Oracle® Fusion Middleware

Quick Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite 11*g* Release 1 (11.1.1)

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This guide describes how to install Oracle SOA Suite.

The following topics are covered:

- Section 1, "Installation Overview"
- Section 2, "Planning Your Installation"
- Section 3, "Installing Oracle SOA Suite"
- Section 4, "Patching Your Oracle SOA Suite Software"
- Section 5, "Configuring Oracle SOA Suite and Creating a WebLogic Domain"
- Section 6, "Extending the WebLogic Domain and Configuring Oracle BAM"
- Section 7, "Post-Installation Tasks"
- Section 8, "Installing Oracle SOA Suite Design-Time Components"
- Section 9, "Deinstalling Oracle SOA Suite"
- Section 10, "Additional Resources"
- Section 11, "Documentation Accessibility"

1 Installation Overview

This guide contains instructions for installing and configuring a Oracle SOA Suite on a single host using all the default values. The following products are installed:

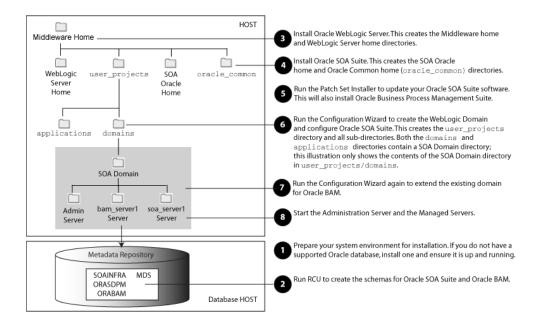
- Oracle SOA Suite (with Oracle Business Process Execution Language (BPEL)
 Process Manager (PM), Mediator, Rules, B2B, and Human Workflow)
- Oracle Business Process Management Suite
- Oracle Business Activity Monitoring (BAM)

Figure 1 illustrates the topology that will be created on your system at the conclusion of this procedure. It also describes the order in which you need to perform certain tasks:



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Figure 1 Installation Topology and Order of Tasks



2 Planning Your Installation

This section contains important information you should read prior to installing Oracle SOA Suite. The following topics are covered:

- Section 2.1, "Verifying System Requirements and Certification"
- Section 2.2, "Installing and Configuring a Database"
- Section 2.3, "Preparing for Internationalization and Localization"
- Section 2.4, "Creating Schemas for Oracle SOA Suite and Oracle BAM"
- Section 2.5, "Installing Oracle WebLogic Server and Creating the Middleware Home"
- Section 2.6, "Installing and Configure Java Access Bridge (Windows Only)"
- Section 2.7, "Enabling Unicode Support"
- Section 2.8, "Installing on DHCP Hosts"
- Section 2.9, "Installing on a Non-Networked Computer"
- Section 2.10, "Installing on a Multihomed Computer"

2.1 Verifying System Requirements and Certification

For system requirement and certification information, refer to the following documents, available on Oracle Technology Network (OTN):

Oracle Fusion Middleware System Requirements and Specifications:

http://www.oracle.com/technology/software/products/ias/files/fusion
_requirements.htm

This document contains information related to hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches.

Oracle Fusion Middleware Certification

http://www.oracle.com/technology/software/products/ias/files/fusion
_certification.html

This document contains information related to supported installation types, platforms, operating systems, databases, JDKs, and third-party products.

2.2 Installing and Configuring a Database

Installation of Oracle SOA Suite requires the availability of a database. Because the scenario described in the document requires Oracle BAM, only a certified Oracle database will be supported. The schema for Oracle BAM must be created in an Oracle database.

To find a certified database, visit the Oracle Fusion Middleware Certification document at following URL:

http://www.oracle.com/technology/software/products/ias/files/fusion_ certification.html

This Oracle database must be up and running, and does not have to be on the same system where you are installing the products. The database must also be compatible with Repository Creation Utility (RCU), which is used to create the schemas necessary for Oracle SOA Suite and Oracle BAM.

Note: RCU is available only on Linux and Windows platforms. Either the Linux RCU or Windows RCU may be used to create schemas on any supported database platform.

After you have installed a database, make sure that it is configured correctly by referring to the "Repository Creation Utility Requirements" section in the System Requirements and Specification document:

http://www.oracle.com/technology/software/products/ias/files/fusion_ requirements.htm

2.3 Preparing for Internationalization and Localization

For internationalization and localization, the following criteria must be met for Oracle BAM:

- Your Oracle database must use the UTF-8 character set.
- After installation, your browser's location must also be set to the appropriate locale

For more information about supported browsers and supported languages for Oracle BAM, refer to the Oracle Fusion Middleware Certification document:

http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html

2.4 Creating Schemas for Oracle SOA Suite and Oracle BAM

Oracle SOA Suite and Oracle BAM require that certain schemas exist in your Oracle database prior to installation. You must run Repository Creation Utility (RCU) to create the schemas in the database.

First, you must obtain the latest version of RCU. To do so, go to the Oracle Fusion Middleware 11gR1 Software Download page on Oracle Technology Network:

 $\verb|http://www.oracle.com/technology/software/products/middleware/htdocs/11 1110_fmw.html|$

Look for Repository Creation Utility in the "Required Additional Software" table. After downloading the .zip file, extract the contents to a directory of your choice; this directory will be referred to as the *RCU_HOME* directory.

Note: On Windows operating systems, make sure that you do not unzip the RCU . zip file to a directory name containing spaces.

Follow the instructions below to start RCU and create the schemas:

1. Start RCU from the RCU_HOME/bin (on Linux operating systems) or RCU_HOME\bin (on Windows operating systems) directory:

On Linux operating systems:

./rcu

On Windows operating systems:

rcu.bat

2. Welcome Screen

Click Next.

3. Create Repository Screen

Select Create.

Click Next.

4. Database Connection Details Screen

Select "Oracle Database" in the Database Type field, then provide the following credentials to connect:

■ Host Name: Specify the name of the machine on which your database resides in the format *host.domain.*com.

For Oracle RAC databases, specify the Virtual IP name or one of the node names as the host name. For example:

```
ora-node1-vip.mycompany.com
```

 Port: Specify the database listener port number. The default port number for Oracle databases is 1521.

If you do not know the listen port number for your database, you can check the portlist.ini file, which is located in the <code>ORACLE_HOME/install</code> (on UNIX operating systems) or <code>ORACLE_HOME/install</code> (on Windows operating systems) directory on the machine where the database is located.

Database Name: Specify the service name for the database. Typically, the service name is the same as the global database name.

If you are unsure what the service name for your database is, you can obtain it from the SERVICE_NAMES parameter in the database's initialization parameter file. 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.

For Oracle RAC databases, specify the service name of one of the nodes in this field. For example: sales.mydomain.com.

- Username: Specify the name of a user with DBA or SYSDBA privileges. The default user name with SYSDBA privileges is SYS.
- Password: Specify the password for your database user.
- Role: Select the database user's role from the drop-down list. The SYS user requires the SYSDBA role.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed on the Database Connection Details Screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

5. Select Components Screen

Near the top of the screen, select **Create a New Prefix**. If you are the only user of the database instance, you may use the default prefix DEV. If you are sharing the database instance with other Oracle Fusion Middleware users, refer to "Creating Custom Schemas and Tablespaces" in *Oracle Fusion Middleware Repository Creation Utility User's Guide* for more information about creating and using custom prefixes.

In the table that lists the available components, select **SOA** and **BPM Infrastructure**. All of the product schemas within this component, including all the dependent schemas, are automatically selected.

Table 1 lists the required schemas and dependencies for Oracle SOA Suite on Oracle databases:

Table 1 Required Schemas for Oracle SOA Suite on Oracle Databases

Component	Schema Owner	Dependencies
SOA Infrastructure	prefix_SOAINFRA	prefix_MDS (Metadata Services)
		<pre>prefix_ORASDPM (User Messaging)</pre>
Business Activity Monitoring	prefix_ORABAM	prefix_MDS (Metadata Services)
		<pre>prefix_ORASDPM (User Messaging)</pre>
User Messaging Service	prefix_ORASDPM	prefix_MDS (Metadata Services)

Note: You must remember or make a note of these schema names and the prefix value from this screen; you will need them later when you are configuring your products. You will need to provide the schema name in the format <code>prefix_schemaname</code>.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed near the bottom of the screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

Schema Passwords Screen

Near the top of the screen, select **Use same password for all schemas**.

In the Password field, enter your password. Enter your password again in the Confirm Password field.

Note: You must remember or make a note of the schema passwords from this screen; you will need them later when you are configuring your products.

Click Next.

7. Map Tablespaces Screen

Click **Next**. A "Creating Tablespaces" screen will appear. If there are errors, some details about the error will be displayed on the Map Tablespaces Screen. Fix the error messages and click **Next** again.

After the tablespaces are created with no errors, click **OK** to dismiss the screen.

8. Summary Screen

Click **Create**. A "CREATE" screen will appear. If there are errors, some details about the error will be displayed on the Summary Screen. Fix the error messages and click **Next** again.

After the schemas are created with no errors, click **OK** to dismiss the screen.

9. Completion Summary Screen

Click Close.

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

2.5 Installing Oracle WebLogic Server and Creating the Middleware Home

Oracle SOA Suite requires an Oracle WebLogic Server on your system. If you do not already have one, follow the instructions in this section to install Oracle WebLogic Server.

1. Download the latest version of Oracle WebLogic Server from the following URL:

http://www.oracle.com/technology/software/products/ias/htdocs/wls_ main.html

You are looking for the following executable files:

- wls_1033_linux32.bin (for 32-bit Linux operating systems)
- wls_1033_solaris32.exe (for 32-bit Solaris operating systems)
- wls_1033_win32.exe (for 32-bit Windows operating systems)
- wls_1033_generic.jar (for all 64-bit operating systems)

The 32-bit executable files are bundled with the appropriate JDK version. If you use the 64-bit installer, you will need to invoke the installer with a supported JDK for your platform. This JDK must be installed on your system before you install Oracle WebLogic Server. Refer to the Oracle Fusion Middleware certification document for a list of supported JDKs for your platform:

http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html

- **2.** Run the installer you just downloaded. Some notes for running the installer:
 - Before running the installer, set the DISPLAY environment variable on your system.
 - Replace JAVA_HOME with the installation location of the supported JDK you installed for your platform.
 - If you are installing a 64-bit Oracle WebLogic Server on a 64-bit platform, use the -d64 flag when using 32/64-bit hybrid JDKs (such as the HP JDK for HP-UX and SUN JDK for Solaris SPARC).

Execute $JAVA_HOME/bin/java$ -version (or $JAVA_HOME/bin/java$ -d64 -version on 32/64-bit hybrid JDKs) to ensure that your JAVA_HOME refers to a 64-bit JDK.

To run the installer on a 32-bit Linux operating system:

```
./wls_1033_linux32.bin
```

To run the installer on 32-bit Windows operating systems:

```
wls_1033_win32.exe
```

To run the installer on 64-bit UNIX operating systems:

```
JAVA_HOME/bin/java -jar wls_1033_generic.jar
```

JAVA_HOME/bin/java -d64 -jar wls_1033_generic.jar

To run the installer on 64-bit Windows operating systems:

```
JAVA_HOME\bin\java -jar wls_1033_generic.jar
```

3. Welcome Screen

or

Click Next.

4. Choose Middleware Home Directory Screen

Select Create a new Middleware Home.

Specify the desired location of your new Middleware home directory. If this directory already exists on your system, it must be an empty directory. If this directory does not already exist, then it will be created for you.

Note: You must remember or make a note this location; you will be asked for it later when you are installing Oracle SOA Suite.

For more information about the Middleware home directory, refer to "Middleware Home and WebLogic Home Directories" in *Oracle Fusion Middleware Installation Planning Guide*.

Click Next.

5. Register for Security Updates Screen

Select whether or not you want to receive the latest product and security updates. If you choose not to receive anything, you will be asked to verify your selection before continuing.

Click Next.

6. Choose Install Type Screen

Select Typical.

Click Next.

7. Choose Product Installation Directories Screen

Specify the desired location for your WebLogic Server home directory.

For more information about the WebLogic home directory, refer to "Middleware Home and WebLogic Home Directories" in *Oracle Fusion Middleware Installation Planning Guide*.

Click Next.

8. Choose Shortcut Location (Windows only)

If you are installing on a Windows system, you will be asked to specify a location where you would like Windows to create a shortcut to Oracle products.

Click Next.

9. Installation Summary Screen

Click Next.

10. Installation Progress Screen

No action is required on this screen; the installer will automatically advance to the next screen when installation is complete.

11. Installation Complete Screen

De-select **Run Quickstart**.

Click Done.

For more information about installing WebLogic Server, refer to *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

2.6 Installing and Configure Java Access Bridge (Windows Only)

If you are installing on a Windows machine, you have the option of installing and configuring Java Access Bridge for Section 508 Accessibility. This is only necessary if you require Section 508 Accessibility features:

1. Download Java Access Bridge from the following URL:

http://java.sun.com/javase/technologies/accessibility/accessbridge/

2. Install Java Access Bridge.

- **3.** Copy the access-bridge.jar and jaccess-1_4.jar from your installation location to the jre\lib\ext directory.
- 4. Copy the WindowsAccessBridge.dll, JavaAccessBridge.dll, and JAWTAccessBridge.dll files from your installation location to the jre\bin directory.
- **5.** Copy the accessibility.properties file to the jre\lib directory.

For more information about Java Access Bridge, refer to "Install and Configure Java Access Bridge (Windows Only)" in *Oracle Fusion Middleware Administrator's Guide*.

2.7 Enabling Unicode Support

Your operating system configuration can influence the behavior of characters supported by Oracle SOA Suite.

On a UNIX operating system, Oracle highly recommends that you enable Unicode support by setting the LANG and LC_ALL environment variables to a locale with the UTF-8 character set. This enables the operating system to process any character in Unicode. SOA technologies are based on Unicode.

If the operating system is configured to use a non-UTF-8 encoding, SOA components may function in an unexpected way. For example, a non-ASCII file name can make the file inaccessible and cause an error. Oracle does not support problems caused by operating system constraints.

2.8 Installing on DHCP Hosts

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

2.8.1 For Linux x86 Platforms

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

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

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

/bin/ping hostname.domainname

2.8.2 For Windows x86 Platforms

On Windows systems, install a loopback adapter on the DHCP server (see Section 2.8.3, "Installing a Loopback Adapter (Windows Only)"). This assigns a local IP address to your computer.

After installing the adapter, add a line to the

%SYSTEMROOT%\system32\drivers\etc\hosts file with the following format, immediately after the localhost line:

```
IP_address hostname.domainname hostname
```

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

2.8.3 Installing a Loopback Adapter (Windows Only)

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

- 1. Open the Windows Control Panel.
 - Windows 2003: Select Start > Control Panel > Add Hardware.
 - Windows XP: Select **Start > Control Panel**, then double-click **Add Hardware**.
- 2. In the "Welcome" window, click Next.
- 3. In the "Is the hardware connected?" window, select **Yes**, **I have already connected the hardware**, then click **Next**.
- **4.** In the "The following hardware is already installed on your computer" window, in the list of installed hardware, select **Add a new hardware device**, then click **Next**.
- In the "The wizard can help you install other hardware" window, select Install the hardware that I manually select from a list, then click Next.
- **6.** In the "From the list of hardware types, select the type of hardware you are installing" window, select **Network adapters**, then click **Next**.
- 7. In the "Select Network Adapter" window, make the following selections:
 - Manufacturer: Microsoft
 - Network Adapter: Microsoft Loopback Adapter
- Click Next.
- **9.** In the "The wizard is ready to install your hardware" window, click **Next**.
- 10. In the "Completing the Add Hardware Wizard" window, click Finish.
- **11.** If you are using Windows 2003, restart your computer.
- **12.** Right-click **My Network Places** on the desktop and choose **Properties**. This displays the Network Connections Control Panel.
- **13.** Right-click the connection that was just created. This is usually named "Local Area Connection 2". Choose **Properties**.
- **14.** On the "General" tab, select **Internet Protocol (TCP/IP)**, then click **Properties**.
- **15.** In the "Properties" dialog box, click **Use the following IP address** and do the following:
 - **a.** IP Address: Enter a non-routable IP for the loopback adapter. Oracle recommends the following non-routable addresses:

```
192.168.x.x (x is any value between 1 and 255) 10.10.10.10
```

- **b.** Subnet mask: Enter 255.255.25.0.
- **c.** Record the values you entered, which you will need later in this procedure.
- **d.** Leave all other fields empty.
- Click OK.
- **16.** In the "Local Area Connection 2 Properties" dialog, click **OK**.
- 17. Close Network Connections.

18. Restart the computer.

2.8.4 Removing a Loopback Adapter (Windows Only)

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

1. Start the System Control panel.

Windows 2003: Select **Start > Control Panel > System**.

Windows XP: Select **Start > Control Panel**, then double-click **System**.

- 2. In the "Hardware" tab, click **Device Manager**.
- In the "Device Manager" window, expand Network adapters. You should see Microsoft Loopback Adapter.
- 4. Right-click Microsoft Loopback Adapter and select Uninstall.
- Click OK.

2.9 Installing on a Non-Networked Computer

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

In addition, you must follow the instructions in Section 2.8, "Installing on DHCP Hosts" to install a loopback adapter and modify the hosts file on your system.

2.10 Installing on a Multihomed Computer

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

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

```
127.0.0.1 localhost.localdomain localhost
10.222.333.444 myhost1.mycompany.com myhost1
20.222.333.444 devhost2.mycompany.com devhost2
```

myhost1.mycompany.com would be picked for configuration.

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

3 Installing Oracle SOA Suite

When you run the installer, the Oracle SOA Suite run-time components (Oracle SOA Suite and Oracle BAM) are both installed onto your system by default. You can choose to configure one or both of these products by running the Configuration Wizard after you complete the installation.

Note: Make sure you are not logged in to the WebLogic Server Administration Console before you install Oracle SOA Suite.

See Section 8, "Installing Oracle SOA Suite Design-Time Components" for information about installing Oracle JDeveloper and installing the Oracle SOA Suite extensions in Oracle JDeveloper. These extensions provide the functionality and online documentation for designing SOA composite applications.

3.1 Starting the Installer

To start the installer on UNIX operating systems:

./runInstaller -jreLoc JRE_LOCATION

Note: Starting the installer as root user is not supported.

To start the installer on Windows operating systems:

setup.exe -jreLoc JRE_LOCATION

The installer requires the full path to the location of a Java Runtime Environment (JRE) on your system. When you installed Oracle WebLogic Server (Section 2.5, "Installing Oracle WebLogic Server and Creating the Middleware Home"), a JRE was installed on your system. You can use this location (the location of the <code>jre</code> directory) to start the installer. The default location for the JRE is <code>MW_HOME/jdk160_18</code> (on UNIX operating systems) or <code>MW_HOME/jdk160_18</code> (on Windows operating systems), where <code>MW_HOME</code> is the Middleware home directory.

On 64-bit platforms, the JRE location is the JAVA_HOME you used to install Oracle WebLogic Server. Refer to Section 2.5, "Installing Oracle WebLogic Server and Creating the Middleware Home" for more information.

3.2 Installation Screens

To install Oracle SOA Suite and Oracle BAM:

1. Welcome Screen

Click Next.

2. Prerequisite Checks Screen

After the prerequisite checking is complete with no errors, click **Next**.

3. Specify Installation Location Screen

Oracle Middleware Home: Specify the location where WebLogic Server was installed.

Oracle Home Directory: Specify the location where you want to install the software:

• If you specify a directory that already exists, it must be an empty directory and it must be inside the Oracle Middleware home.

 If you specify a new directory, it will be created inside the Oracle Middleware home.

This will be your Oracle home directory. Runtime components cannot write to this directory.

Note: For the remainder of this document, this directory will be referred to as your SOA Oracle home to avoid any confusion with the Oracle home directories of other Oracle Fusion Middleware products.

For more information about the Middleware home and Oracle home directories, refer to "Oracle Fusion Middleware Directory Structure" in *Oracle Fusion Middleware Installation Planning Guide*.

4. Installation Summary Screen

Click Install.

Installation Progress ScreenClick Next when the installation is complete.

6. Installation Complete Screen

Click Finish.

4 Patching Your Oracle SOA Suite Software

The next step is to run the Patch Set Installer for Oracle SOA Suite to patch your software to the latest version. The Patch Set Installer for Oracle SOA Suite also installs Oracle Business Process Management Suite.

To patch your existing installation:

- 1. Insert the CD-ROM.
- **2.** Start the Patch Set installer.

Note: Starting the installer as root user is not supported.

On UNIX operating systems:

./runInstaller

On Windows operating systems:

setup.exe

The installer requires the full path to the location of a Java Runtime Environment (JRE) on your system. When you installed Oracle WebLogic Server (Section 2.5, "Installing Oracle WebLogic Server and Creating the Middleware Home"), a JRE was installed on your system. You can use this location (the location of the <code>jre</code> directory) to start the installer. The default location for the JRE is <code>MW_HOME/jdk160_18</code> (on UNIX operating systems) or <code>MW_HOME/jdk160_18</code> (on Windows operating systems), where <code>MW_HOME</code> is the Middleware home directory.

On 64-bit platforms, the JRE location is the JAVA_HOME you used to install Oracle WebLogic Server. Refer to Section 2.5, "Installing Oracle WebLogic Server and Creating the Middleware Home" for more information.

Welcome Screen

Click **Next**.

- 4. Specify Installation Location Screen
 - Oracle Middleware Home: Specify your existing Middleware home directory that contains your SOA_ORACLE_HOME.
 - **Oracle Home Directory:** Specify your existing *SOA_ORACLE_HOME* directory.

Click Next.

5. Installation Summary Screen

Click Install.

6. Installation Progress Screen

After the installation is 100% complete, click **Next**.

7. Installation Complete Screen

Click Finish.

5 Configuring Oracle SOA Suite and Creating a WebLogic Domain

After you have successfully installed your software, you can configure Oracle SOA Suite components using the Oracle Fusion Middleware Configuration Wizard. This Configuration Wizard is located in the <code>SOA_ORACLE_HOME/common/bin</code> (on UNIX operating systems) or <code>SOA_ORACLE_HOME/common/bin</code> (on Windows operating systems) directory.

1. Start the Configuration Wizard.

On UNIX operating systems:

./config.sh

On Windows operating systems:

config.cmd

If you are using a 32-bit operating system, Oracle JRockit SDK is installed as part of the Oracle WebLogic installation (see Section 2.5, "Installing Oracle WebLogic Server and Creating the Middleware Home"). This is the JDK that the Configuration Wizard will use by default. If you want to invoke the Configuration Wizard with the Sun JDK, do the following prior to starting the Configuration Wizard:

- **a.** Set the JAVA_HOME environment variable to the location of the Sun JDK. For example, you can set it to the Sun JDK that was installed with Oracle WebLogic Server in the MW_HOME/jdk160_18 (on UNIX operating systems) or MW_HOME\jdk160_18 (on Windows operating systems) directory.
- **b.** Set the JAVA_VENDOR environment variable to "Sun."
- Welcome Screen

Select Create a New WebLogic Domain.

Click Next.

3. Select Domain Source Screen

Select Generate a domain configured automatically to support the following products, then select the products that should be configured in this domain. For Oracle SOA Suite installation, select:

- Oracle SOA Suite 11.1.1.0 [SOA_ORACLE_HOME]
- Oracle Enterprise Manager 11.1.1.0 [oracle_common]
- Oracle WSM Policy Manager 11.1.1.0 [oracle_common]
- Oracle JRF WebServices Asynchronous services 11.1.1.0 [oracle_common]
- Oracle JRF 11.1.1.0 [oracle_common]
- WebLogic Advanced Web Services Extension 10.3.2.0 [WebLogic_Home]

If you have previously installed Oracle Fusion Middleware products on your system, you may see duplicate products on this screen; select only those products associated with your SOA_ORACLE_HOME.

Click Next.

4. Specify Domain Name and Location Screen

Specify the following domain information:

- **Domain name:** The name of the domain you want to create. The default name is base_domain.
- **Domain location:** The absolute path to the directory where this domain should be created. The default location is MW_HOME/user_projects/domains (on UNIX operating systems) or MW_HOME\user_projects\domains (on Windows operating systems).
- **Application location:** The absolute path to the directory where applications created in this domain should reside. The default location is MW_HOME/user_projects/applications (on UNIX operating systems) or MW_HOME\user_projects\applications (on Windows operating systems).

Click Next.

5. Configure Administrator Username and Password Screen

Specify the following credentials for your administrator:

- User name: The name of the administrator for this domain. The default name is weblogic.
- User password: The administrator's password.
- **Confirm user password:** Re-enter the administrator's password.
- **Description:** Enter a description for this user, or leave the default description as is. This field is optional.

Click Next.

6. Configure Server Start Mode and JDK Screen

In the "WebLogic Domain Startup Mode" portion of the screen, Select **Development Mode**.

In the "JDK Selection" portion of the screen, select the JDK that is recommended for your platform in Development Mode. This text can be found immediately underneath **Development Mode** in the "WebLogic Domain Startup Mode" section. For example, on a Linux system, you would be asked to select "Sun SDK 1.6.0_18" from the list of available JDKs.

Click Next.

7. Configure JDBC Component Schema Screen

Configure the schema information for each data source listed on this screen. When you make changes to any field on this screen, the changes are applied to selected data sources only. For fields that are common with all data sources (for example, all data sources reside on the same database), you should select all of the data sources and make your changes. The changes are saved automatically as you type.

After all of the information that is common to all data sources has been specified, then you will need to select individual or smaller groups of data sources and enter information that is specific to them (for example, the schema owner).

Review the table on this screen and identify which fields you need to modify:

- **Vendor**: Select the vendor for your database from the drop-down list.
- **Driver**: Select the driver type from the drop-down list.
- **Schema Owner**: Specify the schema owner for the schema; this is the name of the schema for this component in the following format:

prefix_schema-name

This information was specified on the Select Components Screen when the schemas were created using RCU. For more information, refer to Section 2.4, "Creating Schemas for Oracle SOA Suite and Oracle BAM".

- Password: Specify the password for the schema. You specified this password on the Schema Passwords Screen when creating the schemas using RCU. For more information, refer to Section 2.4, "Creating Schemas for Oracle SOA Suite and Oracle BAM".
- **DBMS/Service**: Specify the service name for your database. This is the database on which the schema resides.
- **Host Name**: Specify the name of the machine where your database is running.
- **Port**: Specify the database listen port number.

Click Next.

8. Test Component Schema Screen

Verify that the connections to your data sources are successful.

Click Next.

9. Select Optional Configuration Screen

Do not select anything on this screen.

Click Next.

10. Configuration Summary

Verify the information on this screen. Use the navigation pane on the left or the **Previous** button if you want to return to a previous screen to alter some portion of the configuration.

If everything is correct, click Create.

11. Creating Domain Screen

When the domain has been successfully created, the progress bar will be at 100% and the **Done** button will be active.

The last line in the summary information is the URL of the Administration Server. You should make a note of this URL so that you can access the Administration Server after it has been started.

Click **Done** to dismiss the Configuration Wizard.

For more information about configuring WebLogic domains, refer to *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*.

6 Extending the WebLogic Domain and Configuring Oracle BAM

This section contains instructions for extending your existing WebLogic Domain to include Oracle BAM; if you do not want to configure Oracle BAM, skip this section and proceed to Section 7, "Post-Installation Tasks".

1. Start the Configuration Wizard.

See Section 5, "Configuring Oracle SOA Suite and Creating a WebLogic Domain" for instructions on starting the Configuration Wizard.

2. Welcome Screen

Select Extend an Existing WebLogic Domain.

Click Next.

3. Select Extension Source Screen

Select Extend my domain automatically to support the following products, then select "Oracle Business Activity Monitoring - 11.1.1.0 [SOA_ORACLE_HOME]".

Click Next.

4. Select Optional Configuration Screen

Do not select anything on this screen.

Click Next.

5. Configuration Summary

Verify the information on this screen. Use the navigation pane on the left or the **Previous** button if you want to return to a previous screen to alter some portion of the configuration.

If everything is correct, click **Extend**.

6. Creating Domain Screen

When the domain has been successfully extended, the progress bar will be at 100% and the **Done** button will be active.

Click **Done** to dismiss the Configuration Wizard.

For more information about configuring WebLogic domains, refer to *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*.

7 Post-Installation Tasks

This section contains general information that will help you verify your installation and configuration. Some components may require custom or manual configuration, and this information is also included in this section:

- Configuring Custom Port Numbers for Oracle BAM
- Launching the Servers
- Starting Node Manager
- Verifying the Installation

7.1 Configuring Custom Port Numbers for Oracle BAM

The default port number of the Oracle BAM managed server (bam_server1) is 9001. If, during configuration, you changed this port number or specified a listen address using the Configuration Wizard, you must make some manual changes.

For instructions, refer to "Configuring Oracle BAM with Custom Port Numbers" in Oracle Fusion Middleware Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite.

7.2 Launching the Servers

To get your deployments up and running, you must start the Administration Server and various Managed Servers:

To start the Administration Server, run the startWebLogic.sh (on UNIX operating systems) or startWebLogic.cmd (on Windows operating systems) script in the directory where you created your new domain.

On UNIX operating systems:

MW_HOME/user_projects/domains/domain_name/startWebLogic.sh

On Windows operating systems:

 $\textit{MW_HOME} \\ \texttt{\undergauge} \\ \texttt{\under$

You entered the domain name and location on the Specify Domain Name and Location Screen in the configuration wizard.

To start the Managed Servers, run the startManagedWebLogic.sh (on UNIX operating systems) or startManagedWebLogic.cmd (on Windows operating systems) script in the bin directory inside the directory where you created your domain.

This command also requires that you specify a server name. The servers that need to be started are:

- soa_server1 (Oracle SOA Server)
- bam_server1 (Oracle BAM Server)

For example, to start Oracle SOA Server on UNIX operating systems:

./startManagedWebLogic.sh soa_server1

On Windows systems:

startManagedWebLogic.cmd soa_server1

Before WebLogic Server is started, you will be prompted for the WebLogic Server username and password. These were provided on the Configure Administrator Username and Password Screen in the configuration wizard.

Note: If this is the first time that both Oracle SOA Server and Oracle BAM Server are being started after installation and configuration, you must make sure that your startup of Oracle SOA Server is complete before starting Oracle BAM Server.

If you do not know the names of the managed servers that need to be started, you can view the contents of the following file on UNIX operating systems:

MW_HOME/user_projects/domains/domain_name/startManagedWebLogic_readme.txt

On Windows systems:

MW_HOME\user_projects\domains\domain_name\startManagedWebLogic_readme.txt

Or, you can access the Administration Server console at the following URL:

http://host:admin_server_port/console

Supply the username and password that you specified on the Configure Administrator Username and Password Screen of the Configuration Wizard. Then, navigate to **Environment > Servers** to see the names of your managed servers.

For more information about starting and stopping servers, see "Starting and Stopping Servers" in *Oracle Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server*.

7.3 Starting Node Manager

Starting Node Manager on a machine that hosts Managed Servers allows you to start and stop the Managed Servers remotely using the Administration Console or the command line. Node Manager can also automatically restart a Managed Server after an unexpected failure.

To start Node Manager:

1. On UNIX operating systems, run the MWHome/oracle_common/common/bin/setNMProps.sh script.

On Windows operating systems, run the MWHome\oracle_common\common\bin\setNMProps.cmd script.

This script appends the required properties to the nodemanager.properties file. These properties can also be appended manually, or provided as command-line arguments.

Note: The StartScriptEnabled=true property is required for Managed Servers to receive proper classpath and command arguments.

The file containing the properties is nm.required.properties.

2. On UNIX operating systems, start Node Manager by running the *MWHome*/wlserver_10.3/server/bin/startNodeManager.sh script.

On Windows operating systems, start Node Manager by running the MWHome\wlserver 10.3\server\bin\startNodeManager.cmd script.

For more information about Node Manager, refer to *Oracle Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server*.

7.4 Verifying the Installation

Start your browser and enter the following URLs:

To access the Administration Server:

```
http://host:admin_server_port
```

This information was visible on the Creating Domain Screen (the last screen) of the Configuration Wizard.

■ To access the Administration Server console:

```
http://host:admin_server_port/console
```

You will be prompted for the username and password credentials that you specified on the Configure Administrator Username and Password Screen of the Configuration Wizard.

To access Enterprise Manager:

```
http://host:admin_server_port/em
```

You will be prompted for the username and password credentials that you specified on the Configure Administrator Username and Password Screen of the Configuration Wizard.

8 Installing Oracle SOA Suite Design-Time Components

Oracle SOA Suite is not automatically installed with Oracle JDeveloper. Before you can create a SOA application and project, you must install the SOA Suite extension for JDeveloper.

For instructions on installing SOA Suite extension for JDeveloper, see *Oracle Fusion Middleware Installation Guide for Oracle JDeveloper*.

9 Deinstalling Oracle SOA Suite

Deinstalling Oracle SOA Suite from your system involves the following:

- Stopping Oracle Fusion Middleware
- Removing the Oracle SOA Suite Schemas
- Deinstalling Oracle SOA Suite
- Deinstalling Oracle WebLogic Server
- Deinstalling Oracle JDeveloper
- Removing the Program Groups (Windows Only)
- Rebooting Your System (Windows Only)

You should always use the instructions provided in this section for removing the software. If you try to remove the software manually, you may experience problems when you try to reinstall the software again at a later time. Following the procedures in this section will ensure that the software is properly removed.

9.1 Stopping Oracle Fusion Middleware

Before deinstalling Oracle Fusion Middleware software components, you should stop all servers and processes.

1. Stop the WebLogic Managed Servers.

On UNIX operating systems:

 $\label{logic.shmanaged} $$MW_HOME/user_projects/domains/domain_name/bin/stopManagedWeblogic.sh $$managed_server_nanme admin_url username password$

On Windows operating systems:

 $\label{logic.cmd} \textit{MW_HOME} \\ \text{user_projects} \\ \text{domain_name} \\ \text{bin} \\ \text{stopManagedWeblogic.cmd} \\ \textit{managed_server_nanme} \\ \textit{admin_url} \\ \textit{username} \\ \textit{password} \\ \\ \text{}$

2. Stop WebLogic Administration Server.

On UNIX operating systems:

 ${\it MW_HOME/user_projects/domains/domain_name/bin/stopWeblogic.sh} \ username\ password\ admin_url$

On Windows operating systems:

For both commands, specify the admin_url using the following format:

http://admin_server_host.admin_server_domain:admin_server_port

For more information about starting and stopping Oracle Fusion Middleware, refer to "Starting and Stopping Oracle Fusion Middleware" in *Oracle Fusion Middleware Administrator's Guide*.

For more information about starting and stopping servers, see "Starting and Stopping Servers" in *Oracle Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server*.

9.2 Removing the Oracle SOA Suite Schemas

Run the Repository Creation Utility (RCU) to drop the Oracle SOA Suite schemas from your database.

9.2.1 Starting RCU

Start RCU from the RCU_HOME/bin (on Linux operating systems) or RCU_HOME\bin (on Windows operating systems) directory:

On Linux operating systems:

./rcu

On Windows operating systems:

9.2.2 Instructions for Dropping the SOA Suite Schemas

Follow the instructions below to drop the SOA Suite schemas:

1. Welcome Screen

Click Next.

2. Create Repository Screen

Select **Drop**.

Click Next.

3. Database Connection Details Screen

Provide the following credentials to connect to your Oracle database. These are the same credentials you provided on this screen when you created the SOA Suite schemas. See Section 2.4, "Creating Schemas for Oracle SOA Suite and Oracle BAM" for more information.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed on the Database Connection Details Screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

4. Select Components Screen

Select the prefix and schemas you want to drop from the repository.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed on the Select Components Screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

5. Summary Screen

Click **Drop**. A "DROP" screen will appear. If there are errors, some details about the error will be displayed on the Summary Screen. Fix the error messages and click **Next** again.

After the schemas are dropped with no errors, click **OK** to dismiss the screen.

6. Completion Summary Screen

Click Close.

9.3 Deinstalling Oracle SOA Suite

Deinstalling Oracle SOA Suite involves removing the SOA Oracle home and also the Oracle Common home directories.

The deinstaller will attempt to remove the Oracle home from which it was started. This procedure will not remove any WebLogic domains that you have created - it only removes the software in the Oracle home.

Before you choose to remove your SOA Oracle home, make sure that it is not in use by an existing domain, and also make sure you stop all running processes that use this Oracle home. After you remove the software, you will no longer be able to use your WebLogic domain.

9.3.1 Deinstalling the SOA Oracle Home

To start the deinstaller, navigate to the <code>SOA_ORACLE_HOME/oui/bin</code> (on UNIX operating systems) or <code>SOA_ORACLE_HOME/oui/bin</code> (on Windows operating systems) directory and start the deinstaller.

On UNIX operating systems:

./runInstaller -deinstall

On Windows operating systems:

setup.exe -deinstall

On Windows operating systems, you can also start the deinstaller from the Start menu by selecting **Programs > Oracle SOA 11g - Home1 > Uninstall**.

Follow the instructions below to remove the installed software.

1. Welcome Screen

Click Next.

2. Deinstall Oracle Home Screen

Verify the Oracle home you are about to deinstall.

Click **Deinstall** to continue.

A warning dialog box will appear. Click **Yes** to confirm that you want to proceed with the deinstallation and remove the Oracle home directory.

3. Deinstallation Progress Screen

This screen shows the progress and status of the deinstallation. No action is required; the installer will automatically advance to the next screen when deinstallation is complete.

4. Deinstallation Complete Screen

Click Finish.

5. On Windows operating systems, manually remove the Oracle home directory (even if you answer **Yes** in the warning dialog box).

For example, if your Oracle home directory is

C:\Oracle\Middleware\Oracle_SOA1, then you should navigate to the C:\Oracle\Middleware directory, right-click on the Oracle_SOA1 folder, and select **Delete**.

9.3.2 Deinstalling the Oracle Common Home

This section describes how to remove the <code>oracle_common</code> directory. This directory contains its own deinstaller in <code>oui/bin</code> (on UNIX operating systems) or <code>oui/bin</code> (on Windows operating systems), just like any other Oracle home directory.

To start the deinstaller, navigate to the <code>MW_HOME/oracle_common/oui/bin</code> (on UNIX operating systems) or <code>MW_HOME/oracle_common/oui/bin</code> (on Windows operating systems) directory and start the deinstaller.

On UNIX operating systems:

./runInstaller -deinstall

On Windows operating systems:

```
setup.exe -deinstall
```

After the deinstaller is started, follow the instructions below to remove the Oracle Common home:

1. Welcome Screen

Click Next.

2. Select Deinstallation Type Screen

Select Deinstall Oracle Home.

Click Next.

3. Deinstall Oracle Home Screen

Verify the Oracle home you are about to deinstall.

Click **Next** to continue.

A warning dialog box will appear. Click **Yes** to confirm that you want to proceed with the deinstallation and remove the Oracle home directory.

4. Deinstallation Progress Screen

This screen shows the progress and status of the deinstallation. No action is required; the installer will automatically advance to the next screen when deinstallation is complete.

5. Deinstallation Complete Screen

Click Finish.

6. On Windows operating systems, manually remove the Oracle Common home directory (even if you answer **Yes** in the warning dialog box).

For example, if your Oracle Common home directory is C:\Oracle\Middleware\oracle_common, then you should navigate to the C:\Oracle\Middleware directory, right-click on the oracle_common folder, and select **Delete**.

9.4 Deinstalling Oracle WebLogic Server

To deinstall Oracle WebLogic Server:

1. Start the deinstaller from the WebLogic_Home/uninstall (on UNIX operating systems) or WebLogic_Home\uninstall (on Windows operating systems) directory. You specified the location of the WebLogic home directory on the Choose Product Installation Directories Screen in Section 2.5, "Installing Oracle WebLogic Server and Creating the Middleware Home".

On UNIX operating systems:

./uninstall.sh

On Windows operating systems:

uninstall.cmd

On Windows systems, you can also start the deinstaller from the Start menu by selecting **Programs > Oracle WebLogic > Uninstall Oracle WebLogic**.

2. Welcome Screen

Click Next.

3. Choose Components Screen

By default, all components are selected.

Click Next.

4. Uninstalling WebLogic Platform Screen

Click Done.

5. Manually remove the Middleware home directory.

For example, if your Middleware home directory was /home/Oracle/Middleware on a UNIX operating system:

```
> cd /home/Oracle
> rm -rf Middleware
```

On a Windows operating system, if your Middleware home directory was C:\Oracle\Middleware, use a file manager window and navigate to the C:\Oracle directory, then right-click on the Middleware folder and select **Delete**.

9.5 Deinstalling Oracle JDeveloper

If you have installed Oracle JDeveloper on your system, refer to *Oracle Fusion Middleware Installation Guide for Oracle JDeveloper* for instructions on how to remove this software from your system.

9.6 Removing the Program Groups (Windows Only)

On Windows systems, you must also manually remove the program groups from the Start Menu\Programs folder. As an example (the folder names and program group names on your system may be different), you might remove the following from C:\Document and Settings\All Users\Start Menu\Programs:

- Oracle Fusion Middleware 11.1.1.3.0
- Oracle SOA 11g Home1
- Oracle WebLogic

9.7 Rebooting Your System (Windows Only)

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

10 Additional Resources

For additional information, refer to the *Oracle Fusion Middleware Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite*, which is available on the Oracle Fusion Middleware Documentation CD-ROM.

Printed documentation is available for sale through your Oracle representative or in the Oracle Store at http://oraclestore.oracle.com.

To download free release notes, installation documentation, white papers, or other collateral, visit Oracle Technology Network (OTN). You must register online before

using OTN; registration is free and can be done at

http://www.oracle.com/technology/membership/.

If you already have a username and password for OTN, then you can go directly to the documentation section of OTN at

http://www.oracle.com/technology/documentation.

10.1 Oracle Support Services

If you purchased Oracle Product Support, you can call Oracle Support Services for assistance. Oracle Support Services include phone assistance, version updates and access to our service offerings. You have access to phone support 24 hours a day, 7 days a week. In the U.S.A., you can call Product Support at 1-800-223-1711.

Make sure you have your CSI (CPU Support Identifier) number ready when you call. Keep the CSI number for your records, because it is your key to Oracle Support Services. The Oracle Store sends the CSI number to you in an e-mail alert when it processes your order. If you do not have your CSI number and you are in the U.S.A., you can look up your CSI number by accessing our online Order Tracker which provides detailed order information. Go to the Oracle Store and click on Order Tracker located above the top navigation bar.

For Oracle Support Services locations outside the U.S.A., call your local support center for information on how to access support. To find the local support center in your country, visit the Support Web Center at http://www.oracle.com/support.

At the Support Web Center you will find information on Oracle Support Services, such as:

- Contact Information
- Instructions for Accessing Electronic Services
- Helpful Web Sites
- Support Resources
- Oracle Support Portfolio
- Oracle Support Services news

With Oracle Product Support, you have round-the-clock access to My Oracle Support (formerly Oracle MetaLink), Oracle Support Services premier Web support offering. My Oracle Support offers you access to installation assistance, product documentation, and a technical solution knowledge base.

It has technical forums, where you can post questions about your Oracle products and receive answers from Oracle Technical Support Analysts and other Oracle users. The questions and answers remain posted for the benefit of all users.

My Oracle Support options include:

- Technical Assistance Request (TAR) access
- Patch Downloads
- Bug Database Query Access
- Product Life-Cycle Information

You can access My Oracle Support at http://metalink.oracle.com.

10.2 Version Updates

If you do not have a currently supported license, you can purchase the most recent version of an Oracle product from the Oracle Store at

http://oraclestore.oracle.com.

If you do have a currently supported license, you can place non-urgent requests for version update shipments through the iTAR feature on My Oracle Support. You will need to log the iTAR type as a U.S. Client Relations/Non-Technical Request.

You can also request Version Update shipments in the U.S.A. by calling Client Relations. When requesting a Version Update, provide the following information to the Client Relations Analyst:

- CSI Number
- Contact Information
- Platform
- Product Name
- Shipping Address
- Product Version Number

Outside the U.S.A., call your local Oracle Support Center.

10.3 Premium Services

For information on our Premium Services, including onsite support, OracleGOLD, remote services, and upgrade packages, visit the Support Web Center at http://www.oracle.com/support.

You can also call your Support Sales Representative in the U.S.A at 1-800-833-3536.

10.4 Quick Reference

For quick access to additional information, refer to Table 2:

Table 2 Links to Additional Information and Resources

I want to	Contact Information or Web Site	
Purchase additional products, full-use licenses, version updates, and documentation in the U.S.A.	http://oraclestore.oracle.com	
Access technical resources for developers.	http://www.oracle.com/technology	
Access installation documentation.	http://www.oracle.com/technology/documentation	
Access information about technical support.	http://www.oracle.com/support	
Locate local Oracle Support Centers outside the U.S.A.	http://www.oracle.com/support	
Locate local Oracle offices outside the U.S.A.	http://www.oracle.com/global	

Table 2 (Cont.) Links to Additional Information and Resources

I want to	Contact Information or Web Site	
Call Client Relations in the U.S.A.	1-800-223-1711	
Speak with your sales representative in the U.S.A.	1-800-ORACLE-1	
Locate TTY Access to technical support in the U.S.A.	1-800-446-2398	

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http://www.fcc.gov/cgb/consumerfacts/trs.html, and a list of phone numbers is available at http://www.fcc.gov/cgb/dro/trsphonebk.html.

Oracle Fusion Middleware Quick Installation Guide for Oracle SOA Suite 11g Release 1 (11.1.1) E14318-03

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