

Oracle® Fusion Middleware

Installation Planning Guide

11g Release 1 (11.1.1)

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Preface

The *Oracle Fusion Middleware Installation Planning Guide* covers common Oracle Fusion Middleware concepts that affect installation, installation procedures, and troubleshooting.

Intended Audience

This guide is intended for users who are installing Oracle Fusion Middleware products for the first time and are comfortable running some system administration operations, such as creating users and groups, adding users to groups, and installing operating system patches on the computer where the products are going to be installed. Users on UNIX systems who are installing Oracle Fusion Middleware need root access to run some scripts.

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Related Documents

For additional information, see the following manuals:

- *Oracle Fusion Middleware Repository Creation Utility User's Guide*
- *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*
- *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite*
- *Oracle Fusion Middleware Installation Guide for Oracle WebCenter*
- *Oracle Fusion Middleware Installation Guide for Oracle Identity Management*
- *Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer*
- *Oracle Fusion Middleware Installation Guide for Oracle Web Tier*
- *Oracle Fusion Middleware Administrator's Guide*
- *Oracle Fusion Middleware Concepts*
- *Oracle Fusion Middleware High Availability Guide*

Conventions

The following text conventions are used in this document:

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

Understanding Your Installation Starting Point

Oracle Fusion Middleware is a collection of standards-based software products that spans a range of tools and services from J2EE and developer tools, to integration services, business intelligence, collaboration, and content management. Oracle Fusion Middleware offers complete support for development, deployment, and management.

This guide provides important information about preparing your system and instructions for obtaining the latest version of Oracle Fusion Middleware, which is 11g Release 1 (11.1.1.5.0). The procedures you will need to follow will vary depending on the configuration of your existing system.

Find the starting point that best describes your current environment and go to that section for more information:

- Section 1.1, "Starting as a New Oracle Fusion Middleware User"
- Section 1.2, "Starting with Oracle Application Server 10g"
- Section 1.3, "Starting with Oracle Fusion Middleware 11g (11.1.1.1.0)"
- Section 1.4, "Starting with Oracle Fusion Middleware 11g (11.1.1.2.0), 11g (11.1.1.3.0), and 11g (11.1.1.4.0)"

1.1 Starting as a New Oracle Fusion Middleware User

If you are a new Oracle Fusion Middleware user, there are two methods to installing 11g Release 1 (11.1.1.5.0), depending on the product:

- If you are installing Oracle Identity Management, Oracle Web Tier, or Oracle Portal, Forms, Reports and Discoverer, go to Section 1.1.1, "Using the Patch Set Installer".
- If you are installing any other Oracle Fusion Middleware product, go to Section 1.1.2, "Using the Product Installer".

1.1.1 Using the Patch Set Installer

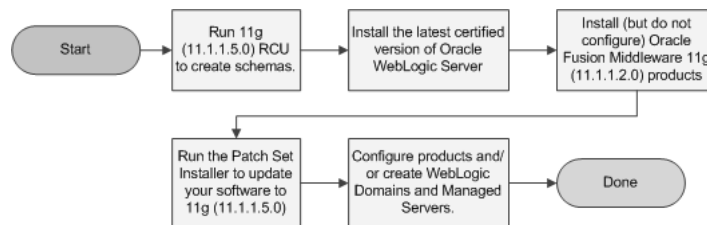
If you are installing Oracle Identity Management, Oracle Web Tier, or Oracle Portal, Forms, Reports and Discoverer for the first time, you cannot install any other 11g Release (11.1.1.5.0) products directly, as the installers for this release are designed only to patch an existing installation. Therefore, you must install the latest full versions of your product, which are available in 11g Release 1 (11.1.1.2.0). Then you must patch your installation to update your software to the latest version. This process involves the following:

- Creating the Database Schemas
- Installing Oracle WebLogic Server
- Installing Oracle Fusion Middleware Release 11g (11.1.1.2.0) Products
- Updating Your Products to Release 11g (11.1.1.5.0)
- Configuring Your Products and Creating Your WebLogic Domains

Note: Oracle WebLogic Server is not included in this list of products as it has its own installer for new installations or upgrade installers for patching existing installations.

Figure 1–1 illustrates the overall installation and configuration flow.

Figure 1–1 Installing Release 11.1.1.5.0 Using the Patch Set Installer



Note: If you are installing Oracle Fusion Middleware Release 11.1.1.5.0 on a SUSE11 Linux platform, take note of the following:

The SUSE11 Linux platform is only supported for Release 11.1.1.3.0 and later. Because you must first install Release 11.1.1.2.0 (which does not support SUSE11) and then patch your software to Release 11.1.1.5.0, you must start the Release 11.1.1.2.0 installer with the `-ignoreSysPrereqs` option from the command line.

1.1.1.1 Creating the Database Schemas

Installation of most Oracle Fusion Middleware products requires the availability of a database (only Oracle Web Tier does not require a database). This database must be up and running, and does not have to be on the same system where you are installing the components. The database must also be compatible with Repository Creation Utility (RCU), which is used to create the schemas necessary for your Oracle Fusion Middleware components.

For information about which databases are certified for use with Oracle Fusion Middleware and RCU, and important database configuration information, see "RCU System and Database Requirements" in *Oracle Fusion Middleware Repository Creation Utility User's Guide*.

After your database is installed and configured, run the latest version of RCU to create your schemas. For instructions, see "Creating Schemas" in *Oracle Fusion Middleware Repository Creation Utility User's Guide*.

1.1.1.2 Installing Oracle WebLogic Server

All Oracle Fusion Middleware products (except for Oracle WebTier) require an application server on your system. For all products other than Oracle Application

Developer and Oracle SOA Suite and Business Process Management Suite, Oracle WebLogic Server is the only supported application server.

You should be installing the latest available version of Oracle WebLogic Server, as listed in the *System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1* document on the following page:

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>

All Oracle Fusion Middleware products must be installed in the Oracle Middleware home directory, which can be created by installing Oracle WebLogic Server.

For installation instructions, refer to "Running the Installation Program in Graphical Mode" in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

1.1.1.3 Installing Oracle Fusion Middleware Release 11g (11.1.1.2.0) Products

After the schemas and Oracle WebLogic Server are installed, you are ready to install your Oracle Fusion Middleware products.

Note: You must install but do not configure the 11g Release 1 (11.1.1.2.0) version of your product. You should only configure your products after you have run the Patch Set Installer and updated your software to the latest version.

When you run the installer, you should select the **Install Software - Do Not Configure** installation type on the Select Installation Type screen.

If you happen to configure your products before you upgrade your software to the latest version, you must follow the instructions in Section 1.4, "Starting with Oracle Fusion Middleware 11g (11.1.1.2.0), 11g (11.1.1.3.0), and 11g (11.1.1.4.0)" in order to properly upgrade and configure your software.

Table 1–1 lists the Oracle Fusion Middleware product along with its corresponding installation guide. Follow the instructions in the installation guide to install your products:

Table 1–1 Oracle Fusion Middleware Products and Corresponding Install Guides

Product	Install Guide
Oracle Web Tier	<i>Oracle Fusion Middleware Installation Guide for Oracle Web Tier</i>
Oracle Portal, Forms, Reports and Discoverer	<i>Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer</i>
Oracle Identity Management	<i>Oracle Fusion Middleware Installation Guide for Oracle Identity Management</i>

1.1.1.4 Updating Your Products to Release 11g (11.1.1.5.0)

Run the Patch Set Installer to update your software to the latest version. For instructions, see "Applying the Latest Oracle Fusion Middleware Patch Set" in *Oracle Fusion Middleware Patching Guide*.

Note: If you are a new Oracle Fusion Middleware user, you should only read the following sections in this chapter:

- "Summary of the Patch Set Installation Process"
- "Perform General Pre-Patching Tasks"
- "Download and Start the Product Installer or Patch Set Installer"
- "Patch Set Installer Instructions"

After completing these sections, you should skip to Section 1.1.1.5, "Configuring Your Products and Creating Your WebLogic Domains".

1.1.1.5 Configuring Your Products and Creating Your WebLogic Domains

After your products are installed, you must configure them for use. To do so, run the OUI-based configuration tool from `bin` directory inside your product's Oracle home directory to create a WebLogic Domain, Oracle instances and Managed Servers.

Please note that this configuration tool is not the same as the Configuration Wizard that is available with Oracle Application Developer, Oracle WebCenter, Oracle SOA Suite and Business Process Management Suite, or Oracle Service Bus. Instructions for running the configuration tool for system components can be found in the various product installation guides (see Table 1–1).

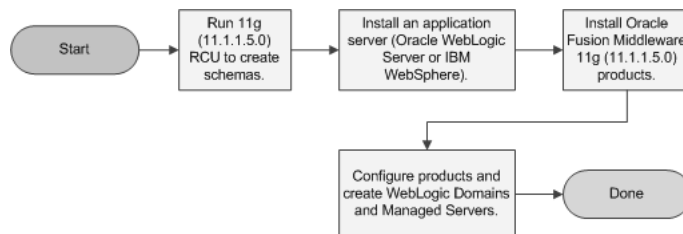
1.1.2 Using the Product Installer

Installing a Release 11.1.1.5.0 Oracle Fusion Middleware product using the product installer involves the following:

- Creating the Database Schemas
- Installing an Application Server
- Installing Oracle Fusion Middleware Release 11g (11.1.1.5.0) Products
- Configuring Your Products and Creating the WebLogic Domains

Figure 1–2 illustrates the overall installation and configuration flow.

Figure 1–2 Installing Release 11.1.1.5.0 Using the Product Installer



1.1.2.1 Creating the Database Schemas

See Section 1.1.1.1, "Creating the Database Schemas".

1.1.2.2 Installing an Application Server

All Oracle Fusion Middleware products (except for Oracle WebTier) require an application server on your system. For Oracle Application Developer or Oracle SOA Suite and Business Process Management Suite you can choose to install Oracle

WebLogic Server or IBM WebSphere as the application server. Refer to the *System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1* document to determine the certified versions of these application servers for installation on your system. You should be installing the latest available version:

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>

All Oracle Fusion Middleware products must be installed in the Oracle Middleware home directory, which can be created by installing Oracle WebLogic Server as the application server on your system. If you choose to use IBM WebSphere as your application server, you must manually create a Middleware home directory in which you can install your Oracle Fusion Middleware products.

For Oracle WebLogic Server installation instructions, refer to "Running the Installation Program in Graphical Mode" in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

1.1.2.3 Installing Oracle Fusion Middleware Release 11g (11.1.1.5.0) Products

Table 1–2 lists the Oracle Fusion Middleware product along with its corresponding installation guide. Follow the instructions in the installation guide to install your products:

Table 1–2 Oracle Fusion Middleware Products and Corresponding Install Guides

Product	Install Guide
Oracle SOA Suite	<i>Oracle Fusion Middleware Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite</i>
Oracle WebCenter	<i>Oracle Fusion Middleware Installation Guide for Oracle WebCenter</i>
Oracle Application Developer	<i>Oracle Fusion Middleware Installation Guide for Application Developer</i>
Oracle Enterprise Content Management Suite	<i>Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite</i>
Oracle Service Bus	<i>Oracle Fusion Middleware Installation Guide for Oracle Service Bus</i>
Oracle Business Intelligence	<i>Oracle Fusion Middleware Installation Guide for Oracle Business Intelligence Enterprise Edition</i>
Oracle Data Integrator	<i>Oracle Fusion Middleware Installation Guide for Oracle Data Integrator Installation Guide</i>

1.1.2.4 Configuring Your Products and Creating the WebLogic Domains

After your products are installed, you must configure them for use. To do so, run the Fusion Middleware Configuration Wizard to create your WebLogic Domain, Administration Server, and various Managed Servers.

Information about creating domains and Managed Servers with the Configuration Wizard can be found in *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*. For Oracle Enterprise Content Management, this information can also be found in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*.

1.2 Starting with Oracle Application Server 10g

For information on upgrading from Oracle Application Server 10g to Oracle Fusion Middleware 11g Release 1 (11.1.1.5.0), refer to the *Oracle Fusion Middleware Upgrade*

Planning Guide, as well as the other upgrade guides in the Oracle Fusion Middleware 11g documentation library:

- *Oracle Fusion Middleware Upgrade Guide for Java EE*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Portal, Forms, Reports, and Discoverer*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*
- *Oracle Fusion Middleware Upgrade Guide for Oracle SOA Suite, WebCenter, and ADF*
- *Oracle Fusion Middleware Upgrade Guide for Oracle WebCenter Suite*

1.3 Starting with Oracle Fusion Middleware 11g (11.1.1.1.0)

If your existing Oracle Fusion Middleware software is 11g Release 1 (11.1.1.1.0), you must first migrate your existing software and configuration data to 11g Release 1 (11.1.1.2.0), and then update the software to 11g Release 1 (11.1.1.5.0).

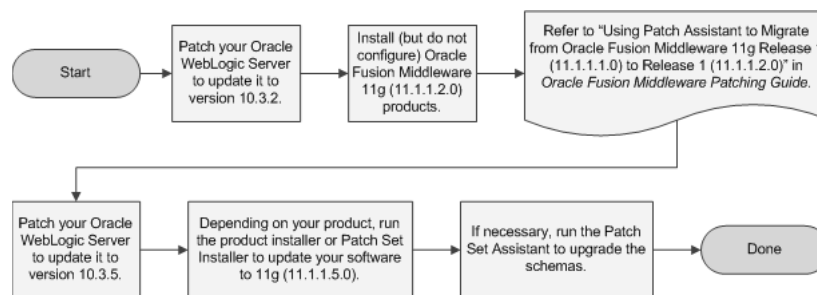
Updating to 11g Release 1 (11.1.1.2.0) involves the following:

- Updating Oracle WebLogic Server to Version 10.3.2
- Installing Oracle Fusion Middleware 11g Release 1 (11.1.1.2.0) Products
- Migrating Your 11g Release 1 (11.1.1.1.0) Configuration Data to 11g Release 1 (11.1.1.2.0)

After this is complete, you should follow the instructions in Section 1.4, "Starting with Oracle Fusion Middleware 11g (11.1.1.2.0), 11g (11.1.1.3.0), and 11g (11.1.1.4.0)" to complete updating your software to the latest version.

Figure 1–3 illustrates the overall installation and configuration flow.

Figure 1–3 Install Flow for Existing 11g (11.1.1.1.0) Users



1.3.1 Updating Oracle WebLogic Server to Version 10.3.2

You must first update the version of Oracle WebLogic Server on your system to 10.3.2. In order to update your WebLogic Server, you must have a My Oracle Support account.

To update your existing Oracle WebLogic Server version 10.3.0 or 10.3.1 to version 10.3.2, use the upgrade installers. For more information, see "Downloading an Upgrade Installer From My Oracle Support" in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

Note: This link will take you to a document in the Release 11.1.1.3.0 documentation library. The instructions, however, are applicable for updating your Oracle WebLogic Server to 10.3.2, which is the version supported in Release 11.1.1.2.0.

If you have Oracle WebLogic Server version 10.2.x or earlier, then you must refer to the upgrade instructions in *Oracle Fusion Middleware Upgrade Guide for Oracle WebLogic Server*.

1.3.2 Installing Oracle Fusion Middleware 11g Release 1 (11.1.1.2.0) Products

Before you can patch your software to 11g Release 1 (11.1.1.4.0), you must first install the latest full versions of your product, which are available in 11g Release 1 (11.1.1.2.0).

Make sure that you do not configure your products. The following products offer installers which are separate from the configuration tool, meaning you should install the software only, and do not run the configuration tool:

- Oracle SOA Suite and Business Process Management Suite
- Oracle WebCenter
- Oracle Application Developer
- Oracle Service Bus
- Oracle Enterprise Content Management Suite

The following products offer two installation types: **Install and Configure** and **Install Software - Do Not Configure**:

- Oracle Identity Management
- Oracle Web Tier
- Oracle Portal, Forms, Reports and Discoverer
- Oracle Data Integrator
- Oracle Business Intelligence

For these products, make sure you select the **Install Software - Do Not Configure** installation type.

Table 1–3 lists the Oracle Fusion Middleware product along with its corresponding installation guide. Follow the instructions in the installation guide to install your products:

Table 1–3 Oracle Fusion Middleware Products and Corresponding Install Guides

Product	Install Guide
Oracle SOA Suite	<i>Oracle Fusion Middleware Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite</i>
Oracle WebCenter	<i>Oracle Fusion Middleware Installation Guide for Oracle WebCenter</i>
Oracle Application Developer	<i>Oracle Fusion Middleware Installation Guide for Application Developer</i>
Oracle Web Tier	<i>Oracle Fusion Middleware Installation Guide for Oracle Web Tier</i>
Oracle Portal, Forms, Reports and Discoverer	<i>Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer</i>

Table 1–3 (Cont.) Oracle Fusion Middleware Products and Corresponding Install Guides

Product	Install Guide
Oracle Identity Management	<i>Oracle Fusion Middleware Installation Guide for Oracle Identity Management</i>
Oracle Enterprise Content Management Suite	<i>Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite</i>
Oracle Service Bus	<i>Oracle Fusion Middleware Installation Guide for Oracle Service Bus</i>
Oracle Business Intelligence	<i>Oracle Fusion Middleware Installation Guide for Oracle Business Intelligence Enterprise Edition</i>
Oracle Data Integrator	<i>Oracle Fusion Middleware Installation Guide for Oracle Data Integrator Installation Guide</i>

1.3.3 Migrating Your 11g Release 1 (11.1.1.1.0) Configuration Data to 11g Release 1 (11.1.1.2.0)

After you have upgraded your software, you must run the Patch Assistant tool to migrate your data to the updated version. For instructions, refer to "Using Patch Assistant to Migrate from Oracle Fusion Middleware 11g Release 1 (11.1.1.1.0) to Release 1 (11.1.1.2.0)" in *Oracle Fusion Middleware Patching Guide*.

1.3.4 Updating to 11g Release 1 (11.1.1.5.0)

Now that your software is updated to Release 1 (11.1.1.2.0), follow the instructions in Section 1.4, "Starting with Oracle Fusion Middleware 11g (11.1.1.2.0), 11g (11.1.1.3.0), and 11g (11.1.1.4.0)" to update your software to the latest version.

1.4 Starting with Oracle Fusion Middleware 11g (11.1.1.2.0), 11g (11.1.1.3.0), and 11g (11.1.1.4.0)

Figure 1–4 illustrates the overall installation and configuration flow.

Figure 1–4 Install Flow for Existing 11g (11.1.1.2.0), 11g (11.1.1.3.0), and 11g (11.1.1.4.0) Users



1.4.1 Update WebLogic Server

You must first update the version of Oracle WebLogic Server on your system to 10.3.5. In order to update your WebLogic Server, you must have a My Oracle Support account.

If you have Oracle WebLogic Server version 10.3.0, 10.3.1, 10.3.2, 10.3.3, or 10.3.4, use the upgrade installers to upgrade your WebLogic Server to 10.3.5. For more information, see "Downloading an Upgrade Installer From My Oracle Support" in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

If you have Oracle WebLogic Server version 10.2.x or earlier, then you must refer to the upgrade instructions in *Oracle Fusion Middleware Upgrade Guide for Oracle WebLogic Server*.

1.4.2 Update Your Existing Software

If you are updating Oracle Identity Management, Oracle Web Tier, or Oracle Portal, Forms, Reports and Discoverer, download and use the Patch Set Installer to update your existing software to the latest version. For all other Oracle Fusion Middleware products, download and use the latest product installer to update your existing software to the latest version.

Refer to "Applying the Latest Oracle Fusion Middleware Patch Set" in *Oracle Fusion Middleware Patching Guide* for instructions.

1.4.3 Update Your Database Schemas

Run the Patch Set Assistant to upgrade the existing schemas in your database to the latest version. To see which schemas need to be upgraded, refer to "Which Schemas Need to be Updated with Patch Set Assistant?" in *Oracle Fusion Middleware Patching Guide*.

For instructions on how to run the Patch Set Assistant, refer to "Updating Your Schemas with Patch Set Assistant" in *Oracle Fusion Middleware Patching Guide*.

Understanding Oracle Fusion Middleware Concepts and Directory Structure

During the installation process, you will be asked for a variety of directory locations. This section defines each of these directories and explains the contents of each directory.

This chapter contains the following content:

- Section 2.1, "Oracle Fusion Middleware Concepts"
- Section 2.2, "Oracle Fusion Middleware Directory Structure"

2.1 Oracle Fusion Middleware Concepts

For more information about important Oracle Fusion Middleware concepts for all users, refer to *Oracle Fusion Middleware Concepts*.

2.2 Oracle Fusion Middleware Directory Structure

This section describes the various directories that are created when you install Oracle Fusion Middleware products.

2.2.1 Middleware Home and WebLogic Server Home Directories

All Oracle Fusion Middleware products (except for Oracle Web Tier) require the presence of an application server on your system. All Oracle Fusion Middleware products support Oracle WebLogic Server as the application server. Beginning with 11g Release 1 (11.1.1.4.0), the following products also support IBM WebSphere as the application server:

- Oracle Application Developer
- Oracle SOA Suite and Business Process Management Suite

The top-level directory for all Oracle Fusion Middleware products is called the Middleware home; this directory serves as a container for the Oracle WebLogic Server home, Oracle Common home, and one or more product Oracle homes. The Middleware home directory is created when Oracle WebLogic Server is installed. If you choose to use IBM WebSphere as your application server, then you must still manually create a Middleware home directory where your Oracle Fusion Middleware products will be installed.

The WebLogic Server home directory is inside the Middleware home and is created when Oracle WebLogic Server is installed. Figure 2–1 shows the directory structure after a typical Oracle WebLogic Server installation:

Figure 2–1 Directory Structure after an Oracle WebLogic Server Installation

Some of the notable directories in the Middleware home are the WebLogic Server home (`wlserver_10.3`), the directory for the JDK which you can use for product installations (`jdk160_21`), and the Oracle Coherence directory, which is used by Oracle Service Bus for its business service result caching functionality (`coherence_3.6`).

If you choose to use IBM WebSphere as your application server, a WebSphere home is created with the IBM WebSphere installation, but you must also manually create a Middleware home, as shown in Figure 2–2:

Figure 2–2 Directory Structure after an IBM WebSphere Installation and Middleware Home

The Middleware home and WebSphere home do not have any relation to each other and can be located anywhere on your system.

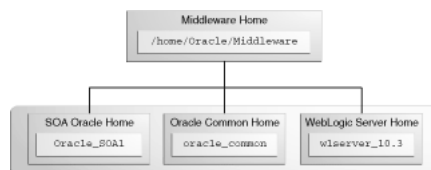
2.2.2 Oracle Home and Oracle Common Home Directories

Each Oracle Fusion Middleware product must be installed in its own Oracle home location. When a product is installed, two Oracle home directories are created: the product Oracle home and the Oracle Common home.

The product's software binaries will be installed into the product Oracle home; no runtime process can write to this directory.

The Oracle Common home contains the binary and library files required for the Oracle Enterprise Manager Fusion Middleware Control and Java Required Files (JRF). There can be only one Oracle Common home within each Middleware home.

Both the product Oracle home (in the example shown in Figure 2–3, the SOA Oracle home) and Oracle Common home directories must reside inside an existing Middleware home directory:

Figure 2–3 Directory Structure with Oracle Home Directories

2.2.2.1 Creating the Product Oracle Home

The product Oracle home directory can be created in the following ways:

- Before running the installation, you can create your Oracle home directory on your system. Remember that the Oracle home must reside inside the Middleware home

directory, and it must also be an empty directory. Then, when you run the installer and are asked to provide the location of your Oracle home, you can specify the directory you have created.

- While running the installer, you can specify the name of a new directory. This directory will automatically be created for you by the installer and will be located inside the Middleware home directory.

2.2.2.2 Creating the Oracle Common Home

The Oracle Common home directory is created in the following ways:

- Installing Oracle Application Developer. For more information, see the *Oracle Fusion Middleware Installation Guide for Application Developer*.
- Installing any Oracle Fusion Middleware product. The directory `oracle_common` is automatically created inside the Middleware home directory.

2.2.2.3 Checking Port Numbers Across Multiple Oracle Homes

Each product requires its own Oracle home directory. If you are creating an environment where you will have multiple products (and therefore, multiple Oracle home directories), Oracle recommends that you use the `staticports.ini` file, so that you will have a record of all the ports that are in use on your system to help avoid conflicts.

To use the `staticports.ini` file, select **Specify Ports using Configuration file** on the Configure Ports screen during installation.

2.2.3 WebLogic Server Domain

After a product is installed, it can be configured into a WebLogic Server domain. See *Oracle Fusion Middleware Concepts* for more information about WebLogic Server domains.

During configuration, on the "Specify Domain Name and Location" screen, you will be asked for the location where you want to store data for your domains and applications. Specifically, you will be asked for:

- Domain name
- Domain location
- Application location

The domain location and domain name together are referred to as the domain home. For example, on a UNIX operating system, if you specified `/home/Oracle/Middleware/domains` as your domain location and `soa_domain` as your domain name, the domain home would be `/home/Oracle/Middleware/domains/soa_domain`.

The application location and domain name together are referred to as the application home. For example, on a Windows operating system, if you specified `C:\Oracle\Middleware\applications` as your application location, then the application home would be `C:\Oracle\Middleware\applications\soa_domain`.

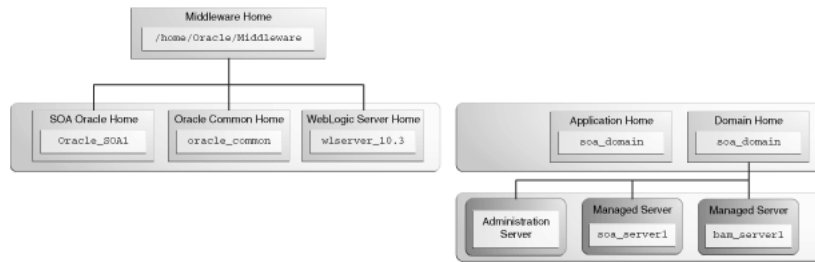
Note that a directory with the specified domain name is created in both the specified domain location and application location.

The domain home and application home can be created anywhere on your system. When you run the Configuration Wizard, the default location for the domain home is

user_projects/domains under the Middleware home. The default location for the application home is user_projects/applications, also under the Middleware home. It is recommended that you create your domain home and application home outside of both the Middleware home and Oracle home directories, so that in the event you need to patch either the Middleware home or Oracle home, your domain and application information would remain untouched.

For more information about domain configuration, see the Installation Guide for your product. For recommendations about configuring a domain in an enterprise production environment, see the Enterprise Deployment Guide for your product.

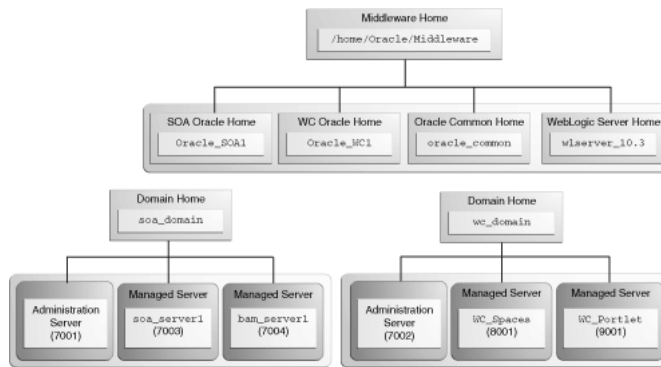
Figure 2-4 Directory Structure after a WebLogic Server Domain is Created



2.2.4 Multiple Products with Multiple WebLogic Server Domains

If you install multiple products and choose to create a separate domain for each product, then your directory structure would look something like the one shown in Figure 2-5:

Figure 2-5 Directory Structure with Multiple Oracle Fusion Middleware Products



Notice that each product has its own Oracle home directory. To differentiate among all the product Oracle home directories, the install guides typically refer to each Oracle home by product name; for example, the Oracle home for Oracle SOA Suite is referred to as the SOA Oracle home, while the Oracle home for Oracle WebCenter Suite is referred to as the WebCenter Oracle home.

2.2.4.1 Notes for Creating Multiple Domains

If you choose to create multiple domains on a single machine, make sure that each domain has a unique name. When you are running the Configuration Wizard to create and configure your domains, be sure to specify a unique domain name on the "Specify Domain Name and Location" screen. For example, in Figure 2-5, the WebCenter

domain might have the name `wc_domain`, while the SOA domain could be called `soa_domain`. Refer to the product installation guides for more information.

When you are configuring multiple domains, you must also make sure that the Administration Server and Managed Servers in each domain use a unique port number. There is no provision for checking port numbers across multiple domains, so you will have to keep track of this manually.

To customize the Administration Server port number, select **Administration Server** on the "Select Optional Configuration" screen in the Configuration Wizard. This will cause the Configure the Administration Server screen to appear, on which you can specify the Administration Server port number.

To customize the Managed Server port numbers, select **Managed Servers, Clusters and Machines** on the "Select Optional Configuration" screen in the Configuration Wizard. This will cause the Configure Manager Servers screen to appear, on which you can specify the port numbers for your managed servers.

2.2.4.2 Additional Information for Multiple Products and Multiple Domains

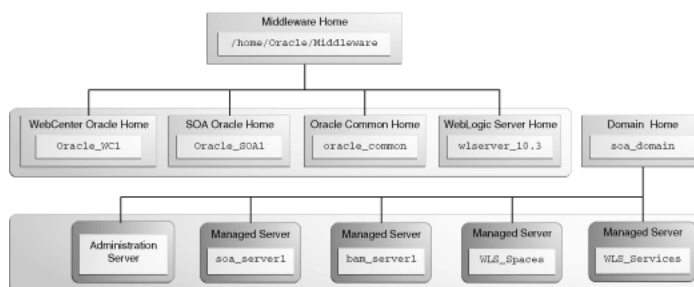
For more information about multiple products and multiple domains, refer to the following documentation:

- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle SOA Suite*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle WebCenter*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*

2.2.5 Extending an Existing Domain

During installation and configuration, you may choose to extend an existing domain rather than creating a new domain. Extending a domain means that you add products and functionality to an existing domain. If, for example, you first install Oracle SOA Suite to create a new domain, then install Oracle WebCenter while choosing to extend the existing Oracle SOA Suite domain, then your topology would look like the one shown in Figure 2–6:

Figure 2–6 Directory Structure with Multiple Oracle Fusion Middleware Products in a Single Domain



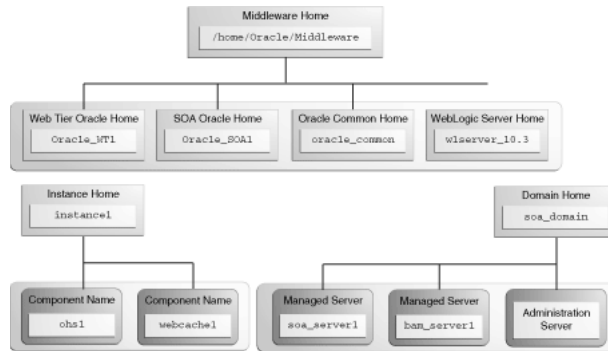
In essence, you are adding the products and functionality of Oracle WebCenter Suite to the existing Oracle SOA Suite domain.

2.2.6 Oracle Instance and WebLogic Server Domain

Figure 2–7 shows the directory structure when two products are installed, but one product (Oracle SOA Suite) is configured in a WebLogic Server domain (because it

consists of Java components) while the other product (Oracle WebTier) is configured in an Oracle Instance (because it consists of system components):

Figure 2-7 Directory Structure with an Oracle Instance and a WebLogic Server Domain



For more information about Java components and system components, refer to "Understanding Key Oracle Fusion Middleware Concepts" in *Oracle Fusion Middleware Administrator's Guide*.

Common Installation Tasks

This chapter describes some common tasks that should be performed prior to beginning any Oracle Fusion Middleware installation.

The following topics are covered:

- Section 3.1, "Before You Begin"
- Section 3.2, "Installing Oracle Configuration Manager"
- Section 3.3, "Understanding Installation and Configuration Privileges and Users"
- Section 3.4, "Installing and Configuring Java Access Bridge (Windows Only)"
- Section 3.5, "Installing on DHCP Hosts"
- Section 3.6, "Installing on a Non-Networked Computer"
- Section 3.7, "Installing on a Multihomed Computer"
- Section 3.8, "Checking Your Hosts File Entries for OPMN"
- Section 3.9, "Recovering From a Partial or Interrupted Installation"
- Section 3.10, "Creating and Starting Managed Servers on a Remote Machine"

3.1 Before You Begin

This section contains important information that you should read before you begin to install or upgrade your system:

- Section 3.1.1, "Review System Requirements and Specifications"
- Section 3.1.2, "Review Certification Information"
- Section 3.1.3, "Review Interoperability and Compatibility"
- Section 3.1.4, "Read and Understand Oracle Fusion Middleware Concepts"
- Section 3.1.5, "Obtain the Oracle Fusion Middleware Software"
- Section 3.1.6, "Install an Application Server"
- Section 3.1.7, "Install and Configure a Database"
- Section 3.1.8, "Create Operating System Users for IBM DB2 Databases"

3.1.1 Review System Requirements and Specifications

Before performing any upgrade or installation you should read the system requirements documentation to ensure that your environment meets the minimum installation requirements for the products you are installing.

The system requirements document covers information such as hardware and software requirements, database schema requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches:

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html>

3.1.2 Review Certification Information

Before performing any upgrade or installation you should read the "Oracle Fusion Middleware Supported System Configurations" document. This document contains certification information related to supported 32-bit and 64-bit operating systems, databases, web servers, LDAP servers, adapters, IPv6, JDKs, and third-party products. It is located on the following page:

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>

3.1.3 Review Interoperability and Compatibility

Before performing any upgrade or installation you should read *Oracle Fusion Middleware Interoperability and Compatibility Guide*. This document contains important information regarding the ability of Oracle Fusion Middleware products to function with previous versions of other Oracle Fusion Middleware, Oracle, or third-party products. This information is applicable to both new Oracle Fusion Middleware users and existing users who are upgrading their existing environment.

3.1.4 Read and Understand Oracle Fusion Middleware Concepts

If you are new to Oracle Fusion Middleware, you should read Chapter 2, "Understanding Oracle Fusion Middleware Concepts and Directory Structure" to familiarize yourself with some of the concepts and terminology you will encounter. You should also be familiar with the concepts described in *Oracle Fusion Middleware Concepts* before proceeding with an installation or upgrade.

3.1.5 Obtain the Oracle Fusion Middleware Software

Depending on your specific needs, there are multiple places where you can obtain Oracle Fusion Middleware software. For details, see "Task 4: Select an Oracle Fusion Middleware Software Download Site" in the *Oracle Fusion Middleware Download, Installation, and Configuration ReadMe*:

http://download.oracle.com/docs/html/E18749_01/download_readme.htm

3.1.6 Install an Application Server

All Oracle Fusion Middleware products (except for Oracle Web Tier) require the presence of an application server on your system. All Oracle Fusion Middleware products support Oracle WebLogic Server as the application server. Beginning with 11g Release 1 (11.1.1.4.0), the following products also support IBM WebSphere as the application server:

- Oracle Application Developer
- Oracle SOA Suite and Business Process Management Suite

All Oracle Fusion Middleware products (including Oracle Web Tier) must be installed inside a Middleware home directory. If you choose to install Oracle WebLogic Server, the installer creates a Middleware home directory for you. If you choose to install IBM

WebSphere as your application server, you must manually create a separate Middleware home directory, in which you can install your Oracle Fusion Middleware products.

For more information about the installation directory structure, see Section 2.2, "Oracle Fusion Middleware Directory Structure".

To determine the version of Oracle WebLogic Server or IBM WebSphere required for your installation, refer to the "Oracle Fusion Middleware Supported System Configurations" document on the following page:

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>

For instructions on how to install Oracle WebLogic Server, see "Running the Installation Program in Graphical Mode" in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

For instructions on how to install IBM WebSphere, see *Oracle Fusion Middleware Third-Party Application Server Guide*.

3.1.7 Install and Configure a Database

Some Oracle Fusion Middleware products, such as Oracle SOA Suite and Oracle WebCenter, require an metadata repository with schemas before those products can be successfully configured. To create or update schemas in a database, use the Repository Creation Utility (RCU).

Note: It is recommended that all metadata repositories reside on a database at the same site as the products to minimize network latency issues.

For more information about managing metadata repositories, refer to "Managing the Oracle Metadata Repository" in *Oracle Fusion Middleware Administrator's Guide*.

For more information about running RCU, refer to *Oracle Fusion Middleware Repository Creation Utility User's Guide*.

3.1.8 Create Operating System Users for IBM DB2 Databases

If you are not using an IBM DB2 database, you can skip this section.

IBM DB2 databases authenticates its database users using equivalent operating system users. Therefore, prior to running RCU, one operating system user must be created on the database host for each schema. The operating system user name must match the schema owner name and must contain only lowercase letters; no all-uppercase or mixed-case names are allowed. For example, if you plan to create a schema named DEV_MDS using RCU, then the operating system user must be named dev_mds (all lowercase letters).

You can create the operating system user with the following command (this example creates the operating system user dev_mds and assigns the password welcome1):

```
/usr/sbin/useradd dev_mds -p welcome1 -d /scratch/dev_mds
```

Refer to your system documentation for more information.

3.2 Installing Oracle Configuration Manager

During installation, you will be asked whether or not you want to configure your system to automatically check for security (**Specify Security Updates** screen) and software (**Install Software Updates** screen) updates. Electing to do so installs Oracle Configuration Manager on your system.

Oracle Configuration Manager continuously tracks key Oracle and system details, providing essential data to help you manage and service your configurations. Collected data is sent via HTTPS to Oracle Support, which maintains a secure view of each configuration. My Oracle Support then provides system health checks, patch advice, and other valuable information about your Oracle products. Configuration manager does NOT collect application data, such as user passwords.

For more information, log into or create a My Oracle Support account at <https://support.oracle.com/>, then click on the **Collector** tab.

3.3 Understanding Installation and Configuration Privileges and Users

This section contains the following:

- Section 3.3.1, "Installation and Configuration Privileges"
- Section 3.3.2, "Installing as a Non-Default User on UNIX Operating Systems"

3.3.1 Installation and Configuration Privileges

The user who installs a Fusion Middleware product owns and has read, write, and execute privileges on the binary files installed in the Oracle home. Other users in the operating system group have only read and execute privileges (no write privileges). This means they cannot write to the files, but they can use the installed binaries in the Oracle home to configure a domain or set of Fusion Middleware products.

During configuration, the files generated by the configuration process are owned by the user who ran the Configuration Wizard. The user who ran the Configuration Wizard has read, write, and execute privilege on those files. Other users in the operating system group can read and execute the files, but they do not have write privileges.

These defaults are set with the assumption that all the administrators are in the same group. Multiple administrators in that group will be configuring domains and products from a common set of Middleware homes and Oracle homes.

3.3.2 Installing as a Non-Default User on UNIX Operating Systems

On UNIX operating systems, the installation of Fusion Middleware products is owned and controlled as a known user (for example, "oracle"). The file permissions associated with this installation are configured to ensure the highest level of security possible, which by default are 700 (meaning all files are owned and accessible by the owner only).

Changing the default permissions settings will reduce the security of the installation and possibly your system. Therefore, making such a change is not recommended. If access to particular files or executables is required by other users, the UNIX `sudo` command (or other similar command) should be considered in lieu of changing file permissions.

Refer to your UNIX operating system Administrator's Guide or contact your operating system vendor if you need further assistance.

3.4 Installing and Configuring Java Access Bridge (Windows Only)

If you are installing on a Windows operating system, you have the option of installing and configuring Java Access Bridge for Section 508 Accessibility. For more information on how to do this, refer to "Install and Configure Java Access Bridge (Windows Only)" in *Oracle Fusion Middleware Administrator's Guide*.

3.5 Installing on DHCP Hosts

If you are installing your Oracle Fusion Middleware product on a DHCP host, you must follow the configuration steps in this section for your platform.

3.5.1 For Linux x86 Platforms

On Linux x86 operating systems, configure the host to resolve host names to the loopback IP address by modifying the `/etc/hosts` file to contain the following entries:

```
127.0.0.1 hostname.domainname hostname
127.0.0.1 localhost.localdomain localhost
```

After doing so, check that the host name resolves to the loopback IP address by entering the following command:

```
/bin/ping hostname.domainname
```

3.5.2 For Windows x86 Platforms

On Windows operating systems, install a loopback adapter on the DHCP server (see Section 3.5.3, "Installing a Loopback Adapter (Windows Only)"). This assigns a local IP address to your computer.

After installing the adapter, add a line to the `%SYSTEMROOT%\system32\drivers\etc\hosts` file with the following format, immediately after the `localhost` line:

```
IP_address hostname.domainname hostname
```

Replace `IP_address` with the local IP address of the loopback adapter.

3.5.3 Installing a Loopback Adapter (Windows Only)

To install a loopback adapter on Windows 2003 or Windows XP:

1. Open the Windows Control Panel.
 - Windows 2003: Select **Start > Control Panel > Add Hardware**.
 - Windows XP: Select **Start > Control Panel**, then double-click **Add Hardware**.
2. In the "Welcome" window, click **Next**.
3. In the "Is the hardware connected?" window, select **Yes, I have already connected the hardware**, then click **Next**.
4. In the "The following hardware is already installed on your computer" window, in the list of installed hardware, select **Add a new hardware device**, then click **Next**.
5. In the "The wizard can help you install other hardware" window, select **Install the hardware that I manually select from a list**, then click **Next**.

6. In the "From the list of hardware types, select the type of hardware you are installing" window, select **Network adapters**, then click **Next**.
7. In the "Select Network Adapter" window, make the following selections:
 - Manufacturer: Microsoft
 - Network Adapter: Microsoft Loopback Adapter
8. Click **Next**.
9. In the "The wizard is ready to install your hardware" window, click **Next**.
10. In the "Completing the Add Hardware Wizard" window, click **Finish**.
11. If you are using Windows 2003, restart your computer.
12. Right-click **My Network Places** on the desktop and choose **Properties**. This displays the Network Connections Control Panel.
13. Right-click the connection that was just created. This is usually named "Local Area Connection 2". Choose **Properties**.
14. On the "General" tab, select **Internet Protocol (TCP/IP)**, then click **Properties**.
15. In the "Properties" dialog box, click **Use the following IP address** and do the following:
 - a. IP Address: Enter a non-routable IP for the loopback adapter. Oracle recommends the following non-routable addresses:
192.168.x.x (x is any value between 1 and 255)
10.10.10.10
 - b. Subnet mask: Enter 255.255.255.0.
 - c. Record the values you entered, which you will need later in this procedure.
 - d. Leave all other fields empty.
 - e. Click **OK**.
16. In the "Local Area Connection 2 Properties" dialog, click **OK**.
17. Close Network Connections.
18. Restart the computer.

3.5.4 Removing a Loopback Adapter (Windows Only)

To remove a loopback adapter on Windows 2003 or Windows XP:

1. Start the System Control panel.
Windows 2003: Select **Start > Control Panel > System**.
Windows XP: Select **Start > Control Panel**, then double-click **System**.
2. In the "Hardware" tab, click **Device Manager**.
3. In the "Device Manager" window, expand **Network adapters**. You should see **Microsoft Loopback Adapter**.
4. Right-click **Microsoft Loopback Adapter** and select **Uninstall**.
5. Click **OK**.

3.6 Installing on a Non-Networked Computer

You can install your Oracle Fusion Middleware product on a non-networked computer, such as a laptop. Because a non-networked computer has no access to other computers, you have to install all the components that you need on the computer.

In addition, you must follow the instructions in Section 3.5, "Installing on DHCP Hosts" to install a loopback adapter and modify the `hosts` file on your system.

3.7 Installing on a Multihomed Computer

You can install your Oracle Fusion Middleware product on a multihomed computer. A multihomed computer is associated with multiple IP addresses. This is typically achieved by having multiple network cards on the computer. Each IP address is associated with a host name; additionally, you can set up aliases for each hostname.

The installer picks up the fully qualified domain name from the first entry in `/etc/hosts` (on UNIX operating systems) or `%SYSTEMROOT%\system32\drivers\etc\hosts` (on Windows operating systems) file. So if your file looks like the following:

```
127.0.0.1 localhost.localdomain localhost
10.222.333.444 examplehost1.example.com examplehost1
20.222.333.444 examplehost2.example.com examplehost2
```

`examplehost1.example.com` would be picked for configuration.

For specific network configuration of a system component, refer to the individual component's configuration documentation.

3.8 Checking Your Hosts File Entries for OPMN

If you are installing an Oracle Fusion Middleware product that also installs Oracle Process Manager and Notification Server (OPMN), you must make sure the installation system has valid entries in the `hosts` (`/etc/hosts` on UNIX systems and `C:\windows\system32\drivers\etc\hosts` on Microsoft Windows systems) file. You must make sure that the IP address is valid and corresponds to the network setup on the system.

You can check your system's IP address and host name as follows:

On UNIX operating systems:

```
ipconfig -a
```

On Microsoft Windows operating systems:

```
ipconfig /all
```

The IP address and corresponding host name in your `hosts` file must match the IP address and host name you get from the `ipconfig` command. Otherwise, the `opmn.xml` file will contain incorrect configuration information, and OPMN will not start.

3.9 Recovering From a Partial or Interrupted Installation

Should your installation process be interrupted prior to completion, the result is likely an incomplete and non-functional partial installation. If this occurs, the recommended

approach is to attempt to uninstall the previous installation. If that is successful, you can re-install normally, otherwise you should re-install into a new Middleware home.

3.10 Creating and Starting Managed Servers on a Remote Machine

To create and start a Managed Server in a WebLogic domain on a remote machine, complete the following steps:

- Use the `pack` command located in the `WebLogic_Home/common/bin` (on UNIX operating systems) or `WebLogic_Home\common\bin` (on Microsoft Windows operating systems) directory to create a Managed Server template that contains a subset of the files in a domain that are required to create a Managed Server domain directory hierarchy on a remote machine.

The `-managed={true|false}` parameter of the `pack` command specifies whether the template is to be used to create Managed Servers on remote machines.

- Use the `unpack` command located in the `WebLogic_Home/common/bin` (on UNIX operating systems) or `WebLogic_Home\common\bin` (on Windows operating systems) directory to create the Managed Server domain directory on the remote machine.

For more information, see the "Creating and Starting a Managed Server on a Remote Machine" in *Oracle Fusion Middleware Creating Templates and Domains Using the Pack and Unpack Commands*.

Silent Oracle Fusion Middleware Installation and Deinstallation

This chapter describes how to install and deinstall your Oracle Fusion Middleware environment from the command line in silent mode.

This chapter contains the following content:

- Section 4.1, "What is a Silent Installation?"
- Section 4.2, "Response Files"
- Section 4.3, "Pre-Installation Tasks"
- Section 4.4, "Silent Database Schema Creation"
- Section 4.5, "Silent Oracle WebLogic Server Installation"
- Section 4.6, "Silent Product Installation"
- Section 4.7, "Silent Product Configuration"
- Section 4.8, "Silent Product Deinstallation"

4.1 What is a Silent Installation?

Silent installation eliminates the need to monitor your product installation because no graphical output is displayed and no input by the user is required.

Silent installation of your Oracle Fusion Middleware product is accomplished by using the `-silent` flag on the command line when you start the installer. In most cases, you will need to supply the location and name of a file containing certain variable and parameter values (for example, installation location). These are the values that would be asked for during a typical installation using the graphical user interface.

For Oracle Fusion Middleware products, this file is typically called a response file. For more information, see Section 4.2, "Response Files".

Note: For UNIX users, if this is a first time installation of any Oracle product, you must create the `oraInst.loc` file before starting. Please refer to Section 4.3.1, "UNIX Users: Creating the `oraInst.loc` File" for more information.

Following installation of your product, you need to run the `root.sh` script as the `root` user. The `root.sh` script detects settings of environment variables and enables you to enter the full path of the local `bin` directory.

Note: For Windows users, if this is a first time installation of any Oracle product, you must create the registry keys before starting. Registry key creation is described in Section 4.3.2, "Windows Users: Creating the Registry Key"

4.2 Response Files

Before doing a silent installation, you must provide information specific to your installation in a response file. The installer will fail if you attempt an installation using a response file that is not configured correctly. Response files are text files that you can create or edit in a text editor.

4.2.1 Creating a Response File

Oracle recommends creating a response file in the following manner:

1. Run your product's graphical installer, as described in your product installation guide.
2. On the Installation Summary Screen, click **Save** to save your installation parameters to a response file.

You will be prompted for a name and location where you want to create this response file. After it is created, you can use it exactly as-is to replicate the installation on other systems, or modify it as needed.

4.2.2 Sample Response Files

Pre-existing sample response files are provided in the `Disk1/stage/Response` (on UNIX operating systems) or `Disk1\stage\Response` (on Windows operating systems) directory in the location where you unzipped your downloaded archive files for installation.

Refer to your product installation guide for more detailed descriptions of the sample installation and deinstallation response files that are provided for each product.

4.2.3 Securing Your Response Files for Silent Installation

Your response files contain certain passwords required by the installer. To minimize security issues regarding these passwords in the response file, follow these guidelines:

- Set the permissions on the response files so that they are readable only by the operating system user who will be performing the silent installation.
- If possible, remove the response files from the system after the silent installation is completed.

4.3 Pre-Installation Tasks

This section covers the pre-installation tasks that may be required before you are able to perform a silent installation.

The following topics are covered:

- Section 4.3.1, "UNIX Users: Creating the `oraInst.loc` File"
- Section 4.3.2, "Windows Users: Creating the Registry Key"

4.3.1 UNIX Users: Creating the `oraInst.loc` File

The Oracle inventory directory is used by the installer to keep track of all Oracle products installed on the computer. The inventory directory is stored in a file called `oraInst.loc`. If this file does not already exist on your system, you must create it before starting a silent installation. This file is used by the installer.

1. Log in as the root user.

```
prompt> su
```

2. Using a text editor such as `vi` or `emacs`, create the `oraInst.loc` file in the directory of your choice. The contents of the file consist of the following two lines:

```
inventory_loc=oui_inventory_directory
inst_group=oui_install_group
```

Replace `oui_inventory_directory` with the full path to the directory where you want the installer to create the inventory directory. Then, replace `oui_install_group` with the name of the group whose members have write permissions to this directory.

3. Exit from the root user.

```
# exit
```

4.3.2 Windows Users: Creating the Registry Key

If you have not installed Oracle SOA Suite on your computer, then you need to create the following Registry key and value:

```
HKEY_LOCAL_MACHINE / SOFTWARE / Oracle / inst_loc = [inventory_directory]
```

Replace `Inventory_Directory` with the full path to your installer files. For example:

```
C:\Program Files\Oracle\Inventory
```

4.4 Silent Database Schema Creation

If your Oracle Fusion Middleware product requires database schemas, you must first create the schemas in your database before installing and configuring your product.

For instructions on how to create the schemas in silent mode, refer to "Running Repository Creation Utility (RCU) from the Command Line" in *Oracle Fusion Middleware Repository Creation Utility User's Guide*.

4.5 Silent Oracle WebLogic Server Installation

Installation of all Oracle Fusion Middleware products requires the presence of an Oracle Middleware home directory, which can be created by installing Oracle WebLogic Server.

To install Oracle WebLogic Server in silent mode, refer to "Running the Installation Program in Silent Mode" in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

4.6 Silent Product Installation

To install your Oracle Fusion Middleware product in silent mode, use the `-silent` mode from the command line. The full syntax for running the installer from the command line on UNIX operating systems is shown below:

```
runInstaller [-mode] [-options] [(<CommandLinevariable=Value>)*]
```

On Windows operating systems:

```
setup.exe [-mode] [-options] [(<CommandLinevariable=Value>)*]
```

Table 4–1 lists the valid command line parameters for silent installation.

Table 4–1 Installer Command Line Parameters

Parameter	Description
Installation Modes - Only One Mode Can be Specified	
-i -install	Launches the installer in GUI mode. This is the default mode and is used if no mode is specified on the command line.
-silent	Install in silent mode. The installer must be passed either a response file or command line variable value pairs.
-d -deinstall	Launches the installer in GUI mode for deinstallation. NOTE - this option is only available when you start the deinstaller from the <code>ORACLE_HOME/oui/bin</code> (on UNIX operating systems) or <code>ORACLE_HOME\oui\bin</code> (on Windows operating systems) directory.
-p -prerequisite	Launches the installer in GUI mode but only checks the prerequisites. No software is installed.
-v -validate	Launches the installer in GUI mode and performs all prerequisite and validation checking, but does not install any software.
-sv -silentvalidate	Performs all prerequisite and validation checking in silent mode. You must pass the installer either a response file or a series of command line variable value pairs.
Installation Options	
-help --help --usage	Displays the usage parameters for the <code>runInstaller</code> command.
-invPtrLoc <i>file</i>	Pointer to the inventory location file. Replace <i>file</i> with the full path and name of the <code>oraInst.loc</code> file.
-response <i>file</i> -responseFile <i>file</i>	Pointer to the response file. Replace <i>file</i> with the full path and name of the response file. See Section 4.2, "Response Files" for information about creating the response files.
-jreLoc <i>location</i>	Pointer to the location where Java Runtime Environment (JRE) is installed. Replace <i>location</i> with the full path to the <code>jre</code> directory where your JRE is installed.

Table 4–1 (Cont.) Installer Command Line Parameters

Parameter	Description
<code>-logLevel <i>level</i></code>	Specify the level of logging performed by the installer; all messages with a lower priority than the specified <i>level</i> will be recorded. Valid levels are: <ul style="list-style-type: none"> ▪ severe ▪ warning ▪ info ▪ config ▪ fine ▪ finer ▪ finest
<code>-debug</code>	Obtain debug information from the installer.
<code>-force</code>	Allow the silent installation to proceed in a non-empty directory.
<code>-printdiskusage</code>	Log debugging information pertaining to disk usage.
<code>-printmemory</code>	Log debugging information pertaining to memory usage.
<code>-printtime</code>	Log debugging information pertaining to time usage. This command causes the <code>timeTakenTimestamp.log</code> file to be created.
<code>-waitforcompletion</code>	Windows only - the installer will wait for completion instead of spawning the Java engine and exiting.
<code>-noconsole</code>	Messages will not be displayed to the console window.
<code>-ignoreSysPrereqs</code>	Ignore the results of the system prerequisite checks and continue with the installation.
<code>-executeSysPrereqs</code>	Execute the system prerequisite checks only, then exit.
<code>-paramFile <i>file</i></code>	Specify the full path to the <code>oraparam.ini</code> file. This file is the initialization file for the installer. The default location of this file is <code>Disk1/install/<i>platform</i></code> (on UNIX operation systems) or <code>Disk1\install\<i>platform</i></code> (on Windows operation systems).
<code>-novalidation</code>	Disables all validation checking performed by the installer.
<code>-nodefaultinput</code>	For the GUI install, several screens have information or default values pre-populated. Specifying this option disables this behavior so that no information or values are pre-populated.

Command Line Variables

Installer Variables	Installer variables are specified using <code>varName=value</code> . For example, on a UNIX operating system: <code>ORACLE_HOME=/home/Oracle/Middleware/as_1</code> On a Windows operating system: <code>ORACLE_HOME=C:\products\Oracle\Middleware\as_1</code>
Session Variables	Session variables are specified using <code>session:varName=value</code> .
Component Variables	Component variables are specified using <code>session:compInternalName:[Version:]varName=value</code> .

4.6.1 Sample Silent Install Commands

If this is the first time you are installing on your system (meaning there is no pre-existing Oracle Inventory location), use the following command to perform a silent installation on UNIX systems:

```
./runInstaller -silent -response file -invPtrLoc file
```

On Windows systems:

```
setup.exe -silent -response file -invPtrLoc file
```

Below is a full example of this command for UNIX systems:

```
./runInstaller -silent -response /home/Oracle/response/devSOA.rsp -invPtrLoc /home/jdoe/oraInst.loc
```

On Windows operating systems:

```
setup.exe -silent -response C:\home\Oracle\response\devSOA.rsp -invPtrLoc c:\home\Oracle\oraInst.loc
```

If you have already installed an Oracle product on your system and do not need to specify an inventory location, then you can use a command similar to the following on UNIX systems:

```
./runInstaller -silent -response file
```

On Windows systems:

```
setup.exe -silent -response file
```

Below is a full example of this command on a UNIX system:

```
./runInstaller -silent -response /home/Oracle/response/devSOA.rsp
```

On Windows operating systems:

```
setup.exe -silent -response c:\home\Oracle\response\devSOA.rsp
```

4.6.2 Sample Silent Install Output

Below is a sample output from a silent Oracle SOA Suite installation using the `sampleResponse_wls.rsp` template:

```
$ ./runInstaller -jreLoc /home/Oracle/Middleware/jdk160_21/ -silent -response /home/Oracle/response/sampleResponse_wls.rsp
Platform is Linux X86 32 bit
Starting Oracle Universal Installer...

Checking if CPU speed is above 300 MHz.    Actual 2999 MHz    Passed
Checking Temp space: must be greater than 150 MB.    Actual 69669 MB    Passed
Checking swap space: must be greater than 512 MB.    Actual 1395 MB    Passed
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2009-04-03_10-49-20PM. Please wait ...[jdoe@examplehost Disk1]$ Log:
/home/Oracle/oraInventory/logs/install2009-04-03_10-49-20PM.log
Copyright © 1999, 2011, Oracle and/or its affiliates. All rights reserved.
Reading response file..
Expected result: One of enterprise-4,enterprise-5,redhat-4,redhat-5,SuSE-10
Actual Result: enterprise-4
Check complete. The overall result of this check is: Passed
CertifiedVersions Check: Success.
Checking for gcc-3.4.3-22.1; found gcc-3.4.6-10.0.1-i386.    Passed
```



```

Checking for gcc-c++-3.4.3-22.1; found gcc-c++-3.4.6-10.0.1-i386.      Passed
Checking for openmotif21-2.1.30-11.RHEL4.4 ; found
openmotif21-2.1.30-11.0.1.RHEL4.6-i386.      Passed
Checking for setarch-1.6-1; found setarch-1.6-1-i386.      Passed
Checking for pdksh-5.2.14-30; found pdksh-5.2.14-30.6-i386.      Passed
Checking for sysstat-5.0.5-1; found sysstat-5.0.5-19.el4-i386.      Passed
Checking for gnome-libs-1:1.4.1.2.90-44.1; found
gnome-libs-1:1.4.1.2.90-44.2-i386.      Passed
Checking for libstdc++-3.4.3-22.1 ; found libstdc++-3.4.6-10.0.1-i386.      Passed
Checking for libstdc++-devel-3.4.3-22.1; found libstdc++-devel-3.4.6-10.0.1-i386.
Passed
Checking for compat-libstdc++-296-2.96-132.7.2; found
compat-libstdc++-296-2.96-132.7.2-i386.      Passed
Checking for compat-db-4.1.25-9; found compat-db-4.1.25-9-i386.      Passed
Checking for control-center-2.8.0-12; found
control-center-1:2.8.0-12.rhel4.5-i386.      Passed
Checking for glibc-common-2.3.4-2.9; found glibc-common-2.3.4-2.41-i386.
Passed
Checking for binutils-2.15.92.0.2-13; found binutils-2.15.92.0.2-25-i386.
Passed
Checking for make-1:3.80-5; found make-1:3.80-7.EL4-i386.      Passed
Checking for xscreensaver-4.18-5.rhel4.2; found
xscreensaver-1:4.18-5.rhel4.14.0.1-i386.      Passed
Check complete. The overall result of this check is: Passed
Packages Check: Success.
Checking for VERSION=2.6.9; found VERSION=2.6.9-78.0.0.0.1.ELxenU.      Passed
Checking for hardnofiles=4096; found hardnofiles=4096.      Passed
Checking for softnofiles=4096; found softnofiles=4096.      Passed
Check complete. The overall result of this check is: Passed
Kernel Check: Success.
Expected result: ATLEAST=2.3.4-2.19
Actual Result: 2.3.4-2.41
Check complete. The overall result of this check is: Passed
GLIBC Check: Success.
Expected result: 922MB
Actual Result: 4000MB
Check complete. The overall result of this check is: Passed
TotalMemory Check: Success.
Verifying data.....
Copying Files...
-----20%-----40%-----60%-----80%-----100%

The installation of Oracle SOA Suite 11g completed successfully.

```

4.7 Silent Product Configuration

The way in which you can configure your Oracle Fusion Middleware product from the command line varies depending on the type of product.

4.7.1 System Components

If your product contains system components (for example, Oracle Web Tier, Oracle Portal, Forms, Reports and Discoverer, or Oracle Identity Management), you can use the same commands as described in Section 4.6, "Silent Product Installation".

These products use the same engine for both installation and configuration, so the contents of the response file determine whether you are only installing the software, only configuring existing software, or installing and configuring at the same time.

As mentioned in Section 4.2, "Response Files", the recommended way to create these response files is to run the graphical installer once and save the configuration to a response file. Each product also comes with sample response files that you can use. Refer to the product installation guides for more information.

4.7.2 Java Components

If your product contains Java components (for example, Oracle SOA Suite, or Oracle WebCenter), the installer and the Configuration Wizard are essentially different products and therefore you cannot configure your products silently using the same silent installation commands.

Instead, silent configuration for Java components must be done using WebLogic Scripting Tool (WLST) commands.

For more information, refer to:

- *Oracle Fusion Middleware WebLogic Scripting Tool Command Reference*
- *Oracle Fusion Middleware Oracle WebLogic Scripting Tool*

4.8 Silent Product Deinstallation

To deinstall the Oracle Fusion Middleware product software on your system (both system and java components), use the `-d` or `-deinstall` parameter from the command line. You must start the deinstaller from the `ORACLE_HOME/oui/bin` (on UNIX operating systems) or `ORACLE_HOME\oui\bin` (on Windows operating systems) directory; this is the only directory where the `-d` or `-deinstall` parameters are accepted.

On UNIX operating systems:

```
./runInstaller -silent -deinstall -response file
```

On Windows operating systems:

```
setup.exe -silent -deinstall -response file
```

4.8.1 Command Line Parameters for Silent Deinstallation

Table 4–2 lists the valid command line parameters for silent deinstallation.

Table 4–2 Deinstaller Command Line Parameters

Parameter	Description
Installation Modes - Only One Mode Can be Specified	
<code>-d</code>	Launches the installer in GUI mode for deinstallation.
<code>-deinstall</code>	
Installation Options	
<code>-help</code>	Displays the usage parameters for the <code>runInstaller</code> (on UNIX operating systems) or <code>setup.exe</code> (on Windows operating systems) command.
<code>--help</code>	
<code>--usage</code>	
<code>-invPtrLoc file</code>	Pointer to the inventory location file. Replace <i>file</i> with the full path and name of the <code>oraInst.loc</code> file.
<code>-response file</code>	Pointer to the response file. Replace <i>file</i> with the full path and name of the response file.
<code>-responseFile file</code>	

Table 4–2 (Cont.) Deinstaller Command Line Parameters

Parameter	Description
-jreLoc <i>location</i>	Pointer to the location where Java Runtime Environment (JRE) is installed. Replace <i>location</i> with the full path to the <code>jre</code> directory where your JRE is installed.
-logLevel <i>level</i>	Specify the level of logging performed by the installer; all messages with a lower priority than the specified <i>level</i> will be recorded. Valid levels are: <ul style="list-style-type: none"> ▪ severe ▪ warning ▪ info ▪ config ▪ fine ▪ finer ▪ finest
-debug	Obtain debug information from the installer.
-force	Allow the silent installation to proceed in a non-empty directory.
-printdiskusage	Log debugging information pertaining to disk usage.
-printmemory	Log debugging information pertaining to memory usage.
-printtime	Log debugging information pertaining to time usage. This command causes the <code>timeTakenTimestamp.log</code> file to be created.
-waitforcompletion	Windows only - the installer will wait for completion instead of spawning the Java engine and exiting.
-noconsole	Messages will not be displayed to the console window.
-ignoreSysPrereqs	Ignore the results of the system prerequisite checks and continue with the installation.
-executeSysPrereqs	Execute the system prerequisite checks only, then exit.
-paramFile <i>file</i>	Specify the full path to the <code>oraparam.ini</code> file. This file is the initialization file for the installer. The default location of this file is <code>Disk1/install/platform</code> (on UNIX operation systems) or <code>Disk1\install\platform</code> (on Windows operation systems).
-novalidation	Disables all validation checking performed by the installer.
-nodefaultinput	For the GUI install, several screens have information or default values pre-populated. Specifying this option disables this behavior so that no information or values are pre-populated.
Command Line Variables	
Installer Variables	Installer variables are specified using <code>varName=value</code> . For example, on a UNIX operating system: <code>ORACLE_HOME=/home/Oracle/Middleware/as_1</code> On a Windows operating system: <code>ORACLE_HOME=C:\products\Oracle\Middleware\as_1</code>
Session Variables	Session variables are specified using <code>session:varName=value</code> .
Component Variables	Component variables are specified using <code>session:compInternalName:[Version:]varName=value</code> .

4.8.2 Sample Silent Deinstall Output

Below is a sample output from a silent install using the `deinstall_oh.rsp` template:

```
$ ./runInstaller -silent -deinstall -jreLoc /home/Oracle/Middleware/jdk160_21/
-response /home/Oracle/Response/deinstall_oh.rsp
Starting Oracle Universal Installer...

Checking swap space: must be greater than 500 MB.   Actual 4047 MB   Passed
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2010-03-26_
10-01-21AM. Please wait ...[]$ Log: /home/oraInventory/logs/deinstall2010-03-26_
10-01-21AM.log
Reading response file..
Starting silent deinstallation...
Starting Oracle Home deinstallation...
Completed deinstallation of Oracle Home.
```

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