# **Oracle® Database**

Companion CD Quick Installation Guide

10g Release 1 (10.1) for Linux x86

February 2004

Part No. B12086-01

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

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- **3.** Log In to the System as root
- 4. Check the Hardware Requirements
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# 1 Review Information About this Guide

**Note:** This guide describes how to install Oracle Database 10*g* 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 Oracle9*i* 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 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:

**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 /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

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 -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 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 (x86)

- Gnu gcc package, gcc-2.96.108.1 or higher
- The following packages (or higher versions) must be also be installed:

```
make-3.79
binutils-2.11
openmotif-2.1.30
```

- Kernel errata 25 (e.25) or higher (RHSA-2003:195-06)
- glibc 2.2.4-31 errata or higher (RHSA-2003:022-09)

#### Red Hat Enterprise Linux ES/AS 3 (x86)

- Gnu gcc package, gcc-3.2.3-2 or higher
- The following packages (or higher versions) must be also be installed:

```
make-3.79
binutils-2.11
openmotif-2.2.2-16
setarch-1.3-1
compat-db-4.0.14.5
compat-gcc-7.3-2.96.122
compat-gcc-c++-7.3-2.96.122
compat-libstdc++-7.3-2.96.122
compat-libstdc++-devel-7.3-2.96.122
```

• No errata are currently required.

#### UnitedLinux 1.0 (x86)

- Service Pack 3 (SP3) or higher (kernel version 2.4.21-138)
- Gnu gcc package, gcc-3.2.2-38 or higher
- The following packages (or higher versions) must be also be installed:

```
make-3.79
binutils-2.12
openmotif-2.2.2-124
```

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 listed distributions and versions are currently certified and supported.

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

\$ rpm -q package\_name

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

- **3.** On Red Hat Enterprise Linux 2.1 systems only, follow these steps:
  - **a.** To determine whether kernel update RHSA-2003:195-06 or later is installed, enter the following command:

# uname -r 2.4.9-e.25

This command shows the kernel version (2.4.9) and errata level (e.25). If the errata level is less than 25, install the latest kernel update. See the following Web site for information on kernel update RHSA-2003:195-06:

https://rhn.redhat.com/errata/RHSA-2003-195.html

**b.** To determine whether fix RHSA-2003:022-09 is installed, enter the following command:

# rpm -q glibc
glibc-2.2.4-31

If the version shown is less than 2.2.4-31, see the following Web site for information on fix RHSA-2003:022-09:

https://rhn.redhat.com/errata/RHSA-2003-022.html

**4.** On UnitedLinux 1.0 systems only, enter the following command to determine whether Service Pack 3 is installed:

# uname -r
2.4.21-138-default

This command shows the kernel version (2.4.21–138) and type (default). If the kernel version is less than 2.4.21-138, contact your UnitedLinux vendor for information about obtaining and installing Service Pack 3.

# 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 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:

**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 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

UnitedLinux:

# 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
  - UnitedLinux:
    - \$ ls /media/cdrom
- **4.** If this command fails to display the contents of the disc, enter commands similar to the following, depending on your distribution:
  - Red Hat:

\$ su - root
# mount /mnt/cdrom

UnitedLinux:

```
$ su - root
# 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 UnitedLinux, 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 the shell startup script, enter the following command:
  - Bash shell on Red Hat:

\$ . ./.bash\_profile

Bourne shell, Bash shell on UnitedLinux, 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:

**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
  - UnitedLinux:
    - \$ 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	<b>Note:</b> This screen appears only during the first installation of Oracle products on a system.
	Specify the following information, then click Next:
	Enter the full path of the inventory directory
	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:
	oracle_base/oraInventory
	Specify operating system group name
	Verify that the group specified is the Oracle Inventory group:
	oinstall
Run orainstRoot.sh	If prompted, run the following script in a separate terminal window as the root user:
	<pre>oracle_base/oraInventory/orainstRoot.sh</pre>
Specify File Locations	In the <b>Destination</b> section, specify values similar to the following for a new Oracle home directory, then click <b>Next</b> :
	Name
	OraDb10g_Home1
	Path
	erade hase/product/10_1_0/companion_1
	oracre_base/product/10.1.0/companion_1
Select a Product to Install	Select Oracle Database 10g Companion Products, then click Next.

Screen	Recommended Action
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> .
Enter HTML DB Configuration Information	Specify the following information, then click Next:
	Hostname
	Specify the host name of the system where the database is installed.
	Port
	Specify the TCP/IP port number for the Oracle Net listener on the database system. The default port number is 1521.
	Database Service Name
	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, sales.us.oracle.com.
	SYS Password
	Specify the password for the SYS user in the database.
	HTML DB Password
	Specify the password that you want to use for the HTML DB schemas (users), which are created in the database during the installation.
	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.
	Confirm HTML DB Password
	Enter the password again to verify that you have specified it correctly.
	TABLESPACE Name
	Enter the name of the tablespace where you want to load the Oracle HTML DB database objects, or accept the default (SYSAUX).
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	If prompted, run the following script in a separate terminal window as the root user:
	oracle_home/root.sh
	In this example, <i>oracle_home</i> is the directory where you installed the software. The correct path is displayed on the screen.
	When the script finishes, click <b>OK</b> .
End of Installation	Make a note of the URL for the Oracle HTTP Server home page. This information is also available in the following file:
	oracle_home/Apache/Apache/setupinfo.txt
	To exit from the Installer, click <b>Exit</b> , then click <b>Yes</b> .

# 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**

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