

# Oracle9i Warehouse Builder

Configuration Guide

Release 9.0.2

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Oracle9i Warehouse Builder Configuration Guide, Release 9.0.2

Part No. A95950-01

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Author: Kavita Nayar

Contributors: Sri Ganti, John Leigh, David Allan, Ron Gonzalez.

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## **Oracle9i Warehouse Builder Configuration Guide, Release 9.0.2**

### **Part No. A95950-01**

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- Electronic mail: [dwhdoc\\_us@oracle.com](mailto:dwhdoc_us@oracle.com)
- Postal service:  
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Oracle Warehouse Builder Documentation  
MS 2op713  
500 Oracle Parkway  
Redwood Shores, CA 94065

If you would like a reply, please give your name, address, telephone number, and (optionally) electronic mail address.

If you have problems with the software, please contact your local Oracle Support Services.





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# Preface

## Purpose

This manual provides instructions for configuring Oracle9i Warehouse Builder and a core set of related products. Use this manual to install the Oracle9i Warehouse Builder Repository, the Warehouse Builder Runtime libraries, and the Warehouse Builder Browser on your UNIX or Windows NT server systems.

You can modify this installation procedure to accommodate variations in hardware and software configurations, or in the products you install with Oracle9i Warehouse Builder. Refer to the Release Notes for further details.

## Audience

This manual is written for those responsible for configuring Oracle9i Warehouse Builder, including:

- System Analysts
- System Administrators
- Other MIS Professionals

To configure Oracle9i Warehouse Builder, you must be familiar with installing Oracle8i or 9i.

## How This Manual Is Organized

This manual is organized as follows:

- Chapter 1 discusses the Oracle9i Warehouse Builder configuration requirements. Verify your system requirements to install the Oracle9i Warehouse Builder client and repositories.
- Chapter 2 provides step-by-step instructions for a typical installation of the Oracle9i Warehouse Builder Repository, Runtime, and the Oracle9i Warehouse Builder Browser.
- Chapter 3 provides step-by-step instructions for upgrading metadata from a previous version of Oracle9i Warehouse Builder to Oracle9i Warehouse Builder.
- Chapter 4 provides guidelines for installing and configuring Oracle Enterprise Manager and Oracle Workflow with Oracle9i Warehouse Builder to schedule jobs and manage job dependencies.
- Chapter 5 explains how to uninstall the Warehouse Builder components.
- Appendix A lists modifications you need to make to the init.ora file to prepare your database for the Oracle9i Warehouse Builder installation.

## Related Publications

The Oracle9i Warehouse Builder documentation set includes these manuals:

- *Oracle9i Warehouse Builder Configuration Guide*
- *Oracle9i Warehouse Builder User's Guide*

In addition to the Oracle9i Warehouse Builder documentation, you can refer to other documents listed below:

- *Oracle8i/9i SQL Reference*
- *Oracle Developer Getting Started*
- *Oracle Enterprise Manager Configuration Guide*

Oracle provides additional information sources, including other documentation, training, and support services that you can use to increase your knowledge and understanding of Oracle9i Warehouse Builder.

# Contacting Oracle

## **Oracle Metalink and Oracle Technologies Network (OTN)**

Metalink and OTN are the Oracle support web sites where you can find the latest product information, including documentation, patch information, BUG reports, and TAR entries. Once registered, you can access email, phone, and web resources for all Oracle products.

Metalink is located at:

<http://www.oracle.com/support/metalink/index.html>

OTN is located at:

<http://technet.oracle.com/>

Check these web sites for Warehouse Builder information and updates.

## **Documentation**

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### **Phone:**

Call 800-252-0303 to order documentation or request a fax listing of available Oracle documentation.

### **Oracle Documentation Sales Web site:**

<http://oraclestore.oracle.com>

### **Oracle Customer Support Web site:**

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# Warehouse Builder Installation Requirements

## Warehouse Builder Overview

Oracle9i Warehouse Builder is an integrated system for the design, implementation, and management of an enterprise-wide data warehouse or data mart. Warehouse Builder provides the framework to create your data warehouse and populate it from your existing Oracle products as well as other non-Oracle data sources. You can use Warehouse Builder to create a logical model of your data warehouse and generate code to extract, transform, and load the data into your data warehouse.

## Warehouse Builder Installation Components

A complete, working Oracle9i Warehouse Builder environment includes:

**Table 1–1 Warehouse Builder Environment**

<b>Software</b>	<b>Components</b>
<b>Oracle 8.1.7/ 9i (Required)</b>	Oracle Agent TNS Listener
<b>Oracle9i Application Server (Optional)</b>	Portal HTTP Server XML Developer Kit
<b>Warehouse Builder (Required)</b>	Warehouse Builder Client Repository Assistant Runtime Assistant Browser Assistant

<b>Software</b>	<b>Components</b>
<b>Oracle Enterprise Manager (OEM) 2.2 (Optional)</b>	Oracle Management Server (OMS) Client Console WEB Console (optional)
<b>Oracle Workflow (OWF) 2.6 (Optional)</b>	Workflow Client (Designer) WEB Monitor Workflow Server Queue Listener

You can install these components in any order, using the Oracle Universal Installer (OUI). Here are a few recommendations:

- Install all products using the instructions in the respective product installation guides. This installation guide provides general guidelines only for installing software other than Warehouse Builder.
- All references to a system, port, Oracle\_Home, and SID must be tailored to your installation requirements.

### **Install the Oracle 8.1.7/9i Database**

You need the Oracle 8.1.7/9i database to install the Warehouse Builder Repository, the Warehouse Builder Runtime Repository, and optionally, the Warehouse Builder Browser, the OEM Repository, and OWF tables.

### **Install Oracle9i Application Server (Oracle9iAS)**

When you install Oracle9iAS, you can also install Oracle Portal, the XML Developer Kit, and an HTTP server. These components are required to run the Warehouse Builder Browser that can be used to view your metadata and run metadata web reports.

### **Install the Warehouse Builder Client**

The Warehouse Builder client software includes the client side repositories and a web reporting tool. During the install, you can create the Warehouse Builder Repository, the Warehouse Builder Runtime Repository, and Warehouse Builder Browser tables in your database.

## Install Oracle Enterprise Manager and Oracle Workflow

You can use Oracle Enterprise Manager (OEM) to schedule jobs and Oracle Workflow (OWF) to manage job dependencies. The OEM Change Management Pack is also used for life cycle management of a data warehouse.

## Installation Requirements

You must observe the following requirements to install the Warehouse Builder Repository and the Warehouse Builder Runtime Objects.

**Table 1–2 Warehouse Builder Installation Requirements**

Installation Type	Hard Disk (MB)	RAM (MB)
Typical Repository Server	100	256 <sup>1</sup>

<sup>1</sup> Actual memory requirements may be higher for production systems, depending on the size of the repository and the number of users.

Memory requirements increase depending on the functions being performed and the number of users connected. You must also make sure you have ample swap space.





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# Configuring Oracle9i Warehouse Builder

After you install the products included on the CD for Oracle9i Developer Suite, you can access the following Warehouse Builder components from your Windows program group for Warehouse Builder:

- **Oracle9i Warehouse Builder Client:** Provides the graphical interface used to define the data warehouse.
- **Oracle9i Warehouse Builder Repository Assistant:** Enables you to create a Warehouse Builder repository in your database to store the definitions that describe your data warehouse.
- **Oracle9i Warehouse Builder Runtime Assistant:** Enables you to create the runtime objects in your database to store audit and error information captured when you run jobs to load and refresh the data warehouse.
- **Oracle9i Warehouse Builder Runtime Audit Viewer:** Enables you to view the the audit and error information captured when you load and refresh your data warehouse.
- **Oracle9i Warehouse Builder Browser Assistant:** Enables you to configure the Warehouse Builder Browser to view your metadata, run web reports, and perform lineage and impact analysis on your metadata.
- **Oracle9i Warehouse Builder MDL File Upgrade Utility:** Enables you to upgrade your metadata from a previous version of Warehouse Builder to Oracle9i Warehouse Builder.

This chapter provides instructions for configuring the Warehouse Builder repository, the Warehouse Builder runtime objects, and the Warehouse Builder Browser.

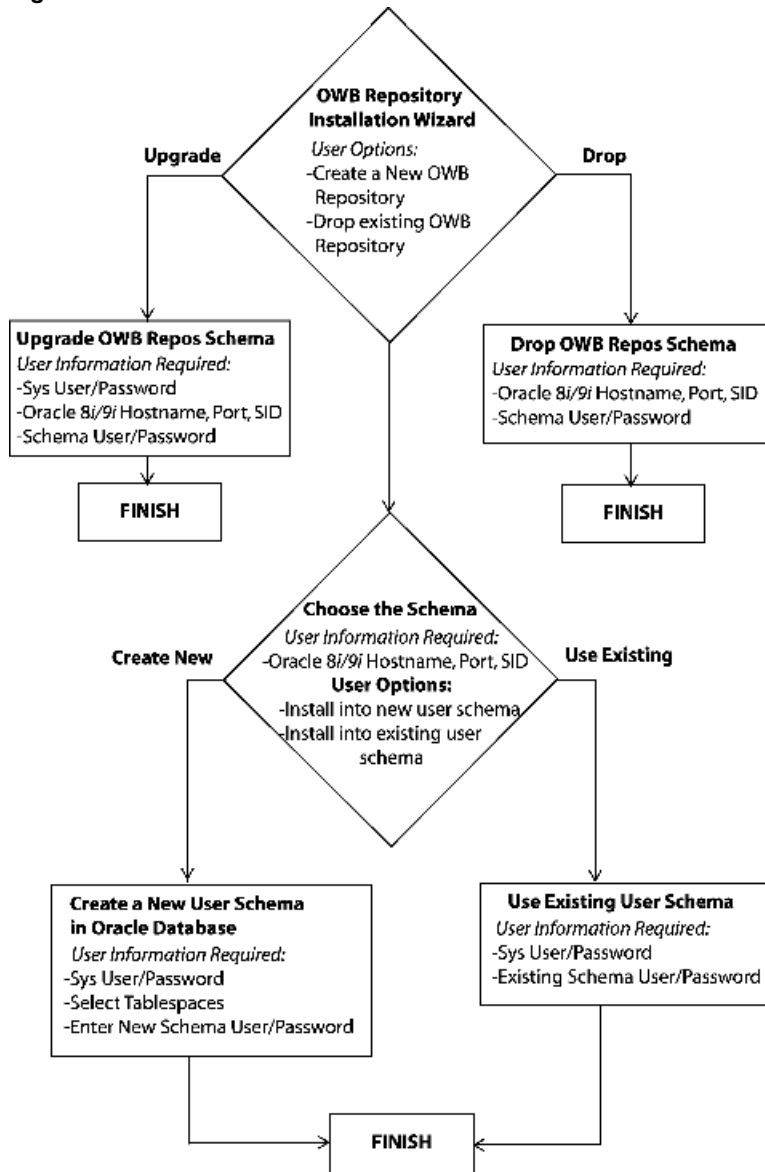
You must configure the Warehouse Builder repository before you can log into the Warehouse Builder client. You can configure the other components at any time.

## Install the Warehouse Builder Repository

To log in to your Warehouse Builder client, you need to create a new Warehouse Builder repository within a schema in your database. The Warehouse Builder repository stores metadata definitions for all the objects created to populate your data warehouse. You use the Warehouse Builder Repository Assistant to create a new repository. To start the Warehouse Builder Repository Assistant, select **Start**, and then select **Warehouse Builder Repository Assistant** from the Warehouse Builder program group.

You can create the new repository in a new or existing schema. You can also use the assistant to drop an existing Warehouse Builder repository. The following chart provides an overview of the Warehouse Builder repository installation. Use this chart to gather all the information you require before installing the repository.

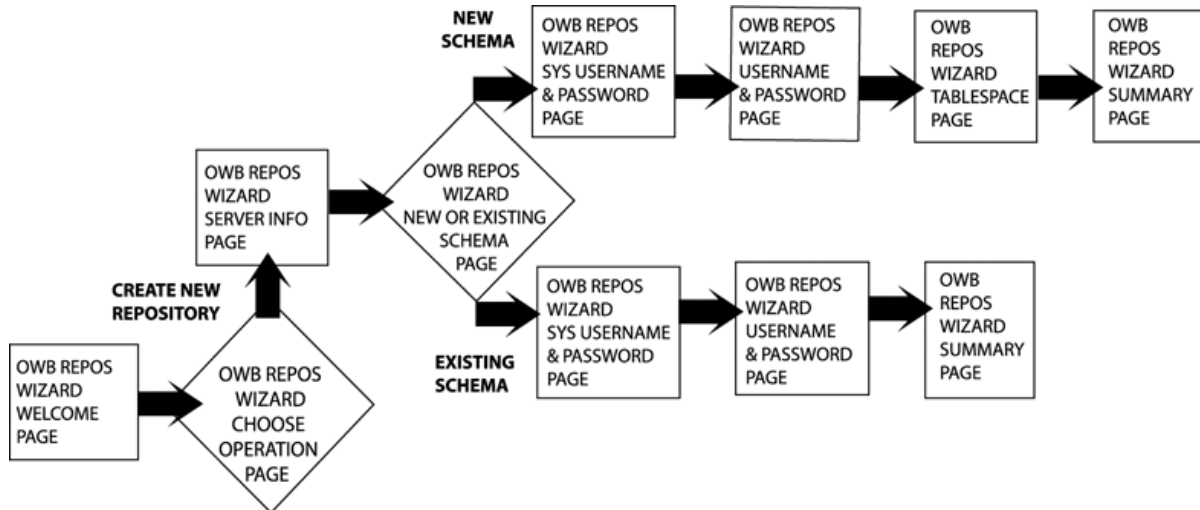
Figure 2–1 Warehouse Builder Installation Overview



## Warehouse Builder Repository Installation Wizard

The following chart outlines the steps for a new Warehouse Builder repository installation.

**Figure 2–2 Steps for Warehouse Builder Repository Installation**



If you want to drop an existing Warehouse Builder Repository from your system, refer to [Chapter 5, "Deinstalling Warehouse Builder Components"](#).

### To install the Warehouse Builder Repository:

1. Select **Oracle9i Warehouse Builder Repository Assistant** from the Warehouse Builder program group.  
The Warehouse Builder Repository Assistant Welcome page displays.
2. Review the installation steps and click **Next**.  
The Choose Operation page displays.
3. Choose **Create a new Warehouse Builder Repository** for a new installation.
4. Click **Next**.  
The Server Information page displays.

5. Provide the connection information for the Warehouse Builder Repository.
  - **Host Name:** Name of the machine where you want to install the Warehouse Builder Repository.
  - **Port Number:** The TNS port number on your host machine (default: 1521).
  - **Oracle SID:** Oracle database SID.

6. Click **Next**.

The New or Existing Schema page displays.

7. Choose whether you want to create a new schema or install the repository into an existing user schema. If you are creating a new schema, choose **Create and Install into a new user schema**. If you are installing into an existing schema, choose **Install into existing user schema**.

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**Note:** If the existing schema already contains Warehouse Builder repository objects, the installation will fail. You must first drop the existing objects, and then proceed with the installation.

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If you already have repository objects from Warehouse Builder 3*i*, you must choose **Upgrade Repository objects** from the Choose Operation page to upgrade your repository objects to Oracle9*i* Warehouse Builder. This option is only valid if you are upgrading from Warehouse Builder 3*i* to Oracle9*i* Warehouse Builder. It is not valid for upgrading Warehouse Builder versions 2.x.

8. Click **Next**.

The System User Name and Password page displays.

9. Provide the password for the sys user.

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**Note:** You must use the sys account with SYSDBA privileges in order to access or create the Warehouse Builder Repository schema. The Warehouse Builder Repository user requires access to certain v\_\$\$ tables and these grants are made by the SYSDBA account when you create the repository.

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To ensure that the SYSDBA privilege is granted to SYS, you must set your database parameter **remote\_login\_parameterfile=EXCLUSIVE**.

**10. Click Next.**

The User Name and Password page displays.

**11. Specify the user name and password for the new schema. You use this information to login to your Warehouse Builder Repository.**

If you are creating the Warehouse Builder Repository within an existing schema, provide the user name and password for that schema.

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**Note:** You can install new repository objects within an existing schema only if the schema contains no previous repository objects.

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**12. Click Next.**

The Tablespace page displays.

**13. Select the following tablespaces from the ones available in your repository database:**

- **Default tablespace for Repository data:** Stores objects (such as tables) created by a user.
- **Default tablespace for indexes:** Stores the indexes for the repository.
- **Temporary tablespace:** Stores temporary segments required to perform large sorts.

**14. Click Next.**

The Summary page lists the new Warehouse Builder Repository setup information.

**15. Review and click **Finish** to create the new Warehouse Builder Repository.**

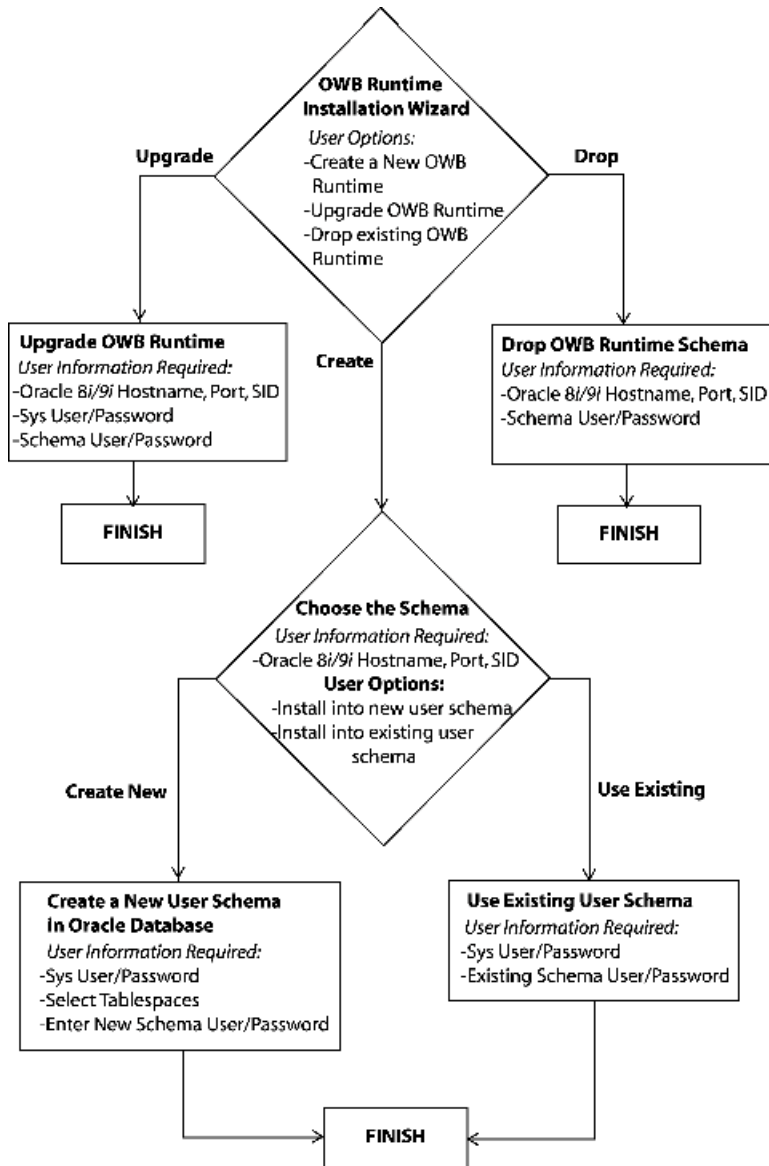
## Install Warehouse Builder Runtime Objects

After you define your warehouse using Warehouse Builder, you need to create runtime objects for each schema in the physical instance where you want to deploy your data warehouse. The Warehouse Builder Runtime Assistant creates a new schema, or uses an existing one, within the target instance and initializes it with the Warehouse Builder runtime objects. Warehouse Builder runtime components use these objects to log audit and error information captured when you run jobs to load and refresh the target instance. The audit and error information can be viewed using the Warehouse Builder Runtime Audit Viewer or the Discoverer Runtime workbooks. For details, see the *Oracle9i Warehouse Builder User's Guide*.

### Overview

Use the Warehouse Builder Runtime Assistant to create new runtime objects or to drop existing ones. The following chart provides an overview of the installation. Use it to gather all the information you require before the installing the runtime objects.

**Figure 2–3 Steps for Warehouse Builder Runtime Installation**





## Warehouse Builder Runtime Installation Wizard

You must run the Warehouse Builder Runtime Assistant to create runtime objects for each of your target warehouse schemas.

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**Note:** When you install Warehouse Builder Runtime, you must have a working Oracle 8.1.7 or 9i installation with Jserver installed and the `java_pool_size` parameter (in the `init.ora` file) set to at least 20MB.

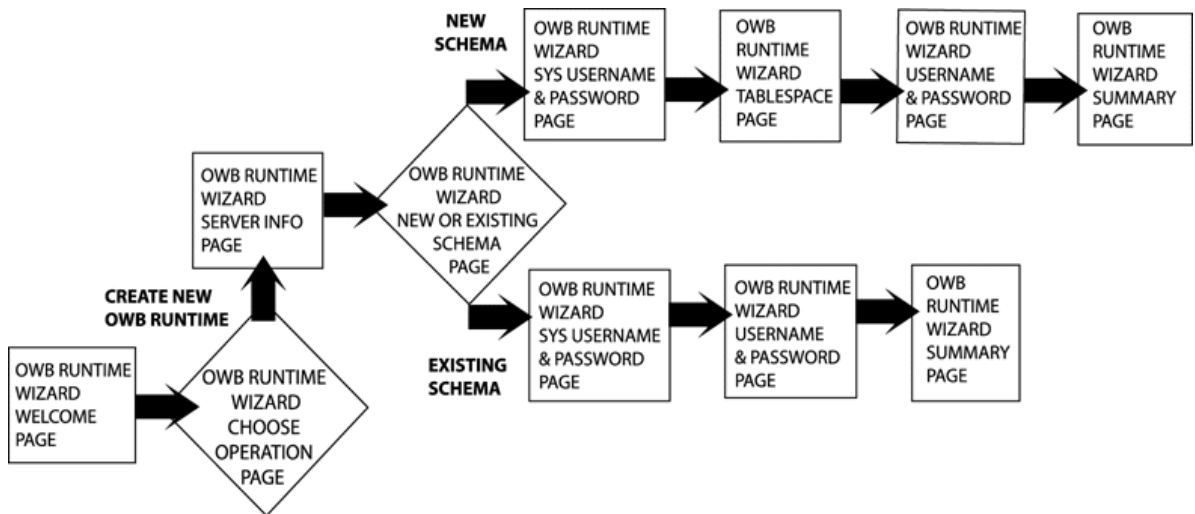
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The following chart provides the steps for a new Warehouse Builder Runtime schema installation.

**Figure 2–4 Warehouse Builder Runtime Installation Steps**



**To install Warehouse Builder runtime objects:**

1. Select the **Oracle9i Warehouse Builder Runtime Assistant** from the Warehouse Builder program group.

The Warehouse Builder Runtime Assistant welcome page displays.

2. Review the installation steps and click **Next**.

The Choose Operation page displays.

3. Choose **Install a new Warehouse Builder Runtime** to create Warehouse Builder runtime objects within the target warehouse database.

If you already have runtime objects from a previous version of Warehouse Builder, you can either upgrade your Warehouse Builder runtime objects to the current version of Warehouse Builder or drop existing Warehouse Builder runtime objects.

4. Click **Next**.

The Server Information page displays.

5. Provide the connection information for the database where you are installing the Warehouse Builder runtime objects.

- **Host Name:** Name of the machine where you are installing the Warehouse Builder runtime objects.
- **Port Number:** The TNS port number on your host machine. Default: 1521.
- **Oracle SID:** Oracle database SID.

6. Click **Next**.

The New or Existing Schema page displays.

7. Specify whether you want to create and install the Warehouse Builder runtime objects into a new schema or an existing one.

- If you are creating a new schema, choose **Create and Install into new user Schema**.
- If you are installing into an existing schema, choose **Install into existing user schema**.

8. Click **Next**.

The System User Name and Password page displays.

9. Provide the password for the sys user.

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---

**Note:** You must use the sys account that has SYSDBA privileges in order to access or create the Warehouse Builder Runtime schema.

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To ensure that the SYSDBA privilege is granted to SYS, you must set your database parameter **remote\_login\_parameterfile=EXCLUSIVE**.

10. Click **Next**.

The User Name and Password page displays.

11. Specify a user name and password for the new schema.

If you are installing runtime objects into an existing schema, provide the user name and password for that schema.

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---

**Note:** You can install new runtime objects within an existing schema only if the schema contains no existing Runtime objects.

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12. Click **Next**.

The Tablespace page displays.

13. Select the following from the tablespaces available in your database:

- **Default tablespace for Runtime data:** Default tablespace that stores your runtime data.
- **Default tablespace for indexes:** Stores the indexes for the Warehouse Builder runtime data.
- **Temporary tablespace:** Stores temporary segments required to perform large sorts on runtime data.

14. Click **Next**.

The Summary page lists the new Warehouse Builder runtime schema setup information.

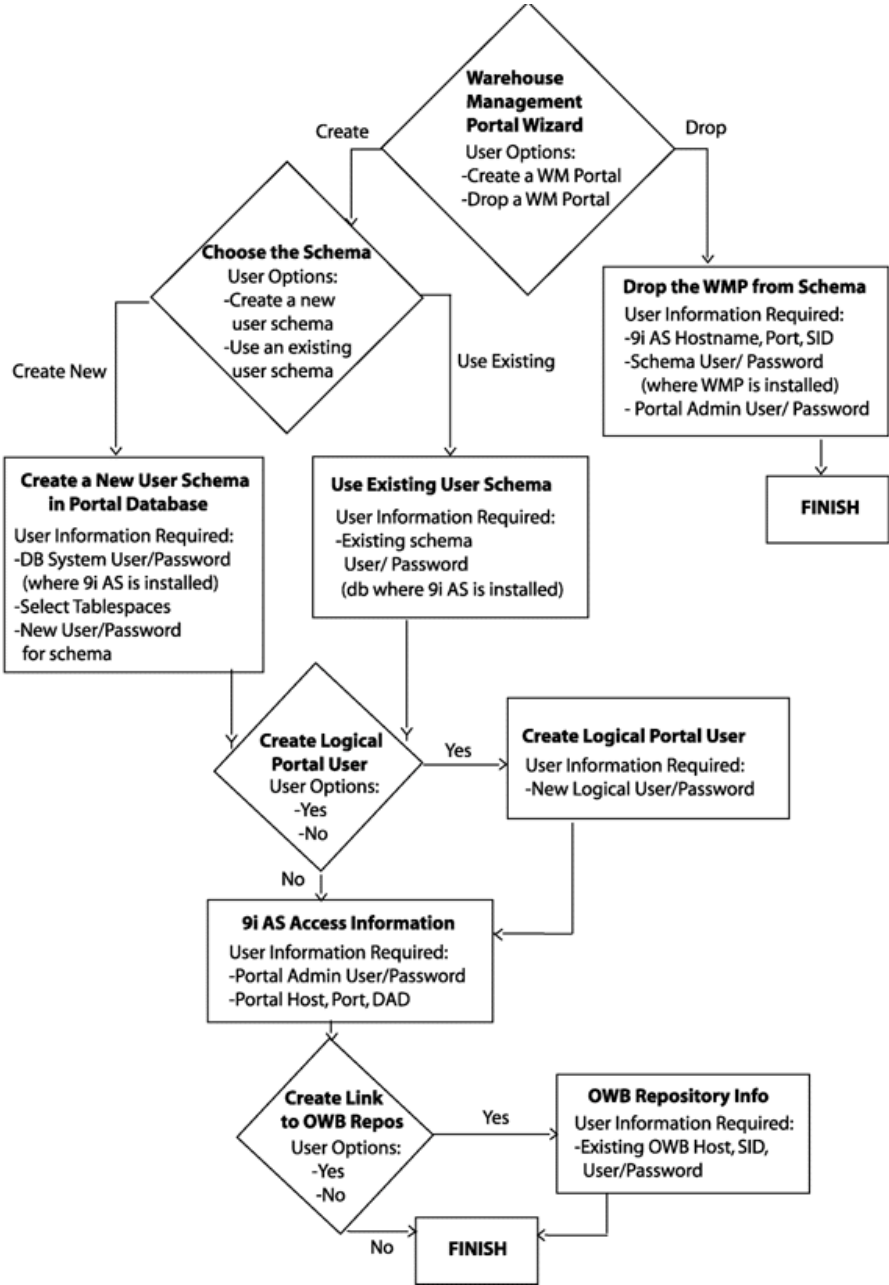
15. Click **Finish** to create the Warehouse Builder runtime objects.

## Install the Warehouse Builder Browser

The Warehouse Builder Browser Assistant guides you through the installation of the Warehouse Builder Browser. You can use the Warehouse Builder Browser to view your metadata, run web reports, and perform lineage and impact analysis on your metadata. For more information on using the Warehouse Builder Browser, refer to the *Oracle9i Warehouse Builder User's Guide*.

The following chart provides an overview of the Warehouse Builder Browser installation process. Use this diagram to gather all the information you require before performing the installation.

Figure 2-5 Steps for Warehouse Builder Browser installation

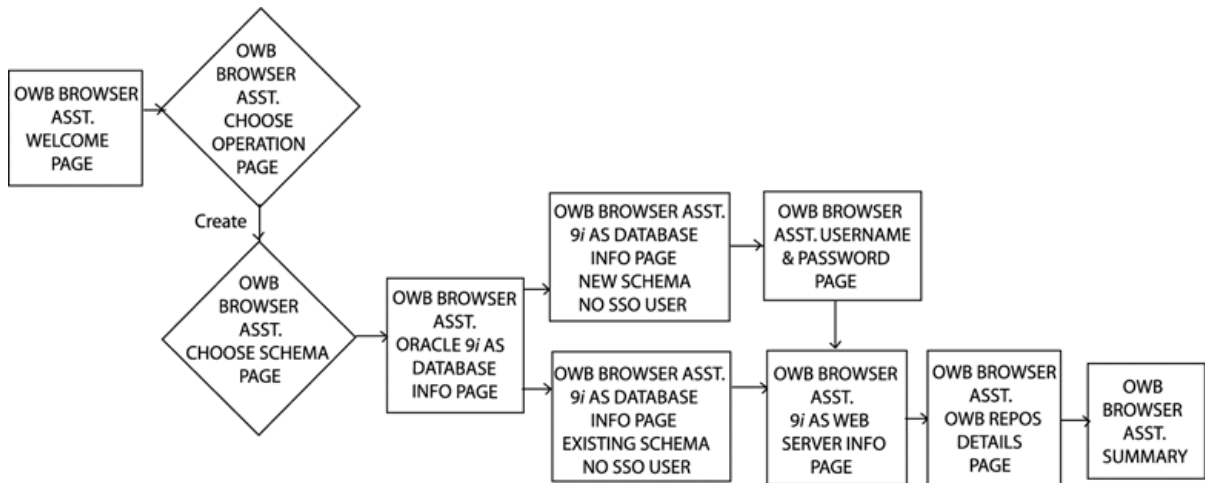


## Warehouse Builder Browser Assistant

When you install Warehouse Builder Browser, make sure you have a working Oracle Portal installation.

The following chart provides the steps for a new Warehouse Builder Browser Installation.

**Figure 2–6 Warehouse Builder Browser Wizard Steps**



If you want to drop existing Warehouse Builder Browser objects from your schema, refer to [Chapter 5, "Deinstalling Warehouse Builder Components"](#) in this guide.

### To install the Warehouse Builder Browser:

1. Select **Oracle9i Warehouse Builder Browser Assistant** from the Warehouse Builder program group.

The Warehouse Builder Browser Assistant Welcome page displays.

2. Review the installation steps and click **Next**.

The Choose Operation page displays.

From the Choose Operation page, you can choose to install the Warehouse Builder Browser or drop existing Warehouse Builder Browser objects (if you have previously performed the Warehouse Builder Browser installation).

3. Choose **Install the Warehouse Builder Browser** and click **Next**.

The Choose Schema page displays.

If you are dropping existing Warehouse Builder Browser objects, select the **Uninstall the Warehouse Builder Browser** and skip to [Chapter 5, "Deinstalling Warehouse Builder Components"](#) to follow the instructions.

4. Choose to create and install the Warehouse Builder Browser into a new schema or into an existing one.
5. Click **Next**.

The Oracle9iAS Database Information page displays.

6. Provide the following Oracle9iAS database connection information:
  - **Host Name:** Name of the host machine where the Oracle9iAS database is installed. (For example, server8)
  - **Port Number:** TNS port number of the machine where the Oracle9iAS database is installed. (For example, 1521)
  - **Oracle SID:** The unique database identifier of the machine where the Oracle9iAS database is installed. (For example, dev817)
7. Click **Next**.

Depending on your set of choices in Step 3, the installer displays different pages for this step.

- a. If you choose to install into a new user schema but not to create an SSO user, refer to Step 8a.
  - b. If you choose to install into an existing schema and not to create an SSO user, refer to Step 8b.
8. Depending on your set of choices in Step 4, the installer displays different pages for this step. Based upon your choice, refer to the correct instructions.
    - a. If you chose to install Warehouse Builder Browser into a new user schema, provide the following Oracle9iAS database information:
      - \* **User Name:** Admin user name of the system where the Oracle9iAS database is installed.
      - \* **Password:** Admin password of the system where the Oracle9iAS database is installed.
      - \* **Oracle Portal Schema Name:** Oracle Portal user name set during the Oracle9iAS install. This is the schema where you installed Oracle Portal. (Default: portal)

- \* **Oracle Portal Schema Password:** Oracle Portal password set during the Oracle9iAS installation. This is the schema where you installed Oracle Portal. (Default: portal)

Click **Next** to display the Enter Username and Password page (step 9).

- b. If you choose to install into an existing schema and not to create an SSO user at this time, provide the following Oracle9iAS database information:

- \* **Oracle Portal Schema Name:** Oracle Portal user name set during the Oracle9iAS installation. This is the schema where you installed Oracle Portal. (Default: portal)
- \* **Oracle Portal Schema Password:** Oracle Portal password set during the Oracle9iAS installation. This is the schema where you installed Oracle Portal. (Default: portal)
- \* **OWB Browser Name:** User name of the existing schema in the Oracle9iAS database where you want to install Warehouse Builder Browser.
- \* **Password:** Password of the existing schema in the Oracle9iAS database where you want to install Warehouse Builder Browser.

Click **Next** to display the Oracle9iAS Web Server Information page (step 11).

9. If you are installing Warehouse Builder Browser in a new schema (Step 3), then in the Enter Username and Password page, choose the default tablespace and temporary tablespace for Warehouse Builder Browser objects.

Also enter the OWB Browser schema name and password to log into the new schema you are creating in the Oracle9iAS database. You are installing the Warehouse Builder Browser objects in this schema.

10. Click **Next**.

The Oracle9iAS Web Server Information page displays.

11. Provide the following information:

- **Oracle Portal Host Name:** Host name of the machine where Oracle Portal is installed.
- **Web Server Listener Port:** HTTP listener port number of the machine where the web server is installed.
- **Oracle Portal DAD:** Portal Database Access Descriptor set during Oracle Portal installation.



**12. Click Next.**

The Warehouse Builder Repository Details page displays.

The Warehouse Builder Details page is an optional step that enables you to register your Warehouse Builder Repository with Warehouse Builder Browser. If you choose to do this later, select **No** to display the Summary page.

**13. If you choose to register a Warehouse Builder Repository, select Yes and provide the following information:**

- **OWB Repository User:** User name to log in to your Warehouse Builder Repository.
- **OWB Repository Password:** Password to login to your Warehouse Builder Repository.
- **Host Name:** Name of the computer where your Warehouse Builder Repository is located.
- **Port Number:** Number of the TNS listener port of the database in which the Warehouse Builder Repository is located.
- **Oracle SID:** Unique database identifier of the computer where the Warehouse Builder Repository is located.

**14. Click Next.**

The Summary page displays.

**15. Review the information and click Back if you want to revise any information.****16. Click Finish to complete the Warehouse Builder Browser installation.**

For information on configuring Warehouse Builder Browser, see "[Configure Warehouse Builder Browser](#)".

## Configure Warehouse Builder Browser

To use the Warehouse Builder Browser, follow these configuration steps.

### Log into Oracle Portal as the Portal Administrator

1. Open your Web Browser.
2. Access Oracle Portal.

For example, in Windows NT, type: `http://server:80/pls/portal`

Where server is the Web server host name, 80 is the Web server port number for Windows NT, and portal is the DAD name.

The Welcome to Oracle Portal page displays.

3. Click **Login** (in the upper right corner).
4. In the Single Sign-On page, enter the portal administrator user name and password (For example, portal).

### Refresh the Portlet Repository

1. From the Oracle Portal Home Page, click the **Administer** tab.
2. Scroll down to locate the Portlet named Portlet Repository.
3. Click **Refresh Portlet Repository**.
4. Click **Refresh**.

The Warehouse Builder Browser portlet displays in the show portlet mode. You can now view the Warehouse Builder Repository and assign roles to your SSO users.

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# Upgrading Metadata from Warehouse Builder 2.x to Oracle9i Warehouse Builder

This chapter provides instructions for upgrading metadata from a previous version of Warehouse Builder to Oracle9i Warehouse Builder.

If you are upgrading from Warehouse Builder 3i, you can upgrade repository objects using the Warehouse Builder Repository Assistant. This option is only valid if you are upgrading from Warehouse Builder 3i to Oracle9i Warehouse Builder. It is not valid for upgrading Warehouse Builder versions 2.x.

The following topics are covered:

- [Overview](#)
- [Step 1. Preparation: Export Metadata from Your Existing Warehouse Builder Repository](#)
- [Step 2. Install Warehouse Builder in a Separate Directory](#)
- [Step 3. Run the MDL File Upgrade Utility](#)
- [Step 4. Import Metadata into the New Warehouse Builder Repository](#)

For information on migrating the runtime from Warehouse Builder 2.x, see "[Install Warehouse Builder Runtime Objects](#)" on page 2-7.

## Overview

To upgrade your metadata from an older version of Warehouse Builder to Oracle9i Warehouse Builder, use the new Metadata Loader File Upgrade utility. This tool enables you to upgrade any MDL file created from Warehouse Builder 2.0.4.78 repository or higher to the latest version of Warehouse Builder.

Before you perform the upgrade, be aware of the following:

- The current version of this utility does not support PeopleSoft modules. These files are skipped during the upgrade and if these entities are referenced within any mappings, Warehouse Builder displays an error message stating that the entity type is not supported for this version.
- Files from SAP sources version 2.1 can be upgraded to Oracle9i Warehouse Builder using the MDL utility.
- SQL\*Loader mappings with variables and parameters are converted to group attributes of the Data Generator stage component.
- Control characters in descriptions are replaced with spaces.
- Configuration names in free format in 2.1 (for example, indexes) are changed to conform to the database naming standards.
- All 2.1.1 file and data warehouse objects are upper-cased. All Oracle installed modules remain unchanged, except for installed modules that are upper-cased.
- Index columns must reference an actual entity, otherwise the upgrade generates a list of columns that do not satisfy this requirement. If you do not fix this error before upgrading, the upgraded file will fail on import into Warehouse Builder.

To upgrade your metadata from a previous version of Warehouse Builder, follow the steps listed below.

## Step 1. Preparation: Export Metadata from Your Existing Warehouse Builder Repository

To upgrade your current repository, you must export each project to Metadata Loader (MDL) files. Then, install Warehouse Builder, convert the MDL files using the Upgrade Utility, and import the files into Warehouse Builder.

**To export existing metadata into an MDL file:**

1. Use the Warehouse Builder client to log into the Project you want to export.
2. From the **Project** menu, choose **Export Metadata**.

You can choose how you want to export the files within a project. For example, if you are exporting three source modules and two target modules, you can choose to export them separately or all together.

The Metadata Loader assigns a path and file name to the exported MDL file. Make a note of the path and filename for each module you export, or you can type a meaningful pathname and filename for the new MDL files and log files. The filename you assign must end with **.mdl**.

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**Note:** You must keep your old repository until the entire upgrade process has been performed and tested.

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## Step 2. Install Warehouse Builder in a Separate Directory

To install a new Warehouse Builder system in parallel to the existing one:

1. Install the new version of the Warehouse Builder software in a separate Oracle Home.
2. Create a new Warehouse Builder repository. (See "[Install the Warehouse Builder Repository](#)" on page 2-2 in this manual.)

## Step 3. Run the MDL File Upgrade Utility

To perform the MDL File Upgrade, do one of the following:

- Use the MDL File Upgrade Wizard if you exported each project as a single MDL file.
- Use the command line if you exported a project as multiple MDL files.

---

---

**Note:** The MDL Upgrade Utility Wizard converts your files directly to the current version of Warehouse Builder. If you want to upgrade to an intermediate version, you must use the command line utility.

---

---

The Upgrade utility eliminates the need to have your old repository running on the same system as your new Warehouse Builder repository or for older versions of Warehouse Builder to be installed on your system.

## Run the MDL File Upgrade Wizard

### To access the MDL File Upgrade wizard:

1. Go to the program group for Warehouse Builder and select Oracle9i Warehouse Builder MDL File Upgrade Utility.

The MDL File Upgrade Wizard Welcome page displays.

2. Click **Next**.

The Source page displays.

3. Click **Browse** to select the MDL file you want to convert to the latest version of Warehouse Builder. The order in which you select these files is important. For example, entities must be upgraded before mappings.

---

---

**Note:** To upgrade multiple MDL files, Warehouse Builder provides a command line utility. You will receive an error message if you select multiple files for upgrade in this Wizard.

---

---

4. Click **Next**.

The Target page displays.

5. Click **Browse** to select the directory where the output files will be stored on your system.

6. Click **Next**.

The Target page prompts you for your log file location. You can select the default path or click **Browse** to choose a new location.

7. Click **Next**.

The Summary page displays.

8. Review the upgrade information including the source and destination of the files you have selected for upgrade.

9. Click **Finish** to upgrade the selected files.

The Conversion Progress panel displays the status of the upgrade. At the end of the process, you receive an upgrade successful message.

## Warnings and Error Messages

After an upgrade, check the log file for warnings and errors.

- If you receive warnings during the upgrade, the upgrade will complete and log the warnings. If you receive errors, the upgrade will terminate and log the errors.
- If warnings and errors are shown after an upgrade, search for the words Warning and Error in the log file to determine the problem.
- If an unexpected error occurs and the upgrade terminates, the log file displays message details. Check your log file or contact Oracle Support.

## Run the MDL File Upgrade Utility Using Command Line

Before using the command line, be aware of the following:

- For an upgrade of multiple MDL files, all files must belong to a single Warehouse Builder Project.
- The order in which you upgrade these files is important. For example, entities must be upgraded before mappings.

Use the following command line to upgrade MDL Files from an older version of the Warehouse Builder Repository:

```
mdlconvert sourcefile parameterfile
```

The source file contains the list of sources, targets and log file names. The parameter file contains the different attributes for conversion.

Example of a source file format:

```
SOURCE
Mdl21Sample1.mdl
Mdl21Sample2.mdl
TARGET
Mdl21Sample1_3i.mdl
Mdl21Sample2_3i.mdl
LOGFILE
Mdl21Sample1.log
Mdl21Sample2.log
```

Example of a parameter file format:

```
fieldseparator= ^ or | (default: ^ )
verbose= true/false(default: false)
```

```
tempdir = some directory           (default: .\temp)
sourceversion = 2.0.4/2.0.5/2.1/3i (default: 2.1)
targetversion = 2.0.4/2.0.5/2.1/3i (default: 3i)
```

### Tips:

When you upgrade from Warehouse Builder 2.1 to the current version of Warehouse Builder:

- All local variables are converted to global variables.
- DDL Maps are not upgraded since they are not supported in Warehouse Builder.
- Granular exported maps have upgrade limitations. For example,

If a mapping is used as a source by Fact 1 and Fact 2, then the order of the upgrade is as follows:

1. Fact 1
2. Fact 2
3. Mapping

The source file format is:

```
SOURCE
fact1.mdl
fact2.mdl
map.mdl
TARGET
fact1_owb3i.mdl
fact2_owb3i.mdl
map_owb3i.mdl
LOG
fact1_owb3i.log
fact2_owb3i.log
map_owb3i.log
```

## Step 4. Import Metadata into the New Warehouse Builder Repository

**To import metadata into the new Warehouse Builder repository:**

1. From the new Warehouse Builder Client console, select the **Administration** environment.



2. From the **Administration menu**, select **Metadata Import**, and then **File**.  
Locate the path and file name to the exported data from your former repository.
3. Select **Import**.
4. Review and commit your data.
5. After testing the new version of Warehouse Builder, remove the old version and its repository.

## Upgrading Mappings

The MDL upgrade enables the mappings upgraded from your 2.x repository to generate the exact same code in your current repository.

However, certain operators can lose information on the keys of the objects they reference. If you want to continue working on your mapping design using the upgraded repository, you must first reconcile your mapping operators with their referenced objects. The keys of the referenced objects are then restored to the upgraded mapping operators.

### Before you work on your upgraded mapping:

1. Launch Warehouse Builder.
2. Double-click the upgraded mapping name to display the Mapping Editor.
3. Select the upgraded mapping operator and from the **Edit** menu, select **Reconcile Inbound**.

Warehouse Builder displays the Inbound Reconcile dialog.

4. Select **Match by Physical Name** and click **OK**.

The referenced keys are restored in the upgraded mapping operator. You are now ready to continue with your mapping design.



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# Installing Oracle Enterprise Manager and Oracle Workflow

Oracle Enterprise Manager (OEM) is a scheduling tool included in the Oracle 8.1.7 or 9i database CD pack. You can configure Enterprise Manager with Warehouse Builder to manually schedule jobs that load or refresh data in your data warehouse. You can manage dependencies for jobs that reside in the Enterprise Manager Job Library using Oracle Workflow.

This chapter provides instructions for enabling Enterprise Manager and Workflow on your server and client systems.

This chapter includes the following topics:

- [Configuring Oracle Enterprise Manager](#)
- [Installing Oracle Workflow](#)
- [Installing Warehouse Builder Workflow Queue Listener](#)

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**Note:** This Configuration Guide outlines only the important installation steps. For detailed installation instructions, see the *Oracle Enterprise Manager Installation Guide* and the *Workflow Server Installation Guide*.

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## Configuring Oracle Enterprise Manager

Configure the Enterprise Manager client and server software, installed with Oracle 8.1.7 or 9i, using the following guidelines:

### Step 1: Create the Enterprise Manager Repository

1. From your Enterprise Manager Console host system, start the Enterprise Manager Configuration Assistant. This wizard helps you create the Enterprise Manager repository in the Warehouse Builder repository instance.
2. From the Configuration Operation page, select **Create a New Repository**.
3. On the Select Database for Repository page, provide the following information:
  - **User Name:** system
  - **Password:** manager <or appropriate system password>
  - **Service:** owbrepos
4. On the Repository Login Information page, provide the following information:
  - **User Name:** Schema where the Enterprise Manager Repository will be installed.
  - **Password:** Password of the schema where the Enterprise Manager Repository will be installed.
5. From the Select Repository User Tablespace page, you can choose to create a new tablespace or accept the default. Click **Next**.
6. Click **Finish** to complete this process.
7. After the installation is complete, on NT, start the OMS by going to control services. On UNIX, start the OMS by accessing the Oracle/home/bin directory and typing the command:  

```
oemctrl start oms
```
8. On the database where you installed the Warehouse Builder runtime, start the Oracle Agent service.
9. On the computer where you installed the Warehouse Builder Client, start the Enterprise Manager Console.

To store generated scripts in the Job Library, Warehouse Builder must log on to the Oracle Management Server (OMS). This server manages the job library.

10. After configuring Enterprise Manager, you must establish a new Enterprise Management Server by clicking **Add Management Server**.
  - a. If you are newly configuring the service, the Add Management Server dialog box appears. Type the host name of the Warehouse Builder repository server.
  - b. On the Management Servers page, click **OK**.
  - c. On the Oracle Enterprise Manager Login page, provide the following information:
    - \* **Administrator:** sysman (initial Enterprise Manager Console login user name)
    - \* **Password:** oem\_temp (initial Enterprise Manager Console password)
  - d. On the Security Warning screen, provide the following information:
    - \* **Password:** sysman
    - \* **Confirm Password:** sysman
11. Select **Nodes** from the navigation tree. Right-click and select **Discover Nodes** from the pop-up menu.

The Discover Wizard Specify Nodes page displays.
12. Type the name of the computer on which the Warehouse Builder target warehouse resides.
13. Click **Next** to view the results.

## Step 2: Create a Windows NT User

To create a Windows NT user with the permissions Enterprise Manager requires, run the NT User Manager on the Warehouse Builder runtime database instance host.

1. From the **Start** menu, select **Administrative Tools**, and then **User Manager**.

The User Manager window displays.
2. From the **User** menu, select **New User**.

The New User window displays.
3. Provide the following information:
  - **User Name:** OEM

- **Full Name:** OEM Administrator
  - **Description:** Run as batch job...
  - **Password:** Enter a password.
  - **Confirm Password:** Enter the password again.
  - **Select:** Password never expires.
4. Click **OK**.  
Windows inserts the new user name into the list of user names.
  5. From the User Manager Console, select the new user name, then **Policies**, and then **User Rights**.  
The User Rights panel displays.
  6. In the User Rights Policy panel, check the **Show Advanced User Rights** box and then select the **Logon as a Batch Job** option from the drop-down list in the Right field.
  7. Click **Add**.  
Windows NT displays the Add Users and Groups panel.
  8. Select the domain for the user from the List Names From drop-down list.
  9. Click **Show Users** and select the name of the new Enterprise Manager user you just created.
  10. Click **Add** and select **OK** to add rights.

### Step 3: Configure Preferred Credentials

Enterprise Manager schedules jobs on the system that hosts the Warehouse Builder runtime schema. For Enterprise Manager to schedule jobs, you must configure two sets of user names and passwords:

- A set for the host: OEM/Password
- A set for the corresponding database: system/manager

**To initialize these credentials:**

1. Start the Enterprise Manager Console.
2. From the **System** menu, select **Preferences**.

Enterprise Manager displays the Edit Administrator Preferences window.

3. Select the **Preferred Credentials** tab.

Enterprise Manager displays a panel that lists Service Names and Types. Each resource node has three service types: Node, Database, and Listener.

4. Select the Service Name that hosts the runtime schema (Service Type is Node).

Enterprise Manager displays a User Name and Password panel.

5. Provide a user name and password that provides access to the Enterprise Manager host.

This is the user name you created for the Windows NT host in the previous section.

6. Select the Service Name of the runtime schema (Service Type is Database). This is the service name Enterprise Manager assigned to the database.

7. Provide a user name and password that provides access to that database.

8. Click **OK** to commit the information.

Enterprise Manager is now configured to run Warehouse Builder. Before you register the load jobs (Tcl scripts) or schedule jobs with Enterprise Manager, you must start all necessary services on the machine that hosts Enterprise Manager and the system that hosts the target warehouse.

On the host for Enterprise Manager, you must start:

- Enterprise Manager Server
- Oracle Agent

On the host for your target warehouse, you must start:

- Oracle Agent

Continue the installation with the next section, [Installing Oracle Workflow](#).

## Step 4: Configure Enterprise Manager Preferences within Warehouse Builder

To set Enterprise Manager preferences within Warehouse Builder:

1. Login to the Warehouse Builder client.
2. From the **Project** menu, select **Preferences**.

The Preferences property sheet displays.

3. Select the **OEM** tab.

4. Provide the following information:
  - **Domain:** Name of the machine where the OMS service is running.
  - **Console User:** Administrator of the Enterprise Manager Console (default: Sysman).
  - **Console Password:** Password of the Administrator of the Enterprise Manager Console.
5. Click **OK** to save this information.

---

---

**Note:** If you are accessing Oracle9i OMS, then the job registration code works with these settings. If you are accessing Oracle8i OMS, then the OEM Directory setting must point to a valid Oracle8i OEM Oracle Home.

---

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## Enterprise Manager Intelligent Agent Database Compatibility Matrix

[Table 4–1](#) lists the Oracle Enterprise Manager Intelligent Agent compatibility matrix.

**Table 4–1 Enterprise Manager Intelligent Agent compatibility matrix**

Enterprise Manager Release	Supports Creation of Repository in Database Releases	Supported by Intelligent Agent Releases	Manages Database Releases
9.0.1	9.0.1.x	9.0.1.x	9.0.1.x
	8.1.7.x	8.1.7.x	8.1.7.x
	8.1.6.x	8.1.6.x	8.1.6.x
	8.0.6.x	8.0.6.x	8.0.6.x
2.2.x	8.1.7.x	8.1.7.x	8.1.7.x
	8.1.6.x	8.1.6.x	8.1.6.x

The following notes apply to [Table 4–1](#):

- An Intelligent Agent monitors and manages databases of the same release or earlier. For example, Intelligent Agent Release 8.1.7 monitors and manages database release 8.1.7 and earlier. If a newer release of the Intelligent Agent is used to manage an older release of the database, the Intelligent Agent must be installed in its own Oracle Home, or in an Oracle Home whose version is consistent with the Intelligent Agent's version.
- Intelligent Agent releases 8.0.5 and above include Data Collection Services (Data Gatherer).
- Backup Management Wizards Release 2.2 support database releases 8.0.6 and above.
- Support for JServer management is only available when connected to an Oracle 8.1.7 database.
- In this table, Database Releases implies all editions of the database (Enterprise, Standard, Workgroup, and Personal Edition). The Personal Edition does not

include support for Enterprise Manager jobs and events, or an Intelligent Agent.

## Installing Oracle Workflow

To ensure the integration of Oracle Workflow with Warehouse Builder, follow these installation steps:

- [Install the Oracle Workflow Server](#)
- [Install the Workflow Client](#)
- [Apply a Patch to Enterprise Manager 2.2](#)
- [Apply a Patch to Oracle Workflow](#)

## Install the Oracle Workflow Server

This section outlines the Oracle Workflow installation procedure using Oracle Portal. For details, see the *Oracle Workflow Option Server Installation Notes for Windows NT*.

### Step 1: Edit the database init.ora parameter file

Before you install Oracle Workflow, you must set the following parameters in the database init.ora file.

- **AQ\_TM\_PROCESSES:** Enable the time manager process in Oracle8i Advanced Queuing (AQ) by adding the following line to the init.ora parameter file:

```
AQ_TM_PROCESSES = 1
```

The time manager process is required by Workflow to monitor delay events in queues, as in the case of Workflow standard wait activity. The minimum recommended number of time manager processes for Workflow is one.

- **JOB\_QUEUE\_PROCESSES:** Specify the number of SNP job queue processes for your instance. For example, to set the number of job queue processes to two, add the following line to the init.ora parameter file:

```
JOB_QUEUE_PROCESSES = 2
```

Workflow requires job queue processes to handle propagation of Business Event System event messages by AQ queues. You must start at least one job queue process to enable message propagation. The minimum recommended number of processes for Workflow is two.

- **JOB\_QUEUE\_INTERVAL:** Specify the job queue interval to determine how frequently each SNP job queue process in your instance wakes up. For example,

to set the job queue interval to five seconds, add the following line to the `init.ora` parameter file:

```
JOB_QUEUE_INTERVAL = 5
```

To allow queues to be rechecked for messages with specified latency, Workflow requires the job queue interval to be less than or equal to the latency parameter defined for your AQ propagation schedules. The recommended job queue interval for Workflow is five seconds.

- **UTL\_FILE\_DIR:** Specify the directory that Oracle should use for PL/SQL file input I/O. You should set this parameter to the directory from which you upload the Workflow seed data file. This file is located in the `wf/res` subdirectory within your Oracle Home. For example, add the following line to the `ini.ora` parameter file:

```
UTL_FILE_DIR = <ORACLE_HOME>/wf/res
```

Restart your database to make these changes effective. For more information refer to the *Oracle8i/9i Reference* and *Oracle 8i/9i Application Developer's Guide - Advanced Queuing*.

## Step 2: Create a Database Access Descriptor (DAD) for the Oracle Workflow Schema

1. Using your web browser, access the Oracle Portal PL/SQL Gateway Settings page:

```
http://<server_name>:<portID>/pls/<your Workflow DAD>/  
admin_/gateway.htm
```

For example, `http://myserver:80/Portal/admin_/gateway.htm`

---

---

**Note:** Make sure your Portal Listener is running.

---

---

2. Create a DAD for Oracle Workflow by entering the information shown in [Table 4-2](#). You must create a new DAD.

**Table 4–2 Information for Creating a Workflow DAD**

Field Name	Entry
Database Access Descriptor Name	<your Workflow DAD>
Schema Name	<Leave Blank>
Oracle User Name	<Leave Blank>
Oracle Password	<Leave Blank>
Oracle Connect String	<CONNECT_STRING>
Authentication Mode	Basic
Session Cookie Name	<Leave Blank>
Create a Stateful Session?	No
Keep Database Connection Open Between Requests?	Yes
Default (Home) Page	wfa_html.home

---



---

**Note:** You must leave the Oracle User Name and Oracle Password null to enable mod\_plsql database authentication.

---



---

### Step 3: Install Workflow Server

On the computer where you installed the Warehouse Builder runtime objects, install Oracle Workflow Server from the CD for Oracle Workflow 2.6 for Microsoft Windows NT and Sun SPARC Solaris. Follow the installation steps in the *Oracle Workflow Installation Guide*.

### Step 4: Verify Your Base URL

To invoke the Oracle Workflow web services, append the appropriate procedure and arguments to your base URL. Once you define your web security and web users, you can verify your base URL by connecting as a valid user to the Oracle Workflow home page:

```
http://<server_name>:portID>]/pls/<your Workflow DAD>/wfa_html.home
```

where `server_name` is the name of the server where you installed Oracle Portal. For example:

`http://myserver:80/pls/WF_DAD/wfa_html.home`

You can authenticate yourself with a database user name and password. When you install Oracle Workflow and its demonstration workflow processes, you also install a demonstration data model that seeds a set of demonstration users in the directory service and creates the same users as database accounts. The users are: **sysadmin**, **wfadmin**, **blewis**, **cdouglas**, **kwalker**, and **spierson**. Their passwords are the same as their user names.

With Oracle Portal, you can authenticate your connection to an Oracle Workflow web page with any of these database user names and passwords. Public grants and synonyms are created so that these database accounts have full access to the Oracle Workflow web-based user interface.

## Step 5: Set Up the Workflow Monitor

The Oracle Workflow Monitor is a Java applet that enables users and workflow administrators to view and optionally manipulate workflow process instances. The Workflow Monitor can be accessed by a web browser that supports Java Development Kit (JDK) Version 1.1.4 and AWT, such as Netscape Communicator 4.04 or higher.

Add a virtual directory mapping called `/OA_JAVA/` to your web listener that points to the Workflow java area on your file system. The java area is `<ORACLE_HOME>/wf/java`. The Oracle Universal Installer automatically installs the Java code in a directory tree in the Workflow java area when you install or upgrade the Oracle Workflow Server.

Add a virtual directory mapping called `/OA_MEDIA/` that points to the Workflow icon area on your file system. The icon area is `<ORACLE_HOME>/wf/java/oracle/apps/fnd/wf/icons/`. All icons and .gif files that are requested by the Workflow web interface must be stored in the `/OA_MEDIA/` virtual directory.

1. To add the required virtual directory mappings in *iAS*, add aliases for the Workflow java area and the Workflow icon area to the `<ORACLE_HOME>/Apache/Apache/conf/httpd.conf` or `httpds.conf` file. This configuration file defines the behavior of Oracle HTTP Server. Add the aliases using the following format:

### On Unix:

```
Alias /OA_JAVA/ "<ORACLE_HOME>/wf/java/"
Alias /OA_MEDIA/ "<ORACLE_HOME>/wf/java/oracle/apps/fnd/wf/icons/"
```

For example:

```
...
#
# Aliases: Add here as many aliases as you need (with no limit). The format
is
# Alias fakename realname
#
...
Alias /OA_JAVA/ " /oracle8i/wf/java/ "
Alias /OA_MEDIA/ " /oracle8i/wf/java/oracle/apps/fnd/wf/icons/"
...
```

#### On Windows NT:

```
Alias /OA_JAVA/ " <ORACLE_HOME>\wf\java/ "
Alias /OA_MEDIA/ " <ORACLE_HOME>\wf\java\oracle\apps\fnd\wf\icons/"
```

For example:

```
#
# Aliases: Add here as many aliases as you need (with no limit). The format
is
# Alias fakename realname
#
...
Alias /OA_JAVA/ "C:\oracle8i\wf\java/"
Alias /OA_MEDIA/ "C:\oracle8i\wf\java\oracle\apps\fnd\wf\icons/"
...
```

---



---

**Note:** You must add a trailing slash to each alias name and physical directory path.

---



---

2. Restart Oracle HTTP Server.

## Step 6: Set Up HTML Help

Oracle Workflow provides access to HTML help from the Help button located on each of its web pages. The HTML help is context-sensitive and provides links to the

contents of the Oracle Workflow Guide, the Oracle Workflow 2.6 Release Notes, and the Oracle Workflow Documentation Updates.

**To set up HTML help:**

1. Create a directory for the HTML files on your file system.
2. Transfer the Workflow doc zip file \Doc\Wfdoc2.6.zip from the CD to the directory you just created.
3. Use an unzip utility, such as WINZIP from NicoMak, to extract the doc directory tree from the zip file.

This creates the following subdirectories:

- <doc>\wf\doc\<lang>\wf
- <doc>\wf\doc\<lang>\wfnew
- <doc>\wf\doc\<lang>\wfcust

4. Add a virtual directory mapping to your web listener that points to the doc directory tree you just installed on your file system.
5. Using your Web browser, navigate to the Oracle Portal Listener Settings page:  
[http://<server\\_name>:<portID>/<DAD>/admin\\_/listener.htm](http://<server_name>:<portID>/<DAD>/admin_/listener.htm)
6. Add a virtual directory mapping called /OA\_DOC/ to your web listener that points to the new Workflow documentation area on your file system.

- Add an alias for the Workflow documentation area to the <ORACLE\_HOME>/Apache/Apache/conf/httpd.conf or httpds.conf file. The configuration file defines the behavior of Oracle HTTP Server. Add the alias using the following format:

**On Unix:**

```
Alias /OA_DOC/ <$ORACLE_HOME>/wf/doc/
```

For example:

```
...
#
# Aliases: Add as many aliases as you need(with no limit). The format is
# Alias fakename realname
#
...
Alias /OA_DOC/ " /oracle8i/wf/doc/"
...
```



**On Windows NT:**

```
Alias /OA_DOC/ <${ORACLE_HOME}>\wf\doc/
```

**For Example:**

```
...
#
# Aliases: Add as many aliases as you need(with no limit). The format is
# Alias fakename realname
#
...
Alias /OA_DOC/ C:\oracle8i\wf\doc/
...
```

---

---

**Note:** You must add a trailing slash to each alias name and physical directory path.

---

---

## Install the Workflow Client

On the computer where you installed Warehouse Builder client, install the Oracle Workflow Client from the CD for Oracle Workflow Client Release 2.6 for Microsoft Windows NT. Follow the installation steps in the *Oracle Workflow Installation Guide*.

## Apply a Patch to Enterprise Manager 2.2

This step is critical for the integration of Oracle Workflow with Warehouse Builder. You can find the Enterprise Manager patch information at <http://metalink.oracle.com>:

**To download this patch from MetaLink:**

1. Login to MetaLink.
2. Click on the link labeled **Patches** in the left-hand navigation bar.
3. On the new page, click the link labeled **Click here for Patches released after February 19, 2001 and for all Application Patches**.
4. On the new page, enter **1799032** in the patch number field.
5. Select the platform for which you require the patch: MS Windows NT/2000 Server or Sun SPARC Solaris.

6. Click **Submit**.
7. On the new page, click **Download**.

## Apply a Patch to Oracle Workflow

This step is critical for the integration of Oracle Workflow with Warehouse Builder. This patch can be applied by all Workflow Server 2.6.0 and Workflow Server 2.6.1 users on 8*i* or 9*i*, including US and JA languages. You can find the patch information at <http://metalink.oracle.com>:

### To download this patch from MetaLink:

1. Login to MetaLink.
2. Click on the link labeled **Patches** in the left-hand navigation bar.
3. On the new page, click the link labeled **Click here for Patches released after February 19, 2001 and for all Application Patches**.
4. On the new page, enter **1784138** in the patch number field.
5. Select the platform for which you require the patch: MS Windows NT/2000 Server or Sun SPARC Solaris.
6. Click **Submit**.
7. On the new page, click **Download**.

## Installing Warehouse Builder Workflow Queue Listener

The Warehouse Builder Queue Listener enables communication between Enterprise Manager and Workflow when you schedule Warehouse Builder jobs and dependencies with these tools. You must install the Queue Listener to ensure that all Warehouse Builder job dependencies are managed when jobs are run by Enterprise Manager.

### On Windows NT

**To install Warehouse Builder Queue Listener on a Windows NT host:**

1. On your Windows NT host, copy the wfql\_nt/owb directory from the \extras\owb directory on CD 2 to your Runtime Oracle Home on Windows NT.

The owb directory resides directly under your Oracle Home. It contains lib and bin sub-directories, with the following structure:

```
owb/bin/win32/workflowqclr.bat
owb/bin/win32/workflowqlsnr.bat
owb/bin/win32/workflowqlsnr1.bat
owb/lib/int/workflowrt.jar
owb/lib/int/rts.jar
owb/lib/ext/aqapi11.jar
owb/lib/ext/ewt.zip
owb/lib/ext/rts.zip
owb/lib/ext/share.zip
```

The batch scripts use the 1.1 JVM held in your Oracle Home JRE sub-directory.

2. You are now ready to execute the scripts. The following is a summary of the scripts supplied:
  - **workflowqlsnr.bat:** Warehouse Builder workflow queue listener.
  - **workflowqlsnr1.bat:** Warehouse Builder workflow queue listener.
  - **workflowqclr.bat:** Warehouse Builder workflow script for clearing contents of workflow queues for an item type.

## On UNIX

### To install Warehouse Builder Queue Listener on a UNIX host:

1. On your UNIX host, copy the wfql\_unix/owb directory from the \extras\owb directory on CD 2 to your Runtime Oracle Home on UNIX.

The owb directory now resides directly under your Oracle Home. The owb directory contains lib and bin sub-directories, containing the following structure:

```
owb/bin/solaris/workflowqclr.sh
owb/bin/solaris/workflowqlsnr.sh
owb/bin/solaris/workflowqlsnr1.sh
owb/lib/int/workflowrt.jar
owb/lib/int/rts.jar
owb/lib/ext/aqapi11.jar
owb/lib/ext/ewt.zip
owb/lib/ext/rts.zip
owb/lib/ext/share.zip
```

The shell scripts use the 1.1 JVM held in your Oracle Home JRE sub-directory.

2. To provide the scripts with execute permissions:

```
cd $ORACLE_HOME/owb/bin/solaris
chmod a+x workflowqclr.sh
chmod a+x workflowqlsnr.sh
chmod a+x workflowqlsnr1.sh
```

3. You are now ready to execute the scripts. The following is a summary of the scripts supplied:
  - **workflowqlsnr.bat:** Warehouse Builder workflow queue listener.
  - **workflowqlsnr1.bat:** Warehouse Builder workflow queue listener (silent).
  - **workflowqclr.bat:** Warehouse Builder workflow script for clearing contents of workflow queues for an item type.

---

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# Deinstalling Warehouse Builder Components

This chapter contains instructions for deinstalling Warehouse Builder components.

This chapter includes:

- [Deinstall Warehouse Builder Browser Objects](#)
- [Deinstall Warehouse Builder Repository Objects](#)
- [Deinstall Warehouse Builder Runtime Objects](#)

## Overview

You must restart the Oracle Universal Installer to deinstall any or all of the Oracle Warehouse Builder components. If you are deinstalling repositories, make sure to do so before you deinstall the Warehouse Builder Client software.

---

---

**Note:** Always use the Oracle Universal Installer to remove Warehouse Builder from your computer. If you attempt to remove Warehouse Builder by deleting the directories manually, you can impair the operations of the Oracle Universal Installer.

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### To remove existing Oracle software prior to installing new products:

1. Start the Oracle Universal Installer (OUI) from the **Oracle Installation Products** program group or by inserting an Oracle product installation CD in your computer.

OUI displays the Welcome page.

2. On the OUI Welcome page, click **Installed Products** to obtain an inventory of all Oracle products installed on your system.

The Available Product Components page displays a list of all Oracle products on your system.

3. Select and delete existing Oracle products and their components.

## Deinstall Warehouse Builder Browser Objects

### To deinstall Warehouse Builder Browser objects:

1. From the **Start** menu, select **Programs**, then **Oracle Warehouse Builder Browser Assistant**.

The Warehouse Builder Browser Installation Assistant Welcome page displays.

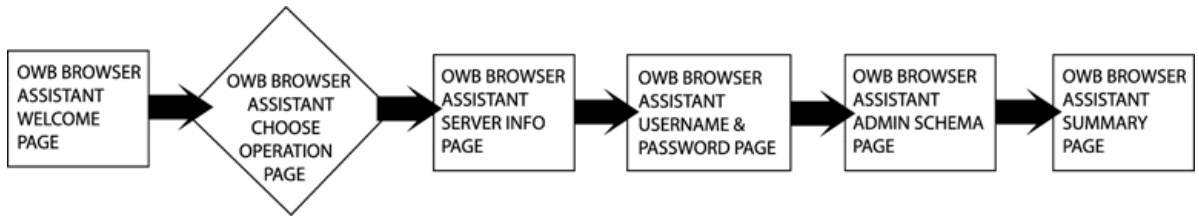
2. Click **Next**.

The Choose Operation page displays.

3. Select **Deinstall Warehouse Builder Browser Objects**.

Follow the wizard to deinstall the Warehouse Builder Browser objects from your database.

[Figure 5-1](#) displays the Drop Warehouse Builder Browser wizard steps.

**Figure 5–1 Drop Warehouse Builder Browser Steps**

## Deinstall Warehouse Builder Repository Objects

### To deinstall a Warehouse Builder Repository:

1. From the **Start** menu, select **Warehouse Builder Repository Assistant**.

The Repository Installation Assistant Welcome page displays.

2. Click **Next**.

The Choose Operation page displays.

3. Select **Drop Existing Repository Objects**.

Follow the wizard to deinstall the Warehouse Builder Repository objects from your database.

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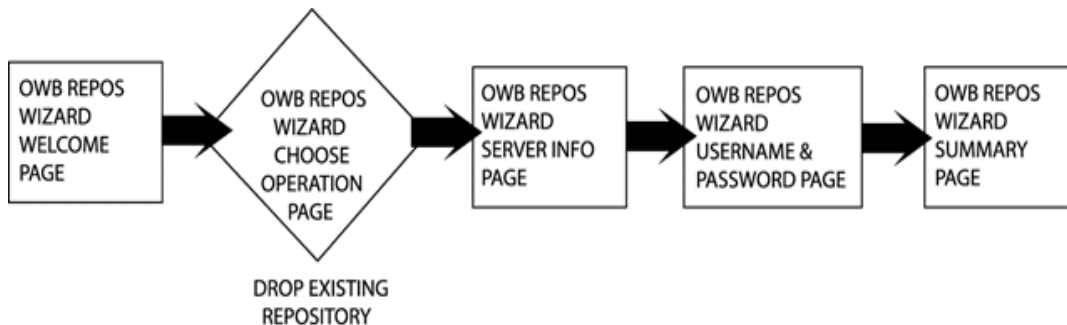
**Note:** The Warehouse Builder Repository Assistant does not drop user-defined objects from the repository schema.

---

---

Figure 5–2 displays the Drop Warehouse Builder Repository wizard steps.

**Figure 5–2 Drop Repository Wizard Steps**



## Deinstall Warehouse Builder Runtime Objects

**To deinstall Warehouse Builder Runtime Objects:**

1. From the **Start** menu, select **Warehouse Builder Runtime Assistant**.

The Runtime Installation Assistant Welcome page displays.

2. Click **Next**.

The Choose Operation page displays.

3. Select **Drop Existing Runtime Objects**.

Follow the wizard to deinstall the Warehouse Builder Runtime Repository objects from your database.

---

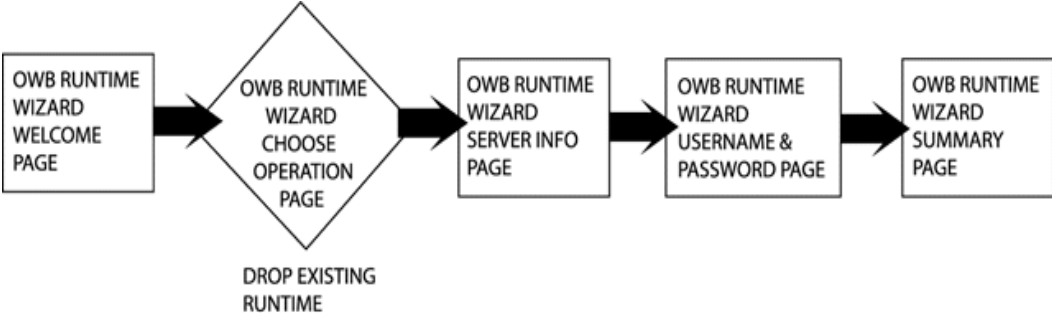
**Note:** The Warehouse Builder Runtime Assistant does not drop user-defined objects from the runtime schema.

---

Figure 5–3 displays the Drop Warehouse Builder Runtime wizard steps.



Figure 5-3 Drop Runtime Wizard Steps





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## Preparing an 8.1.7 or 9i Database

Before installing Warehouse Builder, you need to prepare your Oracle 8.1.7 or 9i database by setting the following configuration parameters.

### Parameters for the Repository Database Instance

The Warehouse Builder Repository database runs on standard Oracle8i/9i OLTP configuration parameters. To specify these parameters, modify the init.ora file in the directory [Drive:]\Oracle\admin\owbrepos\pfile\.

[Table A-1](#) lists the configuration parameters to use as an initial guide for improving performance.

**Table A-1 Initialization Parameters for Warehouse Builder Repository Instance**

Initialization Parameter	Set to Value	Comments
GLOBAL_NAMES	FALSE	Allows you to create database link names without the restrictions that Oracle Names imposes.  If you set this parameter to FALSE on the Oracle Warehouse Builder databases, you may not be able to access other databases that have Oracle Names enabled.
OPEN_CURSORS	200	You may specify a higher value.
DB_BLOCK_SIZE	8192	<b>This parameter is set when the database is created and cannot be changed.</b>  The recommended value is 8192 or greater depending on your business requirements.
DB_BLOCK_BUFFERS	4098	Consult your DBA for the correct settings for your installation.

---

**Table A-1 Initialization Parameters for Warehouse Builder Repository Instance**

Initialization Parameter	Set to Value	Comments
REMOTE_LOGIN_ PARAMETERFILE	EXCLUSIVE	Required to ensure that the SYSDBA privilege is granted to the SYS user.

## Parameters for the Runtime Database Instance

To support the Warehouse Builder runtime component, you need to modify the Oracle8i/9i Enterprise Edition instance on the system where your data warehouse will reside. The Warehouse Builder Runtime Assistant creates a runtime schema with sufficient privileges to create materialized views and perform query rewrite.

In order for the materialized views to perform properly in the runtime, you must set the following initialization parameters for the Runtime Repository instance in its init.ora file, which is found in the directory [Drive:]\Oracle\admin\owbdw\pfile\.

---

---

**Note:** Configure the Warehouse Builder Runtime instance to have at least one non-system rollback segment. Otherwise the seeded runtime packages will not compile.

---

---

[Table A-2](#) lists the initialization parameters.

**Table A-2 Initialization Parameters for Warehouse Builder Runtime Instance**

Initialization Parameter	Set to Value	Comments
GLOBAL_NAMES	FALSE	Allows you to create database link names without the restrictions that Oracle Names imposes.  Note that if you set this parameter to FALSE on the Oracle Warehouse Builder databases, you may not be able to access other databases that have Oracle Names enabled.
OPEN_CURSORS	200	You may specify a higher value.

**Table A-2 Initialization Parameters for Warehouse Builder Runtime Instance**

Initialization Parameter	Set to Value	Comments
DB_BLOCK_SIZE	16384	<b>This parameter is set when the database is created. Do not change it.</b>  The recommended value is 16384. If your server does not allow a block size this large, use the largest size available. If your computer has less than 512 MB of RAM, a value of 9600 is recommended.
DB_BLOCK_BUFFERS	20000	This change is optional. Depending upon your requirements, set the buffer size to 80000 or even 200000. Use a large enough number to hold most of the largest dimension table, but not so large that it causes paging and swapping. If your computer has less than 512 MB of RAM, use the default value for this parameter.
COMPATIBLE	8.1.0	If this parameter is not in the initialization file, add it to the end of the file.
OPTIMIZER_MODE	CHOOSE	For other possible optimizer modes, see <i>Oracle8i Designing and Tuning for Performance</i> , <i>Oracle9i Database Performance Tuning Guide and Reference</i> , and <i>Oracle8i/9i Data Warehousing Guide</i> .
QUERY_REWRITE_ENABLED	TRUE	If you plan to generate materialized views with the QUERY REWRITE option.
DB_FILE_MULTIPLE_BLOCK_READ_COUNT	16	A value of 16 is recommended, 32 is preferred. If you use disk striping or RAID5, set this parameter according to the stripe size: $stripe\_size = 2 * DB\_BLOCK\_SIZE * DB\_FILE\_MULTIBLOCK\_READ\_COUNT$ .
DBWR_IO_SLAVES	<i>n</i>	<i>n</i> = number of CPUs (minimum) or $n = 2*$ the number of CPUs (recommended)
LOG_BUFFER	<i>n</i>	$n = 20 * DB\_BLOCK\_SIZE$ (minimum) or $40 * DB\_BLOCK\_SIZE$ (recommended)
HASH_AREA_SIZE	1 MB (1000000)	
SORT_AREA_SIZE	1 MB (1000000)	

---

**Table A-2 Initialization Parameters for Warehouse Builder Runtime Instance**

Initialization Parameter	Set to Value	Comments
UTL_FILE_DIR	*	Specifies the directories that PL/SQL can use for file I/O. UTL_FILE_DIR = * specifies that all directories can be used for file I/O. If you want to specify individual directories, repeat this parameter on contiguous lines for each directory. If you are creating flat file targets in Warehouse Builder, this parameter needs to be set to the directory where you want to create the flat file target so that your database engine has access to it. (Refer to note below for details).
AQ_TM_PROCESSES	1	OWB/OWF Advanced Queueing System: Workflow Engine only.
ENQUEUE_RESOURCES	3000	
<b>Parameters for Parallel Query:</b> Depending on how familiar you are with administering parallel processing in Oracle8i or 9i, we suggest the following:		
For Novice Users:		
PARALLEL_AUTOMATIC_TUNING	TRUE	
For Experienced DBAs:		
PARALLEL_MIN_PERCENT	50	
PARALLEL_MIN_SERVERS	2	
PARALLEL_MAX_SERVERS	<i>n</i>	Where <i>n</i> > 4 * the number of CPUs on the servers. Increase PARALLEL_MAX_SERVERS if you run several mappings at the same time.

---

To configure the Target Data File Path for Flat file Targets, you set this path in the init.ora file of the warehouse instance. Set the UTL\_FILE\_DIR parameter to the directory for the flat file targets so that the database has access to it.

For example, for the output file location D:\Data\FlatFiles\File1.dat, set the UTL\_FILE\_DIR parameter in your init.ora to:

**UTL\_FILE\_DIR = D:\Data\FlatFiles**

For multiple valid file locations, such as both D:\Data\FlatFiles and

---

E:\OtherData, set the parameter in init.ora to:

**UTL\_FILE\_DIR = D:\Data\FlatFiles**

**UTL\_FILE\_DIR = E:\OtherData**

These lines must be consecutive in the init.ora file.

You can bypass this checking of directories by using the following:

**UTL\_FILE\_DIR = \***

Warehouse Builder Validation returns a warning that this parameter must be set in the init.ora file.





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