

# **Personal Oracle7 for Windows 95, Release 7.2**

## **Release Notes**

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This document provides various installation and late-breaking product information for Personal Oracle7 for Windows 95.

Please note that this product does not run on Windows NT.

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## **1 - ADDITIONAL INSTALLATION INSTRUCTIONS**

### **1.1 - INSTALLING ON COMPRESSED DRIVES**

Only Windows 95 DriveSpace (drvspace.exe) is supported.

You can install Personal Oracle7 for Windows 95 to a compressed disk drive. However, the Personal Oracle7 for Windows 95 Starter Database or any database that you may create, must be installed to a noncompressed disk drive. In general, the Oracle7 DBMS does not support use of disk compression software with database files. If you select either the Application Developer or the Runtime (Database Only) installation options, you will be installing the Starter Database.

If you choose to install Personal Oracle7 for Windows 95 to a compressed drive and you also select to install the Starter Database to a compressed drive, you will be asked to install the Starter Database to a noncompressed disk drive of your

choice. If you don't have a noncompressed disk drive, you can also resize one of your compressed drives to create noncompressed disk space.

If you need to resize a compressed drive, use the utility provided with the disk compression software. Adjust the free space allocated between the compressed drive and the noncompressed host drive to gain enough noncompressed disk space on the host drive for the Starter Database. Then, specify the host drive as the noncompressed disk drive on which to install your Starter Database. Please refer to the disk compression utility's on-line help for more information on how to adjust free space.

You will need 40 MB of noncompressed disk space if you want to install the Starter Database with support for symmetric replication. Otherwise you will need 20 MB of noncompressed disk space.

**NOTE:** Use of symmetric replication (e.g., updatable snapshots) requires that you also have access to an Oracle7 Server database configured for symmetric replication and appropriate access permissions.

## **1.2 - CONNECTING 16-BIT APPLICATIONS**

1.2.1 Using Loopback to connect from 16-bit applications to the local Personal Oracle7 for Windows 95 database is not a supported function. Only local connections may be made from 16-bit applications.

1.2.2 16-bit Windows applications require updated Oracle Required Support Files (RSF) to connect to Personal Oracle7 for Windows 95. This update is necessary even if these applications are able to connect to Personal Oracle7 for Windows 3.1.

16-bit Windows applications previously required "2:" as the database name when connecting to Personal Oracle7 products. The update provided changes this behavior such that applications based on ORA71WIN.DLL or ORA72WIN.DLL do not have to specify "2:" (it is now the default). Applications based on ORA7WIN.DLL do not change in this manner and have to specify 2: as the database name.

Provided with Personal Oracle7 for Windows 95 is a separate installation which detects currently installed RSFs and installs new ones. Run SETUP.EXE located in the \WINDOWS directory of your release media.

## **1.3 - LANGUAGE SELECTION**

1.3.1 The language you select when you install Personal Oracle7 for Windows 95 should match the language of the edition of Windows 95 that you are using. The edition of Windows 95 for your language must be a production version for the language to be supported by Personal Oracle7 for Windows 95.

1.3.2 If your language is not listed, then you should select English. In this case, the user interface is displayed in English and the Starter Database is built for the WE8ISO8859P1 character set. If you require a different character set, select the custom installation option and, when requested, choose the desired character set for the Starter Database.

1.3.3 Selection of multi-byte character set languages, such as Japanese or Chinese, for use on single-byte editions of the Windows 95 operating system, such as the U.S. Edition, is not supported. Installation will fail if these languages are chosen. However, the internal database character set that is chosen may be a multi-byte character set. During a Custom Installation, any of the listed character sets may be chosen as the internal character set for the Starter Database.

1.3.4 When installing Personal Oracle7 on multi-byte character set editions of Windows 95 (such as the Japanese or Chinese editions), the Installer may not display text correctly after you have selected the language. To correct this problem, continue with the installation until you reach the Installation Options dialog box. Press Cancel to exit the Installer. Restart the Installer and complete the installation, ensuring that you select the same language as was chosen during the first installation. During all subsequent uses of the Installer, the text should be displayed correctly.

## **1.4 - DISK SPACE REQUIREMENTS**

Personal Oracle7 for Windows 95 requires 20 megabytes of free disk space on the disk drive where the Windows 95 Virtual Memory page file is located (usually the c: drive) for a successful installation. This space is required in addition to the space needed for Personal Oracle7 program files. The amount of space required for the Personal Oracle7 program files is dependent upon the type of installation that is chosen.

## **1.5 - SQL\*NET EASY CONFIGURATION**

To avoid problems with networking, do not modify the TCP/IP sample files, TNSNAMES.ORA, or SQLNET.ORA. To configure a client to connect with an Oracle server that has been configured with Oracle Network Manager for Windows, choose Add Database Alias instead of Modify Database Alias in the SQL Net Easy Configuration menu.

## **2 - KNOWN PROBLEMS**

### **2.1 - INSTALLATION**

2.1.1 Universal Naming Convention (UNC) for file names and directory paths is not supported. This has two implications:

When providing a directory path or file name, use the standard DOS naming convention. The directory path or filename should be no longer than eight characters and the extension should be no longer than three characters.

Use of the \\ notation to represent the start of a directory path is not supported.

2.1.2 If a language other than English is chosen when installing Personal Oracle7 for Windows 95, the installation will proceed without problems. However, when exiting from subsequent uses of the Installer (for instance, to install additional components) two error messages will display indicating that an error occurred with the Oracle Installer. These messages do not apply, so you may disregard them by clicking 'OK'.

2.1.3 If you mount the CD-ROM and are installing from a network location, you cannot start the Oracle Installer from the Network Neighborhood icon located on your Desktop or in the Run->Browse item of your Taskbar. You must map the network drive to where the CD-ROM is located. This is done by right-clicking the Network Neighborhood icon and choosing Map Network Drive. Use the drive letter you assigned to the network location as your path to the Oracle Installer. If the Oracle Installer is not run in this manner, the following error may be encountered:

A problem occurred with the Oracle Installer. Try reinstalling it from the distribution media. Or, you can provide the following message to Support to debug the problem:

OS Failure: Unable to Set Current Working Directory

### **2.2 - PERSONAL ORACLE7 NAVIGATOR**

2.2.1 In the data grid, the maximum data length for each column is 1000. If a column has more data than 1000 bytes, it will be truncated to 1000. Also, you cannot enter more than 1000 bytes to a column.

2.2.2 Columns with the following column types will not display the data. Instead, the whole column will show an "N/A" string. Further, the column is read-only, i.e., you cannot enter data into the column.

RAW  
LONGRAW  
LONG

2.2.3 Non-alphabetic characters are not supported if they are used as the starting character of an object name. For example, the object name \_EMP is not accepted. Also quotation marks in the object name are not supported. For example, the object name "abc" is not supported.

### **2.3 - REPLICATION**

A problem has been identified in the statements being used to propagate 'D'-style replication transactions. This is a known problem which has been fixed in DBMS version 7.2.3. The problem may manifest itself as a performance problem under specific heavy load conditions in the deferred RPC queue. This will NOT effect data integrity; it will merely slow performance.

A temporary (partial) patch can be implemented to alleviate the problem by creating an index. Use the following SQL statement:

```
create index system.def$_partialbugfix284431 on system.def$_calldest (deferred_tran_id, dblink);
```

## **2.4 - CONNECTING TO THE LOCAL DATABASE USING TCP/IP**

When trying to make a connection to the local database through TCP/IP loopback connections, the connection may fail and the following error may be displayed:

ORA-12203: TNS:unable to connect to destination.

In order to make the connection, wait a few seconds and try again. The connection should succeed the second time. The same sequence occurs if you use the TCP/IP host name of your machine instead of TCP-loopback.

## **2.5 - MEMORY LEAK**

Personal Oracle7 for Windows 95 currently leaks about 10K of memory per connection made to the database. This appears to be caused by a bug in Windows 95 where thread local storage is not properly cleaned up. If your database has been constantly running for a long time and you are running out of memory, shutting down the database and restarting it will correct this problem.

Microsoft is aware of this problem. We will provide a patch or more information as it becomes available.

## **2.6 - SPX CONNECTIVITY**

There is a known problem with receiving responses to a SAP query using the Microsoft Windows 95 SPX stack. If you experience problems connecting to a remote database using the SPX networking protocol, please copy ntsnt.dll, located in the Win95\Net\Spx22 directory of your release media, to <ORACLE\_HOME>\BIN\ntsnt.dll.

## **2.7 - VIRTUAL MEMORY**

When Windows 95 becomes virtual memory constrained, applications, including Personal Oracle7 for Windows 95, may exhibit various problems. Microsoft is aware of this problem and we are working with them to provide a solution. For now, please ensure that:

- 1) You have virtual memory enabled. Windows 95 virtual memory settings can be checked through the System item located in the Control Panel.
- 2) You have a reasonable amount of free disk space on the disk drive where the Windows 95 swap file is located. Typically this is the same disk drive where you installed Windows 95. Every megabyte of free disk space on this disk drive corresponds to an additional megabyte of available virtual memory.

How much virtual memory you need depends upon various factors such as how many applications you have running, how much virtual memory each application is using, how much memory is allocated to the Windows 95 disk cache, etc. If you receive ORA-09352 or ORA-09242 errors when starting or using Personal Oracle7 for Windows 95, you may not have enough virtual memory. The Personal Oracle7 for Windows 95 Starter Database normally requires 12-16 megabytes of free virtual memory in order to start the database.

# **3 - DOCUMENTATION**

## **3.1 - ORACLE7 DOCUMENTATION LIBRARY**

The Oracle7 Server Documentation Library is provided in Adobe Acrobat-readable files. If you choose the "Application Developer" option when installing Personal Oracle7 for Windows 95, this Documentation set is installed automatically. If you choose the "Runtime (Database only)" option, it is not installed. To view this documentation you must install the

Adobe Acrobat reader. You can do this by running Adobe's installation program, Acroread.exe, located in the Acrobat directory of your release media.

If you wish to access these documentation files off the CD rather than installing them on your hard disk (to save space, for instance), you may do so by using the following steps:

- 1) Install Adobe Acrobat as described above.
- 2) After installation is complete, navigate in the Explorer to your CD-ROM drive and double-click on the Library PDF file located in the Win95\Doc\Pdfdoc72 directory of your release media.

## **4 - MISCELLANEOUS**

### **4.1 - NONBLOCKING FUNCTIONALITY**

Personal Oracle7 does not provide for a local nonblocking connection to be made. Thus Oracle7 nonblocking features, such as OCI nonblocking function calls, will not work using a normal local connection to a local Personal Oracle7 database.

However, a local nonblocking connection to Personal Oracle7 can be made using a special SQL\*Net TCP/IP loopback connection. This requires that you have Microsoft TCP/IP installed and configured and that you installed Personal Oracle7 after this was configured. If this is not the case, please see the installation documentation for information on configuration of incoming and TCP/IP loopback connections.

To make a TCP/IP loopback connection, you must connect to Personal Oracle7 as if you are connecting to a remote database. You will need to use a special connect string or database alias. This database alias must have "127.0.0.1" as the TCP/IP host name. For your convenience, SQL\*Net Easy Configuration provides the database alias TCP-loopback already configured with this information for connecting to the Personal Oracle7 database. If you are not using SQL\*Net Easy Configuration to configure SQL\*Net connections, then ask your network administrator to set up such a SQL\*Net configuration for you. You must have had Microsoft TCP/IP installed and configured on Windows 95 before installing Personal Oracle7.

### **4.2 - BACKUP AND RECOVERY**

The Oracle Backup and Recovery tools have a separate initialization parameter file from the Personal Oracle7 initialization parameter file. If you change parameters in the Personal Oracle7 initialization file (for the Starter Database, this is INITORCL.ORA), be sure to make the same changes in the Backup/ Recovery initialization file. You may do this by updating the WIN95 section in the VSP10.INI file.

### **4.3 - INCOMING CONNECTIONS**

At installation Personal Oracle7 will try to configure itself for an incoming connection to provide support for distributed features such as two-phase commit. This is only done if you already have installed and configured Microsoft TCP/IP or Microsoft SPX networking protocol support. The Named Pipes protocol is not supported for this incoming connection. Configuration is done as follows:

If no Microsoft TCP/IP or Microsoft SPX networking is installed for Windows 95 when Personal Oracle7 is installed, then the assumption is made that this is a stand-alone PC and network access is not available. If Microsoft TCP/IP or Microsoft SPX networking is installed after Personal Oracle7 is installed, then you will need to rerun the Personal Oracle7 installation, choose a custom installation and choose to install the SQL\*Net Add-On software.

If Microsoft TCP/IP networking is already installed when Personal Oracle7 for Windows 95 is installed, then configuration will be done for a TCP/IP incoming connection.

If Microsoft SPX networking is installed when Personal Oracle7 for Windows 95 is installed, then configuration will be done for a SPX connection to Personal Oracle7. The NetWare SPX Service name will be defined as the name of the

Windows 95 PC with "\_lsnr" appended to the end of that name. For example, if the name of the Windows 95 PC is "BOB" then the Service name will be "BOB\_lsnr".

If both Microsoft TCP/IP networking and Microsoft SPX networking are installed when Personal Oracle7 for Windows 95 is installed, then the configuration will be done for both TCP/IP and SPX, but only TCP/IP will be enabled, making TCP/IP the default.

If support for an SPX incoming connection is also desired, it is possible to enable the SPX configuration by removing the comment marks "#" in the SPX section of the incoming connection configuration file. This file is called LISTENER.ORA and is located in the <ORACLE\_HOME>\NETWORK\ADMIN directory. For this change to take effect, the database must be shut down and restarted.

Incoming connections are only supported for distributed features such as two-phase commit. Other incoming connections are not supported and may be rejected with the following error message returned:

ORA-12500: TNS:listener failed to start a dedicated server process

In all cases where incoming connections for TCP/IP are configured, a special TCP/IP loopback connection will be configured. This loopback connection is provided to support the Oracle OCI nonblocking feature and must be used when a nonblocking connection to Personal Oracle7 is required. Some applications may require nonblocking or provide enhanced functionality when a nonblocking connection is available. You will also need this TCP/IP loopback connection if you will be writing OCI programs that use OCI nonblocking calls. To use this TCP/IP loopback connection, you must specify 127.0.0.1 as the TCP/IP Host Name when creating a database alias for this connection. For your convenience, SQL\*Net Easy Configuration provides the database alias TCP-loopback already configured with this host name by default.

Configuration for incoming and TCP/IP loopback connections assumes that the database instance name, or SID, of the Personal Oracle7 database is ORCL; this is the SID used for the Starter Database. If you create your own database that uses a SID other than ORCL, then you must modify the incoming connection configuration information. Edit the configuration file LISTENER.ORA, changing the "SID\_NAME = ORCL" entry, located toward the end of the file, to specify a SID other than ORCL. Note that SIDs can only be four characters in length. For this change to take effect, the database must be shutdown and re-started.

#### **4.4 - OCI**

This version of OCI supports the Microsoft Visual C++ 2.x compiler. Programs created with this version of OCI will run on both Windows 95 and Windows NT.

OCI nonblocking functionality is supported against Oracle7 version 7.2 databases and requires that you use SQL\*Net version 2.2 on both the client and server if you are running against a remote database. With Personal Oracle7 for Windows 95 nonblocking functionality is only supported using a SQL\*Net loopback connection. For more information please see section 4.1.

OCI sample programs are built by opening the make file provided with each sample program in Microsoft Visual C++ and doing a project build.

This version of OCI provides a more flexible way of linking your OCI applications. However, if you must link using the old methodology (no longer recommended), an ORA72.LIB located in the <ORACLE\_HOME>\OCI\LIB\OLD directory is provided.

#### **4.5 - MIGRATING DATA FROM PERSONAL ORACLE7 FOR WINDOWS 3.1**

This section contains information about migrating data from Personal Oracle7 for Windows 3.1 (all editions) to Personal Oracle7 for Windows 95. For migrating data from an operating system other than Windows 3.1, please refer to the Oracle7 Server Migration documentation available online as an Adobe Acrobat-readable file.

There are two methods for migrating data from Personal Oracle7 for Windows 3.1 to Personal Oracle7 for Windows 95: Export and Import of Data, and Migration of the Database Files.

## Export and Import of Data

With this method, you export the data from Personal Oracle7 for Windows 3.1, upgrade from Windows 3.1x to Windows 95 if necessary, install Personal Oracle7 for Windows 95 with the Starter Database, and import your data into the Personal Oracle7 for Windows 95 Starter Database.

This method is recommended when you intend to use Symmetric Replication features, such as updatable snapshots, that come with Personal Oracle7 for Windows 95. This method also has the advantage of using a Starter Database that was specifically designed for Personal Oracle7 for Windows 95.

For this method, use the following steps:

- 1) Make sure you have enough disk space available to export your Personal Oracle7 for Windows 3.1 database. Do this by starting the Personal Oracle7 for Windows 3.1 database. Then use the Database Expander utility to view the amount of used space by adding up the used space displayed for each tablespace. You should not count the used space for the SYSTEM tablespace.
- 2) Make sure that your database is set up to do an export. If you are using the Starter Database that came with Personal Oracle7 for Windows 3.1, then it is already set up for you. If you created your own and have not run CATEXP.SQL or CATALOG.SQL, then do so now.
- 3) Do a full database export of Personal Oracle7 for Windows 3.1 using the Export utility. You should login to the Export Utility as the user SYSTEM. All objects in the database will be exported, except those owned by SYS, which are generated during database creation. If in the rare case where you have created tables under SYS (you will know if you have), perform a table export (to different export files) for each of these tables after you complete the full export.

The default export parameters are usually sufficient. If you would like to use export parameters other than the default, refer to *Oracle7 Server Utilities, Release 7.2*, available online as an Adobe Acrobat-readable file

- 4) Upgrade to the Windows 95 operating system if you have not already done so.
- 5) Install Personal Oracle7 for Windows 95. You can pick any type of installation: Application Developer, Runtime or Custom. If you choose Custom, you must install at least the Personal Oracle7 component product.
- 6) Choose to install one of the two Starter Databases when prompted.
- 7) Since you will be importing into existing tables, it's a good idea to disable referential constraints; they can be enabled after import is complete. If you want the sequence to take the value captured in the export dump file, then drop the sequence before running Import. Keep in mind that LONG data in your system can become sufficiently large to create import problems. If that occurs, you need to make alternative plans for data transfer. In addition, the OPTIMAL storage parameter for rollback segments is not preserved during export and import.
- 8) To do a full database import, use the import command line utility from a MS-DOS Prompt. You can let most of the parameters default to the Import utility you have just installed. Here is a sample import interactive session:

```
D:\ORAWIN95\BIN> imp system/manager file=<export file> full=y
```

Where <export file> is the file you exported to in step 3.

Most of the time, default parameters are sufficient. If you would like to use parameters other than the default, refer to *Oracle7 Server Utilities, Release 7.2*, available online as an Adobe Acrobat-readable file, for a complete discussion of import parameters.

You may receive many IMP-00015 errors. These errors indicate that the object you tried to import already exists. If the object is a table, this means none of the rows are inserted in the corresponding table in the new database. You can specify the parameter ignore=y. This will cause Import to ignore the IMP-00015 error and import anyway. However, if the table already exists in the database, then you may end up with duplicate rows of information.

## Migration of the Database Files

With this method, you migrate your actual database files for Personal Oracle7 for Windows 3.1 for use by Personal Oracle7 for Windows 95. The steps make sure your Personal Oracle7 for Windows 3.1 database is shutdown properly, upgrade from Windows 3.1x to Windows 95 if necessary, install Personal Oracle7 for Windows 95 without a Starter Database (requires a custom install), move the database files from their old location to their new location, update the internal database information on the location of the new files, and run a SQL script to update the internal database structures.

This method is recommended if you have lots of data in your database and don't plan on using Symmetric Replication features, such as updatable snapshots. This method has the advantage of requiring that you simply move database files

It is possible to use this second method and still use Symmetric Replication features, however there will be several additional steps to incorporate Symmetric Replication into your database. These steps, not documented here, are found in the *Oracle7 Server Distributed Systems, Volumes I and II*, available online as Adobe Acrobat-readable files.

In the steps that follow, the directory in which you installed Personal Oracle7 for Windows 3.1 is referred to as C:\ORAWIN and the directory in which you will install Personal Oracle7 for Windows 95 is referred to as D:\ORAWIN95. Your directory names may be different and should be substituted as necessary. In addition, the following steps assume that <ORACLE\_HOME>\BIN is in your PATH. If you chose to have the Oracle Installer modify your path, you must reboot your machine for this change to take effect.

You may want to print out these instructions before you begin to make it easier to follow along.

Use the following steps to migrate your database files:

- 1) Make sure that your Personal Oracle7 for Windows 3.1 database is shut down without any errors. If you are unsure, then use Database Manager to start up and then shut down your database. If you have already upgraded from Windows 3.1x to Windows 95, you will have to assume that the last time you shutdown the database, it was shutdown correctly.
- 2) Identify the names of your current database files. For Personal Oracle7 for Windows 3.1, the default location of these files is in the C:\ORAWIN\DBS directory, and by default will be all the files with a .ORA file extension. If you created your own database, then you may have placed the database files in a different location or given them different file name extensions.
- 3) Make a backup copy of your database files.
- 4) Upgrade to the Windows 95 operating system if you have not already done so.
- 5) Install Personal Oracle7 for Windows 95. When requested to choose the type of installation (Applications Developer, Runtime or Custom), select Custom.
- 6) On the left-hand side of the Software Asset Manager screen, select the component products that you want to install. If you want to install the equivalent of an Application Developer installation, select all products except SQL\*Net TCP/IP 1.1. If you want the equivalent of an Runtime installation, double-click on Personal Oracle7 and select Oracle7 DBMS and Oracle7 Utilities. In either case, you must select the Oracle7 DBMS and the Oracle7 Utilities. You may select anything else that you wish.
- 7) When you are asked to select the type of Starter Database you want, choose the option "None" so that no Starter Database is installed.
- 8) When the installation finishes successfully, exit the Oracle Installer. If the Oracle Installer prompts you to restart your system, you should do so.
- 9) From a MS-DOS Prompt, change directories to the D:\ORAWIN95\DATABASE directory and execute the following command:

```
D:\ORAWIN95\DATABASE> orapwd72 file=pwdorel.ora password=oracle
```



You may replace "oracle" with another password of your choice. This will be the password you need to use when starting the database. Remember this password.

- 10) In Step 2 you identified your database files. Move the files you identified to their new location in the D:\ORAWIN95\DATABASE directory. Note that this must be on a noncompressed disk drive.

If you did not install Personal Oracle7 for Windows 95 on a noncompressed disk drive, then create an ORAWIN95\DATABASE directory on another disk drive that is noncompressed, copy the database files to that location, and continue with the remaining steps. However, you must edit the INITORCL.ORA file located in the D:\ORAWIN95\DATABASE directory so that the directory path listed as part of the "control\_files" parameter specifies this other location. Do not change the name of the actual control file specified in the INITORCL.ORA file; it should remain CTL1ORCL.ORA (see next step).

If you created your own database with Personal Oracle7 for Windows 3.1 you may have located your database files in a directory location other than the default C:\ORAWIN\DBS directory. If so and you would like to leave the files in that location you may do so. However, you must edit the INITORCL.ORA file located in the D:\ORAWIN95\DATABASE directory so that the directory path listed as part of the "control\_files" parameter specifies this other location. Please do not change the name of the actual control file specified in the INITORCL.ORA file; it should remain CTL1ORCL.ORA (see next step).

**NOTE:** The remaining steps must be performed in the directory where your database files are stored. While these steps refer to the D:\ORAWIN95\DATABASE directory, if you used a different location for a noncompressed disk drive or you left your database files in another location, substitute those locations so that you can perform these steps in the directory where your database files are located.

- 11) In the D:\ORAWIN95\DATABASE directory, find the database control file. By default, this file name is CTL1.ORA for Personal Oracle7 for Windows 3.1. If you created your own database, your control file may have a different name. In a MS-DOS session, rename the control file to CTL1ORCL.ORA. Type the command:

```
D:\ORAWIN95\DATABASE> rename CTL1.ORA CTL1ORCL.ORA
```

- 12) Personal Oracle7 is set up to automatically start the database. This feature needs to be disabled to complete the remaining steps. To disable this feature, from a MS-DOS prompt, type the command:

```
D:\ORAWIN95\DATABASE> oraautos off
```

- 13) Start the database in a special way so that the new location of the database files takes effect. If you have not had to move the database files, then you can skip this step.

The easiest way to do this is to edit a sample SQL script provided for this purpose in the D:\ORAWIN95\RDBMS72\ADMIN directory. The SQL script file is MGRTSAMP.SQL. Use NOTEPAD to edit this file. Provide the full path names of database files in their original location and the full path names of the database files in their new location. The sample provides the default file names for the Personal Oracle7 for Windows 3.1 Starter Database files, but does not take into account files that may have been added due to database expansion. You will need to change or add database file names to correspond to your database files. Do not include the control file in this list. Do include all other database files.

a) After editing and saving the script, from a MS-DOS Prompt, change directories to the D:\ORAWIN95\RDBMS72\ADMIN directory.

b) Run the SQL\*DBA Utility by typing SQLDBA at the MS-DOS prompt as follows:

```
D:\ORAWIN95\RDBMS72\ADMIN> SQLDBA
```

c) Connect to Personal Oracle7 by typing the following at the SQL\*DBA prompt:

```
SQLDBA> connect internal
```

d) When prompted for a password, enter the password you specified in Step 9.

e) Enter the following commands to start up Personal Oracle7 and run your SQL script:

```
SQLDBA> startup exclusive mount  
SQLDBA> @mgrtsamp.sql
```

f) If there are errors, they are probably due either to an incorrect file name or directory path, or to incorrect placement of the quote marks or commas. Correct the errors and run the MGRTSAMP.SQL script until it is successful.

g) When the SQL script runs without errors, then shut down the database by typing the following:

```
SQLDBA> shutdown
```

h) If there any errors other than ORA-01109, then your database has not migrated correctly. Consult the online Oracle7 Error Messages in the Oracle for Windows 95 program group for more information.

14) If you completed Step 13, skip to Step 15.

a) If you skipped Step 13, then from the MS-DOS Prompt, change directories to the D:\ORAWIN95\RDBMS72\ADMIN directory and run SQL\*DBA by typing SQLDBA at the MS-DOS prompt as follows:

```
D:\ORAWIN95\RDBMS72\ADMIN> SQLDBA
```

b) Connect to Personal Oracle7 by typing the following at the SQL\*DBA prompt:

```
SQLDBA> connect internal
```

c) When prompted for a password, enter the password you specified in Step 9.

15) At the SQL\*DBA prompt, start up the database by typing:

```
SQLDBA> startup
```

The database should start up successfully.

a) To update internal database tables for Oracle7 V7.2.2, run the C714722.SQL script as follows (note that you will receive ORA-00942 errors, which you should ignore):

```
SQLDBA> @c714722.sql
```

b) If you receive only ORA-00942 errors, then your database has been updated successfully.

16) Create a userid account for the new Personal Oracle7 user interface. Do this by entering the following:

```
SQLDBA> create user PO7 identified by PO7  
default tablespace USER_DATA  
temporary tablespace TEMPORARY_DATA  
;
```

The above statement will work if your original database was the Starter Database for Personal Oracle7 for Windows 3.1. If you created your own database, then you may want to either remove the second and third line of the SQL statement, letting the tablespaces default, or provide the names of tablespaces that you have in your database.

Having created the PO7 userid, give it the DBA role by entering the following:

```
SQLDBA> grant DBA to PO7;
```

17) You are now finished with the migration of your database. Shut down your database and exit SQL\*DBA by typing:

```
SQLDBA> shutdown  
SQLDBA> exit
```

18) If you want to reset Personal Oracle7 to start up the database automatically, then enter the following at a MS-DOS Prompt:

```
D:\ORAWIN95\RDBMS72\ADMIN> oraautos on
```