

Oracle[®]-for-OpenView

Quick Installation Guide

Version: 9.2.0

This Installation Guide uses the
Oracle-for-OpenView 9.2.0 Product CDs
on HP-UX 11.0 and 11.11 Systems.



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1 Oracle Online Documentation

Accessing the Oracle Online Documentation

This document for Oracle-for-OpenView version 9.2.0 describes the steps required to install Oracle so that it fits the needs of HP OpenView products. If you need more information, the Oracle documentation is available online on CD-ROM. The following platforms are covered:

❑ **Orientation**

An introduction to the Oracle9i Database CD Pack is contained on the *Start Here Oracle9i Database Release 2 (9.2.0.1.0) CD-ROM*. You can use a PC to read it. Open the <CD-ROM_drive>:\Welcome.htm file with your web browser.

❑ **Platform-independent**

The platform-independent documentation is contained on the *Oracle9i Database Documentation CD-ROM Release 2 (9.2.0.1.0)*. You can use a PC to read it. Open the <CD-ROM_drive>:\Index.htm file with your web browser.

❑ **Platform-specific (including HP-UX and Sun Solaris)**

The Platform-specific documentation is on the *Oracle9i™ Database (64-bit) Release 2 (9.2.0.1.0)* CD 1 of 4.

This documentation CD-ROM is divided into the following sections:

- ❑ *Release Notes*
- ❑ *Product ReadMes*
- ❑ *Documentation*

Open the <CD-ROM_drive>:/Index.htm file with your web browser and click the **Documentation** button to access the platform-specific manuals:

- ❑ *Oracle9i Installation Guide*
- ❑ *Oracle9i Administrator's Reference*

See “To Access the Oracle Platform-Specific Documentation” on page 9 for more information.

❑ Windows

The Windows-specific documentation is contained on the CD labelled *Oracle9i Client Release 2 (9.2.0.1.0) for Microsoft Windows 98/NT/2000/XP*. When you insert the CD into the CD-ROM drive of your PC, the Oracle9i Client Autorun window appears. Click on Browse Documentation to read the online documentation.

Alternatively, you can open the `<CD-ROM_drive>:\WELCOME.html` file using a web browser.

The documentation is HTML-based and can be viewed with any web browser. If your web browser supports Java, the platform-independent documentation can alternatively be viewed and searched with the Oracle Information Navigator, a Java-based application.

To Access the Oracle Platform-Specific Documentation

To access the HP-UX-specific documentation, you need to use the portable file system commands on HP-UX. To mount the CD-ROM on HP-UX, carry out the following steps:

1. Log in as user `root`.
2. Start the Portable File System (PFS) mount request server as follows:

```
/usr/sbin/pfs_mountd &
```

For more information, see the man page *pfs_mountd(1M)*

3. Start the PFS Daemon as follows:

```
/usr/sbin/pfsd &
```

4. Use a system editor to add the following line to the file `/etc/pfs_fstab`

Syntax:

```
<device_file> <mount_point> <filesystem_type>  
<translation_method>
```

For example:

```
/dev/dsk/c5t2d0 /SD_CDROM pfs-rrip xlat=unix 0 0
```

5. Create the mount directory:

```
mkdir /SD_CDROM
```

6. Insert the corresponding CD-ROM into the drive and mount it:

```
/usr/sbin/pfs_mount /SD_CDROM
```

7. Start your web browser and open the HTML file

```
/SD_CDROM/doc/unixdoc/products.htm.
```

8. Unmount the CD-ROM drive:

```
/usr/sbin/pfs_umount /SD_CDROM
```

9. If necessary, stop the `pfsd` and `pfs_mountd` processes. For each of the processes, enter in the window in which you started them:

```
fg
```

```
<ctrl-c>
```

For more information, see the man page *pfs_mountd(1M)*.

2 **Installation, De-installation, and Upgrade**

Preparing for an Oracle Database Installation

This section describes how to prepare your system for an Oracle database installation.

Oracle Databases

For OVO on HP-UX 11.0 or 11.11, Oracle 9i Enterprise Edition is required, including the additional products shown in Table 2-1.

If you have an existing Oracle database and want to check which Oracle products are installed, take a look at the file:

```
<ORACLE_HOME>/orainst/unix.rgs
```

Table 2-1 Required Oracle Products for OVO

HP-UX Version...	Oracle Version...	Required Products...
HP-UX 11.0 HP-UX 11.11	Oracle Enterprise Edition 9.2.0 (64 bit)	<ul style="list-style-type: none">• Oracle9i 9.2.0.1.0• Oracle Net Services 9.2.0.1.0

To Prepare an Oracle Database for Installation

Before installing an Oracle database on the management server, follow these steps:

1. Make sure that your system meets the hardware and software requirements listed in Chapter 1 of the *HP OpenView Operations Installation Guide for the Management Server*, “Installation Requirements for the Management Server”.

Oracle 9.2.0 requires HP-UX 11.0 or 11.11.

If you are running Oracle 9.2.0 with HP OpenView Operations for HP-UX (OVO), you *must* also install the OVO server patch PHSS_28148. This patch updates the OVO version from A.07.10 to A.07.12.

Oracle 9.2.0 requires 2700 MB of disk space if only the required components are installed. Additional disk space is needed for the data in the Oracle database. Refer to the product requirements of the OpenView products that you are preparing to install.

In particular, make sure that the kernel parameters match those in Table 2-2 on page 14.

2. In SAM, check that the HP-UX kernel parameters on your system match those in Table 2-2 on page 14.

Run SAM as user root:

```
sam &
```

Select the Kernel Configuration option, and then select the Configurable Parameters option. Ensure that kernel parameters are set to the value below. If kernel parameters need to be changed, you will have to build a new kernel and reboot the system:

Table 2-2 Important Configurable Kernel Parameters for the Management Server

Parameter	Description	Minimum Value
fs_async	Select Asynchronous Writes.	0
max_thread_proc	Maximum number of threads allowed in each process.	1024 ^a
maxdsiz	Maximum process data segment size in bytes. (Especially of interest for large OVO GUIs.)	0x40000000 (1 GB or greater)
maxfiles	Maximum number of open files per process (soft limit).	256 ^b
maxssiz	Maximum process stack size in bytes.	64 MB
maxuprc	Maximum number of processes that a user may have. (Refer to database requirements.)	256 ^c
nfile	Maximum number of open files.	5000 ^d
nflocks	Maximum number of file locks.	200 ^e
nkthread	Maximum number of kernel threads supported by the system.	6000
nproc	Maximum number of processes which may simultaneously exist.	700 ^f
sema	Enable Sys V Semaphores.	1
semmni	Maximum number of semaphore sets in the system. (Refer to database requirements.)	140 (or greater)
semmns	Maximum number of semaphores. (Refer to database requirements.)	400 (or greater)
shmem	Enable Sys V Shared Memory.	1

Table 2-2 Important Configurable Kernel Parameters for the Management Server (Continued)

Parameter	Description	Minimum Value
shmmax	Maximum number of bytes in a shared memory segment. (Refer to database requirements.)	0x40000000 (1 GB or greater)
shmmni	Maximum number of shared memory segments. (Refer to database requirements.)	256 (or greater)
shmseg	Maximum number of shared memory segments that can be attached by a process. (Refer to database requirements.)	12 (or greater)

- a. If you are using Service Navigator, you may need to increase this value further. See the *VP Navigator Concepts and Configuration Guide* for more information.
- b. If your installation includes more than 35 managed nodes that use DCE/TCP communication, increase the maxfiles setting to: $3 * \text{Number_of_DCE/TCP_nodes} + 15$
- c. If more than 10 GUIs (Java and/or Motif) are started, add $(6 * \text{NumberOfGUIs})$.
- d. Use the formula:
 $(16 * (\text{NPROC} + 16 + \text{MAXUSERS}) / 10 + 384 + 2 * (\text{npty} + \text{nstrpty}))$ or
 $(75 * (\text{NumberOfGUIs}) + 1000)$, whichever is greater.
- e. Use the maximum of 200 or the formula: $(35 + 5 * \text{NumberOfGUIs})$
- f. Use the formula: $(20 + 15 * \text{MAXUSERS})$ or $(200 + 6 * \text{NumberOfGUIs})$, whichever is greater.

For more information about the prerequisites refer to the *Oracle9i Installation Guide*. Also, refer to the appropriate HP OpenView product installation manual for additional kernel parameters to avoid multiple kernel configurations.

3. Run SAM as user root:

```
sam &
```

4. Create the user `oracle` with the following attributes:

a. Create a UNIX group named `dba`.

The group ID should be greater than 100.

b. Create a UNIX user named `oracle`.

The user ID should be greater than 100.

c. Make the user `oracle` a member of the group `dba`.

d. As the home directory of the `oracle` user, use:

e. `/home/oracle`

5. Set `umask` to allow users to access the Oracle binaries:

```
umask 022
```

6. Create directories required by the Oracle installation:

a. Create the Oracle home directory `ORACLE_HOME`:

```
mkdir -p /opt/oracle/product/<version>
```

In this instance, `<version>` is the supported version of the Oracle database: 9.2.0.

`/opt/oracle/product/<version>` is the value recommended by OVO. This value meets the Optimal Flexible Architecture (OFA) directory structure recommended by Oracle.

You can also choose a different directory for `ORACLE_HOME` but you must use it consistently in all subsequent steps.

b. Create a base directory for the Oracle installation files:

```
mkdir -p /opt/oracle/oraInventory
```

You can also choose a different directory. If you do so, use the new directory consistently in all subsequent steps.

7. Change the ownership/permissions of the directories to `oracle:dba` by entering:

```
chown -R oracle:dba /opt/oracle
```


8. Set the following Oracle environment variables in the `/home/oracle/.profile` of user `oracle`:

- **export ORACLE_BASE=/opt/oracle**

This variable determines the location and the version of the Oracle installation. The subdirectory prefix `/u01` is the recommended default; you can use other appropriate prefixes if needed.

- **export ORACLE_HOME=\$ORACLE_BASE/product/<version>**

In this instance, `<version>` is the supported version of the Oracle database: 9.2.0.

This variable determines the location and the version of the Oracle installation. This is the recommended setting. You can choose a different setting if needed.

- **export ORACLE_SID=openview**

This variable defines the name of the database you will create. The default setting is `openview`. You can use a different setting if needed.

- **export ORACLE_TERM=hp**

This variable specifies the terminal definition resource file for an `hpterm` terminal setting to be used with the Oracle installer and other Oracle tools.

If you normally use `dtterm`, change the setting to `ORACLE_TERM=ansi`.

- **export NLS_LANG=american_america.WE8ISO8859P15**

This variable determines the character set to be used for the database. For English and Spanish installations, use `american_america.WE8ISO8859P15`.

Refer to the appropriate OpenView product documentation for a list of supported languages and corresponding `NLS_LANG` values.

- **export ORA_NLS33=\$ORACLE_HOME/ocommon/nls/admin/data**

This variable is required when creating a database with a character set other than `US7ASCII`.

- **export PATH=\$PATH:\$ORACLE_HOME/bin**

This variable sets the directories through which the system searches to find and execute commands.

9. Install the Oracle database as described in section “Installing an Oracle Database” on page 19.

Installing an Oracle Database

This section describes how to install an Oracle database for use with OVO. For more detailed information, or for non-standard installations, see the *Oracle9i Installation Guide* supplied with the Oracle database.

The following procedures install Oracle without creating the `openview` database. After installing the database and the OVO software, you run the `opconfig` command to create the `openview` database, as described in the *HP OpenView Operations Installation Guide for the Management Server*.

NOTE

Browse through this section before starting the installation. The order of the system prompts may differ slightly from the example described below. These slight variations are normal and do not indicate anything has gone wrong during the installation.

To Install an Oracle Version 9.2.0 Database

To install Oracle 9.2.0, follow these steps:

1. During the Oracle installation, you will need to perform some steps as user `root` and some as user `oracle`. Open two terminal windows and perform the following steps in each window:

- a. Log in as user `root` in the first terminal window, and as user `oracle` in the second.
- b. Make sure that the Oracle environment variable `ORACLE_TERM` is set correctly. If you use an `hpterm`, use `hp`. If you use a `dtterm`, use `ansi`. To check the setting, enter:

```
echo $ORACLE_TERM
```

- c. Verify, and if necessary, set the variables `ORACLE_HOME` and `ORACLE_SID`, for example:

```
ORACLE_HOME=/opt/oracle/product/9.2.0
```

```
export ORACLE_HOME
```

```
export ORACLE_SID=openview
```

- d. Set your `DISPLAY` environment variable, enter:

```
export DISPLAY=<nodename>:0.0
```

2. As user `root`, mount the CD-ROM:

- a. Start the Portable File System (PFS) mount request server as follows:

```
/usr/sbin/pfs_mountd &
```

For more information, see the man page `pfs_mountd(1M)`.

- b. Start the PFS Daemon as follows:

```
/usr/sbin/pfsd &
```

- c. Create a mount directory, for example:

```
mkdir /SD_CDROM
```

- d. List all disk devices to locate the device file for your CD-ROM drive:

```
ioscan -funC disk
```

The additional command `diskinfo <raw_device_file>` describes the characteristics of a disk device.

- e. Use a system editor to add the following line to the `/etc/pfs_fstab` file. You may have to first create the file if it does not yet exist.

Syntax:

```
<device_file> <mount_point> <filesystem_type>  
<translation_method>
```

For example:

```
/dev/dsk/c5t2d0 /SD_CDROM pfs-rrip xlat=unix 0 0
```

- f. Insert the *Oracle9i* CD-ROM 1 of 4 into the drive and mount it as follows:

```
/usr/sbin/pfs_mount /SD_CDROM
```

3. As user `oracle`, start the Oracle Universal Installer by entering:

```
/SD_CDROM/install/hpunix/runInstaller &
```

Once the Oracle Universal Installer is started, the Welcome window appears.

- a. In the Oracle Universal Installer Welcome window, click Next.

The Inventory Location window appears.

In the Inventory Location window, make sure that the path `/opt/oracle/oraInventory` is given.

- b. In the Inventory Location window, click Next.

The UNIX Group Name window appears.

- c. In the UNIX Group Name window, leave the field empty and click Next.

You are prompted to run the script `orainstRoot.sh`.

- d. As user `root`, run the script `orainstRoot.sh` by entering:

```
/tmp/orainstRoot.sh
```

When the script has completed, return to the Oracle Universal Installer and click Continue.

The File Locations window appears.

- e. In the File Locations window, do not change the text in the Source field. This is the location of the installation files.

The Destination field displays the value of the ORACLE_HOME variable.

In the File Locations window, click Next.

The Available Products window appears.

- f. In the Available Products window, select:

```
Oracle9i Database 9.2.0.0.0
```

Click Next. The Installation Types window appears.

- g. In the Installation Types window, select the Custom installation type. Click Next.

The Available Product Components window appears.

- h. In the Available Product Components window, click on Product Languages.

The Language Selection window appears.

- i. In the Language Selection window, verify that Japanese and English as the languages Oracle can run in are selected. If you have not set LANG=ja_JP.SJIS, you may have to select Japanese manually.
- j. In the Available Product Components window, choose the required Oracle products from the list of available products on the CD-ROM.

See Table 2-1 on page 12 for a list of *required* Oracle products for OVO.

When the list is complete, click Next. Provide appropriate responses to any windows that appear.

If asked whether to create a database, respond with No.

- k. When asked to specify the JDK Home Directory, enter the location of JDK (1.3.1) on your system.

- l. In the Summary window, review the information to ensure that you have enough disk space. You cannot make any product or space allocation changes once the installation begins.

In the Summary window, click Install.

- m. Eventually the Disk Location window appears, asking you to insert further Oracle9i disks. Unmount the CD-ROM, change the CD-ROM and remount the disk drive:

- A. As root, unmount the CD-ROM:

```
/usr/sbin/pfs_umount /SD_CDROM
```

- B. Change the CD-ROM.

- C. As root, mount the CD-ROM again:

```
/usr/sbin/pfs_mount /SD_CDROM
```

- D. In the Disk Location window, click OK.

- n. The Setup Privileges window appears, prompting you to run the `root.sh` script as described in the following steps.

4. As user root, run the `root.sh` script as follows:

- a. Change to `ORACLE_HOME` by entering:

```
cd $ORACLE_HOME
```

- b. Start the `root.sh` script by entering:

```
./root.sh
```

- c. The following information is displayed:

```
The following environment variables are set as:
```

```
ORACLE_OWNER= oracle
```

```
ORACLE_HOME= /opt/oracle/product/9.2.0
```

```
Enter the full pathname of the local bin directory  
[/usr/local/bin]:
```

```
Enter: /usr/lbin
```

- d. When the `root.sh` script has finished, click OK in the Setup Privileges window.

5. The Configuration Tools window appears at the end of the installation and starts the Net8 Configuration Assistant.

CAUTION

Cancel this assistant with **Ctrl-C** or with the Cancel button as soon as it is started. You can ignore any resulting error messages.

In the Configuration Tools window, click Next.

6. The End of Installation window appears. Click Exit to exit the Oracle Universal Installer.

7. As user root, unmount the CD-ROM:

```
/usr/sbin/pfs_umount /SD_CDROM
```

8. If necessary, stop the `pfsd` and `pfs_mountd` processes. For each of the processes, enter in the window in which you started them:

```
fg  
<ctrl-c>
```

For more information, see the man page `pfs_mountd(1M)`.

Installing the Oracle 9.2.0.2.0 Patchset

To install the Oracle 9.2.0.2.0 Patchset, complete the following steps:

1. Mount the patch CD with the label:

```
ORACLE 9i Rel.2  
DATABASE SERVER PATCH SET 1 for HP-UX (64 Bit)  
PATCH SET VERSION 9.2.0.2.0
```

NOTE

This CD is not in PFS format, unlike the other CDs.

For example, mount the CD as follows:

```
mount -F cdfs /dev/dsk/c0t0d0 /SD_CDROM
```

2. Install the patchset as described in the `/SD_CDROM/README.html` file.
3. Unmount the CD:
4. `umount /SD_CDROM`

De-installing Oracle

This section describes how to remove an Oracle installation and the Oracle database. For more detailed information, or for non-standard procedures, see the *Oracle9i Installation Guide*.

To De-install Oracle 9.2.0

De-installing Oracle completely involves deleting the database files and de-installing the Oracle Software:

1. Stop any application that accesses the database.
2. Shut down and drop the database. Use one of the following two alternatives:

- If you are using HP OpenView Operations, you can use following command:

```
/opt/OV/bin/OpC/opcdbsetup -d
```

- Otherwise perform the following steps:

- a. Switch to user `oracle` or log in as user `oracle`:

```
su - oracle
```

- b. Verify, and if necessary, set the variables `ORACLE_HOME` and `ORACLE_SID`, for example:

```
ORACLE_HOME=/opt/oracle/product/9.2.0
```

```
export ORACLE_HOME
```

```
export ORACLE_SID=openview
```

- c. Call the Oracle SQL*Plus tool and shut down the database:

```
ORACLE_HOME/bin/sqlplus /nolog
```

```
SQL> connect /as SYSDBA
```

```
SQL> shutdown
```

```
SQL> exit
```

- d. If you use SQL*Net, stop the SQL*Net listener:

```
ORACLE_HOME/bin/lsnrctl stop
```

- e. Switch back to user `root` or log in as user `root`:

```
exit
```

- f. Remove the database files in the data directory or, if you use more than one data directory, in all data directories, for example:

```
rm -rf /opt/oradata/openview
```

- g. Remove the administrative directory tree with create scripts, dump directories, and so on under `ORACLE_BASE/admin/ORACLE_SID`, for example:

```
rm -rf /opt/oracle/admin/openview
```

- h. Remove the `init${ORACLE_SID}.ora` file, for example:

```
rm -f $ORACLE_HOME/dbs/initopenview.ora
```

- i. Remove the OpenView database configuration file:

```
rm -f /etc/opt/OV/share/conf/ovdbconf
```

- j. Remove the entry for this database in `/etc/oratab`. If this is the only database on the system, remove the file:

```
rm -f /etc/oratab
```

- 3. Remove the Oracle software:

```
rm -rf /opt/oracle/product/9.2.0
```

```
rm -rf /opt/oracle/oraInventory
```

- 4. Remove the user `oracle` and the group `dba`, for example using `SAM`.

Upgrading from OfO Version 8.1.7

This section describes how to upgrade from Oracle 8™-for-OpenView version 8.1.7. For more detailed information see the Oracle 9i Database Migration Guide.

CAUTION

Once you start up your database with *ORACLE_HOME* containing the new Oracle software do not attempt to go back to the old version, as this could result in database files being corrupted.

To upgrade OfO from version 8.1.7 to version 9.2.0, follow these steps:

1. Check the prerequisites for the new Oracle version.
See “Check the Prerequisites” on page 29 for details.
2. Prepare the database for the upgrade.
See “Prepare the Database for the Upgrade” on page 29 for details.
3. Back up the current database.
See “Perform a Backup” on page 30 for details.
4. Install the Oracle 8.1.7 software.
See “Install Oracle 9.2.0” on page 30 for details.
5. Call a migration script to convert the database.
See “Convert the Database to Oracle 9.2.0” on page 31 for details.
6. Make changes for the OpenView products to use the new version.
See “Change the OpenView Products to Use the New Version” on page 33 for details.

To Upgrade from OfO Version 8.1.7

Follow these steps to upgrade from OfO version 8.1.7. It is recommended that you first browse through the necessary steps.

Check the Prerequisites

Check the system requirements described in Chapter, “Preparing for an Oracle Database Installation” on page 12.

If you are running Oracle 9.2.0 with HP OpenView Operations for HP-UX (OVO), you *must* also install the OVO server patch PHSS_28148 or a superceding patch. This patch updates the OVO version from A.07.10 to A.07.12.

Prepare the Database for the Upgrade

1. Stop all processes that access the Oracle database.

Exit the GUIs of the OpenView products and stop the daemon processes with `ovstop`.

2. Shut down the database and, if necessary, the SQL*Net listener, as follows:

- a. Log in as user `oracle` or switch to user `oracle`:

```
su - oracle
```

- b. Verify, and if necessary, set the variables `ORACLE_HOME` (still the Oracle 8.1.7 value) and `ORACLE_SID`, for example:

```
ORACLE_HOME=/opt/oracle/product/8.1.7
export ORACLE_HOME
export ORACLE_SID=openview
```

- c. Shut down the SQL*Net listener if you are using SQL*Net:

```
ORACLE_HOME/bin/lsnrctl stop
```

- d. Call the Oracle SQL*Plus tool and shut down the database as follows:

```
ORACLE_HOME/bin/sqlplus /nolog
SQL> connect / as SYSDBA
SQL> shutdown
SQL> exit
```

Perform a Backup

Perform a full offline backup of the Oracle database or the complete system before you perform the upgrade. A full backup ensures that you can recover from errors encountered during the upgrade process.

Install Oracle 9.2.0

1. Change the `.profile` of the user `oracle`:
 - a. Set the `ORACLE_HOME` variable to the new value, for example:

```
export ORACLE_HOME=$ORACLE_BASE/product/9.2.0
```
 - b. If the `PATH` variable contains the old `ORACLE_HOME` value, change the `PATH` variable to use the new `ORACLE_HOME`:

```
export PATH=$PATH:$ORACLE_HOME/bin
```
 - c. Set the `ORA_NLS33` variable:

```
export ORA_NLS33=$ORACLE_HOME/ocommon/nls/admin/data
```
 - d. If the `SHLIB_PATH` variable contains the old `ORACLE_HOME` value, change the `SHLIB_PATH` environment variable to use the new `ORACLE_HOME` value:

```
export SHLIB_PATH=$ORACLE_HOME/lib
```
2. Switch back to user `root`:

```
exit
```
3. Set `ORACLE_HOME` to the new value in the current shell by entering:

```
export ORACLE_HOME=/opt/oracle/product/9.2.0
```
4. As user `root`, create the directory for the Oracle 9.2.0 software and set the correct ownerships and permissions:

```
umask 022
mkdir -p $ORACLE_HOME
chown oracle:dba $ORACLE_HOME
```
5. Install Oracle 9.2.0 software as described in section “Installing an Oracle Database” on page 19.

Convert the Database to Oracle 9.2.0

As user oracle:

1. Ensure that the following environment variables point to the new 9.2.0 directories:

```
ORACLE_HOME = /opt/oracle/product/9.2.0
PATH         = ${PATH}:/opt/oracle/product/9.2.0/bin
ORA_NLS33    = /opt/oracle/product/9.2.0/ocommon/nls/\
              admin/data
SHLIB_PATH   = /opt/oracle/product/9.2.0/lib
```

2. Move the parameter file of the openview database to the new location. This is usually a symbolic link to:

```
/opt/oracle/admin/openview/pFile
mv /opt/oracle/product/8.1.7/dbs/initopenview.ora \
/opt/oracle/product/9.2.0/dbs/initopenview.ora
```

3. Change to the directory \$ORACLE_HOME/rdbms/admin:

```
cd $ORACLE_HOME/rdbms/admin
```

4. Start the Oracle SQL*Plus tool and convert the database:

- a. Startup the database in restricted mode:

```
$ORACLE_HOME/bin/sqlplus /nolog
SQL> connect / as SYSDBA
SQL> startup MIGRATE
```

NOTE

You may see error messages listing obsolete initialization parameters. If so, make a note of the obsolete initialization parameters and continue with the upgrade. Remove the obsolete initialization parameters the next time you shut down the database.

- b. Set the system to spool results to a logfile for later verification of success:

```
SQL> spool catoutu.log
```

- c. If you want to see output of the script you will run on your system, issue a `SET ECHO ON` statement:

```
SQL> set echo on
```

- d. Run the script `u0801070.sql` to upgrade from Oracle version 8.1.7 to 9.2.0:

```
SQL> @u0801070.sql
```

The script creates and alters certain dictionary tables. It also runs the `catalog.sql` and `catproc.sql` scripts that come with the 9.2.0 release. These scripts create the system catalog views and all necessary packages for using PL/SQL.

If you encounter any problems when you run the script, correct the causes of the problems and rerun the script. You can rerun the script as many times as necessary.

- e. Turn off the spooling of script results to the logfile:

```
SQL> spool off
```

Check the spool file `catoutu.log` and verify that the packages and procedures compiled successfully. Correct any problems you find in this file.

- f. If you have specified `SET ECHO ON`, you may want to `SET ECHO OFF` now:

```
SQL> set echo off
```

- g. Shutdown the database and exit the Oracle Server Manager tool:

```
SQL> shutdown
```

```
SQL> exit
```

Your database is now upgraded to the 9.2.0 release.

CAUTION

If you retain the old Oracle software, never start the upgraded database with the old software. Only start the database with the executables in the 9.2.0 installation directory.

Change the OpenView Products to Use the New Version

1. As user `root`, replace all occurrences of the old `ORACLE_HOME` value with the new value in the following files; for example, replace all occurrences of `/u01/home/dba/oracle/product/8.1.7` with `/opt/oracle/product/9.2.0`. You need to change variable assignments as well as directory names containing this value.

- `/etc/oratab`
- `/etc/profile`
- `/etc/passwd`
- `/etc/csh.login`
- `/etc/rc.config.d/ovoracle`
- `/etc/opt/OV/share/conf/ovdbconf`
- `/etc/tnsnames.ora` (if SQL*Net is used)
- `/etc/listener.ora` (if SQL*Net is used)
- `/etc/sqlnet.ora` (if SQL*Net is used)
- `/etc/opt/OV/share/conf/analysis/ovdwenvs.conf`

(This file is used by NNM for their Data Warehouse implementation.)

- The user `.profile` and `.cshrc` of users that have set the Oracle variables in their environment (`root`, `ovdb`, `opc_op`, and so on)

NOTE

You may find some files that require no change.

2. Copy the Net8 files from the old `ORACLE_HOME` to the new location, for example:

```
cd /u01/home/dba/oracle/product/8.1.7/network/admin
cp listener.ora sqlnet.ora tnsnames.ora \
/opt/oracle/product/9.2.0/network/admin
```

3. Replace all occurrences of the old `ORACLE_HOME` in the copied files with the new value.

4. Add or change the settings of the parameter `COMPATIBLE` in `ORACLE_HOME/dbs/initopenview.ora` from 8.1.7.0.0 to 9.2.0.0.0
5. If you use HP OpenView Operations, change the symbolic links `libopcora.sl`, `libclntsh.sl`, and `libclntsh.sl.1.1.0`. They point to the Oracle shared libraries. Change them to point to the Oracle shared libraries in the new `ORACLE_HOME`:

```
rm -f /opt/OV/lib/libopcora.sl
ln -s $ORACLE_HOME/lib32/libclntsh.sl \
/opt/OV/lib/libopcora.sl
rm -f /opt/OV/lib/libclntsh.sl
ln -s $ORACLE_HOME/lib32/libclntsh.sl \
/opt/OV/lib/libclntsh.sl
rm -f /opt/OV/lib/libclntsh.sl.1.1.0
ln -s $ORACLE_HOME/lib32/libclntsh.sl.9.0 \
/opt/OV/lib/libclntsh.sl.1.1.0
rm -f /opt/OV/lib/libclntsh.sl.8.0
ln -s $ORACLE_HOME/lib32/libclntsh.sl.9.0 \
/opt/OV/lib/libclntsh.sl.8.0
```

6. Check the documentation of the installed OpenView products to find out whether you need to perform any additional steps.
7. To find missing files and to avoid starting the database with the wrong `ORACLE_HOME` value, it is recommended you rename the old `ORACLE_HOME` directory, for example:

```
mv /opt/oracle/product/8.1.7 \
/opt/oracle/product/old8.1.7
```

8. Start the database and the SQL*Net listener, as follows:
 - a. Log in as user `oracle` or switch to user `oracle`:

```
su - oracle
```
 - b. If you use SQL*Net, restart the SQL*Net listener:

```
$ORACLE_HOME/bin/lsnrctl start
```
 - c. Call the Oracle SQL*Plus tool and start the database, for example:

```
$ORACLE_HOME/bin/sqlplus /nolog  
SQL> connect / as SYSDBA  
SQL> startup  
SQL> exit
```

- d. Switch back to user root:

```
exit
```

- e. If you no longer need the old Oracle version and after you verified that the new Oracle version works, you can remove the old Oracle version to gain disk space, for example:

```
rm -rf /opt/oracle/product/old8.1.7
```

Oracle Client for Windows

OfO includes a CD with client software for Windows NT/2000. You need this client software, if you want to access the UNIX database from a PC over the network, for example to use HP OpenView Reporter.

OfO includes a license for the following products on the Client CD:

Oracle9i Client - Application User Product

This product contains the Networking components to connect to the database on the UNIX system over SQL*Net, some utilities and SQL*Plus.

Oracle9i Client - Database Administrator Product

This product contains additional to the Application User Products the Oracle Enterprise Manager. This is a set of graphical tools that allow to administer Oracle databases over the network.

To Install the Oracle Client for Windows

To install the client software, insert the *Oracle9i Client Release 2 (9.2.0.1.0) for Microsoft Windows 98/NT/2000/XP* CD-ROM into the CD-ROM drive of your computer. The Oracle9i Client Autorun window appears. Alternatively, you can open the `<CD-ROM_drive>:\WELCOME.html` file using a web browser.

Click on `Install Client` to start the installation process and follow the on-screen prompts.

If you would like to access the related online Oracle documentation, choose the `Browse Documentation` item to read the online documentation. The *Installation Guide* describes the system requirements and the installation procedure.

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