

# Oracle® Database

## Companion CD Quick Installation Guide

10g Release 1 (10.1) for Solaris Operating System (SPARC)

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This guide describes how to quickly install Oracle Database 10g Companion Products (Oracle HTTP Server and Oracle HTML DB) on Solaris systems. It includes information about the following:

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# 1 Review Information About this Guide

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**Note:** This guide describes how to install Oracle Database 10g Companion Products on a system that does not have any Oracle software installed on it. If there is an existing Oracle software installation on this system, see the *Oracle Database Companion CD Installation Guide for UNIX Systems* for more detailed installation instructions.

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This guide describes how to complete a default installation of Oracle Database 10g Companion Products in a new Oracle Home directory. Oracle Database 10g Companion Products include:

- **Oracle HTTP Server:** A Web server that is based on Apache HTTP Server.
- **Oracle HTML DB:** A hosted development environment that enables non-programmers to create database-centric Web applications. It provides developers with the productivity of a desktop database, but with the security, reliability, and performance of the Oracle database. Any IT organization can host Oracle HTML DB environments for departments in the company that do not have Oracle development skills available.

## Tasks Not Described in this Guide

This guide does **not** describe how to complete the following tasks:

- Installing the Oracle Database 10g Products in an existing Oracle home that contains Oracle Database 10g
- Installing Oracle HTML DB in an existing Oracle home that contains Oracle HTTP Server

## Where to Get Additional Installation Information

For more detailed information about installing Oracle Database 10g Companion CD products, including information about the tasks not described in this guide, see the *Oracle Database Companion CD Installation Guide for UNIX Systems*.

This guide is available on the product disc. To access it, use a Web browser to open the `welcome.htm` file, either in the top-level directory of the CD-ROM or in the `companion` directory on the DVD-ROM, then select the **Documentation** tab.

## 2 Identify Database Information for Oracle HTML DB

Complete the following tasks before installing Oracle HTML DB.

### Check the Oracle Database Installation

Before installing Oracle HTML DB, identify the Oracle database that you want to use with Oracle HTML DB. The database must be Oracle9i release 9.2.0.3 or higher. The database can be on a different system from the system where you are installing Oracle HTML DB.

### Check for Oracle XML DB

Oracle XML DB must be installed in the database that you want to use.

If you are using a preconfigured database created either during an installation or by the Database Configuration Assistant (DBCA), Oracle XML DB is already installed and configured. For information about manually adding Oracle XML DB to an existing database, see the *Oracle XML DB Developer's Guide*.

### Identify Database Information

During the installation, you must specify the following information about the database:

- The host name of the database system
- The port number of the Oracle Net listener
- The service name of the database
- The password of the SYS user

Make sure that you have this information before starting the installation.

## 3 Log In to the System as root

Before you install the Oracle software, you must complete several tasks as the `root` user. To log in as the `root` user, complete one of the following procedures:

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**Note:** You must install the software from an X windows workstation, an X terminal, or a PC or other system with X server software installed.

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- If you are installing the software from an X Window System workstation or X terminal:
  1. Start a local terminal session, for example, an X terminal (`xterm`).
  2. If you are not installing the software on the local system, enter the following command to enable remote hosts to display X applications on the local X server:

```
$ xhost +
```
  3. If you want to install the software on a remote system, enter a command similar to the following to connect to that system:

```
$ telnet remote_host
```
  4. If you are not logged in as the `root` user, enter the following command to switch user to `root`:

```
$ su - root
password:
#
```
- If you are installing the software from a PC or other system with X server software installed:

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**Note:** If necessary, see your X server documentation for more information about completing this procedure. Depending on the X server software that you are using, you may need to complete the tasks in a different order.

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1. Start the X server software.
2. Configure the security settings of the X server software to permit remote hosts to display X applications on the local system.
3. Connect to the remote system where you want to install the software and start a terminal session on that system, for example, an X terminal (`xterm`).
4. If you are not logged in as the `root` user on the remote system, enter the following command to switch user to `root`:

```
$ su - root
password:
#
```

## 4 Check the Hardware Requirements

The system must meet the following minimum hardware requirements:

Requirement	Minimum Value
Physical memory (RAM)	256 MB (262144 KB)
Swap space	512 MB (524288 KB) or twice the size of RAM On systems with 2 GB or more of RAM, the swap space can be between one and two times the size of RAM
Disk space in /tmp	400 MB (409600 KB)
Disk space for software files	400 MB (409600 KB) to install only Oracle HTTP Server, or 700 MB (716800 KB) to install Oracle HTTP Server and Oracle HTML DB
System architecture	64-bit

To ensure that the system meets these requirements, follow these steps:

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

```
# /usr/sbin/prtconf | grep "Memory size"
```

If the size of the physical RAM installed in the system is less than 256 MB, you must install more memory before continuing.

2. To determine the size of the configured swap space, enter the following command:

```
# /usr/sbin/swap -s
```

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

3. To determine the amount of free disk space available in the /tmp directory, enter the following command:

```
# df -k /tmp
```

If there is less than 400 MB of disk space available in the /tmp directory, complete one of the following steps:

- Delete unnecessary files from the /tmp directory to achieve the required disk space.
- Set the TEMP and TMPDIR environment variables when setting the oracle user's environment (described later).

- Extend the file system that contains the /tmp directory. If necessary, contact your system administrator for information about extending file systems.
- 4. To determine the amount of free disk space available on the system, enter the following command:

```
# df -k
```

This command displays the disk space usage on all mounted file systems. To complete the installation, identify a file system with sufficient disk space.

- 5. To determine whether the system architecture is 64-bit, enter the following command:

```
# /bin/isainfo -kv
```

This command should return the following output. If you do not see the expected output, you cannot install the software on this system.

```
64-bit sparcv9 kernel modules
```

## 5 Check the Software Requirements

The system must meet the following minimum software requirements:

- The version of Solaris must be Solaris 8 or Solaris 9.
- The following packages must be installed:

SUNWarc	SUNWlibms	SUNWilof
SUNWbtool	SUNWspot	SUNWilcs
SUNWhea	SUNWspox	SUNWi15cs
SUNWlibm	SUNWtoo	SUNWxwfont

- The following patches must be installed:

### Patches for Solaris 8:

All of the patches included in the J2SE Patch Cluster for Solaris 8:

- 108528-23, SunOS 5.8: kernel update patch
- 108652-66, X11 6.4.1: Xsun patch
- 108773-18, SunOS 5.8: IIIM and X I/O Method patch
- 108921-16, CDE 1.4: dtwm patch
- 108940-53, Motif 1.2.7 and 2.1.1: Runtime lib. patch for Solaris 8
- 108987-13, SunOS 5.8: Patch for patchadd and patchrm

- 108989-02, /usr/kernel/sys/acctctl & /.../exaccts patch
- 108993-18, SunOS 5.8: LDAP2 client, libc, libthread ... lib. patch
- 109147-24, SunOS 5.8: linker patch
- 110386-03, SunOS 5.8: RBAC Feature Patch
- 111023-02, SunOS 5.8: /kernel/fs/mntfs and ... sparcv9/mntfs
- 111111-03, SunOS 5.8: /usr/bin/nawk patch
- 111308-03, SunOS 5.8: /usr/lib/libmtmalloc.so.1 patch
- 111310-01, SunOS 5.8: /usr/lib/libdhcpagent.so.1 patch
- 112396-02, SunOS 5.8: /usr/bin/fgrep patch

The following additional patches:

- 111721-04, SunOS 5.8: Math Library (libm) patch
- 112003-03, SunOS 5.8: Unable to load fontset in 64-bit Solaris 8 iso-1 or iso-15
- 112138-01, SunOS 5.8: usr/bin/domainname patch

#### **Patches for Solaris 9:**

- 112233-11: SunOS 5.9: Kernel Patch
- 111722-04: SunOS 5.9: Math Library (libm) patch

To ensure that the system meets these requirements, follow these steps:

1. To determine which version of Solaris is installed, enter the following command:

```
# uname -r
5.8
```

In this example, the version shown is Solaris 8 (5.8). If necessary, see your operating system documentation for information about upgrading the operating system.

2. To determine whether the required packages are installed, enter a command similar to the following:

```
# pkginfo -i SUNWarc SUNWbtool SUNWhea SUNWlibm SUNWlibms \
SUNWsprt SUNWsprx SUNWtoo SUNWilof SUNWilcs SUNWil5cs SUNWxfnt
```

If a package is not installed, then install it. See your operating system or software documentation for information about installing packages.

3. To determine whether an operating system patch is installed, enter a command similar to the following:

```
# /usr/sbin/patchadd -p | grep patch_number
```

If an operating system patch is not installed, download it from the following Web site and install it:

<http://sunsolve.sun.com>

## 6 Create Required UNIX Group and User

The following local UNIX group and user must exist on the system:

- The `oinstall` group (the Oracle Inventory group)
- The `oracle` user (the Oracle software owner)

The `oinstall` group and the `oracle` user may already exist on your system. To determine whether they exist already, and if necessary, to create them, follow these steps:

1. To determine whether the `oinstall` group exists, enter the following command:

```
# grep oinstall /etc/group
```

If the output from this command shows the specified group name, that group already exists.

2. If necessary, enter the following command to create the `oinstall` group:

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

3. To determine whether the `oracle` user exists and belongs to the correct groups, enter the following command:

```
# id -a oracle
```

If the `oracle` user exists, this command displays information about the groups to which the user belongs. The output should be similar to the following, indicating that `oinstall` is the primary group:

```
uid=502(oracle) gid=502(oinstall) groups=502(oinstall),503(dba)
```

4. If necessary, complete one of the following actions:
  - If the `oracle` user exists, but its primary group is not `oinstall`, enter a command similar to the following, where the `-g` option



specifies `oinstall` as the primary group and the `-G` option specifies any existing groups to which the `oracle` user belongs:

```
# /usr/sbin/usermod -g oinstall -G dba oracle
```

- If the `oracle` user does not exist, enter the following command to create it:

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

This command creates the `oracle` user and specifies:

- `oinstall` as the primary group
- `dba` as an optional secondary group

5. Enter the following command to set the password of the `oracle` user:

```
# passwd oracle
```

## 7 Create an Oracle Base Directory

Create an Oracle base directory with a name similar to the following and specify the correct owner, group, and permissions for it:

```
/u01/app/oracle
```

The Oracle base directory must have either 400 MB (409600 KB) of free disk space to install only Oracle HTTP Server or 700 MB (716800 KB) of free disk space to install Oracle HTTP Server and Oracle HTML DB.

To determine where to create these directories, follow these steps:

1. Enter the following command to display information about all mounted file systems:

```
# df -k
```

This command displays information about all of the file systems mounted on the system, including:

- The physical device name
  - The total amount, used amount, and available amount of disk space, in kilobytes
  - The mount point directory for that file system
2. From the display, identify a file system that has sufficient disk space.
  3. Note the name of the mount point directory for the file system that you identified.

In the following examples, /u01 is the mount point directory used for the software. You must specify the appropriate mount point directory for the file system on your system.

To create the required directory and specify the correct owner, group, and permissions for it, follow these steps:

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**Note:** In the following procedure, replace /u01 with the appropriate mount point directory that you identified in Step 3 previously.

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1. Enter the following command to create subdirectories in the mount point directory that you identified for the Oracle base directory:

```
# mkdir -p /u01/app/oracle
```

2. Change the owner and group of the directory that you created to the oracle user and the oinstall group:

```
# chown -R oracle:oinstall /u01/app/oracle
```

3. Change the permissions on the directory that you created to 775:

```
# chmod -R 775 /u01/app/oracle
```

## 8 Mount the Product Disc

The Oracle software is available on both CD-ROM and DVD-ROM. These discs are in ISO 9660 format with Rockridge extensions.

On most Solaris systems, the product disc mounts automatically when you insert it into the drive. To verify that the disc is mounted correctly, follow these steps:

1. If necessary, enter a command similar to following to eject the currently mounted disc, then remove it from the drive:

```
# eject
```

2. Insert the disc into the CD-ROM or DVD-ROM drive.

3. To verify that the disc mounted automatically, enter a command similar to the following:

```
$ ls /cdrom/cdrom0
```

4. If this command fails to display the contents of the disc, enter commands similar to the following:

```
$ su - root
# /usr/sbin/mount -r -F hsfs /dev/dsk/cxydzs2 /cdrom
```

In this example, `/cdrom` is the CD-ROM mount point directory and `/dev/dsk/cxydzs2` is the device name for the CD-ROM device, for example `/dev/dsk/c0t6d0s2`.

## 9 Log In as the oracle User and Configure the oracle User's Environment

You run the Installer from the `oracle` account. However, before you start the installer you must configure the environment of the `oracle` user. To configure the environment, you must:

- Set the default file mode creation mask (`umask`) to 022 in the shell startup file.
- Set the `DISPLAY` and `ORACLE_BASE` environment variables.

To set the `oracle` user's environment, follow these steps:

1. Start another terminal session.
2. Enter the following command to ensure that X Window applications can display on this system:

```
$ xhost +
```

3. Complete one of the following steps:
  - If the terminal session is not connected to the system where you want to install the software, log in to that system as the `oracle` user.
  - If the terminal session is connected to the system where you want to install the software, switch user to `oracle`:

```
$ su - oracle
```

4. To determine the default shell for the `oracle` user, enter the following command:

```
$ echo $SHELL
```

5. Open the `oracle` user's shell startup file in any text editor:
  - Bourne shell (`sh`), Bash shell (`bash`), or Korn shell (`ksh`):

```
$ vi .profile
```

- C shell (csh or tcsh):
 

```
% vi .login
```
- 6. Enter or edit the following line in the shell startup file, specifying a value of 022 for the default file creation mask:
 

```
umask 022
```
- 7. Save the file and exit from the editor.
- 8. To run shell startup script, enter the following command:
  - Bourne, Bash, or Korn shell:
 

```
$ . ~/.profile
```
    - C shell:
 

```
% source ~/.login
```
- 9. If you determined that the /tmp directory had insufficient free disk space when checking the hardware requirements, enter the following commands to set the TEMP and TMPDIR environment variables. Specify a directory on a file system with sufficient free disk space.
  - Bourne, Bash, or Korn shell:
 

```
$ TEMP=/directory
          $ TMPDIR=/directory
          $ export TEMP TMPDIR
```
    - C shell:
 

```
% setenv TEMP /directory
          % setenv TMPDIR /directory
```
- 10. If you are not installing the software on the local system, enter the following command to direct X applications to display on the local system:
  - Bourne, Bash, or Korn shell:
 

```
$ DISPLAY=local_host:0.0 ; export DISPLAY
```
    - C shell:
 

```
% setenv DISPLAY local_host:0.0
```

In this example, *local\_host* is the host name or IP address of the system you want to use to display the Installer (your workstation or PC).

**11.** Enter commands similar to the following to set the ORACLE\_BASE environment variable:

- Bourne, Bash, or Korn shell:

```
$ ORACLE_BASE=/u01/app/oracle
$ export ORACLE_BASE
```

- C shell:

```
% setenv ORACLE_BASE /u01/app/oracle
```

In these examples, /u01/app/oracle is the Oracle base directory that you created earlier.

**12.** Enter the following commands to ensure that the ORACLE\_HOME and TNS\_ADMIN environment variables are not set:

- Bourne, Bash, or Korn shell:

```
$ unset ORACLE_HOME
$ unset TNS_ADMIN
```

- C shell:

```
% unsetenv ORACLE_HOME
% unsetenv TNS_ADMIN
```

**13.** To verify that the environment has been set correctly, enter the following commands:

```
$ umask
$ env | more
```

Verify that the umask command displays a value of 022 and the environment variables that you set in this section have the correct values.

## 10 Install Oracle Database 10g Companion Products

After configuring the `oracle` user's environment, start the Installer and install the Oracle software, as follows:

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**Note:** The following examples show paths to the `runInstaller` script on a CD-ROM. If you are installing the software from DVD-ROM, use a command similar to the following:

```
$ /mount_point/companion/runInstaller
```

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1. To start the Installer, enter the following commands:

- Automatically mounted CD-ROM:

```
$ cd /tmp
$ /cdrom/cdrom0/runInstaller
```

- Manually mounted CD-ROM:

```
$ cd /tmp
$ /cdrom/runInstaller
```

If the Installer does not appear, see the *Oracle Database 10g Companion CD Installation Guide for UNIX Systems* for information about how to troubleshoot X display problems.

2. Use the following guidelines to complete the installation:

- The following table describes the recommended action for each Installer screen.

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**Note:** If you have completed the tasks listed previously, you can complete the installation by choosing the default values on most screens.

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- If you need more assistance, or if you want to choose an option that is not a default, click **Help** for additional information.
- If you encounter errors while installing or linking the software, see the *Oracle Database 10g Companion CD Installation Guide for UNIX Systems* for information about troubleshooting.

Screen	Recommended Action
Welcome	Click <b>Next</b> .
Specify Inventory Directory and Credentials	<p><b>Note:</b> This screen appears only during the first installation of Oracle products on a system.</p> <p>Specify the following information, then click <b>Next</b>:</p> <p><b>Enter the full path of the inventory directory</b></p> <p>Verify that the path is similar to the following, where <i>oracle_base</i> is the value that you specified for the ORACLE_BASE environment variable:</p> <p><i>oracle_base/oraInventory</i></p> <p><b>Specify operating system group name</b></p> <p>Verify that the group specified is the Oracle Inventory group:</p> <p>oinstall</p>
Run oraInstRoot.sh	<p>If prompted, run the following script in a separate terminal window as the root user:</p> <p><i>oracle_base/oraInventory/oraInstRoot.sh</i></p>
Specify File Locations	<p>In the <b>Destination</b> section, specify values similar to the following for a new Oracle home directory, then click <b>Next</b>:</p> <p><b>Name</b></p> <p>OraDb10g_Home1</p> <p><b>Path</b></p> <p><i>oracle_base/product/10.1.0/companion_1</i></p>
Select a Product to Install	Select <b>Oracle Database 10g Companion Products</b> , then click <b>Next</b> .
Available Product Components	Select <b>Apache Standalone</b> to install Oracle HTTP Server, and optionally select <b>HTML DB</b> , then click <b>Next</b> .

Screen	Recommended Action
Enter HTML DB Configuration Information	<p data-bbox="743 152 1333 178">Specify the following information, then click <b>Next</b>:</p> <p data-bbox="743 192 1333 218"><b>Hostname</b></p> <p data-bbox="743 232 1333 284">Specify the host name of the system where the database is installed.</p> <p data-bbox="743 298 1333 324"><b>Port</b></p> <p data-bbox="743 338 1333 416">Specify the TCP/IP port number for the Oracle Net listener on the database system. The default port number is 1521.</p> <p data-bbox="743 430 1333 456"><b>Database Service Name</b></p> <p data-bbox="743 470 1333 604">Specify the database service name for the database where you want to install the Oracle HTML DB database objects. The database service name is usually the same as the global database name for the database, for example, <code>sales.us.oracle.com</code>.</p> <p data-bbox="743 618 1333 644"><b>SYS Password</b></p> <p data-bbox="743 657 1333 683">Specify the password for the SYS user in the database.</p> <p data-bbox="743 697 1333 723"><b>HTML DB Password</b></p> <p data-bbox="743 737 1333 815">Specify the password that you want to use for the HTML DB schemas (users), which are created in the database during the installation.</p> <p data-bbox="743 829 1333 963">After the installation, you can use this password to connect to Oracle HTML DB as the ADMIN user. The password that you specify is also used for the HTMLDB_PUBLIC_USER schema, which is used by <code>mod_plsql</code> to connect to the database.</p> <p data-bbox="743 977 1333 1003"><b>Confirm HTML DB Password</b></p> <p data-bbox="743 1017 1333 1069">Enter the password again to verify that you have specified it correctly.</p> <p data-bbox="743 1083 1333 1109"><b>TABLESPACE Name</b></p> <p data-bbox="743 1123 1333 1201">Enter the name of the tablespace where you want to load the Oracle HTML DB database objects, or accept the default (SYSAUX).</p>
Summary	Review the information displayed, then click <b>Install</b> .
Install	The Install screen displays status information while the product is being installed.
Configuration Assistants	The Configuration Assistants screen displays status information for the configuration assistants that configure the software.



Screen	Recommended Action
Setup Privileges	<p>If prompted, run the following script in a separate terminal window as the root user:</p> <pre>oracle_home/root.sh</pre> <p>In this example, <i>oracle_home</i> is the directory where you installed the software. The correct path is displayed on the screen.</p> <p>When the script finishes, click <b>OK</b>.</p>
End of Installation	<p>Make a note of the URL for the Oracle HTTP Server home page. This information is also available in the following file:</p> <pre>oracle_home/Apache/Apache/setupinfo.txt</pre> <p>To exit from the Installer, click <b>Exit</b>, then click <b>Yes</b>.</p>

## 11 What to Do Next

After you have successfully installed Oracle HTTP Server and Oracle HTML DB, complete the following steps:

- Use a Web browser to access the Oracle HTTP Server home page, using the URL displayed at the end of the installation. The default URL is similar to the following:

```
http://host.domain:7777/
```

- Use a Web browser to access the Oracle HTML DB administration page:

```
http://host.domain:7777/pls/htmldb/htmldb_admin
```

Log in to Oracle HTML DB using the user name ADMIN and the password that you specified during the installation.

- See the online help and the *Oracle HTML DB User's Guide* to learn about using, developing applications with, and administering Oracle HTML DB.
- See Chapter 5 in the *Oracle Database Companion CD Installation Guide for UNIX Systems* for information about required and optional post-installation steps.

## 12 Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For additional information, visit the Oracle Accessibility Program Web site at

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

### 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.

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- For non-technical questions, call 1.800.464.233