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ORMB-PeopleSoft Integration Guide

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ORMB and PeopleSoft Integration Installation Guide

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Preface

About This Document

This guide explains how to install the integration package to integrate PeopleSoft (PS) 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 PeopleSoft and ORMB Integration Package	Lists and describes the software requirements, pre-installation tasks and the installation steps to install the integration package for integrating PeopleSoft with the ORMB application. It also lists the post-installation tasks and explains how to manage the ODI environment.
Appendix A	Known Issues	Lists the issues faced during execution or installation of this package along with the workarounds to handle these issues.

Related Documents

You can refer to the following documents for more information:

- Oracle Revenue Management and Billing Implementation Guide for PS RMB Integration Document
- PeopleSoft Installation Guide for Release V9.2
- Oracle Revenue Management and Billing Installation Guide for Release V2.5.0.1.0
- Oracle Data Integrator 12c (12.1.3) Documentation
- Installing and Configuring Oracle Data Integrator

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1. Installing the PeopleSoft and ORMB Integration Package

This section explains the procedure to install the integration package for integrating the PeopleSoft (PS) application with the Oracle Revenue Management and Billing (ORMB) application. It lists and describes the software requirements and the pre-installation and post installation tasks required for the integration. In addition, it describes how you can manage the Oracle Data Integrator (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 PeopleSoft and ORMB application to interact with the middleware to initiate the installed services.

1.1 Software Requirements

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

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

1. Oracle Revenue Management and Billing – Application version 2.5.0.1.0 installed on an Oracle database.
2. PeopleSoft– Application version v9.2 installed on an Oracle database (<http://edelivery.oracle.com/>)
3. Oracle Data Integrator 12.1.3.0.0 (Standalone Installation and Developer Installation or Java EE Installation and Developer Installation) (<http://edelivery.oracle.com/>)

1.2 Pre-Installation Tasks

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

1. Ensure that Oracle Data Integrator 12c (12.1.3.0.0) 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
2. Ensure that the database for ODI is created.
3. 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*.

4. Ensure the tnsnames.ora entry for the databases related to ORMB, PS and ODI repositories are provided. (Sample to be shared?)

1.3 Installation Steps

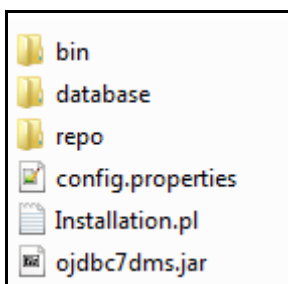
Note: The following utility provided as deliverable is created to import ODI Artifacts.

Perform the following steps to install the integration package:

1. Download p25442093_25010_Generic_patch (Patch number 20962730) file from My Oracle Support.

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

2. Extract the p25442093_25010_Generic_patch (Patch number 20962730) in the folder/directory (for e.g. D:\). This extracted folder contains the RMB_PS_INSTALL_HOME.zip.
3. Extract the RMB_PS_INSTALL_HOME.zip. The folder structure of the extracted files is as shown below:



4. Review the database scripts related to the 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_PS_INSTALL_HOME.zip is extracted. Examples: Unix/Linux: export INT_INSTALL_HOME=/slot/RMB_PS_INSTALL_HOME/ Windows: set INT_INSTALL_HOME=D:\RMB_PS_INSTALL_HOME\
ODI_INST_HOME	<ODI installation directory>\Oracle_Home
PATH	PATH=<ORACLE_HOME>/perl/bin;<ORACLE_HOME>/bin;%PATH%

Note: The syntax for `INT_INSTALL_HOME` are specific to the OS (Linux/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%`.

Note: Make sure that `JAVA_HOME` and `ORACLE_HOME` are set to the paths as they were set during ODI installation.

6. Modify the `$INT_INSTALL_HOME\config.properties` file and ensure correct values are provided for server parameters where the integration product is to be installed. The following table lists the properties available in `config.properties` file along with their description.

Note: As per the document, the schema/user created using the RCU is used as both Master and Work users to import the Master and Work Repositories respectively. In case you have different users for both the repositories, you may provide them in the `masterRepositoryJdbcUser` and `workRepositoryJdbcUsername` users respectively.

e.g. `masterRepositoryJdbcUser=ODI_PS_MASTER_USER`
`workRepositoryJdbcUsername=ODI_PS_WORK_USER`

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	<code>welcome</code>
ODI Work Repository Database Information		
<code>workRepositoryJdbcUrl</code>	Work Repository Database url	<code>jdbc:oracle:thin:@<host>:<port>:<SID></code>
<code>workRepositoryJdbcDriver</code>	Oracle Driver	<code>oracle.jdbc.OracleDriver</code>

Property	Description	Example
workRepositoryJdbcUsername	Work Repository database schema user	DEV_ODI_REPO
workRepositoryJdbcPassword	Work Repository database schema password	welcome
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>
PS Database credentials		
psUser	PS Database User	<ps_db_username>
psPass	PS Database Password	<ps_db_pwd>
psJdbcUrl	PS 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	Configure the work repository path based on the installation directory.	In Windows D:\\RMB_PS_INSTALL_HOME\\repo\\WorkRepository.zip In Unix /slot/RMB_PS_INSTALL_HOME/repo/WorkRepository.zip
masterRepoPath	Configure the master repository path based on the installation directory.	In Windows D:\\RMB_PS_INSTALL_HOME\\repo\\MasterRepository.zip In Unix /slot/RMB_PS_INSTALL_HOME/repo/MasterRepository.zip
executionEnvPath	Configure the execution	In Windows

Property	Description	Example
	environment path based on the installation directory.	D:\\RMB_PS_INSTALL_HOME\\repo\\Topology.zip In Unix /slot/RMB_PS_INSTALL_HOME/repo/Topology.zip
scenariosPath	Configure the work repository path based on the installation directory.	In Windows D:\\RMB_PS_INSTALL_HOME\\repo\\ In Unix /slot/RMB_PS_INSTALL_HOME/repo/

```
odiSupervisorUser=SUPERVISOR
odiSupervisorPassword=SUPERVISOR

masterRepositoryJdbcUrl=jdbc:oracle:thin:@
masterRepositoryJdbcDriver=oracle.jdbc.OracleDriver
masterRepositoryJdbcUser=DEV_ODI_REPO
masterRepositoryJdbcPassword=Oracle123

workRepositoryJdbcUrl=jdbc:oracle:thin:@
workRepositoryJdbcDriver=oracle.jdbc.OracleDriver
workRepositoryJdbcUsername=DEV_ODI_REPO
workRepositoryJdbcPassword=Oracle123
workRepositoryName=WORKREP

rmbUser=cisadm
rmbPass=CISADM
rmbJdbcUrl=jdbc:oracle:thin:@

psUser=APPS
psPass=APPS
psJdbcUrl=oracle:thin:@

repoType=DEVELOPMENT

workRepoPath=D:\\RMB_PS_INSTALL_HOME\\repo\\WorkRepository.zip
masterRepoPath=D:\\RMB_PS_INSTALL_HOME\\repo\\MasterRepository.zip
executionEnvPath=D:\\RMB_PS_INSTALL_HOME\\repo\\Topology.zip
scenariosPath=D:\\RMB_PS_INSTALL_HOME\\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:

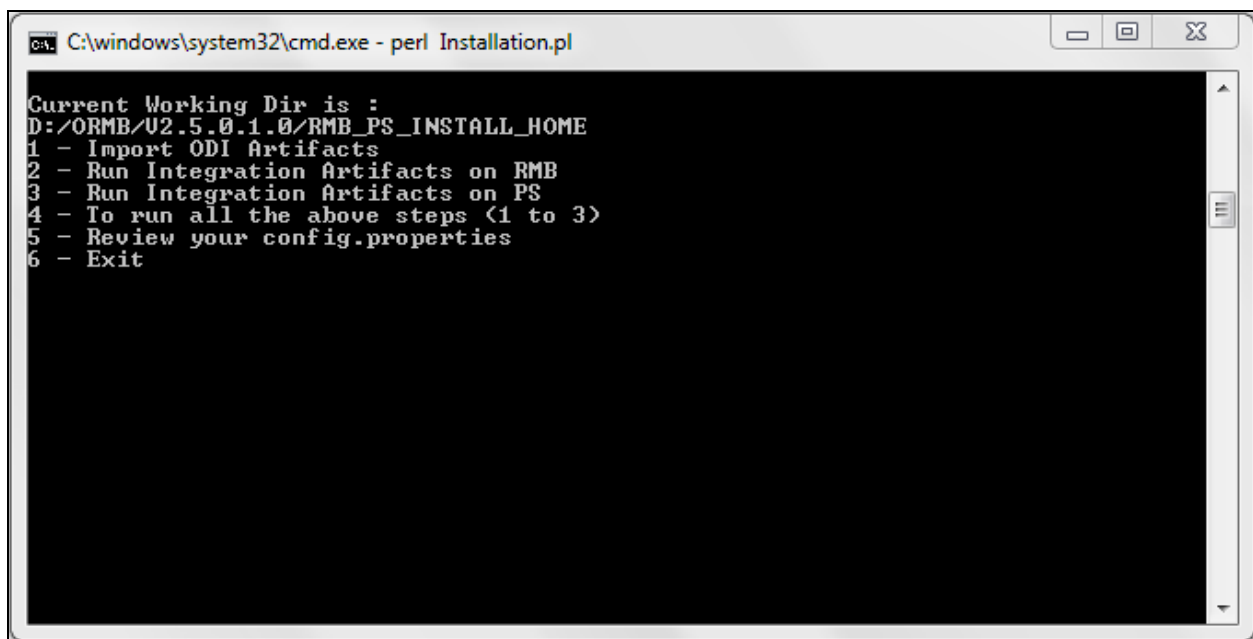
1. Launch the command prompt and execute the command:

```
cd RMB_PS_INSTALL_HOME\
```

2. Execute: *perl Installation.pl* to invoke the deployment script for integration.

```
<RMB_PS_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

Current Working Dir is :
D:/ORMB/U2.5.0.1.0/RMB_PS_INSTALL_HOME
1 - Import ODI Artifacts
2 - Run Integration Artifacts on RMB
3 - Run Integration Artifacts on PS
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 runs all steps from 1 to 3 in the sequence defined. Ensure that all configuration settings are done in the *config.properties* prior to running all the steps.

The end to end RMB-PS integration installation is completed by performing the following steps:

Step 1

Deploy the integration artifacts in the ODI repositories.

Step 2

Create database tables/data required for RMB PS 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

Create a database link required for RMB PS integration on PS schema.

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

Step 4

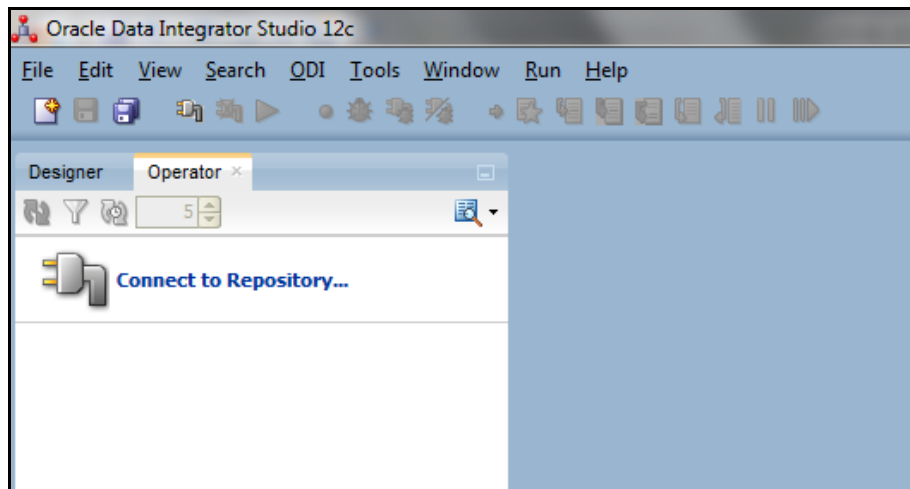
Execute steps 1 to 3 in the sequence defined.

1.5 Post Installation Tasks

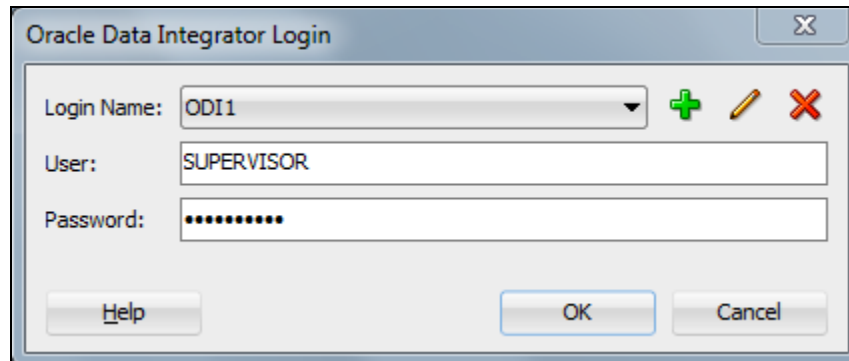
After successfully running the installation script, perform the following tasks to complete the installation.

1.5.1 Connecting to the Work Repository

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




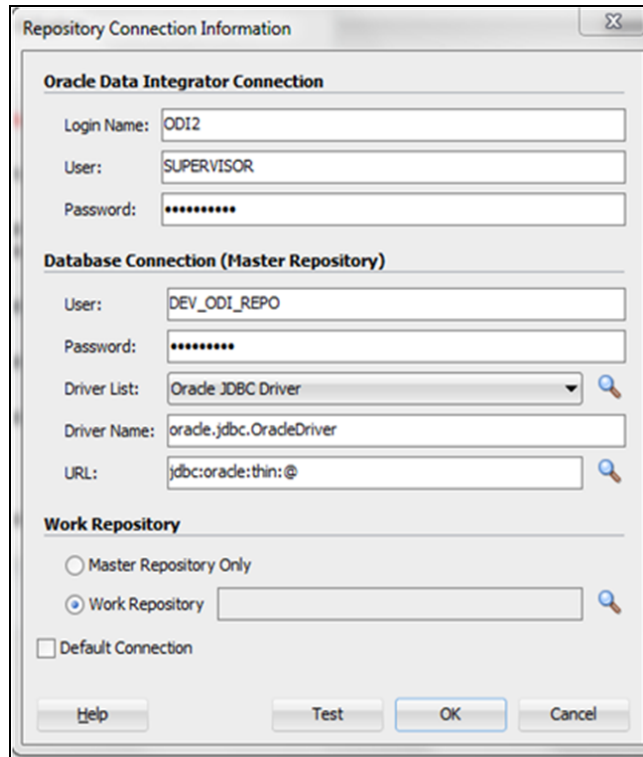
2. Click the **ODI** menu option and click **Connect**. The **Oracle Data Integrator Login** dialog box appears.



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

3. Click the **New** icon  on the **Oracle Data Integrator Login** dialog box. The **Repository Connection Information** dialog box appears.
4. 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*.



Repository Connection Information

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

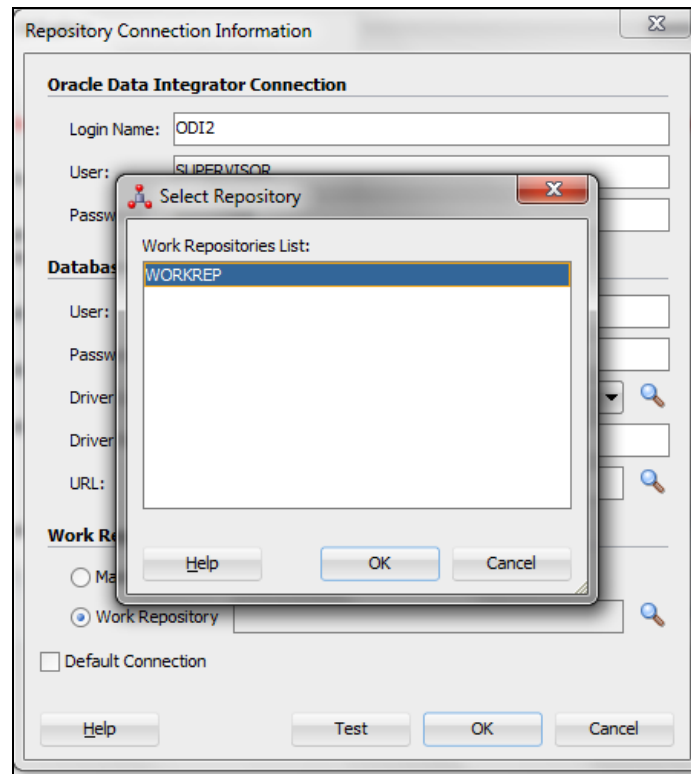
☐ Master Repository Only

☒ Work Repository

☐ Default Connection

Help Test OK Cancel

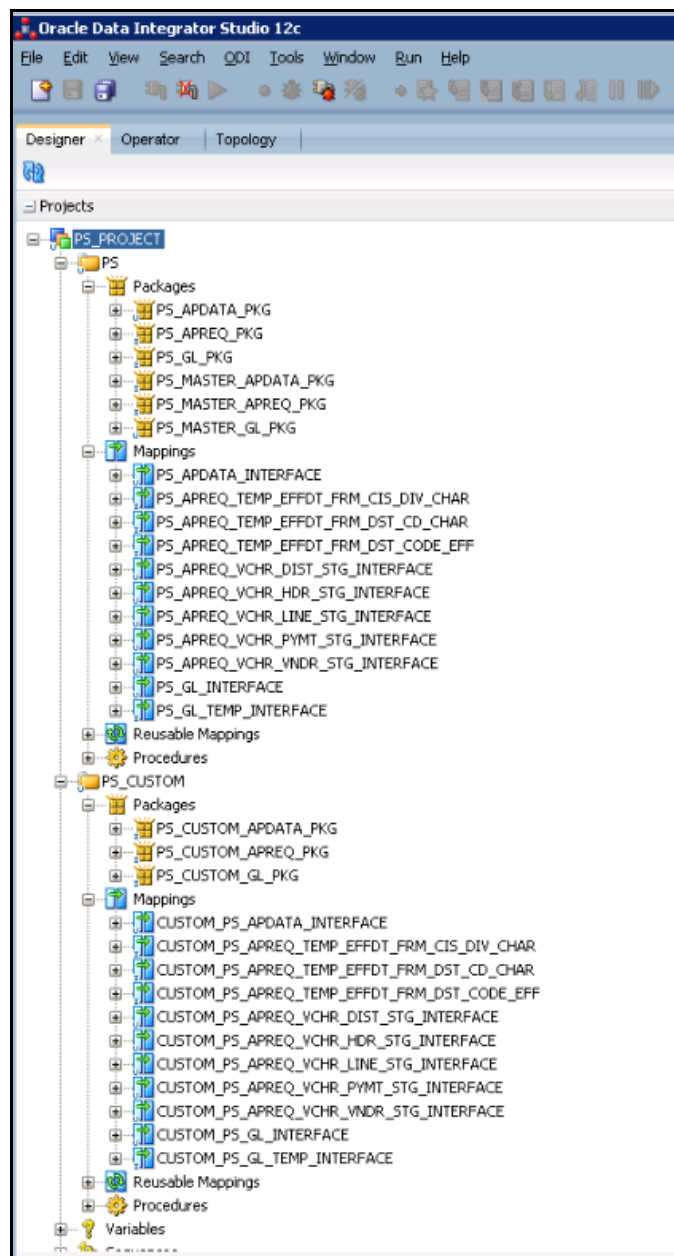
5. Select the work repository name from the **Work Repositories List** as mentioned in *config.properties*.



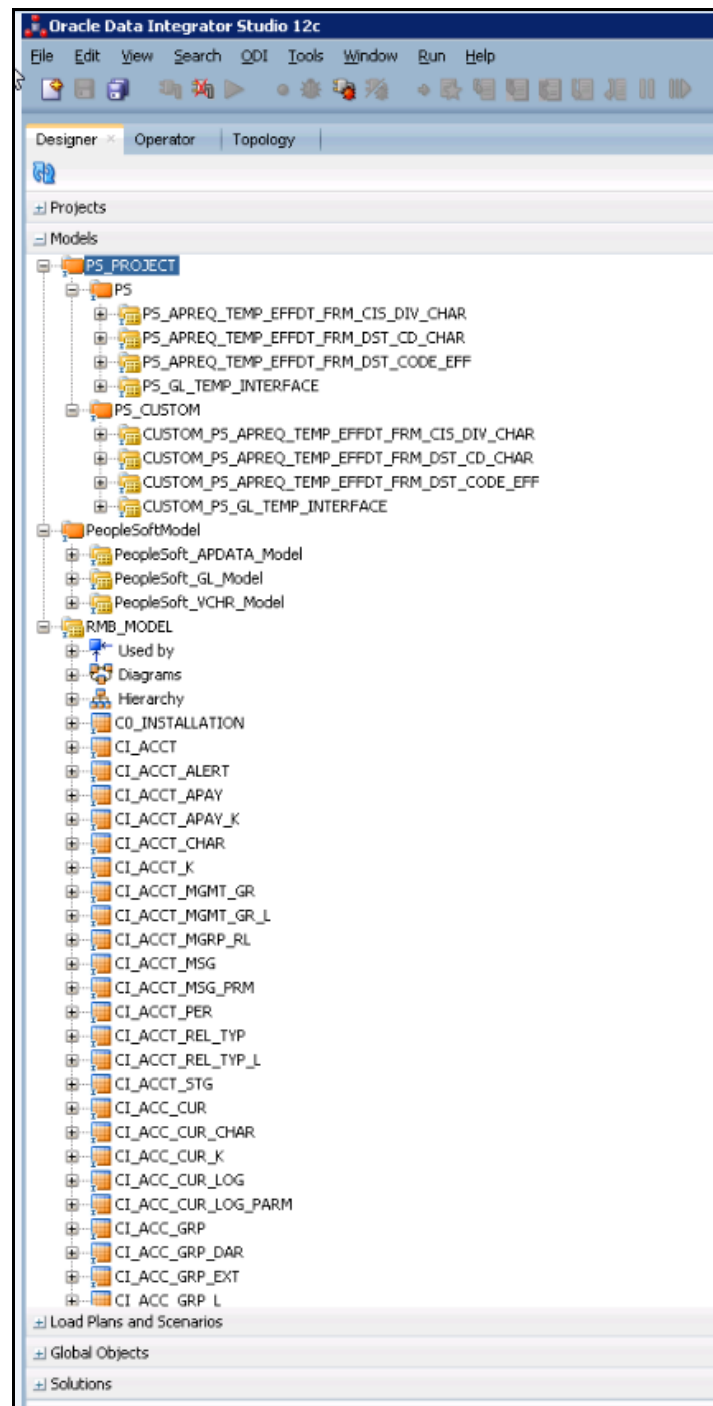
1.5.2 Viewing the objects of the Work Repository

1. Log into Work Repository with credentials used while creating new login. Verify the available Model/Packages/Interface/Scenario objects from the ODI Designer tab in ODI.

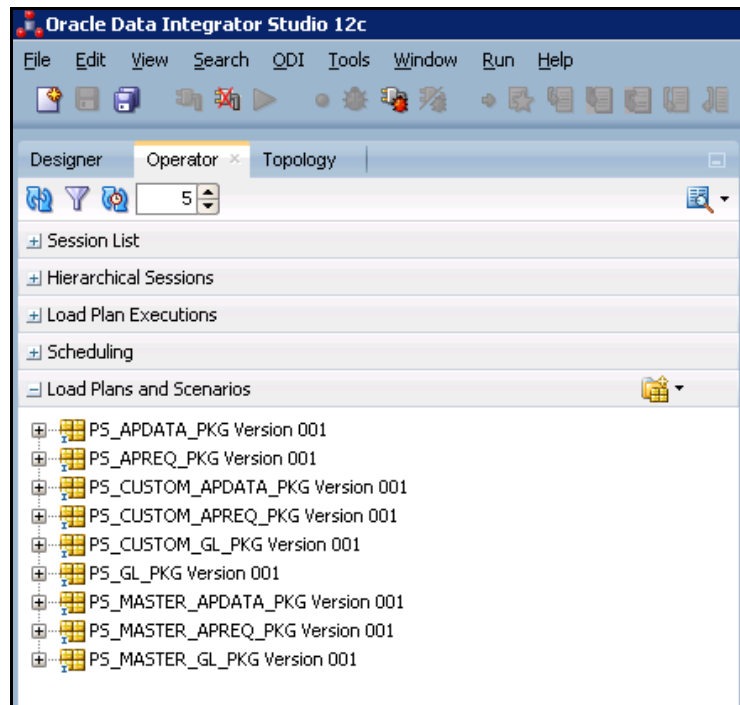
Note: In case Work Repository type was selected as “DEVELOPMENT” you can view the PS_PROJECT in the **Designer** tab.



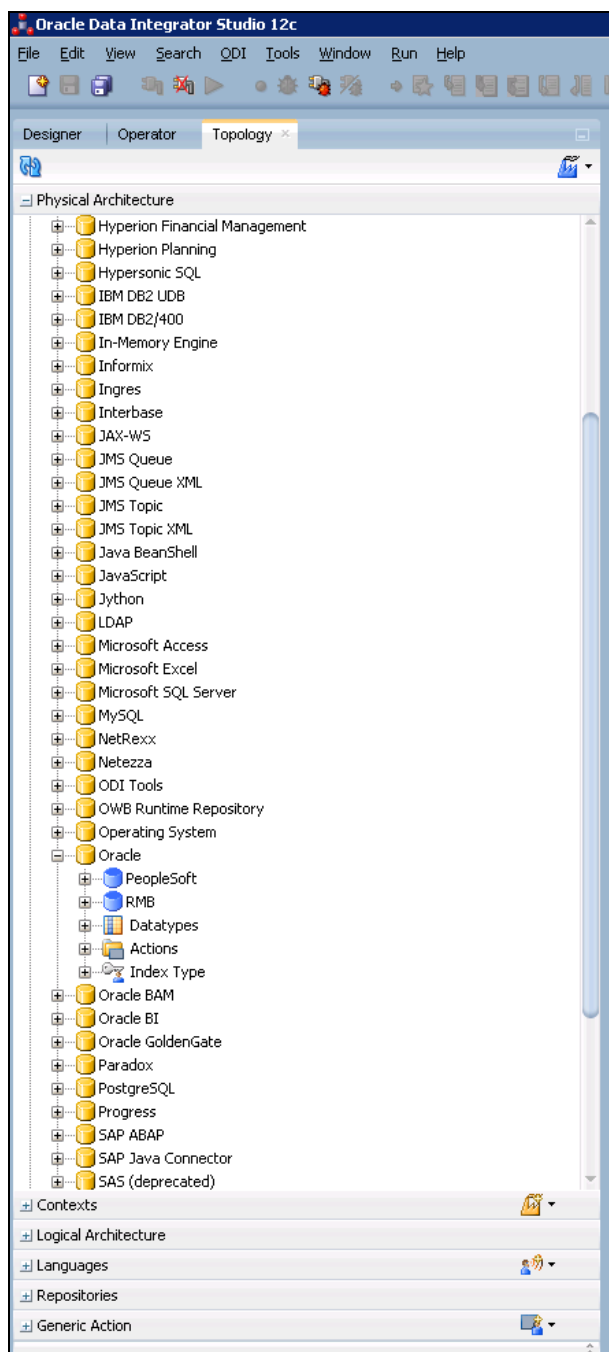
2. Under the **Designer** tab, click and expand **Models** section to view the model for PS/RMB.



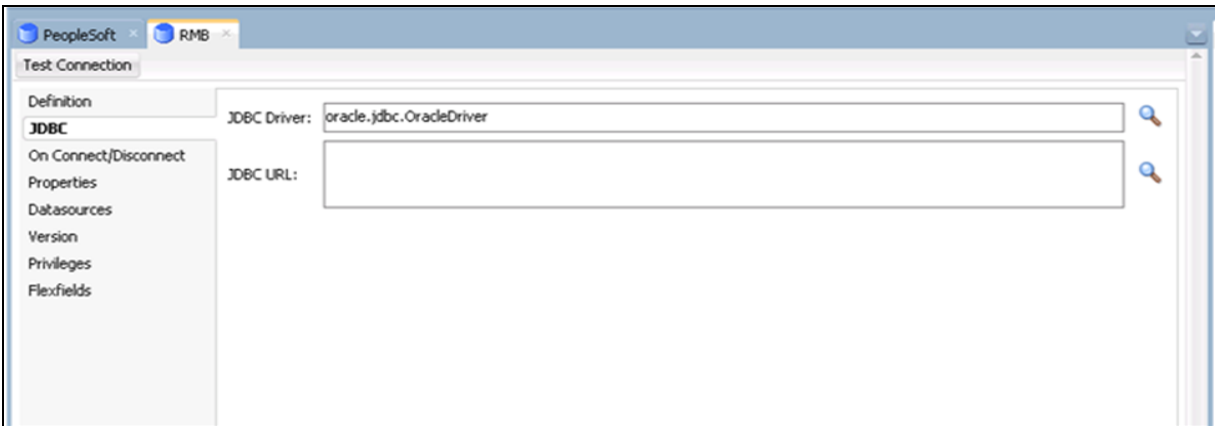
In case Work Repository type was selected as “EXECUTION” (for production deployments) in the **Operator** tab, you can view the **Scenarios** under the **Load Plans and Scenarios** section as shown below.



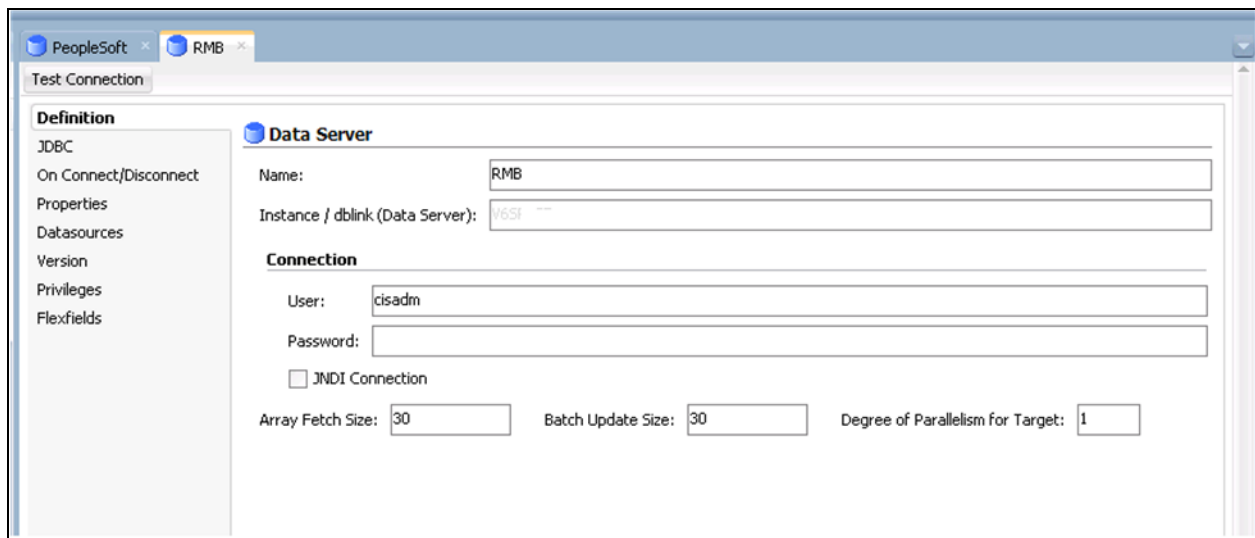
3. Enter the source tnsnames entry in the target database and vice versa.
4. Use **ODI Topology Manager** to check the Oracle Data Server Connections for source RMB and target PS. Verify both the **Logical Architecture** and **Physical Architecture**.



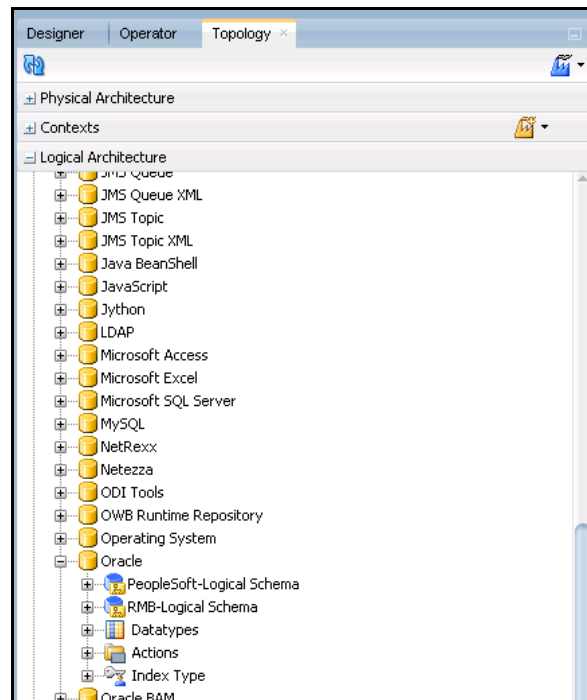
5. Edit the data server details for target database and source database JDBC URLs as per the setup environment.
6. Edit the JDBC URL for Source and Target.



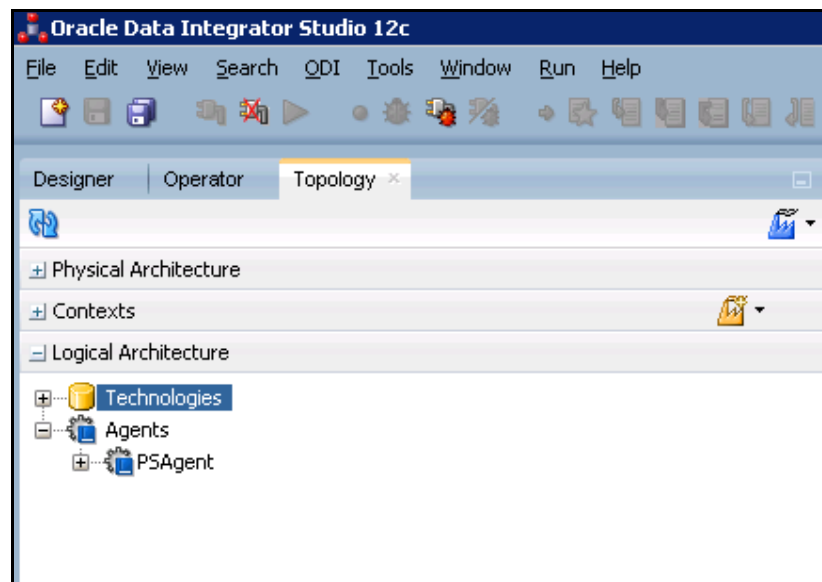
7. Similarly edit the **Instance / dblink** name in the **Definition** tab to the SID of the respective source and target databases.



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**.



1.5.3 Starting the Agent

PSAgent is available as part of the PeopleSoft deliverable. This agent can be used as a 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 starting 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=PSAgent
```

Windows:

```
agent.cmd -NAME=PSAgent
```

```
C:\ODI_EE\user_projects\domains\PSTEST\bin>agent.cmd -NAME=PSAgent
2017-02-15 15:07:58.380 NOTIFICATION New data source: [PSTEST_ODI_REPO/*****@
2017-02-15 15:08:01.318 NOTIFICATION ODI-1128 Agent PSAgent is starting. Container: STANDALONE. Agent Version: 12.1.3 - 17/06/2014. Port: 20920. JMX Port: 21920.
Allowing : 127.0.0.1,10.100.5.253,127.0.0.1
2017-02-15 15:08:11.302 NOTIFICATION New data source: [PSTEST_ODI_REPO/*****@
(protocol=tcp)(port=1522)(connect_data=(service_name=ODI12U2.IN.Oracle.COM)(server=dedicated)))]
2017-02-15 15:08:13.943 NOTIFICATION ODI-1111 Agent PSAgent started. Agent version: 12.1.3 - 17/06/2014. Port: 20920. JMX Port: 21920.
2017-02-15 15:08:13.943 NOTIFICATION ODI-1136 Starting Schedulers on Agent PSAgent.
2017-02-15 15:08:19.412 NOTIFICATION ODI-1137 Scheduler started for work repository WRRP on Agent PSAgent.
```

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

Refer to *Oracle Revenue Management and Billing and PeopleSoft Integration Implementation Guide* for guidelines to configure the ORMB integration and PeopleSoft installation.

1.7 Managing the ODI Environment

This section covers the following Q&A for managing the ODI environment.

Q1. How to Change the Default Database Passwords

A1. After setup completion change the database passwords, change the Physical Architecture in ODI for technology Oracle for the data server for source and target databases. For master repository, ensure the provided information is updated in the login details for both master and work repository (Refer [Connecting to the Work Repository](#)). Similarly for work repository update the connection details in master under Repositories tab.

Q2. How to Change the ODI Topology Source and Target Connection Details

A2. Using the Topology Manager edit the Physical Architecture for technology Oracle for the source and target databases. Also edit the Instance/ dblink name to the SID of the database.

Q3. How to Change the Password for the ODI SUPERVISOR User

A3. Change password for the SUPERVISOR user created during installation using the Security Manager module in ODI. Password set during installation is SUPERVISOR.