Oracle Utilities Advanced Spatial and Operational Analytics

Installation Guide

Release 2.4.0

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Oracle Utilities Advanced Spatial and Operational Analytics Installation Guide, Release 2.4.0

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Preface

This guide describes how to install and configure Oracle Utilities Advanced Spatial and Operational Analytics v2.4. Installing Oracle Utilities Advanced Spatial and Operational Analytics v2.4 is required for the Oracle Utilities business intelligence products that support the following:

- Oracle Utilities Customer Care and Billing release 2.2.0 or 2.3.1
- Oracle Utilities Meter Data Management release 2.0.1, Service Pack 6
- Oracle Utilities Mobile Workforce Management release 2.1.0
- Oracle Utilities Network Management System release 1.9.0.3, 1.10.0.3.1 or 1.11.0.1
- Oracle Utilities Work and Asset Management release 1.8.1 or 1.9.0.4

  Note: The single fix patches 13532002, 13518963, 13509909, 13470718, 13462900, 13460426, 13455478, 13111451, and 13513139 (for Oracle Utilities Mobile Workforce Management) are prerequisites for Oracle Mobile Workforce Analytics.

  The single fix patches 13494493 and 13554621 are prerequisites for Oracle Utilities Meter Data Management.

  The single fix patches 12861412 and 12797646 (for Oracle Utilities Customer Care and Billing 2.2.0) or single fix patches 12861408, 12797637, 13464490, 12853107, and 12860480 (for Oracle Utilities Customer Care and Billing 2.3.1) are prerequisites for Oracle Utilities Customer Care and Billing Business Intelligence.

  The single fix patch 13503077 (for Oracle Utilities Network Management System 1.11.1) is a prerequisite for Oracle Utilities Network Management Business Intelligence.

Audience

This guide is intended for anyone interested in understanding or performing the process of installing or configuring Oracle Utilities Advanced Spatial and Operational Analytics v2.4.

Related Documents

For more information, see the following documents in the Oracle Utilities Advanced Spatial and Operational Analytics Documentation Library:

- *Oracle Utilities Advanced Spatial and Operational Analytics Release Notes*
- *Oracle Utilities Advanced Spatial and Operational Analytics Quick Install Guide*

- *Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide*
- *Oracle Utilities Advanced Spatial and Operational Analytics User's Guide*
- *Oracle Utilities Advanced Spatial and Operational Analytics Licensing and Package Guide*
- *Oracle Utilities Customer Care and Billing Business Intelligence Metric Reference Guide*
- *Oracle Utilities Meter Data Management Business Intelligence Metric Reference Guide*
- *Oracle Utilities Network Management Business Intelligence Metric Reference Guide*
- *Oracle Utilities Work and Asset Management Business Intelligence Metric Reference Guide*
- *Oracle Utilities Mobile Workforce Management Business Intelligence Metric Reference Guide*
- *Oracle Utilities Customer Care and Billing Business Intelligence Data Mapping Guide*
- *Oracle Utilities Meter Data Management Business Intelligence Data Mapping Guide*
- *Oracle Utilities Network Management Business Intelligence Data Mapping Guide*
- *Oracle Utilities Work and Asset Management Business Intelligence Data Mapping Guide*
- *Oracle Utilities Mobile Workforce Management Business Intelligence Data Mapping Guide*
- *Oracle Utilities Application Framework Business Process Guide*
- *Oracle Utilities Application Framework Administration Guide*
- *Oracle Utilities Business Intelligence Server Administration Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Chapter 1

Introduction

Oracle Utilities Advanced Spatial and Operational Analytics (OUASA), in other words, Oracle Business Intelligence for Utilities (OBIU), version 2.4.0 consists of the following components:

- Star schema definitions
- ETL process built on Oracle Warehouse Builder (OWB)
- Pre-built analytics' dashboards based on Oracle Business Intelligence Enterprise Edition (OBIEE)
- OUBI - Oracle Utilities Business Intelligence (OUBI) includes Oracle Utilities Application Framework (OUAF)-based application to generate process flows using OWB Code Generator. This is an optional component and is required only if you need to customize or create new custom OWB process flows.

Note that the term OUASA would typically refer to the first three components mentioned above. Only these three components are required for a typical installation. This document provides information about these components which are commonly required by most of the customers.

What's New in OUASA v2.4.0?

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 comes with a set of new functionalities. These can be divided into four groups, such as architectural changes, data warehouse schema, Extract-Transform-Load (ETL), and installation modifications.

Architectural Changes

The architectural changes are as follows:

- A new administration group has been added to the dashboards allowing users to administer and configure OBIEE. The features supported in the administration section include:
    - New write back reports introduced to manage the labels in reports within OBIEE itself.
    - New dashboards allowing users to view and manage load jobs. Jobs can be resubmitted using this dashboard. Refer to the "Running and Monitoring Extract Loads" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details.
- The OUAF component is no longer mandatory. Only those users who wish to make use of the code generator need to purchase licenses for the OUAF component. Refer to the "Overview of Environment Maintenance" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details.
- A new mechanism has been put in place to automatically refresh the OBIEE cache data, as soon as new data arrives into the warehouse. Refer to the "Auto Cache Refresh" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details.

Schema Changes

The schema changes are as follows:

- A new group of dashboards grouped under Oracle Utilities Meter Data Analytics has been added. This group provides reporting metrics on the Oracle Utilities Meter Data Management (MDM) application. This change includes a set of eight dashboards and the underlying star schema to support these analytics. Refer to the "Oracle Utilities Meter Data Management Extractor Details" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details on the extract methodology.
- A new group of dashboards grouped under Oracle Utilities Mobile Workforce Analytics has been added. This group provides reporting metrics on the Oracle Utilities Mobile Workforce Management (MWM) application. This change includes a set of six dashboards and the underlying star schema to support these analytics. Refer to the "Oracle Utilities Mobile Workforce Management Extractor Details" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details on the extract methodology.
- The new dashboards now support drill back to the source edge applications (Oracle Utilities Meter Data Management or Oracle Utilities Mobile Workforce Management) directly from the reports. Refer to the "OUASA: Configuring Drill Back" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide to understand how to configure this.

Extract-Transform-Load Changes

Following are the modifications done to the Extract-Transform-Load component:

- All load jobs will now be scheduled automatically by the file processor. Users would just need to extract files and then copy them into the load directory; the system takes care of the

remaining tasks. Refer to the "About the File Processor Daemon" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details.

- New validation step has been introduced in the load jobs, to validate the number of records actually loaded against the number records in the flat file being loaded. Refer to the "Oracle Warehouse Builder Transformations" in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details.
- All workflows will be enabled for parallel processing; however the degree of parallelism is set to 1. Customers will need to change the degree based on their data volumes processing capabilities. Refer to the "Parallelism and Partitioning" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details.
- Additional workflows have been provided for purging the Oracle Workflow runtime audit tables. These have to be scheduled by the customer. Refer to the "Purging Audit Records" section in the Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide for more details.

Installation Changes

The modifications during the installation process are listed as follows:

- OMB Plus scripts will be delivered to automate the import of the released OWB MDL files and the configuration and deployment of the OWB objects.
- Install scripts will retain customizations for parallel settings during upgrades.

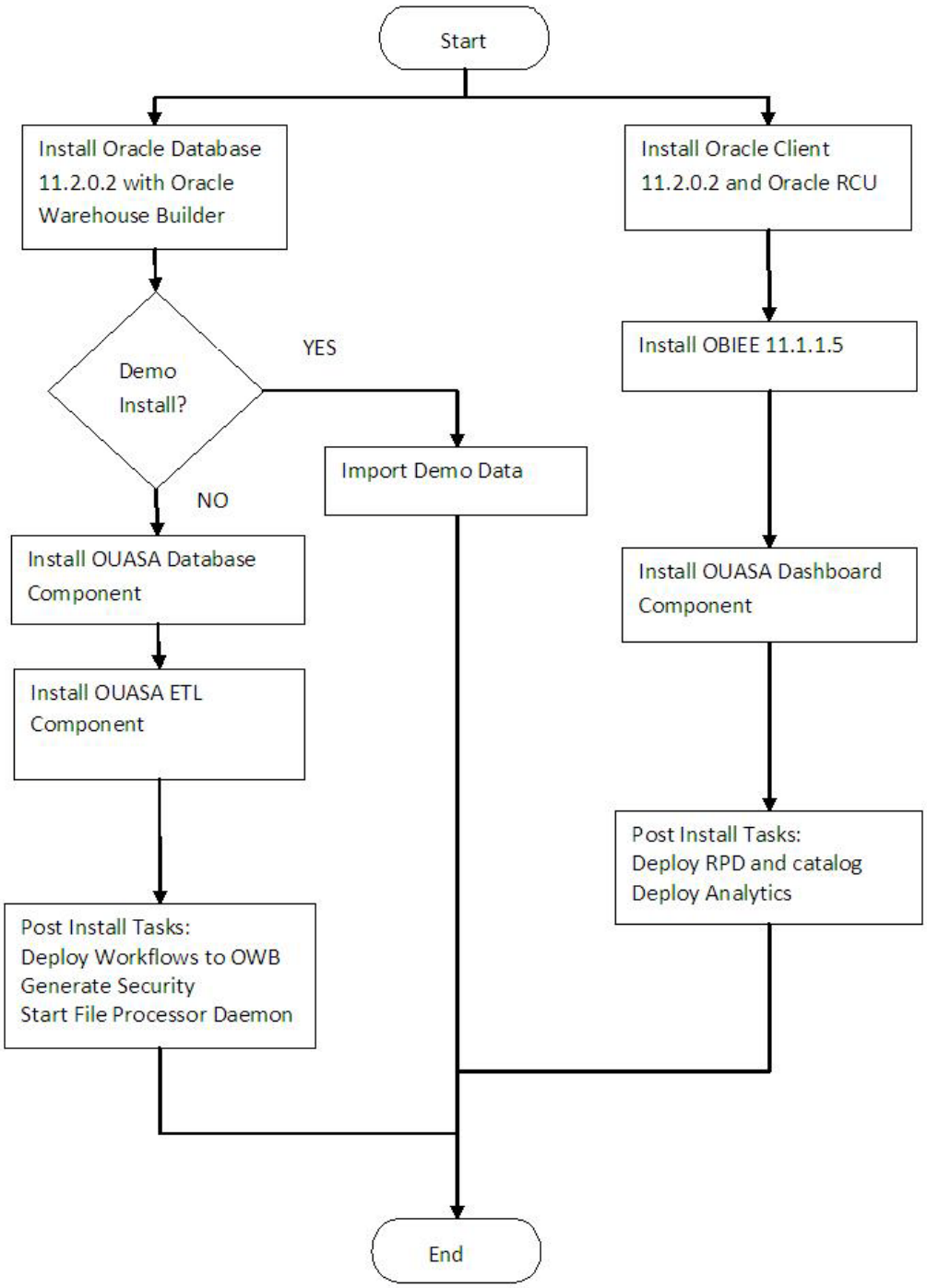
Chapter 2

Installation Overview

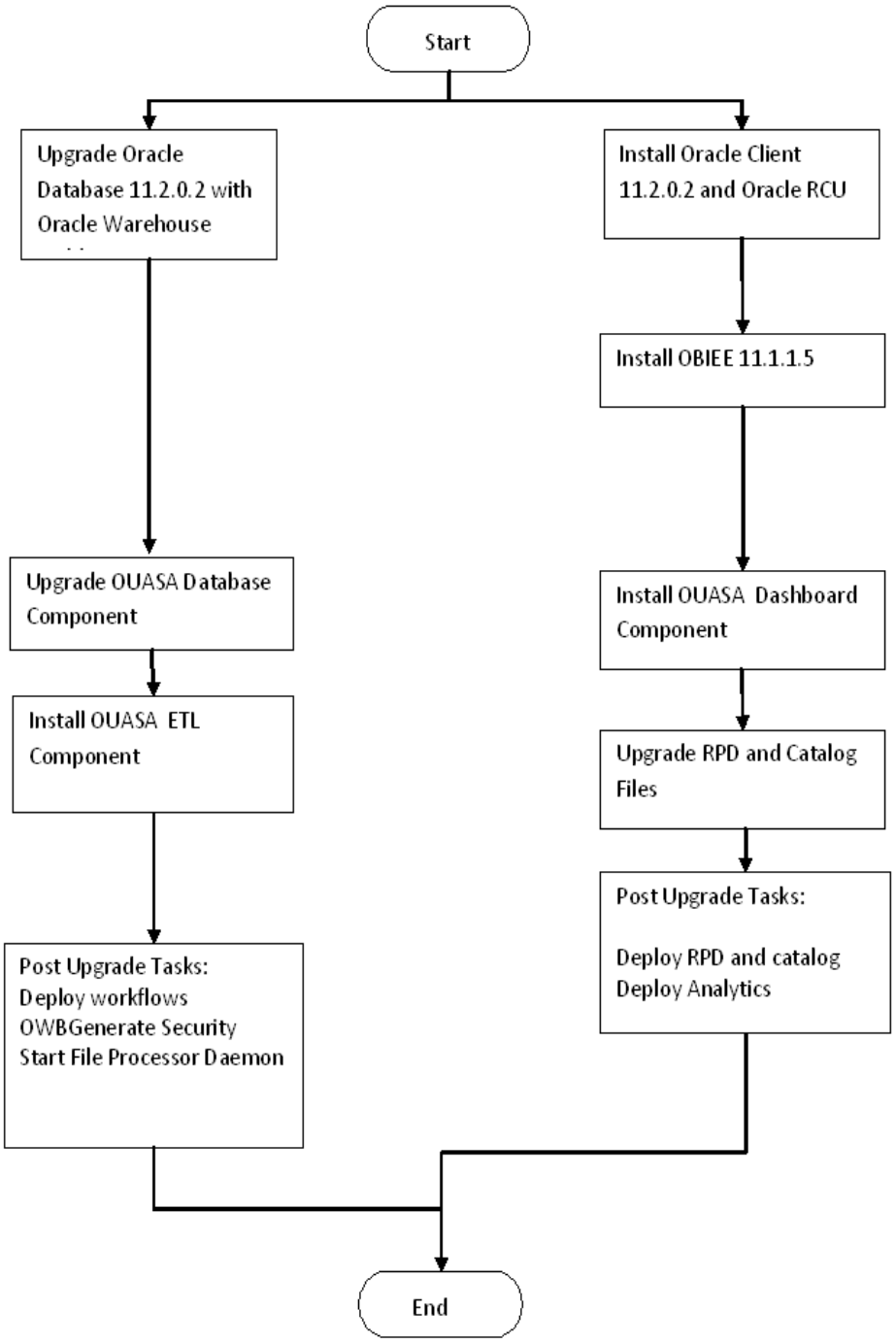
Oracle Utilities Advanced Spatial and Operational Analytics consist of several components each of which need to be installed for a successful installation. See **Installation Components** for the list of components comprising the Oracle Utilities Advanced Spatial and Operational Analytics product.

Certain prerequisite software may need to be installed for installing each of these components. See **Prerequisite Software** for the list of prerequisite software necessary for installing each component.

The following figure shows the workflow for the initial installation process:



The following figure shows the workflow for the upgrade process.



Installation Components

The Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 product installation consists of the following installable components.

Each of the components listed below has to be installed to complete the Oracle Utilities Advanced Spatial and Operational Analytics installation.

- OUASA Database component containing star schemas and product metadata
- OUASA ETL workflows based on Oracle Warehouse Builder (OWB)
  Note that the OUASA ETL component should be installed on database server.
- OUASA Dashboards components and answers based on Oracle Business Intelligence Enterprise Edition (OBIEE)
  Note that the OUASA Dashboard components should be installed where OBIEE 11.1.1.5 is installed on the server

Oracle Utilities Advanced Spatial and Operational Analytics also includes a demo database with pre-populated data that can be used for training or demonstration purposes.

Installation Types

The first step in the installation procedure is to determine the installation type based on the customer installation scenario. The following are the possible installation types:

- Initial install, an installation from scratch
- Upgrade, an upgrade from an earlier version to version 2.4.0
- Demo data install, an installation with pre-populated demo data

The following sections describe each type of installation, in detail

Initial Installation

This installation type is applicable when installing Oracle Utilities Advanced Spatial and Operational Analytics for the first time or from scratch. Each of the following components should be installed during an initial installation.

- OUASA Database component
- OUASA ETL component based on OWB
- OUASA Dashboard component based on OBIEE

See **Installing Oracle Utilities Advanced Spatial and Operational Analytics** for the steps involved in installing each of the above components.

Upgrade

This installation type is applicable when upgrading to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 from an earlier version. See **Supported Upgrade Paths** to find out whether the upgrade of your particular version is supported or not.

Each of the following components should be installed during an upgrade installation.

- OUASA Database component
- OUASA ETL component based on OWB
- OUASA Dashboard component based on OBIEE

See **Upgrading to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0** for the steps involved in upgrading each of the above components.

Demo Installation

This installation type is applicable when installing the demo database component of Oracle Utilities Advanced Spatial and Operational Analytics for demonstration or training purposes. The following components should be installed for a demo installation:

- OUASA Demo database components
- OUASA Dashboard components based on OBIEE

See **Demo Installation Procedure** for the steps involved in installing each of the above components.

Media Pack Contents

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Media Pack consists of the following documentation and installation packages.

Documentation Packages

- Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Release Notes
- Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Quick Install Guide
- Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Installation and Configuration Documentation
- Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 User Documentation
- Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Supplemental Documentation

Installation Packages

- Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Multiplatform
- Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Oracle Database

  Note: The Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Multiplatform package contains the installer for both the ETL component and Dashboard component.

Additional Software Requirements

The following additional software products are required to run Oracle Utilities Advanced Spatial and Operational Analytics, but are not included in the Media Pack:

- Oracle Business Intelligence Enterprise Edition 11.1.1.5.0
- Oracle Database Server Enterprise Edition 11.2.0.2 with Oracle Warehouse Builder
- Oracle Client 11.2.0.2 Software 32 bit Windows
- Java 1.6 or higher
- Oracle Warehouse Builder Client 32bit Windows

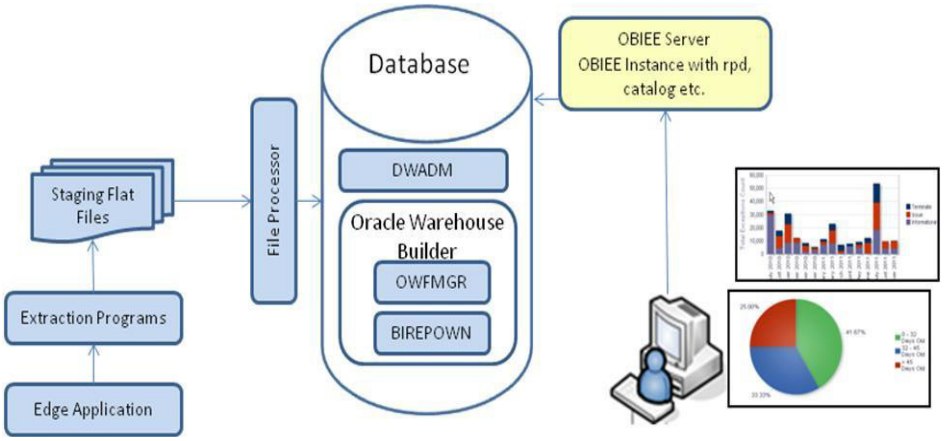
Supported Source Application Versions

The following are the supported source application versions

Source Application	Version
Oracle Utilities Customer Care & Billing	2.2.0 2.3.1
Oracle Utilities Network Management System	1.9.0.3 1.10.0.3.1 1.11.0.1
Oracle Utilities Work & Asset Management	1.8.1 1.9.0.4
Oracle Utilities Meter Data Management	2.0.1.6
Oracle Utilities Mobile Workforce Management	2.1.0

Architecture

The following figure shows the architecture of the Oracle Utilities Advanced Spatial and Operational Analytics product:



Chapter 3

System Requirements and Supported Platforms

Operating Systems and Application Servers

This installation has been certified to operate on many operating system, application server, and database server combinations. For the software requirements for each of these combinations, refer to the *Oracle Utilities Advanced Spatial and Operational Analytics Installation Guide*.

The following table details the browser, operating system, and application server combinations on which Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 has been tested and certified.

OBIEE	Browser	Operating System (Client)	Operating System (Server)	Chipset	Application Server	Database
11.1.1.5	IE 7.x IE 8.x Firefox 3.x (OBIEE only)	Windows XP SP3 Windows 7	AIX 6.1 (64-bit)	Power 64-bit	WebLogic 10.3.5	Oracle 11.2.0.2
			Oracle Linux 5.6 (64-bit) Red Hat Enterprise Linux 5.6 (64-bit)	x86_64	WebLogic 10.3.5	Oracle 11.2.0.2
			Sun Solaris 10 (64-bit)	SPARC	WebLogic 10.3.5	Oracle 11.2.0.2
			Windows 2008 Server SP2 (32-bit)	x86_64	WebLogic 10.3.5	Oracle 11.2.0.2

Additional Notes on Supported Platforms

Oracle's Unbreakable Enterprise Kernel

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 is supported on Oracle's Unbreakable Enterprise Kernel.

Oracle Database Server

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 is supported on Oracle Database Enterprise Edition Server 11.2.0.2 on any of the operating systems listed above.

Oracle VM Support

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 is supported on Oracle VM 2.2.1 for supported releases of Oracle Linux and Microsoft Windows operating systems.

Oracle Support Policy on VMWare

Refer to My Oracle Support knowledge base article 249212.1 for Oracle's support policy on VMWare.

Chapter 4

Planning the Installation

This chapter provides information for planning an Oracle Utilities Business Intelligence installation, including:

- **Before You Install**
- **Prerequisite Software**
- **Installation Checklist**

Before You Install

Refer to article 1391459.1 on My Oracle Support for up-to-date additional information on Oracle Utilities Advanced Spatial and Operational Analytics installation.

Prerequisite Software

For installing Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 there are few prerequisite software that need to be downloaded and installed. Download and install these software as per the instructions in the respective installation documents.

The following sections list the prerequisite software for each of the product components of Oracle Utilities Advanced Spatial and Operational Analytics:

- **Prerequisite Software for OUASA Database Component**
- **Prerequisite Software for OUASA ETL Component**
- **Prerequisite Software for OUASA Dashboard Component**

Prerequisite Software for OUASA Database Component

The prerequisite software for OUASA database component is as follows:

- Oracle Database Server Enterprise Edition 11.2.0.2. This is required for installing the database component of the Oracle Utilities Advanced Spatial and Operational Analytics product.

Prerequisite Software for OUASA ETL Component

The prerequisite software for OUASA ETL component is as follows:

- Oracle Database Server Enterprise Edition 11.2.0.2 with Oracle Warehouse Builder 11.2.0.2.
- Oracle Warehouse Builder 11.2.0.2 client. This is required by the installation scripts.
- Java 6. This is required for running the File Processor Daemon.

Prerequisite Software for OUASA Dashboard Component

The prerequisite software for OUASA dashboard component is as follows:

- Oracle Business Intelligence Enterprise Edition 11.1.1.5.0 with Enterprise Install Option
- Oracle 11.2.0.2 Client. This is required by the installation scripts for installing the OBIEE dashboard component.

Installation Checklist

The following checklist will guide you through the installation process of Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0.

The details for each step are presented in subsequent chapters.

1. Install prerequisite software. See **Prerequisite Software** for more details.
2. Determine the installation type. See **Initial Installation Procedure** to determine the installation type for your scenario. Perform the installation steps as applicable to your installation type.
3. Install the following Oracle Utilities Advanced Spatial and Operational Analytics components:

- OUASA Database component
- OUASA ETL component
- OUASA OBIEE dashboard component

  See **Installing Oracle Utilities Advanced Spatial and Operational Analytics** for instructions about fresh or initial installation.

  For upgrading from an earlier version to v2.4.0 see **Upgrading to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0**.

4. Perform post-installation tasks and configure the application. See **After the Installation** section under the respective chapters of your selected installation type.

Chapter 5

Installing Oracle Utilities Advanced Spatial and Operational Analytics

This chapter provides instructions for installing Oracle Utilities Advanced Spatial and Operational Analytics.

The chapter includes the following topics:

- **Before You Install**
- **Initial Installation Procedure**

Before You Install

Refer to article 1391459.1 on My Oracle Support for up-to-date additional information on Oracle Utilities Advanced Spatial and Operational Analytics installation.

Initial Installation Procedure

The following topics are discussed in this section:

- **OUASA Database Component Installation**
- **OUASA ETL Component Installation**
- **OUASA Dashboard Component Installation**
- **After the Installation**

OUASA Database Component Installation

This section describes how to install the database component of Oracle Utilities Advanced Spatial and Operational Analytics. The section includes the following:

- **Copying and Decompressing Install Media**
- **Database Creation**
- **DWADM Schema Installation**
- **Spatial Configuration**

Copying and Decompressing Install Media

To copy and decompress the install media, follow these steps:

1. Download the Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Oracle Database part from Oracle Software Delivery Cloud.
2. Create a temporary directory, such as c:\ouasa\temp or /ouasa/temp. (Referred to below as <TEMPDIR>) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA-V2.4.0-Database-Multiplatform.zip from the delivered package to the <TEMPDIR>.
4. Unzip the zip file using any zip utility.

Database Creation

Ensure that Oracle Database Server Enterprise Edition 11.2.0.2 is already installed on machine in order to create database and OWB patch 12874883 is also applied to Oracle Home.

Note that you can follow either of the two procedures mentioned below for creating a database. After creating a database, proceed to procedure mentioned in section **DWADM Schema Installation**.

You can create a database in any of the following two ways:

- Database creation using the DBCA utility
- Database creation using database creation tool (cdxdba.plx for UNIX or CDXDBA.exe for Windows) packaged with product.

  Note: After following either of the two procedures for creating a database, proceed to and follow the procedures mentioned in section **DWADM Schema Installation**.

Database Creation Using DBCA

For an initial installation database creation, it is recommended that you use the Database Configuration Assistant (DBCA) to create a data warehouse database with below-mentioned specifications:

1. Create a database with the AL32UTF8 character set. Set the open cursor limit to 3000 and processes to 1000.
2. In the database, set the query_rewrite_enabled parameter to FORCE and the query_rewrite_integrity parameter to TRUSTED.
3. Connect to sys user and execute the following commands:

   alter system set query_rewrite_enabled=force;

   alter system set query_rewrite_integrity=trusted;
4. After the database is created, create the DWADM, DWUSER, and DWREAD users in the database, along with the CISTS_01 tablespace that is assigned as the default tablespace to DWADM, DWUSER, and DWREAD users.
   The DW_USER and DW_READ roles must be created in the database and the DWUSER user should be assigned both roles. The DWREAD user should be assigned only the DW_READ role.

   Note: Refer to ../BI240/DatabaseCreation/Unix/11g/users.sql to create the users and roles mentioned above.

Database Creation Using CDXDBA

Note: The UNIX and Windows database creation utilities will create an empty database with AL32UTF8 character set and at least one tablespace for storing the application objects before running the installation. The default name of the application tablespace is CISTS_01.

UNIX Database Creation Utility

The files are located in ../BI240/DatabaseCreation/Unix.

1. FTP the contents of the Database Creation folder to a temporary directory on the UNIX server.
2. To create the database, set the ORACLE_HOME and the ORACLE_BASE variables.
3. Execute the utility cdxdba.plx by executing the following command:

   perl cdxdba.plx
4. Provide the following parameter values when the script prompts:

   Instance name (DEMO): DEMO

   ORACLE_BASE: the directory where the setup files for the database will be created (/orasw/app/oracle):

   ORACLE_HOME: the folder where the current version of Oracle software is installed (/orasw/app/oracle/product/):

   ORACLE_DATA: the directory where the data files for the database will be created (/db05/oradata):

   Character set for the database (AL32UTF8):
5. Enter the values based on the settings of your database server. You can also accept the default values displayed if they match your database server settings. You will be prompted to confirm the settings and select Y or N to create the database.

   ORACLE_SID: DEMO

   ORACLE_HOME: /orasw/app/oracle/product/

ORACLE_BASE: /orasw/app/oracle

ORACLE_DATA: /db05/oradata

Character Set: AL32UTF8

Do you want to continue (Y/N)?

6. When the database has been created, you will be prompted with the following questions:

   Do you want to import a demo database dump into this database (Y/N)?

   Select N to exit the database utility.

Set the query_rewrite_enabled parameter to FORCE and the query_rewrite_integrity parameter to TRUSTED in the database.

Connect to sys user and execute the following commands:

alter system set query_rewrite_enabled=force;

alter system set query_rewrite_integrity=trusted;

Update the oratab file for the new database and then check the connectivity to this database from another server and from your desktop after updating local tnsnames.ora file.

Windows Database Creation Utility

The files are located in ..\BI240\DatabaseCreation\Windows.

You should be logged in as a user who is a member of local ORA_DBA group on that server. The ORA_DBA group should have "administrator" privileges assigned to it.

1. To create a database, run the utility CDXDBA.exe located in the Windows folder from command prompt. The utility displays the following options:

   E - Export a schema from the database

   R - Refresh a schema with a database dump

   C - Create/Recreate a local database

   H - See help for the command line options

   Q - Quit

2. Select option C to create an empty database on your machine and provide below inputs.
3. Provide the instance name (DEMO) : <DB Name> e.g BIDEMO
4. Enter the character set of the database (AL32UTF8) : AL32UTF8
5. Enter ORACLE_BASE: the directory where the setup files for the database will be created (c:\oracle) : <Oracle_Base> e.g. c:\app\oracle
6. Enter ORACLE_HOME: the folder where the current version of Oracle software is installed (c:\oracle\product\11.1.0.6\Db_1) :<Oracle_Home> e.g c:\app\oracle\db_home
7. Enter ORACLE_DATA: the directory where the data files for the database will be created (c:\app\oracle\oradata) :<Directory where data files will be created>
8. Select option Q to exit the utility after database creation.

Set the query_rewrite_enabled parameter to FORCE and the query_rewrite_integrity parameter to TRUSTED in database.

Connect to sys user and execute the following commands:

alter system set query_rewrite_enabled=force;

alter system set query_rewrite_integrity=trusted;

Check the connectivity to this database from another server and from your desktop after updating local tnsnames.ora file.

DWADM Schema Installation

This section describes the initial installation of DWADM schema. The process prompts you for the names of three database users:

- A user that will own the application schema. For example, DWADM.
- A user that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application accesses the database as this user. For example, DWUSER.
- A user with read-only privileges to the objects in the application schema. For example, DWREAD.

The process also prompts you for the following:

- A database role that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user. For example, DW_USER.
- A database role with read-only privileges to the objects in the application schema. For example, DW_READ.
- Location for jar files. (The Jar files are bundled with the database package.)
- Java Home. For example, C:\Java\jdk1.6.0_18

Review Storage.par

The storage.par file (that comes with the product) allocates all base tables and indexes to the default tablespace CISTS_01. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the storage.par file by changing the tablespace name from the default value to a custom value, according to the format shown below:

Object Type:Object Name:Tablespace name:Parallel:Comments

Where Parallel defines the number of threads that the Oracle DB Server uses to access a table or create an index. Default value is 1.

Installing DWADM Schema

Perform the following steps to install the DWADM schema:

Note: Ensure to run CDXDBI.exe from a Window 32-bit desktop that has the Oracle 11.2.0.2 client and Java Development Kit Version 6.0 Update 20 or later.

1. Run CDXDBI.exe from ..\BI240\DWADM\Install-Upgrade. Please run the utility from command prompt. The utility prompts you to enter values for the following parameters:
   - Name of the target database:<DB NAME>
   - Password for the SYSTEM user account in the database (in silent mode)
   - Name of the owner of the Database Schema:<DWADM>
   - Location of Java Home: <..\jdk1.6.0_20>
   - Location of TUGBU Jar files: <..\BI240\DWADM\Jarfiles>
   - Password for the user (in silent mode)
   - Oracle user with read-write privileges to the Database Schema:<DWUSER>
   - Oracle user with read-only privileges to the Database Schema:<DWREAD>
   - Oracle database role with read-write privileges to the Database Schema:<DW_USER>
   - Oracle database role with read-only privileges to the Database Schema:<DW_READ>

2. If you choose to continue, CDXDBI first checks for the existence of each of the users specified and prompts for their password, default tablespace, and temporary tablespace, if they do not exist.
3. After setting up roles and users, the utility continues upgrading schema and system data definitions. If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Generating Database Statistics

During the installation process, new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

Spatial Configuration

See **Spatial Configuration** to configure spatial data.

OUASA ETL Component Installation

This section describes how to install the ETL component of Oracle Utilities Advanced Spatial and Operational Analytics. The section includes the following:

- **Copying and Decompressing Install Media**
- **Setting Permissions for cistab File in UNIX**
- **Creating and Configuring Oracle Warehouse Builder Workspace**
- **OUASA ETL Package Installation Steps**
- **Post-installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics application server installation file is delivered in jar format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Advanced Spatial and Operational Analytics environments operated by different Oracle Utilities Administrator user IDs, you must complete each of the following installation steps for each Administrator user ID.

1. Log in to the Database server host as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default cases).
2. Create a temporary directory, such as c:\OUASA\temp or /OUASA/temp. (Referred to below as <TEMPDIR>.) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA.V2.4.0-MultiPlatform.jar from the delivered package to the <TEMPDIR>. If you use FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file as follows:

   cd <TEMPDIR>

   jar -xvf OUASA.V2.4.0-MultiPlatform.jar

   Note: You should have Java JDK installed on the machine used to (un)jar the application server installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: http://java.sun.com/products/archive/index.html

A sub-directory named "OUBI.V2.4.0" is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operation Analytics application server.

Setting Permissions for cistab File in UNIX

Every Oracle Utilities Advanced Spatial and Operational Analytics environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of necessary permissions, it generates a script in the <TEMPDIR>/OUBI.V2.4.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Advanced Spatial and Operational Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are re-installing an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment, you must ensure to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Creating and Configuring Oracle Warehouse Builder Workspace

This section describes how create and configure Oracle Warehouse Builder Workspace. It also includes details about the following:

- **Pre-deployment Steps for Initial Installation**
- **Creating and Configuring Workspace for an Initial Installation**

Pre-deployment Steps for Initial Installation

Before creating/configuring workspace follow these steps:

1. Execute $ORACLE_HOME/owb/wf/install/wfinstall.csh to configure the workflow in database with OWFMGR as user and OWFMGR as password.
2. Install the OWB client 11.2.0.2 on a Windows 32-bit machine. Refer to the Oracle Warehouse Builder Installation and Configuration Guide to install and configure OWB. The configuration guide is available at: http://www.oracle.com/technology/documentation/warehouse.htm.
3. Apply 12874883 OWB patch to the database server and the OWB client if already not applied.

Creating and Configuring Workspace for an Initial Installation

To configure the OWB workspace, follow these steps:

1. Run the $ORACLE_HOME/owb/bin/unix/reposinst.sh command for UNIX from the database server.

   or

   Invoke the repository assistant from Warehouse Builder > Administrator for Windows from the database server or client.

2. Provide the following information:

   1. Database connection details and click **Next**.

2. Select **Manage Warehouse Builder Workspaces** and click **Next**.
3. Select **Create a new Warehouse Builder Workspace** and click **Next**.
4. Select **Workspace with a new user** as the workspace owner.
5. Provide the system user password.

6. Execute cat_owb.sql as sysdba from <OWBHOME>/owb/UnifiedRepos directory, when prompted.
7. Unlock the OWBSYS and OWBSYS _AUDIT accounts using the following commands, if this has not already been done.

   Connect to sys user and execute the following commands:

   ALTER USER OWBSYS IDENTIFIED BY OWBSYS ACCOUNT UNLOCK;

   ALTER USER OWBSYS _AUDIT IDENTIFIED BY OWBSYS _AUDIT ACCOUNT UNLOCK;
8. Check only **Data Integrator Enterprise Edition on Enable Optional Features**, and then specify the following details:

   Workspace Owner's user Name: BIREPOWN

   Workspace Owner's password: BIREPOWN

   Workspace Name: SPLBIREP

   Provide OWBSYS Password:
9. Execute <OWBHOME>/owb/UnifiedRepos /remote_owb_install.sql after logging in to sys user, if promoted. When prompted for Oracle Home for Remote OWB software, provide the location of OWB Oracle Home.
10. Provide the tablespace info for the OWB workspace schema.
11. Select the **Language**. (American Language)
12. Select the Target Schema (DWADM) and Workflow Schema (OWFMGR) from the available Repository Users List and move them to Selected. This will register the DWADM and OWFMGR schemas with the workspace.
13. On the same screen, click Create New User to create a new workspace user. Specify the following details:

    User Name: BIREPO

    Password: BIREPO
14. Review the information and then click Finish to complete the workspace configuration.
15. Modify the contents of <owb-home>/owb/bin/admin/Runtime.properties file from the following to the contents mentioned later.

    property.RuntimePlatform.0.NativeExecution.FTP.security_constraint = DISABLED

    property.RuntimePlatform.0.NativeExecution.Shell.security_constraint = DISABLED

    property.RuntimePlatform.0.NativeExecution.SQLPlus.security_constraint = DISABLED

    To

    property.RuntimePlatform.0.NativeExecution.FTP.security_constraint = NATIVE_JAVA

    property.RuntimePlatform.0.NativeExecution.Shell.security_constraint = NATIVE_JAVA

property.RuntimePlatform.0.NativeExecution.SQLPlus.security_constraint = NATIVE_JAVA

16. Connect to OWBSYS user and execute <owb-home>/owb/rtp/sql/stop_service.sql.
17. Connect to OWBSYS user and execute <owb-home>/owb/rtp/sql/start_service.sql.
18. Connect to database with sys user and execute the following procedures:

    Note: Before executing these procedures modify <SMTP SERVER> and <SMTP PORT> to appropriate values.

    ```
    EXECUTE DBMS_NETWORK_ACL_ADMIN.CREATE_ACL('acl_for_owb_cc.xml',
    'ACL for Control Center','OWBSYS', TRUE, 'connect');
    EXECUTE
    DBMS_NETWORK_ACL_ADMIN.ASSIGN_ACL('acl_for_owb_cc.xml',<SMPT
    SERVER>, <SMPT PORT>);
    COMMIT;
    ```
19. Execute the following:

    ```
    SELECT acl,host,
    DECODE(DBMS_NETWORK_ACL_ADMIN.check_privilege_aclid(aclid,
    'OWBSYS', 'connect'),1, 'GRANTED', 0, 'DENIED', NULL) privilege
    FROM dba_network_acls ;
    You will see the following:
    /sys/acls/acl_for_owb_cc.xml
    <SMPT SERVER>
    GRANTED
    ```
20. Connect to BIREPOWN user and run spl_exec_wf_prc.sql.

    Note: spl_exec_wf_prc.sql is located in ../BI240/Scripts.

21. Connect to DWADM schema and execute spl_oms_snapshot_pkg.sql.

    Note: spl_oms_snapshot_pkg.sql is located in ../BI240/Scripts.

22. Connect to database with sys user and execute the following SQL statements:

    ```
    DROP SYNONYM DWADM.WB_RT_AUDIT;
    CREATE SYNONYM DWADM.WB_RT_AUDIT FOR OWBSYS.WB_RT_AUDIT;
    GRANT SELECT ON OWBSYS.WB_RT_AUDIT TO DWADM;
    GRANT SELECT ON OWBSYS.ALL_RT_AUDIT_EXECUTIONS TO DWADM;
    GRANT ALL ON OWBSYS.WB_RT_AUDIT_PURGE TO DWADM;
    GRANT ALL ON OWFMGR.WF_PURGE TO DWADM;
    GRANT SELECT_CATALOG_ROLE TO BIREPOWN;
    GRANT ALL ON OWBSYS.WB_RT_AUDIT_EXECUTIONS TO DWADM;
    GRANT ALL ON OWBSYS.WB_RT_DEF_EXECUTION_OPERATORS TO DWADM;
    DROP SYNONYM DWADM.WB_RT_AUDIT_EXECUTIONS;
    DROP SYNONYM DWADM.WB_RT_DEF_EXECUTION_OPERATORS;
    CREATE SYNONYM DWADM.WB_RT_AUDIT_EXECUTIONS FOR
    OWBSYS.WB_RT_AUDIT_EXECUTIONS;
    CREATE SYNONYM DWADM.WB_RT_DEF_EXECUTION_OPERATORS FOR
    OWBSYS.WB_RT_DEF_EXECUTION_OPERATORS;
    alter system set query_rewrite_enabled=force;
    alter system set query_rewrite_integrity=trusted;
    ```

OUASA ETL Package Installation Steps

Follow these steps to install the OUASA Package applications after the above steps performed to deploy the ETL Component Objects:

1. Change to the <TEMPDIR>/OUBI.V2.4.0 directory.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.

3. Oracle Database Enterprise Edition 11.2.0.2 Installed User should be having privilege to install OUASA Package.
4. Execute the following script:

   For UNIX:

   export ORACLE_CLIENT_HOME=<oracle_client_home>

   export PERL_HOME=$ORACLE_CLIENT_HOME/perl

   export PATH=$PATH:$PERL_HOME/bin

   ksh ./install_OUBI.sh

   For Windows:

   set ORACLE_CLIENT_HOME=<oracle_client_home>

   set PERL_HOME=%ORACLE_CLIENT_HOME%\perl

   set PATH=%PERL_HOME%\bin;%PATH%

   Install_OUBI.cmd

   Note: On UNIX, ensure that you have the proper execute permission on install_OUBI.sh.
5. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
6. Under the Installation Options, enter "OWB".
7. Select each menu item to configure the values. For detailed description of the values, see **Configuration Worksheet for ETL Component Installation**.

```
**********************************************
Environment Installation Options: *
**********************************
1.
       Oracle Client Home Directory:
       Installation Options:
2.
       Environment Mount Point:
       Log Files Mount Point:
       Environment Name:
       Web Java Home Directory:
       Database Home Directory:
       Database Type:                          oracle

Each item in the above list should be configured for a successful
install.

Choose option (1,2, <P> Process, <X> Exit):



***************************
* Environment Configuration *
***************************
1. Environment Description
       Environment Description:
```

```
2. OBIEE Environment Configuration

3. Database Configuration
       OWB WorkSpace Owner:
       OWB WorkSpace Owner Password:
       Database Name:
       Database Server:
       Database Port:

4. DESIGN REPOSITORY CONFIGURATION
       OWB WorkSpace User:
       OWB Workspace user Password:
       OWB WorkSpace Name:
       DWADM SCHEMA NAME:
       DWADM SCHEMA Password:
       WORKFLOW MANAGER SCHEMA NAME:
       WORKFLOW MANAGER SCHEMA Password:

5. DATABASE CHARACTER SET CONFIGURATION
       Database Character set:                          AL32UTF8

6. EDITING PROCESS FLOW CONFIGURATION
       Repository Operating System:
       Perl Compiler location:
       Data and control files location:
       Separator to be used:
       File Manager location:

7. EMAIL CONFIGURATION
       Email ID of Sender:
       Email ID for Reply-To address:
       Email ID of Receiver:
       SMTP server:
       SMTP server port:

8. CONTROL CENTRE CONFIGURATION
       Repository Control Center Name:

9. EXTERNAL DATA SOURCE CONFIGURATION
       Path of the External Datasource:
       Path of the External Datasource LOG:
       File Processor Daemon Execution Switch:          1
       File Processor Extract Max Load:                 5
       File Processor Scheduler Poll Duration:          60

Each item in the above list should be configured for a successful
install.

Choose option (1,2,3,4,5,6,7,8,9, <P> Process, <X> Exit):
```

8. When you are done with the parameter setup, proceed with the option P. Write to the configure file.
9. Once the install has finished successfully, you execute the post-installation steps as described in **Post-installation Tasks**.

Post-installation Tasks

The following post-installation tasks are discussed in this section:

Deploying ETL Workflows on Oracle Warehouse Builder

Deploy the ETL work flows to target BI database configured in OUASA package installation.

In UNIX, you may get a Java heap space error while importing the MDL file. To resolve this error you may need to make change in OMBPlus.sh file, located at: $ORACLE_HOME/owb/bin/unix/OMBPlus.sh

In the following code, change the value -Xmx768M to -Xmx1024M, and then the -Dlimit value 768M to 1024M.

```
$JAVAPATH/bin/java $JAVA64FLAG -Xms64M -Xmx768M $OPTS -Dlimit=768M -
DORACLE_HOME=$ORACLE_HOME -DOWBCC_HOME=$ORACLE_HOME -
DTCLLIBPATH="$TCLLIBPATH" -
DMARATHON_RETRY_COUNT="$MARATHON_RETRY_COUNT" -
DMARATHON_RETRY_INTERVAL="$MARATHON_RETRY_INTERVAL"
$CLASSPATH_LAUNCHER oracle.owb.scripting.OMBShell $*
```

You may need to make this value larger than 1024MB (1GB) depending on the size of the import.

Perform the following tasks:

- Deploying OWB Workflows
- Deploying Materialized Views
- Generating Security
- Generating Database Statistics

Deploying OWB Workflows

Review the parallel-* .txt files located under the $SPLEBASE/etc folder to set the degree of parallelism. The files are in the parallel*.txt format to change the <Degree> of parallelism.

parallel-tables.txt file format: <Object_name>:<Degree>

parallel-mvs.txt file format: <MV_Name>:<Fact_Table>:<Degree>

parallel-maps.txt file format: <Object_name>:<Table_Name>:<Degree>

For UNIX:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

Run Ksh ./Owbdeploy.sh

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

Run Owbdeploy.cmd

Deploying Materialized Views

For UNIX:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

Run Ksh ./ installViews.sh

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

Run installViews.cmd

Once the deployment is completed, remove the $SPLEBASE/tmp content to ensure all the complete files are removed.

cd $SPLEBASE/tmp

Generating Security

Edit the database name with the name of your database in OraGenSec.bat after completing the OWB deployment and run it from BI240/DWADM/Security folder.

Generating Database Statistics

During the installation process, new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

OUASA Dashboard Component Installation

This section describes how to install the database component of Oracle Utilities Advanced Spatial and Operational Analytics. The section includes the following:

- **Copying and Decompressing Install Media**
- **Setting Permissions for cistab File in UNIX**
- **OUASA Dashboard Package Installation Steps**
- **Post-installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics application server installation file is delivered in jar format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Advanced Spatial and Operational Analytics environments operated by different Oracle Utilities Administrator user IDs, you must complete each of the following installation steps for each Administrator user ID.

1. Log in to the application server host (where OBIEE 11.1.1.5.0 software is installed) as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default ceases).
2. Create a temporary directory, such as c:\OUASA\temp or /OUASA/temp. (Referred to below as <TEMPDIR>.) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA.V2.4.0-MultiPlatform.jar from the delivered package to the <TEMPDIR>. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

   cd <TEMPDIR>

   jar -xvf OUASA.V2.4.0-MultiPlatform.jar

   Note: You will need to have Java JDK installed on the machine used to (un)jar the application server installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: http://java.sun.com/products/archive/index.html

A sub-directory named "OUBI.V2.4.0" is created. It contains the installation software for the Oracle Utilities Business Intelligence application server.

Setting Permissions for cistab File in UNIX

Every Oracle Utilities Advanced Spatial and Operational Analytics environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/OUBI.V2.4.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Advanced Spatial and Operational Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

OUASA Dashboard Package Installation Steps

Note: Before installing verify that the steps in **Prerequisite Software for OUASA Dashboard Component** are followed.

To install the OUASA Dashboard Package, follow these steps.

1. Change to the <TEMPDIR>/OUBI.V2.4.0 directory.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.
3. Execute the following script:

   For UNIX:

   ```
   export ORACLE_CLIENT_HOME=<oracle_client_home>
   export PERL_HOME=$ORACLE_CLIENT_HOME/perl
   export PATH=$PATH:$PERL_HOME/bin
   ksh ./install_OUBI.sh
   ```

   For Windows:

   ```
   set ORACLE_CLIENT_HOME=<oracle_client_home>
   set  PERL_HOME=%ORACLE_CLIENT_HOME%\perl
   set  PATH=%PERL_HOME%\bin;%PATH%
   Install_OUBI.cmd
   ```

   Note: On UNIX, ensure that you have the proper execute permission on install_OUBI.sh.

4. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
5. Under the Installation Options, enter "OBIEE".
6. Select each menu item to configure the values. For detailed description of the values, see **Configuration Worksheet for Dashboard Component Installation**.

```
**********************************
* Environment Installation Options *
**********************************

1.
       Oracle Client Home Directory:
       Installation Options:
2.
       Environment Mount Point:
       Log Files Mount Point:
       Environment Name:
       Web Java Home Directory:
       Database Home Directory:
       Database Type:                                    oracle

Each item in the above list should be configured for a successful
install.

Choose option (1,2, <P> Process, <X> Exit):
```

In the environment configuration describes below, only 1 and 2 menu items are required to be configured. For detailed description of the values, see **Configuration Worksheet for Dashboard Component Installation**.

```
****************************
* Environment Configuration *
****************************

1. Environment Description
       Environment Description:

2. OBIEE Environment Configuration
       Oracle BI Instance Home:
       Oracle BI Home:
       Oracle BI Domain Home:
       Weblogic Domain Console User Name:
       Weblogic Domain Console Host:
       Weblogic Domain Console Port Number:

3. Database Configuration

4. DESIGN REPOSITORY CONFIGURATION

5. DATABASE CHARACTER SET CONFIGURATION

6. EDITING PROCESS FLOW CONFIGURATION

7. EMAIL CONFIGURATION

8. CONTROL CENTRE CONFIGURATION

9. EXTERNAL DATA SOURCE CONFIGURATION
```

```
        Path of the External Datasource LOG:

Each item in the above list should be configured for a successful
install.

Choose option (1,2,3,4,5,6,7,8,9, <P> Process, <X> Exit):
```

When you are done with the parameter setup, proceed with the option P. Write the configuration file. Once the installation is completed successfully, you will need to execute post-installation steps as described in **Post-installation Tasks**.

Post-installation Tasks

The following post-installation tasks are discussed in this section:

Deploying Repository (RPD) File

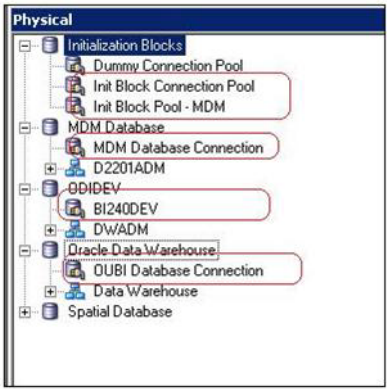
The RPD file is located at: <install_dir>/Reports/rpd/UtilitiesBusinessAnalytics240.rpd, where <install_dir> is the OUASA dashboard package installation directory.

To deploy the RPD file, follow these steps:

1. OBIEE 11.1.1.5.0 should have been installed on Windows 32-bit machine before proceeding with the steps below.
2. Launch the Administration Tool from your Start menu from the Windows machine. This is only available in Windows.

   Start > Programs > Oracle Business Intelligence > Administration.
3. Open the RPD in offline mode by selecting **File > Open > Offline...**
4. Provide the RPD password. For example, "oracle123".

5. Edit the connection pools shown below by double clicking on them.



6. In the Init Block Connection Pool group, enter the following:

   Datasource name = BI Database name

   User name = DWREAD

   Password = DWREAD User password

7. In the Init Block Pool - MDM group, provide the following, only for MDM:

   Datasource name = MDM database name

   User name = CISUSER

   Password = CISUSER User password

8. In the MDM Database Connection group, provide the following, only for MDM:

   Data source name = MDM database name

   User name = CISUSER

   Password = CISUSER User password

9. In the ODIDEV Connection Pool group, provide the following:

   Data source name = BI database name

   User name = DWUSER

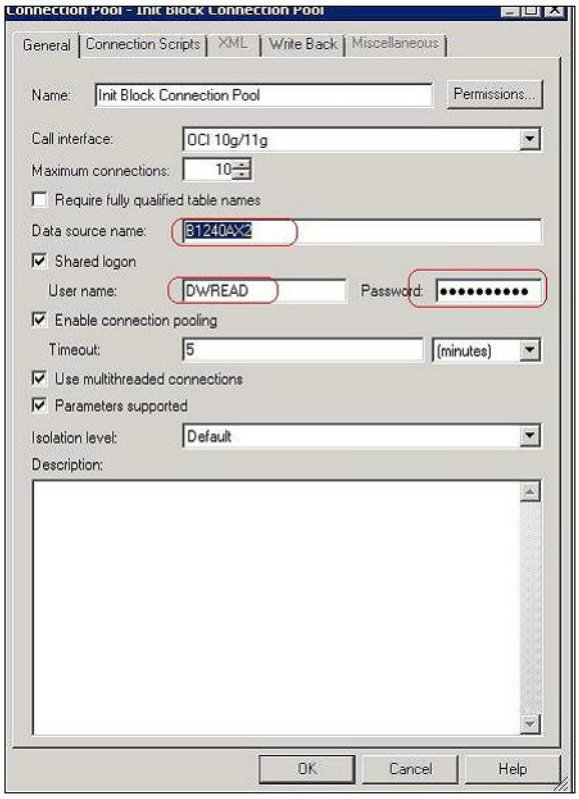
   Password = DWUSER User password

10. In the OUBI Database Connection group, provide the following:

    Data source name = BI database name

    User name = DWREAD

    Password = DWREAD User password



11. Click **Save.**
12. Login into OBIEE Enterprise Manager.
13. Navigate to **BI Instance > Coreapplication > Deployment.**
14. Lock and edit.

    The repository text box will be enabled.
15. Browse to the modified rpd file and submit. The file is in the following location, where <install_dir> is the OUASA dashboard package installation directory.

    <Install_Dir>/Reports/rpd/UtilitiesBusinessAnalytics240.rpd
16. Provide the RPD password "oracle123" click **Apply**.
17. Activate the changes and then restart the BI Services.

    Note: All the above databases set in the connection pool should be updated in tnsnames.ora file in <OBIEE_INSTALL_DIR>/Oracle_BI1/network/admin.

Deploying Web Catalog

To deploy the Web catalog, follow these steps:

For UNIX:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

ksh ./deploycatalog.sh

Enter the location of the physical catalogs configured in Enterprise Manager. For example:

<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%/bin

deploycatalog.cmd

Enter the location of the physical catalogs configured in Enterprise Manager. For example:

<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite

Configuring and Deploying MapViewer

To configure and deploy MapViewer, follow these steps:

- Configure MapViewer
- Modify instanceconfig.xml
- Deploy Custom MapViewer

Configuring MapViewer -

To configure MapViewer, follow these steps:

1. Login to WebLogic console.
2. In the WebLogic console, create the 'MAP_DS' data source.
3. Lock and edit.
4. Navigate to **Services < Data Sources**.
5. Select **New > Generic Data Source** and provide the following details:

   Name = MAP_DS

   JNDI Name = MAP_DS

   Database Type = oracle
6. Click **Next**.
7. Enter the following:

   Database Driver = XA thin database driver
8. Click **Next**.
9. Enter the following Connection properties:

   Database Name:BI Database Name

   Host Name:Database host

   Port:Database port

   Database User Name:dwadm

   Password:dwadm password
10. Click **Next** and then click **Finish**.
11. Click **Activate Changes**.
12. Update the mapViewerConfig file with below mentioned tags:

    File location : < OBIEE_INSTALL_DIR >/Oracle_BI1/bifoundation/jee/mapviewer.ear/

    web.war/WEB-INF/conf/

    File: mapViewerConfig.xml
13. If there is proxy used, insert the list of host names for all the third party service providers in the security_config node.

    <proxy_enabled_hosts>

    elocation.oracle.com,maps.weatherbug.com,direct.weatherbug.com,api.wxbug.n

    et,de.tiles.weatherbug.com

    </proxy_enabled_hosts>
14. Update the following ns_data_provider node:

    <ns_data_providerid="obieeNsdp"

    class="com.oracle.utilities.birdseye.BirdseyeNSDP" />
15. Update the current map_tile_server with the following map_tile_server node.

    <map_tile_server>

    <tile_storage default_root_path="/mytilecache/"/>

</map_tile_server>

16. Update the instance config file location, for example: FileLocation:

For UNIX:

<OBIEE_INSTALL_DIR>/instances/instance1/config/OracleBIPresentationServicesComponent/coreapplication_obips1

For Windows:

<OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips1

Modifying instanceconfig.xml

Update the security node with the following values. If the security Node is not present, add the following code before </Serverinstance>:

```
<Security>
<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>
<HttpOnlyCookies>false</HttpOnlyCookies>
<CookieDomain />
<CookiePath>/</CookiePath>
</Security>
```

Deploying Custom MapViewer

To deploy the custom MapViewer, follow these steps:

For UNIX:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

ksh ./deploymapviewer.sh

Enter the WebLogic Domain Console password. For example, weblogic123

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

deploymapviewer.cmd

Enter the WebLogic Domain Console password. For example, weblogic123

Perform the following steps after deploying the custom MapViewer:

1. Update MapViewer configuration by navigating to MapViewer > Administration > Configuration.

2. Add the below content in the mapViewerConfig.xml with appropriate parameters.

<DB_HOST>,<DBNAME>,<DB_PORT>,<USER>,<PASSWORD>

<map_data_source name="MAPCONN"

jdbc_host="<DB_HOST>"

jdbc_sid="<BI Database Name>"

jdbc_port="<DB_PORT>"

jdbc_user="<DWADM>"

jdbc_password="<DWADM PASSWORD>"

jdbc_mode="thin"

number_of_mappers="32"

allow_jdbc_theme_based_foi="true"

/>

3. Save and then restart.

   Note: The above step has to be performed each time after running the deploymapviewer command.

Deploying Write Back

The purpose of the write back templates enable the user to allow and configure Administrative dashboards. This is mandatory for the Admin dashboard functionality to work.

To deploy the write back feature, follow these steps:

1. Open the following file:

   <OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentationServicesComponent\

   coreapplication_obips\instanceconfig.xml

2. Update the following <ServerInstance> element:

   <LightWriteback>true</LightWriteback>

3. Deploy write back as follows:

   For UNIX:

   Initialize the environment with the ./splenviron.sh -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd $SPLEBASE/bin

   ksh ./deploywriteback.sh

   For Windows:

   Initialize the environment with the ./splenviron.cmd -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd %SPLEBASE%/bin

   deploywriteback.cmd

Deploying Analytics

To deploy the analytics, follow these steps:

1. Edit the Presentation Services configuration file, "instanceconfig.xml", in the following directory:

   <OBIEE_INSTALL_DIR>/instances/instance1/config/OracleBIPresentationServicesComponent/

   coreapplication_obips1

2. Add the following before the end tag </ServerInstance>:

   <UI>

   <DefaultStyle>oubi</DefaultStyle>

<DefaultSkin>oubi</DefaultSkin>

</UI>

Enabling Analytics Help

To enable the Analytics' help, follow these steps:

1. Download the Oracle Utilities Advanced Spatial and Operational Analytics User Guide from Oracle Software Delivery Cloud.
2. After downloading the OUASA User Guide, change the name of the Help file to OUASA Help.pdf.
   Now, place the Help file in <install_dir>/Skin/res, where <install_dir> is the OUASA dashboard package installation directory.
3. Run the following commands:

   For UNIX:

   Initialize the environment with the ./splenviron.sh -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd $SPLEBASE/bin

   ksh ./deployanalyticsear.sh

   Enter the WebLogic Domain Console Password. For example, weblogic123

   For Windows:

   Initialize the environment with the ./splenviron.cmd -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd %SPLEBASE%/bin

   deployanalyticsear.cmd

   Enter the WebLogic Domain Console Password. For example, weblogic123
4. Restart the BI Core services.
5. Restart WebLogic and all BI services after the OBIEE deployment is completed.
6. Log in to Analytics and navigate to **Administration > Manage Privileges > Write Back > Write Back to Database**.
7. Click **Denied:Authenticated User** and select **Granted**.

After the Installation

Ensure that the following tasks are performed after installing Oracle Utilities Advanced Spatial and Operational Analytics:

1. For OUASA ETL related post-installation tasks, see **OUASA ETL Component Installation**.
2. For OUASA dashboard related post-installation tasks, see **OUASA Dashboard Component Installation**.
3. For configuring the mapping and other parameters, refer to the *Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide*.
4. Start File Processor Daemon.
5. Verify install and deploy logs:

   <INSTALL_DIR>/OWB/MetadataFiles/SPL-BI-Project_imp.log

<INSTALL_DIR>/OWB/MetadataFiles/SPL-BI-Location_imp.log

OWB deploy logs:

<INSTALL_DIR>/logs/system/log_OWBDeployment_YYYYMMDD_####.txt

Custom Mapviewer deploy logs:

<INSTALL_DIR>/logs/system/mapviewerdeploy.sh.log

WriteBack logs:

<INSTALL_DIR>/logs/system/Writeback.log

FileProcessorDaemon logs:

<INSTALL_DIR>/bin/FileProcessorDaemon.log

6. Log into the OBIEE analytics link pointing to the demo database. The dashboard should display data with no errors.

Chapter 6

Upgrading to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0

This chapter provides instructions for upgrading to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0.

The chapter includes the following topics:

- **Before You Install**
- **Supported Upgrade Paths**
- **Upgrade**

Before You Install

Refer to article 1391459.1 on My Oracle Support for up-to-date additional information on Oracle Utilities Advanced Spatial and Operational Analytics installation.

Supported Upgrade Paths

Direct upgrade to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 is supported from the following versions:

- Oracle Utilities Advanced Spatial and Operational Analytics v2.3.2.1

For upgrading from a version not supported by direct upgrade path, the product should first be upgraded to v2.3.2.1 and then upgraded to v2.4.0.

Upgrade

This section describes the procedure to upgrade Oracle Utilities Advanced Spatial and Operational Analytics v2.3.2.1 to v2.4.0.

OUASA Database Component Upgrade

This section describes the upgrade installation of the database. Upgrade the database to AL32UTF8 character set.

- **Copying and Decompressing Install Media**
- **DWADM Schema Upgrade**
- **Security Configuration**
- **Spatial Configuration**
- **Generating Database Statistics**

Copying and Decompressing Install Media

To copy and then decompress the install media, follow these steps:

1. Download the Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Oracle Database part from Oracle Software Delivery Cloud.
2. Create a temporary directory, such as c:\OUASA\temp or /OUASA/temp. (Referred to below as <TEMPDIR>.) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA-V2.4.0-Database-Multiplatform.zip from the delivered package to the <TEMPDIR>.
4. Unzip the zip file using any zip utility.

DWADM Schema Upgrade

This section describes how to upgrade an existing v2.3.2.1 target schema to v2.4.0. The upgrade process prompts you for the names of three database users:

- A user that will own the application schema. For example, DWADM
- A user that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user. For example, DWUSER

- A user with read-only privileges to the objects in the application schema. For example, DWREAD

The upgrade process also prompts you for the following:

- A database role that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user. For example, DW_USER
- A database role with read-only privileges to the objects in the application schema. For example, DW_READ
- Location for jar files. (The Jar files are bundled with the database package.)
- Java Home. For example, C:\Java\jdk1.6.0_18

To upgrade the Oracle database, perform the following steps:

Note: Ensure to run CDXDBI.exe from a Window 32-bit desktop that has the Oracle 11.2.0.2 client and Java Development Kit Version 6.0 Update 20 or later.

Upgrade your database to AL32UTF8 character set.

1. Run CDXDBI.exe from ..\BI240\DWADM\Install-Upgrade. Please run this utility from command prompt. The utility prompts you to enter values for the following parameters:

   Name of the target database.:<DB NAME>

   Password for the SYSTEM user account in the database (in silent mode)

   Name of the owner of the Database Schema:<DWADM>

   Location of Java Home: <..\jdk1.6.0_20>

   Location of TUGBU Jar files: <..\BI240\DWADM\Jarfiles>

   Password for the user (in silent mode)

   Oracle user with read-write privileges to the Database Schema:<DWUSER>

   Oracle user with read-only privileges to the Database Schema:<DWREAD>

   Oracle database role with read-write privileges to the Database Schema:<DW_USER>

   Oracle database role with read-only privileges to the Database Schema:<DW_READ>

2. If you chose to continue, CDXDBI first checks for the existence of each of the users specified and prompts for their password, default tablespace, and temporary tablespace, if they do not exist.
3. After setting up roles and users, the utility continues upgrading schema and system data definitions. If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.
4. Navigate to BI240/DWADM/Post-Upgrade folder and execute FieldMetadata_FeatureConfigMigrationScript.sql:

   ```
   - sqlplus dwadm/dwadm@database-name
   @FieldMetadata_FeatureConfigMigrationScript.sql
   ```

5. Enter SPLADM at the following prompt:

   Enter Application Schema Owner Name:(e.g SPLADM)

6. Connect to DWADM schema and execute the following sql:

   ```
   update b1_configuration set override_value = ''
   where feature_name = 'B1_MAPATTPRO' and option_code = 'B1DD';
   Commit;
   ```

Security Configuration

The configuration utility and scripts are located in the Security folder.

To request grants for the DWADM schema, follow these steps:

1. Navigate to the ..\BI240\/DWADM\/Security folder.
2. Edit the file DWADM-OraGenSec.bat, which is in the same location, and replace the parameter database-name with the name of your database. This file is provided for your convenience and executes the Oragensec.exe utility based on the parameters passed into it.

   Note: Ensure to run DWADM-OraGenSec.bat from a Window 32-bit desktop that has the Oracle 11.2.0.2 client installed. Your database should already be listed in the local file tnsnames.ora. The script executes as follows:

   ```
   oragensec -d DWADM,DWADM,database_name -r DW_READ,DW_USER -a A -u
       SPLUSER,SPLREAD
   ```

3. Execute the edited DWADM-OraGenSec.bat file from command prompt. This utility configures the security for DWADM schema objects.

Spatial Configuration

Note: See **Spatial Configuration** to configure spatial data if application has not been yet configured.

If spatial data is already configured in application please follow the steps below: This section describes how to load spatial metadata in USER_SDO* tables for Oracle Utilities Advanced Spatial and Operational Analytics.

Use the following procedure to load spatial metadata in the target database:

1. Create the dump_dir directory in database and copy user_sdo.dmp file from ../B1240/Spatial-Metadata folder to that location.
2. Import released spatial tables to the target database using following command:

   impdp directory=dump_dir dumpfile=user_sdo.dmp logfile=

   imp_user_sdo.log schemas=DWADM

   Note: Run this command from database server.
3. Review the imp_user_sdo.log file to ensure the tables were imported successfully.
4. After importing the tables, run following SQL scripts from the ../B1240/Spatial-Metadata folder:

   - sqlplus dwadm/dwadm@database-name @copy_spatial_metadata.sql

   - sqlplus dwadm/dwadm@database-name @clean_sdo_release_tbls.sql
5. Review the log files.

Generating Database Statistics

During an install process, new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

OUASA ETL Component Upgrade

This section describes the ETL component installation.

- **Copying and Decompressing Install Media**
- **Setting Permissions for cistab File in UNIX**
- **Configuring Oracle Warehouse Builder Workspace**
- **OUASA ETL Package Upgrade Steps**
- **Post-upgrade Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics application server installation file is delivered in jar format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Advanced Spatial and Operational Analytics environments operated by different Oracle Utilities Administrator user IDs, you must complete each of the following installation steps for each Administrator user ID.

1. Log in to the database server host as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default cases).
2. Create a temporary directory such as c:\OUASA\temp or /OUASA/temp. (Referred to below as <TEMPDIR>.) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA.V2.4.0-MultiPlatform.jar from the delivered package to the <TEMPDIR>. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

   cd <TEMPDIR>

   jar -xvf OUASA.V2.4.0-MultiPlatform.jar

   Note: You will need to have Java JDK installed on the machine used to (un)jar the application server installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: http://java.sun.com/products/archive/index.html.

A sub-directory named "OUBI.V2.4.0" is created. It contains the installation software for the Oracle Utilities Business Intelligence application server.

Setting Permissions for cistab File in UNIX

Every Oracle Utilities Advanced Spatial and Operational Analytics environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/OUBI.V2.4.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Advanced Spatial and Operational Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, you do not need to run the generated script with the root user ID. Instead the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you are planning to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Configuring Oracle Warehouse Builder Workspace

This section describes the procedure to configure Oracle Warehouse Builder workspace.

To upgrade Oracle Utilities Advanced Spatial and Operational Analytics v2.3.2.1 to v2.4.0, follow these steps:

1. Back up the database using the backup strategy employed at your site.
2. Apply 12874883 OWB patch to database server and OWB client if already not applied.
3. Connect to BIREPOWN user and run spl_exec_wf_prc.sql.

   spl_exec_wf_prc.sql is located at ../BI240/Scripts.
4. Connect to the DWADM schema and execute spl_oms_snapshot_pkg.sql.

   spl_oms_snapshot_pkg.sql is located at ../BI240/Scripts.
5. Connect to the database with sys user and execute the following SQL statements:

   ```
   DROP SYNONYM DWADM.WB_RT_AUDIT;

   CREATE SYNONYM DWADM.WB_RT_AUDIT FOR OWBSYS.WB_RT_AUDIT;

   GRANT SELECT ON OWBSYS.WB_RT_AUDIT TO DWADM;

   GRANT SELECT ON OWBSYS.ALL_RT_AUDIT_EXECUTIONS TO DWADM;

   GRANT ALL ON OWBSYS.WB_RT_AUDIT_PURGE TO DWADM;

   GRANT ALL ON OWFMGR.WF_PURGE TO DWADM;

   GRANT SELECT_CATALOG_ROLE TO BIREPOWN;

   GRANT ALL ON OWBSYS.WB_RT_AUDIT_EXECUTIONS TO DWADM;

   GRANT ALL ON OWBSYS.WB_RT_DEF_EXECUTION_OPERATORS TO
   DWADM;

   DROP SYNONYM DWADM.WB_RT_AUDIT_EXECUTIONS;

   DROP SYNONYM DWADM.WB_RT_DEF_EXECUTION_OPERATORS;

   CREATE SYNONYM DWADM.WB_RT_AUDIT_EXECUTIONS FOR

   OWBSYS.WB_RT_AUDIT_EXECUTIONS;

   CREATE SYNONYM DWADM.WB_RT_DEF_EXECUTION_OPERATORS FOR

   OWBSYS.WB_RT_DEF_EXECUTION_OPERATORS;

   alter system set query_rewrite_enabled=force;

   alter system set query_rewrite_integrity=trusted;
   ```

OUASA ETL Package Upgrade Steps

Follow these steps to upgrade the OUASA package applications after the above steps are performed to deploy the ETL component objects:

1. Change to the <TEMPDIR>/OUBI.V2.4.0 directory.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.
3. Oracle Database Enterprise Edition 11.2.0.2 Installed User should be having privilege to install OUASA Package.
4. Execute the following script:

   For UNIX:

   export ORACLE_CLIENT_HOME=<oracle_client_home>

   export PERL_HOME=$ORACLE_CLIENT_HOME/perl

   export PATH=$PATH:$PERL_HOME/bin

   ksh ./install_OUBI.sh

   For Windows:

   set ORACLE_CLIENT_HOME=<oracle_client_home>

   set PERL_HOME=%ORACLE_CLIENT_HOME%\perl

   set PATH=%PERL_HOME%\bin;%PATH%

   Install_OUBI.cmd

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.
5. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu will appear.
6. Under the Installation Options, enter "OWB".
7. Select the **Each Menu Item** to configure the values. For detailed description of the values see **Configuration Worksheet for ETL Component Installation**.

****

* Environment Installation Options *

****

1.

   Oracle Client Home Directory:

   Installation Options:

2.

   Environment Mount Point:

   Log Files Mount Point:

   Environment Name:

   Web Java Home Directory:

   Database Home Directory:

   Database Type: oracle

Each item in the above list should be configured for a successful install.

Choose option (1,2, <P> Process, <X> Exit):

****

* Environment Configuration *

****

1. Environment Description

Environment Description:

2. OBIEE Environment Configuration

3. Database Configuration

OWB WorkSpace Owner:

OWB WorkSpace Owner Password:

Database Name:

Database Server:

Database Port:

4. DESIGN REPOSITORY CONFIGURATION

OWB WorkSpace User:

OWB Workspace user Password:

OWB WorkSpace Name:

DWADM SCHEMA NAME:

DWADM SCHEMA Password:

WORKFLOW MANAGER SCHEMA NAME:

WORKFLOW MANAGER SCHEMA Password:

5. DATABASE CHARACTER SET CONFIGURATION

Database Character set: AL32UTF8

6. EDITING PROCESS FLOW CONFIGURATION

Repository Operating System:

Perl Compiler location:

Data and control files location:

Separator to be used:

File Manager location:

7. EMAIL CONFIGURATION

Email ID of Sender:

Email ID for Reply-To address:

Email ID of Receiver:

SMTP server:

SMTP server port:

8. CONTROL CENTRE CONFIGURATION

Repository Control Center Name:

9. EXTERNAL DATA SOURCE CONFIGURATION

Path of the External Datasource:

Path of the External Datasource LOG:

File Processor Daemon Execution Switch: 1

File Processor Extract Max Load: 5

File Processor Scheduler Poll Duration: 60

Each item in the above list should be configured for a successful install.

Choose option (1,2,3,4,5,6,7,8,9, <P> Process, <X> Exit):

8. When you are done with the parameter setup, proceed with the option P. Write Configure file.
9. Once the install has finished successfully, you will need to execute post-upgrade steps as described in **Post-upgrade Tasks**.

Post-upgrade Tasks

Deploying ETL Workflows on Oracle Warehouse Builder

In UNIX, you may get a Java heap space error while importing the MDL file. To resolve this error you may need to make change in OMBPlus.sh file, located at: $ORACLE_HOME/owb/bin/unix/OMBPlus.sh.

In the following code, change the value -Xmx768M to -Xmx1024M, and then the -Dlimit value 768M to 1024M.

```
$JAVAPATH/bin/java $JAVA64FLAG -Xms64M -Xmx768M $OPTS -Dlimit=768M -
DORACLE_HOME=$ORACLE_HOME -DOWBCC_HOME=$ORACLE_HOME -
DTCLLIBPATH="$TCLLIBPATH" -
DMARATHON_RETRY_COUNT="$MARATHON_RETRY_COUNT" -
DMARATHON_RETRY_INTERVAL="$MARATHON_RETRY_INTERVAL"
$CLASSPATH_LAUNCHER oracle.owb.scripting.OMBShell $*
```

You may need to make this value larger than 1024MB (1GB) depending on the size of the import.

Perform the following tasks:

- **Deploying OWB Workflows**
- **Deploying Materialized Views**
- **Generating Security**
- **Generating Database Statistics**

Deploying OWB Workflows

This step needs to be performed if changes have been made to the parallel settings on external tables, materialized views or mappings on an existing installation and needs to be retained during the upgrade process.

Run the following command to generate a report on the parallel settings that is currently set in the customer repository on external tables, materialized views and mappings.

For UNIX:

Initialize the environment by executing the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

ksh ./parallelSetup.sh analyze

For Windows:

Initialize the environment by executing the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

parallelSetup.cmd analyze

This will generate the following files under <SPLEBASE>/etc folder:

cm-parallel-tables.txt

cm-parallel-mvs.txt

cm-parallel-maps.txt

Review the above files for existing settings and make modifications if necessary. Once the files are reviewed perform the following step to merge the existing settings with the default settings.

For UNIX:

Initialize the environment by executing the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

ksh ./parallelSetup.sh merge

For Windows:

Initialize the environment by executing the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

parallelSetup.cmd merge

Review the following files under <SPLEBASE>/etc and verify that the existing values have been merged correctly before proceeding:

parallel-tables.txt

parallel-mvs.txt

parallel-maps.txt

Below is the format of parallel*.txt to change the <Degree> of parallelism in above listed files.

parallel-tables.txt file format: <Object_name>:<Degree>

parallel-mvs.txt file format: <MV_Name>:<Fact_Table>:<Degree>

parallel-maps.txt file format: <Object_name>:<Table_Name>:<Degree>

For UNIX:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

Run Ksh ./Owbdeploy.sh

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

Run Owbdeploy.cmd

Deploying Materialized Views

Run the following commands for deploying Materialized Views.

For UNIX:

Initialize the environment by executing the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

Run ksh ./upgradeViews.sh

For Windows:

Initialize the environment by executing the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

Run upgradeViews.cmd

Once the deployment is completed, remove the $SPLEBASE/tmp content to ensure all the complete files are removed.

cd $SPLEBASE/tmp

Generating Security

Edit database-name with the name of your database in OraGenSec.bat after completing the OWB deployment and run it from BI240/DWADM/Security folder.

Generating Database Statistics

During the installation process, new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

OUASA Dashboard Component Upgrade

This section describes the dashboard component installation.

- **Copying and Decompressing Install Media**
- **Setting Permissions for cistab File in UNIX**

- **OUASA Dashboard Package Upgrade Steps**
- **Upgrading RPD and Catalog Files**
- **Post-upgrade Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics application server installation file is delivered in jar format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Advanced Spatial and Operational Analytics environments operated by different Oracle Utilities Administrator user IDs, you must complete each of the following installation steps for each Administrator user ID.

1. Log in to the application server host (where OBIEE 11.1.1.5.0 software is installed) as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default ceases).
2. Create a temporary directory, such as c:\OUASA\temp or /OUASA/temp. (Referred to below as <TEMPDIR>.) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA.V2.4.0-MultiPlatform.jar from the delivered package to the <TEMPDIR>. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

   cd <TEMPDIR>

   jar -xvf OUASA.V2.4.0-MultiPlatform.jar

   Note: You will need to have Java JDK installed on the machine used to (un)jar the application server installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: http://java.sun.com/products/archive/index.html.

A sub-directory named "OUBI.V2.4.0" is created. It contains the installation software for the Oracle Utilities Business Intelligence application server.

Setting Permissions for cistab File in UNIX

Every Oracle Utilities Advanced Spatial and Operational Analytics environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/OUBI.V2.4.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Advanced Spatial and Operational Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

OUASA Dashboard Package Upgrade Steps

Before upgrading verify that the steps in **Prerequisite Software for OUASA Dashboard Component** are followed.

To upgrade the OUASA dashboard package, follow these steps.

1. Change to the <TEMPDIR>/OUBI.V2.4.0 directory.
2. Execute the following script:

   For UNIX:

   export ORACLE_CLIENT_HOME=<oracle_client_home>

   export PERL_HOME=$ORACLE_CLIENT_HOME/perl

   export PATH=$PATH:$PERL_HOME/bin

   ksh ./install_OUBI.sh

   For Windows:

   set ORACLE_CLIENT_HOME=<oracle_client_home>

   set PERL_HOME=%ORACLE_CLIENT_HOME%\perl

   set PATH=%PERL_HOME%\bin;%PATH%Install_OUBI.cmd

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.
3. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
4. Under the Installation Options, enter "OBIEE".
5. Select the **Each Menu Item** to configure the values. For detailed description of the values see **Configuration Worksheet for Dashboard Component Installation**.

****

* Environment Installation Options *

****

1.

   Oracle Client Home Directory:

   Installation Options:

2.

   Environment Mount Point:

   Log Files Mount Point:

   Environment Name:

   Web Java Home Directory:

   Database Home Directory:

   Database Type: oracle

Each item in the above list should be configured for a successful install.

Choose option (1,2, <P> Process, <X> Exit):

6. In the Environment Configuration worksheet mentioned below, only menu items 1 and 2 are required to be configured. For detailed description of the values see **Configuration Worksheet for Dashboard Component Installation**.

****

* Environment Configuration *

****

1. Environment Description

   Environment Description:

2. OBIEE Environment Configuration

   Oracle BI Instance Home:

   Oracle BI Home:

   Oracle BI Domain Home:

   Weblogic Domain Console User Name:

   Weblogic Domain Console Host:

   Weblogic Domain Console Port Number:

3. Database Configuration

4. DESIGN REPOSITORY CONFIGURATION

5. DATABASE CHARACTER SET CONFIGURATION

6. EDITING PROCESS FLOW CONFIGURATION

7. EMAIL CONFIGURATION

8. CONTROL CENTRE CONFIGURATION

9. EXTERNAL DATA SOURCE CONFIGURATION

   Path of the External Datasource LOG:

Each item in the above list should be configured for a successful install.

Choose option (1,2,3,4,5,6,7,8,9, <P> Process, <X> Exit):

7. When you are done with the parameter setup, proceed with the option P. Write the Configure file.
8. Once the install has finished successfully, you will need to execute post-installation steps as described in **Upgrading RPD and Catalog Files**.

Upgrading RPD and Catalog Files

If you have made custom changes to OBIEE 10g RPD and catalog files, follow the procedures in this section to make those files compatible with 11g. This section includes the following topics:

- Converting RPD Files
- Converting Catalogs
- Merging the RPD Files

Converting RPD Files

Follow these steps to convert 10g RPD files to 11g:

1. Create a folder on the server where 11g OBIEE is installed. Copy the 10g RPD file that is deployed in your environment to this folder.
2. Go to $ORACLE_BI_HOME/bin and run ua.bat or ua.
3. Click **Next** to continue.
4. Select **Upgrade Oracle BI RPD** and **Presentation Catalog**.
5. Click **Next** to continue.
6. Select **Upgrade repository**.
7. Select the 10g RPD file contained in the folder that you created in step 1.
8. Enter the administrator User ID and password for the 10g RPD file.
9. Enter the new administrator password for 11g RPD, for example, oracle123.
10. Specify the WebLogic port and login details.

    An 11g compatible rpd file will be created in the following location:

    $ORACLE_INSTANCE /bifoundation/OracleBIServerComponent/coreapplication_obis1/repository location.
11. Back up the converted rpd file from the deployed location. This is your changed rpd file.

Converting Catalogs

Follow these steps to convert 10g catalog files to 11g:

1. Create a folder on the server where 11g OBIEE is installed. For example, obiee/SampleAppLite.
2. Copy the contents of 10g ../../web/catalog/samplesales folder to the obiee/SampleAppLitefolder. The samplesales folder is included in the 10g application.
3. Create a folder named "deliveries" inside the OBIEE folder.
4. Navigate to $ORACLE_BI_HOME/bin and run ua.bat or ua.
5. Select **Upgrade Oracle BI RPD** and **Web Catalog**.
6. Click **Next** to continue.
7. Select **Upgrade** catalog.
8. Select the obiee/SampleAppLite folder as the catalog directory.
9. Select obiee/deliveries as the catalog deliveries directory.
10. Click **Next**.
11. Specify the WebLogic port and login details.
12. Click **Next**.
13. Click **Upgrade**.

The 10g catalogs will be deployed at the following location:

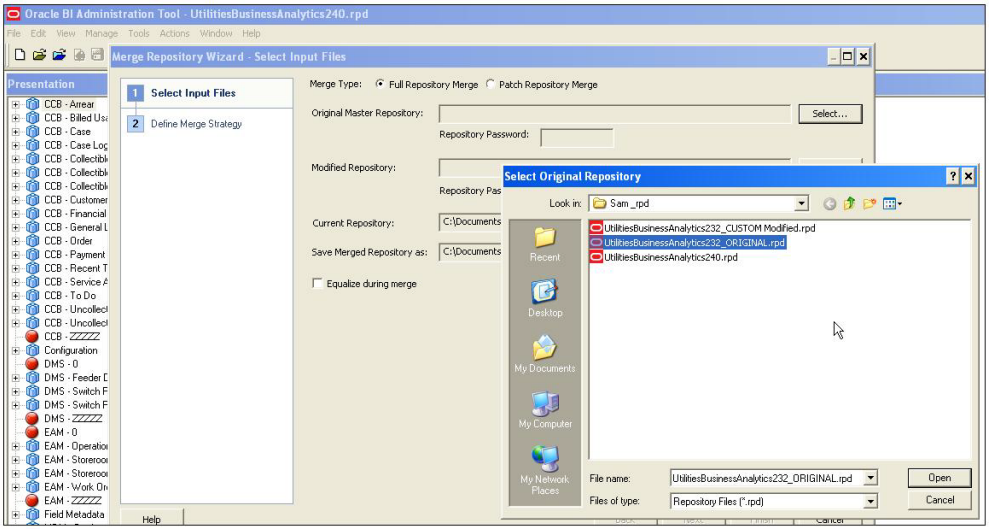
$ORACLE_INSTANCE/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite/root/shared location

Merging the RPD Files

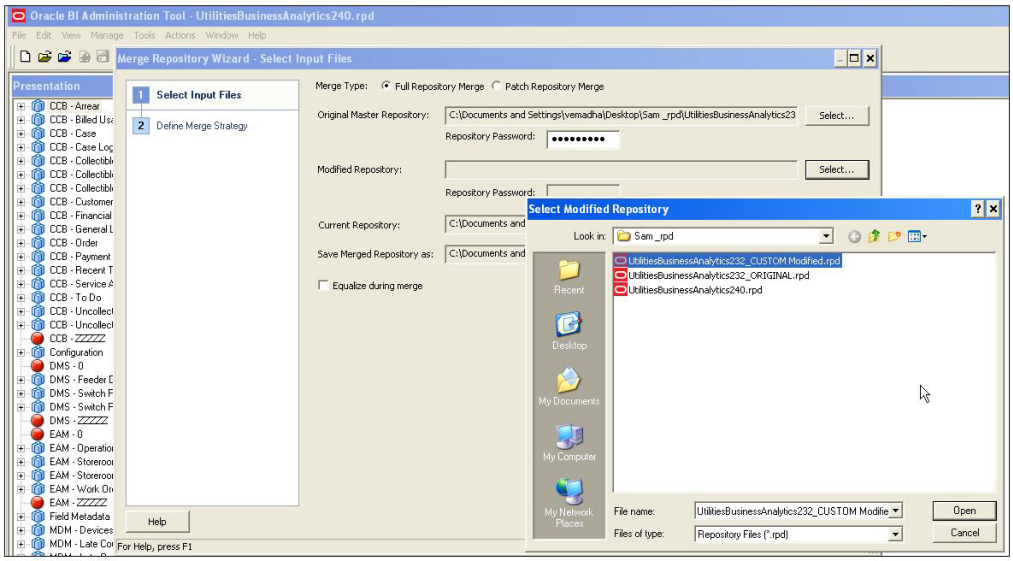
Convert your 10g 2.3.2.1 original RPD file to 11g as described in **Converting RPD Files** on page 4-15. The backup of the converted RPD should be considered the original RPD.

After you have converted the RPD file, follow these steps to merge the BI 2.4 RPD file, the original BI 2.3.2.1 RPD file, and the changed BI 2.3.2.1 RPD file. You will use the resulting merged RPD file for deployment in the OBIEE 11g instance.

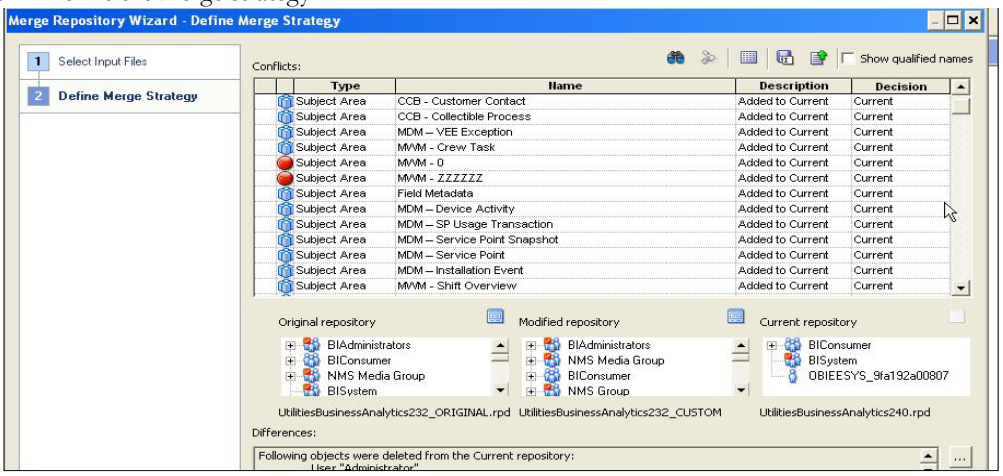
1. In the OBIEE Administration Tool, open the Current Repository (2.4 Release RPD).
2. From the File menu, select **Merge**.
3. Select Original repository (2.3.2 Release RPD).



4. Select Modified Repository as 2.3.2 (Customer Modified) RPD.



5. Define the merge strategy.

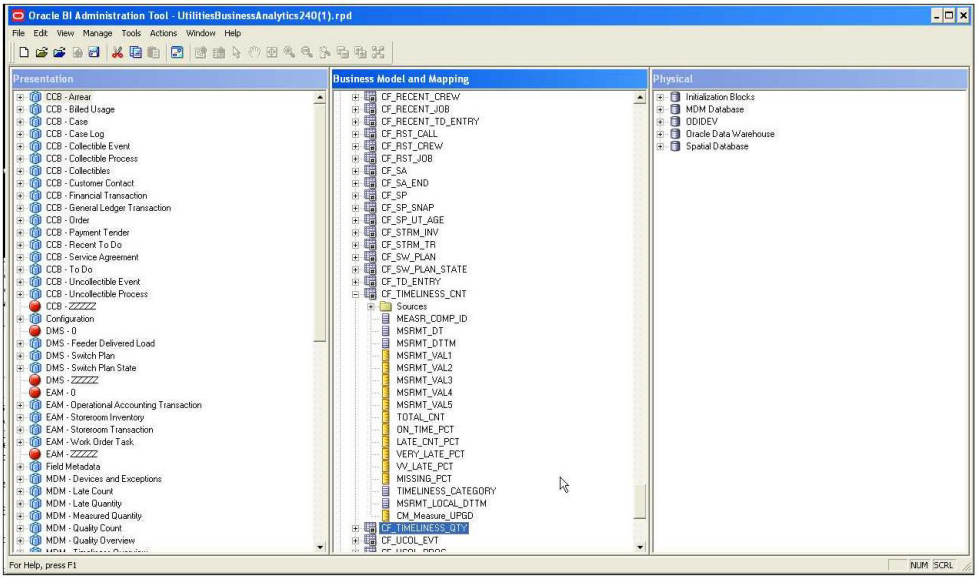


Defining Merge Strategy

The following examples show the results of some decision choices when the current and modified repositories are different:

- If the Description column for an object contains Added to Current, the following are choices in the Decision column and their results:
  - Selecting Current keeps the addition in the current repository.
  - Selecting Modified (D) deletes the added object from the current repository.
- If the Description column for an object contains Deleted from Modified, the following are choices in the Decision column and their results:
  - Selecting Current keeps the repository as is without deleting the object.
  - Selecting Modified (D) deletes the object from the current repository.
- If the Description column for an object contains Deleted from Current, the following are choices in the Decision column and their results:
  - Selecting Current keeps the repository as is without adding the object back into the current repository.
  - Selecting Modified (A) adds the object back into the current repository.
- If the Description column for an object contains Added to Modified, the following are choices in the Decision column and their results:
  - Selecting Current keeps the repository as is without adding the object back into the current repository.
  - Modified (A). Selecting Modified (A) adds the object back into the current repository.

After the Merge, newly added functionality and old CM computed columns are intact.



After upgrading the RPD and catalog files, you will need to execute the post-upgrade steps as described in **Post-upgrade Tasks**.

Post-upgrade Tasks

Deploying the Repository (RPD) File

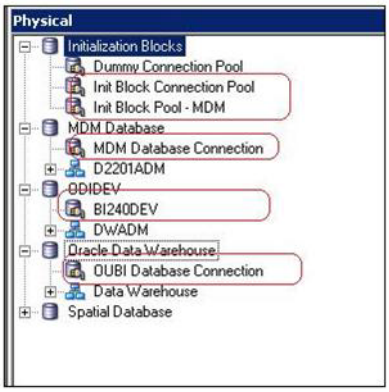
The RPD file is in the following location: <install_dir>/Reports/rpd/ UtilitiesBusinessAnalytics240.rpd, where <install_dir> is the OUASA dashboard package installation directory.

Follow these steps to deploy the RPD file:

1. OBIEE 11.1.1.5.0 should be installed on Windows 32-bit machine before proceeding with the below steps.
2. Launch the Administration Tool from your Start menu.

   Start > Programs > Oracle Business Intelligence > Administration
3. Open the RPD in offline mode by selecting **File > Open > Offline...**
4. Provide the RPD password. For example, “oracle123”.

5. Edit the connection pools shown below by double clicking on them.



6. In the Init Block Connection Pool group, enter the following:

   Datasource name = BI Database name

   User name = DWREAD

   Password = DWREAD User password

7. In the Init Block Pool - MDM group, provide the following, only for MDM:

   Datasource name = MDM database name

   User name = CISUSER

   Password = CISUSER User password

8. In the MDM Database Connection group, provide the following, only for MDM:

   Data source name = MDM database name

   User name = CISUSER

   Password = CISUSER User password

9. In the ODIDEV Connection Pool group, provide the following:

   Data source name = BI database name

   User name = DWUSER

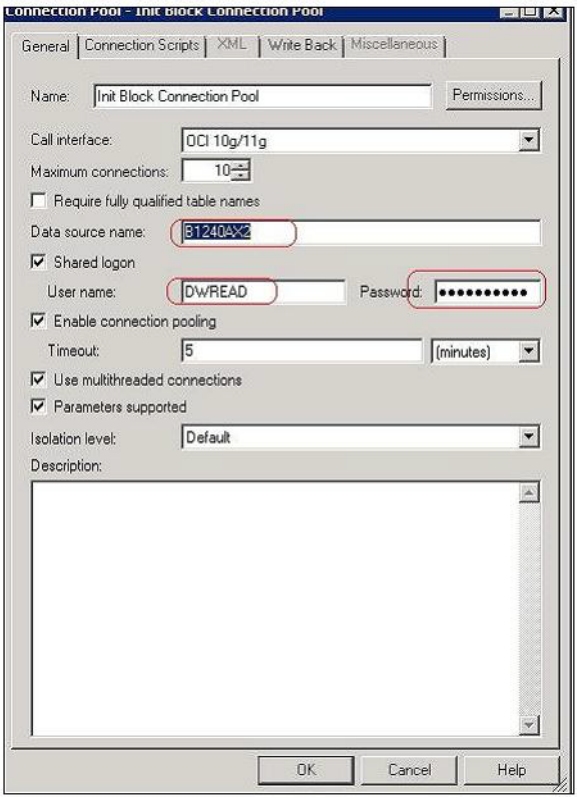
   Password = DWUSER User password

10. In the OUBI Database Connection group, provide the following:

    Data source name = BI database name

    User name = DWREAD

    Password = DWREAD User password



11. Click **Save.**
12. Login into OBIEE Enterprise Manager.
13. Navigate to **BI Instance > Coreapplication > Deployment.**
14. Lock and edit.

    The repository text box will be enabled.
15. Browse to the modified rpd file and submit. The file is in the following location, where <install_dir> is the OUASA dashboard package installation directory.

    <Install_Dir>/Reports/rpd/UtilitiesBusinessAnalytics240.rpd
16. Provide the RPD password "oracle123", and then click **Apply**.
17. Activate the changes and then restart the BI Services.

Note: All the above databases set in the connection pool should be updated in tnsnames.ora file in <OBIEE_INSTALL_DIR>/Oracle_BI1/network/admin.

Deploying Web Catalog

Note: You must delete the old BI v2.3.2.1 catalogs (if present in 11g OBIEE instance) before deploying the catalogs.

The deployment procedure should be run on your Windows client/server machine that has the OBIEE 11.1.1.5 client installed.

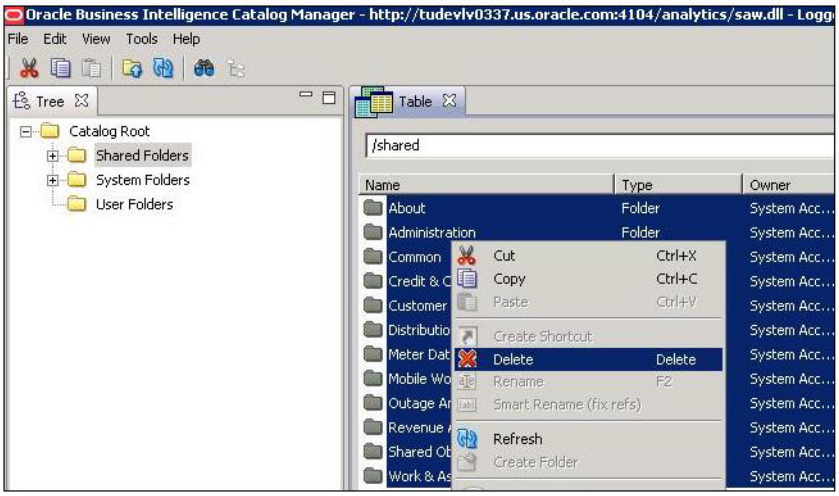
To delete the old catalogs, follow these steps:

1. Launch the Catalog Manager from your Start menu.

   Start > Programs > Oracle Business Intelligence > Catalog Manager
2. From the **File** menu, select **Open Catalog**. The **Open Catalog** window is displayed.

3. Specify the following values:
    1. From the **Type** drop-down, select **Online**.
    2. Enter the URL to the analytics Web application in the following form:

       http://<OBIEE Host>: <OBIEE Port>/analytics/saw.dll
    3. Enter **Administrator** as the User and **ASAadm** as the Password.
4. Click **OK** to close the window.
5. In the tree panel, expand the root folder /.
6. Select the **Shared** folder.
7. Select the catalogs in the shared folder, right click, and then select **Delete.**



It will prompt for Physical Catalog location configured in Enterprise Manager. This is the server path where OBIEE is installed.

To deploy the catalogs, follow these steps:

For UNIX:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

ksh ./deploycatalog.sh

Enter the physical catalogs location configured in Enterprise Manager. For example:

<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

deploycatalog.cmd

Enter the Physical Catalogs location configured in EM For example:

<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite

Configuring and Deploying MapViewer

Configuring and deploying the MapViewer involves the following:

Configuring MapViewer - To configure MapViewer, follow these steps:

1. Login to WebLogic console.
2. In the WebLogic console, create the 'MAP_DS' data source.
3. Lock and edit.
4. Navigate to S**ervices < Data Sources**.
5. Select **New > Generic Data Source** and provide the following:

   Name = MAP_DS

   JNDI Name = MAP_DS

   Database Type = oracle
6. Click **Next**.
7. Enter the following:

   Database Driver = XA thin database driver
8. Click **Next**.
9. Enter the following Connection properties:

   Database Name:BI Database Name

   Host Name:Database host

   Port:Database port

   Database User Name:dwadm

   Password:dwadm password
10. Click **Next** and then click **Finish**.
11. Click **Activate Changes**.
12. Update the mapViewerConfig file with below mentioned tags:

    File location : <OBIEE_INSTALL_DIR>/Oracle_BI1/bifoundation/jee/mapviewer.ear/web.war/WEB-INF/conf/

File: mapViewerConfig.xml

13. If there is proxy used, insert the list of host names for all the third party service providers in the security_config node.

    <proxy_enabled_hosts>

    elocation.oracle.com,maps.weatherbug.com,direct.weatherbug.com,api.wxbug.net,de.tiles.weatherbug.com

    </proxy_enabled_hosts>

14. Update the following ns_data_provider node:

    <ns_data_providerid="obieeNsdp"

    class="com.oracle.utilities.birdseye.BirdseyeNSDP" />

15. Update the current map_tile_server with the following map_tile_server node.

    <map_tile_server>

    <tile_storage default_root_path="/mytilecache/"/>

    </map_tile_server>

16. Update the instance config file location, for example:

    FileLocation:

    For Unix :

    <OBIEE_INSTALL_DIR>/instances/instance1/config/OracleBIPresentationServicesComponent/coreapplication_obips1

    For Windows:

    <OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips1

Modify instanceconfig.xml - Update the security Node with the following values. If the security Node is not present, add following code before </Serverinstance>:

```
<Security>
<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>
<HttpOnlyCookies>false</HttpOnlyCookies>
<CookieDomain />
<CookiePath>/</CookiePath>
</Security>
```

Deploying Custom MapViewer - To deploy the custom MapViewer, follow these steps:

For Unix:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

ksh ./deploymapviewer.sh

Enter the WebLogic Domain Console Password. For example, weblogic123

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

deploymapviewer.cmd

Enter WebLogic Domain Console Password. For example, weblogic123

Perform the following steps after deploying the custom MapViewer:

1. Update the MapViewer configuration by navigating to **MapViewer > Administration > Configuration**.
2. Add the below content in the mapViewerConfig.xml with appropriate values:

   <DB_HOST>,<DBNAME>,<DB_PORT>,<USER>,<PASSWORD>

   <map_data_source name="MAPCONN"

   jdbc_host="<DB_HOST>"

   jdbc_sid="<BI Database Name>"

   jdbc_port="<DB_PORT>"

   jdbc_user="<DWADM>"

   jdbc_password="<!DWADM PASSWORD>"

   jdbc_mode="thin"

   number_of_mappers="32"

   allow_jdbc_theme_based_foi="true"

   />
3. Save and then restart.

   Note: The above step has to be performed each time after running the deploymapviewer command.

Deploying Write Back

Follow these steps to deploy the write back feature.

1. Open the following file:

   <OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips\instanceconfig.xml
2. Update the following <ServerInstance> element according to the following code:

   <LightWriteback>true</LightWriteback>
3. Deploy write back as follows:

   For UNIX:

   Initialize the environment with the ./splenviron.sh -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd $SPLEBASE/bin

   ksh ./deploywriteback.sh

   For Windows:

   Initialize the environment with the ./splenviron.cmd -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd %SPLEBASE%/bin

   deploywriteback.cmd

Deploying Analytics

To deploy analytics, follow these steps:

1. Edit the Presentation Services configuration file, "instanceconfig.xml", in the following directory:

   <OBIEE_INSTALL_DIR>/instances/instance1/config/OracleBIPresentationServicesComponent/coreapplication_obips1

2. Add the following before the end tag </ServerInstance>

   <UI>

   <DefaultStyle>oubi</DefaultStyle>

   <DefaultSkin>oubi</DefaultSkin>

   </UI>

Enabling Analytics Help - To enable the analytics' help, follow these steps:

1. Download *Oracle Utilities Advanced Spatial and Operational Analytics User Guide* from Oracle Software Delivery Cloud.
2. After downloading the OUASA User Guide, change the name of the Help file to OUASA Help.pdf.
   Now, place the Help file in <install_dir>/Skin/res, where <install_dir> is the OUASA dashboard package installation directory.
3. Run the following commands:

   For UNIX:

   Initialize the environment with the ./splenviron.sh -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd $SPLEBASE/bin

   ksh ./deployanalyticsear.sh

   Enter the WebLogic Domain Console Password. For example, weblogic123

   For Windows:

   Initialize the environment with the ./splenviron.cmd -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd %SPLEBASE%/bin

   deployanalyticsear.cmd

   Enter the WebLogic Domain Console Password. For example, weblogic123

4. Restart the BI Core services.
5. Restart WebLogic and all BI services after the OBIEE deployment is completed.
6. Login to Analytics and navigate to **Administration>Manage Privileges>Write Back>Write Back to Database.**
7. Click **Denied:Authenticated User** and select the permission **Granted**.

After the Installation

After the installation, perform the following:

1. Verify Install and Deploy Logs.
   - MDL Import Logs

<INSTALL_DIR>/OWB/MetadataFiles/SPL-BI-Project_imp.log

<INSTALL_DIR>/OWB/MetadataFiles/SPL-BI-Location_imp.log

- OWB Deploy Logs

  <INSTALL_DIR>/logs/system/log_OWBDeployment_YYYYMMDD_####.txt

- Custom Mapviewer deploy Logs

  <INSTALL_DIR>/logs/system/mapviewerdeploy.sh.log

- WriteBack Logs

  <INSTALL_DIR>/logs/system/Writeback.log

- FileProcessorDaemon Logs

  <INSTALL_DIR>/bin/FileProcessorDaemon.log

2. Log into OBIEE analytics link that is pointing to demo database. Dashboard should display the data with no errors.

Chapter 7

Demo Installation Procedure

This chapter provides instructions for installing the demo database.

> **Note**: Demo installation does not support ETL functionality. ETL Job control dashboard accesses the OWB tables and demo dump does not have OWB objects; hence, ETL dashboard is not supported in demo installation.

The chapter includes the following topics:

- **Before You Install**
- **OUASA Database Component Installation**
- **OUASA Dashboard Component Installation**
- **After the Installation**

Before You Install

Refer to article 1391459.1 on My Oracle Support for up-to-date additional information on Oracle Utilities Advanced Spatial and Operational Analytics installation.

OUASA Database Component Installation

This section describes how to install demo component of Oracle Utilities Advanced Spatial and Operational Analytics. The section includes the following:

- **Copying and Decompressing Install Media**
- **Database Creation and Dump File Import**
- **Security Configuration**
- **Spatial Configuration**

Copying and Decompressing Install Media

To copy and decompress the install media, follow these steps:

1. Download the Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Oracle Database part from Oracle Software Delivery Cloud.
2. Create a temporary directory, such as c:\OUASA\temp or /OUASA/temp. (Referred to below as <TEMPDIR>) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA-V2.4.0-Database-Multiplatform.zip from the delivered package to the <TEMPDIR>.
4. Unzip the zip file using any zip utility.

Database Creation and Dump File Import

Ensure that Oracle Database Server Enterprise Edition 11.2.0.2 is already installed on machine in order to create database.

The database creation tool (cdxdba.plx for UNIX or CDXDBA.exe for Windows) can be used for creating the demo database with AL32UTF8 character set.

> **Note**: The UNIX and Windows database creation utilities will create an empty database with AL32UTF8 character set and at least one tablespace for storing the application objects before running the installation. The default name of the application tablespace is CISTS_01.

UNIX Database Creation Utility

The files are located in BI240/DatabaseCreation/Unix to create the database.

1. FTP the contents of the Database Creation folder to a temporary directory on the UNIX server.
2. To create the database, set the ORACLE_HOME and the ORACLE_BASE variables.
3. Execute the utility cdxdba.plx by executing the following command:

   perl cdxdba.plx

4. Provide the following parameter values when the script prompts:

Instance name (DEMO): DEMO

ORACLE_BASE: the directory where the setup files for the database will be created (/orasw/app/oracle):

ORACLE_HOME: the folder where the current version of Oracle software is installed (/orasw/app/oracle/product/):

ORACLE_DATA: the directory where the data files for the database will be created (/db05/oradata):

Character set for the database (AL32UTF8):

5. Enter the values based on the settings of your database server. You can also accept the default values displayed if they match your database server settings. You will be prompted to confirm the settings and select Y or N to create the database.

   ORACLE_SID: DEMO

   ORACLE_HOME: /orasw/app/oracle/product/

   ORACLE_BASE: /orasw/app/oracle

   ORACLE_DATA: /db05/oradata

   Character Set: AL32UTF8

   Do you want to continue (Y/N)?

6. When the database has been created, you will be prompted with the following questions:

   Do you want to import a demo database dump into this database (Y/N)?

   Select Y to import the Demo Install data.

   For the demo installation use the dump file exp_demo.dmp.

   Do you want to import a demo database dump into this database (Y/N)? Y

   Enter the name of the dump file (exp_demo.dmp):

   Enter the name of the dump file directory (data_pump_dir):

   Enter the name of the log file (exp_demo.log):

   Note: The data_pump_dir must exist in the database created above before continuing with the import. You should also copy the exp_demo.dmp file to the data_pump_dir. Uncompress the exp_demo.dmp.gz file first to extract the exp_demo.dmp file. This file is in ..\BI240\Demo directory.

   Set the query_rewrite_enabled parameter to FORCE and the query_rewrite_integrity parameter to TRUSTED in the database.

   Connect to sys user and execute the following commands:

   alter system set query_rewrite_enabled=force;

   alter system set query_rewrite_integrity=trusted;

   Update the oratab file for the new database and then check the connectivity to this database from another server and from your desktop after updating local tnsnames.ora file.

   Demo data can also be imported by using below command after successful database creation.

   Set the correct ORACLE_SID and ORACLE_HOME first and then run below command to import demo dump.

   impdp directory= data_pump_dir dumpfile= exp_demo.dmp logfile= exp_demo.log schemas=DWADM.

Windows Database Creation Utility

The files are located in ..\BI240\DatabaseCreation\Windows. You should be logged in as a user who is a member of local ORA_DBA group on that server. The ORA_DBA group should have "administrator" privileges assigned to it.

1. To create a database, run the utility CDXDBA.exe located in the Windows folder from command prompt. The utility displays the following options:

   E - Export a schema from the database

   R - Refresh a schema with a database dump

   C - Create/Recreate a local database

   H - See help for the command line options

   Q - Quit

2. Select option C to create an empty database on your machine and provide below inputs.
   - Provide the instance name (DEMO) : <DB Name> e.g BIDEMO
   - Enter the character set of the database (AL32UTF8) : AL32UTF8
   - Enter ORACLE_BASE: the directory where the setup files for the database will be created (c:\oracle) : <Oracle_Base> e.g. C:\app\oracle
   - Enter ORACLE_HOME: the folder where the current version of Oracle software is installed (c:\oracle\product\11.1.0.6\Db_1) :<Oracle_Home> e.g c:\app\oracle\db_home
   - Enter ORACLE_DATA: the directory where the data files for the database will be created (C:\app\oracle\oradata) :<Directory where data files will be created>
3. Once the database has been created, select the R - Refresh a schema option with a database dump file to load the Demo Install data.
   - Select an option : R
   - Enter the instance name (DEMO) : <DB name>
   - Is it a LOCAL database (exists on the same machine) (Y/N) : <Please provide Y or N>
   - Enter the name of the Oracle account that owns that application schema (spladm) : DWADM
   - Enter password for DWADM (spladm) : DWADM
   - Enter the character set of the database (AL32UTF8) : AL32UTF8
   - Enter the name of data pump directory (DATA_PUMP_DIR) : DATA_PUMP_DIR
   - Enter the name of the dump file (expDWADM.dmp) :exp_demo.dmp
   - Enter the name of the log file (impDWADM.log) :exp_demo.log

The DBA user is the system, password is manager. Option R causes the utility to drop all the objects from the schema and import the schema from a database dump file.

For the Demo Installation, use the dump file exp_demo.dmp.

> **Note**: The data_pump_dir must exist in the database created above before continuing with the import. You should also copy the exp_demo.dmp file to the data_pump_dir. Uncompress the exp_demo.dmp.gz file to extract the exp_demo.dmp file. This file is in the ..\BI240\Demo directory.
>
> Set the query_rewrite_enabled parameter to FORCE and the query_rewrite_integrity parameter to TRUSTED in database.
>
> Connect to sys user and execute the following commands:

alter system set query_rewrite_enabled=force;

alter system set query_rewrite_integrity=trusted;

Check the connectivity to this database from another server and from your desktop after updating local tnsnames.ora file

Security Configuration

1. Navigate to the ..\BI240\DWADM\Security folder.
2. Edit the file OraGenSec.bat, which is in the same location, and replace the parameter database-name with the name of your database. This file is provided for your convenience and executes the Oragensec.exe utility based on the parameters passed into it.

   Note: Ensure to run OraGenSec.bat from a Window 32-bit desktop that has the Oracle 11.2.0.2 client installed Your database should already be listed in the local file tnsnames.ora.

   The script will execute as the following:

   oragensec -d DWADM,DWADM,database_name -r DW_READ,DW_USER -a A -u

   DWUSER,DWREAD
3. Execute the edited OraGenSec.bat file from command prompt.

Spatial Configuration

This section describes how to load spatial metadata in USER_SDO* tables for Oracle Utilities Advanced Spatial and Operational Analytics.

Use the following procedure to load spatial metadata in the target database.

1. Create the dump_dir directory in database and copy user_sdo.dmp file from ../B1240/Spatial-Metadata folder to that location.
2. Import released spatial tables to the target database using following command:

   impdp directory=dump_dir dumpfile=user_sdo.dmp logfile=

   imp_user_sdo.log schemas=DWADM

   Note: Run this command from database server.
3. Review the imp_user_sdo.log file to ensure the tables were imported successfully.
4. After importing the tables, run following SQL scripts from the ../B1240/Spatial-Metadata folder:

   - sqlplus dwadm/dwadm@database-name @copy_spatial_metadata.sql

   - sqlplus dwadm/dwadm@database-name @clean_sdo_release_tbls.sql
5. Review the log files.

OUASA Dashboard Component Installation

This section describes how to install the dashboard component of Oracle Utilities Advanced Spatial and Operational Analytics. The section includes the following:

- **Copying and Decompressing Install Media**
- **Setting Permissions for cistab File in UNIX**
- **OUASA Dashboard Package Installation Steps**
- **Post-installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics application server installation file is delivered in jar format for both UNIX and Windows platforms. If you plan to install multiple Oracle Utilities Advanced Spatial and Operational Analytics environments operated by different Oracle Utilities Administrator user IDs, you must complete each of the following installation steps for each Administrator user ID.

1. Log in to the application server host (where OBIEE 11.1.1.5.0 software is installed) as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default ceases).
2. Create a temporary directory, such as c:\OUASA\temp or /OUASA/temp. (Referred to below as <TEMPDIR>.) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation can be deleted after completing a successful installation.
3. Copy the file OUASA.V2.4.0-MultiPlatform.jar from the delivered package to the <TEMPDIR>. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

   cd <TEMPDIR>

   jar -xvf OUASA.V2.4.0-MultiPlatform.jar

   Note: You must have Java JDK installed on the machine used to (un)jar the application server installation package. Install the JDK that is supported for the install on your platform to be able to use the jar command.

The Java packages are located at: http://java.sun.com/products/archive/index.html

A sub-directory named "OUBI.V2.4.0" is created. It contains the installation software for the Oracle Utilities Business Intelligence application server.

Setting Permissions for cistab File in UNIX

Every Oracle Utilities Advanced Spatial and Operational Analytics environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/OUBI.V2.4.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Advanced Spatial and Operational Analytics application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID, you do not need to run the generated script with the root user ID. Instead, the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you plan to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

OUASA Dashboard Package Installation Steps

Before you install verify that the steps mentioned in **Prerequisite Software for OUASA Dashboard Component** are followed. To install the OUASA dashboard package, follow these steps.

1. Change to the <TEMPDIR>/OUBI.V2.4.0 directory.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.
3. Execute the following script:

   For UNIX:

   export ORACLE_CLIENT_HOME=<oracle_client_home>

   export PERL_HOME=$ORACLE_CLIENT_HOME/perl

   export PATH=$PATH:$PERL_HOME/bin

   ksh ./install_OUBI.sh

   For Windows:

   set ORACLE_CLIENT_HOME=<oracle_client_home>

   set PERL_HOME=%ORACLE_CLIENT_HOME%\perl

   set PATH=%PERL_HOME%\bin;%PATH%

   Install_OUBI.cmd

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.
4. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
5. Under the Installation Options, enter "OBIEE".
6. Select the **Each Menu Item** to configure the values. For detailed description of the values see **Configuration Worksheet for ETL Component Installation**.

****

* Environment Installation Options *

****

1.

Oracle Client Home Directory:

Installation Options:

2.

Environment Mount Point:

Log Files Mount Point:

Environment Name:

Web Java Home Directory:

Database Home Directory:

Database Type: oracle

Each item in the above list should be configured for a successful install.

Choose option (1,2, <P> Process, <X> Exit):

7. In the below Environment Configuration worksheet, only 1 and 2 menu items are required to be configured. For detailed description of these values, see **Configuration Worksheet for ETL Component Installation**.

****

* Environment Configuration *

****

1. Environment Description

Environment Description:

2. OBIEE Environment Configuration

Oracle BI Instance Home:

Oracle BI Home:

Oracle BI Domain Home:

Weblogic Domain Console User Name:

Weblogic Domain Console Host:

Weblogic Domain Console Port Number:

3. Database Configuration

4. DESIGN REPOSITORY CONFIGURATION

5. DATABASE CHARACTER SET CONFIGURATION

6. EDITING PROCESS FLOW CONFIGURATION

7. EMAIL CONFIGURATION

8. CONTROL CENTRE CONFIGURATION

9. EXTERNAL DATA SOURCE CONFIGURATION

Path of the External Datasource LOG:

Each item in the above list should be configured for a successful install.

Choose option (1,2,3,4,5,6,7,8,9, <P> Process, <X> Exit):

8. When you are done with the parameter setup, proceed with the option P. Write the Configure file.
9. Once the install has finished successfully, you will need to execute post-installation steps as described in **Post-installation Tasks**.

Post-installation Tasks

Deploying Repository (RPD) File

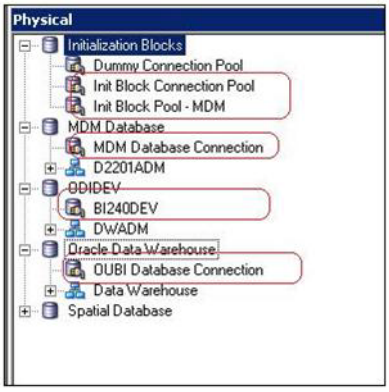
The RPD file is located at: <install_dir>/Reports/rpd/UtilitiesBusinessAnalytics240.rpd, where <install_dir> is the OUASA dashboard package installation directory.

To deploy the RPD file, follow these steps:

1. OBIEE 11.1.1.5.0 should have been installed on Windows 32-bit machine before proceeding with the steps below.
2. Launch the Administration Tool from your Start menu from the Windows machine. This is only available in Windows.

   Start > Programs > Oracle Business Intelligence > Administration.
3. Open the RPD in offline mode by selecting **File > Open > Offline...**
4. Provide the RPD password. For example, "oracle123".

5. Edit the connection pools shown below by double clicking on them.



6. In the Init Block Connection Pool group, enter the following:

   Datasource name = BI Database name

   User name = DWREAD

Password = DWREAD User password

7. In the Init Block Pool - MDM group, provide the following, only for MDM:

   Datasource name = MDM database name

   User name = CISUSER

   Password = CISUSER User password

8. In the MDM Database Connection group, provide the following, only for MDM:

   Data source name = MDM database name

   User name = CISUSER

   Password = CISUSER User password

9. In the ODIDEV Connection Pool group, provide the following:

   Data source name = BI database name

   User name = DWUSER

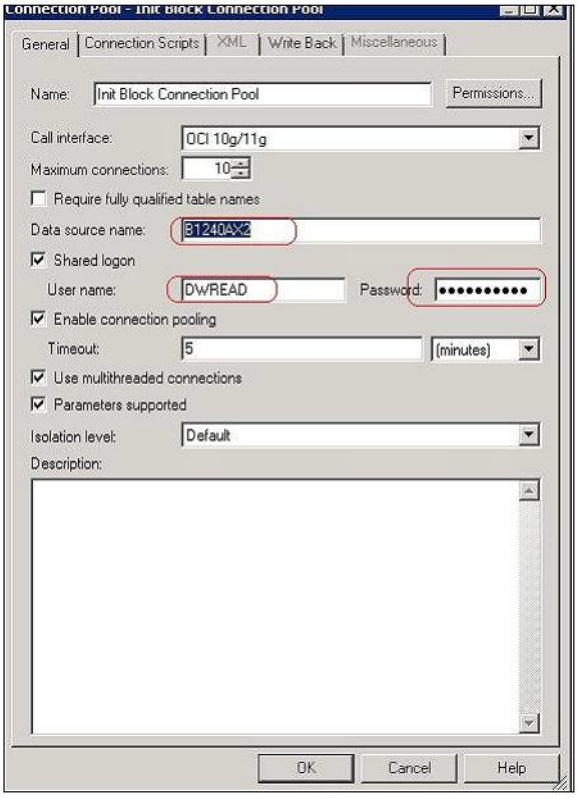
   Password = DWUSER User password

10. In the OUBI Database Connection group, provide the following:

    Data source name = BI database name

    User name = DWREAD

    Password = DWREAD User password



11. Click **Save.**
12. Login into OBIEE Enterprise Manager.
13. Navigate to **BI Instance >Coreapplication>Deployment.**
14. Lock and edit.

The repository text box will be enabled.

15. Browse to the modified rpd file and submit. The file is in the following location, where <install_dir> is the OUASA dashboard package installation directory.

    `<Install_Dir>/Reports/rpd/UtilitiesBusinessAnalytics240.rpd`

16. Provide the RPD password "oracle123" click **Apply**.

17. Activate the changes and then restart the BI Services.

    Note: All the above databases set in the connection pool should be updated in tnsnames.ora file in <OBIEE_INSTALL_DIR>/Oracle_BI1/network/admin.

Deploying the Web Catalog

Note: You must delete the old BI v2.3.2.1 catalogs (if present in 11g OBIEE instance) before deploying the catalogs.

To delete the old catalogs, follow these steps:

1. Launch the Catalog Manager from your Start menu.

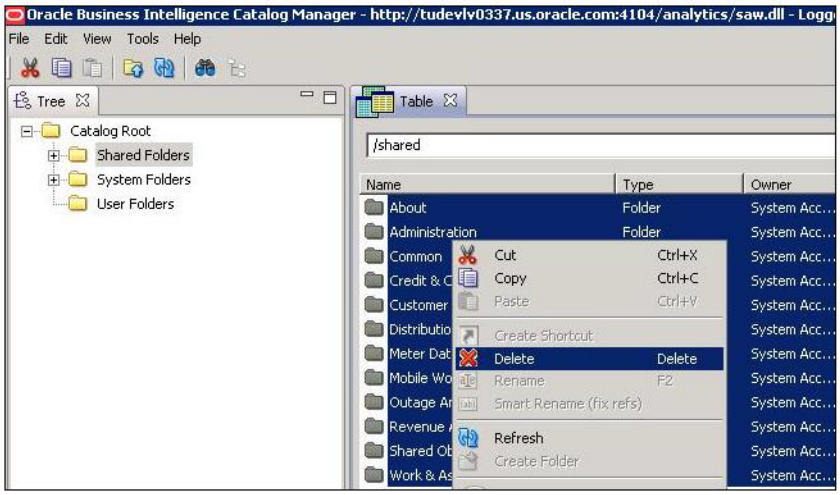
   Start > Programs > Oracle Business Intelligence > Catalog Manager

2. From the File menu, select **Open Catalog**. The **Open Catalog** window is displayed.

3. Specify the following values:
   1. From the **Type** drop-down, select **Online**.
   2. Enter the URL to the analytics Web application in the following form:

      http://<OBIEE Host>: <OBIEE Port>/analytics/saw.dll
   3. Enter **Administrator** as the User and **ASAadm** as the Password.
4. Click **OK** to close the window.
5. In the tree panel, expand the root folder /.
6. Select the **Shared** folder.

7. Select the catalogs in the shared folder, right click, and select **Delete.**



It will prompt for Physical Catalog location configured in Enterprise Manager. This is the server path where OBIEE is installed.

To deploy the catalogs, follow these steps:

For UNIX:

Initialize the environment with the ./splenviron.sh -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd $SPLEBASE/bin

ksh ./deploycatalog.sh

Enter the physical catalogs location configured in Enterprise Manager. For example:

<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite

For Windows:

Initialize the environment with the ./splenviron.cmd -e <envname> command.

Note: Navigate to the Install_Dir/bin to initialize.

cd %SPLEBASE%\bin

deploycatalog.cmd

Enter the Physical Catalogs location configured in EM For example:

<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite

Configuring and Deploying MapViewer

To configure and deploy the MapViewer, perform the following:

Configuring MapViewer - To configure MapViewer, follow these steps:

1. Login to WebLogic console.
2. In the WebLogic console, create the 'MAP_DS' data source.
3. Lock and edit.
4. Navigate to S**ervices < Data Sources**.

5. Select **New > Generic Data Source** and provide the following:

   Name = MAP_DS

   JNDI Name = MAP_DS

   Database Type = oracle

6. Click **Next**.
7. Enter the following:

   Database Driver = XA thin database driver

8. Click **Next**.
9. Enter the following Connection properties:

   Database Name:BI Database Name

   Host Name:Database host

   Port:Database port

   Database User Name:dwadm

   Password:dwadm password

10. Click **Next** and then click **Finish**.
11. Click **Activate Changes**.
12. Update the mapViewerConfig file with below mentioned tags:

    File location : <OBIEE_INSTALL_DIR>/Oracle_BI1/bifoundation/jee/mapviewer.ear/web.war/WEB-INF/conf/

    File: mapViewerConfig.xml

13. If there is proxy used, insert the list of host names for all the third party service providers in the security_config node.

    <proxy_enabled_hosts>

    elocation.oracle.com,maps.weatherbug.com,direct.weatherbug.com,api.wxbug.net,de.tiles.weatherbug.com

    </proxy_enabled_hosts>

14. Update the following ns_data_provider node:

    <ns_data_providerid="obieeNsdp"

    class="com.oracle.utilities.birdseye.BirdseyeNSDP" />

15. Update the current map_tile_server with the following map_tile_server node.

    <map_tile_server>

    <tile_storage default_root_path="/mytilecache/"/>

    </map_tile_server>

16. Update the instance config file location, for example:

    FileLocation:

    For Unix :

    <OBIEE_INSTALL_DIR>/instances/instance1/config/OracleBIPresentationServicesComponent/coreapplication_obips1

For Windows:

<OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips1

Modify instanceconfig.xml - Update the security Node with the following values. If the security Node is not present, add following code before </Serverinstance>:

```
<Security>
<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>
<HttpOnlyCookies>false</HttpOnlyCookies>
<CookieDomain />
<CookiePath>/</CookiePath>
</Security>
```

Deploying Custom MapViewer - To deploy the custom MapViewer, follow these steps:

For Unix:

cd $SPLEBASE/bin

ksh ./deploymapviewer.sh

Enter the WebLogic Domain Console Password. For example, weblogic123

For Windows:

cd %SPLEBASE%\bin

deploymapviewer.cmd

Enter WebLogic Domain Console Password. For example, weblogic123

Perform the following steps after deploying the custom MapViewer:

1. Update the MapViewer configuration by navigating to **MapViewer > Administration > Configuration**.
2. Add the below content in the mapViewerConfig.xml with appropriate values:

   <DB_HOST>,<DBNAME>,<DB_PORT>,<USER>,<PASSWORD>

   <map_data_source name="MAPCONN"

   jdbc_host="<DB_HOST>"

   jdbc_sid="<BI Database Name>"

   jdbc_port="<DB_PORT>"

   jdbc_user="<DWADM>"

   jdbc_password="<!DWADM PASSWORD>"

   jdbc_mode="thin"

   number_of_mappers="32"

   allow_jdbc_theme_based_foi="true"

   />
3. Save and then restart.

   Note: The above step has to be performed each time after running the deploymapviewer command.

Deploying Write Back

Follow these steps to deploy the write back feature.

1. Open the following file:

   <OBIEE_INSTALL_DIR>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips\instanceconfig.xml

2. Update the following <ServerInstance> element according to the following code:

   <LightWriteback>true</LightWriteback>

3. Deploy write back as follows:

   For UNIX:

   Initialize the environment with the ./splenviron.sh -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd $SPLEBASE/bin

   ksh ./deploywriteback.sh

   For Windows:

   Initialize the environment with the ./splenviron.cmd -e <envname> command.

   Note: Navigate to the Install_Dir/bin to initialize.

   cd %SPLEBASE%/bin

   deploywriteback.cmd

Deploying Analytics

To deploy analytics, follow these steps:

1. Edit the Presentation Services configuration file, "instanceconfig.xml", in the following directory:

   <OBIEE_INSTALL_DIR>/instances/instance1/config/OracleBIPresentationServicesComponent/coreapplication_obips1

2. Add the following before the end tag </ServerInstance>

   <UI>

   <DefaultStyle>oubi</DefaultStyle>

   <DefaultSkin>oubi</DefaultSkin>

   </UI>

Enabling Analytics Help - To enable the analytics' help, follow these steps:

1. Download *Oracle Utilities Advanced Spatial and Operational Analytics User Guide* from Oracle Software Delivery Cloud.

2. After downloading the OUASA User Guide, change the name of the Help file to OUASA Help.pdf.
   Now, place the Help file in <install_dir>/Skin/res, where <install_dir> is the OUASA dashboard package installation directory.

3. Run the following commands:

   For UNIX:

   cd $SPLEBASE/bin

   ksh ./deployanalyticsear.sh

Enter the WebLogic Domain Console Password. For example, weblogic123

For Windows:

cd %SPLEBASE%/bin

deployanalyticsear.cmd

Enter the WebLogic Domain Console Password. For example, weblogic123

4. Restart the BI Core services.
5. Restart WebLogic and all BI services after the OBIEE deployment is completed.
6. Login to Analytics and navigate to **Administration > Manage Privileges > Write Back > Write Back to Database.**
7. Click **Denied:Authenticated User** and select the permission **Granted**.

After the Installation

After the installation, perform the following:

1. Verify Install and Deploy Logs.

   Custom Mapviewer deploy logs

   <INSTALL_DIR>/logs/system/mapviewerdeploy.sh.log

   WriteBack logs

   <INSTALL_DIR>/logs/system/Writeback.log

2. Log into OBIEE analytics link that is pointing to demo database. Dashboard should display the data with no errors.

Chapter 8

Configuring Your Applications

This chapter provides instructions for configuring additional applications for use with Oracle Utilities Advanced Spatial and Operational Analytics. It contains the following topics:

- **Spatial Configuration**
- **OBIEE Configuration**

Spatial Configuration

This section contains information related to configuring Oracle Utilities Advanced Spatial Outage Analytics and how to set up the spatial data and its corresponding metadata. The mapping between the spatial columns and the dimensional columns like State from Address dimension would be defined in map meta data that is available as a part of the WebCatalog. Using the spatial data and the map meta data, users can view the transactional data on the map view.

As an example, steps to setup the data for US are mentioned below:

- **Installing US State Spatial Data**
- **Installing US City Spatial Data**
- **Installing US Zip Code Spatial Data**
- **Installing US County Spatial Data**
- **Configuring NMS Device Spatial Data**
- **Loading Spatial Metadata**
- **Improving Performance by Prefetching Map Tiles**

Installing US State Spatial Data

Spatial data can be loaded from various sources. One of the approaches is to use the world sample data given by Navteq. There is a pointer to the data set from the Oracle Spatial OTN page for downloading Partner data:

http://www.oracle.com/technology/products/spatial/htdocs/spatial_partners_data.html

There are various versions of the world sample dataset. These instructions assume that you are using the version with a world_sample2010.dmp file. If you have a different version, then these instructions may not work and you should refer to the README included in the downloaded world_sample.zip file.

These instructions also assume that the sample data will be loaded into the DWADM account, used for the Data Warehouse. If you want to follow the instructions in the world sample README file instead, then the data will be loaded into a WORLD_SAMPLE account, and steps will need to be changed to use that account instead of DWADM.

Use the following procedure to install the world sample data.

1. Create a work directory on your machine for the data, and change directory to the new directory. For example:

   ```
   mkdir NAVTEQ
   cd NAVTEQ
   ```

2. Unzip the world_sample.zip file you downloaded to the new directory. For example:

   ```
   unzip world_sample.zip
   ```

3. Connect to SQLPLUS using DWADM, and remove the old tables (if present). For example:

   ```
   sqlplus dwadm/dwadm@database @cln_sample_data.sql
   ```

4. Import the world sample dump file into the DWADM account. For example:

   ```
   imp dwadm/dwadm@database file=world_sample2010.dmp
       log=world_sample.log full=y
   ```

5. After importing the world sample dump file, create the MapViewer Spatial metadata using the following insert statements:

   ```
   sqlplus  dwadm/dwadm@database
   INSERT INTO user_sdo_maps SELECT * FROM sdo_maps;
   ```

```
INSERT INTO user_sdo_themes SELECT * FROM sdo_themes;
INSERT INTO user_sdo_styles SELECT * FROM sdo_styles;
INSERT INTO user_sdo_cached_maps SELECT * FROM sdo_cached_maps;
```

6. Create the State spatial table and metadata are used by the default themes present in the OUASA metadata. This assumes that the eLocation web site is being used as the base map. If some other base map is used, then the transform parameter will need to specify the SRID of the base map being used.

```
sqlplus  dwadm/dwadm@database
create table q1_states54004 (
         feature_id number,
         feature_name varchar2(255),
         area_id number,
         name_langcode varchar2(35),
         feature_type varchar2(30),
         country_code_3 varchar2(5),
         geometry SDO_GEOMETRY,
         carto_id number(10,0));


insert into q1_states54004
select null, name, null, lang_code, feature_type,
          ISO_COUNTRY_CODE, sdo_cs.transform(geometry, 54004),
          carto_id
FROM wom_area
WHERE feature_type = 909996
     and iso_country_code = 'USA';


INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_STATES54004','GEOMETRY',
MDSYS.SDO_DIM_ARRAY(MDSYS.SDO_DIM_ELEMENT('X',-
20500000,20500000,0.0005),MDSYS.SDO_DIM_ELEMENT('X',-
50000000,19000000,0.0005)), 54004);


create index q1_STATES54004_sdx
       on q1_STATES54004(geometry)
       indextype is mdsys.spatial_index;
```

Installing US City Spatial Data

US City shape data is available in the world sample data set, however, only the three hundred largest cities are available there. To find additional sample data for each US State from the US Census Bureau, visit:

http://www.census.gov/geo/www/cob/pl2000.html

The following steps can be used to load the sample data for the state of Ohio, and similar steps can be followed to load city data for other US states.

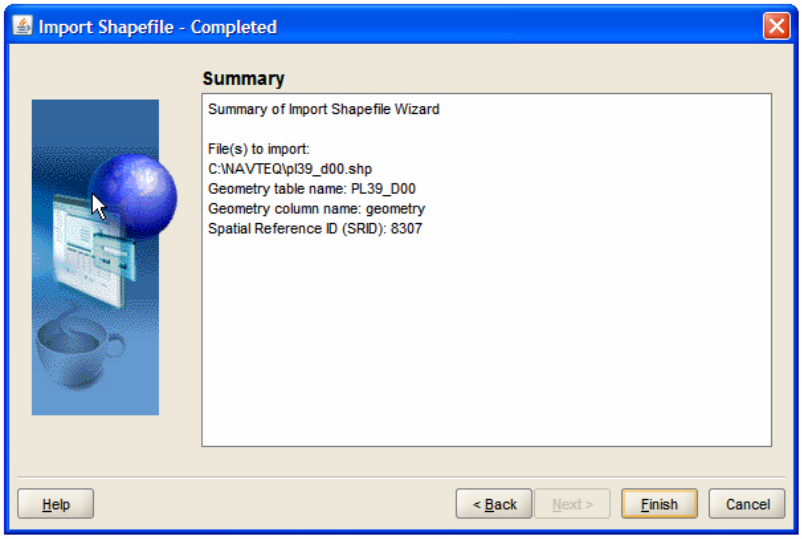
1. Click the Ohio Zip Code in Shapefile format and download the zt39_d00_shp.zip file to the NAVTEQ directory created in the previous procedure.
2. Unzip or decompress the pl39_d00_shp.zip file to the NAVTEQ directory.
3. Download standalone MapBuilder from this location: http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index-100641.html
4. Start MapBuilder. This is installed when MapViewer is installed. On windows it can be started by running:

```
java -jar mapbuilder.jar
```

Refer to the MapViewer documentation for instructions on installing and running MapBuilder from this location:
http://www.oracle.com/technetwork/middleware/mapviewer/documentation/index.html

5. If a connection is not created, then select **File -> New Connection,** and create a connection to the DWADM account in the OUBI Data Warehouse Database.
6. Select **Tools -> Import Shapefile,** and click **Next**.
7. Click **Shapefile**.
8. Browse to the C:\NAVTEQ directory, select the pl39_d00_shp.shp file, and click **Open.**
9. Click **Next.**

   Ensure that the name of the geometry table is set to pl39_d00. If this is not the desired name for the spatial table, then the select statement below will need to be changed to use the entered name.
10. Ensure the **Create Predefined Theme** box is unchecked, and click **Next.**
11. Review the Summary information and click **Finish.**



12. Create the Q1_CITY54004 table using the following SQL statement. This assumes that the eLocation web site is being used as the base map. If some other base map is used, then the transform parameter will need to specify the SRID of the base map being used.

```
sqlplus  dwadm/dwadm@database
create table Q1_CITY54004 as
select upper(name) FEATURE_NAME,
          sdo_cs.transform(geometry, 54004) geometry,
          'OHIO' state
From pl39_d00
Where lsad_trans in ( 'city', 'village' );

INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_CITY54004','GEOMETRY',
MDSYS.SDO_DIM_ARRAY(MDSYS.SDO_DIM_ELEMENT('X',-
20500000,20500000,0.0005),MDSYS.SDO_DIM_ELEMENT('X',-
50000000,19000000,0.0005)), 54004);

create index Q1_CITY54004_sdx
       on Q1_CITY54004 (geometry)
```

```
                indextype is mdsys.spatial_index;

UPDATE q1_city54004
     SET geometry = SDO_UTIL.RECTIFY_GEOMETRY(geometry, .05);
```

Installing US Zip Code Spatial Data

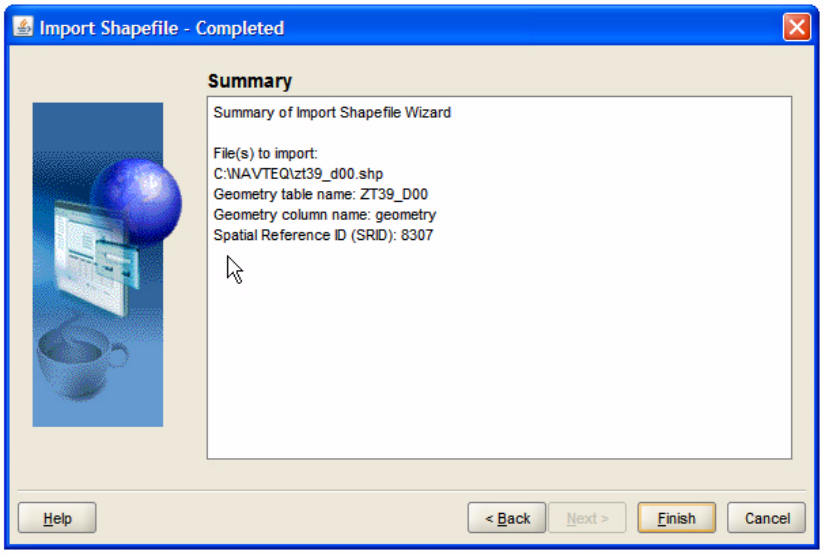
Sample shape files for US Zip Code Areas can be found at the following location:

http://www.census.gov/geo/www/cob/z52000.html

The following steps can be used to load the sample data for the state of Ohio, and similar steps can be followed to load zip code data for other US states.

1. Click on the Ohio Zip Code in Shapefile format and download the zt39_d00_shp.zip file to the NAVTEQ directory created in the previous procedure.
2. Unzip the zt39_d00_shp.zip file to the NAVTEQ directory.
3. Start MapBuilder. This is installed when MapViewer is installed. Refer to the MapViewer documentation for instructions on installing and running MapBuilder.
4. If a connection is not created, then select **File > New Connection,** and create a connection to the DWADM account in the OUBI Data Warehouse Database.
5. Select **Tools > Import Shapefile** and click **Next.**
6. Click **Shapefile**.
7. Navigate to the C:\NAVTEQ directory, select the zt39_d00.shp file, and click **Open.**
8. Click **Next.**

   Note: Ensure the name of the geometry table is set to ZT39_D00. If this is not the desired name for the spatial table, then the select statement below will need to be changed to use the entered name.
9. Ensure the **Create Predefined Theme** box is unchecked, and click **Next.**
10. Review the Summary information and click **Finish.**



11. Create the Q1_USZIP54004 table using the following SQL statement. This assumes that the eLocation web site is being used as the base map. If some other base map is used, then the transform parameter will need to specify the SRID of the base map being used.

```
sqlplus  dwadm/dwadm@database

create table q1_USZIP54004 as

select zcta ZCTA5CE,
          sdo_cs.transform(geometry, 54004) geom
From ZT39_D00;

INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_USZIP54004','GEOM',
MDSYS.SDO_DIM_ARRAY(MDSYS.SDO_DIM_ELEMENT('X',-
20500000,20500000,0.0005),MDSYS.SDO_DIM_ELEMENT('X',-
50000000,19000000,0.0005)), 54004);

create index q1_USZIP54004_sdx
       on q1_USZIP54004 (geom)
       indextype is mdsys.spatial_index;
UPDATE q1_uszip54004
     SET geom = SDO_UTIL.RECTIFY_GEOMETRY(geom, .05);
```

Installing US County Spatial Data

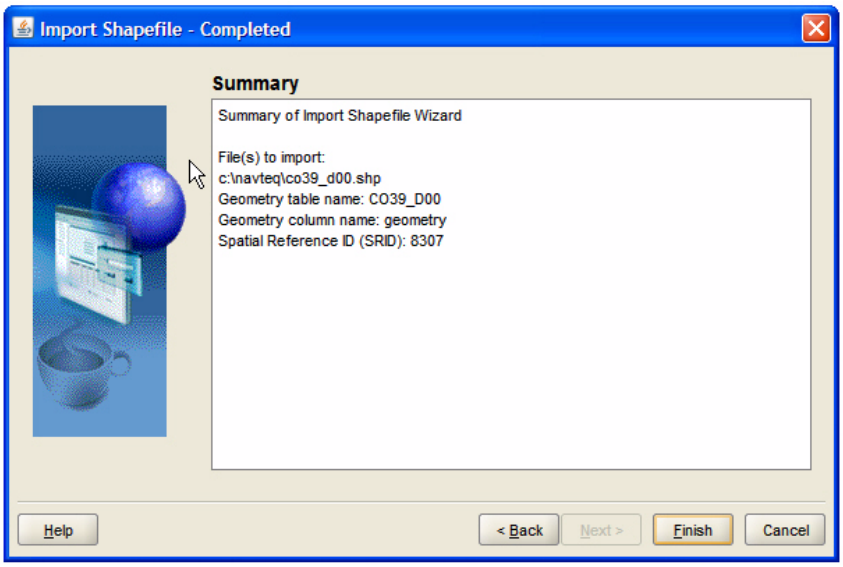
Sample shape files for US Counties can be found at the following location:

http://www.census.gov/geo/www/cob/co2000.html

The following steps can be used to load the sample data for the state of Ohio, and similar steps can be followed to load county data for other US states.

1. Click on the Ohio County in Shapefile format and download the co39_d00_shp.zip file to the NAVTEQ directory created in the previous procedure.
2. Unzip the co39_d00_shp.zip file to the NAVTEQ directory.
3. Start MapBuilder. This is installed when MapViewer is installed. Refer to MapViewer documentation for instructions on installing and running MapBuilder.
4. If a connection is not created, then select **File > New Connection,** and create a connection to the DWADM account in the OUBI Data Warehouse Database.
5. Select **Tools > Import Shapefile,** and click **Next.**
6. Click **Shapefile**.
7. Browse to the C:\NAVTEQ directory, select the co39_d00_shp.shp file, and click **Open.**
8. Click **Next.**

   Note: Ensure the name of the geometry table is set to CO39_D00. If this is not the desired name for the spatial table, then the select statement below will need to be changed to use the entered name.
9. Ensure the **Create Predefined Theme** box is unchecked, and click **Next.**
10. Review the Summary information and click **Finish.**



11. Create the Q1_COUNTY54004 table using the following SQL statement. This assumes that the eLocation web site is being used as the base map. If some other base map is used, then the transform parameter will need to specify the SRID of the base map being used.

```
sqlplus  dwadm/dwadm@database

create table q1_COUNTY54004 as
select name FEATURE_NAME,
          sdo_cs.transform(geometry, 54004) geometry,
          'OHIO' state
From CO39_D00;

INSERT INTO user_sdo_geom_metadata
VALUES ( 'Q1_COUNTY54004','GEOMETRY',
MDSYS.SDO_DIM_ARRAY(MDSYS.SDO_DIM_ELEMENT('X',-
20500000,20500000,0.0005),MDSYS.SDO_DIM_ELEMENT('X',-
50000000,19000000,0.0005)), 54004);

create index q1_COUNTY54004_sdx
       on q1_county54004 (geometry)
       indextype is mdsys.spatial_index;


UPDATE q1_county54004
     SET geometry = SDO_UTIL.RECTIFY_GEOMETRY(geometry, .05);
```

Note: No predefined reports make use of the County data, so if county spatial reports are desired, the Q1_COUNTY_54004 theme will need to be used in new requests and maps.

Configuring NMS Device Spatial Data

To implement the NMS Network Model on the spatial analytics, OUASA reports need NMS geometry data. The steps from this section are required to view data in spatial reports of Outage Analytics. There are several ways that the geometry data in the DIAGRAM_OBJECTS NMS device table can be accessed by the OUASA Mapping reports.

This section describes the following methods:

- **Replicating the DIAGRAM_OBJECTS Table**
- **Accessing the NMS Spatial Data Using a Database Link**

Replicating the DIAGRAM_OBJECTS Table

The easiest option is to replicate the DIAGRAM_OBJECTS table into the OUASA database. If this is done, then after replicating the DIAGRAM_OBJECTS table, the following steps will setup the OUASA dashboards to use the data in this replicated table.

1. Create the required Spatial Metadata:

```
INSERT INTO user_sdo_geom_metadata
VALUES ( 'DIAGRAM_OBJECTS','LL_GEOMETRY',
   MDSYS.SDO_DIM_ARRAY(
           SDO_DIM_ELEMENT('X', -20037508, 20037508, .05),
           SDO_DIM_ELEMENT('Y', -45884542, 45884542, .05)
   ), 54004);
```

2. Ensure that the spatial index is created on the LL_GEOMETRY column. The LL_GEOMETRY column by default stores spatial data using SRID 54004, so this will work without changes with the eLocation base map:

```
create index q1_DIAGRAM_OBJECTS_sdx
       on diagram_objects (ll_geometry)
       indextype is mdsys.spatial_index;
```

3. In MapBuilder, use duplicate to create a copy of the B1_THEME_DIAGRAMOBJ_54004 Geometry Theme, with the following settings:
   - New Name: Q1_THEME_DIAGRAMOBJ_54004
   - Target Database: OUASA Database
   - Base Table: DIAGRAM_OBJECTS
   - Spatial Column: LL_GEOMETRY

Once DIAGRAM_OBJECTS table is replicated to the OUASA database, follow the below steps to create Q1_DIAGRAM_OBJECTS_54004 table:

1. Connect to DWADM schema of OUASA database and execute "create table Q1_DIAGRAM_OBJECTS_54004 as select * from DIAGRAM_OBJECTS;"
2. INSERT INTO user_sdo_geom_metadata
   VALUES ('Q1_DIAGRAM_OBJECTS_54004','LL_GEOMETRY',
   MDSYS.SDO_DIM_ARRAY(SDO_DIM_ELEMENT('X', -20037508, 20037508, .05),SDO_DIM_ELEMENT('Y', -45884542, 45884542, .05)), 54004);
3. Create index q1_DIAGRAM_OBJECTS_sdx_54004 on Q1_DIAGRAM_OBJECTS_54004 (ll_geometry) indextype is mdsys.spatial_index;

Accessing the NMS Spatial Data Using a Database Link

If it is not possible to replicate the DIAGRAM_OBJECTS table, and no existing NMS Geometry theme can be used, then it is possible to access the DIAGRAM_OBJECTS table in the OUASA database using a database link.

To access the DIAGRAM_OBJECTS table in the OUASA database using a database link:

1. Create a database link in the OUASA database pointing to the NMS database.
2. Create a synonym DIAGRAM_OBJECTS for the DIAGRAM_OBJECTS table in the NMS database.

3. Update the mapViewerConfig.xml to add another datasource, pointing to the NMS database, just like the OUASA datasource was added earlier in the install documentation
4. Restart WebLogic to make the NMS database available.
5. Create the required Spatial Metadata in the OUASA database:

```
INSERT INTO user_sdo_geom_metadata
VALUES ( 'DIAGRAM_OBJECTS','LL_GEOMETRY',
   MDSYS.SDO_DIM_ARRAY(
      MDSYS.SDO_DIM_ELEMENT('LONGITUDE',-180,180,0.05),
      MDSYS.SDO_DIM_ELEMENT('LATITUDE',-90,90,0.05)
   ), 54004);
```

6. In MapBuilder, use duplicate to create a copy of the B1_THEME_DIAGRAMOBJ_54004 Geometry Theme, with the following settings:
   - New Name: Q1_THEME_DIAGRAMOBJ_54004
   - Target Database: OUASA Database
   - Base Table: DIAGRAM_OBJECTS
   - Spatial Column: LL_GEOMETRY

Loading Spatial Metadata

This section describes how to load spatial metadata in USER_SDO* tables for Oracle Utilities Oracle Utilities Advanced Spatial Operational Analytics.

Use the following procedure to load spatial metadata in the target database.

1. Create the dump_dir directory in database and copy user_sdo.dmp file from ../B1240/Spatial-Metadata folder to that location.
2. Import released spatial tables to the target database using following command:

```
impdp directory=dump_dir dumpfile=user_sdo.dmp logfile=
 imp_user_sdo.log  schemas=DWADM
```

   Note: Run this command from database server.
3. Review the imp_user_sdo.log file to ensure the tables were imported successfully.
4. After importing the tables, run following SQL scripts from the ../B1240/Spatial-Metadata folder:

```
- sqlplus dwadm/dwadm@database-name @copy_spatial_metadata.sql

- sqlplus dwadm/dwadm@database-name @clean_sdo_release_tbls.sql
```

5. Review the log files.

Flushing Map Cache

Before you can begin using the modified base map, you must flush the map cache as follows:

1. In the MapViewer Console, click **Admin** in the top-right corner of the page and log in to the Admin Console page.
2. Click **Management**, select **Manage MapViewer**, and then select **Datasources**.
3. Click **Purge cached metadata**.
4. To verify the map changes, go to the Map zone that references the modified base map.
5. Delete the 'cacheduserinfo' files in the following path to remove any cache:

<OBIEE_INSTALL_DIR>\instances\instance2\bifoundation\OracleBIPresentationServicesComponent\coreapplication_obips1\catalog\SampleAppLite\root\users\weblogic2_prefs

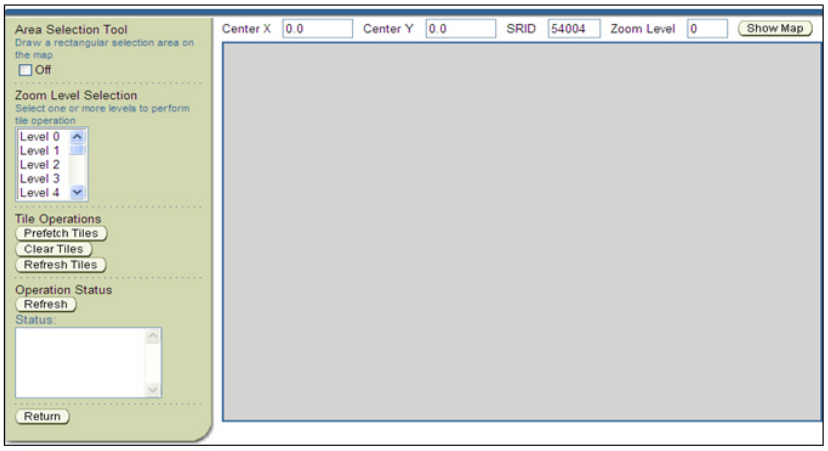
Improving Performance by Prefetching Map Tiles

Rendering map tiles dynamically can affect system performance. To avoid this you should consider prefetching tiles by issuing an admin request to MapViewer on a non-production server or when the server is not under load. When MapViewer receives a prefetching request, it issues many concurrent map tile requests to itself, which are basically XML map requests, and stores them in the cache. This improves the system's performance as the images are readily available.

Follow the following procedure to prefetch map tiles.

1. In the MapViewer Console, click **Admin** in the top-right corner of the page and log in to the Admin Console page.
2. In the Admin Console page, click **Manage Map Tile Layers**.
3. Click **Manage** to display the list of existing map tiles.
4. Select the required map tile and click **View map/Manage Tiles**.

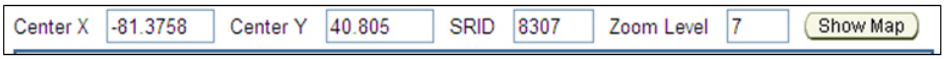
   The Prefetching wizard opens:



5. Enter the X, Y coordinates of the center of the map, and the SRID and Zoom Level, and click **Show Map**.

   To prefetch map images, you need to enter the latitude and longitude values. A client needs to know the latitude and longitude values of the center of the location in interest. SRID is a unique value used to identify the coordinate system used in a GIS application. The SRID used is 8307.

   The X and Y axis used in the following example is for Canton, Ohio:



6. When you see the map, turn on the Area Selection Tool and select the area on the map for which you want to prefetch the tiles.
7. Select one or more zoom-levels for which you want to prefetch the tiles.
8. Under **Tile Operations**, click on **Prefetch Tiles**.

This process will take some time, depending upon the hardware configuration of the system and the amount of data to be prefetched. To check the current status of the operation, click **Refresh** under **Operation Status**. The status will change to "Finished" when the operation is done.

OBIEE Configuration

This section contains information about configuring Oracle Business Intelligence Enterprise Edition (OBIEE) for use with Oracle Utilities Advance Spatial and Operational Analytics. It contains the following topics:

- **Setting Up and Configuring User Security**
- **Managing Content in the Presentation Catalog**

Setting Up and Configuring User Security

Refer to the Configuring User Security section in the *Oracle Utilities Advanced Spatial and Operational Analytics Administrator's Guide* for details on configuring user security.

Managing Content in the Presentation Catalog

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Presentation Catalog has a different folder for each of the analytics.

The following folders are available on the Shared Folders:

- About
- Administration
- Common
- Credit & Collections Analytics
- Customer analytics
- Distribution Analytics
- Meter Data Analytics
- Mobile Workforce Analytics
- Outage Analytics
- Revenue Analytics
- Shared Objects
- Work & Asset Analytics

For more information on User Security and Managing Catalog objects, refer to the *Oracle Business Intelligence Presentation Services Administration Guide.*

Managing Folders and Content

New folders can be created by the customer if new Answers or modifications to existing ones are needed.

To create new folders (or Development Folders), log on to the Presentation Services as an Administrator and access:

Catalog -> New Folder

Once a new folder is created, the following values can be set:

- Properties
- Name
- Delete
- Permissions
- Copy/Move

The customer can save new Answers onto the development folders, thereby leaving the out-ofbox folders as is. Once the Answer is created, the report is written and unit testing is complete, the request can be moved to the common folder.

Default folders are loaded during the install of OBIEE. These folder, such as 00 Overview, 01 Ranks & Toppers, or 02 History & Benching, can be removed from view by navigating to Catalog, and then deleting the dashboards that you do not want displayed from the list.

Editing Names and Descriptions of Objects

To edit names and descriptions of objects, log on to the Presentation Services as an Administrator and access:

Catalog > Shared Folders

Chapter 9

Installing Optional Software

This chapter describes the optional software that can be installed with Oracle Utilities Advanced Spatial and Operational Analytics.

The chapter includes:

- **Oracle Utilities Business Intelligence**

Oracle Utilities Business Intelligence

For information on installing Oracle Utilities Business Intelligence v2.4.0, see the *Oracle Utilities Business Intelligence Installation Guide* and *Oracle Utilities Business Intelligence DBA Guide* that are included in the Oracle Utilities Advanced Spatial and Operational Analytics Media Pack.

Chapter 10

Additional Information for Installing Other Oracle Software

This chapter provides information about indtalling other Oracle software while installing Oracle Utilities Advanced Spatial and Operational Analytics.

The chapter includes:

- **Oracle Warehouse Builder 11.2.0.2**
- **Oracle Business Intelligence Enterprise Edition 11.1.1.5.0**

Oracle Warehouse Builder 11.2.0.2

Oracle Warehouse Builder 11.2.0.2 is pre-installed with Oracle Database 11.2.0.2 and hence is not required to be installed separately.

Oracle Business Intelligence Enterprise Edition 11.1.1.5.0

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 is supported with Oracle Business Intelligence Suite Enterprise Edition Version 11.1.1.5.0.

Refer the Oracle Business Intelligence Suite Enterprise Edition Documentation Library for installation instructions.

Appendix A

Data Warehouse Implementation Guidelines

This chapter provides guidelines for implementing the data warehouse setup for Oracle Utilities Advanced Spatial and Operational Analytics.

The following sections are discussed in detail:

- **Init.ora Settings**
- **Oracle Partitioning**

Init.ora Settings

Internal performance testing for a large Business Intelligence (BI) database installation has identified the following parameter settings that resulted in a fast load and materialized view refresh for a fact table with over 100,000,000 records.

Note that the settings mentioned in the below table were noticed for an Oracle 10.2 database running on an IBM AIX 5.2 machine with 8 CPUs and 15 GB of memory; hence, some of these values may not apply for different hardware or software settings.

Parameter	Value
db_file_multiblock_read_count	32
db_cache_size	0M
shared_pool_size	0M
large_pool_size	0M
Java_pool_size	0M
parallel_max_servers	8
parallel_execution_message_size	65535
log_buffer	64554432
Pga_aggregate_target	2000M
query_rewrite_enabled	FORCE
query_rewrite_integrity	TRUSTED
session_cached_cursors	60
optimizer_index_caching	80
optimizer_index_cost_adj	30
Sga_max_size	4000M
Sga_target	2000M
shared_pool_reserved_size	64M
workarea_size_policy	AUTO
db_writer_processes	8
timed_statistics	False
cursor_space_for_time	True
Disk_asynch_io	True

Oracle Partitioning

As the primary keys for all tables are sequential, it is possible to partition any table based on the primary key field. However, the Fact tables should be partitioned based on one of the Date Keys present in the table. Some of the date keys are optional; hence, it is important to pick a date key field that will always have a non-zero value.

Note that as the RECENT fact table needs to be purged daily, it does not require to be partitioned. Also, partitioning should be done only when materialized views do not prove sufficient enough to achieve the desired performance.

For details on partitioning, refer to the *Oracle Utilities Advanced Spatial and Operational Analytics Admininstrator's Guide*.

Appendix B

Installation Menu Functionality

This chapter provides functionality details regarding installation menu for installing the Oracle Utilities Advanced Spatial and Operational Analytics application.

The following sections are discussed here:

- **Installation Menu Functionality Overview**
- **Installation Menu Functionality Details**

Installation Menu Functionality Overview

The main configuration menu is structured so that related variables and/or options are grouped together and are associated by a menu item number. To access a particular group of variables and options, enter the menu item number associated with that group. Each option within a group is displayed in turn on the screen along with a prompt so that you can type the desired value for the option, if it is not the same as the default or current value.

When performing the initial installation, you need to go through all menu options. The menu options may have a default value, a list of valid values, and a validation check.

On each option prompt, you can keep the current value by simply leaving the input line empty. In order to erase a variable value, you need to enter a single dot ("."). The leading spaces are trimmed out on each values that are entered.

Note: While working with the menu, you will notice the following:

- Valid Values: [ALFANUM]. This indicates you will need to enter an alphanumeric value in the prompt.
- Valid Values: [NUM]. This indicates you will need to enter an numeric value in the prompt.

When all the menu options are set, type <**P**> at the main menu prompt option. The option values selected throughout the configuration are saved.

During this processing, the global variables are validated and the configuration file <SPLEBASE>/etc/ENVIRON.INI is created or updated. This file contains all the variables inputted and calculated. These are required by the next part of the installation process.

To exit the configuration utility without saving any of the values entered, type <**X**> and click **Enter**.

Installation Menu Functionality Details

The Environment Installation Utility requires that Oracle Client Home is set in the path for the user performing the installation. Prior to running the installation utility, you must review the supported platforms document to ensure that you have all the required Third-Party software installed at your end. In the Installation menu if the variables are set prior to execution, then these variable values will be defaulted by the installation utility during installation.

When installation completes successfully, the values will be written to an ENVIRON.INI file. When splenviron.sh / cmd is executed, it reads from the ENVIRON.INI file to set the environment variables.

In the worksheets, there are three different types of values given:

- **Default Values** are the values that will be defaulted when running the installation utility.
- **Security Values** denote values that should be changed when in production.
- **Example Values** are values that can be used for a default installation.

Note: The production environment should not be run with default values.

Refer to the *Server Administration Guide* for additional information about configuring these values.

When you enter passwords, you do not see the password characters on the screen as they are entered in silent mode. Passwords are encrypted when the values are entered by a user.

Install the Oracle Client software specified in the section Supported Platforms prior to running any of the installation utilities.

The following prompt appears when executing the installation utility:

Enter Oracle Client Home Directory (<ENTER> quit):

Note: If the environmental variable ORACLE_CLIENT_HOME is set, then the install script validates the variable. If it passes the validation, you will not be prompted for it. This is needed in order to run Perl installation utilities.

Appendix C

Installation and Configuration Worksheets

This chapter provides the installation and configuration worksheets for Oracle Utilities Advanced Spatial and Operational Analytics.

The chapter includes:

- **Configuration Worksheet for ETL Component Installation**
- **Configuration Worksheet for Dashboard Component Installation**

Configuration Worksheet for ETL Component Installation

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* Environment Installation Options *

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Environment Installation Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_HOME	The home directory of the Oracle Client. The application will use the Perl included under this Oracle Client. Example Location: /oracle/client/product/11.2.0.2	
Installation Options	OWB (OWB components) OBIEE (OBIEE Components) ALL (OWB and OBIEE Components)	Installation type to be selected. The following are the meaning of each installation type: OWB: This will install only the OWB components. OBIEE: This will install only the OBIEE components. ALL: This will install both OWB and OBIEE components. Select this option if both OWB and OBIEE will be deployed on the same server.	Select the OWB Option

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>	The mount point into which the application is installed. Local directory Where components to be installed. For example: /OUASA for UNIX and C:\OUASA for Windows This mount point MUST exist and the administrator user ID MUST be able to write to this directory. (This is the user ID that is created specifically to administer the environments; the installation sets permissions on all subdirectories installed under this directory. See <SPLENVIRON> below for more information on how this mount point is used.	
Log File Mount Point	<SPLDIROUT>	A mount point that will contain any application output or application logs. Example value is / OUASA/sploutput for UNIX installation or C:\OUASA\sploutput for Windows **Note**: This value is currently not used and can be skipped.	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Environment Name	<SPLENVIRON>	A descriptive name to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment. For example, DEV01 or CONV	
Web Java Home Directory	JAVA_HOME	The location on the disk where Java 1.6 is installed. For example: $ORACLE_BI_HOME/jdk	
Database Home Directory	DATABASE_HOME	Location on the disk where database client is installed for your particular installation. Example location for Oracle Database: /oracle/client/product/11.2.0.2	
Database Type		The type of the database e.g. oracle, mssql or db2 Currently only "oracle" is supported.	oracle

Environment Configuration Options

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Environment Configuration *

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Environment Description

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Environment Description	DESC	This is a free form text field to describe the purpose of the environment.	

Database Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
OWB WorkSpace Owner	OWB_WS_OWNER	OWB workspace Owner that is created in **Creating and Configuring Workspace for an Initial Installation**.	BIREPOWN
OWB WorkSpace Owner Password	OWB_WS_OWNER_PASS	OWB workspace Owner Password that is created in **Creating and Configuring Workspace for an Initial Installation**. The password to login to Oracle warehouse Builder design center. This is a Security Value.	BIREPOWN
Database Name	OBIEE_DBNAME	The name of the database instance that the application will be connecting to.	BI Database Name
Database Server	OBIEE_DBSERVER	Host name of the server where database resides.	BI Database Server
Database Port	OBIEE_DBPORT	Database port number on the database server used for connecting to the database	BI Database PORT

Design Repository Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
OWB WorkSpace User	OWB_WS_USER	OWB workspace User that is created in **Creating and Configuring Workspace for an Initial Installation**. The User to login to Oracle warehouse Builder design Control center.	BIREPO

Menu Option	Name Used In Documentation	Usage	Customer Install Value
OWB Workspace user Password	OWB_WS_PASS	OWB workspace User Password that is created in **Creating and Configuring Workspace for an Initial Installation**. The password to login to Oracle warehouse Builder design Control center. This is a Security Value.	BIREPO
OWB WorkSpace Name	OWB_WS_NAME	The name of the Workspace created using Repository Assistant	SPLBIREP
DWADM SCHEMA NAME	DWADM_SCHEMA	The user ID to Register OWB locations	DWADM
DWADM SCHEMA Password	DWADM_PASS	The password to Register OWB locations	DWADM
WORKFLOW MANAGER SCHEMA NAME	OWFMGR_SCHEMA	The user ID to Register OWB locations	OWFMGR
DWADM SCHEMA Password	OWFMGR_PASS	The password to Register OWB locations	OWFMGR

Database Character Set Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Database Character set	DBCS	Database character Set to used to create the database	AL32UTF8

Editing Process Flow Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Repository Operating System	REPOPSYS	Database operating system, for example, Win or Linux (any other platform) Valid Values: Win: windows Linux: for any non windows platforms	
Perl Compiler location	PERLCMD	Perl compiler set in database. For example: /usr/bin/perl	<ORACLE_CLIENT> /perl/bin/perl
Data and control files location	CTLFOLDER	Data and control file extracts location, where flat files placed to pickup by the file processor. For example: user location	
Separator to be used	FILESEP	Separator to be used for OWB deployment, where database resides. For example: Win '\\' and for Linux '/	For Unix / For Windows \\
File Manager location	FILEMGR	File Manager location on the database server. Copy the splfilemanager.plx file from BI240/Scripts directory to this location.	

EMAIL Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Email ID of Sender	EMAILIDSEN	Email ID of sender to be configured in OWB while in deployment For example: OWB@oracle.com	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Email ID for Reply-To address	EMAILIDRPL	Email ID of Reply TO to be configured in OWB while in deployment	
Email ID of Receiver	EMAILIDREC	Email ID of Receiver to be configured in OWB while in deployment	
SMTP server	SMTPSRV	Host name of the server where SMTP Service Configured	
SMTP server port	SMTPPORT	Port number on the server where SMTP Service Configured	

Control Center Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Repository Control Center Name	CCNAME	OWB Repository Control center to created or used to deploy the OWB objects	

External Data Source Configuration

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Path of the External Datasource	EXTERNAMEDS	Path of the extracts location	
Path of the External Datasource LOG	EXTERNAMEDS_LOG	Path of the extracts log location	
File Processor Daemon Execution Switch	FPDEXECUTION_SWITH	File processor execution switch	1
File Processor Extract Max Load	FPDEXTRACT_MAXLOAD	File processor to pick up the Extractor to load	5
File Processor Scheduler Poll Duration	SCHEDULER_POLL_DURATION	File Processor Scheduler Poll Duration	60

Configuration Worksheet for Dashboard Component Installation

Environment Installation Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_HOME	The home directory of the Oracle Client. The application will use the Perl included under this Oracle Client. Example location: /oracle/client/product/11.2.0.2	
Installation Options	OWB (OWB components) OBIEE (OBIEE Components) ALL (OWB and OBIEE Components)	Installation type to be selected. The following are the meaning of each installation type: OWB: This will install only the OWB components. OBIEE: This will install only the OBIEE components. ALL: This will install both OWB and OBIEE components. Select this option if both OWB and OBIEE will be deployed on the same server.	Select OBIEE Option

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>	The mount point into which the application is installed. For example: /OUASA for UNIX and C:\OUASA for Windows This mount point MUST exist and the administrator user ID MUST be able to write to this directory. (This is the user ID that is created specifically to administer the environments; the installation sets permissions on all subdirectories installed under this directory. See <SPLENVIRON> below for more information on how this mount point is used.	
Log File Mount Point	<SPLDIROUT>	A mount point that will contain any application output or application logs. Example value is / OUASA/sploutput for UNIX installation or C:\OUASA\sploutput for Windows **Note**: This value is currently not used and can be skipped.	
Environment Name	<SPLENVIRON>	A descriptive name to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment. For example, DEV01 or CONV	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Web Java Home Directory	JAVA_HOME	The location on the disk where Java 1.6 is installed. For example: $ORACLE_BI_HOME /jdk	
Database Home Directory	DATABASE_HOME	Location on the disk where database client is installed for your particular installation. Example location for Oracle Database: /oracle/client/product/ 11.2.0.2	
Database Type		The type of the database e.g. oracle, mssql or db2 Currently only "oracle" is supported.	oracle

OBIEE Environment Configuration Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle BI Instance Home	ORACLE_INSTANCE	Location on the disk where OBIEE software is installed instance home. Example location for Oracle Database: /orasw/BLDENGBI/ instances/instance1	
Oracle BI Home	ORACLE_BI_HOME	Location on the disk where OBIEE software is installed Oracle_BI Home. Example location for Oracle Database: /orasw/BLDENGBI/ Oracle_BI1	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle BI Domain Home	DOMAIN_HOME	Location on the disk where OBIEE software is installed Oracle_BI Home. Example location for Oracle Domain home: /orasw/BLDENGBI/ user_projects/domains/ bifoundation_domain	
WebLogic Domain Console User Name	WLS_EM_USER	WebLogic domain login user name. You will be prompted for the password after installation.	
WebLogic Domain Console Host	WLS_EM_HOST	The host name on which the web application server resides. Default value: <current server name>	
WebLogic Domain Console Port	WLS_EM_PORT	A unique port number within the system that will be assigned to the HTTP port. This is the port number that is used as a part of the client URL request to connect to the host. This will be OBIEE weblogic console admin port number. Example value: 7001	

Appendix D

Customizing Oracle Utilities Advanced Spatial and Operational Analytics

This chapter provides details about customizing Oracle Utilities Advanced Spatial and Operational Analytics.

The chapter includes:

- **Customizing Web Catalog**
- **Customizing Repository (RPD) File**
- **Customizing Oracle Warehouse Builder (OWB) Mappings**
- **Customizing the File Processor Mappings**

Customizing Web Catalog

It is required that all customizations are done in a separate folder in order for those customizations to be preserved during the upgrade.

Note that dashboards would still be overwritten during the upgrade and any mappings between dashboards and custom (CM) answers will be lost and would need to be re-mapped manually.

Therefore, we recommend that the customer uses a staging (CM) environment for upgrade and manual re-mapping of dashboards before moving the upgraded CM content into the production environment.

Customizing Repository (RPD) File

It is required that all customizations are done in a separate repository (RPD) file, separated from the product's out-of-the-box RPD file. Any CM changes will be merged into the upgraded RPD file through the Merge utility of the OBIEE tool, together with the product's out-of-the-box RPD file. We recommend that the customer uses a staging (CM) environment for the RPD upgrade.

Customizing Oracle Warehouse Builder (OWB) Mappings

OWB mappings can be modified by updating the OUBI Metadata in the Table Mapping screen, and running the OWB Generator for the Fact or Dimension table that was modified, to generate TCL scripts that can then be loaded into OWB and deployed to the run-time database.

After an upgrade, the OWB Generator would need to be rerun for any modified fact and dimension tables again, since the OWB Mappings will be overwritten by the default mappings in an upgrade. We recommend that the customer user a staging (CM) environment to test the OWB upgrade and mapping redeployment prior to loading the OWB mappings in a production environment.

For other supported OWB modifications, refer to this support document in Oracle Support:

- Supported Oracle Warehouse Builder Changes for BI Oracle Utilities Business Intelligence [ID 877966.1]

Customizing the File Processor Mappings

For adding new mappings so that they can be processed by the File Processor perform the following steps:

1. Create the "cm_schedulerParm.properties.exit_1.include" file under templates folder.

   For UNIX:

   $SPLEBASE/templates

   For Windows:

   %SPLEBASE%\templates

2. Add the following entry in "cm_schedulerParm.properties.exit_1.include" in the file:

   extract.file.mapping.override.count = <COUNT_NUMBER>

   Where COUNT_NUMBER is scheduler parameter mapping count from source parameter file (viz. extract.file.mapping.count) + user configurable mappings count.

For example:

extract.file.mapping.override.count = 251

3. Add the new user parameter mappings in "cm_schedulerParm.properties.exit_1.include" file.

   Example:

   extract.file.mapping250 = <MAPPING1>

   extract.file.mapping251 = <MAPPING2>

   Note: Refer to *Oracle Utilities Advanced Spatial and Operational Analytics Administrator's Guide* for mapping format.

4. Run the initialSetup command:

   For UNIX:

   $SPLEBASE/initialSetup.sh

   For Windows:

   %SPLEBASE%\initialSetup.sh

5. Start the File Processor.

   For UNIX:

   cd $SPLEBASE/bin

   nohup ksh ./startFileprocessordaemon.sh > ../tmp/

   consoleFileprocessordaemon.log 2>&1 &

   For Windows:

   startFileprocessordaemon.cmd

Appendix E

Additional Resources

Contacting Oracle Support

To contact Oracle support, visit the Oracle Support Web site at

http://www.oracle.com/support/index.html

Appendix F

License and Copyright Notices

Third Party Products

Notice Concerning Usage of Mapping Data

Digital Map Data Provider

Oracle Utilities Advanced Spatial and Operational Analytics require digital map data for providing the mapping functionality. This data could be obtained by licensing eLocation (http://elocation.oracle.com), Oracle's Location Services. eLocation is a comprehensive location mapping tool that comprises a number of components including geo-coding, mapping and a routing engine. It uses Navigation Technologies Corporation's (NAVTEQ) data.

eLocation's Regional Coverage

eLocation is currently licensed for background maps in Western Europe and North America. Refer http://elocation.oracle.com/elocation/legal.html for more information on eLocation's regional coverage and Terms and Conditions.

Customers outside the eLocation covered region or who don't license eLocation can license map data from Navteq or any other third party map data providers such as

1. Google Maps
2. Bing Maps

Oracle Utilities Advanced Spatial and Operational Analytics provide an easy plug-in feature to enable Google or Bing maps. (For more information on map data configuration, refer to **Setting up a Third-Party Base Map** on page 1-32).