

Oracle® Application Server 10g

Quick Installation and Upgrade Guide

10g (9.0.4) for hp Tru64 UNIX

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1 Introduction

Oracle recommends reviewing the *Oracle Application Server 10g Installation Guide* and the *Oracle Application Server 10g Release Notes* before installing Oracle Application Server in a production environment or if there is an existing Oracle software installation on the computer

This Oracle Application Server Quick Installation Guide describes procedures for installation for the following Oracle Application Server installation types:

- **J2EE and Web Cache**
- **Portal and Wireless**

[Table 1](#) shows the contents of the Oracle Application Server Quick Installation Guide:

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Note: If you are installing on a computer with an existing Oracle home, Oracle recommends that you read the *Oracle Application Server 10g Installation Guide* before installation. To determine whether an Oracle installation exists, check whether the `/var/opt/oracle/oraInst.loc` file exists.

See Also:

- *Oracle Application Server 10g Installation Guide*
- *Oracle Application Server 10g Upgrading to 10g (9.0.4)*

2 Requirements

This section describes pre-installation requirements for installation of Oracle Application Server. Oracle recommends that you review and complete the tasks listed in the following sections:

- [Section 2.1, "Check Hardware Requirements"](#)
- [Section 2.2, "Check Software Requirements"](#)
- [Section 2.3, "Create an Inventory Directory Group"](#)
- [Section 2.4, "Create Database Groups"](#)
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2.1 Check Hardware Requirements

Check that your computer meets the following disk space and memory requirements:

| Item | Java Developer Topology | Portal and Wireless Developer Installation Type | OracleAS Infrastructure 10g |
|---------------|-------------------------|---|-----------------------------|
| Memory | 512 MB | 1 GB | 1 GB |
| Disk space | 1.30 GB | 2.10 GB | 4.40 GB |
| Space in /tmp | 400 MB | 400 MB | 400 MB |
| Swap space | 1.5 GB | 1.5 GB | 1.5 GB |

The installer may display inaccurate disk space requirement figures. Refer to the figures listed above for disk space requirements.

1. To determine the physical RAM size, enter the following command:

```
# prtconf | grep Memory
```

2. To determine the amount of free disk space, enter the following command:

```
prompt> df -k dir.
```

Replace **dir** with the Oracle home directory or with the parent directory if the Oracle home directory does not exist yet. For example, if you plan to install Oracle Application Server in `/opt/oracle/infra`, you can replace **dir** with `/opt/oracle` or `/opt/oracle/infra`.

3. To determine the amount of available swap space, enter the following command:

```
# /sbin/swapon -s
```

If necessary, see your operating system documentation for information on how to configure additional swap space.

2.2 Check Software Requirements

Complete the following steps before installing Oracle Application Server on Tru64 UNIX systems:

1. Check that hp Tru64 UNIX V5.1B or higher is installed by entering the following command:

```
# /usr/sbin/sizer -v  
Compaq Tru64 UNIX V5.1B (Rev. 2650); Mon Nov 3 10:13:28 PST 200
```

In this example, the version shown is V5.1B. If necessary, see your operating system documentation for information on upgrading the operating system.

2. Check that Java SDK 1.4.2-3 is installed:
 - a. Enter the following command:

```
# /usr/sbin/setld -i JAVA142 | more
```

If Java SDK 1.4.2 is installed, this command displays the paths to all of the installed files. Note the path of the Java home directory, for example `/usr/opt/java142`. You must specify this value during the installation and in the next step of this procedure.

If this command returns the message Unknown subset, Java SDK 1.4.2 is not installed. Proceed to step c below.

- b.** Display the version of the Java SDK using the following command, where *java_home* is the path you noted in the previous step:

```
# java_home/bin/java -fullversion
```

If Java SDK 1.4.2-3 is installed, the following message appears:

```
java full version "1.4.2-3"
```

If the version is older than Java SDK 1.4.2-3, proceed to step c below.

- c.** If Java SDK 1.4.2-3 or higher is not installed, download Java SDK 1.4.2-3 or higher from the following Web site and install it:

```
http://h18012.www1.hp.com/java/download/unix/1.4.2/index.html
```

Note: The location of this download is subject to change. Refer to the "Installation, Migration, and Upgrade Issues" chapter of the *Oracle Application Server 10g Release Notes for hp Tru64 UNIX* on OTN for the most recent download location.

3. Enter the following command to make sure all the required software subsets are installed:

```
# /usr/sbin/setld -i | more
```

The required software subsets are:

```
OSFCMPLRS  
OSFLIBA  
OSFPGMR  
OSFSER  
OSFX11
```

If necessary, install the required software subset. If you require the Compaq C Compiler V6.5-207 (dtk), you can download it from the following Web site:

<http://www.tru64unix.compaq.com/dtk/>

4. Enter the following command to make sure all the required patches are installed:

```
# /usr/sbin/dupatch -track -type kit
```

The required patches are:

- **Tru64 UNIX V5.1B Patch Kit 2 or higher:**
T64V51BB22AS0002-20030415
- **HP Tru64 UNIX V5.1B PK2 (BL22) ERP Kit - Fix for Multiple applications may be granted an exclusive lock on the same file:**
T64KIT0021665-V51BB22-E-20040220
- **Tru64 UNIX V5.1B PK2/BL22 Early Release Patch - Fix for Potential Application Core Dump:**
T64KIT0021681-V51BB22-E-20040223
- **HP Tru64 UNIX - Problem with IP Multicast Packets:**
T64KIT0019662-V51BB22-E-20030818
- **HP Tru64 UNIX 5.1B PK2 BL22 Fixes for AdvFS Panic in _OtsMove; and Possible Memory Corruption:**
T64KIT0020879-V51BB22-E-20031125

If this command does not display the identifiers shown in the previous list for the required patch kits (or the identifier for a higher patch kit level), download the latest patch kit from the following Web site and install it (registration is required to access this Web site):

<http://itrc.hp.com/service/patch/mainPage.do>

5. A special version of Motif 2.1 is required to run Oracle Application Server 10g (9.0.4). For information on downloading the required version of Motif, see:

<http://h18012.www1.hp.com/java/download/unix/1.4.2/index.html>

Note: The location of this download is subject to change. Refer to the "Installation, Migration, and Upgrade Issues" chapter of the *Oracle Application Server 10g Release Notes for hp Tru64 UNIX* on OTN for the most recent download location.

2.3 Create an Inventory Directory Group

Create a local operating system group to own the product files. You can use any name for the group, this guide uses the name `oinstall`. To create the `oinstall` group, enter the following as the `root` user:

```
# /usr/sbin/groupadd oinstall
```

For more information about operating system users and groups, see your operating system documentation or contact your system administrator.

2.4 Create Database Groups

This section applies only if you are installing the Portal and Wireless Developer Topology.

Create two groups `dba` and `oper` using the following commands:

```
# /usr/sbin/groupadd dba
# /usr/sbin/groupadd oper
```

2.5 Create an Operating System User

You can use any name for the user, this guide uses the name `oracle`. This user must belong to the `oinstall` operating system group.

If you installing a Portal and Wireless Developer topology you must also add this user to the `dba` and `oper` operating system groups.

To create the `oracle` operating system user for the Java Developer topology, enter the following command as the root user:

```
# /usr/sbin/useradd -g oinstall oracle
```

To create the `oracle` operating system user for the Portal and Wireless Developer topology, enter the following command as the root user:

```
# /usr/sbin/useradd -g oinstall -G dba,oper oracle
```

For more information about operating system users and groups, see your operating system documentation or contact your system administrator.

Set the password for the `oracle` user by entering the following command and follow the instructions on screen:

```
# passwd oracle
```

2.6 Check Environment Variables

Check the values of the environment variables shown in [Table 2](#) when logged in as the `oracle` user.

Note: If you set the environment variables as a different user, and then switch to the `oracle` user using the "`su - oracle`" command, the environment variables are not passed to the `oracle` user. Always check the environment variables before you start the installer.

Table 2 *Environment Variables*

| Environment Variable | Description |
|----------------------|--|
| DISPLAY | Set to the current computer. Example (C shell): <pre>% setenv DISPLAY machine1.acme.com:0.0</pre> Example (Bourne, Bash or Korn shell): <pre>\$ DISPLAY=machine1.acme.com:0.0; export DISPLAY</pre> |

Table 2 Environment Variables (Cont.)

| Environment Variable | Description |
|-----------------------------|--|
| TMPDIR and TMP | <p>If you want the installer to use a directory other than <code>/tmp</code>, set the <code>TMP</code> and <code>TMPDIR</code> environment variable to the full path of an alternate directory. The <code>oracle</code> user must have write permissions for this directory.</p> <p>Example (C shell):</p> <pre>% setenv TMP /tmp2 % setenv TMPDIR /tmp2</pre> <p>Example (Bourne or Korn shell):</p> <pre>\$ TMP=/tmp2; export TMP \$ TMPDIR=/tmp2; export TMPDIR</pre> |
| ORACLE_HOME | <p>The installer unsets this variable for you.</p> |

Table 2 Environment Variables (Cont.)

| Environment Variable | Description |
|--------------------------------------|--|
| PATH, CLASSPATH, and LD_LIBRARY_PATH | <p>Check that these variables do not contain references to any Oracle home directories. To view the value of an environment variable, use the <code>echo</code> command:</p> <p>Example (C shell):</p> <pre>% echo \$PATH</pre> <p>Example (Bourne, Bash or Korn shell):</p> <pre>\$ echo \$PATH</pre> <p>If the PATH environment variable contains Oracle home directories, set the variable to contain the current directories except for the Oracle home directories.</p> |
| TNS_ADMIN | <p>Ensure this environment variable is not set.</p> <p>Example (C shell):</p> <pre>% unsetenv TNS_ADMIN</pre> <p>Example (Bourne, Bash or Korn shell):</p> <pre>\$ unset TNS_ADMIN</pre> |

Table 2 Environment Variables (Cont.)

| Environment Variable | Description |
|-----------------------------|---|
| ORA_NLS33 | Ensure this environment variable is not set. Example (C shell): % unsetenv ORA_NLS33 Example (Bourne, Bash or Korn shell): \$ unset ORA_NLS33 |

2.7 Configure Kernel Subsystem Attributes

This section is applicable only if you are installing a Portal and Wireless Developer topology. You will be installing a database for the OracleAS Metadata Repository.

Verify that the kernel parameters shown in the following table are set either to the formula shown, or to values greater than or equal to the recommended value shown. The procedures following the table describe how to verify and set the values.

| Sub-system | Attribute | Recommended Value |
|-------------------|------------------|--|
| ipc | shm_max | 4278190080 (4 GB minus 16 MB) |
| | shm_min | 1 |
| | shm_mni | 256 |
| | shm_seg | 256 |
| | ssm_threshold | Set this attribute to 0 only if the rad_gh_regions[n] or gh_chunks attributes are set in the vm subsystem. Otherwise, do not change the value. |
| | msg_mnb | 360000 |
| | msg_mni | 2800 |
| | msg_tql | 2540 |
| | sem_mni | 52 |
| | sem_msl | 25 |
| | sem_opm | 12 |
| | sem_ume | 42 |

| Sub-system | Attribute | Recommended Value |
|-------------------|----------------------------|---|
| proc | per_proc_stack_size | 8388608 (8 MB) ¹ |
| | max_per_proc_stack_size | 67108864 (64 MB) ¹ |
| | per_proc_data_size | 335544320 (320 MB) |
| | max_per_proc_data_size | 2147483648 (2 GB) |
| | max_per_proc_address_space | Equal to the size of RAM or 1073741824 (1 GB), whichever is larger. |
| | per_proc_address_space | Equal to the size of RAM or 1073741824 (1 GB), whichever is larger. |
| | max_proc_per_user | 2566 |
| | max_threads_per_user | 8192 |
| vfs | fifo_do_adaptive | 0 |
| vm | new_wire_method | 0 |

| Sub-system | Attribute | Recommended Value |
|------------|------------------------|---|
| rdg | msg_size | 32768 |
| | max_objs | 5120 |
| | max_async_req | 256 |
| | max_sessions | 500 (or at least 20 plus the value of the PROCESSES initialization parameter for all databases on the system, if this value is higher.) |
| | rdg_max_auto_msg_wires | 0 |
| | rdg_auto_msg_wires | 0 |
| rt | aio_task_max_num | 8193 |

¹ The maximum value supported by Oracle for this parameter is 512 MB.

Note: If the current value for any parameter is higher than the value listed in this table, do not change the value of that parameter.

To view the current value specified for these kernel parameters, and to change them if necessary, follow these steps:

1. To view the current values of the subsystem attributes, enter commands similar to the following:

```
# /sbin/sysconfig -q subsystem
```

For example, to view attribute values for the ipc subsystem, enter the following command:

```
# /sbin/sysconfig -q ipc
```

2. If you must change any of the current values, follow these steps:
 - a. Create a backup copy of the `/etc/sysconfigtab` file, for example:

```
# cp /etc/sysconfigtab /etc/sysconfigtab.orig
```

- b. Using any text editor, create a file similar to the following, specifying the subsystems and attributes that you want to modify:

```
ipc:  
    shm_max = 4278190080  
    shm_min = 1
```

```
shm_mni = 256
shm_seg = 128
msg_mnb = 360000
msg_mni = 2800
msg_tql = 2540
sem_mni = 52
sem_msl = 25
sem_opm = 12
sem_ume = 42
```

```
proc:
```

```
per_proc_stack_size = 8388608
max_per_proc_stack_size = 67108864
per_proc_data_size = 201326592
max_per_proc_data_size = 2147483648
max_per_proc_address_space = 4294967296
per_proc_address_space = 4294967296
max_proc_per_user = 2566
max_threads_per_user : 8192
```

- c.** Enter a command similar to the following to add the subsystem attributes to the `/etc/sysconfigtab` file:

```
# /sbin/sysconfigdb -m -f filename
```

In this example, *filename* is the name of the file you created in step b.

- d. Enter the following command to reboot the system:

```
# /sbin/shutdown -r now
```

2.8 Check Port Use

This section is applicable only if you are installing a Portal and Wireless Developer topology.

If you have other applications listening on port 1521, you may need to configure them so that they listen on a different port.

Verify whether port 1521 is in use by an application on your computer with the following command:

```
prompt> netstat -an | grep 1521
```

Review the output to verify if port 1521 is in use.

If port 1521 is in use by your OracleAS Metadata Repository, then you may share the port with your installation of Portal and Wireless. Refer to the *Oracle Application Server 10g Installation Guide* for documentation on sharing ports.

If port 1521 is in use by a third-party application, you need to configure the application to use a different port. Refer to the *Oracle Application Server 10g Installation Guide* or third-party documentation for information on sharing ports.

2.9 Mounting Your CD-ROM or DVD

Oracle CD-ROMs are in ISO 9660 format with Rockridge extensions. The DVD is in DVD-ROM format.

On UNIX systems, mounting or unmounting the disc manually requires `root` privileges. Unmount the disc before removing it from the drive, using the `umount` command.

To check whether the disc mounted automatically, enter the following command:

```
# ls /cdrom
```

If the disc is not mounted, you must mount the disc manually.

In the following instructions, the disc mount point is referred to as `/cdrom`. If your mount point is different, substitute the correct mount point name for all references to `cdrom`.

To mount the disc manually:

1. Place the disc in the disc drive.
2. Log in as the `root` user and create a disc mount point directory accessible by all users:

```
% su
Password:
# mkdir /cdrom
# chmod 777 /cdrom
```

3. Mount the disc drive on the disc mount point directory.

```
# /usr/sbin/mount -t cdfs -o nodefperm,noversion \
/dev/disk/cdrom0c /cdrom
```

4. Exit the root account.

```
# exit
```

2.10 Starting up the Installer

1. Log in as the `oracle` user. If you switched to the `oracle` user using the "`su - oracle`" command, check the values of the

environment variables again because the variables are not passed to the `oracle` user.

2. Insert Oracle Application Server Disc 1 into the disc drive.
3. Run the following commands (shown below the notes) to start up the Oracle Universal Installer from the disc.

Notes:

- Be sure you are not logged in as the root user when you start the Oracle Universal Installer. If you are, then only the root user will have permissions to manage Oracle Application Server.
 - Do not start the installation inside the `mount_point` directory. If you do, then you may not be able to eject the installation disk. The `cd` command, shown below, changes the current directory to your home directory.
-
-

CD-ROM users enter:

```
prompt> cd  
prompt> /cdrom/runInstaller
```

DVD users enter:

```
prompt> cd  
prompt> /cdrom/application_server/runInstaller
```

3 Installation

This section describes how to install these two Oracle Application Server topologies:

- **Java Developer topology:** Install this topology if you need a simple container for deploying and testing J2EE applications. See [Section 3.1, "Installing a Java Developer Topology"](#).
- **Portal and Wireless Developer topology:** Install this topology if you plan to develop applications that use OracleAS Portal, Oracle Application Server Wireless, or Identity Management services, such as Oracle Internet Directory and OracleAS Single Sign-On. You must install OracleAS Infrastructure 10g to install this topology. See [Section 3.2, "Installing a Portal and Wireless Developer Topology"](#).

These topologies are intended for development environments. See the *Oracle Application Server 10g Installation Guide* for additional topologies, including deployment topologies. Oracle recommends reviewing the *Oracle Application Server 10g Installation Guide* to verify coexistence of Oracle Application Server components for your deployment topology.

3.1 Installing a Java Developer Topology

A Java Developer topology consists of a J2EE and Web Cache instance, on which you can deploy and run J2EE applications.

Perform the following procedure to install a J2EE and Web Cache instance:

1. Start up the installer. See [Section 2.10, "Starting up the Installer"](#) for details.
2. Welcome screen: Click **Next**.
3. If this is the first Oracle product to be installed on this computer, you have to set up the "inventory" directory, as prompted by these screens:
 - a. Specify Inventory Directory screen

Enter the full destination path for the inventory directory:

Enter the full destination path for the directory where you want the installer to store its files. Enter a directory that is different from the Oracle home directory.

Example: `/opt/oracle/oraInventory`

Click **OK**.

b. UNIX Group Name screen

Enter the name of the operating system group to have write permission for the inventory directory.

Example: oinstall

Click **Next**.

- c. Run orainstRoot.sh: Run the orainstRoot.sh script in a different shell as the root user. The script is located in the oraInventory directory.

Click **Continue**.

4. Specify File Locations screen:

Name: Enter a name to identify this Oracle home.

Example: OH_J2EE_904

Destination Path: Enter the full path to the destination directory. This is the Oracle home directory.

Example: /opt/oracle/OraJ2EE_904

If the destination directory does not exist, Oracle Universal Installer creates it.

If you want to create the destination directory beforehand, create it as the `oracle` user; do not create it as the `root` user.

Click **Next**.

5. Specify Hardware Cluster Installation Mode screen: This screen appears only on a computer that is part of a hardware cluster. This instance cannot be automatically installed on all computers of a cluster.

For information on installing Oracle Application Server in a clustered environment, see the *Oracle Application Server 10g Installation Guide*.

If you want to continue this installation, select **Single Node Installation** and click **Next**.

6. Select a Product to Install screen: Select Oracle Application Server and click **Next**.
7. Select Installation Type screen: Select **J2EE and Web Cache** and click **Next**.
8. Preview of Steps for Middle Tier Installation screen: Click **Next**.
9. Confirm Pre-Installation Requirements screen: Verify that your computer meets all the requirements, and click **Next**.

10. Select Configuration Options screen:

Select OracleAS Web Cache if you want to use caching capabilities with this Oracle Application Server instance.

Do not select **Identity Management Access**.

Do not select **OracleAS Database-Based Cluster**.

Do not select **OracleAS File-Based Cluster**.

Click **Next**.

11. Specify OracleAS Instance Name and ias_admin Password screen:

Instance Name: Enter a name for this instance. If you have more than one Oracle Application Server instance on a computer, the instance names must be unique.

Example: J2EE_904

ias_admin Password and **Confirm Password:** Enter and confirm the password for the ias_admin user. This is the administrative user for this instance.

Passwords must consist of at least five characters, and one of the characters must be a number.

Click **Next**.

12. Choose JDK Home Directory

Enter the full path to the Java SDK 1.4.2-3 (or higher) installation.

Click **Next**.

13. Summary screen

Verify your selections and click **Install**.

Oracle Universal Installer is now installing the files and configuring Oracle Application Server components. This may take a while.

14. Run root.sh dialog

Note: Do not run `root.sh` until prompted. Oracle Universal Installer will display a screen prompting you to run `root.sh`.

In a different window, login as the root user and run the `root.sh` script. The script is located in this instance's Oracle home directory. After the `root.sh` script has completed, click **OK** on the Run root.sh dialog.

The Configuration Assistants screen display shows the progress of the configuration assistants. The Configuration Assistants configure Oracle Application Server components.

15. End of Installation screen

Click **Exit** to quit the installer.

3.2 Installing a Portal and Wireless Developer Topology

In this topology, you install a Portal and Wireless middle tier, which enables you to deploy applications that use components such as OracleAS Portal and OracleAS Wireless. The Portal and Wireless middle tier requires an OracleAS Infrastructure 10g, which you will install before installing the Portal and Wireless middle tier.

3.2.1 Installing an OracleAS Infrastructure 10g

This procedure installs an infrastructure with a new database and a new Oracle Internet Directory.

1. Start up the installer. See [Section 2.10, "Starting up the Installer"](#) for details.
2. Welcome screen: Click **Next**.

3. If this is the first Oracle product to be installed on this computer, you have to set up the "inventory" directory, as prompted by these screens:

- a. Specify Inventory Directory screen

Enter the full destination path for the inventory directory:

Enter the full destination path to the directory where you want the installer to store its files. Enter a directory that is different from the Oracle home directory.

Example: `/opt/oracle/oraInventory`

Click **OK**.

- b. UNIX Group Name screen

Enter the name of the operating system group to have write permission for the inventory directory.

Example: `oinstall`

Click **Next**.

- c. Run orainstRoot.sh: Run the `orainstRoot.sh` script in a different shell as the root user. The script is located in the `oraInventory` directory.

Click **Continue**.

4. Specify File Locations screen:

Name: Enter a name to identify this Oracle home.

Example: OH_INFRA_904

Destination Path: Enter the full destination path to the Oracle home directory.

Example: /opt/oracle/OraInfra_904

If the destination directory does not exist, Oracle Universal Installer creates it.

If you want to create the destination directory beforehand, create it as the `oracle` user; do not create it as the `root` user.

Click **Next**.

5. Specify Hardware Cluster Installation Mode screen: This screen appears only on a computer that is part of a hardware cluster.

For information on installing Oracle Application Server in a clustered environment, see the *Oracle Application Server 10g Installation Guide*.

If you want to continue this installation, select **Single Node Installation** and click **Next**.

6. Select a Product to Install screen: Select **OracleAS Infrastructure 10g** and click **Next**.
7. Select Installation Type screen: Select **Identity Management and OracleAS Metadata Repository** and click **Next**.
8. Preview of Steps for Infrastructure Installation screen: Click **Next**.
9. Confirm Pre-Installation Requirements screen: Verify that your computer meets all the requirements, and click **Next**.

Refer to [Section 2.8, "Check Port Use"](#) to verify availability of port 1521.

10. Select Configuration Options screen:

Select **Oracle Internet Directory**.

Select **OracleAS Single Sign-On**.

Select **Oracle Delegated Administration Services**.

Select **Oracle Directory Integration and Provisioning**.

Do not select **OracleAS Certificate Authority**.

Do not select **High Availability Addressing**.

Click **Next**.

11. Specify Namespace in Internet Directory screen: Select **Suggested Namespace** and click **Next**.

12. Enter information to create the OracleAS Metadata Repository database:

a. Specify Privileged Operating System Groups screen

This screen appears if you are running the installer as a user who is not in the dba operating system groups.

Database Administrator (OSDBA) Group: Enter the name of an operating system group that you belong to.

Example: dbadmin

Database Operator (OSOPER) Group: Enter the name of an operating system group that you belong to.

Example: dbadmin

Click **Next**.

b. Specify Database Identification screen

Global Database Name: Enter a name for the OracleAS Metadata Repository database, and append the domain name of your computer to the database name.

Example: `asdb.acme.com`

SID: Enter the system identifier for the OracleAS Metadata Repository database. Typically this is the unique global database name, but without the domain name. The SID must be unique across all databases.

Example: `asdb`

Click **Next**.

- c. Specify and confirm the Passwords for the SYS and SYSTEM Users screen: Set the passwords for these database users, which are privileged accounts used for database administration.

Click **Next**.

- d. Specify Database File Location screen:

Enter or select a directory for database files: Enter the directory where you want the installer to create data files for the OracleAS Metadata Repository database.

Example: `/data_partition/ias_dbfiles/`

Click **Next**.

- e. Specify Database Character Set screen: Select **Use the default character set**.

Click **Next**.

- 13. Specify OracleAS Instance Name and ias_admin Password screen:

Instance Name: Enter a name for this instance. If you have more than one Oracle Application Server instance on a computer, the instance names must be unique.

Example: INFRA_904

ias_admin Password and **Confirm Password**: Enter and confirm the password for the ias_admin user. This is the administrative user for this instance.

Passwords must consist of at least five characters, and one of the characters must be a number.

Click **Next**.

14. Choose JDK Home Directory

Enter the full path to the Java SDK 1.4.2-3 (or higher) installation.

Click **Next**.

15. Summary screen

Verify your selections and click **Install**.

Oracle Universal Installer is now installing the files and configuring Oracle Application Server components. This may take a while.

16. Run root.sh screen

Note: Do not run `root.sh` until prompted. Oracle Universal Installer will display a screen prompting you to run `root.sh`.

In a different window, login as the root user and run the `root.sh` script. The script is located in this instance's Oracle home directory. After the `root.sh` script has completed, click **OK** on the Run root.sh dialog.

17. End of Installation screen

Click **Exit** to quit the installer.

3.2.2 Installing a Portal and Wireless Instance This procedure installs a Portal and Wireless instance and configures it to use the infrastructure installed in [Section 3.2.1, "Installing an OracleAS Infrastructure 10g"](#).

1. Start up the installer. See [Section 2.10, "Starting up the Installer"](#) for details.
2. Welcome screen: Click **Next**.
3. Specify File Locations screen:

Name: Enter a name to identify a new Oracle home.

Example: OH_PORTAL_904

Destination Path: Enter the full destination path to the Oracle home directory.

Example: /opt/oracle/OraPortal_904

If the destination directory does not exist, Oracle Universal Installer creates it.

If you want to create the destination directory beforehand, create it as the `oracle` user; do not create it as the `root` user.

Click **Next**.

4. Specify Hardware Cluster Installation Mode screen: This screen appears only if you are installing on a computer that is part of a hardware cluster.

For information on installing Oracle Application Server in a clustered environment, see the *Oracle Application Server 10g Installation Guide*.

If you want to continue this installation, select **Single Node Installation** and click **Next**.

5. Select a Product to Install screen: Select **Oracle Application Server** and click **Next**.
6. Select Installation Type screen: Select **Portal and Wireless** click **Next**.
7. Preview of Steps for Middle Tier Installation screen: Click **Next**.
8. Confirm Pre-Installation Requirements screen: Verify that your computer meets all the requirements, and click **Next**.
9. Select Configuration Options screen:
Select **OracleAS Portal**.
Select **OracleAS Wireless**.

Click Next

10. Enter connect information for Oracle Internet Directory:

a. Register with Oracle Internet Directory screen

Hostname: Enter the name of the computer where Oracle Internet Directory is running.

Port: Enter the port number at which Oracle Internet Directory is listening. To determine Oracle Internet Directory's port number, look in the `portlist.ini` file located in the `ORACLE_HOME/install` directory of the infrastructure.

If you select **Use only SSL connections with this Oracle Internet Directory**, then you must obtain the port number from Oracle Internet Directory (SSL) parameter in the `portlist.ini` file.

Click Next.

b. Specify Login for Oracle Internet Directory screen

Username: Enter `orcladmin`. This is the name of the Oracle Internet Directory administrator.

Password: The password for `orcladmin` is the same as the password for the `ias_admin` user in the infrastructure. You entered this password when you installed the infrastructure (see step 13 in [Section 3.2.1, "Installing an OracleAS Infrastructure 10g"](#)).

Click **Next**.

11. Select Metadata Repository screen

Repository: Select the OracleAS Metadata Repository that you want to use for this middle tier instance and click **Next**.

12. Specify OracleAS Instance Name and ias_admin Password screen:

Instance Name: Enter a name for this instance. If you have more than one Oracle Application Server instance on a computer, the instance names must be unique.

Example: `PORTAL_904`

ias_admin Password and Confirm Password: Enter and confirm the password for the `ias_admin` user. This is the administrative user for this instance.

Passwords must consist of at least five characters, and one of the characters must be a number.

Click **Next**.

13. Choose JDK Home Directory

Enter the full path to the Java SDK 1.4.2-3 (or higher) installation.

Click **Next**.

14. Summary screen

Verify your selections and click **Install**.

Oracle Universal Installer is now installing the files and configuring Oracle Application Server components. This may take a while.

15. Run root.sh dialog

Note: Do not run `root.sh` until prompted. Oracle Universal Installer will display a screen prompting you to run `root.sh`.

In a different window, login as the root user and run the `root.sh` script. The script is located in this instance's Oracle home

directory. After the `root.sh` script has completed, click **OK** on the Run `root.sh` dialog.

The Configuration Assistants screen display shows the progress of the configuration assistants. The Configuration Assistants configure Oracle Application Server components.

16. End of Installation screen:

Click **Exit** to quit the installer.

3.3 Accessing the Welcome Page

After installation, access the Oracle Application Server Welcome page to verify that the installation was successful. The URL for the Welcome page is:

```
http://hostname:http_port
```

Determine the `http_port` by looking in the `portlist.ini` file, located in the `ORACLE_HOME/install` directory. The `http_port` is listed on the "Oracle HTTP Server listen port" line.

Note: If you have multiple instances of Oracle Application Server installed on a computer, each instance has its own set of port numbers. Check the `portlist.ini` file to be sure you are using the correct port numbers.

The Welcome page provides links to these useful pages:

- What is new in Oracle Application Server 10g (9.0.4)
- Oracle Enterprise Manager Application Server Control (Application Server Control), which is a browser-based administrative tool.
- Release Notes
- Demos

4 Installing OracleAS Metadata Repository in an Existing Database

If you want to install the OracleAS Metadata Repository in an existing Oracle database, you can run a tool called the Oracle Application Server Repository Creation Assistant (OracleAS RepCA). This tool loads the OracleAS Metadata Repository data into an existing database.

You can find the OracleAS RepCA and associated documentation in the *Installing the Oracle Application Server Metadata Repository into an Existing Database* document on the "Oracle Application Server Metadata Repository Creation Assistant" CD-ROM.

5 Upgrade

This section describes how to upgrade the J2EE and Web Cache installation type, and the OracleAS Portal component of the Portal and Wireless installation type from Release 2 (9.0.2) or Release 2 (9.0.3) to Oracle Application Server 10g (9.0.4).

This section does not explain how to upgrade the OracleAS Portal schema in the Infrastructure.

This section also includes instructions for using the Oracle Application Server Upgrade Assistant (OracleAS Upgrade Assistant), a tool that automates much of the upgrade process.

See Also: *Oracle Application Server 10g
Upgrading to 10g (9.0.4)*

This section features the following topics:

- [Section 5.1, "Conventions"](#)
- [Section 5.2, "Performing Pre-Upgrade Tasks"](#)
- [Section 5.3, "Performing a J2EE and Web Cache Upgrade"](#)
- [Section 5.4, "Performing a Portal and Wireless Upgrade"](#)

5.1 Conventions

In [Section 5](#), references to Oracle homes use the following conventions:

- The Release 2 (9.0.2) or Release 2 (9.0.3) Oracle Application Server instance is designated in path names as `<source_MT_OH>`.
- The 10g (9.0.4) instance is designated in path names as `<desination_MT_OH>`.

5.2 Performing Pre-Upgrade Tasks

Before upgrading, perform the tasks in the following sections:

- [Section 5.2.1, "Install Oracle Application Server 10g \(9.0.4\)"](#)
- Refer to the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* for component specific pre-upgrade tasks.

5.2.1 Install Oracle Application Server 10g (9.0.4)

Before upgrading, you must install Oracle Application Server 10g (9.0.4). Select the J2EE and Web Cache or Portal and Wireless installation type during Oracle Application Server 10g (9.0.4) installation. The upgrade cannot take place unless there is a destination Oracle Application Server instance. (Do not install a new infrastructure.)

The installation type of the source instance must match the installation type of the destination instance. The source and destination Oracle Application Server instance must exist on the same computer. If the source instance uses an infrastructure, the destination instance must use the same Oracle Internet Directory and Metadata Repository. (Do not install a new infrastructure.) The 9.0.4 installation should use the same oraInventory directory as the source 9.0.2 installation.

Caution: It is critical that all pre-installation requirements are met and all associated manual steps are performed. If they are not, the 10g (9.0.4) installation will not function with a Release 2 (9.0.2) Infrastructure. Specifically, the OracleAS Single Sign-on configuration will fail.

Note: During installation, the OracleAS Wireless schema in the OracleAS Metadata Repository is upgraded.

See Also:

- [Section 3.1, "Installing a Java Developer Topology"](#)
- [Section 3.2, "Installing a Portal and Wireless Developer Topology"](#)

5.3 Performing a J2EE and Web Cache Upgrade

This procedure enables you to upgrade a J2EE and Web Cache instance:

1. Stop the Application Server Control with the following commands:

```
<source_MT_OH>/bin/emctl stop  
<destination_MT_OH>/bin/emctl stop iasconsole
```

2. In the J2EE and Web Cache instances, stop Web Cache, OPMN and the Oracle Application Server processes managed by it with the following command:

```
<source_MT_OH>/opmn/bin/opmnctl stopall  
<source_MT_OH>/webcache/bin/webcachectl stop  
<destination_MT_OH>/opmn/bin/opmnctl stopall
```

3. Set the DISPLAY environment variable as described in [Table 2](#).
4. Start the OracleAS Upgrade Assistant with the following command:

```
<destination_MT_OH>/upgrade/iasua.sh
```

5. Welcome screen: Click **Next**.

6. Oracle Homes screen:

Select the source J2EE and Web Cache Oracle home from the drop-down list and click **Next**.

7. Examining Components dialog screen:

Click **OK**.

8. Requirements screen:

Ensure that all the requirements are met, and check all checkboxes then click **Next**.

9. Summary screen:

Click **Finish** to start the upgrade processing.

10. Upgrade Succeeded dialog screen:

Click **OK**.

See Also: *Oracle Application Server 10g Upgrading to 10g (9.0.4)*, section titled “Manual Upgrade Tasks You May Need to Perform” if the J2EE and Web Cache configuration you upgraded from has any of these conditions:

- Files in non-default locations
- Configuration files that refer to custom files and directories
- Static documents and directories in the default document root directory that you want to use in 10g (9.0.4)
- Web Cache configured as the first listener

5.4 Performing a Portal and Wireless Upgrade

Follow the steps below to upgrade the Portal and Wireless middle tier.

1. Stop the Application Server Control with the following commands:

```
<source_MT_OH>/bin/emctl stop  
<destination_MT_OH>/bin/emctl stop iasconsole
```

2. In the J2EE and Web Cache instance, stop Web Cache, OPMN and the Oracle Application Server processes managed by it with the following command:

```
<source_MT_OH>/opmn/bin/opmnctl stopall  
<source_MT_OH>/webcache/bin/webcachectl stop  
<destination_MT_OH>/opmn/bin/opmnctl stopall
```

3. Set the DISPLAY environment variable as described in [Table 2](#).
4. Start the OracleAS Upgrade Assistant with the following command:

```
<destination_MT_OH>/upgrade/iasua.sh
```

5. Welcome screen:

Click **Next**.

6. Oracle Homes screen:

Select the Portal and Wireless source Oracle home from the drop-down list and click **Next**.

7. Examining Components dialog screen:

Click **OK**.

8. Requirements screen:

Ensure that all the requirements are met, and check all checkboxes. Click **Next**.

9. Summary screen:

Click **Finish** to start the upgrade processing.

10. Upgrade Succeeded dialog screen:

Click **OK**.

See Also: *Oracle Application Server 10g Upgrading to 10g (9.0.4)*, section titled “Completing the OracleAS Portal Upgrade” if the Parallel Page Engine or the Portal Development Kit Services for Java were customized. These customizations must be copied from the files in *<source_MT_OH>* to the corresponding files in *<destination_MT_OH>*.

6 Additional Resources

For more information, see these Oracle resources:

- Oracle Application Server Documentation Library CD-ROM
- Oracle Application Server platform-specific documentation on Oracle Application Server Disk 1

Printed documentation is available for sale in the Oracle Store at:

<http://oraclestore.oracle.com/>

You can also contact your Oracle representative to purchase printed documentation.

To download free release notes, installation documentation, white papers, or other collateral, visit the Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

<http://otn.oracle.com/membership/index.htm>

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

<http://otn.oracle.com/docs/index.htm>

6.1 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 on how to access 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 Oracle*MetaLink*, Oracle Support Services premier Web support offering. Oracle*MetaLink* 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.

Oracle*MetaLink* options include:

- Technical Assistance Request (TAR) access
- Patch downloads
- Bug database query access
- Product life-cycle information

You can access Oracle*MetaLink* at:

<http://metalink.oracle.com/>.

6.2 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 (<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 Oracle*MetaLink*. 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
- Version number of the product

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

6.3 Premium Services

For information on our Premium Services, including onsite support, Oracle*GOLD*, Oracle*PLATINUM*, remote services, and upgrade packages, visit the Support Web Center at

<http://www.oracle.com/support> or call your Support Sales Representative in the U.S.A at **1-800-833-3536**.

6.4 Quick Reference

| Resource | Contact Information/ 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://otn.oracle.com |
| Access installation documentation | http://otn.oracle.com |
| 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 |
| | select Contact Support Services |
| Locate local Oracle offices outside the U.S.A. | http://www.oracle.com/international/html/ |
| 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 |

Resource**Contact Information/ Web Site**

TTY Access to technical support 1-800-446-2398
in the U.S.A.

7 Documentation Accessibility

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<http://www.oracle.com/accessibility/>

7.1 Accessibility of Code Examples in Documentation

JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

7.2 Accessibility of Links to External Web Sites in Documentation

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