

Oracle® Virtual Assembly Builder

Installation Guide

11g Release 1 (11.1.1.6)

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Oracle Virtual Assembly Builder Installation Guide, 11g Release 1 (11.1.1.6)

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Preface

This book details the requirements and steps needed to install Oracle Virtual Assembly Builder. This Preface includes the following topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Related Documents](#)
- [Conventions](#)

Audience

The intended audience is users who will install Oracle Virtual Assembly Builder for their organization.

Documentation Accessibility

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

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

For more information, see the following documents in the documentation set:

- *Oracle Virtual Assembly Builder User's Guide*
- *Oracle Virtual Assembly Builder Developer's Guide*
- *Oracle Virtual Assembly Builder Release Notes*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<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.

Installation Overview

Oracle Virtual Assembly Builder. This chapter includes the following sections:

- [Section 1.1, "Oracle Virtual Assembly Builder Installation Roadmap"](#)
- [Section 1.2, "Security Precautions"](#)
- [Section 1.3, "Preferred Topology"](#)
- [Section 1.4, "Environment Considerations"](#)
- [Section 1.5, "Certification and System Requirements"](#)

1.1 Oracle Virtual Assembly Builder Installation Roadmap

The steps you need to take to install Oracle Virtual Assembly Builder are described in [Table 1-1](#).

Table 1-1 *Tasks in the Oracle Virtual Assembly Builder Installation Procedure*

Tasks	Details and Documentation
Prepare your system environment for installation.	<p>Ensure that your system environment meets the general installation requirements for Oracle Virtual Assembly Builder.</p> <p>See the following sections:</p> <ul style="list-style-type: none"> ■ Section 1.2, "Security Precautions" ■ Section 1.3, "Preferred Topology" ■ Section 1.4, "Environment Considerations" ■ Section 1.5, "Certification and System Requirements"
Ensure that reference systems are set up.	<p>To create appliances using Oracle Virtual Assembly Builder Introspection functionality, you must have appropriate reference systems set up. Refer to product specific documentation for those system requirements and set up.</p>
Install and configure your deployment environment.	<p>An Oracle VM environment must be installed and configured to deploy your assemblies. See Oracle VM (http://www.oracle.com/technetwork/server-storage/vm) for more information.</p>
Install an Application Server.	<p>Oracle Virtual Assembly Builder Deployer requires Oracle WebLogic Server to be installed in an Oracle Middleware Home.</p> <p>Installing Oracle WebLogic Server creates the Middleware home and WebLogic home directories, which are required for an Oracle Virtual Assembly Builder Deployer installation. For more information, see "Middleware Home and WebLogic Home Directories" in <i>Oracle Fusion Middleware Installation Planning Guide</i>. Also see the following sections in <i>Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server</i>:</p> <ul style="list-style-type: none"> ■ "Product Distribution" for instructions on how to download the latest version. ■ "Running the Installation Program in Graphical Mode" for installation instructions.

Table 1–1 (Cont.) Tasks in the Oracle Virtual Assembly Builder Installation Procedure

Tasks	Details and Documentation
Install Oracle Virtual Assembly Builder.	<p>Use this installer to install Oracle Virtual Assembly Builder Studio and Deployer and configure an Studio instance.</p> <p>This creates the following directories:</p> <ul style="list-style-type: none"> ■ Oracle Virtual Assembly Builder home inside the Middleware home. ■ Oracle Virtual Assembly Builder Studio Instance home. You will be asked for the location of Studio instance home directory, which can be located anywhere on your system. <p>See Chapter 2, "Installing Oracle Virtual Assembly Builder" for installation instructions.</p>
Create and configure your Oracle WebLogic Server Domain for the Oracle Virtual Assembly Builder Deployer.	<p>Use the Oracle Fusion Middleware Configuration Wizard to create your WebLogic domain and configure Oracle Virtual Assembly Builder Deployer.</p> <p>You will be asked for the location of the Domain home directory, which is where the Administration Server resides. This directory can be located anywhere on your system.</p> <p>See Chapter 3, "Configuring Oracle Virtual Assembly Builder Deployer" for instructions on starting the Configuration Wizard and creating your WebLogic Domain, performing manual configuration, and configuring security.</p>
Start the servers.	<p>Start the Administration Server.</p> <p>See "Starting and Stopping Servers" in <i>Oracle® Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server</i> for instructions on how to start the Administration Server.</p>

1.1.1 Installation and Configuration Options

The Oracle Virtual Assembly Builder Deployer component runs inside Oracle WebLogic Server. The CLI and the Studio graphical user interface interact with the Oracle Virtual Assembly Builder Deployer through a Web service exposed in Oracle WebLogic Server. You must configure Oracle WebLogic Server as part of the installation and configuration process.

You can select one of the following installation options:

1.1.1.1 Studio-only Installation

This option installs only Oracle Virtual Assembly Builder Studio. It contains the capabilities to create appliances and assemblies, create appliance templates and assembly archives and creating deployment plans.

This option gets installed in a new Oracle Home under a new or an existing Middleware Home.

This option exposes abctl command line and Studio graphical user interfaces.

1.1.1.2 Deployer-only Installation

This option installs only Oracle Virtual Assembly Builder Deployer. It contains the capabilities to configure deployment targets, upload assembly archives to Deployer, create assembly instances, deploy/undeploy/start/stop assembly instances and scale appliance instances.

Oracle WebLogic Server should be pre-installed under a Middleware Home.

Oracle Virtual Assembly Builder Deployer gets installed in a new Oracle Home under the same Middleware Home where you have Oracle WebLogic Server installed.

This option exposes abctl command line and Web Services interfaces.

1.1.1.3 Studio and Deployer Installation (Default Installation Option)

The default installation option installs both Oracle Virtual Assembly Builder Studio and Deployer. It contains the capabilities described for Oracle Virtual Assembly Builder Studio and Oracle Virtual Assembly Builder Deployer install options.

Oracle WebLogic Server should be pre-installed under a Middleware Home.

Both Oracle Virtual Assembly Builder Studio and Deployer get installed in a new Oracle Home under the same Middleware Home where you have Oracle WebLogic Server installed.

This option exposes abctl command line, Studio graphical user interface and Web Services interfaces.

1.2 Security Precautions

Read this section before proceeding. It contains vital security information and precautions. Failure to read and understand these items may cause security vulnerabilities.

- The user who installs should be a trusted user, and a member of a trusted OS group.
- The template creation process does a security check to see that the Operating System (OS) user attempting to create the template is the same OS user who owns the Oracle Virtual Assembly Builder `bin` directory. Having the OS user who installs the product be the same OS user who creates templates ensures that the security check will succeed.
- Oracle WebLogic Server must be installed in a secure configuration prior to deploying the Oracle Virtual Assembly Builder Deployer to it.

1.3 Preferred Topology

Oracle Virtual Assembly Builder uses the Oracle VM product set as the virtualization infrastructure.

Oracle Virtual Assembly Builder and Oracle VM Manager are network and storage-intensive products. The Oracle VM servers, the Oracle VM Manager and Oracle Virtual Assembly Builder communicate over the network during the course of introspection, registration and deployment of VMs.

The setup should have the following characteristics:

- Oracle VM server pools machine with at least 16GB of total physical memory, gigabit networking facility, high capacity and high speed storage space for various tests and configuration, and acceptable processing power. The best performance will come from server-class machines with fast processors, memory and a high performance storage subsystem.
- Oracle VM Manager machine which is hosted on another machine. This machine will run OEL x86_64 Linux and must be connected to the Oracle VM server pool by a Gigabit network switch.
- Reference systems (products you plan to introspect) may also be installed on this machine to help speed up introspection and file set capture. Oracle Virtual Assembly Builder also supports remote introspection, so reference systems do not have to be co-located with Oracle Virtual Assembly Builder. Due to the large size of various Oracle Virtual Assembly Builder artifacts that will be created for your components you should make sure to have plenty of disk space on this machine.

- If you going to use static IP addresses for your appliances of an assembly for deployment, you should have one static IP address per appliance instance.

1.4 Environment Considerations

Before using Oracle Virtual Assembly Builder, ensure that your environment meets the following prerequisites. These items are not required for installation, but are necessary environmental components for the use of Oracle Virtual Assembly Builder.

1.4.1 Unzip Utility on Reference Systems

Oracle Virtual Assembly Builder requires that the Unzip utility be present on reference systems in order for remote introspection to work properly.

1.4.2 SSH Port Forwarding Must be Enabled

Oracle Virtual Assembly Builder requires that SSH port forwarding be enabled on reference systems in order for remote operations (such as introspection and packaging) to work properly.

1.5 Certification and System Requirements

Ensure your environment meets all requirements before starting the installation.

1.5.1 Certification

This certification document details supported installation types, platforms, operating systems, databases, and JDKs. See *Virtual Assembly Builder* in Oracle Fusion Middleware 11g Release 1 (at http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html).

1.5.2 System Requirements

Please ensure you meet the following requirements.

1.5.2.1 Operating Systems

The following operating systems are supported:

- Oracle Enterprise Linux 5 (UL3+) (32-bit. 64 bit supported in 32-bit mode)
- Red Hat Enterprise Linux 5 (UL3+) (32-bit. 64 bit supported in 32-bit mode)

You can verify your operating system version using the commands listed here.

- Oracle Enterprise Linux:

```
# cat /etc/enterprise-release
```
- Red Hat Enterprise Linux:

```
# cat /etc/redhat-release
```

1.5.2.2 Java Development Kit

Oracle Universal Installer includes Sun JDK for Linux. You can choose to install it (the JDK) during installation and use it with Oracle Virtual Assembly Builder. You can also choose to us your own JDK installation.

1.5.2.3 Oracle Enterprise Linux JeOS

Download and install Oracle Enterprise Linux JeOS from:

<http://edelivery.oracle.com/oraclevm>. If this is your first time using eDelivery, you will be required to register. Register, then continue.

1. On the *Welcome* screen, click **Continue**. The Media Pack Search screen appears.
2. Select a **Product Pack** (*Oracle Linux*), and **Platform** (*x86 32 bit*). Click **Go**. The Results are displayed.
3. Select **Oracle Linux JeOS for Building Oracle VM templates for x86 (32 bit)**. Click **Continue**. Available downloads appear.
4. Download **JeOS Base x86 and x86_64**, by clicking **Download**. The file is downloaded.
5. Unzip the downloaded zip file.
6. (As root) install the "ovm-modify-jeos" package using the `rpm` command with the `-i` option.

1.5.2.4 Oracle Open-OVF

Download and install Oracle Open-OVF package from the OVM 3.0 channels of a yum repository. For information on setting up a yum repository see

<http://www.oracle.com/technetwork/topics/linux/yum-repository-setup-085606.html>

See also the following whitepaper on the Unbreakable Linux Network, a comprehensive resource for Oracle Linux and Oracle VM support subscribers, offering access to Linux software patches, updates and fixes, along with information on yum program and support policies:

<http://www.oracle.com/us/technologies/027615.pdf>

1.5.2.5 System Base Images

The supported Guest OS is an Oracle Enterprise Linux Base Image.

Note: You have a choice of downloading an Oracle provided *sample* Oracle Enterprise Linux Base Image, or creating your own. The sample image is available on Oracle Technology Network:
<http://www.oracle.com/technology/products/ovab>

Ensure that the base image architecture matches your component software. That is, use a 32-bit base image if your component software is 32-bit; 64-bit base image for 64-bit component software.

To create the appropriate Base Image(s):

- Oracle Enterprise Linux Base Image, see: <http://www.oracle.com/technetwork/server-storage/vm/overview/templates-101937.html>The information on this, and referenced pages, will provide the information you need to create your own System Base Image.

When specifying a base image, the image must meet the following requirements:

- Oracle Enterprise Linux 5 (UL3+)
- At least 250MB of free space for `/tmp`. (depending on the type of product you are creating appliance for and deploying, you may need more free space. Refer to appropriate product install guide for the specific free space requirement).

- At least 500MB of swap space
- You must have installed the following packages (RPMs):
 - nc
 - libaio
 - zip
 - unzip
 - nfs-utils
 - xen-tool
 - ovmapi-lib
 - ovmapi-xenstoreprovider
 - kmod-ovmapi-xen
- Install the following kernel modules:
 - ovmapi_5.5.ko (32 bit)
 - ovmapi_5.3_64bit.ko (64 bit)
- In addition, for deploying virtual machines for FMW components, you must have installed:
 - * gcc
 - * gcc-c++
 - * setarch
 - * sysstat
 - * libaio
 - * libaio-devel
 - * libstdc++
 - * libstdc++-devel
 - * compat-libstdc++
 - * compat-db
 - * control-center
 - * glibc-common
 - * binutils
 - * make
 - * openmotif22 (only required for Oracle Forms and Oracle Reports servers)
- For deploying virtual machines for Oracle Database, you must have installed:
 - * binutils
 - * compat-libstdc++
 - * elfutils-libelf
 - * elfutils-libelf-devel
 - * gcc

- * gcc-c++
- * glibc
- * glibc-common
- * glibc-devel
- * glibc-headers
- * libaio
- * libaio-devel
- * libgcc
- * libstdc++
- * libstdc++-devel
- * make
- * numactl-devel
- * sysstat
- * ksh
- For FMW components, the following shell parameters must be set:
 - * soft=4096
 - * hard=4096
- For Oracle database, the following shell parameters must be set
 - * nproc-soft=2047
 - * nproc=hard=16384
 - * nofile-soft=1024
 - * nofile-hard=65536
 - * maxproc(ulimit -p)=16384
 - * descriptors(ulimit -n)=65536
- For Oracle database, the following kernel parameters must be set:
 - * Semaphore Limits


```
semnmi=128 # max number of arrays; default is 128
semmsl=250 # max semaphores per array. default is 250
semnms=32000 # max semaphores system wide; default is 32000
semopm=100 # max ops per semop call; default is 32
```
 - * Shared Memory Limits


```
shmmni=4096 # max number of segments; default is 4096
shmmax=0.5GB # max seg size (kbytes); default is 4194303, which is 3GB
shmall=2097152 # max total shared memory (kbytes); default is
1073741824
```
 - * File Descriptors


```
file-max=6815744 # system wide file descriptors; default is 204573;
aio-max-nr=Maximum:1048576 # default is 65536;
ip_local_port_range=9000 65500 # default is 32768 61000;
rmem_default=262144 # default is 109568;
```

```
rmmem_max=4194304 # default is 131071;
wmmem_default=262144 # default is 105968
wmmem_max=1048576 # default is 131071
```

- Additional database requirements:
 - * Name Resolution: Ensure that host names are resolved through the `/etc/hosts` file.
 - * The `/tmp` directory should have a minimum of 1GB of space.
 - * Add the following line in the `/etc/pam.d/login` file:


```
session required pam_limits.so
```
- You must turn on `oraclevm-templates` while creating the image.
- Oracle recommends that you turn off `iptables` while creating the image.
- You must turn off `requiretty` in the base image for `sudo` operations to work. This is a requirement to deploy the assembly archive through Enterprise Manager.
- The base image must have the user `oracle`. One way to add a user to the base image is to boot the base image, log on to it as root, and call `/usr/sbin/useradd oracle`.

Note: The primary group for `oracle` user must be `oracle`. By default, when you create the `oracle` user, it is automatically set. To set it manually, create the group and assign it to `oracle` user by executing:

```
/usr/sbin/groupadd oracle
/usr/sbin/usermod -g oracle -a -G oracle oracle
```

Refer to your `modifyjeos` documentation for instructions on creating a base image.

Installing Oracle Virtual Assembly Builder

The following sections describe how to do a complete installation of Oracle Virtual Assembly Builder.

- [Section 2.1, "Installing Oracle Virtual Assembly Builder"](#)
- [Section 2.2, "Deinstalling"](#)

2.1 Installing Oracle Virtual Assembly Builder

Follow these steps to install and configure Oracle Virtual Assembly Builder.

Note: These installation instructions are limited to installing Oracle Virtual Assembly Builder on Oracle Enterprise Linux 5 (UL3+). You can adapt them for your local environment.

You can install and configure all at once (recommended) using Oracle Universal Installer, or you can choose to install only and configure at another time.

- [Section 2.1.1, "Install and Configure"](#)
- [Section 2.1.2, "Install Only"](#)
- [Section 2.1.3, "Configure Only"](#)
- [Section 2.1.4, "Silent Installation"](#)

To start installation, launch Oracle Universal Installer (`Disk1/runInstaller`).

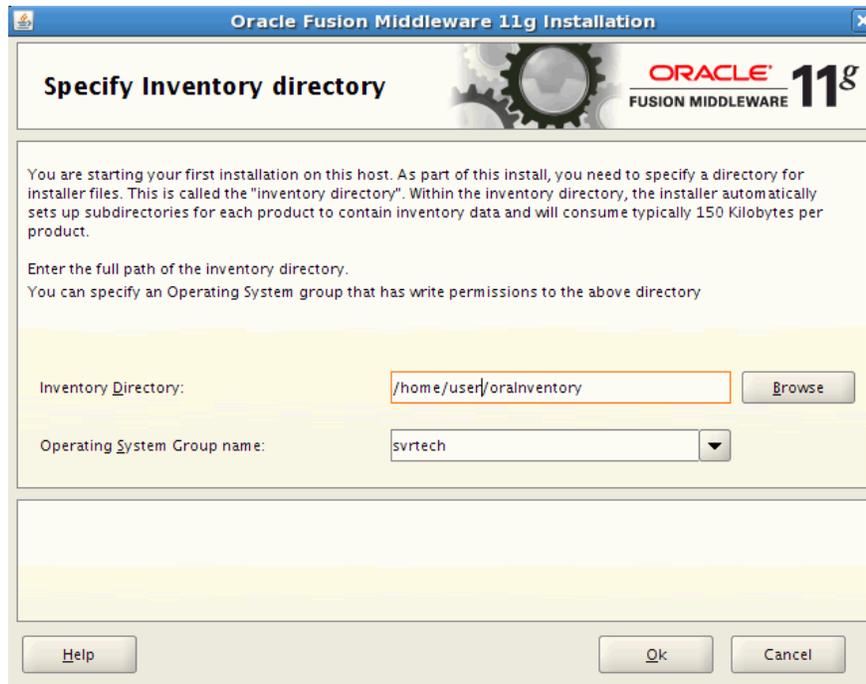
2.1.1 Install and Configure

You can choose to install Oracle Virtual Assembly Builder software in an Oracle Home as well as configure an Oracle Virtual Assembly Builder instance Home with various details provided. To install and configure Oracle Virtual Assembly Builder, start the installer, then follow these steps:

1. **Specify Inventory Directory.** This page allows you to specify a directory for installer files. This is called the *inventory directory*. Within the inventory directory, the installer automatically sets up subdirectories for each product to contain inventory data and will consume typically 150 Kilobytes per product.

Enter the full path of the inventory directory.

You can specify an Operating System group that has write permissions to the above directory.

Figure 2–1 Specify Inventory Directory page

When you are ready to continue, click **OK**. A dialog appears warning you that you perform certain actions with root privileges before the installation can continue.

If you have root privileges, use another window to execute the script `createCentralInventory.sh` from the inventory directory you specified. When finished, click **OK**.

If you do not have root privileges, and want to continue the installation, check the **Continue installation with local inventory** box and click **OK**.

2. Welcome. This page introduces the installation. The flow of installation appears in the left panel, and control buttons appear along the bottom.

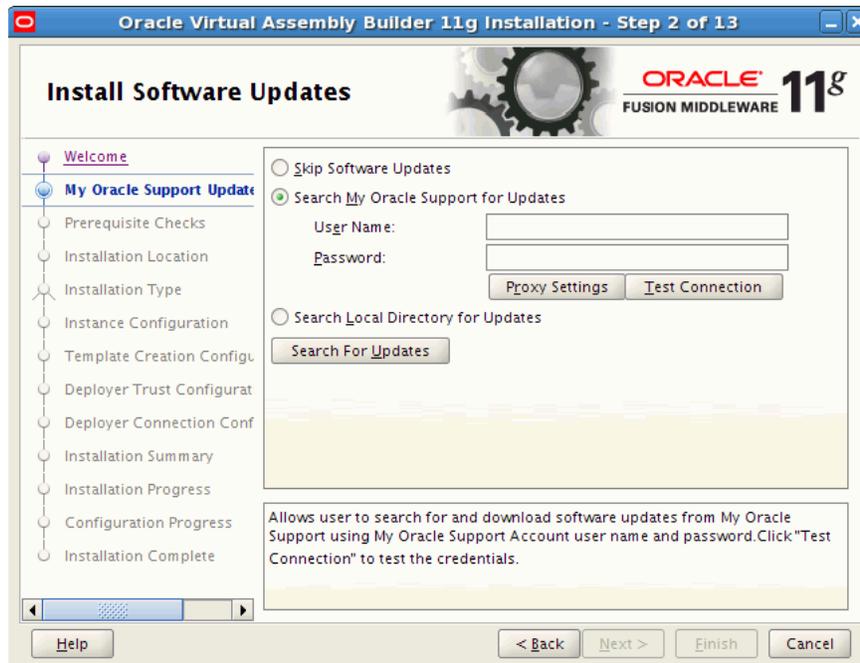
Figure 2–2 Welcome page



When you are ready to begin installation, click **Next**. The *Install Software Updates* page appears.

Note: Help is available on all of the pages. Use it to learn about what you can do in that page, field descriptions, possible values, and other information.

3. **Software Updates.** Before continuing with installation, you should ensure that your Oracle software is up to date. You have the option to skip this step by selecting the **Skip Software Updates** radio button, but only skip updates if you are sure that all of your software is up to date.

Figure 2–3 *Install Software Updates page*

Enter your Oracle Support user name and password, then click **Test Connection** to test your credentials.

Click **Proxy Settings** (optional) if your computer is behind a firewall or a proxy and not in direct contact with the Internet.

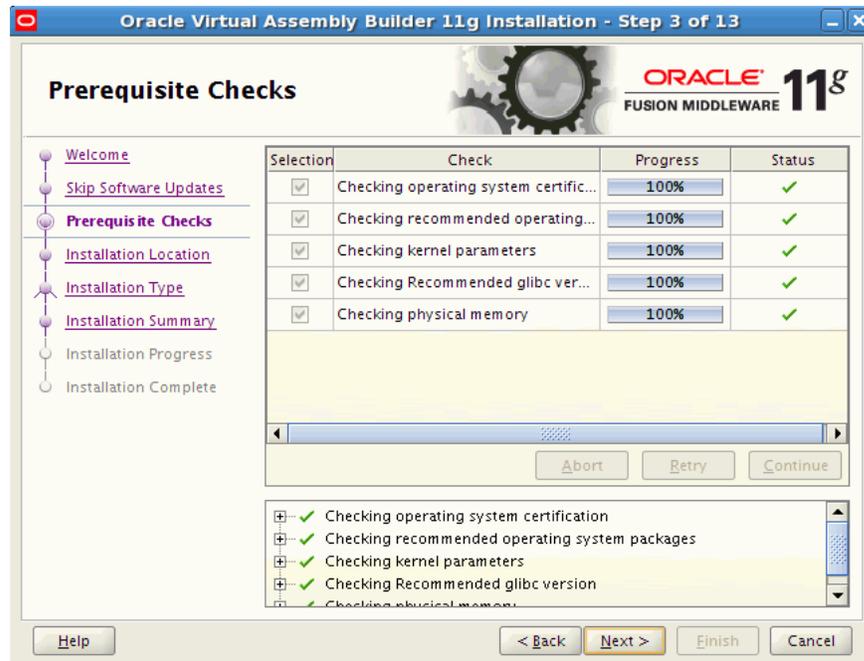
Figure 2–4 *Proxy Settings page*

Enter proxy information and test the connection and/or click **OK**.

Click **Skip Software Updates** if you do not want to search for any software updates.

Click **Next**. Updates are installed, and the *Prerequisite Check* page appears showing the progress of the checks, and listing any deficiencies.

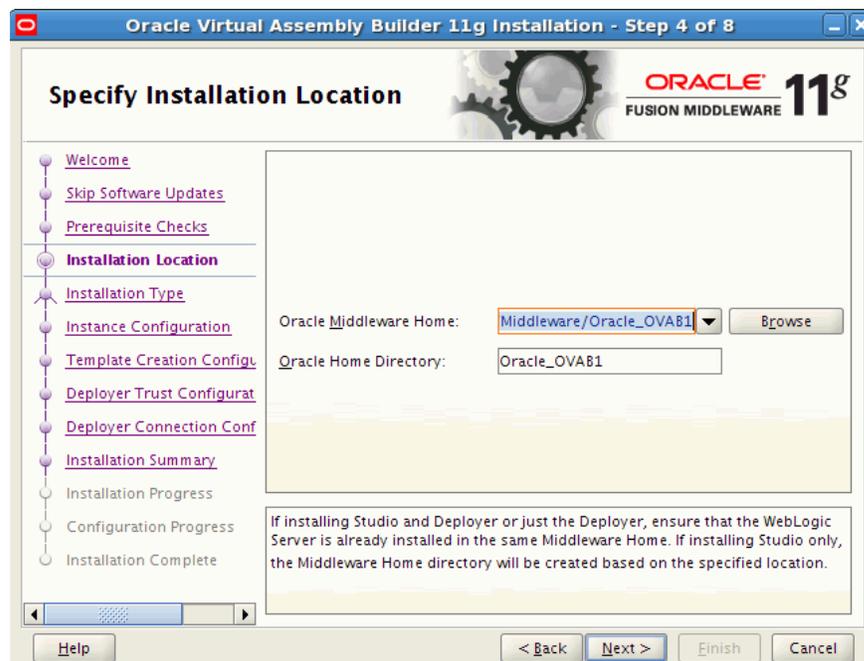
Figure 2–5 Prerequisite Checks page



4. **Prerequisites Checks.** Checks begin automatically. Progress notes inform you about what is being checked, and what the outcome of the check is. You can abort, retry, or continue checks using the buttons on the page. For example, if a physical memory check fails, you can go and correct the problem, then click **Retry** to direct Oracle Universal Installer to recheck the item.

Click **Next** when the prerequisite checks are complete. The *Specify Installation Location* page appears.

Figure 2–6 Specify Installation Location page



5. **Specify Installation Location.** Specify the Oracle Middleware Home and Oracle Home directories.

If installing Oracle Virtual Assembly Builder Studio and Oracle Virtual Assembly Builder Deployer, or only Oracle Virtual Assembly Builder Deployer, ensure that the Oracle WebLogic Server is already installed in the same Middleware Home.

If you are installing only Oracle Virtual Assembly Builder Studio, you can select any Middleware Home (including a new non-existing directory location).

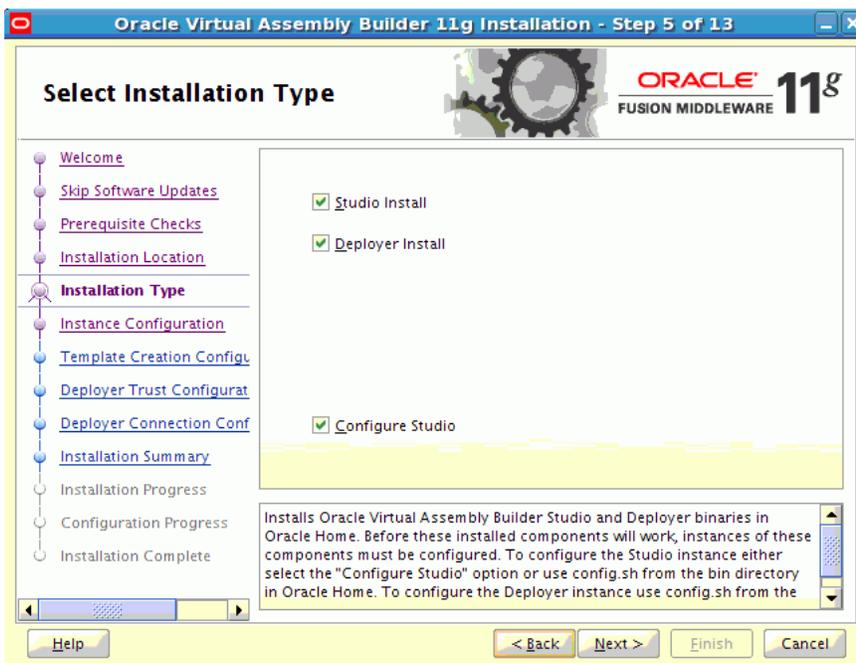
You can select an existing Oracle Home location, or you can specify a new one. If you want to use a new directory, ensure that the directory is empty.

Note: Existing Oracle Homes:

- Installing into an existing Oracle Home is typically done to reinstall binaries, and in some cases, to upgrade an Oracle Home from one release to another.
 - Oracle Universal Installer checks non-empty Oracle Homes to verify that the selected Oracle Home is valid.
-

Click **Next**. The *Installation Type* page appears.

Figure 2–7 *Installation Type* page



6. **Installation Type.** Select the installation type as follows:

- *Studio install:* install only Oracle Virtual Assembly Builder Studio, which provides you the ability to create appliances and assemblies, create appliance templates and assembly archives and create deployment plans.
- *Deployer install:* install only Oracle Virtual Assembly Builder Deployer, which provides the ability to configure deployment targets, upload assembly archives to Deployer, create assembly instances, deploy/undeploy/start/stop assembly instances and scale appliance instances.

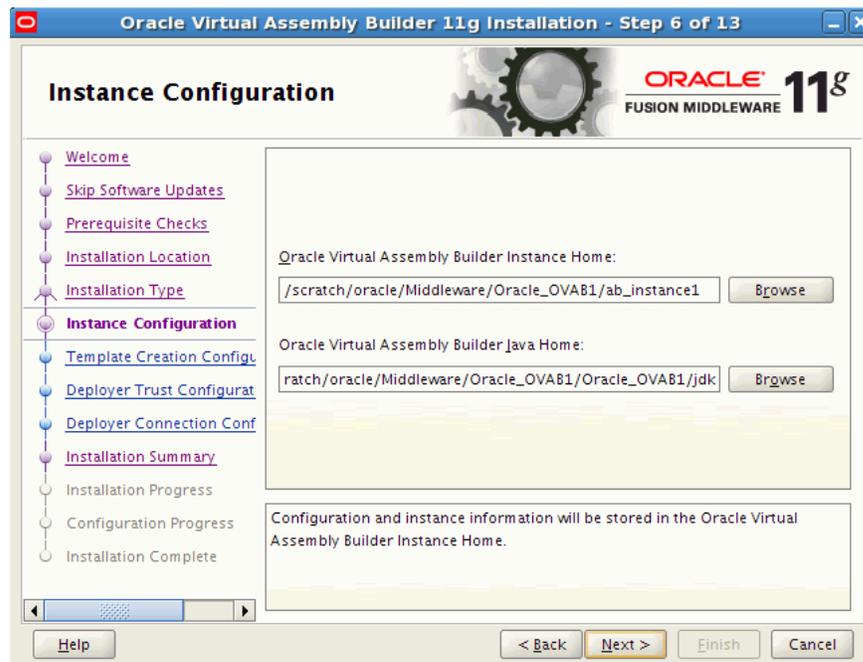
- *Configure Studio*: configure the Oracle Virtual Assembly Builder Studio instance. Before installed components can work, you must configure instances of these components.

To configure the Oracle Virtual Assembly Builder Studio instance after the installation, select the "Configure Studio" option, or run `config.sh` from the `bin` directory in Oracle home.

To configure the Oracle Virtual Assembly Builder Deployer instance after the installation, run `config.sh` from the `bin` directory in Oracle WebLogic Server Home.

Click **Next**. The *Instance Configuration* page appears.

Figure 2–8 Instance Configuration page



- Instance Configuration.** Enter, or choose, the *Oracle Virtual Assembly Builder Instance Home*, and the *Oracle Virtual Assembly Builder Java Home*.

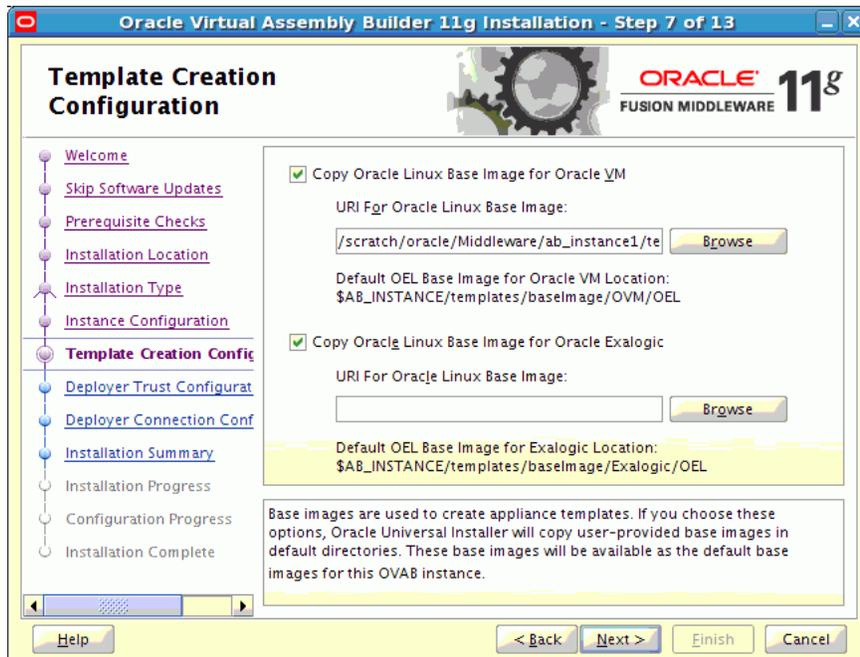
Oracle Virtual Assembly Builder Instance Home: The home of an Oracle Virtual Assembly Builder instance.

Oracle Virtual Assembly Builder Java Home: The Java Home for Oracle Virtual Assembly Builder.

Note: If you start installation without an explicit JRE location, the `JAVA_HOME` location will default to `$ORACLE_HOME/jdk` (the location where JDK will be installed). You can change to another JDK location, in which case the JDK will NOT be installed.

Click **Next**. The *Template Creation Configuration* page appears.

Figure 2–9 Template Creation Configuration page



8. **Template Creation Configuration.** This page enables you to define base images that you will use to create new appliances. On this page, you provide the location for the *OEL Base Images* for Oracle VM and for Oracle Exalogic.

Note: When you choose to configure an OEL base image, Oracle Installer copies a user-provided OEL base image in the \$AB_INSTANCE/templates/baseImage/OVM/OEL directory (for Oracle VM), or \$AB_INSTANCE/templates/baseImage/Exalogic/OEL directory (for Exalogic). This base image will be available as the default base images for this Oracle Virtual Assembly Builder instance.

If you want to have base images shared across all Oracle Virtual Assembly Builder instances, do not select to configure the OEL base image here and do this after install completes:

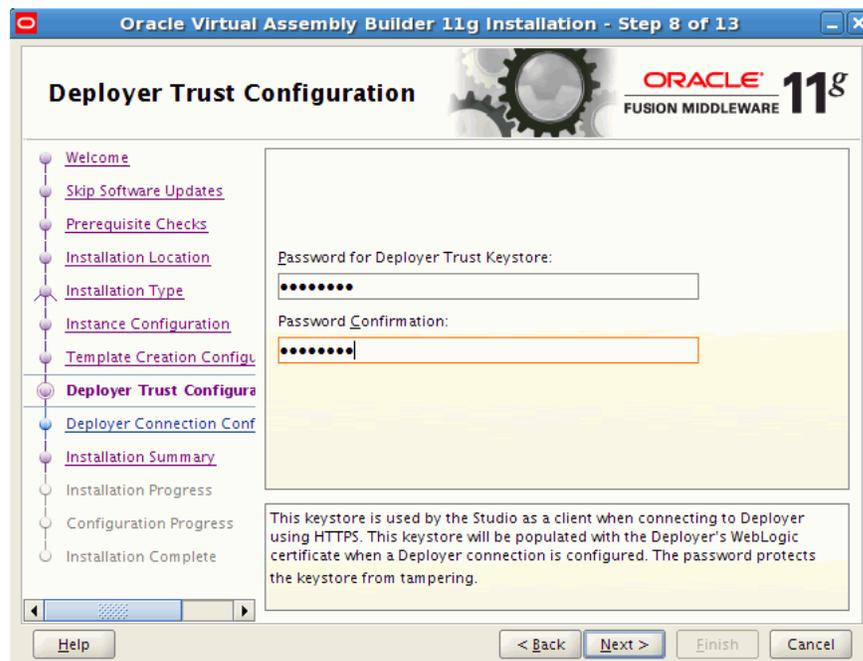
- Create the appropriate directories inside the \$ORACLE_HOME directory:
 - \$ORACLE_HOME/templates/baseImage/OVM/OEL, or
 - \$ORACLE_HOME/templates/baseImage/Exalogic/OEL
 - Copy the OEL base image files (System.img and vm.cfg) into the \$ORACLE_HOME/templates/baseImage/OVM/OEL or \$AB_INSTANCE/templates/baseImage/Exalogic/OEL directories
-

Note: Base images are stored in either \$AB_INSTANCE, or in \$ORACLE_HOME. Here is the order of precedence for base image detection:

- location specified by -baseImage flag
 - \$AB_INSTANCE/templates/baseImage/OVM/OEL
 - \$ORACLE_HOME/templates/baseImage/OVM/OEL
-

After entering (or selecting) the locations, click **Next**. The *Deployer Trust Configuration* page appears.

Figure 2–10 *Deployer Trust Configuration page*



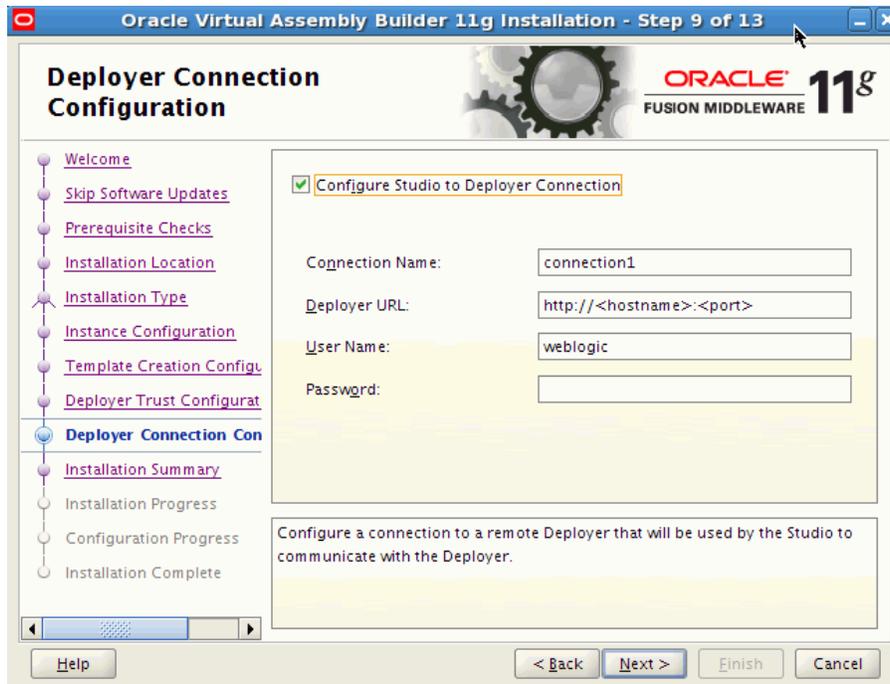
9. **Deployer Trust Configuration.** Oracle Virtual Assembly Builder Studio uses the keystore as a client when connecting to Oracle Virtual Assembly Builder Deployer over HTTPS. This keystore will be populated with the Oracle Virtual Assembly Builder Deployer's WebLogic certificate when you configure an Oracle Virtual Assembly Builder Deployer connection.

The password protects the keystore from tampering.

Enter, and confirm, the password for the *Deployer Trust Keystore*.

Click **Next**. The *Deployer Connection Configuration* page appears.

Figure 2–11 Deployer Connection Configuration page



10. Deployer Connection Configuration. You can configure a connection to Oracle Virtual Assembly Builder Deployer. To do so, check **Configure Studio to Deployer Connection** and enter the connection information:

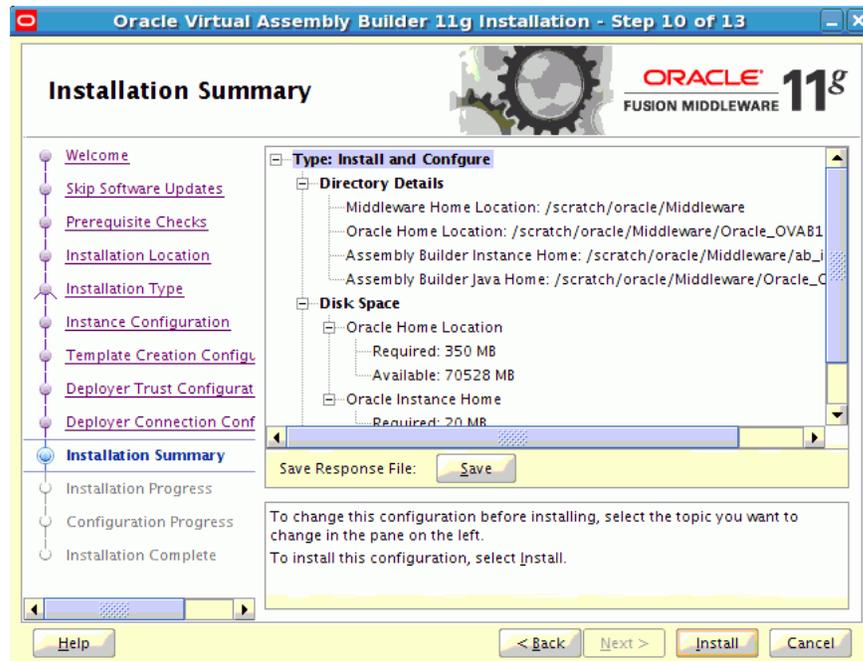
- Connection Name: name of the Deployer connection.
- Deployer URL: URL of the Deployer Web service.
- User Name: username to use to authenticate with the Deployer Web service.
- Password: password to use to authenticate with the Deployer Web service.

Click **Next**.

If you configured a connection, the connection is tested. If you see a connection failure, check that the Oracle Middleware Administration Server is up, and hostname, username, and password are correctly configured.

The *Installation Summary* page appears.

Figure 2–12 Installation Summary page



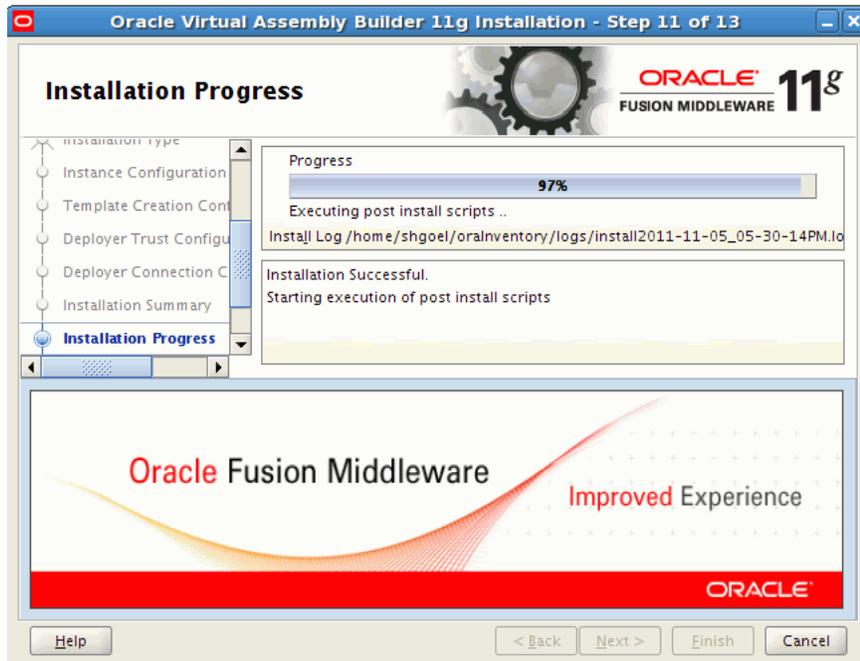
- 11. Summary.** The Installation Summary page lists the components and locations for install. You can save the response file by clicking **Save**.

If you want to change any of your installation or configuration choices, you can select the item from the left pane, make the changes, then return to the *Summary* page.

Click **Install** to start the installation process.

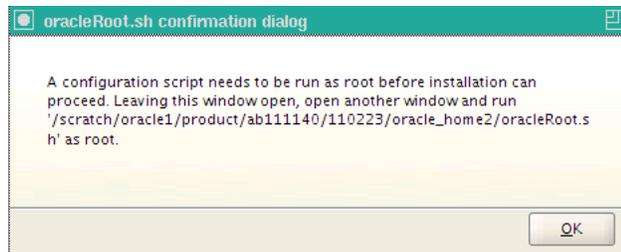
- 12.** Depending on your selections, an *Installation Progress* page appears with relevant information.

Figure 2–13 Installation Progress page



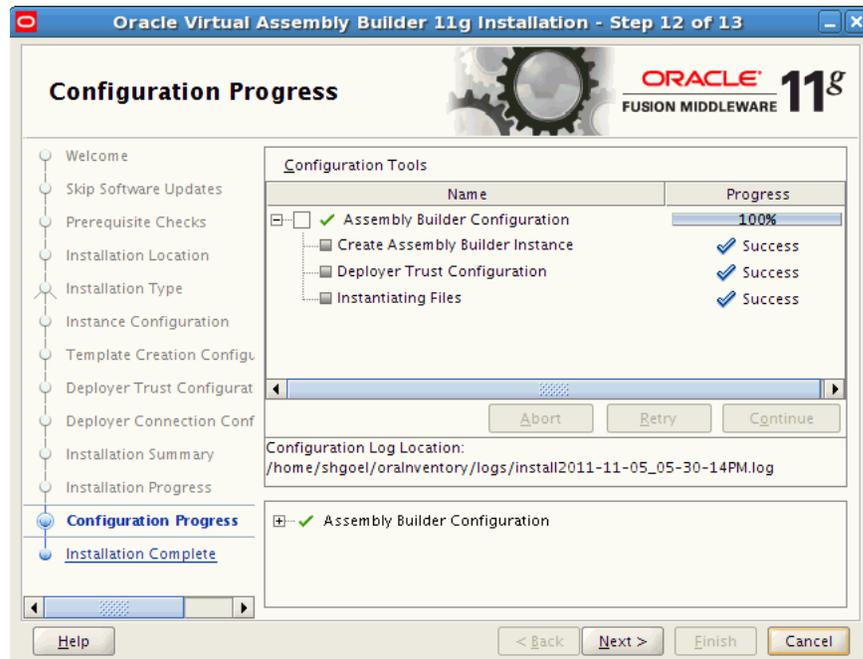
13. As installation progresses, a pop-up message will appear, instructing you to run a configuration script. Follow the instructions in the message.

Figure 2–14 Configuration script pop-up message



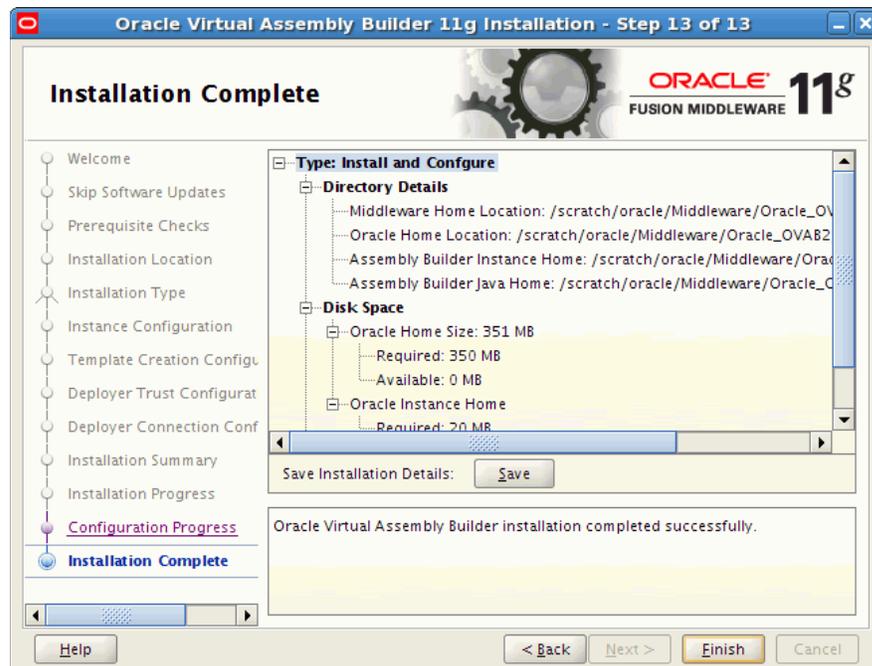
14. After you run the script, a Configuration Progress page appears.

Figure 2–15 Configuration Progress page



15. When installation is complete, the *Installation Complete* page appears.

Figure 2–16 Installation Complete page



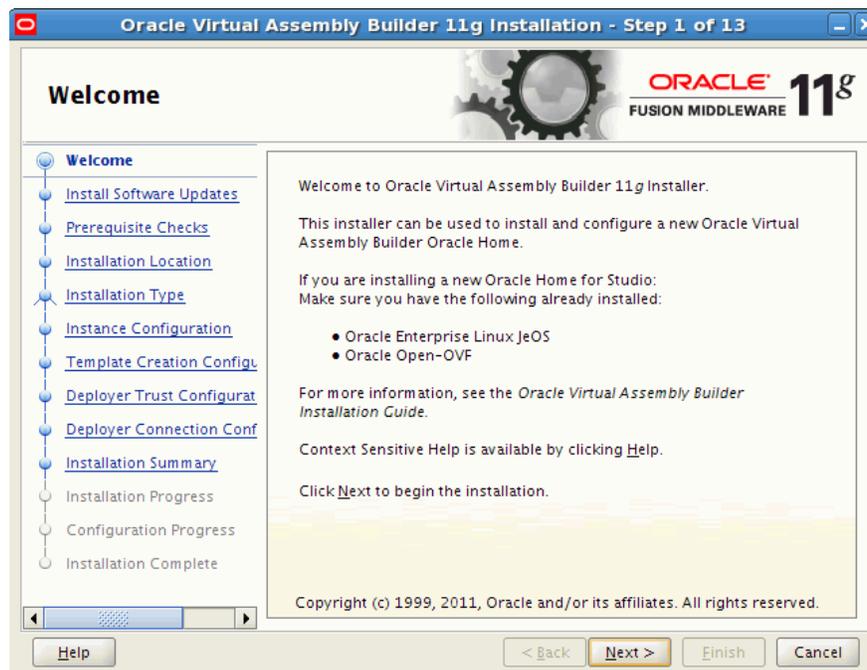
16. If you installed Oracle Virtual Assembly Builder Deployer, you must configure the Deployer using the procedures in [Chapter 3, "Configuring Oracle Virtual Assembly Builder Deployer"](#).

2.1.2 Install Only

This option is used to install the Oracle Virtual Assembly Builder binaries into an Oracle Home. To install Oracle Virtual Assembly Builder and configure it later, start the installer, then follow these steps:

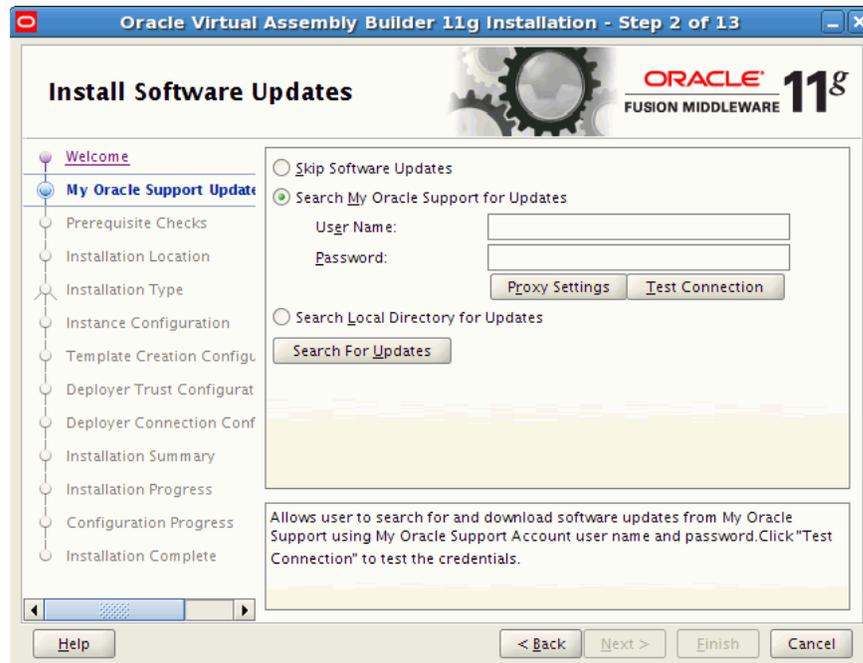
1. **Welcome.** This page introduces the installation. The flow of installation appears in the left panel, and control buttons appear along the bottom.

Figure 2–17 Welcome page



When you are ready to begin installation, click **Next**. The *Install Software Updates* page appears.

Figure 2–18 Software Updates page



Note: Help is available on all of the pages. Use it to learn about what you can do in that page, field descriptions, possible values, and other information.

2. **Software Updates.** Before continuing with installation, you should ensure that your Oracle software is up to date. You have the option to skip this step by selecting the **Skip Software Updates** radio button, but only skip updates if you are sure that all of your software is up to date.

Enter your Oracle Support user name and password, then click **Test Connection** to test your credentials.

Click **Proxy Settings** (optional) if your computer is behind a firewall or a proxy and not in direct contact with the Internet.

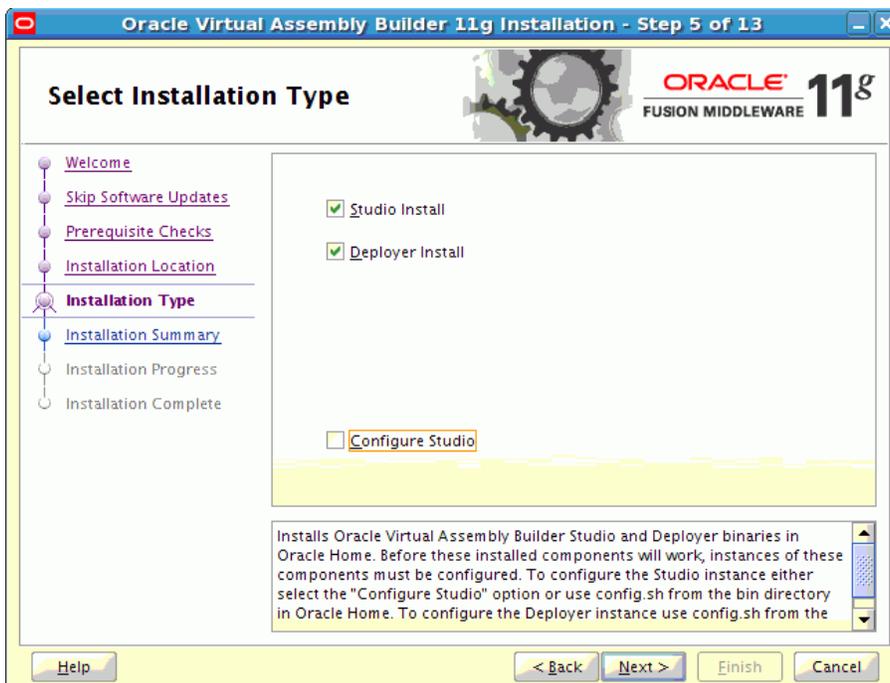
Figure 2–19 Proxy Settings page



Enter proxy information and test the connection and/or click **OK**.

Click **Next**. Updates are installed, and the *Select Installation Type* page appears.

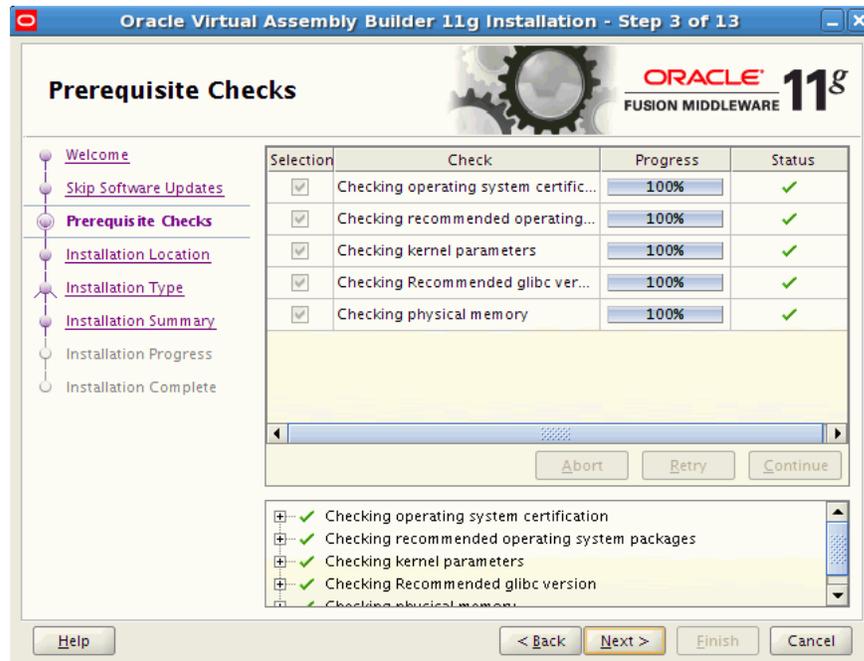
Figure 2–20 *Select Installation Type* page



- 3. Installation Type.** Use this page to choose whether you want to install and configure at this time, or just to install and configure at a later time. Since this section covers install only, do not select the **Configure Studio** radio button.

A message appears reminding you that you'll need to use manual configuration steps later to configure your software. The *Prerequisite Checks* page appears.

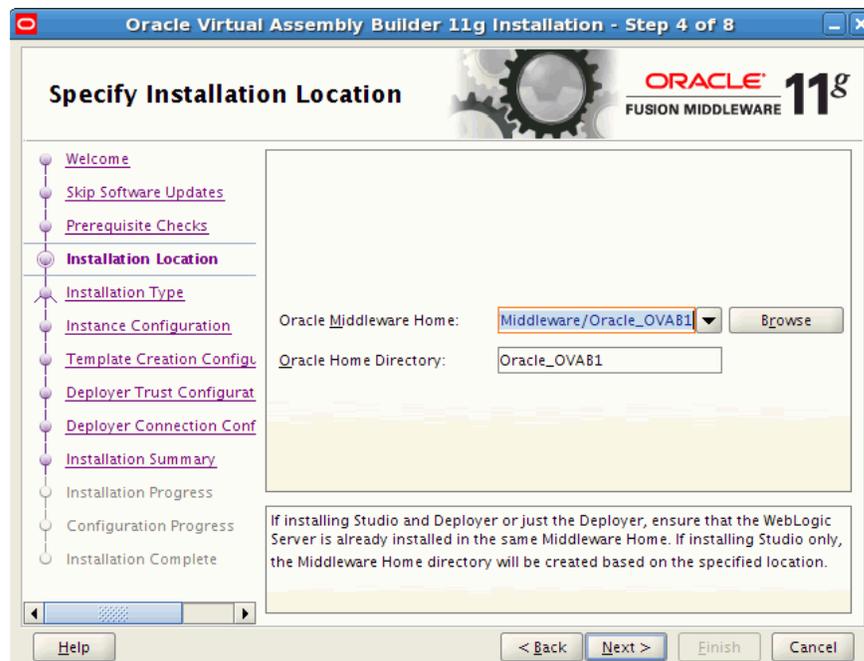
Figure 2–21 Prerequisite Checks page



4. **Prerequisites Checks.** Checks begin automatically. Progress notes inform you about what is being checked, and what the outcome of the check is. You can abort, retry, or continue checks using the buttons on the page. For example, if a physical memory check fails, you can go and correct the problem, then click **Retry** to direct Oracle Universal Installer to recheck the item.

Click **Next** when the prerequisite checks are complete. The *Specify Installation Location* page appears.

Figure 2–22 Specify Installation Location page



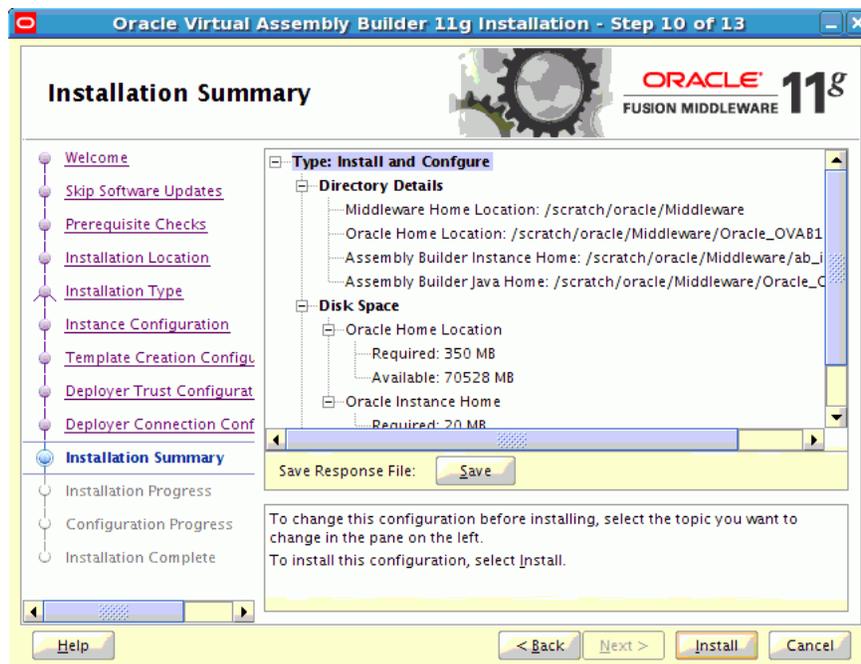
5. **Specify Installation Location.** You can select an existing Oracle Home location, or you can specify a new one. If you want to use a new directory, ensure that the directory is empty.

Note: Existing Oracle Homes:

- Installing into an existing Oracle Home is limited; that is, users can install only into the same type of Oracle Home (in this case, an OVAB Oracle Home). You cannot install into another type of Oracle Home (such as an Oracle Home for SOA).
 - Installing into an existing Oracle Home is typically done to reinstall binaries, and in some cases, to upgrade an Oracle Home from one release to another.
 - Oracle Universal Installer checks non-empty Oracle Homes to verify that the selected Oracle Home is valid.
-

Click **Next**. The *Installation Summary* page appears.

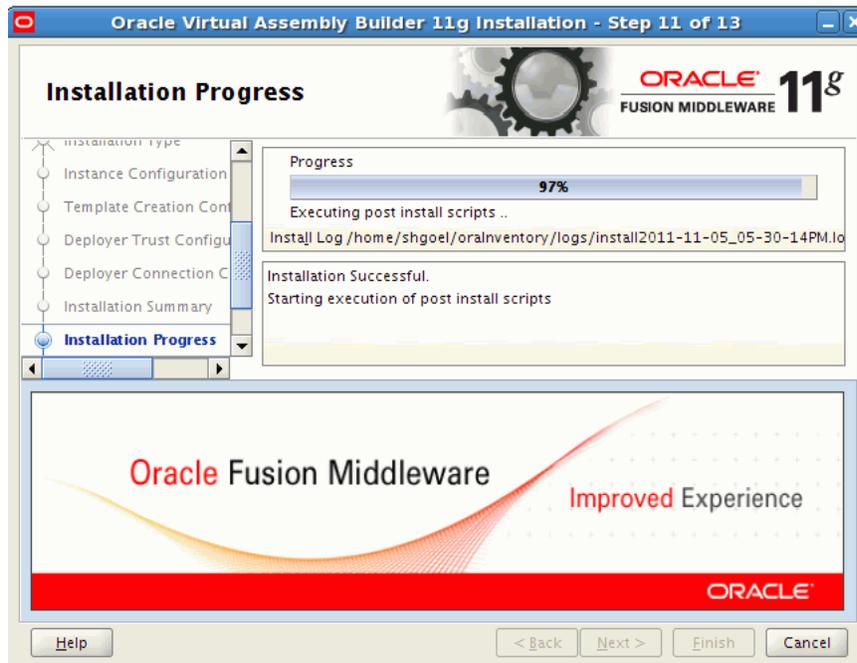
Figure 2–23 *Installation Summary* page



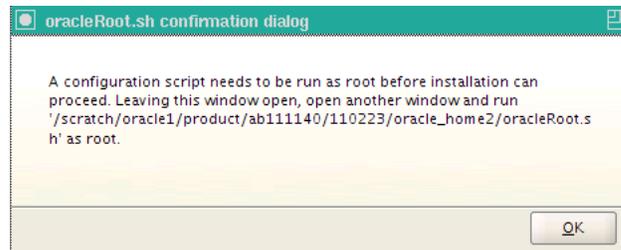
6. **Summary.** The *Installation Summary* page lists the components and locations for install. You can save the response file by clicking **Save**.

If you want to change any of your installation or configuration choices, you can select the item from the left pane, make the changes, then return to the *Installation Summary* page.

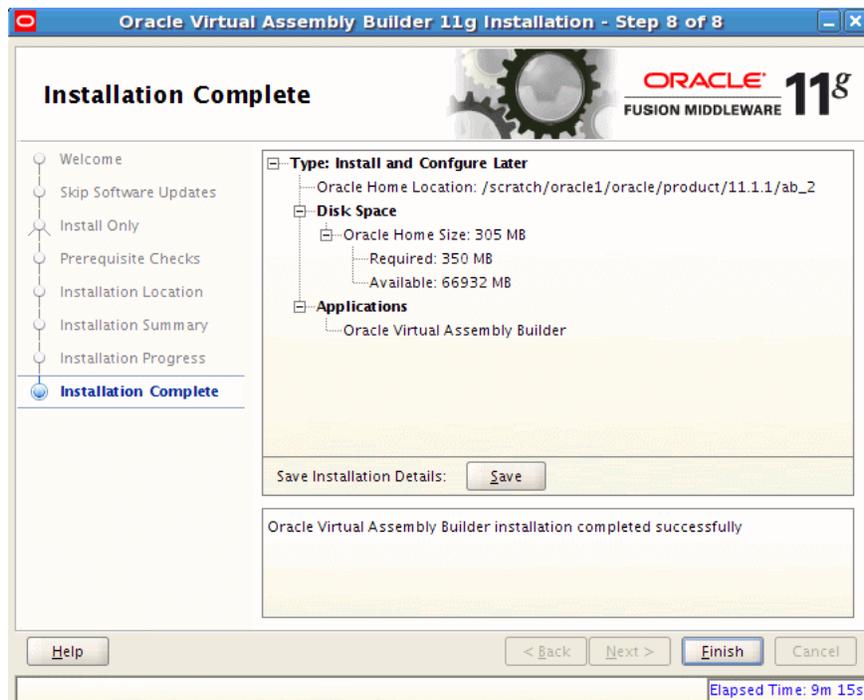
Click **Install** to start the installation process. An *Installation Progress* page appears with relevant information.

Figure 2–24 Installation Progress page

7. As installation progresses, a pop-up message will appear, instructing you to run a configuration script. Follow the instructions in the message.

Figure 2–25 Configuration script pop-up message

8. When installation is complete, the *Installation Complete* page appears.

Figure 2–26 Installation Complete page

9. If you installed Oracle Virtual Assembly Builder Deployer, you must configure the Deployer using the procedures in [Chapter 3, "Configuring Oracle Virtual Assembly Builder Deployer"](#).

2.1.3 Configure Only

This Installation option (in which only instance configuration occurs) is available when a user launches the Configuration Wizard after completing a software installation. To begin Configure Only, execute `config.sh` from the `$ORACLE_HOME/bin` folder. Follow these steps:

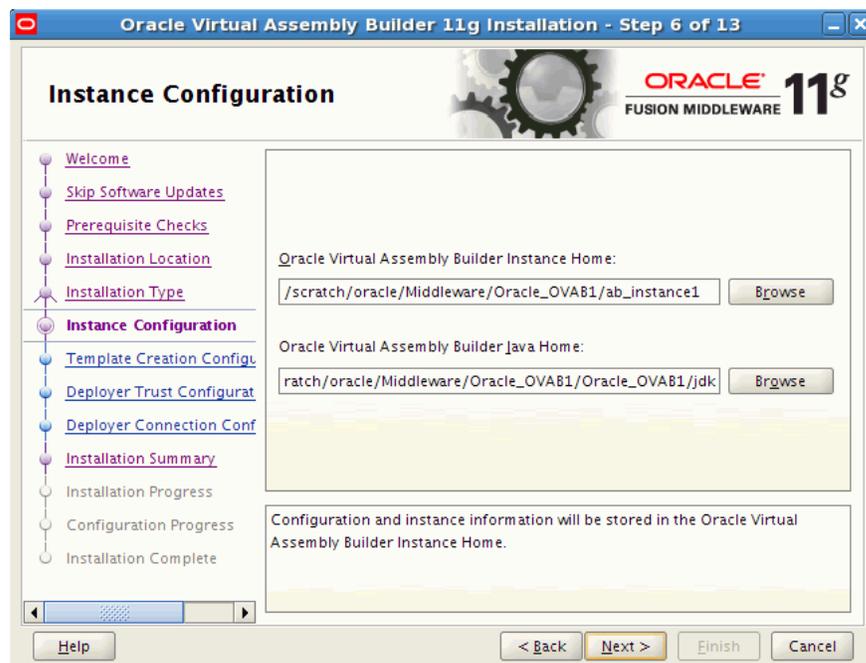
1. **Welcome.** This page introduces the installation. The flow of installation appears in the left panel, and control buttons appear along the bottom.

Figure 2–27 Installation Welcome page



When you are ready to begin installation, click **Next**. The *Instance Configuration* page appears.

Note: Help is available on all of the pages. Use it to learn about what you can do in that page, field descriptions, possible values, and other information.



2. **Instance Configuration.** Enter, or choose, the *Oracle Virtual Assembly Builder Instance Home*, and the *Oracle Virtual Assembly Builder Java Home*.

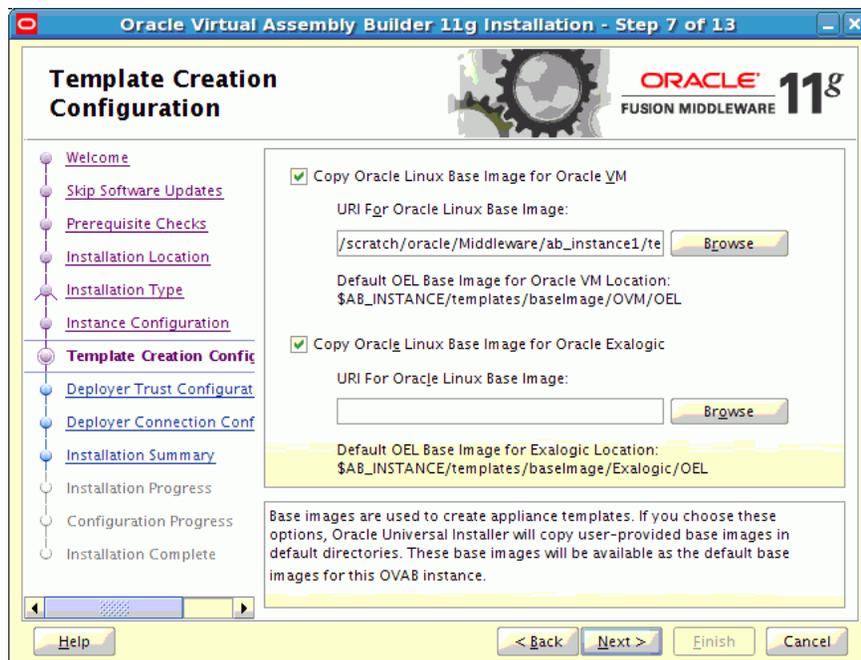
Oracle Virtual Assembly Builder Instance Home: The home of an Oracle Virtual Assembly Builder instance.

Oracle Virtual Assembly Builder Java Home: The Java Home for Oracle Virtual Assembly Builder.

Note: If you start installation without an explicit JRE location, the JAVA_HOME location will default to \$ORACLE_HOME/jdk. You can change to another JDK location.

Click **Next**. The *Template Creation Configuration* page appears.

Figure 2–28 *Template Creation Configuration page*



3. **Template Creation Configuration.** This page enables you to define base images that you will use to create new appliances. On this page, you provide the URIs for the *Oracle Enterprise Linux Base Image* for Oracle VM and Oracle Exalogic.

Note: When you choose to configure the OEL base image, Oracle Installer copies a user-provided OEL base image in \$AB_INSTANCE/templates/baseImage/OVM/OEL directory. This base image will be available as the default base image for this OVAB instance.

If you want to have base images shared across all Oracle Virtual Assembly Builder instances, do not select to configure the OEL base image here and do this after install completes:

- Create following directories inside \$ORACLE_HOME directory:
 - \$ORACLE_HOME/templates/baseImage/OVM/OEL
 - Copy OEL base image files (System.img and vm.cfg) into \$ORACLE_HOME/templates/baseImage/OVM/OEL directory
-

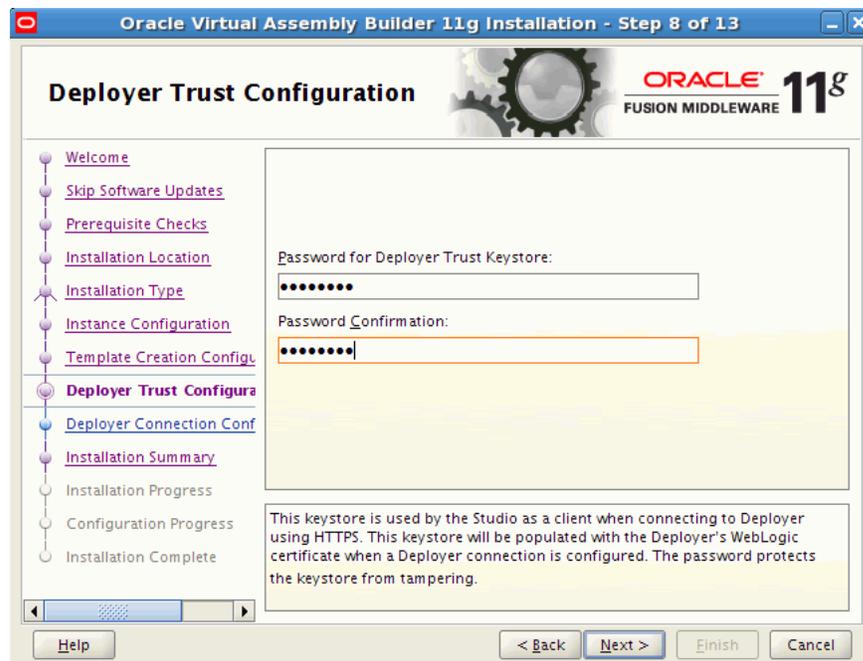
Note: Base images are stored in either \$AB_INSTANCE, or in \$ORACLE_HOME. Here is the order of precedence for base image detection:

- location specified by -baseImage flag
 - \$AB_INSTANCE/templates/baseImage/OVM/OEL
 - \$ORACLE_HOME/templates/baseImage/OVM/OEL
-

Configure Oracle Enterprise Linux Base Image: If selected, provide the URIs for the OEL Base Images for Oracle VM and Oracle Exalogic.

After entering (or selecting) the locations, click **Next**. The *Deployer Trust Configuration* page appears.

Figure 2–29 *Deployer Trust Configuration page*



4. **Deployer Trust Configuration.** The Deployer uses this keystore to identify trusted servers.

Enter, and confirm, the password for the *Deployer Trust Keystore*.

Click **Next**. The *Deployer Connection Configuration* page appears.

Figure 2–30 *Deployer Connection Configuration* page



5. **Deployer Connection Configuration.** You can configure a connection to Oracle Virtual Assembly Builder Deployer. To do so, check **Configure Studio to Deployer Connection** and enter the connection information:

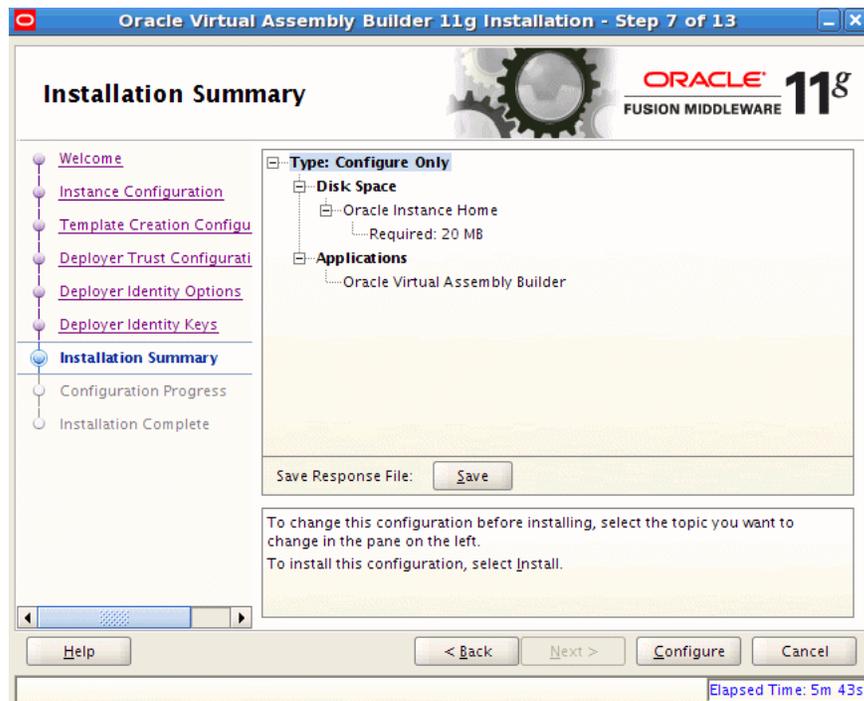
- Connection Name: name of the Deployer connection.
- Deployer URL: URL of the Deployer Web service.
- User Name: username to use to authenticate with the Deployer Web service.
- Password: password to use to authenticate with the Deployer Web service.

Click **Next**.

If you configured a connection, the connection is tested. If you see a connection failure, check that the Oracle Middleware Administration Server is up, and hostname, username, and password are correctly configured.

The *Installation Summary* page appears.

Figure 2–31 Installation Summary page



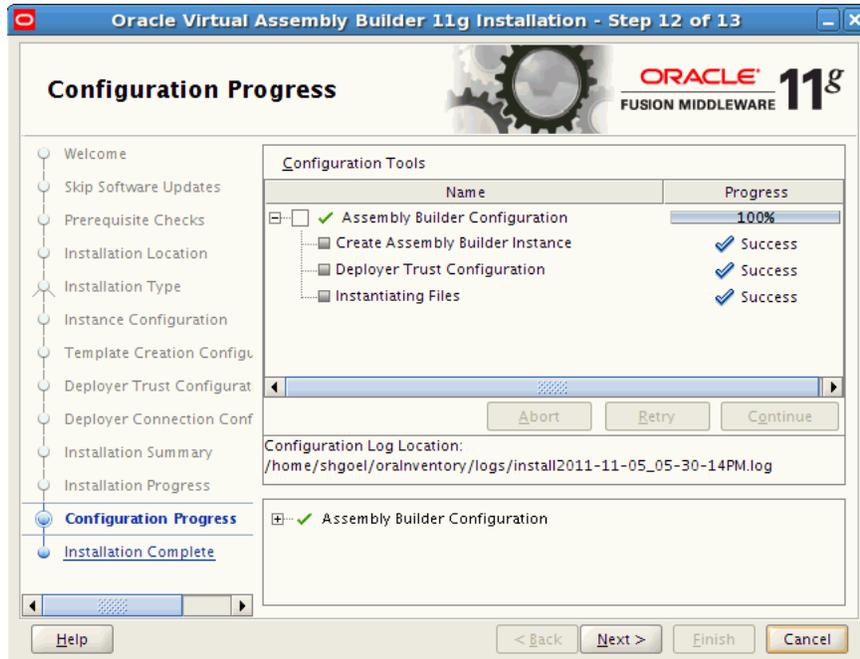
6. **Summary.** The *Installation Summary* page lists the components and locations for install. You can save the response file by clicking **Save**.

If you want to change any of your installation or configuration choices, you can select the item from the left pane, make the changes, then return to the *Summary* page.

Click **Configure** to start the configuration process.

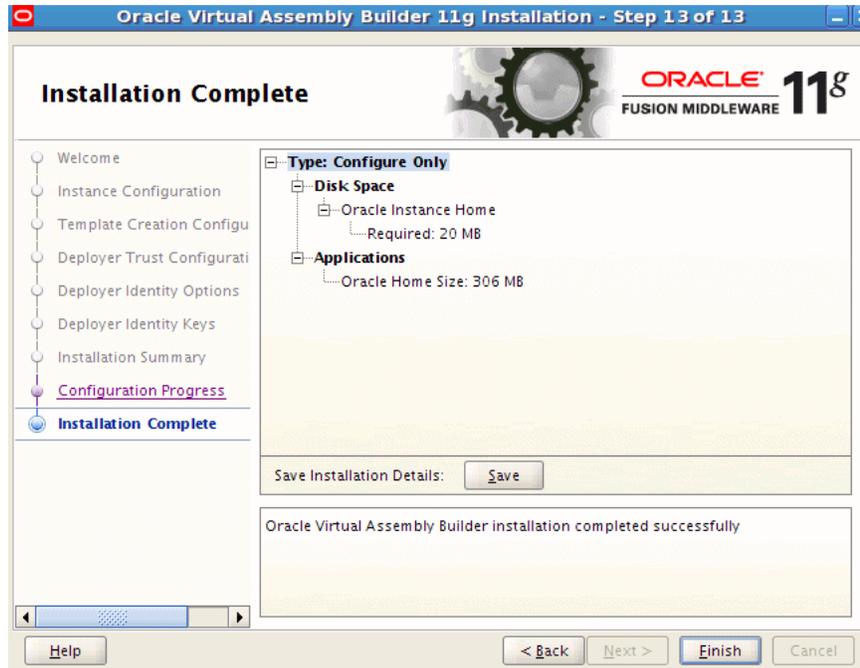
7. A Configuration Progress page appears.

Figure 2–32 Configuration Progress page



8. When installation is complete, the *Installation Complete* page appears.

Figure 2–33 Installation Complete page



2.1.4 Silent Installation

Silent installation is supported with a set of response files covering all user inputs. The templates of silent response files are provided in the Disk1/stage/Response folder.

Silent Installation is launched by executing

```
/runInstaller -silent -responseFile <absolute path to response file>
```

2.2 Deinstalling

To deinstall Oracle Virtual Assembly Builder, execute this command:

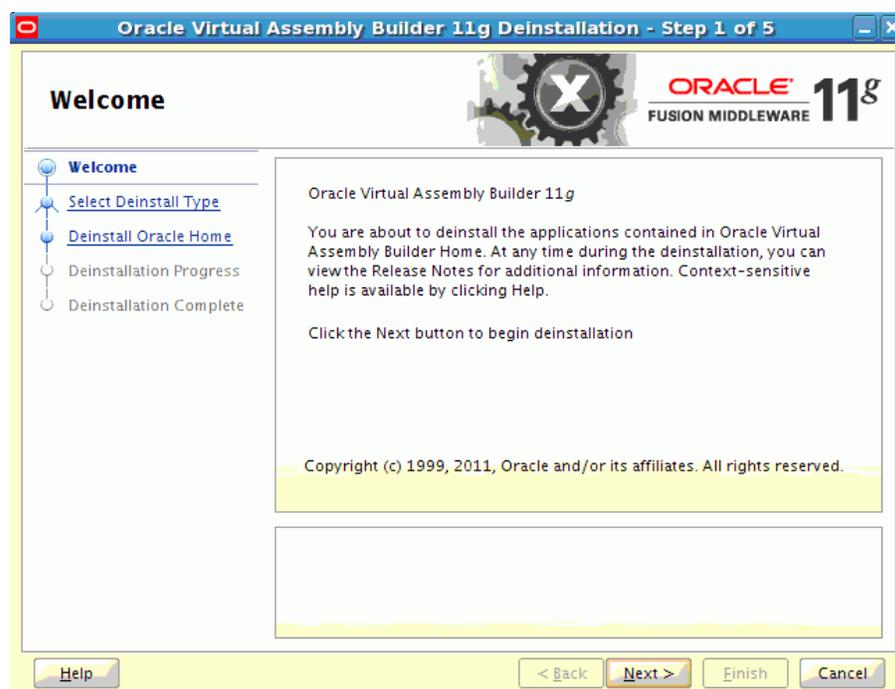
```
$ORACLE_HOME/oui/bin/runInstaller -deinstall
```

In silent mode:

```
$ORACLE_HOME/oui/bin/runInstaller -deinstall -silent -responseFile <absolute path of response file>
```

When you execute the deinstall command, Oracle Universal Installer starts. The Welcome page appears.

Figure 2–34 Deinstall Welcome page



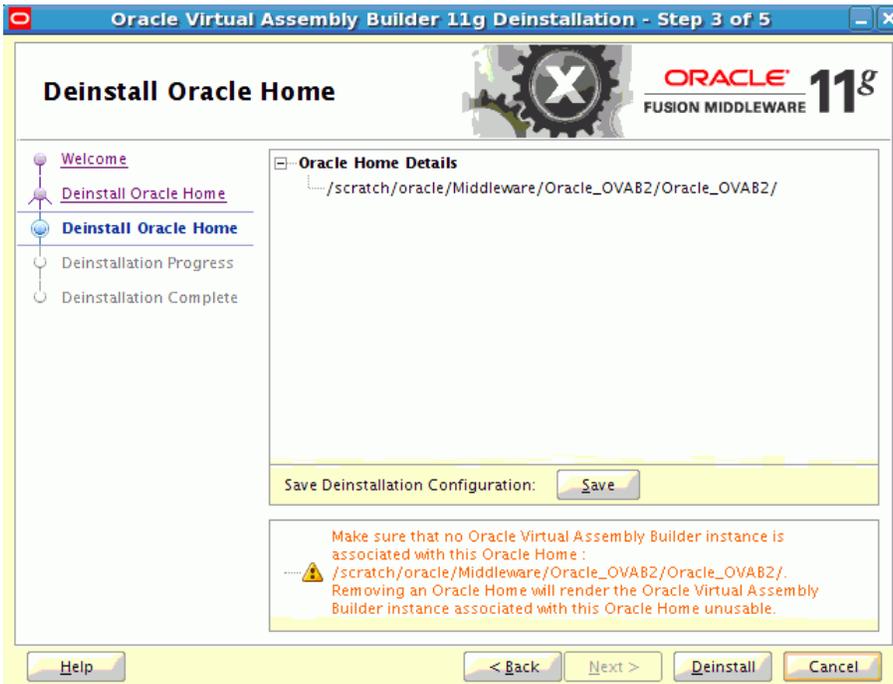
1. Click **Next**. The *Select Deinstallation Type* page appears.

Figure 2–35 Select Deinstallation Type page



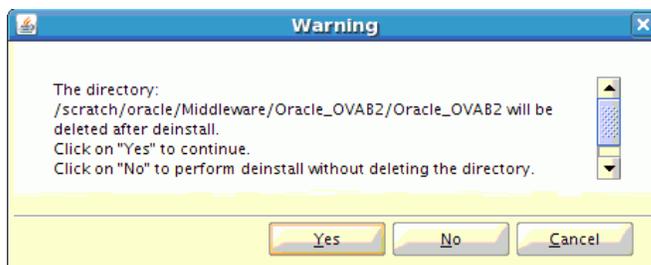
2. Depending on what you want to deinstall, different pages will appear.
 - If you choose to deinstall Oracle Home, the *Deinstall Oracle Home* page appears:

Figure 2–36 Deinstall Oracle Home page



Click **Deinstall**. A warning appears informing you of the consequences of your actions, and giving you the opportunity to deinstall without removing the Oracle Home.

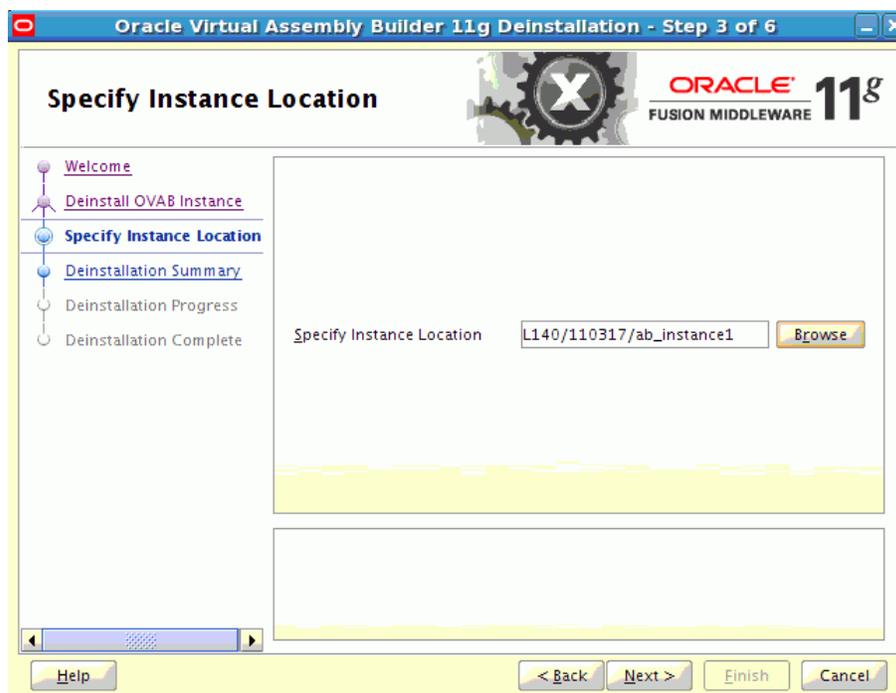
Figure 2–37 Deinstallation Warning Pop-up



Choose **Yes** or **No**. The *Deinstallation Progress* page appears (see [Figure 2–40](#)).

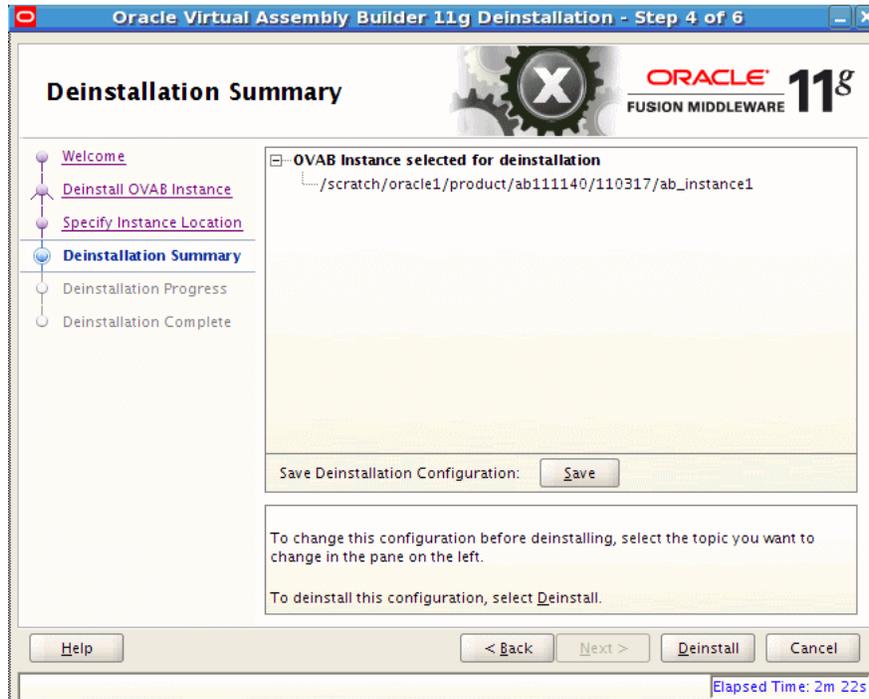
- If you choose to deinstall the Oracle Virtual Assembly Builder instance, the *Specify Instance Location* page appears:

Figure 2–38 Specify Instance Location page



Enter (or browse to and choose) the Oracle Virtual Assembly Builder instance location, then click **Next**. The *Deinstallation Summary* page appears.

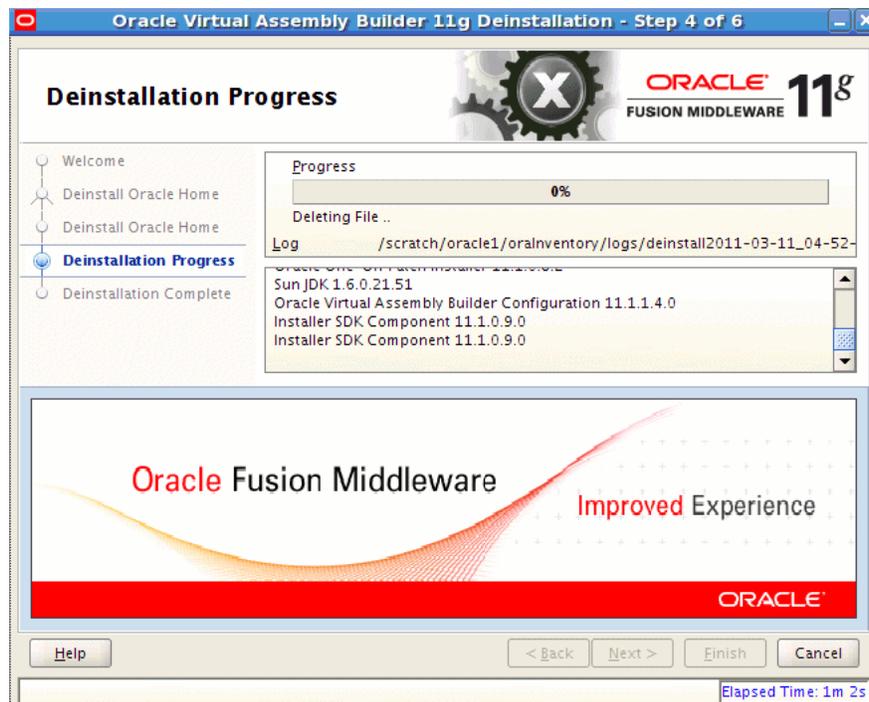
Figure 2–39 Oracle Virtual Assembly Builder Deinstallation Summary page



Click **Deinstall**. The *Deinstallation Progress* page appears.

The content of the Deinstallation Progress page varies according to your selections.

Figure 2–40 Deinstallation Progress page



3. When the deinstallation progress is complete, click **Finish**. The Deinstallation Complete page appears.

Figure 2–41 *Deinstallation Complete page*



4. When deinstallation is complete, the *Deinstallation Complete* page appears. Click **Finish**.

Configuring Oracle Virtual Assembly Builder Deployer

This chapter describes how to run the Oracle WebLogic Server configuration wizard to create a new domain using the Oracle Virtual Assembly Builder Deployer domain extension template. This will create a new Oracle WebLogic Server domain and deploy the Oracle Virtual Assembly Builder Deployer Web application.

This chapter contains the following sections:

- [Section 3.1, "Starting the Oracle Fusion Middleware Configuration Wizard"](#)
- [Section 3.2, "Creating a New Domain with Deployer"](#)
- [Section 3.3, "Manual Configuration for Oracle Virtual Assembly Builder Deployer"](#)
- [Section 3.4, "Configuring Security for the Deployer"](#)

3.1 Starting the Oracle Fusion Middleware Configuration Wizard

The Configuration Wizard is located in the `common/bin` directory in your WebLogic Server Oracle home.

```
cd ORACLE_HOME/common/bin
./config.sh
```

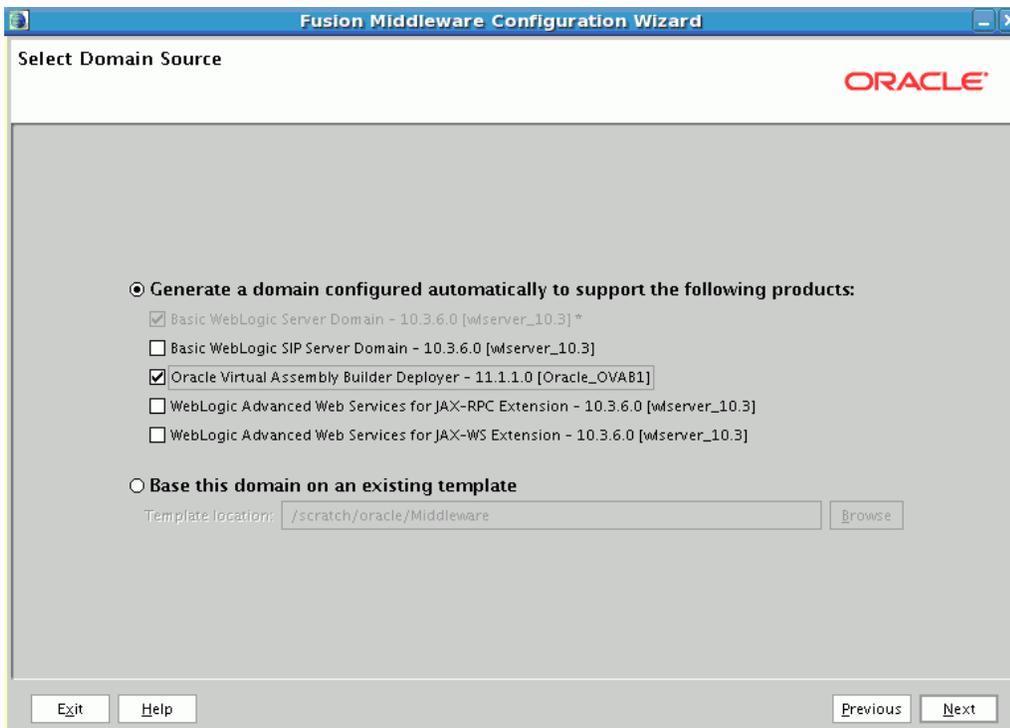
To create a new WebLogic domain, follow the instructions in [Section 3.2, "Creating a New Domain with Deployer"](#).

3.2 Creating a New Domain with Deployer

After you have started the Configuration Wizard ([Section 3.1, "Starting the Oracle Fusion Middleware Configuration Wizard"](#)), create a domain configured with Oracle Virtual Assembly Builder Deployer.

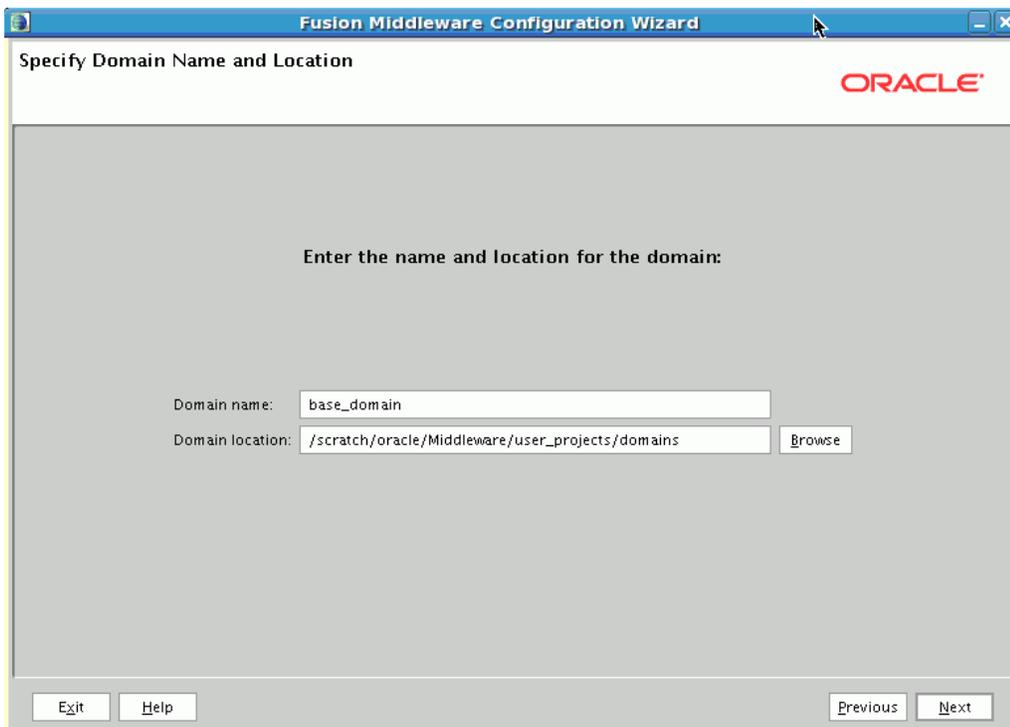
Select to create a new domain. To create a domain configured with Oracle Virtual Assembly Builder Deployer, select the following on the Select Domain Source screen:

- **Oracle Virtual Assembly Builder Deployer - 11.1.1.0 [*ORACLE_HOME*]**

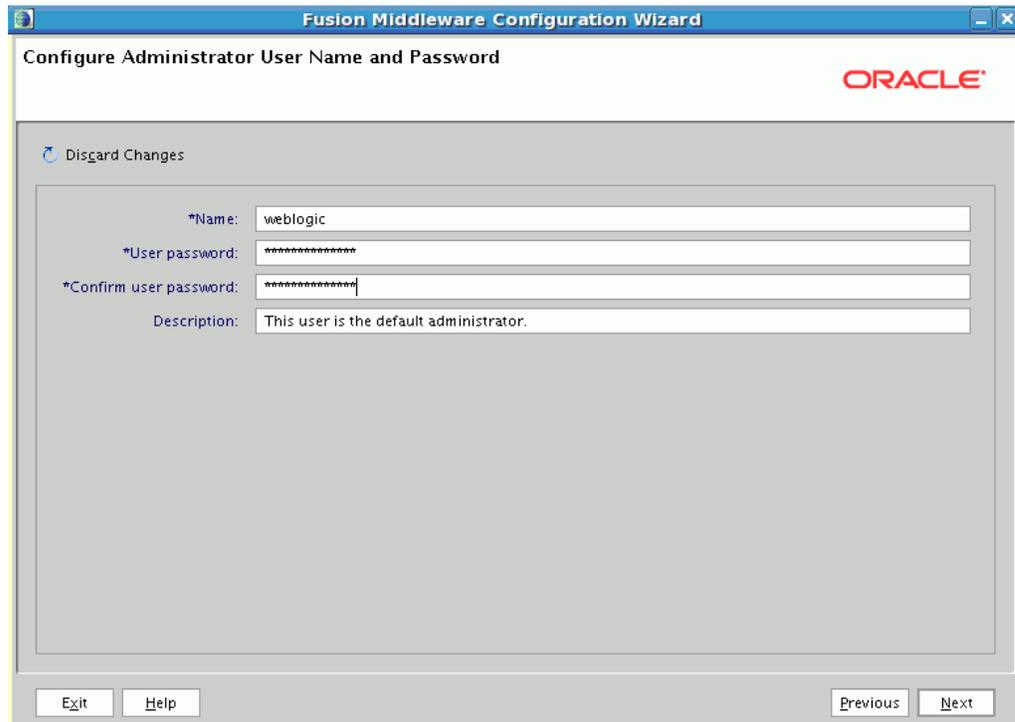


For more information about this screen, see "Select Domain Source" in *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*.

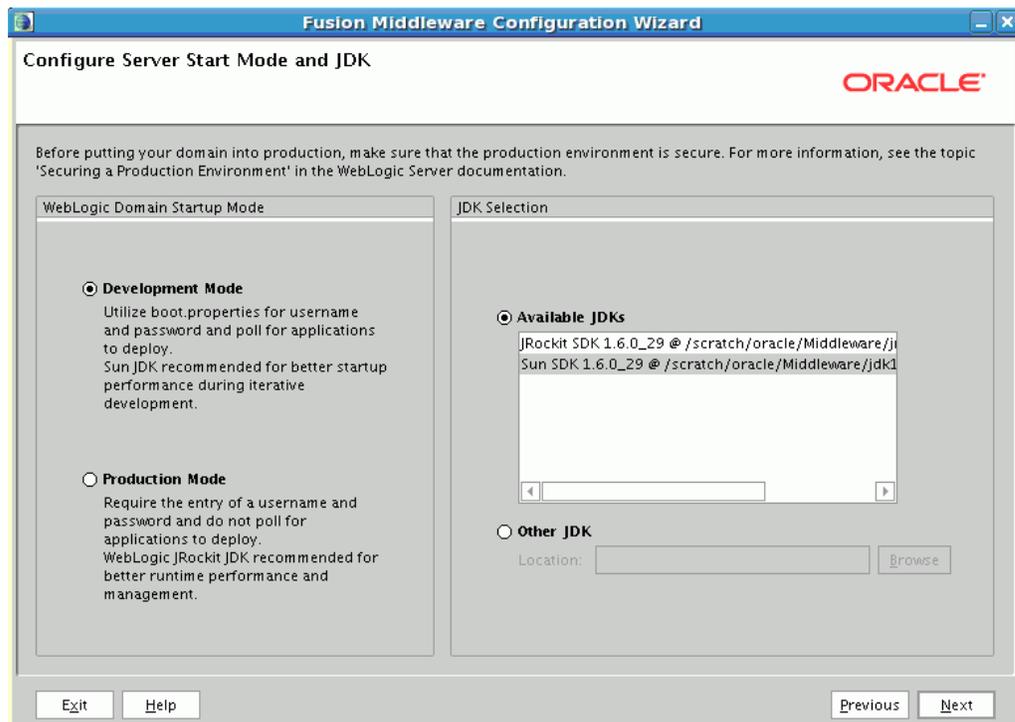
Enter the domain name and domain location, and click **Next**.



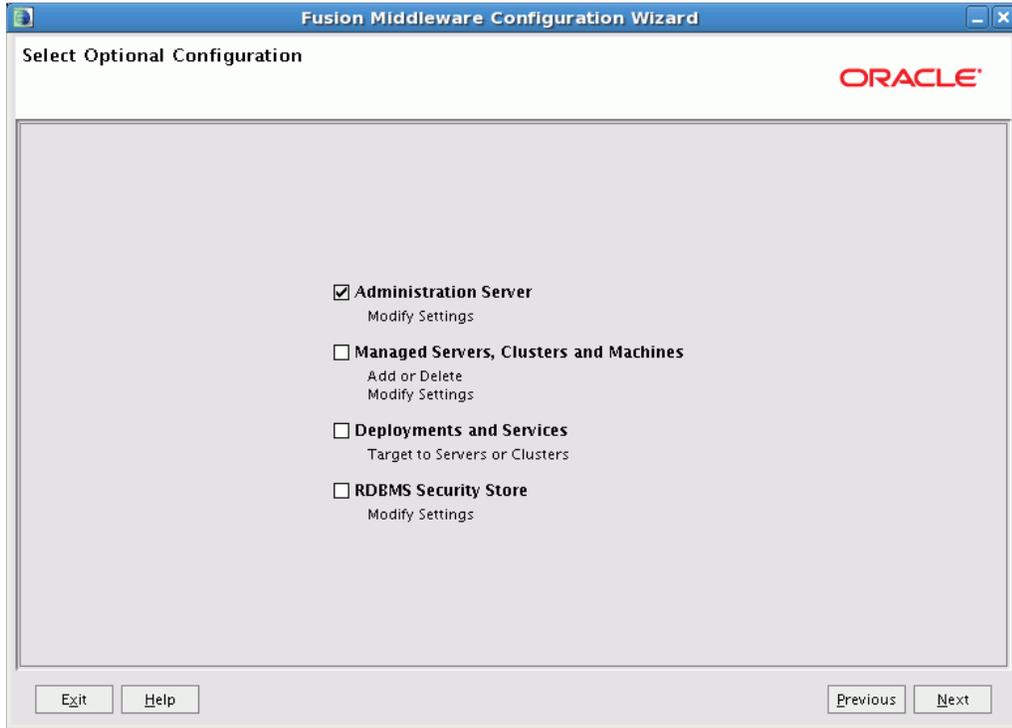
Enter the Oracle WebLogic administrator user name and password. The password must be at least 8 characters and contain at least one number or special character. Click **Next**.



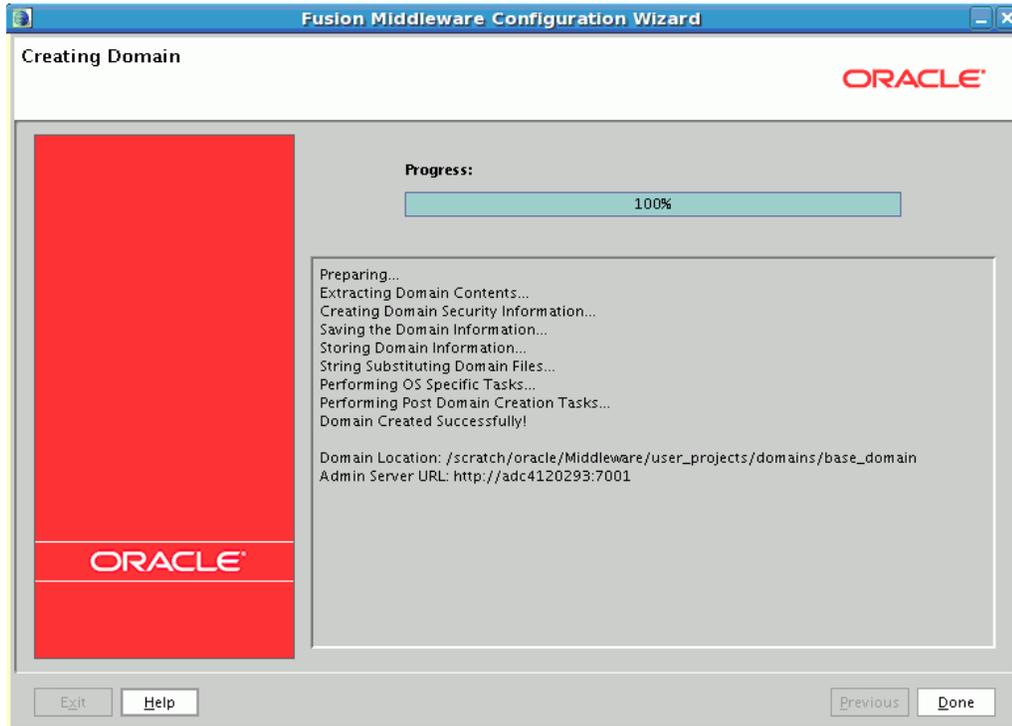
Select to use the Sun JDK. Click **Next**.



Select to create an Administration Server (required for Oracle Virtual Assembly Builder Deployer). Select any other optional configuration items you require.



Follow the remaining instructions. The domain is created, and the domain location and Administration Server URL are displayed.



The following servers are created:

- Administration Server

3.3 Manual Configuration for Oracle Virtual Assembly Builder Deployer

"Once the Oracle WebLogic Server domain has been created, set the URL for the Oracle Virtual Assembly Builder Deployer:

1. Edit `DOMAIN_HOME/bin/setOVABDomainEnv.sh`.
2. Uncomment the "OVAB_WEBSERVER_URL" entry and replace the hostname and port with the host and port of your Oracle WebLogic Server.

The `ovab.webserver.url` property refers to the base URL used by Oracle VM to download assembly archives (OVA files) on to Oracle VM Server hosts. The URL must be accessible from the Oracle VM Server hosts. The port 7001 is the default non-secure application port in WLS. You can use `https://<ip/host>:7002` for secure download, where 7002 is the default secure application port in Oracle WebLogic Server.

3.4 Configuring Security for the Deployer

Oracle Virtual Assembly Builder defines security roles and groups. The product installer sets up the necessary roles and groups for the embedded LDAP case. After the domain creation is complete you must create users and add them to the 'Cloud Admin' and 'Application Admin' groups through the Oracle WebLogic Server console. These are the users that should be specified when creating connections to the Deployer. All users added to the Cloud Admins group must also be added to the Application Admins group.

See *Oracle Virtual Assembly Builder User's Guide* for information on understanding and enabling the security model employed by Oracle Virtual Assembly Builder Deployer.

To configure an external LDAP server, create roles and groups, and add users to the Cloud Admins and Application Admins groups:

1. Use the procedures in *Oracle® Fusion Middleware Securing Oracle WebLogic Server* to configure Oracle WebLogic Server for external LDAP.
2. Create groups for "Cloud Admins" and "Application Admins" in the LDAP server. See *Oracle Virtual Assembly Builder User's Guide*.
3. Add the users defined in the LDAP server to these groups.
4. Place the groups into the security roles using the role expression `Grp (GroupName | GroupName | GroupName)`.
5. Perform the procedures in *Oracle Virtual Assembly Builder User's Guide* to define the connection to the Oracle VM or Oracle Exalogic backend endpoints, to provide credentials if required, and to add deployment targets in the backend.

