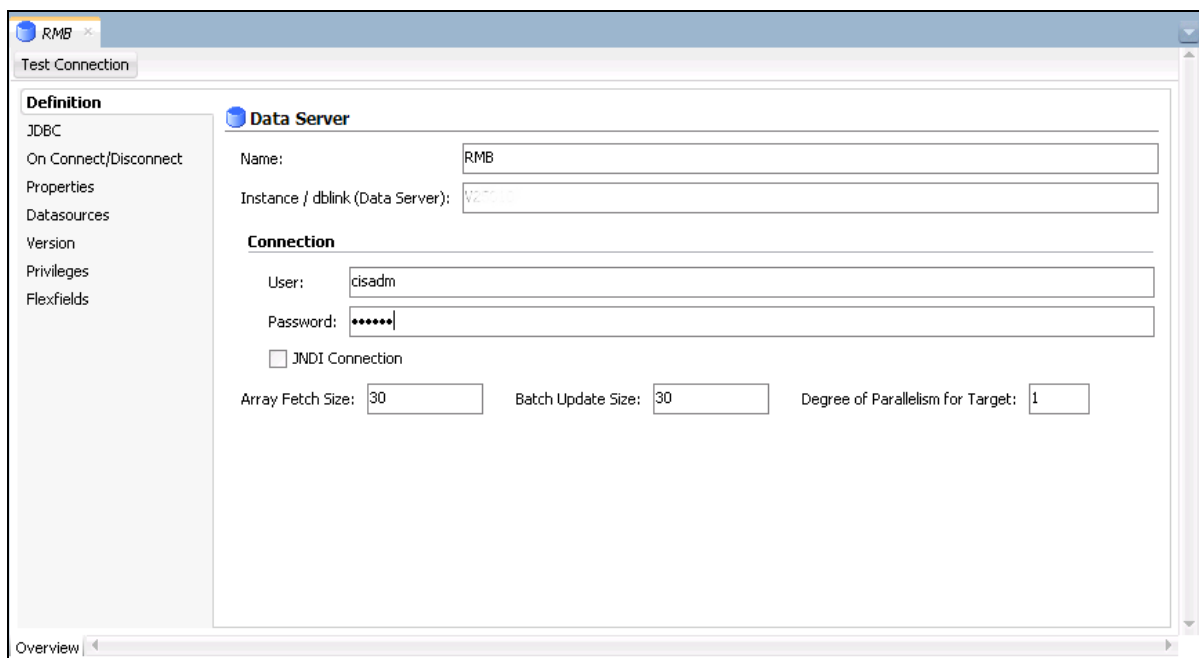
3. Enter the source tnsnames entry in the target database and vice versa.
4. Use **ODI Topology Manager** to check the Oracle Data Server Connections for source RMB and target EBS. Verify both the **Logical Architecture** and **Physical Architecture**.

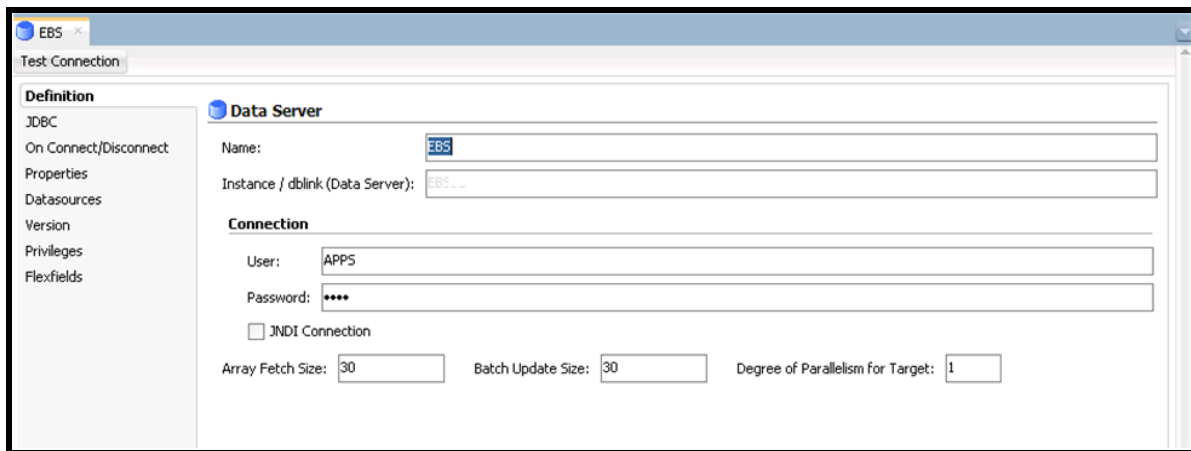


5. Edit the data server details for target database and source database JDBC URLs as per the setup environment.
6. Edit the JDBC URL for Source and Target.

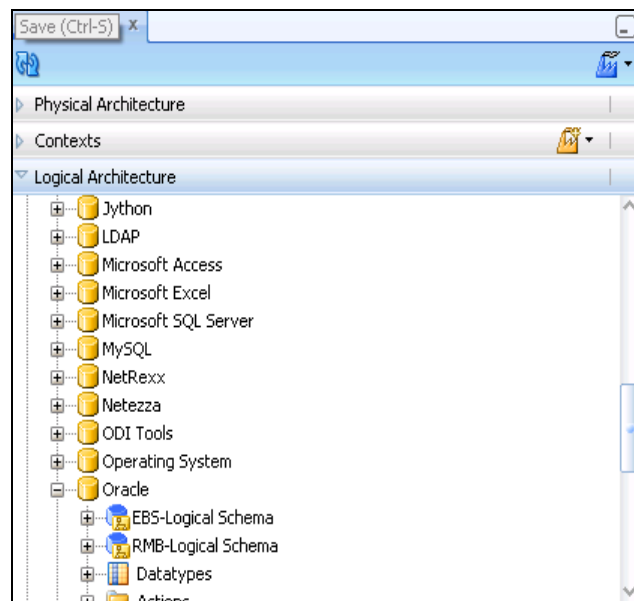


7. Similarly edit the **Instance / dblink** name in the **Definition** tab to the SID of the respective source and target databases.

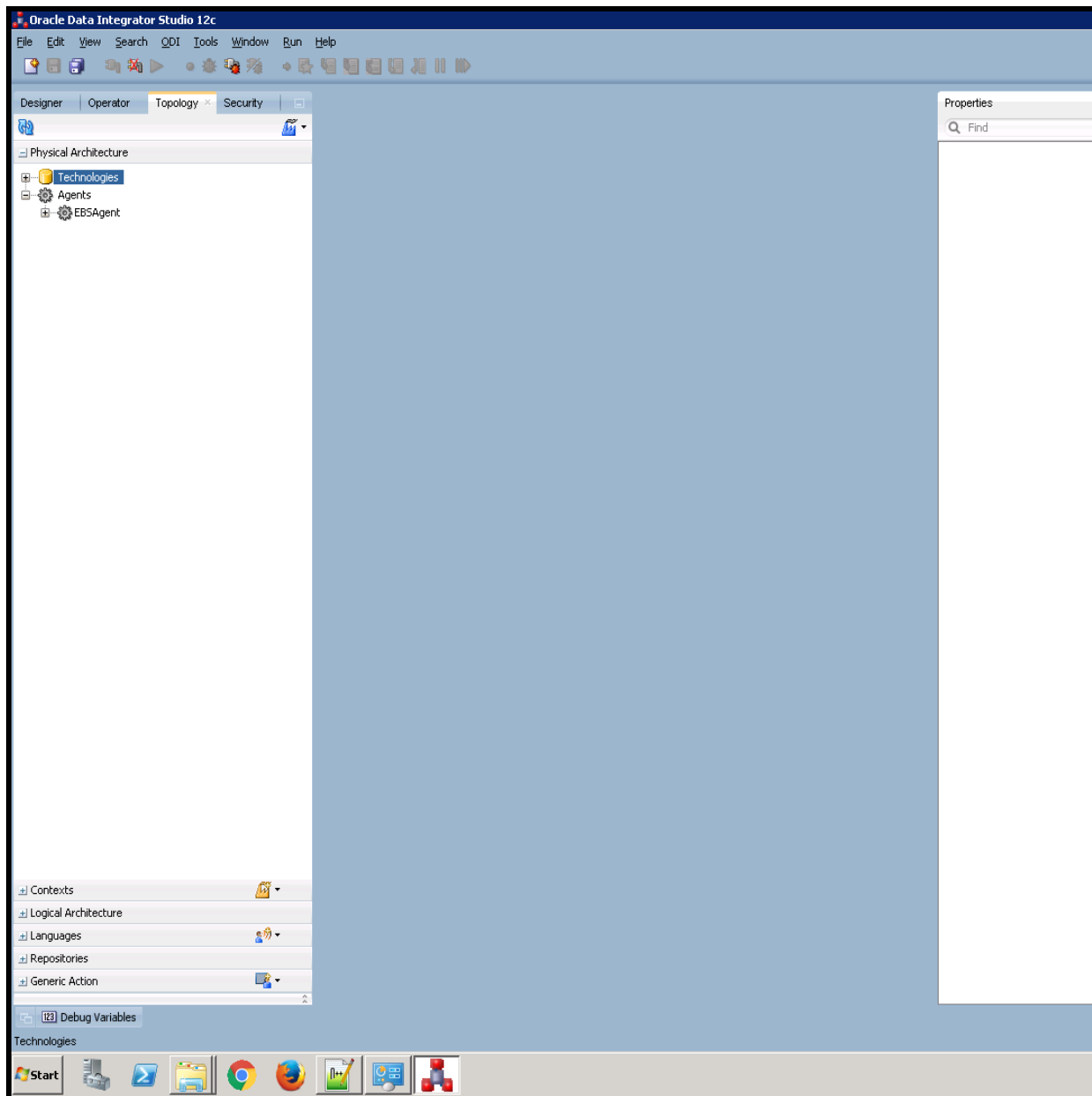


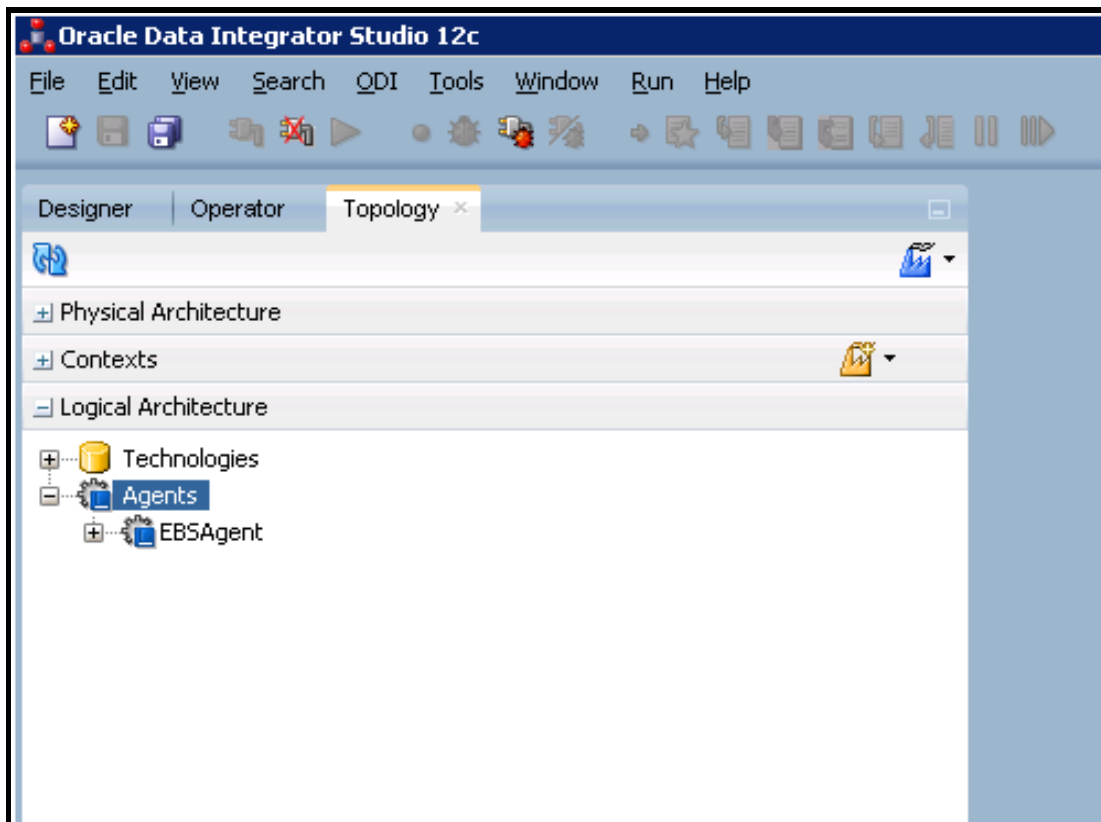


8. Logical Schemas for source and target require no editing.



9. Use **ODI Topology Manager** to check the **Agent** deployed. Verify the host and port and edit if required based on the setup in the **Physical Architecture**.





Starting the Agent:

EBSAgent is available as part of the EBS deliverable. You can use this agent as standalone agent or Java EE agent after making the Standalone or Java EE specific changes to the agent. You can also create a custom agent as per your requirement.

Before you start the Standalone or Java EE agent, you need to configure the domain for Standalone or Java EE agent. For more information on how to configure the domain for Standalone or Java EE agent, refer to the **Configuring the Domain for the Standalone Agent** or **Configuring the Domain for the Java EE Agent** section, respectively in the *Installing and Configuring Oracle Data Integrator Guide*.

For example, to start the standalone agent:

1. Change to the BIN directory using the following command:

AIX, Linux:

```
cd <ODI_INST_HOME>/user_projects/domains/<DOMAIN_NAME>/bin
```

Windows:

```
cd <ODI_INST_HOME>\user_projects\domains\<DOMAIN_NAME>\bin
```

2. Start the standalone agent for the repository connection using the following command:

AIX, Linux:

```
./agent.sh -NAME=EBSAgent
```

Windows:

```
agent.cmd -NAME=EBSAgent
```

```
C:\ODI_EE\user_projects\domains\EBSTEST\bin>agent.cmd -NAME=EBSAgent
2017-02-15 14:53:33.198 NOTIFICATION New data source: (EBSTEST_ODI_REPO/*****@
2017-02-15 14:53:36.143 NOTIFICATION ODI-1128 Agent EBSAgent is starting. Container: STANDALONE. Agent Version: 12.1.3 - 17/06/2014. Port: 20910. JMX
Port: 21910.
Following : 127.0.0.1,10.180.5.253,127.0.0.1
2017-02-15 14:53:45.784 NOTIFICATION New data source: (EBSTEST_ODI_REPO/*****@
2017-02-15 14:53:48.378 NOTIFICATION ODI-1111 Agent EBSAgent started. Agent version: 12.1.3 - 17/06/2014. Port: 20910. JMX Port: 21910.
2017-02-15 14:53:48.378 NOTIFICATION ODI-1136 Starting Schedulers on Agent EBSAgent.
2017-02-15 14:53:53.691 NOTIFICATION ODI-1137 Scheduler started for work repository WRRP on Agent EBSAgent.
```

Note: For more information on how to start Java EE agent, refer to the Configuring the Domain for the Java EE Agent section in the *Installing and Configuring Oracle Data Integrator Guide*.

1.6 Configure the Applications

For guidelines to configure the ORMB integration and Oracle E-Business Suite Revenue Accounting General Ledger and Accounts Payable installation, refer to *Oracle Revenue Management and Billing and Oracle E-Business Suite Integration Implementation Guide*.

1.7 Managing the ODI Environment

How to Change the Default Database Passwords

Altering the database passwords post setup, change the Physical Architecture in ODI for technology Oracle, the data server, the source and target databases. For master repository, ensure this information is updated in the login details for both master and work (Refer [Connecting to the Work Repository](#)). Similarly for work repository update the connection details in master under Repositories tab.

How to Change the ODI Topology Source and Target Connection Details

Edit the Physical Architecture for technology Oracle using Topology Manager for the source and target databases. Also edit the Instance/ dblink name to the SID of the database.

How to Change the Password for the ODI SUPERVISOR User

Change password for the SUPERVISOR user created during installation using the Security Manager module in ODI. Password set during installation is SUPERVISOR.