## **Oracle® Database Express Edition**

Installation Guide

10g Release 2 (10.2) for Microsoft Windows

#### B25143-01

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Welcome to *Oracle Database Express Edition Installation Guide for Microsoft Windows*. This guide covers the following topics:

- Introduction
- Requirements
- Licensing Restrictions
- Installing Oracle Database XE Server
- Installing Oracle Database XE Client
- Starting Oracle Database XE
- Deinstalling Oracle Database XE
- Preserving Database Data Across Deinstall/Reinstall
- Reporting Security Vulnerabilities
- Oracle Database XE Character and Language Configurations
- Globalization Support: Configuring Locale and Character Sets with the NLS\_ LANG Parameter
- Known Issues
- Documentation Accessibility

**Note:** The most up-to-date version of this installation guide is available from the Oracle Database Express Edition (Oracle Database XE) download page on Oracle Technology Network:

http://www.oracle.com/technology/xe/documentation

## **1** Introduction

Oracle Database XE is easy to install. The installation has the following components:

• Oracle Database XE Server: The Oracle Database XE Server component provides both an Oracle database and tools for managing this database. It also includes the client component of Oracle Database XE, so that you can connect to the database from the same computer on which you installed the server component, and then administer the database and develop Java, .NET, PHP, and Oracle Application Express applications.

## ORACLE

 Oracle Database XE Client: You install the Oracle Database XE client component on remote computers from which you want to connect to Oracle Database XE. Oracle Database Client provides drivers, networking components, and tools that enable you to remotely administer the database and to develop Java, .NET, PHP, and Oracle Application Express applications. Use this installation executable only on remote computers—that is, only on computers on which you do not install Oracle Database XE Server.

You can use the following tools in your Oracle Database XE development environment.

- **PHP:** Open-source server-side embedded scripting language designed for Web development and can be embedded into HTML. You can use either of the following PHP products:
  - PHP: Download and install from:

http://www.php.net/

You can install PHP on either Oracle Database XE Server or Oracle Database XE Client.

- Zend Core for Oracle: Download and install from:

http://www.oracle.com/technology/tech/php/zendcore/ind
ex.html

Install Zend Core for Oracle on the same computer on which you installed Oracle Database XE Server. Zend Core for Oracle is not supported on remote computers that use Oracle Database XE Client.

• Oracle Developer Tools for Visual Studio .NET: Tightly integrated "Add-in" for Visual Studio .NET that .NET developers can use to design database applications and deploy .NET stored procedures. For more information, including downloads, visit:

http://www.oracle.com/technology/tech/dotnet/tools/index. html

Install Oracle Developer Tools for Visual Studio .NET onto the computer where you install Oracle Database XE Client.

After you install Oracle Database XE, you can manage it by using the Oracle Database XE graphical user interface management console, described in *Oracle Database Express Edition 2 Day DBA*.

For more information on Oracle Database XE, visit the following Web sites:

• Oracle Database XE home page on Oracle Technology Network

http://www.oracle.com/technology/products/database/xe

Oracle Database XE Documentation Library

http://www.oracle.com/technology/xe/documentation

Discussion forum

http://www.oracle.com/technology/xe/forum

Before you can use the discussion forum, you need to register Oracle Database XE.

## 2 Requirements

This section covers the following topics:

- Software Requirements
- Permissions Requirement for Installing Oracle Database XE
- Web Browser Requirements
- Configuring Your Web Browser
- Windows Security Recommendations

## 2.1 Software Requirements

This section covers the following topics:

- System Requirements
- Windows XP Service Pack 2 and Windows Server 2003 Service Pack 1 Firewalls
- Oracle Database Extensions for .NET Requirements
- Oracle Developer Tools for Visual Studio .NET

#### 2.1.1 System Requirements

Table 1 provides system requirements for both Oracle Database XE Server andOracle Database XE Client.

| Requirement                          | Value   |  |
|--------------------------------------|---|--|
| System architecture                  | Intel (x86)   |  |
| Operating system                     | One of the following 32-bit Windows operating systems:              |  |
|                                      | <ul> <li>Windows 2000 Service Pack 4 or later</li> </ul>            |  |
|                                      | <ul> <li>Windows Server 2003</li> </ul>                             |  |
|                                      | <ul> <li>Windows XP Professional Service Pack 1 or later</li> </ul> |  |
| Network protocol                     | TCP/IP  |  |
| Disk space                           | Server component: Total: 1.6 gigabytes minimum                      |  |
|                                      | Client component: 75 megabytes                                      |  |
| RAM                                  | 256 megabytes minimum, 512 megabytes recommended                    |  |
| Microsoft Windows<br>Installer (MSI) | MSI version 2.0 or later  |  |
|                                      | You can download MSI from Microsoft at:                             |  |
|                                      | http://msdn.microsoft.com/  |  |

Table 1 Oracle Database XE Requirements

## 2.1.2 Windows XP Service Pack 2 and Windows Server 2003 Service Pack 1 Firewalls

If you plan to install Oracle Database XE Server onto a computer running Windows XP Service Pack 2 or Windows Server 2003 Service Pack 1 and then connect to it from another computer, check that the firewall has not been configured to block communication from the following incoming ports. These ports are the default ports that Oracle Database XE uses.

- 1521: Oracle database listener
- **2030:** Oracle Services for Microsoft Transaction Server
- **8080:** HTTP port for Oracle XML DB and the Oracle Database XE graphical user interface

#### 2.1.3 Oracle Database Extensions for .NET Requirements

If you plan to use Oracle Database Extensions for .NET for Oracle Database XE, then you must install the following software onto your server and client computers:

• On the computer where you plan to install Oracle Database XE Server, install .NET Framework 1.*x*. Be sure to install .NET Framework 1.*x* before you install Oracle Database XE Server.

**Note:** This requirement is for design-time development, deployment, and run-time.

- On the computer where you plan to develop .NET stored procedures, you need the following software:
  - Oracle Database XE Server or Oracle Database XE Client
  - Visual Studio .NET 2003, which includes .NET Framework 1.x

Install Visual Studio .NET 2003 onto the client computer before you install Oracle Database XE Client or Oracle Developer Tools for Visual Studio .NET.

- Oracle Developer Tools for Visual Studio .NET

**Note:** These requirements are for design-time development and deployment. They are not required for run-time. For run-time, you only need to have .NET Framework 1.*x* installed on the database server. Visual Studio .NET 2003 is not necessary for run-time.

#### See Also:

http://www.oracle.com/technology/tech/dotnet/ode/ for more information on Oracle Database Extensions for .NET, including download and installation instructions

#### 2.1.4 Oracle Developer Tools for Visual Studio .NET

You can install Oracle Developer Tools on the same computer on which you installed Oracle Database XE Server or Oracle Database XE Client. *Oracle Database Express Edition 2 Day Plus .NET Developer Guide* provides instructions for installing Oracle Developer Tools.

**Note:** These requirements are for design-time development and deployment. They are not required for run-time. For run-time, you only need to have .NET Framework 1.*x* installed on the database server. Visual Studio .NET 2003 is not necessary for run-time.

#### See Also:

http://www.oracle.com/technology/tech/dotnet/ode/ for more information on Oracle Developer Tools for Visual Studio .NET

## 2.2 Permissions Requirement for Installing Oracle Database XE

You must be part of the Administrators group on Windows to install Oracle Database XE. If you are logged in as a domain user, ensure sure that you are connected to the network before you install Oracle Database XE Server.

## 2.3 Web Browser Requirements

For both the server and client components of Oracle Database XE, ensure that the Web browsers you plan to use support JavaScript and the HTML 4.0 and CSS 1.0 standards. Ensure also that cookies are enabled. The following browsers meet this requirement:

- Microsoft Internet Explorer 6.0 or later
- Netscape Navigator 7.2 or later
- Mozilla 1.7 or later
- Firefox 1.0 or later

Oracle Application Express does not support the Corel SVG Viewer.

## 2.4 Configuring Your Web Browser

Before you can run Oracle Database XE, you need to configure your Web browser so that it can connect to the Oracle Database XE Database Home Page.

- Configuring for Microsoft Internet Explorer
- Configuring Netscape Navigator or Mozilla
- Configuring Firefox

#### 2.4.1 Configuring for Microsoft Internet Explorer

To configure Microsoft Internet Explorer to connect to the Oracle Database XE Database Home Page:

- 1. From the Start menu, select Control Panel, then Internet Options.
- 2. In the Internet Options dialog box, click the **Security** tab.
- 3. Under Security, select Local Intranet and then select Sites.
- 4. In the Local Intranet dialog box, select Advanced.
- 5. Under Add this Web site to the zone, enter the following site:127.0.0.1

6. Click OK.

#### 2.4.2 Configuring Netscape Navigator or Mozilla

To configure Netscape Navigator or Mozilla to connect to the Oracle Database XE Database Home Page:

- **1.** From the **Edit** menu, select **Preferences**.
- 2. Under Category, click the Advanced category to expand it, and then select **Proxies**.
- **3.** If you are using a proxy server, add the following setting to the No Proxy For setting:

127.0.0.1

4. Click OK.

#### 2.4.3 Configuring Firefox

To configure Firefox to connect to the Oracle Database XE Database Home Page:

- 1. Under the Tools menu, select Options.
- **2.** From the General tab, select **Connection Settings**.
- **3.** If you are using a proxy server, add the following setting to the No Proxy For setting:

127.0.0.1

4. Click OK.

## 2.5 Windows Security Recommendations

Oracle recommends that you perform the following security-related tasks before installing Oracle Database XE Server on Windows:

- Disable Simple File Sharing on Windows XP
- Install on Windows File Systems that Support Access Controls

#### 2.5.1 Disable Simple File Sharing on Windows XP

If you are installing on Windows XP, consider disabling simple file sharing on the computer where you plan to install Oracle Database XE. If simple file sharing is enabled, there is risk of unauthorized access to the data in your database.

To disable simple file sharing, go to the Microsoft Knowledge Base (http://support.microsoft.com) and search for article 307874.

**Warning:** It is not possible to disable simple file sharing on Microsoft Windows XP Home. Oracle strongly recommends that you upgrade to one of the required operating systems identified in "System Requirements" on page 3. However, if you cannot upgrade, then Oracle recommends that you enable the firewall and ensure that port 1521 (or the Oracle listener port you configured during installation) is blocked. Note that blocking port 1521 blocks remote access to the database over TCP/IP.

To enable the firewall (or check that the firewall is enabled) on Microsoft Windows XP, see Microsoft Knowledge Base article number 283673, "How to turn on or turn off the firewall in Windows XP."

Note that enabling the firewall prevents all remote connections to your system by default. If you want to open specific ports, see Microsoft Knowledge Base article number 875357, "Troubleshooting Windows Firewall settings in Windows XP Service Pack 2" or article number 308127, "How to manually open ports in Internet Connection Firewall in Windows XP" for earlier Windows XP releases.

#### 2.5.2 Install on Windows File Systems that Support Access Controls

Install Oracle Database XE Server on a file system that supports access controls (for example, NTFS). If you install Oracle Database XE Server on a file system that does not support access controls, such as FAT, there is significant risk of unauthorized access to the data in your database. If necessary, you can convert a FAT partition to an NTFS partition.

#### See Also: Microsoft Support site

(http://support.microsoft.com) for more information on FAT and NTFS file systems and how to convert from FAT to NTFS

## **3 Licensing Restrictions**

This section covers the following topics:

- Oracle Database XE CPU Limitations
- Oracle Database XE Installation and Execution Restrictions
- Oracle Database XE Server User Data Limitations
- Oracle Database XE Server RAM Limitation
- HTTPS Support

## 3.1 Oracle Database XE CPU Limitations

If Oracle Database XE Server is installed on a computer with more than one CPU (including dual-core CPUs), then it will consume, at most, processing resources equivalent to one CPU. For example, on a computer with two CPUs, if two Oracle database clients try to simultaneously execute CPU-intensive queries, then Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition will use both CPUs to efficiently process the queries. However, with Oracle Database XE Server, the Oracle database will process the queries at the rate of a single CPU even if concurrent processing on two CPUs would be faster. To use the full processing

resources of your computer, upgrade to Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition.

## 3.2 Oracle Database XE Installation and Execution Restrictions

On a single computer, only one installation of the Oracle Database XE software can be performed. This does not affect any existing installation or new installations of Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition. In addition, users can run only one instance of the Oracle Database XE Server database on each individual computer. To run more than one Oracle Database server instance or install more than one copy of the database software, upgrade to Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition.

## 3.3 Oracle Database XE Server User Data Limitations

The maximum amount of user data in an Oracle Database XE Server database cannot exceed 4 gigabytes. If the user data grows beyond this limit, then an ORA-12592 error will appear. To use more than 4 gigabytes of user data, upgrade to Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition.

## 3.4 Oracle Database XE Server RAM Limitation

The maximum amount of RAM that an Oracle Database XE Server database uses cannot exceed 1 gigabyte, even if more is available. Table 1, "Oracle Database XE Requirements" provides the minimum and recommended RAM that you should use. The exact amount of RAM that Oracle Database XE uses is the sum of the System Global Area (SGA) and the aggregate Program Global Area (PGA). To find this value, follow these steps after you have installed Oracle Database XE:

- 1. From the Start menu, select Programs (or All Programs), then Oracle Database 10g Express Edition, and then Go to Database Home Page.
- 2. In the Database Home Page, log in as SYSTEM.
- **3.** Under Usage Monitor, click the **Memory** link.
- 4. Check the Current Configuration (SGA + PGA) setting:

| Home > Administration > Memory  |  |  |
|---|--|--|
| Maximum System Global Area (SGA) Size: <b>272 MB</b><br>Program Global Area (PGA) Aggregate Target: <b>56 MB</b><br>Current Configuration: (SGA + PGA): <b>328 MB</b> |  |  |
|   |  |  |

For more information about managing memory, refer to *Oracle Database Express Edition 2 Day DBA*.

To use more than 1 gigabyte of RAM, upgrade to Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition.

## 3.5 HTTPS Support

HTTPS is not supported natively with the HTTP listener built into Oracle Database XE. If you want HTTPS support, use an alternative Web listener, such as Apache, that does provide HTTPS support, and provide proxies for the URLs provided by Oracle Database XE.

For information how you can manage security in Oracle Database XE, refer to *Oracle Database Express Edition 2 Day DBA*.

## 4 Installing Oracle Database XE Server

The Oracle Database XE Server installer creates both server and client components in one installation. If you plan to use Oracle Database XE as a standalone product, you only need to install this server component, not the client component that is described under "Installing Oracle Database XE Client" on page 15.

See also "Installation and Configuration Issues" on page 25.

This section covers the following topics:

- Performing a Graphical User Interface Installation
- Performing a Silent Installation
- Enabling the Control Panel Services for .NET Stored Procedures and Oracle Microsoft Transaction Server
- Making Oracle Database XE Server Available to Remote Clients

## 4.1 Performing a Graphical User Interface Installation

Most users will install Oracle Database XE by downloading the installation executable, double-clicking it, and answering graphical user interface prompts as needed.

If you have an existing version of Oracle Database XE, you can save your data by exporting it to data files. After you install the new version of Oracle Database XE, you can import this data into the new database. For more information, see *Oracle Database Express Edition 2 Day DBA*.

To perform a graphical user interface installation:

1. Log on to Windows with Administrative privileges.

You must be part of the Administrators group on Windows to install Oracle Database XE. If you are logged in as a domain user, ensure that you are connected to the network.

- **2.** If the ORACLE\_HOME environment variable has been set, then use **System** in the Control Panel to delete it.
- **3.** Go to the following Web site:

http://www.oracle.com/technology/products/database/xe

**4.** Click **Free Download** and follow the instructions to select and download the Microsoft Windows version of Oracle Database XE Server.

5. After downloading the Oracle Database XE installation executable, OracleXE.exe (for the Western European character set) or OracleXEUniv.exe (for the Universal character set), double-click it.

"Oracle Database XE Character and Language Configurations" on page 20 describes these character sets in detail.

**6.** If you are installing over an existing Oracle Database XE installation, then click **Repair** and then select **Next**.

The **Repair** option appears only if you are reinstalling the same version of Oracle Database XE. If you are installing a newer version of Oracle Database XE, you must first deinstall the earlier version before installing the new version. In this case, the deinstallation removes the database of the earlier version. If you want to save its data before proceeding, refer to *Oracle Database Express Edition 2 Day DBA* for information on backing up the database.

| Oracle Database 10g Express Edition - Install Wizard 🛛 🛛 🔀 |   |  |
|--|---|--|
| DATABASE<br>EXPRESS EDITION                                | Welcome to the InstallShield Wizard for Oracle<br>Database 10g Express Edition<br>The InstallShield® Wizard will install Oracle Database 10g<br>Express Edition on your computer. To continue, click<br>Next. |  |
|  | < Back Next > Cancel  |  |

- **7.** In the Oracle Database 10*g* Express Edition Install Wizard welcome window, click **Next**.
- 8. In the License Agreement window, select I accept and then click Next.
- **9.** In the Choose Destination Location window, either accept the default or click **Browse** to select a different installation directory. (Do not select a directory that has spaces in its name.) Then click **Next**.

| Oracle Database 10g Express Editio                               | on - Install Wiza        | rd                 |                                    |
|--|--------------------------|--------------------|------------------------------------|
| Choose Destination Location                                      |                          |                    | ORACLE'                            |
| Select folder where setup will install files.                    |                          |                    | C À T À B À 3 E<br>Express edition |
| Setup will install Oracle Database 10g Ex                        | press Edition in the     | following folder.  |                                    |
| To install to this folder, click Next. To ins<br>another folder. | tall to a different fold | er, click Browse a | and select                         |
| ☑ Dracle Database 10g Express Edition                            |                          |                    | 1710816 K                          |
| Destination Folder   |                          |                    |                                    |
| C:\oraclexe\   |                          | _                  | Browse                             |
| Space Required on C:   | 1710816 K                |                    |                                    |
| Space Available on C:<br>InstallShield                           | 35090176 K               |                    |                                    |
|  | < Back                   | Next >             | Cancel                             |

**10.** If you are prompted for a port number, then specify one.

The following port numbers are the default values:

- **1521:** Oracle database listener
- 2030: Oracle Services for Microsoft Transaction Server
- **8080:** HTTP port for the Oracle Database XE graphical user interface

If these port numbers are not currently used, then the installation uses them automatically without prompting you. If they are in use, then you will be prompted to enter an available port number.

**11.** In the Specify Database Passwords window, enter and confirm the password to use for the SYS and SYSTEM database accounts. Then click **Next**.

| Oracle Database 10g Express Edition - Install Wizard 🛛 🛛 🔀  |  |  |
|---|--|--|
| Specify Database Passwords  |  |  |
| Enter and confirm passwords for the database. This password will be used for both the SYS and<br>the SYSTEM database accounts.                    |  |  |
| Enter Password  |  |  |
| Confirm Password  |  |  |
| Note: You should use the SYSTEM user along with the password you enter here to log in to the<br>Database Home Page after the install is complete. |  |  |
| InstallShield Kext > Cancel   |  |  |

**12.** In the Summary window, review the installation settings, and if you are satisfied, click **Install**. Otherwise, click **Back** and modify the settings as necessary.



**13.** In the InstallShield Wizard Complete window, to display the Database Home Page, click **Launch the Database homepage**. Then click **Finish**.

**Note:** Logs for the server component installation are in the OracleDatabaseXEServerInstall.log file, located in the system root directory, which is typically c:\WINDOWS. You can find the database creation logs in the *install\_ directory*\app\oracle\product\10.2.0\server\config\lo g directory. (*install\_directory* is typically c:\oraclexe.)

## 4.2 Performing a Silent Installation

If you plan to install Oracle Database XE on multiple computers or bundle it with a third-party application, then you may want to perform a silent installation, in which you download the installation executable and run it at a command line using the provided response files.

If you have an existing version of Oracle Database XE, you can save your data by exporting it to data files. After you install the new version of Oracle Database XE, you can import this data into the new database. For more information, see *Oracle Database Express Edition 2 Day DBA*.

To perform a silent installation of Oracle Database XE:

1. Log on to Windows with Administrative privileges.

You must be part of the Administrators group on Windows to install Oracle Database XE. If you are logged in as a domain user, ensure that you are connected to the network.

**2.** Go to the following Web site:

http://www.oracle.com/technology/products/database/xe

**3.** Click **Free Download** and follow the instructions to select and download the Microsoft Windows version of Oracle Database XE.

The installation executable comes with a set of response files that you can use to perform silent installations, repairs (upgrades), and deinstallations.

You have the choice of downloading either OracleXE.exe (for the Western European character set) or OracleXEUniv.exe (for the Universal character set). "Oracle Database XE Character and Language Configurations" on page 20 describes these character sets in detail.

**4.** Check the response files and modify the settings if necessary.

The response files set the following:

- Installation directory location (do not specify a directory that has spaces in its name)
- TNS, Microsoft Transaction Server, and HTTP ports
- Password for SYS and SYSTEM
- **5.** If the ORACLE\_HOME environment variable has been set, then use **System** in the Control Panel to delete it.
- **6.** Run the installation executable with the appropriate response file.

For example, if you downloaded the OracleXE.exe executable and its response files to a directory called xe\_temp, you would enter the following command:

```
c:\xe_temp> OracleXE.exe /s /f1"c:\xe_temp\response\OracleXE-Install.iss"
/f2"c:\xe_temp\setup.log"
```

If you wanted to repair the Oracle Database XE installationyou would enter the following command:

c:\xe\_temp> OracleXE.exe /s /f1"c:\xe\_temp\response\OracleXE-repair.iss"
/f2"c:\xe\_temp\setup.log"

After the installation is complete, Oracle Database XE starts and displays the Database Home Page.

**Note:** The setup.log file indicates the success of the installation. A result code of 0 means the installation succeeded. Logs for the server component installation are in the

\OracleDatabaseXEServerInstall.log file, located in the system root directory, which is typically c:\WINDOWS. You can find the database creation logs in the *install\_* 

directory\app\oracle\product\10.2.0\server\config\lo
g directory. (install\_directory is typically c:\oraclexe.)

# 4.3 Enabling the Control Panel Services for .NET Stored Procedures and Oracle Microsoft Transaction Server

If you plan to use .NET stored procedures or Oracle Services for Microsoft Transaction Server (OraMTS), you need to enable their services on the computer where you installed Oracle Database XE, if you want them to start automatically. .NET stored procedures are installed on Oracle Database XE Server, and OraMTS can be installed on both Oracle Database XE Server and Client. Immediately after you install Oracle Database XE, their services are set to Manual.

To enable the .NET stored procedures and MTS services:

1. Select Start, then Control Panel.

- 2. In the Control Panel, double-click Administrative Tools, and then Services.
- **3.** Right-click each of the following services, and then select **Properties** from the menu. Then set the service's start-up type to **Automatic**.
  - **OracleXECIrAgnt** (for .NET stored procedures)
  - OracleMTSRecoveryService (Oracle Services for Microsoft Transaction Server)
- 4. Click OK.
- **5.** Start each service by right-clicking its name and selecting **Start** from the menu.

#### See Also:

- Oracle Database Express Edition 2 Day Plus .NET Developer Guide for more information on .NET stored procedures
- Oracle Services for Microsoft Transaction Server Developer's Guide

## 4.4 Making Oracle Database XE Server Available to Remote Clients

After you install Oracle Database XE Server, its graphical user interface is only available from the local server, not remotely.

**Security Note:** With remote HTTP access to Oracle Database XE, all information exchanged between the browser and the database is in clear text—that is, unencrypted—including database user names and passwords. If this is cause for concern, do not enable remote HTTP connection to the database.

If you want to use a Web browser, follow these steps:

**1.** Start Oracle Database XE.

From the Start menu, select **All Programs**, then **Oracle Database 10g Express Edition**, and then **Go To Database Home Page**.

- **2.** In the Database Login page, log in as SYSTEM, enter the password, and then click **Login**.
- **3.** In the Oracle Database XE home page, click **Administration**.
- 4. Under Tasks, click Manage HTTP Access.
- **5.** Under Manage HTTP Access, select **Available from local server and remove clients**.
- 6. Click Apply Changes.

If you prefer to use the SQL Command Line, follow these steps:

**1.** Start SQL\*Plus and log in as SYSTEM:

SYSTEM\_DRIVE: > sqlplus system Enter password: SYSTEM\_password

Or, if you are logging in remotely:

SYSTEM\_DRIVE:\> sqlplus system@xe\_server\_host\_name

Enter password: SYSTEM\_password

2. At the SQL prompt, enter the following command:

SQL> EXEC DBMS\_XDB.SETLISTENERLOCALACCESS(FALSE);

For more information on enabling a remote connection to the Oracle Database XE database, see *Oracle Database Express Edition 2 Day DBA*.

## 5 Installing Oracle Database XE Client

If you want to enable remote access to Oracle Database XE Server, install Oracle Database XE Client onto each client computer. You do not need to install Oracle Database XE Client onto the same computer as Oracle Database XE Server.

This section covers the following topics:

- Performing a Graphical User Interface Installation of the Client
- Performing a Silent Installation of the Client
- Enabling the Control Panel Services for Oracle Microsoft Transaction Server
- Connecting to the Database from Oracle XE Client

## 5.1 Performing a Graphical User Interface Installation of the Client

After you have installed Oracle Database XE Server, and if you want to have one or more remote client connections to it, you can install Oracle Database XE Client onto each client computer.

To install Oracle Database XE Client:

1. Log on to Windows with Administrative privileges.

You must be part of the Administrators group on Windows to install Oracle Database XE.

- **2.** Ensure that you have followed the instructions under "Installing Oracle Database XE Server" on page 9 to install Oracle Database XE Server, which contains an Oracle database to which the client can connect.
- **3.** Go to the following Web site:

http://www.oracle.com/technology/xe

- 4. Click **Downloads** and follow the instructions to make sure that you have selected the correct Oracle Database XE Client OracleXEClient.exe installation executable.
- **5.** After downloading the Oracle Database XE Client installation executable, double-click it.
- **6.** In the Welcome to the InstallShield Wizard for Oracle Client Oracle Database 10g Express Edition window, click **Next**.
- 7. In the License Agreement window, select Accept and then click Next.
- 8. In the Choose Destination Location window, either accept the default or click **Browse** to select a different installation directory. (Do not select a directory that has spaces in its name.) Then click **Next**.
- **9.** In the Summary window, click **Install**.

**10.** In the InstallShield Wizard Complete window, click **Finish**.

**Note:** The setup.log file indicates the success of the installation. A result code of 0 means the installation succeeded. Logs for the client component installation are in the OracleDatabaseXEClientInstall.log file, located in the system root directory, which is typically c:\WINDOWS.

#### 5.2 Performing a Silent Installation of the Client

To perform a silent installation of Oracle Database XE Client:

**1.** Log on to Windows with Administrative privileges.

You must be part of the Administrators group on Windows to install Oracle Database XE.

**2.** Go to the following Web site:

http://www.oracle.com/technology/products/database/xe

**3.** Click **Free Download** and follow the instructions to select and download the Microsoft Windows version of Oracle Database XE.

The installation executable, OracleXEClient.exe, comes with a set of response files that you can use to perform silent installations, repairs (upgrades), and deinstallations.

- **4.** Check the response files and modify the port number for Oracle Services for Microsoft Transaction Server, if necessary.
- 5. Run the OracleXEClient.exe executable with the appropriate response file.

For example, if you downloaded the OracleXEClient.exe executable and its response files to a directory called xe\_temp, you would enter the following command:

```
c:\xe_temp> OracleXE.exe /s /f1"c:\OracleXEClient-Install.iss"
/f2"c:\setup.log"
```

If you wanted to reinstall the same version of Oracle Database XE, you would enter the following command:

```
c:\xe_temp> OracleXE.exe /s /f1"c:\OracleXEClient-Repair.iss"
/f2"c:\setup.log"
```

After the installation is complete, Oracle Database XE starts and displays the Database Home Page.

**Note:** The setup.log file indicates the success of the installation. A result code of 0 means the installation succeeded. Logs for the client component installation are in the OracleDatabaseXEClientInstall.log file, located in the

system root directory, which is typically c:\WINDOWS.

# 5.3 Enabling the Control Panel Services for Oracle Microsoft Transaction Server

If you plan to use Oracle Services for Microsoft Transaction Server (OraMTS), you need to enable its services on the computer where you installed Oracle Database XE Client if you want it to start automatically. Immediately after you install Oracle Database XE, its service are set to Manual.

To enable the OraMTS service:

- 1. Select Start, then Control Panel.
- 2. In the Control Panel, double-click Administrative Tools, and then Services.
- **3.** Right-click the **OracleMTSRecoveryService** service, select **Properties** from the menu, and then set the start-up type to **Automatic**.
- 4. Click OK.
- **5.** Start the OracleMTSRecoverService service by right-clicking its name and selecting **Start** from the menu.

For more information on Oracle Makeshift Transaction Server, see *Oracle Services for Microsoft Transaction Server Developer's Guide*.

## 5.4 Connecting to the Database from Oracle XE Client

To configure the connection to Oracle Database XE Server, refer to *Oracle Database Express Edition 2 Day DBA*.

## 6 Starting Oracle Database XE

After you have installed Oracle Database XE, the database is up and running and you can begin using it right away. To start using Oracle Database XE, you can go to the Database Home Page in the Oracle Database XE graphical user interface.

Immediately after you install Oracle Database XE using the graphical user interface installation method, if you selected the **Launch the Oracle Database 10g Express Edition homepage** checkbox when the installation completed, the Database Home Page appears. To get started using Oracle Database XE, click **Getting Started** to learn how to log on and create a simple application.

If you did not select the **Launch the Oracle Database 10g Express Edition homepage** checkbox, or if you want to access Oracle Database XE from another computer, then follow these steps:

 To access the Database Home Page, from the Start menu, select Programs (or All Programs), then Oracle Database 10g Express Edition, and then Go to Database Home Page.

If Oracle Database XE Server is installed on another computer, then you can access it from the following URL:

http://host:port/apex/

In this URL:

 host is the host name or IP address of the computer where Oracle Database XE Server is installed. If Oracle Database XE Server is on your local computer, then you can enter localhost as the host name. Note that the URL in the browser by default points to the localhost IP address 127.0.0.1. If you want another user to access your Oracle Database XE installation, then provide the host name or IP address of your computer.

 port is the TCP port that the Oracle Database XE HTTP listener is listening on. You set this port number during installation. Normally it is set to 8080.

For example, if Oracle Database XE Server was installed on a computer with the host name shobeen with the default port number 8080, you would access the Database Home Page at this URL:

http://shobeen:8080/apex/

- **2.** Log in to the database using the user name SYSTEM, and supply the password that you created during installation.
- **3.** To begin learning about Oracle Database XE, use the following documents:
  - Oracle Database Express Edition Getting Started Guide is a quick tutorial that gets you up and running using Oracle Database XE. You learn how to start Oracle Database XE and create a small application. To access this tutorial, click **Getting Started** on the Database Home Page.
  - Oracle Database Express Edition 2 Day DBA provides more detailed information on the best way to start using Oracle Database XE. To access this manual and the rest of the documentation set, click **Documentation** under External Links on the Database Home Page.

## 7 Deinstalling Oracle Database XE

When you deinstall Oracle Database XE, all components, including data files, the database, and the software, are removed. If you want to save your data files but remove the Oracle Database XE software and database, then first export the data by using one of the methods described in *Oracle Database Express Edition 2 Day DBA* before you deinstall.

Because the deinstallation process removes all files from the directory in which Oracle Database XE is installed, back up any files from the directory (if needed) before you deinstall.

To deinstall Oracle Database XE by using Add or Remove Programs:

- 1. In the Windows Control Panel, select Add or Remove Programs.
- 2. Select Oracle Database 10g Express Edition.
- **3.** Click **Change/Remove**.
- 4. In the Oracle Database 10g Express Edition Install Wizard, select **Remove**, click **Next**, and then click **Yes** in the confirmation window. When the deinstallation completes, click **Finish**.

To perform a silent deinstallation of Oracle Database XE:

- 1. Log on to Windows with Windows administrative privileges.
- **2.** Go to the following Web site:

http://www.oracle.com/technology/products/database/xe

**3.** Click **Free Download** and follow the instructions to select and download the Microsoft Windows version of Oracle Database XE.

The installation executable, OracleXE.exe, comes with a set of response files that you can use to perform silent installations, repairs (upgrades), and deinstallations.

**4.** Run the OracleXE.exe executable with the OracleXERemove.iss response file.

For example, if you downloaded the OracleXE.exe executable and its response files to a directory called xe\_temp, you would enter the following command to deinstall Oracle Database XE Server:

```
c:\xe_temp> OracleXE.exe /s /f1"c:\xe_temp\response\OracleXE-Remove.iss"
/f2"c:\xe_temp\setup.log"
```

To deinstall Oracle Database XE Client, you would enter:

```
c:\xe_temp> OracleXE.exe /s /f1"c:\xe_
temp\response\OracleXEClient-Remove.iss" /f2"c:\xe_temp\setup.log"
```

The setup.log file indicates whether the deinstallation was successful. A result code of 0 means the deinstallation succeeded.

## 8 Preserving Database Data Across Deinstall/Reinstall

The following steps provide a method of preserving your database data when you deinstall and then reinstall *the same release* of Oracle Database XE Server. Refer to *Oracle Database Express Edition 2 Day DBA* for step details.

1. Create a directory in a location that is outside the standard Oracle Database XE directory structure. This directory will be the new location for the flash recovery area.

For example, create the directory outside the default installation location, which is typically c:\oraclexe directory.

2. Move the flash recovery area to this new directory.

See "Setting the Flash Recovery Area Location," in Chapter 6, for instructions.

**3.** Perform a complete backup of the database to the new flash recovery area by running the **Backup Database** command from the desktop.

See "Backing Up the Database," in Chapter 11, for instructions. Ensure that you see the message Backup of the database succeeded before proceeding.

- **4.** Deinstall Oracle Database XE, as explained in "Deinstalling Oracle Database XE" on page 18.
- **5.** Install Oracle Database XE, as explained in "Installing Oracle Database XE Server" on page 9.

Do not perform any backups until you complete the remaining steps in this procedure.

6. Run the **Restore Database** command from the desktop.

See "Restoring and Recovering the Database," in Chapter 11, for instructions.

**7.** When the restore script prompts you for the flash recovery area location, enter the full path to the directory that you created in Step 1.

The restore script restores the database from backup.

## 9 Reporting Security Vulnerabilities

If you find any security vulnerabilities with Oracle Database XE, then send a description of the problem to Oracle at the following e-mail address:

secalert\_us@oracle.com

Include the following information in your e-mail:

- A complete description of the problem you encountered
- The version of Oracle Database XE you were using
- The platform on which you were running Oracle Database XE
- Any scripts or examples that may be helpful in tracking down the security problem

For more information on how Oracle handles security issues, visit:

http://www.oracle.com/technology/deploy/security/index.html

# 10 Oracle Database XE Character and Language Configurations

Oracle Database XE is available in two character set and language configurations:

- Western European
  - The database created using a single-byte Latin1 (WE8MSWIN1252) character set, which is suitable for storing Western European language data.
  - The Oracle Application Express user interface is available in English only.
  - Database error messages are available in Brazilian Portuguese, English, French, German, Italian, and Spanish.
- Universal
  - The database is created using a multibyte (AL32UTF8) character set, which is suitable for global data in any language.
  - The Oracle Application Express user interface and database error messages are available in Brazilian Portuguese, Chinese (Simplified and Traditional), English, French, German, Italian, Japanese, Korean, and Spanish.

"Globalization Support: Configuring Locale and Character Sets with the NLS\_ LANG Parameter" on page 21 provides additional character and language information.

# 11 Globalization Support: Configuring Locale and Character Sets with the NLS\_LANG Parameter

This section explains how to configure globalization settings for both the server and client components of Oracle Database XE. It covers the following topics:

- About the NLS\_LANG Parameter
- Default Values for NLS\_LANG
- Supported Character Sets
- NLS\_LANG Settings in MS-DOS Mode and Batch Mode

## 11.1 About the NLS\_LANG Parameter

Oracle provides globalization support that enables users to interact with a database in their preferred locale and character set settings, as defined by the NLS\_LANG parameter. When you install Oracle Database XE, the installation process sets the NLS\_LANG parameter in the registry. The NLS\_LANG parameter is stored in the registry under the HKEY\_LOCAL\_ MACHINE\SOFTWARE\ORACLE\key\_XE\NLS\_LANG subkey.

The locale setting of your operating system determines the value of the NLS\_ LANG parameter at installation. Table 2 on page 22 lists the operating system locale and NLS\_LANG value mappings.

The NLS\_LANG parameter uses the following format:

NLS\_LANG = LANGUAGE\_TERRITORY.CHARACTER\_SET

| Parameter     | Description  |
|---------------|--|
| LANGUAGE      | Specifies the language for displaying product messages, day names, and month names in SQL.   |
|               | <i>Oracle Database Globalization Support Guide</i> provides more information about languages.  |
| TERRITORY     | Specifies the cultural-specific conventions for date, number, time, and monetary formatting.   |
|               | <i>Oracle Database Globalization Support Guide</i> provides more information about territory conventions.  |
| CHARACTER_SET | Specifies the encoding used by the client application, which is usually the character set of the source data being processed, and the character set used in displaying the output. |
|               | "Supported Character Sets" on page 22 provides a list of supported character sets.   |

This format is explained in the following table:

*Oracle Database Globalization Support Guide* provides information about the NLS\_LANG parameter and Globalization Support initialization parameters.

## 11.2 Default Values for NLS\_LANG

Table 2 lists the default NLS\_LANG values for various Windows locales.

| Operating System Locale  | NLS_LANG Value                           |
|--------------------------|--|
| Chinese (PRC)            | SIMPLIFIED CHINESE_CHINA.ZHS16GBK        |
| Chinese (Taiwan)         | TRADITIONAL CHINESE_TAIWAN.ZHT16MSWIN950 |
| English (United Kingdom) | ENGLISH_UNITED KINGDOM.WE8MSWIN1252      |
| English (United States)  | AMERICAN_AMERICA.WE8MSWIN1252            |
| French (Canada)          | CANADIAN FRENCH_CANADA.WE8MSWIN1252      |
| French (France)          | FRENCH_FRANCE.WE8MSWIN1252               |
| German (Germany)         | GERMAN_GERMANY.WE8MSWIN1252              |
| Italian (Italy)          | ITALIAN_ITALY.WE8MSWIN1252               |
| Japanese                 | JAPANESE_JAPAN.JA16SJISTILDE             |
| Korean                   | KOREAN_KOREA.KO16MSWIN949                |
| Portuguese (Brazil)      | BRAZILIAN PORTUGUESE_BRAZIL.WE8MSWIN1252 |
| Portuguese (Portugal)    | PORTUGUESE_PORTUGAL.WE8MSWIN1252         |
| Spanish (Spain)          | SPANISH_SPAIN.WE8MSWIN1252               |
| Spanish (Mexico)         | MEXICAN SPANISH_MEXICO.WE8MSWIN1252      |

Table 2 NLS\_LANG Parameter Values for Windows Locales

## **11.3 Supported Character Sets**

Table 3 lists the supported character sets in Oracle Database XE. The list is ordered alphabetically in each language group.

The character set AL16UTF16 can be used only as an NCHAR character set, and not as a database character set.

Table 3 Supported Character Sets

| Name           | Description   |  |
|----------------|---|--|
| Asian          |   |  |
| JA16EUC        | EUC 24-bit Japanese   |  |
| JA16EUCTILDE   | The same as JA16EUC except for the way that the wave dash and the tilde are mapped to and from Unicode  |  |
| JA16SJIS       | Shift-JIS 16-bit Japanese. The same as JA16SJISTILDE except for<br>the way that the wave dash and the tilde are mapped to and from<br>Unicode |  |
| JA16SJISTILDE  | Microsoft Windows Code Page 932 Japanese  |  |
| K016KSC5601    | KSC5601 16-bit Korean   |  |
| KO16MSWIN949   | Microsoft Windows Code Page 949 Korean  |  |
| TH8TISASCII    | ISASCII Thai Industrial Standard 620-2533 - ASCII 8-bit   |  |
| VN8MSWIN1258   | Microsoft Windows Code Page 1258 8-bit Vietnamese   |  |
| ZHS16CGB231280 | CGB2312-80 16-bit Simplified Chinese  |  |

| Name           | Description  |  |
|----------------|--|--|
| ZHS16GBK       | GBK 16-bit Simplified Chinese  |  |
| ZHS32GB18030   | GB18030-2000   |  |
| ZHT16BIG5      | BIG5 16-bit Traditional Chinese  |  |
| ZHT16HKSCS     | Microsoft Windows Code Page 950 with Hong Kong<br>Supplementary Character Set HKSCS-2001 (character set<br>conversion to and from Unicode is based on Unicode 3.0) |  |
| ZHT16MSWIN950  | Microsoft Windows Code Page 950 Traditional Chinese  |  |
| ZHT32EUC       | EUC 32-bit Traditional Chinese   |  |
| European       |  |  |
| BLT8CP921      | Latvian Standard LVS8-92(1) Windows/UNIX 8-bit Baltic  |  |
| BLT8IS08859P13 | ISO 8859-13 Baltic   |  |
| BLT8MSWIN1257  | Microsoft Windows Code Page 1257 8-bit Baltic  |  |
| BLT8PC775      | IBM-PC Code Page 775 8-bit Baltic  |  |
| CEL8IS08859P14 | ISO 8859-13 Celtic   |  |
| CL8IS08859P5   | ISO 8859-5 Latin/Cyrillic  |  |
| CL8KOI8R       | RELCOM Internet Standard 8-bit Latin/Cyrillic  |  |
| CL8KOI8U       | KOI8 Ukrainian Cyrillic  |  |
| CL8MSWIN1251   | Microsoft Windows Code Page 1251 8-bit Latin/Cyrillic  |  |
| EE8ISO8859P2   | ISO 8859-2 East European   |  |
| EL8ISO8859P7   | ISO 8859-7 Latin/Greek   |  |
| ET8MSWIN923    | Microsoft Windows Code Page 923 8-bit Estonian   |  |
| EE8MSWIN1250   | Microsoft Windows Code Page 1250 8-bit East European   |  |
| EL8MSWIN1253   | Microsoft Windows Code Page 1253 8-bit Latin/Greek   |  |
| EL8PC737       | IBM-PC Code Page 737 8-bit Greek/Latin   |  |
| EE8PC852       | IBM-PC Code Page 852 8-bit East European   |  |
| LT8MSWIN921    | Microsoft Windows Code Page 921 8-bit Lithuanian   |  |
| NE8IS08859P10  | ISO 8859-10 North European   |  |
| NEE8ISO8859P4  | ISO 8859-4 North and North-East European   |  |
| RU8PC866       | IBM-PC Code Page 866 8-bit Latin/Cyrillic  |  |
| SE8IS08859P3   | ISO 8859-3 South European  |  |
| US7ASCII       | ASCII 7-bit American   |  |
| US8PC437       | IBM-PC Code Page 437 8-bit American  |  |
| WE8ISO8859P1   | ISO 8859-1 West European   |  |
| WE8IS08859P15  | ISO 8859-15 West European  |  |
| WE8MSWIN1252   | Microsoft Windows Code Page 1252 8-bit West European   |  |
| WE8PC850       | IBM-PC Code Page 850 8-bit West European   |  |
| WE8PC858       | IBM-PC Code Page 858 8-bit West European   |  |

 Table 3 (Cont.) Supported Character Sets

| Name           | Description   |
|----------------|---|
| Middle Eastern |   |
| AR8ADOS720     | Arabic MS-DOS 720 Server 8-bit Latin/Arabic                 |
| AR8ASMO8X      | ASMO Extended 708 8-bit Latin/Arabic                        |
| AR8IS08859P6   | ISO 8859-6 Latin/Arabic                                     |
| AR8MSWIN1256   | Microsoft Windows Code Page 1256 8-Bit Latin/Arabic         |
| AZ8ISO8859P9E  | ISO 8859-9 Latin Azerbaijani                                |
| IW8ISO8859P8   | ISO 8859-8 Latin/Hebrew                                     |
| IW8MSWIN1255   | Microsoft Windows Code Page 1255 8-bit Latin/Hebrew         |
| TR8MSWIN1254   | Microsoft Windows Code Page 1254 8-bit Turkish              |
| TR8PC857       | IBM-PC Code Page 857 8-bit Turkish                          |
| WE8ISO8859P9   | ISO 8859-9 West European & Turkish                          |
| Universal      |   |
| AL16UTF16      | Unicode 4.0 UTF-16 Universal character set                  |
| AL32UTF8       | Unicode 4.0 UTF-8 Universal character set                   |
| UTF8           | Unicode 3.0 UTF-8 Universal character set, CESU-8 compliant |

Table 3 (Cont.) Supported Character Sets

## 11.4 NLS\_LANG Settings in MS-DOS Mode and Batch Mode

The installation process sets the client character set in the NLS\_LANG parameter to the appropriate Windows code page, and this is the correct setting for running applications on Windows. However, this NLS\_LANG setting may not operate correctly when running command-line utilities such as SQL\*Plus and SQL\*Loader in MS-DOS mode. This is because MS-DOS, with a few exceptions, uses a different character set (or code page) than Windows. It is important that you set the character set in the NLS\_LANG parameter for the MS-DOS session correctly. Setting it incorrectly can lead to invalid character conversion, which can corrupt error messages and data.

Similarly, in batch mode, set the correct character set value of NLS\_LANG by inserting a SET NLS\_LANG command at the start of the batch procedure, according to the character set of the files to be processed in the procedure.

Table 4 lists the Oracle character sets that correspond to the MS-DOS mode for various operating system locales.

| Operating System Locale  | Character Set |
|--------------------------|---------------|
| Chinese (PRC)            | ZHS16GBK      |
| Chinese (Taiwan)         | ZHT16MSWIN950 |
| English (United Kingdom) | WE8PC850      |
| English (United States)  | US8PC437      |
| French                   | WE8PC850      |
| German                   | WE8PC850      |

 Table 4
 Oracle Character Sets for Windows Locales

| Operating System Locale | Character Set |
|-------------------------|---------------|
| Italian                 | WE8PC850      |
| Japanese                | JA16SJISTILDE |
| Korean                  | KO16MSWIN949  |
| Portuguese              | WE8PC850      |
| Spanish                 | WE8PC850      |

 Table 4 (Cont.) Oracle Character Sets for Windows Locales

## 12 Known Issues

This section covers the following topics:

- Installation and Configuration Issues
- Open Bugs and Known Issues
- Open Bugs and Known Issues Specific to Oracle Application Express
- Documentation Corrections and Additions

For the latest known issues and workarounds, as well as current Oracle Database XE documentation, visit

http://www.oracle.com/technology/products/database/xe

## 12.1 Installation and Configuration Issues

This section lists the following installation and configuration issues:

• Oracle C++ Call Interface (OCCI) Libraries

## 12.1.1 Oracle C++ Call Interface (OCCI) Libraries

Oracle C++ Call Interface (OCCI) libraries for developing applications with Microsoft Visual C++ version 7.1 (.NET 2003) and version 7.0 (.NET 2002) are available in Oracle Database 10g Release 2 (10.2). Microsoft Visual C++ version 6.0 is no longer supported.

Microsoft Visual C++ version 7.1 libraries are now installed in the default location: oraocci10.dll under ORACLE\_BASE\ORACLE\_HOME\bin and oraocci10.lib under ORACLE\_BASE\ORACLE\_HOME\oci\lib\msvc. Copies of these two files are also installed under ORACLE\_BASE\ORACLE\_ HOME\oci\lib\msvc\vc71. The Microsoft Visual C++ version 7.0 version libraries are installed under ORACLE\_BASE\ORACLE\_ HOME\oci\lib\msvc\vc7.

You should link applications required to link with MSVCRTD.DLL (debug version of Microsoft C-Runtime, /MDd compiler flag) with the specific OCCI libraries for this purpose: oraocci10d.lib and oraocci10d.dll.

All Instant Client packages (from Oracle Database Client) contain the Microsoft Visual C++ version 7.1 compatible version of the OCCI dynamic link library (DLL).

Applications should link with the appropriate OCCI library and ensure that the corresponding DLL is located first in the Windows system PATH.

## 12.2 Open Bugs and Known Issues

This section covers the following open bugs and known issues:

- English and French Oracle Text Supplied Knowledge Bases Not Included
- Errors Accessing the Oracle Database XE Home Page
- User Names Cannot Contain Non-ASCII Characters
- Errors when Modifying HTTP Access
- ORA-12560: TNS: Protocol Adapter Errors
- ORA-12638: Credential Retrieval Failed Errors

#### 12.2.1 English and French Oracle Text Supplied Knowledge Bases Not Included

The Oracle Text English and French Supplied Knowledge Bases are not included in Oracle Database XE. As a result, the following functions are not available:

- Index creation using a BASIC\_LEXER preference where INDEX\_ THEMES=YES
- SYNCing an index where INDEX\_THEMES=YES
- CTX\_DOC.THEME
- CTX\_DOC.POLICY\_THEME
- CTX\_DOC.GIST
- CTX\_DOC.POLICY\_GIST
- CTX\_QUERY.HFEEDBACK
- CTX\_QUERY.EXPLAIN, if using ABOUT or THEMES with TRANSFORM
- CTX\_DOC.SNIPPET (if using the ABOUT operator)
- CTX\_DOC.POLICY\_SNIPPET (if using the ABOUT operator)
- CONTAINS queries that use ABOUT or THEMES with TRANSFORM
- The Knowledge Base Extension Compiler, ctxkbtc
- Clustering and classification services, if themes are specified

If you try to use these functions, then the following error appears:

11446,0, "supplied knowledge base file %(1)s not installed"

**Workaround:** Upgrade to Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition.

#### 12.2.2 Errors Accessing the Oracle Database XE Home Page

The following errors may appear when you try to access the Oracle Database XE home page:

403 Forbidden Error Message when accessing the Oracle Database Express Edition home page

403 Forbidden - The following error occured: Access denied by access control list.

There may be a problem with the default profile your browser is using.

**Workaround:** Configure your Web browser by following the instructions under "Configuring Your Web Browser" on page 5.

#### 12.2.3 User Names Cannot Contain Non-ASCII Characters

Oracle Database XE allows you to create user names with special characters (for example, ÜBER), but you cannot log in to Oracle Database XE with a user name containing special characters.

Workaround: Recreate the user name using ASCII characters only.

#### 12.2.4 Errors when Modifying HTTP Access

The Manage HTTP Access page, available by selecting the **Manage HTTP Access** option on the Administration page, lets you control HTTP access to the database by selecting one of the following options:

- Available only from local server
- Available from local server and remote client

If you select either of these options and then click **Apply Changes**, one of the following may occur:

- An error saying that the page cannot be displayed (or a 404 error, depending on your browser)
- A delay, followed by a 500 server error or a blank page

You can disregard these occurrences. The option that you selected will be successfully applied.

**Workaround:** To avoid these occurrences, use SQL\*Plus to enable or disable remote access. You can start SQL\*Plus by selecting **Run SQL Command Line** from the **Oracle Database 10g Express Edition** menu. Then enter the following commands:

SQL> CONNECT SYS/AS SYSDBA (Or enter CONNECT SYSTEM)
Enter password: password
SQL> EXEC DBMS\_XDB.SETLISTENERLOCALACCESS(FALSE); (To enable remote access)
SQL> EXEC DBMS\_XDB.SETLISTENERLOCALACCESS(TRUE); (To disable remote access)

## 12.2.5 ORA-12560: TNS: Protocol Adapter Errors

If other Oracle client software is installed on the same computer as Oracle Database XE, ensure that you use the appropriate connect syntax for these clients when trying to connect to Oracle Database XE. If you do not specify the appropriate connect syntax, then an "ORA-12560: TNS: protocol adapter error" message may appear.

#### 12.2.6 ORA-12638: Credential Retrieval Failed Errors

If you are logged in as a domain user, ensure sure that you are connected to the network before you install Oracle Database XE Server. Because domain authentication is used during installation, the installation could fail you are not authenticated during installation. You will not be able to access the Database Home page at the end of installation and you will see the error "ORA-12638: Credential retrieval failed" in database creation log files.

Workaround: Log in as a local user on the system and retry the installation.

# 12.3 Open Bugs and Known Issues Specific to Oracle Application Express

This section describes bugs and known issues for Oracle Application Express:

- Importing Spreadsheet Data Containing Quotation Marks
- Column Attribute Format in Japanese
- Creating an Item with a Japanese Item Name
- Downloading Triggers with Multibyte Names
- Generate DDL Utility Corrupts Some Multibyte Table and Columns Names
- Spell-checking Features Pop-up Does Not Function Properly
- Authentication Schemes Not Displayed in Icons View Mode

#### 12.3.1 Importing Spreadsheet Data Containing Quotation Marks

If you import spreadsheet data by copying and pasting and a column value contains a double quotation mark, then the data will not import correctly (for example, 54" Plasma Flat Screen). To avoid this problem, you have two options:

- Option 1:
  - **a.** Save the data in a delimited format (such as comma-delimited (.csv) or tab-delimited).
  - **b.** Use the Import Text Data Wizard to upload and import the saved file.
- Option 2:
  - **a.** Replace the quotation mark with two double quotation marks as shown in the following example:
    - 54"" Plasma Flat Screen
  - **b.** Use the Import Spreadsheet Data Wizard to import the file.

#### 12.3.2 Column Attribute Format in Japanese

The number or date format select dialog on the Column Attribute of a Page Definition in Application Builder displays the following message in the dialog box:

```
'backslash'+ 5,234.10
```

The yen symbol should appear accurately in a Japanese environment.

Note that backslash and yen are the same character code point, but vary in appearance depending on the selected font. The backslash character is also displayed when you apply the data format on the page in the application.

#### 12.3.3 Creating an Item with a Japanese Item Name

If you use a wizard to create a form on a table or view based on an included column whose name is in Japanese, then the name of the new item will be included in Japanese.

**Workaround**: To correct this problem, when you create new items, on the Page Definition use alphanumeric characters A to *Z*, 0 to 9 and '\_' for the item names.

You may also need to change item names to alphanumeric before you apply changes to the item.

#### 12.3.4 Downloading Triggers with Multibyte Names

If you download a trigger with a multibyte name from the Object Details view in Object Browser, then the file name becomes corrupt.

Workaround: Download triggers with multibyte names from the Code view.

#### 12.3.5 Generate DDL Utility Corrupts Some Multibyte Table and Columns Names

In character sets in non-UTF8 databases, multibyte table and column names are corrupted when you generate DDL. For example, if you want to generate DDL for objects that have non-ASCII characters (for example, ä or â) and the database character set was distributed with the Western European edition (WE8MSIN1252), these characters will be garbled in the generated script.

Database character sets of AL32UTF8 do not have this bug.

**Workaround**: Choose the output type of Display Inline instead of Save As Script File.

#### 12.3.6 Spell-checking Features Pop-up Does Not Function Properly

Page items of display type "Textarea with Spell Checker" or "Textarea w/Character Counter & Spellcheck" can be used as ordinary Textarea items only. The pop-up page that presents the spell checking features does not function properly.

#### 12.3.7 Authentication Schemes Not Displayed in Icons View Mode

In Application Express Application Builder, the authentication schemes defined in the current application are not displayed if you view them in **Icons** View mode. To view the authentication schemes, choose **Details** in the View select list and then click **Go**.

## **12.4 Documentation Corrections and Additions**

This section covers documentation corrections and additions for the following manuals:

- Oracle Database Express Edition 2 Day DBA Updates
- Oracle Database Express Edition 2 Day Plus Application Express Developer Guide Updates
- Oracle Database Express Edition 2 Day Developer Guide Updates

#### 12.4.1 Oracle Database Express Edition 2 Day DBA Updates

*Oracle Database Express Edition 2 Day DBA* has the following updates:

On Linux, before initiating a local database connection or remote database connection with SQL Command Line (SQL\*Plus) or another Oracle command-line utility, you must set environment variables. (There is no need to set environment variables on the Windows platform.) See "Setting Environment Variables," in Chapter 3 of Oracle Database Express Edition 2 Day DBA for details.

- When changing the location of the flash recovery area, you must run a supplied PL/SQL script to move the online redo logs to the new location. See "Setting Flash Recovery Area Location and Size," in Chapter 6 of Oracle Database Express Edition 2 Day DBA for instructions.
- If you enable redo log archiving (ARCHIVELOG mode), it is recommended that you increase the size of the flash recovery area to at least 15 gigabytes to allow for the extra space required for the archived log files. In addition, when in ARCHIVELOG mode, you must remember to perform regular backups of the database to avoid completely filling the flash recovery area. A filled flash recovery area can lead to database failure. See "Enabling ARCHIVELOG Mode for Media Failure Protection," in Chapter 11 of *Oracle Database Express Edition 2 Day DBA* for more information.
- If the flash recovery area is approaching 100% full (for example, 85% full or more) and log archiving is enabled (the database is in ARCHIVELOG mode), it may be time to back up the database. Backing up the database deletes archived log files and frees space in the flash recovery area. If the flash recovery area is frequently close to 100% full after several recent backups, consider allocating more space for your flash recovery area, or, if in ARCHIVELOG mode, taking backups more frequently to reduce the size of the retained archived log files. See "Monitoring Space in the Flash Recovery Area," in Chapter 6 of *Oracle Database Express Edition 2 Day DBA* for more information.
- A database for which log archiving is not enabled---that is, a NOARCHIVELOG mode database---can be backed up only while it is in the mounted (but not open) state after a successful SHUTDOWN or SHUTDOWN IMMEDIATE operation. The supplied backup script, which is run by the Backup Database command on the desktop, automatically puts the database in the proper state for offline backup. See "About Backing Up and Restoring the Database," in Chapter 11 of *Oracle Database Express Edition 2 Day DBA* for more information.

## 12.4.2 Oracle Database Express Edition 2 Day Plus Application Express Developer Guide Updates

*Oracle Database Express Edition 2 Day Plus Application Express Developer Guide* has the following additional information:

#### Determining When a User Has Not Yet Authenticated to an Application

After a user logs in to an Application Express application, the APP\_USER item contains the authenticated user name and can be accessed using the bind variable :APP\_USER, or by using the function call v('APP\_USER'), or in a pure HTML context, by using the following substitution string:

&APP\_USER.

Note that the trailing period in the substitution string is required.

Before a user authenticates, the value of APP\_USER depends on the type of authentication scheme used by the application. When the developer uses any of the built-in authentication schemes, this value varies slightly depending on Oracle database edition and the authentication scheme in use.

In Oracle Database XE, APP\_USER will be ANONYMOUS when database authentication is used. This is achieved by using the built-in authentication scheme named DATABASE. Note that if you set the application's Public User attribute to some other value, that new attribute value is used to set APP\_USER. Also, if you use any built-in authentication scheme other than DATABASE, APP\_ USER is set to 'nobody' before the user logs in.

When developing applications, be sure to plan ahead for possible upgrades to other database editions such as Oracle Database 10g Standard Edition, Oracle Database 10g Standard Edition One, or Oracle Database 10g Enterprise Edition, or for the possibility that the application might be installed in an Application Express environment installed into one of those database editions. In these editions, the same rules as explained previously apply, but with one difference. While ANONYMOUS is used in Oracle Database Express Edition, HTMLDB\_ PUBLIC\_USER is used in other editions. Remember that these rules determine the setting of APP\_USER before a user has authenticated. Two examples of when this situation exists include:

- When the login page itself is being rendered
- During the rendering or after-submit processing of a "public" page requested before the user logs in

Sometimes it may be necessary for a block of PL/SQL code within an application to determine whether authentication has taken place. For example, this may be a requirement of an authorization scheme that requires that APP\_USER contain the authenticated username. Another use is in application processes or application computations that are intended to run only once per session, but only after login.

Consider the following PL/SQL example:

if v('APP\_USER') in ('ANONYMOUS', 'HTMLDB\_PUBLIC\_USER', 'nobody') then -- authentication has not occurred

This code sample is written to allow for the pre-authentication APP\_USER values used in any edition of Oracle Database in which the Application Express application is run.

#### 12.4.3 Oracle Database Express Edition 2 Day Developer Guide Updates

The following sections have been added to the book version of *Oracle Database Express Edition 2 Day Developer Guide* after the online help version of this manual was finalized:

- New section to Chapter 4, "Using PL/SQL": "Cursor Variables (REF CURSORs)"
- New section to Chapter 5, "Using Procedures, Functions, and Packages": "Accessing Types in Packages"
- New sections to Chapter 6, "Using Triggers": "Firing Triggers With the INSTEAD OF Option" and "Creating a Trigger With the INSTEAD OF Option"
- New appendixes: Appendix C, "Using a PL/SQL Procedure With PHP" and Appendix D, "Using a PL/SQL Procedure With JDBC"

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Oracle Database Express Edition Installation Guide, 10g Release 2 (10.2) for Microsoft Windows B25143-01

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