Oracle® Business Intelligence Infrastructure Installation and Configuration Guide

Version 10.1.3.2.1

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Contents

Chapter 5: Installing Oracle BI EE Infrastructure

Chapter 6: Installing Individual Oracle BI Components

Chapter 7: Configuring Oracle BI Processes

Index

1 What's New in This Release

Oracle Business Intelligence Enterprise Edition consists of components that were formerly available from Siebel Systems as Siebel Business Analytics Platform, with a number of significant enhancements.

The Oracle Business Intelligence Infrastructure Installation and Configuration Guide is part of the documentation set for Oracle Business Intelligence Enterprise Edition.

NOTE: Throughout this guide, Oracle Business Intelligence *Enterprise Edition* is abbreviated as Oracle Business Intelligence EE, Oracle Business Intelligence, and Oracle BI.

This guide contains information on installing and configuring the infrastructure or platform components of Oracle Business Intelligence on approved operating system platforms and deployments. This guide also contains new material and material that was previously published under the title *Siebel Analytics Platform Installation and Configuration Guide*.

Oracle recommends reading the Oracle Business Intelligence Enterprise Edition Release Notes before installing, using, or upgrading the Oracle BI Infrastructure. The Oracle Business Intelligence Enterprise Edition Release Notes are available:

- On the Oracle Business Intelligence Enterprise Edition CD-ROM.
- On the Oracle Technology Network at http://www.oracle.com/technology/documentation/bi_ee.html (to register for a free account on the Oracle Technology Network, go to http://www.oracle.com/technology/about/index.html).

What's New in Oracle Business Intelligence Infrastructure Installation and Configuration Guide, Version 10.1.3.2.1

Table 1 lists changes described in this version of the documentation to support release Oracle Application Server 10g Release 3.

Table 1. New Product Features in Oracle Business Intelligence Infrastructure Installation and Configuration Guide, Version 10.1.3.2.1

Topic	Description
■ Installation Requirements for All UNIX Platforms on page 45 ■ Installation Requirements for HP-UX on page 50 ■ Oracle BI Server Environment Variables for IBM AIX on page 51 ■ Installation Requirements for Linux on page 53 ■ Running the Oracle BI Installer Under UNIX on page 63 ■ Screens and Prompts for a Complete Oracle BI Installation in Graphics Mode (UNIX) on page 65 ■ Prompts for a Complete Oracle BI Installation in Console Mode (UNIX) on page 68	Oracle Business Intelligence can be installed on UNIX platforms.
■ Running the Oracle BI Installer Under Windows on page 57 ■ Installing Oracle BI Publisher Desktop on page 95 ■ Chapter 11, "Configuring BI Publisher Reporting Tool"	The Oracle Business Intelligence installer installs Oracle BI Publisher, which provides advanced reporting capabilities to Oracle Business Intelligence.
"Basic and Advanced Types of Oracle BI Installation" on page 27	The Oracle Business Intelligence Suite EE installer now can perform different installation types: ■ Basic ■ Advanced

Table 1. New Product Features in Oracle Business Intelligence Infrastructure Installation and Configuration Guide, Version 10.1.3.2.1

Topic	Description
New configuration parameters in NQSConfig.INI file: USE_ADVANCED_HIT_DETECTION MAX_SUBEXPR_SEARCH_DEPTH GLOBAL_CACHE_STORAGE_PATH MAX_GLOBAL_CACHE_ENTRIES CACHE_POLL_SECONDS CLUSTER_AWARE_CACHE_LOGGING SSL SSL_CERTIFICATE_FILE SSL_PRIVATE_KEY_FILE SSL_PK_PASSPHRASE_FILE SSL_PK_PASSPHRASE_PROGRAM SSL_VERIFY_PEER SSL_CA_CERTIFICATE_DIR SSL_CA_CERTIFICATE_FILE SSL_TRUSTED_PEER_DNS SSL_CERT_VERIFICATION_DEPTH SSL_CIPHER_LIST	New configuration parameters in the following sections: ■ Query Result Cache ■ Security
"Accessing Oracle Business Intelligence Documentation" on page 20	There is a new web page, *Welcome to Oracle Business Intelligence Enterprise Edition (10.1.3.2)*, installed to the same location where you installed the software. This web page provides links to more Oracle documentation relating to Oracle Business Intelligence.

2 Oracle BI Infrastructure Installation and Configuration Topic Areas

This chapter contains topics relating to the scope of the *Oracle Business Intelligence Infrastructure Installation and Configuration Guide*.

The following topics relate to the scope and use of this book:

The following topic relates to the general subject of Oracle Business Intelligence documentation:

Scope of Topic Areas for Oracle BI Installation and Configuration

This section describes the scope of this book.

Processes Described in this Book

The following general processes are described in this book.

- Setting up your operating system for deploying Oracle Business Intelligence.
  —See the topic Process of Planning the Installation, especially the subtopic Oracle BI Installation Requirements on page 36.
- Running the Oracle Business Intelligence installation wizard. See the following topic areas:
  - Roadmap for Installing Oracle BI Infrastructure Components on page 33
  - Process of Installing the Complete Oracle BI Infrastructure on page 55
- Configuring the various Oracle Business Intelligence servers for your specific deployment. See the following topics or topic areas:
  - Roadmap for Configuring Oracle BI Infrastructure Components on page 33
  - Configuring Oracle BI Processes on page 99
  - Configuring the Data Sources for Oracle Business Intelligence on page 123
  - Configuring Oracle BI Presentation Services on page 147
  - Configuring Oracle Business Intelligence Scheduler on page 159
- Optional platform configuration topics, such as special installations, reporting, and localization.
  —See the following topic areas:

- Chapter 6, “Installing Individual Oracle BI Components”
- Chapter 11, “Configuring BI Publisher Reporting Tool”
- Appendix B, “Localizing Oracle Business Intelligence Deployments”

Topics Out of Scope for this Book

The following topics are not described in this book:

- Deploying Oracle Business Intelligence across a network using clustering, across a firewall.
  —See the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.
- Configuring the Oracle Business Intelligence repository.
  —See the *Oracle Business Intelligence Server Administration Guide*.
- Oracle Business Intelligence Presentation Services Web catalog.
  —See the *Oracle Business Intelligence Presentation Services Administration Guide.*
- Configuring and administering the Data Warehouse, including security settings.
  —See the *Oracle Business Intelligence Applications Installation and Configuration Guide*.
- Configuring Oracle Business Intelligence to work with Oracle’s Siebel Customer Relationship Management applications, including security settings.
  —See the *Oracle Business Intelligence Applications Installation and Configuration Guide*.
- Upgrading Business Intelligence platform components.
  —See the *Oracle Business Intelligence Infrastructure Upgrade Guide*.

TIP: A list of all the books you may need for a full enterprise installation is shown in Accessing Oracle Business Intelligence Documentation on page 20.

Organization of Topic Areas for Installation and Configuration

Use the roadmap and process topics in the "Preparing ..." and "Installing ..." chapters to guide you through the installation process. These topics provide a checklist of the steps required to complete an installation, in the order you must perform them. Each step includes a link to a topic that explains how to complete the step. The remaining chapters of the *Oracle Business Intelligence Infrastructure Installation and Configuration Guide* are organized according to the major components of the installation.

The order of topics in a chapter is as follows:

- A list of the major topics in the chapter.
- **Roadmap topic**. A roadmap is a numbered list of processes.

  For example, "Roadmap for Configuring Oracle BI Infrastructure Components" is a list of the processes required to install Oracle Business Intelligence, numbered in the order in which each process should occur.
- **Process topics**. A process topic consists of a number of tasks with a common result.

  For example, "Process of Installing the Complete Oracle BI Infrastructure" lists the tasks required to install Oracle Business Intelligence. Sometimes, not all tasks are necessary for a particular deployment. These topic headings frequently (but not always) begin with "Process of...".
- **Task topics**. Task topics explain how to do each step in an installation or configuration process, and typically include a procedure.

  Task topics begin with a gerund. For example, "Configuring HTTP Web Servers."
- **Concept topics**. For an overview of how each part of the installation works, or for background material, read the concept topics.

  These topic headings usually begin with "About...". For example, "Oracle BI Shell Scripts." Concept topic headings do not begin with a gerund, "Process of," or "Roadmap for."

NOTE: Topics in the chapters may not follow the order you perform them during the installation.

File Path and Command Conventions

Environment variables and path placeholders for file paths are used throughout the *Oracle Business Intelligence Infrastructure Installation and Configuration Guide*. This topic shows the format conventions for paths, navigation, and command execution used in this book:

Path Conventions

The following pathname conventions are used by the Oracle Business Intelligence Server under Windows and UNIX (including Linux) operating systems.

- The absolute path of the Oracle BI installation directory is **OracleBI_HOME.**
- The absolute path of the Oracle BI data directory files is **OracleBIData_HOME**.

When you install Oracle Business Intelligence, the installation script queries for the drive and path to the installation directory. The installer then installs Oracle BI on that drive and path.

Example for Windows Systems

You specified drive D: as the installation drive:

- OracleBI_HOME is D:\OracleBI
- OracleBIData_HOME is D:\OracleBIData

Example for UNIX Systems

You specified /usr/local as the installation directory:

- OracleBI_HOME is /usr/local/OracleBI
- OracleBIData_HOME is /usr/local/OracleBIData

NOTE: The definition of this and other environment variables required for an Oracle BI installation are located in the file sa-init.sh under UNIX systems. The Oracle BI setup script sets environment variable definitions in this shell script. Do not edit or delete this file.

TIP: All versions of the UNIX operating system are case-sensitive. If you are running Oracle Business Intelligence under UNIX, treat all filenames, directory names, path names, parameters, flags, and command-line commands as lowercase, unless you are instructed otherwise in the product. If your deployment currently runs under Windows, but you might switch to a UNIX environment or deploy UNIX servers in the future, follow this same practice to avoid having to rename everything later.

Path Navigation Conventions

These are procedural steps that ask you to navigate to a specified directory.

Windows Operating Systems

1. Open a command prompt window.
2. Use the change directory command *cd* to make the specified directory the current directory.

   NOTE: Do not use the Windows File Explorer to navigate to the directory.

For help with the cd command, enter the word *help* in the command prompt window and click Enter.

UNIX Operating Systems

- In a shell window, make the specified directory the current directory.

Command Execution Conventions

These are procedural steps that ask you to execute a command, unless specified otherwise.

Windows Operating Systems

1. In a Command Prompt window, verify the current directory is correct.
2. Enter the command.

   NOTE: Do not run the command by entering it in the Run window in the Start Menu.

UNIX Operating Systems

1. Run Oracle BI executable files in Korn, Bourne, or bash shells.

   NOTE: Before performing command line procedures, first source sa.sh. This action sets the environment variables required to run Oracle BI executables.

2. In a shell window, perform the following steps:
   - Verify the current directory is correct.
   - Source the sa.sh script.
   - Enter the command.

Accessing Oracle Business Intelligence Documentation

This topic lists the books that are cross-referenced from the . Books that apply in general to installation, configuration, and use of Oracle Enterprise Applications are listed on the Oracle Technology Network.

For an overview, suggestions, links, and tutorials on using this software, access the web page *Welcome to* Oracle Business Intelligence *Enterprise Edition (10.1.3.2)*, available on the drive on which you installed the software. The file is named `OracleBI_HOME/index_bi_ee.html`.

Related book titles for the Oracle Business Intelligence Enterprise Edition suite:

- *Oracle Business Intelligence Server Administration Guide*
- *Oracle Business Intelligence Presentation Services Administration Guide*
- *Oracle Business Intelligence Scheduler Guide*
- *Oracle Business Intelligence Answers, Delivers, and Interactive Dashboards User Guide*
- *Oracle Business Intelligence Enterprise Edition Deployment Guide*

Accessing Oracle Business Intelligence Documentation

These books are available on Oracle Technology Network in the Oracle Business Intelligence Applications Online Documentation Library. The following procedure explains how to access Oracle documentation.

To access Oracle Business Intelligence documentation

1. Log onto Technology Network:

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

2. Click the Documentation tab.
3. Under the heading *Middleware*, find the subheading *Data Warehousing and Business Intelligence*.

   Under this subheading, click the link Oracle Business Intelligence.
4. On the Oracle Business Intelligence Documentation page, in the Part Number or Description column, find the applicable book you want, and then click the corresponding PDF or HTML link.

In addition, third-party documentation, such as that for Informatica, is provided on the Oracle's Siebel Enterprise family of applications Third-Party Bookshelf CD-ROM (shipped with the Release CD-ROM).

3 Oracle BI Infrastructure Installation Options

Your particular deployment of Oracle Business Intelligence depends on several related product deployment considerations. These deployment options are described in the following topics:

TIP: If your deployment includes enterprise-wide security features, clustering, and load balancing, then also read the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Oracle BI Component Installation Options

The Oracle Business Intelligence infrastructure consists of servers, programs, and tools used to build Oracle Business Intelligence applications.

The Oracle Business Intelligence Enterprise Edition product includes an installer program that can install the complete Oracle BI suite, or one or more Oracle BI product components.

NOTE: This Guide covers the installation of the Oracle Business Intelligence *infrastructure* components only. To install the Oracle Business Intelligence Applications components, see the *Oracle Business Intelligence Applications Installation and Administration Guide*.

The Oracle BI infrastructure components are shown in Table 3 on page 25, along with the Installer Wizard option that installs them.

NOTE: The installation options are called *Setup Type* in the installer.

Before beginning any installation, you should determine the configuration settings for each of the installation options. The configuration settings are on the CD, in the installation setup folders:

- \Server\Oracle_Business_Intelligence\Config\OracleBI_HOME
- \Server\Oracle_Business_Intelligence\Config\OracleBIData_HOME

For specific types of installation, there can also be additional topics in this Guide:

- ODBC clients only on remotely-connected laptop computers

  See also the following topics:

  - Installing Oracle BI Open Intelligence Interface on page 91
- Deployment in languages other than English

  See also Appendix B, “Localizing Oracle Business Intelligence Deployments.”
- Oracle BI Publisher Reporting Tool

  Oracle BI Publisher is deployed in either standalone OC4J or Oracle Application Server, depending on your installer choices. However, you can also deploy BI Publisher on other J2EE application servers, such as Tomcat or Websphere. The xmlpserver.ear and xmlpserver.war files are provided on the Oracle BI EE installer CD-ROM or network, in the following locations:

  ```
  Server_Ancillary\Oracle_Business_Intelligence_Publisher\generic\xmlpserver.war

  Server_Ancillary\Oracle_Business_Intelligence_Publisher\oc4j\xmlpserver.ear
  ```

  See also Chapter 11, “Configuring BI Publisher Reporting Tool.”

Finally, for deployments across a network or enterprise, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Table 2. Oracle BI Infrastructure Setup Types and Their Components

Setup Type	Installs These Oracle BI Components	Note
Complete	■ Oracle Business Intelligence Server ■ Oracle Business Intelligence Presentation Services ■ Oracle Business Intelligence Presentation Services Plug-in ■ Oracle Business Intelligence Scheduler ■ Oracle Business Intelligence Administration Tool* ■ Oracle Business Intelligence Cluster Controller ■ Oracle Business Intelligence Client ■ Oracle Business Intelligence ODBC Driver* ■ Oracle Business Intelligence JDBC Driver ■ Oracle Business Intelligence Systems Management ■ Oracle Business Intelligence Catalog Manager* ■ Oracle Business Intelligence Job Manager* ■ Oracle Business Intelligence Publisher	*Available on Windows operating systems only
Oracle Business Intelligence Server	■ Oracle Business Intelligence Server ■ Oracle Business Intelligence Scheduler ■ Oracle Business Intelligence Administration Tool* ■ Oracle Business Intelligence Cluster Controller ■ Oracle Business Intelligence Job Manager* ■ Oracle Business Intelligence Systems Management ■ Oracle Business Intelligence ODBC Driver* ■ Oracle Business Intelligence JDBC Driver ■ Oracle Business Intelligence Client	*Available on Windows operating systems only Also see note about DAC following this table.
Oracle Business Intelligence Presentation Services	■ Oracle Business Intelligence Catalog Manager* ■ Oracle Business Intelligence Presentation Services ■ Oracle Business Intelligence Presentation Services Plug-in ■ Oracle Business Intelligence ODBC Driver* ■ Oracle Business Intelligence Systems Management ■ Oracle Business Intelligence Client	*Available on Windows operating systems only

Table 2. Oracle BI Infrastructure Setup Types and Their Components

Setup Type	Installs These Oracle BI Components	Note
Oracle Business Intelligence Client Tools **NOTE:** The ODBC driver can be installed by itself.	■ Oracle Business Intelligence Administration Tool* ■ Oracle Business Intelligence Client ■ Oracle Business Intelligence Job Manager* ■ Oracle Business Intelligence Catalog Manager* ■ Oracle Business Intelligence ODBC Driver* ■ Oracle Business Intelligence JDBC Driver	*Available on Windows operating systems only
Oracle Business Intelligence Disconnected Client	Oracle Business Intelligence Disconnected Client	Setup Type available on Windows operating systems only
Oracle Business Intelligence Publisher	Oracle Business Intelligence Publisher	
Custom	All the preceding components as individual options.	

NOTE: The DAC (Data Warehouse Administration Console) Server and Client are no longer included in the Oracle BI installer. You can install these components only when you install the Oracle Business Intelligence Applications.

Additional Oracle BI Components

Some optional components, such as those listed in Table 3, are not part of the main installer wizard. The topic area for these components is Installing Oracle BI Ancillary Client Programs on page 86.

NOTE: Not all components can be deployed on all platforms. For specific platform support information, see *System Requirements and Supported Platforms*, located on the Oracle Technology Network. To download *System Requirements and Supported Platforms*, see the topic Accessing Oracle Business Intelligence Documentation on page 20.

Table 3. Optional Oracle BI Components Not Installed by the Wizard

Feature	Installation Note
Oracle BI Publisher Desktop	A Windows-based design tool that allows you to create layouts for Oracle BI Publisher.
Oracle BI Open Intelligence Interface	Oracle BI ODBC interface only. This is identical to the Oracle BI ODBC interface installed through the main installer, but has a smaller footprint.
Oracle BI Office Plug-In	The Oracle BI Office Plug-In is a Windows application under the Oracle BI Presentation Services. It requires a separate installer. See the topic Installing Oracle BI Office Plug-In on page 89.
Oracle BI Briefing Book Reader	Windows application that provides a way to save static and linked dashboard content for review offline.
Oracle BI Disconnected Client	If you plan to install the Oracle BI Disconnected Client, it must be installed on a separate machine from the Oracle Business Intelligence Server installation. See the information on setting up the Oracle BI Disconnected Client in Oracle Business Intelligence *Disconnected Administration and Configuration Guide*.

About Re-Installing Oracle BI Components

If you have an existing Oracle Business Intelligence installation, the installation wizard asks you to choose between the following options:

- Keep User Modified Configurations
  - Choose the option *Keep User Modified Configurations* to preserve the content of configuration files when re-installing or upgrading Oracle Business Intelligence.
- Reset Configurations
  - Choose the option *Reset Configurations* to reset the content of the configuration files to their default values.

Basic and Advanced Types of Oracle BI Installation

During the installation, you are asked to choose an Installation Type. The selection in the installer Installation Type screen is based on the type of web server on which Oracle BI is to be deployed.

NOTE: An application server is also required for deployment of the Systems Management component, which is installed along with Oracle BI components such as the Oracle BI Server. See the topic "Deployment on Web Application Servers" on page 29.

Basic Installation Type

- Choose the Basic Installation type if one of the following is true:
  - You are evaluating the Oracle Business Intelligence product.
  - The Web Server is a J2EE Application Server other than Oracle Application Server.
- The following are the Basic Installation type requirements and actions:
  - Requires Java 2 Platform, Standard Edition 5.0 (J2SE 5.0) or later to be installed before running the Oracle BI installer.
  - By default, password security is not enabled—the `MINIMUM_PASSWORD_LENGTH` parameter in the NQSConfig.INI file is set to 0.
  - Provides a choice to deploy the Presentation Services and Presentation Services Plug-in either standalone Oracle Containers for J2EE (OC4J) or in Microsoft IIS, if Microsoft IIS is installed.
  - Deploys Systems Management, Presentation Services, Presentation Services Plug-in and BI Publisher into Oracle Containers for J2EE (OC4J). See the topic "Deploying Oracle BI on All Other Web Servers" on page 29.
  - Installs a demonstration application that includes a repository (paint.rpd), presentation catalog, and XML data source.

Advanced Installation Type

- Choose the Advanced Installation type when deploying Oracle BI with Oracle Application Server.

NOTE: You must use Oracle Application Server version 10.1.3.1.0 or later.

- The following are the Advanced Installation type requirements and actions:
  - You plan to link Oracle Business Intelligence with Oracle Single Sign-On.
  - The security settings are applied at a higher level—the `MINIMUM_PASSWORD_LENGTH` parameter in the NQSConfig.INI file is set to 8.
  - Provides a choice to deploy the Presentation Services and Presentation Services Plug-in either Oracle Application Server or in Microsoft IIS, if Microsoft IIS is installed.

- Deploys Systems Management, Presentation Services, Presentation Services Plug-in and BI Publisher into the Oracle Application Server. See the topic "Deploying Oracle BI on Oracle Application Server" on page 29.
- Installs a demonstration application that includes a repository (paint.rpd), presentation catalog, and XML data source.

Deployment on Web Application Servers

See also the topic "Basic and Advanced Types of Oracle BI Installation" on page 27.

Deploying Oracle BI on Oracle Application Server

If you plan to perform an Advanced Installation, Oracle Application Server (version 10.1.3.1.0 or later) must be installed before you run the Oracle Business Intelligence installer.

- Choose Advanced installation type.
- After you select the components to install, you are prompted to enter the location of the Oracle Application Server (ORACLE_HOME).

The following Oracle Application Server components are required:

- Oracle HTTP Server
- Oracle Containers for J2EE (OC4J)
- Oracle Process Manager and Notification Server

NOTE: If you do not want to use Oracle HTTP Server after installing Oracle Business Intelligence Enterprise Edition, then disable Oracle HTTP Server in Oracle Application Server after the installation.

Deploying Oracle BI on All Other Web Servers

Use this topic if you are not using Oracle Application Server as a web server.

- For Microsoft Internet Information Services (IIS), use the procedure To deploy Oracle BI Presentation Services and Plug-in with Microsoft IIS on page 29.
- For J2EE Application Servers, use the procedure To deploy Oracle BI with J2EE Application Servers on page 30.

To deploy Oracle BI Presentation Services and Plug-in with Microsoft IIS

1. Choose Advanced or Basic installation type.
2. After you select the components to install, and if Presentation Services or Presentation Services Plug-in are selected, you are prompted to select the application server.
   - Select Microsoft IIS.

     The ISAPI plug-in is installed in IIS.
3. When the Basic installation type is selected, the installer installs a stand-alone version of OC4J and deploys Oracle BI Systems Management and Oracle BI Publisher in this container.

To deploy Oracle BI with J2EE Application Servers

1. Choose the Advanced or Basic installation type.
2. When prompted for the Application Server selection:
   - Choose Oracle Containers for J2EE for the Basic installation type.
   - Choose Oracle Application Server for the Advanced installation type.
3. The installer installs OC4J and deploys the appropriate components in this container.

The analytics.war or analytics.ear files are used to deploy the Oracle BI Presentation Services Plug-in (java servlet) in the J2EE Application server of your choice. The .war and .ear files are in the following locations:

- Windows platform: OracleBI_HOME\web
- UNIX platform: OracleBI_HOME/web

See also Chapter 9, "Configuring Oracle BI Presentation Services."

4 Preparing to Install Oracle Business Intelligence

This chapter describes the steps to prepare Microsoft Windows, Linux, and various UNIX environments to run the Oracle Business Intelligence infrastructure installer. In addition, background topics give you information you need to know before you run the installer. The chapter is organized into the following topics:

TIP: Print out each of the preceding topics to use as checklists.

Process of Planning the Installation

Planning the installation comprises the following tasks:

1. Determining your Oracle BI Component Installation Options.
2. Oracle BI Installation Requirements
   - Obtaining Appropriate Permissions
   - Installing Third-Party Products
   - Deployment on Web Application Servers
   - Installation Requirements for Windows
   - Installation Requirements for All UNIX Platforms
3. If you have an earlier version of Siebel Analytics platform installed, you must uninstall it before you install Oracle Business Intelligence platform. See the section on uninstalling previous versions of Siebel Analytics in the *Oracle Business Intelligence Infrastructure Upgrade Guide*.
4. Back up configuration files. See Backing Up Business Intelligence Folders and Files on page 96.
5. UNIX administrators need to install some Oracle Business Intelligence components under Windows systems. For example, the third-party installer is available for Windows only. Also, UNIX systems must have some Windows-based components installed, as shown in the following table.

Component Function	Required Windows-Based Component
Repository Manager	Oracle Business Intelligence Administration Tool
Oracle BI Delivers	Scheduler Job Manager
Oracle BI Scheduler	**NOTE:** Although the Job Manager is Windows-based, you can configure Oracle Business Intelligence Scheduler at the UNIX command line.
Oracle BI Presentation Services Web Catalog	Oracle BI Catalog Manager

Roadmap for Installing Oracle BI Infrastructure Components

This is a roadmap. Complete the processes for installing Oracle Business Intelligence in the order shown:

1 Oracle BI Installation Requirements

2 Upgrading Oracle Business Intelligence Components
—See the *Oracle Business Intelligence Infrastructure Upgrade Guide*.

3 Process of Installing the Complete Oracle BI Infrastructure

4 Initializing the Oracle Business Intelligence Installation

5 Installing Oracle BI Ancillary Client Programs

After installation is complete, there may be configuration required. Refer to the Roadmap for Configuring Oracle BI Infrastructure Components.

Roadmap for Configuring Oracle BI Infrastructure Components

This is a roadmap. After Oracle Business Intelligence is installed, complete the processes for configuring Oracle Business Intelligence in the order shown:

1 Configuring Oracle BI Processes

2 Configuring the Data Sources for Oracle Business Intelligence

3 Configuring Oracle BI Presentation Services to Communicate With Oracle BI Scheduler

4 Configuring Oracle Business Intelligence Scheduler

5 Localizing Oracle Business Intelligence Deployments

6 Configuring BI Publisher for XMLP Server

TIP: Refer to Figure 1 on page 35 as necessary.

Diagram of Oracle BI Infrastructure Deployment

Figure 1 on page 35 shows the Oracle Business Intelligence product components and the connecting elements, including the Web and data components, required for deployment of the Oracle Business Intelligence Infrastructure. This diagram is based on an out-of-the-box deployment and assumes no unusual configuration requirements.

NOTE: Your own deployment may differ from that shown in the diagram.

The meaning of the colors, lines, and typefaces used in this diagram is shown in Table 4.

Table 4. Key to Oracle BI Infrastructure Deployment Diagram

Object	Meaning
White Box (solid green border)	Oracle Business Intelligence infrastructure components.
White Box (green-dashed border)	Third-party product licensed as part of the Oracle Business Intelligence product.
Gray Box	Third-party or generic network or web component.
Pink Area	Data source components.
Black Line	A connection between components. The connection is two-way unless the line terminates in an arrow (see Arrow).
Black Arrow	A one-way connection.
Orange Line	Basic cluster configuration. For more details, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.
Blue Italicized name	Name of the protocol used for the connection.
Blue Italicized number	Port number for the connection, if defined.

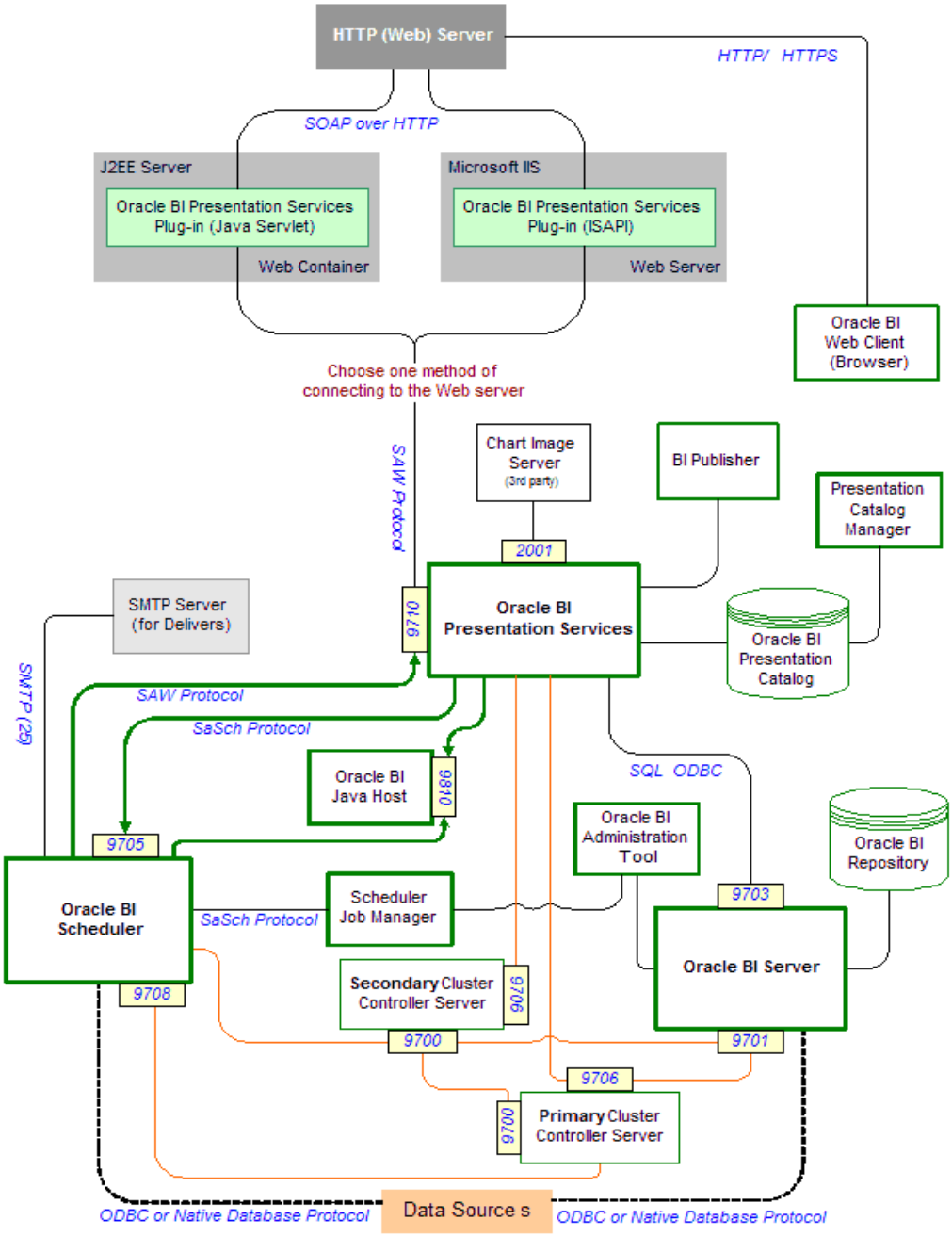

Figure 1. Relationships Between Oracle BI Infrastructure Components

Oracle BI Installation Requirements

In addition to the hardware and operating system requirements shown in *System Requirements and Supported Platforms*, you must have fulfilled the following requirements:

Obtaining Appropriate Permissions

Before you install Oracle Business Intelligence, you must have the appropriate permissions for installing and configuring on your company system, as shown in Table 5. Make sure that you have write access to the installation directory that you plan to specify in the installer.

Table 5. System Component Permissions Required for Installing Oracle Business Intelligence

System Component	Permission Type
Network	Network Administrator
Windows	Administrator for individual machines
UNIX	System administrator or root privileges
Database	DBMS Administrator

Installing Third-Party Products

Before you run the Oracle Business Intelligence installer, you should have completed the third-party software installations shown in Table 6. The number of third-party components required to be installed or configured depends on the details of your particular deployment. Third-party software documentation is available from the third-party vendor (such as Java from Sun Microsystems and MDAC from Microsoft Corporation). In some cases, such as Oracle Application Server 10*g* and application server components, the documentation is available from Oracle Technology Network:

`http://www.oracle.com/technology/documentation/index.html`

Table 6. Third-Party Installations Required for Installing Oracle Business Intelligence

Component Installation	Notes
Java SDK 1.5.0 or later **CAUTION:** Before you run the Oracle Business Intelligence installer using the Basic installation type, Java SDK must be installed. Otherwise, key components will fail to work.	**NOTE:** For all deployments of Oracle BI installed using the Basic Installation Type on all operating systems. Java must be installed on the same machine on which you are installing Oracle Business Intelligence. **TIP:** You need this information during the installation. Make a note of the directory where Java is installed. For example, /usr/j2sdk1.5.0_04.
Oracle Application Server 10.1.3.1.0 or later **CAUTION:** Before you run the Oracle Business Intelligence installer using the Advanced installation type, Oracle Application Server must be installed. Otherwise, key components will fail to work.	**NOTE:** For all deployments of Oracle BI installed using the Advanced Installation Type on all operating systems. Oracle Application Server must be installed on the same machine on which you are installing Oracle Business Intelligence. The following Oracle Application Server components are required: ■ Oracle HTTP Server ■ Oracle Containers for J2EE (OC4J) ■ Oracle Process Manager and Notification Server. **NOTE:** If you do not want to use Oracle HTTP Server after installing Oracle Business Intelligence Enterprise Edition, then disable Oracle HTTP Server in the Oracle Application Server after the installation. **TIP:** You need this information during the installation. Make a note of the directory where Oracle Application Server is installed. For example, /usr/product/10.1.3.1/OracleAS_1

Table 6. Third-Party Installations Required for Installing Oracle Business Intelligence

Component Installation	Notes
Database connectivity software that Oracle BI servers use to connect to the database	Your requirements depend on the specific DBMS you are deploying. See the *System Requirements and Supported Platforms* for supported database connectivity software. For example, If the Oracle BI Server is to access an Oracle Database, install the Oracle 10g client. If the Oracle BI Server is to access MS SQL Server database, install Microsoft Data Access Components (MDAC). If MDAC is not on your system, install it using the procedure in the topic Installing MDAC on page 44.
Oracle client software	To install Oracle Business Intelligence Suite Enterprise Edition and Oracle client software on the same machine, you must install the Oracle client software first. If you install the Oracle client software after installing Oracle BI, then you might change the Java SDK version for Oracle BI, which might result in runtime errors.
Integration Web Server for Oracle BI Presentation Services	Depending on your requirements, you might need to install an integration Web server before you install Oracle BI Presentation Services. If you are deploying on IIS, install IIS before running the Oracle BI Installer.

Installation Requirements for the Basic Installation Type

The following topics describe the system requirements for installing the Basic Installation Type:

About the Java Platform Version

Java 2 Platform, Standard Edition 5.0 (J2SE 5.0) or later is required for Oracle Business Intelligence.

NOTE: This version is also know as Java 2 Platform, Standard Edition 1.5.0 (J2SE Development Kit 1.5.0).

If you are installing the Basic Installation Type, JDK 1.5.0 or later must be installed before running the Oracle BI installer.

Locating the Java SDK in a UNIX Environment

Operating System: UNIX only.

To determine if JDK is already installed on the machine and configured in the environment, use the following command:

```
$which java
```

To discover the Java version that is installed, run the Java executable with the -version option:

```
$java -version
```

Making the Java Platform Installation Writable

If you are installing using the Basic installation type, make the user or user group permissions writable for the user installing Oracle Business Intelligence, for all JDK 1.5.0 installation directories, subdirectories, and files.

Use one of the following procedures, depending on your deployment.

To make the Java platform writable under UNIX

- Have the system administrator give you user or user group writable permissions.
- Alternatively, try running the chmod command. For example:

```
chmod -R a+rwx /usr/j2sdk1.5.0_04
```

To make the Java platform writable under Windows

- Have the system administrator give you user or user group writable permissions.
- Alternatively, try running the *cacls* commands. For example:

```
echo Y| cacls.exe D:\j2sdk1.5.0_04 /C /G "CREATOR OWNER":F
%USERDOMAIN%\%USERNAME%:F SYSTEM:F ADMINISTRATORS:F Users:F >nul 2>&1

echo Y| cacls.exe D:\j2sdk1.5.0_04\* /T /C /G "CREATOR OWNER":F
%USERDOMAIN%\%USERNAME%:F SYSTEM:F ADMINISTRATORS:F Users:F >nul 2>&1
```

Installation Requirements for the Advanced Installation Type

The following topics describe the system requirements for installing the Advanced Installation Type:

About the Oracle Application Server Version

Oracle Application Server 10.1.3.1.0 or later is required for Oracle Business Intelligence.

If you are installing using the Advanced Installation Type, Oracle Application Server 10.1.3.1.0 or later must be installed before running the Oracle BI installer.

About the Oracle Application Server Components

The following Oracle Application Server components are required for Oracle Business Intelligence:

- Oracle HTTP Server
- Oracle Containers for J2EE (OC4J)
- Oracle Process Manager and Notification Server

NOTE: If you do not want to use Oracle HTTP Server after installing Oracle Business Intelligence Enterprise Edition, then disable Oracle HTTP Server in Oracle Application Server after the installation.

Making the Oracle Application Server Installation Writable

If you are installing using the Advanced installation type, make the user or user group permissions writable for the user installing Oracle Business Intelligence, for all Oracle Application Server installation directories, subdirectories, and files.

Use one of the following procedures, depending on your deployment.

To make the Oracle Application Server platform writable under UNIX

- Have the system administrator give you user or user group writable permissions.
- Alternatively, try running the chmod command. For example:

```
chmod -R a+rwx /usr/product/10.1.3.1/OracleAS_1
```

To make the Oracle Application Server platform writable under Windows

- Have the system administrator give you user or user group writable permissions.
- Alternatively, try running the *cacls* commands. For example:

```
echo Y| cacls.exe D:\product\10.1.3.1\OracleAS_1 /C /G "CREATOR OWNER":F
%USERDOMAIN%\%USERNAME%:F SYSTEM:F ADMINISTRATORS:F Users:F >nul 2>&1

echo Y| cacls.exe D:\product\10.1.3.1\OracleAS_1\* /T /C /G "CREATOR OWNER":F
%USERDOMAIN%\%USERNAME%:F SYSTEM:F ADMINISTRATORS:F Users:F >nul 2>&1
```

Installation Requirements for Windows

Operating System: Windows only.

The following topic describes Windows operating system requirements for installing Oracle Business Intelligence:

Installing the Microsoft Data Access Components for Windows

Operating System: Windows only.

If your DBMS is Microsoft SQL Server, and the version is prior to MS SQL 2005, this topic may be applicable to you. Otherwise, this topic is not necessary.

TIP: If you do not need to install MDAC, proceed to the topic Configuring Oracle BI Presentation Services on page 147.

Earlier versions of SQL Server did not use connectivity software. Instead, it was necessary to configure an ODBC data source. The ODBC driver had to be installed on the machine on which you install the Oracle BI Server. Before you install Oracle BI Server components, Microsoft Data Access Components (MDAC) had to be installed on the Oracle BI Server machine where it connects to SQL Server database.

MDAC is considered a Windows system component and is included with many applications, so MDAC may already be installed. If you are installing the Oracle Business Intelligence Cluster Controller feature, MDAC is not required on machines that host only Cluster Controllers.

Checking for an Existing Installation of MDAC

Operating System: Windows only.

Use the following procedure to determine if the appropriate version of MDAC is already installed. If it is not installed, complete the MDAC installation before beginning the Oracle BI software installation. For the appropriate version to use, see *System Requirements and Supported Platforms* on Oracle Technology Network.

NOTE: Oracle BI Server components are described in the topic Oracle BI Component Installation Options on page 22.

To check for an existing installation of Microsoft Data Access Components

1. Search for the files msdadc.dll and oledb32.dll (optional).

   These files are generally located in the C:\Program Files\Common Files\System\OLE DB folder.

2. When you locate the files, right-click and select Properties from the context-sensitive menu.

   The version information is shown on the Version tab.

If the version is not the one specified in *System Requirements and Supported Platforms*, you need to install MDAC according to the following procedure. Refer to the Microsoft Web site for further instructions or any problems during installation.

Installing MDAC

Operating System: Windows only.

If MDAC is not installed, install it using the following procedure.

To install Microsoft Data Access Components

1. Point your browser to the Microsoft Web site.

   In the Search box, type the words *MDAC download* and press Enter.

2. Navigate to and select the MDAC type that conforms with the type specified in *System Requirements and Supported Platforms*.

   Click Download.

3. After the program has downloaded, locate the file mdac_typ.exe and click it. This starts the MDAC installer.

4. Follow the prompts to complete the MDAC installation.

Installation Requirements for All UNIX Platforms

Operating System: UNIX only.

The tasks listed in this topic should be completed before installing Oracle Business Intelligence infrastructure components under UNIX systems.

In addition, your particular variety or implementation of UNIX may require additional preparation before installing Oracle BI. See also the following topics, as applicable:

- Locating the Java SDK in a UNIX Environment on page 39
- Restrictions on Installing Oracle BI Under UNIX on page 46
- Running the UnixChk.sh Script on page 47
- Oracle Business Intelligence Components Supported Under UNIX on page 48
- Deploying Oracle Business Intelligence on 64-bit UNIX Systems on page 48
- Installation Requirements for Solaris on page 49
- Installation Requirements for HP-UX on page 50
- Oracle BI Server Environment Variables for IBM AIX on page 51
- Installation Requirements for Linux on page 53
- Downloading Installation Files Under UNIX on page 54

All UNIX systems require the following preparations for installing Oracle BI:

- **Create the installation directory.**

  The installation script's default installation directory is /usr/local/OracleBI. Your installation directory may be different.

  NOTE: You may need to contact your UNIX Administrator to create this directory and give you write permission.

- **Create the User ID.**

  Choose a user ID that can run all Oracle Business Intelligence processes. You may need to contact your UNIX Administrator to create this user ID.

  CAUTION: You cannot install Oracle Business Intelligence as the user root.

- **Uninstall earlier versions of the Analytics software.**

  If you have an earlier version of Siebel Analytics platform installed, you may need to uninstall it before you install Oracle Business Intelligence infrastructure. See the section on uninstalling previous versions of Oracle Business Intelligence in the *Oracle Business Intelligence Infrastructure Upgrade Guide*.

  NOTE: The installation script creates the essential environment settings.

- **Make sure that /dev/random and /dev/urandom are available.**

  Oracle BI Presentation Services requires these pseudo random-number generator devices.

- **Set the File Handle Limit parameter.**

  For running Oracle BI processes, the file handle limit must be at least 10240, or unlimited. For example:

  ```
  ulimit -n 10240
  ulimit -n unlimited
  ```

- **Install X Window software.**

  The Oracle BI installer has a graphics-based option for UNIX platforms. If you are planning to run the graphical UNIX installer remotely, or from a PC-based machine, then you must install third-party X Window software. Otherwise, you can still run the installer in console mode, which does not require an X Window system.

  - To install from a PC-based workstation, an X Window program must be installed on the PC.
  - To install from another UNIX machine remotely, on the installer workstation, run an X Windows manager on the remote UNIX machine.

- **Check memory allocation.**

  For running Oracle BI Publisher, make sure to allocate enough memory. See the topic Memory Allocation for OC4J on page 182.

Restrictions on Installing Oracle BI Under UNIX

- Using the Custom installation choice, only the following components available under UNIX:
  - Oracle Business Intelligence JDBC Driver
  - Oracle Business Intelligence Systems Management
  - Oracle Business Intelligence Server
  - Oracle Business Intelligence Cluster Controller
  - Oracle Business Intelligence Scheduler
  - Oracle Business Intelligence Client
  - Oracle Business Intelligence Presentation Services
  - Oracle Business Intelligence Presentation Services Plug-in
  - Oracle Business Intelligence Publisher
- The repository (.rpd) file can be created and modified only using the Oracle Business Intelligence Administration Tool, which is available only for Windows operating systems. See the topic Configuring the Repository Under UNIX on page 54.
- Use bash (Bourne-Again Shell) when running Oracle BI scripts under Linux systems.

Running the UnixChk.sh Script

UnixChk.sh is a script for UNIX-based installations (including Linux). In order to make sure that the installation machine has all the necessary requirements for a successful installation, run this UNIX check script to check the prerequisites. The script is lightweight and easy to use, and checks for the following conditions:

- Supported operating system
- Required patches and filesets (if applicable)
- Supported configurations
- Adequate disk space
- User is not root

The UnixChk.sh script is installed in two locations:

- The installer directory containing setup.sh and setup.jar. From here, you can run UnixChk.sh before running the installer (that is, before running setup.sh).
- The directory OracleBI/setup/UnixChk.sh. From here, you can run UnixChk.sh after installing Oracle BI.

Usage:

`UnixChk.sh` *`[Oracle_BI_install_dir]`*

where *Oracle_BI_install_dir* is the directory in which Oracle BI is to be installed. Omit this argument if Oracle BI is to be installed in the default installation directory (/usr/local/OracleBI).

Example 1.

```
$ ./UnixChk.sh
CHECK FAILED - ulimit -n should be at least 10240 or unlimited
FAILURE!! - This machine is NOT configured for Oracle BI 10.1.3.2.1
```

Example 2.

```
$ ./UnixChk.sh
SUCCESS!! - This machine is configured for Oracle BI 10.1.3.2.1
```

Oracle Business Intelligence Components Supported Under UNIX

Operating System: UNIX only.

The following Oracle BI components are supported under UNIX platforms:

- Oracle Business Intelligence Server
- Oracle Business Intelligence Cluster Controller
- Oracle Business Intelligence Presentation Services:
  - Oracle Business Intelligence Dashboard
  - Oracle Business Intelligence Answers
  - Oracle Business Intelligence Delivers
- Oracle Business Intelligence Presentation Services Plug-in
- Oracle Business Intelligence Publisher
- Oracle Business Intelligence Systems Management
- Oracle Business Intelligence JDBC Driver
- Oracle Business Intelligence Scheduler

  NOTE: Scripts for iBots and scripts defined in the Scheduler Job Manager are supported under Windows operating systems only. They are not supported under UNIX systems. Only iBots created through Delivers are supported under UNIX systems.

- Oracle Business Intelligence Client

  NOTE: Oracle BI Client also consists of the Oracle BI ODBC driver. This driver allows any application to connect to the Oracle BI Server. Oracle BI Presentation Services also uses this driver to connect to the Oracle BI Server.

See also the topic Additional Oracle BI Components on page 25 for related information about supported components.

Deploying Oracle Business Intelligence on 64-bit UNIX Systems

Operating System: UNIX only.

If you are deploying over a 64-bit UNIX system, use the following command so that user.sh picks up the correct variables:

```
./run-sa.sh start64
```

You have a choice of running a 64-bit or 32-bit server. Make sure that the appropriate client DLL files are present and set up correctly in user.sh. Comment out those settings you do not want to use and uncomment those settings you want to use.

Installation Requirements for Solaris

Operating System: Solaris only.

Solaris requires Java 2 Runtime Environment, Standard Edition (1.5.0_08 or later) in order for Javahost processes to run.

- Make sure the correct version of JRE is installed.
- Change the instanceconfig.xml file to point to this JRE version.
  - The instanceconfig.xml file is in the directory OracleBIData_HOME/web/config.
  - Modify the tag <JavaHome>.

  NOTE: For instructions on modifying instanceconfig.xml, refer to the topic on making Oracle BI Presentation Services configuration changes in the *Oracle Business Intelligence Presentation Services Administration Guide*.

Installation Requirements for HP-UX

Operating System: HP-UX only.

For successful Oracle BI Server operations on HP-UX operating systems, check the following factors.

- Display the kernel parameters.
- The following kernel parameters may need to be adjusted:
  - max_thread_proc = 1024
  - maxdsiz = 0xC0000000
  - maxssiz = 16777216
  - maxtsiz = 0x40000000
  - shmseg = 120
  - swapmem_on = 1
  - maxfiles = 2048
  - maxfiles_lim = 2048
  - dbc_max_pct = 50

  TIP: These parameters and their corresponding values are provided as examples and rough guidelines only. You can adjust these and other parameters based on actual system load, usage patterns such as the number of concurrent users and sessions, the types of queries, query frequency, database sizes, and so on.
- Adjust the kernel parameters if necessary.
- Install any required HP operating system patches. Failure to install these patches could lead to extremely long Oracle BI Server startup times. For a list of these patches, see *System Requirements and Supported Platforms* on Oracle Technology Network.

Oracle BI Server Environment Variables for IBM AIX

Operating System: IBM AIX only.

The sa.sh script and other scripts for server and client environment variables contain the variables for specific deployments of UNIX. The script .variant.sh contains important settings for IBM AIX.

The .variant.sh script is located in the directory \Server\Oracle_Business_Intelligence\script\setup\. Depending on whether or not you deploy 64-bit Oracle BI, the server environment variables might need to be adjusted. See the applicable topic:

- Deploying 32-bit Oracle BI Under IBM AIX
- Deploying 64-bit Oracle BI Under IBM AIX

Deploying 32-bit Oracle BI Under IBM AIX

Operating System: IBM AIX only.

Run the following commands to set your 32-bit Oracle BI deployment under AIX:

```
export AIXTHREAD_COND_DEBUG = OFF

export AIXTHREAD_MNRATIO = 1:1

export AIXTHREAD_MUTEX_DEBUG = OFF

export AIXTHREAD_RWLOCK_DEBUG = OFF

export AIXTHREAD_SCOPE = S

export LDR_CNTRL = IGNOREUNLOAD@LOADPUBLIC@PREREAD_SHLIB@MAXDATA=0X60000000

export MALLOCMULTIHEAP = considersize,heaps:4

export MALLOCTYPE = buckets

export SPINLOOPTIME = 1000

export YIELDLOOPTIME = 4

unset RT_GRQ
```

If you are deploying a 64-bit runtime environment under IBM AIX, see also the topic Deploying 64-bit Oracle BI Under IBM AIX on page 52.

NOTE: If you are localizing your AIX deployment to Japanese, see also the topic Changing Configuration File Settings for Japanese Localizations Under AIX on page 251.

Deploying 64-bit Oracle BI Under IBM AIX

Operating System: IBM AIX only.

If you are deploying the 64-bit installation of Oracle Business Intelligence, you must run it on a 64-bit IBM AIX kernel. A 32-bit installation of Oracle Business Intelligence can run under a 32-bit or 64-bit IBM AIX kernel.

If you are deploying a 64-bit runtime environment under IBM AIX, change the following settings in the .variant.sh file.

- Run the command

  ```
  export LDR_CNTRL=IGNOREUNLOAD@LOADPUBLIC@PREREAD_SHLIB@MAXDATA=0x80000000
  ```

  The export command must be run in the shell where the 64-bit AIX nqsserver is run, using one of the following methods:

  - Run the export command from the shell from which the 64-bit AIX nqsserver is run.

    or

  - Modify the corresponding line in .variant.sh.

- Set CORE_NAMING = 1

Installation Requirements for Linux

Operating System: Linux only.

For successful Oracle Business Intelligence operations under Linux operating systems, check the following factors:

- Install the GNU Compiler Collection (GCC) C++ runtime version 3.4.3 (or later) libraries before installing Oracle Business Intelligence.

  If installed, the GCC C++ runtime version 3.4.3 libraries are in one of the following locations:

  - `/usr/lib/libstdc++.so.6`
  - `/lib/libstdc++.so.6`

- For 64-bit Linux system installations, you must use the Oracle Database Client 32-bit libraries.

Downloading Installation Files Under UNIX

The following procedure must be done by a UNIX administrator or by an Oracle BI Administrator with sufficient privileges.

To download Oracle BI installation files under UNIX

1. Log in as the user who is to run the Oracle BI processes.
2. Insert the Oracle Business Intelligence infrastructure installation DVD.
3. Change to the directory where the installation DVD is mounted (or change directory to the downloaded software).
4. Download the Oracle BI files by using FTP to copy them to the desired server and directory.

   NOTE: Make sure you FTP all the files in binary mode, including license.xml.
5. After the files are downloaded, check that the files in the top level directory, such as setup.sh, have execute permissions.

   - Run the command `ls -la`.

   Confirm that the files have permissions resembling those in the following example (for Solaris):

```
-rwxr-xr-x   1 dcebuild odq       6395 Aug  9 22:11 license.xml
-rwxr-xr-x   1 dcebuild odq     657328 Aug  9 22:10 Solaris.bin
-rw-r--r--   1 dcebuild odq         12 Aug  9 22:04 media.inf
drwxr-xr-x   3 dcebuild odq       4096 Aug  9 22:11 script
-rw-r--r--   1 dcebuild odq  501194022 Aug  9 22:10 setup.jar
-r-xr-xr-x   1 dcebuild odq       1311 Aug  9 22:11 setup.sh
-rw-r--r--   1 dcebuild odq        104 Aug  9 22:04 version.txt
```

Configuring the Repository Under UNIX

Operating System: UNIX only.

Although the Oracle Business Intelligence repository and Web catalog are transferable to UNIX systems, you must first install the Oracle Business Intelligence Administration Tool and configure the repository file (.rpd file) on a Windows system, then transfer the repository file to the UNIX machine using FTP in binary mode. The Administration Tool is currently supported only on Windows operating systems.

5 Installing Oracle BI EE Infrastructure

This chapter is part of the Roadmap for Installing Oracle BI Infrastructure Components, and describes the process of running the Oracle Business Intelligence installer. The main chapter topic is Process of Installing the Complete Oracle BI Infrastructure.

TIP: Before proceeding with this process, you must have finished reading the following chapters:

- Chapter 3, "Oracle BI Infrastructure Installation Options"
- Chapter 4, "Preparing to Install Oracle Business Intelligence"

Process of Installing the Complete Oracle BI Infrastructure

This topic describes in general terms the overall process of installing the entire Oracle Business Intelligence Infrastructure.

A standard installation program is used. When you are finished with the tasks described in this topic area, the Oracle BI components listed in Table 3 on page 25 are installed.

The process of installing the Oracle BI software consists of the following tasks:

1. Determining your deployment requirements.

   See the topic Choosing Oracle BI Installer Setup Types on page 56.

2. Running the setup command file. See one or more of the following topics:
   - Running the Oracle BI Installer Under Windows on page 57
   - Running the Oracle BI Installer Under UNIX on page 63
   - Installing Oracle BI Components on Different Machines on page 69
3. Responding to installer wizard prompts.
4. After the installer is finished, perform necessary post-installation configuration of Oracle Business Intelligence. See the following topics:
   - Initializing the Oracle Business Intelligence Installation on page 70
   - Postinstallation Tests of Oracle BI Client and Server on page 71
   - Installing Oracle BI in Unattended or Silent Mode on page 74

   Also see the chapters on configuring each Oracle Business Intelligence component.

Choosing Oracle BI Installer Setup Types

This task is part of the Process of Installing the Complete Oracle BI Infrastructure. The Oracle Business Intelligence installer can be used to install more than one type of Oracle BI component. The installation type depends on the components you plan to install.

- The Oracle BI components that are installed for each Setup Type are shown in Table 2 on page 23.
- The topic Additional Oracle BI Components on page 25 describes the ancillary programs that may be useful in your deployment of Oracle Business Intelligence.

NOTE: For the purpose of this book, it is assumed you are installing the complete suite of Oracle BI components.

This chapter contains the Process of Installing the Complete Oracle BI Infrastructure. The Complete Setup Type installs all the Oracle Business Intelligence components.

You can also install one or more individual components without installing the entire suite. For example, if you are deploying with clustered servers, you can install only a specific server or server tool to that machine, or install only the Oracle BI ODBC client installation.

Chapter 6, "Installing Individual Oracle BI Components," discusses partial or incremental component installations, including the following topics:

- Installing Oracle BI in Unattended or Silent Mode on page 74
- Installing and Configuring Disconnected Client on page 81
- Installing Oracle BI Open Intelligence Interface on page 91 covers the distribution of client connectivity to remote clients that cannot otherwise access Oracle BI.
- Installing Briefing Book Reader on page 87
- Installing Oracle BI Office Plug-In on page 89
- Installing Oracle BI Publisher Desktop on page 95

NOTE: The *Oracle Business Intelligence Enterprise Edition Deployment Guide* covers the installation of components on clustered machines.

Running the Oracle BI Installer Under Windows

This task is part of the Process of Installing the Complete Oracle BI Infrastructure.

The installer prompts for a graphics-based installation are shown in the topic Oracle BI Installer Screens and Prompts in Graphics Mode (Windows) on page 58.

The installer prompts for a console-based installation are shown in the topic Prompts for a Complete Oracle BI Installation in Console Mode (Windows) on page 62.

To run the Oracle BI installer under Windows OS

1. Change directory to the installation directory.
2. Run the startup program.

   Perform the following substeps, depending on whether you are running the installer with a graphical user interface or running the installer in console mode:

   - Graphical user interface:
     - Double-click setup.exe. The InstallShield window appears.
     - Provide the requested input for each screen.
     - To continue to the next screen, click Next. To return to a previous screen, click Back.
     - To exit from the installer, click Cancel.
     - To view the help page for each screen, click Help.
     - The meanings and default for each installer screen are listed in Table 7 on page 58.
   - Console mode:
     - In a DOS window, enter the command `setup.exe -console`.
     - Follow the prompts in the installation script.
     - In the console mode, each prompt ends with the following choices and their defaults in square brackets. For example:

       ```
       Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay    [1]
       ```

     - The meanings and default for each installer prompt are shown in Table 7 on page 58.

   NOTE: The particular screens or prompts that are visible depend on the Oracle BI installation Setup Types you choose.
3. Proceed to the topic Initializing the Oracle Business Intelligence Installation on page 70.

Oracle BI Installer Screens and Prompts in Graphics Mode (Windows)

This topic is part of the Process of Installing the Complete Oracle BI Infrastructure.

The screens for the complete Oracle Business Intelligence infrastructure installation under Windows are listed in Table 7 on page 58. Follow the directions in each screen listed, and then click Next.

Table 7. Screens or Prompts for Installation of Oracle BI Under Windows

Screen	Your Action	Notes
Oracle Business Intelligence Installation	■ Browse or type the path for the installation and data directories, or accept the default installation to the C:\ drive. The defaults are: ■ OracleBI ■ OracleBIData ■ Select the installation type: ■ Basic ■ Advanced The default is Basic.	**TIP:** To change the default installation and data directories, click Browse and establish the installation path, then click Next. **Installation Type** refers to the application server instance under which Oracle Business Intelligence is to run. See the section Basic and Advanced Types of Oracle BI Installation on page 27. **NOTE:** For Advanced, you must have installed Oracle Application Server 10.1.3.1 or later before running the Oracle BI installer.
Setup Type	The Custom option lets you select individual components for installation. Choose the Oracle BI components you want to install. The default is Complete.	The setup type you choose affects the number and type of screens that subsequently appear. See the row "Complete" in Table 2 on page 23. **NOTE:** For the purpose of this procedure, it is assumed that you have selected Complete Suite. See also Chapter 6, "Installing Individual Oracle BI Components."

Table 7. Screens or Prompts for Installation of Oracle BI Under Windows

Screen	Your Action	Notes
Application Server Selection [Basic] **TIP:** If you selected the **Basic** installation type, this screen is displayed.	The application server instance that runs Oracle BI Presentation Services and the Oracle BI Presentation Services Plug-in. The choices given are: ■ Oracle Containers for J2EE (OC4J) version 10.1.3.1 ■ Microsoft IIS	If you chose OC4J, then OC4J is the application server that is used to run Oracle BI Presentation Services and Plug-in. If you selected Microsoft IIS, then IIS is used to run Oracle BI Presentation Services and the ISAPI Plugin is installed. OC4J is used to deploy Systems Management components. **NOTE:** Microsoft IIS must be installed before running the installer; otherwise, the installer does not show this screen.
Application Server Selection [Advanced] **TIP:** If you selected the **Advanced** installation type, this screen is displayed.	The application server instance that runs Oracle BI Presentation Services and Oracle BI Presentation Services Plug-in. The choices given are: ■ Oracle Application Server ■ Microsoft IIS	If you chose Oracle Application Server, then Oracle Application Server is the application server that is used to run Oracle BI Presentation Services and Plug-in. If you selected Microsoft IIS, then IIS is used to run Oracle BI Presentation Services and the ISAPI Plugin is installed. Oracle Application Server is used to deploy Systems Management components. **NOTE:** Microsoft IIS must be installed before running the installer; otherwise, the installer does not show this screen.
Java Development Kit (JDK) Location **TIP:** If you selected the **Basic** installation type, this screen is displayed.	■ Browse or type the path for the directory where Java is installed. ■ The Administrator password asked for is the OC4J password for the administrator user for the OC4J component. ■ The Administrator password must be minimum of 6 and a maximum of 30 alphanumeric characters and include at least one digit.	Java SDK 1.5 or later must already be installed on your installation machine, otherwise the installation does not proceed. **TIP:** The Sun release name was originally *Java 2 Platform, Standard Edition 1.5.0 (J2SE Development Kit 1.5.0)*. The numbering system was changed to 5.0 (*J2SE 5.0*). Both 1.5.0 and 5.0 refer to the same Java platform and products.

Table 7. Screens or Prompts for Installation of Oracle BI Under Windows

Screen	Your Action	Notes
Oracle Application Server Location **TIP:** If you selected the **Advanced** installation type, this screen is displayed.	■ Browse or type the path for the directory where Oracle Application Server is installed. ■ The Administrator username must be assigned to the role **oc4j-administrators**. ■ Enter the password associated with the Administrator username.	Oracle Application Server 10.1.3.1.0 or later must already be installed on your installation machine, or the installation will not proceed further.
Oracle BI Services	■ Provide the Windows server account name and password. Default: LocalSystem If you are not running Oracle BI in a cluster for this deployment, leave the account and username default. ■ Choose the Startup Type for the following services: ■ Oracle BI Server ■ Oracle BI Scheduler ■ Oracle BI Cluster ■ Oracle BI Presentation Server ■ Oracle BI Javahost	Specify the Windows server account name under which each of the Oracle BI services that are listed should run. This account name should be the same on all Oracle BI clustered servers. Accept the default or specify the account name (in the format domain\user) and the password. The Services Startup Type set to Automatic means that the Oracle BI services starts automatically when the computer is rebooted. **NOTE:** Overall system performance may be affected by this. ■ Oracle BI Server default: Automatic ■ Oracle BI Scheduler default: Manual ■ Oracle BI Cluster Controller default: Manual ■ Oracle BI Presentation Server default: Automatic ■ Oracle BI Javahost default: Automatic
Error Message Language Selection	The default is English.	The error messages from the Oracle BI Server are in one language. Typically, these are server-side messages only. Choose the language to display these messages in.
Please Wait		This screen appears while the installer accepts and sets all the choices you have made.

Table 7. Screens or Prompts for Installation of Oracle BI Under Windows

Screen	Your Action	Notes
Pre-Installation Summary Information	**TIP:** This information shows the same components as Table 2 on page 23.	This is a list of all the components you have chosen, and the directory where they are to be installed.
Installing	Click the Next button when it is no longer grayed out.	This is a placeholder that appears while the features you have selected are installed.
Post-Installation Summary Information	Click Next after reading the summary information.	This screen indicates a successful Oracle BI installation. It also provides a link to the Welcome Page, and information about Oracle Containers for J2EE (OC4J).
Restart Computer	Choose whether or not to immediately restart your computer. **NOTE:** If you attempt to run Oracle BI without restarting your computer, several services may fail to work correctly. Click Finish.	■ If you click Yes, the computer shuts down and restarts. ■ If you click No, you need to restart the computer before you use Oracle BI.

Prompts for a Complete Oracle BI Installation in Console Mode (Windows)

If you are performing a complete Oracle Business Intelligence infrastructure installation in console (or text) mode, perform the following steps. Also refer to the Notes column in Table 7 on page 58.

To run the Oracle BI installer in console mode under Windows

1. Access the installation files.
2. In a DOS window, run the following command:

   ```
   setup.exe -console
   ```

   NOTE: You do not see dialog screens in a console (or text) installation. Instead, when prompted, you enter input as plain text in a terminal window.

3. Perform the following substeps:
   - Provide the requested input for each prompt.
   - To continue to the next prompt, type 1.
   - To return to the previous prompt, type 2.
   - To exit from the installer, type 3.

Running the Oracle BI Installer Under UNIX

Operating System: UNIX only.

This task is part of the Process of Installing the Complete Oracle BI Infrastructure.

The installer prompts for a graphics-based installation are shown in the topic Screens and Prompts for a Complete Oracle BI Installation in Graphics Mode (UNIX) on page 65.

The installer prompts for a console (text) installation are described in Step 3 of the following procedure.

CAUTION: Java SDK must be running before you run the Oracle BI installer, otherwise key components will fail to work.

To run the Oracle BI installation wizard under UNIX

1. Change directory to the installation directory.
2. If you are planning to run the installer remotely in graphics mode, make sure that you have set the DISPLAY environment variable for the IP address and screen address of the UNIX machine that you want the installer to be displayed on. (For example, 100.1.10.100:0.0)

   To determine if the DISPLAY environmental variable is set, use the following command:

   ```
   echo $DISPLAY
   ```

   If a value is not returned, see your UNIX administrator for details of what the DISPLAY variable should be set to.
3. Run the startup script.

   Perform the following substeps, depending on whether you are running the installer with a graphical user interface or running the installer in console mode.

   NOTE: In console (or text) installation, you enter input as plain text, when prompted, in the terminal window. You do not see dialogue screens.

   - To run the installer in graphics mode, use the following command:

     ```
     ./setup.sh
     ```

     The InstallShield installer appears. Provide the requested input for each screen.

     - To continue to the next screen, click Next.
     - To return to a previous screen, click Back.
     - To exit from the installer, click Cancel.
     - To view the help page for each screen, click Help.

     The meanings and default for each screen are listed in Table 7 on page 58.
   - To run the installer in console (or text) mode, enter the following command:

```
./setup.sh -console
```

The installer text appears.

- Follow the prompts in the installation script.
- In the console mode, each prompt ends with the following choices and their defaults in square brackets. For example:

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay   [1]
```

NOTE: The particular screens or prompts that are visible depend on the Oracle BI installation options you choose.

4 Proceed to Chapter 7, "Configuring Oracle BI Processes."

NOTE: Installations of Oracle BI under UNIX do not need to be initialized.

Screens and Prompts for a Complete Oracle BI Installation in Graphics Mode (UNIX)

Operating System: UNIX only.

The screen prompts and their meanings for installing Oracle Business Intelligence in graphics mode under all UNIX systems are shown in Table 8 on page 65.

TIP: The following procedure tests that you can run the X Window-mode application found on most UNIX systems.

To test if the graphics mode is working

1. Change directory to the install directory.
2. Enter one of the following commands:

   ```
   xterm
   ```

   ```
   xclock
   ```

   If the window application fails to appear, your $PATH variable is not set correctly. Find the directory in which the programs xterm or xpath reside, then add this directory location to the PATH variable.

Instructions for how to proceed when installing in console (text) mode are shown in the topic Prompts for a Complete Oracle BI Installation in Console Mode (UNIX) on page 68.

Table 8 on page 65 lists the screens for a complete Oracle Business Intelligence infrastructure installation under UNIX operating systems.

Table 8. Screens or Prompts for Installation of Oracle BI Under UNIX (Graphics Mode)

Screen	Your Action	Notes

Oracle Business Intelligence Installation	Browse or type the path for the installation and data directories, or accept the defaults.
	■ The defaults are:
	  ■ OracleBI
	  ■ OracleBIData
	■ Select the installation type:
	  ■ Basic
	  ■ Advanced
	The default is Basic.
		TIP: To change the default installation and data directories, click Browse and establish the installation path, then click Next.
		Installation Type refers to the application server instance under which Oracle Business Intelligence is to run. See the section Basic and Advanced Types of Oracle BI Installation on page 27.
		In order to choose the Advanced Installation Type, you must have installed an Oracle Application Server 10.1.3.1 or later, before running the Oracle BI installer.

Table 8. Screens or Prompts for Installation of Oracle BI Under UNIX (Graphics Mode)

Screen	Your Action	Notes
Setup Type	The Custom option lets you select individual components for installation. Choose the Oracle BI components you want to install. The default is Complete.	The Setup Type you choose affects the number and type of screens that subsequently appear. See the row "Complete" in Table 2 on page 23. **NOTE:** For the purpose of this procedure, it is assumed that you have selected Complete Suite. See also Chapter 6, "Installing Individual Oracle BI Components."
Java Development Kit (JDK) Location **TIP:** If you selected the **Basic** installation type, this screen is displayed.	■ Browse or type the path for the directory where Java is installed. ■ The Administrator password asked for is the OC4J password for the administrator user for the OC4J component. It must be a minimum of 6 and a maximum of 30 alphanumeric characters and include at least one digit.	Java SDK 1.5 or later must already be installed on your installation machine, otherwise the installation will not proceed further. **TIP:** The Sun release name was originally Java 2 Platform, Standard Edition 1.5.0 (J2SE Development Kit 1.5.0). The numbering system was changed to 5.0 (J2SE 5.0). Both 1.5.0 and 5.0 refer to the same platform and products.
Oracle Application Server Location **TIP:** If you selected the **Advanced** installation type, this screen is displayed.	■ Browse or type the path for the directory where Oracle Application Server is installed. ■ The Administrator username must be assigned to the role **oc4j-administrators**. ■ Enter the password associated with the Administrator username.	Oracle Application Server 10.1.3.1.0 or later must already be installed on your installation machine, otherwise the installation will not proceed further.
Error Message Language Selection	The default is English.	The error messages from the Oracle BI Server are in one language. Typically, these are server-side messages only. Choose the language to display these messages in.
Please Wait		This screen appears while the installer accepts and sets all the choices you have made.

Table 8. Screens or Prompts for Installation of Oracle BI Under UNIX (Graphics Mode)

Screen	Your Action	Notes
Pre-Install Summary Information		This is a list of all the components you have chosen to install, and the directory where they are to be installed. **TIP:** This information shows the same components as Table 3 on page 25.
Installing	Click the Next button when it is no longer grayed out.	This is a placeholder that appears while the features you have selected are installed. The installation may take between twenty and thirty minutes.
Post-Install Summary Information	Click Next to exit installer after installing Oracle BI.	This screen indicates a successful Oracle BI installation.

Prompts for a Complete Oracle BI Installation in Console Mode (UNIX)

Operating System: UNIX only.

If you are performing a complete Oracle Business Intelligence infrastructure installation under UNIX systems in console mode, perform the following steps. Also refer to the Notes column in Table 7 on page 58 or in Table 8 on page 65.

To run the Oracle BI installer in console mode under UNIX

1. Change directory to the installation directory.
2. To run the installer in console (or text) mode, use the following command:

   ```
   ./setup.sh -console
   ```

   NOTE: In console (or text) mode installation, you enter input as plain text in the terminal window when prompted. You do not see dialog screens, and therefore you do not need to set the DISPLAY variable.
3. Perform the following substeps:
   - Provide the requested input for each prompt.
   - To continue to the next prompt, type 1.
   - To return to the previous prompt, type 2.
   - To exit from the installer, type 3.

Installing Oracle BI Components on Different Machines

This topic is part of the Process of Installing the Complete Oracle BI Infrastructure.

The Oracle Business Intelligence Presentation Services, Oracle Business Intelligence Client Tools, and Oracle Business Intelligence Server components can be installed to run on separate machines. If you are planning to installOracle BI Presentation Services and Oracle BI Server on separate machines, run the installer the number of times necessary for each machine to have its own installation. For example:

- On the Oracle BI Presentation Services machine:

  Select the Oracle Business Intelligence Presentation Services installation option. This installs the ODBC driver, ODBC Client, Answers, and Delivers components.

  If Oracle BI Presentation Services is installed on a different machine than Oracle BI Server, configure the Oracle BI Presentation Services machine as shown in the topic Configuring Oracle BI Presentation Services to Communicate With Oracle BI Scheduler on page 172.

- On the Oracle BI Server machine:

  Select the installation option Oracle Business Intelligence Server.

NOTE: The Custom Setup Type allows you to select individual components for installation.

Initializing the Oracle Business Intelligence Installation

This topic is part of the Process of Installing the Complete Oracle BI Infrastructure.

After the Oracle BI installer has completed your installation, there may be further tasks to initialize the business intelligence software. One or more of the following tasks may apply to your deployment.

- Initializing Oracle BI Under Windows on page 70
- Starting Oracle BI Under UNIX on page 70
- Postinstallation Tests of Oracle BI Client and Server on page 71

Initializing Oracle BI Under Windows

After the Installation Wizard has ended, you must restart your computer in order for the installation to take effect, before using the Oracle Business Intelligence software. If you did not select Yes at the installation prompt, you must restart the computer now.

NOTE: If you attempt to run Oracle Business Intelligence without restarting your computer, several services may fail to work correctly.

After the computer has been restarted, proceed with the configuration of data components. See the topic Starting, Stopping, or Restarting Oracle BI Processes on page 101.

Starting Oracle BI Under UNIX

Under UNIX, no initialization process is necessary.

Start the Oracle BI processes by running the shell scripts listed in Oracle BI Shell Scripts on page 105.

The order in which the Oracle BI processes are stopped, then restarted, is important. Use the following sequence:

- Oracle Business Intelligence Server process.
- Oracle Business Intelligence Presentation Services process.
- Oracle Business Intelligence Javahost process.
- Oracle Business Intelligence Scheduler process.

Postinstallation Tests of Oracle BI Client and Server

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

After installing Oracle BI, you should perform tests of the Oracle BI Server and Oracle BI Client installations, as detailed in the following topics:

- Testing the Oracle BI Server Installation on page 71
- Testing the Oracle BI Client Installation on page 72

While testing the Oracle Business Intelligence Server installation, you may need to change connection pool settings for items such as the name of the database, the user ID and password, and other settings for the several repositories bundled with applications versions of Oracle Business Intelligence. See the topic Changing the Oracle BI Database Type on page 129.

If you selected the Basic installation type during the installation, no changes are required for the Oracle BI Server to use the paint.rpd repository.

Testing the Oracle BI Server Installation

This task is part of the process Postinstallation Tests of Oracle BI Client and Server.

Use the procedure that corresponds to your operating system to test the Oracle BI Server setup.

Testing the Oracle BI Server Installation Under Windows

Operating System: Windows only.

By default, the Oracle BI Server starts automatically when the machine it is installed on is rebooted. If you selected the startup type Manual during the installation, the following procedure tests your installation of the Oracle BI Server.

To test the Oracle BI Server installation under Windows

1. Navigate to Start > Programs > Administrative Tools > Services.
2. Select the Oracle BI Server service.
3. Start the service.

Testing the Oracle BI Server Installation Under UNIX

Operating System: UNIX only.

The following procedure tests your installation of the Oracle BI Server on UNIX machines.

To test the Oracle BI Server installation under UNIX

1. Navigate to the OracleBI_HOME/setup directory,
2. Run the following shell command:

```
./run-sa.sh start
```

Testing the Oracle BI Client Installation

This topic is part of the process Postinstallation Tests of Oracle BI Client and Server.

Use the procedure that corresponds to your operating system to test the Oracle BI Client setup.

NOTE: For Windows 64-bit operating systems, the Oracle BI Server ODBC driver is a 32-bit application. Use the 32-bit version of ODBC Data Source Administrator located at C:\Windows\SysWOW64\odbcad32.exe.
The 64-bit version of the ODBC Data Source Administrator (located at C:\Windows\system32\odbcad32.exe) does not show the Oracle BI ODBC driver.

Testing the Oracle BI Client Installation Under Windows

The following procedure tests your installation of the Oracle Business Intelligence client on Windows machines.

To test the Oracle BI Client under Windows

1. Navigate to Start > Programs > Oracle Business Intelligence.
2. Select ODBC Client.

Testing the Oracle BI Client Installation Under UNIX

The following procedure tests your installation of the Oracle Business Intelligence client on UNIX machines.

To test the Oracle BI Client under UNIX

1. Run Oracle BI Client by opening another session.

   From the setup directory OracleBI_HOME/setup, run the shell command:

```
. sa-cli.sh
```

   To test the client/server connectivity, run the command: `nqcmd`

2 If the test is successful, press the Enter key several times to quit nqcmd.

If the test is not successful, go to Step 3 of this procedure.

3 Make sure all clients are disconnected from the Oracle Business Intelligence Server, and then stop the server by running the following shell command:

```
./run-sa.sh stop
```

Installing Oracle BI in Unattended or Silent Mode

In the so-called unattended or silent mode, Oracle Business Intelligence is installed across a network. The administrator performs the following general steps:

1. Perform a default Oracle BI installation on an administrator machine.

   During this installation, all the installation options selected and settings created are written to a text file named response.txt.

2. Run a batch or shell program that uses the response.txt file to install the same Oracle BI components, with all the previously selected options and settings, to other servers and client workstations.

NOTE: Without being modified, the response.txt file is portable only to other installation computers having the identical directory structures (including logical drives) as the initial installation computer.

The specific procedure to install Oracle BI in unattended mode is based on the operating system you are using. See the applicable topic:

- Installing Oracle BI in Silent Mode Under Windows on page 74
- Installing Oracle BI in Silent Mode Under UNIX on page 76

Installing Oracle BI in Silent Mode Under Windows

For Windows-based systems, perform an unattended installation by running the two batch files provided in the Oracle BI installation directory:

- createResponseFile.bat

  Running the createResponseFile.bat file performs a default installation on the administrator machine. See the topic Creating a Response Text File on page 74.

  CAUTION: You cannot use the createResponseFile.bat file to install a Custom Setup type of installation.

- installWithResponseFile.bat

  Running the installWithResponseFile.bat file uses the response.txt file to install the same Oracle BI components to other servers and client workstations. See the topic Installing Oracle BI Silently on More Than One Machine on page 75.

Creating a Response Text File

This procedure initiates an installation and creates an annotated response.txt file of all your input during the installation.

To create a response.txt file

1 Run the following command:

```
setup.exe -options-record <RESPONSE_FILE_LOCATION>/response.txt
```

2 The file response.txt is created in the specified directory <*RESPONSE_FILE_LOCATION*>.

Response.txt has all your required InstallShield responses recorded during this installation.

TIP: The file createResponseFile.bat performs the preceding steps for initiating an installation and creating an annotated C:\response.txt file of all input during the installation.

3 Proceed to the topic Installing Oracle BI Silently on More Than One Machine on page 75.

Installing Oracle BI Silently on More Than One Machine

The following procedure installs Oracle BI silently on other machines, using the responses created in the file <*RESPONSE_FILE_LOCATION*>\response.txt. There are two options for distributing the silent installation to other computers, depending on the porting option you deploy:

- Installing Oracle BI silently from the target computer or computers.

  Use the procedure described in Installing From a Target Computer on page 75.

- Installing Oracle BI silently from a network-accessible computer.

  Use the procedure described in Installing From a Network-Accessible Computer on page 76.

To install Oracle BI silently on other machines using the response.txt file

- On the target machines, run the following command:

```
setup.exe -options <RESPONSE_FILE_LOCATION> -silent
```

TIP: The file installWithResponseFile.bat performs the preceding procedure.

Installing From a Target Computer

The entire Oracle BI installation image must be on the target computer.

To install Oracle BI silently from a target computer

1 Copy the response.txt file created from the master installation to the C:\ drive.

2 If the Oracle BI installation directories and Oracle BI installation image location on the target computer are configured exactly as the initial installation computer, proceed to Step 4 of this procedure.

3 If the target directory paths for the Oracle BI installation differ from the directory paths for the default installation, modify the following response.txt parameter to reflect the target directory paths:

```
-W TempPanelBean.Destination="<Logical Drive>:\<target path>\OracleBI"
-W TempPanelBean.TempDir="<Logical Drive>:\<target path>\OracleBIData"
```

4 Install Oracle BI using the file installWithResponseFile.

The installation is done when the command prompt returns.

NOTE: The installWithResponseFile file does not force a computer reboot. You must reboot manually after the installation completes.

Installing From a Network-Accessible Computer

The entire Oracle BI installation image must reside on the network computer on a drive that is accessible to all computers that perform an Oracle BI installation.

To install Oracle BI silently from a network-accessible computer

1 Copy the response.txt file created from the master installation to the C:\ drive.

2 On each target installation computer, map a logical drive to the network computer Oracle BI installation image root directory.

NOTE: The drive letter for this map must be the same on all target installation computers.

3 On the network computer, change the following response.txt parameter to use the Oracle BI installation directory paths common to all target installation computers:

```
-W TempPanelBean.Destination="<Logical Drive>:\<target path>\OracleBI"
```

For example, d:\OracleBI

```
-W TempPanelBean.TempDir="<Logical Drive>:\<target path>\OracleBIData"
```

For example, d:\OracleBIData

4 Open a command line on the target installation computer and change directory to the mapped logical drive that points to the Oracle BI installation image directory on the network computer.

5 Run the file installWithResponseFile from the command line.

Installation is done when the command prompt returns.

NOTE: The installWithResponseFile file does not force a computer reboot. You must reboot manually after the installation completes.

Installing Oracle BI in Silent Mode Under UNIX

For UNIX-based systems, perform an unattended installation by running shell scripts to create text files. To create a response file, use the following procedure.

To create a response file under UNIX systems

1 Run the following command:

```
./setup.sh -options-record <RESPONSE_FILE_LOCATION>/response.txt
```

2 The file response.txt is created in the specified directory <*RESPONSE_FILE_LOCATION*>. Response.txt has all your required InstallShield responses recorded during this installation.

To install Oracle BI silently on other machines, use the file response.txt as shown in the following procedure.

To install Oracle BI silently on other machines using the response.txt file

- On the target machines, run the following command:

```
./setup.sh -options <RESPONSE_FILE_LOCATION> -silent
```

TIP: Except for the command format, installing Oracle BI silently on UNIX machines is the same procedure described in the topic Installing Oracle BI Silently on More Than One Machine on page 75.

6 Installing Individual Oracle BI Components

In addition to the Complete installation of components described in Chapter 5, "Installing Oracle BI EE Infrastructure," you can install one or more individual components without installing the entire suite. For example, you can have Oracle BI Server only installed, or you might also be installing different components on separate machines. (See also the topic Installing Oracle BI Components on Different Machines on page 69.)

- The Oracle Business Intelligence components that are installed with each installation option are shown in Table 2 on page 23.
- The topic Additional Oracle BI Components describes the ancillary programs that maybe useful in your deployment of Oracle Business Intelligence.

This topic area discusses partial or incremental component installations, including the following topics:

- The distribution of client connectivity to remote clients that cannot otherwise access Oracle Business Intelligence: Installing Oracle BI Open Intelligence Interface on page 91.

  If you use third-party analytical tools such as spreadsheets and databases, you must install the Oracle BI Open Intelligence Interface to enable connectivity to the Oracle BI Server.

- Adding the Oracle BI Disconnected Client to several laptop machines: Installing and Configuring Disconnected Client on page 81.
- The installation of Windows-based helper programs: Installing Oracle BI Ancillary Client Programs on page 86.
  - Installing Briefing Book Reader on page 87
  - Installing Oracle BI Office Plug-In on page 89
  - Installing Oracle BI Open Intelligence Interface on page 91
- Installing Oracle BI Ancillary Server Programs on page 94
  - Installing Oracle BI Publisher Desktop on page 95

Installing Additional Oracle BI Components

If you run the installer again to install additional components, you see the following additional prompts or screens. You are asked to select one of the two following options.

- Keep User Modified Configurations

  Selecting the Keep... option refers to those configuration files listed in Backing Up Business Intelligence Folders and Files on page 96. These configurations are not changed.

- Reset Configurations

  Selecting the Reset option changes the configuration files back to the Oracle BI default values.

The additional Oracle BI component installations are described in the following topics:

Installing and Configuring Disconnected Client

Operating System: Windows only.

This topic is part of Installing Individual Oracle BI Components.

You install the Oracle BI Disconnected Client on laptop computers. The Disconnected Client allows laptop users to access data and reports when not connected to the network-based Oracle Business Intelligence Server.

After the Disconnected Client installation, an online help file, Oracle Business Intelligence Disconnected *Online Help*, is available in OracleBI_HOME\server\Document\. See this online help for information about how laptop users typically use the Disconnected Client.

NOTE: Do not confuse Oracle BI Disconnected Client installation with the enterprise (Oracle Business Intelligence Server) installation. See also the information on setting up Disconnected Client in *Oracle Business Intelligence Server Administration Guide*.

The process of installing or configuring Disconnected Analytics Client is described in the following topics:

- Additional Oracle BI Server Requirements for Disconnected Client on page 81
- Installing the Disconnected Client on page 82
- Setting Up Disconnected Client to Run in Silent Mode on page 85

Installation Restrictions for Disconnected Client

The Disconnected Client installation has the following restrictions:

- Install the Disconnected Client before or after you have installed the other Oracle Business Intelligence components.
- Install the Disconnected Client application components on a different machine from the machine that runs the Oracle Business Intelligence Server.

Additional Oracle BI Server Requirements for Disconnected Client

This topic is part of Installing Individual Oracle BI Components.

Oracle BI Disconnected Client requires the following additional Web server configuration in order to function properly:

- Install the standard Oracle Business Intelligence Server on a network machine in order to work with Disconnected Client.
- If the Web server is Sun ONE (formerly iPlanet) and it is running on Solaris, configure this server as shown in the topic on configuring Sun ONE Web server for Disconnected Client in the *Disconnected Configuration and Administration Guide*.

Installing the Disconnected Client

Operating System: Windows only.

This topic is part of Installing Individual Oracle BI Components.

To install the Disconnected Client

1. Change directory to the installation directory.
2. Run the startup program. Perform the following substeps, depending on whether you are running the installer with a graphical user interface or running the installer in console mode.
   - Graphical user interface:
     - Double-click setup.exe. The InstallShield window appears.
     - Provide the requested input for each screen.
     - To continue to the next screen, click Next. To return to a previous screen, click Back.
     - To exit from the installer, click Cancel.
     - To view the help page for each screen, click Help.
     - The meanings and default for each screen for the Disconnected Client component installation are listed in Table 7 on page 58.
   - Console mode:
     - In a DOS window, enter the command `setup.exe -console`.
     - Follow the prompts in the installation script.
     - In the console mode, each prompt ends with the following choices and their defaults in square brackets. For example:

       ```
       Press 1 for Next, 2 for Previous, 3 to Cancel or 4 to Redisplay    [1]
       ```

     - The meanings and default for each prompt the Disconnected Client component installation are shown in Table 9 on page 83.

   NOTE: The particular screens or prompts that are visible depend on the Oracle BI installation Setup Types you choose.

3 Proceed to the topic Initializing the Oracle Business Intelligence Installation on page 70.

Table 9. Screens and Prompts for Disconnected Client Installation

Screen	Your Action	Notes
Oracle Business Intelligence Installation	■ Browse or type the path for the installation and data directories, or accept the default installation to the C:\ drive. The defaults are: ■ OracleBI ■ OracleBIData ■ Select the installation type: ■ Basic The default is Basic.	**TIP:** To change the default installation and data directories, click Browse and establish the installation path, then click Next. **NOTE:** The Basic installation type must be selected for Disconnected Client. The Disconnected Client does not use Oracle Application Server.
Setup Type	Select Oracle Business Intelligence Disconnected Client.	
Java Development Kit (JDK) Location	Browse or type the path for the directory where Java is installed.	Java SDK 1.5 or later must already be installed on your installation machine, otherwise the installation does not proceed. **TIP:** The Sun release name was originally *Java 2 Platform, Standard Edition 1.5.0 (J2SE Development Kit 1.5.0)*. The numbering system was changed to 5.0 (*J2SE 5.0*). Both 1.5.0 and 5.0 refer to the same platform and products.
Error Message Language Selection	The default is English.	
Pre-Installation Summary	Click Next after reading the summary information.	The summary includes the following: ■ Oracle BI ODBC Driver ■ Oracle BI Server ■ Oracle BI Administration Tool ■ Oracle BI Client ■ Oracle BI Presentation Services

Table 9. Screens and Prompts for Disconnected Client Installation

Screen	Your Action	Notes
Installing	Click the Next button when it is no longer grayed out.	This is a placeholder that appears while the features you have selected are installed.
Post-Installation Summary Information	Click Next after reading the summary information.	This screen indicates a successful Oracle BI installation.
Restart Computer	Choose whether or not to immediately restart your computer. Click Finish.	■ If you click Yes, the computer shuts down and restarts. ■ If you click No, you need to restart the computer before you use Oracle BI. **NOTE:** If you attempt to run Oracle BI without restarting your computer, several services may fail to work correctly.

Setting Up Disconnected Client to Run in Silent Mode

This topic is part of the process Installing the Disconnected Client.

After you install Oracle BI Disconnected Client, you can make it run automatically in silent mode (in the background). In order to run Disconnected Client in silent mode easily, create a new Start menu shortcut, as shown in the following procedure.

To create a Start menu shortcut for Disconnected silent mode

1. Right-click Start and select Explore All Users.
   The directory Start Menu should be highlighted in the directory tree.
2. In the left pane, double-click Programs.
3. In the right pane, double-click Oracle Business Intelligence.
4. Right-click Disconnected and select Create Shortcut.
5. Rename the new shortcut to Disconnected Silent Mode.
6. Right-click Disconnected Silent Mode and select Properties.
   - In the Shortcut tab Target field, at the end of the existing command, add a space, then add the following, being sure to include a leading space before the slash:

     /s

   - Click Apply, then click OK.

After you have created the shortcut, use it to start Disconnected Client, as shown in the following procedure.

To start Disconnected Client in silent mode

- Navigate to Start > Programs > Oracle Business Intelligence > Disconnected Silent Mode.

Installing Oracle BI Ancillary Client Programs

The ancillary programs are Windows-only applications that are included on the Oracle Business Intelligence CD-ROM in the folder \Client_Ancillary. These programs are not part of the regular Oracle Business Intelligence installer.

NOTE: These programs are not installed by the Oracle Business Intelligence installer. You must use the installation procedures referred to in this section.

The Ancillary Client programs include the following:

- Oracle Business Intelligence Open Intelligence Interface

  This client program installation is included on the Oracle Business Intelligence CD-ROM in the folder Oracle_Business_Intelligence_Open_Intelligence_Interface. You can also install the Open Intelligence Interface as one of the options in the Oracle BI installer Setup Type. (See the topic Installing Oracle BI Open Intelligence Interface on page 91.)

- Oracle Business Intelligence Briefing Book Reader

  This ancillary client program installation is included on the Oracle Business Intelligence CD-ROM in Oracle_Business_Intelligence_Briefing_Book_Reader. See the topic Installing Briefing Book Reader on page 87.

- Oracle Business Intelligence Office Plug-In

  This ancillary client program (Oracle BI Office Plug-In; Office Plug-In; The Plug-In) installation is included on the Oracle Business Intelligence CD-ROM in the folder Oracle_Business_Intelligence_Office_Plug-In. See the topic Installing Oracle BI Office Plug-In on page 89.

Installing Briefing Book Reader

Operating System: Windows only.

This topic is part of the process Installing Oracle BI Ancillary Client Programs.

Oracle Business Intelligence Briefing Book Reader can be installed on laptop computers. It is a Windows application that provides a way to save static and linked dashboard content for viewing offline. Users specify dashboard pages for immediate or scheduled download. Key reports and dashboards can be reviewed and evaluated while disconnected from the network.

The installation program for Briefing Book Reader is located on the Oracle Business Intelligence Windows installation CD-ROM.

To install the Oracle BI Briefing Book Reader under Windows

1. From the installation CD-ROM folder Client_Ancillary\Oracle_Business_Intelligence_Briefing_Book_Reader, or from the network location that contains the Briefing Book Reader files, run the program setup.exe.
2. The installation wizard window appears and prompts you through each screen.

   To continue to the next screen, click Next. If you need to return to a previous screen, click Back.

Screen	Your Action
Oracle Business Intelligence Briefing Book Reader Installation	To accept the default installation (C:\Program Files\Oracle Business Intelligence\SABBReader), click Next. To change the default (recommended), click browse and establish the installation path, then click Next.
Summary Information	Shows the directory where Briefing Book Reader is to be installed, and information about the size of the installation. Click Next.
Installing	Placeholder screen that appears while the installer installs the features you have selected. When the installer is done, click Finish to exit the installation wizard.

Restoring Permissions in Briefing Books

The Permissions icon in Manage Catalog > My Folder may disappear for non-administrative users. Only Administrators have access to the Permissions icon.

The following procedure resolve this behavior.

To allow non-administrator users to see the Permissions icon in Briefing Books

1. Log on to Oracle Business Intelligence as Administrator,
2. Click on Settings and select Administration > Manage Privileges.

3 In the Admin: Catalog row, for Change Permissions, click on the link for the group.

   Add Everyone to the group.

4 Click Finished, and then click Logout.

5 Log on as a non-administrative user and verify if the Permissions icon appear in Manage Catalog in Delivers.

For information on creating and using Briefing Books, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Installing Oracle BI Office Plug-In

Operating System: Windows only.

This topic is part of the process Installing Oracle BI Ancillary Client Programs.

Oracle Business Intelligence Office Plug-In is a Windows application that is an optional feature under the Oracle Business Intelligence Presentation Services. The Plug-In provides a way to browse the Analytics catalog, select a report, and then drop that report into Microsoft Word or Excel. This document may be saved and the data refreshed as needed. For information on how to use the Office Plug-In feature, see the *Oracle Business Intelligence Answers, Delivers, and Interactive Dashboards User Guide*.

The installation program for Office Plug-In is located on the Oracle Business Intelligence Windows installation CD-ROM.

Before installing this feature, the following programs must be installed on the client machines that run the Office Plug-In:

- .NET Framework (the runtime must be installed)
- An appropriate version of Microsoft Office, containing Microsoft Word and Excel (see *System Requirements and Supported Platforms*)

To install the Oracle BI Office Plug-In under Windows

1. From the installation CD-ROM folder Oracle_Business_Intelligence_Office_Plug-In, or from the network location that contains the Office Plug-In files, run the program setup.exe.
2. The installation wizard window appears and prompts you through each screen.

   To continue to the next screen, click Next. If you need to return to a previous screen, click Back.

Screen	Your Action
Welcome	Click Next.
Oracle Business Intelligence Office Plug-In Installation	■ To accept the default installation (C:\Program Files\Oracle Business Intelligence\OracleBI Office Plug-In), click Next. ■ To change the default (recommended), click browse and establish the installation path, then click Next.
Oracle BI Presentation Services URL	Oracle BI Office Plug-In requires an Oracle BI Presentation Services URL (that is, a Web location) to retrieve data from. The format should be as in the following example: `http://localhost:9704/analytics`
Summary Information	The directory where the Office Plug-In is to be installed and the installation size are shown. Click Next.

Screen	Your Action
Installing	Placeholder screen that appears while the installer installs the Office Plug-In. When done, click Next.
Summary Information	Choose whether or not to immediately restart your computer and click Finish. ■ If you click Yes ..., the computer shuts down and restarts. ■ If you click No..., you need to restart the computer before you use Oracle Business Intelligence.

Installing Oracle BI Open Intelligence Interface

Operating System: Windows only.

This topic is part of the process Installing Oracle BI Ancillary Client Programs.

This topic may apply if your deployment includes remote machine connection to Oracle BI Servers over a network.

This client program is included on the Oracle Business Intelligence CD-ROM in the folder Oracle_Business_Intelligence_Open_Intelligence_Interface.

Some sites use third-party analytical tools, such as spreadsheets and databases, which require connectivity to the Oracle BI Server. Some of these sites have client connections to the corporate network using a modem. The Oracle BI Open Intelligence Interface (ODBC and JDBC) client connectivity and the client connectivity tools NQCMD.exe and NQClient.exe are a means of distributing client connectivity to these remote clients that cannot otherwise access Oracle BI.

Using the Oracle Business Intelligence installer, only the Open Intelligence Interface ODBC, JDBC connectivity client and the utilities NQClient.exe and NQCMD.exe are installed. The latter two utilities are necessary for debugging and technical support issue identification. The installer includes a silent mode option to automatically install the Open Intelligence Interface ODBC client on the remote machine.

The Open Intelligence Interface installer installs the following components to remote client machines:

- OracleBI Directory
  - jdbc
  - server\Bin
  - server\Document
  - server\Locale
  - server\Log
  - uninstall_jvm\bin\client
- OracleBIData Directory
  - tmp (folder is empty)

To install the Oracle Business Intelligence Open Intelligence Interface Ancillary Client

1. In the folder Client_Ancillary\Oracle_Business_Intelligence_Open_Intelligence_Interface, click setup.exe.
2. The meanings and default for each screen and prompt for the Oracle Business Intelligence Open Intelligence Interface installation under Windows are listed in Table 10 on page 92.

3 Provide the requested input for each screen. To continue to the next screen, click Next. To return to a previous screen, click Back.

Open Intelligence Interface Installer Screens and Prompts

The screens for the Open Intelligence Interface ODBC client installation are listed in Table 10.

Table 10. Screens or Prompts for Installing Oracle BI Client and ODBC Driver

Screen	Your Action	Notes
Oracle Business Intelligence Installation	Type the path for the installation directories, or keep the defaults. The defaults are: ■ C:\OracleBI ■ C:\OracleBIData	To change the default installation and data directories, click Browse and establish the installation and data location path, then click Next.
Java Development Kit (JDK) Location	Java SDK 1.5 or later must already be installed on your installation machine, otherwise the installation does not proceed. Browse or type the path for the directory where Java is installed.	**TIP:** The Sun release name was originally *Java 2 Platform, Standard Edition 1.5.0 (J2SE Development Kit 1.5.0)*. The numbering system was changed to 5.0 (*J2SE 5.0*). Both 1.5.0 and 5.0 refer to the same Java platform and products.
Error Message Language Selection	The default is English.	Choose another language from the dropdown list if the language is not English.
Preinstallation Summary Information	■ Oracle BI ODBC Driver ■ Oracle BI JDBC Driver ■ Oracle BI Client	
Installing	Click the Next button when it is no longer grayed out.	The installation may take between twenty and thirty minutes.

Table 10. Screens or Prompts for Installing Oracle BI Client and ODBC Driver

Screen	Your Action	Notes
Postinstallation Summary Information	Click Next after reading the post-installation summary information.	This screen indicates a successful Oracle BI installation.
Finish	Choose whether or not to immediately restart your computer. ■ If you click Yes, the computer shuts down and restarts. ■ If you click No, you need to restart the computer before you use Oracle Business Intelligence. Click Finish.	**NOTE:** If you attempt to run Oracle BI without restarting your computer, several services may fail to work correctly.

Installing Oracle BI Ancillary Server Programs

Operating System: Windows only.

The Oracle Business Intelligence installation CD-ROM includes a folder named Server_Ancillary. This folder includes the following programs you might find necessary for your deployment of Oracle BI:

- IBM GSKit

  The GSKit utility IkeyMan is used to create a key database file, and store it under the Oracle BI configuration directory. For information on when and how to use GSKit, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

  NOTE: GSKit is not required for ADSI authentication.

  The GSKit installation files are included on the Oracle Business Intelligence CD-ROM in the folder Server_Ancillary\IBM_GSK.

- Oracle Business Intelligence Publisher Desktop

  Oracle Business Intelligencee Publisher Desktop, a Windows application, is a design tool that allows you to create layouts for Oracle BI Publisher. The BI Publisher Desktop installation is included on the Oracle Business Intelligence CD-ROM in the folder Server_Ancillary\Oracle_Business_Intelligence_Publisher\BI_Publisher_Desktop.

  NOTE: Oracle BI Publisher Desktop does not need to be installed for the Oracle BI Publisher server, nor does the Oracle BI Publisher server need to be installed for the Oracle BI Publisher Desktop. The two programs are independent.

  This guide primarily explains how to install BI Publisher on application servers such as OC4J or Oracle Application Server. However, you can also deploy BI Publisher on other J2EE application servers, such as Tomcat or Websphere. To deploy BI Publisher with other J2EE application servers, use the instructions in the file Install.pdf provided with the files for more information. See also the topic Deploying BI Publisher with Other J2EE Application Servers on page 182.

  To install BI Publisher Desktop, see the topic Installing Oracle BI Publisher Desktop on page 95.

Installing Oracle BI Publisher Desktop

This topic is part of the process Installing Oracle BI Ancillary Client Programs, and shows how to install this program.

To install Oracle BI Publisher Desktop on a client computer

1. From the installation CD-ROM folder Server_Ancillary\Oracle_Business_Intelligence_Publisher\BI_Publisher_Desktop, or from the network location that contains the BI_Publisher_Desktop setup file, run the program BIPublisherDesktop.exe.
2. The installation wizard Welcome window appears and prompts you through each screen.

   To continue to the next screen, click Next. If you need to return to a previous screen, click Back.

   The meanings and default for each screen and prompt for the installation are listed in Table 11.

Table 11. Oracle BI Publisher Desktop Screens and Prompts

Screen	Your action
Choose Setup Language	Select a language from the list, and then click Next.
Preparing Setup	Placeholder screen that appears while the installer prepares to install the feature.
Welcome to the InstallShield Wizard for Oracle BI Publisher Desktop	Click Next.
Choose Destination Location	To accept the default installation (C:\Program Files\Oracle\BI Publisher\BI Publisher Desktop), click Next. To change the location, click Browse.
Setup Status	Placeholder screen that appears while the installer installs the features you have selected. When the installer is done, click Finish to exit the installation wizard.

Starting Oracle BI Publisher Desktop

To start the Oracle BI Publisher Desktop program, go to Windows Start > Programs > Oracle BI Publisher Desktop > Template Builder for Word.

Uninstalling Oracle BI Components

If you need to remove Oracle BI components for reasons not related to upgrading the software, use the following procedures.

Backing Up Business Intelligence Folders and Files

Before uninstalling or upgrading any Oracle Business Intelligence software, it is recommended that backups of key configuration files be made, and the files moved to a temporary location. The installer automatically backs up the configuration files to the locations shown in Table 12.

- Under Windows systems, the backup files are saved to the directory OracleBI_HOME\Install_Backup\<installation_date>. (For example, D:\OracleBI\Install_Backup\12.14.2006_15.55.20.)
- Under UNIX systems, the backup files are saved to the directory OracleBI_HOME/Install_Backup/<installation_date>. (For example, /usr/local/OracleBI/Install_Backup/08.13.2006_16.40.20.)

CAUTION: When you uninstall Oracle Business Intelligence, all the files in the OracleBIData folder are removed, including the Catalog. Before you uninstall Oracle BI, copy the Catalog files to another location.

Table 12. Locations of Configuration Files Backed Up by the Installer

File or Folder	Location
DBFeatures.INI file NQSConfig.INI file NQClusterConfig.INI file	Windows: OracleBI_HOME\server\Config UNIX: OracleBI_HOME/server/Config
Instanceconfig.xml file	OracleBIData_HOME\web\config (Windows) OracleBIData_HOME/web/config (UNIX)
Repository (.rpd) file	OracleBI_HOME\server\Repository (Windows) OracleBI_HOME/server/Repository (UNIX)
user.sh file (UNIX only) odbc.ini file (UNIX only)	OracleBI_HOME/setup

Table 12. Locations of Configuration Files Backed Up by the Installer

File or Folder	Location
Presentation Services configuration files	Oracle BI Presentation Services machine ■ If Presentation Services uses IIS: OracleBI_HOME/web/app/WEB-INF/web.xml ■ If Presentation Services uses stand-alone OC4J: ORACLE_HOME/j2ee/home/applications/analytics/analytics/WEB-INF/web.xml ■ If Presentation Services uses Oracle Application Server: ORACLE_HOME/j2ee/bianalytics/applications/analytics/analytics/WEB-INF/web.xml ■ OracleBI_HOME/web/javahost/config/config.xml
Deliveries folder	Oracle BI Presentation Services machine ■ OracleBIData_HOME/web/catalog/deliveries **NOTE:** This folder contains temporary files.
Directories backed up	■ OracleBIData_HOME/web/config ■ OracleBIData_HOME/web/res ■ OracleBIData_HOME/disconnected ■ OracleBIData_HOME/sync ■ OracleBIData_HOME/scheduler

Uninstalling Oracle BI Under Windows

Use the following procedure to uninstall one or more Oracle BI components.

To uninstall Oracle BI under Windows operating systems

1. From the Start menu, navigate to Settings > Control Panel > Add or Remove Programs.
2. In Add or Remove Programs, select Oracle Business Intelligence and click Remove.
3. In the OC4J Administrator User Information window, enter the password, and then click Next.
4. Follow the uninstallation program prompts.

Uninstalling Oracle BI Under UNIX

Use the following procedure to uninstall one or more Oracle BI components from UNIX-based systems.

To uninstall Oracle BI under UNIX operating systems

1. Navigate to the directory OracleBI_HOME\uninstall.
2. Run the following command:

   ```
   ./setup.bin
   ```

3. When prompted, enter the OC4J Administrator password.
4. Follow the uninstallation program prompts.

7 Configuring Oracle BI Processes

The Roadmap for Configuring Oracle BI Infrastructure Components on page 33 lists the processes for configuring Oracle Business Intelligence immediately after installation of the Oracle Business Intelligence components. To summarize, the components that may need additional configuration are the following:

- Oracle BI Server.
  Covered in this chapter.
- Oracle BI Data Sources.
  Covered in Chapter 8, "Configuring the Data Sources for Oracle Business Intelligence."
- Oracle BI Presentation Services.
  Covered in Chapter 9, "Configuring Oracle BI Presentation Services."
- Oracle BI Scheduler.
  Covered in Chapter 10, "Configuring Oracle Business Intelligence Scheduler."
- Oracle BI Publisher.
  Covered in Chapter 11, "Configuring BI Publisher Reporting Tool."

This chapter contains the following topics:

NOTE: Almost all of the Oracle Business Intelligence Server configuration is through the Oracle Business Intelligence Administration Tool. For how to use the Server Administration Tool, see the *Oracle Business Intelligence Server Administration Guide*.

The number of postinstallation configuration tasks you must complete depends on the following factors:

- The number and types of operating systems you are using
- The complexity of your network setup
- The types of installation options you have chosen
- Whether or not your deployment is localized

  NOTE: This Roadmap assumes that the installation setup type chosen is Complete.

Working with Oracle BI Services and Processes

The following Oracle BI components run as server processes:

- Oracle Business Intelligence Server
- Oracle Business Intelligence Presentation Services
- Oracle Business Intelligence Javahost
- Oracle Business Intelligence Scheduler
- Oracle Business Intelligence Cluster Controller

The following tasks are used when configuring the Oracle BI server components.

Starting, Stopping, or Restarting Oracle BI Processes

If you want to make changes to the configuration (NQSConfig.INI) file, Web Catalog files, the repository (.rpd) file, and other files, you must first stop the Oracle Business Intelligence processes, then restart them, before those changes can take effect.

NOTE: The order in which the processes are stopped, then restarted, is important. Use the following sequence.

Order of Stopping and Restarting Processes

1. Oracle Business Intelligence Server
2. Oracle Business Intelligence Presentation Services
3. Oracle Business Intelligence Javahost
4. Oracle Business Intelligence Scheduler
5. Oracle Business Intelligence Cluster Controller

To stop and start the Oracle Business Intelligence processes, see the following topics:

- Starting, Stopping, or Restarting Oracle BI Processes Under Windows on page 102
- Starting, Stopping, or Restarting Oracle BI Processes Under UNIX on page 104

Starting, Stopping, or Restarting Oracle BI Processes Under Windows

Operating System: Windows only.

Under Windows, the Oracle BI component processes run as Windows Services. To view and manage Windows Services, use of the following methods:

- Run the command C:\WINDOWS\system32\services.msc
- Navigate to Start > Programs > Administrative Tools > Services

Stopping Oracle BI Processes under Windows

The following procedure describes how to stop any service running under Windows.

To stop the Oracle BI processes under Windows

1. In the Services window, locate the Oracle BI services shown in the topic Order of Stopping and Restarting Processes on page 101.
2. If you are running Microsoft IIS, also stop the World Wide Web Publishing service.
3. Stop the Oracle BI service.

   NOTE: This may take several minutes.

Starting or Restarting Oracle BI Processes Under Windows

Starting an Oracle BI service under Windows involves starting the Windows Services in the order shown in Order of Stopping and Restarting Processes on page 101.

NOTE: Oracle Business Intelligence does not support more than one server instance on the same machine at one time.

To start the Oracle BI processes under Windows

1. In the Services window, locate the Oracle BI services and start the Oracle BI Server.

   The Oracle BI Server takes up to a minute to start.

   NOTE: In the Microsoft Windows environment, the Services Manager returns a false error that it is unable to start the server. This Microsoft Services Manager issue causes the Services Manager to time out after five minutes. Refreshing the Services window, however, shows that the Oracle BI Server is still starting.

   If the Oracle BI Server service fails to start, it logs an error in nqServer.log file in the Log directory.
2. If you are running Microsoft IIS, start the World Wide Web Publishing service.

3 In the ODBC Driver Manager, test that the DSN called AnalyticsWeb (of type Oracle BI Server) connects to the Oracle BI Server.

Use the user name Administrator and the password Administrator (case-sensitive). This is default administrator credential for the demonstration repository, paint.rpd.

NOTE: Be sure to change the default password before migrating to production.

4 Start the Oracle BI Presentation Services. This may take several minutes.

Starting, Stopping, or Restarting Oracle BI Processes Under UNIX

Operating System: UNIX only.

Oracle BI components under UNIX run as processes controlled by shell scripts.

The topic Using Oracle BI Setup Scripts on page 104 discusses the use of the Oracle BI setup scripts. The UNIX shell script names and command line parameters are shown in Table 13 on page 105.

Using Oracle BI Setup Scripts

Oracle BI uses shell scripts to set environment variables and run specific component shell commands. These scripts provide for the basic setup of UNIX systems. These scripts are located in the directory OracleBI_HOME/setup, and are described in detail in the topic Oracle BI Shell Scripts on page 105.

The following are recommendations for using Oracle BI shell scripts:

- Do not run `common.sh` and `.variant.sh` directly. These scripts are called by other scripts—for example, when you run the script `run-sa.sh`. For Presentation Services, the setup script `run-saw.sh` also calls these shell scripts.
- The following scripts are to be used to set environment variables and run specific component shell commands:
  - run-sa.sh
  - run-saw.sh
  - run-sch.sh
  - run-ccs.sh

  The preceding scripts are the preferred method of starting the Oracle BI processes. For example, using `run-sa.sh` is exactly the same as running the following sequence of commands:

  ```
  sa-init.sh
  user.sh
  cd OracleBI/server/Bin
  nqsserver
  ```

- If you want to set up the environment variables without running the preceding scripts (for example, if you want to run schconfig), use one of the following commands instead:

  ```
  sa-init.sh
  or
  sa-init64.sh
  ```

Oracle BI Shell Scripts

Scripts are provided for basic UNIX control of Oracle BI server processes. These scripts are located in the directory OracleBI_HOME/setup. The Oracle BI script names and usage are shown in Table 13.

Table 13. Oracle BI Shell Scripts

Server	Operating System	Usage
Oracle BI Server	Linux	`run-sa.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`
	Solaris	`run-sa.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	AIX	`run-sa.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX Itanium	`run-sa.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX PA-RISC	`run-sa.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`
Oracle BI Scheduler	Linux	`run-sch.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`
	Solaris	`run-sch.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	AIX	`run-sch.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX Itanium	`run-sch.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX PA-RISC	`run-sch.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`

Table 13. Oracle BI Shell Scripts

Server	Operating System	Usage
Oracle BI Presentation Services **NOTE:** These scripts run the Presentation Services and the Javahost processes together. To control the Javahost processes separately, see the topic Starting and Stopping the Javahost Service Under UNIX on page 107.	Linux	`run-saw.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`
	Solaris	`run-saw.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	AIX	`run-saw.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX Itanium	`run-saw.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX PA-RISC	`run-saw.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`
Oracle BI Cluster Controller	Linux	`run-ccs.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`
	Solaris	`run-ccs.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	AIX	`run-ccs.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX Itanium	`run-ccs.sh { start | start64 | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] | autorestart64 [<poll every n seconds> <restart if down for n seconds>] }`
	HP-UX PA-RISC	`run-ccs.sh { start | stop | forcestop | autorestart [<poll every n seconds> <restart if down for n seconds>] }`

Starting Oracle BI Server Processes Under UNIX

Running Oracle BI processes under UNIX involves running shell scripts. These shell scripts are located in the folder OracleBI_HOME/OracleBI/setup.

See Table 13 on page 105 for the names and parameters of the script that runs Oracle BI processes on your specific UNIX platform.

To start or stop the Oracle BI processes under UNIX

- Execute the following scripts, supplying the stop or start parameter shown in Table 13:
  - ./run-sa.sh
  - ./run-saw.sh
  - ./run-sch.sh
  - ./run-ccs.sh

Starting and Stopping the Javahost Service Under UNIX

Operating System: UNIX only.

This topic describes the UNIX commands and options for stopping and starting the Oracle BI Javahost service. The scripts are located in the directory OracleBI_HOME/web/javahost/bin.

- Under UNIX, use the command line for starting the Javahost service:

  ```
  ./run.sh [-h] [-service] [-SawConfigRoot configrootdir] [-DefaultCordaRoot configrootdir] [-Config instanceconfig]
  ```

- Under UNIX, use the command line for stopping the Javahost service:

  ```
  ./shutdown.sh [-h] [-Config instanceconfig] [-SawConfigRoot configrootdir] [-Port port] [-Host host]
  ```

Table 14 on page 107 describes the command line options for starting and stopping the Javahost service. See also the topic Configuring the Javahost Service on page 109.

Table 14. Javahost Service Command Line Options

Option	Operating System	Description
-regserver	Windows	Registers the Oracle BI Javahost service in manual startup mode.
-regserverauto	Windows	Registers the Oracle BI Javahost service in automatic startup mode.
-unregserver	Windows	Unregisters the Oracle BI Javahost service.

Table 14. Javahost Service Command Line Options

Option	Operating System	Description
-service	UNIX, Windows	Executes Javahost in Service mode. On Windows, this parameter should never be used explicitly. Instead, use the control panel Services applet to start and stop the Oracle BI Javahost service.
-V	Windows	Displays the version.
-SawConfigRoot configrootdir	UNIX, Windows	Specifies the location of the config directory. The default location is {SiebelAnalyticsData}/web/config.
-DefaultCordaRoot configrootdir	UNIX, Windows	Specifies the location of the Corda installation root directory. This parameter is considered by the Javahost service only if the configuration key JavaHost/Charts/CordaRoot is not set in instanceconfig.xml.
-Config instanceconfig	UNIX, Windows	Provides the path to instanceconfig.xml. The default path is {SiebelAnalyticsData}/web/config/instanceconfig.xml
-Port port	UNIX	Identifies the Javahost listening port.
-Host hostname	UNIX	Identifies the computer running the Javahost service.

About the Oracle BI Javahost Service Parameters

Under UNIX systems, the shutdown.sh parameters serve to pass host and port connection information so that a shutdown signal can be sent to the Javahost service. The following rules explain how these parameters interact:

- If no parameters are specified, then shutdown.sh uses *localhost* as Host and *9810* as port.
- If either the -Host or the -Port parameter is specified, then shutdown.sh ignores the -Config and the -SawConfigRoot parameters.
- If -Host is specified and -Port is not, then shutdown.sh uses 9810 as the port number.
- If the -Config parameter is set, then shutdown.sh ignores the -SawConfigRoot parameter and instead uses the instanceconfig.xml file to find the Javahost listening port. It expects that the Javahost service is running on the local computer (Host = localhost).
- In the absence of all other parameters, shutdown.sh uses the -SawConfigRoot parameter to find the location of instanceconfig.xml file.

Configuring the Javahost Service

To configure the Javahost service, edit the Javahost service configuration parameters in the instanceconfig.xml file. Table 15 on page 109 lists and describes the Javahost parameters. The parameters are identified by their relative path starting from the /WebConfig/ServerInstance node.

Table 15. Javahost Service Configuration Parameters

Javahost Sub-component	Parameter	Parameter Type	Description
Batik	JavaHost/Batik/InputStreamLimitInKB	Integer, positive values only	Maximum input size for Batik renderer requests. A value of zero deactivates this limit. Default: 1024
Corda	JavaHost/Charts/ChartRoot	String	Path to the chart server root directory. Default: {CordaRoot}/chart_root.
	JavaHost/Charts/CordaRoot	String	Path to the Corda installation. Default: Value passed in the command line.
	JavaHost/Charts/EnableConsoleOutput	Yes/No	Enable or disable the Corda console diagnostic messages. Default: No
	JavaHost/Charts/InputStreamLimitInKB	Integer, positive values only	Maximum input size for charts requests. A value of zero deactivates this limit. If you cannot generate a chart using the default value, slowly increase this setting until you find the optimum value. Default: 1024
FOP processor	JavaHost/PDF/InputStreamLimitInKB	Integer, positive values only	Maximum input size for PDF requests. A value of zero deactivates this limit. Default: 1024
	JavaHost/PDF/UserConfigFile	String	FOP configuration file. Default: {SADATADIR}/web/config/userconfig.xml
Socket	JavaHost/Listener/PermittedClientList	String	Comma-separated list of IP addresses and host names from which Javahost accepts incoming connections. To accept all client connections, set this parameter to an asterisk (*). Default: 127.0.0.1
	JavaHost/Listener/Port	Integer, positive values only	TCP/IP listening port. Default: 9810

Table 15. Javahost Service Configuration Parameters

Javahost Sub-component	Parameter	Parameter Type	Description
Tuning	JavaHost/JobManager/IdleThreadTimeoutMls	Integer, positive values only	Idle timeout (in seconds) for a thread in the thread pool. After timeout expires the thread is shut down. Default: 30000 (5 minutes)
	JavaHost/JobManager/MaxPendingJobs	Integer, positive values only	Maximum number of pending process requests after which Javahost starts to reject them. Default: 100
	JavaHost/JobManager/MaxThreads	Integer, positive values only	Maximum number of threads for the internal thread pool. Default: 100
	JavaHost/JobManager/MinThreads	Integer, positive values only	Minimum number of threads for the internal thread pool. Default: 1
	JavaHost/MessageProcessor/SocketTimeout	Integer, positive values only	Idle timeout (in milliseconds) for socket after which socket is returned to the idle sockets pool. Javahost uses a socket polling mechanism to wait for new data on the whole set of idle sockets in a single thread. Default: 5000 (5 seconds)
UNIX JVM	JVM parameters (Unix)	N/A	In UNIX the Java command line parameters can be modified by changing the value of the JAVAOPTIONS variable in the {SAROOT}/web/sawjvahost/setup/saw.sh script.

Table 15. Javahost Service Configuration Parameters

Javahost Sub-component	Parameter	Parameter Type	Description
Windows JVM	JavaHome	String	Path to the root directory of JDK or JRE installation. Default: Value of JAVA_HOME environment variable.
	JavaHost/InitLoggerDir	String	Absolute path to the directory where sawjavahostsvc.exe writes log information before it loads java. If the value of this parameter is empty. logging is disabled. Default: {SADATADIR}/web/log/javahost, where {SADATADIR} is the full path to SiebelAnalyticsData directory.
	JavaHost/JniLibrary	String	Absolute path to jvm.dll. Default: {JavaHome}/jre/bin/server/jvm.dll If that file does not exist, then: {JavaHome}/bin/server/jvm.dll, where {JavaHome} is the path to JDK or JRE installation.
	JavaHost/JVMOptions	String	Java command line parameters. Default: -Xms128m -Xmx256m -Xrs "-Djava.class.path={CLASSPATH}" "-Djava.awt.headless=true" "-Djava.util.logging.config.file={SADATADIR}/web/config/logconfig.txt" where {CLASSPATH} is the list of javahost jar files separated by semicolons.
	JavaHost/ UseDefaultJVMOptions	Yes/No	When set to No, JavaHost/JVMOptions specifies exact command line for Java. When set to Yes, the value of JVMOptions parameter is merged with its default value. Default: Yes

Starting and Stopping the OC4J Process

Selecting the Basic Installation Type installs Oracle Containers for Java component (OC4J). The Java process in the Oracle Containers for Java component (OC4J) restarts automatically after you restart your computer under Windows, and after the installation completes under UNIX systems. However, you can also use the OC4J command script to start or restart the OC4J process.

NOTE: The OC4J command script is located under OracleBI_Home/oc4j_bi/bin.

The OC4J command script supports the following commands:

```
Usage: oc4j [Options]
```

Options:

`-start`: start OC4J

`-shutdown -port <ORMI port> -password <password>`: stop OC4J

TIP: Run this command if the RMI port number or the OC4J password have been changed.

Other methods for stopping and starting OC4J are shown the following topics:

- Starting the OC4J Process on page 112
- Stopping the OC4J Process on page 113
- Restarting the OC4J Process on page 113

NOTE: For more information about starting and stopping OC4J, refer to the file Readme.txt, located at OracleBI_HOME\oc4j_bi.

Starting the OC4J Process

Start OC4J as shown in the following procedure.

To start the OC4J Java process manually

Start the OC4J component process using one of the following methods:

- Under UNIX, open a shell prompt.
  - Change directory to OracleBI_HOME/oc4j_bi/bin.
  - Run the following command:

    ```
    ./oc4j -start&
    ```

    NOTE: The & (ampersand) following the start command runs the process as a background process, so it continues to run even if the terminal window is closed.
- Under Windows, open a DOS prompt
  - Change directory to OracleBI_HOME\oc4j_bi\bin.
  - Run the following command:

```
oc4j -start
```

- In the Windows Start Menu, go to All Programs > Oracle Business Intelligence > Start OC4J.

Stopping the OC4J Process

Stop the OC4J component process in the using **one** of the following methods:

- In the Windows Start Menu, go to All Programs > Oracle Business Intelligence > Stop OC4J.
- Use the process termination command for the operating system in use (for example, kill on UNIX). OC4J indicates on the console window that it is shutting down when it receives a shutdown signal.
- In the MS-DOS window where the OC4J process was started, press the Ctrl+C key combination.
- In the command prompt run the following command:

```
java -jar OracleBI_HOME/oc4j_bi/j2ee/home/admin.jar ormi://localhost:23791
oc4jadmin <oc4jadmin password> -shutdown force
```

where <*oc4jadmin password*> is the password for the oc4jadmin user.

Restarting the OC4J Process

Restarting the OC4J process manually is the same as starting it. See the topic Starting the OC4J Process on page 112.

NOTE: If you are using Oracle Containers for Java, the Java process in the OC4J component cannot be restarted automatically after you restart your computer. If the computer running Oracle BI is restarted, you must restart the OC4J process manually.

Updating Server Configuration Settings

Initialization automatically updates the component configuration files after installation for the default, out of the box configuration. Upon startup, Oracle Business Intelligence uses an initialization file to set parameters. This initialization file is the NQSConfig.INI file. This file is in the installation folder OracleBI_HOME\server\Config (Windows operating systems) or OracleBI_HOME/server/Config (UNIX operating systems).

To edit NQSConfig.INI, see the topic Changing Oracle BI Configuration File Parameter Entries on page 199.

NOTE: For organizations that use Oracle Application Server, Oracle recommends that you use Oracle Application Server Control to modify configuration files. For organizations that use other application servers, Oracle recommends that you use JConsole. For more information, see Updating Configuration Settings Using Oracle Application Server Tools on page 116.

If you want to configure a new installation, or to reconfigure the settings with your changes, use the generic procedures in this section to help you. For example, you may need to change a configuration setting for the Oracle BI Presentation Services server, so that it can identify the credential store containing the Scheduler administrator credentials.

The general steps to update configuration settings are the following:

1. See the topic Configuring Oracle BI Presentation Services to Identify the Credential Store on page 176 to understand which parameters in the Oracle BI Presentation Services instanceconfig.xml file must be set.
2. Use the procedure in the topic Updating the instanceconfig.xml File for Oracle BI Presentation Services to edit the file successfully.

NOTE: If you make changes to the NQSConfig.INI file, the instanceconfig.xml file, Web Catalog files, or the repository file while the server is running, you need to shut down and then restart that server for the change to take effect. See the topic Starting, Stopping, or Restarting Oracle BI Processes on page 101.

Updating the instanceconfig.xml File for Oracle BI Presentation Services

Configuration settings for the Oracle BI Presentation Services are made in the file instanceconfig.xml, located in the directory OracleBIData_HOME\web\config.

You can customize the Presentation Server by modifying the entries in instanceconfig.xml and adding new entries to override internal default settings.

You need to make changes to instanceconfig.xml only if you want to change default parameters, such as the name of the Presentation Server Catalog, or override internal default settings, such as the time for client connections to expire.

For information about the entries you can make to customize Oracle Business Intelligence Presentation Services and general information about customizing the instanceconfig.xml file, see *Oracle Business Intelligence Presentation Services Administration Guide*.

NOTE: Before you edit a configuration file, always make a backup copy.

To update the Oracle BI Presentation Services instanceconfig.xml settings

1. If necessary, stop the server. See the topic Starting, Stopping, or Restarting Oracle BI Processes on page 101.
2. On the server machine, locate the appropriate instanceconfig.xml file.

   NOTE: The Oracle Business Intelligence Presentation Services and Oracle Business Intelligence Scheduler servers each uses its own instanceconfig.xml file for configuration. Make sure that you use the file associated with that server.
3. Open the file using an XML editor.
4. Make changes in the instanceconfig.xml file.
5. Save the changes to the instanceconfig.xml file.
6. Restart the server.

Updating the NQSConfig.INI File for Oracle BI Server

The Oracle Business Intelligence Server software uses an initialization file named NQSConfig.INI to set parameters upon startup. This file includes parameters to customize behavior based on the requirements of each individual installation. For more information on changing the NQSConfig.INI file, see the topic Changing Oracle BI Configuration File Parameter Entries on page 199.

To update the Oracle BI Server configuration settings

1. Stop the servers. See the topic Starting, Stopping, or Restarting Oracle BI Processes on page 101.
2. Make changes in the instanceconfig.xml or NQSConfig.INI files.

   NOTE: For organizations that use Oracle Application Server, Oracle recommends that you use Oracle Application Server Control to modify configuration files. For organizations that use other application servers, Oracle recommends that you use JConsole. For more information, see Updating Configuration Settings Using Oracle Application Server Tools on page 116.
3. Restart the servers.

Updating Configuration Settings Using Oracle Application Server Tools

Applications: Oracle Application Server only.

This section describes how to modify the Oracle BI configuration files when your Oracle BI deployment is installed into an existing Oracle Applications installation. During the Oracle BI installation, the following Oracle Application Server files are modified:

- ORACLE_HOME/opmn/conf/opmn.xml
- ORACLE_HOME/Apache/Apache/conf/httpd.conf
- ORACLE_HOME/j2ee/home/config/server.xml

NOTE: If the middle tier installation is clustered across multiple machines, you must run Oracle AS Control or JConsole to make identical changes for each configuration file on each machine.

The following tasks describe how to change Oracle BI configuration settings using Oracle Application Server tools:

- Modifying Configuration Files Using Oracle Application Server Control on page 116
- Modifying Configuration Files Using JConsole on page 118

Modifying Configuration Files Using Oracle Application Server Control

This task describes how to change Oracle BI configuration settings using Oracle Application Server Control.

To modify configuration files using Oracle Application Server Control

1. Display Oracle Application Server Control by starting a Web browser and entering the Application Server Control URL.

   The URL must contain the fully qualified host name and domain of the Oracle BI OC4J instance that you want to configure. For example: `http://<host.domain>:8888/em`

   TIP: To find out the URL for Oracle Application Server Control in your installation, ask your administrator.

   If the Oracle Application Server Control OC4J instance is not running, perform the following steps:

   - For a Windows installation, display an MS-DOS window and enter the command to run OC4J.

     If the path to the Oracle Application Server Control OC4J command file is not set for the machine, the command must contain the full path to its location in the OracleBI_HOME\oc4j-bi\bin directory. For example, you might enter the following command:

```
D:\OracleBI_HOME\oc4j-bi\bin\oc4j -start
```

This starts the Oracle Application Server Control OC4J instance.

- Return to Step 1 of this procedure.

2. When prompted, enter an Application Server Control user name and password.
3. Click OK to display the Oracle Application Server Control OC4J Home page.
4. Click the Applications tab to display the J2EE applications, and application components deployed to the OC4J instance.
5. Click the icon in the Application Defined MBeans column for the Oracle BI Management row to display the Application MBeans page.
6. Click the plus (+) symbol in the left column to expand the navigation tree.

   The navigation tree expands to display links for viewing or updating configuration attribute values. Each node in the navigation tree represents a configuration file as shown in the following table.

Node Name	Component Name	Configuration File
Analytics configuration	Oracle BI Server	NQSConfig.INI
Cluster configuration	Oracle BI Cluster	NQClusterConfig.INI
Isapi configuration	ISAPI	IsapiConfig.INI
Presentation Server Configuration	Oracle BI Presentation Services	instanceconfig.xml

7. Click a link in the navigation tree to display the details for a group of configuration file attributes.

   For example, click the Cache link under the Oracle BI configuration node to display the attributes that relate to the cache, including a description of each attribute, and its current value.
8. Update an attribute value in one of the following ways:
   - Using the current page:
     - Enter a new attribute value into the Value field for the appropriate row.
     - Click Apply to apply the changes.
   - Displaying a page to view or update the setting:
     - Click the link in the Name column to display a new page.
     - Enter a new attribute value in the Value field.
     - Click Apply to apply the changes.
     - Click Return to close the page and display the navigation tree.
9. Repeat the previous steps to view or update another configuration attribute value.

Modifying Configuration Files Using JConsole

This task describes how to change Oracle BI configuration settings using JConsole.

To modify configuration files using JConsole

1 Display an MS-DOS window and enter the command to run JConsole.

If the path to the JConsole executable file is not set for the machine, the command must contain the full path to its location in the JDK 1.5 home.

For example, you might enter the following command:

```
D:\jdk1.5.0.6\bin\jconsole
```

JConsole displays the Local tab in the JConsole: Connect to Agent window.

NOTE: Oracle supports only the Local tab for connecting to JConsole.

2 If the JConsole:Connect to Agent window does not appear, complete this step.

- Start a new MS-DOS window.
- Change the directory to where Oracle Business Intelligence is installed.

  For example, if Oracle BI is installed on the D: drive, change the directory by entering the following command:

  ```
  Z:\>cd D:\OracleBI_HOME\systemmanagement
  ```

- Enter the command to start the agent that enables JConsole to run.

  For example, enter the following command:

  ```
  D:\OracleBI_HOME\systemmanagement\>runagent
  ```

3 Display a new MS-DOS window and enter the command to run JConsole.

4 In the Local tab of the JConsole:Connect to Agent window, select the Class and Argument *oracle.bi.analytics.management.StandardConsoleAgent*, and then click Connect to display JConsole.

5 Display the MBeans page and the Attributes tab.

6 Expand the Oracle BI Management node in the navigation tree.

7 Click the Configuration node in left column to expand the navigation tree.

The navigation tree expands to display links for viewing or updating configuration attribute values. Each node in the navigation tree represents a configuration file as shown in the following table.

Node Name	Component Name	Configuration File
Analytics configuration	Oracle BI Server	NQSConfig.INI
Cluster configuration	Oracle BI Cluster	NQClusterConfig.INI

Node Name	Component Name	Configuration File
Isapi configuration	ISAPI	IsapiConfig.INI
Presentation Server Configuration	Oracle BI Presentation Services	instanceconfig.xml

8 Click a node in the navigation tree, and click an item to display the details for a group of configuration file attributes in the Attributes tab.

For example, click the Cache item under the Analytics configuration node to display the attributes that relate to the cache, including a description of each attribute, and its current value.

9 Update an attribute value from the Attributes tab as follows:

- Enter a new attribute value into the Value field for the appropriate row.
- Click Refresh to apply the changes.

10 Repeat the preceding steps to view or update another configuration file attribute value.

About Localizing Oracle BI Server

If your deployment of Oracle BI Server is to be localized, see also the topics in Appendix B, "Localizing Oracle Business Intelligence Deployments":

- Changing Localization Variables for Oracle BI on page 247
- Setting Locale Parameters Under UNIX on page 248

  NOTE: For deployments under UNIX systems, see also the task topic Setting Locale Parameters Under UNIX on page 248.
- Process of Maintaining Translation Tables for Oracle BI on page 252

About Security in the Demonstration Oracle BI Repository

The default Oracle Business Intelligence infrastructure repository for Windows is paint.rpd. The paint.rpd demo repository is provided only when you perform a Basic installation. The demo repository is not installed when you perform an Advanced installation.

If you are upgrading from an earlier version of Oracle Business Intelligence, see the *Oracle Business Intelligence Presentation Services Administration Guide* before installing Oracle Business Intelligence.

When moving from a development to a production environment, be aware that Oracle BI accounts have been created with the users, roles, and passwords shown in Table 16 on page 121.

NOTE: The users in the paint.rpd provided with the Basic installation have their password expiry set to expire in 90 days. The 90 day period starts from the date on which the Oracle BI Server installation was performed. The Administrator user does not have their password set to expire.

Before deploying to a production environment, change or delete the user names and passwords to prevent security breaches.

Table 16. Default Repository Accounts Created by Oracle BI

User Type	Role	User Name	Password
Administrator	Administrator	Administrator	Administrator
Administrator, Oracle BI Demo Repository paint.rpd	Administrator	Administrator	Administrator
	Administrator	Administrator	Administrator
Non-Administrator, Oracle BI Demo Repository paint.rpd	member of Administrators	paint	paint
	member of Executive	exec	exec
	member of Region Manager	mgr	mgr

8 Configuring the Data Sources for Oracle Business Intelligence

This process is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

After the Oracle Business Intelligence installer is finished with the installation, there are a number of additional tasks you must complete in order to properly configure Oracle BI Server components. The number of postinstallation data source configuration tasks you must complete depends on the nature of your deployment.

For Oracle Business Intelligence deployments that use integrated data applications, you must reconfigure all the database connections appropriate to your environments. Reconfiguration includes the following steps:

- Changing the database types
- Changing the database connections
- Updating the user names and passwords

The following topics describe how to configure your data sources to work with Oracle Business Intelligence:

Process of Changing the Oracle BI Database Settings

The database you use with Oracle Business Intelligence may require that you change the Oracle BI database type or database connections settings. If this is the case for your deployment, perform the following tasks:

- Verify the database type and connection properties.
  - See the topic Locating the Database Setup Script Under UNIX on page 126.
  - **Physical database type.**

    See the topic Changing the Oracle BI Database Type on page 129. For more details, see the topics about setting up database objects in *Oracle Business Intelligence Server Administration Guide*.
  - **Database connection properties.**

    Your operational application repository contains preconfigured database connections. You must reconfigure database connections to match your environment. See the following topics:

    - Changing the Oracle BI Database Connection Pool Settings on page 131
    - About Changing Database Connection Pool Settings Under UNIX on page 131.

    For more details, see the topics about setting up and managing connection pools in *Oracle Business Intelligence Server Administration Guide*.
- After you reconfigure your database connections, you may need to perform the following tasks:
  - **Copying the repository file to the UNIX machine.**

    If you use AIX, HP-UX, or Solaris, copy the repository file to the UNIX machine.
- If your deployment utilizes Virtual Private Database (VPD), see the topics on VPD in the *Oracle Business Intelligence Server Administration Guide*.
- If you are using the Update Rowcount functionality and running a heterogeneous environment (servers on UNIX and Oracle Business Intelligence Administration Tool on Windows), see the topic About Updating Row Counts in Native Databases on page 145.
- If you use Oracle DBMS, you may need to perform the following tasks:
  - **Configuring initialization blocks.**

    Typically, initialization blocks do not have to be reconfigured if you use one of the supported database platforms, including Oracle.
  - Setting the ORACLE_HOME Variable for Solaris on page 136
  - Configuring Oracle Databases in Oracle BI Server Under UNIX on page 135
  - Configuring Oracle Databases for the Oracle BI Server Under Windows on page 138
  - Configuring HP-UX with Oracle Clients on page 137
- If you use IBM DB2 DBMS, you may need to perform the following tasks:
  - Configuring DB2 Connect Under UNIX on page 140

- If you use ODBC, you need to perform the following task:
  - Configuring an Oracle BI ODBC Data Source

    See the topic Testing the Oracle BI Client Installation on page 72.
  - Under Windows, configuring Oracle Business Intelligence ODBC Data Source Names is done through the Server Administration Tool. See the topic on configuring ODBC data source names in the *Oracle Business Intelligence Server Administration Guide*.

  NOTE: For this release, the ODBC 3.5 interface is supported. The old ODBC driver has been renamed *nqsodbc20*.

Locating the Database Setup Script Under UNIX

Operating System: UNIX only.

Databases: All databases.

You must verify the validity of the database setup script, because it is called from the Oracle Business Intelligence startup script. Edit the file to include the environment settings for the database client of your choice. Put your database-related setup script in the following file:

OracleBI_HOME/setup/user.sh

See also the topic Configuring Native Databases as Data Sources on page 130.

NOTE: You have a choice of running a 64-bit or 32-bit server. Make sure that the appropriate client DLL files are present and set up correctly in user.sh. Comment out those settings you do not want to use and uncomment those settings you want to use.

The following are examples of valid database setup scripts excerpted from user.sh. In most cases, you need only to uncomment certain lines.

```
# 32 bit Oracle BI

#####################################################################
# Solairs Platform
#####################################################################
#set +u

# Oracle Parameters
#---------------------------
#ORACLE_HOME=/export/home/oracle/10g
#export ORACLE_HOME
#TNS_ADMIN=$ORACLE_HOME/network/admin
#export TNS_ADMIN
#PATH=$ORACLE_HOME/bin:/opt/bin:$PATH
#export PATH
#LD_LIBRARY_PATH=$ORACLE_HOME/lib32:$LD_LIBRARY_PATH:/opt/j2se/jre/lib/sparc
#export LD_LIBRARY_PATH
#---------------------------

# DB2 Parameters
#---------------------------
#make sure the /DB2ISTANCE/sqllib/lib points to 32 lib file
#. /DB2INSTANCE/sqllib/db2profile
#---------------------------

#####################################################################
# Linux Platform
#####################################################################
#set +u

# Oracle Parameters
#---------------------------
```

```
#ORACLE_HOME=/export/home/oracle/10g
#export ORACLE_HOME
#TNS_ADMIN=$ORACLE_HOME/network/admin
#export TNS_ADMIN
#PATH=$ORACLE_HOME/bin:/opt/bin:$PATH
#export PATH
#LD_LIBRARY_PATH=$ORACLE_HOME/lib32:$LD_LIBRARY_PATH
#export LD_LIBRARY_PATH
#----------------------------

# DB2 Parameters
#----------------------------
#make sure the /DB2ISTANCE/sqllib/lib points to 32 lib file
#. /DB2ISTANCE/sqllib/db2profile
#----------------------------

#####################################################################
# HPUX Platform
#####################################################################
#set +u

# Oracle Parameters
#----------------------------
#ORACLE_HOME=/export/home/oracle/10g
#export ORACLE_HOME
#TNS_ADMIN=$ORACLE_HOME/network/admin
#export TNS_ADMIN
#PATH=$ORACLE_HOME/bin:/opt/bin:$PATH
#export PATH
#SHLIB_PATH=$ORACLE_HOME/lib32:$SHLIB_PATH:/opt/j2se/jre/lib/hp700
#export SHLIB_PATH
#----------------------------

# DB2 Parameters
#----------------------------
#make sure the /DB2ISTANCE/sqllib/lib points to 32 lib file
#. /DB2ISTANCE/sqllib/db2profile
#----------------------------

#####################################################################
# AIX Platform
#####################################################################
#set +u

# Oracle Parameters
#----------------------------
#ORACLE_HOME=/export/home/oracle/10g
#export ORACLE_HOME
#TNS_ADMIN=$ORACLE_HOME/network/admin
#export TNS_ADMIN
#PATH=$ORACLE_HOME/bin:/opt/bin:$PATH
#export PATH
#LIBPATH=$ORACLE_HOME/lib32:$LIBPATH:/opt/j2se/jre/lib/sparc
#export LIBPATH
```

```
#---------------------------

# DB2 Parameters
#---------------------------
#make sure the /DB2ISTANCE/sqllib/lib points to 32 lib file
#. /DB2ISTANCE/sqllib/db2profile
#---------------------------
```

NOTE: The shell script excerpts shown are examples only and are not recommendations for particular software platforms. See *System Requirements and Supported Platforms*.

Changing the Oracle BI Database Type

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

If you are using other database types than the default types shipped with Oracle Business Intelligence, follow these steps to change the database type.

To change the database type

1. On a Windows computer, open the Server Administration Tool in offline mode.

   NOTE: By default, the user name for the repository is Administrator, and the password for the repository is Administrator. However, your administrator may have changed the default password. For information on how to use the Server Administration Tool, see *Oracle Business Intelligence Server Administration Guide*.

2. In the Physical layer, double-click a database connection to open the Properties window.
3. Use the Data Source Definition drop-down list to choose the database type.

   After making the database type change, click OK.

CAUTION: Be sure to change the default password before migrating to production.

Configuring Native Databases as Data Sources

Operating System: UNIX only.

Databases: All databases.

If you install Oracle BI onto a UNIX operating system platform, you need to update the user.sh file for correct the database information.

To configure a native database as a data source

1. Log on as a separate telnet session.
2. Go to the OracleBI_HOME/setup directory.
3. Using vi or another text editor, open the odbc.ini file.

   Add the following section to odbc.ini:

   ```
   [Name of the DSN]

   Driver=<DB ODBC driver Path>/drivers/tdata.so
   Description=<machine running DB + version>
   DBCName=<DB Server IP Address>
   LastUser=
   Username=
   Password=
   Database=
   DefaultDatabase=<name of target database or user>
   ```

   NOTE: For an Oracle database using an OCI connection, establish the Web client before you input the tnsnames entry.

4. Still in the odbc.ini file, add the following entry to the section [ODBC Data Sources]:

   ```
   [database DSN]=tdata.so
   ```

5. Open up the user.sh script in the same directory and add the library path line to configure the Oracle BI data source, based on the operating system and shell.

   NOTE: The topic Locating the Database Setup Script Under UNIX on page 126 shows how to locate the user.sh file and how to uncomment the applicable commands.

6. Using the Server Administration Tool, open the Repository and add the new DSN you created as the Connection Pool Data Source Name for the appropriate physical databases.
7. Start the Oracle BI server or, if it is running, stop and restart it.

Changing the Oracle BI Database Connection Pool Settings

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

The database you use with Oracle Business Intelligence might require that you change the Oracle Business Intelligence database connection pool settings. While testing the Oracle Business Intelligence Server installation, you may also need to change connection pool settings for items such as the name of the database, the user ID and password, and other settings for one or more repositories.

Manage database connections in the Server Administration Tool. See the *Oracle Business Intelligence Server Administration Guide* for the appropriate procedures.

NOTE: The Server Administration Tool is available only under Windows systems. For UNIX system deployments, make the changes on a Windows machine, and then copy the repository file to the UNIX machine using FTP in binary mode.

About Changing Database Connection Pool Settings Under UNIX

Operating System: UNIX only.

Databases: All databases.

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

For Oracle BI deployments that use integrated data applications, you must reconfigure all the database connections appropriate to your environments. Reconfiguration includes the following steps:

- Changing the database types
- Changing the database connections
- Updating the user names and passwords

To reconfigure the database connections, follow the procedure shown in Changing the Oracle BI Database Type on page 129.

NOTE: Connection pool settings can be changed only in the Server Administration Tool, which is available only under Windows platforms. Edit the repository on a Windows platform and transfer it to the UNIX platform using FTP.

About Configuring Initialization Blocks

Typically, initialization blocks do not have to be reconfigured if you use one of the supported database platforms. The SQL for the applications repository initialization blocks and all selected tables are set for the Oracle Business Intelligence-supported database versions of the following DBMS:

- Oracle
- IBM DB2
- Microsoft SQL Server

The repository (.rpd) file uses initialization blocks that set dynamic session and repository variables. To prevent logon failures when running Oracle databases, make sure that all initialization blocks are configured to use the correct logon for Siebel operational applications.

For more information about variables, initialization blocks, and adding custom SQL in initialization blocks, see *Oracle Business Intelligence Server Administration Guide*.

NOTE: To test your installation, you may need to change connection pool settings for items such as the name of the database, user ID, and password.

Configuring an Oracle BI ODBC Data Source Under UNIX

Operating System: UNIX only.

Databases: NQSODBC only.

The following task is required if ODBC is the only data source of Oracle BI Server. The task is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

NOTE: The Oracle BI Server ODBC driver is a 32-bit application. Use the 32-bit version of ODBC Data Source Administrator located at C:\Windows\SysWOW64\odbcad32.exe.
The 64-bit version of the ODBC Data Source Administrator (located at C:\Windows\system32\odbcad32.exe) does not show the Oracle BI ODBC driver.

Under UNIX, the file odbc.ini contains the standard or clustered Oracle BI ODBC connection details that are used by the Presentation Services and nqcmd processes.

To configure ODBC as the single Oracle BI Server data source

1. Log on as a separate telnet session.
2. Go to the Oracle Business Intelligence installation directory OracleBI_HOME/setup.
3. Open the odbc.ini file.
4. In the odbc.ini section [Oracle BI Web], edit the name values as shown in the lists Standard Oracle BI Values or Clustered Oracle BI Values.

   NOTE: The following lists show ODBC data source values for both the standard Oracle Business Intelligence and the clustered Oracle Business Intelligence configurations.
   The string [$libsuffix] represents the library suffix appropriate to the specific UNIX operating system you are using. For example, for Solaris or AIX, use libnqsodbc.so. For HP-UX, use libnqsodbc.sl.

Standard Oracle BI Values

Data Source Name=ODBC Data Source

AnalyticsWeb=Oracle BI Presentation Services

Driver=[client OracleBI_HOME/Bin/<call_interface>.<$libsuffix>

- Using ODBC35 call interface: nqsodbc.so
- Using ODBC20 call interface: nqsodbc20.so

Description=Oracle BI Server

ServerMachine=local

Port=9703

Clustered Oracle BI Values

Data Source Name=ODBC Data Source

AnalyticsWeb=Oracle BI Presentation Services

Driver=[client OracleBI_HOME/Bin/<call_interface>.<$libsuffix>

- Using ODBC35 call interface: nqsodbc.so
- Using ODBC20 call interface: nqsodbc20.so

Description=Oracle BI Server

ServerMachine=local

Port=9703

FinalTimeOutForContactingCCS=7

InitialTimeOutForContacting

PrimaryCCS=1

IsClusteredDSN=Yes

PrimaryCCS=<Primary ClusterControllerName>

PrimaryCCSPort=9706

SecondaryCCS=<Secondary ClusterControllerName>

NOTE: The primary CCS and secondary CCS should not be on the same machine.

SecondaryCCSPort=9706

Regional=No

Configuring Oracle Databases in Oracle BI Server Under UNIX

Operating System: UNIX only.

Databases: Oracle only.

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

If your native database is Oracle, the following conditions must be true:

- The machine running Oracle Business Intelligence Server must use the Oracle Call Interface (OCI) to connect to the database.
- In the tnsnames.ora file, the Oracle database alias (the defined entry name) must match the Data Source Name used in the repository connection pools of all physical Oracle databases.
- In the repository file, the Oracle database alias used in the connection pools must also be the same as the Data Source Name.

  To check your repository connection pool settings against the Oracle tnsnames.ora settings, see the procedure in Changing the Oracle BI Database Type on page 129.

Setting the ORACLE_HOME Variable for Solaris

Operating System: Solaris only.

Databases: Oracle only.

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

If you are using some Oracle clients on Solaris, make sure that the ORACLE_HOME variable is set to specify 32-bit Oracle OCI libraries. The Oracle 9*i* client installation lib directory contains the 64-bit libraries.

To set the ORACLE_HOME variable for Oracle 9i clients

1 Specify the path to the lib32 directory in LD_LIBRARY_PATH, not the path to the lib directory.

```
setenv ORACLE_HOME /export/home/oracle/9202
setenv TNS_ADMIN /export/home
setenv PATH ${ORACLE_HOME}/bin:/opt/bin:${PATH}
setenv LD_LIBRARY_PATH ${ORACLE_HOME}/lib:${LD_LIBRARY_PATH}:/opt/j2se/jre/lib/
sparc
```

2 Run the following command:

```
setenv LD_LIBRARY_PATH export/home/oracle/9202/lib32:$LD_LIBRARY_PATH
```

3 From OracleBI_HOME/Bin, run the following command:

```
ln -s /export/home/oracle/9202/lib32/libclntsh.so libclntsh.so.8.0
```

NOTE: Only certain specific versions of Oracle clients are supported. See *System Requirements and Supported Platforms*.

Configuring HP-UX with Oracle Clients

Operating System: HP-UX only.

Databases: Oracle only.

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

Make this change only for HP-UX platforms using Oracle clients.

To configure HP-UX platforms using Oracle 10gclients

1 Specify the path to the lib32 directory in SHLIB_PATH, not the path to the lib directory.

The Oracle 9i client installation lib directory contains the 64-bit libraries.

Example of these modifications (may not be true for your deployment):

Example for Oracle 9*i*:

```
SHLIB_PATH=/export/home/oracle/9.2.0.2/lib32:$SHLIB_PATH
```

Example for Oracle 10*g*:

```
SHLIB_PATH=/export/home/oracle/10.2.0.2_client/lib32:/vol1/hpbuild1/
OracleBI_HOME/Bin::$SHLIB_PATH
```

2 Modify the setting of the SHLIB_PATH in the user.sh file so that the path to the lib32 directory appears at the beginning:

```
SHLIB_PATH=$ORACLE_HOME/lib32:$SHLIB_PATH:/opt/j2se/jre/libhp700
```

Configuring Oracle Databases for the Oracle BI Server Under Windows

Operating System: Windows only.

Databases: Oracle only.

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

If your native database is Oracle, the following conditions must be true:

- The machine running Oracle BI Server must use the Oracle Call Interface (OCI) to connect to the database.
- In the tnsnames.ora file, the Oracle database alias (the defined entry name) must match the Data Source Name used in the repository connection pools of all physical Oracle databases.
- In the repository file, the Oracle database alias used in the connection pools must also be the same as the Data Source Name.

  For example, in the following example of a tnsnames.ora entry, the corresponding Oracle Business Intelligence repository connection pool Data Source Name is ITQA2.

```
ITQA2 =
   (DESCRIPTION =
      (ADDRESS_LIST =
         (ADDRESS = (PROTOCOL = TCP)(HOST = ITQALAB2)(PORT = 1521))
   (CONNECT_DATA =
      (SERVICE_NAME = ITQALAB2.corp)
      )
   )
```

The following procedure shows how to check repository connection pool settings against the Oracle tnsnames.ora settings.

To check that an Oracle database refers to the Oracle BI Server machine

1. Log on to the Server Administration Tool.
2. In the repository's Physical layer, double-click on the appropriate database cylinder icon. On the general tab, in the Data source definition Database field, select the appropriate Oracle database version from the drop down list. for your data source.
3. If the Connection Pool is not visible in the Physical layer, click on the (+) navigation control to the left of the appropriate database cylinder icon to expand it.
4. Double-click the appropriate Connection Pool to open the Connection pool window.
5. In the Connection Pool window, check that the following is true:
   - The Call Interface field displays the appropriate value for the release of Oracle database being used.

- The Data Source Name displays the Oracle database alias that you have defined in the tnsnames.ora entry.

NOTE: This Data Source Name is not the DSN name defined in Settings > Control Panel > Data Sources (ODBC).

6 In the Oracle folder, open the tnsnames.ora file.

7 Check that a valid entry name exists with the following characteristics:

- Matches the Oracle BI repository's connection pool settings for the Data Source Name
- Specifies the targeted Oracle physical database

Configuring DB2 Connect Under UNIX

Operating System: z/OS or s/390 only.

Databases: IBM DB2 only.

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

IBM DB2 Connect does not support the option of automatically disconnecting when an application using it receives an interrupt request. When the native database is uses DB2 Connect workstation, then you must change the setting of the parameter INTERRUPT_ENABLED. This parameter must be changed on any Oracle Business Intelligence Server machine if the database or any data source resides on IBM DB2 on a mainframe running z/OS or s/390 platforms.

NOTE: If IBM DB2 is used, DB2 Connect must be installed on the Oracle BI Server machine. The version of DB2 Connect used must match the most recent DB2 instance, configured as a data source.

To configure the INTERRUPT_ENABLED parameter

1. Configure a database alias to be used as the native CLI Data Source Name. For example, create a new database entry using DB2 Configuration Assistant.
2. Using the database alias created and the name of the actual target DB2 database, set the INTERRUPT_ENABLED parameter using the following syntax:

   ```
   uncatalog dcs db local_dcsname
   catalog dcs db local_dcsname as target_dbname parms \",,INTERRUPT_ENABLED\"
   ```

   where:

   - *local_dcsname* represents the local name of the host or database (database alias name).
   - *target_dbname* represents the name of database on the host or database system.

   NOTE: Be sure to use backslashes to pass the quote marks as part of the string.

   The following example uses an OS390 DB2 instance:

   ```
   uncatalog dcs db DB2_390
   catalog dcs db DB2_390 as Q10B parms \",,INTERRUPT_ENABLED,,,,,\"
   catalog database DB2_390 as DB2_390 at node NDE1EF20 authentication dcs
   ```

About the Repository's Unicode Parameter

In the repository Writeback tab, select the check box for the entry *Unicode Database Type* when working in a Unicode database with columns of an explicit Unicode data type, such as NCHAR.

Different database vendors provide different character data types and different levels of Unicode support. To determine when to set this check box, use the following guidelines:

Unicode-Supported Data Type	Select check box
CHAR (no separate NCHAR data type)	No
NCHAR available	Yes
CHAR; NCHAR	Optional

NOTE: Mixed mode (mixing the CHAR and NCHAR data types) in a single non-Unicode database environment is not supported.

Configuring Teradata Data Source for Oracle BI Under UNIX

Operating System: UNIX only.

Databases: Teradata only.

This topic is part of the Roadmap for Configuring Oracle BI Infrastructure Components.

This task is required if Teradata is to be configured as the only data source of the operational application server.

Before beginning the following procedure, you must know the following information:

- The default installation directory paths for Teradata on UNIX, as shown in the following table of Teradata installation default paths under UNIX.

Platform	Default Installation Path
Solaris, HP/UX	/usr/odbc
AIX	/usr/lpp/tdodbc

- The IP address of the Teradata server.

To configure Teradata as an application server data source

1. Log on as a separate telnet session.
2. Go to the directory OracleBI_HOME/setup.
3. Using vi or another text editor, open the odbc.ini file and add the following section to odbc.ini:

```
Data Source Name=<Name of the DSN>
Driver=<Teradata ODBC driver Path>/drivers/tdata.[$libsuffix]
Description=NCR 3600 running Teradata V2R5.2r
DBCName=<Teradata Server IP Address>
LastUser=
Username=
Password=
Database=
DefaultDatabase=<name of target database or user>
```

NOTE: The string [$libsuffix] represents the library suffix appropriate to the specific UNIX operating system you are using. For example, for Solaris or AIX, use libnqsodbc.so; for HP-UX, use libnqsodbc.sl.

Example 1. The following is true:

- Teradata server is running on IP 172.20.129.42
- Teradata ODBC driver is installed at /usr/odbc

Therefore, for Example 1, add the following section to odbc.ini:

```
[Terav502]
Driver=/usr/odbc/drivers/tdata.sl
Description=NCR 3600 running Teradata V2R5.2
DBCName=172.20.129.42
LastUser=
Username=
Password=
Database=
DefaultDatabase=<name of target database or user>
```

Example 2. The following is true:

- Teradata server is running on IP 172.20.129.42
- Teradata ODBC driver is installed on /usr/lpp/tdodbc

Therefore, for Example 2, add the following section to odbc.ini:

```
[Terav502]
Driver=usr/lpp/tdodbc/odbc/drivers/tdata.so
Description=NCR 3600 running Teradata V2R5.2
DBCName=172.20.129.42
LastUser=
Username=
Password=
Database=
DefaultDatabase=<name of target database or user>
```

NOTE: The DefaultDatabase parameter may be left empty only if you have checked the entry *Require fully qualified table names* in the Repository Connection Pool for this Data Source.

4 In the same file, in the section [ODBC Data Sources], add the following entry:

```
Terav502=tdata.[$libsuffix]
Example: The new Teradata DSN is Terav502. Therefore, add the DSN entry to
odbc.ini:
[ODBC Data Sources]
AnalyticsWeb=Oracle Business Intelligence Presentation Services
SnowFlake=Oracle Business Intelligence Server
AutoSnowFlake=Oracle Business Intelligence Server
DimSnowFlake=Oracle Business Intelligence Server
DimSnowFlake=Oracle Business Intelligence Server
Star=Oracle Business Intelligence Server
Terav502=tdata.[$libsuffix]
```

NOTE: The string [$libsuffix] represents the library suffix appropriate to the specific UNIX operating system you are using. For example, for Solaris or AIX, use libnqsodbc.so; for HP-UX, use libnqsodbc.sl.

5 Open up the user.sh script in the same directory and add the library path line to configure the Oracle BI data source, based on the operating system and shell. For more information on updating user.sh, see the topic Locating the Database Setup Script Under UNIX on page 126.

NOTE: These library paths apply to Korn, Bourne, and bash shells.

6 Using the Oracle Business Intelligence Administration Tool, open the Repository and add the new DSN you created as the Connection Pool Data Source Name for the appropriate physical databases.

In the example, add Terav502.

7 Start the Oracle BI Server or, if it is running, stop and restart it.

About Updating Row Counts in Native Databases

Operating System: UNIX only.

This topic applies if you are using the Update Rowcount functionality and running a heterogeneous environment, such as Oracle BI Server and database under UNIX, while remote Administrator users run the Server Administration Tool on Windows machines.

When using the Update Rowcount functionality, the Server Administration Tool uses local data sources on the client machine, *not* the server data sources. Therefore, Oracle or DB2 data sources must be configured on the Windows machine running Server Administration Tool so that the following conditions are true:

- Data sources point to the same DBMS identified in the Oracle BI user.sh file on the UNIX server.
- The name of the local data source also must match the name of the data source defined in the Connection Pool object in the physical layer of the Oracle BI repository (.rpd) file.

If these conditions are not true, and if the server and client data sources are pointing at different databases, then erroneous updated row counts or incorrect results appear.

9 Configuring Oracle BI Presentation Services

This process is part of the Roadmap for Configuring Oracle BI Infrastructure Components, and describes the configuration of the components required to run the Oracle BI Presentation Services. If you included the Oracle BI Presentation Services component during the Oracle Business Intelligence infrastructure installation, you may be required to use the topics this chapter.

This chapter comprises the following topics:

Function of Oracle BI Presentation Services

The Oracle BI Presentation Services functions as the connection between any user of Oracle Business Intelligence and the processes of the Oracle Business Intelligence Server. After the installer is finished with the Oracle BI infrastructure installation, depending on your particular deployment, there may be a number of additional tasks to complete in order to properly configure the Oracle BI Presentation Services components.

The Oracle BI Presentation Services is configured to specific default settings by the installer. The general default configuration of the Web server with the HTTP server is as follows:

1. A third-party Web integration server is configured.

   See Configuring HTTP Web Servers on page 150

   - If you are deploying Web servers under UNIX systems, you should deploy a WAR file. (See Deploying a WAR File on page 153.)

     NOTE: You need to change this default configuration only if you plan to deploy the WAR file to an alternative third-party Web server. In this case, you change the following settings:

     `sawserver.Port`

     `sawserver.Host`

   - If you are deploying Web servers under Windows systems, you should deploy the ISAPI extension. (See Configuring the ISAPI Plug-In on page 154.)

- Testing the Oracle BI Presentation Services on page 155

2 A link from the third-party Web server to the Oracle BI Presentation Services is created.

- If Oracle BI Presentation Services is installed on a different machine than Oracle Business Intelligence Server, configure the Oracle BI Presentation Services machine as shown in the topic Testing the Oracle BI Presentation Services on page 155.
- If you plan to use the Microsoft ISAPI Plug-in, and if the Microsoft IIS service and Oracle BI Presentation Services are to run on different machines, see the topic Installing Oracle BI Components on Different Machines on page 69.

Oracle BI Presentation Services Components

The Oracle Business Intelligence Web component consists of the Oracle BI Presentation Services and Oracle BI Presentation Services Plug-in running in the Web (or HTTP) integration server. The Presentation Services and Plug-in run as separate processes.

NOTE: The Oracle BI Presentation Services, Oracle BI Client, and Oracle BI Server components can be installed to run on separate machines.

- The Oracle BI Presentation Services process hosts most of the business logic of the Web server and performs all the functions.
  - Under Windows, the process is *sawserver.exe*
  - Under UNIX, the process is *sawserver*
- The Oracle BI Presentation Services Plug-in consists of an ISAPI Plug-in for Microsoft IIS Web Servers and a Java Servlet for J2EE application servers. HTTP requests are redirected to Oracle BI Presentation Services. The servlet conforms to the Java Servlet 2.2 specification, and therefore any additional configuration must take this servlet into account.

The Oracle BI Presentation Services Plug-in communicates with Oracle BI Presentation Services using a proprietary TCP/IP based protocol. In this protocol the HTTP server acts as a client and initiates new connections, while the Oracle BI Presentation Services listens for incoming requests.

NOTE: Make sure that this special TCP/IP protocol is allowed by all firewalls or proxy servers in use. The default TCP/IP listening port for Oracle BI Presentation Services is 9710.

Configuring Oracle BI Presentation Services and Oracle BI Server on Separate Machines

Operating System: UNIX only.

This task is part of the process of Configuring Oracle BI Presentation Services.

If Oracle BI Presentation Services is installed on a different machine than Oracle Business Intelligence Server configure the Oracle BI Presentation Services machine as shown in the following procedure.

To configure the Oracle BI Presentation Services installed on a different machine from the Oracle BI Server

1. On the machine where Oracle BI Presentation Services is installed, modify the odbc.ini file (located in the folder OracleBI_HOME/setup) as follows:

   [AnalyticsWeb]

   Driver=[client OracleBI_HOME]/Bin/libnqsodbc.[$libsuffix]

   NOTE: The string [$libsuffix] represents the library suffix appropriate to the specific UNIX operating system you are using. For example, for Solaris or AIX, use libnqsodbc.so; for HP-UX, use libnqsodbc.sl.

   Description=Oracle Business Intelligence Server

   ServerMachine=<*Hostname of the* Oracle BI Server *machine*>

   Port=<Oracle BI Server *port*>

2. Save and close the file.

Configuring HTTP Web Servers

This task is part of the process of Configuring Oracle BI Presentation Services.

The basic methods of configuring a third-party Web integration (or HTTP) server to work with Oracle BI Presentation Services are the following:

Using a WebARchive (WAR) File. This is standard and supported by all J2EE application servers.

- Editing the web.xml File on page 151
- Creating a WAR File for Oracle BI Presentation Services on page 152
- Deploying a WAR File on page 153

If you are deploying Web servers under UNIX systems, you should deploy a WAR file.

If you are deploying Web servers under Windows systems, you can either deploy the ISAPI extension or deploy the WAR file. If you are using the basic installation type with OC4J, the WAR file is automatically deployed into OC4J by the installer.

Editing the web.xml File

This task is part of the process of Configuring Oracle BI Presentation Services.

If you are configuring a third-party Web integration (or HTTP) server to work with Oracle BI Presentation Services, perform this task first, because the edited web.xml file is included in the generated analytics.war file.

You need to edit the web.xml file to reconfigure the Oracle BI Presentation Services location and listening port if one of the following conditions is true for your deployment:

- The HTTP server and the Oracle BI Presentation Services are running on different machines
- The Web server is configured to use a different TCP/IP port from the default (9710)

CAUTION: Make sure that XML syntax is strictly followed when editing this file. Any XML syntax errors may result in your virtual server failing to start.

In the web.xml file, the XML elements that configure the Java servlet are shown in the following excerpt:

```
<servlet>
   <servlet-name>SAWBridge</servlet-name>
       <servlet-class>com.siebel.analytics.web.SAWBridge</servlet-class>
          <init-param>
              <param-name>oracle.bi.presentation.sawserver.Host</param-name>
              <param-value>localhost</param-value>
          </init-param>
          <init-param>
              <param-name>oracle.bi.presentation.sawserver.Port</param-name>
              <param-value>9710</param-value>
          </init-param>
</servlet>
```

NOTE: Back up the web.xml file before changing it.

To edit the web.xml file

1. In the OracleBI_HOME/web/app/WEB-INF directory, locate the web.xml file.
2. Using an XML editor, open the web.xml file.
3. Change the values of the following <param-name> parameters to reflect the correct settings:
   - oracle.bi.presentation.sawserver.Host
   - oracle.bi.presentation.sawserver.Port
4. Save and close the web.xml file.

Creating a WAR File for Oracle BI Presentation Services

NOTE: Perform the procedure Editing the web.xml File on page 151 before performing this procedure, because the edited web.xml file is included in the generated analytics.war file.

This task is part of the process of Configuring HTTP Web Servers.

A default prepackaged WebARchive (WAR) file, analytics.war, is included with the Oracle BI Presentation Services installation, located as shown in the following table.

NOTE: Oracle Business Intelligence also provides a prepackaged Enterprise ARchive (EAR) file, analytics.ear.

However, if you modify the web.xml file (for example, to reconfigure the Web server location and listening port), then you should recreate the analytics.war file. This task uses the jar utility included in the Java JDK 1.5 package (found in the <JAVA_HOME>/bin directory).

NOTE: You may need to have access to a JDK (not just a JRE) for creating the WAR file. The location of JAVA_HOME is the same that was entered during the installation.

This procedure uses the following file locations and commands:

Operating System	Location of analytics.war File
Windows	`OracleBI_HOME\web`
UNIX	`/usr/local/OracleBI/web`
Jar command	`jar -cf analytics.war -C app .`

To create or recreate a WAR file

1. Navigate to the Oracle Business Intelligence installation directory shown in the preceding table.
2. To create the WAR file, run the jar command shown in the preceding table.

   NOTE: You must include the period at the end of the command.

Deploying a WAR File

This task is part of the process of Configuring HTTP Web Servers on page 150.

If you are configuring a third-party Web integration (or HTTP) server to work with Oracle BI Presentation Services, the specific WAR file you modify depends on the Web application server you are using.

NOTE: To configure the Oracle Business Intelligence Web ReportUI Portlet for WebSphere, see the *Oracle Business Intelligence Presentation Services Administration Guide*.

Consult your Web server documentation for product-specific instructions, and use the following general steps.

To deploy a WAR file for Oracle BI Presentation Services

1. Using HTTP Web server-specific tools, deploy the Web application contained in the analytics.war file.
2. Assign the URL */analytics* to the analytics.war file.

   NOTE: If you chose to use OC4J as the application server, this step is done by the installer.

About Web Server Temporary Directories for Servlet Containers (UNIX)

Operating System: UNIX only.

The default server page for the Oracle BI Presentation Services servlet is default.jsp. The Web server tries to access a temporary directory to handle the Java server page. If there is no temporary directory set up, exceptions appear in the Presentation Services server logs. See your Web server documentation for how to set up a temporary or working directory for a Web application.

Configuring the ISAPI Plug-In

Operating System: Windows only.

This task is part of the process of Configuring Oracle BI Presentation Services.

If the Oracle BI Presentation Services and Microsoft IIS servers are to run on different machines, thus separating the HTTP Server components from the Oracle BI infrastructure components, this topic becomes a task in the process of Configuring HTTP Web Servers.

The ability to separate the Web ISAPI plug-in and the Web service onto different machines provides control over network and resource allocation and partitioning when firewalls are used. The Presentation Services ISAPI Plug-in ties the IIS web server to Oracle BI Presentation Services. All of the settings can be configured through the isapiconfig.xml file, located in OracleBIData_HOME/web/config/. The isapiconfig.xml file contains the following default entries:

```
<?xml version="1.0" encoding="utf-8"?>
<WebConfig>
   <ServerInstance>
      <ServerConnectInfo address="localhost" port="9710"/>

   </ServerInstance>
</WebConfig>
```

NOTE: Port 9710 is the default port on which the Oracle BI Presentation Services listens to remote procedure calls from one or more plug-ins.

To configure an ISAPI plug-in for Oracle BI Presentation Services

1. On the machine hosting the Oracle BI Presentation Services, open the isapiconfig.xml file.
2. Replace the default values as shown in the following table:

Default Value	Replace With
ServerConnectInfo address	Fully-qualified domain name of the Oracle BI Presentation Services, set up as a host with its own IP address
ServerConnectInfo port	Oracle BI Presentation Services listening port

For example:

```
<?xml version="1.0" encoding="utf-8"?>
<WebConfig>
   <ServerInstance>
      <ServerConnectInfo address="sastest" port="9710"/>
   </ServerInstance>
</WebConfig>
```

NOTE: Make sure that the fully-qualified domain name of the Oracle BI Presentation Services is set up as a host with its own IP address.

3. Save the file when you are done.

Testing the Oracle BI Presentation Services

This task is part of the process of Configuring Oracle BI Presentation Services.

After configuring the HTTP integration server, test the Oracle Business Intelligence Web server.

To test the Web server installation

1. Start the Oracle BI Presentation Services.

   (See the topic Starting, Stopping, or Restarting Oracle BI Processes on page 101.)

2. Start the integration server process being used for Oracle BI Presentation Services.

3. In the Windows Start menu, navigate to Programs > Oracle Business Intelligence > Presentation Services.

   This opens a Web browser at `http://<ServerName>:<port number>/analytics/saw.dll?Dashboard`.

   If you see a login page, you have successfully installed Oracle BI Presentation Services.

Configuring Oracle BI Presentation Services to Access Multiple Repositories

Although users can have multiple repositories active on an Oracle BI Server machine, they can only access one repository per Oracle BI Presentation Services instance.

The following procedure shows how to configure Oracle BI Presentation Services to access multiple repositories.

To configure Presentation Services to access multiple repositories

1. Install the Oracle BI Presentation Services component on each machine that must serve as a web server.
2. Create a SAS NQSODBC driver on the Presentation Services machine to use the appropriate repository.
   - Configure a NQSODBC System DSN that points to the Presentation Services machine.
   - Within the ODBC configuration, check the box *Change the default repository to*.
   - Enter the repository to use for this Presentation Services machine (from the Logical Repository Name entry in the NQSConfig.INI REPOSITORY section).
3. In the instanceconfig.xml file on the Presentation Services machine, change the element <DSN> to be the name of the ODBC driver DSN defined in Step 2 of this procedure.
4. Start the Oracle BI Presentation Services.
5. Control the repository to access from a client browser by substituting the appropriate web server machine name or IP address in the URL:

   ```
   http://<machine_name_or_IP_address>/analytics/saw.dll?
   ```

Configuring the Presentation Catalog for More Than 4000 Users

This task is part of the process of Configuring Oracle BI Presentation Services.

If your deployment of Oracle BI Presentation Services has more than 4000 Presentation Catalog users, or if you plan to have more than 4000 Presentation Catalog users in the future, you need to turn on the hashing of users' home directories to take care of a file system limitation.

NOTE: This element must be set immediately after installing Oracle BI Presentation Services to be effective. For details, see the *Oracle Business Intelligence Presentation Services Administration Guide*.

Configuring BI Publisher for Oracle BI Presentation Services

Your deployment may include Oracle BI Publisher, which can be configured from the Oracle BI Answers screen. For detailed instructions on configuring Oracle BI Publisher, see Chapter 11, "Configuring BI Publisher Reporting Tool."

10 Configuring Oracle Business Intelligence Scheduler

This topic area is part of the Roadmap for Configuring Oracle BI Infrastructure Components, and contains the following topics:

After the Oracle Business Intelligence installer is finished, there are a number of additional tasks you must complete in order to properly configure Oracle Business Intelligence Scheduler server components.

You must configure the Oracle BI Scheduler before running Oracle Business Intelligence. Otherwise, the Scheduler service fails to start and the Delivers component does not function.

TIP: If you are migrating an Oracle Business Intelligence environment to a new system, make sure that you also migrate the Oracle Business Intelligence Server repository file and the Scheduler tables. The Scheduler tables are required for Oracle Delivers iBots.

Oracle BI Scheduler Components and Functions

This topic contains the following subtopics:

Oracle BI Scheduler Server Components

The Oracle Business Intelligence Scheduler consist of the following components:

- Scheduler Job Manager
- The Oracle BI Scheduler Service process:
  - Windows operating systems: `nqscheduler.exe`
  - UNIX operating systems: `nqscheduler`
- Scheduler Configuration (command line):
  - Windows operating systems: `schconfig.exe`
  - UNIX operating systems: `schconfig`
- Start Scheduler Processes for iBots (command line):
  - Windows operating systems: `saschinvoke.exe`
  - UNIX operating systems: `saschinvoke`

Oracle BI Scheduler Server Functions

The Scheduler uses a single commercial back-end database to store pertinent information about a job, its instances, and its parameters. The Scheduler works with all the supported databases for Oracle Business Intelligence. For the complete list of supported databases, see *System Requirements and Supported Platforms*.

The Scheduler service starts only if the back-end database satisfies the following conditions:

- **Configured.** There is a one-to-one relationship between the back-end database and Oracle BI Scheduler. Do not configure multiple Oracle BI Scheduler applications to use a single back-end database.
- **Operational.** For information about the specific back-end databases supported by Oracle BI Scheduler, see *System Requirements and Supported Platforms* on OTN.
- **Mixed Authentication Mode.** For example, if the database is SQL Server, then the security mode should be set to allow both SQL Server and Windows Authentication for logon.

NOTE: Do not use operating system authentication for the back-end database login. If you do, the Scheduler service may not start.

About Oracle BI Scheduler Tables

This topic is part of the topic Oracle BI Scheduler Components and Functions.

Table 17 gives brief descriptions of the database tables used by Oracle BI Scheduler. The scripts that create these tables are located in the directory OracleBI_HOME\server\Schema. See the task topic Creating Oracle BI Scheduler Databases and Tables on page 163.

If usage tracking is enabled in NQSConfig.INI, then the Oracle BI Server generates Usage Tracking data files. A sample JavaScript is provided, which extracts information from the Usage Tracking files and loads them to a table in the relational database. The S_NQ_ACCT table stores all the information regarding Accounting Data. (For information about usage tracking, see the *Oracle Business Intelligence Server Administration Guide*.)

Table 17. Tables Used by Oracle Business Intelligence Scheduler

Table Name	Table Description
S_NQ_JOB	This table is used by Scheduler to store information about scheduled jobs.
S_NQ_INSTANCE	The S_NQ_INSTANCE table stores information about scheduled job instances.
S_NQ_ERR_MSG	This table stores error messages for Scheduler job instances that do not complete successfully.
S_NQ_JOB_PARAM	This table holds information about Scheduler job parameters for scheduled jobs.

Process of Configuring Oracle BI Scheduler

This topic is part of the process of Configuring Oracle Business Intelligence Scheduler.

NOTE: If you are not using Scheduler, you do not need the information in this topic.

Depending upon your specific deployment, you may need to refer to one or more of the following Oracle BI Scheduler configuration topics:

- Creating Oracle BI Scheduler Databases and Tables on page 163
- Creating Oracle BI Scheduler Database and Tables for Specific Databases on page 164
- Configuring Oracle BI Presentation Services to Communicate With Oracle BI Scheduler on page 172

For all other Scheduler Server configuration tasks involving the Job Manager or scripting, see the *Oracle Business Intelligence Scheduler Guide*, located under the Windows directory OracleBI_HOME\server\Document.

Creating Oracle BI Scheduler Databases and Tables

This topic is part of the process of Configuring Oracle Business Intelligence Scheduler.

You can either use an existing database or create a new database in which to store the tables. The following procedure shows how to create a generic database and tables.

To create a database and tables for use by Oracle BI Scheduler

1. Make sure that you have a valid database administrator account to create a database and tables.
2. Create the database, or use an existing database.
3. Create the Scheduler tables by executing SAJOBS.*xxx*.sql (where *xxx* is the database type).

   Use the appropriate procedure for your back-end database, as shown in Creating Oracle BI Scheduler Database and Tables for Specific Databases on page 164.
4. If you are using usage statistics, create the table in SAACCT.*xxx*.sql.

Creating Oracle BI Scheduler Database and Tables for Specific Databases

This task is part of the process of "Creating Oracle BI Scheduler Databases and Tables."

The following topics describe how to create a database and tables for specific relational databases:

- Oracle Database Server: See the topic Creating a Scheduler Database and Tables for Oracle Database Server on page 164
- Microsoft SQL Server: See the topic Creating a Scheduler Database and Tables for SQL Server on page 164.

NOTE: Teradata is not supported in this version of Scheduler.

Creating a Scheduler Database and Tables for Oracle Database Server

Databases: Oracle only.

Use the following procedure to create a Scheduler database and tables for Oracle.

NOTE: For usage statistics, create the table in SAACCT.Oracle.sql.

To create a database and tables for Oracle

1. Proceed in one of the two following ways:
   - Create a new database named S_NQ_SCHED, and create a user named S_NQ_SCHED.
   - In one of your existing databases, create a user named S_NQ_SCHED.
2. Provide your own password to the user S_NQ_SCHED.
3. Using the Oracle Net configuration tool, create an Oracle Service to the current S_NQ_SCHED database with this user ID and password.
4. Using the SQL*Plus Worksheet or the SQL*Plus tool, open the file SAJOBS.Oracle.sql and execute it to create Oracle Business Intelligence Scheduler tables.
5. Open the file SAACCT.Oracle.sql and execute it to create the Accounting table.

Creating a Scheduler Database and Tables for SQL Server

Databases: MS SQL Server only.

Use the following procedure to create a Scheduler database and tables for Microsoft SQL Server.

NOTE: For usage statistics, create the table in SAACCT.MSSQL.sql.

To create a database and tables for Microsoft SQL Server

1. Create a database named S_NQ_SCHED using SQL Server Enterprise Manager.

   Make sure that you have enough free disk space to accommodate Oracle Business Intelligence Scheduler Tables (a minimum of 500 MB for Oracle Business Intelligence applications).

2. Using S_NQ_SCHED as the current database, use SQL Query Analyzer to open the file SAJOBS.MSSQL.sql and execute it to create the Oracle Business Intelligence Scheduler tables.

3. Open the file SAACCT.MSSQL.sql and execute it to create the Accounting table.

Configuring Databases for the Oracle BI Scheduler

This topic is part of the process of Configuring Oracle Business Intelligence Scheduler.

The following procedures describe how to configure the back-end database and tables:

- Oracle Database Server

  See the topic Configuring Oracle Server Databases for the Oracle BI Scheduler on page 166

- Microsoft SQL Server

  See the topic Configuring SQL Server Databases for the Oracle BI Scheduler on page 166.

Configuring Oracle Server Databases for the Oracle BI Scheduler

The Data Source Name used in the Job Manager Scheduler configuration must match the Oracle database service alias created in Step 3 of Creating a Scheduler Database and Tables for Oracle Database Server on page 164.

To configure the Oracle database using Job Manager

1. From the Windows Start menu, select Programs > Oracle Business Intelligence > Job Manager.
2. In Job Manager, select File > Configuration Options.
3. In the Connection Pool section, enter the Oracle database service alias for the Data Source Name.

   Select the appropriate Database Type from the drop down list (for example, Oracle 10g R1).
4. Enter the username and password for the user S_NQ_SCHED created in Creating a Scheduler Database and Tables for Oracle Database Server on page 164.

   The Call Interface is updated automatically according to the Database Type chosen.
5. Exit the Job Manager.
6. Start the Oracle BI Scheduler Service from Windows Start Menu.

Configuring SQL Server Databases for the Oracle BI Scheduler

The Data Source Name used in the Job Manager Scheduler configuration must match an existing ODBC Data Source Name (DSN) for the SQL Server S_NQ_SCHED database used in Creating a Scheduler Database and Tables for SQL Server on page 164.

If you do not have a System DSN entry, create a new one as shown in the following procedure.

To configure the SQL Server database

1. From the Windows Start menu, select Settings > Control Panel > Administrative Tools > Data Sources (ODBC).
2. Start the ODBC Data Source Administrator.

3. Select the System DSN tab, and then click Add.
4. Select the driver SQL Server, and then click Finish.
5. In the wizard Create a New Data Source to SQL Server, do the following:
   a. Enter a name and description for the data source.
   b. Select your SQL Server from the drop down Server list, and then click Next.
   c. For server verification of the login ID authenticity, select the appropriate authentication for the S_NQ_SCHED SQL Server database that was created in Creating a Scheduler Database and Tables for SQL Server on page 164. Click Next.
6. Select the tick box Change the default database to and select the S_NQ_SCHED database from the drop down list. Click Next.
7. Update any language or log file settings if appropriate, and then click Finish.
8. To verify your connection settings, click the Test Data Source button, and then click OK.
9. Click OK to exit ODBC Data Source Administrator.

Changing Oracle BI Scheduler Table Names

You can change the names of the tables that Oracle BI Scheduler uses by adding settings to the Oracle BI Scheduler configuration file, instanceconfig.xml, located in the directory OracleBIData_HOME\scheduler\config.

NOTE: For organizations that use Oracle Application Server, Oracle recommends that you use Oracle Application Server Control to modify configuration files. For organizations that use other application servers, Oracle recommends that you use JConsole. For more information, see the topic Updating Configuration Settings Using Oracle Application Server Tools on page 116.

The following procedure shows how to change Oracle BI Scheduler table names. For this procedure, a new tag, *DB Column Names,* has been created as an example.

To change Oracle Business Intelligence Scheduler table names

1. Using an XML editor, open the instanceconfig.xml file.
2. Create a new tag named DB Column Names.

3 For each of the entries under the tag DB Column Names, add the parameter and string values shown in the following table. The values created in the data string become the values used for Oracle BI Scheduler table names.

Parameter Name	Type	String Value
TABLE_JOBS	REG_SA	S_NQ_JOB
TABLE_INSTANCES	REG_SA	S_NQ_INSTANCE
TABLE_PARAMS	REG_SA	S_NQ_JOB_PARAM
TABLE_ERRMSGS	REG_SA	S_NQ_ERR_MSG

NOTE: The data types for each column should remain true to the intent of the schema. For example, if the job ID is defined as an integer type, do not change it to a varchar type. However, increasing the number of characters in a varchar column is an acceptable change.

4 Restart the Oracle BI Scheduler server.

Setting Oracle BI Scheduler Configuration Options

This topic describes the initial configuration tasks you must perform in the role of Scheduler Administrator. It contains the following subtopics:

About the Oracle BI Scheduler Administrator

As part of the process of setting Oracle BI Scheduler configuration options, you will need to specify a username and password for the Scheduler Administrator. The Scheduler administrator must be a user in the Oracle BI repository (.rpd file) and have the Administrator group membership assigned.

If you do not want to create a new administrator for Scheduler, you can set the Scheduler administrator credentials to those of the Oracle BI user, *Administrator*, that exists in the repository.

NOTE: The Scheduler Administrator is referred to in the following topics as the *SchedulerAdmin*.

For more information on the Administrator user in the repository, and on creating users and granting Group membership, see the *Oracle Business Intelligence Server Administration Guide*.

Configuring Oracle BI Scheduler

The method of configuring Oracle BI Scheduler depends on the operating system being used:

- Configuring Oracle BI Scheduler Under Windows on page 171
- Configuring Oracle BI Scheduler Under UNIX on page 171

Regardless of the operating system, configuring the Scheduler database uses the settings shown in Table 18:

Table 18. Scheduler Database Configuration Settings

Section or Tab	Field	Input
Connection Pool	Database Type	From the drop down list, select the appropriate Database Type for the S_NQ_SCHED database. The Call Interface is automatically updated according to the Database Type chosen.
	Data Source Name	DSN created for the S_NQ_SCHED database.
	Username	User name for the S_NQ_SCHED database.
	Password	Password for the S_NQ_SCHED database, where the S_NQ_SCHED database is the Scheduler database created in Creating Oracle BI Scheduler Database and Tables for Specific Databases on page 164.
General	Administrator Name	User name for the Scheduler administrator. For more information on the Scheduler administrator, see topic About the Oracle BI Scheduler Administrator on page 169.
	Administrator Password	User password for the Scheduler administrator. Confirm the password entry.
	(Other parameters)	The other parameters are set to defaults. The default port for the Scheduler service is 9705. To change the Scheduler port, select and set Port Number.

See the *Oracle Business Intelligence Scheduler Guide* for further details on configuring functionality for the Oracle BI Scheduler component, including how to configure the Scheduler for SMTP mail delivery.

Configuring Oracle BI Scheduler Under Windows

Use Job Manager, installed with the BI Scheduler component on Windows, to configure Scheduler.

To configure Oracle BI Scheduler under Windows

1. From the Windows Start menu, select Programs > Oracle Business Intelligence > Job Manager.
2. In Job Manager, select File > Configuration Options.
3. In the Scheduler > General tab of the Scheduler Configuration window, set the fields as shown in Table 18 on page 170.
4. In the Scheduler > Database tab, in the Connection Pool box, set the fields as shown in Table 18 on page 170.
5. Exit the Job Manager.

Configuring Oracle BI Scheduler Under UNIX

The Scheduler configuration options are set using schconfig, a console-based application.

To configure Oracle BI Scheduler under UNIX

1. In the OracleBI_HOME/setup directory, run the script schconfig.

```
. sa-init.sh
schconfig
```

2. From the Delivers Configuration choices that appear, select 1 – Configure Scheduler.
3. Select 1 – Database from the Scheduler Configuration choices.
4. Select and set the parameters as shown in Table 18 on page 170.
5. Select 0 to quit and save changes to the Database configuration when prompted.
6. Select 2 – General from the Scheduler Configuration choices.
7. Select and set the parameters as shown in Table 18 on page 170.
8. Select 0 to quit and save changes to the General configuration when prompted.

Configuring Oracle BI Presentation Services to Communicate With Oracle BI Scheduler

This topic is part of the process of Setting Oracle BI Scheduler Configuration Options.

As shown by the Figure 1 on page 35, the Oracle BI Scheduler and Oracle BI Presentation Services servers work together. This topic covers their configuration.

When the Oracle Business Intelligence Scheduler and the Oracle BI Presentation Services are not installed on the same machine, you must point the Oracle BI Presentation Services machine to the Scheduler machine address. See the topic Specifying the Scheduler Host and Port in Presentation Services Configuration File on page 172.

You must provide the Oracle BI Presentation Services machine with the credentials to use in order to establish a connection with the Scheduler. See the following topics:

- Adding Scheduler Administrator Credentials to Oracle BI Presentation Services Credential Store on page 174
- Configuring Oracle BI Presentation Services to Identify the Credential Store on page 176

Specifying the Scheduler Host and Port in Presentation Services Configuration File

This topic is part of the process of Configuring Oracle BI Presentation Services to Communicate With Oracle BI Scheduler.

The Scheduler host name and port are specified in the instanceconfig.xml file for Oracle BI Presentation Services. The Presentation Services instanceconfig.xml file is located in the directory OracleBIData_HOME\web\config on Windows, and in OracleBIData_HOME/web/config on UNIX.

- When Oracle BI Scheduler and Oracle BI Presentation Services components are installed together on the same machine, the installer sets the instanceconfig.xml setting to the local host and default Scheduler port of 9705.

  If Oracle BI Scheduler and Oracle BI Presentation Services are installed on the same machine and Scheduler uses the default port 9705, proceed to topic Adding Scheduler Administrator Credentials to Oracle BI Presentation Services Credential Store on page 174.

- When Oracle BI Scheduler and Oracle BI Presentation Services are not installed on the same machine, or if you have changed the Scheduler port from the default port of 9705, you must modify the instanceconfig.xml file for Presentation Services.

  NOTE: Make a back-up copy of this file before editing it.

  Use the following procedure to modify the instanceconfig.xml configuration file with an entry that points the Oracle BI Presentation Services to the Oracle BI Scheduler machine and port number.

NOTE: For organizations that use Oracle Application Server, Oracle recommends that you use Oracle Application Server Control to modify configuration files. For organizations that use other application servers, Oracle recommends that you use JConsole. For more information, see the topic Updating Configuration Settings Using Oracle Application Server Tools on page 116.

To change the ScheduleServer configuration setting

1. On the BI Presentation Services machine, navigate to the Oracle BI data directory at the location shown in the following table:

Operating System	Data Directory Location
Windows	OracleBIData_HOME\Web\config
UNIX	OracleBIData_HOME/web/config

   Locate the file instanceconfig.xml and make a backup copy.

2. Open the instanceconfig.xml file for editing.
3. Between the <ServerInstance></ServerInstance> tags, locate the tag pair <Alerts> and </Alerts>. (If they do not exist, create them.)
4. Between the Alerts tags, create the tag pair <ScheduleServer> and </ScheduleServer>.
5. Between the ScheduleServer tags, insert the machine name of the Scheduler machine.

   For example:

```
<ServerInstance>
. . .

   <Alerts>
      <ScheduleServer>Schedulermachine</ScheduleServer>
   </Alerts>
```

6. If the Scheduler port has been changed from the default of 9705, specify the Scheduler port number.

   For example:

```
<ServerInstance>
. . .

   <Alerts>
      <ScheduleServer>Schedulermachine:Port</ScheduleServer>
   </Alerts>
```

7 Save the file when you are done.

Your changes take effect when the Oracle BI Presentation Services service is restarted.

Adding Scheduler Administrator Credentials to Oracle BI Presentation Services Credential Store

This topic is part of the process of Configuring Oracle BI Presentation Services to Communicate With Oracle BI Scheduler.

Oracle BI Presentation Services must be able to identify the Scheduler administrator and obtain the credentials to establish a connection with the Scheduler. Presentation Services stores the credentials that it uses in a Presentation Services Credential Store. The Scheduler administrator credentials must be added to the credential store, under the alias *admin*. To obtain the Scheduler Administrator credentials, Oracle BI Presentation Services searches the credential store for a username-password credential with the alias *admin*. For more information on the Presentation Services Credential Store, refer to the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Use the following procedure to add the Scheduler administrator credentials to the Presentation Services Credential Store with the *admin* alias. This procedure adds the Scheduler administrator credentials to a proprietary XML file credential store called credentialstore.xml. The default location of this file is OracleBIData_HOME\web\config on Windows and OracleBIData_HOME/web/config on UNIX.

To add Scheduler administrator credentials to the credential store

1 Open a command prompt window or command shell on the machine where Oracle BI Presentation Services has been installed.

2 Run the following command (adjust slashes according to operating system):

```
$ . /OracleBI_HOME/setup/sysenvinit.sh
```

3 Navigate to the directory OracleBI_HOME\web\bin on Windows. On UNIX, navigate to OracleBI_HOME/web/bin.

4 Execute the CryptoTools utility to add the Scheduler Administrator credentials to the Presentation Services Credential Store:

```
cryptotools credstore -add -infile OracleBIData_HOME/web/config/
credentialstore.xml
```

For more information on the CryptoTools utility, its syntax and supported sub-commands, refer to the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

5 Supply values for the prompted parameters, as shown in the following table.

CryptoTools Prompt	Value or Input	Description
Credential Alias	admin	Specify the value *admin*. Presentation Services uses this alias to identify the username-password credential for the Scheduler administrator.
Username	(Username of Scheduler administrator)	Username of the Scheduler administrator. For example, *SchedulerAdmin*. For information on the Scheduler administrator, see the topic About the Oracle BI Scheduler Administrator on page 169.
Password	(Password for the Scheduler administrator)	Password of the Scheduler administrator. For example, *SchedulerAdmin*.
Do you want to encrypt the password?	y or n	Choosing Y encrypts the above password.
Passphrase for encryption	(passphrase)	Provide a passphrase that is used to encrypt the password. For example, *secret*.
Do you want to write the passphrase to the xml?	y or n	Choosing Y writes the passphrase that is needed to decode the password in the xml file. For enhanced security, choose N. The passphrase is not written to the xml file. Instead, you must specify the passphrase in the instanceconfig.xml file.

The following is an example of the procedure to add the Scheduler administrator credentials to the Presentation Services Credential Store.

```
cryptotools credstore -add -infile OracleBIData_HOME/web/config/credentialstore.xml

>Credential Alias: admin
>Username: SchedulerAdmin
>Password: SchedulerAdmin
>Do you want to encrypt the password? y/n (y):
>Passphrase for encryption: secret
>Do you want to write the passphrase to the xml? y/n (n):
>File "OracleBIData_HOME/web/config/credentialstore.xml" exists. Do you want to
overwrite it? y/n (y):
```

The CryptoTools utility updates the credentialstore.xml file, located in the directory OracleBIData_HOME\web\config. (The directory structure is the same on UNIX systems.)

After executing the CryptoTools utility with the example inputs, the credentialstore.xml file contains entries similar to the following example:

```
<sawcs:credential type="usernamePassword" alias="admin">
<sawcs:username>SchedulerAdmin</sawcs:username>
```

```
    <sawcs:password passphrase="secret">
    <xenc:EncryptedData>
    <xenc:EncryptionMethod Algorithm="http://www.rsasecurity.com/rsalabs/pkcs/
    schemas/pkcs-5#pbes2">
    <pkcs-5:PBES2-params Algorithm="http://www.rsasecurity.com/rsalabs/pkcs/
    schemas/pkcs-5#pbkdf2">
    <pkcs-5:KeyDerivationFunc>

       <pkcs-5:Parameters>
       <pkcs-5:IterationCount>1024</pkcs-5:IterationCount>
       </pkcs-5:Parameters>
       </pkcs-5:KeyDerivationFunc>
       <pkcs-5:EncryptionScheme Algorithm="http://www.w3.org/2001/04/
       xmlenc#tripledes-cbc"/>
       </pkcs-5:PBES2-params>

    </xenc:EncryptionMethod>
    <xenc:CipherData>
    <xenc:CipherValue>jeThdk8ZklnTlyKIat8Dkw</xenc:CipherValue>
    </xenc:CipherData>
    </xenc:EncryptedData>

    </sawcs:password>

</sawcs:credential>
```

Configuring Oracle BI Presentation Services to Identify the Credential Store

This topic is part of the process of Configuring Oracle BI Presentation Services to Communicate With Oracle BI Scheduler.

Oracle BI Presentation Services must be directed to the credential store that contains the Scheduler administrator credentials. This is done by setting parameters in the Oracle BI Presentation Services configuration file, instanceconfig.xml. In addition, if you have not stored the passphrase in the credential store, then the passphrase to decrypt the password credential must also be specified. In the above example, the passphrase was not stored in the credential store and needs to be specified in the instanceconfig.xml file.

To identify the credential store to be used by Oracle BI Presentation Services

1. Open the instanceconfig.xml file for editing. This file is located in the OracleBI_Data\web\config directory. This directory structure is the same on UNIX platforms.
2. Locate the <CredentialStore> node within this file.
3. Specify attribute values as shown in the following example. If the <CredentialStore> node does not exist, create this element with sub-elements and attributes.

```
<WebConfig>
   <ServerInstance>
      <!-- other settings ... -->
```

```
      <CredentialStore>
         <CredentialStorage type="file" path="<path to credentialstore.xml>"
   passphrase="<passphrase>"/>
         <!-- other settings ... -->
      </CredentialStore>
         <!-- other settings ... -->
      </ServerInstance>
   </WebConfig>
```

4 Restart Presentation Services to reflect the configuration changes.

After modification, the instanceconfig.xml contains entries as shown in the following example:

```
<?xml version="1.0"?>

<WebConfig>
   <ServerInstance>
      <!-- other settings ... -->
   <CredentialStore>
      <CredentialStorage type="file" path=""OracleBIData_HOME/web/config/
credentialstore.xml" passphrase="secret"/>
      <!-- other settings ... -->
   </CredentialStore>
      <!-- other settings ... -->
   </ServerInstance>
</WebConfig>
```

CAUTION: Both the credentialstore.xml and instanceconfig.xml file must be protected. Their combination can reveal a privileged user password. (Neither file by itself has enough information to expose the password.)

For more information on the CredentialStore element and its subelements, refer to the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

11 Configuring BI Publisher Reporting Tool

This chapter describes tasks for configuring Oracle Business Intelligence Publisher, Oracle's application for creating highly formatted reports. The Oracle BI Publisher environment consists of the Oracle BI Publisher Enterprise server and Oracle BI Publisher Add-ins to Word, Excel, and Acrobat Professional.

Roadmap to Configuring BI Publisher

Oracle BI Publisher is installed with the main Oracle Business Intelligence Suite EE installer, as described in the topic About the Oracle BI Installer and Oracle BI Publisher on page 180.

The BI Publisher configuration process consists of the following high-level steps.

NOTE: More detailed descriptions follow this section.

1. Create a database user (for example, *bipuser*).

   NOTE: The database configuration is required to send or schedule reports. This procedure uses Oracle 10g database as an example. The scheduler database also may be Microsoft SQL Server or IBM DB2.

2. After creating the database user, grant the user connection rights.

   NOTE: The scheduler referenced for the Database component is *not* the Oracle Business Intelligence Scheduler. It is the scheduler used only by BI Publisher.

3. In the System Maintenance > Scheduler Configuration page of the BI Publisher Admin screen, change the settings to point to the database and the BI Publisher directory location.
4. In the Data Sources > JDBC Connection page of the BI Publisher Admin screen, add the Oracle BI users to BI Publisher.
5. Configure demo data.

The following topics describe the process of configuring the Oracle BI Publisher software to perform with Oracle Business Intelligence:

About the Oracle BI Installer and Oracle BI Publisher

- The Oracle BI Publisher installation includes the following components:
  - BI Publisher Enterprise server application
  - Documentation: User's Guide, Javadocs, demos, and samples
- The Oracle BI installer performs the following tasks automatically for BI Publisher:
  - Installs Oracle Containers for J2EE (OC4J) version 10.1.3.1 for the Basic installation type only.
  - Deploys an .ear file in the OC4J container (sets default and asks for port).
  - Copies fonts to the J2EE JRE directory (/jdk/jre/lib/fonts).
  - Installs the BI Publisher Reports folder.
  - Sets the BI Publisher folder in the following location:
    - **Under Windows:**

      `OracleBI_HOME\xmlp\XMLP\Admin\Configuration\xmlp-server-config.xml`

    - **Under UNIX:**

      `OracleBI_HOME/oc4j_bi/j2ee/home/applications/xmlpserver/xmlpserver/WEB-INF/xmlp-server-config.xml`

    NOTE: If Oracle BI is being deployed with Oracle Application Server, the BI Publisher folder is set to *IAS_HOME* rather than *OracleBI_HOME*.
  - Sets up BI Server as a JDBC data source.

    In the BI Publisher interface, you can build queries directly against the Subject Areas defined in the BI Server semantic layer.
  - Sets up the integration with BI Presentation Services.

    Answers Requests can be used as a data source for BI Publisher reports.

BI Publisher Requirements

The Oracle Business Intelligence installation uses OC4J to run the BI Publisher Enterprise server.

BI Publisher Components

The additional components that are required to run BI Publisher are shown in Table 19 on page 181.

Table 19. Additional Components Required to Run BI Publisher

Component	Version or Example
J2EE-based application server	■ Oracle OC4J version 10.1.3.1 **NOTE:** If you plan to use this, choose the Basic installation. ■ Another J2EE application server **NOTE:** If you plan to use your own J2EE server, choose the Advanced installation.
Web browser	■ Microsoft Internet Explorer 6.0 ■ Mozilla Firefox 1.0 or later
Database (Optional, but required for the scheduler database.)	■ Oracle Database 10*g* ■ Microsoft SQL Server ■ IBM DB2 UDB ■ Sybase Adaptive Server ■ MySQL

Oracle BI Publisher Desktop

Oracle Business Intelligence Publisher Desktop is a Windows-based design tool that allows you to create layouts for Oracle BI Publisher. The BI Publisher Desktop contains the Template Builder for Word, the Template Viewer, documentation, demos and samples.

- The Template Builder for Word is an Add-In to Microsoft Word that facilitates the development of RTF layout templates.
- The Template Viewer facilitates testing and viewing of any template types (RTF, PDF and eText).
- The Excel Analyzer is installed on demand when an Excel Analyzer document is downloaded.

See the topic Installing Oracle BI Publisher Desktop on page 95.

Memory Allocation for OC4J

Allocate enough memory in Oracle Containers for Java (OC4J) for running Oracle BI Publisher.

To allocate additional memory for OC4J

1. Stop the BI Publisher server, using the command shown in Starting and Stopping BI Publisher on page 184.
2. Navigate to OracleBI_HOME/oc4j_bi/bin.
3. Edit the oc4j.cmd file to start OC4J with more memory.

   NOTE: Allocate a minimum of 256 MB of memory by increasing the permanent generation memory to 128m in addition to the regular heap size.

   - Find the following line:

     ```
     set JVMARGS=-Djava.library.path=D:\OracleBI\server\Bin;D:\OracleBI\web\bin -
     DSAROOTDIR=D:\OracleBI -DSADATADIR=D:\OracleBIData %OC4J_JVM_ARGS%
     ```

   - In this line, between the variables `-DSADATADIR=D:\OracleBIData` and `%OC4J_JVM_ARGS%`, add the following text:

     ```
     -XX:MaxPermSize=128m -Xmx512m
     ```

4. Save oc4j.cmd.

Deploying BI Publisher with Other J2EE Application Servers

This guide primarily explains how to install BI Publisher on application servers such as OC4J or Oracle Application Server. However, you can also deploy BI Publisher on other J2EE application servers, such as Tomcat or Websphere. To deploy BI Publisher with other J2EE application servers, use the instructions in the file Install.pdf, in the section on Apache Tomcat 5.0 deployment.

- The Install.pdf file is located on the same network or CD-ROM location as the Oracle BI EE installer, in the subfolder Server_Ancillary\Oracle_Business_Intelligence_Publisher.
- The .war and .ear files are in the following locations:
  - Server_Ancillary\Oracle_Business_Intelligence_Publisher\generic\xmlpserver.war
  - Server_Ancillary\Oracle_Business_Intelligence_Publisher\oc4j\xmlpserver.ear

Starting and Stopping BI Publisher

Start or stop the BI Publisher server using the command `oc4j.cmd`. Navigate to the folder OracleBI_HOME/oc4j_bi/bin/.

To start the BI Publisher server

- In the command line, type

```
oc4j –start
```

To stop the BI Publisher server

- In the command line, type

```
oc4j –stop
```

Configuring BI Publisher for XMLP Server

You configure BI Publisher while running an instance of Oracle BI as an administrator, in the BI Publisher Admin screen.

NOTE: This section lists only those configuration settings that refer to Oracle BI Publisher. See the *Oracle Business Intelligence Publisher User's Guide* for further details of XMLP server configuration. See the *Oracle Database Administrator Guide* for complete details of database deployment.

To configure the XMLP Server in Oracle BI Publisher

1. Open your browser to the login page. For example:

   ```
   http://localhost:9704/xmlpserver
   ```

2. Log in using the user name and password *Administrator.*
3. In the Admin tab, review the following sections and links, and perform or verify the necessary configurations as necessary, as shown in the following table.

Admin Tab Section	Links to Configuration Screens
Data Sources	■ JDBC Connection ■ JNDI Connection ■ File
Security Center	■ Security Configuration ■ Roles and Permissions **NOTE:** Create users, including the Oracle BI Administrator user, here.
Delivery	■ Delivery Configuration ■ Printer ■ Fax ■ Email ■ WebDAV ■ FTP ■ CUPS Server

Admin Tab Section	Links to Configuration Screens
System Maintenance	■ Server Configuration ■ Scheduler Configuration **NOTE:** The scheduler referenced for the Database component is *not* the Oracle Business Intelligence Scheduler. It is the scheduler used only by BI Publisher. ■ Refresh Metadata
Runtime Configuration	■ Properties ■ Font Mappings
Integration	Oracle BI Presentation Services **NOTE:** The Admin Username and Admin Password entered in this screen are the administrator credentials for Oracle Business Intelligence, not for BI Publisher.

4 If necessary, change the default configuration of Oracle BI as a data source.

- In the Oracle BI Publisher screen, click the Admin tab.
- Select JDBC > Update Data Source.
- Change the fields as shown in the following example:

Data Source Name	Oracle BI EE
JDBC Connection String	jdbc:oraclebi://*BIServer_machine.domain*:9703 ; **NOTE:** The default connection string is `jdbc:oraclebi://host:port/`. The port number is set by the parameter RPC_SERVICE_OR_PORT in the NQSConfig.INI file. Modify the connection string for the JDBC data source named Oracle BI **EE** to point to the target Oracle BI Server.
Username/Password	**NOTE:** This is the administrator credential for Oracle BI.
Database Driver Class	oracle.bi.jdbc.AnaJdbcDriver
Use Proxy Authentication	No
Allowed Roles	XMLP users

NOTE: The JDBC connection string example shows Oracle BI deployed without clustering or SSL. For a clustered or more secure deployment of Oracle BI using SSL, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

5 Make modifications in the Integration > Oracle BI Presentation Services section of the BI Publisher screen's Admin Tab:

- Make sure that the Admin Username and Admin Password are the administrator credentials for Oracle Business Intelligence.
- Make sure that the Server and Port fields point to Oracle BI.

- The XMLP URL suffix is set to `analytics/saw.dll` during installation. When you enable Single Sign-on, change this URL to the application you define. For example: `analyticsSOAP/saw.dll`. For details, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

6 Click Apply to save your changes.

7 Restart the BI Publisher server as described in the topic Starting and Stopping BI Publisher on page 184.

Embedding BI Publisher in Oracle BI

Sites that deploy Oracle BI Presentation Services and Oracle BI Publisher must configure a number of settings between these two components. This section describes how to embed BI Publisher in Oracle Business Intelligence for advanced reporting capability:

- Oracle BI Presentation Services must be configured to identify the Publisher administrator and obtain the credentials.

  See the topic Adding Publisher Administrator Credentials to Oracle BI Presentation Services Credential Store on page 190.

- Oracle BI Presentation Services must be configured to access the credential store that contains the Publisher administrator credentials.

  See the topic Configuring Oracle BI Presentation Services to Identify the Credential Store on page 192.

NOTE: An Oracle BI user accesses BI Publisher from the link More Products > BI Publisher, in order to view and generate highly formatted reports.

Configuring BI Publisher Settings in the Configuration File for Presentation Services

The Publisher URLs are specified in instanceconfig.xml file, the configuration file for Oracle BI Presentation Services. When BI Publisher and BI Presentation Services components are installed together on the same machine and BI Publisher has been deployed in the OC4J container, the installer sets the instanceconfig.xml setting to the appropriate Publisher URLs.

Table 20 on page 188 shows the instanceconfig.xml file settings for deployment of BI Publisher. The instanceconfig.xml file is located in the directory.

- OracleBIData_HOME\web\config
- OracleBIData_HOME/web/config

Table 20. BI Publisher <AdvancedReporting> Tag Settings in instanceconfig.xml

Key	Default Value	Notes
ReportingEngine	Xmlp	Points to BI Publisher as the reporting tool
Volume	Xmlp	
ServerURL	`http://<MachineName>:9704/xmlpserver/service`	Points to the XMLP server for Web service.
WebURL	`http://<MachineName>:9704/xmlpserver`	The URL for the XMLP front-end. Use this for rendering XMLP content in iframes on dashboard pages.

Table 20. BI Publisher <AdvancedReporting> Tag Settings in instanceconfig.xml

Key	Default Value	Notes
AdminURL	http://<MachineName>:9704/xmlpserver/servlet/admin	The URL where an Administrator can manage Advanced Reporting users, permissions, jobs, files and folders.
AdminCredentialAlias	bipublisheradmin	This is the alias for the BI Publisher administrator credentials that BI Presentation Services uses to search its credential store to obtain the BI Publisher credentials.

When BI Publisher and BI Presentation Services are not installed on the same machine, or if you have deployed Publisher in a J2EE Application Server of your choice, you must modify the instanceconfig.xml file for Presentation Services.

NOTE: For organizations that use Oracle Application Server, Oracle recommends that you use Oracle Application Server Control to modify configuration files. For organizations that use other application servers, Oracle recommends that you use JConsole. For more information, see the topic Updating Configuration Settings Using Oracle Application Server Tools on page 116.

The following procedure show how to configure BI Publisher settings in the Oracle BI Presentation Services instanceconfig.xml file.

NOTE: Make a back-up copy of this file before editing it.

To configure BI Publisher settings in the instanceconfig.xml file

1. On the BI Presentation Services machine, navigate to the appropriate directory and open the instanceconfig.xml file for editing.
2. Locate the <AdvancedReporting> node within this file.

   Specify attribute values as shown in the following example. If the <AdvancedReporting> node does not exist, create this element under the <ServerInstance></ServerInstance> paired tag, and create attributes with the attribute values shown in the following example.

```
<ServerInstance>

   <! --- Other Settings --- >
   <AdvancedReporting>
      <ReportingEngine>XmlP</ReportingEngine>
      <Volume>XmlP</Volume>
      <ServerURL>http://<BI Publisher Host>:<Port>/xmlpserver/services/
   XMLPService</ServerURL>
      <WebURL>http://<BI Publisher Host>:<Port>/xmlpserver</WebURL>
      <AdminURL>http://<BI Publisher Host>:<Port>/xmlpserver/servlet/admin</
   AdminURL>
      <AdminCredentialAlias>bipublisheradmin</AdminCredentialAlias>
   </AdvancedReporting>
```

```
    <! --- Other Settings --- >

</ServerInstance>
```

Refer to the Notes column in Table 20 on page 188 for a description of the AdvancedReporting attributes.

NOTE: An additional attribute is AuthIdExpiry. This sets the value in minutes for the period of expiration of the authentication credentials from XMLP server. It must be less than the XMLP time out. The default value is 5. It is not necessary to explicitly specify this attribute if the default of 5 is satisfactory.

3 Save the file when you are done.

Your changes take effect when the Oracle Business Intelligence Presentation Services service is restarted.

Adding Publisher Administrator Credentials to Oracle BI Presentation Services Credential Store

Oracle BI Presentation Services must be able to identify the Publisher administrator and obtain the credentials to successfully authenticate in BI Publisher. The Presentation Services server stores the credentials that it uses in a Presentation Services Credential Store file. The Publisher administrator credentials must be added to the credential store. These credentials are stored under an alias called bipublisheradmin. To obtain the Publisher administrator credentials, Presentation Services searches the credential store for a username-password credential with an alias of bipublisheradmin.

For more information on the Presentation Services Credential Store, refer to the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Use the following procedure to add the Publisher administrator credentials to the Presentation Services Credential Store with an alias of bipublisherdmin. This procedure adds the Publisher administrator credentials to the Presentation Services proprietary XML file credential store called credentialstore.xml. The default location of this file is in the following location:

- **Windows**. OracleBIData_HOME\web\config
- **UNIX**. OracleBIData_HOME/web/config

To add the Publisher administrator credentials to the Credential Store

1 Open a command prompt window or command shell on the machine where Presentation Services has been installed.

2 Navigate to the appropriate directory containing the CryptoTools utility.

3 Execute the CryptoTools utility:

```
cryptotools credstore -add -infile OracleBIData_HOME/web/config/
credentialstore.xml
```

For more information on the CryptoTools utility, its syntax and supported sub-commands, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

4 Supply values for the prompted parameters, as shown in Table 21 on page 191.

Table 21. Publisher Administrator Credentialstore Parameters

Parameter or Prompt	Value or Input	Description
Credential Alias	bipublisheradmin	Specify the value *bipublisheradmin*. Presentation Services searches for this alias in order to identify the username-password credential for Publisher administrator.
Username	Administrator	Username of the Publisher administrator. The initial default is *Administrator*. For information on the Publisher administrator, see Configuring BI Publisher for XMLP Server on page 185
Password	Administrator	Password of the Publisher administrator. The initial default is *Administrator*.
Do you want to encrypt the password?	y or n	Y encrypt the above password.
Passphrase for encryption	<passphrase>	Provide a passphrase to be used to encrypt the password. For example, secret.
Do you want to write the passphrase to the xml?	y or n	■ Y writes the passphrase that is needed to decode the password in the xml file. ■ For enhanced security, use N. The passphrase is not written to the xml file. Instead, specify the passphrase in the instanceconfig.xml file.

An example of the preceding procedure follows:

```
cryptotools credstore -add -infile OracleBIData_HOME/web/config/credentialstore.xml
>Credential Alias: bipublisheradmin
>Username: Administrator
>Password: Administrator
>Do you want to encrypt the password? y/n (y):
>Passphrase for encryption: secret
>Do you want to write the passphrase to the xml? y/n (n):
>File "OracleBIData_HOME/web/config/credentialstore.xml" exists. Do you want to
overwrite it? y/n (y):
```

The CryptoTools utility updates the credentialstore.xml file. This file is located in the directory

- OracleBIData_HOME\web\config

  NOTE: This directory structure is the same on UNIX platforms.

After executing the CryptoTools utility with inputs as specified above, the credentialstore.xml file contains entries similar to the following example:

```
<sawcs:credential type="usernamePassword" alias="bipublisheradmin">
   <sawcs:username>Administrator</sawcs:username>
   <sawcs:password passphrase="secret">
<xenc:EncryptedData>
   <xenc:EncryptionMethod Algorithm="http://www.rsasecurity.com/rsalabs/pkcs/
schemas/pkcs-5#pbes2">
      <pkcs-5:PBES2-params Algorithm="http://www.rsasecurity.com/rsalabs/pkcs/
schemas/pkcs-5#pbkdf2">
         <pkcs-5:KeyDerivationFunc>
            <pkcs-5:Parameters>
              <pkcs-5:IterationCount>1024</pkcs-5:IterationCount>
            </pkcs-5:Parameters>
         </pkcs-5:KeyDerivationFunc>
      <pkcs-5:EncryptionScheme Algorithm="http://www.w3.org/2001/04/
xmlenc#tripledes-cbc"/>
         </pkcs-5:PBES2-params>
   </xenc:EncryptionMethod>
     <xenc:CipherData>
       <xenc:CipherValue>jeThdk8ZklnTlyKIat8Dkw</xenc:CipherValue>
     </xenc:CipherData>
      </xenc:EncryptedData>
   </sawcs:password>
</sawcs:credential>
```

Configuring Oracle BI Presentation Services to Identify the Credential Store

Oracle BI Presentation Services must be directed to the credential store that contains the Publisher administrator credentials. This is done by setting parameters in the Presentation Services configuration file, instanceconfig.xml. In addition, if you have not stored the passphrase in the credential store, then the passphrase to decrypt the password credential must also be specified. In the example in the topic Configuring Oracle BI Presentation Services to Identify the Credential Store on page 192, the passphrase was not stored in the credential store and needs to be specified in the instanceconfig.xml file.

To specify the Credential Store for Oracle BI Presentation Services

1. In the directory OracleBI_Data\web\config, open the instanceconfig.xml file for editing.
2. Locate the <CredentialStore> node within this file.

   Specify attribute values as shown in the following example. If the <CredentialStore> node does not exist, create this element with sub-elements and attributes with attribute values as shown the following example.

```
<WebConfig>

   <ServerInstance>
      <!-- other settings ... -->
```

```
      <CredentialStore>
         <CredentialStorage type="file" path="<path to credentialstore.xml>"
      passphrase="<passphrase>"/>
      <!-- other settings ... -->
      </CredentialStore>
         <!-- other settings ... -->

      </ServerInstance>

   </WebConfig>
```

For more information on the CredentialStore element and its sub elements, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

After modification as described in the preceding procedure, the instanceconfig.xml contains entries as shown in the following example:

```
<?xml version="1.0"?>
<WebConfig>

   <ServerInstance>
      <!-- other settings ... -->

      <CredentialStore>

         <CredentialStorage type="file" path="OracleBIData_HOME/web/config/
   credentialstore.xml" passphrase="secret"/>

      <!-- other settings ... -->
         </CredentialStore>
      <!-- other settings ... -->
   </ServerInstance>

</WebConfig>
```

CAUTION: Both the credentialstore.xml and instanceconfig.xml file must be protected. Their combination can reveal a privileged user password. Neither file by itself has enough information to expose the password.

3 Restart Presentation Services to reflect the configuration changes.

Configuring BI Publisher for Scheduler

This procedure is performed in the Oracle BI Publisher screen's Admin tab.

NOTE: The scheduler mentioned here is *not* the Oracle Business Intelligence Scheduler. It is the scheduler used only by BI Publisher.

To configure the BI Publisher for the scheduler

1. Where you want to store the scheduler schema, create a database user.

   Assign the user the privileges to open a session and create database objects.

2. Go to the BI Publisher page Admin tab and click on Scheduler Configuration.

3. Enter the database and created user information, as shown in the following example:

Database Type	Oracle 10g
Connection String	jdbc:oracle:thin:@machine01.domain:1521:ora102
Username	XMLPSCH2
Database Driver Class	oracle.jdbc.driver.OracleDriver

4. Click on Test Connection to verify the validity.

5. Click on Install Schema button and wait for confirmation.

6. If you have multiple servers connecting to the same repository and scheduler schema, check the Clustering box.

Figure 2 shows the relationship between Oracle BI Enterprise Edition and BI Publisher.

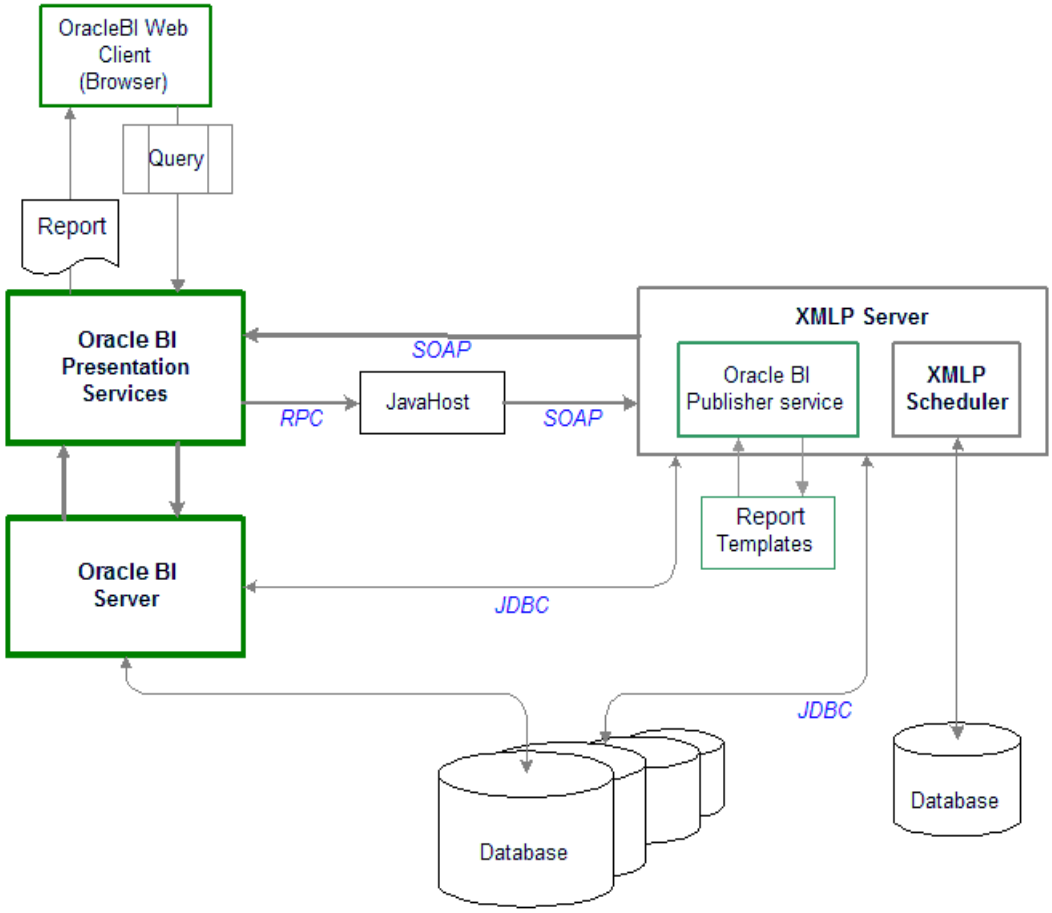

Figure 2. Diagram of the relationship between Oracle BI Enterprise Edition and BI Publisher

To access BI Publisher under Windows

- Navigate to Start > Programs > Oracle Business Intelligence > Oracle BI Publisher.

  The browser pointing to http://localhost:9704/xmlpserver opens.

Running the BI Publisher Demo Reports

This topic describes how to test your BI Publisher installation by running Demo Reports.

NOTE: The data source demo needs to be connected to an Oracle Database with the sample schemas and users HR and OE unlocked.

The sample reports require the following general configuration steps:

1. Configuring the Demo Files on page 196.
2. Configuring the Demo Data Source on page 196.
3. Navigate to the Reports tab and view the demo reports.

Configuring the Demo Files

This procedure is performed in the Oracle BI Publisher screen's Admin tab.

To set up the demo files folder

1. Click the Admin tab.
2. In the Data Sources section, click the File link.
3. Click the data source with the name demo files.
4. Change the path to the DemoFiles folder under the XMLP directory.

   For example, C:\OracleBI\xmlp\XMLP\DemoFiles
5. Click Apply to save the changes.

Configuring the Demo Data Source

This procedure is performed in the Oracle BI Publisher screen's Admin tab.

To configure the demo data source

1. Click the Admin tab.
2. In the Data Sources section, click the JDBC Connection link.
3. In the Data Source Name column, click the DSN *demo*.
4. In the Update Data Source screen, change the connection string to point to an Oracle 10g database with unlocked *oe* user.
5. Click the Test Connection button to confirm that XML Publisher can access the database.
6. Click Apply to save the changes.

For additional information, see the *Oracle Business Intelligence Publisher User's Guide*.

A NQSConfig.INI File Reference

The Oracle Business Intelligence Server software uses an initialization file to set parameters upon startup. This initialization file, the NQSConfig.INI file, includes parameters to customize behavior based on the requirements of each individual installation. This topic area lists the rules for using the file and provides the definitions and syntax of each parameter, under the following topics:

NOTE: For more information about clustering, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Location of the Oracle BI Server Configuration Initialization File

The NQSConfig.INI file is located on Windows systems in the subdirectory OracleBI_HOME\server\Config.

CAUTION: Do not change the name of the file or its location.

To review your own NQSConfig.INI file, navigate to the Config subdirectory and open the file.

For detailed explanations of the parameters, see the topic Oracle BI Configuration File Parameters and Syntax on page 200. All parameter explanations are targeted towards the Windows environment.

Rules for Oracle BI Configuration File Parameters

Observe the following rules for entries in the NQSConfig.INI file:

- Each parameter entry in the NQSConfig.INI file must be within the section to which the parameter belongs (Repository, Cache, General, and so on).
- Each entry needs to be terminated with semicolon (;).
- The Oracle Business Intelligence Server reads the initialization file each time it is started.

NQSConfig.INI File Errors

Some notes about syntax errors in the NQSConfig.INI file:

- Any syntax errors prevent the Oracle Business Intelligence Server from starting up. The errors are logged to the NQServer.log file, located in the subdirectory OracleBI_HOME\server\Log.

  There may also be a summary message in the system log relating to the error.
- You need to correct the error and start the Oracle Business Intelligence Server again. Repeat this process until the server starts with no errors.

Changing Oracle BI Configuration File Parameter Entries

Parameter entries are read when the Oracle Business Intelligence Server starts up. When you change an entry when the server is running, you need to shut down and then restart the server for the change to take effect.

NOTE: For organizations that use Oracle Application Server, Oracle recommends that you use Oracle Application Server Control to modify configuration files. For organizations that use other application servers, Oracle recommends that you use JConsole. For more information, see the topic Updating Configuration Settings Using Oracle Application Server Tools on page 116.

To edit the NQSConfig.INI initialization file

1. Use a text editor to edit this file.

   NOTE: The examples in this appendix assume you are editing a Windows version of this file, so make the necessary substitutions in terms of UNIX file system paths and conventions.

2. Save and close the NQSConfig.INI file.

Adding Comments to the Configuration File

You can add comments anywhere in the NQSConfig.INI file. Comments need to begin with either of the following:

```
#
//
```

Any text following these comment characters up to the end of the line is ignored when the Oracle Business Intelligence Server reads the initialization file.

Oracle BI Configuration File Parameters and Syntax

This topic lists the NQSConfig.INI file parameters and gives a brief description and any required syntax for each parameter. The parameters are generally listed in the order they appear in the configuration file.

The parameters are grouped into the following sections:

Repository Section Parameters in the Configuration File

The Repository section contains one entry for every repository that is loaded when the server starts up.

Syntax: <*logical_name*> = <*repository_name.rpd*> ;

Optional syntax: <*logical_name*> = <*repository_name.rpd*>, DEFAULT ;

where:

logical_name	A logical name for the repositories. Client tools use this name to configure the ODBC data sources that connect to the repository. If you want to use a reserved keyword, such as OCI7 or OCI8, for the name, enclose it in single quotes.
repository_name.rpd	The file name of the repository. The file name needs to have the .rpd file extension, and the file needs to reside in the Repository subdirectory in OracleBI_HOME. The demonstration repository file, paint.rpd, is installed with the Basic installation type,

When DEFAULT is specified for a repository, connections that do not specify a logical repository name in the DSN connect to the default repository.

Example: Star = paint.rpd, DEFAULT ;

Query Result Cache Section Parameters in the Configuration File

The parameters in the Query Result Cache Section provide configuration information for Oracle Business Intelligence Server caching. The query cache is enabled by default. After deciding on a strategy for flushing outdated entries, you should configure the cache storage parameters in the NQSConfig.INI file.

This section describes only the parameters that control query caching. For information about how to use caching in Oracle BI, see the chapter on query caching in *Oracle Business Intelligence Server Administration Guide*. For information about how to use Delivers to seed the Oracle BI ServerCache, refer to the *Oracle Business Intelligence Presentation Services Administration Guide*.

NOTE: Query caching is primarily a runtime performance improvement capability. As the system is used over a period of time, performance tends to improve due to cache hits on previously executed queries. The most effective and pervasive way to optimize query performance is to use Data Mart Automation (the Aggregate Persistence Wizard) and aggregate navigation.

ENABLE

Specifies whether the cache system is enabled. When set to NO, caching is disabled. When set to YES, caching is enabled. The query cache is enabled by default.

Example: ENABLE = NO ;

DATA_STORAGE_PATHS

Specifies one or more directory paths for where the cached query results data is stored and are accessed when a cache hit occurs. The maximum capacity in bytes, kilobytes, megabytes or gigabytes. The maximum capacity for each path is 4 GB. For optimal performance, the directories specified should be on high performance storage systems.

NOTE: An Oracle Business Intelligence Server defined as a clustered server does not share cached data. The DATA_STORAGE_PATHS entry needs be unique for each server defined as a cluster participant.

Each directory listed needs to be an existing, fully-qualified, writable directory pathname, with double quotes (") surrounding the pathname. Specify mapped directories only. UNC path names and network mapped drives are allowed only if the service runs under a qualified user account. To change the account under which the service is running, see the corresponding topic in the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Specify multiple directories with a comma separated list. When you specify more than one directory, they should reside on different physical drives. (If you have multiple cache directory paths that all resolve to the same physical disk, both available and used space may be double-counted.)

Syntax: DATA_STORAGE_PATHS = "<*full_directory_path_1*>" sz[, "<*full_directory_path_2*>" sz{, "<*full_directory_path_n*>" sz}] ;

Example: DATA_STORAGE_PATHS = "d:\OracleBI\cache" 256MB, "f:\OracleBI\cache" 200MB ;

NOTE: Specifying more than one directory per drive does not improve performance, because file input and output (I/O) takes place through the same I/O controller. In general, specify only one directory per disk drive. Specifying multiple directories on different drives may improve the overall I/O throughput of the Oracle Business Intelligence Server internally by distributing I/O across multiple devices.

The disk space requirement for the cached data depends on the number of queries that produce cached entries and the size of the result sets for those queries. The query result set size is calculated as row size (or the sum of the maximum lengths of all columns in the result set) times the result set cardinality (that is, the number of rows in the result set). The expected maximum should be the guideline for the space needed.

This calculation gives the high-end estimate, not the average size of all records in the cached result set. Therefore, if a result set's size is dominated by variable length character strings and if those strings' lengths have a normal distribution, you would expect the average record size to be about half of the maximum record size.

NOTE: It is a best practice to use a value that is less than 4 GB, otherwise the value may exceed the maximum allowable value for an unsigned 32 bit integer.

MAX_ROWS_PER_CACHE_ENTRY

Specifies the maximum number of rows in a query result set to qualify for storage in the query cache. Limiting the number of rows is a useful way to avoid using up the cache space with runaway queries that return large numbers of rows. If the number of rows a query returns is greater than the value specified in the MAX_ROWS_PER_CACHE_ENTRY parameter, the query is not cached.

When set to 0, there is no limit to the number of rows per cache entry.

Example: MAX_ROWS_PER_CACHE_ENTRY = 100000 ;

MAX_CACHE_ENTRY_SIZE

Specifies the maximum size for a cache entry. Potential entries that exceed this size are not cached. The default size is 1 MB.

Specify GB for gigabytes, KB for kilobytes, MB for megabytes, and no units for bytes.

Example: MAX_CACHE_ENTRY_SIZE = 1 MB ;

MAX_CACHE_ENTRIES

Specifies the maximum number of cache entries allowed in the query cache. Limiting the total number of cache entries provides another parameter with which to manage your cache storage. The actual limit of cache entries might vary slightly depending on the number of concurrent queries. The default value is 1000.

Example: MAX_CACHE_ENTRIES = 1000 ;

POPULATE_AGGREGATE_ROLLUP_HITS

Specifies whether to aggregate data from an earlier cached query result set and create a new entry in the query cache for rollup cache hits. The default value is NO.

Typically, if a query gets a cache hit from a previously executed query, then the new query is not added to the cache. A user may have a cached result set containing information at a particular level of detail (for example, sales revenue by ZIP Code). A second query may ask for this same information, but at a higher level of detail (for example, sales revenue by state). The POPULATE_AGGREGATE_ROLLUP_HITS parameter overrides this default when the cache hit occurs by rolling up an aggregate from a previously executed query, in this example, by aggregating data from the first result set stored in the cache. That is, Oracle BI sales revenue for all ZIP Codes in a particular state can be added to obtain the sales revenue by state. This is referred to as a rollup cache hit.

Normally, a new cache entry is not created for queries that result in cache hits. You can override this behavior specifically for cache rollup hits by setting POPULATE_AGGREGATE_ROLLUP_HITS to YES. Nonrollup cache hits are not affected by this flag. If a query result is satisfied by the cache—that is, the query gets a cache hit—then this query is not added to the cache. When this parameter is set to YES, then when a query gets an aggregate rollup hit (for example, "sales by region" is answered from "sales by district, region") then the result is put into the cache. Setting this parameter to TRUE may result in better performance, but results in more entries being added to the cache.

Example: POPULATE_AGGREGATE_ROLLUP_HITS = NO ;

USE_ADVANCED_HIT_DETECTION

When caching is enabled, each query is evaluated to determine whether it qualifies for a cache hit. A cache hit means that the server was able to use cache to answer the query and did not go to the database at all. The Oracle BI Server can use query cache to answer queries at the same or later level of aggregation (Data Mart Automation).

The parameter USE_ADVANCED_HIT_DETECTION enables an expanded search of the cache for hits. The expanded search has a performance impact, which is not easily quantified because of variable customer requirements. Customers that rely heavily on query caching and are experiencing misses might want to test the trade-off between better query matching and overall performance for high user loads. See also the parameter MAX_SUBEXPR_SEARCH_DEPTH and the following topic: Reasons Why a Query is Not Added to the Cache.

Reasons Why a Query is Not Added to the Cache

Customers who rely on query result caching in the Oracle BI Server to meet their performance KPIs can use caching parameters to help determine why a cache hit did not occur. Logging facilities can help to diagnose common reasons for getting a cache miss, where the logical SQL query that was supposed to seed the cache did not get inserted into the cache. The following describes some of the situations when this might occur.

- Non-cacheable SQL element. If a SQL request contains Current_Timestamp, Current_Time, Rand, Populate, or a parameter marker then it is not added to the cache.
- Non-cacheable table. Physical tables in the Oracle BI Server repository can be marked 'non-cacheable'. If a query references any non-cacheable table then the query results will not be added to the cache.
- Cache hit. In general, if the query gets a cache hit on a previously cached query, then the results of the current query are not added to the cache.

  NOTE: The exception is query hits that are aggregate roll-up hits. These are added to the cache if the NQSConfig.INI parameter POPULATE_AGGREGATE_ROLLUP_HITS has been set to Yes.
- Result set is too big.
- Query is cancelled. This can happen by explicit cancellation from Oracle BI Presentation Services or the Administration Tool, or implicitly through timeout.
- Oracle BI Server is clustered. Queries that fall into the 'cache seeding' family are propagated throughout the cluster. Other queries continue to be stored locally. Therefore, even though a query may be put into the cache on Oracle BI Server node 1, it may not be on Oracle BI Server node 2.

Level 4 of query logging is the best tool to diagnose whether the Oracle BI Server compiler intended to add the entry into the query result cache.

MAX_SUBEXPR_SEARCH_DEPTH

The parameter MAX_SUBEXPR_SEARCH_DEPTH allows you to configure how deep the hit detector looks for an inexact match in an expression of a query. The default is 5. At the default level (5), for example, a query on the expression *sin(cos(tan(abs(round(trunc(profit))))))* misses on Profit, which is at level 7. Changing the search depth to 7 opens up Profit for a potential hit.

GLOBAL_CACHE_STORAGE_PATH

The physical location for storing cache entries shared across clustering. All clustering nodes share the same location.

Example: GLOBAL_CACHE_STORAGE_PATH = "<*directory name*>" SIZE;

MAX_GLOBAL_CACHE_ENTRIES

The maximum number of cache entries stored in the location specified by GLOBAL_CACHE_STORAGE_PATH.

Example: MAX_GLOBAL_CACHE_ENTRIES = 1000;

CACHE_POLL_SECONDS

The interval in seconds that each node pulls from the shared location specified in GLOBAL_CACHE_STORAGE_PATH.

Example: CACHE_POLL_SECONDS = 300;

CLUSTER_AWARE_CACHE_LOGGING

Turns on logging for the cluster caching feature. Used only for troubleshooting. The default is NO.

Example: CLUSTER_AWARE_CACHE_LOGGING = NO;

General Section Parameters in the Configuration File

The parameters in the General section contains general server default parameters, including localization and internationalization, temporary space and memory allocation, and other default parameters used to determine how data is returned from the Oracle Business Intelligence Server to a client.

NOTE: The settings for the parameters LOCALE, SORT_ORDER_LOCALE, SORT_TYPE and CASE_SENSITIVE_CHARACTER_COMPARISON, described in the following topics, are interrelated. They help determine how the Oracle Business Intelligence Server sorts data.

LOCALE

Specifies the locale in which data is returned from the server. This parameter also determines the localized names of days and months.

To successfully run Oracle BI, make sure to configure the appropriate locales on your operating system for the language in which you run the applications. (In some cases, you might need to install additional content on your system in order to support the locale.) The Oracle BI Server sets the C-runtime locale during the server startup. Some locale- and language-related settings are interrelated and help determine how the Oracle BI Server sorts data. Make sure that the settings for the following parameters work together:

- LOCALE

  The supported values for LOCALE and SORT_ORDER_LOCALE under UNIX systems are shown in Setting Locale Parameters Under UNIX on page 248.

- SORT_ORDER_LOCALE
- SORT_TYPE
- CASE_SENSITIVE_CHARACTER_COMPARISON

For more information about Oracle BI Catalog Manager and language extensions, see *Oracle Business Intelligence Presentation Services Administration Guide*.

SORT_ORDER_LOCALE

Used to help determine whether the Oracle Business Intelligence Server can function-ship an ORDER BY clause (used in sorting) to an relational database.

Every database defined in the Physical Layer in the Server Administration Tool has a features table associated with it. If you want to override the default value in the Features table for a particular type of relational database, you need to do it for all occurrences of it in the Physical Layer.

In the Server Administration Tool, the Database dialog > Features tab > Features table specifies the features and functions that the relational database supports. The settings for SORT_ORDER_LOCALE in the Features table and in the NQSConfig.INI file should match only if the database and the Oracle Business Intelligence Server sort data in the same way.

For the relational database and the Oracle Business Intelligence Server to sort data the same way, they must be in agreement on the parameters shown in Table 22 on page 208.

Table 22. Critical SORT_ORDER_LOCALE Parameters

Functional Category	Specific Parameters
Base language	LOCALE
	SORT_ORDER_LOCALE The default value for SORT_ORDER_LOCALE in both the Features table and in the NQSConfig.INI file is english-usa. If the Oracle Business Intelligence Server and the database sort data differently, the Features table entry SORT_ORDER_LOCALE for the database needs to be set to a different value than english-usa. **NOTE:** The LOCALE and SORT_ORDER_LOCALE parameters accept platform-independent names only.
Case	CASE_SENSITIVE_CHARACTER_COMPARISON
Binary versus linguistic comparison	SORT_TYPE

The SORT_ORDER_LOCALE entries in the Features table and in the NQSConfig.INI file match only if the database and the Oracle Business Intelligence Server have matching settings in these areas. If the settings do not match, wrong answers can result when using multidatabase joins, or errors can result when using the Union, Intersect and Except operators, which all rely on consistent sorting between the back-end server and the Oracle Business Intelligence Server.

Example: SORT_ORDER_LOCALE = "english-usa" ;

SORT_ORDER_LOCALE Under UNIX Operating Systems

The Oracle Business Intelligence Server sets the C-runtime locale during server startup. A value for the setting is specified using the SORT_ORDER_LOCALE entry in the NQSConfig.INI file. See the topic Setting Locale Parameters Under UNIX on page 248.

SORT_TYPE

Specifies the type of sort to perform. The default value is BINARY. Binary sorts are faster than nonbinary sorts.

Valid values are BINARY and DEFAULT. If you specify DEFAULT, a nonbinary sort is performed; this yields better sort results for data that contains accented characters.

Example: SORT_TYPE = "BINARY" ;

CASE_SENSITIVE_CHARACTER_COMPARISON

Specifies whether the Oracle Business Intelligence Server differentiates between uppercase and lowercase characters when performing comparison operations.

Valid values are ON and OFF. When set to OFF, case is ignored. When set to ON, case is considered for comparisons. For binary sorts, case sensitivity for the server and for the relational database should set the same way.

This setting only applies to the Oracle Business Intelligence Server's internal comparisons for caching and for aggregation. Case sensitivity is a function of database operations and is set at the database level. The CASE_SENSITIVE_CHARACTER_COMPARISON parameter allows the Oracle BI Server to match the back-end database's functions. The following operators are affected:

- Order By
- Group By
- Distinct
- Join
- comparisons (<, >, =, <=, >=, <>)

For example, consider the following three terms:

- ACME
- DELTA
- acme

An Order By with CASE_SENSITIVE_CHARACTER_COMPARISON set ON results in rows in the order shown in the preceding example. An Order By with case-insensitive setting results in ACME and acme being adjacent.

If the term is case-sensitive and you perform a duplicate remove (Distinct), the result is three rows. If the term is not case-sensitive, then the Distinct result is two rows.

CASE_SENSITIVE_CHARACTER_COMPARISON should be set to correspond with how the back-end database deals with case. For example, if the back-end database is case-insensitive, then Oracle Business Intelligence Server should be configured to be case-insensitive. If Oracle Business Intelligence Server and the back-end database are not similarly case-sensitive, some subtle problems can result.

For an example of CASE_SENSITIVE_CHARACTER_COMPARISON applied to aggregation, a case-sensitive database has the following tuples:

```
Region  Units
 WEST     1
 west     1
 West     1
```

With CASE_SENSITIVE_CHARACTER_COMPARISON set to ON, the data is returned to the client the with the same results shown in the preceding table.

With CASE_SENSITIVE_CHARACTER_COMPARISON set to OFF, the data is again returned to the client the with the same results shown in the preceding table. There is no change because the Oracle BI Server has not done any character comparisons.

However, if SUM_SUPPORTED is set to OFF in the features table, the Oracle BI Server is forced to do a character comparison. The results of the query in this case are as follows:

```
Region  Units
 WEST     3
```

The reason for these results is that the Oracle BI Server has case-sensitive character comparison turned off, so it now treats the three tuples as the same value and aggregates them. In this case WEST = West = west. However, if you filter on the Region column, you would still see the regions WEST, West, and west; CASE_SENSITIVE_CHARACTER_COMPARISON does not affect filtering on a back-end database. The logic shown in the aggregation example applies to caching as well.

Since CASE_SENSITIVE_CHARACTER_COMPARISON is set in the NQSConfig.INI file, the parameter applies to all back-end databases in a repository. Therefore it should be set to match the case sensitivity of the repository's dominant back-end database.

Example: CASE_SENSITIVE_CHARACTER_COMPARISON = OFF ;

NULL_VALUES_SORT_FIRST

Specifies if NULL values sort before other values (ON) or after (OFF). ON and OFF are the only valid values. The value of NULL_VALUES_SORT_FIRST should conform to the underlying database. If there are multiple underlying databases that sort NULL values differently, set the value to correspond to the database that is used the most in queries.

Example: NULL_VALUES_SORT_FIRST = OFF ;

DATE_TIME_DISPLAY_FORMAT

Specifies the format for how date/time stamps are input to and output from the Oracle Business Intelligence Server.

Example: DATE_TIME_DISPLAY_FORMAT = "yyyy/mm/dd hh:mi:ss" ;

DATE_DISPLAY_FORMAT

Specifies the format for how dates are input to and output from the Oracle Business Intelligence Server.

NOTE: Specify the year as either 2-digit (yy) or 4-digit (yyyy). Separators can be any character except y, m, or d.

Example: DATE_DISPLAY_FORMAT = "yyyy/mm/dd" ;

TIME_DISPLAY_FORMAT

Specifies the format for how times are input to and output from the Oracle Business Intelligence Server.

Example: TIME_DISPLAY_FORMAT = "hh:mi:ss" ;

WORK_DIRECTORY_PATHS

Specifies one or more directories for temporary space.

Each directory listed needs to be an existing fully-qualified, writable directory pathname, with double quotes (") surrounding the pathname. Specify mapped directories only. UNC path names and network mapped drives are allowed only if the service runs under a qualified user account. To change the account under which the service is running, see the corresponding topic in the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Specify multiple directories with a comma separated list. Valid values are any fully qualified pathname to an existing, writable directory.

For optimum performance, temporary directories should reside on high performance storage devices. If you specify more than one directory, they should reside on different drives.

Syntax: WORK_DIRECTORY_PATHS = "<*full_directory_path_1*>" [, "<*full_directory_path_2*>"{, "<*full_directory_path_n*>"}] ;

Example 1: WORK_DIRECTORY_PATHS = "C:\Temp" ;

Example 2: WORK_DIRECTORY_PATHS = "D:\temp", "F:\temp" ;

NOTE: Specifying more than one directory per drive does not improve performance because file I/O takes place through the same I/O controller. In general, specify only one directory per disk drive. Specifying multiple directories on different drives improves the overall I/O throughput of the Oracle Business Intelligence Server because internally, the processing files are allocated using a round-robin algorithm that balances the I/O load across the given disk drives.

SORT_MEMORY_SIZE

Specifies the maximum amount of memory to be used for each sort operation. Multiple operations can each use memory up to the value specified. The limit for SORT_MEMORY_SIZE is determined by the physical memory of the server machine and on the number of sort operations that might occur simultaneously. Specify KB for kilobytes, MB for megabytes, and no units for bytes.

Example: SORT_MEMORY_SIZE = 4 MB ;

See the topic How the SIZE Parameters Affect Oracle Business Intelligence Performance on page 212.

SORT_BUFFER_INCREMENT_SIZE

Specifies the increment that the sort memory size is increased by as more memory is needed. As more memory is required, the size increases by the value specified until it reaches the value of SORT_MEMORY_SIZE.

Example: SORT_BUFFER_INCREMENT_SIZE = 256 KB ;

See the topic How the SIZE Parameters Affect Oracle Business Intelligence Performance on page 212.

VIRTUAL_TABLE_PAGE_SIZE

Specifies the size of a memory page for the Oracle Business Intelligence Server internal processing. A higher value reduces I/O but increases memory usage, especially in a multiuser environment.

Example: VIRTUAL_TABLE_PAGE_SIZE = 128 KB ;

See the topic How the SIZE Parameters Affect Oracle Business Intelligence Performance on page 212.

How the SIZE Parameters Affect Oracle Business Intelligence Performance

This topic explains the interrelationships among the SIZE parameters and how they affect the performance of Oracle Business Intelligence.

- SORT_MEMORY_SIZE

  The size specified by SORT_MEMORY_SIZE sets the upper limit on how large the sorting buffer can be in the Oracle Business Intelligence Server. When this limit is exceeded, data is sorted in allotments of the size set by SORT_MEMORY_SIZE and the sorted sets are merged together. For example, suppose SORT_MEMORY_SIZE is set to 4 MB and the size of the data to be sorted is 32 MB. The server performs the sort once per each 4 MB of data, for a total of eight sort operations, and then merge the results into a single result set. This technique allows the Oracle Business Intelligence Server to sort data of indefinite size.

  The merge process itself is generally not costly in terms of resources, but it does include a read and write of each result set in a temporary file. To reduce the time this takes, increase the SORT_MEMORY_SIZE. This parameter can be tuned over time by taking into consideration the data size of the query and the number of concurrent users.

- SORT_BUFFER_INCREMENT_SIZE

  This parameter defines the increment by which SORT_MEMORY_SIZE should be reached. For example, suppose SORT_MEMORY_SIZE is set to 4 MB and the data to be sorted is just one megabyte. As data is fed into the sort routine, the size of the sort buffer increases only by the increment size, rather than the full size allowed by SORT_MEMORY_SIZE. This mechanism allows the Oracle Business Intelligence Server to sort smaller result sets efficiently without wasting memory.

- VIRTUAL_TABLE_PAGE_SIZE

  Several operations—sort, join, union and database fetch—can require memory resources beyond those available to the Oracle Business Intelligence Server. To manage this condition, the server uses a virtual table management mechanism that provides a buffering scheme for processing these operations. When the amount of data exceeds the VIRTUAL_TABLE_PAGE_SIZE, the remaining data is buffered in a temporary file and placed in the virtual table as processing continues. This mechanism supports dynamic memory sizes and ensures that any row can be obtained dynamically for processing queries.

  When VIRTUAL_TABLE_PAGE_SIZE is increased, I/O operations are reduced. Complex queries may use 20 to 30 virtual tables, while simple queries may not even require virtual tables. The default size of 128 KB is a reasonable size when one considers that the size for virtual paging in Windows NT is 64 KB. This parameter can be tuned depending on the number of concurrent users and the average query complexity. In general, setting the size higher than 256 KB does not yield a corresponding increase in throughput due to the 64 KB size limit of Windows NT system buffers, as each I/O still goes through the system buffers.

Related Topics

The topic SORT_MEMORY_SIZE on page 211 describes a parameter that affects performance in the manner described in this topic.

The topic SORT_BUFFER_INCREMENT_SIZE on page 211 describes a parameter that affects performance in the manner described in this topic.

The topic VIRTUAL_TABLE_PAGE_SIZE on page 212 describes a parameter that affects performance in the manner described in this topic.

USE_LONG_MONTH_NAMES

Specifies whether month names are returned as full names, such as JANUARY and FEBRUARY, or as three-letter abbreviations, such as JAN and FEB. Valid values are YES and NO. Specify YES to have month names returned as full names or NO to have months names returned as three-letter abbreviations. The default value is NO.

Example: USE_LONG_MONTH_NAMES = NO ;

USE_LONG_DAY_NAMES

Specifies whether day names are returned as full names, such as MONDAY and TUESDAY, or as three-letter abbreviations, such as MON and TUE. Valid values are YES and NO. Specify YES to have day names returned as full names or NO to have day names returned as three-letter abbreviations. The default value is NO.

Example: USE_LONG_DAY_NAMES = NO ;

UPPERCASE_USERNAME_FOR_INITBLOCK

Specifies whether the users are authenticated with case sensitivity. The default value is NO (or false internally). When it is set to YES, then all user names are changed to uppercase for authentication purposes in the SiebelAnalytics.rpd file. Otherwise, case is maintained.

Example: UPPERCASE_USERNAME_FOR_INITBLOCK = NO ;

AGGREGATE_PREFIX

Specifies the Domain Server Name for Aggregate Persistence. The prefix must be between 1 and 8 characters long and should not have any special characters ('_' is allowed).

Example: AGGREGATE_PREFIX = "SA_" ;

Security Section Parameters in the Configuration File

The security parameters specify default values for the Oracle Business Intelligence Server security features. For more information about security, see the chapter on security in *Oracle Business Intelligence Server Administration Guide* and sections (such as the section on setting up LDAP authentication) in the *Oracle Business Intelligence Server Administration Guide*.

DEFAULT_PRIVILEGES

Specifies the values users and groups are assigned when they are initially created.

Valid values are NONE and READ. The default value is READ.

Example: DEFAULT_PRIVILEGES = READ ;

PROJECT_INACCESSIBLE_COLUMN_AS_NULL

The default value for PROJECT_INACCESSIBLE_COLUMN_AS_NULL changes based on the type of install. If you are running the Oracle BI platform only, the value is NO.

The flag PROJECT_INACCESSIBLE_COLUMN_AS_NULL must be set to TRUE to enable the SQL command CHOOSE.

The SQL command

CHOOSE(*expr1, expr2, ... exprn*)

selects the first valid expression from a list of expressions. A valid expression here is an expression in which all referenced columns are accessible by the current query user.

MINIMUM_PASSWORD_LENGTH

A security measure used to enforce strong passwords. The minimum length is enforced when a user logs in. For example, if MINIMUM_PASSWORD_LENGTH is set to 8, then any user's password is rejected unless it has at least 8 characters.

The default value is zero if you install using the Basic install type, and 8 if you install using the Advanced type.

Example: MINIMUM_PASSWORD_LENGTH = 8 ;

SSL

The following parameters are for enabling Secure Socket Layer (SSL) communication with the Oracle BI Cluster (NQClusterConfig) and Oracle BI Server (NQSConfig). The SSL communication involves the Oracle BI Server (including the cluster) and Scheduler.

The default setting is NO. If you plan to enable SSL communication with these components, the SSL parameter are uncommented and set to YES and the SSL_CERTIFICATION_FILE parameter is set to the path of the certification file.

For more information on SSL and certification files, see the topics on configuring Oracle BI Cluster Controller in minimum and in maximum security scenarios the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

SSL_CERTIFICATE_FILE

Directory path to the certificate file. For components acting as SSL servers such as BI Server and BI Scheduler, this is the Server Certificate filename. For client components, such as BI ODBC Client Data Source, this is the Client Certificate filename.

Example (Server): SSL_CERTIFICATE_FILE = "servercert.pem" ;

Example (Client): SSL_CERTIFICATE_FILE = “client-cert.pem” ;

SSL_PRIVATE_KEY_FILE

The private key file. For server components, this is Server Private Key filename. For client components, this is the Client Private Key filename.

Example (Server): SSL_PRIVATE_KEY_FILE = "serverkey.pem" ;

Example (Client): SSL_PRIVATE_KEY_FILE = “client-key.pem” ;

SSL_PK_PASSPHRASE_FILE

File used to obtain the passphrase needed to decrypt the private key. Specify the file containing the passphrase that outputs the passphrase.

Example: SSL_PK_PASSPHRASE_FILE = "serverpwd.txt" ;

SSL_PK_PASSPHRASE_PROGRAM

Program used to obtain the passphrase needed to decrypt the private key. Specify the program that outputs the passphrase.

Example: SSL_PK_PASSPHRASE_PROGRAM = "sitepwd.exe" ;

SSL_VERIFY_PEER

States whether the server requires client authentication or not. When set to YES, the BI component verifies that the other component to the connection has a valid certificate (that is, mutual authentication). The default value of NO permits a connection to any peer.

Example: SSL_VERIFY_PEER = NO ;

SSL_CA_CERTIFICATE_DIR

Contains hash versions of trusted CAs. This parameter takes effect only when client authentication is required.

Example: SSL_CA_CERTIFICATE_DIR = "CACertDIR" ;

SSL_CA_CERTIFICATE_FILE

Specifies the name and path of the trusted CA Certificate used to verify the server or client certificate when Verify Peer is set to true. Takes effect only when client authentication is required.

Example: SSL_CA_CERTIFICATE_FILE = "CACertFile" ;

SSL_TRUSTED_PEER_DNS

Specifies individual named clients by Distinguished Name (DN) that are allowed to connect. DN identifies the entity holding the private key that matches the public key of the certificate.

Example: SSL_TRUSTED_PEER_DNS = "" ;

SSL_CERT_VERIFICATION_DEPTH

The depth of the certificate chain. A depth of one means a certificate has to be signed by one of the trusted CAs. A depth of two means the certificate was signed by a CA that was further verified by one of the CAs. The default is 9.

Example: SSL_CERT_VERIFICATION_DEPTH = 9 ;

SSL_CIPHER_LIST

A list of permitted cipher suites that the server uses. The default is empty string, which is equivalent to “ALL.” If it is for weak encryption, only the cipher suites starting with EXP are accepted.

Example: SSL_CIPHER_LIST = "EXP-RC2-CBC-MD5" ;

AUTHENTICATION_TYPE

Specifies the type of authentication the Oracle Business Intelligence Server uses to authenticate the Oracle Business Intelligence Server users.

Valid values are NQS, DATABASE, and BYPASS_NQS. The default authentication mechanism is NQS.

The consequences of each authentication type is shown in Table 23.

Table 23. Oracle Business Intelligence Server Authentication Types

Type	Description
NQS	Authentication is done by the Oracle Business Intelligence Server. **NOTE:** For Oracle BI applications, the Oracle Business Intelligence Server in turn can be set up to authenticate using Microsoft ADSI, an LDAP server, or a database. See the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.
DATABASE	Specify the database name in the Physical Layer of the repository to be used for database authentication. The first connection pool for this database is used for authentication. When the user logs into the Oracle Business Intelligence Server, the submitted logon name and password is used to connect to the database. If this connection succeeds, the user is considered to be successfully authenticated.
BYPASS_NQS	Authentication is against the database to which user queries are sent, using the submitted user name and password. For example, if a user runs a query tool against the Oracle Business Intelligence Server with the user name of “Test” and a password of “Test,” this user name and password are used to connect to the underlying database server. If this represents a valid user to the underlying database server, the user is considered authenticated. The user’s privileges are enforced by the underlying database server based upon the user name used to log in, as appropriate.

Example 1: AUTHENTICATION_TYPE = NQS ;

Example 2: DATABASE = "Goldmine" ;

Server Section Parameters in the Configuration File

The parameters in the Server section define defaults and limits for the Oracle Business Intelligence Server.

SERVER_NAME

A logical name identifying the Oracle Business Intelligence Server.

About the SERVER_THREAD_RANGE and MAX_SESSION_LIMIT Parameters

The size of the connection pool determines the number of available Oracle Business Intelligence Server connections and the number of available threads for processing physical queries. A logical query may generate multiple physical queries, each of which could go to different connections.

Oracle Business Intelligence Server creates a number of server threads up to the specified maximum using the parameter SERVER_THREAD_RANGE. All the threads available at any time are used to process queries from one or more sessions as needed.

Typically, the number of sessions specified by MAX_SESSION_LIMIT is higher than the number of available threads specified by SERVER_THREAD_RANGE.

In summary:

- MAX_SESSION_LIMIT specifies the number of sessions that can be connected to Oracle Business Intelligence Server even if inactive. The sessions and the corresponding queries are queued to the threads for processing as they become available.
- Connection pool size specifies the number of threads and connections that process physical queries.
- SERVER_THREAD_RANGE specifies the number of threads that process the logical queries—the number of queries that can be active in Oracle Business Intelligence Server at any time.

READ_ONLY_MODE

Permits or forbids changing the Oracle BI repository (.rpd) file in Online mode.

The default is NO, meaning that repositories can be edited online.

When this parameter is set to YES, it prevents the Oracle Business Intelligence Administration Tool in Online mode from making any changes to the repository. When the Administration Tool connects in Online mode, a message informs the user that the repository is read-only. If this parameter is set to NO, the online Administration Tool can make changes to the repository.

The Oracle BI Server must be stopped and restarted in order for changes in this parameter to take effect.

MAX_SESSION_LIMIT

Specifies the maximum number of connections allowed by the server. When this number is exceeded, the server refuses the connection request.

The limit is 65,535 connections.

Example: MAX_SESSION_LIMIT = 2000 ;

MAX_REQUEST_PER_SESSION_LIMIT

Specifies the maximum number of logical requests per session. This is how many open requests there are, per session, at the same time.

The limit is 65,535 logical requests per session.

NOTE: Usually, individual users have only one open request per session at the same time. Application programs and Oracle BI Presentation Services, however, typically have more than one request open at the same time. In general, the default value of 500 should be sufficient for most environments, but this parameter should be tuned based on the application environment and the client tools in use.

Example: MAX_REQUEST_PER_SESSION_LIMIT = 500 ;

SERVER_THREAD_RANGE

For each Oracle Business Intelligence Server request, SERVER_THREAD_RANGE specifies configuration information for thread allocation. The lower number in the range specifies the number of threads initially allocated, and the higher number in the range specifies the maximum number of threads to be allocated. The thread pool grows and shrinks in 5 thread increments until the upper or lower bound is reached. If there are fewer threads than sessions, sessions share the available number of threads on a first come-first served basis.

Set both values the same to maximize the benefits of thread pooling.

Example: SERVER_THREAD_RANGE = 100-100 ;

SERVER_THREAD_STACK_SIZE

Specifies the memory stack size allocated for each server thread. The value of 0 sets the stack size as 256 KB per server thread.

The default is 256 KB.

Example: SERVER_THREAD_STACK_SIZE = 256 KB ;

DB_GATEWAY_THREAD_RANGE

Specifies the minimum and maximum number of threads in the Oracle Business Intelligence Database Gateway thread pool, as per SERVER_THREAD_RANGE.

Default is 40-200.

Example: DB_GATEWAY_THREAD_RANGE = 40-200

DB_GATEWAY_THREAD_STACK_SIZE

Specifies the memory stack size allocated for each Oracle Business Intelligence Database Gateway thread. The value of 0 sets the stack size as 256 KB per server thread.

The default is 256 KB.

Example: DB_GATEWAY_THREAD_STACK_SIZE = 0 ;

MAX_EXPANDED_SUBQUERY_PREDICATES

Controls the maximum number of values that may be in an IN value list populated by a subquery. The default is 8,192 values.

Example: MAX_EXPANDED_SUBQUERY_PREDICATES = 8192;

NOTE: The default values are set to 1024 by default for the following parameters:
MAX_QUERY_PLAN_CACHE_ENTRIES
MAX_DRILLDOWN_INFO_CACHE_ENTRIES
MAX_DRILLDOWN_QUERY_CACHE_ENTRIES
These values should not be raised without consulting Oracle Support.

MAX_QUERY_PLAN_CACHE_ENTRIES

Controls the number of cached logical query plans. The query plan cache is an internal performance feature that increases the speed of the query compilation process by caching plans for the most recently used queries.

Example: MAX_QUERY_PLAN_CACHE_ENTRIES = 1024 ;

MAX_DRILLDOWN_INFO_CACHE_ENTRIES

Controls the number of cached Action Link drill down information entries per repository. This increases the speed of computing Action Link information by caching the Action Link information for the most recently used queries.

Example: MAX_DRILLDOWN_INFO_CACHE_ENTRIES = 1024 ;

MAX_DRILLDOWN_QUERY_CACHE_ENTRIES

Controls the number of cached Action Link query entries per repository. This increases the speed of drilling down by caching the Action Link drill down results for the most recently used queries.

Example: MAX_DRILLDOWN_QUERY_CACHE_ENTRIES = 1024 ;

INIT_BLOCK_CACHE_ENTRIES

Controls the number of initialization block result sets that are cached with respect to row-wise initialization. The cache key is the fully instantiated initialization block SQL.

The default value is 20. Because this parameter affects internal operations for localized versions of the Oracle BI software, it is recommended that you do not change this value unless instructed to do so.

Example: INIT_BLOCK_CACHE_ENTRIES = 20 ;

CLIENT_MGMT_THREADS_MAX

Specifies the number of management threads to allocate for managing Oracle Business Intelligence Server client/server communications. The default client/server communication method for Oracle Business Intelligence Server is TCP/IP.

The default value of 5 is sufficient for server communications with the Server Administration Tool and when Oracle BI Presentation Services is the only main client process.

To support this method, a Port field has been added to the Enter Logon Information screen in Oracle Business Intelligence ODBC Wizard. (Oracle BI D/COM support is limited; it is recommended that you use TCP/IP by default.)

Each client process consumes a management thread. If you plan to run multiple Oracle BI Presentation Services client instances or multiple third-party client instances, increase the number of management threads to match the number of client instances. When the number of running client instances exceeds the number of management threads allocated, worker threads are consumed.

Example: CLIENT_MGMT_THREADS_MAX = 10 ;

RPC_SERVICE_OR_PORT

Specifies the Remote Procedure Call (RPC) Service or TCP/IP port the Oracle Business Intelligence Server should use for client/server communications.

The default is 9703.

NOTE: Do not disable the RPC Service. If you attempt to start Oracle Business Intelligence Server on a machine where the RPC services or processes are not running, the application does not start and a log is not generated.

When using the Oracle BI ODBC Installer to set up ODBC data sources for the Oracle Business Intelligence Server, the port number specified in the Port field on the Enter Logon Information screen should match the port number specified here. If you change the port number in the configuration file, remember to reconfigure any affected ODBC data sources to use the new port number.

Example: RPC_SERVICE_OR_PORT = 9703 ;

SERVER_HOSTNAME_OR_IP_ADDRESSES

The value of this parameter is the name or IP of the location on which the Cluster Controller is running. The default value is ALLNICS. The parameter SERVER_HOSTNAME_OR_IP_ADDRESSES is related to the parameter RPC_SERVICE_OR_PORT field and to the environment variable NQUIRE_PORT.

There are two conditions under which you need to specify a value for SERVER_HOSTNAME_OR_IP_ADDRESSES:

- If you decide to use an IP address instead of a hostname.
- If the hostname for the machine is a fully-qualified hostname.domain.

The hostname or IP can be specified with or without a port number.

- If a port number is specified, the server listens to the specified port number, overriding the settings in RPC_SERVICE_OR_PORT field and in the NQUIRE_PORT environment variable.
- If a port number is not specified, take the port number from RPC_SERVICE_OR_PORT field or from the NQUIRE_PORT environment variable.

If the client specifies the hostname of the server (in odbc.ini on UNIX platforms or in instanceconfig.xml on Windows platforms), make sure that the BI Server is listening to the hostname or IP address bound to the hostname.

The following table shows the relationship between the value for RPC_SERVICE_OR_PORT and the value for SERVER_HOSTNAME_OR_IP_ADDRESSES.

SERVER_HOSTNAME_OR_IP_ADDRESSES	■ When a port number is specified here, it overrides the one specified by the field RPC_SERVICE_OR_PORT. ■ If a port is not specified with a host name or IP, the port number specified by the field RPC_SERVICE_OR_PORT is used.
RPC_SERVICE_OR_PORT	This port number will not be used if a port number is specified by the field SERVER_HOSTNAME_OR_IP_ADDRESSES.

The following table shows the relationships between the Oracle BI Server listening method and the client communication methods.

BI Server listens on hostname or set of hostnames	Client can send request using hostname
	Client can send a request using an IP that is bound to the hostname of the server, in DNS
BI Server listens to a particular IP or set of IP addresses	Client can send a request using the same IP
	Client can send a request using server hostname that has the IP bound to it

Examples:

- SERVER_HOSTNAME_OR_IP_ADDRESSES = “hostname.domain” ;

  Listen to all NICs.

- SERVER_HOSTNAME_OR_IP_ADDRESSES = “hostname.domain”:9715 ;

  Listen to all NICs on port 9715.

- SERVER_HOSTNAME_OR_IP_ADDRESSES = “IP1”,”IP2”:port 9715;

  Listen to IP1 and IP2 on port 9715.

- SERVER_HOSTNAME_OR_IP_ADDRESSES = “hostname.domain”:9715,”IP”:9717 ;

  Listen to hostname on port 9715 and IP address on port 9717. If the hostname is equivalent to the IP address, then the server listens on both ports.

ENABLE_DB_HINTS

Enables optional hints to be passed along with an SQL statement to an Oracle database. Database hints are discussed in *Oracle Business Intelligence Server Administration Guide*.

The default is YES.

PREVENT_DIVIDE_BY_ZERO

Controls the behavior for when a division by zero occurs. When set to YES, then a NULL value is returned. When set to NO, then the query is terminated and an appropriate error is returned to the user.

CLUSTER_PARTICIPANT

Specifies whether the Oracle Business Intelligence Server that is using this configuration file is a member of an Oracle Business Intelligence Server cluster.

Valid values are YES and NO. The default value is NO.

If the server is to be a member of an Oracle Business Intelligence Server cluster, uncomment the parameters REPOSITORY_PUBLISHING_DIRECTORY on page 224 and REQUIRE_PUBLISHING_DIRECTORY on page 225, and supply valid values for them.

When CLUSTER_PARTICIPANT is set to YES, this server must have a valid, configured NQClusterConfig.INI file in the subdirectory OracleBI_HOME\server\Config. For more information, see the NQClusterConfig.INI File Reference in the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Example: CLUSTER_PARTICIPANT = YES;

REPOSITORY_PUBLISHING_DIRECTORY

When the parameter CLUSTER_PARTICIPANT is set to YES, REPOSITORY_PUBLISHING_DIRECTORY specifies the location of the repository publishing directory shared by all Oracle Business Intelligence Servers participating in the cluster. There is no default value for this parameter.

When a repository is updated in online mode, it is published to this location. All clustered servers examine this location upon startup for any repository changes. This needs to be a valid location visible to all servers in the cluster even if you anticipate that no repositories are updated in online mode.

The directory should reside on a shared file system. The directory needs to be a valid fully-qualified directory pathname, with double quotes (") surrounding the pathname. Both UNC and mapped directories are supported. Do not specify a relative path name, or the Repository subdirectory (located in the Oracle BI software installation directory) as the location of the repository publishing directory.

This REPOSITORY_PUBLISHING_DIRECTORY parameter is required on every Oracle Business Intelligence Server that is to participate in the cluster. The Oracle Business Intelligence Server designated as the master server for online repository changes (from the MASTER_SERVER parameter in the NQClusterConfig.INI file) needs to have read and write access to this directory. The Oracle Business Intelligence Servers in the cluster (from the SERVERS parameter in the NQClusterConfig.INI file) need to have read and write access to this directory as well. All entries need to reference the same actual directory, although different names can be specified to accommodate differences in drive mappings.

These are examples:

```
REPOSITORY_PUBLISHING_DIRECTORY = “z:\OracleBI\Publish” ;
REPOSITORY_PUBLISHING_DIRECTORY = “\\ClusterSrv\Publish” ;
```

REQUIRE_PUBLISHING_DIRECTORY

When the parameter CLUSTER_PARTICIPANT is set to YES, REQUIRE_PUBLISHING_DIRECTORY specifies that the repository publishing directory (from the parameter REPOSITORY_PUBLISHING_DIRECTORY) needs to be available in order for this Oracle Business Intelligence Server to start up and join the cluster.

This parameter is commented out by default.

When set to YES, if the publishing directory is not available at startup or if an error is encountered while the server is reading any of the files in the directory, an error message is logged in the NQServer.log file and the server shuts down.

To allow this Oracle Business Intelligence Server to start up and join the cluster even if the publishing directory is not available, set this value to NO. When set to NO, the server joins the cluster and a warning message is logged in the NQServer.log file. Any online repository updates are not reflected in the server’s Repository directory (located in the Oracle BI software installation directory). This could result in request failures, wrong answers, and other problems. However, this could be useful in situations where online repository editing is done infrequently and the goal is to keep the cluster operational even if some servers have stale repositories.

Example: REQUIRE_PUBLISHING_DIRECTORY = YES;

DISCONNECTED

When Oracle Business Intelligence Server is being run as part of Oracle BI Disconnected Client, the DISCONNECTED parameter must be set to YES. The default is NO.

When DISCONNECTED is set to YES, only Mobile Clients running on the same machine as the Mobile Oracle Business Intelligence Server are able to connect to it. Any Mobile Client running on a different machine is unable to connect to the Disconnected Oracle BI Server.

Example: DISCONNECTED = NO ;

AUTOMATIC_RESTART

Specifies whether the Oracle Business Intelligence Server should be automatically restarted after a crash. Automatic restart is applies only to an Oracle Business Intelligence Server platform; it does not apply to a clustered Oracle BI Server environment, or to an Oracle BI Disconnected server. The default is YES.

Example: AUTOMATIC_RESTART = YES ;

Dynamic Library Section Parameters in the Configuration File

This section contains one entry for each dynamic link library (DLL) used to make connections to the Oracle Business Intelligence Server:

Syntax: <*logical_name*> = <*dynamic_library*> ;

where:

logical_name	A logical name for the dynamic link library. These logical names also appear in the Connection Pool dialog.
dynamic_library	The name of the associated dynamic library. These are located in the Bin subdirectory in the Oracle BI software installation directory.

CAUTION: Do not make any changes to this section unless instructed to do so by Oracle Support.

The following are the dynamic link libraries shipped with this release:

- ODBC200 = nqsdbgatewayodbc ;
- ODBC350 = nqsdbgatewayodbc35 ;
- OCI7 = nqsdbgatewayoci7 ;
- OCI8 = nqsdbgatewayoci8 ;
- OCI8i = nqsdbgatewayoci8i ;
- OCI10g = nqsdbgatewayoci10g ;
- DB2CLI = nqsdbgatewaydb2cli ;
- DB2CLI35 = nqsdbgatewaydb2cli35 ;
- NQSXML = nqsdbgatewayodbc ;
- XMLA = nqsdbgatewayodbc ;

NOTE: If you are upgrading from an earlier version of Siebel Analytics, you may need to contact Oracle Support for more information.

User Log Section Parameters in the Configuration File

The user log NQQuery.log is located in the OracleBI_HOME\server\Log directory (together with the NQServer.log file). It logs activity about queries when enabled for a user. Entries can be viewed using a text editor or the nQLogViewer executable.

For more information about the NQQuery.log file, see the chapter on administering the query environment in *Oracle Business Intelligence Server Administration Guide*.

NOTE: The NQServer.log file automatically logs activity about the Oracle Business Intelligence Server, including information about server startup failures and queries that result in time limits or row limits being exceeded when the Status Max Time or Status Max Rows option is set to Warn. The install.log file logs activity automatically about installation activities. You can view these log files using a text editor such as Windows Notepad.

USER_LOG_FILE_SIZE

Specifies the size to which the NQQuery.log file is allowed to grow. The default size is 10 MB. When this limit is reached, the log file closes, the log file is renamed to NQQuery.log.old, and logging resumes to a newly created NQQuery.log file.

Example: USER_LOG_FILE_SIZE = 10 MB ;

CODE_PAGE

Specifies the type of code page being used. The default is UTF8. Other values include any valid code page, such as ANSI, 1252, and so on. Enclose the value in double quotes.

Example: CODE_PAGE = "UTF8" ;

Usage Tracking Section Parameters in the Configuration File

The usage tracking parameters define default values for collection of usage tracking statistics on each logical query submitted to the Oracle Business Intelligence Server.

The following table shows the names and descriptions of columns that are added to the usage tracking table and to the stand-alone usage tracking repository.

Name	Data type	Description	Notes
SAW_DASHBOARD_PG	Varchar(150)	Page within Oracle BI Presentation Services dashboard	Null if not a dashboard request.
PRESENTATION_NAME	Varchar(128)	Presentation catalog within Oracle BI Server	
ERROR_TEXT	Varchar(250)	Error flag and reason text for queries that do not generate a cache entry, from back-end databases	Only applicable if SUCCESS_FLG is non-zero. Concatenates multiple messages; the application must parse the column contents.
RUNAS_USER_NAME	Varchar(128)	Impersonated User (the Proxy User that executed the query)	Null if the request is not run as an impersonated user.

For more information about usage tracking, see the chapter on administering the query environment in *Oracle Business Intelligence Server Administration Guide*.

ENABLE

Enables or disables collection of usage tracking statistics.

Valid values are YES and NO. The default value is NO. When set to NO, statistics are not accumulated. When set to YES, statistics are accumulated for each logical query.

Example: ENABLE = NO ;

DIRECT_INSERT

Specifies whether statistics are inserted directly into a database table or written to a local file.

- When DIRECT_INSERT is set to NO, data is written to a flat file.
- When DIRECT_INSERT is set to YES, data is inserted into a table.

NOTE: This parameter is operative only if ENABLE = YES.

Direct insertion into a database table is recommended, therefore the default value is YES.

Certain other parameters become valid, depending whether DIRECT_INSERT is set to YES or to NO. These parameters are summarized in Table 24 on page 230, and described following the table.

Table 24. Valid Parameters for DIRECT_INSERT Settings

DIRECT_INSERT Setting	Parameters Used	Parameter Setting
NO	STORAGE_DIRECTORY	"<full directory path>"
	CHECKPOINT_INTERVAL_MINUTES	5
	FILE_ROLLOVER_INTERVAL_MINUTES	30
	CODE_PAGE	"ANSI"
YES	PHYSICAL_TABLE_NAME	"<Database>"."<Catalog>"."<Schema>"."<Table>" or "<Database>"."<Schema>"."<Table>"
	CONNECTION_POOL	"<Database>"."<Connection Pool>"
	BUFFER_SIZE	10 MB
	BUFFER_TIME_LIMIT_SECONDS	5
	NUM_INSERT_THREADS	5
	MAX_INSERTS_PER_TRANSACTION	1

STORAGE_DIRECTORY

Specifies the full path to the directory used to store usage tracking log files. The directory listed needs to be a valid fully-qualified, writable directory pathname, with double quotes (") surrounding the pathname. Specify mapped directories only. UNC path names and network mapped drives are allowed only if the service runs under a qualified user account. To change the account under which the service is running, see the corresponding topic in the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Valid values are any fully qualified pathname to an existing, writable directory.

The parameter STORAGE_DIRECTORY is valid only if the parameter DIRECT_INSERT is set to NO. When usage tracking is enabled, but no storage directory is specified, the files are written to the subdirectory OracleBI_HOME\server\Log.

Example: STORAGE_DIRECTORY = "C:\Temp\UsageTracking" ;

CHECKPOINT_INTERVAL_MINUTES

Specifies how often the usage tracking data is flushed to disk. Setting this interval higher increases the amount of data that may be lost in the event of an abnormal server shutdown. Setting this interval lower incurs additional overhead.

The default is 5 minutes.

NOTE: When the interval is set to 0, the Oracle Business Intelligence Server attempts to write usage tracking data to disk with minimal time between attempts. This can negatively affect server performance, and is strongly discouraged.

Example: CHECKPOINT_INTERVAL_MINUTES = 5 ;

FILE_ROLLOVER_INTERVAL_MINUTES

Specifies the time, in minutes, before the current usage tracking log file is closed and a new file created. For example, if this entry is set to 60 minutes, then 24 usage tracking log files are created each day.

The default is 30 minutes.

When the checkpoint interval equals or exceeds the rollover interval, only the rollover occurs explicitly; the checkpoint only occurs implicitly when the old usage tracking log file is closed.

NOTE: When the checkpoint interval is set to 0, the Oracle Business Intelligence Server attempts to close current usage tracking log files and open new log files with minimal time between attempts. This can negatively affect server performance and result in a large number of usage tracking log files in the storage directory. Setting this interval to 0 is strongly discouraged.

Example: FILE_ROLLOVER_INTERVAL_MINUTES = 240;

CODE_PAGE

For multilingual repositories, this specifies the type of output code page to use when writing statistics to disk. Valid values include any valid code page number (such as 1252), and other globally recognized output code page types.

The default value is ANSI. The type depends upon the database loader being used. For example, to support multilingual repositories for database loaders used by Oracle and DB2, specify UTF8. Enclose the value in double quotes. USC-2 is currently not supported.

Example: CODE_PAGE = "ANSI";

PHYSICAL_TABLE_NAME

Specifies the table in which to insert records corresponding to the query statistics. The table name is the fully qualified name as it appears in the physical layer of the Server Administration Tool.

The general structure of this parameter depends on the type of database being used:

- For SQL Server databases, use the following general structure:

  PHYSICAL_TABLE_NAME = "<Database>"."<Catalog>"."<Schema>"."<Table>" ;

  Example:

  PHYSICAL_TABLE_NAME = "OracleBI Usage"."Catalog"."dbo"."S_NQ_ACCT" ;

  In the preceding example, the structure is as follows:

  - "Oracle BI Usage" represents the database component

- "Catalog" represents the catalog component
- "dbo" represents the schema component
- "S_NQ_ACCT" represents the table name

■ For Oracle databases, use the following general structure:

PHYSICAL_TABLE_NAME = "<Database>"."<Schema>"."<Table>" ;

Examples:

PHYSICAL_TABLE_NAME = "OracleBI Usage"."S_NQ_SCHED"."S_NQ_ACCT" ;

In the preceding example, the structure is as follows:

- "Oracle BI Usage" represents the database component
- "S_NQ_SCHED" represents the schema component
- "S_NQ_ACCT" represents the table name

CONNECTION_POOL

Specifies the connection pool to use for inserting records into the usage tracking table. This is the fully qualified name as it appears in the physical layer of the Server Administration Tool.

Example: CONNECTION_POOL = "OracleBI Usage"."Connection Pool" ;

BUFFER_SIZE

Specifies the amount of memory used to temporarily store insert statements. The buffer allows the insert statements to be issued to the usage tracking table independently of the query that produced the statistics to be inserted. When the buffer fills up, then subsequent queries' statistics are discarded until the insert threads service the buffer entries.

Example: BUFFER_SIZE = 10 MB ;

BUFFER_TIME_LIMIT_SECONDS

Specifies the maximum amount of time that an insert statement remains in the buffer before it is issued to the usage tracking table. This time limit ensures that the Oracle Business Intelligence Server issues the insert statements in a timely manner even during periods of extended quiescence.

Example: BUFFER_TIME_LIMIT_SECONDS = 5 ;

NUM_INSERT_THREADS

Specifies the number of threads that remove insert statements from the buffer and issue them to the usage tracking table. The number of threads should not exceed the total number of threads assigned to the connection pool.

Example: NUM_INSERT_THREADS = 5 ;

MAX_INSERTS_PER_TRANSACTION

Specifies the number of records to group together as a single transaction when inserting into the usage tracking table. Increasing the number may slightly increase performance but also increases the possibility of inserts being rejected due to deadlocks in the database.

Example: MAX_INSERTS_PER_TRANSACTION = 1 ;

Optimization Flags Section Parameters in the Configuration File

There is one parameter in the Optimization Flags section. It is a special parameter to override the behavior of the Oracle Business Intelligence Server in certain situations.

STRONG_DATETIME_TYPE_CHECKING

Use this parameter to relax strong type checking to prevent some date/time data type incompatibilities in queries from being rejected. For example, a query of the form “date/time op string-literal” technically contains a date/time data type incompatibility and would normally be rejected by the Oracle Business Intelligence Server.

Valid values are ON and OFF. The default value is ON, which means that strong type checking is enabled and queries containing date/time data type incompatibilities are rejected. This is the recommended setting.

To relax the strong type checking, set the value to NO. Note that invalid queries or queries with severe date/time incompatibilities are still rejected. Note also that the query could still fail, for example, if the relational database implements a similar strong type checking.

Example: STRONG_DATETIME_TYPE_CHECKING = ON ;

Cube Views Section Parameters in the Configuration File

Oracle Business Intelligence CubeViews Generator is a feature that enhances the OLAP functionality of a database, allowing the database to store metadata about the logical relationships of the data residing in the database, and optimizing queries made against that database. The CubeViews Generator parses the logical layer of a repository, extracts the table sources, and converts the metadata into Cube Models for DB2 DBMS.

NOTE: The term IBM DB2 Cube Views is a registered trademark of IBM.

The Cube Views optimizer generates scripts to create Materialized Query Tables (MQT), which can enhance the performance of queries. The CubeViews Generator functions like a metadata bridge that converts the Oracle BI proprietary metadata into an XML format that can be used by IBM DB2 Cube Views.

If you have an Oracle Database, then use Oracle Database Metadata Generator, as described in the topic Oracle Dimension Export Section Parameters in the Configuration File on page 237. The Cube Views section of the configuration file sets the following initial values for this feature.

DISTINCT_COUNT_SUPPORTED

The recommended setting and default value is NO. When set to YES, allows measure containing the DISTINCT_COUNT aggregation to be exported.

Example:

```
DISTINCT_COUNT_SUPPORTED = NO ;
```

STATISTICAL_FUNCTIONS_SUPPORTED

The recommended setting and default value is NO. When set to YES, allows measures containing the aggregation STDDEV to be exported.

USE_SCHEMA_NAME

The default value is YES.

When set to YES, the Cube Views metadata attributes has columns from tables under a schema name, which are then specified in the parameters . When set to NO, the schema names for these tables are empty.

USE_SCHEMA_NAME_FROM_RPD

The default value is YES. When set to YES, the table schema names are used as they are used in the repository.

DEFAULT_SCHEMA_NAME

This name is used as the table schema name, if either of the following is true:

- The repository schema name cannot be determined

- The value of USE_SCHEMA_NAME_FROM_RPD is set to NO

  Example:

  "ORACLE" ;

CUBE_VIEWS_SCHEMA_NAME

The Cube Views metadata is created under this schema.

Example:

"ORACLE" ;

LOG_FAILURES

When set to YES, the log file lists the metadata that was invalidated under a certain rule. The default value is YES.

LOG_SUCCESS

When set to YES, the log file lists the metadata which has checked under each rule and has passed the check. The default value is NO.

LOG_FILE_NAME

A valid path needs to be provided, otherwise an error is thrown.

Example:

LOG_FILE_NAME = "C:\OracleBI\server\Log\CubeViews.Log" ;

MDX Member Name Cache Section Parameters in the Configuration File

This is a cache subsystem that maps between a unique name and the captions of members of all SAP/BW cubes in the repository.

ENABLE

This parameter indicates if the feature is enabled or not.

The default it is NO because this only applies to SAP/BW cubes.

DATA_STORAGE_PATH

The path to the location where the cache will be persisted. The applies only to a single location.

The number at the end of the entry indicates the capacity of the storage. When the feature is enabled, the string "<full directory path>" needs to be replaced with a valid path.

Example: DATA_STORAGE_PATH = "C:\OracleBI\server\Data\Temp\Cache" 500 MB ;

MAX_SIZE_PER_USER

Maximum disk space allowed for each user

Example: MAX_SIZE_PER_USER = 100 MB ;

MAX_MEMBER_PER_LEVEL

Maximum number of members in a level will be able to be persisted to disk.

Example: MAX_MEMBER_PER_LEVEL = 1000 ;

MAX_CACHE_SIZE

Maximum size for each individual cache entry size.

Example: MAX_CACHE_SIZE = 100 MB ;

Oracle Dimension Export Section Parameters in the Configuration File

Oracle Database Metadata Generator is a feature that enhances the OLAP functionality of a database, allowing the database to store metadata about the logical relationships of the data residing in the database, and optimizing queries made against that database. Oracle Database Metadata Generator parses the logical layer of a repository, extracts the table sources, and converts the metadata into materialized views in the Oracle Database, which can enhance the performance of queries.

The ORA_DIM_EXPORT section of the configuration file sets the following initial values for this feature.

Oracle Database Metadata Generator functions like a metadata bridge that converts the Oracle BI proprietary metadata into a SQL format that can be used by Oracle materialized views. If you have an IBM DB2 Database, then use Oracle Business Intelligence CubeViews Generator, as described in the topic Cube Views Section Parameters in the Configuration File on page 235.

USE_SCHEMA_NAME_FROM_RPD

The default value is YES. When set to YES, the table schema names are used as they are used in the repository.

DEFAULT_SCHEMA_NAME

This name is used as the table schema name, if either of the following is true:

- The repository schema name cannot be determined.
- The value of USE_SCHEMA_NAME_FROM_RPD is set to NO.

Example:

```
"ORACLE" ;
```

ORA_DIM_SCHEMA_NAME

The metadata from Oracle Database Metadata Generator is created under this schema.

Example:

```
"ORACLE" ;
```

LOGGING

Indicates whether to keep a log of the metadata export process. The default is ON; other values are OFF and DEBUG.

LOG_FILE_NAME

A valid path needs to be provided, otherwise an error is thrown.

Example:

```
LOG_FILE_NAME = "C:\OracleBI\server\Log\OraDimExp.Log" ;
```

B Localizing Oracle Business Intelligence Deployments

Oracle Business Intelligence is designed to allow users to dynamically change their preferred language and locale preferences. This topic area contains topics on how to configure Oracle Business Intelligence for deployment in one or more language environments besides English.

In order to support multiple languages, the Oracle Business Intelligence Server must be set up appropriately. The NQSConfig.INI file—General section contains those parameters required for localization, internationalization and other default parameters used to determine how data is returned from the Oracle BI Server to a client.

The following topics describe some of the tasks necessary to localize the Oracle Business Intelligence Server for all types of installation:

Localization of Oracle BI Server Components

The Oracle Business Intelligence Presentation Services user interface works in different languages, with a default Error Message language of English. Any error or warning messages appear in English. To receive localized Oracle BI Server messages (such as error, warning and information messages), you must set the locale during the platform installation, in the Error Message Language screen, as described in the topics Running the Oracle BI Installer Under Windows on page 57 and Running the Oracle BI Installer Under UNIX on page 63.

The primary mechanism for displaying localized table and column names is Externalize Metadata Strings. To determine which table and column names are localized, see the topic Using the Externalize Strings Utility for Localization on page 253.

Localized Oracle BI Components

- Web interface
- Oracle BI Presentation Services messages:
  - error
  - warning
  - information
- Oracle BI Server functions:
  - DayName
  - MonthName

  NOTE: If a query is issued using the DayName or MonthName function, but the function is not shipped to a back-end database, then the day or month name is returned in the localized language but the column name remains in English (or may be affected by other localization controls). As an example of this situation, if the LOCALE parameter is set for German, the MonthName query returns the string “Mai” but the column header remains "Name of Month."
- Oracle BI Server and Scheduler messages:
  - error
  - warning
  - information
- Log files:
  - nQServer.log for Oracle BI Server
  - nqQuery.log for Oracle BI Server
  - If Clustering is enabled, nQCluster.log for Oracle BI Server Cluster
- Metadata:
  - Oracle BI Presentation Services dashboards and reports (Oracle BI Catalog)

- Presentation table and column names (.rpd file)
- Informatica (ENU and JPN locales only)

- Disconnected Client interface

Unlocalized Oracle BI Components

- Server Administration Tool interface
- Scheduler Job Manager interface
- ODBC client tools:
  - nqcmd (UNIX)
  - nQCmd.exe (Windows)
  - nQClient.exe (Windows)
- Installer
- ODBC setup (see the topic Configuring an Oracle BI ODBC Data Source Under UNIX on page 133)

Configuring Unicode Support for Oracle BI Charts

This process is part of the process Localizing Oracle Business Intelligence Deployments.

Oracle Business Intelligence itself supports Unicode. However, some third-party products and platforms may not fully support Unicode. For example, the charting image server for displaying charts in Oracle Business Intelligence Presentation Services is unable to show East-Asian characters in its standard mode. Before you can see Asian characters in the Oracle BI Presentation Services charts, you must configure some charting templates and convert fonts.

These tasks are described in the following topics:

- Converting Chart Fonts on page 243
- Adding Converted Fonts to the Charting Image Server on page 244

Converting Chart Fonts

This topic is part of the process Configuring Unicode Support for Oracle BI Charts.

This task shows how to convert Unicode font for use with the charting image server. You use the charting server Font Converter 5.0 to convert the desired TrueType font (TTF) to a Corda .fsd file.

To convert a font using the Corda Font Converter

1. Run CordaFontConverter.exe.

   NOTE: This converter is in the Windows folder OracleBI_HOME\Corda50\bin.

2. From the Fonts window, select the font you want to convert. Select the conversion options, and accept the default display name or create your own.

   For example, Arial.

   NOTE: The display name selected is the one you specify in the task Adding Converted Fonts to the Charting Image Server on page 244.

3. Click convert.

   The conversion may take a few minutes.

4. Click Exit.

To continue with the process of configuring the Web chart image server to display Asian fonts, see the topic Adding Converted Fonts to the Charting Image Server on page 244.

Adding Converted Fonts to the Charting Image Server

This topic is part of the process Configuring Unicode Support for Oracle BI Charts.

This topic shows how to add fonts to the charting image server. The following tasks are necessary if you are going to use charts with additional converted fonts in localized deployments of Oracle Business Intelligence:

- Adding a Font to the Chart Template Files on page 244
- Adding Additional Converted Fonts to the Charting Image Server on page 245

Adding a Font to the Chart Template Files

Corda chart template (pcxml) files describe various chart types. In these files, by default, a font name is not referenced but font size is. You edit a pcxml file to refer to the font newly converted during the task Converting Chart Fonts on page 243. Any text editor can be used to edit the pcxml files.

Corda chart template files are located in the Windows directories containing the chart server files:

- OracleBI_HOME\web\app\res\s_oracle10\popbin
- OracleBI_HOME\web\app\res\s_Siebel77\PopBin

CAUTION: Back up these directories before editing any pcxml files.

To add a font to image server templates

1. Open the pcxml file in the text editor (for example, pie.pcxml).
2. In the file, search for the word Font.
3. Add the display name of the font that was specified during the font conversion.

   For example, to add the Arial font to pie.pcxml, search for the word Font:

   <Properties TransparentFill='True' BorderType='None' **Font='Size:11**; Style:Bold;'/>

   Add the font display name attribute so that the line reads:

   <Properties TransparentFill='True' BorderType='None' **Font='Name:Arial;** Size:11; Style:Bold;'/>
4. Save and close the pcxml file.

   NOTE: Perform Steps 1 through 4 for each pcxml file.
5. Stop and restart the Oracle BI Presentation Services and the Oracle BI Javahost services in order to see the changes.

Adding Additional Converted Fonts to the Charting Image Server

This task shows how to enable additional fonts for charting.

The file OracleBI_HOME\web\config\chartfontmapping.xml specifies the name of a charting font to choose for any specified locale. The structure of this file is as follows:

```
<fontMapping name="[display name]">
  <choose>
    <when locale="en*"><font name="[font name]"/></when>
  </choose>
</fontMapping>
```

The parameters in the chartfontmapping.xml file are defined as follows:

- Locale (in quote marks). The locale code (see the description of the parameter LOCALE on page 207).
- Font name. The name given during the procedure “To convert a font using the Corda Font Converter.”
- fontMapping name. The display name of the font Family; for example: Arial.

The following examples show how this file can be used:

```
<fontMapping name="Arial">
  <choose>
    <when locale="en*"><font name="Helvetica"/></when>
  </choose>
</fontMapping>

<fontMapping name="Courier New">
  <choose>
    <when locale="en*"><font name="Courier"/></when>
  </choose>
</fontMapping>

<fontMapping name="Garamond">
  <choose>
    <when locale="en*"><font name="Lucida Bright"/></when>
</choose>
</fontMapping>
```

Wildcards can be used to specify more than one fontMapping name or locale, as shown in this example:

```
<fontMapping name="*">
  <choose>
    <when locale="en*"><font name="Helvetica"/></when>
    <when locale="zh-tw"><font name="Albany WT TC"/></when>
    <when locale="zh*"><font name="Albany WT SC"/></when>
    <when locale="ja*"><font name="Albany WT J"/></when>
    <when locale="ko*"><font name="Albany WT K"/></when>
    <when locale="*"><font name="Albany WT"/></when>
  </choose>
</fontMapping>
```

The preceding example means that for any fontMapping name, the given fonts defaults when the locale is one of the first five locales listed; for all other locales, the default font is Albany WT.

Another example of specifying a particular font for a specific locale is the following:

```
<fontMapping name="*">
   <choose>
     <when locale="en*"><font name="Helvetica"/></when>
     <when locale="ja"><font name="JPNFont"/></when>
     <when locale="*"><font name="Unicode"/></when>
  </choose>
</fontMapping>
```

The following procedure shows how to modify the chartfontmapping.xml to add specific charting fonts for specified locales.

To add a converted font to the image server

1. In a text or XML editor, open the chartfontmapping.xml file.
2. Add the locale code, font name, and font mapping name as shown in the preceding examples.
3. Save and close the chartfontmapping.xml file.
4. Stop and restart the Oracle BI Presentation Services and the Oracle BI Javahost services in order to see the changes.

Changing Localization Variables for Oracle BI

This process is part of the process Localizing Oracle Business Intelligence Deployments.

The following topics describe how to change localized variables in Oracle Business Intelligence:

- Setting Locale Parameters Under UNIX on page 248
- About Configuring Oracle BI and the Operational Application to Display the Same Language on page 250
- Changing Configuration File Settings for Japanese Localizations Under AIX on page 251

If you have localized Oracle Business Intelligence for one or more languages other than English, you must also configure these localizations in the Oracle BI Presentation Catalog:

- See the topics on using variables to display values in Dashboards and iBots in the *Oracle Business Intelligence Answers, Delivers, and Interactive Dashboards User Guide*.
- See the topic on localizing Presentation Catalog captions in the *Oracle Business Intelligence Presentation Services Administration Guide*.

Setting Locale Parameters Under UNIX

Operating System: UNIX only.

If you are localizing your deployment of Oracle Business Intelligence, this topic is part of the process of Configuring Oracle BI Processes.

To successfully run Oracle BI under UNIX systems, make sure to configure the appropriate locales on your operating system for the language in which you run the applications. Some locale- and language-related settings are interrelated and help determine how the Oracle BI Server sorts data. Make sure that the settings for the following parameters work together:

- LOCALE
- SORT_ORDER_LOCALE
- SORT_TYPE
- CASE_SENSITIVE_CHARACTER_COMPARISON

NOTE: For all locale settings, see the topic General Section Parameters in the Configuration File on page 207.

Table 25 shows language mappings from the platform-independent name to the specific name for each of the supported UNIX platforms. For example, Chinese-simplified uses the setting zh_CN.utf8 under HP-UX or Linux operating systems.

NOTE: Name strings like zh_CN.utf8 and fr-FR-UTF-8 are the platform-specific names of the locale components, which must be installed by a system administrator. The NQSConfig.INI file uses the platform-*independent* names, such as chinese-simplified or french. (The names are case-insensitive.)

Table 25. LOCALE Settings for UNIX Platforms

Locale (Platform-Independent Name)	Language Code	Platform-Dependent Name for:		
		Solaris	AIX	HP-UX / Linux
Chinese-simplified	CHS	zh_CN.UTF-8	ZH_CN.UTF-8	zh_CN.utf8
Chinese-traditional	CHT	zh_TW.UTF-8	ZH_TW.UTF-8	zh_TW.utf8
Czech	CSY	cs_CZ.UTF-8	CS_CZ.UTF-8	cs_CZ.utf8
Danish	DAN	da_DK.UTF-8	DA_DK.UTF-8	da_DK.utf8
Dutch	NLD	nl_NL.UTF-8	NL_NL.UTF-8	nl_NL.utf8
English-USA	ENU	en_US.UTF-8	EN_US.UTF-8	en_US.utf8
Finnish	FIN	fi_FI.UTF-8	FI_FI.UTF-8	fi_FI.utf8
French	FRA	fr_FR.UTF-8	FR_FR.UTF-8	fr_FR.utf8
German	DEU	de_DE.UTF-8	DE_DE.UTF-8	de_DE.utf8
Italian	ITA	it_IT.UTF-8	IT_IT.UTF-8	it_IT.utf8
Japanese	JPN	ja_JP.UTF-8	JA_JP.UTF-8	ja_JP.utf8

Table 25. LOCALE Settings for UNIX Platforms

Locale (Platform-Independent Name)	Language Code	Platform-Dependent Name for:		
		Solaris	AIX	HP-UX / Linux
Korean	KOR	ko_KR.UTF-8	KO_KR.UTF-8	ko_KR.utf8
Portuguese	PTB	pt_PT.UTF-8	PT_PT.UTF-8	pt_PT.utf8
Portuguese-Brazilian	PTG	pt_BR.UTF-8	PT_BR.UTF-8	pt_BR.utf8
Spanish	ESN	es_ES.UTF-8	ES_ES.UTF-8	es_ES.utf8
Swedish	SVE	sv_SE.UTF-8	SV_SE.UTF-8	sv_SE.utf8

A value for the C-runtime locale during server startup is specified using the SORT_ORDER_LOCALE parameter in the NQSConfig.INI file. This parameter is set normally by the Oracle BI Server. If you need to adjust the setting, use the following procedure.

To set the LOCALE parameters under UNIX

1. Stop the Oracle Business Intelligence Server.
2. Using a text editor, open the NQSConfig.INI file.

   The NQSConfig.INI file is located in the folder OracleBI_HOME/server/Config.
3. In the General section, set the LOCALE and SORT_ORDER_LOCALE parameters, enter a platform-independent name as shown in the Locale column of Table 25 on page 248.
4. Save and close the NQSConfig.INI file.
5. Restart the Oracle Business Intelligence Server.

NOTE: For organizations that use Oracle Application Server, Oracle recommends that you use Oracle Application Server Control to modify configuration files. For organizations that use other application servers, Oracle recommends that you use JConsole. For more information, see the topic Updating Configuration Settings Using Oracle Application Server Tools on page 116.

NLS Locale Not Supported Error Message

If you do not have the proper locale installed, the Oracle BI Server does not start, and the NQSServer.log file contains the following error:

> [47013] NLS locale *xxx* is not supported by the operating system.

In this error message, *xxx* is the locale specified in the NQSConfig.INI file for the SORT_ORDER_LOCALE parameter. The responses to this error are as follows:

- **UNIX**. Install the locale indicated in Table 25 on page 248 for the requested language.
- **Windows**. Add the corresponding language pack using the Regional Settings dialog box.

About Configuring Oracle BI and the Operational Application to Display the Same Language

Oracle BI supports multiple languages for the application's user interface. Changing the language normally requires manual user intervention by choosing the language on the Oracle BI Presentation Services logon page or changing the language in the My Account page after logging on.

For consistent language display in an integrated Oracle BI implementation, you must define a URL parameter as a profile attribute. Doing so dynamically sets the language of the Oracle BI Presentation Services Dashboards and reports to be consistent with the operational application's language setting.

The operational application uses symbolic URLs to embed Oracle BI Dashboards and reports in the integrated environment. For the Oracle BI Presentation Services, the URL parameter Lang designates the language that the Web page renders.

The Lang parameter can be included in the symbolic URL defined in the operational application to connect to Oracle BI. The Lang parameter is defined as a profile attribute, but when the symbolic URL is constructed in runtime, the value is set as the profile attribute LanguageCode. The following table shows an example of the parameter settings in the Symbolic URL parameters applet, including Lang.

For example, the URL

```
http://<ServerName>:<port number>/analytics/saw.dll?Dashboard&Lang=fr
```

displays the Oracle BI Presentation Services logon page in French.

Table 26. Example of Settings in the Symbolic URL Parameters Applet

Name	Type	Path Argument Value	Append	Sequence #
Cmd	Constant	Go	Y	1
Path	Constant	/shared/Sales/Pipeline/ Overview/Top 10 Deals	Y	2
nQUser	Command	UseLoginId	Y	3
nQPassword	Command	UseLoginPassword	Y	4
PostRequest	Command	PostRequest	Y	5
Lang	Profile Attribute	LanguageCode	Y	6

Changing Configuration File Settings for Japanese Localizations Under AIX

Operating System: IBM AIX only.

This process is part of the process Localizing Oracle Business Intelligence Deployments.

For Japanese localizations on AIX platforms, the Oracle BI Server may not start. You may need to perform the following steps.

To change configuration settings for Japanese localization

1. Make sure that locale JA_JP.UTF-8 is installed. If it is not, install it.
2. Open the NQConfig.INI file and change the following:
   - LOCALE = "Japanese";
   - SORT_ORDER_LOCALE = "Japanese";

   NOTE: These settings are case-sensitive.
3. Save and close the NQConfig.INI file and try restarting the Oracle BI Server.

Related Topics

Setting Locale Parameters Under UNIX on page 248

About Translating Web Catalog Strings on page 254

Process of Maintaining Translation Tables for Oracle BI

This process is part of the process Localizing Oracle Business Intelligence Deployments.

The presentation layer of the Oracle Business Intelligence Server Administration Tool supports multiple translations for any column name. When working with Oracle Answers or rendering a dashboard, English-speaking and French-speaking users see their local language strings in their reports. For example, there are two kinds of application strings requiring translation in Oracle BI:

- Metadata

  Metadata strings are Oracle BI-created objects in the Oracle Business Intelligence repository such as Subject Area, Metrics, and Dimensions. If your deployment includes a CRM application, you need to perform further tasks for localization. See the *Oracle Business Intelligence Applications Installation and Administration Guide* section on localization.

- Web Catalog

  Web Catalog objects are end-user created objects such as Reports, Dashboards, and Pages. Translations for Web Catalog strings are stored in the directory OracleBIData_HOME\web\catalog. For more information on accessing these strings and changing the translations, see *Oracle Business Intelligence Presentation Services Administration Guide*.

This process includes the following task for Stand-Alone deployments of Oracle Business Intelligence:

- Using the Externalize Strings Utility for Localization on page 253

Using the Externalize Strings Utility for Localization

This task is part of the Process of Maintaining Translation Tables for Oracle BI.

The Server Administration Tool's Externalize Strings utility is primarily for use by translators or by the Oracle Business Intelligence repository administrator. If you use a language other than English (US), you must use Externalize Strings to see the names of catalogs, tables and columns, and their descriptions if present, in their own language.

NOTE: Before using the Externalize Strings utility, translators should consult Oracle's Siebel Technical Support.

To perform the string translation process using Externalize Strings

1. Using the Oracle BI Administration tool, open the repository file.
2. In the repository presentation layer, right-click a Catalog Folder.
3. Select the options Externalize Display Names and Externalize Descriptions.
4. From the Toolbar, choose Tools > Utilities > Externalize Strings and click the Execute button.
5. Click on the Catalog Folders in the left pane.

   In the right pane, the translated values and the original strings (names) appear. These translated values are placed in session variables for use by Oracle BI Presentation Services.
6. Click the Save button to save the strings in the format you want.
7. Click the Close button to end the utility.

About Translating Web Catalog Strings

This topic gives more information on the subject of localizing Oracle BI deployments.

The translations for such Web Catalog objects as report and page names are embedded in the directory OracleBIData_HOME\web\catalog. In multiple language deployment mode, if you add any additional Web Catalog objects, such as reports and new dashboard pages, you also need to add the appropriate translations. Add these translations using the Catalog Manager tool. For more information on using this utility, see *Oracle Business Intelligence Presentation Services Administration Guide*.

About the WEBLANGUAGE Session Variable

This topic gives more information on the subject of localizing Oracle BI deployments.

The session variable WEBLANGUAGE is passed from Oracle BI Presentation Services to the Oracle BI Server. In an integrated Oracle BI application environment, the value of the WEBLANGUAGE variable is what determines the value of the LOCALE variable for externalized display names.

WEBLANGUAGE is set to the language of the user's browser when a user first logs on to an integrated Oracle BI application. For example, if a user with a browser language set to French logs on to Answers for the first time, the value for WEBLANGUAGE is French, and the metadata is translated to French.

In the Oracle Business Intelligence infrastructure, WEBLANGUAGE is set by the user choosing a language on the logon window. After the first logon, WEBLANGUAGE is reset or changed in the My Account page of Oracle BI Presentation Services.

Index

Q

R

S

U

W