Oracle® Fusion Middleware
Installing Oracle Forms

12.2.1.4.0
E95420-08
February 2022

ORACLE®

Oracle Fusion Middleware Installing Oracle Forms, 12.2.1.4.0

E95420-08

Contents

Preface

1   Installation and Configuration Overview

2   Installing and Configuring Oracle Forms

3   Deinstalling Oracle Forms

4   Upgrading Oracle Forms

5   About Oracle Reports

A   Troubleshooting

Preface

This document covers requirements, instructions, and troubleshooting tips for installing and configuring Oracle Forms.

Audience

This guide is intended for users who are installing Oracle Fusion Middleware 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 you products will be installed. Users in UNIX systems who are installing need `root` access to run some scripts.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

You can refer the Oracle Fusion Middleware Library for additional information.

- For 12*c* Oracle Forms information, see Oracle Forms Documentation Library.

- Oracle Forms Developer Online Help, available from the Help menu in Oracle Forms Developer.

- For Oracle Forms white papers and other resources, see Oracle.com.

- For upgrade information, see Fusion Middleware Upgrade Documentation.

- For release-related information, see Fusion Middleware Release Notes.

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.
italic	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.

1

Installation and Configuration Overview

This chapter provides a summary and roadmap for Oracle Forms installation and configuration.

> **Note:**
>
> Although Oracle Reports is included in this release, it has been deprecated. Refer the 12.2.1.3.0 Documentation Library for installation information specific to Oracle Reports.

The following sections are included

- Oracle Forms Components
- Secure Oracle Forms with Identity Management
- Installation and Configuration Roadmap for Oracle Forms
- Installation and Configuration Roadmap for Standalone Form Builder

Oracle Forms Components

Provides the list of Oracle Forms components which are available for installation.

The components are as follows:

- Oracle Forms
  - Oracle Form Builder
  - Oracle Forms Deployment (Forms Services)
- Oracle HTTP Server
- Oracle Common Configuration Infrastructure
  - CIE CAM Shared Config
  - Enterprise Manager Plugin for Forms
- Infrastructure
  - Database Client Components 12.1.0.2.0
  - FMW Upgrade 12.2.1.4.0
  - OPatch version 13.9.1.0.0

Secure Oracle Forms with Identity Management

If you want to have your Oracle Forms installation protected by an Identity Management tier, you must secure Oracle Forms with Oracle Access Manager.

Your Oracle Forms installation can only be secured with Identity Management if you are configuring your components in deployment mode.

Refer to Installing Oracle Identity and Access Management for information about installing and configuring Oracle Internet Directory with Oracle Access Manager.

If you have an existing Oracle Internet Directory with Oracle Single Sign-On, you can upgrade to Oracle Internet Directory with Oracle Access Manager, as described in Upgrading Oracle Forms

Installation and Configuration Roadmap for Oracle Forms

This roadmap provides an overview of the steps required to install Oracle Forms.

Review the tasks you have to perform for a typical Oracle Forms installation and configuration.

> ✎ **Note:**
>
> If you are planning to use the Standalone Form Builder installation option, see Table 1-2

Table 1-1   Tasks in the Oracle Forms Installation and Configuration Flowchart

Task	Description	Optional	Additional Information
Verify your system's environment	Ensure that your system environment meets the general installation requirements for Oracle Fusion Middleware and Oracle Forms.	No	Read the information provided in Preparing to Install.
Use Identity Management	If you want Oracle Forms to be protected by an Identity Management tier, then you must have Oracle Internet Directory up and running. Be sure to choose the Deployment configuration mode and then choose to install Oracle HTTP Server during the installation.	Yes	For information about installing Oracle Internet Directory with Oracle Access Manager, see Secure Oracle Forms with Identity Management.
Obtain the software	Obtain all necessary software to install and configure Oracle Forms.	No	The software required to install Oracle Forms is described in Obtaining the Oracle Fusion Middleware Software.

Table 1-1   (Cont.) Tasks in the Oracle Forms Installation and Configuration Flowchart

Task	Description	Optional	Additional Information
Install Fusion Middleware Infrastructure and create an Oracle home	Oracle Forms requires an Oracle home directory for installation and a WebLogic Server domain during configuration.	No	Follow the steps described in Installing Fusion Middleware Infrastructure. Note that only specific versions of Oracle WebLogic Server are supported. You automatically obtain the correct version when you install the Fusion Middleware Infrastructure distribution for the current release. Additional information about certifying your environment is available in Reviewing Certification, System, and Interoperability Requirements.
Start the Oracle Forms installer	Start the Oracle Forms installer to install the software.	No	When you are ready to begin, see Starting the Oracle Forms Installer.
Install Oracle Forms	Install the components using Oracle Universal Installer.	No	Follow the steps described in Installing Using Oracle Universal Installer.
Run Repository Creation Utility	Create Oracle Fusion Middleware database schemas.	No	Follow the steps described in Using the Repository Creation Utility.
Configure Oracle Forms Using the Configuration Wizard	Use Configuration Wizard to configure your components.	No	Follow the steps described in Configuring Forms Using the Configuration Wizard and Configuring Form Builder Standalone Using the Configuration Wizard.
Verify your environment	Verify that your installation and configuration were successful.	No	Follow the steps described in Verifying the Installation and Configuration.

Installation and Configuration Roadmap for Standalone Form Builder

Review the tasks you have to perform if you are planning to use the Standalone Form Builder installation option.

Table 1-2   Tasks in the Standalone Form Builder Installation and Configuration Flowchart

Task	Description	Optional	Additional Information
Verify your system's environment	Ensure that your system environment meets the general installation requirements for Oracle Fusion Middleware and Oracle Forms.	No	Read the information provided in Preparing to Install.
Obtain the software	Obtain all necessary software to install and configure Oracle Forms.	No	The software required to install Oracle Forms is described in Obtaining the Oracle Fusion Middleware Software.
Start the Oracle Forms installer	Start the Oracle Forms installer to install the software.	No	When you are ready to begin, see Starting the Oracle Forms Installer.
Install Standalone Form Builder	Install the components using Oracle Universal Installer.	No	Follow the steps described in Installing Using Oracle Universal Installer.

Table 1-2   (Cont.) Tasks in the Standalone Form Builder Installation and Configuration Flowchart

Task	Description	Optional	Additional Information
Configure Standalone Form Builder Using the Form Builder Configuration Wizard	Use Form Builder Configuration Wizard to configure your components.	No	Follow the steps described in Configuring Form Builder Standalone Using the Configuration Wizard.
Verify your environment	Verify that your installation and configuration were successful.	No	Follow the steps described in Verifying the Installation and Configuration.

2

Installing and Configuring Oracle Forms

This chapter describes how to install and configure Oracle Forms.
The following topics are covered:

- Preparing to Install
- Installing Fusion Middleware Infrastructure
- Installing Oracle Identity and Access Management
- Installing and Configuring Oracle Forms
- Installing Oracle Forms in Silent Mode
- Installing the Forms Application Deployment Services
- Oracle Forms Accessibility Information

Preparing to Install

To prepare for your Oracle Forms installation, verify that your system meets the basic requirements, then obtain the correct installation software.

You should also ensure that your environment and other software requirements are met.

- Reviewing Certification, System, and Interoperability Requirements
- Understand Oracle Fusion Middleware Concepts
- Obtaining the Oracle Fusion Middleware Software
- Installing Oracle Forms in a New Oracle Home
- Installing Oracle Forms as a Non-Default User
- Overview of Installation and Configuration Steps

Reviewing Certification, System, and Interoperability Requirements

Oracle recommends that you use the certification matrix and system requirements documents with each other to verify that your environment meets the requirements for installation.

1. **Verifying that your environment meets certification requirements**

    Make sure that you install your product on a supported hardware and software configuration. See the certification document for your release on the Oracle Fusion Middleware Supported System Configurations page.

2. **Using the system requirements document to verify certification**

    Oracle recommends that you use the Oracle Fusion Middleware System Requirements and Specifications document to verify that the certification requirements are met. For example, if the certification document indicates that your product is certified for installation on 64-Bit Oracle Linux 6.5, use this document to verify that your system meets the required minimum specifications. These include disk space, available memory,

specific platform packages and patches, and other operating system-specific requirements. System requirements can change in the future. Therefore, the system requirement documents are kept outside of the documentation libraries and are available on Oracle Technology Network.

3. **Verifying interoperability among multiple products**

   To learn how to install and run multiple Fusion Middleware products from the same release or mixed releases with each other, see Oracle Fusion Middleware 12c (12.2.1.4.0) Interoperability and Compatibility in *Understanding Interoperability and Compatibility*.

Understand Oracle Fusion Middleware Concepts

If you are new to Oracle Fusion Middleware, see About Key Oracle Fusion Middleware Concepts in *Understanding Oracle Fusion Middleware* to familiarize yourself with some of the concepts and terminology you will encounter.

Obtaining the Oracle Fusion Middleware Software

Depending on your specific needs, there are multiple locations to obtain Oracle Fusion Middleware software.

Specific information on the distributions you may need to download is available in the *Oracle Fusion Middleware Download, Installation, and Configuration Readme Files*. For example, you may choose to download a full production distribution, or you may elect to download a development distribution for evaluation purposes.

Before You Begin:

Refer to the certification requirements documentation, as described in Reviewing Certification, System, and Interoperability Requirements, to verify that your environment meets certification requirements.

In particular, to run an Oracle Forms application, user machines will be required to have a Java Runtime Environment installed. This can be accomplished either by installing a JDK or JRE. Either of these downloads is available from the Java SE Downloads page. Click the system certification link to ensure the appropriate version is downloaded and installed.

To install and configure Oracle Forms for a production distribution, you will need to download the following software:

1. Download the Fusion Middleware Infrastructure distribution from the Oracle WebLogic Server Installers download page.
   Note that the **Fusion Middleware Infrastructure Installer** is available from the Oracle WebLogic Server Installer download page, because the Fusion Middleware Infrastructure distribution includes Oracle WebLogic Server and the Oracle JRF Infrastructure components. While only specific versions of Oracle WebLogic Server are supported for a specific distribution, you automatically obtain the correct version when you install Fusion Middleware Infrastructure for the current release.

   Note that Standalone Forms Builder does not use Fusion Middleware Infrastructure and will not be permitted to install to the Oracle home directory created by the Fusion Middleware Infrastructure installer.

2. Download the production distribution for Oracle Forms and Reports from the Oracle Software Delivery Cloud.

Make a note of the directory where you download each installer; you will need this information when it is time to run the installer for each product.

Installing Oracle Forms in a New Oracle Home

For installations that will include Fusion Middleware Infrastructure, install the Oracle Forms software in the Oracle Home created with that installation. If you are installing Oracle Forms by using the Form Builder Standalone option, create a new empty directory as the standalone installation cannot coexist with Fusion Middleware Infrastructure in the same Home.

Do not install Oracle Forms in an Oracle Home directory shared with Oracle Fusion Middleware products of a different version.

> **Note:**
>
> Although Oracle BI-Publisher 12.2.1.4 can be called from Oracle Forms 12.2.1.4 applications, this BI-Publisher version cannot be installed into the same Oracle Home as Forms.

Installing Oracle Forms as a Non-Default User

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 other user require access to particular files or executables, 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.

On Windows operating systems, the user must be a member of the Windows Administrators group. This gives the user the proper permissions required to start and stop processes after the installation, including the Builders.

Overview of Installation and Configuration Steps

To complete the installation and configuration of Oracle Forms, this section lists the basic steps you have to perform.

Installation and Configuration Steps

Perform the following steps to complete the installation and configuration of Oracle Forms:

- Install Fusion Middleware Infrastructure.
- Install Forms.
- Run Repository Creation Utility (RCU).

- Run Configuration Wizard.

- Start all servers to complete configuration.

Installing Fusion Middleware Infrastructure

Oracle Forms requires Fusion Middleware Infrastructure, which creates the Oracle home directory during installation.

The Oracle Fusion Middleware certification document for a specific release should be used to verify your environment meets the requirements for installation, as described in Reviewing Certification, System, and Interoperability Requirements.

Download the Correct Installer for Your Operating System

To obtain the Fusion Middleware Infrastructure Installer, see Obtaining the Oracle Fusion Middleware Software.

Find Fusion Middleware Infrastructure Installation Instructions

Follow the Fusion Middleware Infrastructure Installer instructions, as described in Installing the Infrastructure Software. The Fusion Middleware Infrastructure installation must be completed so that an Oracle home directory is created; you do not have to create a WebLogic Server domain, as the Oracle Forms installer will allow you to do this for your Oracle Forms products.

If you are installing on Microsoft Windows operating system, after your Fusion Middleware Infrastructure installation is complete, perform the steps in the following section.

> **Note:**
>
> If you are planning to create the WebLogic Infrastructure Repository in Oracle Autonomous Database, be sure to install the following patches before running the Repository Creation Utility (RCU):
>
> - 30540494
>
> - 30754186
>
> - 31676526

Stop Node Manager Before Installing Oracle Forms (Windows Only)

If you are installing Oracle Forms on a Microsoft Windows operating system, you must ensure that the Node Manager utility that was installed with Oracle WebLogic Server is stopped before you begin the installation:

1. Verify the Oracle WebLogic Server Node Manager utility is stopped. If it is running, end the process.

2. Determine if the `nodemanager.properties` file is present in the `WebLogic_Home`\common\nodemanager directory.

   a. If the `nodemanager.properties` file is not present, continue installing Oracle Forms.

b. If the `nodemanager.properties` file does exist, open it and verify that the `ListenPort` parameter is included and that it is set. If the `ListenPort` parameter is not included or set, edit the `nodemanager.properties` file so that it is similar to the following, where *NODE_MANAGER_LISTEN_PORT* represents the port the Node Manager listens on, such as 5556:

```
ListenPort=NODE_MANAGER_LISTEN_PORT
```

Installing Oracle Identity and Access Management

Protect your Oracle Forms installation with Identity Management using Oracle Identity and Access Management.

If you choose to use Oracle Internet Directory and Oracle Access Manager, download and install these products if you do not already have them. Refer to Reviewing Certification, System, and Interoperability Requirements to determine which versions of these products have been certified for use with your Oracle Forms release.

To install and configure Oracle Internet Directory with Oracle Access Manager:

1. Install Oracle Identity and Access Management in a separate Oracle home directory from your Oracle Forms installation. See Installing and Configuring the Oracle Access Management Software in *Installing and Configuring Oracle Identity and Access Management*.

   Do not attempt to install Oracle Access Manager or Oracle Internet Directory in the same Oracle home directory with Fusion Middleware Infrastructure and Forms.

   For performance reasons, Oracle recommends that Oracle Forms is installed on a separate machine from your Oracle Identity Management product.

2. Configure a WebLogic Server domain for Oracle Access Manager, as described in Configuring the Oracle Access Management Domain in *Installing and Configuring Oracle Identity and Access Management*.

3. Integrate Oracle Access Manager with Oracle Internet Directory, as described in Configuring Oracle SOA Suite Domain in *Installing and Configuring Oracle SOA Suite and Business Process Management*.

If you have an existing Oracle Internet Directory with Oracle Single Sign-On, you can upgrade to Oracle Internet Directory with Oracle Access Manager, as described in Upgrading Oracle Forms.

Installing and Configuring Oracle Forms

You have to perform a series of steps to install and then configure Oracle Forms using the configuration wizard.

The following sections are included:

- Starting the Oracle Forms Installer
- View the Installation Log Files
- Configuring Your Oracle Inventory (UNIX)
- Installing Using Oracle Universal Installer
- Using the Repository Creation Utility

- • [Configuring Forms Using the Configuration Wizard](#)
- • [Configuring Form Builder Standalone Using the Configuration Wizard](#)

Starting the Oracle Forms Installer

To start the installer, navigate to the directory where you have downloaded the Forms compressed folder containing the installer files.

Windows

1. Extract the compressed folder:
   ```
   fmw_12.2.1.4.0_fr_win64_Disk1_1of2.zip
   ```

   The following executable **.exe** file is extracted from the zip file:

   ```
   setup_fmw_12.2.1.4.0_fr_win64.exe
   ```

2. To start the installer, either run it in an elevated DOS shell or right-click and select "Run as administrator".

UNIX/Linux

On UNIX/Linux operating systems, an executable **.bin** file is extracted from the compressed folder, which is used to start the installer.

```
unzip fmw_12.2.1.4.0_fr_linux64_Disk1_1of2.zip
./fmw_12.2.1.4.0_fr_linux64.bin
```

> **Note:**
>
> - • The Forms 12*c* **Disk-1** compressed installer files folder for IBM AIX operating system does not include the `rootpre.sh` script files. So, you do not need to run the `rootpre.sh` script as the root user before starting the installer. The `rootpre.sh` script was used in previous version of `FMW` installer to load `postwait driver pw-syscall`.
>
> - • When running the Forms and Reports bin installer on the IBM AIX platform, the installer may core dump when the progress reaches 98%. To work around this issue and successfully complete installation, launch the installer with the following JVM parameters.
>
>   ```
>   -J-Xmx2048m -J-XX:MaxPermSize=2048m
>   ```
>   Here is an example.
>
>   ```
>   ./fmw_12.2.1.4.0_fr_aix_ppc64.bin -J-Xmx2048m -J-XX:MaxPermSize=2048m
>   ```
>
> - • Some platforms may have multiple download files or disks, such as **Disk-1** and **Disk-2**. You should extract all the files, for example executable **.exe** file, from the downloaded compressed (zipped) folder. If the downloaded compressed (zipped) folder contains another compressed (zipped) file, you should not extract that compressed file contained within the original compressed (zipped) folder. You should store all the extracted files from the compressed folder in the same directory before starting the installer.

View the Installation Log Files

The installer writes logs files to the `Oracle_Inventory_Location`/log (on UNIX operating systems) or `Oracle_Inventory_Location`\logs (on Windows operating systems) directory. See Installation Log Files for information about log files and their contents.

Configuring Your Oracle Inventory (UNIX)

If you are installing on a UNIX operating system, and if this is the first time any Oracle product is being installed on your system with the Oracle Universal Installer, you will be asked to provide the location of an inventory directory. This is where the installer will set up subdirectories and maintain inventory data for each Oracle product that is installed on this system.

Use the inventory screens in Table 2-1 to configure the inventory directory and group information. For more help, select the screen name in the table, or click the **Help** button in the GUI.

Table 2-1   Inventory Directory and Group Screens

Screen	Description
Specify Inventory Directory	Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory.
Inventory Location Confirmation	Run the `createCentralInventory.sh` script as `root`.

If you do not want to use the Oracle central inventory, you can create a file called `oraInst.loc` and in this file, include the full path of the inventory directory of your choice. For example, a typical `oraInst.loc` file would contain the following:

```
inventory_loc=/home/username/oraInventory
inst_group=group
```

Then, you can start the installer and point to the `oraInst.loc` file. For example:

```
./fmw_12.2.1.4.0_fr_linux64.bin -invPtrLoc /location_of_oraInst.loc_file
```

Installing Using Oracle Universal Installer

Follow these instructions to install Oracle Forms using Oracle Universal Installer. After invoking Oracle Universal Installer as described in Starting the Oracle Forms Installer:

1. *Welcome* page. This page welcomes you to the installation. Click **Next**.

2. The *Auto Updates* page appears. This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. Make your choices, then click **Next**.

3. The *Installation Location* page appears. Specify the Oracle home location into which you want to install the product(s). Click **Next**.

4. The *Installation Type* page appears. You can select *Standalone Forms Builder* if you want only that functionality, or choose *Forms Deployment* to install all of the products. Click **Next**.

5. The *Prerequisites Checks* page appears. This page shows you the progress of the system checking the prerequisites on your system before installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next**.

6. The *Installation Summary* page appears, showing you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

7. The *Installation Progress* page appears. This page shows you the progress of the installation, and will warn you if there are any problems.You can view messages and logs from this page, but typically no action is required here. When progress is complete, click **Next** (go to a *Summary* page). Alternatively, you can click **Finish**.

8. If you clicked **Next**, the *Installation Complete* page appears, showing you the components that have been installed. Click **Finish**.

Using the Repository Creation Utility

Before proceeding to the next tasks, follow the instructions in this topic to set up Repository Creation Utility (RCU) schemas for configuring Oracle Forms.

> **✎ Note:**
>
> If you are planning to create the WebLogic Infrastructure Repository in Oracle Autonomous Database, be sure to install the following patches before running the Repository Creation Utility (RCU):
>
> - 30540494
> - 30754186
> - 31676526

RCU is available with the Oracle Fusion Middleware Infrastructure distribution. After you install Oracle Fusion Middleware Infrastructure and create your Oracle home, you can start RCU from the `ORACLE_HOME/oracle_common/bin` directory. Follow these instructions to set up schemas.

Run `$FMW_HOME/oracle_common/bin/rcu.sh`. Unless otherwise noted, click **Next** to continue to the next screen.

Table 2-2   Schema Setup Steps

Screen	Description
Welcome	This screen introduces you to RCU.
Create Repository	Select **Create Repository**, then select **System Load and Product Load** (default).
Database Connection Details	Specify RCU database connection credentials.
	Click **Next** when you have specified your credentials. The Checking Prerequisites dialog window appears. It shows the progress of prerequisites checking. Click **OK**, when the database checking has passed without errors, to dismiss the dialog window, and go to the next screen.

Table 2-2   (Cont.) Schema Setup Steps

Screen	Description
Select Components	Select the **Create new prefix** radio button and provide a schema prefix (such as *DEMO*).
	You must remember the prefix and schema names for the components you are installing. It is recommended that you write down these values.
	Select the following components:
	• **Oracle Platform Security Services**
	• **User Messaging Service** (UMS)
	  Tip: If Forms Application Deployment Services (FADS) is also planned to be configured, include **User Messaging Services** (UMS).
	• **Audit Services**
	• **Audit Services Append**
	• **Audit Services Viewer**
	  Note: Additional dependent components will automatically be selected.
	The Checking Prerequisites pops up box appears. It shows the progress of prerequisites checking. Click **OK**, when it is complete, to dismiss the dialog window and go to the next screen.
Schema Passwords	Leave the default **Use same passwords for all schemas** radio button selected, and enter the password in the **Password** field.
	You must remember the passwords you enter on this screen; you need this information during the configuration phase of product installation. It is recommended that you write down these values.
Map Tablespaces	Use this screen to configure the desired tablespace mapping for the schemas that you want to setup.
	When you click **Next**, Repository Creation Utility dialog window appears, asking you to confirm that you want to create these tablespaces. Click **OK** to proceed and dismiss the dialog window.
	A second dialog window, Creating Tablespaces appears showing the progress of tablespace creation. Click **OK**, after the tablespaces are created, to dismiss this window and go to the next screen.

Table 2-2   (Cont.) Schema Setup Steps

Screen	Description
Summary	Verify the information on this screen, then click **Create** to begin schema setup.
	A System Load progress dialog window appears, showing progress. The dialog window will disappear when complete.
Completion Summary	Review the information on this screen to verify that the operation was completed successfully. Click **Close** to complete the schema setup and close RCU.

Configuring Forms Using the Configuration Wizard

The Configuration Wizard helps and simplifies the task of configuring Oracle Forms.

The Configuration Wizard shows a series of screens where you verify or enter information.

> **Note:**
>
> To complete the configuration, Windows DOS shells must be run with Administrator permissions and Unix shells must be owned by the same user who performed the installation (for example, *oracle*). Failure to follow this instruction may result in the configuration failing silently.

Perform the following steps in the Configuration Wizard:

1. Run the Configuration Wizard using *config.sh* (config.cmd on Windows) located in the `ORACLE_HOME/oracle_common/common/bin` directory.

2. Choose *Create a new domain*, and enter the desired domain home path.

3. Click **Next**. The *Templates* screen appears. Keep the default selection (*Create Domain using Product Templates*), and select *Oracle Forms* [forms]. Any dependent templates will be automatically selected. Additional templates, like Oracle HTTP Server and others, can be selected based on the components desired. Refer to those individual component documents for more details.

4. Click **Next**. The *Application Location* screen appears. Keep the default value for Application location.

5. Click **Next**. The *Administrator Account* screen appears. Enter the desired WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control.

6. Click **Next**. The *Domain Mode and JDK* screen appears. Select the *Domain Mode* (either **Development** or **Production**). To ensure the highest degree of security, selecting **Production** is recommended. Retain the default JDK selection unless you need to use a different version the JDK.

7. Click **Next**. The *Database Configuration Type* screen appears. Enter the RCU DB connection information. This information was created when running the Repository

Creation Utility (RCU) in an earlier step. After entering the requested information, click **Get RCU Configuration**. Verify that a successful message is presented in the Results Log panel. If an indication of success is not indicated, check the databases entries made in this step. Mostly it will only be necessary to enter data for *DBMS/Service*, *Host Name*, *Port*, *Schema Owner*, and *Schema Password*. Other entries can remain as the default value.

8. Click **Next**. The *JDBC Component Schema* screen appears. These instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords.

9. Click **Next**. The *JDBC Component Schema Test* screen appears. If any tests fail, it may be necessary to go back and make corrections.

10. Click **Next**. The *Advanced Configuration* screen appears. Select *Topology* and *System Components*. Depending on the level of customization desired, other selections may be used.

> **Tip:**
>
> If you want to configure server templates and dynamic server, see:
>
> - Using Server Templates in *Understanding Domain Configuration for Oracle WebLogic Server*.
>
> - Creating and Configuring Dynamic Clusters in *Administering Clusters for Oracle WebLogic Server*.

11. Click **Next**. The *Managed Servers* screen appears. Verify that the Server Groups is set to *FORMS-MAN-SVR* (for Forms). This screen can also be used to add additional managed servers if desired.

12. Click **Next**. The *Clusters* screen appears. Default entries will be acceptable mostly, unless adding new clusters is desirable.

13. Click **Next**. The *Assign Servers to Clusters* screen appears. The default values will be appropriate for most cases. However, if new managed servers were added in the previous step, they should be added to the cluster here.

14. Click **Next**. The *Coherence Clusters* screen appears. The default values will be appropriate for most cases.

15. Click **Next**. The *Machines* screen appears. Use this screen to override the machine name or add addition machine names for extend domain scenarios (add remote Forms nodes).

16. Click **Next**. The *Assign Servers to Machines* screen appears. Move the AdminServer to the AdminServerMachine by clicking the **>** button.

17. Click **Next**. The *Virtual Targets* screen appears. This option is unsupported by Oracle Forms. Leave the option empty and continue the configuration process.

18. Click **Next**. The *Partitions screen* appears. Use this screen to add Weblogic Partitions if desired. Refer to the WebLogic Server documentation for details on how to use Partitions.

19. Click **Next**. The *System Components* screen appears. The default values will be appropriate for most cases. You can add additional Forms or other System Component instances on this screen (for example, extending a domain).

    a. If Oracle HTTP Server (OHS) was selected in the *Templates* screen, the OHS component would need to be added in this step.

    b. Click the *Add* button to add the OHS component and then click *Next* button.

    c. Accept the default settings for the OHS Server component and then click *Next* button.

20. The *Assign System Components to Machines* screen appears. The default values will be appropriate for most cases. If OHS added in the previous step, move it to the *Machines* column under the Admin Server using the **>** button.

> **Note:**
>
> In case of extend domain scenario; assign the Forms System Component to the relevant Machine.

21. Click **Next**. The *Configuration Summary* screen appears.

22. Click **Create**. The *Configuration Progress* screen appears.

23. Depending on the location and performance of the Repository database, this process may take a few minutes. Click **Finish**. The *End of Configuration* screen appears.

24. Start Node Manager and Admin Server to complete the configuration.

- On Unix/Linux platforms, the shell used to start these servers the first time, must be the installation owner's (for example, *oracle*).

- On Microsoft Windows, the DOS shell used to start these servers the first time must have Administrator permissions. To enable an Administrator shell session, right-click the Command Prompt shortcut and select **Run as Administrator**. The shell that opens will indicate that it has Administrator privileges in its title bar.

Figure 2-1   Command Prompt with Administrator Privileges
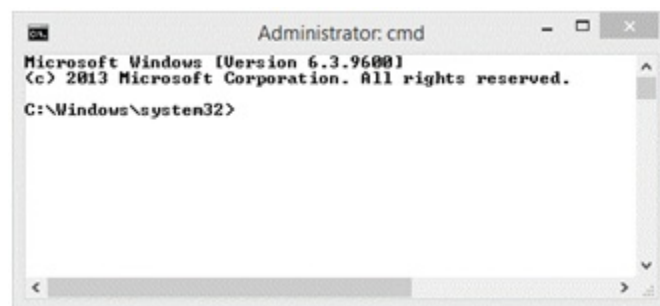
For more information on how to start and stop servers, review Starting and Stopping Servers.

Configuring Form Builder Standalone Using the Configuration Wizard

Describes how to install and configure the Form Builder Standalone environment.

Perform the following steps to configure the Form Builder Standalone environment:

1. Install the Form Builder Standalone 12*c* software.

Start the Installer as described in Starting the Oracle Forms Installer. Follow the prompts. You must install into a new and empty Oracle home.

2. Launch the Form Builder Configuration Assistant using one of the following methods:

   a. Choose to run it after the Form Builder Standalone software installation.

      After the installation is complete, check the **Automatically Launch Forms Builder Configuration Wizard** option and click **Finish**.

   b. Launch the configuration tool later from the location. `$FMW_HOME/forms/common/bin/config_builder.sh` .

      `config_builder.cmd` for Microsoft Windows.

   Figure 2-2   Launching the Configuration Tool in Windows
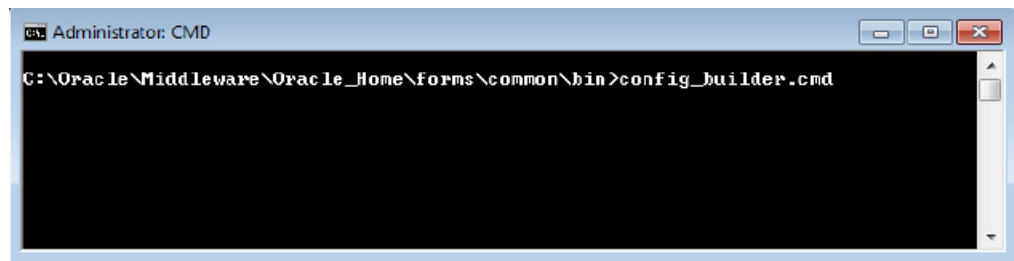
   Optionally, you can specify the following arguments to perform a scripted or silent instance configuration. If you do not specify any of these, the Configuration Wizard user interface is presented.

   • `autoconfig` - Specify to automatically configure a new instance named *formsN* where N is a sequential number starting with 1. Each time the command is run against this Oracle home, *N* increments by 1. The new instance is automatically created in the Oracle home.

   • `formBuilderInstance` - Use this argument in conjunction the `autoconfig` argument to specify the path of the instance location. Specifying this parameter overrides the auto-naming behavior of the `autoconfig` argument. The path should be a value that does not include directories with spaces.

   Here is an example of the command usage.

   `config_builder.cmd autoconfig formBuilderInstance=C:\myFormBuilder\inst1`

   > **Note:**
   >
   > To complete the configuration, Windows DOS shells must be run with Administrator permissions and UNIX shells must be owned by the same user who performed the installation (for example, *oracle*). Failure to follow this instruction may result in the configuration failing silently.

3. Enter a name for the **Form Builder Instance** path in the Configuration Wizard, Instance Configuration screen. Click **Next**.

4. After configuration is complete, the Configuration Progress screen shows Configuration Succeeded message. Click **Next**.

5. End of Configuration screen shows the Oracle Home and Form Builder Instance location. Click **Finish** to exit the installer.

Verifying the Installation and Configuration

After you complete the installation and configuration of Oracle Forms, verify it was successful by performing a series of tasks.

You can verify the status of your installation by performing the tasks in any combination.

- Reviewing the Installation Logs
- Reviewing the Domain Server Logs
- Checking the Installed Products and Product Versions
- Checking Browser URLs
- Performing Basic Administration Tasks

Reviewing the Installation Logs

Check for the presence of installation log files in `logs` directory inside your Oracle Inventory directory.

On UNIX operating systems, if you do not know the location of your Oracle Inventory directory, you can find it in the `ORACLE_HOME`/oraInst.loc file.

On Windows operating systems, the location for the inventory directory is `C:\Program Files\Oracle\Inventory\logs`.

For information about installation log files, see Installation Log Files.

Reviewing the Domain Server Logs

You can check the domain server logs, which are located in the `servers` directory inside the domain home directory.

On UNIX operating systems:

`DOMAIN_HOME`/servers/`server_name`

On Windows operating systems:

`DOMAIN_HOME`\servers\`server_name`

Checking the Installed Products and Product Versions

The contents of your installation vary based on the options that you selected during the installation.

Check the products and product version numbers by running the opatch lsinventory - detail command from the `ORACLE_HOME`/OPatch directory.

Checking Browser URLs

To verify the installed products URLs are provided.

The Installation Complete screen contains URLs that can be used to access your installed and configured products, as described in the following table.

Table 2-3   Oracle Forms Product URLs

Product or Component	URL
Administration Server Console	`http://host:port/console`
Enterprise Manager Console	`http://host:port/em`
Oracle Forms	`http://host:port/forms/frmservlet`

Performing Basic Administration Tasks

After running the installer and configuration tool, all of your system components, the Administration Server, and Managed Servers should be manually started in order to complete the configuration process.

In the event that some of your servers or components are stopped unexpectedly, you can restart your Oracle Fusion Middleware environment by following the instructions, as described in Starting an Oracle Fusion Middleware Environment.

Your Oracle Fusion Middleware environment can also be stopped, as described in Stopping an Oracle Fusion Middleware Environment.

Installing Oracle Forms in Silent Mode

This section describes how to install Oracle Forms from the command line in silent mode.

You can use the silent installation mode to bypass the need to monitor your product installation because no graphical output is displayed and no input by the user is required. To install Oracle Forms in silent mode, use the `-silent` flag on the command line when you start the installer.

Silent installation does not include configuration. That is, you cannot configure Oracle Forms silently using the same silent installation commands and response file. In this release, product installation and configuration are separate processes. The Configuration Wizard cannot be run in silent mode (or used with response files) in this release.

See the following sections in *Installing Software with the Oracle Universal Installer*, for details on silent mode:

• About Silent Installation

• About Response Files

• Running the Oracle Universal Installer in Silent Mode

After you have completed the installation in silent mode, perform the separate step-by-step process in the following sections to configure Oracle Forms using the Configuration Wizard:

• Configuring Forms Using the Configuration Wizard

- Configuring Form Builder Standalone Using the Configuration Wizard

Deinstalling in Silent Mode

Follow the instructions in Running the Oracle Universal Installer for Silent Deinstallation, to deinstall Oracle Forms in silent mode.

Installing the Forms Application Deployment Services

The Forms Application Deployment Services (FADS) simplifies the process of packaging applications, deploying, configuring, and storing archived copies of the applications. Follow the instructions in this section to install and configure Forms Application Deployment Services (FADS).

The followings sections are included:

- Prerequisites for Installation
- Configuring Forms Application Deployment Services
- Run FADS Post Configuration Steps

Prerequisites for Installation

Forms Application Deployment Services is available in the latest Oracle Forms and Reports 12*c* shiphome.

To complete the installation and begin configuring FADS, you should install the following products in the given order:

1. Oracle WebLogic Server Infrastructure 12*c* (12.2.1.4.0)
2. Oracle Forms 12*c* (12.2.1.4.0)
3. Oracle SQL Developer 18.2 (or higher)

> **Note:**
>
> An existing older version of SQL Developer is installed with the latest Forms release. You need to rename the *sqldeveloper* directory located in the `$ORACLE_HOME` directory before installing Oracle SQL Developer 18.2 (or higher) in the same `$ORACLE_HOME` directory.

Configuring Forms Application Deployment Services

After you have completed the installation steps, you can start configuring Forms Application Deployment Services applications.

You have to perform the following FADS application configuration steps in a Fusion Middleware domain:

- Setting up RCU Schema
- Apply the FADS Template

Prerequisite

As a prerequisite, Repository Creation Utility Schemas must be set up for configuring Oracle Forms or FADS domain. Configuring FADS will require the Repository's User Messaging Service (UMS) and its dependencies. See Setting up RCU Schema.

Setting up RCU Schema

Follow the instructions in this section to set up Repository Creation Utility (RCU) schemas for configuring Oracle Forms or FADS domain.

RCU is available with the Oracle Fusion Middleware Infrastructure distribution. After you install Oracle Fusion Middleware Infrastructure and create your Oracle home, you can start RCU from the `ORACLE_HOME/oracle_common/bin` directory. Follow these instructions to set up schemas.

Run `$ORACLE_HOME/oracle_common/bin/rcu.sh`. Unless otherwise noted, click **Next** to continue to the next screen.

Table 2-4   Schema Setup Steps

Screen	Description
Welcome	This screen introduces you to RCU.
Create Repository	Select **Create Repository**, then select **System Load and Product Load** (default).
Database Connection Details	Specify RCU database connection credentials.
	Click **Next** when you have specified your credentials. The Checking Prerequisites dialog window appears. It shows the progress of prerequisites checking. Click **OK**, when the database checking has passed without errors, to dismiss the dialog window, and go to the next screen.
Select Components	Select the **Create new prefix** radio button and provide a schema prefix (for example, FADS).
	You must remember the prefix and schema names for the components you are installing. It is recommended that you write down these values.
	Select the following components:
	• **Oracle Platform Security Services**
	• **User Messaging Service** (UMS)
	• **Audit Services**
	• **Audit Services Append**
	• **Audit Services Viewer**
	✎ **Note:**
	Additional dependent components will automatically be selected.
	The Checking Prerequisites pops up box appears. It shows the progress of prerequisites checking. Click **OK**, when it is complete, to dismiss the dialog window and go to the next screen.

Table 2-4   (Cont.) Schema Setup Steps

Screen	Description
Schema Passwords	Leave the default **Use same passwords for all schemas** radio button selected, and enter the password in the **Password** field.
	You must remember the passwords you enter on this screen; you need this information during the configuration phase of product installation. It is recommended that you write down these values.
Map Tablespaces	Use this screen to configure the desired tablespace mapping for the schemas that you want to setup.
	When you click **Next**, Repository Creation Utility dialog window appears, asking you to confirm that you want to create these tablespaces. Click **OK** to proceed and dismiss the dialog window.
	A second dialog window, Creating Tablespaces appears showing the progress of tablespace creation. Click **OK**, after the tablespaces are created, to dismiss this window and go to the next screen.
Summary	Verify the information on this screen, then click **Create** to begin schema setup.
	A System Load progress dialog window appears, showing progress. The dialog window will disappear when complete.
Completion Summary	Review the information on this screen to verify that the operation was completed successfully. Click **Close** to complete the schema setup and close RCU.

Apply the FADS Template

Apply the FADS template using the Configuration Wizard.

You can create a new domain by selecting the FADS template in the Configuration Wizard. When you select the FADS template, it automatically selects the Forms template as a dependency. This configures Forms in the Domain along with the FADS Applications. Alternatively, you can also configure FADS in a Forms domain by applying the FADS template later.

The following topics are included:

- Creating a New Domain that Includes Both Forms and FADS
- Applying FADS Template to an Existing Forms Domain

Creating a New Domain that Includes Both Forms and FADS

Follow the steps in this topic to create a new domain by using the FADS template.

Use the Configuration Wizard to create the new domain.

Starting the Configuration Wizard

1. Change to the following directory:

   (UNIX) `ORACLE_HOME/oracle_common/common/bin`

   (Windows) `ORACLE_HOME\oracle_common\common\bin`

   where `ORACLE_HOME` is your 12*c* Oracle home.

2. Enter the following command:

(UNIX) `./config.sh`

(Windows) `config.cmd`

Creating the Domain

In the Configuration Wizard, you have to perform the steps similar to Forms configuration, as described in Configuring Forms Using the Configuration Wizard, but there are a few exceptions.

The following tasks performed in the Configuration Wizard screens, are not similar to the Forms configuration steps:

- Templates screen: Select **Forms Application Deployment Services (FADS)** template check box, when selecting the domain template. The dependent templates, including **Oracle Forms** template, are automatically selected or included in the domain.

Figure 2-3   Templates Screen
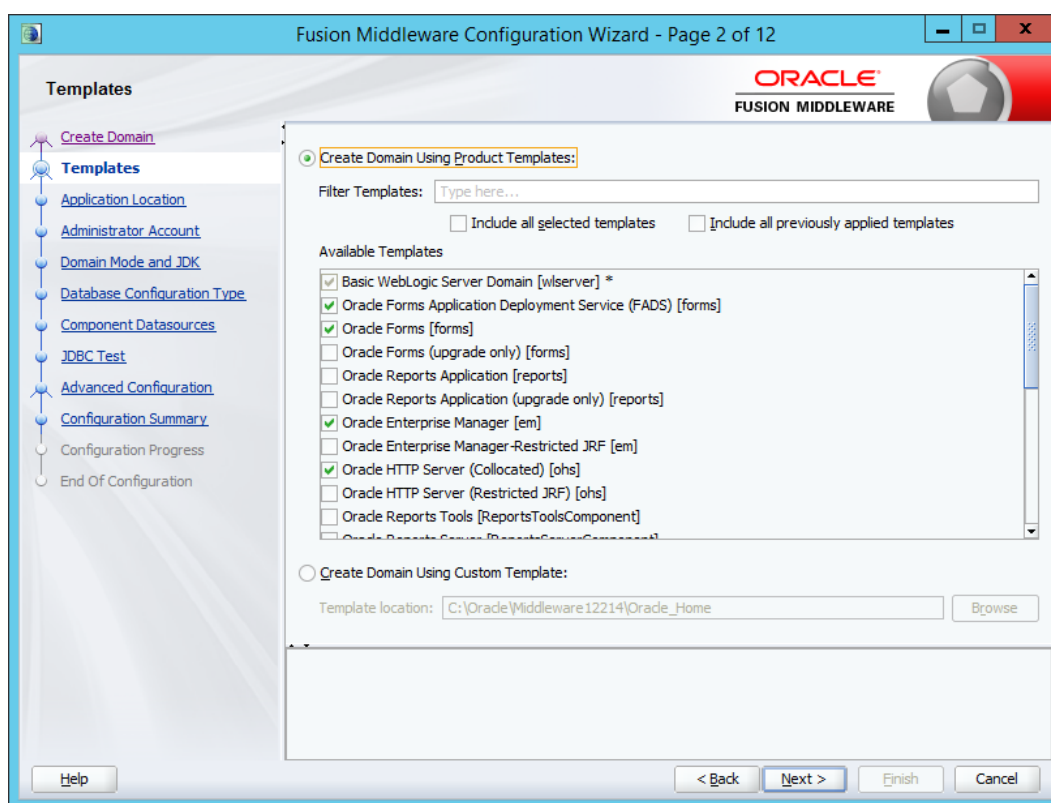
- Advanced Configuration screen: Select the following categories: **Administration Server**, **Topology**, and **System Components**. For each category you select, the appropriate configuration screen is displayed to allow you to perform advanced configuration.

Figure 2-4   Advanced Configuration Screen
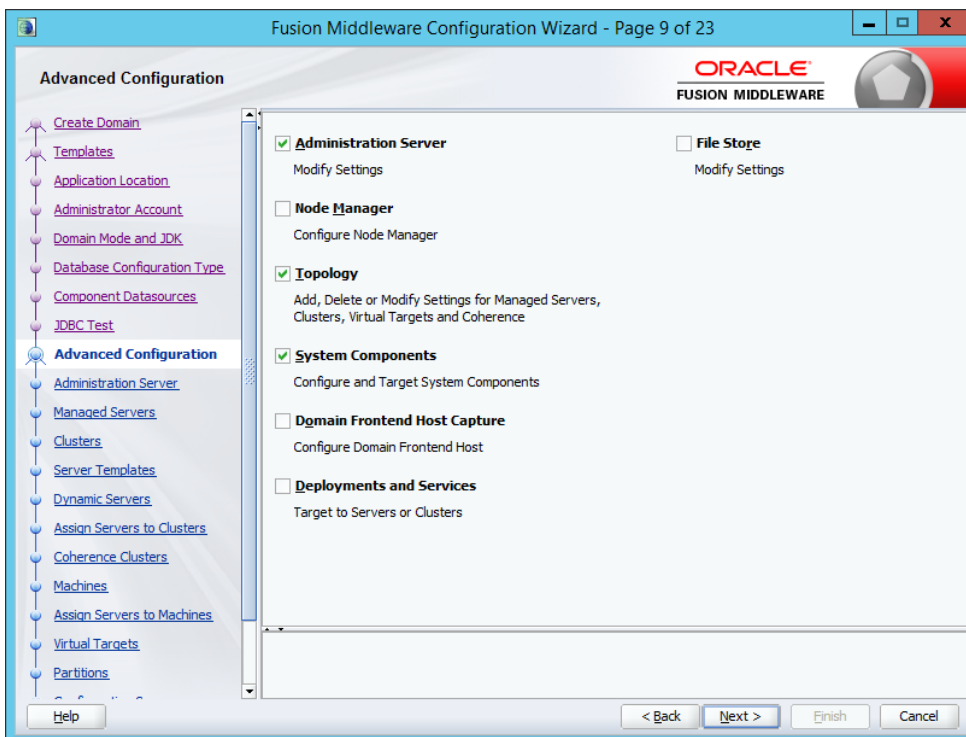
- Administration Server settings screen: Select **WSMPM-MAN-SRV** from the Server Groups drop-down list. The default Server Name is **AdminServer**.

Figure 2-5   Administration Server Screen
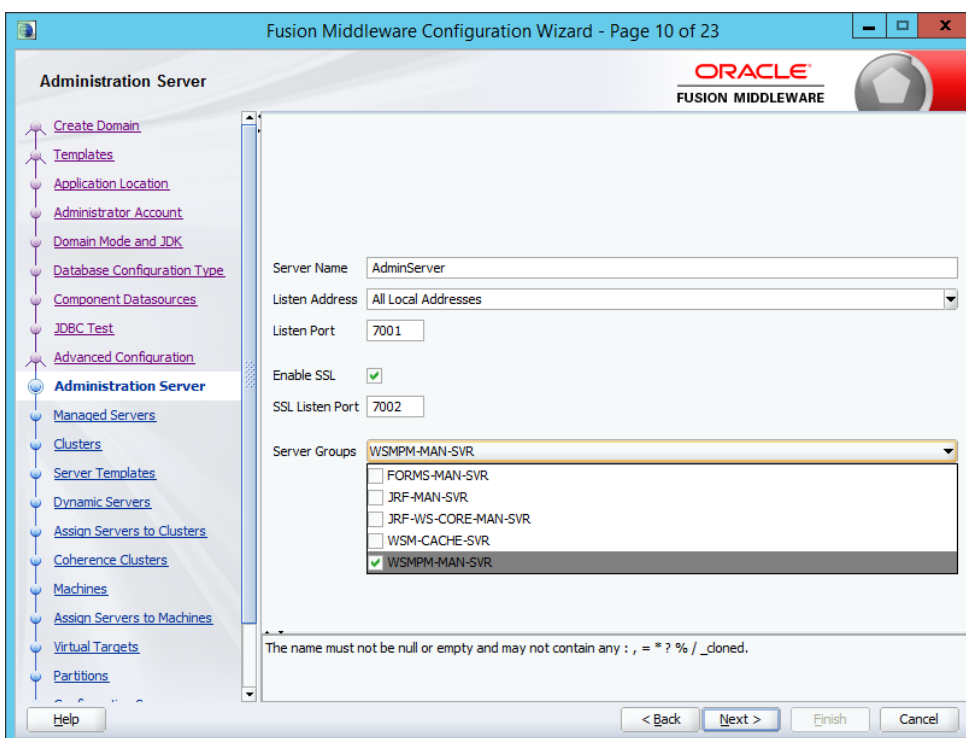
Writing Down Domain Home and Administration Server URL

The End of Configuration screen shows information about the domain just configured.

Make a note of the following items as they are required later:

• Domain Location

• Administration Server URL

Domain location information is required for accessing scripts that start Administration Server, and URL for accessing the Administration Server.

Click **Finish** to exit the Configuration Wizard.

Starting the Administration Server

Start the Administration Server, after configuration is complete, and then perform the post configuration task described in Run FADS Post Configuration Steps.

Applying FADS Template to an Existing Forms Domain

This topic describes how to use the Configuration Wizard to apply FADS extension template to an existing Forms domain.

Start the Configuration Wizard, to begin the update process, as described in Creating a New Domain that Includes Both Forms and FADS.

Perform the following actions in the Configuration Wizard screens for extending an existing Forms Domain:

1. Configuration Type screen: Select **Update an Existing Domain**. In the **Domain Location** field, Enter the full path for the Forms domain, or use the **Browse** button to navigate to the Forms domain. This field contains a drop-down list of the domains, if multiple domains exist in the Forms installation. Select the domain that you want to update from the drop-down list. Click **Next** to continue.
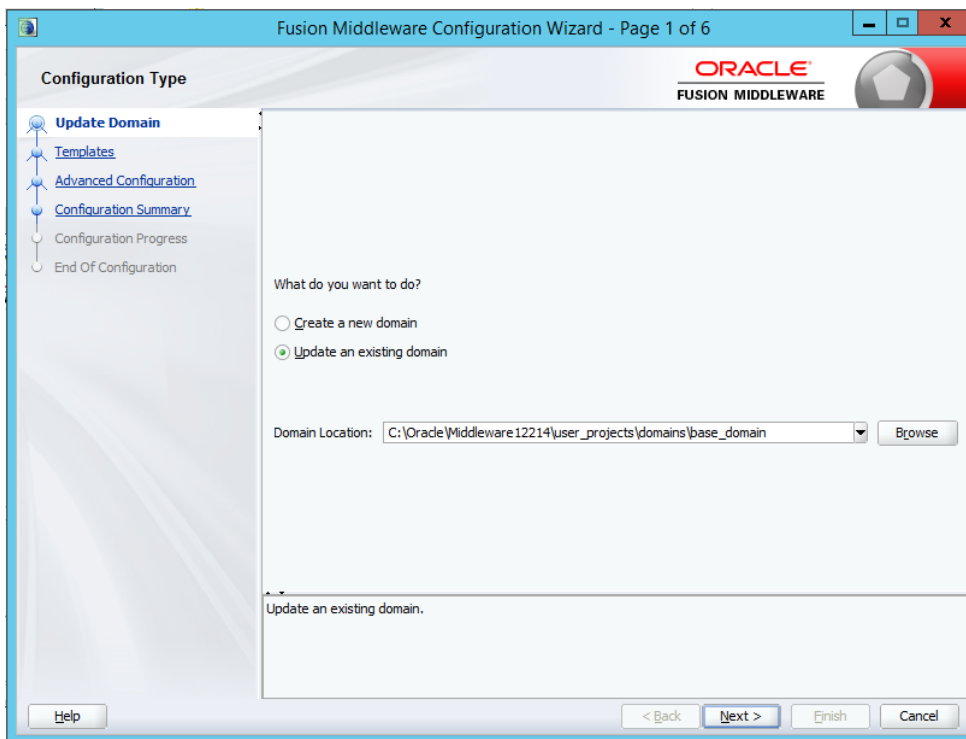
2. Templates screen: Select **Update Domain Using Product Templates**, and then select the **Forms Application Deployment Services (FADS)** check box to add to the domain. Click **Next** to continue.
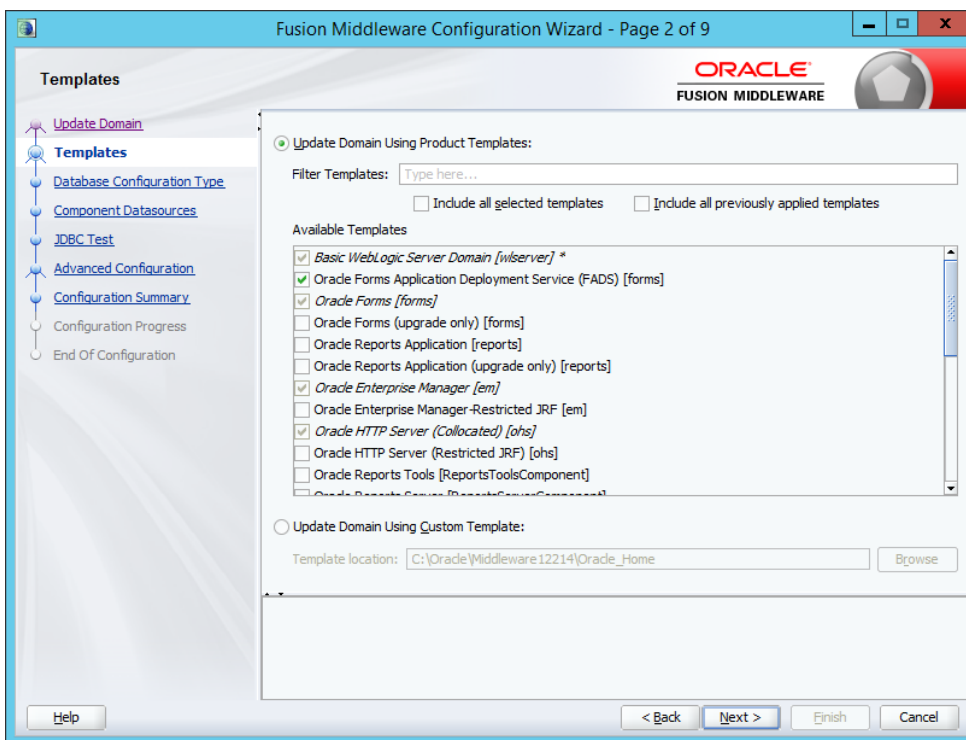
3. Advanced Configuration screen: Select the **Deployments and Services** checkbox. For this category you would be performing advanced configuration tasks.

When extending a domain, you cannot change the Administration Server and Node Manager configurations. Therefore, these options are not available.

Click **Next** to continue.
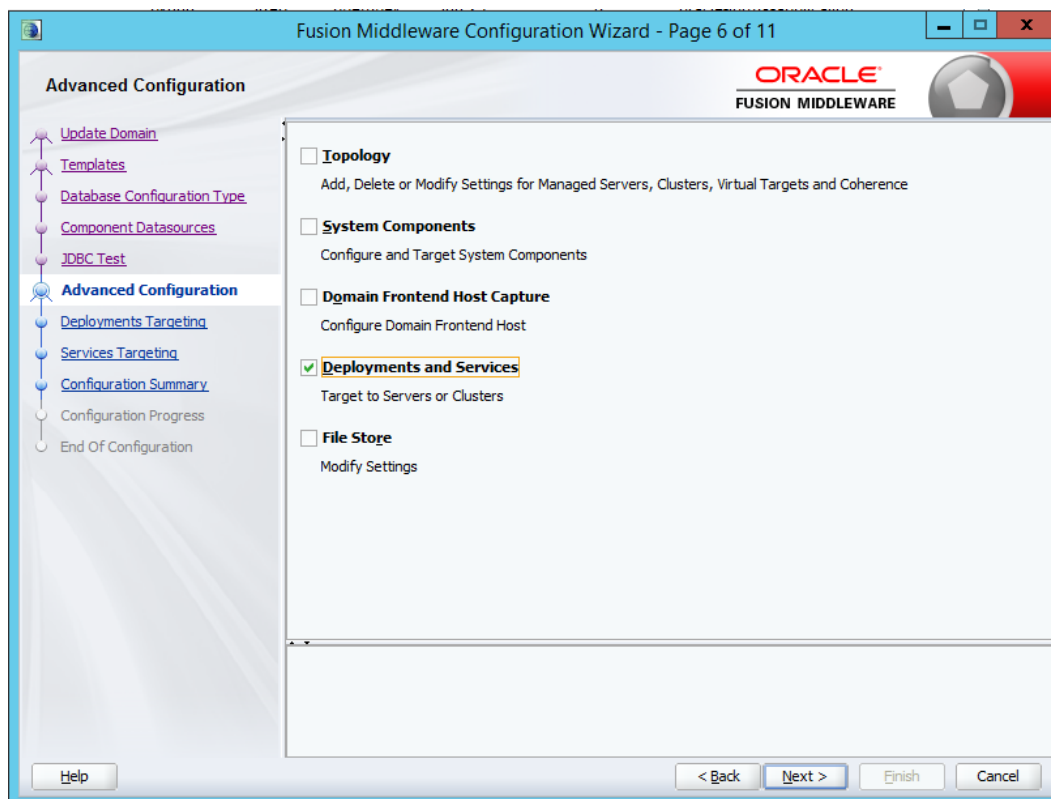
4. Deployments Targeting screen: Target applications for deployment on servers. This screen is displayed as you selected **Deployments and Services** on the Advanced Configuration screen.

- In the Deployment Targets list box, select **WSM-PM** application for the **AppDeployment** under the **AdminServer**.

- If **WSM-PM** application is not available in Deployment Targets list box, then select it under **AppDeployment** on the Deployments list box and then move it to **AppDeployments** under **AdminServer** in Deployment Targets list box, using the right arrow in the top-middle.
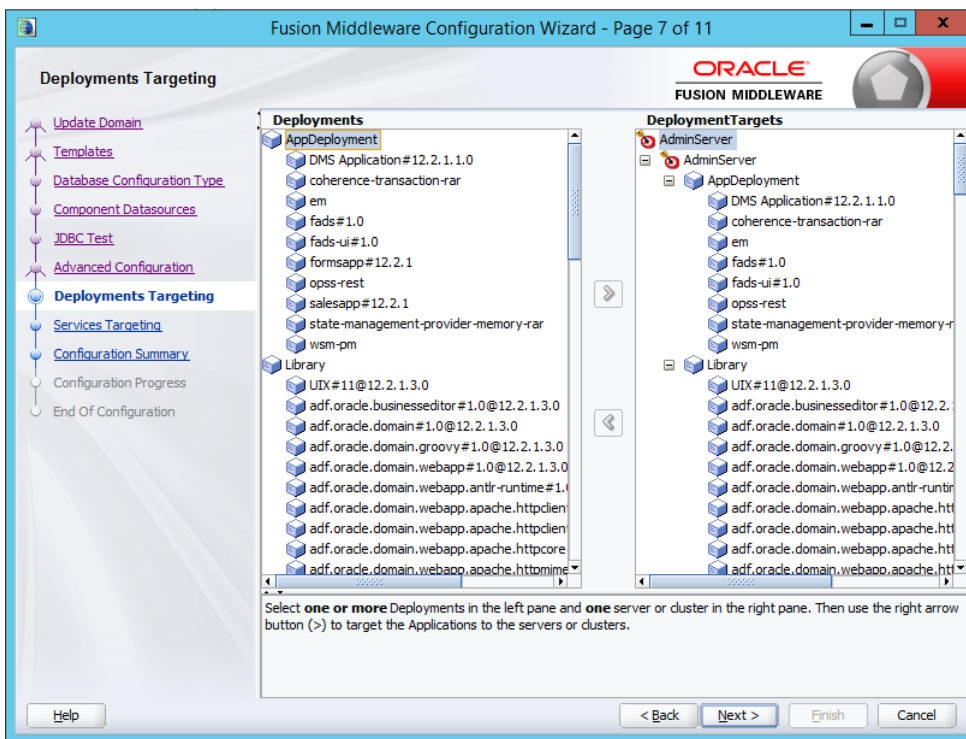
5. Configuration Summary screen: Review the detailed configuration settings of your domain before continuing. In the **Domain Summary** pane, select an item to display details about that item in the **Details** pane on the right. You can limit the items that are displayed in the **Domain Summary** pane by selecting a filter option from the Summary View drop-down list. Click **Back** to return to the appropriate screen, if you need to change the configuration.

Click **Update** to extend the domain, if the domain is configured as you want it.
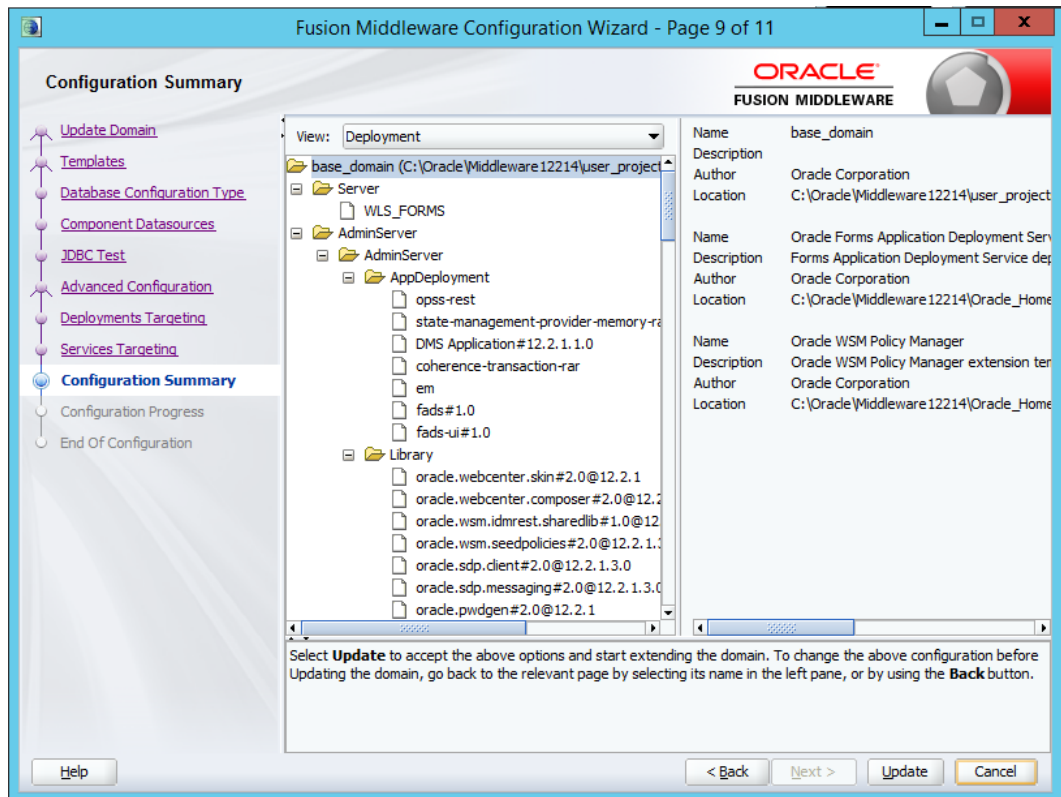
6. Configuration Progress screen: Shows the progress of the domain update. Click **Next**, when the process completes, .

7. End of Configuration screen: Shows information about the Forms domain you just updated.

    Make a note of the following items because you need them later:

    •   Domain Location

    •   Administration Server URL

    You need the domain location to access scripts that start Administration Server, and you need the URL to access the Administration Server. Click **Finish** to exit the Configuration Wizard.

Start the Administration Server, when you finish updating the Forms domain, and then perform the post configuration task described in Run FADS Post Configuration Steps.

Run FADS Post Configuration Steps

After creating or updating your Forms domain or after patching, you must perform few steps.

1. If you created or updated your Forms domain, start the Node Manager, and then the Administration Server.

2. Run one of the following sets of commands.

    •   If you created or updated your Forms domain, run the following set of commands.
        ```
        $ORACLE_HOME/oracle_common/common/bin/wlst.sh $ORACLE_HOME/forms/fads/
        fads_config.py config
        ```

- If you applied a new Forms patch set or one-off, execute the FADS post configuration script with the `updateHostPort` arguments.
  ```
  $ORACLE_HOME/oracle_common/common/bin/wlst.sh $ORACLE_HOME/forms/
  fads/fads_config.py updateHostPort www.example.com
  7001 $ORACLE_HOME/user_projects/applications/base_domain
  ```

3. Follow the prompts to complete the configuration.

4. Perform one of the following steps:

   - If you created or updated your Forms domain, restart the Node Manager, then the Administration Server, and Forms Managed Servers.

   - If you applied a new Forms patch set or one-off, complete other patching steps and then start the Administration Server, Node Manager and Forms Managed Servers.

Oracle Forms Accessibility Information

This topic provides information about accessibility features and related information for Oracle Forms.

Oracle Forms

Oracle Forms Builder 12*c* provides a range of features designed to support accessibility. While running Forms, you can configure your system and use features that support accessibility.

The Oracle Forms 12*c* runtime is accessible if coded based on the instructions provided in Accessibility Features and Tips for Oracle Forms. This link also provides information about the minimum requirement that assistive technology must meet to run with Oracle Forms.

3

Deinstalling Oracle Forms

Follow the instruction in this chapter to deinstall Oracle Forms.
It is recommended that you always use the instructions provided in this chapter to remove the software. If you try to remove the software manually, you may encounter problems when you try to reinstall the software again at a later time. Following the procedures in this chapter will ensure that the software is properly removed. If you need to remove a particular product component, you must remove the entire domain containing the component. It is not possible to remove a single product from a domain containing multiple products.

The following topics are covered:

- Preparing to Deinstall Oracle Forms
- Dropping the Associated Repository
- Deinstalling the Software
- Removing the Oracle Home Directory Manually
- Removing the Program Shortcuts on Windows Operating Systems
- Removing the Domain and Application Data
- Reinstalling the Software

Preparing to Deinstall Oracle Forms

Before deinstalling Oracle Fusion Middleware software components, you must stop all servers and processes associated with the Oracle home you are going to remove.

See Starting and Stopping Oracle Fusion Middleware in *Administering Oracle Fusion Middleware*.

Dropping the Associated Repository

If you do not need the repository and is not shared, you can drop the associated repository.

Before running the Oracle Forms, you should drop the repository by following the instructions as described in Dropping Schemas in *Creating Schemas with the Repository Creation Utility*.

Starting Repository Creation Utility (RCU)

You can start RCU, by navigating to the `ORACLE_HOME/oracle_common/bin` directory.

On UNIX operating systems:

```
cd ORACLE_HOME/oracle_common/bin
./rcu
```

On Windows operating systems:

```
cd ORACLE_HOME\oracle_common\bin
rcu.bat
```

> **Note:**
>
> Schemas should not be dropped if the associated domain will be used for
> other components. Only drop schemas when the domain is to be deleted.
> Dropping the repository schemas will also delete all data stored in them.

Deinstalling the Software

This section contains instructions to start the product deinstaller and remove Oracle
Forms.

When you start the deinstaller from Oracle home, be sure that no system components
are using the Oracle home you want to remove.

If you want to perform a silent (command-line) deinstallation, see Running the Oracle
Universal Installer for Silent Deinstallation in *Installing Software with the Oracle
Universal Installer*.

Starting the Deinstallation Program

Follow the instructions to start the Oracle Forms deinstaller.

The method you use to start the deinstallation program depends on your operating
system: Windows or UNIX.

To start the deinstaller:

1. On UNIX

   On the command line, enter the following commands:

   ```
   cd ORACLE_HOME/oui/bin
   ./deinstall.sh
   ```

2. On Windows

   Do one of the following:

   a. Use a file manager window to navigate to the `ORACLE_HOME\oui\bin` directory
      and double-click `deinstall.cmd`.

   b. Open a command prompt and enter the following commands:

      ```
      cd %ORACLE_HOME%\oui\bin
      deinstall.cmd
      ```

   c. From the **Start** menu, select **All Programs**, then **Oracle**, then **OracleHome**,
      and then **Uninstall Oracle Software**, to open the **Oracle Forms Deinstaller**

Navigating the Deinstallation Screens

The deinstaller displays a series of screens to confirm the deinstallation of Oracle Forms.

If you need help on screens listed in the following table, click **Help** on the screen.

Table 3-1   Deinstallation Screens and Descriptions

Screen	Description
Welcome	Introduces you to the product deinstaller. The deinstallation Welcome screen contains a navigation pane on the left that summarizes the tasks the deinstaller will help you complete.
Deinstallation Summary	Shows the Oracle home directory and its contents that will be deinstalled. Verify that this is the correct directory.
	If you want to save these options to a response file, click **Save Response File** and enter the response file location and name. You can use the response file later during a silent deinstallation. See Running the Oracle Universal Installer for Silent Deinstallation in *Installing Software with the Oracle Universal Installer*.
	Click **Deinstall**, to begin removing the software.
Deinstallation Progress	Shows the deinstallation progress.
Deinstallation Complete	Appears when the deinstallation is complete. Review the information on this screen, then click **Finish** to close the deinstaller.

You should performs the steps in Starting the Deinstallation Program and this section, for Forms in the Oracle home.

Removing the Oracle Home Directory Manually

After you deinstall the software, you must manually remove your Oracle home directory and any existing subdirectories that the deinstaller did not remove.

For example, if your Oracle home directory is `/home/Oracle/product/ORACLE_HOME` on a UNIX operating system, enter the following commands:

```
cd /home/Oracle/product
rm -rf ORACLE_HOME
```

On a Windows operating system, if your Oracle home directory is `C:\Oracle\Product\ORACLE_HOME`, use a file manager window and navigate to the `C:\Oracle\Product` directory. Right-click the `ORACLE_HOME` folder and select **Delete**.

Removing the Program Shortcuts on Windows Operating Systems

On Windows operating systems, you must also manually remove the program shortcuts from the `Start Menu\Programs` folder; the deinstaller does not remove them.

To remove the program shortcuts on Windows:

1. Go to the `C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Oracle\ORACLE_HOME\Product` directory.

2. If you only have one product installed in your Oracle home, delete the `ORACLE_HOME` directory. If you have multiple products installed in your Oracle home, delete all products before you delete the `ORACLE_HOME` directory.

> **Note:**
>
> The program shortcuts and folder names on your system may be different; you have to remove them from `C:\ProgramData\Microsoft\Windows\Start Menu\Programs`.

Rebooting Your System (Windows Operating Systems)

On Windows operating systems, you should reboot your computer after you have finished removing all your programs to ensure proper cleanup.

Removing the Domain and Application Data

After you deinstall the software, you must manually remove your domain and application data.

To remove the domain and application data:

1. Remove your Domain home directory. Use your normal operating system commands to remove your Domain home directory, for example:

    On a UNIX operating system, if your Domain home directory is `/home/Oracle/config/domains/frs_domain`, enter the following command:

    cd /home/Oracle/config/domains

    rm -rf frs_domain

    On a Windows operating system, if your Domain home directory is `C:\Oracle\Config\domains\frs_domain`, use a file manager window and navigate to the `C:\Oracle\Config\domains` directory. Right-click on the `frs_domain` folder and select **Delete**.

2. Remove your Application home directory. For example:

    On a UNIX operating system, if your Application home directory is `/home/Oracle/config/applications/frs_domain`, enter the following commands:

    cd /home/Oracle/config/applications

```
rm -rf frs_domain
```

On a Windows operating system, if your Application home directory is `C:\Oracle\Config\applications\frs_domain`, use a file manager window and navigate to the `C:\Oracle\Config\applications` directory. Right-click on the `frs_domain` folder and select **Delete**.

3. Back up the `domain_registry.xml` file in your Oracle home, then edit the file and remove the line associated with the domain that you are removing. For example, to remove the `frs_domain`, find the following line and remove it:

```
<domain location="/home/Oracle/config/domains/frs_domain"/>
```

Save and exit the file when you are finished.

Reinstalling the Software

You can reinstall your software into the same Oracle home as a previous installation only if you deinstalled the software according to the instructions in this chapter, including manually removing the Oracle home directory.

When you reinstall, you can then specify the same Oracle home as your previous installation.

Consider the following cases where the Oracle home is not empty:

• Installing in an existing Oracle home that contains the same feature sets.

The installer warns you that the Oracle home that you specified during installation already contains the same software you are trying to install. Your options are to:

1. Select a different installation type. In this case, only the feature sets that do not exist in the Oracle home directory are installed.

2. Select a different Oracle home directory.

• Installing in an existing, non-empty Oracle home.

For example, suppose you chose to create your Domain home or Application home somewhere inside your existing Oracle home. This data is not removed during the deinstallation process, so if you try to reinstall into the same Oracle home, the installer does not allow it. Your options are to:

1. Deinstall your software from the Oracle home as described in this chapter and then remove the Oracle home directory. After you deinstall the software and remove the Oracle home directory, you can reinstall and reuse the same Oracle home location, using the instructions in Installing and Configuring Oracle Forms. Any domain or application data that was in the Oracle home must be re-created.

2. Select a different Oracle home directory.

4

Upgrading Oracle Forms

This chapter describes how to upgrade Oracle Forms from 11*g* or previous 12*c* version to the latest version.
Regardless of the version currently in use, first create a backup of the existing installation and then proceed with installing the latest version in a new Oracle Home.

When upgrading from version 11.1.1 or older, you can follow one of the following methods:

- Follow the instructions and first upgrade to v11. Then, follow the steps provided in this section to upgrade to v12.

- Perform a fresh installation of v12 and manually configure the new environment, as required.

Upgrading Oracle Form from a previous release is an out-of-place upgrade (software must be installed to a new Oracle Home directory location) performed by using the Upgrade Assistant.

> **Note:**
>
> Although Oracle Reports is included in this release, it has been deprecated. Refer to the 12.2.1.3.0 Documentation Library for upgrade information specific to Oracle Reports.

The following topics are covered:

- Planning an Upgrade of Oracle Forms
- Preparing to Upgrade Oracle Forms from 11*g*
- Create Copy of Oracle Forms Template Files
- Upgrading Oracle Forms from 11*g* to 12*c*
- Upgrading Oracle Forms from a Previous 12*c* Release
- Post-Upgrade Steps after Upgrading Oracle Forms

Planning an Upgrade of Oracle Forms

Upgrading Oracle Forms to 12*c* requires careful preparation, planning, and performing series of steps.

If you are running any of the following versions, follow the steps provided in this chapter to upgrade Oracle Forms:

- Oracle FMW 11.1.1.7 Forms to Oracle Forms 12*c* (12.2.1.4.0)
- Oracle FMW 11.1.2.2 Forms to Oracle Forms 12*c* (12.2.1.4.0)
- Oracle FMW 12*c* (12.2.1.0) Forms to Oracle Forms 12*c* (12.2.1.4.0)
- Oracle FMW 12*c* (12.2.1.1.0) Forms to Oracle Forms 12*c* (12.2.1.4.0)

- Oracle FMW 12*c* (12.2.1.2.0) Forms to Oracle Forms 12*c* (12.2.1.4.0)
- Oracle FMW 12*c* (12.2.1.3.0) Forms to Oracle Forms 12*c* (12.2.1.4.0)

Preparing to Upgrade Oracle Forms from 11*g*

Before you begin to upgrade to the current version from Oracle Forms 11g, you must run the Forms upgrade extension script on the remote Forms nodes to extract Forms configuration artifacts residing on the remote nodes.

Note: Perform these steps only if you have any remote Forms nodes, which you may have added using extend domain or expand cluster scenario.

To run Forms upgrade extension on remote Forms nodes:

1. Locate the `forms-upgrade-ext.sh` (`forms-upgrade-ext.bat`) script in the following directory.

   `$ORACLE_HOME/forms/plugins/upgrade`

2. Run the `forms-upgrade-ext.sh` (`forms-upgrade-ext.bat`) script on each remote node with the **collect** option to pass in the location to save the artifacts.

   `collect <arg1: location to save the artifacts>`

   Note: Run the **collect** option in the source environment on each one of the remote Forms nodes. The script will extract and package Forms configuration files on that remote node to the specified location.

3. Copy the collected artifacts from all the remote nodes to the Admin Server node.

4. Run the `forms-upgrade-ext.sh` (`forms-upgrade-ext.bat`) script on the Admin Server node with the **apply** option to pass in the location of the saved artifacts and the Domain directory.

   `apply <arg1: location of the saved artifacts> <arg2: domain dir>`

   Note: Run the **apply** option only once on the Admin Server machine. The script will extract the Forms configuration from the remote node artifacts and apply it to the Domain.

Create Copy of Oracle Forms Template Files

Before you start an upgrade to the latest 12*c* release, it is recommended that you create copies of existing Forms template files.

This includes all files in the following directory:
`ORACLE_HOME\user_projects\domains\base_domain\config\fmwconfig\`
`components\FORMS\instances\<INSTANCE NAME>\server`. If you are upgrading from a previous 12*c* release to the latest release, the files are located in the same directory as mentioned in the previous line. If you are upgrading Oracle Forms from a release earlier than 12*c* (for example, 11*g*) to the latest 12*c* release, the files may be located in different directory.

The copy of template files will help you to restore user-specific customization in the new forms template files.

After have you completed the upgrade process, you should manually copy or merge user-specific customizations created in the earlier version to the new Forms template files.

Upgrading Oracle Forms from 11*g* to 12*c*

Before you begin the upgrade, it is important to make sure you have read the complete upgrade process so that your existing setup is not impacted during or after the upgrade.

The upgrade process for Oracle Forms from 11*g* to 12*c* includes two steps.

- Reconfiguring the 11*g* Domain using the WLS Reconfiguration Wizard
- Using the Upgrade Assistant

Reconfiguring the 11*g* Domain using the WLS Reconfiguration Wizard

You have to use the WLS 12*c* Reconfiguration Wizard for configuring the 11*g* Domain.

To reconfigure the 11*g* Domain:

1. Run the Reconfiguration Wizard from the following location:

   `$ORACLE_HOME/oracle_common/common/bin/reconfig.sh`

2. Provide the location of the 11*g* FMW Domain for upgrade.

3. Enter the RCU schema information.

4. Select only the Topology option in the *Advanced Configuration* in the Reconfiguration Wizard.

   Do not select the system components option. Those will be automatically configured/ upgraded by the Upgrade Assistant.

5. Leave the default selections on the Node Manager screen. Enter user name and password if needed.

6. Select JRF-MAN-SVR and FORMS-MAN-SVR server groups for all the Forms managed servers, including the default Forms managed servers WLS_FORMS, WLS_FORMS1, etc., and any other Forms managed servers users that may have been added after the 11*g* installation.

7. Click **Next** until you get to the last screen of the Reconfiguration Wizard.

> **✎ Note:**
>
> In 11*g*, Forms does not require the Repository Creation Utility (RCU) schemas, but starting with 12*c* all the WebLogic Server 12*c* domains require RCU schemas to be setup. Hence, before you perform these steps, ensure that you create the required schemas (see Configuring the Oracle Fusion Middleware Infrastructure Domain) in RCU before you run the WLS Reconfiguration Wizard.

Using the Upgrade Assistant

To complete the upgrade from 11*g* to 12*c*, you have to run the 12.2.1.4.0 Upgrade Assistant.

To upgrade:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

```
$ORACLE_HOME/oracle_common/upgrade/bin/ua
```

2. Select the *All Configuration Used by the Domain* option.

3. Provide the location of the reconfigured 12*c* domain.

4. Select the prerequisite check boxes.

5. Click **Upgrade**.

Upgrading Oracle Forms from a Previous 12*c* Release

This section describes the process to upgrade Oracle Forms to the latest 12*c* from a previous Oracle Forms 12*c* release.

The following topics are included in this section:

• Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1)

• Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1.1.0)

• Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1.2.0)

• Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1.3.0)

Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1)

To upgrade Oracle Forms 12.2.1.4.0 from 12.2.1 you have to complete three main steps.

The steps are as follows:

• Running the Upgrade Assistant to Upgrade the Domain Schema

• Reconfiguring the 12.2.1 Domain using the WLS Reconfiguration Wizard

• Running the Upgrade Assistant to Upgrade the Components Configuration

> ✎ **Note:**
>
> Running `forms-upgrade-ext.sh` on remote nodes is **not required** when upgrading from 12.2.1.

Running the Upgrade Assistant to Upgrade the Domain Schema

Perform the following steps to upgrade the Domain Schema using the 12.2.1.4.0 upgrade assistant.

To upgrade the Domain Schema:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

   ```
   $ORACLE_HOME/oracle_common/upgrade/bin/ua
   ```

2. Select the *All Schemas Used by the Domain* option.

3. Select the Schema components to Upgrade.

4. Provide the location of the reconfigured 12*c* domain.

5. Select the prerequisite check boxes.

6. Provide the RCU Database connection information.

7. Click **Next**.

8. Click **Finish**.

Reconfiguring the 12.2.1 Domain using the WLS Reconfiguration Wizard

You have to reconfigure the 12.2.1 Domain using the WLS Reconfiguration Wizard.

To reconfigure the 12.2.1 Domain:

1. Run the Reconfiguration Wizard from the following location:

   `$ORACLE_HOME/oracle_common/common/bin/reconfig.sh`

2. Provide the location of the 12.2.1 FMW Domain for upgrade.

3. Enter the RCU schema information.

4. Select only the Topology option in the *Advanced Configuration* in the Reconfiguration Wizard.

   Do not select the System Components option. Those will be automatically configured/ upgraded by the Upgrade Assistant.

5. Leave the default selections on the *Node Manager* screen. Enter user name and password if needed.

6. Click **Next** until you get to the last screen of the Reconfiguration Wizard.

Running the Upgrade Assistant to Upgrade the Components Configuration

To upgrade the Components configuration, complete a series of steps using the 12.2.1.4.0 Upgrade Assistant.

To upgrade the Components configuration:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

   `$ORACLE_HOME/oracle_common/upgrade/bin/ua`

2. Select the *All Configuration Used by the Domain* option.

3. Provide the location of the reconfigured 12*c* domain.

4. Select the prerequisite check boxes.

5. Click **Upgrade**.

Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1.1.0)

To upgrade Oracle Forms 12.2.1.4.0 from 12.2.1.1.0 you have to complete three steps.

The steps are as follows:

- Running the Upgrade Assistant to Upgrade the Domain Schema
- Reconfiguring the 12.2.1.1.0 Domain using the WLS Reconfiguration Wizard
- Running the Upgrade Assistant to Upgrade the Components Configuration

Running the Upgrade Assistant to Upgrade the Domain Schema

Perform the following steps to upgrade the Domain Schema using the 12.2.1.4.0 upgrade assistant.

To upgrade the Domain Schema:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

   $ORACLE_HOME/oracle_common/upgrade/bin/ua

2. Select the *All Schemas Used by the Domain* option.

3. Select the Schema components to Upgrade.

4. Provide the location of the reconfigured 12*c* domain.

5. Select the prerequisite check boxes.

6. Provide the RCU Database connection information.

7. Click **Next**.

8. Click **Finish**.

Reconfiguring the 12.2.1.1.0 Domain using the WLS Reconfiguration Wizard

You have to reconfigure the 12.2.1.1.0 Domain using the WLS Reconfiguration Wizard.

To reconfigure the 12.2.1.1.0 Domain:

1. Run the Reconfiguration Wizard from the following location:

   $ORACLE_HOME/oracle_common/common/bin/reconfig.sh

2. Provide the location of the 12.2.1.1.0 FMW Domain for upgrade.

3. Enter the RCU schema information.

4. Select only the Topology option in the *Advanced Configuration* in the Reconfiguration Wizard.

   Do not select the System Components option. Those will be automatically configured/upgraded by the Upgrade Assistant.

5. Leave the default selections on the *Node Manager* screen. Enter user name and password if needed.

6. Click **Next** until you get to the last screen of the Reconfiguration Wizard.

Running the Upgrade Assistant to Upgrade the Components Configuration

To upgrade the Components configuration, complete a series of steps using the 12.2.1.4.0 Upgrade Assistant.

To upgrade the Components configuration:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

   $ORACLE_HOME/oracle_common/upgrade/bin/ua

2. Select the *All Configuration Used by the Domain* option.

3. Provide the location of the reconfigured 12*c* domain.

4. Select the prerequisite check boxes.

5. Click **Upgrade**.

Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1.2.0)

To upgrade Oracle Forms 12.2.1.4.0 from 12.2.1.2.0 you have to complete three steps.

The steps are as follows:

- Running the Upgrade Assistant to Upgrade the Domain Schema
- Reconfiguring the 12.2.1.2.0 Domain using the WLS Reconfiguration Wizard
- Running the Upgrade Assistant to Upgrade the Components Configuration

Running the Upgrade Assistant to Upgrade the Domain Schema

Perform the following steps to upgrade the Domain Schema using the 12.2.1.4.0 upgrade assistant.

To upgrade the Domain Schema:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

   `$ORACLE_HOME/oracle_common/upgrade/bin/ua`

2. Select the *All Schemas Used by the Domain* option.

3. Select the Schema components to Upgrade.

4. Provide the location of the reconfigured 12*c* domain.

5. Select the prerequisite check boxes.

6. Provide the RCU Database connection information.

7. Click **Next**.

8. Click **Finish**.

Reconfiguring the 12.2.1.2.0 Domain using the WLS Reconfiguration Wizard

You have to reconfigure the 12.2.1.2.0 Domain using the WLS Reconfiguration Wizard.

To reconfigure the 12.2.1.2.0 Domain:

1. Run the Reconfiguration Wizard from the following location:

   `$ORACLE_HOME/oracle_common/common/bin/reconfig.sh`

2. Provide the location of the 12.2.1.2.0 FMW Domain for upgrade.

3. Enter the RCU schema information.

4. Select only the Topology option in the *Advanced Configuration* in the Reconfiguration Wizard.

   Do not select the System Components option. Those will be automatically configured/ upgraded by the Upgrade Assistant.

5. Leave the default selections on the *Node Manager* screen. Enter user name and password if needed.

6. Click **Next** until you get to the last screen of the Reconfiguration Wizard.

Running the Upgrade Assistant to Upgrade the Components Configuration

To upgrade the Components configuration, complete a series of steps using the 12.2.1.4.0 Upgrade Assistant.

To upgrade the Components configuration:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

   `$ORACLE_HOME/oracle_common/upgrade/bin/ua`

2. Select the *All Configuration Used by the Domain* option.

3. Provide the location of the reconfigured 12*c* domain.

4. Select the prerequisite check boxes.

5. Click **Upgrade**.

Upgrading to Oracle Forms 12*c* (12.2.1.4.0) from 12*c* (12.2.1.3.0)

To upgrade to Oracle Forms 12.2.1.4.0 from 12.2.1.3.0 you can perform a Zero Downtime (ZDT) upgrade or a non-ZDT upgrade. After you upgrade, complete the applicable configuration steps.

ZDT or Zero Downtime Upgrade is intended for multi-node environments. It allows administrators to patch or upgrade multi-node environments with minimal to no downtime.

The steps are as follows:

- Performing a ZDT Upgrade from 12.2.1.3.0
- Performing Non-ZDT Upgrade from 12.2.1.3.0
- Complete Upgrade from 12.2.1.3.0

Performing a ZDT Upgrade from 12.2.1.3.0

To perform a ZDT upgrade from 12.2.1.3.0 to Oracle Forms 12.2.1.4.0, complete a series of steps.

When upgrading from the 12.2.1.3.0 version, we recommend that you use the ZDT upgrade when one the following conditions is met.

- For multi-node load balanced Forms deployment
- To install FMW 12.2.1.4.0 in same the Oracle Home path as FMW 12.2.1.3.0

Consider a two-node scenario for the scope of this procedure. A primary node, named node1, with Admin Server, Forms (managed Server WLS_FORMS and System component forms1) and OHS. A secondary node, named node2, with Forms Instance (managed Server WLS_FORMS and System component forms1).

1. Shutdown system components, including Admin Server and the managed servers on node 1.

2. Rename the 12.2.1.3 Oracle Home parent directory on node 1. For example, you can rename it to `Oracle_Home_Old`.

3. Install Oracle Forms version 12.2.1.4.0 on node 1 to the same Oracle Home path as used in 12.2.1.3.0 (before we renamed it in Step 2).

4. If the WLS Domains directory (user_projects) and its subdirectories are located within the old Oracle Home, copy these directories to the new Oracle Home in the same location as they were previously.

5. Start system components, including Admin Server and the managed servers on node 1.

6. Shutdown system components and the managed servers on node 2.

7. Repeat steps 2 to 4 to install Oracle Forms on node 2.

8. Start system components and the managed servers on node 2.

9. After completing the 12.2.1.4.0 installation and starting the servers correctly, delete the `Oracle_Home_Old` directories from nodes 1 and 2. Before deleting, make sure you copy any custom files you need from the `Oracle_Home_Old` directory.

Performing Non-ZDT Upgrade from 12.2.1.3.0

To complete a non-ZDT upgrade from 12.2.1.3.0 to Oracle Forms 12.2.1.4.0, you have to complete three steps.

The steps are as follows:

- Install 12.2.1.4 Software in a New Oracle Home
- Reconfiguring the 12.2.1.3.0 Domain using the WLS Reconfiguration Wizard
- Running the Upgrade Assistant to Upgrade the Components Configuration

Install 12.2.1.4 Software in a New Oracle Home

Install the WebLogic Server Infrastructure 12.2.1.4 and Forms 12.2.1.4 software into a new Oracle home directory.

Refer to Installing Oracle Forms in a New Oracle Home for more information about installing the software.

Reconfiguring the 12.2.1.3.0 Domain using the WLS Reconfiguration Wizard

You have to reconfigure the 12.2.1.3.0 Domain using the WLS Reconfiguration Wizard.

To reconfigure the 12.2.1.3.0 Domain:

1. Run the Reconfiguration Wizard from the following location in the new Oracle home:

   `$ORACLE_HOME/oracle_common/common/bin/reconfig.sh`

2. Provide the location of the 12.2.1.3.0 FMW Domain for upgrade.

3. Enter the RCU schema information.

4. Select only the Topology option in the *Advanced Configuration* in the Reconfiguration Wizard.

   Do not select the System Components option. Those will be automatically configured/upgraded by the Upgrade Assistant.

5. Leave the default selections on the *Node Manager* screen. Enter user name and password if needed.

6. Click **Next** until you get to the last screen of the Reconfiguration Wizard.

Running the Upgrade Assistant to Upgrade the Components Configuration

To upgrade the Components configuration, complete a series of steps using the 12.2.1.4.0 Upgrade Assistant.

To upgrade the Components configuration:

1. Run the 12.2.1.4.0 Upgrade Assistant from the following location:

   `$ORACLE_HOME/oracle_common/upgrade/bin/ua`

2. Select the *All Configuration Used by the Domain* option.

3. Provide the location of the reconfigured 12*c* domain.

4. Select the prerequisite check boxes.

5. Click **Upgrade**.

Complete Upgrade from 12.2.1.3.0

After you complete the steps to perform a ZDT or non-ZDT upgrade from 12.2.1.3.0 to Oracle Forms 12.2.1.4.0, perform these steps to complete the upgrade.

After completing the upgrade steps, perform these steps.

1. If FADS was configured in the 12.2.1.3.0 domain, complete these steps.

   a. Run the `fads_config.py` script with the upgrade option.

      ```
      ORACLE_HOME/oracle_common/common/bin/wlst.sh
      fads_config.py upgrade
      ```

   b. Complete the prompts.

2. After the FMW domain is upgraded from 12.2.1.3.0, complete the following steps to enable encryption for the `userid` parameter.

   > **Note:**
   >
   > The `userid` parameter in `formsweb.cfg` file is encrypted by default when you create a new 12.2.1.4.0 domain.

   a. If you used the non-ZDT upgrade, set the `forms.userid.encryption.enabled` server parameter to `true` for the Admin Server and the Forms managed servers.

      Refer to Customizing Domain Wide Server Parameters in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

      Here is a sample of the `setUserOverridesLate.sh` file (use `setUserOverridesLate.cmd` for Windows), where the `forms.userid.encryption.enabled` parameter is enabled.

      ```
      echo ""
      echo "****************************************************"
      echo "** Executing setUserOverridesLate.sh"
      echo "****************************************************"
      ```

```
# specify additional java command line options for all servers

EXTRA_JAVA_PROPERTIES="${EXTRA_JAVA_PROPERTIES} -
Dforms.userid.encryption.enabled=true"
export EXTRA_JAVA_PROPERTIES

echo "USER_MEM_ARGS=\"${USER_MEM_ARGS}\""
echo "EXTRA_JAVA_PROPERTIES=\"${EXTRA_JAVA_PROPERTIES}\""
echo ""
echo "*****************************************************"
echo "** End of setUserOverrideLate.sh"
echo "*****************************************************"
echo ""
```

b. For both ZDT and non-ZDT upgrades, run the following commands using WLST (online mode) to provide grants to the forms application or mbeans to access the Forms application keystore.

```
grantPermission(codeBaseURL="file:${common.components.home}/../forms/
provision/forms-config-mbeans.jar",
permClass="oracle.security.jps.service.keystore.KeyStoreAccessPermissi
on",permTarget="stripeName=formsapp,
keystoreName=formsks,alias=*", permActions="*")

grantPermission(codeBaseURL="file:${domain.home}/servers/$
{weblogic.Name}/tmp/_WL_user/formsapp_12.2.1/-",
permClass="oracle.security.jps.service.keystore.KeyStoreAccessPermissi
on", permTarget="stripeName=formsapp,
keystoreName=formsks,alias=*",permActions="*")
```

c. For both ZDT and non-ZDT upgrades, restart the Admin Server and Forms managed servers.

Post-Upgrade Steps after Upgrading Oracle Forms

After using the Upgrade Assistant to upgrade Oracle Forms, perfrom a series of post-upgrade tasks.

You have to complete the following tasks:

- When upgrading from 11*g* Forms, regenerate the Forms application files: fmx's, mmx's, and plx's to run on Oracle Forms Services 12.2.1.4.0. This is not required when upgrading from Oracle Forms 12.2.1.3.0

- If you deployed the Oracle Forms Services J2EE custom application ear file (`formsapp.ear`) file to override the context root or Forms servlet alias, you should perform similar steps in the 12.2.1.4.0 Oracle WebLogic Server domain, see Custom Deployment of Forms Java EE Application. For more information, see Oracle Forms Configuration Helper Script in the *Working With Oracle Forms* guide.

- Manually copy any customizations made to provided shell script to the new environment as necessary.

- Oracle Fusion Middleware 12c (12.2.1.4.0) does not support Java Runtime Environment (JRE) 1.7 or older. If necessary, upgrade the client JRE to a certified version of Java 8. Refer to the Product Certification Matrix for a list of certified versions.

5

About Oracle Reports

Although included in this release, Oracle Reports has been deprecated as of Fusion Middleware 12c Release 2 (12.2.1.3.0).

For more information on the deprecation, review Deprecation Notice for Oracle Reports in *Release Notes for Oracle Forms*.

Because no changes have been made to Oracle Reports in the 12.2.1.4.0 release, refer to the 12.2.1.3.0 Documentation Library for information on installing, configuring, and using Oracle Reports. Download and install the 12.2.1.4.0 version and refer to this section of the 12.2.1.3 Installation Guide. Ignore any suggestions of using the 12.2.1.3 software in the guide.

For Oracle Reports usage, administration, and report deployment information, refer to the Publish Reports to the Web with Oracle Reports Services book. Because no further enhancements are planned for Oracle Reports, Oracle recommends migrating from Oracle Reports to Analytics Publisher (previously BI-Publisher). For more information about Oracle Analytics Publisher, see this page.

A
Troubleshooting

This appendix describes solutions to common problems that you might encounter when installing Oracle Forms.
The following sections are included:

- General Troubleshooting Tips

- Installation and Configuration Log Files

If this Troubleshooting appendix does not solve the problem you encountered, try looking for a solution on My Oracle Support (formerly Oracle *MetaLink*). You can also raise a service request, if you are unable to find a solution for your problem.

General Troubleshooting Tips

You may encounter errors during installing and configuring Oracle Forms.

Follow the tips to resolve the errors:

- To complete the configuration, Windows DOS shells must be run with Administrator permissions and UNIX shells must be owned by the same user who performed the installation (for example, *oracle*). Failure to follow this instruction may result in the configuration failing silently.

- See Install and Configure in *Release Notes for Oracle Fusion Middleware Infrastructure* for the latest updates and issues related to Oracle Fusion Middleware product installation and configuration.

- Verify that your computer meets the requirements specified in the Oracle Fusion Middleware System Requirements and Specifications. Select the document that is applicable for your release.

- Verify that your environment meets the certification requirements for your release and platform, as specified on the Oracle Fusion Middleware Supported System Configurations page.

- To review the latest Oracle Fusion Middleware Release Notes for other products, go to Oracle Fusion Middleware Library and select the documentation library for your specific product release to view the release notes.

- If you entered incorrect information on one of the installation screens, return to previous screen by clicking **Back** until you see the specific screen, or by using the navigation pane on the left side of the screen.

- If encounter error while the installer is copying or linking files:

  1. Note the error and review the installation log files.

  2. Remove the failed installation.

  3. Correct the issue that caused the error.

  4. Restart the installation.

Installation and Configuration Log Files

Log files are created when running the Oracle Forms installer and configuration tool.

The following log files contains information that can help you to troubleshoot problems during installation or configuration:

• Installation Log Files

• Configuration Log Files

Installation Log Files

The log files generated during your installation help you determine whether any problems occurred during installation.

The installer writes logs files to the `Oracle_Inventory_Location`/log (on UNIX operating systems) or `Oracle_Inventory_Location`\logs (on Windows operating systems) directory. On UNIX operating systems, if you do not know the location of your Oracle Inventory directory, you can find it in the `oraInst.loc` file in the following directories (default locations):

• Linux: `/etc/oraInst.loc`

• HP-UX and Solaris: `/var/opt/oracle/oraInst.loc`

On Windows operating systems, the location for the inventory directory is `C:\Program Files\Oracle\Inventory\logs`.

The following install log files are written to the log directory:

• `install`*date-time-stamp*`.log`

  This is the main log file.

• `install`*date-time-stamp*`.out`

  This log file contains the output and error streams during the installation.

• `installActions`*date-time-stamp*`.log`

  This file is used by the installer GUI to keep track of internal information.

• `installProfile`*date-time-stamp*`.log`

  This log file contains the overall statistics like time taken to complete the installation, also configuration, memory and CPU details.

• `oraInstall`*date-time-stamp*`.log`

  This log file contains the output stream of the copy session.

If you start the installer with the `-printtime` parameter, the `timeTaken`*date-time-stamp*`.log` and `time`*date-time-stamp*`.log` files are created in the same directory:

• `timeTaken`*date-time-stamp*`.log`

  This file contains information for the amount of time taken to move between screens (applicable for GUI installations only).

• `time`*date-time-stamp*`.log`

This file contains time information for the copy session.

If you start the installer with the `-printmemory` parameter, the `memory`*`date-time-stamp`*`.log` file is created. This file contains memory usage information for the copy session.

Configuration Log Files

To create a log file of your configuration session, start the configuration tool with the `-log` option.

For specific operating systems use the following `-log` option.

On UNIX operating systems:

```
% ./config.sh -log=log_filename
```

On Windows operating systems:

```
G:\ config.cmd -log=log_filename
```

If you specify an absolute path with your *log_filename* then your log file will be created there. If you only specify a file name with no path, then the log files are created in the `ORACLE_HOME`/ `common/bin` (on UNIX operating systems) or `ORACLE_HOME`\common\bin (on Windows operating systems) directory.