

Oracle® Analytics

Installing and Configuring Oracle Analytics Server



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Contents

Preface

Audience	vi
Documentation Accessibility	vi
Diversity and Inclusion	vi
Conventions	vii

1 About the Oracle Analytics Server Installation

Introduction to Installing a Production Environment	1-1
Using the Standard Installation Topology As a Starting Point	1-1
About the Oracle Analytics Server Standard Installation Topology	1-1
About Elements in the Standard Installation Topology Illustration	1-2

2 Preparing to Install and Configure Oracle Analytics Server

Roadmap for Installing and Configuring a Standard Installation Topology	2-1
Roadmap for Verifying Your System Environment	2-3
Verify Certification, System, and Interoperability Requirements	2-4
Selecting an Installation User	2-4
About User Permissions	2-5
About Non-Default User Permissions on Linux Operating Systems	2-7
Verifying That the Installation User Has Administrator Privileges on Windows Operating Systems	2-7
About the Directories for Installation and Configuration	2-7
About the Recommended Directory Structure	2-8
About the Oracle Home Directory	2-9
About the Domain Home Directory	2-10
About the Application Home Directory	2-10
Installing Multiple Products in the Same Domain	2-11
Preparing for Shared Storage	2-12
About JDK Requirements for an Oracle Fusion Middleware Installation	2-12
About Database Requirements for an Oracle Fusion Middleware Installation	2-12
Obtaining the Product Distribution	2-13

3 Installing the Oracle Analytics Server Software

Verifying the Installation Checklist	3-1
Starting the Installation Program	3-3
Navigating the Installation Screens	3-3
Applying Patches for Oracle Analytics Server	3-4
Verifying the Installation	3-4
Reviewing the Installation Log Files	3-4
Installing Libraries Required for Machine Learning in Oracle Analytics Server	3-4

4 Configuring Oracle Analytics Server

About the Configuration Assistant	4-1
Configuration Assistant Prerequisites	4-1
Creating the Database Schemas	4-2
Installing and Configuring a Certified Database	4-2
Starting the Repository Creation Utility	4-3
Navigating the Repository Creation Utility Screens to Create Schemas	4-3
Introducing the RCU	4-4
Selecting a Method of Schema Creation	4-4
Providing Database Connection Details	4-4
Specifying Schema Passwords	4-5
Completing Schema Creation	4-6
Configuring the Microsoft SQL Server Database for Oracle Analytics Server	4-6
Configuring the Oracle Analytics Server Domain with the Configuration Assistant	4-6
Configuring the Oracle Analytics Server Domain when using Oracle ATP Database	4-10

5 Next Steps After Configuring the Domain

Performing Basic Administrative Tasks	5-1
Performing Additional Domain Configuration Tasks	5-2
Preparing Your Environment for High Availability	5-3
Configuring Oracle Analytics Server with Fusion Middleware Products in the Same Installation	5-4

6 Uninstalling or Reinstalling Oracle Analytics Server

Removing Your Database Schemas	6-1
Uninstalling the Software	6-2
Starting the Uninstall Wizard	6-2

Selecting the Product to Uninstall	6-2
Navigating the Uninstall Wizard Screens	6-2
Removing the Oracle Home Directory Manually	6-3
Removing the Program Shortcuts on Windows Operating Systems	6-3
Removing the Domain and Application Data	6-4
Reinstalling the Software	6-4

A Updating the JDK After Installing and Configuring an Oracle Analytics Server

About Updating the JDK Location After Installing Oracle Analytics Server	A-1
Updating the JDK Location in an Existing Oracle Home	A-2
Updating the JDK Location in an Existing Domain Home	A-3
Updating the JRE	A-4

Preface

This document describes how to install and configure Oracle Analytics Server.

- [Audience](#)
- [Documentation Accessibility](#)
- [Diversity and Inclusion](#)
- [Conventions](#)

Audience

This guide is intended for system administrators or application developers who are installing and configuring Oracle Analytics Server. It is assumed that readers are familiar with web technologies and have a general understanding of Linux and Windows platforms.

Documentation Accessibility

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Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Conventions

The following text conventions are used in this document:

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

Videos and Images

Your company can use skins and styles to customize the look of the application, dashboards, reports, and other objects. It is possible that the videos and images included in the product documentation look different than the skins and styles your company uses.

Even if your skins and styles are different than those shown in the videos and images, the product behavior and techniques shown and demonstrated are the same.

1

About the Oracle Analytics Server Installation

The installation for Oracle Analytics Server described in this guide creates a standard topology, which represents a sample starting topology for this product. This guide explains how to install Oracle Analytics Server on your local system using your on-premises hardware.

- [Introduction to Installing a Production Environment](#)
To install Oracle Analytics Server in a production environment, Oracle recommends that you download, install, and configure Oracle Analytics Server on a single host, by following the instructions given in this guide.
- [Using the Standard Installation Topology As a Starting Point](#)
The standard installation topology is a flexible topology that you can use as a starting point in production environments.

Introduction to Installing a Production Environment

To install Oracle Analytics Server in a production environment, Oracle recommends that you download, install, and configure Oracle Analytics Server on a single host, by following the instructions given in this guide.

Using the Standard Installation Topology As a Starting Point

The standard installation topology is a flexible topology that you can use as a starting point in production environments.

If required, you can later extend the standard installation topology to create a secure and highly available production environment, see [Next Steps After Configuring the Domain](#).

The standard installation topology represents a sample topology for this product. It is not the only topology that this product supports. See *About the Standard Installation Topology in Planning an Installation of Oracle Fusion Middleware*.

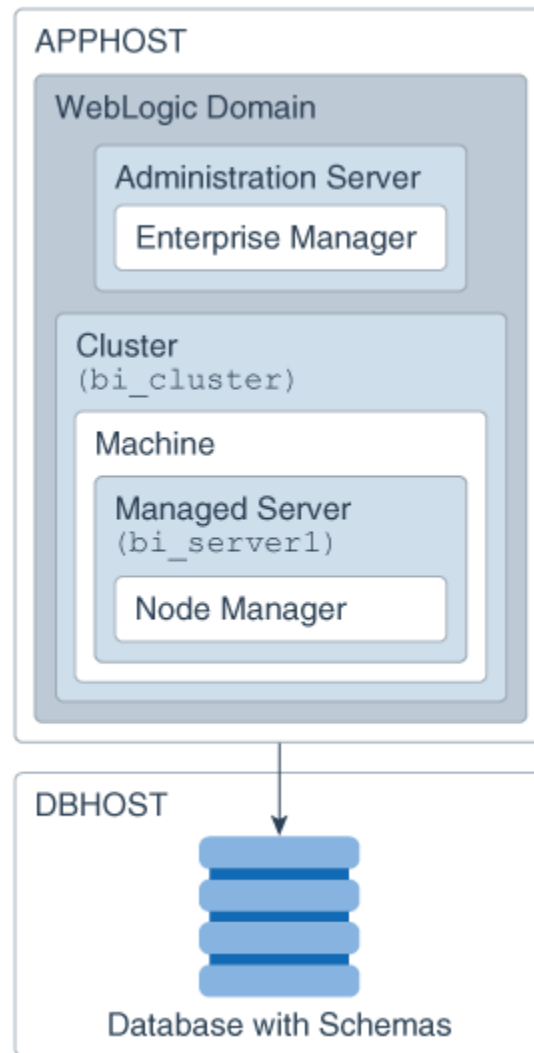
- [About the Oracle Analytics Server Standard Installation Topology](#)
This topology represents a standard WebLogic Server domain that contains an Administration Server and a cluster that contains a Managed Server.
- [About Elements in the Standard Installation Topology Illustration](#)
The standard installation topology typically includes common elements.

About the Oracle Analytics Server Standard Installation Topology

This topology represents a standard WebLogic Server domain that contains an Administration Server and a cluster that contains a Managed Server.

[Figure 1-1](#) shows the standard installation topology for Oracle Analytics Server.

Figure 1-1 Oracle Analytics Server Standard Installation Topology



Note:

For information about the Oracle Analytics Server installation topology for an enterprise deployment, see About a Typical Enterprise Deployment in *Enterprise Deployment Guide for Oracle Analytics Server*.

About Elements in the Standard Installation Topology Illustration

The standard installation topology typically includes common elements.

[Table 1-1](#) describes all elements of the topology illustration:

Table 1-1 Description of Elements in Standard Installation Topologies

Element	Description and Links to Related Documentation
APPHOST	A standard term used in Oracle documentation to refer to the machine that hosts the application tier.
DBHOST	A standard term used in Oracle documentation to refer to the machine that hosts the database.
WebLogic Domain	A logically related group of Java components (in this case, the Administration Server, Managed Servers, and other related software components) and non-Java components. See <i>What Is an Oracle WebLogic Server Domain?</i> in <i>Understanding Oracle Fusion Middleware</i> .
Administration Server	Central control entity of a WebLogic domain. It maintains configuration objects for that domain and distributes configuration changes to Managed Servers. See <i>What Is the Administration Server?</i> in <i>Understanding Oracle Fusion Middleware</i> .
Enterprise Manager	The Oracle Enterprise Manager Fusion Middleware Control is a primary tool used to manage a domain. See <i>Oracle Enterprise Manager Fusion Middleware Control</i> in <i>Understanding Oracle Fusion Middleware</i> .
Cluster	A collection of multiple WebLogic Server instances running simultaneously and working together. See <i>Overview of Managed Servers and Managed Server Clusters</i> in <i>Understanding Oracle Fusion Middleware</i> .
Machine	A logical representation of the computer that hosts one or more WebLogic Server instances (servers). Machines are also the logical glue between the Managed Servers and the Node Manager. In order to start or stop the Managed Servers using the Node Manager, associate the Managed Servers with a machine.
Managed Server	A host for your applications, application components, web services, and their associated resources. See <i>Overview of Managed Servers and Managed Server Clusters</i> in <i>Understanding Oracle Fusion Middleware</i> .
Infrastructure	A collection of services that include the following: - Metadata repository (MDS) contains the metadata for Oracle Fusion Middleware components, such as the Oracle Application Developer Framework. See <i>What Is the Metadata Repository?</i> in <i>Understanding Oracle Fusion Middleware</i>. - Oracle Application Developer Framework (Oracle ADF). - Oracle Web Services Manager (OWSM).

2

Preparing to Install and Configure Oracle Analytics Server

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

- [Roadmap for Installing and Configuring a Standard Installation Topology](#)
This roadmap provides the steps required to install and configure a standard Oracle Analytics Server installation topology.
- [Roadmap for Verifying Your System Environment](#)
Before you begin the installation and configuration process, you must verify your system environment.
- [Obtaining the Product Distribution](#)
You can obtain the Oracle Fusion Middleware Infrastructure and Oracle Analytics Server distribution on the Download page for Oracle Analytics Server.
- [About Product Distributions](#)
You create the initial Oracle Analytics Server domain using the Oracle Fusion Middleware Infrastructure distribution, which contains both Oracle WebLogic Server software and Oracle Java Required Files (JRF) software.

Roadmap for Installing and Configuring a Standard Installation Topology

This roadmap provides the steps required to install and configure a standard Oracle Analytics Server installation topology.

[Table 2-1](#) provides the high-level steps required for installing a standard installation topology.

Table 2-1 Standard Installation Roadmap

Task	Description	Documentation
Verify your system environment.	Before you begin the installation, verify that the minimum system and network requirements are met.	See Roadmap for Verifying Your System Environment .
Check for any mandatory patches that are required before the installation.	Review the Oracle Fusion Middleware Infrastructure release notes to see if there are any mandatory patches required for the software products that you are installing.	See Install and Configure in <i>Release Notes for Oracle Fusion Middleware Infrastructure</i> .

Table 2-1 (Cont.) Standard Installation Roadmap

Task	Description	Documentation
Obtain the appropriate distributions.	Oracle Analytics Server requires an existing Oracle Fusion Middleware Infrastructure installation and must be installed in the same Oracle home directory as Oracle Fusion Middleware Infrastructure. Therefore, you must obtain the following distributions: <code>fmw_12.2.1.4.0_infrastructu</code> <code>re.jar</code> (Linux) <code>Oracle_Analytics_Server_2023_Linux64.jar</code> and <code>Oracle_Analytics_Server_2023_Linux642.jar</code> (WINDOWS) <code>Oracle_Analytics_Server_2023Update_Win64.jar</code>	See Obtaining the Product Distribution and About Product Distributions .
Determine your installation directories.	Verify that the installer can access or create the required installer directories. Also, verify that the directories exist on systems that meet the minimum requirements.	See What Are the Key Oracle Fusion Middleware Directories? in <i>Understanding Oracle Fusion Middleware</i> .
Install prerequisite software.		See Installing the Infrastructure Software in <i>Installing and Configuring the Oracle Fusion Middleware Infrastructure</i> .
Install the software.	Run the Oracle Universal Installer to install Oracle Analytics Server. Installing the software transfers the software to your system and creates the Oracle home directory.	See Installing the Oracle Analytics Server Software .
Install libraries required for machine learning in Oracle Analytics Server. This installation is required only for Linux operating systems.	Oracle Analytics Server includes Python. You can use Python for executing ready-to-use machine learning algorithms.	See Installing Libraries Required for Machine Learning in Oracle Analytics Server .
Select a database profile and review any required custom variables.	Before you install the required schemas in the database, review the information about any custom variables you need to set for the Oracle Analytics Server schemas.	See About Database Requirements for an Oracle Fusion Middleware Installation .
Create the schemas.	Run the Repository Creation Utility to create the schemas required for configuration.	See Creating the Database Schemas .
Create a WebLogic domain.	Use the Configuration Wizard/Assistant to create and configure the WebLogic domain.	See Configuring the Oracle Analytics Server Domain with the Configuration Assistant to create the standard topology for Oracle Analytics Server.

Table 2-1 (Cont.) Standard Installation Roadmap

Task	Description	Documentation
Administer and prepare your domain for high availability.	Discover additional tools and resources to administer your domain and configure your domain to be highly available.	See Next Steps After Configuring the Domain .

Roadmap for Verifying Your System Environment

Before you begin the installation and configuration process, you must verify your system environment.

[Table 2-2](#) identifies important tasks and checks to perform to ensure that your environment is prepared to install and configure Oracle Analytics Server.

Table 2-2 Roadmap for Verifying Your System Environment

Task	Description	Documentation
Verify certification and system requirements.	Verify that your operating system is certified and configured for installation and configuration.	See Verify Certification, System, and Interoperability Requirements .
Identify a proper installation user.	Verify that the installation user has the required permissions to install and configure the software.	See Selecting an Installation User .
Select the installation and configuration directories on your system.	Verify that you can create the necessary directories to install and configure the software, according to the recommended directory structure.	See About the Directories for Installation and Configuration .
Install a certified JDK.	The installation program for the distribution requires a certified JDK present on your system.	See About JDK Requirements for an Oracle Fusion Middleware Installation .
Install and configure a database for mid-tier schemas.	To configure your WebLogic domain, you must have access to a certified database that is configured for the schemas required by Oracle Analytics Server.	See About Database Requirements for an Oracle Fusion Middleware Installation .

- [Verify Certification, System, and Interoperability Requirements](#)
Use the certification information to verify that your environment meets the requirements for installation.
- [Selecting an Installation User](#)
The user who installs and configures your system must have the required permissions and privileges.
- [About the Directories for Installation and Configuration](#)
During the installation and domain configuration process, you must plan on providing the locations for these directories: Oracle home, Domain home, and the Application home.

- [About JDK Requirements for an Oracle Fusion Middleware Installation](#)
Most Fusion Middleware products are in `.jar` file format. These distributions do not include a JDK. To run a `.jar` distribution installer, you must have a certified JDK installed on your system.
- [About Database Requirements for an Oracle Fusion Middleware Installation](#)
Oracle Analytics Server requires database schemas prior to configuration. If you do not already have a database where you can install these schemas, you must install and configure a certified database.

Verify Certification, System, and Interoperability Requirements

Use the certification information to verify that your environment meets the requirements for installation.

To verify certification, system, and interoperability requirements:

1. Verify that your environment meets certification requirements.

Make sure that you install your product on a supported hardware and software configuration. See the certification details in Certification Information in *Administering Oracle Analytics Server*.

Oracle has tested and verified the performance of your product on all certified systems and environments. The new certification information is updated in the *Administering Oracle Analytics Server* document. New certifications can be updated at any time.
2. Use the Administering Oracle Analytics Server document to verify certification.

Oracle recommends that you use Certification Information in *Administering Oracle Analytics Server* to verify that the certification requirements are met. For example, if the certification information indicates that your product is certified for installation on 64-Bit Oracle Linux 7.0, use the *Administering Oracle Analytics Server* document to verify that your system meets the required minimum specifications. These include data types, data sources, browsers, clients, Identity Servers and access, interoperability, systems, and Web Servers.
3. Verify interoperability among multiple products.

Selecting an Installation User

The user who installs and configures your system must have the required permissions and privileges.

- [About User Permissions](#)
The user who installs Oracle Analytics Server owns the files and has certain permissions on the files.
- [About Non-Default User Permissions on Linux Operating Systems](#)
Changing the default permission setting reduces the security of the installation and your system. Oracle does not recommend that you change the default permission settings.
- [Verifying That the Installation User Has Administrator Privileges on Windows Operating Systems](#)
To update the Windows Registry, you must have administrator privileges.

About User Permissions

The user who installs Oracle Analytics Server owns the files and has certain permissions on the files.

- Read and write permissions on all non-executable files (for example, `.jar`, `.properties`, or `.xml`). All other users in the same group as the file owner have read permissions only.
- Read, write, and execute permissions on all executable files (for example, `.exe`, `.sh`, or `.cmd`). All other users in the same group as the file owner have read and execute permissions only.

This means that someone other than the person who installs the software can use the installed binary files in the Oracle home directory to configure a domain or set of Fusion Middleware products.

During configuration, the files generated by the configuration process are owned by the user who ran the Configuration Wizard. This user has the same permissions as described above for the installation user. However, security-sensitive files are not created with group permissions. Only the user that created the domain has read and write permissions and can administer the domain.

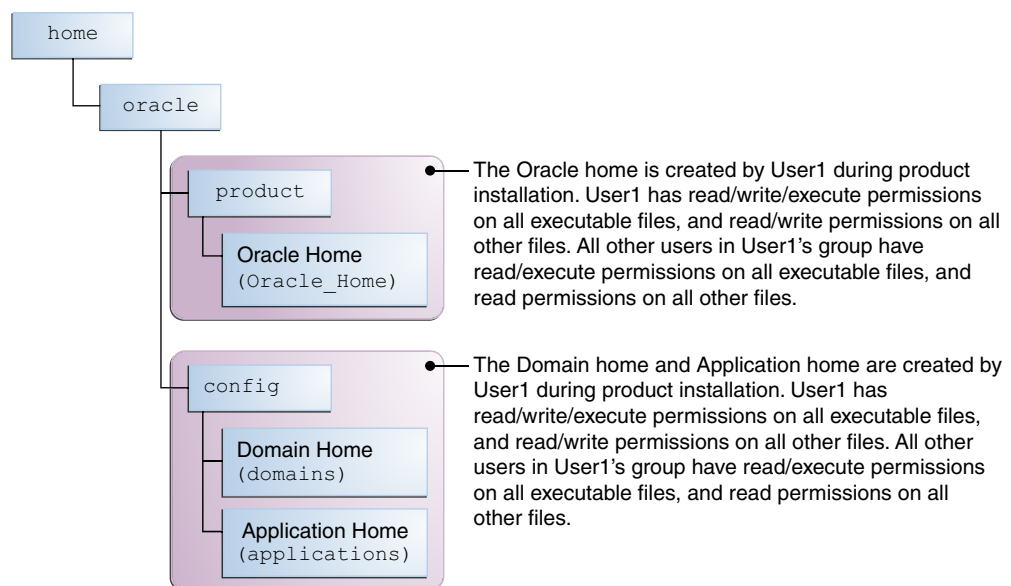
Consider the following examples:

- **Example 1: A Single User Installs the Software and Configures the Domain**

This example explains the file permissions where the same user installs the software and configures the domain.

To ensure proper permissions and privileges for all files, Oracle recommends that the same owner perform both tasks: install the Oracle Fusion Middleware product and configure the WebLogic Server domain by using the Configuration Wizard.

Figure 2-1 Directory Structure *When you manage a product installation a Single User Installs the Software and Configures the Domain*

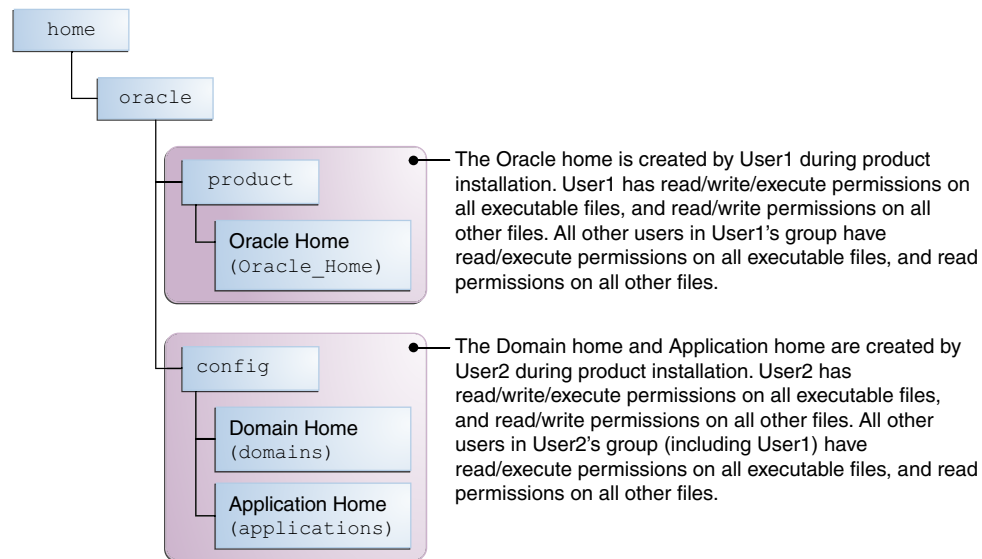


If the user who creates the domain is different than the user who installed the software, then both users must have the same privileges, as shown in the next example.

- **Example 2: The Oracle Home Directory and Domain are Created by Different Users**

This example explains the file permissions where one user creates the Oracle home and another user configures the domain.

Figure 2-2 Directory Structure when Different Users Install the Software and Configure the Domain



Note:

Certain domain files do not have group permissions. For example, `cwallet.sso`.

Consider the following points before you run the installer:

- On Linux operating systems, Oracle recommends that you set `umask` to `027` on your system before you install the software. This ensures that the file permissions are set properly during installation. Use the following command:

```
umask 027
```

You must enter this command in the same terminal window from which you plan to run the product installer.

- On Linux operating systems, do not run the installation program as a `root` user. If you run the installer as a root user, the startup validation may fail and you cannot continue the installation.
- When you manage a product installation (for example, applying patches), use the same user ID that you used to install the product.

When you manage a domain (for example, starting managed Servers), use the same user ID that you used to create the domain.

On Windows operating systems, you must have administrative privileges to install the product. See [Verifying That the Installation User Has Administrator Privileges on Windows Operating Systems](#).

About Non-Default User Permissions on Linux Operating Systems

Changing the default permission setting reduces the security of the installation and your system. Oracle does not recommend that you change the default permission settings.

If other users require access to a particular file or executable, use the Linux `sudo` command or other similar commands to change the file permissions.

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

Verifying That the Installation User Has Administrator Privileges on Windows Operating Systems

To update the Windows Registry, you must have administrator privileges.

By default, users with the administrator privilege sign in to the system with regular privileges, but can request elevated permissions to perform administrative tasks.

To perform a task with elevated privileges:

1. Find the Command Prompt icon, either from the Start menu or the Windows icon in the lower-left corner.
2. Right-click **Command Prompt** and select **Run as administrator**.

This opens a new command prompt window, and all actions performed in this window are done with administrator privileges.

Note:

If you have User Access Control enabled on your system, you may see an additional window asking you to confirm this action. Confirm and continue with this procedure.

3. Perform the desired task.

For example, to start the product installer:

For a jar file, enter:

```
java -jar distribution_name.jar
```

For an executable (.exe, .bin, or .sh file), enter:

```
distribution_name.exe
```

About the Directories for Installation and Configuration

During the installation and domain configuration process, you must plan on providing the locations for these directories: Oracle home, Domain home, and the Application home.

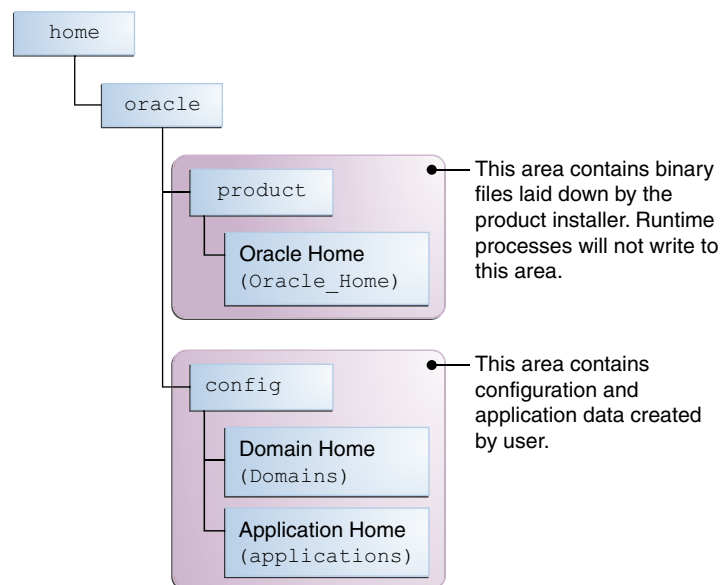
- [About the Recommended Directory Structure](#)
Oracle recommends specific locations for the Oracle Home, Domain Home, and Application Home.
- [About the Oracle Home Directory](#)
When you install any Oracle Fusion Middleware product, you must use an Oracle home directory.
- [About the Domain Home Directory](#)
The Domain home is the directory where domains that you configure are created.
- [About the Application Home Directory](#)
The Application home is the directory where applications for domains you configure are created.
- [Installing Multiple Products in the Same Domain](#)
There are two methods to install and configure multiple products in one domain. This is also known as *extending* a domain.
- [Preparing for Shared Storage](#)
Oracle Fusion Middleware allows you to configure multiple WebLogic Server domains from a single Oracle home. This allows you to install the Oracle home in a single location on a shared volume and reuse the Oracle home for multiple host installations.

About the Recommended Directory Structure

Oracle recommends specific locations for the Oracle Home, Domain Home, and Application Home.

Oracle recommends a directory structure similar to the one shown in [Figure 2-3](#).

Figure 2-3 Recommended Oracle Fusion Middleware Directory Structure



A base location (Oracle base) should be established on your system (for example, /home/oracle). From this base location, create two separate branches, namely, the `product` directory and the `config` directory. The `product` directory should contain the

product binary files and all the Oracle home directories. The `config` directory should contain your domain and application data.

Oracle recommends that you do not keep your configuration data in the Oracle home directory; if you upgrade your product to another major release, you are required to create an Oracle home for binary files. You must also make sure that your configuration data exists in a location where the binary files in the Oracle home have access.

The `/home/oracle/product` (for the Oracle home) and `/home/oracle/config` (for the application and configuration data) directories are used in the examples throughout the documentation; be sure to replace these directories with the actual directories on your system.

About the Oracle Home Directory

When you install any Oracle Fusion Middleware product, you must use an Oracle home directory.

This directory is a repository for common files that are used by multiple Fusion Middleware products installed on the same machine. These files ensure that Fusion Middleware operates correctly on your system. They facilitate checking of cross-product dependencies during installation. For this reason, you can consider the Oracle home directory a *central support directory* for all Oracle Fusion Middleware products installed on your system.

Fusion Middleware documentation refers to the Oracle home directory as `ORACLE_HOME`.

Oracle Home Considerations

Keep the following in mind when you create the Oracle home directory and install the Oracle Fusion Middleware products:

- Do not include spaces in the name of your Oracle home directory; the installer displays an error message if your Oracle home directory path contains spaces.
- You can install only one instance of each Oracle Fusion Middleware product in a single Oracle home directory. If you need to maintain separate versions of a product on the same machine, each version must be in its own Oracle home directory.

Although you can have several different products in a single Oracle home, only one version of each product can be in the Oracle home.

Multiple Home Directories

Although in most situations, a single Oracle home directory is sufficient, it is possible to create more than one Oracle home directory. For example, you need to maintain multiple Oracle home directories in the following situations:

- You prefer to maintain separate development and production environments, with a separate product stack for each. With two directories, you can update your development environment without modifying the production environment until you are ready to do so.
- You want to maintain two different versions of a Fusion Middleware product at the same time. For example, you want to install a new version of a product while keeping your existing version intact. In this case, you must install each product version in its own Oracle home directory.
- You need to install multiple products that are not compatible with each other. See Oracle Fusion Middleware Interoperability and Compatibility in *Understanding Interoperability and Compatibility*.

 Note:

- Due to the incompatibility of database clients, you must install Oracle Analytics Server and Oracle HTTP Server 12c (12.2.1.4) in separate Oracle home directories.
- If you create more than one Oracle home directory, you must provide non-overlapping port ranges during the configuration phase for each product.

About the Domain Home Directory

The Domain home is the directory where domains that you configure are created.

The default Domain home location is `ORACLE_HOME/user_projects/domains/domain_name`. However, Oracle strongly recommends that you do not use this default location. Put your Domain home *outside* of the Oracle home directory, for example, in `/home/oracle/config/domains`. The `config` directory should contain domain and application data. Oracle recommends a separate domain directory so that new installs, patches, and other operations update the `ORACLE_HOME` only, *not* the domain configuration.

See [About the Recommended Directory Structure](#) for more on the recommended directory structure and locating your Domain home.

Fusion Middleware documentation refers to the Domain home directory as `DOMAIN_HOME` and includes all folders up to and including the domain name. For example, if you name your domain `exampledomain` and locate your domain data in the `/home/oracle/config/domains` directory, the documentation would use `DOMAIN_HOME` to refer to `/home/oracle/config/domains/exampledomain`.

 Note:

It is not recommended to use symbolic links for `DOMAIN_HOME`.

About the Application Home Directory

The Application home is the directory where applications for domains you configure are created.

The default Application home location is `ORACLE_HOME/user_projects/applications/domain_name`. However, Oracle strongly recommends that you locate your Application home *outside* of the Oracle home directory; if you upgrade your product to another major release, you must create an Oracle home for binary files.

See [About the Recommended Directory Structure](#) for more on the recommended directory structure and locating your Application home.

Fusion Middleware documentation refers to the Application home directory as `APPLICATION_HOME` and includes all folders up to and including the domain name. For example, if you name your domain `exampledomain` and you locate your application

data in the `/home/oracle/config/applications` directory, the documentation uses `APPLICATION_HOME` to refer to `/home/oracle/config/applications/exampledomain`.

Installing Multiple Products in the Same Domain

There are two methods to install and configure multiple products in one domain. This is also known as *extending* a domain.

- **Method 1.**

Install and configure Product A, including creating the schemas and starting all servers in the domain to verify a successful domain configuration.

This is the method used in all installation guides in the Fusion Middleware library. You can repeat this process for as many products as necessary. It allows you to validate one product at a time and add more products incrementally.

To install Product B in the same domain as Product A:

1. Stop all servers to prevent any updates to the domain while you add the new product.

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

2. Follow the instructions in the installation guide for Product B, including creating the necessary schemas.
3. Run the Configuration Wizard to configure the domain.

During configuration, the Configuration Wizard automatically detects the components that have been installed and offers you the option to extend the existing Product A domain to include Product B.

- **Method 2.**

Install all of the required products, then create the schemas for all of the products. After you create the schemas, configure the domain by using the necessary product templates, then start all the servers.

This method of creating a multi-product domain may be slightly faster than Method 1; however, the installation guides in the Fusion Middleware library do not provide specific instructions for this method of domain creation.

See Also:

- To update WebLogic domains, see Updating WebLogic Domains in *Creating WebLogic Domains Using the Configuration Wizard*.
- For important information regarding the ability of Oracle Fusion Middleware products to function with previous versions of other Oracle Fusion Middleware, Oracle, or third-party products, see Oracle Fusion Middleware Interoperability and Compatibility in *Understanding Interoperability and Compatibility*.

Preparing for Shared Storage

Oracle Fusion Middleware allows you to configure multiple WebLogic Server domains from a single Oracle home. This allows you to install the Oracle home in a single location on a shared volume and reuse the Oracle home for multiple host installations.

If you plan to use shared storage in your environment, see *Using Shared Storage in High Availability Guide* for more information.

About JDK Requirements for an Oracle Fusion Middleware Installation

Most Fusion Middleware products are in `.jar` file format. These distributions do not include a JDK. To run a `.jar` distribution installer, you must have a certified JDK installed on your system.

Make sure that the JDK is installed *outside* of the Oracle home. If you install the JDK under the Oracle home, you may encounter problems when you try to perform tasks in the future. Oracle Universal Installer validates that the Oracle home directory is empty; the install does not progress until you specify an empty directory. Oracle recommends that you locate your JDK installation in the `/home/oracle/products/jdk` directory.

Platform-specific distributions have a `.bin` (for Linux operating systems) or `.exe` (for Windows operating systems) installer; in these cases, a platform-specific JDK is in the distribution and you do not need to install a JDK separately. However, you may need to upgrade this JDK to a more recent version, depending on the JDK versions that are certified.

Always verify the required JDK version by reviewing the certification information on the *Oracle Fusion Middleware Supported System Configurations* page. For 12c (12.2.1.4.0), the certified JDK is 1.8.0_341 and later.

To download the required JDK, navigate to the following URL and download the Java SE JDK:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

About Database Requirements for an Oracle Fusion Middleware Installation

Oracle Analytics Server requires database schemas prior to configuration. If you do not already have a database where you can install these schemas, you must install and configure a certified database.



Note:

Multi-tenancy features are supported; that is, Pluggable Database (PDB) and Container Database (CDB).

To find a certified database for your operating system, see the certification details in *Certification Information in Administering Oracle Analytics Server*.

To make sure that your database is properly configured for schema creation, see *Certification - Supported Data Sources* in *Administering Oracle Analytics Server*.

After your database is properly configured, you use the Repository Creation Utility (RCU) to create product schemas in your database. This tool is available in the Oracle home for your Oracle Fusion Middleware product. See *About the Repository Creation Utility* in *Creating Schemas with the Repository Creation Utility*.

Obtaining the Product Distribution

You can obtain the Oracle Fusion Middleware Infrastructure and Oracle Analytics Server distribution on the Download page for Oracle Analytics Server.

To prepare to install Oracle Fusion Middleware Infrastructure and Oracle Analytics Server:

1. Enter `java -version` on the command line to verify that a certified JDK is installed on your system. For FMW 12c (12.2.1.4.0), the certified JDK is 1.8.0_341 or later.
See [About JDK Requirements for an Oracle Fusion Middleware Installation](#).
2. Follow steps 1 to 4 in the [Download page for Oracle Analytics Server](#).

 Note:

In case you want to download Oracle Analytics Client Tools, see *Download, Install, and Start Oracle Analytics Server Client Tools*.

About Product Distributions

You create the initial Oracle Analytics Server domain using the Oracle Fusion Middleware Infrastructure distribution, which contains both Oracle WebLogic Server software and Oracle Java Required Files (JRF) software.

Oracle JRF software consists of:

- Oracle Web Services Manager
- Oracle Application Development Framework (Oracle ADF)
- Oracle Enterprise Manager Fusion Middleware Control
- Repository Creation Utility (RCU)
- Other libraries and technologies required to support Oracle Fusion Middleware products

Prerequisites:

- Install Oracle Fusion Middleware Infrastructure. For more information about installing Oracle Fusion Middleware Infrastructure, see *Installing the Infrastructure Software* in the *Installing and Configuring the Oracle Fusion Middleware Infrastructure*.

 Note:

If you want to access public internet cloud data sources, you must have a direct network connection because connections through proxy servers are not supported.

3

Installing the Oracle Analytics Server Software

Follow the steps in this section to install the Oracle Analytics Server software. You cannot install multiple instances of Oracle Analytics server on Windows operating systems.

Before beginning the installation, ensure that you have verified the prerequisites and completed all steps covered in [Preparing to Install and Configure Oracle Analytics Server](#).

- [Verifying the Installation Checklist](#)
The installation process requires specific information.
- [Starting the Installation Program](#)
You can start the program as the first step in the installation process.
- [Navigating the Installation Screens](#)
The installer shows a series of screens where you verify or enter information.
- [Applying Patches for Oracle Analytics Server](#)
After you install Oracle Analytics Server, you must apply the latest Oracle Fusion Middleware patches and Oracle Analytics Server patches.
- [Verifying the Installation](#)
After you complete the installation, verify whether it was successful by completing a series of tasks.
- [Installing Libraries Required for Machine Learning in Oracle Analytics Server](#)

Verifying the Installation Checklist

The installation process requires specific information.

The checklist in [Table 3-1](#) contains information that you must know before, or decide during, Oracle Analytics Server installation.

Table 3-1 Installation Checklist

Information	Example Value	Description
JAVA_HOME	/home/Oracle/Java/ jdk1.8.0	Environment variable that points to the Java JDK home directory.
Database host	examplehost.exampledomain	Name and domain of the host where the database is running.
Database port	1521	Port number that the database listens on. The default Oracle database listen port is 1521.
Database service name	orcl.exampledomain	Oracle databases require a unique service name. The default service name is orcl.

Table 3-1 (Cont.) Installation Checklist

Information	Example Value	Description
DBA username	SYS	Name of the user with database administration privileges. The default DBA user on Oracle databases is SYS.
DBA password	myDBApw957	Password of the user with database administration privileges.
<i>ORACLE_HOME</i>	/home/Oracle/product/ ORACLE_HOME	Directory in which you will install your software. This directory will include Oracle Fusion Middleware Infrastructure and Oracle Analytics Server, as needed.
WebLogic Server hostname	examplehost.exampledomain	Host name for Oracle WebLogic Server and Oracle Analytics Server consoles.
Weblogic console port	9500	Port number for Oracle WebLogic Server.
<i>DOMAIN_HOME</i>	/home/Oracle/config/ domains/bi_domain	Location in which your domain data is stored.
<i>APPLICATION_HOME</i>	/home/Oracle/config/ applications/bi_domain	Location in which your application data is stored.
Administrator user name for your WebLogic domain	weblogic	Name of the user with Oracle WebLogic Server administration privileges. The default administrator user is weblogic.
Administrator user password	myADMpw902	Password of the user with Oracle WebLogic Server administration privileges.
RCU	<i>ORACLE_HOME</i> / oracle_common/bin	Path to the Repository Creation Utility (RCU).
RCU schema prefix	BI	Prefix for names of database schemas used by Oracle Analytics Server.
RCU schema password	myRCUpw674	Password for the database schemas used by Oracle Analytics Server.
Configuration Wizard	<i>ORACLE_HOME</i> / oracle_common/common/bin	Path to the Configuration Wizard for domain creation and configuration.
Configuration Assistant	<i>ORACLE_HOME</i> /bi/bin	Path to the Configuration Assistant for domain creation and configuration. Oracle recommends that you use the Configuration Assistant to configure your Oracle Analytics Server domain.

Starting the Installation Program

You can start the program as the first step in the installation process.

To start the installation program:

1. Sign in to the host system.
2. Go to the directory where you have extracted the contents of product distribution archive file.
3. Enter the following command:
 - (Linux) `$JAVA_HOME/bin/java -jar Oracle_Analytics_Server_2023_Linux64.jar`
 - (Windows) `%JAVA_HOME%\bin\java -jar Oracle_Analytics_Server_2023Update_Win64.jar`

 Note:

Make sure to check and grant execute permission on the executable .jar file before running this command.

When the installation program appears, you are ready to begin the installation.

Navigating the Installation Screens

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

[Table 3-2](#) lists the order in which installer screens appear. If you need additional help with an installation screen, click **Help**.

Table 3-2 Oracle Analytics Server Install Screens

Screen	Description
Installation Inventory Setup	On Linux operating systems, this screen opens if this is the first time you are installing any Oracle product on this host. Specify the location where you want to create your central inventory. Make sure that the operating system group name selected on this screen has write permissions to the central inventory location. See About the Oracle Central Inventory in <i>Installing Software with the Oracle Universal Installer</i> . This screen does not appear on Windows operating systems.
Welcome	Review the information to make sure that you have met all the prerequisites, then click Next .
Auto Updates	Select to skip automatic updates, select patches, or search for the latest software updates, including important security updates, through your My Oracle Support account.
Installation Location	Specify your Oracle home directory location. You can click View to verify and ensure that you are installing Oracle Analytics Server in the correct Oracle home where Oracle Fusion Middleware is installed.

Table 3-2 (Cont.) Oracle Analytics Server Install Screens

Screen	Description
Prerequisite Checks	This screen verifies that your system meets the minimum necessary requirements. To view the list of tasks that gets verified, select View Successful Tasks . To view log details, select View Log . If any prerequisite check fails, then an error message appears at the bottom of the screen. Fix the error and click Rerun to try again. To ignore the error or the warning message and continue with the installation, click Skip (not recommended).
Installation Progress	This screen shows the installation progress. When the progress bar reaches 100% complete, click Finish to dismiss the installer, or click Next to see a summary.
Installation Complete	This screen displays the Installation Location and the Feature Sets that are installed. Review this information and click Finish to close the installer.

Applying Patches for Oracle Analytics Server

After you install Oracle Analytics Server, you must apply the latest Oracle Fusion Middleware patches and Oracle Analytics Server patches.

For the list of Critical Patch Update (CPU) instructions and patches, go to Oracle Support document ID [2832967.2](#), and click **Analytics Server (OAS)**.

Verifying the Installation

After you complete the installation, verify whether it was successful by completing a series of tasks.

- [Reviewing the Installation Log Files](#)

Reviewing the Installation Log Files

If your installation fails, contact Oracle Support and provide the log files from the installation:

- On Linux operating systems, the installer writes log files to the `Oracle_Inventory_Location/logs` directory.
- On Windows operating systems, the installer writes log files to the `Oracle_Inventory_Location\logs` directory.

Installing Libraries Required for Machine Learning in Oracle Analytics Server

To use automated machine learning features in Oracle Analytics Server, you must install additional libraries if they are not already installed on Linux operating systems.

At the command line, run the following command to install the libraries:

For example:

- (Linux 7/Red Hat Linux 7) `sudo yum install -y libgfortran`
- (Linux 8/Red Hat Linux 8) `sudo dnf install -y compat-libgfortran-48.X86_64`
- (SUSE Linux) `sudo zypper install libgfortran3`

As you prepare to install the libraries, note the following:

- You must have system administrator privileges to install the libraries.
- You can install the libraries before or after you install Oracle Analytics Server.
- You do not have to install additional libraries on Windows operating systems because the machine learning features are available by default.

4

Configuring Oracle Analytics Server

This topic walks you through a step-by-step process to configure Oracle Analytics Server standard topology using the Configuration Assistant.

- [About the Configuration Assistant](#)
The Configuration Assistant is a multi-functional utility that helps you to create database schemas, specify a port range, create system components, and start the application servers in addition to configuring the standard topology. Oracle strongly recommends that you to use the Configuration Assistant to configure the Oracle Analytics Server domain.
- [Configuration Assistant Prerequisites](#)
You must ensure that you meet the criteria listed in this topic for a smooth, error-free domain configuration by using the Configuration Assistant.
- [Creating the Database Schemas](#)
Before you can configure an Oracle Analytics Server domain, you must install required schemas on a certified database for use with this release of Oracle Fusion Middleware.
- [Configuring the Oracle Analytics Server Domain with the Configuration Assistant](#)
The Configuration Assistant is a `.sh` (Linux) or `.cmd` (WINDOWS) file. Start the Configuration Assistant by starting the config executable from the `bi/bin` directory inside the Oracle home. Follow the procedure in this topic to complete the configuration step-by-step.
- [Configuring the Oracle Analytics Server Domain when using Oracle ATP Database](#)
Follow the procedure in this topic to configure a domain if you are using Oracle ATP database.

About the Configuration Assistant

The Configuration Assistant is a multi-functional utility that helps you to create database schemas, specify a port range, create system components, and start the application servers in addition to configuring the standard topology. Oracle strongly recommends that you to use the Configuration Assistant to configure the Oracle Analytics Server domain.

Oracle recommends that you create the Domain home and Application home directories under `/home/oracle/config`. But if you use the Configuration Assistant to configure the domain, the Application home is created under `/home/oracle/product` directory. To achieve the recommended directory structure, configure the domain using the Configuration Wizard.

Use the procedure described in Configuring the Domain in *Enterprise Deployment Guide for Oracle Analytics Server*.

Configuration Assistant Prerequisites

You must ensure that you meet the criteria listed in this topic for a smooth, error-free domain configuration by using the Configuration Assistant.

To verify whether the required conditions are met, see that:

- You have correctly installed the Oracle Analytics Server binary files.
- You have the latest supported JDK installed on your system.
- You have access to any one of the certified databases. For more information, see Certification - Supported Data Sources in *Administering Oracle Analytics Server*.
- (Optional) You have connection details of existing RCU schema prefix (STB) and you have already created BIPLATFORM, IAU, OPSS, MDS, STB, and WLS schemas in a single session.

 Note:

You can, alternatively, generate a schema prefix (STB) and create the BIPLATFORM, IAU, OPSS, MDS, STB, and WLS schemas while you run the Configuration Assistant, provided you have the DBA credentials.

The database schemas are required to store internal housekeeping information. These schemas are different from any data sources which you plan to analyze by using Oracle Analytics Server .

Creating the Database Schemas

Before you can configure an Oracle Analytics Server domain, you must install required schemas on a certified database for use with this release of Oracle Fusion Middleware.

If you are using Oracle ATP database, go to [Configuring the Oracle Analytics Server Domain when using Oracle ATP Database](#).

- [Installing and Configuring a Certified Database](#)
Before you create the database schemas, you must install and configure a certified database, and verify that the database is up and running.
- [Starting the Repository Creation Utility](#)
Start the Repository Creation Utility (RCU) after you verify that a certified JDK is installed on your system.
- [Navigating the Repository Creation Utility Screens to Create Schemas](#)
Enter required information in the RCU screens to create the database schemas.

Installing and Configuring a Certified Database

Before you create the database schemas, you must install and configure a certified database, and verify that the database is up and running.

See [About Database Requirements for an Oracle Fusion Middleware Installation](#) and Certification - Supported Data Sources.

Starting the Repository Creation Utility

Start the Repository Creation Utility (RCU) after you verify that a certified JDK is installed on your system.



Note:

You can use this step to create the database schemas when you are configuring Oracle Analytics Server domain for an enterprise deployment.

To start the RCU:

1. Verify that a certified JDK already exists on your system by running `java -version` from the command line.
See [About JDK Requirements for an Oracle Fusion Middleware Installation](#).
2. Ensure that the `JAVA_HOME` environment variable is set to the location of the certified JDK.

For example:

- (Linux) `setenv JAVA_HOME /home/Oracle/Java/jdk1.8.0`
 - (Window) `set JAVA_HOME=C:\home\Oracle\Java\jdk1.8.0`
3. Change to the following directory:
 - (Linux) `ORACLE_HOME/oracle_common/bin`
 - (Windows) `ORACLE_HOME\oracle_common\bin`
 4. Enter the following command:
 - (Linux) `./rcu`
 - (WINDOWS) `rcu.bat`

Navigating the Repository Creation Utility Screens to Create Schemas

Enter required information in the RCU screens to create the database schemas.

- [Introducing the RCU](#)
The Welcome screen is the first screen that appears when you start the RCU.
- [Selecting a Method of Schema Creation](#)
Use the Create Repository screen to select a method to create and load component schemas into the database.
- [Providing Database Connection Details](#)
On the Database Connection Details screen, provide the database connection details for the RCU to connect to your database.
- [Specifying Schema Passwords](#)
On the Schema Passwords screen, specify how you want to set the schema passwords on your database, then enter and confirm your passwords.
- [Completing Schema Creation](#)
Navigate through the remaining RCU screens to complete schema creation.

- [Configuring the Microsoft SQL Server Database for Oracle Analytics Server](#)
If you have installed the Oracle Analytics Server schemas on a Microsoft SQL Server database, you must configure Autostart for the SQL Server Agent and ensure that the agent is functioning.

Introducing the RCU

The Welcome screen is the first screen that appears when you start the RCU.

Click **Next**.

Selecting a Method of Schema Creation

Use the Create Repository screen to select a method to create and load component schemas into the database.

On the Create Repository screen:

- If you have the necessary permissions and privileges to perform DBA activities on your database, select **System Load and Product Load**. This procedure assumes that you have SYSDBA privileges.
- If you do *not* have the necessary permissions or privileges to perform DBA activities in the database, you must select **Prepare Scripts for System Load** on this screen. This option generates a SQL script that you can give to your database administrator. See About System Load and Product Load in *Creating Schemas with the Repository Creation Utility*.
- If the DBA has already run the SQL script for System Load, select **Perform Product Load**.

Providing Database Connection Details

On the Database Connection Details screen, provide the database connection details for the RCU to connect to your database.

For Oracle databases, if you are unsure of the service name for your database, you can obtain it from the `SERVICE_NAMES` parameter in the initialization parameter file of the database.

For Oracle databases, if the initialization parameter file does not contain the `SERVICE_NAMES` parameter, then the service name is the same as the global database name, which is specified in the `DB_NAME` and `DB_DOMAIN` parameters.

To provide the database connection details:

1. On the Database Connection Details screen, for a selected database type, provide the database connection details.
 - For Oracle Database, use the following example:
 - Connect String:
`examplehost.exampledomain.com:1521:Orcl.exampledomain.com`

**Note:**

To specify the connect string, you must select the **Connection String** option.

- Host name: `examplehost.exampledomain.com`
- Port: `1521`
- Service Name: `Orcl.exampledomain.com`
- User Name: `sys`
- Password: `*****`
- Role: `SYSDBA`
- For Microsoft SQL Server, use the following example:
 - Connect String: `examplehost.exampledomain.com:1433:dbname`

**Note:**

To specify the connect string, you must select the **Connection String** option.

- Server name: `examplehost.exampledomain.com`
- Port: `1433`
- Database Name: `dbname`
- User Name: `sa`
- Password: `*****`

If the middle tier database is Microsoft SQL Server, you must enable the SQL Server Agent. For more information, see [Configuring the Microsoft SQL Server Database for Oracle Analytics Server](#).

2. Click **Next** to proceed, then click **OK** in the dialog window that confirms a successful database connection.

Specifying Schema Passwords

On the Schema Passwords screen, specify how you want to set the schema passwords on your database, then enter and confirm your passwords.

You must make a note of the passwords you set on this screen; you will need them later on during the domain creation process.

Click **Next**.

Completing Schema Creation

Navigate through the remaining RCU screens to complete schema creation.

On the Map Tablespaces screen, the Encrypt Tablespace check box appears *only* if you enabled Transparent Data Encryption (TDE) in the Oracle database when you start the RCU.

To complete schema creation:

1. On the Map Tablespaces screen, select **Encrypt Tablespace** if you want to encrypt all new tablespaces that the RCU creates.
2. In the Completion Summary screen, click **Close** to dismiss the RCU.

Configuring the Microsoft SQL Server Database for Oracle Analytics Server

If you have installed the Oracle Analytics Server schemas on a Microsoft SQL Server database, you must configure Autostart for the SQL Server Agent and ensure that the agent is functioning.

Perform the following steps to enable the SQL Server Agent on Windows operating systems:

1. On the Start menu, navigate to **Programs, SQL Server 2019, Configuration Tools**, and then click **SQL Server Configuration Manager**.
2. Click **+** to expand the SQL Server that you want to manage the services.
3. Right-click **SQL Server Agent** and then click **Properties**.

For default instances, the SQL Server Agent service is displayed as **SQL Server Agent** and for named instances, the SQL Server Agent service is displayed as **SQL Server Agent (Instance name)**.

4. In the **SQL Server Agent** dialog box, on the **Service** tab, select **Automatic** from the **Start Mode** list, and then click **OK** to close the window.

This setting automatically starts the SQL Server Agent when the system restarts.

5. Right-click **SQL Server Agent** and click **Start**.
6. In the **User Account Control** dialog box, click **Yes** to confirm.

Run the following commands to enable the SQL Server Agent and restart the SQL Server service on Linux operating systems:

1. `sudo /opt/mssql/bin/mssql-conf set sqlagent.enabled true`
2. `sudo systemctl restart mssql-server`

Alternatively, you can use the command `restart mssql docker` to restart the SQL Server service.

Configuring the Oracle Analytics Server Domain with the Configuration Assistant

The Configuration Assistant is a `.sh` (Linux) or `.cmd` (WINDOWS) file. Start the Configuration Assistant by starting the config executable from the `bi/bin` directory

inside the Oracle home. Follow the procedure in this topic to complete the configuration step-by-step.

If you are extending the WebLogic domain with Oracle Analytics Server by using the Configuration Assistant, make sure that the Administration Server for the domain is named *AdminServer*. Other names for the Administration Server are not supported.

To configure the Oracle Analytics Server standard topology:

1. Change to the following directory:
 - (Linux) `ORACLE_HOME/bi/bin`
 - (WINDOWS) `ORACLE_HOME\bi\bin`
2. Start the Configuration Assistant by entering the following command:
 - (Linux) `./config.sh`
 - (WINDOWS) `config.cmd`
3. Select the components to install and click **Next**.

To ensure that a consistent set of suites are deployed, the Configuration Assistant automatically adjusts your selection.

- Oracle Analytics Server: Includes components such as data visualization, analyses, dashboards and agents, and installs Oracle Analytics Server without Publisher.
- Oracle Analytics Publisher: Includes Publisher for pixel-perfect reports. You can use this option to install standalone Publisher.

Select the Oracle Analytics Server and Oracle Analytics Publisher components to install Oracle Analytics Server with Publisher.

4. On the Prerequisite Checks screen, after the prerequisite checks conclude with no errors, click **Next**.

If any of the prerequisite checks fail, then a short error message appears at the bottom of the screen. Fix the error and click **Rerun** to try again. To ignore the error or warning messages and continue with the installation, click **Skip**, although this approach is not recommended.

 Note:

The configuration might not function normally if you continue without resolving the issue that caused an error or warning message during the prerequisite checks.

5. On the Define New Domain screen, specify the following:
 - a. Enter the location where you want to set up the domain directory.
The new domain is stored in a sub-directory with the same name as the domain.
 - b. Enter a name for the domain.
You can use alphanumeric characters, underscores or hyphens.
 - c. Enter a username for the default system administrator.
The username must not be blank and not exceed 30 characters.

 Note:

This user is created in the embedded LDAP and is granted WebLogic Administrator permissions.

- d. Enter a password for the system administrator.

It must begin with a letter, include at least one number, and can contain alphanumeric, underscore, dollar sign, and pound sign characters.

- e. Reenter the password to confirm.

Domain Home is a read-only field derived from 'Domains Directory' and 'Domain Name'.

- 6. Click **Next** to proceed to the Database Schema screen. On this screen, click the appropriate option either to create a new schema or use an existing schema.
 - If you select to create a new schema, specify the following:

 Note:

In this case, the Configuration Assistant creates a schema for you.

- a. Enter a unique schema prefix.
- b. Enter a password for your schema.
- c. Reenter the password to confirm.
- d. Select the type of database to use from the list.

For the list of databases supported by Oracle Analytics Server, see Certification - Supported Data Sources in *Administering Oracle Analytics Server*.

- e. Enter the username of the account that has privileges to create new schemas.
- f. Enter the password for the username.
- g. Enter the connect string based on the type of database you are using.

For the list of databases supported by Oracle Analytics Server, see Certification - Supported Data Sources in *Administering Oracle Analytics Server*.

- If you select to use an existing schema, specify the following::

 Note:

In this case, you must create STB, BIPLATFORM, IAU, MDS, OPSS, and WLS schemas using the RCU.

- a. Select the type of database to use from the list.

For the list of databases supported by Oracle Analytics Server, see Certification - Supported Data Sources in *Administering Oracle Analytics Server*.

- b. Enter the connect string based on the type of database you are using.

For the list of databases supported by Oracle Analytics Server, see Certification - Supported Data Sources in *Administering Oracle Analytics Server*.

- c. Enter a unique schema prefix.
- d. Enter a password for your schema.

7. On the Port Management screen, specify the port range and click **Next**.

 Note:

The default, allocated port range is from 9500 to 9999, both inclusive. You can keep the default values or specify different values within this range.

8. On the Initial Content screen, select one of the following options, and click **Next**:
 - Existing export archive (.jar file) from a previous installation

 Note:

This option is applicable if you are migrating from Oracle BI 11g to Oracle Analytics Server.

See Upgrading Oracle Analytics Server from 12c (Out-of-Place Migration) in *Migrating and Upgrading Oracle Analytics Server*.

- Clean Installation (default).
9. On the Summary screen, verify the values that you specified on each screen.
 - a. Click **Save** to generate a response file used for silent installation (optional).
 - b. Click **Configure**.The configuration process starts and the Configuration Progress screen is displayed.
 10. After the configuration concludes without any errors, click **Next** to go to the Configuration Complete screen.
 11. On the Configuration Complete screen, review the configuration summary.
 - a. Click **Save** to save the information displayed on this screen in a file.
 - b. Click **Finish** to close the Configuration Assistant.

The Oracle Analytics Server Application opens in the browser. Use the login credentials that you specified while configuring to sign in to the Home page of Oracle Analytics Server.

You have configured the standard Oracle Analytics Server topology. The Configuration Assistant automatically starts the newly configured Oracle Analytics Server instance after successful completion. However, if you want to restart a domain that has been shut down manually, start servers and processes.

Configuring the Oracle Analytics Server Domain when using Oracle ATP Database

Follow the procedure in this topic to configure a domain if you are using Oracle ATP database.

If you are using Oracle ATP database, create the schema using the RCU and then run the Configuration Assistant in silent mode to configure the Oracle Analytics Server domain using the created schema.

1. Run the RCU in silent mode with the following options in the response file, and input the full TNS connection string to create the schema.

```
rcu -silent -responseFile <path-to-the-response-file>
```

Note:

If you use the RCU in graphical user interface (GUI), then at several intervals, the RCU may display a *Insufficient privileges* message. Ignore this message and continue with the next step in the wizard.

- **connectString for a with-wallet connection:**

```
description= (retry_count=20)(retry_delay=3)
(address=(protocol=tcps) (port=1522) (host=adb.uk -
london-1.oraclecloud.com))
(connect_data=(service_name=vljgk4wx2kcrt do_bi_tp.a
db.oraclecloud.com)) (security=(ssl_server_cert_dn="CN=adwc.eucom-
central-1.ora clecloud.com, OU=Oracle BMCS FRANKFURT, O=Oracle
Corporation, L=Redwood City, ST=California, C=US")))
```
- **connectString for a wallet-less connection:**

```
(description= (retry_count=20)(retry_delay=3)
(address=(protocol=tcps) (port=1522) (host=adb.uk -
london-1.oraclecloud.com))
(connect_data=(service_name=vljgk4wx2kcrt do_bi_tp.a
db.oraclecloud.com)) (security=(ssl_server_dn_match=yes)))
```

2. Run the Configuration Assistant in silent mode, with the following options in the response file.

```
SCHEMA_TYPE=SCHEMA_TYPE_EXISTING
EXISTING_DATABASE_TYPE=ORACLE_TNS_ALIAS
CONNECT_STRING=midtier_biplatform?TNS_ADMIN=/scratch/<workspace>/
tns_admin
```

 Note:

The Configuration Assistant supports only the `TNS_ADMIN` type connection string and in silent mode. Also, it is supported only for `SCHEMA_TYPE_EXISTING`. In the RCU, we cannot use `TNS_ADMIN` type connection string as it is not one of the fully supported formats. For example,

```
jdbc:oracle:thin:@midtier_biplatform?TNS_ADMIN=/scratch/dev-  
workspace/tns_admin
```

5

Next Steps After Configuring the Domain

After you configure a product domain, there are additional tasks that you may want to perform.

- [Performing Basic Administrative Tasks](#)
Review the administrative tasks in you will likely want to perform on a new domain.
- [Performing Additional Domain Configuration Tasks](#)
You can add a Web Tier component to your Oracle Analytics Server domain, such as Oracle HTTP Server.
- [Preparing Your Environment for High Availability](#)
Scaling out for high availability requires additional steps.
- [Configuring Oracle Analytics Server with Fusion Middleware Products in the Same Installation](#)
If you have installed Oracle HTTP Server and Oracle Data Integrator or Oracle Access Management with Oracle Analytics Server, follow this procedure to configure Oracle Analytics Server for users to explore analytics data visually.

Performing Basic Administrative Tasks

Review the administrative tasks in you will likely want to perform on a new domain.

[Table 5-1](#) lists the basic administration tasks you might want to perform after configuring a new domain.

Table 5-1 Basic Administration Tasks for a New Domain

Task	Description	More Information
Getting familiar with Fusion Middleware administration tools	Get familiar with various tools that you can use to manage your environment.	See Overview of Oracle Fusion Middleware Administration Tools in <i>Administering Oracle Fusion Middleware</i> .
Starting and stopping products and servers	Learn how to start and stop Oracle Fusion Middleware, including the Administration Server, Managed Servers, and components.	See Starting and Stopping Oracle Fusion Middleware in <i>Administering Oracle Fusion Middleware</i> .
Configuring Secure Sockets Layer (SSL)	Learn how to set up secure communications between Oracle Fusion Middleware components using SSL.	See Configuring SSL in Oracle Fusion Middleware in <i>Administering Oracle Fusion Middleware</i> .
Monitoring Oracle Fusion Middleware	Learn how to keep track of the status of Oracle Fusion Middleware components.	See Monitoring Oracle Fusion Middleware in <i>Administering Oracle Fusion Middleware</i> .
Understanding Backup and Recovery Procedures	Learn the recommended backup and recovery procedures for Oracle Fusion Middleware.	See Introduction to Backup and Recovery in <i>Administering Oracle Fusion Middleware</i> .

Table 5-1 (Cont.) Basic Administration Tasks for a New Domain

Task	Description	More Information
Configuring a system for deployment after installation	Configuring metadata and content, general preferences, and default system settings.	See Configuring Oracle Analytics Server System Settings in <i>Administering Oracle Analytics Server</i> .
Configuring security	Securing access to the Oracle Analytics Server system, metadata, and data, configuring Secure Sockets Layer (SSL) and Single Sign-On (SSO), and integration with identity management systems.	See Configuring SSL in Oracle Analytics Server in <i>Managing Security for Oracle Analytics Server</i> .
Scaling out and configuring for high availability	Configuring the Oracle Analytics Server system for linear scale-out (increasing capacity with more components on a machine) and identifying and removing single points of failure (adding more machines).	See Deploying Oracle Analytics Server for High Availability in <i>Administering Oracle Analytics Server</i> .
Managing performance and availability	Monitoring service levels and tuning performance.	See Managing Performance Tuning and Query Caching in <i>Administering Oracle Analytics Server</i> .
Managing and resolving issues	Diagnosing errors and establishing resolutions.	See Diagnosing and Resolving Issues in Oracle Analytics Server in <i>Administering Oracle Analytics Server</i> .
Moving a system from test to production	Managing the steps for moving from a test to a production environment.	See Maintaining the Oracle Presentation Catalog in <i>Administering Oracle Analytics Server</i> .

Performing Additional Domain Configuration Tasks

You can add a Web Tier component to your Oracle Analytics Server domain, such as Oracle HTTP Server.

[Table 5-2](#) lists additional tasks you could perform on your new domain.

Table 5-2 Additional Domain Configuration Tasks

Task	Description	More Information
Adding a Web Tier front end to your domain	Oracle Web Tier hosts Web pages (static and dynamic), provides security and high performance along with built-in clustering, load balancing, and failover features. In particular, the Web Tier contains Oracle HTTP Server.	To install and configure Oracle HTTP Server in the WebLogic Server domain, see Installing the Oracle HTTP Server Software in <i>Oracle Fusion Middleware Installing and Configuring Oracle HTTP Server</i> . Also, see Installing Multiple Products in the Same Domain in <i>Planning an Installation of Oracle Fusion Middleware</i> for important information.

Preparing Your Environment for High Availability

Scaling out for high availability requires additional steps.

[Table 5-3](#) provides a list of tasks to perform if you want to scale out your standard installation environment for high availability.

Table 5-3 Tasks Required to Prepare Your Environment for High Availability

Task	Description	More Information
Scaling out to multiple host computers	To enable high availability, it is important to provide failover capabilities to another host computer. That way, if one computer goes down, your environment can continue to serve the consumers of your deployed applications.	See <i>Scaling Out a Topology (Machine Scale Out)</i> in <i>High Availability Guide</i> .
Configuring high availability for your Web Tier components.	If you have added a Web tier front-end, then you must configure the Web Tier for high availability, as well as the WebLogic Server software.	See <i>Configuring High Availability for Web Tier Components</i> in <i>HTTP Server Administration Guide</i> .
Setting up a front-end load balancer	You can use a load balancer to distribute requests across servers more evenly.	See <i>Server Load Balancing in a High Availability Environment</i> in <i>High Availability Guide</i> .
Configuring Node Manager	Node Manager enables you to start, shut down, and restart the Administration Server and Managed Server instances from a remote location. This document assumes you have configured a per-domain Node Manager. Review the Node Manager documentation, for information on advanced Node Manager configuration options and features.	See <i>Advanced Node Manager Configuration</i> in <i>Administering Node Manager for Oracle WebLogic Server</i> .
Configuring high availability for Oracle Analytics Server components	To configure Oracle Analytics Server for high availability, ensure that the system has no single points of failure by scaling out the Oracle Analytics Server, Presentation Services, and the JavaHost so that you have at least two of each component types, distributed across at least two computers.	See <i>Scaling and Deploying for High Availability and Performance</i> in <i>Administering Oracle Analytics Server</i> .
Managing performance tuning and query caching	For database queries to return quickly, the underlying databases must be configured, tuned, and indexed correctly. Oracle Analytics Server can store query results for reuse by subsequent queries. Query caching can dramatically improve the performance of the system for users, particularly for commonly used dashboards. However, it does not improve performance for most ad-hoc analysis.	See <i>Managing Performance Tuning and Query Caching</i> in <i>Administering Oracle Analytics Server</i> .

Configuring Oracle Analytics Server with Fusion Middleware Products in the Same Installation

If you have installed Oracle HTTP Server and Oracle Data Integrator or Oracle Access Management with Oracle Analytics Server, follow this procedure to configure Oracle Analytics Server for users to explore analytics data visually.

Complete the following settings:

1. Change to the following directory:
 - (Linux) `/u01/user_projects/domains/ohs/config/fmwconfig/components/OHS/ohs1`
 - (Windows) `$DOMAIN_HOME\config\fmwconfig\components\OHS\ohs1`
2. Locate the following file and open it for editing:
`mod_wl_ohs.conf`
3. Go to the `IfModule weblogic_module` section and verify whether the following lines are present:
`WLProxySSLPassThrough On`
`WLProxySSL On`

If these lines are not present, append them to the `IfModule weblogic_module` section. Save and close the file.
4. Restart the Oracle HTTP Server instance.
5. Sign in to the WebLogic Console.
6. Click **Lock & Edit** in the **Change Center** menu.
7. In the Domain Structure pane, select your domain name.
8. Click the **Configuration** tab and then the **Web Applications** sub-tab.
9. Select the **WebLogic Plugin Enabled** option and then click **Save**.
10. Click **Activate Changes** in the **Change Center** menu.
11. Restart the Administration Server and any other managed server in the domain.

6

Uninstalling or Reinstalling Oracle Analytics Server

Follow the instructions in this section to uninstall or reinstall Oracle Analytics Server.

Oracle recommends that you always use the instructions in this section 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 section ensures that the software is properly removed.

- [Removing Your Database Schemas](#)
Before you remove the Oracle home, Oracle recommends that you run the Repository Creation Utility (RCU) to remove database schemas associated with this domain.
- [Uninstalling the Software](#)
Follow the instructions in this section to start the Uninstall Wizard and remove the software.
- [Removing the Oracle Home Directory Manually](#)
After you uninstall the software, you must manually remove your Oracle home directory and any existing subdirectories that the Uninstall Wizard did not remove.
- [Removing the Program Shortcuts on Windows Operating Systems](#)
On Windows operating systems, you must also manually remove the program shortcuts; the Deinstallation Wizard does not remove them for you.
- [Removing the Domain and Application Data](#)
After you uninstall the software, you must remove the domain and application data.
- [Reinstalling the Software](#)
You can reinstall your software into the same Oracle home as a previous installation only if you uninstalled the software by following the instructions in this section, including manually removing the Oracle home directory.

Removing Your Database Schemas

Before you remove the Oracle home, Oracle recommends that you run the Repository Creation Utility (RCU) to remove database schemas associated with this domain.

Each domain has its own set of schemas, uniquely identified by a custom prefix. For more information about custom prefixes, see *About Custom Prefixes* in *Creating Schemas with the Repository Creation Utility*. This set of schemas cannot be shared with any other domain. For more information about creating schemas with the RCU, see *Planning Your Schema Creation* in *Creating Schemas with the Repository Creation Utility*.

If there are multiple sets of schemas on your database, be sure to identify the schema prefix associated with the domain that you are removing.

For schema removal steps, see *Dropping Schemas* in *Creating Schemas with the Repository Creation Utility*.

Uninstalling the Software

Follow the instructions in this section to start the Uninstall Wizard and remove the software.

If you want to uninstall the product in a silent (command-line) mode, see [Running the Oracle Universal Installer for Silent Uninstallation in *Installing Software with the Oracle Universal Installer*](#).

- [Starting the Uninstall Wizard](#)
- [Selecting the Product to Uninstall](#)
- [Navigating the Uninstall Wizard Screens](#)

Starting the Uninstall Wizard

To start the Uninstall Wizard:

1. Change to the following directory:
(Linux) `ORACLE_HOME/oui/bin`
(Windows) `ORACLE_HOME\oui\bin`
2. Enter the following command:
(Linux) `./deinstall.sh`
(Windows) `deinstall.cmd`

Selecting the Product to Uninstall

Because multiple products exist in the Oracle home, ensure that you are uninstalling the correct product.

After you run the Uninstall Wizard, the Distribution to Uninstall screen opens. From the dropdown menu, select Oracle Analytics Server and click **Uninstall**. The uninstallation program shows the screens listed in [Navigating the Uninstall Wizard Screens](#).



Note:

You can uninstall Oracle Fusion Middleware Infrastructure after you uninstall Oracle Analytics Server software by running the Uninstall Wizard again. Before doing so, make sure that there are no other products using the Infrastructure; those products will no longer function once the Infrastructure is removed. You will not encounter the Distribution to Uninstall screen if no other software depends on Oracle Fusion Middleware Infrastructure. See [Uninstalling Oracle Fusion Middleware Infrastructure in *Installing and Configuring the Oracle Fusion Middleware Infrastructure*](#).

Navigating the Uninstall Wizard Screens

The Uninstall Wizard shows a series of screens to confirm the removal of the software.

Table 6-1 describes the screens in the Uninstall Wizard. For information, click **Help** on the screen.

Table 6-1 Uninstall Wizard Screens and Descriptions

Screen	Description
Welcome	Introduces you to the product Uninstall Wizard.
Uninstall Summary	Shows the Oracle home directory and its contents that are uninstalled. 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 to uninstall the product in silent (command-line) mode. See Running the Oracle Universal Installer for Silent Uninstall in <i>Installing Software with the Oracle Universal Installer</i>. Click Deinstall, to begin removing the software.
Uninstall Progress	Shows the uninstallation progress.
Uninstall Complete	Appears when the uninstallation is complete. Review the information on this screen, then click Finish to close the Uninstall Wizard.

Removing the Oracle Home Directory Manually

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

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

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

On Windows operating systems, 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 on 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; the Deinstallation Wizard does not remove them for you.

To remove the program shortcuts on Windows:

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

Removing the Domain and Application Data

After you uninstall the software, you must remove the domain and application data.

To remove the domain and application data:

1. Manually remove your Domain home directory. For example:

On Linux operating systems, if your Domain home directory is `/home/Oracle/config/domains/bi_domain`, enter the following command:

```
cd /home/Oracle/config/domains
rm -rf bi_domain
```

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

2. Manually remove your Application home directory. For example:

On Linux operating systems, if your Application home directory is `/home/Oracle/config/applications/bi_domain`, enter the following commands:

```
cd /home/Oracle/config/applications
rm -rf bi_domain
```

On Windows operating systems, if your Application home directory is `C:\Oracle\Config\applications\bi_domain`, use a file manager window and navigate to the `C:\Oracle\Config\applications` directory. Right-click on the `bi_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 `bi_domain`, find the following line and remove it:

```
<domain location="/home/Oracle/config/domains/bi_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 uninstalled the software by following the instructions in this section, 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.
- 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 when you uninstall a product, so if you try to reinstall into the same Oracle home, the installer does not allow it. Your options are:

- Uninstall your software from the Oracle home (as this section describes) and then remove the Oracle home directory. After you uninstall the software and remove the Oracle home directory, you can reinstall and reuse the same Oracle home location. Any domain or application data that was in the Oracle home must be re-created.
- Select a different Oracle home directory.

A

Updating the JDK After Installing and Configuring an Oracle Analytics Server

Consider that you have a JDK version `jdk1.8.0_xxx` installed on your machine. When you install and configure an Oracle Fusion Middleware product, the utilities, such as Configuration Wizard (`config.sh|exe`), OPatch, or RCU point to a default JDK, for example, `jdk1.8.0_xxx`. After some time, Oracle releases a newer version of the JDK that carries security enhancements and bug fixes. You can upgrade the existing JDK to a newer version and have the complete product stack point to the newer version of the JDK.

You can maintain multiple versions of JDK and switch to the required version on need basis.

- [About Updating the JDK Location After Installing Oracle Analytics Server](#)
The binaries and other metadata and utility scripts in the Oracle home and Domain home, such as RCU or Configuration Wizard, use a JDK version that was used while installing the software and continue to refer to the same version of the JDK. The JDK path is stored in a variable called `JAVA_HOME` which is centrally located in `.globalEnv.properties` file inside the `ORACLE_HOME/oui` directory.

About Updating the JDK Location After Installing Oracle Analytics Server

The binaries and other metadata and utility scripts in the Oracle home and Domain home, such as RCU or Configuration Wizard, use a JDK version that was used while installing the software and continue to refer to the same version of the JDK. The JDK path is stored in a variable called `JAVA_HOME` which is centrally located in `.globalEnv.properties` file inside the `ORACLE_HOME/oui` directory.

The utility scripts such as `config.sh|cmd`, `launch.sh`, or `opatch` reside in the `ORACLE_HOME`, and when you invoke them, they refer to the `JAVA_HOME` variable located in `.globalEnv.properties` file. To point these scripts and utilities to the newer version of JDK, you must update the value of the `JAVA_HOME` variable in the `.globalEnv.properties` file by following the directions listed in [Updating the JDK Location in an Existing Oracle Home](#).

To make the scripts and files in your Domain home directory point to the newer version of the JDK, you can follow one of the following approaches:

- Specify the path to the newer JDK on the Domain Mode and JDK screen while running the Configuration Wizard.

For example, consider that you installed Oracle Fusion Middleware Infrastructure with the JDK version 8u191. So while configuring the WebLogic domain with the Configuration Assistant, you can select the path to the newer JDK on the Domain Mode and JDK screen of the Configuration Wizard. Example: `/scratch/jdk/jdk1.8.0_xxx`.
- Manually locate the files that have references to the JDK using `grep` (UNIX) or `findstr` (Windows) commands and update each reference. See [Updating the JDK Location in an Existing Oracle Home](#).



Note:

If you install the newer version of the JDK in the same location as the existing JDK by overwriting the files, then you don't need to take any action. The preferred method is to install into a generic JDK path location instead of a specific version location. For example, use location `/usr/java/latest` instead of `/scratch/jdk/jdk1.8.0_xxx`.



Important:

The `ORACLE_HOME/oui/.globalEnv.properties` file is centrally used as a pointer to the JDK directory.

To avoid OPatch getting into self-patching mode and inventory corruption issues:

- Make sure you have a valid JDK directory outside of the `ORACLE_HOME` of the Oracle Analytics Server technology stack.
- Make sure that the `PATH` isn't using `ORACLE_HOME/oracle_common/jdk` because `ORACLE_HOME/oracle_common/jdk` is a JRE location for internal tools.

- [Updating the JDK Location in an Existing Oracle Home](#)

The `getProperty.sh|cmd` script displays the value of a variable, such as `JAVA_HOME`, from the `.globalEnv.properties` file. The `setProperty.sh|cmd` script is used to set the value of variables, such as `OLD_JAVA_HOME` or `JAVA_HOME` that contain the locations of old and new JDKs in the `.globalEnv.properties` file.

- [Updating the JDK Location in an Existing Domain Home](#)

You must search the references to the current JDK, for example `1.8.0_191` manually, and replace those instances with the location of the new JDK.

- [Updating the JRE](#)

Update the internal JRE used by the existing utilities and JavaHost to the latest JRE version.

Updating the JDK Location in an Existing Oracle Home

The `getProperty.sh|cmd` script displays the value of a variable, such as `JAVA_HOME`, from the `.globalEnv.properties` file. The `setProperty.sh|cmd` script is used to set the value of variables, such as `OLD_JAVA_HOME` or `JAVA_HOME` that contain the locations of old and new JDKs in the `.globalEnv.properties` file.

The `getProperty.sh|cmd` and `setProperty.sh|cmd` scripts are located in the following location:

(Linux) `ORACLE_HOME/oui/bin`

(Windows) `ORACLE_HOME\oui\bin`

Where, `ORACLE_HOME` is the directory that contains the products using the current version of the JDK, such as `1.8.0_xxx`.

To update the JDK location in the `.globalEnv.properties` file:

1. Use the `getProperty.sh|cmd` script to display the path of the current JDK from the `JAVA_HOME` variable. For example:

(Linux) `ORACLE_HOME/oui/bin/getProperty.sh JAVA_HOME`

(Windows) `ORACLE_HOME\oui\bin\getProperty.cmd JAVA_HOME`

`echo JAVA_HOME`

Where `JAVA_HOME` is the variable in the `.globalEnv.properties` file that contains the location of the JDK.

2. Back up the path of the current JDK to another variable such as `OLD_JAVA_HOME` in the `.globalEnv.properties` file by entering the following commands:

(Linux) `ORACLE_HOME/oui/bin/setProperty.sh -name OLD_JAVA_HOME -value specify_the_path_of_current_JDK`

(Windows) `ORACLE_HOME\oui\bin\setProperty.cmd -name OLD_JAVA_HOME -value specify_the_path_of_current_JDK`

This command creates a new variable called `OLD_JAVA_HOME` in the `.globalEnv.properties` file, with a value that you have specified.

3. Set the new location of the JDK in the `JAVA_HOME` variable of the `.globalEnv.properties` file, by entering the following commands:

(Linux) `ORACLE_HOME/oui/bin/setProperty.sh -name JAVA_HOME -value specify_the_location_of_new_JDK`

(Windows) `ORACLE_HOME\oui\bin\setProperty.cmd -name JAVA_HOME -value specify_the_location_of_new_JDK`

After you run this command, the `JAVA_HOME` variable in the `.globalEnv.properties` file now contains the path to the new JDK, such as `jdk1.8.0_341`.

Updating the JDK Location in an Existing Domain Home

You must search the references to the current JDK, for example `1.8.0_191` manually, and replace those instances with the location of the new JDK.

You can use the `grep` or `findstr` commands to search for the `jdk`-related references.

You'll likely be required to update the location of JDK in the following three files:

(Linux) `DOMAIN_HOME/bin/setNMJavaHome.sh`

(Windows) `DOMAIN_HOME\bin\setNMJavaHome.cmd`

(Linux) `DOMAIN_HOME/nodemanager/nodemanager.properties`

(Windows) `DOMAIN_HOME\nodemanager\nodemanager.properties`

(Linux) `DOMAIN_HOME/bin/setDomainEnv.sh`

(Windows) `DOMAIN_HOME\bin\setDomainEnv.cmd`

 Note:

- If you change the value of `JAVA_HOME` for the Node Manager in the `setNMJavaHome.sh|cmd` file, then the components that you started using the Node Manager automatically use the new `JAVA_HOME` that you specify in the `setNMJavaHome.sh|cmd` file.
- Observe caution while updating the `setDomainEnv.sh|cmd` file. Any incorrect updates might reverse the manual operations (such as scale-out, upgrade, or extending the domain) that were performed on the domain.

Updating the JRE

Update the internal JRE used by the existing utilities and JavaHost to the latest JRE version.

In Oracle Analytics Server, JRE is installed in `ORACLE_HOME/oracle_common/jdk`.

1. Stop all processes (`stop.sh`).

2. Rename the existing JRE directory to `jre.old`.

For example: `mv ORACLE_HOME/oracle_common/jdk/jre ORACLE_HOME/oracle_common/jdk/jre.old`

3. Copy an updated `jre` directory from an updated JDK.

The best practice is to use the same version that you used to update the JDK. See [Updating the JDK After Installing and Configuring an Oracle Analytics Server](#).

For example: `cp -r /usr/java/latest/jre ORACLE_HOME/oracle_common/jdk`

4. Start all processes (`start.sh`).

5. Confirm that the internal utilities such as `opatch` work (for example, `opatch version`).

6. Remove the old JRE directory `ORACLE_HOME/oracle_common/jdk/jre.old`.