

# **Oracle® Application Server**

Quick Installation Guide

10g Release 3 (10.1.3) for Solaris Operating System (SPARC 64-bit)

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**ORACLE®**

Oracle Application Server Quick Installation Guide 10g Release 3 (10.1.3) for Solaris Operating System  
(SPARC 64-bit)  
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# 1 Introduction

This guide describes how to install the following Oracle Application Server installation types:

- Basic Installation
- Advanced Installation: Integrated Web Server, J2EE Server and Process Management

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## 2 Documentation Accessibility

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## **3 Installation Types Covered in this Guide**

This guide is intended for users who want to install an Integrated Web Server, J2EE Server and Process Management in a single Oracle home. This install type provides the following components:

- Oracle HTTP Server

This is the Web server component of Oracle Application Server.

- Oracle Containers for J2EE

This component provides a complete Java 2 Enterprise Edition (J2EE) environment for developing Java applications.

- Oracle Enterprise Manager 10g Application Server Control

This component is used for Web-based management of Oracle Application Server.

- Oracle Process Manager and Notification Server

Integrated Web Server, J2EE Server and Process Management can be installed using the following install modes:

- **Basic Installation:** The basic (one-click) installation prompts you with questions on the initial installation screen, and then it proceeds to install the product without any further user interaction. The default values for all the components are used.
- **Advanced Installation:** The advanced installation provides you with a great degree of customization and flexibility, which enables installation of additional languages, port configuration options, and cluster configuration.

If you want more complex topologies, read the *Oracle Application Server Installation Guide* for complete installation instructions.

Before installing Oracle Application Server, you should read the *Oracle Application Server Release Notes* for the latest information.

## 4 Requirements

Check that your computer meets the minimum requirements:

- [Section 4.1, "Check System Requirements"](#)
- [Section 4.2, "Check Software Requirements"](#)
- [Section 4.3, "Set Shell Limits for the oracle User"](#)
- [Section 4.4, "Create an Operating System Group for the Inventory Directory"](#)
- [Section 4.5, "Create an Operating System User"](#)
- [Section 4.6, "Check Environment Variables"](#)

### 4.1 Check System Requirements

Your computer must meet the following requirements.

## Operating Systems Supported

### Other System Requirements

The following table shows other system requirements.

**Table 1** *Minimum System Requirements*

	<b>Minimum System Requirement</b>
Memory	512 MB
Disk space	1 GB
Space in /tmp directory	400 MB
Swap space	1.5 GB

Complete the following steps to check these requirements:

1. To determine the physical RAM size, enter the following command:
2. To determine the amount of free disk space, enter the following command:

```
prompt> -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/OracleAS`, you can replace *dir* with `/opt/oracle` or `/opt/oracle/OracleAS`.

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

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

## 4.2 Check Software Requirements

Following is a list of the Solaris operating system patches that you must install before installing Oracle Application Server.

- Solaris 8
  - 108652-82 or higher: X11 6.4.1: Xsun patch
  - 108921-21 or higher: CDE 1.4: dtwm patch
  - 108940-62 or higher: Motif 1.2.7 and 2.1.1: Runtime library patch
  - 108773-18 or higher: IIM and X input and output method patch

- 111310-01 or higher: /usr/lib/libdhcpageant.so.1 patch
- 109147-28 or higher: Linker patch
- 111308-04 or higher: /usr/lib/libmtmalloc.so.1 patch
- 112438-03 or higher: /kernel/drv/random patch
- 108434-17 or higher: 32-bit shared library patch for C++
- 108435-17 or higher: 64-bit shared library patch for C++
- 111111-04 or higher: /usr/bin/nawk patch
- 112396-02 or higher: /usr/bin/fgrep patch
- 110386-03 or higher: RBAC feature patch
- 111023-03 or higher: /kernel/fs/mntfs and /kernel/fs/sparcv9/mntfs patch
- 111317-05 or higher: /sbin/init and /usr/sbin/init patch
- 113648-03 or higher: /usr/sbin/mount patch
- 115827-01 or higher: /sbin/sulogin and /sbin/netstrategy patch
- 116602-01 or higher: /sbin/uadmin and /sbin/hostconfig patch

- 108987-13 or higher: Patch for patchadd and patchrm
- 108528-29 or higher: Kernel update patch
- 108989-02 or higher: /usr/kernel/sys/acctctl and /usr/kernel/sys/exacctsyz patch
- 108993-36 or higher: LDAP2 client, libc, libthread and libnsl libraries patch
- 109326-14 or higher: libresolv.so.2 and in.named patch
- 110615-11 or higher: sendmail patch
- Solaris 9
  - 113096-03 or higher: X11 6.6.1: OWconfig patch
  - 112785-35 or higher: X11 6.6.1: Xsun patch
- Solaris 10: None

These are patches that make up the "J2SE patch cluster". You can download the patches from:

<http://sunsolve.sun.com>

### 4.3 Set Shell Limits for the oracle User

Kernel parameter values are stored in the `/etc/system` file. If your `/etc/system` file does not specify the parameters, you have to add lines to the file to specify them (on Solaris 8 only).

---

<b>Parameter</b>	<b>Line in /etc/system Showing the Minimum Value</b>	<b>Description</b>
<code>rlim_fd_max</code>	<code>set rlim_fd_max=65536</code>	Defines the hard limit on file descriptors that a single process can have open.  To determine the current setting, run this command:  <code>prompt&gt; ulimit -Hn</code>

---

### 4.4 Create an Operating System Group for the Inventory Directory

If this is the first Oracle product to be installed on the computer, create an operating system group for the "inventory" directory. The installer creates files in the inventory directory to keep track of the Oracle products that are installed on the computer.

To create a local operating system group, use the Solaris Management Console:

1. Set the DISPLAY environment variable to point to the monitor where you want the Solaris Management Console window to appear.

2. Start up the Solaris Management Console.

```
prompt> /usr/sadm/bin/smc
```

3. In the left frame, expand **This Computer**, then expand **System Configuration**.
4. Click **Users**. This displays the Log In window.
5. In the Log In window, log in as the root user.
6. In the left frame, expand **Users** and select **Groups**.
7. Select **Action, Add Group**.
8. In Group Name, enter the name of the group.
9. (optional) In Group ID Number, enter an ID number for the group.
10. Click **OK**.

This guide uses the name `oinstall` for this group.

In [Section 4.5, "Create an Operating System User"](#), you will create an operating system user, and set this group to be the user's primary group.

By having a separate group for the inventory directory, you allow different users to install Oracle products on the computer. Users need write permission for the inventory directory. They can achieve this by belonging to the `oinstall` group.

The default name of the inventory directory is `oraInventory`.

If you are unsure if there is already an inventory directory on the computer, look in the `oraInst.loc` file. This file lists the location of the inventory directory and the group who owns it. If the file does not exist, the computer does not have Oracle products installed on it.

## 4.5 Create an Operating System User

Create an operating system user to install and upgrade Oracle products. This guide refers to this user as the `oracle` user.

### How to Create a User

To create the `oracle` operating system user as part of the `oinstall` group;

To create a local operating system user, use the Solaris Management Console:

1. Set the DISPLAY environment variable to point to the monitor where you want the Solaris Management Console window to appear.

2. Start up the Solaris Management Console.

```
prompt> /usr/sadm/bin/smc
```

3. In the left frame, expand **This Computer**, then expand **System Configuration**.
4. Click Users. This displays the Log In window.
5. In the Log In window, in User Name, enter root. In Password, enter the root password.
6. In the left frame, expand Users and select User Accounts.
7. Select Action, Add User, and then With Wizard.
8. In User Name, enter the name of the user (oracle). The Full Name and Description fields are optional. Click **Next**.
9. In User ID Number, accept the default value. Click **Next**.

10. Select **User Must Use This Password At First Login**, and enter a password for the user. Click **Next**.
11. In **Primary Group**, select the primary group for the user. This is the group you created earlier to own the inventory directory. Refer to [Section 4.4, "Create an Operating System Group for the Inventory Directory"](#). Click **Next**.
12. In **Path**, enter a home directory for the user. Click **Next**.
13. Review the mail server information for the user and click **Next**.
14. Review the user information and click **Finish** to create the user.

To check which groups an operating system user belongs to, run the `groups` command with the name of the user. For example:

```
prompt> groups oracle
```

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



## 4.6 Check Environment Variables

The operating system user who will be installing Oracle Application Server needs to set (or unset) the following environment variables.

**Table 2** *Environment Variables*

<b>Environment Variable</b>	<b>Set or Unset</b>
DISPLAY	Set it to the monitor where you want to the installer window to appear.
ORACLE_HOME	Must not be set.
ORACLE_SID	Must not be set.
TNS_ADMIN	Must not be set.
PATH, CLASSPATH, and Shared Library Path	Must not contain references to directories in any Oracle home directories.
TMP and TMPDIR	Optional. If unset, defaults to /tmp.

**4.6.1 Environment Variable Tips** This section describes some things to look out for when setting environment variables:

- If you set environment variables in the `.profile` file, they might not be read. To ensure environment variables are set to the correct values, check their values in the shell where you will be running the installer.
- To check the value of environment variables, use the `env` command. This displays all the currently defined environment variables and their values.

```
% env
```

- If you use the `su` command to switch users (for example, switching from the root user to the `oracle` user), check the environment variables when you are the new user because the environment variables might not be passed to the new user. This can happen even if you run `su` with the `-` parameter (`su - user`).

```
# /* root user */  
# su - oracle  
% env
```

## 5 Starting the Installer

To start the installer:

1. Log in to the computer as a user who is a member of the Administrators group.
2. Insert the disk:  
CD-ROM: Insert Oracle Application Server Disk 1.  
DVD: Insert the Oracle Application Server DVD.
3. If your computer does not mount CD-ROMs or DVDs automatically, you need to set the mount point manually. See [Section 5.1, "Setting the Mount Point for the CD-ROM or DVD-ROM"](#) for steps on mounting the CD-ROM or DVD-ROM manually.
4. Log in as the `oracle` user.
5. Start up the installer:

---

---

**Note:**

- Be sure you are not logged in as the root user when you start the Oracle Universal Installer. The installer gives an error message if you try to run it as the root user.
  - 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 below changes your current directory to your home directory.
- 
- 

**CD-ROM:**

```
prompt> cd  
prompt> mount_point/10.1.3disk1/runInstaller
```

**DVD:**

```
prompt> cd  
prompt> mount_point/application_server/runInstaller
```

This launches Oracle Universal Installer, through which you can install Oracle Application Server.

## 5.1 Setting the Mount Point for the CD-ROM or DVD-ROM

The Oracle Application Server CD-ROMs are in RockRidge format. The DVD-ROM is in DVD-ROM format.

If you are using the Solaris Volume Management software (installed by default with Solaris Operating Environment), then the CD-ROM or DVD-ROM is mounted automatically at `/cdrom` when you insert the CD-ROM or DVD-ROM. For example, when you insert Oracle Application Server Disk 1 into the CD-ROM drive, you can access its contents at `/cdrom/10.1.3disk1`.

If you are not using the Solaris Volume Management software, then you must mount the CD-ROM or DVD-ROM manually. To manually mount or unmount the CD-ROM or DVD-ROM, you must have root privileges. Be sure to unmount the CD-ROM or DVD-ROM before removing it from the drive.

Follow these steps to mount a CD-ROM or DVD-ROM manually:

1. Log in as the root user.

```
prompt> su
Password:
```

2. Create the CD-ROM or DVD-ROM mount point directory:

```
# mkdir mount_point
```

3. Mount the CD-ROM or DVD-ROM drive on the mount point directory:

```
# mount options device_name mount_point
```

The following example mounts the CD-ROM manually on `/cdrom`, without using the Solaris Volume Management software. Execute the following commands as root user:

```
# mkdir /cdrom
# mount -r -F hsfs device_name /cdrom
```

You can also use the same commands and options to mount the DVD-ROM.

4. Log out from the root user.

```
# exit
```

## 6 Basic Installation

This section describes how to install Integrated Web Server, J2EE Server and Process Management using a basic installation. To install using a basic installation:

1. Start up the installer. See [Section 5, "Starting the Installer"](#) for details.
2. Oracle Application Server 10g 10.1.3.0.0 screen

**Installation Directory:** Enter the directory where you want install Oracle Application Server.

Example:

```
/scratch/oracle/product/10.1.3/OracleAS
```

**Basic Installation Mode:** Select this option.

**Installation Type:** You cannot change the installation type in a basic installation.

**Instance Name:** The instance name identifies this Oracle Application Server instance. If you have more than one Oracle Application Server instance on the same host, the instances must have unique names.

Example: appserver

**Administration Username:** The administration username for Oracle Application Server instances is set to `oc4jadmin` and cannot be changed. To manage Oracle Application Server instances using Oracle Enterprise Manager, log in as the `oc4jadmin` user.

**Administration Password and Confirm Password:** Enter the password for the `oc4jadmin` user.

Example: `welcome1`

Click **Install**.

3. If this is the first Oracle product to be installed on this computer, the installer displays these additional screens:
  - a. Specify Inventory Directory and Credentials screen

**Enter the full path of the inventory directory:** Enter a full path to the inventory directory. This directory is different from the Oracle home directory for the product files.

Example: `/opt/oracle/orainventory`

**Specify operating system group name:** Select the operating system group that will have write permission for the inventory directory.

Example: `oinstall`



Click **Next**.

**b.** Run oraInstRoot.sh dialog

When prompted, run the `oraInstRoot.sh` script as the root user in a different shell. The script is located in the inventory directory.

After running the script, click **Continue**.

**4.** Run root.sh dialog

Note: do not run this script until you see the dialog.

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

After you have run the `root.sh` script, click **OK**.

**5.** Configuration Assistants screen

This screen displays the progress of configuration assistants, which configure Oracle Application Server components.

**6.** End of Installation screen

Click **Exit** to quit the installer.

## 7 Advanced Installation

This section describes how to install Integrated Web Server, J2EE Server and Process Management using an advanced installation. To install using an advanced installation:

1. Start up the installer. See [Section 5, "Starting the Installer"](#) for details.
2. Oracle Application Server 10g 10.1.3.0.0 screen

**Installation Directory:** Enter the directory where you want install Oracle Application Server.

Example:

```
/scratch/oracle/product/10.1.3/OracleAS
```

**Advanced Installation Mode:** Select this option.

Click **Next**.

3. If this is the first Oracle product to be installed on this computer, the installer displays these additional screens:
  - a. Specify Inventory Directory and Credentials screen  
**Enter the full path of the inventory directory:** Enter a full path to the inventory directory. This directory is different from the Oracle home directory for the product files.

Example: `/opt/oracle/oraInventory`

**Specify operating system group name:** Select the operating system group that will have write permission for the inventory directory.

Example: `oinstall`

Click **Next**.

**b. Run oraInstRoot.sh dialog**

When prompted, run the `oraInstRoot.sh` script as the root user in a different shell. The script is located in the inventory directory.

After running the script, click **Continue**.

**4. Select Installation Type screen**

**Integrated Web Server, J2EE Server and Process Management:** Select this option.

Click **Next**.

**5. Specify Port Configuration Options screen**

Select **Automatic**.

Click **Next**.

6. Administration Instance Settings screen

Select **Configure this as an Administration OC4J instance.**

Click **Next.**

7. Administration Settings screen

**AS Instance Name:** The instance name identifies this Oracle Application Server instance. If you have more than one Oracle Application Server instance on the same host, the instances must have unique names.

Example: appserver

**Default OC4J Instance Administrator Account Username:**

The administration username for Oracle Application Server instances is set to `oc4jadmin` and cannot be changed. To manage Oracle Application Server instances using Oracle Enterprise Manager, log in as the `oc4jadmin` user.

**Administrator Account Password and Confirm Administrator Account Password:** Enter the password for the `oc4jadmin` user.

Example: welcome1

**OC4J Instance Name:** The OC4J instance name identifies the default OC4J instance created by the installer.

Example: home

Click **Next**.

8. Cluster Topology Configuration screen

Deselect **Configure this instance to be part of an Oracle Application Server cluster topology**.

Click **Next**.

9. Summary screen

Verify your selections and click **Install**. The installer now installs the files.

10. Run root.sh dialog

Note: do not run this script until you see the dialog.

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

After you have run the `root.sh` script, click **OK**.

11. Configuration Assistants screen

This screen displays the progress of configuration assistants, which configure Oracle Application Server components.

## 12. End of Installation screen

Click **Exit** to quit the installer.

## 8 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.domainname:http_port
```

You can locate the URL for accessing the Welcome Page on the End of Installation Screen text, which is stored in the following file:

```
ORACLE_HOME/install/readme.txt
```

The Welcome page provides links to these useful pages:

- New features in Oracle Application Server 10g Release 3 (10.1.3)
- Oracle Enterprise Manager Application Server Control ("Application Server Control"), which is a browser-based administrative tool

- Release Notes
- Quick Start
- Demos

## 9 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 CD-ROM

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 Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at <http://www.oracle.com/technology/membership/>.

If you already have a username and password for OTN, then you can go directly to the documentation section of OTN at <http://www.oracle.com/technology/documentation>.

## 9.1 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>.

## 9.2 Version Updates

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

<http://oraclestore.oracle.com>

If you do have a currently supported license, you can place non-urgent requests for version update shipments through the iTAR feature on 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.

### 9.3 Premium Services

For information on our Premium Services, including onsite support, Oracle*GOLD*, 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**.

## 9.4 Quick Reference

<b>Resource</b>	<b>Contact Information or Web Site</b>
Purchase additional products, full-use licenses, version updates, and documentation in the U.S.A.	<a href="http://oraclestore.oracle.com">http://oraclestore.oracle.com</a>
Access technical resources for developers	<a href="http://www.oracle.com/technology">http://www.oracle.com/technology</a>
Access installation documentation	<a href="http://www.oracle.com/technology/documentation">http://www.oracle.com/technology/documentation</a>
Access information about technical support	<a href="http://www.oracle.com/support">http://www.oracle.com/support</a>
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**Resource****Contact Information or Web Site**

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