

Oracle® Database

Companion CD Quick Installation Guide

10g Release 1 (10.1.0.3) for Linux x86

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This guide describes how to quickly install Oracle Database 10g Companion Products (Oracle HTTP Server and Oracle HTML DB) on Linux x86 systems. It includes information about the following:

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1 Review Information About this Guide

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.

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:

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

- 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 are not installing the software on the local system, use the `ssh`, `rlogin`, or `telnet` command to connect to the system where you want to install the software:

`$ 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:

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.

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 <code>/tmp</code>	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

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

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

```
# grep MemTotal /proc/meminfo
```

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:

```
# grep SwapTotal /proc/meminfo
```

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 -h /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 -h
```

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 Check the Software Requirements

The system must meet the following minimum software requirements, depending on your Linux distribution and version.

Red Hat Enterprise Linux ES/AS 2.1 (Update 3 or higher)

- Kernel version 2.4.9 errata 34 (e.34) or higher must be installed
- The following packages (or later versions) must be installed:

```
make-3.79  
openmotif-2.1.30  
gcc-2.96-128  
gcc-c++-2.96-128  
libstdc++-2.96-128  
glibc-2.2.4-32
```

Red Hat Enterprise Linux ES/AS 3 (Update 2 or higher)

- Kernel version 2.4.21-15 or higher must be installed
- The following packages (or later versions) must be installed:

```
gcc-3.2.3-34  
gcc-c++-3.2.3-34  
glibc-2.3.2-95.20  
make-3.79.1  
openmotif21-2.1.30-8  
setarch-1.3-1  
compat-db-4.0.14-5  
compat-gcc-7.3-2.96.128  
compat-gcc-c++-7.3-2.96.128  
compat-libstdc++-7.3-2.96.128  
compat-libstdc++-devel-7.3-2.96.128  
gnome-libs-1.4.1.2.90-34.1
```

SUSE Linux Enterprise Server 8 (Service Pack 3 or higher)

- Kernel version 2.4.21-138 or higher must be installed
- The following packages (or higher versions) must be also be installed:

```
gcc-3.2.2-38  
gcc-c++-3.2.2-38  
glibc-2.2.2-124  
make-3.79.1  
openmotif-2.2.2-124
```

SUSE Linux Enterprise Server 9

- Kernel version 2.6.5-7.5 or higher must be installed
- The following packages (or higher versions) must be also be installed:

```
gcc-3.3.3-43  
gcc-c++-3.3.3-43  
glibc-2.3.3-98  
libaio-0.3.98-18  
libaio-devel-0.3.98-18  
make-3.80  
openmotif-libs-2.2.2-519.1
```

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

1. To determine which distribution and version of Linux is installed, enter the following command:

```
# cat /etc/issue
```

Note: Only the listed distributions and versions are currently certified and supported.

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

```
$ rpm -q package_name
```

If a required package is not installed, or if the version is lower than the required version, install the package from your operating system distribution media or download the required package version from your Linux vendor's Web site.

3. To determine whether the required kernel version is installed, enter the following command:

```
# uname -r
```

If the kernel version is lower than the required version, download and install the required version or a higher version from your Linux vendor's Web site.

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 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 this directory, follow these steps:

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

```
# df -h
```

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
- 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:

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

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 Database 10g software is available on both CD-ROM and DVD-ROM. These discs are in ISO 9660 format with Rockridge extensions.

On most Linux 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:

- Red Hat:

```
# eject /mnt/cdrom
```

- SUSE:

```
# eject /media/cdrom
```

In this example, `/mnt/cdrom` or `/media/cdrom` is the mount point directory for the CD-ROM drive, depending on your distribution.

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:

- Red Hat:

```
$ ls /mnt/cdrom
```

- SUSE:

```
$ ls /media/cdrom
```

4. If this command fails to display the contents of the disc, enter a command similar to the following, depending on your distribution:

- Red Hat:

```
# mount /mnt/cdrom
```

- SUSE:

```
# mount /media/cdrom
```

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:

- Bash shell (`bash`) on Red Hat:

```
$ vi .bash_profile
```

- Bourne shell (`sh`), Bash shell on SUSE, 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 mode creation mask:

```
umask 022
```

7. Save the file and exit from the editor.
8. To run the shell startup script, enter the following command:

- Bash shell on Red Hat:

```
$ . ~/.bash_profile
```

- Bourne shell, Bash shell on SUSE, 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 that 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 that the environment variables 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:

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
```

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

- Red Hat:

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

- SUSE:

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

If the Installer does not appear, see the *Oracle Database 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.

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

- 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 Companion CD Installation Guide for UNIX Systems* for information about troubleshooting.

Screen	Recommended Action
Welcome	Click Next .
Specify Inventory Directory and Credentials	<p>Note: This screen appears only during the first installation of Oracle products on a system.</p> <p>Specify the following information, then click Next:</p> <p>Enter the full path of the inventory directory</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>Specify operating system group name</p> <p>Verify that the group specified is the Oracle Inventory group:</p> <p><i>oinstall</i></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 Destination section, specify values similar to the following for a new Oracle home directory, then click Next:</p> <p>Name</p> <p><i>OraDb10g_Home1</i></p> <p>Path</p> <p><i>oracle_base/product/10.1.0/companion_1</i></p>
Select a Product to Install	Select Oracle Database 10g Companion Products , then click Next .
Available Product Components	Select Apache Standalone to install Oracle HTTP Server, and optionally select HTML DB , then click Next .

Screen	Recommended Action
Enter HTML DB Configuration Information	<p>Specify the following information, then click Next:</p> <p>Hostname</p> <p>Specify the host name of the system where the database is installed.</p> <p>Port</p> <p>Specify the TCP/IP port number for the Oracle Net listener on the database system. The default port number is 1521.</p> <p>Database Service Name</p> <p>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>SYS Password</p> <p>Specify the password for the SYS user in the database.</p> <p>HTML DB Password</p> <p>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>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 mod_plsql to connect to the database.</p> <p>Confirm HTML DB Password</p> <p>Enter the password again to verify that you have specified it correctly.</p> <p>TABLESPACE Name</p> <p>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 Install .
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 OK.</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 Exit, then click Yes.</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/>

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