Oracle® Fusion Middleware
Installation Guide for Oracle Enterprise Repository
11g Release 1 (11.1.1)
E15745-01

January 2010
Contents

1 Preparing for Your Installation

1.1 Installation Overview ........................................................................................................ 1-1
1.1.1 Installation Modes ........................................................................................................... 1-1
1.1.1.1 Graphical Mode ......................................................................................................... 1-1
1.1.1.2 Console Mode ........................................................................................................... 1-2
1.1.1.3 Silent Mode ............................................................................................................ 1-2
1.2 Oracle Enterprise Repository Sizing Guidelines ............................................................ 1-2
1.3 Installable Product Components ....................................................................................... 1-3
1.3.1 Oracle Enterprise Repository ....................................................................................... 1-4
1.4 Product Distribution Methods ........................................................................................ 1-5
1.4.1 Web Distribution ........................................................................................................... 1-5
1.5 Installation Prerequisites ................................................................................................. 1-5
1.5.1 System Requirements ................................................................................................. 1-5
1.5.2 Temporary Disk Space Requirements ......................................................................... 1-6
1.6 Database Installation Procedures ..................................................................................... 1-7
1.6.1 Oracle Database Installation ....................................................................................... 1-7
1.6.1.1 Oracle Database ..................................................................................................... 1-7
1.6.1.2 Prerequisites .......................................................................................................... 1-8
1.6.1.3 Create the Tablespaces .......................................................................................... 1-8
1.6.1.4 Build a Database User ............................................................................................ 1-9
1.6.2 Oracle Real Application Clusters Database Installation .............................................. 1-9
1.6.3 SQL Server 2008 Database Installation ....................................................................... 1-10
1.6.3.1 SQL Server 2008 Database ................................................................................... 1-10
1.6.3.2 Prerequisites .......................................................................................................... 1-10
1.6.3.3 Create a Database ................................................................................................... 1-10
1.6.3.4 Create a Database User .......................................................................................... 1-11
1.6.4 UDB Database Installation ......................................................................................... 1-11
1.6.4.1 UDB Database ....................................................................................................... 1-11
1.6.4.2 Prerequisites .......................................................................................................... 1-11
1.6.4.3 Create a Database ................................................................................................... 1-12
1.6.4.4 Tune the Database .................................................................................................. 1-12
1.7 Selecting Directories for Your Installation ...................................................................... 1-13
1.7.1 Choosing a Oracle Home Directory .......................................................................... 1-13
1.7.2 Choosing Product Installation Directory .................................................................... 1-14
1.8 Running the Oracle Enterprise Repository Product Installation ................................... 1-15
1.9 Generating a Verbose Installation Log ............................................................................ 1-15
2 Installing Oracle Enterprise Repository

2.1 Starting the Installation Program ................................................................. 2-1
2.1.1 Before You Start ..................................................................................... 2-1
2.1.2 Starting the Installation Program on Windows Platforms .................. 2-2
2.1.2.1 Starting the Installation in Graphical Mode ..................................... 2-2
2.1.2.2 Starting the Installation in Console Mode ....................................... 2-3
2.1.2.3 Starting the Installation in Silent Mode .......................................... 2-3
2.1.3 Starting the Installation Program on UNIX Platforms ...................... 2-4
2.1.3.1 Using Installers with Filenames Ending in .bin ............................. 2-5
2.1.3.1.1 Starting the Installation in Graphical Mode .............................. 2-5
2.1.3.1.2 Starting the Installation in Console Mode .................................. 2-5
2.1.3.1.3 Starting the Installation in Silent Mode ..................................... 2-6
2.1.3.2 Using Installers with Filenames Ending in.jar .............................. 2-7
2.1.3.2.1 Starting the Installation in Graphical Mode .............................. 2-7
2.1.3.2.2 Starting the Installation in Console Mode .................................. 2-7
2.1.3.2.3 Starting the Installation in Silent Mode ..................................... 2-8
2.2 Running the Installation Program ............................................................... 2-9
2.2.1 Running the Installation Program in Graphical Mode ...................... 2-9
2.2.2 Running the Installation Program in Console Mode ......................... 2-15
2.2.2.1 Starting the Console Installer Using Windows ......................... 2-15
2.2.2.2 Starting the Console Installer Using UNIX .............................. 2-15
2.2.2.3 Install Oracle Enterprise Repository Using Console Mode ............ 2-16
2.2.3 Running the Installation Program in Silent Mode ............................. 2-22
2.2.3.1 What Is Silent-Mode Installation? ............................................. 2-23
2.2.3.2 Using Silent-Mode Installation ..................................................... 2-23
2.2.3.2.1 Important Considerations for Silent-Mode Installation .......... 2-23
2.2.3.3 Creating a silent.xml File for Silent-Mode Installation ................ 2-24
2.2.3.3.1 Guidelines for Component Selection ...................................... 2-27
2.2.3.4 Sample silent.xml Files for Silent-Mode Installation .................. 2-28
2.2.3.5 Returning Exit Codes to the Console ............................................ 2-29

3 Post-Installation Steps

3.1 Configure Your Application Server ............................................................. 3-1
3.1.1 WebLogic Server Installations ............................................................... 3-1
3.1.1.1 Run WebLogic Server Domain Configuration Wizard ................. 3-1
3.1.1.1.1 Create New Domain with default Managed Server .................. 3-2
3.1.1.1.2 Extend Existing Domain and Target on an existing Managed Server .. 3-6
3.1.1.2 Set WebLogic Server Environment Parameters .......................... 3-9
3.1.2 WebSphere Installations ........................................................................ 3-10
3.1.2.1 Deploying the Oracle Enterprise Repository Application ............ 3-10
3.1.2.2 Change the Server Classloader Order for XLST ....................... 3-12
3.2 Install Java Web Start .............................................................................. 3-12
3.2.1 Download and Install Java Web Start .................................................. 3-12
3.2.2 Troubleshooting Java Web Start .......................................................... 3-13
3.3 Configure Oracle Enterprise Repository Web Start on Linux ................ 3-14
3.4 Start Your Application Server and Log Into the Oracle Enterprise Repository Web-based Console 3-15
3.5 Use the Oracle Enterprise Repository Diagnostics Testing Tool ........................................... 3-16
3.6 Import Oracle Enterprise Repository Solution Packs ............................................................. 3-17
3.7 Test the Oracle Enterprise Repository Installation ............................................................... 3-17
3.7.1 Submit an Asset ................................................................................................................ 3-17
3.7.2 Accept the Asset ............................................................................................................. 3-18
3.7.3 Register the Asset .......................................................................................................... 3-18
3.7.4 Find the Registered Asset and View Details ................................................................... 3-19

4 Uninstalling the Software
4.1 About the Uninstallation Program ....................................................................................... 4-1
4.2 Uninstalling Your Software in Graphical Mode ................................................................. 4-2
4.3 Uninstalling Your Software in Console Mode ....................................................................... 4-2
4.4 Uninstalling Your Software in Silent Mode ............................................................................ 4-3
4.5 Removing the Deployed Application ..................................................................................... 4-4
4.5.1 Removing the Deployed Application from WebLogic Server ...................................... 4-4
4.5.2 Removing the Deployed Application from WebSphere Server .................................... 4-5
4.6 Removing the Database Schema .......................................................................................... 4-5
4.7 Reinstalling Your Software .................................................................................................. 4-6

5 Install Oracle Enterprise Repository into a Clustered Environment
5.1 Overview .............................................................................................................................. 5-1
5.2 Oracle Enterprise Repository Database ................................................................................ 5-2
5.3 Deploy and Validate Oracle Enterprise Repository on One Cluster Member ....................... 5-3
5.4 Move the Application Properties to the Database ............................................................... 5-3
5.5 Configure the cluster.properties File on Each Cluster Member ......................................... 5-4
5.6 Validate the Installation ...................................................................................................... 5-6
5.7 Clustering JVM Parameter for WebLogic Server ............................................................... 5-6
5.8 Clustered JMS Servers for Advanced Registration Flows .................................................. 5-7

Index
Preface

Oracle Fusion Middleware Installation Guide for Oracle Enterprise Repository provides information and instructions for installing, configuring, and troubleshooting Oracle Enterprise Repository.

Audience

This document is intended for system administrators or application developers who are installing Oracle Enterprise Repository 11g software. It is assumed that readers are familiar with Web technologies and have a general understanding of Windows and UNIX platforms.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible to all users, including users that are disabled. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at http://www.oracle.com/accessibility/.

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

Deaf/Hard of Hearing Access to Oracle Support Services

To reach Oracle Support Services, use a telecommunications relay service (TRS) to call Oracle Support at 1.800.223.1711. An Oracle Support Services engineer will handle technical issues and provide customer support according to the Oracle service request process. Information about TRS is available at

Related Documents

For more information, see the following documents in the Oracle Enterprise Repository 11g Release 1 (11.1.1) documentation set:

- Oracle Enterprise Repository on OTN - The home page for Oracle Enterprise Repository on Oracle Technology Network (OTN) is:
  http://www.oracle.com/technologies/soa/enterprise-repository.html

- Architect Center: SOA Governance: Essential to Your Business - Learn how effective SOA governance is an essential element in any enterprise transformation strategy by reading the Architect Center: SOA Governance: Essential to Your Business documents at:

- SOA Blog - Keep on top of the latest SOA blogs at:
  http://blogs.oracle.com/governance

Conventions

The following text conventions are used in this document:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>boldface</td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td>italic</td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td>monospace</td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
</tbody>
</table>
Part I
Installing Oracle Enterprise Repository

This part describes how to install Oracle Enterprise Repository. This part contains the following chapters:

- Chapter 1, "Preparing for Your Installation"
- Chapter 2, "Installing Oracle Enterprise Repository"
- Chapter 3, "Post-Installation Steps"
- Chapter 4, "Uninstalling the Software"
Preparing for Your Installation

This chapter provides information that you need to know before installing your Oracle software:

This chapter contains the following sections:

- **Section 1.1, "Installation Overview"**
- **Section 1.2, "Oracle Enterprise Repository Sizing Guidelines"**
- **Section 1.3, "Installable Product Components"**
- **Section 1.4, "Product Distribution Methods"**
- **Section 1.5, "Installation Prerequisites"**
- **Section 1.6, "Database Installation Procedures"**
- **Section 1.7, "Selecting Directories for Your Installation"**
- **Section 1.8, "Running the Oracle Enterprise Repository Product Installation"**
- **Section 1.9, "Generating a Verbose Installation Log"**

### 1.1 Installation Overview

The installation program provides a complete framework for the installation and uninstallation of your entire Oracle software product, or individual components, as desired. You can install Oracle Enterprise Repository using the default option, which allows you to install Oracle Enterprise Repository and its examples.

The following sections provide an overview about:

- **Section 1.1.1, "Installation Modes"**

#### 1.1.1 Installation Modes

You can use the Oracle Products installation program in one of the following modes:

- **Section 1.1.1.1, "Graphical Mode"**
- **Section 1.1.1.2, "Console Mode"**
- **Section 1.1.1.3, "Silent Mode"**

#### 1.1.1.1 Graphical Mode

Graphical-mode installation is an interactive, GUI-based method for installing your software. It can be run on both Windows and UNIX systems. For installation procedures, see **Section 2.2.1, "Running the Installation Program in Graphical Mode"**.
If you want to run graphical-mode installation, the console attached to the machine on which you are installing the software must support a Java-based GUI. All consoles for Windows systems support Java-based GUIs, but not all consoles for UNIX systems do.

---

**Note:** If you attempt to start the installation program in graphical mode on a system that cannot support a graphical display, the installation program automatically starts console-mode installation.

---

### 1.1.1.2 Console Mode

Console-mode installation is an interactive, text-based method for installing your software from the command line, on either a UNIX system or a Windows system. For instructions for using this method, see Section 2.2.2, "Running the Installation Program in Console Mode".

### 1.1.1.3 Silent Mode

Silent-mode installation is a noninteractive method of installing your software that requires the use of an XML properties file for selecting installation options. You can run silent-mode installation in either of two ways: as part of a script or from the command line. Silent-mode installation is a way of setting installation configurations only once and then using those configurations to duplicate the installation on many machines. For information on running the installation program in the silent mode, see Section 2.2.3, "Running the Installation Program in Silent Mode".

---

### 1.2 Oracle Enterprise Repository Sizing Guidelines

This section describes the Oracle Enterprise Repository sizing guidelines:

- Oracle Enterprise Repository offers greatest capacity on a 64-bit architecture. Oracle Enterprise Repository is essentially a single java process. With a 32-bit architecture any process is limited to 4GB (a little less on Windows), regardless of how much memory is in the system. With a 64-bit architecture the processes are limited to the amount of memory in the system and the JDK is more tunable. This allows you to make much larger amounts of memory available to the application server, which includes the cache that the assets load into.

- Treat virtualized environments just like actual hardware when sizing your environment.

- **Minimum Configuration**
  - 32-bit architecture
  - Application Server
    * WebLogic Server 10.3.2
    * Minimum 2GB RAM available for application server usage (dependant on the number of assets expected within the Oracle Enterprise Repository). Creating large numbers of assets and complex taxonomies consumes memory.
    * Initial RAM size for application server: 1GB
    * Initial Disk Space usage for application server: 2GB (Including Eclipse)
    * Minimum CPU Speeds: 1.8Ghz (Recommended 2.4Ghz Dual Core processors)
* Minimum Network Speeds connecting Application Server and Database Server: 100Mbit (Recommended 1Gbit)

- **Large Configuration**
  - 64-bit architecture
  - Multiple CPU cluster
  - Isolated development and test environments

- **Typical Database Configuration**
  - Using Oracle 11g
  - 20MB for Data (including blob data)
  - 20MB for Index
  - Rule of thumb on DB drive size is 10 X physical table and index size for 100K tables and index at 1.1GB so figure 10 or 11 GB for DB drive space. This varies based on how the DBAs have configured the drives.
  - A properly configured database server has enough drives to optimize disk usage. Oracle’s performance testing database server for Oracle Enterprise Repository has 6 drives.

---

**Note:** Oracle Enterprise Repository has not been tested with HA databases.

---

- The Oracle Enterprise Repository design is one of the most important performance components and the following can impact performance:
  - Number of assets (Oracle Enterprise Repository is easily capable of storing hundreds of thousands of assets. There are however some limitations with the GUI.)
  - Number of asset types
  - Nested taxonomies (Complexity of the taxonomy can have a huge impact on performance, not to mention decrease the usability for asset consumers)
  - Number of relationships
  - Number of active users

### 1.3 Installable Product Components

Using the Oracle Products installation program, you can install the following components on your system:

- **Section 1.3.1, "Oracle Enterprise Repository"**

For additional information about:

- The features and capabilities of Oracle Enterprise Repository, see Section 1.3.1, "Oracle Enterprise Repository".
- Operating systems and hardware supported by your software, see Oracle Products Supported Configurations.
1.3.1 Oracle Enterprise Repository

Oracle Enterprise Repository manages the metadata for any type of software asset, from business processes and Web services to patterns, frameworks, applications, and components. It maps the relationships and interdependencies that connect those assets to improve impact analysis, promote and optimize their reuse, and measure their impact on the bottom line.

Oracle Enterprise Repository consists of the following subcomponents that can be installed on your system:

- **Core Repository with Examples**: Installs everything necessary for Oracle Enterprise Repository. The evaluation customers should choose just this option.

- **Oracle Enterprise Repository Plug-in for Eclipse**: This plug-in allows access to the repository from Eclipse. The Repository Access View supports browsing, searching, and retrieval of assets from Oracle Enterprise Repository.

- **Oracle Enterprise Repository Plug-ins**
  
  The Oracle Enterprise Repository Plug-in depends upon the OEPE plug-in for Eclipse. The OEPE Plug-in depends on the Eclipse WST project, therefore making WST a transitive dependency for Oracle Enterprise Repository. You can retrieve the WST project from the following location:

  http://download.eclipse.org/webtools/updates/

  The following list describes the plug-ins available in Oracle Enterprise Repository:

  - **Development Environments (IDEs)**
    - Oracle JDeveloper
    - Eclipse
    - VS .NET

  - **Service Registry**
    - Oracle Service Registry
    - UDDI v3.0

  - **Version Control Systems**
    - Clear Case
    - CVS
    - PVCS
    - Harvest
    - Serena

  - **Workflow Engine**
    - Oracle BPM

  - **Harvester Plug-ins for**
    - WLST
    - Ant
    - Oracle Enterprise Manager Management Pack Plus for SOA
    - JDeveloper
    - Eclipse
Defect Tracking Systems

* ClearQuest

1.4 Product Distribution Methods

Your Oracle software is distributed on the Oracle Web site.

- Section 1.4.1, "Web Distribution"

1.4.1 Web Distribution

You can download your software from the Oracle Web site at http://www.oracle.com/technologies/soa/enterprise-repository.html.

In the Downloads panel, click Oracle Enterprise Repository to go to the Oracle Enterprise Repository Downloads page. From the list of operating systems, choose the appropriate operating system to download the installer to your local computer.

**Note:** You must accept the license agreement, before you download the installer.

1.5 Installation Prerequisites

The following sections specify the installation prerequisites:

- Section 1.5.1, "System Requirements"
- Section 1.5.2, "Temporary Disk Space Requirements"

**Note:** For more information about the Oracle Enterprise Repository sizing guidelines, see Section 1.2, "Oracle Enterprise Repository Sizing Guidelines".

1.5.1 System Requirements

The system requirements for your installation are given in the following table.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform configuration</td>
<td>A supported configuration of hardware, operating system, application server, JDK, and database is required. See Oracle Products Supported Configurations. The Supported Configurations documentation specifies other prerequisites and recommendations, such as recommended versions of the JDK.</td>
</tr>
<tr>
<td>Processor</td>
<td>2-GHz CPU recommended</td>
</tr>
<tr>
<td>Hard Disk Drive</td>
<td>A complete installation requires approximately 1.2GB of disk space.</td>
</tr>
<tr>
<td>Memory</td>
<td>A minimum of 2 GB RAM</td>
</tr>
<tr>
<td>Character Encoding</td>
<td>UTF-8/Unicode character encoding must be configured for your supported database and application server.</td>
</tr>
</tbody>
</table>
1.5.2 Temporary Disk Space Requirements

The Oracle installation program uses a temporary directory into which it extracts the files necessary to install the software on the target system. During the installation process, your temporary directory must contain sufficient space to accommodate the compressed Java run-time environment (JRE) bundled with the installation program and an uncompressed copy of the JRE that is expanded into the temporary directory. The extracted files are deleted from the temporary directory at the end of the installation process. As a general rule, installation programs require approximately 2.5 times the amount of temporary space that is ultimately required by the installed files.

By default, the installation program uses the following temporary directories:

- Windows platforms: directory referenced by the TMP system variable
- UNIX platforms: system-dependent temporary directory

**Note:** If you do not have enough temporary space to run the installation program, you are prompted to specify an alternate directory or exit the installation program.

To make sure that you have adequate temporary space, you may want to allocate an alternate directory for this purpose. To do so, follow the instructions provided in the following table.
1.6 Database Installation Procedures

The database administrator must create an empty database for Oracle Enterprise Repository to install its files into. A user for this database must also be created (for example, OER_USER) and that user must have database owner privileges on the Oracle Enterprise Repository database.

This section contains the following topics:

- Section 1.6.1, "Oracle Database Installation"
- Section 1.6.2, "Oracle Real Application Clusters Database Installation"
- Section 1.6.3, "SQL Server 2008 Database Installation"
- Section 1.6.4, "UDB Database Installation"

1.6.1 Oracle Database Installation

Appropriate administrative privileges are necessary to complete this process. This section contains the following topics:

- Section 1.6.1.1, "Oracle Database"
- Section 1.6.1.2, "Prerequisites"
- Section 1.6.1.3, "Create the Tablespaces"
- Section 1.6.1.4, "Build a Database User"

1.6.1.1 Oracle Database

1. Connect to the database as a DBA.

2. From a SQL Plus command prompt, run: select * from nls_database_parameters where Parameter='NLS_CHARACTERSET';

The output will have two columns, Parameter and Value. The most common Values are:

- UTF-8 Encoding: AL32UTF8 (International support)
- ISO-8859-1 Encoding: WE8ISO8859P1 (U.S. English Encoding)
1.6.1.2 Prerequisites
You will need to verify the following database prerequisites before beginning the Oracle Enterprise Repository installation process.

■ A login with database administrator privileges
■ The name of the supported JDBC driver for Oracle: You could use either ojdbc5.jar or ojdbc6.jar depending on the JDK used by your application server. The supported Oracle Database versions are - 10.2.0.4.0, 11.1.0.7.0, and 11.2.
  
  For supported Oracle Enterprise Repository JDBC Drivers, see Table 2-1, "Oracle Enterprise Repository 11g Supported JDBC Driver Information”.

Note: The Oracle Database driver that you use should be based on your application servers JDK.

■ JDK 1.5.x or higher on the current workstation/server
■ SQL *Plus Client tools

1.6.1.3 Create the Tablespaces
Follow these steps to create the necessary tablespaces before installing Oracle Enterprise Repository:

1. Log into Oracle (system or DBA privileges are required).
2. Create a data tablespace named OER_DATA with at least 300M of available space.
3. Create an index tablespace named OER_INDEX with at least 300M of available space.

Example Tablespace Creation Script
The following example scripts show how to create the OER_DATA and OER_INDEX tablespaces.

Note: These scripts are for a Unix/Linux based DataFile. For Windows, a file path value of c:\oracle\...\file.dbf is appropriate syntax.

CREATE TABLESPACE OER_DATA
DATAFILE '/opt/oracle/oradata/oer/oer_data.dbf' SIZE 300M
AUTOEXTEND ON NEXT 10240K MAXSIZE UNLIMITED
  EXTENT MANAGEMENT LOCAL AUTOALLOCATE
  LOGGING
  ONLINE
  SEGMENT SPACE MANAGEMENT AUTO;

CREATE TABLESPACE OER_INDEX
DATAFILE '/opt/oracle/oradata/oer/oer_index.dbf' SIZE 300M
AUTOEXTEND ON NEXT 5120K MAXSIZE UNLIMITED
  EXTENT MANAGEMENT LOCAL AUTOALLOCATE
  LOGGING
  ONLINE
  SEGMENT SPACE MANAGEMENT AUTO;
1.6.1.4 Build a Database User

Follow these steps to create the necessary database user before installing Oracle Enterprise Repository:

1. Log into Oracle (administrative privileges required).
2. Create a user and password.
3. Ensure that the user has the following privileges:
   - Privilege to create sessions
   - Ability to create tables
   - Default tablespace is oer_data
   - Assigned quota of 300M for oer_data
   - Assigned quota of 300M for oer_lob (BP: see above)
   - Assigned quota of 300M for oer_index

Example User Creation Script

The following example script show how to create a user for newly created Oracle Enterprise Repository Tablespaces.

```sql
CREATE USER OER IDENTIFIED BY OER_PWD
DEFAULT TABLESPACE OER_DATA
    TEMPORARY TABLESPACE TEMP
PROFILE DEFAULT
ACCOUNT UNLOCK;

GRANT 'CONNECT' TO OER;
ALTER USER OER DEFAULT ROLE "CONNECT", "RESOURCE";
GRANT CREATE MATERIALIZED VIEW TO OER;
GRANT CREATE SEQUENCE TO OER;
GRANT CREATE SESSION TO OER;
GRANT CREATE SYNONYM TO OER;
GRANT CREATE SNAPSHOTS TO OER;
GRANT CREATE TABLE TO OER;
GRANT CREATE TRIGGER TO OER;
GRANT CREATE VIEW TO OER;
GRANT UNLIMITED TABLESPACE TO OER;
```

1.6.2 Oracle Real Application Clusters Database Installation

The Oracle Enterprise Repository 10.3 Installer does not support the installation into Oracle Real Application Cluster (RAC) environments, but supports RAC post-install configurations. The Oracle Enterprise Repository installer requires a standard SID to connect and create relations, and also to insert the sample data for use with the initial installation of Oracle Enterprise Repository.

The Oracle Database administrators should assist in the database configuration of Oracle Enterprise Repository when the migration from SID to a RAC environment is required. Once the RAC environment is configured and verified by the Oracle Database administrator, then the database.properties file in the Oracle Enterprise Repository application contains the appropriate values for the db.url property, as mentioned in the following example:

```
db.url=jdbc:oracle:thin:@(DESCRIPTION = (load_balance = true)
    (failover =true) (ADDRESS = (PROTOCOL = TCP)(HOST = db_
1.6.3 SQL Server 2008 Database Installation

Appropriate administrative privileges are necessary to complete this process. These instructions assume the use of Enterprise Manager. This section contains the following topics:

- Section 1.6.3.1, "SQL Server 2008 Database"
- Section 1.6.3.2, "Prerequisites"
- Section 1.6.3.3, "Create a Database"
- Section 1.6.3.4, "Create a Database User"

1.6.3.1 SQL Server 2008 Database

SQL Server is automatically configured to support UTF-8/Unicode character encoding. No additional configuration is necessary.

1.6.3.2 Prerequisites

You will need to verify the following database prerequisites before beginning the Oracle Enterprise Repository installation process.

- A login with database administrator privileges (Usually the SA account).
- The name of the supported JDBC driver for SQL Server 2008: sqljdbc.jar (driver version 1.1.1501.101)

1.6.3.3 Create a Database

Follow these steps to create the necessary database before installing Oracle Enterprise Repository:

1. Open the SQL Server 2008 Management Studio.
2. Right-click the Databases folder and select New Database.
3. In the New Database window, enter Oracle Enterprise Repository as the database name.
4. In the Database files section, change the Logical Name of Oracle Enterprise Repository to OER_DATA.
5. Enter OER_USER as the database owner (or choose a Windows login account as appropriate for your security policy).
6. Click Add to create a new Filegroup, as follows:
   a. In Logical Name, enter OER_INDEX.
   b. Click the Filegroup cell and select <new filegroup>.
   c. On the New Filegroup for Oracle Enterprise Repository page, enter INDEX for the name.
   d. Click OK.
7. Click OK again to create the database.
1.6.3.4 Create a Database User
Follow these steps to create the necessary user before installing Oracle Enterprise Repository:

---
**Note:** This step is only necessary if you are using SQL Server Authentication for the Oracle Enterprise Repository application installation.
---

1. Open the SQL Server 2008 Management Studio.
2. Expand the Server tree to open the Security folder.
3. Right-click Logins and select New Login.
4. Enter OER_USER as the Login name (or choose a Windows login account as appropriate for your security policy).
5. Select SQL Server Authentication.
6. Enter a password that meets your password policy into the Password and Confirm password fields.
7. Change the default database to Oracle Enterprise Repository.
8. Select a page list, select User Mappings, and then in the Map column select the Oracle Enterprise Repository database option.
9. Grant database roles for public and db_owner.
10. Click OK to create the user account.

1.6.4 UDB Database Installation
Appropriate administrative privileges are necessary to complete this process. This section contains the following topics:

- Section 1.6.4.1, "UDB Database"
- Section 1.6.4.2, "Prerequisites"
- Section 1.6.4.3, "Create a Database"
- Section 1.6.4.4, "Tune the Database"

1.6.4.1 UDB Database
1. Connect to the database as a DBA.
2. From a DB2 shell command prompt, run the following:
   
   ```bash
   > get db cfg
   ```

   The output should include the line Database code set = UTF-8. If this line does not appear, it is necessary to create a new UTF-8 database.

1.6.4.2 Prerequisites
You must ensure a successful login to the database using the administrator privileges, before beginning the Oracle Enterprise Repository installation process.
1.6.4.3 Create a Database

To create the required database before installing Oracle Enterprise Repository, perform the following steps:

1. Open the DB2 Command Editor.
2. Run `db2 -tv` to start the DB2 shell command prompt with semicolon command termination.
3. Create a database named OER that includes bufferpools and tablespaces.
   a. Name the bufferpools as: OER32kDataBP, OER32kIndxBP, OER32kBlobBP, and OER32kTempBP.
   b. Create three large tablespaces named: OERDataTS, OERIndxTS, and OERLobTS with at least 300M of available space.
   c. Create one temporary tablespace named: OERTempTS with at least 100M of available space.

**Note:** The tablespace names OERDataTS, OERIndxTS, and OERLobTS are necessary for the Oracle Enterprise Repository installation process.

---

**Example 1–1 Example Database Create Script**

```
CREATE DATABASE OER USING CODESET UTF-8 TERRITORY US;
-- Connect to the OER database
-- Replace <user> and <password> with the user who will own the OER schema.
CONNECT TO OER USER <user> USING <password>;
-- Create the OER 32K Buffer Pools
CREATE BUFFERPOOL OER32KDATAbp SIZE 1000 PAGESIZE 32K;
CREATE BUFFERPOOL OER32KINDXbp SIZE 1000 PAGESIZE 32K;
CREATE BUFFERPOOL OER32kBLOBbp SIZE 1000 PAGESIZE 32K;
CREATE BUFFERPOOL OER32KTEMPbp SIZE 1000 PAGESIZE 32K;
CONNECT RESET;
-- Same <user> and <password> replacements as before are required.
CONNECT TO OER USER <user> USING <password>;
CREATE LARGE TABLESPACE oerdatats PAGESIZE 32 K MANAGED BY DATABASE USING(file '/opt/IBM/DB2/data/oerdatats.dat' 300M) extentsize 512k BUFFERPOOL OER32KDATAbp;
CREATE LARGE TABLESPACE oerindxts PAGESIZE 32 K MANAGED BY DATABASE USING(file '/opt/IBM/DB2/data/oerindxts.dat' 300M) extentsize 512k BUFFERPOOL OER32KINDXbp;
CREATE LARGE TABLESPACE oerlobts PAGESIZE 32 K MANAGED BY DATABASE USING(file '/opt/IBM/DB2/data/oerlobts.dat' 300M) extentsize 512k BUFFERPOOL OER32kBLOBbp;
-- Create the OER Temp Tablespace
CREATE TEMPORARY TABLESPACE oertempts PAGESIZE 32 K MANAGED BY DATABASE USING(file '/opt/IBM/DB2/data/oertempts.dat' 128M) BUFFERPOOL OER32KTEMPbp;
```

1.6.4.4 Tune the Database

To configure the tuning parameters, perform the following steps in the Configuration Advisor Wizard:

1. In the DB2 Control Center, click **Tools, Wizards**, and then select **Configuration Advisor**. The Configuration Advisor Wizard - Introduction page is displayed.
2. Select the new Oracle Enterprise Repository database, and click **Next**. The Configuration Advisor Wizard - Server page is displayed.
3. Select a percentage of memory to allocate to the Oracle Enterprise Repository database in DB2, and then click Next. The Configuration Advisor Wizard - Workload page is displayed.

4. Select the Mixed option in the Optimize for Workload Type list, and then click Next. The Configuration Advisor Wizard - Transactions page is displayed.

5. Select the More than 10(long transactions) option in the Average Number of SQL Statements Per Unit of Work list. Take the default number of transactions per minute.

6. Click Next. The Configuration Advisor Wizard - Priority page is displayed.

7. Select a database administration priority. The default option is Both.

8. Click Next. The Configuration Advisor Wizard - Populated page is displayed.

9. Select No, as the database is not yet populated with data. Then, click Next. The Configuration Advisor Wizard - Connections page is displayed.

    Note: On all future visits to this wizard for the Oracle Enterprise Repository database, select the answer as "Yes".

10. Select 0 local and 25 remote as the average number of connected applications, and then click Next. The Configuration Advisor Wizard - Isolation page is displayed.

11. Select the Cursor Stability (many locks of short duration) option, and then click Next. The Configuration Advisor Wizard - Results page is displayed.

12. Accept the suggested modifications, and click Finish to apply changes to your database.

    Note: Since many tuning parameters are data dependent, this Wizard can be re-run following the load of significant amounts of data, or after a designated period of time, for example, monthly or quarterly.

1.7 Selecting Directories for Your Installation

During the installation process, you need to specify locations for the following directories:

- Section 1.7.1, "Choosing a Oracle Home Directory"
- Section 1.7.2, "Choosing Product Installation Directory"

1.7.1 Choosing a Oracle Home Directory

During the installation of the Oracle software, you are prompted to specify a Oracle Home directory. This directory serves as a repository for common files that are used by various Oracle products installed on the same machine. For this reason, the Oracle Home directory can be considered a central support directory for all the Oracle products installed on your system.

The files in the Oracle Home directory are essential to ensuring that Oracle software operates correctly on your system. These files:

- Facilitate checking of cross-product dependencies during installation
Facilitate Service Pack installation

The default Oracle home directory where these files are installed is:

$ORACLE_HOME/repository111

All files related to the application installation are found under this Oracle home directory. In the case of a WebLogic Server installation, the application domain template file is found in the $ORACLE_HOME/wl_server10.3/templates/applications directory.

---

Note:

- On some UNIX platforms, the installation program does not install the JDK. During installation of your Oracle software, you are prompted to choose an existing Oracle Home directory or specify a path to create a new Oracle Home directory. If you choose to create a new directory, the installation program automatically creates it for you.

- Oracle recommends that you do not exceed a maximum of 12 characters when naming your Oracle Home directory. If the name of this directory has more than 12 characters, or if there are spaces in the directory name, the CLASSPATH may not be resolved properly. You can install only one instance of each version of an Oracle product in a single Oracle Home directory.

- If the Oracle Home directory is populated and it does not contain registry.xml, or if any of the other installation directories are not empty, the following messages will be displayed. You will then be prompted to continue installation, or return to the directory selection task with the one of the error message as shown in Listing 2-1:

Listing 2-1

For Oracle Home directory selection task: Oracle_HOME directory is not empty. Proceed with installation?

For product installation directories selection task: One or more installation directories are not empty. Proceed with installation?

- The product maintenance level of the current installer must be compatible with the maintenance level of the product already installed. If not, an error message is displayed and you must obtain the compatible installer or perform maintenance in order to achieve compatibility.

1.7.2 Choosing Product Installation Directory

The product installation directory contains all the software components that you choose to install on your system, including program files and examples. You are prompted during your initial installation to choose a product installation directory. If you accept the default on a Windows system, for example, your software is installed in the following directory:

<ORACLE_HOME>/repositoryXXX

where, ORACLE_HOME is the Oracle Home directory and repositoryXXX is the product installation directory for the Oracle Enterprise Repository software. However,
you can specify any name and location on your system for your product installation directory; you need not name the directory repositoryXXX or create it under the Oracle Home directory.

1.8 Running the Oracle Enterprise Repository Product Installation

This section describes the steps to run the Oracle Enterprise Repository product installation:

1. If you are planning to use a Generic Application Server (Tomcat, JBoss, Jetty, etc.), then a supported JDK is required to be installed prior to the installation of Oracle Enterprise Repository.

2. Use of the JDK that is installed with WebSphere or WebLogic Server as your JAVA_HOME environment variable and the JAVA_HOME/bin directory being prepended to your PATH environment variable.

3. Run the following command-line option to start the Oracle Enterprise Repository installer:

   java -jar OER111120_generic.jar

1.9 Generating a Verbose Installation Log

If you launch the installation from the command line or from a script, you can specify the -log option to generate a verbose installation log. The installation log stores messages about events that occur during the installation process, including informational, warning, error, and fatal messages. This type of file can be especially useful for silent installations.

---

**Note:** You may see some warning messages in the installation log. However, unless a fatal error occurs, the installation program completes the installation successfully. The installation user interface indicates the success or failure of each installation attempt, and the installation log file includes an entry indicating that the installation was successful.

---

**Syntax**

To create a verbose log file during installation, include the -log=full_path_to_log_file option in the command line. For example:

$JAVA_HOME/bin/java -jar OER111120_generic.jar -log=c:\logs\OER_install.log

where JAVA_HOME represents the path the users java.

The path must specify a file. You cannot create a folder simply by including a name for it in a pathname; your path should specify only existing folders. If your path includes a nonexistent folder when you execute the command, the installation program does not create the log file.

---

**Note:** For information about upgrading your software, see the Oracle Fusion Middleware Upgrade Guide for Oracle Enterprise Repository.
This chapter describes how to start the installation program on Windows and UNIX platforms.

This chapter contains the following sections:

- Section 2.1, "Starting the Installation Program"
- Section 2.2, "Running the Installation Program"

## 2.1 Starting the Installation Program

This section contains the following topics:

- Section 2.1.1, "Before You Start"
- Section 2.1.2, "Starting the Installation Program on Windows Platforms"
- Section 2.1.3, "Starting the Installation Program on UNIX Platforms"

### 2.1.1 Before You Start

Before you start installing the software, please review the following information:

- According to Sun Microsystems, the Firefox 3.6 browser requires Java SE 6 Update 10 or later. Otherwise, Java-based Web applications will not work. For more information, see [http://www.java.com/en/download/faq/firefox_newplugin.xml](http://www.java.com/en/download/faq/firefox_newplugin.xml).

- Ensure your system meets the hardware and the software requirements before you install the Oracle Enterprise Repository software. A complete list of documents that describe Oracle Product family configurations supported by Oracle can be found at [http://www.oracle.com/technology/software/products/middleware/index.html](http://www.oracle.com/technology/software/products/middleware/index.html).

- You cannot reinstall any Oracle product on top of a previously installed version of the same product - in the same Oracle Home directory or in the same file location. You can, however, add products and product components to an existing installation. For example, you can install Oracle Enterprise Repository during one installation, and Oracle BPM during a later installation. However, to reinstall the same version of one of the products, you must first uninstall the previous installation, as described in Chapter 4, "Uninstalling the Software".

- If you are adding components to an existing installation of Oracle Enterprise Repository, you should shut down any running instances before starting the installation.
2.1.2 Starting the Installation Program on Windows Platforms

This section describes how to start the installation program on Windows Platforms:

- Section 2.1.2.1, "Starting the Installation in Graphical Mode"
- Section 2.1.2.2, "Starting the Installation in Console Mode"
- Section 2.1.2.3, "Starting the Installation in Silent Mode"

2.1.2.1 Starting the Installation in Graphical Mode

To start the graphical-mode installation process on a Windows platform, perform the following steps:

1. Enter the following command to start the installation:

Note: If you are installing the software on a Windows system that supports more than one monitor, you must disable all but one monitor before starting the installation program.

- Ensure that you have a supported application server available. The Oracle Enterprise Repository installer optionally provides a default application server.
- Ensure that you have a supported database that is configured, running, and supports UTF-8/Unicode character encoding. For more information, see Section 1.6, "Database Installation Procedures".
- Ensure that your supported application server is configured to use UTF-8/Unicode character encoding. Database Configuration for UTF-8/Unicode Character Encoding.

Table 2–1 describes the supported JDBC Driver file names for Oracle Enterprise Repository 11g as well as its mapping to the appropriate application server.

<table>
<thead>
<tr>
<th>App Server JDK Version</th>
<th>Oracle JDBC</th>
<th>Oracle Driver Version</th>
<th>UDB JDBC</th>
<th>UDB Driver Version</th>
<th>SQL Server JDBC</th>
<th>SQL Driver Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5.x</td>
<td>ojdbc5.jar</td>
<td>11.1.0.7.0-Production</td>
<td>db2cc.jar</td>
<td>3.50.152</td>
<td>sqljdbc4.jar</td>
<td>2.0.1803.100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6.x</td>
<td>ojdbc6.jar</td>
<td>11.1.0.7.0-Production</td>
<td>db2cc.jar</td>
<td>3.50.152</td>
<td>sqljdbc4.jar</td>
<td>2.0.1803.100</td>
</tr>
</tbody>
</table>

Note: If the installation process is aborted before it is completed, manually clear the database before running the installer again. The installer does not clear data from the database when an installation is aborted. The existing data causes an error when the installer runs for the second time.

For information about supported application servers and databases, see Oracle Enterprise Repository Supported Configurations.
Starting the Installation Program

2. To continue the installation in the Graphical mode on Windows, see Section 2.2.1, "Running the Installation Program in Graphical Mode".

### 2.1.2.2 Starting the Installation in Console Mode

To start the console-mode installation process on a Windows platform, perform the following steps:

1. Log into the target Windows system.
2. Launch the installation by entering one of the following commands:
   
   ```
   filename.exe -mode=console
   ```

   For example:
   
   ```
   OER10XX_win32.exe -mode=console
   ```

   **Note:** You can also include the `-log=full_path_to_log_file` option in the command line to create a verbose installation log. For example:

   ```
   OER10XX_win32 -mode=console -log=C:\logs\OER30_install.log
   ```

   For more information on generating a verbose log, see Section 1.9, "Generating a Verbose Installation Log".

   After a few moments, an Installer window opens and the installation program begins to install the software.

3. To continue the installation in the Console mode on Windows, see Section 2.2.2.3, "Install Oracle Enterprise Repository Using Console Mode".

### 2.1.2.3 Starting the Installation in Silent Mode

For details about silent-mode installation, see Section 2.2.3.1, "What Is Silent-Mode Installation?".

To start the installation in silent-mode follow these steps:

1. Log into the Windows system.
2. Create a silent.xml file that defines the configuration settings normally entered by a user during an interactive installation process, such as graphical-mode or...
console-mode installation. For information about creating a silent.xml file, see Section 2.2.3.3, "Creating a silent.xml File for Silent-Mode Installation".

---

**Note:** Incorrect entries in the silent.xml file can cause installation failures. To help you determine the cause of a failure, Oracle recommends that you create a log file when you start the installation.

---

3. Launch the installation by entering the following commands:

```plaintext
filename.exe -mode=silent -silent_xml=path_to_silent.xml
```

Here, `filename.exe` is the name of the software installation file, and `path_to_silent.xml` is the full pathname of the silent.xml file.

---

**Note:** You can also include the `-log=full_path_to_log_file` option in the command line to create a verbose installation log. For example:

```plaintext
OER10XX_win32.exe -mode=silent -silent_xml=C:\silent.xml -log=C:\logs\OER_install.log
```

For more information, see Section 1.9, "Generating a Verbose Installation Log".

An Installer window is displayed, indicating that the files are being extracted. No other prompt or text is displayed.

For more information, see Section 2.2.3, "Running the Installation Program in Silent Mode".

### 2.1.3 Starting the Installation Program on UNIX Platforms

The Oracle Enterprise Repository installation program requires a Java run-time environment (JRE) to run. A JRE is bundled in the Windows installation program, and in some UNIX installation programs (those with filenames ending in .bin). For other UNIX platforms, the installation program does not include a JRE. Filenames for these installation programs end in .jar. To run the .jar installation programs, you must have an appropriate version of a JDK installed on your system, and include the bin directory of the JDK at the beginning of your PATH system variable.

---

**Note:** It is important that you use a JDK because the installation process assigns values to `JAVA_HOME` and related variables to point to this directory. All scripts installed by your installation program use this JDK by default, including scripts to start sample applications, the Configuration Wizard, and other development tools.

---

To run graphical-mode installation, your console must support a Java-based GUI. If the installation program determines that your system cannot support a Java-based GUI, it automatically starts running in console mode. For details, see Section 2.2.3, "Running the Installation Program in Silent Mode". The section describes how to start the installation using the following types of installers:

- Section 2.1.3.1, "Using Installers with Filenames Ending in .bin"
- Section 2.1.3.2, "Using Installers with Filenames Ending in .jar"
2.1.3.1 Using Installers with Filenames Ending in .bin
The following sections describe how to start the installation program on UNIX platforms using filenames that end in .bin:

- Section 2.1.3.1.1, "Starting the Installation in Graphical Mode"
- Section 2.1.3.1.2, "Starting the Installation in Console Mode"
- Section 2.1.3.1.3, "Starting the Installation in Silent Mode"

2.1.3.1.1 Starting the Installation in Graphical Mode
To start the graphical-mode installation process using the installation files with names ending in .bin, do the following:

1. Log into the target UNIX system.
2. To change the permissions of the file enter the following command:
   
   chmod a+x filename.bin

   For example:
   
   chmod a+x OER10XX_linux32.bin.

   **Note:** You can also include the -log=full_path_to_log_file option in the command line to create a verbose installation log. For example:

   OER10XX_linux32.bin -log=/home/logs/OER_install.log

   For more information, see Section 1.9, "Generating a Verbose Installation Log".

2.1.3.1.2 Starting the Installation in Console Mode
To start the console-mode installation process for installation files with names ending in .bin, follow these steps:

1. Log into the target UNIX system.
2. Launch the installation by entering the following commands:
   
   chmod a+x filename.bin
   
   ./filename.bin -mode=console

   Here filename.bin is the name of the installation program specific to your platform, for example,

   chmod a+x OER10XX_linux32.bin.
2.1.3.1 Starting the Installation in Silent Mode

For details about silent-mode installation, see Section 2.2.3.1, "What Is Silent-Mode Installation?"

To start the silent-mode installation process for installation files with names ending in .bin, follow these steps:

1. Log into the target UNIX system.
2. Create a silent.xml file that defines the configuration settings normally entered by a user during an interactive installation process, such as graphical-mode or console-mode installation.

   For information about creating a silent.xml file, see Section 2.2.3.3, "Creating a silent.xml File for Silent-Mode Installation".

   **Note:** Incorrect entries in the silent.xml file can cause installation failures. To help you determine the cause of a failure, Oracle recommends that you create a log file when you start the installation.

3. Complete the appropriate procedure as in the following table.

<table>
<thead>
<tr>
<th>If you are installing from...</th>
<th>Do this...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web download</td>
<td>Go to the directory to which you have downloaded the installation program.</td>
</tr>
</tbody>
</table>
| DVD                           | 1. Insert the software DVD into the DVD drive and go to the DVD directory.  
                                  2. Navigate to the directory that contains the installation program for your platform. |

4. Launch the installation program by entering the following commands:

   chmod a+x filename

   ./filename.bin -mode=silent -silent_xml=/path_to_silent.xml

   Here filename.bin is the name of the installation file, for example,

   chmod a+x OER10XX_linux32.bin

   and path_to_silent.xml is the full pathname of the silent.xml template file.
Starting the Installation Program

Installing Oracle Enterprise Repository

An Installer window is displayed, indicating that the files are being extracted. No other prompt or text is displayed. For more information on Silent-Mode installation, see Section 2.2.3, "Running the Installation Program in Silent Mode".

2.1.3.2 Using Installers with Filenames Ending in .jar

The following sections describe how to start the installation program on UNIX platforms using filenames that end in .jar:

- Section 2.1.3.2.1, "Starting the Installation in Graphical Mode"
- Section 2.1.3.2.2, "Starting the Installation in Console Mode"
- Section 2.1.3.2.3, "Starting the Installation in Silent Mode"

2.1.3.2.1 Starting the Installation in Graphical Mode

To start the graphical-mode installation process using the installation files with names ending in .jar, do the following:

1. Log into the target UNIX system.
2. Add the bin directory of the appropriate JDK to the beginning of the PATH variable definition on the target system. For example:

```
PATH=<JAVA_HOME>/bin:$PATH
export PATH
```

Here <JAVA_HOME> represents the full path to the JDK directory.
3. Launch the installation program by entering the following command:

```
java -jar filename.jar [-log=full_path_to_log_file]
```

The installation program begins the graphical mode.

To continue the installation in the graphic mode, see Section 2.2.1, "Running the Installation Program in Graphical Mode".

2.1.3.2.2 Starting the Installation in Console Mode

To start the console-mode installation process for installation files with names ending in .jar, follow these steps:

```
Note: You can also include the -log=full_path_to_log_file option in the command line to create a verbose installation log. For example:

OER10XX_linux32.bin -mode=silent -silent_xml=/home/silent.xml -log=/home/logs/OER_install.log
```

For more information on generating a verbose log, see Section 1.9, "Generating a Verbose Installation Log".

```
Note: You can also include the -log=full_path_to_log_file option in the command line to create a verbose installation log. For example:

al30_generic.jar -log=/home/logs/OER_install.log
```

For more information about generating a verbose log, see Section 1.9, "Generating a Verbose Installation Log".
1. Log into the target UNIX system.

2. Add the bin directory of the appropriate JDK to the beginning of the PATH variable definition on the target system. For example:

```bash
PATH=<JAVA_HOME>/bin:$PATH
export PATH
```

Here `<JAVA_HOME>` represents the full path to the JDK directory.

3. Launch the installation by entering the following command:

```bash
java -jar filename.jar -mode=console [-log=full_path_to_log_file]
```

where, `filename.jar` is the name of the installation file, for example, `oer_generic.jar`.

**Note:** You can also include the `-log=full_path_to_log_file` option in the command line to create a verbose installation log. For example:

```bash
java -jar oer30_generic.jar -mode=console
-log=/home/logs/OER_install.log
```

For more information about generating a verbose log, see Section 1.9, "Generating a Verbose Installation Log".

To continue the installation in the console mode, see Section 2.2.2, "Running the Installation Program in Console Mode".

### 2.1.3.2.3 Starting the Installation in Silent Mode

For details about silent-mode installation, see Section 2.2.3.1, "What Is Silent-Mode Installation?".

To start the silent-mode installation process for installation files with names ending in `.jar`, follow these steps:

1. Log into the target UNIX system.

2. Create a `silent.xml` file that defines the configuration settings normally entered by a user during an interactive installation process, such as graphical-mode or console-mode installation.

   For information about creating a silent.xml file, see Section 2.2.3.3, "Creating a silent.xml File for Silent-Mode Installation".

   **Note:** Incorrect entries in the silent.xml file can cause installation failures. To help you determine the cause of a failure, Oracle recommends that you create a log file when you start the installation.

3. Add the bin directory of the appropriate JDK to the beginning of the PATH variable definition on the target system. For example:

```bash
PATH=<JAVA_HOME>/bin:$PATH
export PATH
```

Here `<JAVA_HOME>` represents the full path to the JDK directory.

4. Launch the installation by entering the following command:
Running the Installation Program

Installing Oracle Enterprise Repository

2.2 Running the Installation Program

This section contains the following topics:

- Section 2.2.1, "Running the Installation Program in Graphical Mode"
- Section 2.2.2, "Running the Installation Program in Console Mode"
- Section 2.2.3, "Running the Installation Program in Silent Mode"

2.2.1 Running the Installation Program in Graphical Mode

Start the installation program as described in Section 2.1, "Starting the Installation Program".

The installation program prompts you to enter specific information about your system and configuration.

1. Double-click the installer file to start the installation. The Oracle Enterprise Repository - Oracle Products Welcome screen is displayed, as shown in Figure 2–1.
2. Click Next. The Choose Middleware Home Directory screen is displayed, as shown in Figure 2–2.

Choose either of the following options:

- **Use an existing Middleware Home**: If you already have a Middleware Home directory on your system, you can select that directory (recommended).

- **Create a new Middleware Home**: Creates a new Middleware Home directory. If you choose to create a new directory by typing a new directory name in this field, the installation program automatically creates one for you. You can also click Browse and select a directory from the Middleware Home Directory Selection dialog. Click Reset to reset the Middleware Home Directory field.
3. Click Next. The Choose Products Installation Directories screen is displayed, as shown in Figure 2–3.

**Figure 2–3 Choose Products Installation Directories Screen**

4. Click Next. The Choose Application Server screen is displayed, as shown in Figure 2–4.

**Figure 2–4 Choose Application Server Screen**

5. Select the appropriate application server and click Next. The Initialize Repository Properties screen is displayed, as shown in Figure 2–5.

---

**Note:** For information about the Middleware Home directory, see Section 1.7.1, "Choosing a Oracle Home Directory."
6. Specify the information required to initialize Oracle Enterprise Repository for your application server, and click **Next**. The Configure Database screen is displayed, as shown in Figure 2–6.

**Figure 2–6  Configure Database Screen**

Specify whether you want to enter information for the Oracle Enterprise Repository Tablespaces that were configured as a prerequisite to this installation procedure or to configure a database at a later time.

Before selecting Yes, verify that your DBA completed the Database Installation Procedures for your DBMS. If you select No, see the Installation Complete window.

7. Select **Yes** and then click **Next**. The Provide Database Tablespace Names screen is displayed, as shown in Figure 2–7.
Specify the Oracle Enterprise Repository tablespace names that were created prior to the installation procedure, as follows:

- **SQL Server**: provide the file group and index group names to be used by Oracle Enterprise Repository. Typically, the value for Data Tablespace would be PRIMARY and Index Tablespace would be INDEX.

- **Oracle**: provide the data and index tablespace names to be used by Oracle Enterprise Repository. Typically, the value for Data Tablespace would be OER_DATA and Index Tablespace would be OER_INDEX.

**Note:** For the BLOB Tablespace field, enter the same value that you entered in the Data Tablespace field.

8. Click **Next**. The Initialize Repository Database Properties screen is displayed, as shown in **Figure 2–8**.

**Note:** This window is displayed only when configuring an Oracle Enterprise Repository database.
Specify the properties required to initialize your database.

- **Driver File Locations:**
  - **Oracle**: ojdbc5.jar or ojdbc6.jar
    
    For more information, see Table 2–1.
  
  - **IBM UDB/DB2**: db2jcc.jar, db2jcc_licence_cu.jar, db2jcc4.jar
  
  - **SQL 2008**: sqljdbc4.jar

**Note:** By default, the Oracle Enterprise Repository installer will not have JDBC driver. You must download the respective JDBC driver.

- **DBMS Name:**
  - **Oracle**: Enter the SID that the Oracle Enterprise Repository schema was installed on. For Oracle, the default SID is orcl; for Oracle XE, the default SID is xe.

  **Note:** You can determine the SID needs to be entered by running this SQL statement: `select instance_name from v$instance`.

  - **SQL**: Enter the database name, for example, OER.

- **DBMS Host**: Enter the fully-qualified server and domain name where Oracle Enterprise Repository is being installed, for example, myserver.mydomain.com.

- **User Name** and **User Password** fields: Ensure that you enter the appropriate user information from the Preparing for Your Installation instructions. If you used the recommended sample Build a Database User scripts for Oracle, or if you followed the Create a Database User steps for SQL Server 2008, they are OER and OER_PWD.

9. Click **Next**. The Test Passed screen is displayed.
10. Click OK. If the test fails, confirm your user credential settings and retry. The Installation Complete screen is displayed.

---

**Caution:** If the test passed, do not click Back or you may overwrite the database configuration.

---

After completing the installation process, complete the following post installation tasks, as described in Chapter 3, "Post-Installation Steps".

### 2.2.2 Running the Installation Program in Console Mode

This section describes how to run the installation program in the console mode. It contains the following topics:

- Section 2.2.2.1, "Starting the Console Installer Using Windows"
- Section 2.2.2.2, "Starting the Console Installer Using UNIX"
- Section 2.2.2.3, "Install Oracle Enterprise Repository Using Console Mode"

#### 2.2.2.1 Starting the Console Installer Using Windows

Use the following steps to install Oracle Enterprise Repository using console mode:

1. Perform the pre-installation tasks as described in Section 2.1.2, "Starting the Installation Program on Windows Platforms".
2. Install Oracle Enterprise Repository Using Console Mode.

#### 2.2.2.2 Starting the Console Installer Using UNIX

This section describes the installation using the console mode on the UNIX platforms. The following sections describe the installation using:

- "Installers With Filenames Ending in .bin"
- "Installers With Filenames Ending in .jar"

##### Installers With Filenames Ending in .bin

Using the following steps to install Oracle Enterprise Repository using an installer with filename ending in .bin:

1. Complete the pre-installation tasks for installers with filename ending in .bin, see "Installers With Filenames Ending in .bin" on page 2-15.
2. Install Oracle Enterprise Repository Using Console Mode.

---

**Note:** Skip step 11 and step 12, choosing the shortcut location applies only to Windows systems.

---

##### Installers With Filenames Ending in .jar

Using the following steps to install Oracle Enterprise Repository using an installer with filename ending in .jar:

1. Complete the pre-installation tasks for installers with filename ending in .jar, see "Installers With Filenames Ending in .jar" on page 2-15.
2. Install Oracle Enterprise Repository Using Console Mode.
2.2.2.3 Install Oracle Enterprise Repository Using Console Mode

To complete the console-mode installation process, respond to the prompts in each section by entering the number associated with your choice or by pressing Enter to accept the default. To exit the installation process, enter exit (or x, for short) in response to any prompt. To review or change your selection, enter previous (or p, for short) at the prompt. To proceed to the following prompt, enter Next (or n, for short).

For information on how to start the installation in the console mode, see Section 2.1.2.2, "Starting the Installation in Console Mode". When you start the installation in the console mode you will see a welcome screen as in Listing 5-1 Welcome Screen in the Console Mode.

Note: If the installation process is aborted before it is completed, manually clear the database before running the installer again. The installer does not clear data from the database when an installation is aborted. The existing data causes an error when the installer runs for the second time.

Listing 5-1 Welcome Screen in the Console Mode

<------------------Oracle Enterprise Repository - Oracle Products
-------------------->
Welcome: 
------
This installer will guide you through the installation of Oracle Enterprise Repository 11.
Prerequisites:
This installation works with your existing installation of Oracle WebLogic Server 11 or IBM WebSphere 6.1. A running and configured database is required. Consult documentation for detailed database instructions.
Type "Next" or enter to proceed to the next prompt. If you want to change data entered previously, type 'Previous'. You may quit the installer at any time by typing "Exit".
Enter [Exit][Next]>

1. At the Welcome prompt, type Next (or n for short) or press Enter to continue with the installation process. The Oracle Home directory prompt is displayed.

2. Specify the Oracle Home directory that will serve as the central support directory for all products installed on the target system. For details about the Oracle Home directory, see Section 1.7.1, "Choosing a Oracle Home Directory". If Oracle Home directories exist on your system, a list of the directories is displayed, as shown in Listing 5-2 Choose a Oracle Home Directory.
To use an existing Oracle Home directory, type the number associated with the desired Oracle Home directory. If your application server is WebLogic 9.2.1, select the associated existing Oracle Home.

To create a new Oracle Home directory, type 1 or press Enter.

If there are no Oracle Home directories on your system, or you have selected to create a new Oracle Home, the installation program is displayed, as shown in Listing 5-3 Choose a Oracle Home.

Listing 5-2 Choose a Oracle Home Directory

Listing 5-3 Choose a Oracle Home

Do one of the following:

- To use the default Oracle Home directory, type Next (or n for short), or press Enter.
- Enter the directory path and press Enter.

The installation program displays the Oracle Home directory you have specified, as shown in Listing 5-4 Accept Oracle Home Directory.

Listing 5-4 Accept Oracle Home Directory

3. Press Enter to accept your selection. Otherwise, type 1 or 2 to return to the Choose Oracle Home Directory panel, where you can modify your entry.

After you have selected your Oracle Home directory and confirmed your selection, type Next or press Enter. One of the following occurs:

- If you are adding components to an existing installation, the Choose Components to install panel is displayed. Go to step 5.
- If you are performing an initial installation, the Choose Install Type (see Listing 5-5 Accept Oracle Home Directory) prompt is displayed.

Listing 5-5 Accept Oracle Home Directory
Choose Install Type:

Select the type of installation you wish to perform.

1. Default
   - This option will install Oracle Enterprise Repository, also suitable for evaluation purposes. Install the following software: - Oracle Enterprise Repository
   - Examples
   - 2Custom

Choose additional software products and components to install.
Enter index number to select OR [Exit][Previous][Next]>

4. Specify the type of installation you want to perform by entering the number associated with the install type, as shown in Listing 5-5 Accept Oracle Home Directory:
   - Type 1 or press Enter to choose a Default installation type. Proceed to step 8.
   - Type 2 to choose a Custom installation type. The Choose Components to install prompt is displayed.

For more information about complete and custom installations, see Section 1.1, "Installation Overview".

5. If you choose the Custom type installation, select the components you want to install. The available components are displayed, as shown in Listing 5-6 Choose Components to Install.

Listing 5-6 Choose Components to Install

Choose Components to install:

Release 3.0.0.0
  +----Oracle Enterprise Repository [1] v
  +----Core Repository with Examples [1.1] v
  +----Oracle Enterprise Repository Plug-In for Eclipse [1.2] v
  +----Process Engine [2.1] v

Enter number exactly as it appears in brackets to toggle selection OR [Exit][Previous][Next]>

The word Installed is shown in brackets for any components you have already installed on your system.

When you select or deselect components to install, the installation program checks for dependencies between components and automatically modifies the list of selected components. For example, if you deselect the Oracle BPM component, the Process Engine is also deselected.

When you have selected the components, press Enter or type Next (or n for short). The Install Eclipse Options prompt is displayed.

Listing 5-7 Install Eclipse Options

Install Eclipse Options:

Install Oracle installer bundled Eclipse or use the existing Eclipse.

1. Install Workspace Studio
   - Installer will use the Oracle installer bundled Eclipse kit and installs it to the default location.
2. Use Existing Eclipse
   
   Do not install the installer bundled Eclipse.
   I will specify Eclipse Home to use.

Enter index number to select OR [Exit][Previous][Next]>

6. Specify whether you want to install Eclipse, as shown in Listing 5-7 Install Eclipse Options. Do one of the following:
   
   ■ Type 1 if you want to install Eclipse. Proceed to step 8.
   
   ■ Type 2 if you want to use an existing Eclipse installation. The Choose a Eclipse Home Directory prompt is displayed, as shown in Listing 5-8 Choose a Eclipse Home Directory.

Listing 5-8 Choose a Eclipse Home Directory

<------------- Oracle Enterprise Repository - Oracle Products ------------->
Choose a Eclipse Home directory:
--------------------------------
"Eclipse Home" = []
Enter new Eclipse Home OR [Exit][Next]>

7. Enter the directory and type n. Verify the directory as shown in Listing 5-9 Choose a Eclipse Home Directory.

Listing 5-9 Choose a Eclipse Home Directory

<------------- Oracle Enterprise Repository - Oracle Products ------------->
Choose a Eclipse Home directory:
--------------------------------
->1Yes, use this Eclipse Home [e:\myEclipse]
   2No, select another Eclipse Home
Enter index number to select OR [Exit][Next]>

Do one of the following:
   
   ■ Type 1 or n to select the Eclipse Home directory and press Enter.
   
   ■ Type 2 to select a different directory, press Enter and return to Listing 5-8 Choose a Eclipse Home Directory.

8. Select an application server (see Listing 5-10 Choose Application Server). Enter the number representing your application server and press Enter.

   The Initialize Repository Properties prompt for the selected application server is displayed (for example, see Listing 5-11 Initialize Repository Properties.

Listing 5-10 Choose Application Server

<------------- Oracle Enterprise Repository - Oracle Products ------------->
Choose Application Server:
----------------------------
Enterprise Repository supports deployment in the following application servers.
*Select Application Server
   1|WebSphere 6.1
   2|Generic Application Server

Enter index number to select OR [Exit][Previous][Next]>

Listing 5-11 Initialize Repository Properties

<------------- Oracle Enterprise Repository - Oracle Products ------------->
Initialize Repository Properties:
---------------------------------
Provide the required data to initialize Enterprise Repository.
- *Server name:*
- *Fully qualified server name (e.g., myserver.mydomain.com):*
- *OER managed server port number:* [7101]
- *Repository application name:* [oer]

Enter index number to select OR [Exit][Previous][Next]>

9. Use the installer menus to provide the initialization properties for the selected application server. When finished, type n.

The Choose Product Installation Directories prompt is displayed (see Listing 5-12 Choose Product Installation Directories).

10. Verify your entry and press Enter to proceed with the installation. Otherwise, do one of the following:
   - Type 1 and press Enter to change the product installation directory for Oracle Enterprise Repository.
   - Type 2 and press Enter to change the Process Engine directory.

Modify your entry, confirm it. Type Next. Press Enter.

Listing 5-12 Choose Product Installation Directories

Choose Product Installation Directories:
----------------------------------------
Oracle Home Directory: [E:\oer20_2]
Product Installation Directories:
  Default Product Home: [E:\oer20_2\repositoryXXX]

Enter index number to select OR [Exit][Previous][Next]>

The locations for Shortcut prompt is displayed (see Listing 5-13 Location for the Shortcut).

Listing 5-13 Location for the Shortcut

Choose Shortcut Location:
-------------------------
*The installer creates shortcuts to Oracle components, samples, and tools. As a user with administrative privileges, you can specify where these shortcuts are created.
->1."All Users" Start Menu folder (recommended)
   |For some installations, this setting may limit the automatic creation of server shortcuts
   |for users without administrative privileges. Refer to the documentation for more information.
2.Local user's Start Menu folder
   |Select this option if you need to ensure that other profiles registered on this machine will not have access to these shortcuts.

Enter index number to select OR [Exit][Previous][Next]>

11. Do one of the following:
- Type 1 or n to select All Users Start Menu folder and press Enter.
- Type 2 to select Local users Start Menu folder and press Enter.

12. Type n and press Enter to confirm your choice for the location of the shortcut (see Listing 5-14 Confirm the Location for the Shortcut).

**Listing 5-14 Confirm the Location for the Shortcut**

```
<------------- Oracle Enterprise Repository - Oracle Products ------------->
Choose Shortcut Location:
-------------------------
*Are you sure you wish to create the shortcuts in the selected location?*
*"All Users" Start Menu folder (recommended)*
*For some installations, this setting may limit the automatic creation of*
*server shortcuts for users without administrative privileges. Refer to the*
*documentation for more information.*
->1Yes.
2No, Go back to the previous screen and make another choice.
```

Enter index number to select OR [Exit][Previous][Next]>

Installation starts and you can see the progress of the installation at the prompt.

---

**Note:** It is normal for the installation program to pause for a fairly long time.

---

When the installation is complete, the Configure Repository Database panel is displayed (see Listing 5-15 Configure Repository Database).

**Listing 5-15 Configure Repository Database**

```
<------------- Oracle Enterprise Repository - Oracle Products ------------->
Configure Repository Database
->1 - Yes, configure the database now.
2 - No, do not configure the database now.
```

Enter a number or [Previous][Next]>

13. Do one of the following:
- Type 1 and press Enter to configure a database.
- Type 2 and press Enter to configure a database later. Proceed to step 17.

The Database Tablespace Names panel is displayed (see Listing 5-16 Database Tablespace Names).

**Listing 5-16 Database Tablespace Names**

```
<------------- Oracle Enterprise Repository - Oracle Products ------------->
Provide Database Tablespace Names:
----------------------------------
Provide the requested information about the tablespaces configured for use by Enterprise Repository.
1|BLOB tablespace: []
2|Data tablespace: []
3|Index tablespace: []
```

Enter index number to select OR [Exit][Previous][Next]>

14. Use the installer menus to provide the table space names. When finished, type n.
The Select Database Driver prompt is displayed (see Listing 5-17 Select Database Driver).

**Listing 5-17 Select Database Driver**

```
<------------- Oracle Enterprise Repository - Oracle Products ------------->
Select Database Driver:
----------------------------
Select a JDBC driver for your database from the supported drivers list.
->1¦Oracle
   | [oracle.jdbc.driver.OracleDriver]
2¦IBM DB2 General Type 4 Driver
   | [com.ibm.db2.jcc.DB2Driver]
3¦Microsoft SQL Server Driver 2008
   | [com.microsoft.sqlserver.jdbc.SQLServerDriver]
Enter index number to select OR [Exit][Previous][Next]>
```

15. Use the installer menus to select a driver. When finished, type n.

The Configure Database Properties prompt is displayed (see Listing 5-18 Configure Database Properties).

**Listing 5-18 Configure Database Properties**

```
<------------- Oracle Enterprise Repository - Oracle Products ------------->
Configure the database properties below:
----------------------------------------
1¦Driver File Locations: []
  2¦DBMS Name: []
  3¦DBMS Host: [localhost]
  4¦DBMS Port: [50000]
  5¦User Name: []
  6¦User Password: []
  7¦Confirm Password: []
Enter index number to select OR [Exit][Previous][Next]>
```

16. Use the installer menus to provide the database properties. When finished, type n.

The connection is tested:

- If a connection is made, go to step 17.
- If the connection fails, you will be returned to step 16. Correct any properties, verify that your database is running and you have selected the correct driver.

17. Press Enter or type Exit to exit the installation program.

After completing the installation process, complete the following post installation tasks, as described in Chapter 3, "Post-Installation Steps".

### 2.2.3 Running the Installation Program in Silent Mode

This section describes how to run the installation program in the console mode. It contains the following topics:

- Section 2.2.3.1, "What Is Silent-Mode Installation?"
- Section 2.2.3.2, "Using Silent-Mode Installation"
- Section 2.2.3.3, "Creating a silent.xml File for Silent-Mode Installation"
- Section 2.2.3.4, "Sample silent.xml Files for Silent-Mode Installation"
- Section 2.2.3.5, "Returning Exit Codes to the Console"
2.2.3.1 What Is Silent-Mode Installation?

Silent-mode installation is a way of setting installation configurations once and then using these configurations to duplicate the installation on many machines. During installation in silent mode, the installation program reads the settings for your configuration from an XML file that you create prior to beginning the installation. The installation program does not display any configuration options during the installation process. Silent-mode installation works on both Windows and UNIX systems.

It is assumed that you have already acquired the installation program, either on DVD or from the Oracle Web site. For more information on different modes of product distribution, see Section 1.4, "Product Distribution Methods".

2.2.3.2 Using Silent-Mode Installation

The silent-mode installation process for Oracle Enterprise Repository has three primary steps:

1. Follow the preparation guidelines in Chapter 1, "Preparing for Your Installation", especially the Section 1.6, "Database Installation Procedures" for your DBMS.

2. Creating a silent.xml file that defines the configuration settings normally entered by a user during an interactive installation process, such as graphical-mode or console-mode installation. For example, values for the Oracle Home directory, the product directory, and the components to be installed are supplied in a silent.xml file.

   For a detailed procedure, see Section 2.2.3.3, "Creating a silent.xml File for Silent-Mode Installation". For a sample silent.xml file, see Section 2.2.3.4, "Sample silent.xml Files for Silent-Mode Installation".

3. Starting the silent-mode installation process using the values specified in the silent.xml file.

   For more information on launching the installation in silent mode, see Section 2.1, "Starting the Installation Program".

2.2.3.2.1 Important Considerations for Silent-Mode Installation

When you are performing an installation in silent mode, keep in mind the following considerations:

- Before running the installer, follow the preparation guidelines in Chapter 1, "Preparing for Your Installation", especially the Section 1.6, "Database Installation Procedures" for your DBMS.

- Silent-mode installation requires the same amount of temporary disk space and uses the same temporary storage directories as a standard installation. For more information, see Temporary Disk Space Requirements. The installation program does not alert you if there is insufficient space in the temporary directory.

- A silent-mode installation takes the same amount of time as a standard installation. At the beginning of a silent-mode installation, an initial installation program window or message is displayed briefly, indicating that the installation has started. No messages are displayed to indicate that the installation is in progress or has been completed successfully.

- Incorrect entries in the silent.xml file can cause installation failures. To help you determine the cause of a failure, Oracle recommends that you create a log file when you start the installation. For more information on generating a verbose log, see Generating a Verbose Installation Log.
- The XML definition (```<?xml version='1.0' encoding='UTF-8'?>```) must be at the very beginning of the silent.xml file. There cannot be any spaces or line breaks before the XML definition.

- You cannot reinstall any Oracle product on top of a previously installed version of the same product - in the same Oracle Home directory or in the same file location. You can, however, add products and product components to an existing installation. For example, you can install Oracle Enterprise Repository during one installation, and Oracle BPM during a later installation. However, to reinstall the same version of one of the products, you must first uninstall the previously installed instance of it, as described in or install the new instance in another location.

### 2.2.3.3 Creating a silent.xml File for Silent-Mode Installation

When you install your Oracle Enterprise Repository software in silent mode, the installation program uses an XML file (silent.xml) to determine which installation options should be implemented. Therefore, before you can run the installation program in silent mode, you must first create a silent.xml file in which you specify the installation options that you want to invoke.

Incorrect entries in the silent.xml file can cause installation to fail. To help you determine the cause of a failure, Oracle recommends that you create a log file when you start the installation.

---

**Caution:** Before running the installer in silent mode, follow the preparation guidelines in Preparing for Your Installation, especially the Database Installation Procedures for your DBMS.

---

To create a silent.xml file for use in the silent-mode installation process, follow these steps:

1. In a supported browser, view the sample silent.xml file for silent-mode installation.

   The sample file is available at
   `http://e-docs.bea.com/common/docs92/install/scripts/silent.xml`

   This sample silent.xml file is also presented in this section. See Section 2.2.3.4, "Sample silent.xml Files for Silent-Mode Installation".

2. Save the sample XML file, with the name silent.xml, in the same directory that contains the installation program.

---

**Note:** The XML definition (```<?xml version="1.0" encoding="ISO-8859-1"?>```) must be at the very beginning of the silent.xml file. There should not be any spaces or line breaks before the XML definition.

---

3. In the silent.xml file that you saved on your system, edit the values for the keywords shown in Table 2–2 to reflect your configuration.

---

**Note:** You must follow XML guidelines for characters when modifying values. That is, do not use characters reserved for use in XML, such as `<`, `>`, ``, and `.`.
## Table 2–2 Parameters for Silent.xml

<table>
<thead>
<tr>
<th>For this data-value name...</th>
<th>Enter the following value...</th>
</tr>
</thead>
<tbody>
<tr>
<td>OracleHOME</td>
<td>The full path for the Oracle Home directory of your choice. For details about the Oracle Home directory, see Section 1.7.1, &quot;Choosing a Oracle Home Directory&quot;.</td>
</tr>
<tr>
<td>COMPONENT_PATHS</td>
<td>The components and subcomponents you want to install on your system: To install Oracle Enterprise Repository, use the following values: ■ Oracle Enterprise Repository ■ Core Repository with Examples ■ Oracle Enterprise Repository Plug-In for Eclipse</td>
</tr>
<tr>
<td>APP_SERVER_TYPE</td>
<td>The application server type used to run Oracle Enterprise Repository. Valid values are: ■ value for user-supplied Tomcat (GUI = Tomcat 5.5.17/18 (user supplied)) ■ value for WLS (GUI = WebLogic Server 10.3) ■ value for WAS (GUI = WebSphere 6.1) ■ value for Generic App Server (GUI =Generic Application Server)</td>
</tr>
<tr>
<td>APP_SERVER_NAME</td>
<td>The application server name used to run Oracle Enterprise Repository. Valid values are: ■ Tomcat 5.5.17/18 (user supplied) ■ WebLogic Server 9.2.1/9.2.2 ■ WebSphere 6.1 ■ Generic Application Server</td>
</tr>
<tr>
<td>APP_PATH</td>
<td>The Oracle Enterprise Repository application path. For example, if the OER_URL is ultimately <a href="http://www.myhost.com:8001/OER301">http://www.myhost.com:8001/OER301</a>, then the APP_PATH is OER301.</td>
</tr>
<tr>
<td>WEB_PATH</td>
<td>The web application path. It is recommended that the WEB_PATH value be the APP_PATH value with -web appended. For example, if APP_PATH=oer10300, then WEB_PATH is recommended to be oer10300-web.</td>
</tr>
<tr>
<td>OER_URL</td>
<td>The fully-qualified server and domain name where Oracle Enterprise Repository is being installed (for example, myserver.mydomain.com)</td>
</tr>
<tr>
<td>DOMAIN_LISTING_PORT</td>
<td>The domain listening port.</td>
</tr>
<tr>
<td>USER_INSTALL_DIR</td>
<td>The directory where Oracle Enterprise Repository will be installed within the specified OracleHOME.</td>
</tr>
<tr>
<td>RUN_DBCONFIG_WIZARD</td>
<td>The flag to run the DB Configuration Wizard: ■ true or yes, to run the Database Configuration wizard. The default is true. ■ false or no, to skip the database wizard.</td>
</tr>
<tr>
<td>CONFIG_REPOSIT_DB</td>
<td>The flag to run the Repository Database Configuration wizard, which initializes the repository database properties. ■ true or yes, to configure a Repository Database Configuration wizard. The default is true. ■ false or no, to skip the configuration of a database. Note: This flag is skipped if RUN_DBCONFIG_WIZARD is set to false or no.</td>
</tr>
<tr>
<td>DB_TABLE_BLOG</td>
<td>Tablespace name for BLOBs. Note: For the BLOB Tablespace field, enter the same value that you specify for DB_TABLE_DATA.</td>
</tr>
<tr>
<td>DB_TABLE_DATA</td>
<td>The data tablespace name to be used by Oracle Enterprise Repository. For example: ■ SQL Server – PRIMARY ■ Oracle – OER_DATA ■ DB2 – oerdatats</td>
</tr>
</tbody>
</table>
### Table 2–2  (Cont.) Parameters for Silent.xml

<table>
<thead>
<tr>
<th>For this data-value name...</th>
<th>Enter the following value...</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB_TABLE_INDEX</td>
<td>The index tablespace name to be used by Oracle Enterprise Repository. For example:</td>
</tr>
<tr>
<td></td>
<td>- SQL Server – INDEX</td>
</tr>
<tr>
<td></td>
<td>- Oracle – OER_INDEX</td>
</tr>
<tr>
<td></td>
<td>- DB2 – oerindxts</td>
</tr>
<tr>
<td>DB_DRIVER</td>
<td>Name of the driver. For example: oracle.jdbc.driver.OracleDriver</td>
</tr>
<tr>
<td>DB_JARFILES</td>
<td>Path to the driver JAR file. For example:</td>
</tr>
<tr>
<td></td>
<td>- Oracle – d:\jdbc14.jar</td>
</tr>
<tr>
<td></td>
<td>- SQL 2008 – d:\qljdbc.jar</td>
</tr>
<tr>
<td>DB_DBMS</td>
<td>The database management system.</td>
</tr>
<tr>
<td></td>
<td>- Oracle – enter the SID that the Oracle Enterprise Repository schema was installed on. For Oracle, the default SID is orcl; for Oracle XE, the default SID is xe.</td>
</tr>
<tr>
<td></td>
<td>Note: You can determine the SID needs to be entered by running this SQL statement: select instance_name from v$instance;</td>
</tr>
<tr>
<td></td>
<td>- SQL – enter the database name (e.g., OER)</td>
</tr>
<tr>
<td>DB_PORT</td>
<td>The database port number.</td>
</tr>
<tr>
<td>DB_HOST</td>
<td>The fully-qualified server and domain name where Oracle Enterprise Repository is being installed (for example, myserver.mydomain.com).</td>
</tr>
<tr>
<td>DB_USERNAME</td>
<td>The database user name.</td>
</tr>
<tr>
<td></td>
<td>Enter the appropriate user information from the Database Installation Procedures instructions for your DBMS.</td>
</tr>
<tr>
<td>DB_PASSWORD</td>
<td>The password for a database user.</td>
</tr>
<tr>
<td></td>
<td>Enter the appropriate user information from the Database Installation Procedures instructions for your DBMS.</td>
</tr>
<tr>
<td>APP_SERVER_HOME</td>
<td>The application server home directory</td>
</tr>
<tr>
<td></td>
<td>For example: OracleHOME\weblogic103</td>
</tr>
<tr>
<td>USER_DOMAIN_DIR</td>
<td>The Oracle Enterprise Repository User Domain Directory directory.</td>
</tr>
<tr>
<td></td>
<td>For example: OracleHOME\user_projects\domains\oerDomain</td>
</tr>
<tr>
<td>SUPPORTED_WL_HOME</td>
<td>The supported WebLogic Server home.</td>
</tr>
<tr>
<td></td>
<td>For example: OracleHOME\weblogic103</td>
</tr>
<tr>
<td>WL_HOME</td>
<td>The WebLogic Server home.</td>
</tr>
<tr>
<td></td>
<td>For example: OracleHOME\weblogic103</td>
</tr>
<tr>
<td>ECLIPSE32_HOME</td>
<td>For installations pointing at existing Eclipse plug-ins for Oracle Enterprise Repository, specifies the optional Eclipse installation. If this key/value is not specified, the installer continues as in the normal GUI installation.</td>
</tr>
<tr>
<td></td>
<td>&lt;data-value name=&quot;ECLIPSE32_HOME&quot; value=&quot;c:\my_eclipse_home&quot; / &gt;</td>
</tr>
</tbody>
</table>
2.2.3.3.1 Guidelines for Component Selection Use the following guidelines when you specify values for the COMPONENT_PATHS data-value name:

- When you specify a product component to be installed, all subcomponents that are installed by default in a complete installation are also installed. For example, the following entry in silent.xml installs both Oracle Enterprise Repository and the examples:

  `<data-value name="COMPONENT_PATHS" >
  
- To install multiple components, separate the components with a bar (|). Do not leave a space before or after the bar.

- To specify subcomponents, you must specify a component/subcomponent combination for each entry.

  <data-value name="COMPONENT_PATHS" >

Note: You can include the component/subcomponent of the products you want to install.

- If you do not include the COMPONENT_PATHS data-value name in the silent.xml file, the "complete" Oracle Enterprise Repository product is installed.

Note: The installation program performs dependency checking to ensure that all components that provide functionality on which other components depend for proper operation are installed. These dependencies are visible during graphical and console mode installations. The same dependencies are enforced during silent installation: components on which other components depend are installed even if they are not explicitly referenced in a silent script.
2.2.3.4 Sample silent.xml Files for Silent-Mode Installation

The following sample silent.xml demonstrate how to install Oracle Enterprise Repository and configure a database.

Example 2–1 Sample XML File -- Install Oracle Enterprise Repository with Database Configuration and Oracle BPM Process Engine

```xml
<?xml version='1.0' encoding='UTF-8'?>
<Oracle-installer>
   <input-fields>
      <data-value name='OracleHOME' value='D:\dev\silentInstall\oer_albpm'/>
      <data-value name='COMPONENT_PATHS' value='Oracle Enterprise Repository/Core Repository with Examples|Oracle Enterprise Repository/Oracle Enterprise Repository Plug-In for Eclipse|Oracle BPM/Process Engine'/>
      <data-value name='APP_SERVER_TYPE' value='ce_tomcat'/>
      <data-value name='APP_SERVER_NAME' value='Default'/>
      <data-value name='APP_PATH' value='oer3'/>
      <data-value name='WEB_PATH' value='oer3-web'/>
      <data-value name='OER_URL' value='MyURL'/>
      <data-value name='DOMAIN_LISTEN_PORT' value='8080'/>
      <data-value name='APP_SERVER_HOME' value='D:\dev\silentInstall\oer_albpm\my\tomcat'/>
      <data-value name='USER_INSTALL_DIR' value='D:\dev\silentInstall\oer_albpm\repositoryXXX'/>
      <data-value name='RUN_DBCONFIG_WIZARD' value='yes'/>
      <data-value name='CONFIG_RESPOSIT_DB' value='yes'/>
      <data-value name='DB_TABLE_BLOB' value='USER_BLOB'/>
      <data-value name='DB_TABLE_DATA' value='USER_DATA'/>
      <data-value name='DB_TABLE_INDEX' value='USER_INDEX'/>
      <data-value name='DB_DRIVER' value='oracle.jdbc.driver.OracleDriver'/>
      <data-value name='DB_JARFILES' value='d:\ojdbc14.jar'/>
      <data-value name='DB_DBMS' value='sid2'/>
      <data-value name='DB_PORT' value='1521'/>
      <data-value name='DB_HOST' value='MyHostName'/>
      <data-value name='DB_USERNAME' value='silent'/>
      <data-value name='DB_PASSWORD' value='silent'/>
      <data-value name='DBA_ALBPM_USER' value='system'/>
      <data-value name='DBA_ALBPM_PASSWORD' value='oer30'/>
      <data-value name='ALBPM_ADMIN_USER' value='system'/>
      <data-value name='ALBPM_ADMIN_PASSWORD' value='manager'/>
      <data-value name='FDI_USER_NAME' value='fd1'/>
      <data-value name='FDI_USER_PASSWORD' value='fd1'/>
      <data-value name='SERVER_USER_NAME' value='fd2'/>
      <data-value name='SERVER_USER_PASSWORD' value='fd2'/>
      <data-value name='CONFIGURE_WORKFLOW' value='yes'/>
   </input-fields>
</Oracle-installer>
```

Example 2–2 Sample XML File -- Install Oracle Enterprise Repository Only with Database Configuration

```xml
<?xml version='1.0' encoding='UTF-8'?>
<Oracle-installer>
   <input-fields>
      <data-value name='OracleHOME' value='D:\dev\silentInstall\oer3'/>
      <data-value name='COMPONENT_PATHS' value='Oracle Enterprise Repository/Core Repository with Examples|Oracle Enterprise Repository/Oracle Enterprise Repository Plug-In for Eclipse'/>
      <data-value name='APP_SERVER_TYPE' value='ce_tomcat'/>
      <data-value name='APP_SERVER_NAME' value='Default'/>
      <data-value name='APP_PATH' value='oer3'/>
      <data-value name='WEB_PATH' value='oer3-web'/>
      <data-value name='OER_URL' value='MyURL'/>
   </input-fields>
</Oracle-installer>
```
For more information on launching the installation in silent mode, see Section 2.1, “Starting the Installation Program”.

2.2.3.5 Returning Exit Codes to the Console

When run in silent mode, the installation program generates exit codes that indicate the success or failure of the installation. These exit codes are shown in the following table.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Installation Completed Successfully.</td>
</tr>
<tr>
<td>1</td>
<td>Installation failed due to a fatal error.</td>
</tr>
<tr>
<td>2</td>
<td>Installation failed due to an internal XML parsing error.</td>
</tr>
</tbody>
</table>

If you are launching the silent-mode installation process from a script, you can choose to have these exit codes displayed on the console. Example 2–3 provides a sample command file that invokes the installation program in silent mode and echoes the exit codes to the console from which the script is executed.

Example 2–3  Sample Command File Displaying Silent-Mode Exit Codes

```bash
rem Execute the installer in silent mode
@echo off
oer30_win32.exe -mode=silent -silent_xml=mySilentXMLFile.xml -log=oer_30.log
@rem Return an exit code to indicate success or failure of installation
set exit_code=%ERRORLEVEL%
@echo.
@echo Exitcode=%exit_code%
@echo.
@echo Exit Code Key
@echo ----------------
@echo 0=Installation completed successfully
```
After completing the installation process, complete the following post installation tasks, as described in Chapter 3, "Post-Installation Steps".
This chapter describes the post-installation steps that you need to perform after installing Oracle Enterprise Repository.

This chapter contains the following sections:

- Section 3.1, "Configure Your Application Server"
- Section 3.2, "Install Java Web Start"
- Section 3.3, "Configure Oracle Enterprise Repository Web Start on Linux"
- Section 3.4, "Start Your Application Server and Log Into the Oracle Enterprise Repository Web-based Console"
- Section 3.5, "Use the Oracle Enterprise Repository Diagnostics Testing Tool"
- Section 3.6, "Import Oracle Enterprise Repository Solution Packs"
- Section 3.7, "Test the Oracle Enterprise Repository Installation"

3.1 Configure Your Application Server

Your application server may require additional configuration before you can start using the product.

- Section 3.1.1, "WebLogic Server Installations"
- Section 3.1.2, "WebSphere Installations"

3.1.1 WebLogic Server Installations

The following sections provide post-installation information when using WebLogic Server as your application server.

- Section 3.1.1.1, "Run WebLogic Server Domain Configuration Wizard"
- Section 3.1.1.2, "Set WebLogic Server Environment Parameters"

3.1.1.1 Run WebLogic Server Domain Configuration Wizard

The Oracle Enterprise Repository is distributed as part of a WLS Domain template. This domain template allows Oracle Enterprise Repository to extend an existing domain or be a separate domain entirely (Default).

The Oracle Enterprise Repository domain template is designed to allow a quick installation of the Oracle Enterprise Repository application by supplying minimum configuration details. When the domain template is created using the defaults within the template, an administration server and a single managed server (oer_server1) are
created. The managed server contains the Oracle Enterprise Repository Web application deployment within and is created in the directories supplied to the configuration panel, which had prompted for the domain name.

The default port used by the administration server is the WLS default of 7001. The Oracle Enterprise Repository Managed Server will have a default port value that had been supplied to the Oracle Enterprise Repository installer (7101 by default). The Oracle Enterprise Repository Managed Server also listens to the network interface that is associated with the fully qualified host name also supplied to the Oracle Enterprise Repository installation program.

Creating WebLogic Domains Using the Configuration Wizard

This section provides information and examples for some common domain configuration tasks using the Configuration Wizard:

3.1.1.1.1 Create New Domain with default Managed Server

1. Start the Configuration Wizard in graphical mode.
   - On Windows: Click Start, Programs, Oracle Products, Tools, Configuration Wizard or enter <WEBLOGIC_HOME>/common/bin/config.cmd
   - On UNIX: Enter <WEBLOGIC_HOME>/common/bin/config.sh

   The Welcome page is displayed.

   **Figure 3–1  Fusion Middleware Configuration Wizard Welcome Page**

   ![Welcome Page](image)

   - Create a new WebLogic domain
     - Create a WebLogic domain in your projects directory.
   - Extend an existing WebLogic domain
     - Use this option to add new components to an existing domain and modify configuration settings.

2. Click the Create a New WebLogic domain option, as shown in Figure 3–1, and then click Next. The Select Domain Source page is displayed.
3. Click **Generate a domain configured automatically to support the following products** and the Oracle Enterprise Repository option is selected, as shown in Figure 3–2. Click **Next**. The **Specify Domain Name and Location page** is displayed.
4. Enter the name and location for the domain, as shown in Figure 3–3, and then click Next. The Configure Administrator Username and Password page is displayed.

*Figure 3–4 Configure Administrator User Name and Password Page*

5. Enter a valid username and password, as shown in Figure 3–4, and click Next. This user name is also used to start each managed server within the domain. The Configure Server Start Mode and JDK page is displayed.
6. Specify whether to start the server in development mode or production mode, as shown in Figure 3–5, and also select which JDK to use. Click Next. The Select Optional Configuration page is displayed.

7. Specify whether you want to change the Machine or Managed Servers (optional), then click Next. The Configuration Summary page is displayed, as shown in Figure 3–6.
8. Review the values supplied to the configuration and click Create to create the domain.

3.1.1.1.2 Extend Existing Domain and Target on an existing Managed Server

1. Start the Configuration Wizard in graphical mode.
   - On Windows: Click Start, Programs, Oracle Products, Tools, Configuration Wizard or enter `<WEBLOGIC_HOME>/common/bin/config.cmd`
   - On UNIX: Enter `<WEBLOGIC_HOME>/common/bin/config.sh`
   
   The Welcome page is displayed, as shown in Figure 3–1.

2. Click the Extact an existing WebLogic domain option, and then click Next. The Select a WebLogic Domain Directory page is displayed.

3. Navigate to the domain directory that you want to extend. Click Next. The Extension Source page is displayed.

4. You can choose to extend your domain by selecting an Oracle Enterprise Repository, and then click Next. The Specify Domain Name and Location page is displayed, as shown in Figure 3–3.

5. Select a directory where the application EAR is deployed for this domain. By default, it is `<WEBLOGIC_HOME>/user_projects/applications`.

6. Click Next. The Select Optional Configuration page is displayed.
7. Select the options to configure servers, clusters, and machines, as shown in Figure 3–7, then click Next. The Configure Managed Servers page is displayed.

8. In Figure 3–8, review the oer_server1 definition, and then click Next. The Configure Clusters page is displayed.

---

**Note:** Ensure that the oer_server1 server has a fully qualified host name entered for the listen address. Do NOT use an IP address, nor the option for 'All Local Addresses' and the listen port does not interfere with any of the existing Managed Servers within the domain.
9. Click Next. The Configure Machines page is displayed, as shown in Figure 3–9.

10. Review the current machine definitions.
If the domain being extended already contains a machine, Oracle Enterprise Repository must be configured to use the existing machine and the `oer_machinel` entry should be removed. Otherwise, the `oer_machinel` should remain as defined. This example assumes that an existing machine named `soa_machinel` already exists in this domain.

11. Click Next. The Assign Servers to Machines page is displayed, as shown in Figure 3–10.

**Figure 3–10 Assign Servers to Machines**

12. Select `oer_server1` in the Server list and click the right-arrow button. The `oer_server1` should be related to either the existing machine within the domain, or to the `oer_machinel`, if no machine had existed within this domain before extending it with the Oracle Enterprise Repository application template.

13. Click Next. The Target Deployments to Clusters or Servers page is displayed.

   After configuring these environments you can extend the existing domain.

3.1.1.2 Set WebLogic Server Environment Parameters

When starting the servers of the domain containing Oracle Enterprise Repository, an additional domain configuration file is used to define environment variables and WebLogic Server operational behavior. This file is found within the `$OER_DOMAIN/bin/setOERDomainEnv.sh` or `*.cmd` files.

Please review the default JVM parameters being supplied within this file to ensure that these are in-line with your corporate policies and supported character set of your locale.

If this Oracle Enterprise Repository installation runs within an SSL enabled environment, then the addition of the following parameter to the
Configure Your Application Server

```xml
cookie-secure=true parameter to the session-descriptor element within the weblogic.xml file.
```

### 3.1.2 WebSphere Installations

The following sections provide information for post-installation procedures required to complete your installation of Oracle Enterprise Repository.

- **Section 3.1.2.1, "Deploying the Oracle Enterprise Repository Application"
- **Section 3.1.2.2, "Change the Server Classloader Order for XLST"

#### 3.1.2.1 Deploying the Oracle Enterprise Repository Application

Once the installer has completed, you will have a WebSphere directory, such as `ORACLE_HOME/repositoryXXX/websphere`. This directory contains all of the properties files that configure the Oracle Enterprise Repository instance appropriately once it is deployed, as well as the `oer.ear` file and a copy of the JDBC Drivers that had been used to generate the database during the install process.

Use the following steps to deploy Oracle Enterprise Repository 11g on WebSphere:

1. Create a `ORACLE_HOME`, such as `/opt/Oracle`, on the target application server. The Oracle Enterprise Repository installation program prompts you to use an existing `ORACLE_HOME` if one exists, otherwise it allows you to create a new directory.

   The Oracle Enterprise Repository installation application deposits the WebSphere deployable application and the appropriate properties files into the `ORACLE_HOME/repositoryXXX/websphere` directory. This recommendation ensures that the Oracle Enterprise Repository application has a consistent driver that should not be effected by outside changes to the WebSphere or other library environment.

2. As a recommended best practice, copy the JDBC Driver JAR file(s) and all properties files from the `ORACLE_HOME/repositoryXXX/websphere` directory. This recommendation ensures that the Oracle Enterprise Repository application will have a consistent driver that should not be effected by outside changes to the WebSphere or other library environment.

3. Deploy the `oer.ear` file in the manner most appropriate for your deployment server.

   **Note:** Do not start the application as there are additional configuration steps that must be performed before the application is considered fully deployed.

4. Modify the generic JVM parameters.

   **Note:** These installation instructions assume the use of the WebSphere Administration Console. All instructions are relative to the links leading to the appropriate pages within this management tool.


   b. Add the following parameters to the Generic JVM Parameters property:

---

3-10 Oracle Fusion Middleware Installation Guide for Oracle Enterprise Repository
*) Unicode compatibility – be sure to set the default client encoding appropriately. Depending on your locale, this may be reasonable:
   -Dclient.encoding.override=UTF-8

*) Turn off strict code verification: -Xverify:none

*) To prevent XSLT transformations in the diagnostic page and the metadata viewer from failing in your Web browser, add a default implementation for DTMConfiguration:
   -Dorg.apache.xml.dtm.DTMManager=org.apache.xml.dtm.ref.DTMManagerDefault

5. Modify the Oracle Enterprise Repository application module class load order:
   a. Enter the WebSphere Integrated Solutions Console.
   b. Click Applications > Enterprise Applications.
   c. Click the deployed Oracle Enterprise Repository application.
   d. Click the Manage Modules link.
   e. Click the oer-app.war module.
   f. Change the Class load order to Classes loaded from application class loader first (labeled as “Parent last” in version 6.0 and earlier).
   g. Click Apply.
   h. Click the oer-web.war module.
   i. Change the Class load order to Classes loaded from application class loader first (labeled as “Parent last” in version 6.0 and earlier).
   j. Click Apply.
   k. Click Save directly to the master configuration link to commit your changes to the master configuration.

6. Create a shared library from within the Oracle Enterprise Repository application and associate it with the application:
   a. On the Applications > Enterprise Applications > OER > Shared Library References page, select the oer-app.war module and then click Reference Shared Library.
   b. Click New.
   c. Select a scope for the shared library that is appropriate for your WebSphere application environment.
   d. Assign a meaningful Name to the shared library. Description is optional.
   e. In the classpath field, enter the Oracle Enterprise Repository 11g directory, such as ORACLE_HOME/repositoryXXX/websphere. This directory contains all of the properties files for the Oracle Enterprise Repository instance.
   f. On a separate line within the classpath field, enter the absolute path of each JDBC driver JAR files within the ORACLE_HOME directory. If you have more than one file, add only one file per line.
   g. Select the new library in the Available list and use the right-facing arrow >> button to select that library for use with the oer-app.war application.
   h. Click OK to continue.
i. Click **Save** directly to the master configuration link to commit your changes to the master configuration.

7. Restart WebSphere.

8. Start the Oracle Enterprise Repository application.

9. After starting up Oracle Enterprise Repository, enable and set the following Systems Setting property to true for SSL support and also to avoid an SSLContext error on the Run Active Diagnostic page.
   
   ```
   cmee.ssl.force-sun-provider = true
   ```

### 3.1.2.2 Change the Server Classloader Order for XLST

To prevent issues with XSLT Transformation, use the following steps to change the classloader order in your WebSphere installation:

1. Log into the WebSphere Administrative Console.
2. Click the **Server > Application Server > server** link.
3. Select the **Configuration** tab.
4. Select the option for **Parallel start**.
5. Change the Access to internal server classes to **Allow**.
6. Change Server Specific Application Settings > Classloader Policy to **Single**.
7. Change the Server Specific Application Settings > Class loading mode to **Parent First**.
8. Click **Save** directly to the master configuration link to commit your changes to the master configuration.

### 3.2 Install Java Web Start

Java Web Start is a browser plug-in that runs files with JNLP extensions. Java Web Start must be available on the client in order to use Oracle Enterprise Repository’s Asset Editor, Type Manager, Navigator Applet, Browse Tree applet and the Import/Export utility.

- Section 3.2.1, “Download and Install Java Web Start”
- Section 3.2.2, “Troubleshooting Java Web Start”

#### 3.2.1 Download and Install Java Web Start

To download and install Java Web Start, perform the following steps:

2. When the download is complete, install Java Web Start.
3. When installation is complete, open the Windows Control Panel.
4. Open the Java plug-in.
5. Click the browser tab and check the appropriate browser(s) with which to use the Java Web start application. (Required for proper Asset Editor functionality.)
6. Click the **Advanced** tab.
7. Select the appropriate SUN Java JRE version for use with the installed version of Oracle Enterprise Repository.
8. Close and re-open all instances of the Internet Explorer or FireFox browsers.


10. Click **Edit/Manage Assets** on the Oracle Enterprise Repository Assets screen.

    A security warning opens. (This occurs only during the first launch of the Asset Editor.)

11. Click **Start**.

    Java Web Start installs and the Asset Editor opens.

For Unix/Linux workstations, use the following instructions to associate Java Web Start with the JNLP file type (assuming the use of Firefox/Mozilla based browsers):

1. Download Java Web Start (as a part of the Java Runtime Environment) from http://java.sun.com/.

2. Install Java Runtime Environment as appropriate for your platform.

3. When installation is completed, open Mozilla Firefox.

4. Click the **Edit** menu, and then select **Preferences**. The Preferences dialog is displayed.

5. Search for an existing entry for JNLP files. If it does not already exist in the list, then add this file type.

6. Choose the JRE's WebStart application binary to associate with the JNLP file type: 
   
   `<JRE_HOME>/bin/javaw`

7. Save changes to browser options.

8. Navigate to the Oracle Enterprise Repository instance.

9. Click **Edit/Manage Assets** in the Oracle Enterprise Repository Assets screen. A security warning is displayed, which occurs only during the first launch of the Asset Editor.

10. Click **Start**. The Java Web Start is installed and the Asset Editor opens.

### 3.2.2 Troubleshooting Java Web Start

Oracle Enterprise Repository employs a browser MIME-type support checking process that is executed when the Edit/Manage Assets (Assets screen) and Edit (asset detail display) links are generated. This process will inspect the client browser to determine if there is a registered handler for a JNLP file (which should launch Java Web Start). If this process fails or returns no results, the link HREF target will point to the `oer-web/web start/launch.htm` page.

The browser-supported mime type determines which client installed application will be presented as the target of the Edit/Manage Assets and Edit links. Java Web Start must be properly installed in order to work correctly with the operating system as the handler for JNLP files passed to the client browser.

The process of registering this mime type with the browser is normally handled during installation of the Java Web Start plug-in application. Certain corporate security measures or anti-Spyware applications may block this kind of change to the Windows Registry, as will the improper installation and/or removal of the Java Web Start application, Java Run Time Environment or Java SDK if improperly registered within the Java plug-in applet within the Windows Control Panel.
The following instructions may help to rectify the incorrect MIME type support, assuming that Java Web Start and an appropriate version of the SUN Java JRE are properly installed within the client computer system.

To manually set the file/MIME association within the Windows operating system using the Windows Explorer:

1. Open the Tools Menu.
2. Select File Types tab.
3. Select the File Types tab.
4. Scroll down to JNLP or create a new JNLP file type.
5. Associate the Java Web Start Application (located in the correct path if more than one JWS is installed) with the JNLP file extension.
6. In the Windows Control Panel, add support (check the option) for Internet Explorer within the Java Plug-in console applet. This process should assign the JNLP file type to Java Web Start within the Windows operating system.

Install the JRE or SDK and ensure you have the following entries in your $HOME/.mailcap and $HOME/mime.types or in the system-wide /etc/mime.types and /etc/mailcap files:

```
Note: Ensure you use the recent version, starting with Java 1.4.2.
```

```
in .mime.types or /etc/mime.types:
  type=application/x-java-jnlp-file desc='Java Web Start' exts="jnlp"
in .mailcap or /etc/mailcap:
  application/x-java-jnlp-file; /usr/java/jdk1.6.0_16/jre/javaws/javaws %s
  // Adjust the path above according to your local installation
```

Conversely, when Mozilla Firefox encounters a file with an unknown extension, it often prompts you to Open or Save. Choose the Open option and browse to the $JAVA_HOME/jre/bin/javaws file, and select the appropriate option, to perform this action for the JNLP file type. If a new JRE is required, then follow the instructions in the Section 3.2, "Install Java Web Start", to change the executable associated with the JNLP file type.

### 3.3 Configure Oracle Enterprise Repository Web Start on Linux

After you have successfully installed Oracle Enterprise Repository, you need to configure your browser to install Oracle Enterprise Repository WebStart. The steps to configure Oracle Enterprise Repository WebStart are as follows:

```
Note: For Linux, you only have a few options in browsers, and the default browser for the Linux installs is Mozilla Firefox.
```

1. Go to the plugins sub-directory under the Mozilla installation directory
   
   ```
   cd <Mozilla installation directory>/plugins
   ```

2. In the current directory, create a symbolic link to the Java ns7/libjavaplugin_oji.so file type:

   ```
ln -s <Java installation directory>/plugin/i386/ns7/libjavaplugin_oji.so

For example:

- If Mozilla is installed in the /usr/lib/mozilla-1.4/ directory and if the Java is installed at the /usr/java/jre1.6.0 directory, then type at the terminal to go to the browser plug-in directory:

  cd /usr/lib/mozilla-1.4/plugins

  Enter the following command to create a symbolic link to the Java Plug-in for the Mozilla browser.

  ln -s /usr/java/jre1.6.0/plugin/i386/ns7/libjavaplugin_oji.so

3. Open Mozilla Firefox.
4. Click the Edit menu, and then select Preferences. The Preferences dialog is displayed.
5. Click Applications. The Application page is displayed.
6. In the Search field, enter JNLP. The JNLP is displayed.
7. Select the displayed JNLP. The Action list gets activated.
8. Click the Action list to point to the correct JWS installed (such as the one installed with WLS JDK's).

3.4 Start Your Application Server and Log Into the Oracle Enterprise Repository Web-based Console

After configuring your application server, follow these steps to start your application server and log into the Oracle Enterprise Repository Web-based console.

1. Start your application server:

   WebLogic Server: navigate to the ORACLE_HOME\user_projects\domains\DOMAIN_NAME directory and, depending on your platform, double-click either the startWeblogic.cmd (Windows) or startWeblogic.sh (UNIX) file.

   On Windows, you have an Oracle WebLogic Server NodeManager service. This service should be set to 'Automatic' start mode. This service is required to allow the domain Administration Server (startWeblogic.sh or *.cmd) to start the Oracle Enterprise Repository managed server.

   **Note:** For instructions on starting standalone Tomcat and WebSphere application servers, see the documentation for those products.

2. Log into the Domain's Administration Server Console application (http://myserver.domainname.com:7001/console), and then select Environment -> Servers -> Control tab.

   Check the oer_server1 managed server, and then click the Start button to start the Oracle Enterprise Repository managed server.

3. Point your browser to the Oracle Enterprise Repository application.
For example: http://myserver.domainname.com:7101/oer/

4. On the login screen, enter admin for the Username and Password. This is the default administrative account installed with Oracle Enterprise Repository. You will be forced to change the default Administrator password on the first successful login to the Oracle Enterprise Repository Web application. You can change the default password through the Administration tab in Oracle Enterprise Repository at a later time.

Note: If your organization requires a user name and password each time you log into Oracle Enterprise Repository, clear the Enable Automatic Login option.

5. Click Login.

The Login Stats dialog displays a welcome message that includes the date and time of your login.

6. Click Close.

For more information about using the Oracle Enterprise Repository console, see the "Getting Started" section of the Oracle Fusion Middleware User Guide for Oracle Enterprise Repository.

3.5 Use the Oracle Enterprise Repository Diagnostics Testing Tool

The Diagnostics tool allows testing and troubleshooting of certain aspects of Oracle Enterprise Repository, including testing for:

- Checking Product Version Information
- Servlet Functionality
- Required Libraries
- Database Connectivity
- List System Paths
- Run Pre-Compile Servlet

The Oracle Enterprise Repository diagnostic tools are available only when using an application server JVM parameter for security reasons. To enable the Oracle Enterprise Repository diagnostics features, use the following parameter:

-DdiagPagesEnabled=true

This parameter can be added to the application server's environment in various ways. For WebLogic Server, edit the ORACLE_HOME/user_projects/DOMAIN_NAME/bin/setOERDomainEnv.sh or *.cmd file and uncomment the OER_DIAG_OPTION parameter in this file. Then, restart the Oracle Enterprise Repository managed server.

To launch the Diagnostics tool, navigate to the http://host_name/application_name/diag/index.jsp page of the Oracle Enterprise Repository console. For more information, see “Utilizing the Diagnostics Testing Tool” in the Oracle Fusion Middleware Upgrade Guide for Oracle Enterprise Repository.
3.6 Import Oracle Enterprise Repository Solution Packs

Oracle bundles base sample data for users to help you get started using the Enterprise Repository. Additionally, depending upon the edition of Oracle Enterprise Repository that you purchased, you can also import supplemental Solution Packs. These supplemental Solution Packs are located with your installation under the ORACLE_HOME/repositoryXXX/core/tools/solutions folder. Table 3–1 describes the available Solution Packs for Oracle Enterprise Repository 11g:

<table>
<thead>
<tr>
<th>Solution Pack</th>
<th>File Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvester Solution Pack</td>
<td>11.1.2.0-OER-Harvester-Solution-Pack.zip</td>
<td>Install this Solution Pack to use Business Process Management Workflows, the Harvester, or the Oracle Registry Repository Exchange Utility, which exchanges data between Oracle Enterprise Repository and Oracle Service Registry.</td>
</tr>
</tbody>
</table>

3.7 Test the Oracle Enterprise Repository Installation

Testing the Oracle Enterprise Repository installation involves a number of tasks that ensure the proper operation of initial Oracle Enterprise Repository features and functions. These instructions apply to all application servers currently supported by Oracle Enterprise Repository.

- Section 3.7.1, "Submit an Asset"
- Section 3.7.2, "Accept the Asset"
- Section 3.7.3, "Register the Asset"
- Section 3.7.4, "Find the Registered Asset and View Details"

3.7.1 Submit an Asset

Asset submission is performed on the Oracle Enterprise Repository Assets page.

1. In the Assets panel, click Submit an Asset.
2. In the Asset Submission dialog, complete the following fields:
   - Asset Name
   - Version
   - Type
   - Description
   - URL: enter the file location (for example, http://www.example.com/repository/)
3. Click Submit to submit the asset the registrar.

Note: Attempts to save as asset without first completing all required data fields will result in a warning message. A confirmation message indicates the asset was successfully submitted to the Oracle Enterprise Repository registrar.
4. Click Close.

For more information, see *Oracle Fusion Middleware User Guide for Oracle Enterprise Repository*.

### 3.7.2 Accept the Asset

The asset acceptance process is performed by the Oracle Enterprise Repository registrar using the Asset Editor. The registrar makes decisions about an asset based on company requirements. To accept and assign an asset means that the registrar accepts the asset and assigns it to another person to shepherd it through the remainder of the registration process.

1. On the Assets page, click the **Edit/Manage Assets** option to launch the Asset Editor.
2. Expand the Submitted folder in the Assets tree.
3. Expand the Pending folder and open the asset submitted in Submit an Asset.
4. For the purposes of this exercise, click Accept.

   The asset moves to the Under Review folder in the tree, and also appears in each of the workflow folders under the asset. The workflow folders correspond to tabs in the Asset Editor.

For more information, see *Oracle Fusion Middleware User Guide for Oracle Enterprise Repository*.

### 3.7.3 Register the Asset

The asset acceptance process is performed by the Oracle Enterprise Repository registrar using the Asset Editor.

1. On the Overview, Support, Technical, and Tests tabs, complete the remaining information, including the notification email, licensing information, and support contacts as appropriate.

   **Note:** The notification email automatically sends notification to the email address when the asset is downloaded/selected for use. The asset can be moved from its original location to the storage repository on this tab.

2. Click **Approve** on a tab. The tab label changes color and the Approve button changes to Unapprove.
3. Click the **Taxonomy** tab.
4. Assign the asset to the appropriate categories and/or domains.

   **Note:** Categories and domains are configurable. (See the Oracle Enterprise Repository Administration Guide.)

5. Enter any keywords and classify the asset into one of five categories:

   - **Raw:** No assurance of quality or completeness.
   - **Educational:** To be used for educational purposes only. The asset may not be complete in terms of documentation, test results, or other information.
■ **Approved**: Approved for use by the registrar
■ **Recommended**: Successfully used on at least one project.
■ **Mandated**: Must be used whenever the functionality it provides is needed (This is especially relevant for Web services that access customer data, process payments, and so on).

6. Click **Approve**.
   The tab label changes color, and the Approve button changes to Unapprove.

7. Click the **Documentation** tab.

8. When all of the documentation requirements are met, click Approve.

9. Continue the approval process for each of the remaining tabs.

10. On the Administration tab, click **Register** to complete the registration process, or click **Assign** to assign the asset to someone else.

11. Save changes by clicking Save in the File menu.
   The asset is moved to the Registered folder and each action (approval of tabs, field value updates, etc.) are also recorded in the Audit log found on the asset’s Administration Tab.

   For more information, see *Oracle Fusion Middleware User Guide for Oracle Enterprise Repository*.

### 3.7.4 Find the Registered Asset and View Details

Complete the process by searching for the newly registered asset you created.

1. On the Assets page, use the Search option to locate the asset.
   The asset should appear in the list in the upper frame of the main Assets page, indicating that the XML data stored as a BLOB is correctly loaded in the database.

2. Click the asset to open the asset detail in the lower frame of main page.
Uninstalling the Software

This chapter provides information about the procedures for uninstalling and reinstalling the software.

This chapter contains the following sections:

- Section 4.1, "About the Uninstallation Program"
- Section 4.2, "Uninstalling Your Software in Graphical Mode"
- Section 4.3, "Uninstalling Your Software in Console Mode"
- Section 4.4, "Uninstalling Your Software in Silent Mode"
- Section 4.5, "Removing the Deployed Application"
- Section 4.6, "Removing the Database Schema"
- Section 4.7, "Reinstalling Your Software"

4.1 About the Uninstallation Program

The following sections describe how to uninstall your Oracle Enterprise Repository software on Windows and UNIX systems:

- You can uninstall the software using graphical, console, or silent mode. To run the graphical-mode uninstallation program, your console must support a Java-based GUI. If the uninstallation program determines that your system does not support a Java-based GUI, it automatically starts running in console mode.
- You can uninstall individual components of your product distribution, or the entire installation. Dependency checking in the uninstaller ensures that the appropriate components are uninstalled.
- The uninstallation program does not remove the Oracle Enterprise Repository Home directory associated with the installation, the JDK, or any user-created domains. Only the components that were installed by the installation program can be removed. If you choose to uninstall the entire installation, the uninstallation program also removes the product directory associated with the installation unless one of the following is true:
  - The product directory contains user-created configuration or application files - the uninstallation program does not delete user-created configuration files, application files, or domains.
  - The complete installation was not uninstalled. If an individual component is uninstalled, only the installation directory for that component is removed; the installation directories for other components are unaffected.
Uninstalling Your Software in Graphical Mode

The uninstallation program was invoked from within the product directory structure - specifically, from within the utils\uninstall directory.

When uninstalling the Oracle Enterprise Repository plug-ins for Eclipse, WorkSpace Studio will also be removed if WorkSpace Studio was installed by the Oracle Enterprise Repository installer. This may not be desirable if other plug-ins were added to WorkSpace Studio. To avoid uninstalling additional WorkSpace Studio plug-ins, deselect the Oracle Enterprise Repository Plug-ins for Eclipse from the list of components to uninstall.

4.2 Uninstalling Your Software in Graphical Mode

Use the following procedure to uninstall the all the product components, or individual components, in graphical mode:

1. Shut down any instances that are running.
2. Start the uninstallation program as described in Table 4–1.

Table 4–1 Starting the uninstallation program in the Graphical mode

<table>
<thead>
<tr>
<th>To start the uninstallation program on...</th>
<th>Do this..</th>
</tr>
</thead>
</table>
| Windows                                 | 1. From the Windows Start menu, choose StartArrow symbol All ProgramsArrow symbol Oracle Enterprise Repository Arrow symbol Uninstall Oracle Enterprise Repository.  
2. The Uninstaller Welcome window is displayed. Proceed to step 3. |
| UNIX                                    | 1. Go to the following directory: ORACLE_HOME/repositoryXXX/uninstall  
2. Type uninstall.sh at the prompt and press ENTER. The Uninstaller Welcome window is displayed. proceed to step 3.  
Note: If your system supports a graphical user interface, the uninstallation program starts in graphical mode. If your system does not support a graphical user interface, the uninstallation program starts in console mode. If console mode is started, see Section 4.3, "Uninstalling Your Software in Console Mode" for instructions. |

3. Click Next to start the uninstall program. The Choose Components window is displayed.
4. Select the components to uninstall by selecting or clearing the appropriate options, and click Next. By default, all installed components are selected, indicating that they will be uninstalled.
5. Click Done in the Uninstalling Oracle Enterprise Repository window to exit the uninstallation program.

4.3 Uninstalling Your Software in Console Mode

Use the following procedure to uninstall the complete product installation, or individual components, using the command-line interface:

1. Shut down any instances that are running.
2. Start the uninstallation program as described in Table 4–2.
Uninstalling Your Software in Silent Mode

3. **Press Enter or type next** to proceed to the next panel of the uninstallation program.

   **Note:** Instead of typing complete words when you want to enter [Exit], [Previous], and [Next], you can use the following one-letter shortcuts: x, p, and n, respectively.

   The **Choose Components to uninstall pane** is displayed.

4. **Select the components you want to uninstall.** The available components are displayed.

5. **Enter number exactly as it appears in brackets to toggle selection OR [Exit][Previous][Next].**

6. **By default, all installed components are selected,** indicating that they will be removed. To leave a component installed on your system, type the numeric code for that component on the command line, exactly as it appears within the brackets. A check mark (Windows systems) or x (UNIX systems) beside the entry is cleared, indicating that it will not be uninstalled. Choose the components you want to uninstall. **Dependency checking is performed to ensure that you do not uninstall a component that is required by another component.**

7. **Press Enter or type next** to proceed with the uninstallation process.

8. **When the uninstallation process is complete,** press Enter or type exit to complete the uninstallation and exit the uninstallation program.

### 4.4 Uninstalling Your Software in Silent Mode

When you uninstall your Oracle Enterprise Repository software in silent mode, the complete installation of your software is uninstalled. You cannot use silent-mode uninstallation to uninstall individual Oracle Enterprise Repository components.
When you run the uninstallation program in silent mode, it leaves behind the same files and directories as when you run the uninstallation program in graphical and console modes. You can manually delete these files.

Although you can use silent-mode uninstallation to manually uninstall your software, silent-mode uninstall is intended for use in scripts. You can adapt the steps in Table 8-3 for use in scripts.

Use the following procedure to uninstall your Oracle Enterprise Repository software in silent mode:

1. Shut down any instances that are running.
2. Start the uninstallation program as described in Table 4–3.

### Table 4–3 Starting the Uninstalling Program in the Silent Mode

<table>
<thead>
<tr>
<th>To start the uninstallation program on this platform</th>
<th>Do this..</th>
</tr>
</thead>
</table>
| Windows                                             | 1. Open a Command Prompt window and go to the following directory: ORACLE_HOME/repositoryXXX/uninstall  
2. Execute the following command at the prompt: uninstall -mode=silent |
| UNIX                                                | 1. Go to the following directory: ORACLE_HOME/repositoryXXX/uninstall  
2. At the prompt, enter the following command: sh uninstall.sh -mode=silent |

**Note:** When you run the uninstallation program in silent mode, no messages are displayed indicating the uninstallation is in progress or has completed successfully, even if errors are encountered.

You can also include the \-log=full_path_to_log_file option in the command line to create a verbose installation log. For example:

```
uninstall -mode=silent -log=C:\logs\OER_uninstall.log
```

For more information, see Section 1.9, "Generating a Verbose Installation Log".

### 4.5 Removing the Deployed Application

This section describes removing the deployed application for WebLogic and WebSphere Application Servers. This section contains the following topics:

- Section 4.5.1, "Removing the Deployed Application from WebLogic Server"
- Section 4.5.2, "Removing the Deployed Application from WebSphere Server"

#### 4.5.1 Removing the Deployed Application from WebLogic Server

To remove the deployed Oracle Enterprise Repository application within WebLogic Server requires several steps depending on how the WebLogic domain was initially created.
For a domain that contains Oracle Enterprise Repository only, delete the ORACLE_HOME/user_projects/domains/DOMAIN_NAME directory.

For a domain which had been extended with the Oracle Enterprise Repository application template, use the following steps:

1. Start the Administration Server of the domain containing the Oracle Enterprise Repository application and access the Administration Console.
2. Select Deployments from the Domain Structure section.
3. Click the Lock & Edit button.
4. Select the Oracle Enterprise Repository application from the list and click the Delete button.
5. Select the Environment -> Servers option from the domain structure section.
6. Select the oer_server1 managed server definition and click the Delete button to remove this managed server.
7. Click the Activate Changes button.
8. Stop the Administration Server (ORACLE_HOME/user_projects/domains/DOMAIN_NAME/bin/stopWebLogic.sh or *.cmd) and delete the Oracle Enterprise Repository application files from:

   ORACLE_HOME/user_projects/applications/DOMAIN_NAME/applications/oer_11.1.1.2.0.

---

**4.5.2 Removing the Deployed Application from WebSphere Server**

To remove the deployed application from WebSphere server, perform the following steps:

1. Access the WebSphere Administration console applications.
2. Select the Applications -> Enterprise Applications -> OER application deployment and click the Uninstall button.
3. Confirm the removal of the application and then save the changes to the WebSphere Master Configuration.
5. Select the OER shared library and click the Delete button to remove all references to the directory location where the properties files are stored.
6. Save changes to the WebSphere master configuration.

For generic application servers, see the corresponding documentation.

---

**4.6 Removing the Database Schema**

This section describes how to remove the database schema.

For UDB and SQL Server database servers, drop the Oracle Enterprise Repository databases using the appropriate methods for your server(s).

For Oracle, drop the Oracle Enterprise Repository user with cascade option. For example:

   drop user OER cascade;

---
4.7 Reinstalling Your Software

You cannot reinstall the same version of any Oracle product on top of a previously installed version of the same product - in the same Oracle Home directory or in the same file location. You can, however, add products and product components to an existing installation. For example, you can install Oracle Enterprise Repository during one installation, and Oracle BPM during a separate installation.

To reinstall the same version of one of the product components or the entire Oracle Enterprise Repository distribution in the same location, you must first uninstall the previous installation.

If you try to install a complete copy of the Oracle Enterprise Repository software in a Oracle Home directory that already contains a complete installation, an error message is displayed. Click or type OK to return to the Choose Oracle Home directory prompt.

At the prompt, choose one of the following options:

- To continue installing the software using a different Oracle Enterprise Repository Home directory, select an existing Oracle Enterprise Repository Home directory that does not contain a previous installation, or create a new Oracle Home directory.

- Exit the installation program. If you want to reinstall your Oracle software in the same Oracle Home, you must uninstall the previous installation. You can invoke the uninstall program appropriate for your platform, as described in one of the following sections:
  
  - Section 4.2, "Uninstalling Your Software in Graphical Mode"
  - Section 4.3, "Uninstalling Your Software in Console Mode"
  - Section 4.4, "Uninstalling Your Software in Silent Mode"

Then reinstall the software as described in Section 2.1, "Starting the Installation Program".
Part II
Configuring and Clustering Oracle Enterprise Repository

This part describes the configuration and clustering information for Oracle Enterprise Repository.

This part contains the following chapters:

■ Chapter 5, "Install Oracle Enterprise Repository into a Clustered Environment"
This chapter describes how to install Oracle Enterprise Repository into a clustered environment.

This section contains the following sections:

- Section 5.1, "Overview"
- Section 5.2, "Oracle Enterprise Repository Database"
- Section 5.3, "Deploy and Validate Oracle Enterprise Repository on One Cluster Member"
- Section 5.4, "Move the Application Properties to the Database"
- Section 5.5, "Configure the cluster.properties File on Each Cluster Member"
- Section 5.6, "Validate the Installation"
- Section 5.7, "Clustering JVM Parameter for WebLogic Server"
- Section 5.8, "Clustered JMS Servers for Advanced Registration Flows"

5.1 Overview

Oracle Enterprise Repository uses a server-side cache on each application server. Cached data is used only if it is available, otherwise, the database delivers data content to the cache and to the application.

When Oracle Enterprise Repository runs in a cluster, the cluster members must communicate with each other using HTTP. An edit that occurs on one cluster member invalidates the cached element on that cluster member, and communicates the edit to other cluster members. This is accomplished by a system property called cachesyncurl, which accepts a URL to the application as a valid value.

On start up, the system writes the cachesyncurl to the database and fetches a list of other server’s URLs from the database. A message is sent to all discovered URLs that announces the presence of a new member of the cluster. Each server then refreshes the server list from the database. On a clean server shutdown, the value is removed from the list and a cache-refresh notification is broadcast to the server list.

When edits invalidate an element in the local cache, a message is sent to all the other servers noting which cached elements must be invalidated. Upon receipt of the message, the designated element is removed from the cache. On subsequent data request, the cache contains no data, so it first caches and then the database delivers data to the application.
Clustering and Installation Requirements

- Session affinity
- Server-side HTTP cache communication

Options

- Failover
  Requires session management and persistent sessions
- Load Balancing

Supported Application Servers
The application servers listed here are currently supported for use with clustering for Oracle Enterprise Repository:

- Oracle WebLogic Server
- IBM WebSphere Application Server

For information about the supported versions of these application servers, see the Supported Configurations documentation, available on Oracle Enterprise Repository index page at


Installing Oracle Enterprise Repository on a Clustered Environment
To install Oracle Enterprise Repository on a clustered environment:

1. Install and configure Oracle Enterprise Repository.
2. Create the clustered environment that will host Oracle Enterprise Repository.
3. Install and deploy the Oracle Enterprise Repository application on one member of the clustered application servers.
4. Validate the deployment of the application on one member of the cluster.
5. Move the application properties to the database.
6. Shut down the cluster.
7. Install and deploy the application on all of the other cluster members.
8. Configure a cluster.properties file on each cluster member.
9. Start the cluster and all members.
10. Validate the cluster.

5.2 Oracle Enterprise Repository Database
For information regarding the installation of Oracle Enterprise Repository, refer Chapter 2, "Installing Oracle Enterprise Repository".

Create the Clustered Environment
For information about clustering on WebLogic or WebSphere, please refer to the application server documentation, and to organizational standards.

- For WebLogic:
  Refer to Using WebLogic Server Clusters, available from Oracle.
For WebSphere Application Server:

Refer to WebSphere Software Information Center. Locate the documentation for the specific appserver version and navigate to:  All topics by feature -> Servers -> Clusters -> Balanced workloads with clusters.

5.3 Deploy and Validate Oracle Enterprise Repository on One Cluster Member

For information on deployment and validation of Oracle Enterprise Repository on an application server, see Section 3.1, "Configure Your Application Server". (For example, all of the sample names should be changed.)

---

**Note:** Before using the Move settings to database option, you have to enable cmee.eventframework.clustering.enabled, if JMS clustering is to be achieved.

---

5.4 Move the Application Properties to the Database

Property files always take precedence when reading properties into the Oracle Enterprise Repository application. The application will look for properties and their corresponding values, first within the database, and then within the property files. Any properties read from the database are overwritten by the corresponding properties in the files. However, if there are no files, the properties within the database will only be referenced; properties that exist solely within the database will never be overwritten.

This procedure begins with deploying one application.

1. In the Admin screen, click System Settings in the left pane. The System Settings section is displayed in the main pane, as shown in Figure 5–1.

---

**Figure 5–1  System Settings Section**
2. Scroll to the bottom and click the **Move settings to database** button.  
   A confirmation message appears.
3. Remove the properties files from the classpath.
4. Restart the appserver.
5. Locate the configuration files folder (usually located within the ./WEB-INF/classes/ folder or oer_home) within the application server.
6. Remove the property files listed below from the configuration folder:
   - enterprise.properties
   - ldap.properties
   - containerauth.properties
   - eventing.properties
   - jive.properties
   - jive.tag.properties
   - jive.user.properties
   - juddi.properties
   - openapiserverlog.properties
   These properties are written to the entSettings table within the database.
7. Modify the cmee.properties file. Remove all property values except those containing URL values. Update the URL references to point to the proxy server path being used to load balance access to the cluster members.
8. Now, redeploy the application on all the servers.

---

**Note:** Any properties enabled after this procedure are written to the database, not to the properties files.

---

### 5.5 Configure the cluster.properties File on Each Cluster Member

To configure the `cluster.properties` file on each cluster member:

1. Stop each cluster member.
2. On each cluster member create a file called `cluster.properties`, which resides in the same place as all other .properties files.
   - For exploded directory deployments this location is the WEB-INF/classes directory beneath the webapp.
   - For ear file deployments, this location is the oer_home directory.

   The contents of `cluster.properties` is based on the property `cmee.server.paths.servlet` in the cmee.properties file. However, the hostname in the path should refer to the hostname of the cluster member, not the proxy hostname of the entire cluster.

   ```properties
   cluster.properties
   #cluster.properties
   cachessyncurl=http://<SERVLET-PATH>/<APP_PATH>
   Example:
   #cluster.properties
   ```
Configure the cluster.properties File on Each Cluster Member

cachesyncurl=http://server.example.com:7221/cluster01

Other properties that are optional
# alias is used as an alternate/convenient name to refer
# to the server
# example: server1
# default: same value as =cachesyncurl=
alias=EclipseServer

# registrationIntervalSeconds is the number of seconds between
# attempts to update the server’s registration record in the database
# default: 120
registrationIntervalSeconds=120

# registrationTimeoutSeconds is the number of seconds before a server
# is considered to be inactive/not running
# make sure this value is higher than the registrationIntervalSeconds
# default: 240
registrationTimeoutSeconds=240

# maxFailures is the number of consecutive attempts that will be made
# to deliver a message to another server after which it will be determined
# to be unreachable
# default: 20
maxFailures=20

# maxQueueLength is the number of messages that will be queued up to
# send to another server after which server will be determined to be
# unreachable
# default: 4000
maxQueueLength=5000

# email.to is the address of the email recipient for clustering status
# messages
email.to=jsmith@example.com

# email.from is the address of the sender for clustering status messages
email.from=jsmith@example.com

# email.subject is the subject line of the message for clustering status
# messages
email.subject=Oracle Enterprise Repository Clustering communication failure

# email.message is the body of the message for clustering status messages
email.message=This is an automated message from the Oracle Enterprise
Repository informing you of a cluster member communication failure.

Example of a cluster.properties file

cachesyncurl=http://server.example.com:7221/cluster01
alias=node1
registrationIntervalSeconds=120
registrationTimeoutSeconds=240
maxFailures=20
maxQueueLength=5000
email.to=jsmith@example.com
email.from=jsmith@example.com
email.subject=Oracle Enterprise Repository Clustering communication failure
email.message=This is an automated message from the Oracle Enterprise
Repository informing you of a cluster member communication failure.
5.6 Validate the Installation

Messages are sent to the standard out log of each cluster member.

- "running in single server mode"
  Indicates that Oracle Enterprise Repository clustering is not configured and the application is running in single server mode.

- "running in multi server mode with a sync-url of..."
  Indicates the Oracle Enterprise Repository clustering is functioning and the application is running in clustered mode.

Variables

cachesyncurl

The value of the cachesyncurl in the cluster.properties file, which references the same URL as the individual node's instance with the path of /cachesync appended. Most cluster configurations will have a proxy server load-balancing each node within the clustered server.

Example:

Node1: cachesyncurl=http://server1.example.com:7221/cluster01
Node2: cachesyncurl=http://server2.example.com:7221/cluster01

It is also possible to validate the clustering installation by viewing the clustering diagnostic page from the Oracle Enterprise Repository Diagnostics screen. Click Cluster Info on the Diagnostics screen to view the Cluster Diagnostic page. This page lists information about all servers registered in the cluster, as well as information about inter-server communications.

5.7 Clustering JVM Parameter for WebLogic Server

If cluster nodes are deployed via a centralized administration console, it may be necessary to apply a JVM Parameter to allow the appropriate Oracle Enterprise Repository clustering operation in the absence of the cluster.properties file.

---

**Note:**

1. The time delay should not be more than 120 seconds between the application server and the database server. Network Time Protocol is recommended to keep these servers in sync. The clustering process calculates the difference of time between messaging between the nodes of the cluster.

2. Before restarting the server, you need to add eventing.properties, if JMS Clustering is enabled, and this should contain cme.eventframework.jms.producers.client.id property with unique value on each of the cluster member. For example, cme.eventframework.jms.producers.client.id=OER_JmsProducer1

3. Restart each cluster member.

**Note:** Once a cluster member is inactivated due to exceepding maxFailures, then the only way to activate is by restarting the server.
This JVM parameter should be applied statically for each member of the cluster or within the managed server startup command file. This JVM parameter can be set within the JAVA_OPTIONS environment variable for WebLogic Application servers or within CATALINA_OPTS or JAVA_OPTS for Tomcat servers. The JVM Parameter is as follows:

-Dcmee.cachesyncurl=http://<member host name>:<port>/<APP_PATH>

5.8 Clustered JMS Servers for Advanced Registration Flows

**Note:** This feature is only available when using the "Advanced Registration Flows" subsystem for automating the asset registration process. Also, "JMS Clustering" applies only to the embedded ActiveMQ JMS servers in Oracle Enterprise Repository and not to external JMS servers. You need to have JDBC persistence, if you are using ActiveMQ.

In a clustered Oracle Enterprise Repository environment using the Advanced Registration Flows subsystem, each member Oracle Enterprise Repository server in the cluster will have one embedded ActiveMQ JMS server for increased reliability and scalability. For example, for a two-node cluster, there would be two Oracle Enterprise Repository servers, such as server01 and server02, with each having one embedded JMS server. JMS server clustering is enabled using the Oracle Enterprise Repository "Eventing" System Settings, as described in External Integrations: Eventing. Once clustering is enabled for the embedded JMS servers, you then need to specify the connection URL information for the embedded JMS servers on server01 and server02.

For more information, see the "Configuring JMS Servers for Oracle Enterprise Repository" section of the Oracle Fusion Middleware Configuration Guide for Oracle Enterprise Repository.
### Index

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> About the Uninstallation Program</td>
<td>4-1</td>
</tr>
<tr>
<td>Accept the Asset</td>
<td>3-18</td>
</tr>
<tr>
<td><strong>B</strong> Before You Start</td>
<td>2-1</td>
</tr>
<tr>
<td>Build a Database User</td>
<td>1-9</td>
</tr>
<tr>
<td><strong>C</strong> Change the Server Classloader Order for XLST</td>
<td>3-12</td>
</tr>
<tr>
<td>Choosing a Oracle Home Directory</td>
<td>1-13</td>
</tr>
<tr>
<td>Choosing Product Installation Directory</td>
<td>1-14</td>
</tr>
<tr>
<td>Clustered Environment</td>
<td>5-2</td>
</tr>
<tr>
<td>seeOverview</td>
<td></td>
</tr>
<tr>
<td>Clustered JMS Servers for Advanced Registration Flows</td>
<td>5-7</td>
</tr>
<tr>
<td>Clustering JVM Parameter for WebLogic Server</td>
<td>5-6</td>
</tr>
<tr>
<td>Configure Oracle Enterprise Repository Web Start on Linux</td>
<td>3-14</td>
</tr>
<tr>
<td>Configure the cluster.properties File on Each Cluster Member</td>
<td>5-4</td>
</tr>
<tr>
<td>Configure Your Application Server</td>
<td>3-1</td>
</tr>
<tr>
<td>seeWebLogic Server Installations</td>
<td></td>
</tr>
<tr>
<td>Console Mode</td>
<td>1-2</td>
</tr>
<tr>
<td>Create a Database</td>
<td>1-10, 1-12</td>
</tr>
<tr>
<td>Create a Database User</td>
<td>1-11</td>
</tr>
<tr>
<td>Create New Domain with default Managed Server</td>
<td>3-2</td>
</tr>
<tr>
<td>Create the Clustered Environment</td>
<td>5-2</td>
</tr>
<tr>
<td>Create the Tablespaces</td>
<td>1-8</td>
</tr>
<tr>
<td>Creating a silent.xml File for Silent-Mode Installation</td>
<td>2-24</td>
</tr>
<tr>
<td>Creating WebLogic Domains Using the Configuration Wizard</td>
<td>3-2</td>
</tr>
<tr>
<td><strong>D</strong> Database Installation Procedures</td>
<td>1-7</td>
</tr>
<tr>
<td>Deploy and Validate Oracle Enterprise Repository on One Cluster Member</td>
<td>5-3</td>
</tr>
<tr>
<td>Deploying the Oracle Enterprise Repository Application</td>
<td>3-10</td>
</tr>
<tr>
<td>Download and Install Java Web Start</td>
<td>3-12</td>
</tr>
<tr>
<td><strong>E</strong> Extend Existing Domain and Target on an existing Managed Server</td>
<td>3-6</td>
</tr>
<tr>
<td><strong>F</strong> Find the Registered Asset and View Details</td>
<td>3-19</td>
</tr>
<tr>
<td><strong>G</strong> Generating a Verbose Installation Log</td>
<td>1-15</td>
</tr>
<tr>
<td>Graphical Mode</td>
<td>1-1</td>
</tr>
<tr>
<td>Guidelines for Component Selection</td>
<td>2-27</td>
</tr>
<tr>
<td><strong>H</strong> Harvester Solution Pack</td>
<td>3-17</td>
</tr>
<tr>
<td><strong>I</strong> Import Oracle Enterprise Repository Solution Packs</td>
<td>3-17</td>
</tr>
<tr>
<td>Important Considerations for Silent-Mode Installation</td>
<td>2-23</td>
</tr>
<tr>
<td>Install Java Web Start</td>
<td>3-12</td>
</tr>
<tr>
<td>Install Oracle Enterprise Repository into a Clustered Environment</td>
<td>5-1</td>
</tr>
<tr>
<td>Install Oracle Enterprise Repository Using Console Mode</td>
<td>2-16</td>
</tr>
<tr>
<td>Installable Product Components</td>
<td>1-3</td>
</tr>
<tr>
<td>Installation Modes</td>
<td>1-1</td>
</tr>
<tr>
<td>see Console Mode</td>
<td></td>
</tr>
<tr>
<td>see Graphical Mode</td>
<td></td>
</tr>
<tr>
<td>see Silent Mode</td>
<td></td>
</tr>
<tr>
<td>Installation Overview</td>
<td>1-1</td>
</tr>
<tr>
<td>Installation Prerequisites</td>
<td>1-5</td>
</tr>
<tr>
<td>see System Requirements</td>
<td></td>
</tr>
<tr>
<td>seeTemporary Disk Space Requirements</td>
<td></td>
</tr>
<tr>
<td>Installers With Filenames Ending in .bin</td>
<td>2-15</td>
</tr>
<tr>
<td>Installers With Filenames Ending in jar</td>
<td>2-15</td>
</tr>
<tr>
<td>Installing Oracle Enterprise Repository</td>
<td>2-1</td>
</tr>
<tr>
<td>Installing Oracle Enterprise Repository on a Clustered Environment</td>
<td>5-2</td>
</tr>
</tbody>
</table>
Move the Application Properties to the Database, 5-3

Oracle Database, 1-7
Oracle Database Installation, 1-7
  see Build a Database User
  see Create the Tablespaces
  see Oracle Database
  see Prerequisites
Oracle Enterprise Repository, 1-4
Oracle Enterprise Repository Database, 5-2
Oracle Enterprise Repository Sizing Guidelines, 1-2
Oracle Real Application Clusters Database Installation, 1-9
Overview, 5-1

Parameters for Silent.xml, 2-25
Policy Management Solution Pack, 3-17
Post-Installation Steps, 3-1
Preparing for Your Installation, 1-1
Prerequisites, 1-8, 1-10, 1-11
Product Distribution Methods, 1-5
  see Web Distribution

Register the Asset, 3-18
Reinstalling Your Software, 4-6
Removing the Database Schema, 4-5
Removing the Deployed Application, 4-4
Removing the Deployed Application from WebLogic Server, 4-4
Removing the Deployed Application from WebSphere Server, 4-5
Returning Exit Codes to the Console, 2-29
Run WebLogic Server Domain Configuration Wizard, 3-1
Running the Installation Program, 2-9
Running the Installation Program in Console Mode, 2-15
Running the Installation Program in Graphical Mode, 2-9
Running the Installation Program in Silent Mode, 2-22
Running the Oracle Enterprise Repository Product Installation, 1-15

Sample silent.xml Files for Silent-Mode Installation, 2-28
Selecting Directories for Your Installation, 1-13
Set WebLogic Server Environment Parameters, 3-9
Silent Mode, 1-2
SQL Server 2008 Database, 1-10
  see Create a Database
  see Create a Database User
  see Prerequisites
  see SQL Server 2008 Database
Start Your Application Server and Log Into the Oracle Enterprise Repository Web-based Console, 3-15
Starting the Console Installer Using UNIX, 2-15
Starting the Console Installer Using Windows, 2-15
Starting the Installation in Console Mode, 2-3
Starting the Installation in Graphical Mode, 2-2
Starting the Installation in Silent Mode, 2-3
Starting the Installation Program, 2-1
Starting the Installation Program on UNIX Platforms, 2-4
Starting the Installation Program on Windows Platforms, 2-2
Submit an Asset, 3-17
System Requirements, 1-5

Temporary Disk Space Requirements, 1-6
Test the Oracle Enterprise Repository Installation, 3-17
  see Accept the Asset
  see Find the Registered Asset and View Details
  see Register the Asset
  see Submit an Asset
Troubleshooting Java Web Start, 3-13
Tune the Database, 1-12

UDB Database, 1-11
UDB Database Installation, 1-11
  see Create a Database
  see Prerequisites
  see Tune the Database
  see UDB Database
Uninstalling the Software, 4-1
Uninstalling Your Software in Console Mode, 4-2
Uninstalling Your Software in Graphical Mode, 4-2
Uninstalling Your Software in Silent Mode, 4-3
Use the Oracle Enterprise Repository Diagnostics Testing Tool, 3-16
Using Installers with Filenames Ending in .bin, 2-5
Using Installers with Filenames Ending in .jar, 2-7
Using Silent-Mode Installation, 2-23

Validate the Installation, 5-6
Variables, 5-6

Web Distribution, 1-5
WebLogic Server Installations, 3-1
WebSphere Installations, 3-10
What Is Silent-Mode Installation?, 2-23