

Oracle Utilities Advanced Spatial and Operational Analytics

Installation Guide

Release 2.4.1

E40759-01

May 2013

E40759-01

Copyright © 2000, 2013, Oracle and/or its affiliates. All rights reserved. This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007).

Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third party content, products and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third party content, products or services.

Contents

Preface	i-iv
Audience	i-iv
Prerequisite Knowledge	i-iv
Related Documents	i-iv
Conventions.....	i-v
Acronyms.....	i-v
Chapter 1	
Introduction	1-1
About Oracle Utilities Advanced Spatial and Operational Analytics Installation	1-1
What's New in Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1	1-1
Architectural Changes	1-2
Schema Changes	1-2
Extract-Transform-Load Changes	1-2
Installation Changes	1-2
Chapter 2	
Installation Overview	2-3
Installation Scenarios	2-3
Application Architecture	2-8
Installation Components	2-9
Installation Types.....	2-9
Initial Installation.....	2-9
Upgrade.....	2-10
Demo Installation.....	2-10
Media Pack Components.....	2-11
Documentation Packages.....	2-11
Installation Packages.....	2-11
Supported Source Application Versions.....	2-11
Chapter 3	
System Requirements and Supported Platforms	3-12
Operating Systems and Application Servers.....	3-12
Additional Notes on Supported Platforms.....	3-13
Oracle's Unbreakable Enterprise Kernel.....	3-13
Oracle Database Server	3-13
Oracle VM Support	3-13
Oracle Support Policy on VMWare	3-13
Chapter 4	
Planning the Oracle Utilities Advanced Spatial and Operational Analytics Installation	4-14
Prerequisite Software	4-14
Prerequisite Software for OUASA Database Component	4-14
Prerequisite Software for OUASA ETL Component based on Oracle Data Integrator.....	4-15
Prerequisite Software for OUASA ETL Component based on Oracle Warehouse Builder	4-15
Prerequisite Software for OUASA Dashboard Component	4-15
Prerequisite Software for OUASA Admin Tool Component.....	4-15
Installation Checklist.....	4-15
Chapter 5	
Oracle Utilities Advanced Spatial and Operational Analytics Initial Installation	5-17
Initial Installation Procedure.....	5-17
OUASA Database Component Installation.....	5-17
OUASA ETL Component Installation based on Oracle Data Integrator Installation	5-20

OUASA ETL Component based on Oracle Warehouse Builder Installation.....	5-35
OUASA Dashboard Component Installation	5-42
After the Installation.....	5-53
OUASA Admin Tool Component	5-53
Chapter 6	
Upgrading Oracle Utilities Advanced Spatial and Operational Analytics	6-55
Supported Upgrade Paths.....	6-55
Upgrade.....	6-55
OUASA Database Component Upgrade	6-56
OUASA ETL Component based on Oracle Data Integrator Installation	6-59
Post Installation Tasks.....	6-64
OUASA ETL Component based on Oracle Warehouse Builder Upgrade	6-74
OUASA Dashboard Component Upgrade	6-82
OUASA Admin Tool Component	6-94
After the Installation	6-94
Chapter 7	
Demo Installation Procedure.....	7-95
OUASA Database Component Installation	7-95
Copying and Decompressing Install Media	7-95
Database Creation and Dump File Import	7-95
Security Configuration.....	7-96
Spatial Configuration	7-97
OUASA Dashboard Component Installation.....	7-97
Copying and Decompressing Install Media	7-97
Setting Permissions for cistab File in UNIX	7-98
OUASA Dashboard Package Installation Steps.....	7-98
Post-installation Tasks.....	7-100
After the Installation	7-107
Chapter 8	
Configuring Your Applications.....	8-108
Spatial Configuration.....	8-108
Installing US State Spatial Data.....	8-108
Installing US City Spatial Data	8-110
Installing US Zip Code Spatial Data	8-111
Installing US County Spatial Data	8-112
Configuring NMS Device Spatial Data.....	8-114
Loading Spatial Metadata	8-115
Improving Performance by Prefetching Map Tiles	8-116
OBIEE Configuration	8-117
Setting Up and Configuring User Security	8-118
Managing Content in the Presentation Catalog.....	8-119
Chapter 9	
Installing the OUASA Admin Tool.....	9-122
Appendix A	
Data Warehouse Implementation Guidelines	A-1
Init.ora Settings	A-1
Oracle Partitioning	A-2
Appendix B	
Installation Menu Functionality.....	B-1
Installation Menu Functionality Overview	B-2
Installation Menu Functionality Details	B-2
Appendix C	
Installation and Configuration Worksheets.....	C-1

Configuration Worksheet for ETL Component based on OWB Installation	C-2
Environment Installation Options	C-3
Environment Configuration Options	C-4
Configuration Worksheet for ETL Component based on ODI Installation	C-11
Environment Installation Options	C-11
Environment Configuration Options	C-13
Configuration Worksheet for Dashboard Component Installation	C-17
Environment Installation Options	C-18
OBIEE Environment Configuration Options	C-19
Target Database Details	C-20
Appendix D	
Customizing Oracle Utilities Advanced Spatial and Operational Analytics.....	D-1
Customizing Web Catalog	D-1
Customizing Repository (RPD) File	D-1
Customizing Oracle Warehouse Builder (OWB) Mappings	D-1
Customizing the File Processor Mappings	D-2
Changing the environment parameter values	D-3
Appendix E	
Additional Resources	E-1
Contacting Oracle Support	E-1
Appendix F	
License and Copyright Notices	F-1
Third Party Products	F-1
Notice Concerning Usage of Mapping Data	F-1

Preface

This guide describes how to install and configure Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) version 2.4.1.

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 v2.4.1.

Prerequisite Knowledge

OUASA requires a few other software products for it to function. The person reading this guide should have experience of working on or installing the following products:

- Oracle Database Server
- Oracle Business Intelligence Enterprise Edition
- Oracle Warehouse Builder
- Oracle Data Integrator

Related Documents

For more information, refer to 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*
- *Data Mapping Guide for Oracle Utilities Meter Data Management Extractors and Schema*
- *Data Mapping Guide for Oracle Utilities Mobile Workforce Management Extractors and Schema*
- *Data Mapping Guide for Oracle Utilities Work and Asset Management Extractors and Schema*
- *Data Mapping Guide for Oracle Utilities Network Management System Extractors and Schema*
- *Data Mapping Guide for Oracle Utilities Customer Care and Billing Extractors and Schema*
- *Data Mapping Guide for Oracle Utilities Operational Device Management Extractors and Schema*
- *Metrics Reference Guide for Oracle Utilities Meter Data Analytics*

-
- *Metrics Reference Guide for Oracle Utilities Work and Asset Analytics*
 - *Metrics Reference Guide for Oracle Utilities Customer Analytics, Oracle Utilities Revenue Analytics, Oracle Utilities Credit & Collections Analytics*
 - *Metrics Reference Guide for Oracle Utilities Mobile Workforce Analytics*
 - *Metrics Reference Guide for Oracle Utilities Exception Analytics*
 - *Metrics Reference Guide for Oracle Utilities Distribution Analytics, Oracle Utilities Outage Analytics*
 - *Metrics Reference Guide for Oracle Utilities Operational Device Analytics*

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.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Acronyms

The list of Acronyms used in this guide are as explained below:

- **OUASA:** Oracle Utilities Advanced Spatial and Operational Analytics
- **OBIEE:** Oracle Business Intelligence Enterprise Edition
- **ODI:** Oracle Data Integrator
- **OWB:** Oracle Warehouse Builder
- **CC&B:** Oracle Utilities Customer Care and Billing
- **NMS:** Oracle Utilities Network Management System
- **ODM:** Oracle Utilities Operational Device Management
- **WAM:** Oracle Utilities Work and Asset Management
- **MWM:** Oracle Utilities Mobile Workforce Management
- **MDM:** Oracle Utilities Meter Data Management
- **ETL:** Extraction, Transformation, and Loading
- **GG:** Oracle Golden Gate

Chapter 1

Introduction

This chapter provides an overview of the installation of Oracle Utilities Advanced Spatial and Operational Analytics, including:

- **About Oracle Utilities Advanced Spatial and Operational Analytics Installation**
- **What's New in Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1**
- **Architectural Changes**
- **Schema Changes**
- **Extract-Transform-Load Changes**
- **Installation Changes**

About Oracle Utilities Advanced Spatial and Operational Analytics Installation

Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) version 2.4.1 installation consists of the following components, each of which needs to be installed for a successful installation:

- Star schema definitions
- Extract, Transform, and Load (ETL) process built on Oracle Data Integrator (ODI)
Note that in this release of OUASA v2.4.1, this ETL component is only supported for Oracle Utilities Operational Device Management (ODM) source application
- ETL process built on Oracle Warehouse Builder (OWB)
- Pre-built analytics' dashboards based on Oracle Business Intelligence Enterprise Edition (OBIEE)
- Admin tool installation

Note: The term Oracle Utilities Advanced Spatial and Operational Analytics refers to the five components mentioned in the above list. Only these five components are required for a typical installation. This document provides information about these components in detail.

What's New in Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1 has the following new features:

- Oracle Utilities Operational Device Extractor and Schema
- Oracle Utilities Operational Device Analytics
- ETL component based on Oracle Data Integrator (ODI)

Architectural Changes

The architectural changes are as follows:

- A new administration tool based on application express feature of the Oracle Database is introduced to configure Oracle Data Integrator (ODI) and Oracle Golden Gate.
- New Oracle Data Integrator (ODI) based ELT has been added for Oracle Utilities Operational Device Management (ODM) source application.

Schema Changes

A new group of dashboards grouped under Oracle Utilities Operational Device Analytics has been added. This group provides reporting metrics on the Oracle Utilities Operational Device Management application.

Extract-Transform-Load Changes

Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1 marks the beginning of transition from Oracle Warehouse Builder (OWB) based ETL to Oracle Data Integrator (ODI) based ETL. This release introduces new ODI based ETL for Oracle Utilities Operational Device Management (ODM). Most of the existing ETLs will be moved out to ODI in a phased manner in upcoming Oracle Utilities Advanced Spatial and Operational Analytics releases.

Installation Changes

Automated Deployments for ETL Component based on ODI is done using ODI - SDK code, which is written in java and scripts has been developed around them.

Chapter 2

Installation Overview

This chapter gives a detailed overview of Oracle Utilities Advanced Spatial and Operational Analytics installation. It includes the following sections:

- **Installation Scenarios**
- **Application Architecture**
- **Installation Types**
- **Installation Components**
- **Media Pack Components**
- **Supported Source Application Versions**

Installation Scenarios

The following installation scenarios are discussed with respective flow chart diagrams:

- **Installation Scenario 1**, where Oracle Utilities Operational Device Management (ODM) is not one of the source applications and initial installation is for ETL Component based on OWB. Refer to **Installation Scenario 1** flow chart for the details.
- **Installation Scenario 2**, where the source application is Oracle Utilities Operational Device Management (ODM). Refer to **Installation Scenario 2** flow chart for the details.
- **Installation Scenario 3**, where Oracle Utilities Operational Device Management (ODM) is one of the source applications and customer along with this also has one or more other edge applications such as Oracle Utilities Meter Data Management, Oracle Utilities Mobile Workforce Management, etc. installed as sources. Refer to **Installation Scenario 3** for the details.
- **Installation Scenario 4** for the customers who are upgrading to Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 from an earlier released version. Refer to the **Installation Scenario 4** flow chart for the details.

See **Installation Components** for the list of components comprising the Oracle Utilities Advanced Spatial and Operational Analytics product.

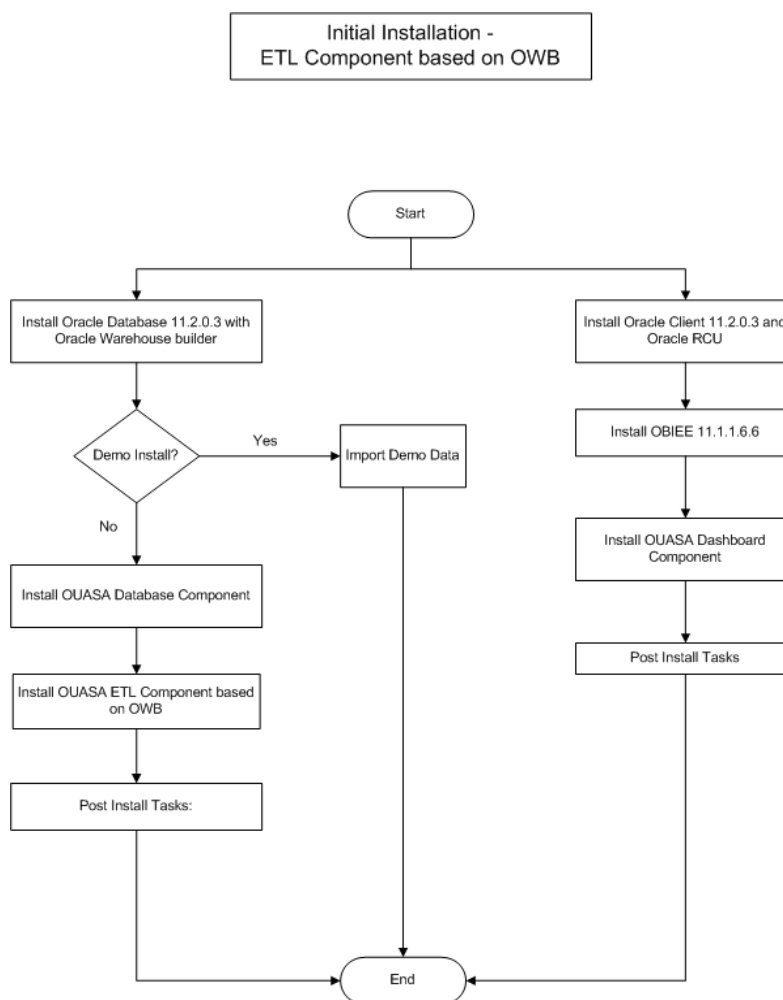
See **Supported Source Application Versions** for the supported source application versions.

Certain prerequisite softwares 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.

Installation Scenario 1

Installation Scenario 1, where Oracle Utilities Operational Device Management (ODM) is not one of the source applications and initial installation is for ETL component based on OWB.

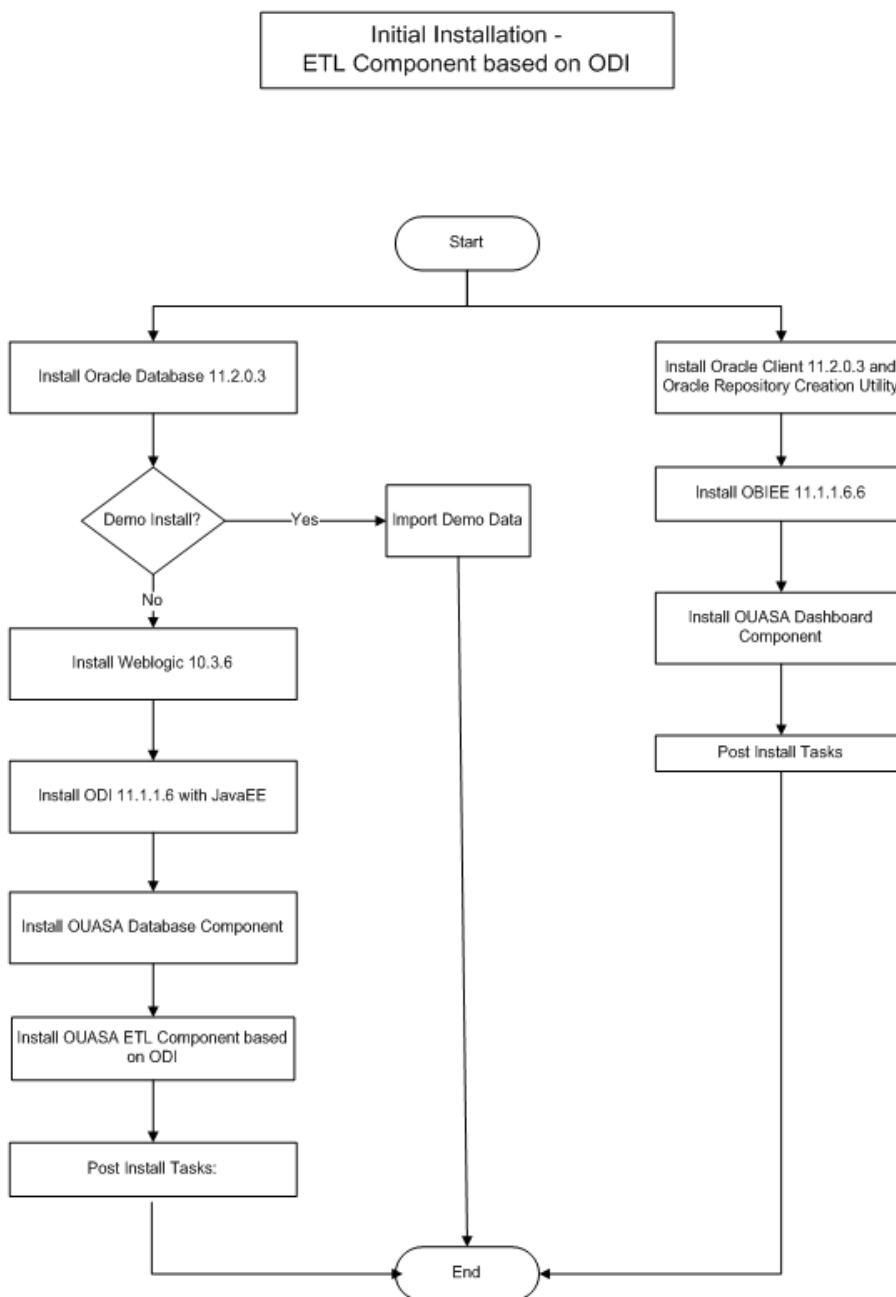
The following diagram shows the graphical representation of the workflow for the initial installation for ETL components based on OWB (applicable when the customer is installing extractor and schema for products other than Oracle Utilities Operational Device Management):



Installation Scenario 2

The source application is Oracle Utilities Operational Device Management (ODM) for ETL component based on ODI. This installation is applicable only if customer is installing Oracle Utilities Operational Device Extractor and Schema.

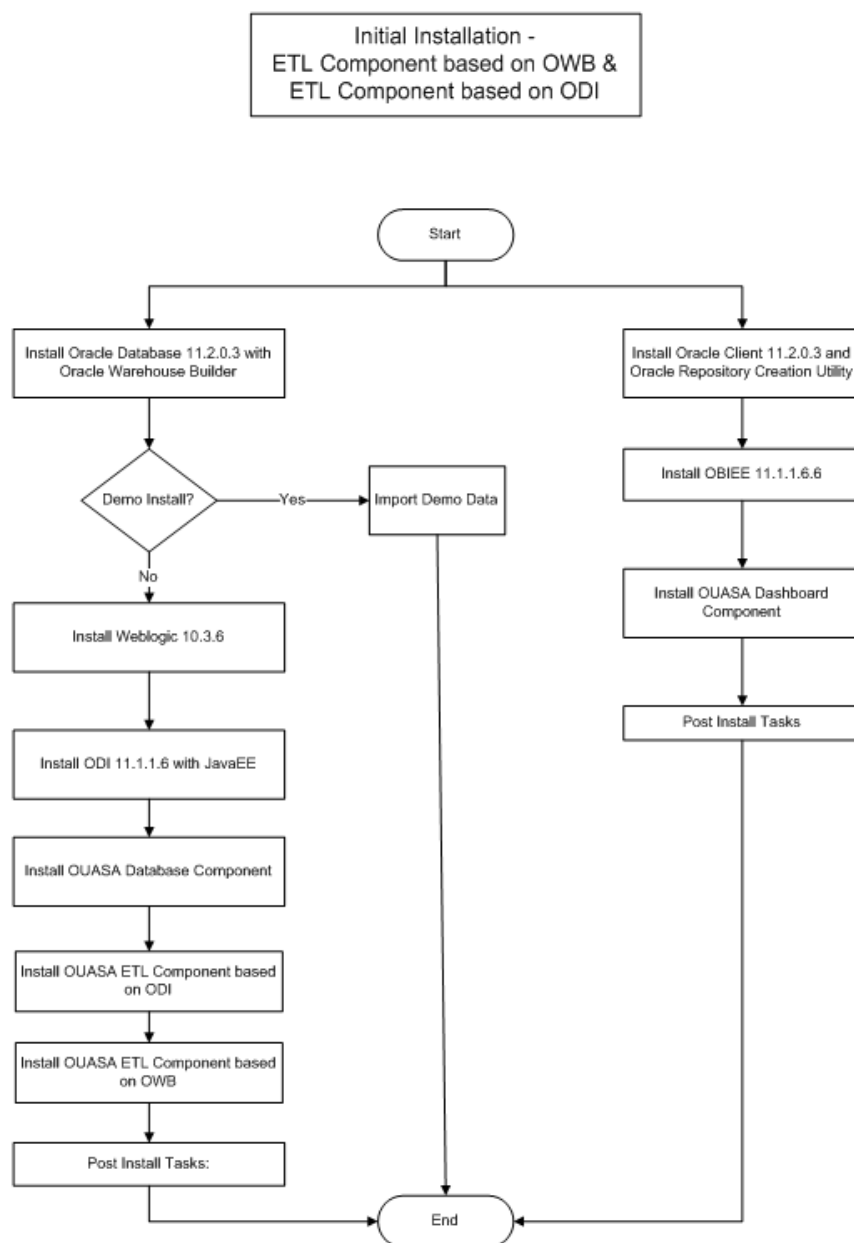
The following diagram shows the graphical representation of workflow for the initial installation process:



Installation Scenario 3

Oracle Utilities Operational Device Management (ODM) is one of the source applications and customer also has one or more other edge applications such as Oracle Utilities Meter Data Management, Oracle Utilities Mobile Workforce Management, etc. as sources. This initial installation is for customers who are using both ETL component based on OWB and ETL component based on ODI.

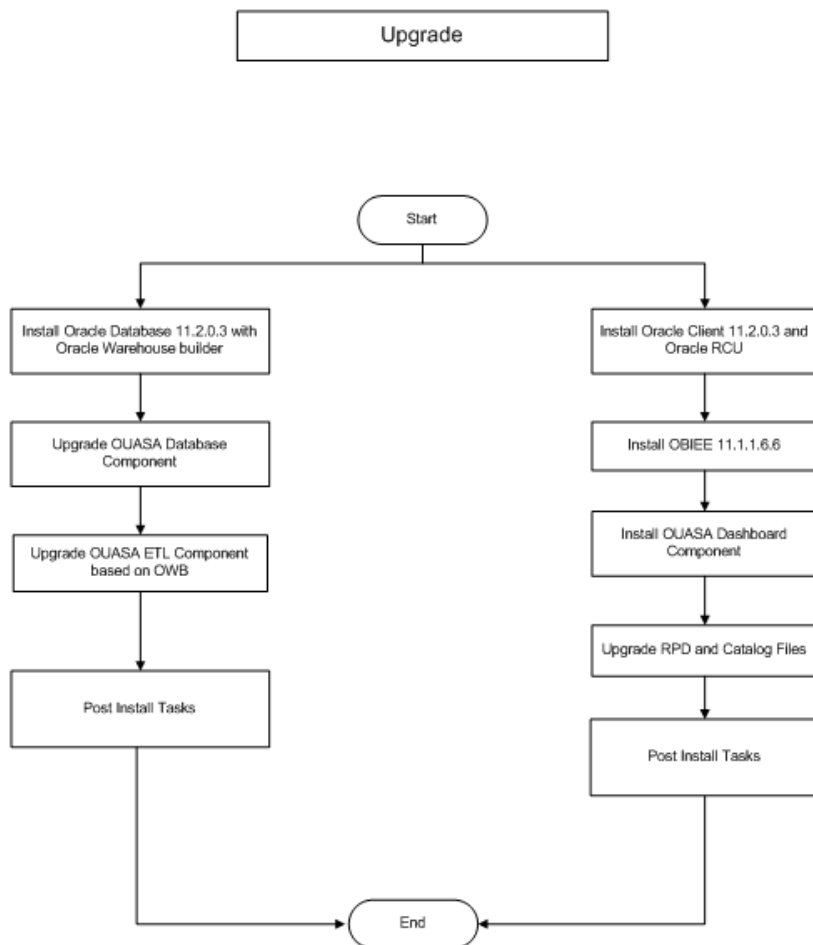
The following figure shows the graphical representation of workflow for the initial installation:



Installation Scenario 4

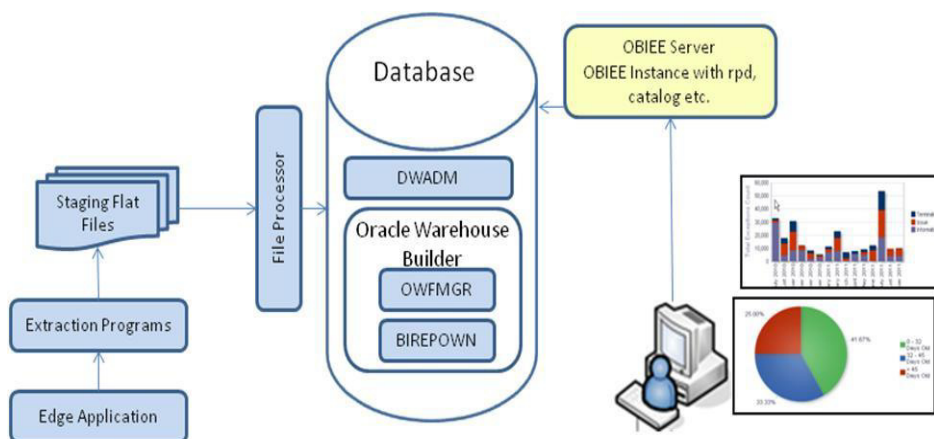
This installation type is for upgrade customers who are upgrading from an earlier version of Oracle Utilities Advanced Spatial and Operational Analytics to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1.

The following figure shows the graphical representation of the workflow for the upgrade process:

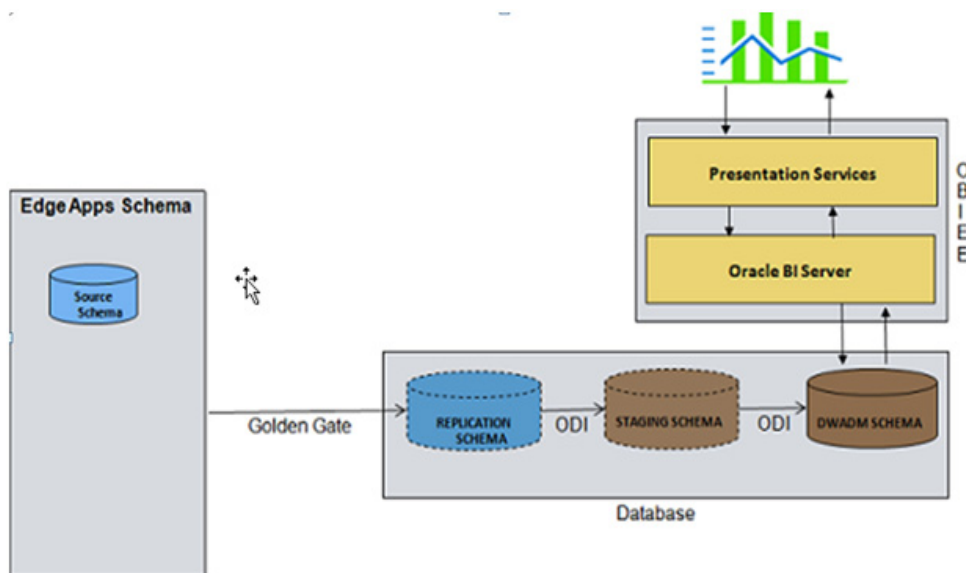


Application Architecture

The following diagram shows the architecture of the Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) product when using ETL based on Oracle Warehouse Builder (OWB):



The following diagram shows the architecture of the Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) product when using ETL based on Oracle Data Integrator (ODI):



Installation Components

The Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 product installation consists of the following components:

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

- Oracle Utilities Advanced Spatial and Operational Analytics Database component containing star schemas and product metadata.
- Oracle Utilities Advanced Spatial and Operational Analytics ETL Component based on Oracle Data Integrator (ODI).
Note that the Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI should be installed on a database server. This installation is required only if you are installing Oracle Utilities Operational Device Extractor and Schema.
- Oracle Utilities Advanced Spatial and Operational Analytics ETL workflows based on Oracle Warehouse Builder (OWB).
Note that the Oracle Utilities Advanced Spatial and Operational Analytics ETL component should be installed on a database server. This is applicable if you have installed extractor and schema for edge application products other than Oracle Utilities Operational Device Management (ODM).
- Oracle Utilities Advanced Spatial and Operational Analytics Dashboards components and answers based on Oracle Business Intelligence Enterprise Edition (OBIEE).
Note that the Oracle Utilities Advanced Spatial and Operational Analytics Dashboard components should be installed where OBIEE is installed on the server.
- Oracle Utilities Advanced Spatial and Operational Analytics Admin tool component installation.

Oracle Utilities Advanced Spatial and Operational Analytics also includes the demo database with pre-populated data that can be used for training or demonstration purposes. Refer to **Demo Installation Procedure** for the details.

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 Installation**, an installation from scratch
- **Upgrade**, an upgrade from an earlier version to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1
- **Demo Installation**, an installation with pre-populated demo data

The following sections describe each of these installations 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:

- Oracle Utilities Advanced Spatial and Operational Analytics Database component.
- Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI (applicable only if customer is installing Oracle Utilities Operational Device Extractor and Schema).

- Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on OWB (applicable if the customer is installing extractor and schema for edge application products other than Oracle Utilities Operational Device Management).

Note: If the customer has installed edge applications, such as Oracle Utilities Customer Care and Billing, Oracle Utilities Network Management System, Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management, then ETL component based on OWB must be installed.

- Oracle Utilities Advanced Spatial and Operational Analytics Dashboard component.
- Oracle Utilities Advanced Spatial and Operational Analytics Admin Tool Component (applicable only if customer is installing Oracle Utilities Operational Device Extractor and Schema (ODM)).

See chapter **Oracle Utilities Advanced Spatial and Operational Analytics Initial Installation** 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 v2.4.1 from an earlier version.

Refer to the section **Supported Upgrade Paths** to find out whether upgrade of your particular version is supported.

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

- Oracle Utilities Advanced Spatial and Operational Analytics Database component.
- Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI (applicable only if customer is installing Oracle Utilities Operational Device Extractor and Schema).
- Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on OWB (applicable if customer is installing extractor and schema for products other than Oracle Utilities Operational Device Management).
- Oracle Utilities Advanced Spatial and Operational Analytics Dashboard component.
- Oracle Utilities Advanced Spatial and Operational Analytics Admin tool component (applicable only if customer is installing Oracle Utilities Operational Device Extractor and Schema).

Refer to chapter **Upgrading Oracle Utilities Advanced Spatial and Operational Analytics** for the steps involved in upgrading each of the required 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:

- Oracle Utilities Advanced Spatial and Operational Analytics Demo database component
- Oracle Utilities Advanced Spatial and Operational Analytics Dashboard components

Refer to chapter **Demo Installation Procedure** for the steps involved in installing each of the required components.

Media Pack Components

Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 Media Pack consists of the following documentation and installation packages:

Documentation Packages

- *Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1 Release Notes*
- *Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1 Quick Install Guide*
- *Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1 Installation Guide and Configuration Guide*
- *Oracle Utilities Advanced Spatial and Operational Analytics v2.4.1 User's Guide*

Installation Packages

- *Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Dashboard Component Multiplatform*
- *Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on OWB Multiplatform*
- *Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on ODI Multiplatform*
- *Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Oracle Database Multiplatform*
- *Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Demo Data*

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 2.4.0
Oracle Utilities Network Management System	1.9.0.3 1.10.0.3.1 1.11.0.1
Oracle Utilities Work & Asset Management	1.9.0.4
Oracle Utilities Meter Data Management	Oracle Utilities Meter Data Management version 2.0.1, Service Pack 8 (2.0.1.8) + Single fix patch # 14741869 + Single fix patch # 15983267 + Framework patch 14741833
Oracle Utilities Mobile Workforce Management	Oracle Utilities Mobile Workforce Management version 2.1.0, Service Pack 4 (2.1.0.4) +Single Fix patch # 14791886 + Framework patch 14741833
Oracle Utilities Operational Device Management	2.0.1.1

Chapter 3

System Requirements and Supported Platforms

This section gives an overview of the tiers on which the product is implemented, and shows each of the operating system/server combinations that the product is certified for. It includes:

- **Operating Systems and Application Servers**
- **Additional Notes on Supported Platforms**

Operating Systems and Application Servers

Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) v2.4.1 installation is certified to operate on many operating system, application server, and database server combinations.

The following table details the browser, operating system, and application server combinations on which Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 has been tested and certified

Browser	Operating System (Client)	Operating System (Server)	Chipset	Application Server	OBIEE	Oracle Data Integrator (ODI)	Golden Gate	Database
IE 7.x		AIX 7.1 (64-bit)	Power 64-bit	WebLogic 10.3.6	11.1.1.6.6	11.1.1.6	11.2.1.0.5_2	Oracle 11.2.0.3
IE 8.x IE 9.x	Windows XP SP3	Oracle Linux 6.2 (64-bit) / Red Hat Enterprise Linux 6.2 (64-bit)	x86_64	WebLogic 10.3.6	11.1.1.6.6	11.1.1.6	11.2.1.0.5_2	Oracle 11.2.0.3
Firefox 10 (ESR)	Windows 7 (64 bit)	Oracle Solaris 10 Update 9 (64-bit)	SPARC	WebLogic 10.3.6	11.1.1.6.6	11.1.1.6	11.2.1.0.5_2	Oracle 11.2.0.3
		Windows 2008 Server R2	x86_64	WebLogic 10.3.6	11.1.1.6.6	11.1.1.6	11.2.1.0.5_2	Oracle 11.2.0.3

You must have the following software listed out below:

Note: Oracle Warehouse Builder is installed as part of the Oracle Database Enterprise Edition Server 11.2.0.3

- Oracle Business Intelligence Enterprise Edition (OBIEE) is required for Oracle Utilities Advanced Spatial and Operational Analytics dashboard component.
- ODI is required for Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI.
- Oracle Golden Gate is required for Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI.
- Oracle Weblogic is required for Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI.

Additional Notes on Supported Platforms

Following topics are discussed in this section:

- **Oracle's Unbreakable Enterprise Kernel**
- **Oracle Database Server**
- **Oracle VM Support**
- **Oracle Support Policy on VMWare**

Oracle's Unbreakable Enterprise Kernel

Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 is supported on Oracle's Unbreakable Enterprise Kernel.

Oracle Database Server

Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 is supported on Oracle Database Enterprise Edition Server 11.2.0.3 on any of the operating systems listed above.

Oracle VM Support

Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 is supported on Oracle VM 2.2.2 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.

<https://support.oracle.com>

Chapter 4

Planning the Oracle Utilities Advanced Spatial and Operational Analytics Installation

This chapter provides information about planning the Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) installation version 2.4.1, including:

- **Prerequisite Software**
- **Installation Checklist**

Prerequisite Software

For installing the Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1, few prerequisite software needs to be downloaded and installed. Download and install these software as per the instructions provided in respective installation documents.

Ensure that the same Operating System (OS) user is used to install all software components along with the corresponding Oracle Utilities Advanced Spatial and Operational Analytics Components.

The following sections describe the prerequisite software requirement for the below-listed product components of Oracle Utilities Advanced Spatial and Operational Analytics:

- **Prerequisite Software for OUASA Database Component**
- **Prerequisite Software for OUASA ETL Component based on Oracle Data Integrator**
- **Prerequisite Software for OUASA ETL Component based on Oracle Warehouse Builder**
- **Prerequisite Software for OUASA Dashboard Component**
- **Prerequisite Software for OUASA Admin Tool Component**

Prerequisite Software for OUASA Database Component

The prerequisite software for Oracle Utilities Advanced Spatial and Operational Analytics database component is as described below:

- **Oracle Database Server Enterprise Edition 11.2.0.3:** This is required for installing the database component of the Oracle Utilities Advanced Spatial and Operational Analytics product.

Prerequisite Software for OUASA ETL Component based on Oracle Data Integrator

The prerequisite software for Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on Oracle Data Integrator (ODI) are listed below:

- JDK 1.6.0_20. or above
- Oracle Database Server Enterprise Edition 11.2.0.3
- Oracle Weblogic 10.3.6.
- Oracle Data Integrator 11.1.1.6 with Java EE.
- Oracle Golden Gate 11.2.1.0.5_2. On Source Application Database Server and Target Database Server
This can be downloaded from My Oracle Support (<https://support.oracle.com/>)

Prerequisite Software for OUASA ETL Component based on Oracle Warehouse Builder

The prerequisite software for Oracle Utilities Advanced Spatial and Operational Analytics ETL based on Oracle Warehouse Builder (OWB) component are as follows:

- JDK 1.6.0_20 is required for running the File Processor Daemon.
- Oracle Database Server Enterprise Edition 11.2.0.3 with Oracle Warehouse Builder 11.2.0.3.

Prerequisite Software for OUASA Dashboard Component

The prerequisite software for Oracle Utilities Advanced Spatial and Operational Analytics dashboard component are as follows:

- Oracle Business Intelligence Enterprise Edition 11.1.1.6.6 with Enterprise Install Option

Prerequisite Software for OUASA Admin Tool Component

The prerequisite software for the Oracle Utilities Advanced Spatial and Operational Analytics Admin tool component are as follows:

- Oracle Database Server Enterprise Edition 11.2.0.3
- Oracle Apex 4.2

Installation Checklist

The following checklist will guide you through the installation process for the Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1:

The details are provided in subsequent chapters for each of the below-listed step:

1. Determine the installation type. See **Installation Types** to determine the installation type for your scenario. Perform the installation steps as applicable to your installation type.
2. Install the prerequisite software.
See **Prerequisite Software** for more details.
3. Ensure that you have downloaded the Oracle Utilities Advanced Spatial and Operational Analytics components.

Refer to chapter **Oracle Utilities Advanced Spatial and Operational Analytics Initial Installation** for instructions regarding initial installation.

For upgrading from an earlier version of OUASA to OUASA v2.4.1, refer to the chapter **Upgrading Oracle Utilities Advanced Spatial and Operational Analytics**.

Refer to **Demo Installation Procedure** for instructions about demo installation.

4. Perform the post-installation tasks and configure the application.

Chapter 5

Oracle Utilities Advanced Spatial and Operational Analytics Initial Installation

This chapter provides instructions for installing the Oracle Utilities Advanced Spatial and Operational Analytics installation version 2.4.1. It includes the following topics:

- **Initial Installation Procedure**
- **After the Installation**

Initial Installation Procedure

The following topics are discussed in this section:

- **OUASA Database Component Installation**
- **OUASA ETL Component Installation based on Oracle Data Integrator Installation (ODI)**
(applicable only if the customer has Oracle Utilities Operational Device Management (ODM) installed)
- **OUASA ETL Component based on Oracle Warehouse Builder Installation (OWB)**
- **Note:** If the customer has installed edge applications such as, Oracle Utilities Customer Care and Billing, Oracle Utilities Network Management System, Oracle Utilities Work and Asset Management, Oracle Utilities Mobile Workforce Management, or Oracle Utilities Meter Data Management, then, ETL component based on OWB must be installed.
- **OUASA Dashboard Component Installation**
- **OUASA Admin Tool Component**
(applicable only if the customer uses ODI based ETL)

OUASA Database Component Installation

This section describes how to install the database component of the Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1. It includes the following topics:

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

Copying and Decompressing Install Media

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

1. Download the Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 Oracle Database part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Oracle Database Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).
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. Unzip Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Oracle Database Multiplatform.zip to <TEMPDIR> using any zip utility.
4. Unzip the zip file <TEMPDIR>/OUASA-V2.4.1-Database-Multiplatform.zip using any zip utility.

Database Creation

Ensure that Oracle Database Server Enterprise Edition 11.2.0.3 is already installed on the machine in order to create the database.

- Use the Database Configuration Assistant (DBCA) utility to create the database.
Refer to **Database Creation Using DBCA**

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 at the time of database creation.
2. After the database creation, 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. Ensure to create CISTS_01, REPOS_01 and STAGE_01 tablespaces in the database if it is not already created. These tablespaces are required to run the users.sql
5. Ensure that TEMP temporary tablespace exists in databases. If it does not exist, create it. This tablespace is required to run the users.sql
6. Execute users.sql after connecting as sys user to database.

Note: Users.sql script is located in BI241/Scripts/users.sql. This sql creates DWADM (Warehouse user), MASTER_REPO (ODI master repository user), WORK_REPO (ODI work repository user) users with the same username as password. If you want to change the password for any user, then connect as sys user and change the password.

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 owns 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 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. For example: DW_USER. The application will access the database as 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 the DWADM Schema

Perform the following steps to install the DWADM schema:

Note: Ensure to run CDXDBI.exe from a Window desktop that has the Oracle 11.2.0.3 32 bit client and Java Development Kit Version 6.0 Update 20 or later. Ensure to update tnsnames.ora file to connect to the database.

1. Run CDXDBI.exe from ..\BI241\DWADM\Install-Upgrade. 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: <..\BI241\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 using the database, generate the statistics for these new objects.

Spatial Configuration

Refer to section **Spatial Configuration** for details regarding configuring spatial data.

OUASA ETL Component Installation based on Oracle Data Integrator Installation

Ensure that the same Operating System (OS) user is used to install the OUASA ETL component that is used to install all the related software. Refer to section **Prerequisites Software**.

Customers must install the Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on the Oracle Data Integrator (ODI) only if they have the ODM application installed.

Note: Oracle Utilities Operational Device Management (ODM) application set up is a prerequisite in order to install ODI based ETL component. The source ODM application should be setup with the required configurations in order to successfully extract data from ODM to BI before proceeding with the ODI-based ETL component installation. Refer to *Configuring Oracle Utilities Operational Device Management for Business Intelligence* Chapter in the *Data Mapping Guide for Oracle Utilities Operational Device Management Extractors and Schema*.

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

- **Oracle Golden Gate Setup**
- **Copying and Decompressing Install Media**
- **Setting Permissions for cistab File in UNIX**
- **OUASA ETL Component Installation based on Oracle Data Integrator Installation**
- **Post-installation Tasks**

Oracle Golden Gate Setup

Set up the Golden Gate on Source and Target database servers. Here, the Oracle Utilities Operational Device Management (ODM) database is the source database and the Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) database is the target database.

Please ensure to download the Oracle Golden Gate 11.2.1.0.5_2 version from My Oracle Support (<https://support.oracle.com/>).

This section describes the following:

- **Source Database Server Golden Gate Setup**
- **Target Database Server Golden Gate Setup**

Source Database Server Golden Gate Setup

Perform the following steps:

1. Create a directory on source database server. e.g ../GoldenGateHome.
This will be Golden Gate home (GG_Home) on source database Server.
2. Copy the Oracle Golden Gate software in the above created directory.
3. Unzip it. It will extract into a tar file:

```
tar -xvof <tar file>
```
4. Set the source ORACLE_SID and ORACLE_HOME variable.

-
5. Go to the Golden Gate home directory `./ggsci`.
 6. Execute the **create SUBDIRS** command.
 7. Execute the **EDIT PARAMS mgr** command.
This command opens an editor.
 8. Copy the below contents after confirming the mentioned ports are not in use. If they are in use, provide the available ports, and then save the content:
 - `PORT 7830`
 - `DYNAMICPORTLIST 7830-7880`
 - `PURGEOLDEXTRACTS <GG_Home>/dirdat/ODM1AA/*,
USECHECKPOINTS, MINKEEPDAYS 3`
 9. Execute **start mgr** to start the Oracle Golden Gate manager process.
 10. Execute **info all** to view the manager process is running.
 11. Ensure that the database is in archivelog mode.
 12. Connect to the database as sys user and execute the **alter database add supplemental log data (primary key) columns** command.
 13. Go to GG_Home directory.
 14. Connect to database as sys user and create user ODM01SRC (this is the Golden Gate owner) and make sure to assign tablespace that is not assigned to any other user.
 15. Execute **Grant connect,resource,dba to ODM01SRC**
 16. Run the command:
`@marker_setup.sql`
 17. Run the Command:
`@ddl_setup.sql`
 18. Run the Command:
`@role_setup.sql`
 19. Exit the database login and create the diroby directory inside GG_Home directory.

Target Database Server Golden Gate Setup

Perform the following steps:

1. Create a directory on target database server. e.g `./GoldenGateHome`.
This will be Oracle Golden Gate home (GG_Home) on the target OUASA database Server.
2. Copy the Oracle Golden Gate (GG) software in the above created directory.
3. Unzip it. It will extract into a tar file.
`tar -xvof <tar file>`
4. Set the target ORACLE_SID and ORACLE_HOME variable.
5. Go to Oracle Golden Gate home directory `./ggsci`.
6. Execute the **create SUBDIRS** command.
7. Execute the **EDIT PARAMS mgr** command. This opens an editor.
8. Copy the below contents after confirming the mentioned ports are not in use. If they are in use, provide the available ports:
 - `PORT 7830`
 - `DYNAMICPORTLIST 7830-7880`

-
- PURGEOLDEXTRACTS <GG Home>/dirdat/ODM1AA/*,
USECHECKPOINTS, MINKEEPDAYS 3
9. Execute the **start mgr** to start the Oracle Golden Gate manager process.
 10. Execute the **info all** to view the manager process is running.
 11. Exit the Oracle Golden Gate login and create the diroby directory inside GG_Home directory.

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI installation file is delivered in zip 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. Download the Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 ETL Component Based on ODI part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on ODI Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).
2. Log in to the Database server host as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID.
3. 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.
4. Unzip Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component based on ODI Multiplatform.zip to <TEMPDIR>.
5. Decompress the file BI.ODI.V2.4.1-MultiPlatform.jar as follows:
 - cd <TEMPDIR>
 - jar -xvf BI.ODI.V2.4.1-MultiPlatform.jar

Note: You should have Java JDK installed on the machine used to (un)jar the OUASA ETL component based on ODI 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 “BI.ODI.V2.4.1” is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI.

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, 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>/BI.ODI.V2.4.1 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.

OUASA ETL Component based on ODI Package Installation Steps

Follow these steps to install the Oracle Utilities Advanced Spatial and Operational Analytics Package applications after performing the steps to deploy the ETL Component Objects as described in the section above:

Prerequisites Software

Before installing the below package, the following software must be already installed.

- JDK 1.6.0_20 (JAVA_HOME)
- Oracle Database Home (ORACLE_HOME)
- Weblogic 10.3.6 (WL_HOME)
- ODI 11.1.1.6 with Java EE Installation (ODI_HOME)
- Oracle Golden Gate 11.2.1.0.5_2 Software on Source Database Server and Target Database Server (GG_HOME)

Then follow the below instructions to install the OUASA ETL Component based on ODI:

1. Change to the <TEMPDIR>/BI.ODI.V2.4.1 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 11.2.0.3 installed user is used to install the Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) Package.
4. Execute the following script for UNIX/Windows:

For UNIX

Perform the following steps:

1. Run the following commands:

```
export ORACLE_CLIENT_HOME=<ORACLE_HOME>

export PERL_HOME=$ORACLE_CLIENT_HOME/perl

export PATH=$PATH:$PERL_HOME/bin

ksh ./instal.sh
```

Note: On UNIX, ensure that you have the required execute permission on install.sh.

For Windows:

Perform the following steps:

1. set ORACLE_CLIENT_HOME=<ORACLE_HOME>
2. set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
3. set PATH=%PERL_HOME%\bin;%PATH%
4. Run install.cmd

-
5. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
 6. Select each menu item to configure the values.
For detailed description of the values, refer to the **Configuration Worksheet for ETL Component based on ODI Installation**.

Environment Installation Options:

Perform the following steps:

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:
Each item in the above list should be configured for a successful install.
Choose the following options from the menu item (1,2, <P> Process, <X> Exit):

Environment Configuration:

1. Environment Description
Environment Description:
2. ODI Environment Configuration
WEBLOGIC HOME:
ODI HOME:
ODI SUPERVISOR USER: SUPERVISOR
ODI SUPERVISOR Password: sunopsis123
Target Database Name:
Target Database Host:
Target Database Port:: 1521
DWADM Schema Name: DWADM
DWADM Schema Password: <DWADM Password>
ODI Master Schema Name: MASTER REPO
ODI Master Schema Password:
ODI Work Schema Name:
ODI Work Schema Password:
ODI Master Repository ID: 601
ODI Work Repository ID: 602
3. ODI Agent Configuration
ODI Weblogic Agent Host:
ODI Weblogic Agent Port:
4. Source Golden Gate Configuration
Source Instance Name:
Source Golden Gate Manager Port:
Source Golden Gate Dynamic Minimum Port:
Source Golden Gate Dynamic Maximum Port:
Source Golden Gate Algorithm:
Source Golden Gate Encryptkey:
Source Golden Gate Shared Secret:
Source Database Name:
Source Database Host:
Source Database Port:
Source Database Home:
Source Golden Gate Home:
5. Target Golden Gate Configuration
Target Golden Gate Manager Port
Target Golden Gate Dynamic Minimum Port:

Target Golden Gate Dynamic Maximum Port:

Target Golden Gate Algorithm:

Target Golden Gate Encryptkey:

Target Golden Gate Shared Secret:

Target Database Home:

Target Golden Gate Home:

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

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

6. Once the parameter setup is completed, proceed with option **P**. Write to the configure file.
7. Once installation is finished successfully, 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 Component based on ODI**
- **Seeded data Import**
- **Add Instance**
- **InitiateSetup**
- **RunviewGenerator**
- **Weblogic Domain Creation for Oracle Data Integrator Agent**

Deploying ETL Component based on ODI

Follow the sequence for the steps shown below for successful deployment:

For the Oracle Data Integrator (ODI) deployment, the script creates the master and work repositories and imports Oracle Data Integrator metadata.

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLEBASE/bin`
3. Run Ksh `./deployodi.sh`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLEBASE%\bin`
3. Run `deployodi.cmd`

Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log` file

Seeded data Import

This step imports pre-shipped data into the DWADM for Oracle Data Integrator (ODI) Processing.

For UNIX:

Perform the following steps:

-
1. Initialize the environment with the `./splenv.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLEBASE/bin`
3. Run Ksh `./importseededdata.sh`

For Windows:

1. Initialize the environment with the `./splenv.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLEBASE%\bin`
3. Run `importseededdata.cmd`

Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log` file

Add Instance

The below command inserts each Source instance and instance Name into `b1_prod_instance` table.

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenv.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLEBASE/bin`
3. Run Ksh `./addInstance.sh -u <Source_Schema User> -p <Source_Schema User_password> -s <Source Application Schema> -r <Source Application Drill Back URL>`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenv.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLEBASE%\bin`
3. Run `addInstance.cmd -u <Source_Schema User> -p <Source_Schema User_password> -s <Source Application Schema> -r <Source Application Drill Back URL>`

Where

- `Source_Schema User` = Golden Gate Owner created in Source database
For example: `ODM01SRC`
- `Source_Schema User_Password` = Golden Gate Ownerpassword
- `Source Application Schema` = Source Application Schema (E.g: `CISADM`)
- `Source Application Drill Back URL` = Source Application URL (`http://<Host>:<Port>/ouaf/`)

Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log` file

InitiateSetup

This step is run to reverse engineer Source tables, set up the Journalising Setup, and create the Golden Gate scripts.

For Unix:

Perform the following steps:

-
1. Initialize the environment with the `./splenv.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
 2. `cd $SPLEBASE/bin`
 3. Run Ksh `./initiateSetup.sh`.
 4. Go to `$SPLEBASE/GGScriptsGen` directory and locate the folder starting with the instance name. For example: ODM1AA.
 5. Go to `$SPLEBASE/GGScriptsGen/ODM1AA`
 6. Copy the `src` folder to Source Database Server
Refer to the `ReadMe.txt` generated to run the GG Scripts.

Note: Ensure that `ORACLE_SID` and `ORACLE_HOME` are set before running the Golden Gate Scripts on both Source and Target Database Servers.

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenv.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. Run `initiateSetup.cmd`
4. Go to `%SPLEBASE%/GGScriptsGen` directory, you will find the folder created starting with instance name E.g ODM1AA.
5. Go to `%SPLEBASE%/GGScriptsGen/ODM1AA`.
6. Copy the `src` folder to Source Database Server.
Refer to the `ReadMe.txt` generated to run the GG Scripts.

Note: Ensure that `ORACLE_SID` and `ORACLE_HOME` are set before running the Golden Gate Scripts on both the Source and Target Database Servers.

Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log` file

RunviewGenerator

For Unix:

Perform the following steps:

1. Initialize the environment with the `./splenv.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. Run the Ksh `./runviewGenerator.sh`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenv.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. Run the `runviewGenerator.cmd`

Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log` file

Weblogic Domain Creation for Oracle Data Integrator Agent

Weblogic Domain should be created for bringing up the Weblogic Agent (ODI Agent) to complete the steps.

Perform the following steps to bring up Weblogic ODI Agent which is created in step **Deploying ETL Component based on ODI**.

1. Navigate to the Oracle Data Integrator (ODI) installed location <MW_HOME>/Oracle_ODI1\common\bin and run the below command and follow the screens to provide the masterschema and workschema provided in the configuration.

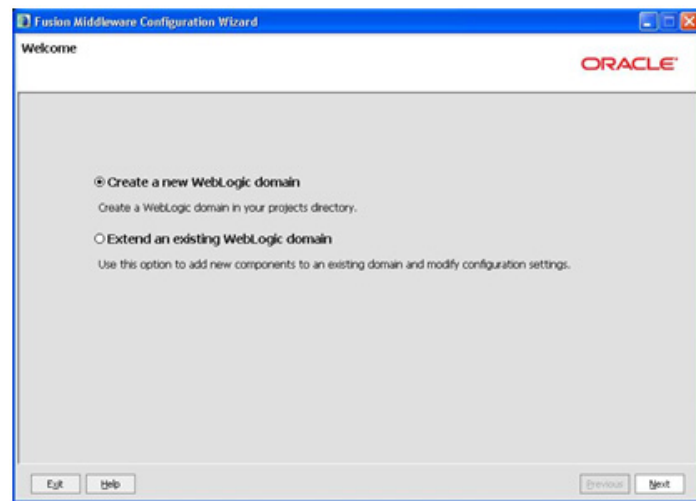
For Unix:

- Run ./Config.sh

For Windows:

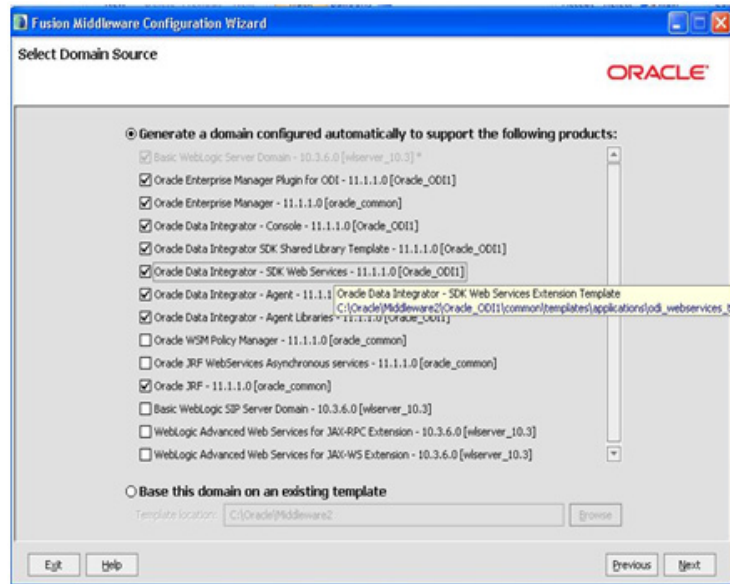
- Run Config.cmd

2. Create a new Weblogic Domain.



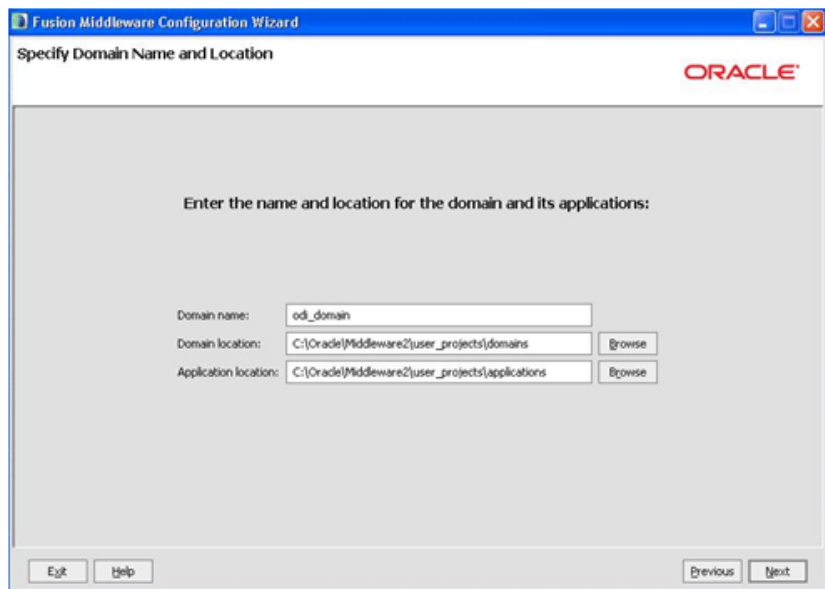
Click **Next**.

3. Generate a domain configured automatically to support the following products. Select the check boxes for the below mentioned plugins. When these plugins are selected, some automatic plugins also get selected.
 - Oracle Enterprise Manager Plugin for ODI -11.1.1.0
 - Oracle Data Integrator - Console - 11.1.1.0
 - Oracle Data Integrator Agent - 11.1.1.0
 - Oracle Data Integrator - SDK Web Services - 11.1.1.0



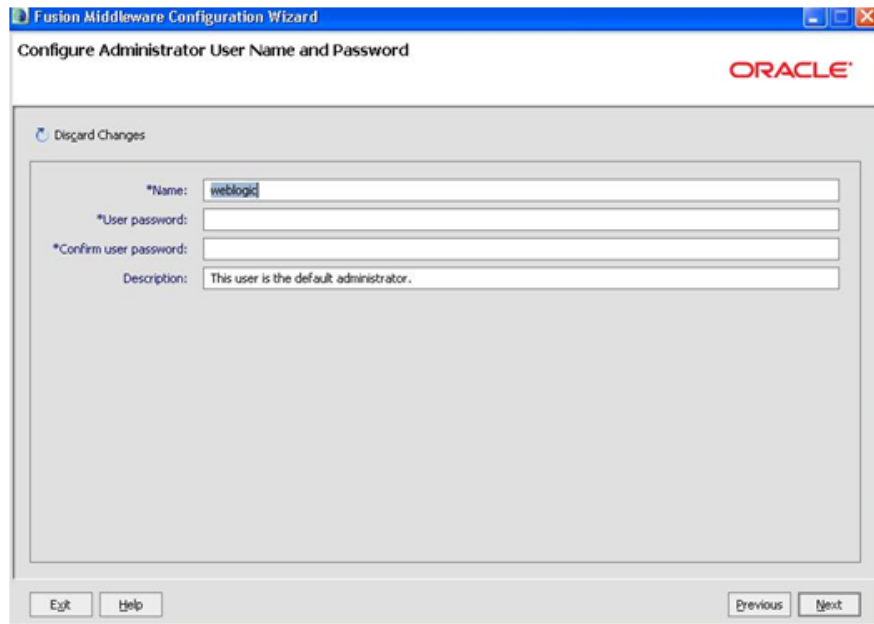
Then, click **Next** to proceed.

4. On the **Specify Domain Name and Location** page, complete the following:
 - Provide the Name: odi_domain
 - Location will be default.



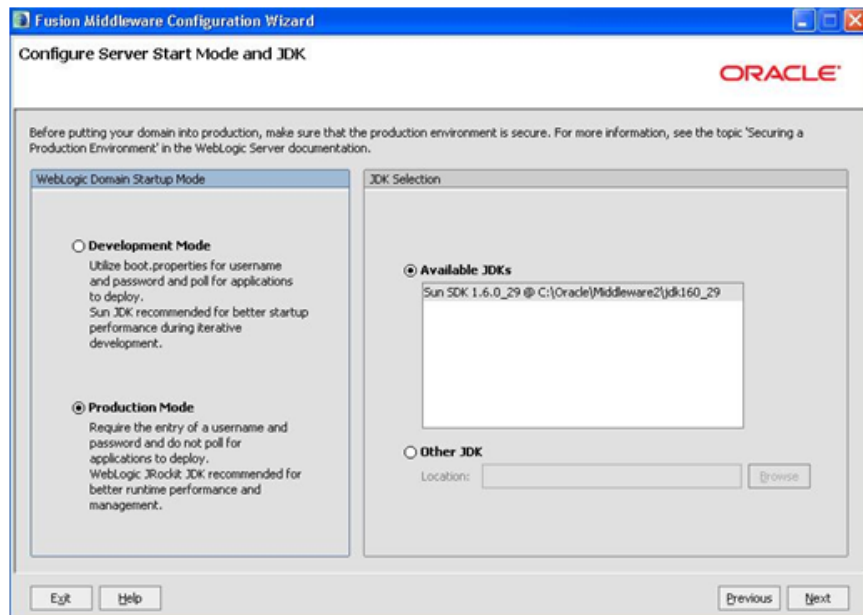
Click **Next** to proceed

5. Configure the Admin UserName and password for Weblogic
Provide the Weblogic password.



Select **Next**.

6. Configure the Server StartUp Mode and JDK
 - Select Production Mode.
 - Provide the JDK 1.6.0_20



7. Configure JDBC Component Schema.

Select only the ODI Master Schema Checkbox. Provide the below details:

- DBMS/Service : Target Database Name

- Host Name : Database Serverhost
 - Port : Database Port
 - Schema Owner : MASTER_REPO
 - Schema Password: MASTER_REPO Password
8. Deselect the ODI Master Schema checkbox.
9. Now, select the ODI Work Schema checkbox. Provide the below details:
- DBMS/Service: Target Database Name
 - Host Name: Database Serverhost
 - Port: Database Port
 - Schema Owner: WORK_REPO
 - Schema Password: WORK_REPO Password

Fusion Middleware Configuration Wizard
Configure JDBC Component Schema

Note: Change only the input fields below that you wish to modify and values will be applied to all selected rows.

Vendor: DBMS/Service:
Driver: Host Name:
Schema Owner: Port:
Schema Password:

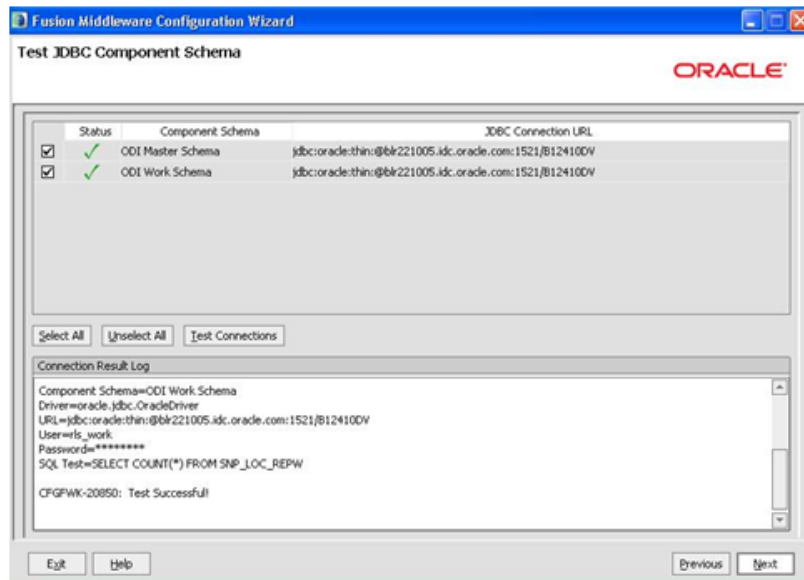
RAC configuration for component schemas:
☐ Convert to GridLink ☐ Convert to RAC multi data source ☐ Don't convert

	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	ODI Master Schema	ord	dbhost.example.com	1521	DEV_ODI_REPO	
<input checked="" type="checkbox"/>	ODI Work Schema	ord	dbhost.example.com	1521	DEV_ODI_REPO	

Exit Help Previous Next

Select **Next** to proceed.

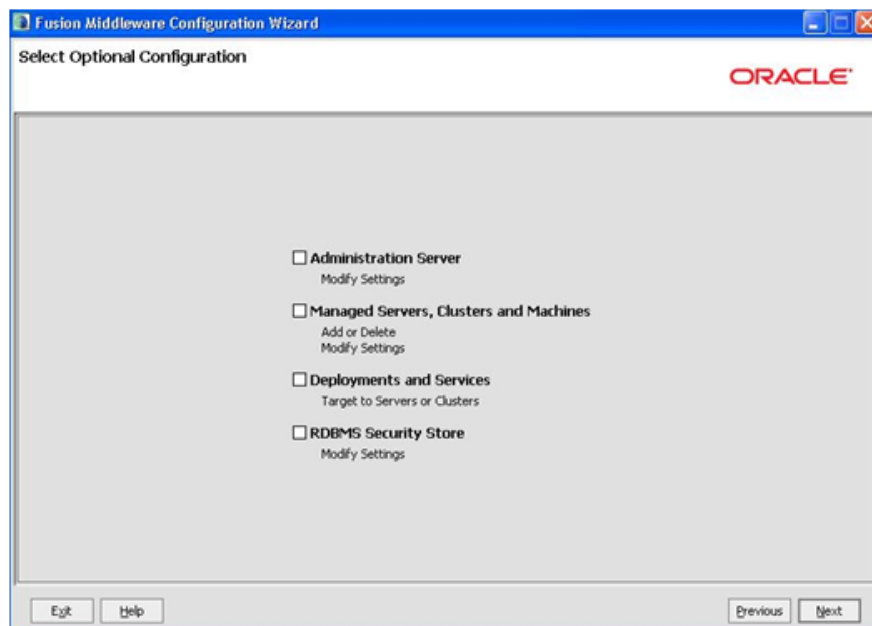
10. Test JDBC Component Schema by selecting **Select All** and **Test Connections**.



Select **Next** to proceed.

11. Select Optional Configuration

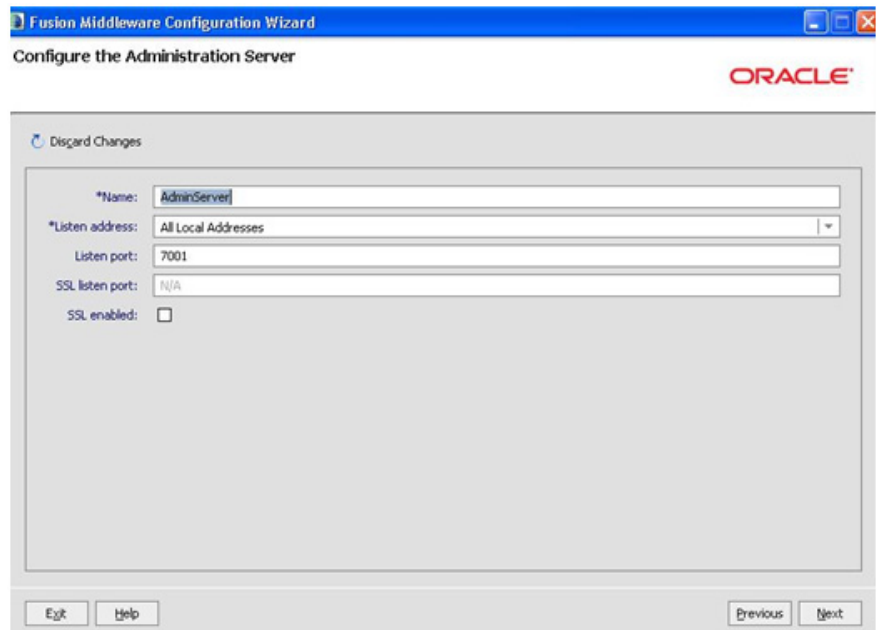
- Select the checkboxes:
 - **Administration Server**
 - **Managed Server, Clusters and Machines.**



- Select **Next** to proceed.

12. Configure the Administration Server

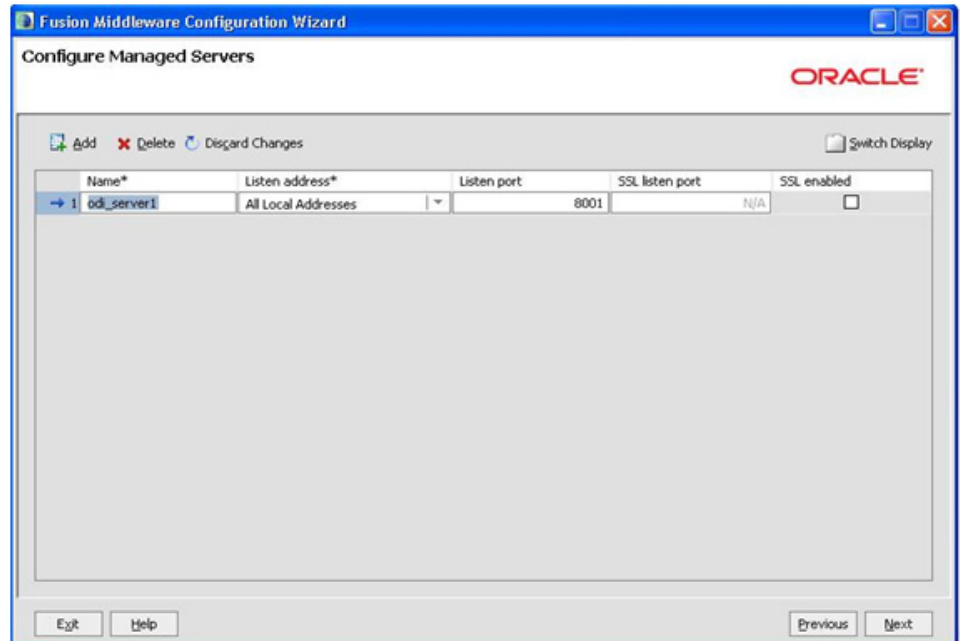
- Provide the listening port, which is not in use



Select **Next** to proceed.

13. Configure Managed Servers by providing the following:

- Name: odi_server1
- Listen Address: All Local Addresses
- Port: <Provide the port, Which is configured in Menu configuration of installation step 3 of ODI Agent Configuration > ODI Weblogic Agent Port.>



14. Configure Cluster.
Click **Next**.

-
15. Configure Machines.
Click **Next**.
 16. Assign Servers to Machines.
Click **Next**.
 17. On the Configuration Summary page, click **Create** to create the domain odi_domain.
 18. After the domain is created, go to Domain Location, create boot.properties file for Weblogic login. Create the <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security folder if not present.
 19. Go to <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security, then create boot.properties with below Values:
 - username=weblogic
 - password=Weblogic password

Starting the WebLogic Admin server and Managed server odi_server1

Perform the following steps:

1. In the command shell, change directory to the directory of the WLS Home - <MW_HOME>/user_projects/domains/odi_domain/bin
2. Execute the startweblogic command for UNIX and Windows:

For Unix

```
nohup ./ startWebLogic.sh > startWebLogic.log &
```

For Windows:

```
startWebLogic.cmd
```

Authenticating the Oracle Data Integrator Supervisor User in WebLogic:

1. Go to <MW_HOME>/oracle_common/common/bin
2. Execute the following command:
 - For Unix**

```
./wlst.sh
```
 - For Windows:**

```
wlst.cmd
```
3. To connect to the running Admin server, execute the following command:

```
connect('<Weblogic User>','<Weblogic password>','t3://<WEBLOGICHOST>:<WEBLOGIC ADMIN PORT>')
```

For example: connect('weblogic','weblogic123','t3://localhost:7001')
4. Execute the following command to add the correct credential store for ODI Supervisor:

```
createCred (map="oracle.odi.credmap", key="SUPERVISOR", user="SUPERVISOR", password="<SUPERVISOR Password>", desc="ODI SUPERVISOR Credential")
```
5. To exit WLST, execute the command exit ().
6. To start managed server odi_server1, change directory to WLS Home:
<MW_HOME>/user_projects/domains/odi_domain/bin

Execute the below commands:

For Unix:

- `nohup ./ StartManagedWeblogic.sh odi_server1 > StartManagedWeblogic.log &`

For Windows:

- `StartManagedWeblogic.cmd odi_server1`

7. From the ODI Designer, click **Test icon** to test connectivity of the configured ODI Java EE agent. Click **OK**.
8. Close the **OracleDI Agent** tab.

After the Installation

Perform the following steps:

1. Log in to Oracle Data Integrator (ODI) studio and navigate to **Designer > Projects > Oracle Utilities BI > Configuration > Scheduler > Packages**.
2. Right click the **BI_INITIAL_SETUP_PKG** and execute.
3. Select **ODM1** as context and **WLS_AGENT** as logical agent and then click **OK**.
4. Go to Operator and view the logs for successful execution of package.

OUASA ETL Component based on Oracle Warehouse Builder Installation

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

Note that the OUASA ETL component should be installed on a database server. This is optional if you have installed Oracle Utilities Operational Device Management (ODM).

Note: If the customer has installed edge applications, say for example, CC&B, NMS, WAM, MWM, or MDM, then the ETL component based on OWB must be installed.

This 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 Component based on Oracle Warehouse Builder Package Installation Steps**
- **Post-Installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on OWB installation file is delivered in a zip 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. Download the Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on OWB part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on OWB Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).
2. Log in to the Database server host as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default cases).

3. 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.
4. Unzip the zip file **Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on OWB Multiplatform.zip** to <TEMPDIR>.
5. Decompress the file BI.OWB.V2.4.1-MultiPlatform.jar as follows:
 - cd <TEMPDIR>
 - jar -xvf BI.OWB.V2.4.1-MultiPlatform.jar

Note: You should have Java JDK installed on the machine used to (un)jar the OUASA ETL component based on OWB 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 **"BI.OWB.V2.4.1"** is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on OWB.

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, this user ID may not be able to write to /etc/ cistab file.

The install utility checks permissions and if it identifies a lack of necessary permissions, it generates a script in the <TEMPDIR>/BI.OWB.V2.4.1 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 to create and configure the Oracle Warehouse Builder Workspace. It also includes details about the following:

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

Pre-deployment Steps for Initial Installation

Before creating/configuring workspace, perform the following steps:

1. Execute the following command to configure the workflow in database.

For Unix:

```
$ORACLE_HOME/owb/wf/install/wfinstall.csh
```

For Windows:

```
%ORACLE_HOME%/owb/wf/install/wfinstall.bat
```

2. This launches a configuration dialog in which you are asked to enter the user name and password. Enter OWFMGR as user and OWFMGR as password.
3. Specify the TNS connect string of the database, in the following format:

```
hostname:port:sid
```

Creating and Configuring Oracle Warehouse Builder Workspace for an Initial Installation

To configure the Oracle Warehouse Builder (OWB), perform the following 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:
 - Database connection details and click **Next**.
 - Select **Manage Warehouse Builder Workspaces** and click **Next**.
 - Select **Create a new Warehouse Builder Workspace** and click **Next**.
 - Select **Workspace with a new user** as the workspace owner.
 - Provide the system user password.
3. Execute cat_owb.sql as sysdba from <OWBHOME>/owb/UnifiedRepos directory, when prompted.
4. Unlock the OWBSYS and OWBSYS _AUDIT accounts, 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;
```
5. 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:
6. 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.
7. Provide the tablespace info for the OWB workspace schema.
8. Select the **Language**. (American Language)

-
9. 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.
 10. On the same screen, click **Create New User** to create a new workspace user. Specify the following details:
 - User Name: BIREPO
 - Password: BIREPO
 11. Review the information and then click **Finish** to complete the workspace configuration.
 12. 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
```
 13. Connect to OWBSYS user and execute <owb-home>/owb/rtp/sql/stop_service.sql.
 14. Connect to OWBSYS user and execute <owb-home>/owb/rtp/sql/start_service.sql.
 15. 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','A
CL for Control Center','OWBSYS', TRUE, 'connect'); EXECUTE
DBMS_NETWORK_ACL_ADMIN.ASSIGN_ACL('acl_for_owb_cc.xml', <S
MPT SERVER>, <SMPT PORT>);
COMMIT;
```
 16. 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
```
 17. Connect to BIREPO user and run spl_exec_wf_prc.sql.

Note: : spl_exec_wf_prc.sql is located in ../BI241/Scripts
 18. Connect to DWADM schema and execute spl_oms_snapshot_pkg.sql.

Note: spl_oms_snapshot_pkg.sql is located in ../BI241/Scripts

19. 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 Component based on Oracle Warehouse Builder Package Installation Steps

After performing the above outlined steps, follow these steps to install the OUASA ETL Component based on the OWB Package:

1. Change to the <TEMPDIR>/BI.OWB.V2.4.1 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 11.2.0.3 Installed User should be the same user installing the OUASA ETL Component based on OWB Package
4. Execute the following script:

For Unix:

Perform the following steps:

- export ORACLE_CLIENT_HOME=<ORACLE_HOME>
- export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
- export PATH=\$PATH:\$PERL_HOME/bin
- Run ksh ./install.sh

Note: Ensure that you have the required execute permission on install.sh.

For Windows:

Perform the following steps:

- set ORACLE_CLIENT_HOME=<ORACLE_HOME>
- set PERL_HOMEb=%ORACLE_CLIENT_HOME%\perl
- set PATH=%PERL_HOME%\bin;%PATH%

-
- Run install.cmd
5. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
 6. Select each menu item to configure the values. For detailed description of the values, see **Configuration Worksheet for ETL Component based on OWB Installation.**

Environment Installation Options:

1. Oracle Client Home Directory:
2. Environment Mount Point:
 - Log Files Mount Point:
 - Environment Name:
 - Web Java Home Directory:

For successful installation, each item in the above list should be configured. Choose the following menu options (1,2, <P> Process, <X> Exit):

Environment Configurations:

1. Environment Description
 - Environment Description:
2. Database Configuratoin
 - OWB WorkSpace Owner:
 - OWB WorkSpace Owner Password: Database Name:
 - Database Server: Database Port:
3. 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:
4. DATABASE CHARACTER SET CONFIGURATION
 - Database Character set: AL32UTF8
5. EDITING PROCESS FLOW CONFIGURATION
 - Repository Operating System:
 - Perl Compiler location:
 - Data and control files location:
 - Separator to be used:
 - File Manager location:
6. EMAIL CONFIGURATION
 - Email ID of Sender:
 - Email ID for Reply-To address:
 - Email ID of Receiver:
 - SMTP server:

SMTP server port:

7. CONTROL CENTRE CONFIGURATION

Repository Control Center Name:

8. 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

For successful installation, each item in the above list should be configured. Choose the following menu options (1,2,3,4,5,6,7,8 <P> Process, <X> Exit):

9. After completing the parameter setup, proceed with the option **P**. Write to the configure file.
10. Once installation is successful, 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**
- **Deploying Materialized Views**
- **Generating Security**
- **Generating Database Statistics**

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 are required to make changes 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:

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:

Perform the following:

-
1. Initialize the environment with the `./splenvron.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLBASE/bin`
3. Run Ksh `./Owbdeploy.sh`

For Windows:

Perform the following:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLBASE%\bin`
3. Run `Owbdeploy.cmd`

Deploying Materialized Views

Perform the following:

For UNIX:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLBASE/bin`
3. Run Ksh `./installViews.sh`
4. Once the deployment is complete, remove the content inside this directory `$SPLBASE/tmp` to ensure that all files are removed:

For Windows:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLBASE%\bin`
3. Run `installViews.cmd`
4. Once the deployment is complete, remove the content inside this directory `%SPLBASE%\tmp` to ensure that all files are removed:

Generating Security

Edit the database name with the name of your database in `OraGenSec.bat` after completing the OWB deployment and run it from `BI241/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 Dashboard Component installation file is delivered in zip 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 11.1.1.6.6 software is installed) 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 in step 3 below as `<TEMPDIR>`.) This directory must be located outside any current working Oracle Utilities application environment. All files placed in this directory as part of the installation procedure can be deleted after completing a successful installation.
3. Copy the file `BI.OBIEE.V2.4.1-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 BI.OBIEE.V2.4.1-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 `"BI.OBIEE.V2.4.1"` is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operational Analytics Dashboard Component.

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, 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>/BI.OBIEE.V2.4.1` 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 recommended that you 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>/BI.OBIEE.V2.4.1 directory.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.

For UNIX:

Perform the following steps:

- export ORACLE_CLIENT_HOME=<ORACLE_HOME>
- export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
- export PATH=\$PATH:\$PERL_HOME/bin
- Run ksh ./install.sh

Note: Ensure that you have the proper execute permission on install.sh. |

For Windows:

Perform the following:

- set ORACLE_CLIENT_HOME=<oracle_client_home>
 - set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
 - set PATH=%PERL_HOME%\bin;%PATH%Install.cmd
3. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
 4. 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:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

For successful installation, each item in the above list should be configured. Choose the following menu options (1,2, <P> Process, <X> Exit):

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:

Provide OBIEE Version Installed:

3. Target Database Details

Target Database Name:

Target Database Host:

Target Database Port: 1521

DWADM Schema Name: DWADM

DWADM Schema Password:

For a successful installation, each item in the above list should be configured. Choose the following menu options (1,2,3 <P> Process, <X> Exit):

4. After completing the parameter setup, proceed with option **P**. Write the configuration file.
5. Once installation is completed successfully, execute the post-installation steps outlined in **Post-installation Tasks**.

Post-installation Tasks

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

- **Deploying Repository (RPD) File**
- **Deploying Web Catalog**
- **Configuring and Deploying MapViewer**
- **Modifying instanceconfig.xml**
- **Deploying Custom MapViewer**
- **Deploying Write Back**
- **Deploying Analytics**
- **Enabling Analytics Help**
- **Enabling Auto Complete Feature on OBIEE 11.1.1.6.6**

Deploying Repository (RPD) File

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

Deploying the RPD file

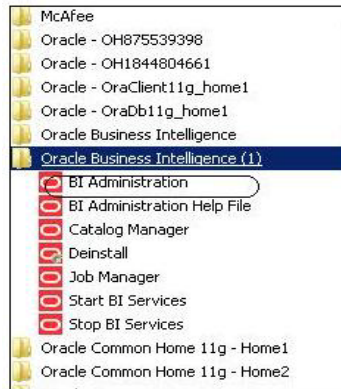
To deploy the repository (RPD) file, follow these steps:

1. OBIEE 11.1.1.6.6 should have been installed on Windows 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.

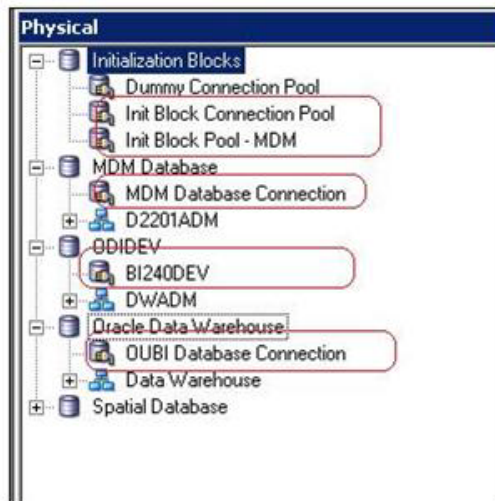
Start > Programs > Oracle Business Intelligence > Administration

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

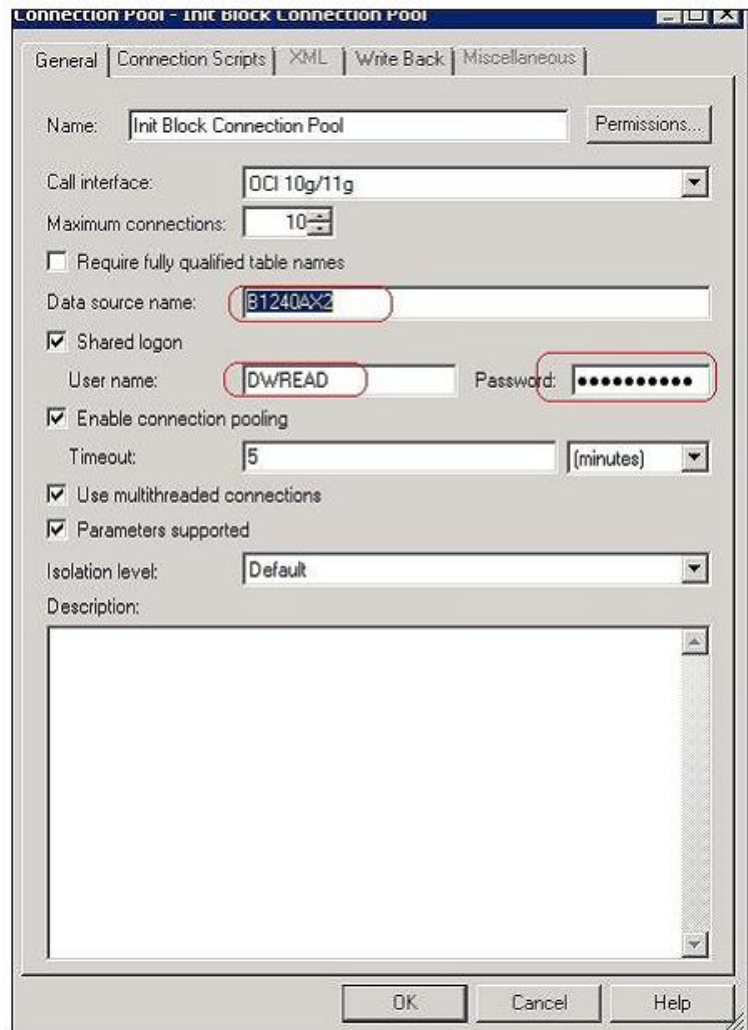
Password = DWUSER User password

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 the OBIEE Enterprise Manager.
13. Navigate to **BI Instance > Coreapplication > Deployment**.
14. Lock and edit.

The repository text box is 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/UtilitiesBusinessAnalytics.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:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.

Note: Ensure to set the LD_BIND_NOW variable to 1 on OEL 6.2 before deploying the catalogs. Navigate to the Install_Dir/bin to initialize.

2. Run this command to export LD_BIND_NOW=1
3. `cd $SPLEBASE/bin`
4. Run `ksh ./deploycatalog.sh`
5. 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:

Perform the following steps:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.

Note: Navigate to the Install_Dir/bin to initialize.

2. `cd %SPLEBASE%\bin`
3. Run `deploycatalog.cmd`
4. 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:

- **Configuring MapViewer**
- **Modifying instanceconfig.xml**
- **Deploying 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 mapViewConfig file with below mentioned tags:

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

web.war/WEB-INF/conf/

File: mapViewConfig.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\OracleBIPresentationServicesCo
mponent\coreapplication_obips1

Modifying instanceconfig.xml

Perform the following:

1. 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:

Perform the following steps:

1. Initialize the environment with the `./splenviron.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. Run `ksh ./deploymapviewer.sh`
4. Enter the WebLogic Domain Console password. For example, `weblogic123`.

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. Run `deploymapviewer.cmd`.
4. Enter the WebLogic Domain Console password. For example, `weblogic123`.

After Deploying Custom MapViewer

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 is to allow the user to 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:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLEBASE/bin`
3. Run `ksh ./deploywriteback.sh`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLEBASE%/bin`
3. Run `deploywriteback.cmd`

Deploying Analytics

To deploy analytics, perform 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 My Oracle Support (<https://support.oracle.com/>).
 2. After downloading the OUASA User Guide, change the name of the Help file to OUASA Help.pdf.
Now, place the Help file in \$SPLEBASE/Skin/OBIEE_11.1.1.6/res is the OUASA dashboard package installation directory.

3. Run the following commands:

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenv.sh -e <envname>` command.
Note: Navigate to the Install_Dir/bin to initialize.
2. `cd $SPLEBASE/bin`
3. Run `ksh ./deployanalyticsear.sh`
4. Enter the WebLogic Domain Console Password. For example, weblogic123

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenv.cmd -e <envname>` command.
Note: Navigate to the Install_Dir/bin to initialize.
2. `cd %SPLEBASE%/bin`
3. Run `deployanalyticsear.cmd`
4. Enter the WebLogic Domain Console Password. For example, weblogic123
5. Restart the BI Core services.
6. Restart WebLogic and all BI services after the OBIEE deployment is completed.
7. Log in to Analytics and navigate to **Administration > Manage Privileges > Write Back > Write Back to Database**.
8. Click **Denied:Authenticated User** and select **Granted**.

Enabling Auto Complete Feature on OBIEE 11.1.1.6.6

Perform the following steps:

1. Navigate to the path
<Middleware_Home>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips1
2. Take a backup of instanceconfig.xml.
3. Open the file instanceconfig.xml.
4. Add the following lines in between the <ServerInstance> </ServerInstance> tags.

```
<Prompts>
<MaxDropDownValues>256</MaxDropDownValues>
<AutoApplyDashboardPromptValues>true</AutoApplyDashboardPromptValues>
<AutoSearchPromptDialogBox>true</AutoSearchPromptDialogBox>
<AutoCompletePromptDropDowns>
<SupportAutoComplete>true</SupportAutoComplete>
<CaseInsensitive>true</CaseInsensitive>
```

```
<MatchingLevel>MatchAll</MatchingLevel>
<ResultsLimit>50</ResultsLimit>
</AutoCompletePromptDropDowns>
</Prompts>
```

5. Save the changes.
6. Restart the OBIEE opmn Services.
7. Log in to analytics `http://<Server>:<port>/analytics`
8. Click on the weblogic User (top right of the page).
9. From the drop down menu select **My Account**.
10. Set Prompt Auto Complete to **ON** and click **OK**.

After the Installation

Ensure that the following tasks are performed after installing Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1:

1. For OUASA ETL related post-installation tasks, see **OUASA ETL Component Installation based on Oracle Data Integrator Installation**. Schedule the B1_run_ALL SCENARIO.
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.

OUASA Admin Tool Component

This is only applicable for customers installing the Oracle Utilities Operational Device Extractor and Schema.

After the installation, customers must set up the Admin Tool for ETL configuration. Refer to Chapter **Installing the OUASA Admin Tool** for details.

Also, refer to *Oracle Utilities Advanced Spatial and Operational Analytics Administrator's Guide* for details.

Chapter 6

Upgrading Oracle Utilities Advanced Spatial and Operational Analytics

This chapter provides instructions for upgrading to Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) installation version 2.4.1.

- **Supported Upgrade Paths**
- **Upgrade**
- **After the Installation**

Supported Upgrade Paths

Direct upgrade to Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 is supported from the following versions:

- Oracle Utilities Advanced Spatial and Operational Analytics version 2.3.2.1, 2.4.0, and 2.4.0.x

For upgrading from a version not supported by direct upgrade path, the product should first be upgraded to OUASA v2.3.2.1 and then upgraded to OUASA v2.4.1.

Upgrade

This section describes the procedure to upgrade Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1:

- **OUASA Database Component Upgrade**
- **OUASA ETL Component based on Oracle Data Integrator Installation**
(applicable only if customer is installing Oracle Utilities Operational Device Extractor and Schema)
- **OUASA ETL Component based on Oracle Warehouse Builder Upgrade**
(applicable if customer is installing extractor and schema for products other than ODM)
- **OUASA Dashboard Component Upgrade**
- **OUASA Admin Tool Component**
(applicable only if customer is installing Oracle Utilities Operational Device Extractor and Schema)

OUASA Database Component Upgrade

This section describes the upgrade installation of the database. Upgrade the database to AL32UTF8 character set if database is not in AL32UTF8 character set. Following topics are discussed in this section:

- **Copying and Decompressing Install Media**
- **DWADM Schema Upgrade**
- **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 version 2.4.1 Oracle Database part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Oracle Database Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).
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. Unzip Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Oracle Database Multiplatform.zip to <TEMPDIR> using any zip utility.
4. Unzip the zip file <TEMPDIR>/OUASA-V2.4.1-Database-Multiplatform.zip using any zip utility.

DWADM Schema Upgrade

This section describes how to upgrade an existing OUASA target schema to OUASA v2.4.1. The upgrade process prompts you for the names of three database users:

- A user who owns the application schema. For example, DWADM
- A user with 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, for example, the 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

Upgrading the Oracle Database

To upgrade the Oracle database, perform the following steps:

Note: Ensure to run CDXDBI.exe from a Window desktop that has Oracle 11.2.0.2+ 32 bit client and Java Development Kit Version 6.0 Update 20 or later. Upgrade your database to AL32UTF8 character set if not in AL32UTF8 character set.

-
1. Run CDXDBI.exe from ..\BI241\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:** <..\BI241\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 BI241/DWADM/Post-Upgrade folder and execute
 5. FieldMetadata_FeatureConfigMigrationScript.sql if upgrading from 2.3.2.1 version.

```
- sqlplus dwadm/dwadm@database-name

@FieldMetadata_FeatureConfigMigrationScript.sql
```
 6. Enter OUAF Application Schema Owner Name at the following prompt:
Enter OUAF Application Schema Owner Name:(e.g SPLADM)
 7. Connect to DWADM schema and execute the following sql script, if upgrading from 2.3.2.1 version.:

```
update b1_configuration set override_value = ''

where feature_name = 'B1_MAPATTTPRO' and option_code = 'B1DD';
Commit;
```

Upgrading from OUASA version 2.4.0, 2.4.0.1, 2.4.0.2, or 2.4.0.3 to v2.4.1

For customers who are upgrading from Oracle Utilities Advanced Spatial and Operational Analytics (OUASA) v2.4.0, v2.4.0.1, v2.4.0.2, or v2.4.0.3 to v2.4.1, these upgrade scripts are applicable.

In earlier release versions of OUASA, the Data Source Indicator (DSI) values coming from the source applications of Oracle Utilities Meter Data Management (MDM) and Oracle Utilities Mobile Workforce Management (MWM) could be manually configured. The '**General System Configuration**' feature was used for this.

However, since Oracle Utilities Advanced Spatial and Operational Analytics Service Pack v2.4.0.4 release onwards, the Data Source Indicator values coming from these source applications are based on the Environment ID available in the F1_INSTALLATION table.

Note: Customers who have manually configured the DSI value in their source applications for MDM or MWM must run these upgrade scripts. These scripts rollbacks the DSI values on the data loaded into the BI data warehouse.

For these upgrade scripts, customers will have to input the new DSI value for each of the source application for MDM or MWM. The new DSI value must be the Environment ID available in the source application. This can be retrieved by running the below query in the respective source application database.

Upgrading from OUASA version 2.4.0, 2.4.0.1, 2.4.0.2, or 2.4.0.3 to v2.4.1

1. Select ENV_ID from F1_INSTALLATION table.
2. Oracle Utilities Meter Data Management Customers need to run ...\\B1241\\DWADM\\Post-Upgrade\\MDM_DSI_Upgrade_Script.sql after connecting to the OUASA database.

For example:

```
sqlplus <DWADM>/<DWADM>@DBNAME  
  
SQL>@MDM_DSI_Upgrade_Script.sql
```

3. Enter the new Data Source Indicator value for Oracle Utilities Meter Data Management source application: <Result of query "**select ENV_ID from F1_INSTALLATION**" after connecting to the MDM database>.
4. MWM customers should run ...\\B1241\\DWADM\\Post-Upgrade\\MWM_DSI_Upgrade_Script.sql after connecting to OUASA database
For example:

```
sqlplus <DWADM>/<DWADM>@DBNAME  
  
SQL>@MWM_DSI_Upgrade_Script.sql
```

5. Enter the new Data Source Indicator value for MWM source application:<Result of query "**select ENV_ID from F1_INSTALLATION**" after connecting to MWM database>.

Spatial Configuration

Note: See **Spatial Configuration** to configure spatial data if application is not already configured.

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

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

Loading Spatial Metadata in the Target Database

1. Create the dump_dir directory in database and copy user_sdo.dmp file from ../B1241/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 the following SQL scripts in the command prompt from ../B1241/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 based on Oracle Data Integrator Installation

This section explains the following:

Prerequisites for OUASA ETL Component based on Oracle Data Integrator Installation

Following are the prerequisites:

- Ensure to create CISTS_01, REPOS_01 and STAGE_01 tablespaces in database, if it is not created already. These tablespaces are required to run the users.sql script.
- Ensure that TEMP temporary tablespace exists in databases. If it does not exist, create it. This tablespace is required to run the users.sql
- Please execute users.sql after connecting as sys user to database.

Note: The users.sql script is located in BI241/Scripts/users.sql. This sql script creates the DWADM(Warehouse user), MASTER_REPO(ODI master repository user), WORK_REPO(ODI work repository user) users if it does not exist in the database with same username as password. If you want to change the password for any user, connect as sys user and then, change the password.

- Ensure that the same Operating System (OS) user is used to install this component that was used to install all the related software.

Note: Customer needs to install OUASA ETL component based on Oracle Data Integrator (ODI) only if customer has the Oracle Utilities Operational Device Management (ODM) application installed. ODM application set up is a pre-requisite to install OUASA ETL component based on ODI.

Once you make the required configuration changes in the ODM application as mentioned above, proceed with the below steps.

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

- **Oracle Golden Gate Setup**
- **Copying and Decompressing Install Media**
- **Setting Permissions for Cistab File in UNIX**
- **OUASA ETL Component based on Oracle Data Integrator Package Installation Steps**
- **Post Installation Tasks**

Oracle Golden Gate Setup

Set up the GoldenGate (GG) on Source and Target database servers. Here, Oracle Utilities Operational Device Management (ODM) database is the source and Oracle Utilities Advanced Spatial and Operational Analytics database is the target database.

Ensure to download the Oracle Golden Gate 11.2.1.0.5_2 release version from My Oracle Support (<https://support.oracle.com/>).

- **Source Database Server Golden Gate Setup**
- **Target Database Server Golden Gate Setup**

Source Database Server Golden Gate Setup

Perform the below steps for setting up the source database server:

Setting up the Source Database Golden Gate Server

1. Create a directory on source database server.
For example: `../GoldenGateHome`. This will be the Golden Gate home (GG_Home) on the source database Server.
2. Copy the Golden Gate software in the above created directory.
3. Unzip the Golden Gate Software. It extracts into a tar file:
`tar -xvof <tar file>`
4. Set the source `ORACLE_SID` and `ORACLE_HOME` variable.
5. Go to Golden Gate home directory:
`../ggsci`
6. Execute the **create SUBDIRS** command.
7. Execute the **EDIT PARAMS mgr** command. This command opens the editor.
8. Copy the below contents after confirming that the below-mentioned ports are not in use. If these ports are in use, provide the next available ports, and then, save the content.
 - `PORT 7830`
 - `DYNAMICPORTLIST 7830-7880`
 - `PURGEOLDEXTRACTS <GG_Home>/dirdat/ODM1AA/*,
USECHECKPOINTS, MINKEEPDAYS 3`
9. Execute **start mgr** to start the Golden Gate manager process.
10. Execute **info all** - to view the manager process is running.
11. Ensure that database is in the archive log mode.
12. Connect to the database as sys user and execute **alter database add supplemental log data (primary key) columns** command.
13. Go to the GG_Home directory
14. Connect to the database as sys user and create a user **ODM01SRC** (It is the Golden Gate owner) and make sure to assign tablespace that is not assigned to any other user.
15. Execute the following commands:

```
"Grant connect,resource,dba to ODM01SRC"\n@marker_setup.sql\n@ddl_setup.sql\n@role_setup.sql
```
16. Exit the database login and create the `dirby` directory inside GG_Home directory

Target Database Server Golden Gate Setup

Perform the following steps to setup the Target Database Server for Golden Gate:

Setting Up the Target Database Server for Golden Gate

1. Create a directory on the target database server.
For example: `../GoldenGateHome`. This will be the Golden Gate home (GG_Home) on target OUASA database Server.
2. Copy the Golden Gate software in the above created directory

-
3. Unzip the Golden Gate Software. It will extract into a tar file
tar -xvof <tar file>
 4. Set the target ORACLE_SID and ORACLE_HOME variable
 5. Go to GG home directory
../ggsci
 6. Execute **create SUBDIRS** command
 7. Execute **EDIT PARAMS mgr**. It opens an editor.
 8. Copy the below contents after confirming the mentioned ports are not in use. If these ports are in use, provide the available ports:
 - PORT 7830
 - DYNAMICPORTLIST 7830-7880
 - PURGEOLDEXTRACTS <GG Home>/dirdat/ODM1AA/*,
USECHECKPOINTS, MINKEEPDAYS 3
 9. Execute **start mgr** to start the Golden Gate manager process.
 10. Execute **info all** - to view the manager process is running
 11. Exit the Golden Gate login and create the diroby directory inside the GG_Home directory.

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI installation file is delivered in a zip 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. Download the Oracle Utilities Advanced Spatial and Operational Analytics version 2.4.1 ETL Component Based on ODI part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on ODI Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).
2. Log in to the Database server host as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID.
3. 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 placed in this directory can be deleted after completing a successful installation.
4. Unzip the zip file **Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on ODI Multiplatform.zip** to <TEMPDIR>.
5. Decompress the file BI.ODI.V2.4.1-MultiPlatform.jar as follows:
 - cd <TEMPDIR>
 - jar -xvf BI.ODI.V2.4.1-MultiPlatform.jar

Note: Ensure that you have Java JDK installed on the machine used to (un)jar the OUASA ETL component based on ODI 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 "**BI.ODI.V2.4.1**" is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on ODI.

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 the 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, 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>/BI.ODI.V2.4.1 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

OUASA ETL Component based on Oracle Data Integrator Package Installation Steps

Follow these steps to install the OUASA ETL component based on ODI after performing the steps to deploy the ETL Component Objects as described in the section above:

Prerequisites for OUASA ETL Component based on Oracle Data Integrator Package Installation

Before installing the Oracle Data Integrator package, ensure that you have already installed the below-mentioned softwares:

Also, note the locations of these software:

- JDK 1.6.0_20 (JAVA_HOME)
- Oracle Database Home (ORACLE_HOME).
- Weblogic 10.3.6 (WL_HOME)
- ODI 11.1.1.6 with Java EE Installation (ODI_HOME)
- Golden Gate 11.2.1.0.5_2 Software on Source Database Server and Target Database Server (GG_HOME)
Download the Golden Gate 11.2.10.5_2 software from My Oracle Support (<https://support.oracle.com/>)

Now, follow the below instructions to install the OUASA ETL Component based on Oracle Data Integrator:

Installing OUASA ETL Component on the Oracle Data Integrator

1. Change to the <TEMPDIR>/BI.ODI.V2.4.1 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 11.2.0.3. Installed User should be having privileges to install the OUASA Package.
 4. Execute the following script for both UNIX and Windows:
For UNIX:
 - export ORACLE_CLIENT_HOME=<ORACLE_HOME>
 - export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
 - export PATH=\$PATH:\$PERL_HOME/bin
 - Run ksh ./instal.sh**Note:** Ensure that you have the required execute permission on install.sh.
For Windows:
 - set ORACLE_CLIENT_HOME=<ORACLE_HOME>
 - set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
 - set PATH=%PERL_HOME%\bin;%PATH%
 - Run Install.cmd
 5. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu is displayed.
 6. Select each menu item to configure the values.
For detailed description of the values, see **Configuration Worksheet for ETL Component based on ODI Installation**.

Environment Installation Options

Perform the following steps:

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

Configure all the following items to guarantee a successful installation.

Choose the following options from the menu (1,2, <P> Process, <X> Exit):

Environment Configurations

Perform the following steps:

1. Environment Description
Environment Description:
2. ODI Environment Configuration:
WEBLOGIC HOME:
ODI HOME:
ODI SUPERVISOR USER: SUPERVISOR
ODI SUPERVISOR Password: sunopsis123
Target Database Name:
Target Database Host:
Target Database Port: 1521
DWADM Schema Name: DWADM
DWADM Schema Password: <DWADM Password>

-
- ODI Master Schema Name: MASTER_REPO
 - ODI Master Schema Password: < MASTER_REPO Password>
 - ODI Work Schema Name:
 - ODI Work Schema Password:
 - ODI Master Repository ID: 601
 - ODI Work Repository ID: 602
 - 3. ODI Agent Configuration
 - ODI Weblogic Agent Host:
 - ODI Weblogic Agent Port:
 - 4. Source Golden Gate Configuration
 - Source Instance Name:
 - Source Golden Gate Manager Port:
 - Source Golden Gate Dynamic Minimum Port:
 - Source Golden Gate Dynamic Maximum Port:
 - Source Golden Gate Algorithm:
 - Source Golden Gate Encryptkey:
 - Source Golden Gate Shared Secret:
 - Source Database Name:
 - Source Database Host:
 - Source Database Port:
 - Source Database Home:
 - Source Golden Gate Home:
 - 5. Target Golden Gate Configuration
 - Target Golden Gate Manager Port:
 - Target Golden Gate Dynamic Minimum Port:
 - Target Golden Gate Dynamic Maximum Port:
 - Target Golden Gate Algorithm:
 - Target Golden Gate Encryptkey:
 - Target Golden Gate Shared Secret:
 - Target Database Home:
 - Target Golden Gate Home:
 - 6. Configure the items in the above list to guarantee a successful installation. Choose the following options from the menu item: (1,2,3,4,5 <P> Process, <X> Exit):
 - 7. After finishing the parameter setup, proceed with the option **P**. Write to the configure file.
 - 8. Once the installation is completed successfully, execute the post-installation steps outlined in **Post Installation Tasks**.

Post Installation Tasks

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

Deploying ETL Component based on the Oracle Data Integrator

The following are the sequential deployment steps to setup the successful deployment.

1. **Oracle Data Integrator Deployment**
2. **Seeded Data Import**
3. **Add Instance**
4. **InitiateSetup**
5. **Runview Generator**
6. **Weblogic Domain Creation for Oracle Data Integrator Agent**
7. **Starting the WebLogic Admin Server and Managed Server odi_server1**
8. **Authenticating ODI Supervisor User in Weblogic**
9. **After the Installation**

Oracle Data Integrator Deployment

In the Oracle Data Integrator (ODI) Deployment step, the script creates the master and work repositories and import of ODI metadata:

Run the following script

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. Run Ksh `./deployodi.sh`
4. Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. Run `deployodi.cmd`
4. Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log`

Seeded Data Import

This step imports pre-shipped data into DWADM for ODI Processing.

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. Run Ksh `./importseededdata.sh`
4. Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. Run `importseededdata.cmd`
4. Verify the log at the location: `$SPLEBASE/logs/system/deployodi.log`

Add Instance

The below command will insert the each Source instance and instance Name into `b1_prod_instance` table.

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. Run `Ksh ./addInstance.sh -u <Source_Schema User> -p <Source_Schema User_password> -s <Source Application Schema> -r <Source Application Drill Back URL>`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. Run `addInstance.cmd -u <Source_Schema User> -p <Source_Schema User_password> -s <Source Application Schema> -r <Source Application Drill Back URL>`

where,

`Source_Schema User` = Golden Gate Owner created in Source database

For example: `ODM01SRC`

- `Source_Schema User_Password` = Golden Gate Owner password
- `Source Application Schema` = Source Application Schema (E.g: `CISADM`)
- `Source Application Drill Back URL` = Source Application URL (`http://<Host>:<Port>/ouaf/`)

InitiateSetup

This step is run to reverse engineer source tables, set up journalising setup, and create Golden Gate scripts.

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. Run `Ksh ./initiateSetup.sh`

-
4. Go to \$SPLEBASE/GGScriptsGen directory and locate the folder created starting with instance name E.g ODM1AA
 5. Goto \$SPLEBASE/GGScriptsGen/ODM1AA
 6. Copy the src folder to Source Database Server
Refer to the ReadMe.txt generated to run the GG Scripts .
 7. Please make sure to set ORACLE_SID and ORACLE_HOME before running the Golden Gate Scripts on both the Source and Target Database Servers.

For Windows:

Perform the following steps:

1. Initialize the environment with the ./splenvron.cmd -e <envname> command.
Note: Navigate to the Install_Dir/bin to initialize.
2. cd %SPLEBASE%\bin
3. Run initiateSetup.cmd
4. Go to %SPLEBASE%/GGScriptsGen directory and locate the Folder which is created starting with instance name E.g ODM1AA
5. Go to %SPLEBASE%/GGScriptsGen/ODM1AA
6. Copy the src folder to Source Database Server
Refer to the ReadMe.txt generated to run the Golden Gate Scripts .
7. Ensure that ORACLE_SID and ORACLE_HOME are set before running the Golden Gate Scripts on both the Source and Target Database Servers.

Runview Generator

This step generates the database views based on the configuration Setup on the Source tables and extract table.

For UNIX:

Perform the following steps:

1. Initialize the environment with the ./splenvron.sh -e <envname> command.
Note: Navigate to the Install_Dir/bin to initialize.
2. cd \$SPLEBASE/bin
3. Run runviewGenerator.sh

For Windows:

Perform the following steps:

1. Initialize the environment with the ./splenvron.cmd -e <envname> command.
Note: Navigate to the Install_Dir/bin to initialize.
2. cd %SPLEBASE%\bin
3. Run ruvviewGenerator.cmd

Weblogic Domain Creation for Oracle Data Integrator Agent

Weblogic Domain should be created for the Weblogic Agent (ODI Agent).

Follow the below steps to bring up Weblogic ODI Agent which is created in step 1 **Oracle Data Integrator Deployment**.

1. Go to the installed location for ODI: <MW_HOME>/Oracle_ODI1\common\bin and then, run the below commands for Unix and Windows. Provide the masterschema and workschema provided in the configuration.

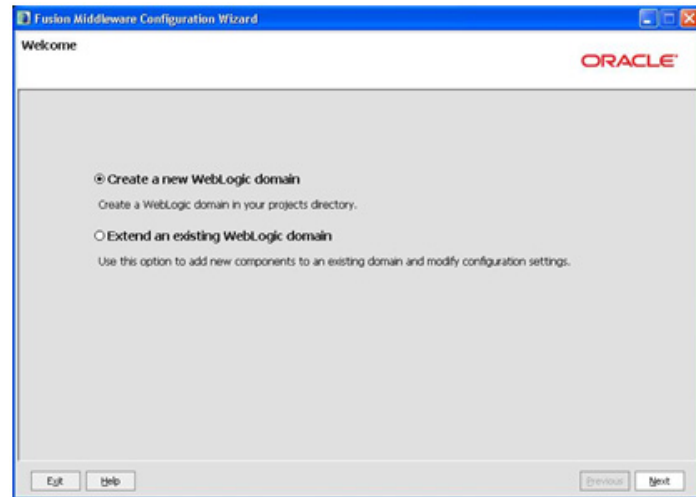
For **UNIX**:

- Run /Config.sh

For **Windows**:

- Run config.cmd

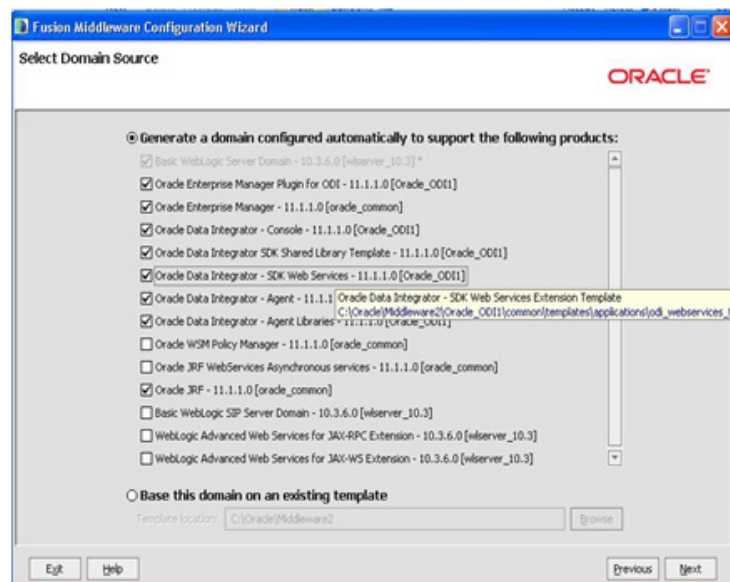
2. Create a new Weblogic Domain.



Select **Next**.

3. Generate a domain configured automatically to support the following products, check boxes the below plugins mentioned. When you select these plugin, there are some automatic plugins that get selected.

- Oracle EnterpriseManager Plugin for ODI - 11.1.1.0
- Oracle Data Integrator - Console - 11.1.1.0
- Oracle Data Integrator Agent - 11.1.1.0
- Oracle Data Integrator - SDK Web Services - 11.1.1.0

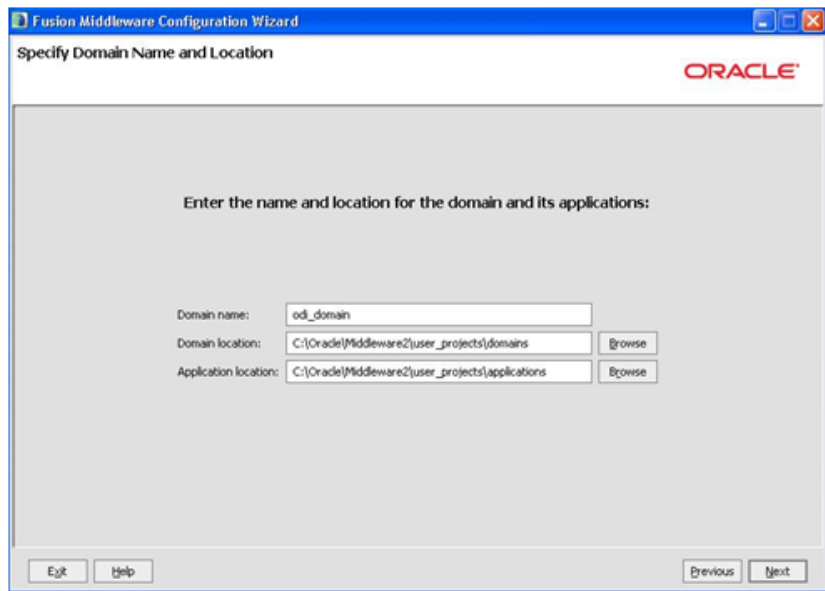


Then Select **Next** to proceed.

- Specify the Domain Name and Location.

Provide the Name : odi_domain

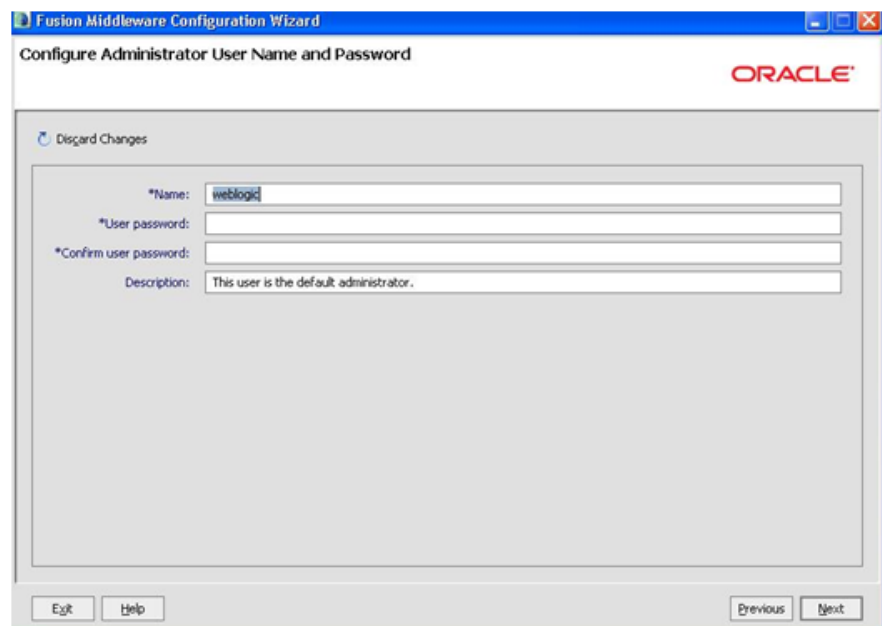
Location will be default.



The screenshot shows the 'Specify Domain Name and Location' window of the Fusion Middleware Configuration Wizard. The window has a blue title bar and an Oracle logo in the top right. The main area is light gray with the text 'Enter the name and location for the domain and its applications:'. Below this, there are three input fields: 'Domain name:' with the text 'odi_domain', 'Domain location:' with the path 'C:\Oracle\Middleware2\user_projects\domains', and 'Application location:' with the path 'C:\Oracle\Middleware2\user_projects\applications'. Each field has a 'Browse' button to its right. At the bottom, there are 'Exit', 'Help', 'Previous', and 'Next' buttons.

Select **Next** to proceed

- Configure Admin UserName and password for Weblogic.
Provide the Weblogic password.



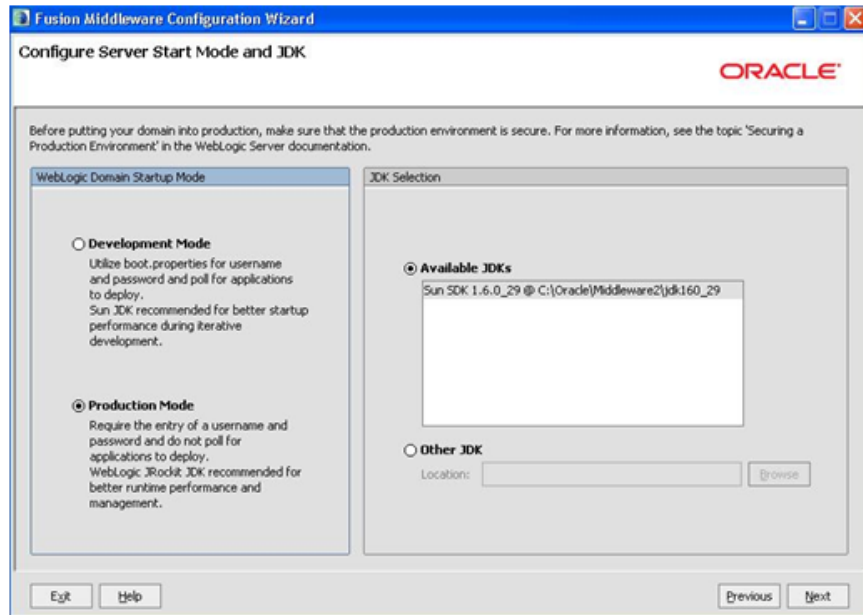
The screenshot shows the 'Configure Administrator User Name and Password' window of the Fusion Middleware Configuration Wizard. The window has a blue title bar and an Oracle logo in the top right. The main area is light gray with a 'Discard Changes' link at the top left. Below this, there are four input fields: '*Name:' with the text 'weblogic', '*User password:', '*Confirm user password:', and 'Description:' with the text 'This user is the default administrator.'. At the bottom, there are 'Exit', 'Help', 'Previous', and 'Next' buttons.

Select **Next**.

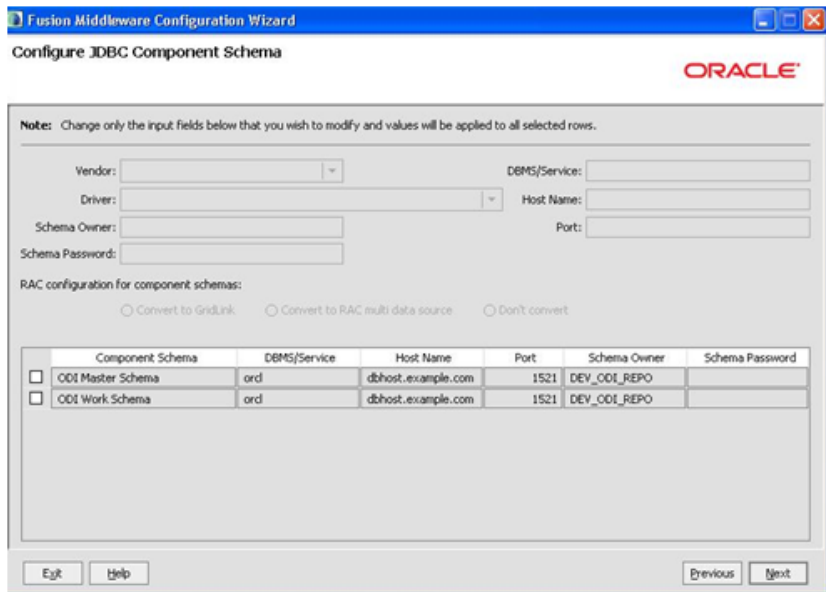
- Configure Server StartUp Mode and JDK.

Select Production Mode.

Provide the JDK 1.6.0_20.



7. Configure JDBC Component Schema.
Select the checkbox **ODI Master Schema** and provide the below details:
 - DBMS/Service : Target Database Name
 - Host Name : Database Serverhost
 - Port : Database Port
 - Schema Owner : MASTER_REPO
 - Schema Password: MASTER_REPO Password
8. Deselect the checkbox **ODI Master Schema**.
9. Select checkbox ODI Work Schema Provide the below details:
 - DBMS/Service: Target Database Name
 - Host Name: Database Serverhost
 - Port: Database Port
 - Schema Owner: WORK_REPO
 - Schema Password: WORK_REPO Password



Fusion Middleware Configuration Wizard
Configure JDBC Component Schema

Note: Change only the input fields below that you wish to modify and values will be applied to all selected rows.

Vendor: DBMS/Service:
 Driver: Host Name:
 Schema Owner: Port:
 Schema Password:

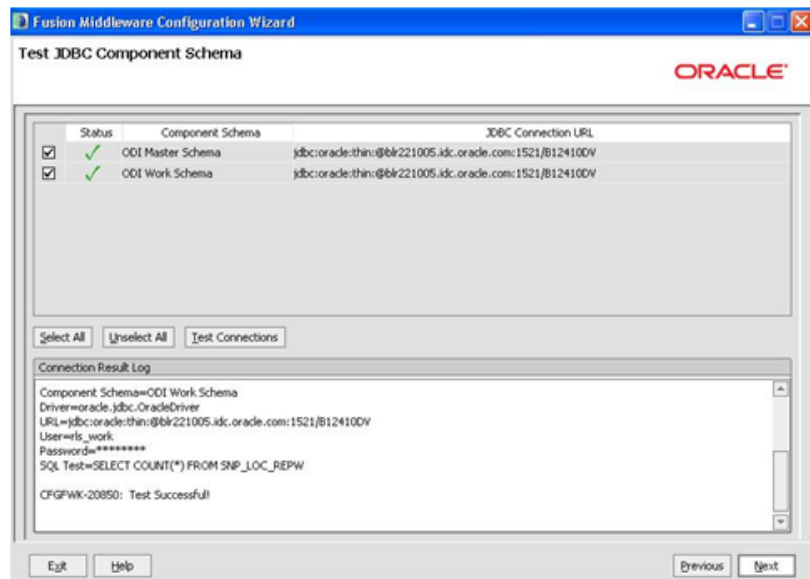
RAC configuration for component schemas:
☐ Convert to GridLink ☐ Convert to RAC multi data source ☐ Don't convert

	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	ODI Master Schema	ord	dbhost.example.com	1521	DEV_ODI_REPO	
<input type="checkbox"/>	ODI Work Schema	ord	dbhost.example.com	1521	DEV_ODI_REPO	

Exit Help Previous Next

Then select **Next** to proceed.

- Test JDBC Component Schema by selecting **Select All** and **Test Connections**.



Fusion Middleware Configuration Wizard
Test JDBC Component Schema

Status	Component Schema	JDBC Connection URL
<input checked="" type="checkbox"/>	ODI Master Schema	jdbc:oracle:thin:@bk221005.idc.oracle.com:1521/B124100V
<input checked="" type="checkbox"/>	ODI Work Schema	jdbc:oracle:thin:@bk221005.idc.oracle.com:1521/B124100V

Select All Unselect All Test Connections

Connection Result Log

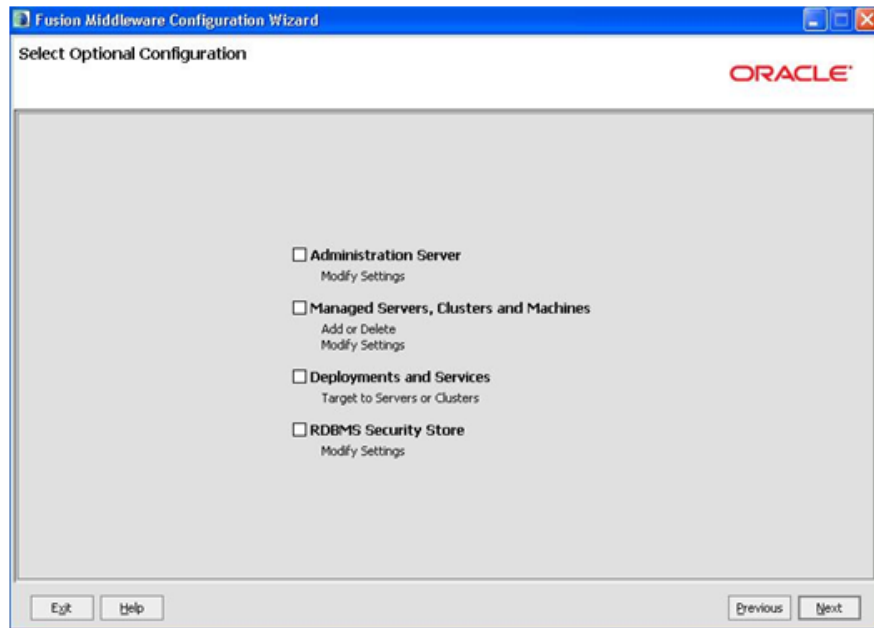
```

Component Schema=ODI Work Schema
Driver=oracle.jdbc.OracleDriver
URL=jdbc:oracle:thin:@bk221005.idc.oracle.com:1521/B124100V
User=rfc_work
Password=*****
SQL Test=SELECT COUNT(*) FROM SNP_LOC_REPW
CFGFWK-20850: Test Successful
  
```

Exit Help Previous Next

Then, select **Next** to proceed.

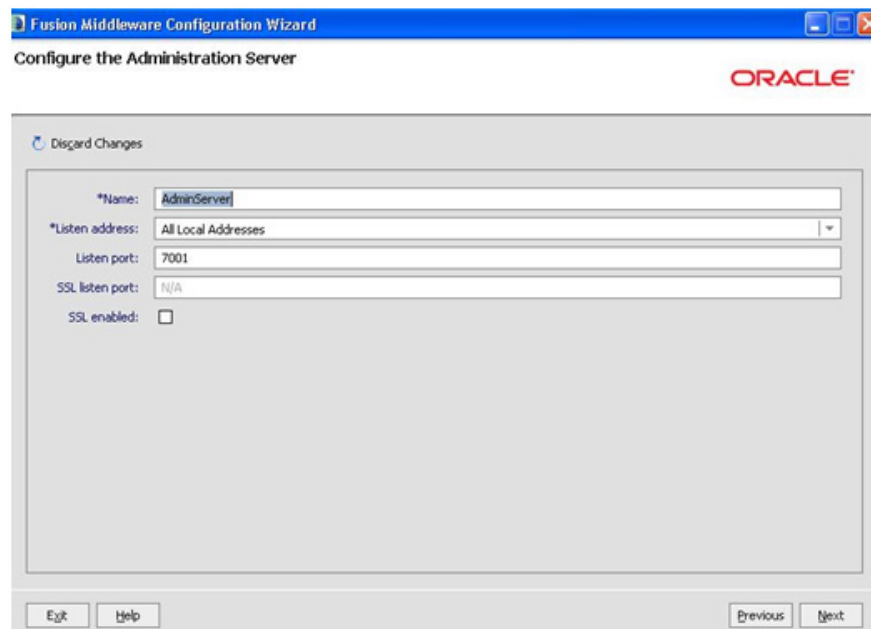
- On the **Select Optional Configuration** page, select the following check boxes:
 - Administration Server**
 - Managed Server, Clusters and Machines.**



Select **Next** to proceed.

12. Configure the Administration Server:

Provide the listening port, which is not in use.



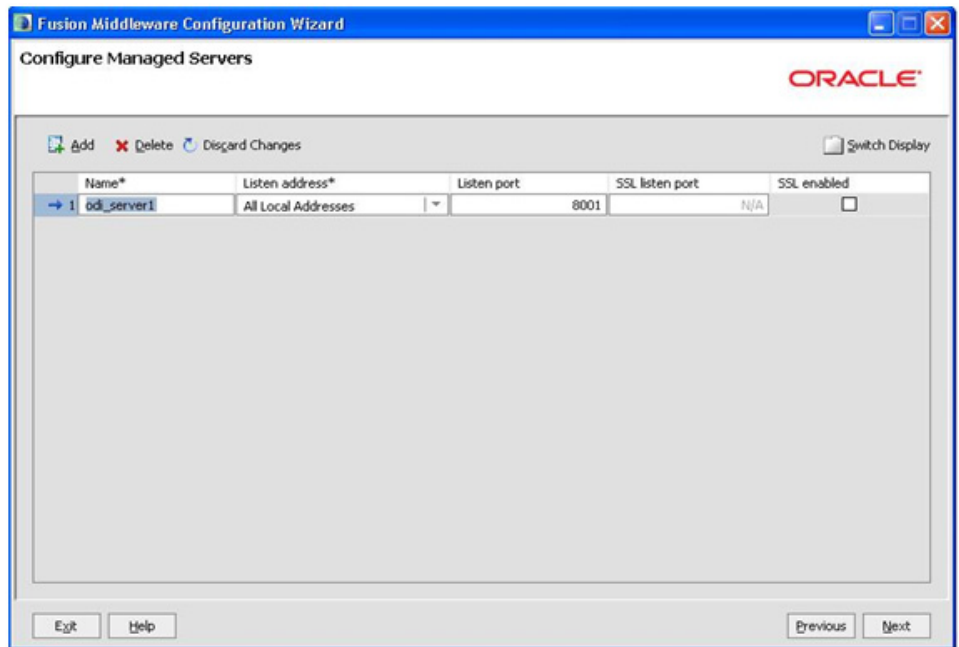
Then select **Next** to proceed.

13. Configure the Managed Servers by providing the following details:

Name: odi_server1

Listen Address: All Local Addresses

Port: <Provide the port>, which is configured in Menu configuration of installation>
ODI Agent Configuration>ODI Weblogic Agent Port:>



Configure Cluster.
Select **Next** to proceed.

14. Configure Machines.
Select **Next** to proceed
15. Assign Servers to Machines.
Select **Next** to proceed.
16. Configuration Summary.
Click **Create** to create the Domain ODI_DOMAIN.
17. After the domain is created, go to Domain Location, Create boot.properties file for Weblogic login.
18. Create the <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security folder if it was not created earlier.
19. Go to <MW_HOME>/user_projects/domains/odi_domain/servers/AdminServer/security, then create boot.properties with below Values:
 username=weblogic
 password=Weblogic password
20. Create the <MW_HOME>/user_projects/domains/odi_domain/servers/odi_server1/security folder if not present.
21. Go to <MW_HOME>/user_projects/domains/odi_domain/servers/odi_server1/security ,then create boot.properties with below Values:
 username=weblogic
 password=Weblogic password

Starting the WebLogic Admin Server and Managed Server odi_server1

Perform the following steps:

1. In the command shell, change directory to the directory of the WLS Home -
 <MW_HOME>/user_projects/domains/odi_domain/bin
2. Execute the startweblogic command.

For Unix:

- `nohup ./ startWebLogic.sh > startWebLogic.log &`

For Windows:

- Run `startWebLogic.cmd`

Authenticating ODI Supervisor User in Weblogic

Perform the following steps:

1. Go to `<MW_HOME>/oracle_common/common/bin`
2. Execute the following command:

For Unix:

```
./wlst.sh
```

For Windows:

```
wlst.cmd
```

3. To connect to the running Admin server, execute the following command:
`connect('<Weblogic User>','<Weblogic password>','t3://<WEBLOGICHOST>:<WEBLOGIC ADMIN PORT>')`
For example: `connect('weblogic','weblogic123','t3://localhost:7001')`
4. Execute the following command to add the correct credential store for ODI Supervisor:
`createCred (map="oracle.odi.credmap", key="SUPERVISOR", user="SUPERVISOR", password="<SUPERVISOR Password>", desc="ODI SUPERVISOR Credential").`
5. To exit WLST, execute the command `exit()`.

To start managed server `odi_server1`

Perform the following steps:

1. Change directory to WLS Home - `<MW_HOME>/user_projects/domains/odi_domain/bin` and use the execute the below commands:

For Unix:

```
nohup ./ StartManagedWeblogic.sh odi_server1 > StartManagedWeblogic.log &
```

For Windows:

```
Run StartManagedWeblogic.cmd odi_server1
```

2. From the Oracle Data Integrator (ODI) Designer, click **Test icon** to test connectivity of your configured ODI Java EE agent. Click **OK**.
3. Close the **OracleDIAgent** tab.

After the Installation

Perform the following steps:

1. Log in to the ODI studio and navigate to **Designer > Projects > Oracle Utilities BI > Configuration > Scheduler Packages**.
2. Right click **BI_INITIAL_SETUP_PKG** and execute
3. Select **ODM1** as context and **WLS_AGENT** as logical agent and then click ok.
4. Go to Operator and view the logs for successful execution of package.

OUASA ETL Component based on Oracle Warehouse Builder Upgrade

This section describes the ETL component installation:

- **Copying and Decompressing Install Media**

-
- **Setting Permissions for cistab File in UNIX**
 - **Configuring and Upgrading the Oracle Warehouse Builder Workspace**
 - **Upgrading the OUASA ETL Component based on Oracle Warehouse Builder Package**
 - **Post Installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on OWB installation file is delivered in zip 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.

Perform the following Steps:

1. Download the Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on OWB part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on OWB Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).
2. Log in to the Database server host as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default cases).
3. 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 can be deleted after successful installation.
4. Unzip **Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on OWB Multiplatform.zip** to <TEMPDIR>
5. Decompress the file BI.OWB.V2.4.1-MultiPlatform.jar as follows:
 - cd <TEMPDIR>
 - jar -xvf BI.OWB.V2.4.1-MultiPlatform.jar

Note: You should have Java JDK installed on the machine used to (un)jar the OUASA ETL component based on OWB 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 "BI.OWB.V2.4.1" is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operational Analytics ETL component based on OWB.

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, 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>/BI.OWB.V2.4.1 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, there is no 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 gives instructions about every step in each specific case.

If you are planning to upgrade an existing environment, ensure that you have taken a backup prior to the initiating the installation process. The installation utility by itself does not create a backup of existing environment.

Configuring and Upgrading the Oracle Warehouse Builder Workspace

This section describes how to configure the Oracle Warehouse Builder workspace. To upgrade to Oracle Utilities Advanced Spatial and Operational Analytics version v2.4.1, follow these steps:

Upgrading to OUASA v2.4.1

1. Back up the database using the backup strategy employed at your site.
2. Apply 12874883 and 13533924 OWB patches on 11.2.0.2 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 ../BI241/Scripts.
4. Connect to the DWADM schema and execute spl_oms_snapshot_pkg.sql. spl_oms_snapshot_pkg.sql is located at ../BI241/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;
```

Upgrading the OUASA ETL Component based on Oracle Warehouse Builder Package

After performing the above steps, proceed with upgrading OUASA ETL Component based on OWB Package steps.

Perform the following:

1. Change to <TEMPDIR>/BI.OWB.V2.4.1 directory.
2. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.
3. If the customer is upgrading from OUASA version 2.4.0 or 2.4.0.x to version 2.4.1, then follow the below steps:
 - Log in to the server host where OUASA ETL Component based on OWB package is installed
 - Connect to OUASA database as sys user and restart the database
 - Go to \$ORACLE_HOME/owb/rtp/sql and execute stop_service.sql and start_service.sql after logging as OWBSYS user
4. Take a back up of the previously installed Oracle Warehouse Builder package environment
5. Log in to the previously installed Oracle Warehouse Builder package environment. Perform the following:
 - Go to the installed environment location e.g cd /bi_oradata_01/QABlds/BI240_CANDIDATE_BLD
 - cd etc
 - Open ENVIRON.INI file and get the value of SPLENVIRON variable. It will look like SPLENVIRON=BI240_CANDIDATE_BLD . Here BI240_CANDIDATE_BLD is environment name.
 - cd ../bin
 - ./splenviron.sh -e <ENVIRONMENT NAME> e.g ./splenviron.sh -e BI240_CANDIDATE_BLD
 - cd bin
6. Run ksh ./stopFileprocessordaeomon.sh to stop the running file processor.

Note: For Unix and WIndows, go to \$SPLEBASE/tmp and then remove all contents inside this directory.
7. Now, proceed with OUASA 2.4.1 install
 - Go to Change to the <TEMPDIR>/BI.OWB.V2.4.1
 - Run ksh ./install.sh for Unix
 - Run install.cmd for Windows

```
12/07/24:14:05:02 <info> Product BI is already installed in the environment
BI240_CANDIDATE_BLD. 12/07/24:14:05:02 <info> Do you want to reinstall it?
(Y/N):Y
```

If customer is upgrading OUASA from v2.3.2.1 to v2.4.1, then perform the below steps.

After the configuration items are displayed on the console, press **P** to continue the installation.\

8. Execute the following script on both UNIX and Windows:

For UNIX:

- export ORACLE_CLIENT_HOME=<ORACLE_HOME>
- export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
- export PATH=\$PATH:\$PERL_HOME/bin
- Run ksh ./install.sh

For Windows:

- set ORACLE_CLIENT_HOME=<ORACLE_HOME>
- set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
- set PATH=%PERL_HOME%\bin;%PATH% Install_O.cmd

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

9. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu is displayed.
10. Select Each Menu Item to configure the values.
For detailed description of the values see **Configuration Worksheet for ETL Component based on OWB Installation**.

Environment Installation Options

1. Oracle Client Home Directory:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

Configure each item in the above list for successful installation. Choose the following options from the menu items: (1,2, <P> Process, <X> Exit):

Environment Configuration

Perform the following steps:

1. Environment Description
Environment Description:
2. Database Configuration
OWB WorkSpace Owner:
OWB WorkSpace Owner Password:
Database Name:
Database Server:
Database Port:
3. 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:
4. DATABASE CHARACTER SET CONFIGURATION
Database Character set: AL32UTF8
5. EDITING PROCESS FLOW CONFIGURATION
Repository Operating System:
Perl Compiler location:

Data and control files location:

Separator to be used:

File Manager location:

6. EMAIL CONFIGURATION

Email ID of Sender:

Email ID for Reply-To address:

Email ID of Receiver:

SMTP server:

SMTP server port:

7. CONTROL CENTRE CONFIGURATION

Repository Control Center Name:

8. EXTERNAL DATA SOURCE CONFIGURATION

Path of the External Datasource:

Path of the External Datasource LOG:

File Processor Daemon Execution Switch:

File Processor Extract Max Load:

File Processor Scheduler Poll Duration:60

9. Configure each item in the above list for successful installation. Choose the following options from the menu items (1,2,3,4,5,6,7,8 <P> Process, <X> Exit):
10. After completing the parameter setup steps, proceed with the option P. Write Configure file.
11. Once the install is completed successfully, you need to execute the post-upgrade steps as described in the section **Post Installation Tasks**.

Post Installation Tasks

Post-upgrade tasks involve the following:

- **Deploying ETL Workflows on Oracle Warehouse Builder**

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 need to make changes in the 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"
```

You need to make this value larger than 1024MB (1GB) depending on the size of the import.
\$CLASSPATH_LAUNCHER oracle.owb.scripting.OMBShell \$*

Perform the following tasks:

- **Deploying Oracle Warehouse Builder Workflows**
- **Deploying Materialized Views**

-
- **Generating Security**
 - **Generating Database Statistics**

Deploying Oracle Warehouse Builder Workflows

This procedure needs to be performed if changes are 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:

1. Initialize the environment by executing the `./splenv.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLEBASE/bin`
3. Run `ksh ./parallelSetup.sh analyze`

For Windows:

1. Initialize the environment by executing the `./splenv.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLEBASE%\bin`
3. Run `parallelSetup.cmd analyze`
4. This generates the following files under `<SPLEBASE>/etc` folder:
5. 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:

1. Initialize the environment by executing the `./splenv.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLEBASE/bin`
3. Run `ksh ./parallelSetup.sh merge`

For Windows:

1. Initialize the environment by executing the `./splenv.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLEBASE%\bin`
3. Run `parallelSetup.cmd merge`
4. Review the following files under `<SPLEBASE>/etc` and verify that the existing values have been merged correctly before proceeding:

`cm-parallel-tables.txt`
`cm-parallel-mvs.txt`
`cm-parallel-maps.txt`

5. 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:

For UNIX:

1. Initialize the environment with the `./splenv.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLBASE/bin`
3. Run `ksh ./Owbdeploy.sh`

For Windows:

1. Initialize the environment with the `./splenv.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLBASE%\bin`
3. Run `owbdeploy.cmd`

Deploying Materialized Views

Run the following commands for deploying Materialized Views.

For UNIX:

1. Initialize the environment by executing the `./splenv.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. Run the below script if upgrading from OUASA v2.3.2.1 to v2.4.1 for upgrading the Materialized views

- `cd $SPLBASE/bin`
- Run `ksh ./upgradeViews.sh`

3. Run the below script if upgrading from OUASA v2.4.0 or 2.4.0.1 to OUASA v2.4.1 for upgrading the Materialized views

- `cd %SPLBASE%\bin`
- Run `upgradeViews240-2403.sh`

4. Run the below script, if upgrading from OUASA v2.4.0.2 to v2.4.1, for upgrading the Materialized views

- `cd %SPLBASE%\bin`
- Run `ksh ./ upgradeViews2402-241.sh`

For Windows:

1. Initialize the environment by executing the `./splenv.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. Run the below script if upgrading from OUASA v2.3.2.1 to v2.4.1 for upgrading the Materialized views

- `cd %SPLBASE%\bin`
- Run `upgradeViews.cmd`

3. Run the below script if upgrading from 2.4.0 or 2.4.0.1 to V2.4.1 for upgrading the Materialized views:

- `cd %SPLBASE%\bin`
- Run `upgradeViews240-2403.cmd`

4. Run the below script if Upgrading from OUASA v 2.4.0.2 to v2.4.1 for upgrading the Materialized views

- `cd %SPLEBASE%\bin`
- Run `upgradeViews2402-241.cmd`

5. Once deployment is complete, remove the `<SPLEBASE>/tmp` content to ensure all the complete files are removed:

Generating Security

Edit database-name with the name of your database in `OraGenSec.bat` after completing the OWB deployment and run it from `BI241/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 and includes the following:

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

Copying and Decompressing Install Media

The Oracle Utilities Advanced Spatial and Operational Analytics Dashboard Component installation file is delivered in a zip 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. Download the Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Dashboard Component part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Dashboard Component Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).
2. Log in to the application server host (where OBIEE 11.1.1.6.6 software is installed) as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default ceases).
3. Create a temporary directory, such as `c:\OUASA\temp` or `/OUASA/temp`. (Referred as `<TEMPDIR>` in step 3 below) This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory can be deleted after successful installation.
4. Unzip the **Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Dashboard Component Multiplatform.zip** to `<TEMPDIR>`
5. Decompress the file `BI.OBIEE.V2.4.1-MultiPlatform.jar`:
 - `cd <TEMPDIR>`
 - `jar -xvf BI.OBIEE.V2.4.1-MultiPlatform.jar`

Note: You should have Java JDK installed on the machine used to (un)jar the OUASA dashboard component 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 "BI.OBIEE.V2.4.1" is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operational Analytics Dashboard Component.

Setting Permissions for cistab File in UNIX

Note that 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, 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>/BI.OBIEE.V2.4.1 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 gives instructions about every step in each specific case.

To upgrade an existing environment, it is recommended that a backup be taken before initiating the installation process. The installation utility by itself does not create a backup of the existing environment.

OUASA Dashboard Package Upgrade Steps

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

To upgrade the OUASA dashboard package, follow these steps.

1. Change to the <TEMPDIR>/BI.OBIEE.V2.4.1 directory.

Perform the following steps:

For UNIX:

- export ORACLE_CLIENT_HOME=<ORACLE_HOME>
- export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
- export PATH=\$PATH:\$PERL_HOME/bin
- Run install.sh

Note: Ensure that you have the required execute permission on install.sh.

For Windows

- set ORACLE_CLIENT_HOME=<ORACLE_HOME>
- set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
- set PATH=%PERL_HOME%\bin;%PATH%

-
- Run install.cmd
2. The Oracle Utilities Advanced Spatial and Operational Analytics specific menu appears.
 3. 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:
2. Environment Mount Point:
Log Files Mount Point:
Environment Name:
Web Java Home Directory:

Configure each item in the above list for a successful installation. Choose the following options from the menu item: (1,2, <P> Process, <X> Exit):

3. 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:
Provide OBIEE Version Installed:
3. Target Database Details
Target Database Name:
Target Database Host:
Target Database Port: 1521
DWADM Schema Name: DWADM
DWADM Schema Password:

Configure each item in the above list for a successful installation. Choose the following options from the menu item (1,2,3, <P> Process, <X> Exit):

4. After completing the parameter setup, proceed with the option **P**. Write the Configure file.
5. Once installation finishes successfully, execute the post-installation steps as described in section **Upgrading RPD and Catalog Files**.

Upgrading RPD and Catalog Files

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

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

Converting RPD Files

Perform these steps to convert the 10g RPD files to 11g:

Note: These steps are not required for 11g RPD.

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.
11. An 11g compatible rpd file will be created in the following location:
\$ORACLE_INSTANCE /bifoundation/OracleBIServerComponent/
coreapplication_obis1/repository location.
12. Upgrade
13. Back up the converted rpd file from the \$ORACLE_INSTANCE /bifoundation/
OracleBIServerComponent/coreapplication_obis1/repository location.

This is your changed rpd file.

Converting Catalogs

Perform the following steps:

1. Take a backup of SampleAppLite folder as SampleAppLite.bkp present inside \$ORACLE_INSTANCE/bifoundation/OracleBIPresentationServicesComponent coreapplication_obis1/catalog directory. Create a folder on the server where 11g OBIEE is installed. For example, obiec/ SampleAppLite.
2. Copy the contents of 10g ../web/catalog/samplesales folder to the obiec/ SampleAppLitefolder. The samplesales folder is included in the 10g application.
3. Create a folder named "deliveries" inside the obiec 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 obiec/SampleAppLite folder as the catalog directory.
9. Select obiec/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_obis1/catalog/SampleAppLite/root/shared location

-
14. Now move custom catalogs from \$ORACLE_INSTANCE/bifoundation/
OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite/
root/shared location to \$ORACLE_INSTANCE/bifoundation/
OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/
SampleAppLite.bkp/root/shared location.
 15. Rename SampleAppLite directory to SampleAppLite.bkp1 and SampleAppLite.bkp to
SampleAppLite.

Merging the RPD Files

Convert your original RPD(Shipped with product) file to 11g if required as described in the section **Converting RPD Files** and then, take the converted RPD and shipped RPD from <install_dir>/Reports/rpd/UtilitiesBusinessAnalytics.rpd and merge them. Deploy the merged RPD after making the required database connection. \

To merge the rpds, please follow the OBIEE documentation for merging.

http://www.oracle.com/webfolder/technetwork/tutorials/obe/fmw/bi/bi11115/import_merge/merging_importing_11g.htm

Post-Upgrade Tasks

Post-upgrade tasks involve the following:

- **Deploying the Repository (RPD) File**
- **Deploying the Web Catalog**
- **Configuring and Deploying Map Viewer**
- **Deploying Write Back**
- **Deploying Analytics**

Deploying the Repository (RPD) File

If customer has not made any changes to the deployed RPD, then please take the RPD file from following location: <install_dir>/Reports/rpd/ UtilitiesBusinessAnalytics.rpd, where <install_dir> is the OUASA dashboard package installation directory.

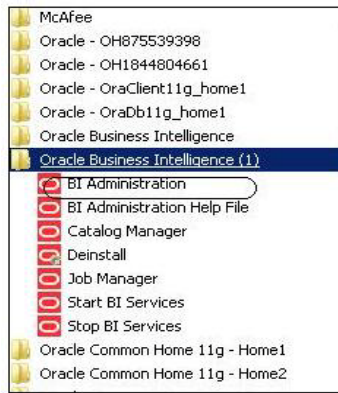
If customer has done merging, then take the merged rpd and make the required database changes.

Follow these steps to deploy the RPD file:

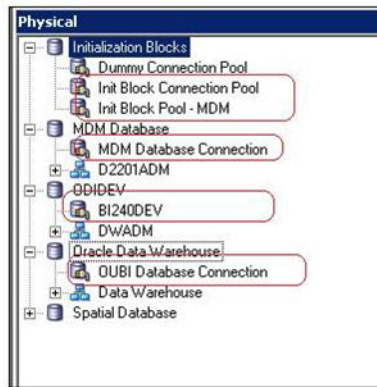
1. OBIEE 11.1.1.6.6 should be installed on Windows machine before proceeding with the below steps.
2. Launch the Administration Tool from your Start menu.

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".

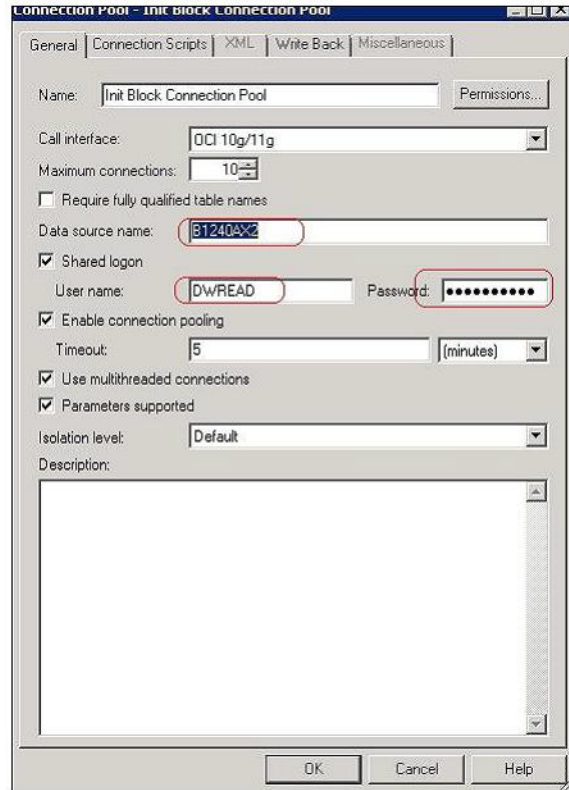


5. Edit the connection pools shown below by double clicking on them.



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. Log in to the OBIEE Enterprise Manager console.
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.
16. Provide the RPD password "**oracle123**", and then click **Apply**.
17. Activate the changes and then restart 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 all old OUASA catalogs from the catalog deployed location (if present) before deploying the catalogs.

Delete the OUASA catalogs from \$ORACLE_INSTANCE/bifoundation/
OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite/
root/shared directory:

```
rm -rf "distribution+analytics.atr"
rm -rf "distribution+analytics"
rm -rf "mobile+workforce+analytics.atr"
rm -rf "mobile+workforce+analytics"
rm -rf "outage+analytics.atr"
```

```
rm -rf "outage+analytics"
rm -rf "co%6dmon.atr"
rm -rf "co%6dmon"
rm -rf "customer+analytics.atr"
rm -rf "customer+analytics"
rm -rf "about.atr"
rm -rf "about"
rm -rf "administration.atr"
rm -rf "administration"
rm -rf "meter+data+analytics.atr"
rm -rf "meter+data+analytics"
rm -rf "revenue+analytics.atr"
rm -rf "revenue+analytics"
rm -rf "shared+objects.atr"
rm -rf "shared+objects"
```

Delete OUASA catalogs from \$ORACLE_INSTANCE/bifoundation/
OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite/
root/system directory.

```
Rm -rf "spatialmetadata.atr"
Rm -rf "spatialmetadata"
```

Deploying the Catalogs

To deploy the catalogs, follow these steps:

For UNIX:

1. Initialize the environment with the `./splenviron.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. `ksh ./deploycatalog.sh`
4. Enter the physical catalogs location configured in Enterprise Manager.
For example:
`<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/
OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/ SampleAppLite`

For Windows:

1. Initialize the environment with the `./splenviron.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. `deploycatalog.cmd`
4. Enter the Physical Catalogs location configured in EM
For example: `<OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/
OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/ SampleAppLite`

Configuring and Deploying Map Viewer

Configuring and deploying the MapViewer involves the following:

Configuring MapViewer -

To configure Mapviewer, follow these steps:

1. Log in to the 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:
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 mapViewConfig file with below mentioned tags:
File location : <OBIEE_INSTALL_DIR>/Oracle_BI1/bifoundation/jee/
mapviewer.ear/web.war/WEB-INF/conf/
File: mapViewConfig.xml
13. If there is a 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,a  
pi.wxbug.net,de.tiles.weatherbug.com  
</proxy_enabled_hosts>
```
14. Update the following ns_data_provider node:

```
<ns_data_providerid="obiceNsdp"  
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\OracleBIPresentationServicesCo  
mponent\coreapplication_obips1
```

Modifying 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:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd $SPLEBASE/bin`
3. Run `ksh ./deploymapviewer.sh`
4. Enter the WebLogic Domain Console Password. For example, `weblogic123`

For Windows:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize.
2. `cd %SPLEBASE%\bin`
3. Run `deploymapviewer.cmd`
4. 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. Login to Mapviewer at this location: `http://<HOST>:<MANAGERPORT>/mapviewer`
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 `deployapviewer` 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:

1. Initialize the environment with the `./splenv.sh -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize. `cd $SPLEBASE/bin`
2. `cd $SPLEBASE/bin`
3. Run `ksh ./deploywriteback.sh`

For Windows:

1. Initialize the environment with the `./splenv.cmd -e <envname>` command.
Note: Navigate to the `Install_Dir/bin` to initialize. `cd %SPLEBASE%/bin`
`deploywriteback.cmd`
2. `cd %SPLEBASE%/bin`
3. Run `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, perform 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`.
3. Now, place the Help file in `<install_dir>/Skin/res`, where `<install_dir>` is the OUASA dashboard package installation directory.

-
4. Run the following commands:

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd $SPLEBASE/bin8`
3. Run `ksh ./deployanalyticsear.sh`
4. Enter the WebLogic Domain Console Password. For example, `weblogic123`

For Windows:

Perform the following steps:

1. Initialize the environment with the `./splenvron.cmd -e <envname>` command.

Note: Navigate to the `Install_Dir/bin` to initialize.

2. `cd %SPLEBASE%/bin`
3. `deployanalyticsear.cmd`
4. Enter the WebLogic Domain Console Password. For example, `weblogic123`
5. Restart the BI Core services.
6. Restart WebLogic and all BI services after the OBIEE deployment is completed.
7. Log in to Analytics and navigate to **Administration>Manage Privileges>WriteBack>Write Back to Database**.
8. Click **Denied:Authenticated User** and select the permission **Granted**.

Enabling Auto Complete Feature on OBIEE 11.1.1.6.6

To enable auto complete feature on OBIEE, perform the following steps:

1. Navigate to the path
`<Middleware_Home>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips1`.
2. Take a backup of `instanceconfig.xml`.
3. Open the file `instanceconfig.xml`.
4. Add the following lines in between the `<ServerInstance>` `</ServerInstance>` tags.

`<Prompts>`

`<MaxDropDownValues>256</MaxDropDownValues>`

`<AutoApplyDashboardPromptValues>true</AutoApplyDashboardPromptValues>`

`<AutoSearchPromptDialogBox>true</AutoSearchPromptDialogBox>`

`<AutoCompletePromptDropDowns>`

`<SupportAutoComplete>true</SupportAutoComplete>`

`<CaseInsensitive>true</CaseInsensitive>`

`<MatchingLevel>MatchAll</MatchingLevel>`

`<ResultsLimit>50</ResultsLimit>`

`</AutoCompletePromptDropDowns>`

`</Prompts>`

5. Save the changes.

-
6. Restart the OBIEE opmn Services.
 7. Login to analytics `http://<Server>:<port>/analytics`
 8. Click on the weblogic User (top most right section of the page).
 9. From the drop down menu select **My Account**.
 10. Set Prompt Auto Complete to **ON** and click **OK**.

OUASA Admin Tool Component

This is applicable only if the customer is installing Oracle Utilities Operational Device Extractor and Schema.

After the installation, customer must set up the Admin Tool for ETL configuration. Refer to Chapter **Installing the OUASA Admin Tool** for complete details.

Also, refer to *Oracle Utilities Advanced Spatial and Operational Analytics Administrator's Guide* for details.

After the Installation

After the installation, perform the following steps:

1. Verify the 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 in to the OBIEE analytics link. Dashboard should display 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:

- **OUASA Database Component Installation**
- **OUASA Dashboard Component Installation**
- **After the 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 V2.4.1 Demo Data part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Demo Data.zip) from My Oracle Support (<https://support.oracle.com/>).
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. Unzip **Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Demo Data.zip** to <TEMPDIR>.

Database Creation and Dump File Import

Ensure that Oracle Database Server Enterprise Edition 11.2.0.3 is already installed on the machine in order to create database.

- Use the Database Configuration Assistant (DBCA) utility to create the database as shown in section **Database Creation Using DBCA**.

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 at the time of database creation.
2. After database creation, 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. Ensure to create the CISTS_01, REPOS_01 and STAGE_01 tablespaces in database if these are already not existing. These tablespaces are required to run the users.sql script.
5. Ensure that the TEMP temporary tablespace exists in databases. If it does not exist, then create it. This tablespace is required to run the users.sql
6. Execute users.sql after connecting as sys user to database.

Note: The users.sql script is located in BI241/Scripts/users.sql. This sql will create DWADM (Warehouse user), MASTER_REPO (ODI master repository user), WORK_REPO (ODI work repository user) users with same username as password. If you want to change password for any user connect as sys user and change the password.

Import the Demo dump

Perform the following steps to import the demo dump:

1. Create the dump_dir directory in database.
2. You should also copy the exp_demo.dmp file to the dump_dir. Uncompress the exp_demo.dmp.gz file first to extract the exp_demo.dmp file. This file is in <TEMPDIR>\Demo directory.
3. Set the correct ORACLE_SID and ORACLE_HOME first and then run below command to import demo dump:


```
impdp directory= dump_dir dumpfile= exp_demo.dmp logfile= exp_demo.log
schemas=DWADM
```
4. Provide the system as the user and system user's password when prompted.

Security Configuration

For Security Configuration, perform the following steps:

1. Navigate to the ..\BI241\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+32 bit client installed. Your database should already be listed in the local file tnsnames.ora.

The script executes as 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 ../B1241/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 ../B1241/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 Dashboard Component installation file is delivered in zip 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. Download the Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Dashboard Component part (Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Dashboard Component Multiplatform.zip) from My Oracle Support (<https://support.oracle.com/>).

2. Log in to the application server host (where OBIEE 11.1.1.6.6 software is installed) as the Oracle Utilities Advanced Spatial and Operational Analytics administrator user ID (default ceases).
3. Create a temporary directory, such as c:\OUASA\temp or /OUASA/temp. (Referred as <TEMPDIR> in step 4 below. This directory must be located outside any current working Oracle Utilities application environment. All files that are placed in this directory can be deleted after successful installation.
4. Unzip the **Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 Dashboard Component Multiplatform.zip** to <TEMPDIR>
5. Decompress the file BI.OBIEE.V2.4.1-MultiPlatform.jar:
 - cd <TEMPDIR>
 - jar -xvf BI.OBIEE.V2.4.1-MultiPlatform.jar

You should have Java JDK installed on the machine used to (un)jar the OUASA dashboard component 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 "BI.OBIEE.V2.4.1" is created. It contains the installation software for the Oracle Utilities Advanced Spatial and Operational Analytics Dashboard Component.

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, 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>/BI.OBIEE.V2.4.1 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, perform these steps.

1. Change to the <TEMPDIR>/BI.OBIEE.V2.4.1 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:
 Perform the following steps:
 - export ORACLE_CLIENT_HOME=<oracle_client_home>
 - export PERL_HOME=\$ORACLE_CLIENT_HOME/perl
 - export PATH=\$PATH:\$PERL_HOME/bin
 - Run ksh ./install_OUBI.sh**For Windows:**
 Perform the following steps;
 - set ORACLE_CLIENT_HOME=<ORACLE_HOME>
 - set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
 - set PATH=%PERL_HOME%\bin;%PATH%
 - Run 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. Select the **Each Menu Item** to configure the values. For detailed description of the values see **Configuration Worksheet for ETL Component based on OWB Installation**.

Environment Installation Options

1. Oracle Client Home Directory:
2. Environment Mount Point:

Log Files Mount Point:

Environment Name:

Web Java Home Directory:

Configure each item in the above list for successful installation. Choose the following options from the menu item (1,2, <P> Process, <X> Exit):

For detailed description of these values, see **Configuration Worksheet for ETL Component based on OWB Installation**.

Environment Configuration

Perform the following:

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

Provide OBIEE Version Installed

3. Target Database Details

Target Database Name:

Target Database Host:

Target Database Port: 1521

DWADM Schema Name: DWADM

DWADM Schema Password:

Configure each item in the above list for a successful installation. Choose the following options from the menu item (1,2,3 <P> Process, <X> Exit):

4. When you are finished with the parameter setup, proceed with option **P**. Write to the Configure file.
5. Once installation is successful, execute the post-installation steps as described in the section **Post-installation Tasks**.

Post-installation Tasks

Following topics are discussed in this section:

- **Deploying Repository (RPD) File**
- **Configuring and Deploying MapViewer**
- **Deploying Write Back**
- **Deploying Analytics**

Deploying Repository (RPD) File

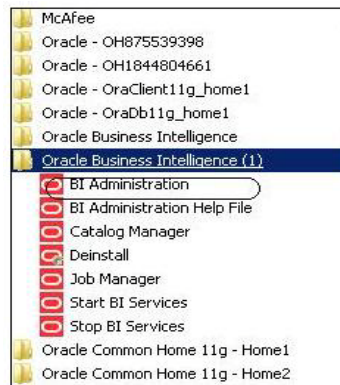
The RPD file is located at: <install_dir>/Reports/rpd/UtilitiesBusinessAnalytics.rpd, where <install_dir> is the OUASA dashboard package installation directory.

To deploy the RPD file, perform these steps:

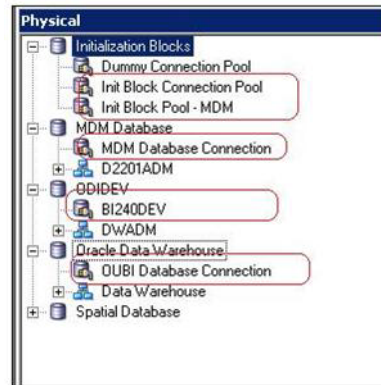
1. OBIEE 11.1.1.6.6 should have been installed on Windows 32-bit machine before proceeding with the steps below.
2. Launch the Administration Tool from your Start menu from the Windows machine. This is only available in Windows.

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”.

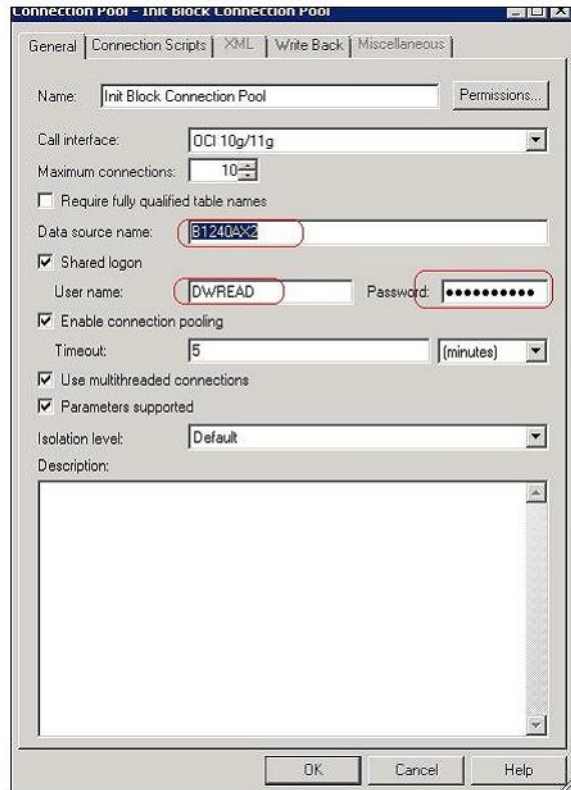


5. Edit the connection pools shown below by double clicking on them.



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. Log in to the OBIEE Enterprise Manager console.
13. Navigate to **BI Instance >Coreapplication>Deployment**.
14. Lock and edit.
The repository text box is enabled.
15. Browse to the modified rpd file and submit.
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

To deploy the catalogs, follow these steps:

For UNIX:

Perform the following steps:

1. Initialize the environment with the `./splenvron.sh -e <envname>` command.
Note: Navigate to the Install_Dir/bin to initialize.
2. `cd $SPLEBASE/bin`
3. `ksh ./deploycatalog.sh`

4. Enter the physical catalogs location configured in Enterprise Manager. For example: <OBIEE_INSTALL_DIR>/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/coreapplication_obips1/catalog/SampleAppLite

For Windows:

Perform the following steps:

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

Note: Navigate to the Install_Dir/bin to initialize.

2. cd %SPLEBASE%\bin
3. deploycatalog.cmd
4. 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 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:

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\OracleBIPresentationServicesCo  
mponent\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 every time you run 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 $SPLBASE/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 %SPLBASE%/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**.

Enabling auto complete feature on OBIEE 11.1.1.6

Perform the following steps:

1. Navigate to the path
<Middleware_Home>\instances\instance1\config\OracleBIPresentationServicesComponent\coreapplication_obips1
2. Take a backup of instanceconfig.xml.
3. Open the file instanceconfig.xml.
4. Add the following lines in between the <ServerInstance> </ServerInstance> tags

```
<Prompts>
```

```

<MaxDropDownValues>256</MaxDropDownValues>
<AutoApplyDashboardPromptValues>true</AutoApplyDashboardPromptValues>
<AutoSearchPromptDialogBox>true</AutoSearchPromptDialogBox>
<AutoCompletePromptDropDowns>
<SupportAutoComplete>true</SupportAutoComplete>
<CaseInsensitive>true</CaseInsensitive>
<MatchingLevel>MatchAll</MatchingLevel>
<ResultsLimit>50</ResultsLimit>
</AutoCompletePromptDropDowns>
</Prompts>

```

5. Save the changes.
6. Restart the OBIEE opmn Services.
7. Log in to the Analytics: `http://<Server>:<port>/analytics`
8. Click on the weblogic User (top right pane of page).
9. From the drop down menu, select **My Account**.
10. Set Prompt Auto Complete to **ON** and click **OK**.

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 in to the OBIEE analytics link that is pointing to the 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 United States (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/technetwork/database-options/spatialandgraph/downloads/index.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 and search within the Census site:

<http://www.census.gov/>

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.

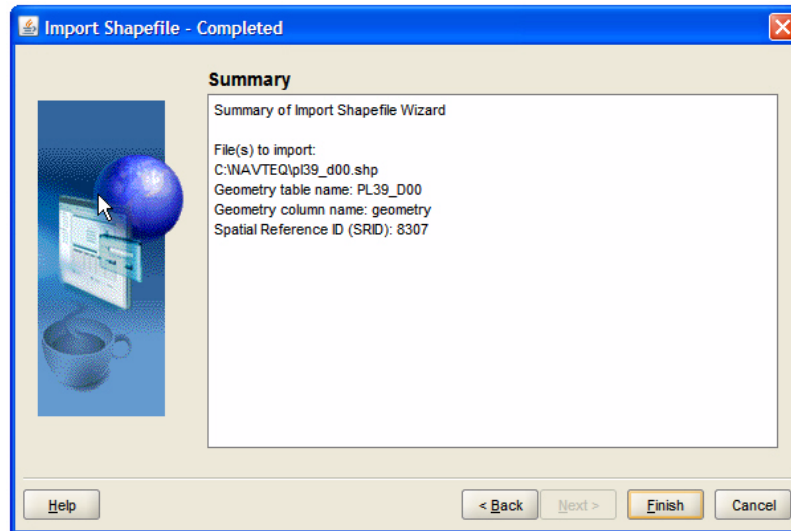
1. Click the Ohio Zip Code in Shapefile format and download the `zt39_d00_shp.zip` file to the NAVTEQ directory created in the previous procedure.
2. Unzip or decompress the `pl39_d00_shp.zip` file to the NAVTEQ directory.
3. Download standalone MapBuilder from this location:
<http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index-100641.html>
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**.

Note: 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/>

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:

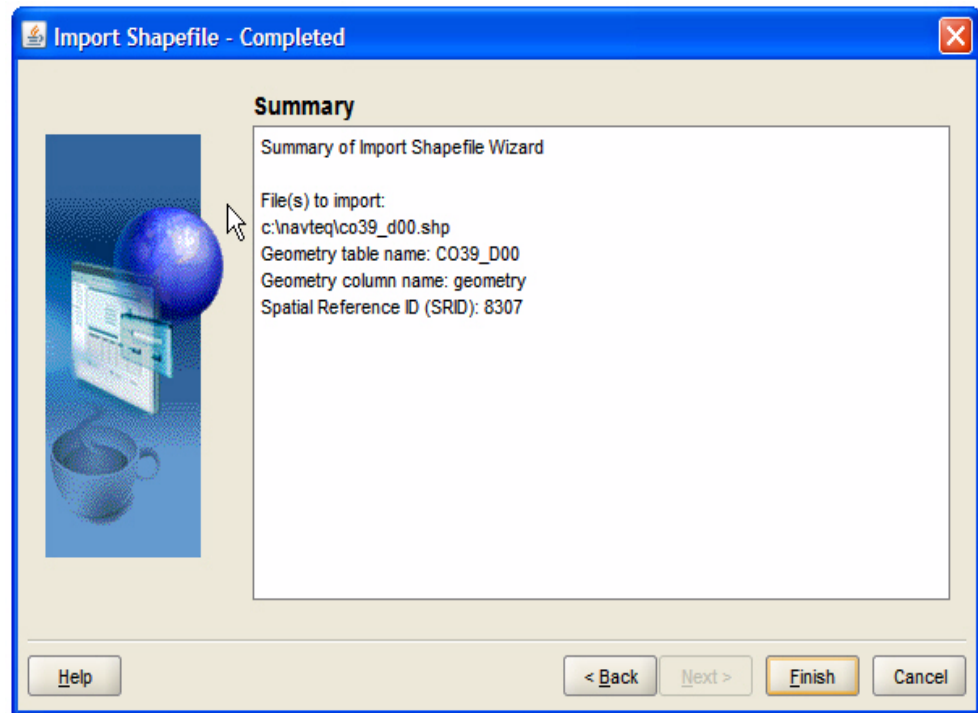
<http://www.census.gov/>

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 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 mapViewConfig.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 ../B1241/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:

The screenshot shows a web-based configuration interface for a map application. On the left, there is a green sidebar with the following sections:

- Area Selection Tool**: Includes the instruction "Draw a rectangular selection area on the map" and a checkbox labeled "Off".
- Zoom Level Selection**: Includes the instruction "Select one or more levels to perform tile operation" and a list of zoom levels from Level 0 to Level 4, each with a selection box.
- Tile Operations**: Contains three buttons: "Prefetch Tiles", "Clear Tiles", and "Refresh Tiles".
- Operation Status**: Contains a "Refresh" button and a "Status:" label above a text area.
- A "Return" button at the bottom of the sidebar.

On the right, there is a main map area. Above the map, there are input fields for "Center X" (0.0), "Center Y" (0.0), "SRID" (54004), and "Zoom Level" (0), followed by a "Show Map" button.

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:

This screenshot shows a close-up of the parameter input fields from the previous image. The values entered are:

- Center X: -81.3758
- Center Y: 40.805
- SRID: 8307
- Zoom Level: 7

The "Show Map" button is also visible.

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. Following topics are discussed:

-
- **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 v2.4.1 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
- Operational Device 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-of-box 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 folders, such as 00 Overview, 01 Ranks & Toppers, or 02 History & Benchmarking, 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:

Chapter 9

Installing the OUASA Admin Tool

This chapter describes how to install the Admin Tool for the Oracle Data Integrator (ODI) configuration.

Perform the steps below to install apex run time and deploy the admin tool for ODI configuration:

Installing Admin Tool

1. Download apex_4.2.1.zip file from :
http://www.oracle.com/technology/products/database/application_express/download.html
2. Unzip apex_4.2.1.zip to directory <APEX_UNZIPPEDPATH>
3. Change directory to <APEX_UNZIPPEDPATH>/apex after unzipping apex_4.2.1.zip file.
4. Logon using sqlplus as sys user and run the sql file apxrtins.sql with parameters as shown below:

```
@apxrtins CISTS_01 CISTS_01 TEMP /i/
```

5. Change password of admin account by running the following sql command :

```
@apxchpwd
```

6. Restart database
7. Configure the embedded PL/SQL gateway - logon as sys user and run :

```
@apex_epg_config <APEX_UNZIPPEDPATH>
```

8. Unlock the anonymous account:

```
ALTER USER ANONYMOUS ACCOUNT UNLOCK;
```

9. Start the XML DB run:

```
EXEC DBMS_XDB.SETHTTPPORT(<not in use port>);
```

```
e.g EXEC DBMS_XDB.SETHTTPPORT(8080);
```

10. Verify using:

```
SELECT DBMS_XDB.GETHTTPPORT FROM DUAL;
```

11. Import the admin tool for ODI configuration:

- Oracle Utilities Advanced Spatial and Operational Analytics V2.4.1 ETL Component Based on ODI Multiplatform.zip file has a folder called AdminTool
- Unzip this file and copy the AdminTool directory contents.

-
- Create the ../AdminTool directory on the database server and copy the contents of AdminTool directory (from the zip file) to this directory.
 - Go to the ../AdminTool directory, i.e., cd ../AdminTool
 - Please connect as system user and execute the following scripts:
 - Create workspace and Configure users:
 - @CreateAppWorkspace.sql
 - Import application:
 - @DeployAdminApp.sql
 - Import Images:
 - @DeployAdminAppImages.sql

12. Admin tool for ODI configuration can be accessed using the URL
<http://<hostname>:8080/apex/f?p=104>

Note: Refer to the *Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide* for a complete description of Admin Tool for the Oracle Data Integrator (ODI) configuration.

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

Parameter	Value
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 Administrator'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 a 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:** Values, which can be defaulted while running the installation utility.
- **Security Values:** Values, which should be changed when in production.
- **Example Values:** Values, which 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 cannot see 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 chapter **System Requirements and Supported Platforms** prior to running any 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.

Following topics are discussed:

- **Configuration Worksheet for ETL Component based on OWB Installation**
- **Configuration Worksheet for ETL Component based on ODI Installation**
- **Configuration Worksheet for Dashboard Component Installation**

Configuration Worksheet for ETL Component based on OWB Installation

Environment installation options are as shown in the section below:

- **Environment Installation Options**
- **Environment Configuration Options**

Environment Installation Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_HOME	<p>The home directory of the Oracle Client. The application will use the Perl included under this Oracle Client.</p> <p>Example Location: /oracle/client/product/11.2.0.3</p>	
Environment Mount Point	<SPLDIR>	<p>The mount point into which the application is installed.</p> <p>Local directory Where components to be installed.</p> <p>For example: /OUASA for UNIX and C:\OUASA for Windows</p> <p>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.</p> <p>See <SPLENVIRON> below for more information on how this mount point is used.</p>	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
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	
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	

Environment Configuration Options

Following topics are discussed in this section:

- **Environment Description**
- **Database Configuration**
- **Design Repository Configuration**
- **EMAIL Configuration**
- **Control Center Configuration**
- **External Data Source Configuration**

Environment Description

Environment description details are as shown in the table below:

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 section Creating and Configuring Oracle Warehouse Builder 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 Oracle Warehouse Builder 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 Oracle Warehouse Builder Workspace for an Initial Installation. The User to login to Oracle warehouse Builder design Control center.	BIREPO
OWB Workspace user Password	OWB_WS_PASS	OWB workspace User Password that is created in Creating and Configuring Oracle Warehouse Builder 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

Menu Option	Name Used In Documentation	Usage	Customer Install Value
WORKFLOW MANAGER 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 are as listed: <ul style="list-style-type: none"> 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: Use '/' For Windows: Use '\\'
File Manager location	FILEMGR	File Manager location on the database server. Copy the splfilemanager.plx file from BI241/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	
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

Menu Option	Name Used In Documentation	Usage	Customer Install Value
File Processor Extract Max Load	FPDEXTRACT_M AXLOAD	File processor to pick up the Extractor to load	5
File Processor Scheduler Poll Duration	SCHEDULER_PO LL_DURATION	File Processor Scheduler Poll Duration	60

Configuration Worksheet for ETL Component based on ODI Installation

Environment installation options are as shown in the section below:

- **Environment Installation Options**
- **Environment Configuration Options**

Environment Installation Options

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIEN T_HOME	The home directory of the Oracle Client. The application will use the Perl included under this Oracle Client. The user used to install the oracle client should be used to install ETL Component based on ODI Example Location: /oracle/client/product/ 11.2.0.3	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>	<p>The mount point into which the application is installed.</p> <p>Local directory Where components to be installed.</p> <p>For example:/OUASA for UNIX and C:\OUASA for Windows</p> <p>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.</p> <p>See <SPLENVIRON> below for more information on how this mount point is used.</p>	
Log Files Mount Point	<SPLDIROUT>	<p>A mount point that will contain any application output or application logs.</p> <p>Example value is / OUASA/ sploutput for UNIX installation or C:\OUASA\sploutput for Windows</p>	
Environment Name	<SPLENVIRON>	<p>A descriptive name to be used as both a directory name under the mount point</p> <p><SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment. For example, DEV01 or CONV</p>	
Web Java Home Directory	JAVA_HOME	<p>The location on the disk where Java 1.6 is installed.</p> <p>For example: \$ORACLE_BI_HOME/jdk</p>	

Environment Configuration Options

Following options are discussed in this section:

- **Environment Description**
- **ODI Environment Configuration**
- **ODI Agent Configuration**
- **Source Golden Gate Configuration**
- **Target Golden Gate Configuration**

Environment Description

Environment description details are as shown in the table below:

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	

ODI Environment Configuration

ODI environment configuration description details are as shown in the table below:

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WEBLOGIC HOME	WLS_HOME	Directory where weblogic to be used for ODI has been installed. For example: /WLS_HOME/ wlserver_10.3	
ODI HOME	ODI_HOME	Directory where Oracle Data Integrator (ODI) has been installed.	
ODI SUPERVISOR USER	ODI_SUP_USER	For example: /WLS_HOME/ Oracle_DI1	
ODI SUPERVISOR Password	ODI_SUP_PASSWORD	ODI Supervisor password	Enter Sunopsis123
Target Database Name	OBIEE_DBNAME	The name of the database instance which the application connects to.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Target Database Host	OBIEE_DBSERVER	Host name of the server where database resides.	
Target Database Port	OBIEE_DBPORT	Database port number on the database server used for connecting to the database.	
DWADM Schema Name	DWADM_SCHEMA	The Target Schema User for Facts and dimensions present.	Enter DWADM
DWADM Schema Password	DWADM_PASS	The password for DWADM.	Enter DWADM
ODI Master Schema Name	ODI_MASTER_SCHEMA	ODI Master Schema user where ODI master repository is created	Enter MASTER_REPO
ODI Master Schema Password	ODI_MASTER_SCHEMA_PASS	ODI Master Schema user password	Enter MASTER_REPO
ODI Work Schema Name	ODI_WORK_SCHEMA	ODI Work Schema User where ODI Work Repository is get created. Default WORK REPO is OBIU	Enter WORK_REPO
ODI Work Schema Password	ODI_WORK_SCHEMA_PASS	ODI Work Schema User Password	Enter WORK_REPO
ODI Master Repository ID	ODI_MASTER_REPO_ID	ODI Master Repository ID. Default Value is 601	
ODI Work Repository ID	ODI_WORK_REPO_ID	ODI Work Repository ID Default Value is 602	

ODI Agent Configuration

Menu Option	Name Used in Documentation	Usage	Customer Install Value
ODI Weblogic Agent Host	ODI_AGENT_HOST	Host on which ODI Weblogic Domain is created.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
ODI Weblogic Agent port	ODI_AGENT_PORT	Port on which ODI Weblogic agent is configured to run. This is the port of ODI Weblogic Managed Server Port.	

Source Golden Gate Configuration

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Source Instance Name	SRC_INST_NAME	Source from which data has to be extracted.	
Source Golden Gate Manager Port	SRC_GG_MGR_PORT	Port number on which Golden Gate Manager is running on the source Database Server	
Source Golden Gate Dynamic Minimum Port	SRC_GG_DYN_PORT_MIN	Port number on which the Golden Gate Dynamic minimum port is configured on the source Database Server.	
Source Golden Gate Dynamic Maximum Port	SRC_GG_DYN_PORT_MAX	Port number on which the Golden Gate Dynamic maximum port is configured on the source Database Server.	
Source Golden Gate Algorithm	SRC_GG_ALGORITHM	Algorithm for Golden Gate configured on the Source Database Server. Default Value is 1.	
Source Golden Gate Encryptkey	SRC_GG_ENCRYPTKEY	This is the Encryptkey configured in Golden Gate on the source database Server. Default Values is "DEFAULT"	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Source Golden Gate Shared Secret	SRC_GG_ SHARED_SECRET	This is the SecretKey configured in Golden Gate on the Source Database Server. Default Value is "DEFAULT".	
Source Database Name	SRC_DB_NAME	This is the source database name, where ODI connects to reverse engineer the source tables.	
Source Database Host	SRC_DB_HOST	This is the Source Database Server Host.	
Source Database Port	SRC_DB_PORT	This is Source Database Port.	
Source Database Home	SRC_GG_DB_HOME	This is the Source Database Home installed location.	
Source Golden Gate Home	SRC_GG_HOME	This the Golden Gate installed Location.	

Target Golden Gate Configuration

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Target Golden Gate Manager Port	TRG_GG_MGR_PORT	Port number on which Golden Gate Manager is running on the target Database Server.	
Target Golden Gate Dynamic Minimum Port	TRG_GG_DYN_PORT_MIN	This is the Dynamic Minimum port configured in Golden Gate on the target Database Server.	
Target Golden Gate Dynamic Maximum Port.	TRG_GG_DYN_PORT_MAX	This is the Dynamic Maximum port configured in Golden gate on target database Server.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Target Golden Gate Algorithm	TRG_GG_ALGORITHM	This is the Algorithm configured in Golden Gate on target Database Server. Default value is 1.	
Target Golden Gate Encryptkey	TRG_GG_ENCRYPTKEY	This is the Encrypt Key Configured in Golden Gate on the target database server. Default value is "DEFAULT".	
Target Golden Gate Shared Secret	TRG_GG_SHARED_SECRET	This is shared Secret Key configured in Golden Gate on Target Database Server. Default Value is "DEFAULT"	
Target Database Home	TRG_DB_HOME	This is Database Home is installed location on the Target Database Server. For example: /u00/oracle/app/ oracle/product/11.2.0/ dbhome_1	
Target Golden Gate Home	TRG_GG_HOME	This is the Golden Gate Installed Location on target Database Server For example: opt/local/ ggs_11.2.1.0.5_2	

Configuration Worksheet for Dashboard Component Installation

Following topics are included here:

- **Environment Installation Options**
- **OBIEE Environment Configuration Options**

Environment Installation Options

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_HOME	<p>The home directory of the Oracle Client. The application will use the Perl included under this Oracle Client.</p> <p>Example location: <ORACLE_BI_HOME>/Oracle_BI1</p>	
Environment Mount Point	<SPLDIR>	<p>The mount point into which the application is installed. For example: /OUASA for UNIX and C:\OUASA for Windows</p> <p>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.</p> <p>See <SPLENVIRON> below for more information on how this mount point is used.</p>	
Log File Mount Point	<SPLDIROUT>	<p>A mount point contains any application output or application logs.</p> <p>Example value is /OUASA/sploutput for UNIX installation or C:\OUASA\sploutput for Windows</p>	
Environment Name	<SPLENVIRON>	<p>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</p>	
Web Java Home Directory	JAVA_HOME	<p>The location on the disk where Java 1.6 is installed. For example: \$ORACLE_BI_HOME/jdk</p>	

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	
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>	

Menu Option	Name Used In Documentation	Usage	Customer Install Value
WebLogic Domain Console Port Number	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	
Provide OBIEE Version Installed	OBIEE_VERSION	This is the version of Oracle Business Intelligence Enterprise Edition installed on the target system.	

Target Database Details

Target database details are as listed in the below table:

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Target Database Name	OBIEE_DBNAME	Name of the target database	
Target Database Host	OBIEE_DBSERVER	Host on which database is created.	
Target Database Port	OBIEE_DBPORT	This is the target database port.	
DWADM Schema Name	DWADM_SCHEMA	Schema name of the star schema.	
DWADM Schema Password	DWADM_PASS	Password for DWADM	

Appendix D

Customizing Oracle Utilities Advanced Spatial and Operational Analytics

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

Following topics are discussed:

- **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

Oracle Warehouse Builder (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 ./startFileprocessordaeomon.sh > ../tmp/
```

```
consoleFileprocessordaeomon.log 2>&1 &
```

For Windows:

```
startFileprocessordaeomon.cmd
```

Changing the environment parameter values

For changing environment parameter values perform the following steps:

1. Run splenviron command to initialize the environment:

For UNIX:

```
$SPLBASE/bin/splenviron.sh -e $SPLENVIRON
```

For Windows:

```
%SPLBASE%\bin\splenviron.cmd -e %SPLENVIRON%
```

2. Run configureEnv command for changing the configuration menus:

For UNIX:

```
$SPLBASE/bin/configureEnv.sh
```

For Windows:

```
%SPLBASE%\bin\configureEnv.cmd
```

3. Make the desired changes to the environment parameters by choosing the appropriate menu option from the displayed list.
4. After making all the changes, choose option **P** to process the changes.
5. Run the initialSetup command for applying the changes:

For UNIX:

```
$SPLBASE/bin/initialSetup.sh
```

For Windows:

```
%SPLBASE%\bin\initialSetup.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

Following topic is discussed in detail:

Notice Concerning Usage of Mapping Data

Notice Concerning Usage of Mapping Data

This section includes the following:

- **Digital Map Data Provider**
- **eLocation's Regional Coverage**

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:

- Google Maps
- Bing Maps

Oracle Utilities Advanced Spatial and Operational Analytics provide an easy plug-in feature to enable Google or Bing maps.