

Oracle Public Sector Revenue Management Analytics

Installation Guide

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Chapter 1

Preface

The *Oracle Public Sector Revenue Management Analytics Installation Guide* describes the requirements and steps necessary to install Oracle Public Sector Revenue Management Analytics.

Audience

The Oracle Public Sector Revenue Management Analytics Installation Guide is intended for system administrators installing Oracle Public Sector Revenue Management Analytics. To use this document you should have:

- Experience installing and configuring application servers and other software
- Administrative privileges on the host where you are installing the software

Documentation and Related Resources

Oracle Public Sector Revenue Management Analytics Documentation Set

The Oracle Public Sector Revenue Management Analytics documentation set includes the following documents:

- *Oracle Public Sector Revenue Management Analytics Release Notes*
- *Oracle Public Sector Revenue Management Analytics Quick Install Guide*
- *Oracle Public Sector Revenue Management Analytics Installation Guide*
- *Oracle Public Sector Revenue Management Analytics Implementation Guide*
- *Oracle Public Sector Revenue Management Analytics Reference Guides*
 - *Introduction to Reference Materials*
 - *ETL Reference Guide*
 - *Data Mining Reference Guide*

- *Data Model Reference Guide*
- *Metrics Reference Guide*
- *Reporting Reference Guide*

Note: All Reference Guides are restricted to Oracle Public Sector Revenue Management Analytics customers. In order to download these documents, please contact Oracle Support to request access to bug number 16876111.

Oracle Technology Network

Visit the Oracle Technology Network (OTN) to access demos, whitepapers, Oracle By Example (OBE) tutorials, updated Oracle documentation, and other collateral.

Registering on OTN

You must register online before using OTN, Registration is free and can be done at www.oracle.com/technetwork/index.html

Oracle Documentation on OTN

The Oracle Documentation site on OTN provides access to Oracle documentation. After you have a user name and password for OTN, you can go directly to the documentation section of the OTN Web site at <http://www.oracle.com/technetwork/indexes/documentation/index.html>.

Oracle Support

Oracle customers have access to electronic support through My Oracle Support.

Document Conventions

The following text conventions are used in this document:

Table 1: Documentation Conventions

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	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.

Chapter 2

Oracle Public Sector Revenue Management Analytics Installation Overview

Oracle Public Sector Revenue Management Analytics in Brief

Oracle Public Sector Revenue Management Analytics is a pre-built Enterprise Data Warehouse solution that addresses the operational and predictive analytical needs of public sector revenue management authorities.

It includes the following pre-built content:

- A comprehensive Oracle Public Sector Revenue Management Data Model to jump start building a data warehouse solution.
- Pre-built Intra-ETL.
- Pre-built Metadata Repository.
- Pre-built Web Catalog.

Component	Description
Oracle Public Sector Revenue Management Data Model	<p>This pre-built data model is based on the Oracle Data Warehouse Reference Architecture and includes:</p> <ul style="list-style-type: none">• a pre-built normalized foundation layer• pre-built star schemas• pre-built data mining areas/sandpits for specific analysis. <p>For more information about the Oracle Public Sector Revenue Management Data Model, see the <i>Data Model Reference Guide</i>.</p>
Intra E-LT	Automatic data movement across the different layers of the Oracle Public Sector Revenue Management Data Model utilizing Oracle Data Integrator 11g

Component	Description
Metadata Repository	<p>This OBIEE RPD is the business metadata content that include:</p> <ul style="list-style-type: none"> • Multi-layered Abstraction • Prebuilt Metrics/Dimensions • Prebuilt hierarchy drills and cross dimensional drills • Prebuilt Aggregate navigation
Web Catalog	This OBIEE web catalog includes pre-built Reports/Dashboards

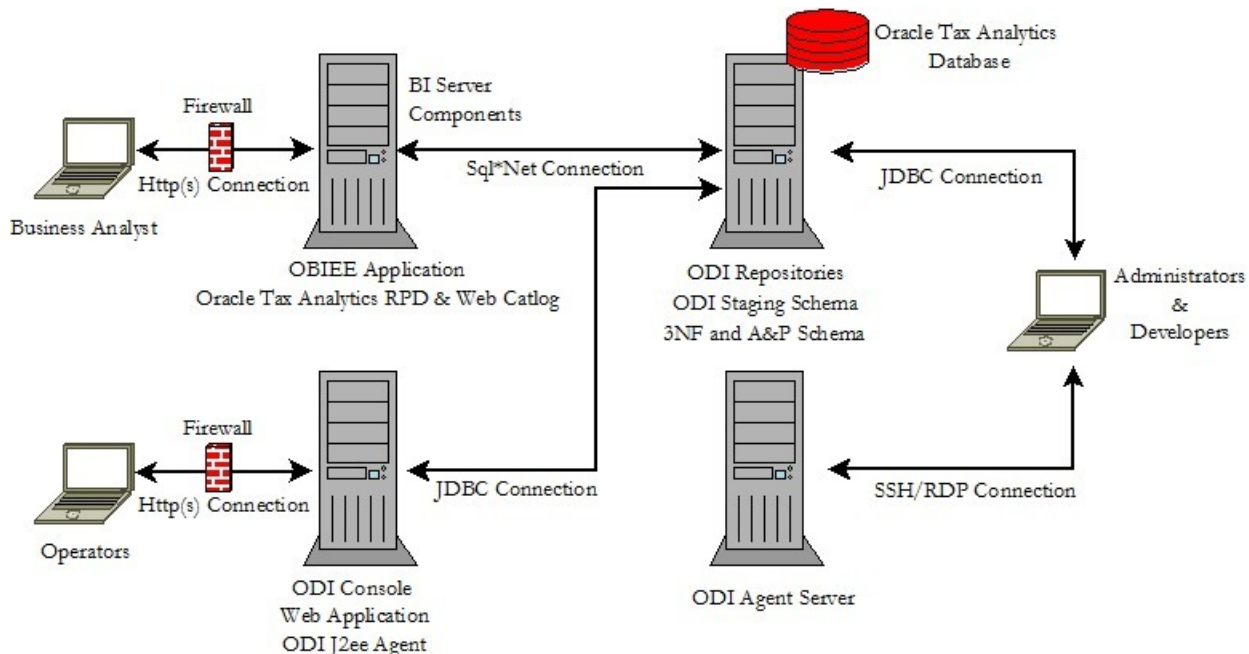
Oracle Public Sector Revenue Management Analytics Architecture Overview

High-level analytical queries, like those commonly used in Oracle Business Intelligence, scan and analyze large volumes of data using complex formulas. This process can take a long time when querying a transactional database and will impact overall system performance.

For this reason, the Oracle Public Sector Revenue Management Analytics solution is constructed based on Oracle data warehouse reference architecture, which uses both normalized and dimensional modeling techniques to process generic data and to allow for fast access to information required for decision making.

Architecture Components

Oracle Public Sector Revenue Management Analytics architecture consists of an Oracle Database, Oracle Data Integrator, and Oracle Business Intelligence Enterprise Edition. The following diagram illustrates a typical Oracle Public Sector Revenue Management Analytics physical architecture.



Database

The Database component contains the following:

- Oracle Public Sector Revenue Management Analytics Data Model, which includes a normalized and dimensional schemas.
- Data Mining schema.

Oracle Data Integrator Installation

- The Client tier contains the Oracle Data Integrator Java client tools such as Topology Manager, Designer, Operator and Security Manager. The client may also have an http client for accessing the ODI Console and a lightweight designer Web application for ODI.
- The Server tier contains the following:
 - Oracle Data Integrator Repositories. The repositories contain the metadata required for the data movement within the data warehouse.
 - Oracle Data Integrator Agent: The agent executes the E-LT jobs that are submitted from the ODI java client or ODI console application.
- The Database tier contains the ODI Repositories and Oracle Public Sector Revenue Management Analytics schema

Oracle Business Intelligence Enterprise Edition Installation

- The Client tier contains supported internet browser, which is used to access Analysis, Interactive Dashboards, etc.
- The Server tier contains the following:
 - Business Intelligence presentation services
 - Business Intelligence Server
 - Business Intelligence Java Host
 - etc

When you deploy Oracle Public Sector Revenue Management Analytics, you can use the following documentation and tools to manage your metadata:

Oracle Business Intelligence Enterprise Edition Repository Documentation

Using the Oracle BI Administration Tool, you can generate repository documentation that lists the mapping from the presentation columns to the corresponding logical and physical columns. You might use this information for gap-analysis, or to create a record of your repository that you can use to compare with other repositories.

To generate repository documentation into a text or comma-separated file, log into Oracle BI Administration Tool and choose **Tools > Utilities > Repository Documentation** .

For more information about generating repository documentation, see the *Oracle Business Intelligence Server Administration Guide*.

Oracle Business Intelligence Enterprise Edition Presentation Services Catalog

Using the Catalog Manager, you can view the names of the pre-built dashboards and requests in the Presentation Services Catalog. To view the Presentation Catalog, open the **Start** menu and select **Catalog Manager** from **All Programs > Oracle Business Intelligence** .

Chapter 3

Hardware and Software Requirements

This section provides information about hardware and software requirements for Oracle Public Sector Revenue Management Analytics.

Before you install Oracle Public Sector Revenue Management Analytics, you must verify that all hardware and software requirements are met.

Note: Also see the Oracle Public Sector Revenue Management Analytics Release Notes.

Supported Platforms

For latest supported platforms, please refer to the *Oracle Public Sector Revenue Management Analytics Quick Install Guide*.

Hardware Requirements

For latest Hardware Requirements, please refer to the *Oracle Public Sector Revenue Management Analytics Quick Install Guide*.

Software Requirements

The minimum software requirements for Oracle Public Sector Revenue Management Analytics are as follows:

- Operating System: For details of supported platforms, see the Supported Platforms section of the *Oracle Public Sector Revenue Management Analytics Quick Install Guide*.
- Oracle Database 11g Release 2 Enterprise Edition (11.2.0.2+ or 12.1.0.1.0). See **Oracle Database Requirements**, below.
- Oracle Business Intelligence Enterprise Edition 11.1.1.7.0 (with 11.1.1.7.140114 bundle patch - MOS Patch#17886497). See **Oracle Business Intelligence Enterprise Edition**, below.
- Oracle Data Integrator Enterprise Edition 11g (11.1.1.7.0). See **Oracle Data Integrator Enterprise Edition**, below.
- Java Runtime Environment (JRE 1.6 or above). See **Java Runtime Environment**, below.

Oracle Database Requirements

Oracle Public Sector Revenue Management Analytics requires Oracle Database 11g Release 2 Enterprise Edition 11.2.0.2+ or 12c (12.1.0.1.0).

Note: When you install the database, ensure that the database character set is Unicode (AL32UTF8) to support multi-language installations.

Installation of the Oracle Public Sector Revenue Management Analytics component requires the following optional components to the Database:

- **Oracle Partitioning:** Though the product can be installed without partitioning, it is highly recommended to use partition to maximize scalability, performance, availability, manageability and minimize storage cost
- **Oracle Data Mining:** The product comes with a sample schema and reports developed using Oracle Data Mining. This is required only when installing the sample data mining model.

Note: To verify that you have Oracle Data Mining installed, follow the instructions outlined in **Confirming that Oracle Data Mining Options are Installed**.

XBRL Extension

Oracle Public Sector Revenue Management Analytics leverages the XBRL Extension to the Oracle XML Database features to load, store, and query XBRL Taxonomies and instance documents into its data model.

The XBRL Extension must be installed if the implementation is to perform analysis of financial statement data submitted in XBRL format.

Download the following patch (18354629) from mysupport.oracle.com, and install the XBRL extension in the database:

- *Patch 18354629: XBRL EXTENSION TO ORACLE XMLDB 12.1.0.1.0 RELEASE & 11.2.0.4.0 RELEASE*

Oracle Business Intelligence Suite Enterprise Edition

You must have the Oracle Business Intelligence Enterprise Edition installed before you can view and use the Oracle Public Sector Revenue Management Analytics reports.

Note:

Oracle Business Intelligence Suite Enterprise Edition 11.1.1.7.0 can be downloaded from the Oracle Business Intelligence 11g downloads link on Oracle Technology Network at:

- <http://www.oracle.com/technetwork/middleware/bi-enterprise-edition/downloads/index.html>

The 11.1.1.7.140114 bundle patch can be downloaded from My Oracle Support via Patch#17886497.

Installation instructions are included in the documentation.

Oracle Data Integrator Enterprise Edition

You must have Oracle Data Integrator Enterprise Edition software installed before start using the application. The intra E-LT to load the data from the Foundation (3NF) layer into the Access and Performance (A&P) layer are developed using ODI. To be able to execute and load the data into A&P layer, ODI must be installed and configured. When you install the ODI software, select the option to skip repository configuration under "Repository Configuration" page. The repositories will be populated by the Oracle Public Sector Revenue Management Analytics installer during install. Also specify *OTDM_AGENT_I* and the port number of your choice (e.g., 20000) for Agent Name and Agent Port, respectively, in the **Specify Agent Details** page.

Oracle Data Integrator Enterprise Edition 11g (11.1.1.7.0) can be downloaded from Oracle Technology Network at:

- <http://www.oracle.com/technetwork/middleware/data-integrator/downloads/index.html>

Installation instructions are included in the documentation.

Note: The Oracle Public Sector Revenue Management Analytics installer also requires Oracle Data Integrator SDK to create the Master and Work Repositories. You must have Oracle Data Integrator installed with SDK on the machine where installer will be executed. To include the SDK when you install the ODI software, select the **ODI SDK** option under Developer Installation.

Java Runtime Environment (JRE 1.6 or above)

You must have Java Runtime Environment 1.6 or above installed before running the Oracle Public Sector Revenue Management Analytics installer. The installer can be executed either from Windows or Unix OS. JRE 1.6 or above can be downloaded at:

- <http://java.com/en/download/index.jsp>

Note: JRE is required only on the machine where the installer will be executed.

Chapter 4

Installation Introduction

Installation Components

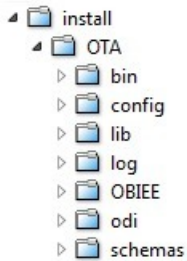
Oracle Public Sector Revenue Management Analytics mandatory and optional components.

Oracle Data Integrator Repositories	The installer is packaged with Oracle Public Sector Revenue Management Analytics ODI repositories, containing the metadata required for automatic data movement across the different layers of the Oracle Public Sector Revenue Management Data Model utilizing Oracle Data Integrator 11g.
Oracle Public Sector Revenue Management Data Model Schema	<p>The installer is packaged with scripts to install Oracle Public Sector Revenue Management Analytics Foundation and Access & Performance (OTDM) schema objects and the configuration data.</p> <p>Note: The source data is populated in to the Foundation layer, then the dimension and facts are populated using the intra-E-LT delivered with the product For detailed information about all created objects in the OTDM, see the Oracle Public Sector Revenue Management Analytics Data Model Reference Guide.</p>
System Data	
Oracle Business Intelligence Enterprise Edition Content	<p>Oracle Public Sector Revenue Management Analytics installation package contains the reports and web catalog that need to be deployed into your Oracle Business Intelligence Enterprise Edition environment. For more information on installing this reports and web catalog, refer to the Installing OBIEE Components. The following files that define and create the reports:</p> <ul style="list-style-type: none">• otdm.rpd• otdmwebcat.zip• writeback.xml
Sample Data Mining Model (optional)	The installer is packaged with scripts to install Sample Data Mining (OTDM_MINING) schema for. This schema contains all the mining components of Oracle Public Sector Revenue Management Analytics except the data mining results tables.
Sample Data (optional)	Sample data for the OTDM schema is provided and can be downloaded using Patch 14659298.

Oracle Public Sector Revenue Management Analytics Installer Directory Structure

The Oracle Public Sector Revenue Management Analytics installation image provides the described directory structure and content.

The installation image contains the following directories:



- **bin:** contains the scripts to launch the installer. There are two scripts provided in this directory for Unix and Windows platforms.
 - Files:
 - **setup.sh:** Install script for Unix
 - **setup.bat:** Install script for Windows
- **config:** contains the installation configuration file. This file needs to be updated with your environment specific information which will be used by the installer to perform the installation.
 - Files:
 - **Install.properties:** Installation properties file
- **lib:** Libraries required for the installer
- **log:** contains installation log files created by the installer
- **obiee:** contains the report files and web catalog to be deployed into Oracle Business Enterprise Edition environment.
 - Files:
 - **OTDM.zip:** OBIEE Web Catalog
 - **OTDM.rpd:** OBIEE reports
 - **Writeback.xml:** Used for OBIEE write back feature
- **odi:** contains the OTA master and work repository export files
 - Subdirectories:
 - **master:** contains **MasterRepository.zip**
 - **work:** contains **WorkRepository.zip**
- **schemas:** contains the physical schema creation scripts and system data installation scripts.
 - Subdirectories:
 - **OTDM:** main directory contains scripts to install OTDM schema.
 - **OTDM/config:** schema configuration files required for the installer

- **OTDM/scripts:** relational schema installation scripts
- **OTDM/data:** Scripts to install system data required for the application

Overview of the Installation Process

This section describes a high level overview of the Oracle Public Sector Revenue Management Analytics installation tasks.

1. Read *Oracle Public Sector Revenue Management Analytics Release Notes* to identify any last minute changes.
2. Verify that your system is one of the supported platforms and that it satisfies the hardware and software requirements as described in . Also refer to *Oracle Public Sector Revenue Management Analytics Quick Install Guide* for detailed information.
3. Identify and perform any necessary pre-installation tasks, as described in [Pre-Installation Tasks](#).
4. Install the Oracle Public Sector Revenue Management Analytics components as described in [Installer Execution](#).
5. Identify and perform any necessary post-installation tasks, as described in [Post-Installation Tasks](#).
6. Install the additional components that you need to create an Oracle Public Sector Revenue Management Analytics Environment to run the reports, as described in [Installing OBIEE Components](#).
7. Configure Oracle Data Integrator Agent to run the intra E-LTs as described in [Oracle Public Sector Revenue Management Analytics-Oracle Data Integrator Component Setup](#).

Chapter 5

Installing Oracle Public Sector Revenue Management Analytics

Pre-Installation Tasks

Prior to installing Oracle Public Sector Revenue Management Analytics, ensure that the environment is properly configured.

1. Ensure that the software required for Oracle Public Sector Revenue Management Analytics is installed, as described in "Ensuring that Required Software is Installed."
2. Set the maximum processes initialization parameter, as described in "Changing the Default Value for the Maximum Processes Initialization Parameter."
3. If you are using the Database Vault Option, disable the option, as described in "Disabling the Data Vault Option on the Database."
4. Create recommended tablespaces for Oracle Public Sector Revenue Management Analytics.
5. Create required database users and grant required privilege to the users.
6. Update install.properties file with your environment specific values.

Ensuring that Required Software is Installed

As discussed in "Software Requirements," you must have certain software installed before you can successfully install the Oracle Public Sector Revenue Management Analytics components.

Take the following steps to ensure that, the required software is installed: Before you install Oracle Public Sector Revenue Management Analytics:

- Confirming that Oracle Data Mining Option is Installed

To check that the Oracle Data Mining Option is installed, log in to the database as SYS user and enter the following SQL query: `SELECT VALUE FROM V$OPTION WHERE PARAMETER = 'Data Mining';` . If this query returns TRUE, then the option is installed.

Changing the Default Value for the Maximum Processes Initialization Parameter

The default value used for database parameter called PROCESSES may not be sufficient for larger implementations, increase the value for this parameter if required.

How to determine the current value for the PROCESSES parameter

To determine the current value for the maximum processes parameter, log in to database with DBA account, and then execute the following SQL statement:

```
show parameter processes;
```

How to change the value for the maximum processes

To change the value for the maximum processes, issue the following statements. Depending on your database options, the value specified for processes should be set to a minimum value greater than or equal to 250.

```
alter system set processes=250 scope=spfile;
shutdown immediate
startup
```

Disabling the Data Vault Option on the Database

Database Vault-enabled databases may prevent the Oracle Public Sector Revenue Management Analytics installer from running DDLs in the target schema. For an Oracle Database with the Vault option on, take the following steps to disable the Vault option before you install Oracle Public Sector Revenue Management Analytics.

To find out if the Oracle Database is Vault-enabled, do the following:

```
SELECT * FROM V$OPTION WHERE PARAMETER = 'Oracle Database Vault';
```

If this command returns true, then the Vault option is enabled.

Disabling the Vault Option

To disable the Vault option, do the following:

- On UNIX systems, ensure that the environment variables, ORACLE_HOME, ORACLE_SID, and PATH are correctly set.
- Log in to SQL*Plus as user SYS with the SYSOPER privilege.
- Shut down the Database.
- From the command line, stop the Database Control console process and the listener. For example:

```
sqlplus sys as sysoper
Enter password: password
SQL> SHUTDOWN IMMEDIATE
SQL> EXIT
$ emctl stop dbconsole
$ lsnrctl stop listener_name
```

Once you have installed Oracle Public Sector Revenue Management Analytics, re-enable the Vault, as described in "Re-Enabling the Vault Option on the Database."

Create Recommended Tablespaces for PSRMA

Oracle Public Sector Revenue Management Analytics consists of multiple database schemas. It is recommended that you create one tablespace for each type of schema object.

The following table lists the recommended tablespaces. If the recommendation is followed, you must create these tablespaces before starting the installation.

Tablespace Name	Description
OTDM_01	The tablespace where Foundation and A&P layer schema objects are stored
OTDM_REPOMTR_01	The tablespace where Oracle Data Integrator Master Repository objects are stored
OTDM_REPOWRK_01	The tablespace where Oracle Data Integrator Work Repository objects are stored
OTDM_ODI_STAGE_01	The tablespace where interim objects created by Oracle Data Integrator, when executing E-LT, are stored
OTDM_MINING_01	The tablespace where Sample Data Mining objects are stored

Sample scripts to create the above tablespaces:

- Create Tablespace OTDM_01 Datafile '/u01/oracle/oradata/OTDM_01.dbf' size 1024m autoextend on next 128m maxsize unlimited;
- Create Tablespace OTDM_REPOMTR_01 Datafile '/u01/oracle/oradata/ OTDM_REPOMTR_01.dbf' size 1024m autoextend on next 128m maxsize unlimited;
- Create Tablespace OTDM_REPOWRK_01 Datafile '/u01/oracle/oradata/ OTDM_REPOWRK_01.dbf' size 1024m autoextend on next 128m maxsize unlimited;
- Create Tablespace OTDM_ODI_STAGE_01 Datafile '/u01/oracle/oradata/ OTDM_ODI_STAGE_01.dbf ' size 1024m autoextend on next 128m maxsize unlimited;
- Create Tablespace OTDM_MINING_01 Datafile '/u01/oracle/oradata/OTDM_MINING_01.dbf' size 1024m autoextend on next 128m maxsize unlimited;

Create and Grant Required Privileges to Users

Describes Oracle Public Sector Revenue Management Analytics users, their default user tablespaces, and their required database privileges.

The following table lists the Oracle Public Sector Revenue Management Analytics database users and the corresponding tablespaces and privileges.

Database User ID	Description	Password	Tablespace	Privileges
OTDM	Foundation and A&P layer	OTDM	OTDM_01	CREATE TABLE CREATE SESSION CREATE PROCEDURE CREATE SEQUENCE CREATE MATERIALIZED VIEW CREATE VIEW UNLIMITED TABLESPACE

Database User ID	Description	Password	Tablespace	Privileges
OTDM_REPOMTR	ODI Master Repository	OTDM_REPOMTR	OTDM_REPOMTR_01	CONNCT RESOURCE UNLIMITED TABLESPACE
OTDM_REPOWRK	ODI Work Repository	OTDM_REPOWRK	OTDM_REPOWRK_01	CONNCT RESOURCE UNLIMITED TABLESPACE
OTDM_ODI_STAGE	ODI Work Schema	OTDM_ODI_STAGE	OTDM_ODI_STAGE_01	CREATE TABLE CREATE SESSION CREATE PROCEDURE CREATE SEQUENCE CREATE MATERIALIZED VIEW CREATE VIEW DROP ANY DIRECTORY CREATE ANY DIRECTORY ANALYZE ANY UNLIMITED TABLESPACE UPDATE ANY TABLE ALTER ANY TABLE SELECT ANY TABLE SELECT ANY SEQUENCE INSERT ANY TABLE CREATE ANY MATERIALIZED VIEW ALTER ANY MATERIALIZED VIEW DROP ANY MATERIALIZED VIEW COMMENT ANY TABLE CREATE ANY TABLE CREATE SYNONYM DROP ANY TABLE UNLIMITED TABLESPACE CREATE ANY INDEX DROP ANY INDEX
OTDM_MINING	Sample Data mining user	OTDM_MINING	OTDM_MINING_01	QUOTA UNLIMITED ON OTDM_MINING_01 CREATE TABLE CREATE SESSION

Database User ID	Description	Password	Tablespace	Privileges
				CREATE PROCEDURE
				CREATE SEQUENCE
				CREATE MATERIALIZED VIEW
				CREATE VIEW
				CREATE MINING MODEL
				EXECUTE ON CTXSYS.CTX_DDL
				ALTER ANY MINING MODEL
				SELECT ANY MINING MODEL

Sample scripts to create the above users:

- **Create Master Repository User**

- `CREATE USER OTDM_REPOMTR IDENTIFIED BY OTDM_REPOMTR DEFAULT TABLESPACE OTDM_REPOMTR_01 TEMPORARY TABLESPACE TEMP;`
- `GRANT CONNECT, RESOURCE, UNLIMITED TABLESPACE TO OTDM_REPOMTR;`

- **Create Work Repository User**

- `CREATE USER OTDM_REPOWRK IDENTIFIED BY OTDM_REPOWRK DEFAULT TABLESPACE OTDM_REPOWRK_01 TEMPORARY TABLESPACE TEMP;`
- `GRANT CONNECT, RESOURCE, UNLIMITED TABLESPACE TO OTDM_REPOWRK;`

- **Create OTDM USER**

- `CREATE USER OTDM IDENTIFIED BY OTDM DEFAULT TABLESPACE OTDM_01 TEMPORARY TABLESPACE TEMP;`
- `GRANT CONNECT, RESOURCE, CREATE TABLE,CREATE SESSION,CREATE PROCEDURE,CREATE SEQUENCE,CREATE MATERIALIZED VIEW,CREATE VIEW,UNLIMITED TABLESPACE TO OTDM`

- **Create ODI Staging USER**

- `CREATE USER OTDM_ODI_STAGE IDENTIFIED BY OTDM_ODI_STAGE DEFAULT TABLESPACE OTDM_ODI_STAGE_01 TEMPORARY TABLESPACE TEMP;`
- `GRANT CREATE TABLE, CREATE SESSION, CREATE PROCEDURE, CREATE SEQUENCE, CREATE MATERIALIZED VIEW, CREATE VIEW, DROP ANY DIRECTORY, CREATE ANY DIRECTORY, ANALYZE ANY, UNLIMITED TABLESPACE, UPDATE ANY TABLE, ALTER ANY TABLE, SELECT ANY TABLE, SELECT ANY SEQUENCE, INSERT ANY TABLE, CREATE ANY MATERIALIZED VIEW,ALTER ANY MATERIALIZED VIEW, DROP ANY MATERIALIZED VIEW, COMMENT ANY TABLE, CREATE ANY TABLE, CREATE SYNONYM, DROP ANY TABLE, CREATE ANY INDEX, DROP ANY INDEX TO OTDM_ODI_STAGE`

- **Create Data Mining USER**

- `CREATE USER OTDM_MINING IDENTIFIED BY OTDM_MINING DEFAULT TABLESPACE OTDM_MINING_01 TEMPORARY TABLESPACE TEMP;`
- `GRANT CREATE TABLE, CREATE SESSION, CREATE PROCEDURE, CREATE SEQUENCE, CREATE MATERIALIZED VIEW, CREATE VIEW, CREATE MINING MODEL, ALTER ANY MINING MODEL, SELECT ANY MINING MODEL TO OTDM_MINING;`

- GRANT EXECUTE ON CTXSYS.CTX_DDL TO OTDM_MINING;
- ALTER USER OTDM_MINING QUOTA UNLIMITED ON OTDM_MINING_01;

Updating installer.properties

There are number of configuration parameters stored in the installer.properties file. Before running the installer, this file needs to be updated with your environment specific values. If it is required to create more than one environment, it is recommended to clone this file and keep a separate copy for each one of the environments. Since OTDM and OTDM_MINING schema objects will be installed in two different schemas, make sure you update this file with correct user id and password before installing the schema.

The various configuration parameters are explained below.

DBURL

The JDBC URL for the Oracle Public Sector Revenue Management Data Model and Sample Datamining database. The JDBC URL must follow the format given below jdbc:oracle:thin:@<db host name>:<port>:<SID> Example: jdbc:oracle:thin:@dbserver.us.oracle.com:1521:OTDM

USER

The Oracle Public Sector Revenue Management Data Model or Sample Datamining database user. Make sure this value is updated depending on the type of schema being installed . For more information, refer to the [Create Required Users](#) topic.

PASSWORD

The Oracle Public Sector Revenue Management Data Model or Sample Datamining database user's password. Make sure this value is updated depending on the type of schema being installed.

Note: The password value must be entered in plain text format. If you do not wish to update this parameter in plain text, then leave this value empty. The installer will prompt for the password during install time.

SCHEMA

The Oracle Public Sector Revenue Management Data Model or Sample Datamining Schema Name. Make sure this value is updated depending on the type of schema being installed.

MRID

The ODI master repository internal ID. It is recommended to use unique id for each of the environment at your site.

Important: The ODI Repository IDs **1** to **500** and **999** are reserved for Product Development and should not be used. Please choose an ID in the range of **501** to **998**. For more information about repository IDs, refer to the *Oracle Data Integrator* documentation.

MWID

The ODI work repository internal ID. It is recommended to use unique id for each the environment at your site.

Important: Important: The ODI Repository IDs **1** to **500** and **999** are reserved for Product Development and should not be used. Please choose an ID in the range of **501** to **998**. For more information about repository IDs, refer to the *Oracle Data Integrator* documentation.

MRDBURL

The JDBC URL for the ODI MASTER Repository database. The JDBC URL must follow the format given below jdbc:oracle:thin:@<db host name>:<port>:<SID>

Example: jdbc:oracle:thin:@dbserver.us.oracle.com:1521:REPOMTR

MRUSER

The master repository database user. For more information, refer to the [Create Required Users](#) topic.

MRPASSWORD

The master repository user's password.

Note: The password value must be entered in plain text format. If you do not wish to update this parameter in plain text, then leave this value empty. The installer will prompt for the password during install time

MWDBURL

The JDBC URL for the database ODI Work repository database. The JDBC URL must follow the format given below jdbc:oracle:thin:@<db host name>:<port>:<SID>

Example: jdbc:oracle:thin:@dbserver.us.oracle.com:1521:REPOWRK

Important: The MASTER and WORK repositories must be created in the same database.

MWUSER

The work repository user name. For more information, refer to the [Create Required Users](#) topic.

MWPASSWORD

The work repository user's password. Note: The password value must be entered in plain text format. If you do not wish to update this parameter in plain text, then leave this value empty. The installer will prompt for the password during install time.

MWREPOSITORY

The WORK repository name. This parameter is not modifiable at this time. Required Value: OTDM_WORK_REPOSITORY

MODISTGUSER

The Oracle Data Integrator staging user name. This parameter is not modifiable. Required value is OTDM_ODI_STAGE. For more information, refer to the [Create Required Users](#) topic.

MODISTGPASSWORD

The Oracle Data Integrator staging user's password. Note: The password value must be entered in plain text format. If you do not wish to update this parameter in plain text, then leave this value empty. The installer will prompt for the password during install time.

MODIUSER

Oracle Data Integrator administrator user name. This user will have administrator access to the ODI repositories

MODIPASSWORD

Oracle Data Integrator administrator user's password.

Note: The password value must be entered in plain text format. If you do not wish to update this parameter in plain text, then leave this value empty. The installer will prompt for the password during install time.

MAGENT_SERVER

The Oracle Data Integrator Agent server name or IP address. Refer to the [Oracle Public Sector Revenue Management Analytics-Oracle Data Integrator Component Setup](#) documentation for information on setting up an ODI agent.

Example: agentserver.us.oracle.com

MAGENT_PORT

The Oracle Data Integrator Agent port. Refer to the [Oracle Public Sector Revenue Management Analytics-Oracle Data Integrator Component Setup](#) documentation for information on setting up an ODI agent.

Example: 20000

Installer Execution

This section explains how to create and configure Oracle Public Sector Revenue Management Analytics Schemas and the Oracle Data Integrator Repositories using the Oracle Public Sector Revenue Management Analytics Installer.

Before You Begin

- The Oracle Public Sector Revenue Management Analytics installer requires JRE 1.6 or above and Oracle Data Integrator 11.1.1.7.0 with SDK.
- The installer must be executed from the server or desktop where these software are installed. To install the ODI SDK, choose the "SDK" option under "Developer Installation" when installing Oracle Data Integrator software.
- The database and the users for the ODI repositories, Oracle Public Sector Revenue Management Data Model and Sample Datamining schema must exist before running the installer.

Creating and Configuring Environment Variables

Set the following environment variables before running the installer:

- Windows
 - set JAVA_HOME=<directory in which JRE is installed>
 - set ODI_HOME=<directory in which ODI is installed>
- Linux or Unix
 - export JAVA_HOME=<directory in which JRE is installed>
 - export ODI_HOME=<directory in which ODI is installed>

Note: Linux and Unix commands depend on the shell you are using; the commands above are for the Bash shell.

Launching the Installer

When you unzip the Oracle Public Sector Revenue Management Analytics install package, files are extracted into the following directory structure:



To launch the installer, run the `setup.bat` (for Windows) or `setup.sh` (for Linux or Unix) from `<install_dir>/OTA/bin` directory.

Installer Options

The Oracle Public Sector Revenue Management Analytics Installer can be executed with various options.

Depending upon the component installed, one or more command line options will be used when executing the setup script.

Option	Description
-h	Displays various command line options available with a short description.
-v	Displays version information of the installer.
-s	<p>This option is used to specify the configuration file name, where the environment specific values are stored. This file is expected to be present in "config" directory.</p> <p>Note: This option is used only when installing Oracle Public Sector Revenue Management Analytics Data Model schema, Sample Datamining schema, or when installing Oracle Data Integrator Master and Work Repositories.</p>
-t	<p>This option is used to specify the configuration file name, where the environment specific values are stored. This file is expected to be present in "config" directory.</p> <p>Note: This option is used only when installing Oracle Public Sector Revenue Management Analytics Schemas or when installing Oracle Data Integrator Master and Work Repositories</p>
-createRepository	<p>This option is used to create Oracle Data Integrator Master and Work repositories using delivered repository export files. This option will also configure the data server and the agent.</p> <p>Example:</p> <pre>./setup.sh -createRepository -t install.properties</pre>
-installSchema <arg>	<p>This option will create the Oracle Public Sector Revenue Management Data Model or sample Datamining schema objects. The argument value passed to this option is OTDM for Oracle Public Sector Revenue Management Data Model and MINING for Sample DataMining Schema.</p> <p>Example:</p> <pre>./setup.sh -installSchema OTDM -t install.properties ./setup.sh -installSchema MINING -t install.properties</pre>
-installData <arg>	<p>This option is used to install Oracle Public Sector Revenue Management Data Model or Sample Datamining system data. The install package is delivered with DML scripts to install system data for both OracleTax Data Model and Datamining schemas. This option will execute these scripts to install the system data. The argument value passed for this option is OTDM or MINING.</p> <p>Example:</p> <pre>./setup.sh -installData OTDM -t install.properties ./setup.sh -installData MINING -t install.properties</pre>
-exportMasterRepository <arg>	<p>This option is used to export the master repository into a zip file. The argument value used for this option is the output directory where the export file needs to be created. If no argument is passed, the export file is created in the directory <code><install Dir>/odi/master/MasterRepository.zip</code>.</p> <p>Example:</p> <pre>./setup.sh -exportMasterRepository /backups/odi/ master/ -s install.properties</pre>
-exportWorkRepository <arg>	<p>This option is used to export the work repository into a zip file. The argument value used for this option is the output directory where the export file needs to be created. If no argument is passed, the export is created in the directory <code><install Dir>/odi/work/WorkRepository.zip</code>.</p>

Option	Description
	Example: <pre>./setup.sh -exportWorkRepository /backups/odi/work/ -s install.properties</pre>

Installing Oracle Public Sector Revenue Management Analytics ODI Repositories

Creating Oracle Data Integrator Master Repository

Oracle Data Integrator Master Repository is installed using "createRepository" option. Before running the installer update the install.properties file with JDBC and user information for ODI master repository. Also update the Oracle Public Sector Revenue Management Data Model schema name, ODI staging user information, the agent server and the port. This information will be used to update the ODI topology after creating the master repository.

To run the installer on Windows execute setup.bat or on Linux and Unix execute setup.sh script from <install_dir>/OTA/bin with the "createRepository" option

The following parameters are required to create the master repository. You must have these parameters updated with your environment specific values before running the installer.

- MRID – Master Repository Internal ID, should be unique for each environment
- MWID – Work Repository Internal ID, should be unique for each environment
- DBURL= Oracle Public Sector Revenue Management Data Model Database connection information
- USER= Oracle Public Sector Revenue Management Data Model Database user
- PASSWORD= Oracle Public Sector Revenue Management Data Model user password
- SCHEMA= Oracle Public Sector Revenue Management Data Model Database Schema
- MRDBURL – Master Repository Database JDBC connection information
- MRUSER – Master Repository Database User ID
- MRPASSWORD – Master Repository Database User Password
- MWDBURL – Work Repository Database JDBC connection information
- MWUSER – Work Repository Database User ID
- MWPASSWORD – Work Repository Database User Password
- MWREPOSITORY – Work Repository Name (Required value:OTDM_WORK_REPOSITORY)
- MODISTGUSER – ODI Staging Database User ID
- MODISTGPASSWORD – ODI Staging Database User Password
- MODIUSER – ODI Administrator User ID
- MODIPASSWORD – ODI Administrator User Password

The following example creates the master repository. In this example, the configuration values from install.properties are used to create the repository .

```
cd <install directory>/OTA/bin ./setup.sh -createRepository -t install.properties
```

Importing Oracle Data Integrator Work Repository

Oracle Data Integrator Work Repository is imported using "importWorkRepository" option. Before running the installer update the `install.properties` file with JDBC and user information for master and work repositories. The master repository must be created using the installer, before importing the work repository.

To run the installer on Windows execute `setup.bat` and on Linux or Unix execute `setup.sh` script from `<install_dir>/OTA/bin` with the *importWorkRepository* option.

Before importing the work repository, update the following values in the `install.properties` file

- MRDBURL – Master Repository Database JDBC connection information
- MRUSER – Master Repository Database User ID
- MRPASSWORD – Master Repository Database User Password
- MWDBURL – Work Repository Database JDBC connection information
- MWUSER – Work Repository Database User ID
- MWPASSWORD – Work Repository Database User Password
- MWREPOSITORY – Work Repository Name (Required value:OTDM_WORK_REPOSITORY)
- MODIUSER – ODI Administrator User ID
- MODIPASSWORD – ODI Administrator User Password

The following example imports work repository from the work repository zip file delivered with the installer. In this example, the configuration information from `install.properties` are used to import the work repository.

```
cd <install directory>/OTA/bin ./setup.sh -importWorkRepository -t install.properties
```

Installing Oracle Public Sector Revenue Management Data Model Schema

Installing Schema

Oracle Public Sector Revenue Management Data Model Schema is created using the "installSchema" option. Before running the installer update the `install.properties` file with the database JDBC, user and password information.

To run the installer on Windows execute `setup.bat` and on Linux or Unix execute `setup.sh` script from `<install_dir>/OTA/bin` with the *installSchema* option with argument *OTDM*. Before running the installer, update the following configuration values in the `install.properties` file.

- DBURL = Oracle Public Sector Revenue Management Data Model Database connection information
- USER = Oracle Public Sector Revenue Management Data Model Database user
- PASSWORD = Oracle Public Sector Revenue Management Data Model user password
- SCHEMA = Oracle Public Sector Revenue Management Data Model Database Schem

Note: The USER and SCHEMA values must be the name of the Oracle Public Sector Revenue Management Data Model database user.

The following example creates the Oracle Public Sector Revenue Management Data Model schema. In this example, the configuration information from `install.properties` is used to create the schema.

```
cd <install directory>/OTA/bin
./setup.sh -installSchema OTDM -t install.properties
```

Installing System Data

The installer is delivered with system data required for Oracle Public Sector Revenue Management Analytics application to function. The data must be installed in Oracle Public Sector Revenue Management Data Model schema before using the application. The system data is installed using "installData" option.

To run the installer on Windows execute setup.bat and on Linux or Unix execute setup.sh script from <install_dir>/OTA/bin with the *installData* option with argument *OTDM*.

Note: Before running the installer, update the configuration values in the install.properties file, as described above.

The following example populates configuration data in Oracle Public Sector Revenue Management Data Model schema. In this example, the configuration information from install.properties is used to populate the configuration data required in Oracle Public Sector Revenue Management Data Model schema.

```
cd <install directory>/OTA/bin
./setup.sh -installData OTDM -t install.properties
```

Installing the Sample Data Mining Schema

Installing the Schema

The sample data mining schema delivered with the installer is created using "installSchema" option. Before running the installer update the install.properties file with the database JDBC, user and password information.

To run the installer on Windows, execute setup.bat, and on Linux or UNIX, execute the setup.sh script from <install_dir>/OTA/bin with the installSchema option and with the argument MINING. Before running the installer, update the following configuration values in the install.properties file.

- DBURL – Sample Data mining Database connection information.
- USER= Sample Data mining Database user.
- PASSWORD= Sample Data mining user password.
- SCHEMA= Sample Data mining Database Schema.

Note: The USER and SCHEMA values must be the name of the Oracle Public Sector Revenue Management Data Model database user.

The following example creates the **Sample Data Mining** schema. In this example, the configuration information from install.properties is used to create the schema.

```
$ cd <install directory>/OTA/bin
$ ./setup.sh -installSchema MINING -t install.properties
```

Example:

```
$ ./setup.sh -installSchema MINING -t install.properties.otdm20r1_mining
Oracle Tax Analytics V2.1.0.0.0
Install type: INITIAL
The database schema is empty, do you want to continue with the initial install [Y/N] y
Executing ...../schemas/OTDM/scripts/INSTALL.sql
Executing ...../schemas/OTDM/scripts/TABLE.sql
Executing ...../schemas/OTDM/scripts/PACKAGE.sql
Schema Install Completed Successfully
$
```

Install System Data

The installer is delivered with system data required for the Sample Data Mining. The data must be installed in the Sample Data Mining Schema before using the application. The system data is installed using the `installData` option.

To run the installer on Windows, execute `setup.bat`, and on Linux or UNIX, execute the `setup.sh` script from `<install directory>/OTA/bin` with the `installData` option and with the argument `MINING`. Before running the installer, update the following configuration values in the `install.properties` file:

- `DBURL` – Sample Data mining Database connection information.
- `USER` = Sample Data mining Database user.
- `PASSWORD` = Sample Data mining user password.
- `SCHEMA` = Sample Data mining Database Schema.

Note: The `USER` and `SCHEMA` values must be the name of the Oracle Public Sector Revenue Management Data Model database user.

The following example populates system data in the Sample Data Mining schema. In this example, the configuration information from `install.properties` is used to populate the system data required in Sample Data Mining schema.

```
$ cd <install directory>/OTA/bin
$ ./setup.sh -installData MINING -t install.properties
```

Example:

```
$ ./setup.sh -installData MINING -t install.properties.otdm20r1_mining
Oracle Tax Analytics V2.1.0.0.0
Installing Data
Do you want to continue with the schema install [Y/N] y
Executing ...../schemas/Mining/data/DATA.sql
Data Install Completed Successfully
$
```

Post Installation Steps

This section describes post installation configuration steps.

Re-Enabling the Database Vault Option

If you (optionally) disabled the Database Vault Option prior to installation (as described in [Disabling the Data Vault Option on the Database](#)), re-enable the option by taking the following steps:

1. Shutdown the Database, Database Control console process, and listener.
For example on Unix, ensure that the environment variables, `ORACLE_HOME`, `ORACLE_SID`, and `PATH` are correctly set. Log in to SQL*Plus as user `SYS` with the `SYSOPER` privilege and shut down the database. Then from the command line, stop the Database Control console process and listener.

For example:

```
sqlplus sys as sysoper
Enter password: password
SQL> SHUTDOWN IMMEDIATE
SQL> EXIT
$ emctl stop dbconsole
$ lsnrctl stop listener_name
```

For Oracle RAC installations, shut down each database instance as follows:

```
$ srvctl stop database -d db_name
```

2. Enable the Oracle Database Vault option.

```
cd $ORACLE_HOME/rdbms/lib
make -f ins_rdbms.mk dv_on
make -f ins_rdbms.mk ioracle
```

3. Startup the Database, Database Control console process, and listener.

For example, on UNIX, Log in to SQL*Plus as user SYS with the SYSOPER privilege and restart the database. Then from the command line, restart the Database Control console process and listener.

For example:

```
sqlplus sys as sysoper
Enter password: password
SQL> STARTUP
SQL> EXIT
$ emctl start dbconsole
$ lsnrctl start listener_name
```

Ensuring That Oracle Tax Data Model Schema Objects Are Valid

To ensure that all Oracle Public Sector Revenue Management Data Model objects are valid, log in to the database with a DBA id and password and recompile all objects in OTDM and OTDM_MINING by issuing the following SQL statements:

1. `exec utl_recomp.recomp_serial('OTDM');`
2. `exec utl_recomp.recomp_serial('OTDM_MINING');`

Refresh GET_WAREHOUSE_SCHEMA_NAME Variable

The GET_WAREHOUSE_SCHEMA_NAME variable is used to store the Oracle Public Sector Revenue Management Analytics schema name. This variable must be refreshed before running the ETLs. Perform following steps to refresh the this variable.

1. Login into Oracle Data Integrator Designer
2. Choose the Project View
3. Expand the Variables tree
4. Right-click GET_WAREHOUSE_SCHEMA_NAME and select **Refresh**

Generating Oracle Data Integrator Scenarios

Procedure to generate Oracle Data Integrator scenarios, which are used to control E-LT processes.

Oracle Data Integrator scenarios are generated using the Scenario generation dialog in Oracle Data Integrator Designer.

1. In ODI Designer, log in as SUPERVISOR, and display the Projects view.
2. Right-click the project name and select **Generate All Scenarios**.
3. In the Scenario generation dialog, select the following options:
 - a) **Generation mode:** Re-generate
 - b) **Objects to Generate:** Packages, Interfaces, Procedures, Variables

c) Marker Filter: Group and Marker set to <None>

4. Click OK

An Information dialog will display when the scenario has been generated. Click OK to dismiss.

Note: Click **OK** for all the **scenario variables** dialog windows displayed when generating scenarios.

Chapter 6

Installing OBIEE Components

This chapter describes how to install Oracle Business Intelligence Enterprise Edition components that comes with the installation package.

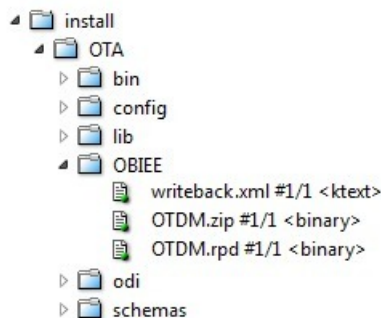
Before deploying the Oracle Business Intelligence Enterprise Edition components of Oracle Public Sector Revenue Management Analytics, you must install Oracle Business Intelligence Enterprise Edition by following the instructions given in the *Oracle Business Intelligence Enterprise Edition Installation Guide*.

Note: To check that Oracle Business Intelligence Enterprise Edition is installed, follow the instructions in [Confirming that Oracle Business Intelligence Enterprise Edition is Installed](#).

Deploying PSRMA Components to Oracle BI Enterprise Edition

Oracle Public Sector Revenue Management Analytics installer is packaged with an Oracle Business Intelligence Enterprise Edition metadata repository file (RPD), Web Catalog, and the writeback.xml file. These components are deployed to Oracle Business Intelligence Enterprise Edition in the described procedures.

The OBIEE directory, under <install_dir>\OTA\, contains components to be deployed to your Oracle Business Intelligence Enterprise Edition environment.



1. Deploy the Web Catalog and RPD File

Perform the following steps to deploy the Oracle Public Sector Revenue Management Analytics Web Catalog and RPD file

- a) Unzip web catalog from <install_dir>\OTA\OBIEE\OTDM.zip file into your OBIEE environment.

You typically unzip into the <OBIEE_HOME>/instances/<instance Name>/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog directory in your OBIEE environment.

The web catalog will be installed in a directory called *OTDM*.

- b) Use your browser to open the Oracle WebLogic Enterprise Manager portal (<http://SERVERNAME:7001/em>)
- c) Login with the WebLogic admin id and password.
- d) Go to Business **Intelligence** > **coreapplication** > **Deployment** > **Repository**
- e) Deploy the Oracle Public Sector Revenue Management Analytics repository file named OTDM.rpd from <install_dir>/OTA/OBIEE.

Also update the BI Presentation Catalog directory name.

Note: Before deploying the RPD into your OBIEE environment, update the database name, user id, and password using Oracle Business Intelligence Administration tool. The default RPD password is *Admin123*.

2. Deploy the writeback.xml File

Deploy <install_dir>/OTA/OBIEE/writeback.xml file into your OBIEE environment. You typically copy into the <OBIEE_HOME>/instances/<instance Name>/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/analyticsRes/customMessages directory in your OBIEE environment.

Note: If the customMessages directory does not exist, create the directory before copying the file into your environment.

Adding OBIEE Users

Add OBIEE Users with the Oracle WebLogic Server Administration Console.

1. Open the WebLogic Server Administration Console <http://SERVERNAME:7001/console/login/LoginForm.jsp>
2. Login with your WebLogic admin id and password.
3. Navigate to your security realm to create users.
4. Create an OBIEE user.
 - a) Create a user named *obieeuser* and set password.
 - b) In the **Groups** tab, assign the *obieeuser* to the BIAuthor and BICongsumers groups.
5. Create an OBIEE admin user.
 - a) Create an admin user and set password.
 - b) In the **Groups** tab, assign the admin user to the BIAuthor, BICongsumers, and BIAdministrators groups.

Refreshing User GUID

Oracle Business Intelligence users are recognized by their global unique identifiers (GUIDs), not by their names. To make sure these IDs are match with the Oracle BI repository and Oracle BI Presentation Catalog, these GUIDs must be refreshed by following the section named “Refreshing user GUIDs” in the *Oracle Fusion Middleware Security Guide for Oracle Business Intelligence Enterprise Edition*.

Adding TNSNAMES.ora Entry

Add a definition for Oracle Public Sector Revenue Management Data Model database for the Oracle Public Sector Revenue Management Analytics repository OTDM.rpd) to use when connecting to the database.

Add the definition to the file <OBIEE install directory>/Oracle_BI1/network/admin/tnsnames.ora

```
OTDM =
(DESCRIPTION =
  (ADDRESS = (PROTOCOL = TCP)(HOST = hostname.domain)(PORT = port-number))
  (CONNECT_DATA =(SERVER = DEDICATED)
  (SERVICE_NAME = SID) # Change your SID, Hostname, and Listener PortNumber
  )
)
```

Note: Be careful to split these commands properly when you add them to the file; for example, do not add them as one long concatenated line of code.

Installing Map Viewer

Some of the reports include map views. For these reports to work correctly, the map viewer must be configured. Oracle Business Intelligence Enterprise Edition customers can download the spatial boundary data required for the map viewer to function. The data, which is provided to Oracle customers by NAVTEQ, can be downloaded from the Oracle Technology Network.

For more information on installing and configuring Map Viewer, please refer to *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition 11g Release 1 (11.1.1)* available at:

http://docs.oracle.com/cd/E23943_01/bi.1111/e10541/configmap.htm#BIESG1082

Chapter 7

Setting Up the PSRMA-Data Integrator Components

This section explains how to set up the Oracle Data Integrator agent to create an operational E-LT environment. Perform the tasks in this section in the sequence specified.

Installing Oracle Data Integrator Software

Before configuring the Oracle Data Integrator agent to run the E-LTs, Oracle Data Integrator software must be installed on the server that is designated as an agent server for your environment. Depending upon your requirement, may choose to install standalone agent or J2EE agent with Oracle Data Integrator Console. For more information on installing Oracle Data Integrator software, please refer to [Oracle Data Integrator](#) documentation.

Configuring the Oracle Data Integrator Parameter File

Once the Oracle Data Integrator software is installed, you need to update the Oracle Data Integrator agent parameter file with your environment specific values by performing the following steps.

1. On the Oracle Data Integrator machine, open the odiparams.bat or odiparams.sh file in a text editor.

The odiparams.bat or odiparams.sh file is located in the <Install_Dir>\oracledi\agent\bin\ directory. For example, <Install_Dir>\Oracle_ODI1\oracledi\agent\bin.

2. Update the ODI_MASTER_URL parameter.

```
ODI_MASTER_URL=<JDBC URL>  
Set ODI_MASTER_URL="jdbc:oracle:thin:@//<host>:<port>/<sid>"
```

Replace <host>, <port>, and <sid> with your database specific values.

3. Update the ODI_MASTER_USER parameter.

```
ODI_MASTER_USER=<Master Repository DB User ID>  
ODI_MASTER_ENCODED_PASS=<Master Repository DB User Password>
```

Note: Password can be encoded using encode.sh/encode.bat script. Refer to Oracle Data Integrator documentation on how to encode the password using this script

4. Update the ODI_SUPERVISOR user ID and password parameters.

```
ODI_SUPERVISOR=<ODI Supervisor User ID>  
ODI_SUPERVISOR_ENCODED_PASS=<ODI Supervisor User Password>
```

5. Update the ODI_USER Parameters

```
ODI_USER=  
<ODI User ID>  
  
ODI_ENCODED_PASS=<ODI User Password>
```

6. Update the ODI_SECU_WORK_REP parameter.

```
ODI_SECU_WORK_REP=OTDM_WORK_REPOSITORY
```

7. Save the file.

Updating OTDM_AGENT_1 using ODI Topology Manager

This section explains how to update the OTDM_AGENT_1 agent in Topology Manager. The installer configures an agent called “OTDM_AGENT_1” in the Master Repository using the server and port number information from install.properties file. Follow the procedure below, if you want to change the agent configuration.

1. Start Topology Manager, display the Physical Architecture tab, and expand the Agents node.
2. Double-click the OTDM_AGENT_1 node to display the Agent details window.
3. Display the Definition tab, and update the appropriate information, as described in the table below.

Field	Description
Name	Do not change the default value (OTDM_AGENT_1).
Host	The host name of the machine that is running the Agent, typically the Oracle Data Integrator installation machine.
Port	Do not change the default value. If you encounter a port conflict when you run the Oracle Data Integrator Agents, you might need to use a different port number.
Web application context	Change this value to change the web context root, when the Oracle Data Integrator j2ee application is installed
Protocol	Change this value to enable SSL access for ODI J2EE application
Maximum number of sessions	The maximum number of interfaces that can run in parallel (default is 1000). This value is used when load balancing.

4. Click Test to verify the agent.

Starting the Oracle Data Integrator Agent

The OTDM_AGENT_1 should be started before running Intra-E-LTs or procedures in Oracle Data Integrator. Make sure the Oracle Data Integrator Agent is started each time after the server on which you are running the Oracle Data Integrator Agent is re-booted. This task explains how to start the ODI Agents using the port number 20000.

Note: Note: If you encounter a port conflict when you run the Oracle Data Integrator Agents, you might need to use different port numbers. For more information, see [Resolving Conflicts in Oracle Data Integrator Agent Port Numbers](#).

When you use Oracle Data Integrator Designer to execute Packages and Interfaces, choose OTDM_AGENT_1 Agent from the Agent drop down.

1. Starting ODI Agent on Windows

On the ODI machine, open a command window and change directory to the <Install Directory>/Oracle_ODI1/oracledi/agent/bin/

To install the agent as a Windows service, execute the following commands one time.

```
agent-service -i -s OTDM_AGENT_1 20000  
agent-service.bat
```

To start the agent services, run 'services.msc' from the **Windows > Run** dialog and Start the OracleDI Agent OTDM_AGENT_1 service.

Note: Command log information about Agents is stored in the file \$ODI_HOME\oracledi\agent\bin\agent-service.log.

2. Starting ODI Agent on Linux or Unix

On the Oracle Data Integrator machine, open a command window and change directory to <Install Directory>/oracledi/bin.

Execute the following command:

```
./agent.sh -NAME=OTDM_AGENT_1 -PORT=20000 &
```

Note: Run the above command in nohup mode if you do not want the agent to be shutdown when you log out of the Unix session.

Chapter 8

Verifying the Installation

Verifying Oracle Public Sector Revenue Management Analytics Installation and Set Up

To verify an Oracle Public Sector Revenue Management Analytics environment, do the following:

1. Log into Oracle Data Integrator Designer or Oracle Data Integrator Topology Manager as user SUPERVISOR.
2. Use Oracle Data Integrator Designer to connect to the Work Repository.
3. Use Oracle Data Integrator Topology Manager to check the Oracle Data Server “ORACLE_PHYSICAL_OTDM”
4. Use Oracle Data Integrator Topology Manager to check the Agent “OTDM_AGENT_1”.
5. Use Oracle Data Integrator Topology Designer to check that the Model objects are available.

Verifying Reports with Oracle Business Intelligence Enterprise Edition

Verify reports are working by performing the following:

1. Open Oracle Business Intelligence Enterprise Edition Analytics in a browser.
For example: `http://SERVERNAME:9704/analytics`
2. Login into Oracle Business Intelligence Enterprise Edition as the *obieeuser*.
3. Select **Dashboards** to navigate to a subject areas to view the reports.

Appendix A

Miscellaneous and Supporting Tasks

This section provides information on miscellaneous and supporting tasks related to installing Oracle Public Sector Revenue Management Analytics.

Resetting Default Passwords, Schema Names, and Data Integrator Connection Details

Oracle recommends that you use the out-of-the-box user names, schema names, and tablespace names. If you do use different names, follow the procedures in this section to keep the Oracle Public Sector Revenue Management Analytics components synchronized.

Changing Default Database Passwords

This section explains how to change the default passwords for the database users that you set up in [Create Required Users](#).

1. Use a SQL client to change the database password.

For example, you might connect to the database using SQL Developer or SQL*Plus and execute the following command:

```
ALTER USER OTDM IDENTIFIED BY <New Password> REPLACE <Old Password>
```

Note: If you change the OTDM_ODI_STAGE, you must update ORACLE_PHYSICAL_OTDM using Oracle Database Integrator Topology manager as described in [Changing the Oracle Data Integrator Topology Connection Details](#).

2. If you change the password for OTDM or OTDM_MINING schemas, you must update the RPD and redeploy.

Changing the Oracle Data Integrator Topology Connection Details

This section explains how to change the default Oracle Data Integrator Topology Connection details.

Use the Oracle Data Integrator Topology Manager to change the connection details.

1. Open the physical tab
2. Expand the **Technologies > Oracle** node.
3. Edit the ORACLE_PHYSICAL_OTDM
4. Use the **Password** field to modify the password; click **Test** to verify the new password.
5. Click **OK** to save the details.

Changing Encoded Passwords in odiparams.bat

This section explains how to change the encoded passwords that are set in the Oracle Data Integrator agent configuration file, odiparams.sh or odiparams.bat.

As an example, the Oracle Data Integrator parameter file, which is located in the <ODI install dir>\oracledi\agent\bi directory, might contain the following parameters:

```
set ODI_SECU_USER=REPOMTR
set ODI_SECU_ENCODED_PASS=dpfHHIqHwW.v9VGofVVd6eG0x set ODI_USER=SUPERVISOR
set ODI_ENCODED_PASS=d,ypFC5Tzt5plXN82JwXASAUp
```

You might want to change the password for REPOMTR user or the SUPERVISOR user.

1. On the ODI machine, open a command prompt, and use the CD command to change to the <Install Directory>\oracledi\agent\bin\directory.
2. Enter the following command: ./encode.sh <password in plain text> Where <password> is either REPOMTR or SUPERVISOR's password The command returns an encoded password for REPOMTR or SUPERVISOR and displays it on screen.
3. Copy the encoded password.
4. Open the file <Install Directory>\oracledi\agent\bin\odiparams.bat/.sh in a text editor.
5. If you obtained a new encoded password for the REPOMTR user, type in or paste in the encoded password that you obtained in step 3 as the value of the set 'ODI_SECU_ENCODED_PASS=' parameter.
6. If you obtained a new encoded password for the SUPERVISOR user, enter the encoded password (obtained in step 3) as the value of the 'set ODI_ENCODED_PASS=' parameter.
7. Save the file.

Changing the Password for the ODI SUPERVISOR User

This section explains how to change the ODI SUPERVISOR password.

1. Log into Oracle Data Integrator Designer or Oracle Data Integrator Topology Manager.
2. Choose **File > Change Password** to display the **Password** change dialog box.
3. Use the Password change dialog box to specify the current password and the new password.
4. Save the details.

You now need to modify the ODI Connections to use the new SUPERVISOR password.

Using Different Schema and Tablespace Names

This section explains the changes necessary when using different schema and tablespace names.

Changing the Oracle Public Sector Revenue Management Analytics Schema Names

At time of the release of this document, schema names must follow the out-of-box naming convention

Changing the Tablespace Names

The tablespace for tables and indexes can be modified after the installation is complete and verified.

To change the tablespace, create new tablespace and use Oracle “move” command to move the objects to the new tablespace. Oracle's export/import or datapump utilities may also be used move the objects. Refer to Oracle Database Documentation Library for more details.

Deploying Oracle Data Integrator Across Multiple Environments

In Oracle Data Integrator deployments, you typically maintain different environments (known as Contexts) for Production (PROD), Development (DEV) and Quality Assurance (QA) activities. Oracle recommends that you install multiple Oracle Data Integrator Repositories and create Topologies to support multiple environments.

To avoid collision between different environments, it is also recommended that you install Oracle Data Integrator separately on different servers for each of the environments.

Note: For detailed information about ODI Contexts, refer to the Oracle Data Integrator Documentation Library.

Running an Oracle Data Integrator Agent as a Unix Background Process

To run an ODI Agent as a Unix background process:

1. Open a command window and change directory to the <Install Directory>\oracledi\agent\bin\ directory.
2. Execute: `./agent.sh -NAME=OTDM_AGENT_1 -PORT=20000 &`

Uninstalling ODI Agent Windows Services

If you have a problem with the Oracle Data Integrator Agent processes, you might need to uninstall the services so that you can reinstall them. To uninstall the Oracle Data Integrator Agent service:

1. Display the Windows Services dialog. For example, run 'services.msc' from the **Windows > Run** dialog.
2. Stop the service OracleDI Agent.
3. Open a command window and change directory to the \$ODI_HOME\oracledi\agent\bin directory.
4. Execute the following command `agentservice -r -s OTDM_AGENT_1 9000`

If required, you can now reinstall the services. For more information about installing these services, see [Starting the ODI Agent](#).

Resolving Conflicts in Oracle Data Integrator Agent Port Numbers

This section explains how to modify your Oracle Public Sector Revenue Management Analytics deployment to resolve conflicting port numbers for Oracle Data Integrator Agents.

Context for the current task

1. Modify the port number of the OTDM_AGENT_1 agent, as described in [Setting up the ODI Agent](#).
2. Uninstall the ODI Agents, as described in [Uninstalling ODI Agent Windows Services](#).
3. Re-install the ODI Agents using the new port numbers, as described in [Setting up the ODI Agent](#).

List of Log Files

The Oracle Public Sector Revenue Management Analytics Installer generates the following log files in the <install_dir>\TA\log directory:

Table 2: Log Files

Name	Description
install.log	Main installation log

Appendix B

Security Notes

The following documents provide additional security information for Oracle Public Sector Revenue Management Analytics.

Securing Oracle Database:

- For version 11g: http://docs.oracle.com/cd/E11882_01/network.112/e16543/toc.htm
- For version 12c: http://docs.oracle.com/database/121/nav/portal_25.htm

Securing Oracle Data Integrator (ODI):

- http://docs.oracle.com/cd/E17904_01/integrate.1111/e12643/security.htm

Securing Business Intelligence Enterprise Edition (OBIEE):

- http://docs.oracle.com/cd/E14571_01/bi.1111/e10543/toc.htm

Appendix C

Other License and Copyright Notices

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Notice concerning usage of Apache Software

The following are covered under the Apache 2.0 license.

1. commons-cli-1.2.jar
2. log4j-1.2.9.jar

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