

Oracle® Reports Developer™

Getting Started

Release 6*i* for Windows

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ORACLE

Oracle Reports Developer: Getting Started, Release 6i

Part No. A73156-01

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Oracle Report Developer: Getting Started for Windows

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Oracle Corporation welcomes your comments and suggestions on the quality and usefulness of this publication. Your input is an important part of the information we use for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
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Preface

Welcome to Oracle Reports Developer! This document will help you get started with Reports Developer for Windows.

Prerequisites

You should be familiar with your computer and its operating system. For example, you should know the commands for deleting and copying files and understand the concepts of search paths, subdirectories, and path names. Refer to your Microsoft Windows product documentation for more information.

You should also understand the fundamentals of Microsoft Windows, such as the elements of an application window. You should also be familiar with such programs as the Explorer, Taskbar or Task Manager, and Registry.

Notational Conventions

The following typographical conventions are used in this guide:

Convention	Meaning
<code>fixed-width font</code>	Text in a fixed-width font indicates commands that you enter exactly as shown. Text typed on a PC is not case-sensitive unless otherwise noted. In commands, punctuation other than brackets ([]) and vertical bars () must be entered exactly as shown.
lowercase	Lowercase characters in a command statement represent a variable. Substitute an appropriate value.
UPPERCASE	Uppercase characters within the text represent command names, SQL reserved words, and keywords.

Convention	Meaning
boldface	Boldface indicates user interface items, such as menu choices and buttons.
C>	C> represents the DOS prompt. Your prompt may differ.

Related Publications for Installation

Before using this manual and installing the product, you should read the Release Notes. The Release Notes (included as a file on the product CD) provide late-breaking information that may be relevant to the installation process.

If you will be deploying your completed applications on the web, then you must also install the Reports Server. (Reports Server is licensed separately; a free 30-day trial is available.) The server installation is an additional step after you complete the instructions in this Getting Started manual. That additional step is described in the manual *Oracle Reports Developer: Deploying Reports Applications to the Web with Oracle Reports Server*; A73071.

Also included on the CD are the Oracle Reports Developer and Oracle Reports Server products (which are licensed separately). Those products have their own Getting Started manual (also included on the CD).

Part I

Before You Install

This chapter provides some overview and background information to help you get ready for the actual installation and setup process that are described in the subsequent chapters.

1.1 What You Receive

The primary CD in your package contains the following:

- The Oracle Installer.
- The Reports Developer software:
 - Report Builder (including all the design-time, compile-time, and runtime components)
 - The other Builders in the Reports Developer family
 - The Report Server component with a restricted license. This license allows you to deploy applications on the web for test purposes.
- The following support products:
 - Oracle Net8 Client
 - SQL*Plus, Oracle JInitiator
 - Oracle OCX Pack
 - Information Navigator.
- A number of manuals, in both online and printable format. (A copy of this Getting Started manual is also included.)
- The online help (accessible both as a separate file and via the Builders), and the Quick Tour and Cue Cards.

- The Release Notes document, which contains important last-minute information.

The second CD in the package contains the product demos. The demos are installed automatically when the CD is inserted. That installation process also produces a configuration notes file that describes the demos.

1.2 Hardware and Software Requirements

Using Oracle Reports Developer and the related Oracle software requires the hardware and software described in this section.

1.2.1 Reports Developer

The Reports Developer requires the following hardware and software to run optimally.

1.2.1.1 Hardware

Reports Developer is designed to be installed and run on an IBM or 100% compatible PC with a Pentium processor or better. A CD-ROM drive functioning as a logical drive is also required for the installation process. For information on monitor, printer, and mouse requirements, see your Microsoft Windows documentation.

1.2.1.2 Operating System

This version of Reports Developer requires Microsoft Windows. Specifically, one of the following versions:

- Windows 95 (any version)
- Windows 98 (any version)
- Windows NT 4.0 (Service Pack 5 or later)

1.2.1.3 RAM for Design Time

To provide adequate space for installing and using the design/compile portions of the Reports Developer product, we suggest 128 MB of RAM. You might find that your project works well with less.

1.2.1.4 RAM for Runtime

The amount of RAM required to run a completed Report application depends on the following factors:

- The mode in which it will be deployed (web/3-tier or client-server)
- The size and complexity of the report itself

1.2.2 Related Software

You may want to run the software described in this section on the same machine or off of a server running on another machine.

1.2.2.1 Database Server

Reports Developer is designed to be used with one of the following Oracle database servers:

- Oracle8 (8.0.5 or 8.0.6)
- Oracle8i (8.1.5 or 8.1.6)

Using the server also requires Net8 for Windows.

You can also use Personal Oracle for Windows or Personal Oracle Lite as your server. For the most robust support, however, Oracle8 or Oracle8i is recommended.

You can also use a non-Oracle ODBC database server if it provides the equivalent functions.

1.2.2.2 Web Server

If you are going to deploy your applications to the web (3-tier environment), then you also need a web server to act as a listener.

The Oracle WebDB Listener is provided on the Reports Developer CD, and is a convenient choice, but any web server can be used. Both the Common Gateway Interface (CGI) style and the cartridge style of listener are supported.

If you choose to use Oracle Application Server as the listener with this release of Reports, it must be OAS Release 4.0.8 or later.

1.3 Where to Install Oracle

Oracle products are designed to reside in an installation directory referred to as `ORACLE_HOME`.

When you install Reports Developer and its related products, you will be asked to choose a particular `ORACLE_HOME` into which the product will be installed. The following considerations apply when you make your choice.

- Reports Developer *6i* must reside in the default `ORACLE_HOME`.
- Reports Developer *6i* and the Oracle8 or Oracle8*i* server must reside in separate `ORACLE_HOME`s, although they can reside on the same physical machine.
- Similarly, in a web application deployment, Report Server and Oracle Application Server must reside in separate `ORACLE_HOME`s, although they can reside on the same physical machine.

If you intend to not only install this *6i* release of Reports Developer, but also retain an earlier version of Oracle Developer (as this product was called in earlier releases), then you should be aware of the following:

- Oracle Developer 1.6.1 and Reports Developer *6i* can co-exist in the same `ORACLE_HOME`.
- Oracle Developer 2.1 and Reports Developer *6i* can co-exist in the same `ORACLE_HOME`.
- Oracle Developer 1.6.1 and Oracle Developer 2.1 **cannot** co-exist in the same `ORACLE_HOME`.
- Oracle Developer 6.0 and Reports Developer *6i* **cannot** co-exist in the same `ORACLE_HOME`.

1.4 New Install versus Upgrade

If you are new to Reports Developer and are installing this product for the first time, detailed instructions are provided for you. Start with Chapter 2.

If you already have a previous version of the product and are upgrading to this current version, then the installation process is probably familiar to you. Instructions for upgrading start in Chapter 3. You will also need to consider recompiling your existing applications to run with this new version of the product. Information on that topic is also supplied in Chapter 3.

1.5 Deployment on Web or Client/Server

There are two environments you need to set up:

- **Design-time** including the compile step. This is the environment in which the developers will create reports. This environment includes the build and compile components of the Reports Developer product.

All the instructions for setting up the design-time environment are included in this manual in the following chapters.

- **Runtime.** End users run the finished reports in this environment. The environment includes not just the report developer application, but also the runtime components of the product.
 - **Web Runtime.** Using the web to deploy your reports offers several advantages: easier, centralized maintenance, no storage overhead on client machines, and takes advantage of a powerful server.

When running your reports in a web (that is, 3-tier) environment, you need to perform several steps in addition to your design-time install. These steps install and tune the Report Server component in the middle tier. The instructions for those additional steps are provided in *Oracle Report Server: Publishing Oracle Reports*, A73072-01. Information on configuring the WebDB listener is provided in the *Oracle WebDB: Installation Guide*, A77053-01.

- **Client/Server Runtime.** If you are going to run your applications in a client/server environment, then all the instructions you need for setting up that environment are included in this manual in the following chapters.

1.6 Check the Release Notes

Before installing any portion of the Reports Developer product, we strongly recommend that you read the Release Notes for the most current product information.

The Release Notes contain late-breaking information that only became available after this *Getting Started* manual was printed. The Release Notes may alert you to changes in the installation process or the system requirements. It also lists known problems in the product.

1.6.1 Obtaining the Release Notes

The Release Notes are contained on the product CD. To obtain the Release Notes, perform the following steps:

1. Start the Oracle Installer.
2. In the Installation Settings, enter your company name and select your language.
3. In the Installation Options dialog box, choose **Custom Installation or Removal**.
4. From the list of available products, select *Oracle Reports Release Notes*.
5. Choose **Install**.
6. When installation is complete, exit the Oracle Installer.

1.6.2 Accessing the Release Notes

To access the release note, perform the following steps:

1. Find the file `relnotef` in `%ORACLE_HOME%\TOOLS\DOC60` where `%ORACLE_HOME%` is the installation directory. The release notes are available in both text and PDF formats.
2. To open the text file, double-click `relnotef.txt`. The file will be opened in your default text file editor.
3. If you have Acrobat 4.0 or above installed, then open the PDF file by double-clicking `relnotef.pdf`.

Once you have checked the release notes to see if there are any last-minute changes, you can begin the product installation process.

Installing as a New Customer

This section describes installing Reports Developer where a previous version does not exist. The Reports Developer has both design-time and runtime components. You will want to install both sets of components on your development machine. This allows you to both create new reports and test them. You may need to install the runtime environment on the machines which will run the finished reports. The runtime environment can also be installed to run from a web site.

2.1 Installing the Design-Time Components

Perform the following steps to install the design-time components of Reports Developer.

2.1.1 Step 1: Determining the Reports Server Parameters

A limited license version of the Oracle Reports Server is provided with the Oracle Reports Developer. This license allows the developer to test the reports being developed. The Reports Server parameters are requested by the installer part way through the process.

1. Determine the Reports Server TNS Service Name. The server will be installed on the development system and should be unique. The installer will provide a default name.
2. Determine the port number. The port number must not be in use by another process. The demo reports for this release use port number 1949.

Caution: Do NOT use the same port number used by your installation of the Web DB Listener.

2.1.2 Step 2: Start the Oracle Installer

2.1.2.1 The autorun feature

The Oracle Installer for Windows has an autorun feature that executes `setup.exe` and automatically launches the Oracle Installer when you insert the CD-ROM. Most users prefer to install using this automatic feature.

Note: Some older CD-ROM drives do not support the autorun feature. If the Oracle Installer does not start automatically, follow the steps in section 2.1.1.2 Starting the Oracle Installer without Autorun beginning with step 2.

2.1.2.2 Starting the Oracle Installer without autorun

To start the Oracle Installer without autorun:

1. Disable the autorun feature by holding down a shift key while inserting the CD.
2. Shut down any active Windows applications.
3. Choose **Start**→**Run** to display the Run dialog.
4. In the Run dialog box, type the following:

```
x:\SETUP.EXE
```

where `x` is the letter used to map your CD-ROM drive.

5. Click **OK** to start the Oracle Installer. The Oracle Installation Settings dialog box is displayed.

2.1.3 Step 3: Choose Installation Settings

Once the Oracle Installation Settings dialog box is displayed, use the following steps to select installation settings:

1. Enter your company name.
2. The `ORACLE_HOME` has been preset to `DEFAULT_HOME`. Keep this default setting.
3. In the Language dialog, select the language in which you wish to run Oracle Reports Developer.

2.1.4 Step 4: Choose the Application

This installation manual assists in installing the Oracle Reports Developer. If you need to install additional products you will need to run the installation more than once. Installing the Oracle Forms Developer and the Oracle Forms Server is covered in *Oracle Forms Developer Getting Started*, A73154-01. The general installation of the Oracle Reports Server is the same as the Reports Developer. After the software is installed it must be setup. The setup information is located in the *Oracle Reports Developer Publishing Reports*, A73173-01.

1. Choose **Oracle Reports Developer**.

2.1.5 Step 5: Choose an Install Method

The Oracle Installer offers you two choices for setting up the design-time environment:

- Typical Installation
- Custom Installation

2.1.5.1 Typical Installation

Selecting this option installs both the design-time components and the runtime components. This allows your designers to test the applications they build.

Use the following steps:

1. Select **Typical Installation** on this screen and click **OK**.
2. In the **Test Reports Server Installation Option** dialog, click **Yes**.
3. In the **Process Startup** dialog, unless you are using Oracle Enterprise Manager (OEM), click **Yes** to create and start required services now.
4. Read the text in the **General Information** dialog and click **OK**.
5. In the **System Support Files** dialog, click **OK** to upgrade your Windows files. These are standard Microsoft Windows files and will not be removed if you deinstall Reports Developer.
6. In the **Reports Server parameters** dialog, enter the **Reports Server TNS Name** and the **Port number** determined in Section 2.1.1, "Step 1: Determining the Reports Server Parameters".
7. When the **Configuration Instructions for Forms and Report Server** dialog appears, write down the complete path of the configuration file. Click **Later**.

The installer will display a message stating that the installation is finished.

8. Open the configuration file and follow the instructions.

2.1.5.2 Custom installation

A **Custom Installation** is more complex and requires a good understand of how products and components relate to each other.

When you select a custom installation, the **Software Asset Manager** dialog is displayed.

The products that are available for installation are listed under **Products Available**. The plus sign (+) to the left of a product's name indicates that this is the name of a software package, which consists of a main application and its supporting software. You can select the entire package by clicking the line with the plus icon, or you can double-click that line to display the pieces of the package, which can be selected individually.

The products that are already installed on your machine are listed under **Products Installed**. Some of these may also be software packages, and they behave as described in the previous paragraph.

The disk space required for your selection and the disk space currently available on your machine are displayed in the **Space Required** area below the product lists.

In the **Software Asset Manager** dialog, use the following steps to Custom Install:

1. Select the product or products you want to install in the **Products Available** list.

As with other Windows-based applications, you can Shift+click to select a series of products from the list, or you can Ctrl+click to select multiple, discontinuous products.
2. Click **Install**.

The installation begins. We recommend that you accept the default product locations.
3. When installation is complete, each product you have installed is listed in the **Products Installed** list.
4. Exit the Oracle Installer and restart your system.

The Software Asset Manager dialog box also contains the following buttons:

Button	Description
Exit	Closes the Software Asset Manager and exits the Oracle Installer.
Options . . .	Allows you to do the following: <ul style="list-style-type: none"> ■ Request confirmations before removing or installing products ■ Receive detailed messages and prompts during various phases of the Oracle Installer's function ■ Record the Oracle Installer's actions in a log file
View Log . . .	Displays the Event Log. The Event Log displays installation and configuration events in the Description Level you choose: Summary, Brief, and Detail. You can store and retrieve logs and save them to files. By default, log files are stored in %ORACLE_HOME%\ORAINST\ORAINST.LOG. If a log file from a previous installation exists, it is renamed to ORAINST.OLG. If you want to keep more than two log files (.LOG and .OLG), rename the .OLG file so that it is not overwritten.
Restore Icons	Restores Oracle product icons and short cuts that were deleted.
Help	Displays the Installer's online Help system.

2.2 Installing the Runtime Components

If you are setting up a runtime environment that will operate on the **web** (or any 3-tier environment), then you need to also install the Reports Server component. Instructions for doing so are in the manual *Oracle Reports Server: Publishing Reports*, A73071.

On the other hand, if you will be running your applications on client machines in a **client/server** setup, follow the instructions below:

1. Start the Oracle Installer in the same way as in Section 2.1.2, "Step 2: Start the Oracle Installer".
2. When the Installer gives you the choice between **Typical** and **Custom**, choose **Custom**.
3. After you select **Custom**, the Installer will list all the available components. Choose the **Runtime component**.

The Installer will then use the **Software Asset Manager** to install the Reports Developer runtime components.

4. When installation is complete, exit the Oracle Installer.
5. Shut down and restart Windows.

2.3 Connecting to the Oracle Server

Connect to the Oracle Server requires that the server exists and the TNS listener must be up and running from the Oracle Server ORACLE_HOME.

After completing this section you can connect from Reports Developer to the local database instance of the server using the connections string, NEW. For example, you can connect as scott/tiger@NEW.

2.3.1 Step One: Install the Server

To test reports generated with the Reports Developer, you have to be able to access a database. If you do not have access to one, you will need to install one. Oracle8 or Oracle8i can be installed using the Installation Guide for your platform.

Caution: Oracle8 or Oracle8i can be installed on the same physical machine as Reports Developer in a Windows NT environment; however, it must be in a separate ORACLE_HOME. For example, you might specify:

ORACLE_HOME = ora8i

Full Path = D:\orant\ora8i

2.3.2 Step Two: Specify the TNS Names

The TNS connection settings provide information that allows Oracle Reports Developer to connect to a database. The information is stored in the `tnsnames.ora` file, which can be updated using Oracle Net8 Easy Config or manually using a text editor.

Before proceeding, you will need to obtain the following database information:

	Installation Defaults
Host Name	ora8i.us.oracle.com
Database Port Number	1521 and 1526 are the numbers most often used in Oracle installations. Your installation may be different. Ask you database administrator for the correct port number.
Database System Identifier (SID)	ORA8I
User ID/Password	sys/change_on_install system/manager

2.3.2.1 Using Oracle Net8 Easy Config

After obtaining the database information, use the following steps to include your database connection information in your `tnsnames.ora` file:

1. To start the Oracle Net8 Easy Config, choose **Start**→**Programs**→**Oracle for Windows**→**Oracle Net8 Easy Config**.
2. Select **Add New Service** and type a **New Service Name**. Click **Next**.
The service name will be used to identify this connection when you connect in the Reports Developer.
3. Select the networking protocol used on your system and click **Next**.
4. Enter the **Host Name** and the **Port Number** and click **Next**.
The host name can be the IP address or the name of the machine on which the database resides.
5. Enter the **Database SIS** and click **Next**.
6. Click **Test Service**. The Test Connection dialog appears.
7. Enter the **User ID** and **Password** and click **Test**.
8. If the test is successful, click **Done**.
If the test is not successful, click **Done** and use the **Back** button to review your entries. After making changes, repeat steps 7 and 8.
9. Click **Next** and then **Finish**.

2.3.2.2 Editing manually

To create a TNSNAMES entry manually, use the following steps:

1. Locate the file in:
`ORACLE_HOME\net80\admin\tnsnames.ora`
where `ORACLE_HOME` is the installation directory.
2. Open the file in any text editor.

3. Add the following entry:

```
ServiceName.world
(DESCRIPTION =
  (ADDRESS = )
  (PROTOCOL = )
  (HOST = hostName)
  (PORT = portNumber)
  (CONNECT_DATA = (SID =db_name) )
)
```

where ServiceName is the alias used to identify the connection, hostName is the name used by the network to identify the machine on which the database resides, portNumber is the database port number, and db_name is the system identifier.

For example, if you installed on a machine with a HOSTNAME of TEST, a SID containing ORA8I, on TCP/IP with port 1521, and an alias of NEW, then you would create the following entry:

```
NEW.world =
(DESCRIPTION =
  (ADDRESS = )
  (PROTOCOL = TCP)
  (Host = TEST)
  (Port = 1521)
  (CONNECT_DATA = (SID = ORA8I) )
)
```

Note: If the host name can not be resolved, use the host's IP address. The IP address can be determined by opening an MS-DOS window and typing ping.

4. Save and close the tnsnames.ora file.

Installing as an Upgrade

This chapter explains how to install Reports Developer Release 6i when you already have a previous release of the product installed.

(Note that in earlier releases, the product was called Oracle Developer or Developer/2000.)

There are two areas to consider:

- Upgrading the **product** itself -- that is, installing the new version of the software.
- Upgrading your existing **applications** -- that is, recompiling your applications with the new version of the product.

3.1 Upgrading the Product

Warning: Do not install or build the Oracle Reports Developer database tables until you run the appropriate upgrade script. If you have customized your product resource (.RES) files (e.g., `fmrusw.res`), you should backup these files before upgrading.

- Product resource (.RES) files
- `tnsnames.ora`
- `sqluct.ora`

3.1.1 Version Issues

3.1.1.1 Upgrading From Versions Before 6.0

All of your currently-installed components require upgrading. This is especially important if you have been using Release 1 or 2. Because of improvements to the underlying support files, such as the Tools Utilities, GUI Common files, and Required Support Files, the older set of components cannot run with the newer set.

If you have used previous versions of Reports Developer on Microsoft Windows 3.x, your `ORACLE_HOME` directory was called `ORAWIN`. When you upgraded your operating system to Windows 95, 98, or NT, your old `ORAWIN` directory was retained.

The installation of Reports Developer Release 6*i* creates a new `ORACLE_HOME` directory. This new directory is named either `ORAWIN95` (on Windows 95), `ORAWIN98` (on Windows 98), or `ORANT` (on Windows NT). In any case, your old `ORAWIN` directory is not used or overwritten.

3.1.1.2 Upgrading from Release 6.0 and 6*i*

Upgrading from Release 6.0 to this 6*i* release does not require a full reinstall.

3.1.2 Running the Oracle Installer

Use the Oracle Installer to install the new version of the product from the CD. If you are not familiar with this tool or the options, follow the instructions in the Chapter 2, "Installing as a New Customer".

Remember that if you are going to deploy applications to the web, you should also install/upgrade the new version of the Reports Server.

3.1.3 Server Considerations:

Listeners that support CGI (Common Gateway Interface), servlets, or OAS are supported in Reports Developer Release 6*i*.

The Oracle WebDB Listener is provided on the Reports Developer CD, and is a convenient choice, but any web server can be used.

If you are currently using Developer Release 6.0 and Oracle Application Server (OAS) Release 4.0.7, and you want to continue using OAS with Reports Release 6*i*, then you need to also install OAS Release 4.0.8. Be aware of the following considerations:

- You must install OAS 4.0.8 into a separate ORACLE_HOME from Reports Developer 6*i*.
- You must install OAS 4.0.8 into a separate ORACLE_HOME from OAS 4.0.7. Do **not** overlay or deinstall 4.0.7.

There also are likely to be additional cartridge upgrade requirements if you install OAS 4.0.8. Please see the Reports Developer Release Notes for the latest information.

3.2 Upgrading Your Applications

If you want to run your old applications (applications that were created with a version prior to Release 6) on this new version of the product, those applications need to be recompiled after you have the new product version installed.

When upgrading applications, please keep the following in mind:

- We strongly recommend that you make a backup of all modules before beginning the conversion process.
- In general, applications are upwards compatible. However, there are occasionally minor differences in functionality.

See the sections *New Features* and *Compatibility with Previous Releases* in the online help for specifics. Additional compatibility information can be found on these websites:

- <http://technet.oracle.com/products/developer/>
- <http://technet.oracle.com/products/reports/>

Chapter 6 of the *Oracle8 Server Migration* manual contains additional information on compatibility between releases.

- Applications that were built with SQL*Report or SQL*Reportmate Release 1, 2, or 3 cannot be moved directly to the 6*i* release for recompile. Instead, you must first recompile them with versions 4.0, 4.5, or 5.0. After that intermediate conversion, you can then recompile them again on this release.

- Reports Developer Release 6i includes a PL/SQL conversion utility for converting modules based on PL/SQL version 1 or 2 to PL/SQL version 8, which is the version this release is based on. If you are upgrading from a release prior to Developer 2000, you will need to convert all modules (Reports, Graphics, and PL/SQL libraries) to the newer version of PL/SQL. The conversion utility runs automatically whenever you open a report containing PL/SQL version 1 or 2, allowing you to interactively perform the conversion. The conversion can also be run automatically in batch mode.

See Chapter 6 of the *Oracle8 Server Migration* for more detailed information on the PL/SQL conversion utility.

- If you are upgrading applications that contain user exits and user-created DLLs, those DLL files may need to be recompiled after recompiling your applications with the new release.

Applications that make calls through the Reports Developer foreign function interface (ORA_FFI package) to 16-bit DLLs will not work under Windows 95/98/NT due to an operating system incompatibility between 16-bit code and 32-bit executables. The DLL must be recompiled/linked as a 32-bit DLL.

- Applications that use VBX controls do not run properly under Windows 95/98/NT due to an operating system incompatibility between 16-bit VBX controls and 32-bit executables. OCX/ActiveX controls are the equivalent for a 32-bit environment.

3.2.1 Redeploying Your Applications on the Web

After you recompile your older applications with this release, they are eligible to be deployed on the web.

For instructions, consult the manual *Oracle Reports Server Building Reports*, A73071. Information can also be found on the following website:
<http://technet.oracle.com/products/reports/>.

4.1 Removing the Reports Developer Product

If at any time you need to back out or remove Reports Developer from your system, it is **strongly recommended** that you use the Oracle Installer for that deinstall task.

The Oracle Installer is specifically designed to both install and deinstall Oracle products. When deinstalling, it is important to remove all components and related items. The Oracle Installer will automatically do this for you.

Note: If you are not using the standard Windows application to control your desktop (you are using Central Point PC Tools or Norton Desktop, for example), the Oracle Installer may not remove program items correctly.

If you are not able to use the Oracle Installer to do the deinstall, then you need to be sure to also remove all the registry entries related to the services created during the installation of Reports Developer, and to remove ORACLE_HOME and ORACLE registry keys. (You can use the registry editor provided with Windows for this task.)

4.1.1 Stopping services

If you are running on NT, you must stop any services that would be affected by the deinstall.

1. Close any Oracle applications that you are running on this machine.
2. Choose **Start**→**Settings**→**Control Panel**→**Services** to display the Services dialog.

3. Select the Oracle Reports Server (ServerName) and click **Stop**.

Note: There may be more than one Oracle Reports Server.

4. Select the Oracle Web DB Listener and click **Stop**.

WARNING: If you have created any similar services yourself during installation, you must also stop those services.

4.1.2 Removing Reports Developer

To remove Reports Developer from your system, use the following steps:

1. Start the Oracle Installer from your Oracle product media or choose **Start→Programs→Oracle for Windows→Oracle Installer**.
See Chapter 2 for additional instructions on starting the Oracle Installer.
2. In the Installation Options dialog, select **Custom Installation or Removal**.
3. In the Products Installed list box, select the product you want to remove from your system.
4. Click **Remove**. If the products you select to deinstall affect other products, Oracle Developer displays a confirmation prompt before deinstalling.
5. If you are going to reinstall Reports Developer after the deinstall, you will first need to reboot the machine.

Setting Up Tables to Store Applications

You or your database administrator can set up tables in the database that will allow application modules to be saved to the Oracle Server.

For Report Builder, and most of the other Builders, this is an optional step; applications do not need to be saved in the server. However, for Translation Builder and Schema Builder, these database tables are a requirement.

If they have the option, most customers choose to not store their applications in the server, and they skip this step. Those who do choose to store applications in the server usually do so for the benefits of centralized administrative control.

The following topics are included in this chapter:

- Building the Database Tables
- Proper Use of these Tables
- Granting and Revoking User Access
- Deleting the Database Tables
- Upgrading the Database Tables

Creating database tables may require administrator privileges. Consult with your database administrator if such authorization is required.

5.1 Building the Database Tables

Caution: These instructions are for new installations only. If you already have database tables installed for a previous version of an Oracle Developer product, be aware that removing the existing tables or attempting to install the database tables for the current version of Reports Developer will destroy any Oracle Developer module currently stored in the database. Please see Section 5.5, "Upgrading the

Database Tables" on page 5-39 for instructions on upgrading existing database tables.

When you create applications with Reports Developer, you can either save your modules as files or save them to the server. Saving modules to the server conserves disk space on client machines and allows shared access to the modules, although access to modules stored on the server can be slower than when they are stored as files on the client machine. You may wish to consider the following information when deciding where to store your modules.

Storage Location	When to Use
Database server	<p>When you want security that is not provided by your operating system.</p> <p>When you want to store applications on the client machine, but you do not have enough disk space.</p> <p>When you want to share applications with other users.</p> <p>When module access speed is not as important as the considerations listed above.</p>
File system	When the above criteria are not true or not important.

Before users can save modules to the server, a system administrator must build tables to accommodate the modules and grant access privileges to users who will work with those tables.

5.1.1 Step 1: Installing the SQL scripts with the Oracle Installer

The SQL scripts are not installed as part of the typical install. If you have not already done so, use the Oracle Installer to install the SQL scripts needed to build and administer the Reports Developer database tables.

To install the SQL scripts, use the following steps:

1. Start the Oracle Installer and select **Custom Installation or Removal** from the Reports Developer Installation Options dialog box. (Refer to Chapter 1 for more information on the Oracle Installer.)
2. Select Reports Developer **Database Tables** from the Available Products list.
3. Click **Install**.

Installing these scripts creates a Start menu item called Reports Developer **R6i Admin** and the associated submenu items Reports Developer **Build, Drop, Grant**,

and **Revoke**. These menu items, when selected, run a script or a series of scripts to perform database administration tasks.

5.1.2 Step 2: Building the Oracle Developer database tables

To build the Oracle Developer database tables:

1. Click **Start**→**Programs**→**Oracle Forms and Reports R6i Admin**→**Build**.

This menu item runs the following SQL script:

```
%ORACLE_HOME%\TOOLS\DBTAB60\DEVBILD.SQL
```

2. Enter the password. The password installed with new systems is manager.
3. Enter the database connection. The connection is made up of the database name followed by `.world`. The database must appear in your `tnsnames.ora` file.
4. Follow the script.

5.2 Proper Use of these Tables

Reports Builder and the other Builders use the database tables for storing modules. The database tables are not intended for any other use. The structure and organization of the tables are likely to change from release to release. We strongly recommend that you do *not* try to use SQL queries against the tables to produce reports or documentation about your modules. Use of the tables in this way is not supported by Oracle. For this reason, the structure and content of the tables are not provided.

For more information about database roles, see the Oracle8 or Oracle8i documentation.

5.3 Granting and Revoking User Access

After building the Reports Developer database tables, you must grant user access to the tables. If you wish to withdraw access from a user, you must revoke it. Both of these tasks are accomplished with SQL scripts provided through the Oracle Installer.

5.3.1 Granting access to the database tables

You must perform this task for each user who requires access to the tables. Alternatively, you can grant access to all users simultaneously by granting access for user PUBLIC.

To grant access to the Reports Developer database tables, use the following steps:

1. Click **Start**→**Programs**→**Oracle Forms and Reports 6i Admin**→**Grant**

This menu item runs the following SQL script:

```
%ORACLE_HOME%\TOOLS\DBTAB60\DEVGRNT.SQL username
```

2. Enter the password. The password installed with new systems is manager.
3. Enter the database connection. The connection is made up of the database name followed by `.world`. The database must appear in your `tnsnames.ora` file.
4. Enter the username of a user to whom you will grant access to the tables.
To grant access to all users, enter PUBLIC and skip step 5.
5. Repeat steps 1 and 2 for each user to whom you want to grant access.

5.3.2 Revoking access to the database tables

You must perform this task for each user whose access to the tables you want to revoke. Alternatively, you can revoke access for all users simultaneously by revoking access for user PUBLIC.

To revoke access to the Reports Developer database tables, use the following steps:

1. Click **Start**→**Programs**→**Oracle Forms and Reports R6i Admin**→**Revoke**

This menu item runs the following SQL script:

```
%ORACLE_HOME%\TOOLS\DBTAB60\DEVRVKE.SQL username
```

2. Enter the password. The password installed with new systems is manager.
3. Enter the database connection. The connection is made up of the database name followed by `.world`. The database must appear in your `tnsnames.ora` file.

4. Enter the username of the user whose access you wish to revoke.
To revoke access from all users, enter PUBLIC and skip step 5.
5. Repeat steps 1 and 2 for all users whose access you wish to revoke.

5.4 Deleting the Database Tables

Caution: Deleting the database tables erases any module stored in those tables. **Do not** delete database tables until you have verified that you do not need any module currently stored in the table or tables you intend to delete. See Section 5.5.1 for more information on backing up modules currently stored in your database.

To delete the Reports Developer database tables:

1. Click **Start**→**Programs**→**Oracle Forms and Reports R6i Admin**→**Drop**.

This menu item runs the following SQL script:

```
%ORACLE_HOME%\TOOLS\DBTAB60\DEVDRP.SQL
```

2. Enter the password. The password installed with new systems is manager.
3. Enter the database connection. The connection is made up of the database name followed by .world. The database must appear in your tnsnames.ora file.
4. Follow the script.

5.5 Upgrading the Database Tables

If you are upgrading from Release 1 to Release 6i of Oracle Reports Developer, the only database tables that need upgrading are those for Translation Builder. Tables for the other Builders (Form Builder, Graphics Builder, Procedure Builder, Query Builder, and Schema Builder), and the common tables, do not need to be upgraded.

You can run one or more upgrade scripts instead of creating the tables from scratch. Doing so updates the administration information in your existing tables.

5.5.1 Step 1: Back up the database contents

If you have any modules stored in the database that you wish to continue using after you upgrade the database tables, you will need to back up these modules. **Any modules that you do not back up will be lost.**

Before you back up existing modules, it might be useful to have a list of all available modules currently stored in the database. To do this, log on to the database and run the following SQL script:

```
column product format a15
column modtype format a15
SELECT product, modtype, owner, modname
FROM tool_module
ORDER BY product, modtype, owner;
```

You can recognize the source files for application modules by their file extensions:

Table 5–1 Application module extensions

Application Module	Extensions
Form Builder	.FMB, .MMB, and .PLL
Report Builder	.RDF and .SQL
Graphics Builder	.OGD
Procedure Builder	.PLL
Query Builder	.BRW and .SQL

5.5.1.1 Backing up a module

To back up a module, use the following steps:

1. Open the module in the appropriate Builder.
2. Save the module as an operating system file using the **File**→**Save As** command.

5.5.1.2 Step 2: Upgrade the tables

Once you have backed up the database, you can upgrade the Translation Builder database tables.

Note: Run all SQL scripts under the SYSTEM account.

Upgrade the existing tables by running the following script:

```
%ORACLE_HOME%\TOOLS\DETAB60\OTM60\SQLMIG.SQL
```

5.5.1.3 Step 3: Restore the database contents

Once you have completed upgrading the database tables, you can restore the modules to the database.

To restore a module, use the following steps:

1. Open the module in the appropriate Builder.
2. Save the module as a database module using the **File**→**Save As** command.

5.5.1.4 Step 4: Grant user access again

After you have upgraded from a previous version, you must once again grant user access to the database tables. See Section 5.3 for information about how to do this.

You've completed the installation of the Reports Developer product. What's the next step?

6.1 If You're a New Reports Developer

Start familiarizing yourself with the features of this product, and learning how to create reports applications.

A good place to begin is with the Quick Tour. This is included with the product CD, and has now been installed and made available. To access the Quick Tour, start Report Builder, and on its Welcome screen, choose the option Run the Quick Tour. You can also start the Quick Tour from the Help menu on any of the Builders.

After completing the Quick Tour, move on to the detailed documentation in the manuals and the online help topics.

You may also wish to install and examine the product demos supplied on a separate CD in your package. They offer another good source for learning about the product.

Supplementary information is occasionally created for users of this product. You can access this material (white papers, for example) on the Oracle Reports Developer websites at <http://www.oracle.com/tools/developer/> and <http://technet.oracle.com/products/reports/>.

6.2 If You're an Experienced Reports Developer

Look at the *New Features* section in the online help, *Report Builder Help Topics*. This offers a quick summary of new functionality in this release. There is also a *What's New* section under *Features & Benefits* in the Quick Tour.

Also look at the *Compatibility with Previous Releases* section in the online help. This provides an overview of behavior that has changed.

For details about a particular new feature or behavior, see the specific help topics and/or sections in the manuals.

A new manual is available with this release: *Oracle Reports Server: Building Reports*, A73071. This manual can help you understand the benefits of web deployment, and the steps to take to accomplish that.

It is also useful to occasionally check the Oracle Developer website at <http://www.oracle.com/tools/developer/> and the Oracle Reports website at <http://technet.oracle.com/products/reports/>. Helpful supplementary information is posted there.

Part II

Appendix

Oracle Express

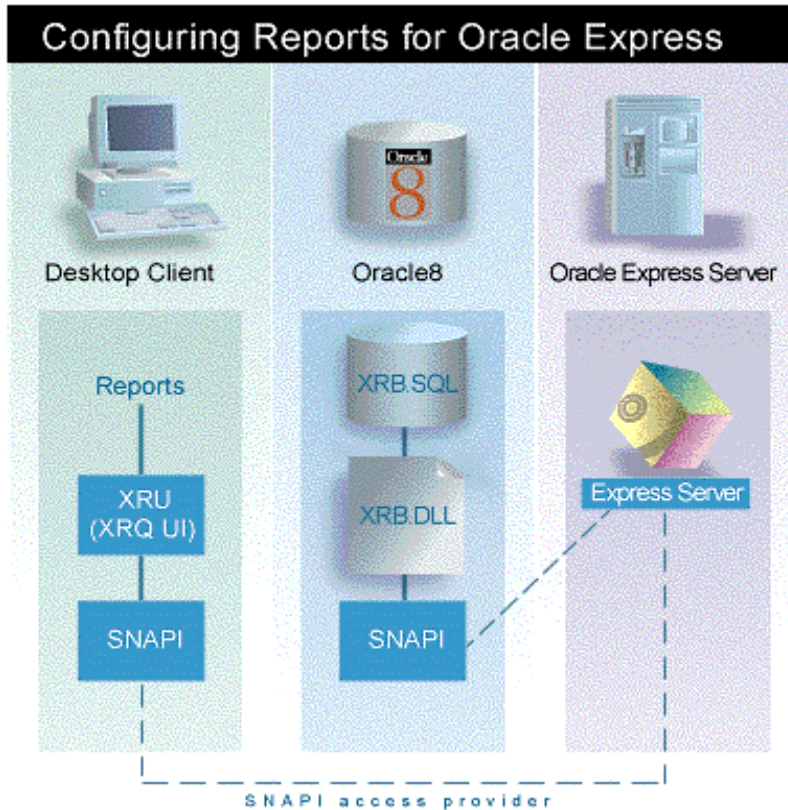
This appendix provides information that will help you integrate Oracle Express with Oracle Reports. It contains:

- Configuring Reports for Oracle Express
- Specifying the buffer size
- Specifying the character set
- Specifying number ranges

A.1 Configuring Reports for Oracle Express

If you want to create reports that use Express data, you must configure your system as follows:

- On the server, install an Oracle8 Server with the necessary PL/SQL packages.
- On the client, install the Reports Express Support component and the Oracle Express Connection Editor.



System Requirements:

- Windows 95, 98, or NT
- Express Server Release 6.2 or later
- Oracle8 Release 8.0.6
- Reports Release 6i

Note: For individual product requirements, refer to the Express Server and Oracle8 installation information for your platform. If Oracle8 is running on a different platform, you may need to download the reports Express component from Oracle Technology Network at <http://technet.oracle.com/products/reports/>.

Usage Notes

- It is strongly recommended that you use only Express databases that have been configured with Express Administrator. Refer to the *Oracle Express Database Administration Guide* for more information on configuring databases with Express Administrator.
- You cannot access an Express database (.DB) file that requires a password from Reports.
- Personal Express is not supported by Reports in this release.

A.1.1 Client side configuration

1. Insert the CD that contains the Oracle Reports product. If your CD-ROM drive supports the AUTORUN feature, the Oracle Installer will start automatically. Otherwise, perform the following steps:
 - a. Shut down any active Windows applications.
 - b. Open the Run dialog box from the Start menu.
 - c. In the Run dialog, type the following (where X: is your CD-ROM drive letter):

```
X:\SETUP.EXE
```
 - d. Click **OK** to start the Oracle Installer.
2. When you reach the Installation Options dialog of the installer, choose Custom Installation or Removal and click **OK**.
3. From the Available Products list, select Reports Express Support and Oracle Express Connection Editor from the list.
Tip: Press the **CTRL** key while clicking to make multiple selections.
4. Click **Install**.

Note: If your connections to the Express Server have not already been set up, you can use the Oracle Express Connection Editor for that purpose. From Report Builder, choose **Start**→**Programs**→**Oracle Olap Client 2.2**→**Connection Editor**Start Programs->Oracle Olap Client 2.2->Connection Editor.

A.1.2 Server side configuration

There are four tasks involved in server side configuration:

- Installing Oracle8 Server Release 8.0.6
- Installing Express External Oracle8 Procedures
- Creating an Express Support administrator account on Oracle8 server
- Preparing user accounts with Express Support schema objects

A.1.2.1 Installing Oracle8 Server Release 8.0.6

Refer to the Oracle8 installation guide for your platform.

A.1.2.2 Installing Express External Oracle8 Procedures

1. Insert the CD that contains the Oracle Reports product. If your CD-ROM drive supports the AUTORUN feature, the Oracle Installer will start automatically. Otherwise, perform the following steps:
 - a. Shut down any active Windows applications.
 - b. Open the Run dialog box from the Start menu.
 - c. In the Run dialog, type the following (where X: is your CD-ROM drive letter):

```
X:\SETUP.EXE
```
 - d. Click **OK** to start the Oracle Installer.
2. When you reach the Installation Options dialog of the installer, choose **Custom Installation or Removal** and click **OK**.
3. From the Available Products list, click the plus sign (+) to expand the Reports Express Support node and choose **Express External Oracle8 Procedures** from the list.
4. Click **Install**.

A.1.2.3 Creating an Express Support administrator account on Oracle8 server

Only one Express Support administrator account is required for each Oracle8 instance. If the account and the required schema objects already exist, skip this step and go to Section A.1.2.4, "Preparing user accounts with Express Support schema objects".

1. Log into SQL*Plus as the SYSTEM user and create and grant the administrator account CREATE LIBRARY, CREATE PUBLIC SYNONYM, and CREATE SEQUENCE privileges. For example, if the administrator was named `expadmin`, the following commands would set up the necessary privileges:

```
SQL> create user expadmin identified by expadmin default tablespace
user_data temporary tablespace temporary_data quota unlimited on user_
data quota unlimited on temporary_data;
SQL> grant connect,resource to expadmin;
SQL> grant create library, create public synonym, create sequence to
expadmin;
```

2. Log into SQL*Plus as the administrator (e.g., `expadmin`) and run the SQL script that installs the administrator schema objects:

```
SQL> @ ORACLE_HOME\olap\xrb60\xrb_admin.sql;
```

A.1.2.4 Preparing user accounts with Express Support schema objects

You must create Express Support schema objects for any schema that uses Express Support. Using existing Express Support schema objects installed on another schema is not supported.

Note: If you do not have a user account, you must create one before proceeding with this step.

1. Log on to SQL*Plus as the SYSTEM user and grant the user account CREATE TYPE and CREATE PROCEDURE privileges. For example, if the user was named `expuser`, the following commands would set up the necessary privileges:

```
SQL> grant create type, create procedure to expuser;
```

2. Log on to SQL*Plus as the user and run the SQL script that installs the Express Support schema objects:

```
SQL> @ ORACLE_HOME\olap\xrb60\xrb_user.sql;
```

A.1.2.5 Runtime parameter requirements

If deploying a report built against Express with the Oracle Reports Server (for example, for running over the web), the following runtime parameter is required in addition to the `userid`, `server`, `desformat`, etc. parameters that would also be specified:

```
express_server="server=ncacn_ip_tcp:my_express_server/si=1/st=1/ct=0/sv=1/"
```

where `my_express_server` is the hostname of the server running Oracle Express Server.

A.2 Buffer Size for Express Data

A.2.1 Default buffer size

When a user creates a report that contains Express data, that data must be fetched from Express and stored in a memory buffer before it is displayed. The default buffer size is generally sufficient for most circumstances, and you can probably accept the default size of the buffer and not worry about making any changes.

Why specify a buffer size?

You can specify a larger or smaller size for the buffer than the default value specifies. For example, if users generate many small reports, you might want to reduce the buffer size. If users generate very large reports, you might need to increase the size.

You change the default size of the buffer in the `xrb.ini` file. You must bear in mind that this file resides on the Oracle8 Server and is shared by many users. The server allocates the same size buffer to all users of that server for the duration of the time that data is being fetched from Express. Use care when specifying the size to fit the needs of the many users who are concurrently accessing Express data. The size should be large enough to allow users to fetch the data for their reports while ensuring that the server has sufficient memory.

A.2.2 Buffer sizes

The following list describes some of the buffer sizes:

- **64KB:** This is the minimum buffer size that is allowed. Even if you specify a smaller size, the buffer will have a size of 64KB.
- **2MB:** This is the default buffer size. If you do not specify a different size, the buffer will have a size of 2MB.
- **50MB:** This is the maximum buffer size that is allowed. Even if you specify a larger size, the buffer will have a size of 50MB. You must ensure that the Oracle8 server has a very large amount of memory before specifying such a large buffer size.

A.2.3 Specifying the buffer size

To specify the buffer size, you must create or modify the `xrb.ini` file, so that the setting can take effect. The following procedure explains how to make the specification in the file.

1. On the computer on which Oracle8 is running, look in the `ORACLE_HOME/BIN` directory for a file called `xrb.ini`. If the file exists, proceed to step 3. Otherwise, proceed to step 2.
2. With a text editor, create a file called `xrb.ini` in the `ORACLE_HOME/BIN` directory.
3. In a text editor, scroll to the [Options] section of the file, or create this section label if it does not exist.
4. Edit the value of the `FetchAlloc` setting if it exists; otherwise, create the setting. Enter an integer value, such as 100000 or 6000000.
5. Save your changes and close the file.

A.2.4 Example setting for a buffer size

The following example shows a sample setting of 4MB for the buffer size.

```
[Options]
FetchAlloc = 4000000
```

A.3 Single-Byte Character Sets

A.3.1 Specifying the character set from Express

If you have changed the default single-byte character set in Express, you must create or modify the `xrb.ini` file for Oracle Reports Developer so that it can handle data from the Express database appropriately. The `xrb.ini` file is used to specify information about the character set that the database is using. The following procedure explains how to make the specification in the file.

1. On the machine where Oracle8 is running, look in the `ORACLE_HOME\BIN` directory for the `xrb.ini` file. If the file exists, go to Step 3. Otherwise, go to Step 2.
2. With a text editor, create the `xrb.ini` file in the `ORACLE_HOME\BIN` directory.
3. In a text editor, scroll to the `[XPCharSet]` section of the file, or create this section label if it does not exist.
4. Edit the value of the `XPCharSet` setting if it exists; otherwise, create the setting. Use the following format for the value:

```
language_territory.charset
```

where *language*, *territory*, and *charset* are values obtained from the following tables.

5. Save your changes and close the file.

A.3.2 Example setting for a character set

The following example shows a sample setting for the character set.

```
[XPCharSet]
XPCharSet = AMERICAN_AMERICA.US8PC437
```

A.3.3 Languages

The following table lists the values to enter for `language` in the `XPCharSet` setting. If the value has multiple words, include a space between each word, as shown in the following example.

```
[XPCharSet]  
XPCharSet = BRAZILIAN PORTUGUESE_BRAZIL.WE8PC850
```

Language

AMERICAN

ARABIC

BENGALI

BRAZILIAN PORTUGUESE

BULGARIAN

CANADIAN FRENCH

CATALAN

CROATION

CZECH

DANISH

DUTCH

EGYPTIAN

ENGLISH

ESTONIAN

FINNISH

FRENCH

GERMAN DIN

GERMAN

GREEK

HEBREW

HUNGARIAN

ICELANDIC

Language

ITALIAN

JAPANESE

KOREAN

LATIN AMERICAN SPANISH

LATVIAN

LITHUANIAN

MALAY

MEXICAN SPANISH

NORWEGIAN

POLISH

PORTUGUESE

ROMANIAN

RUSSIAN

SIMPLIFIED CHINESE

SLOVAK

SLOVENIAN

SPANISH

SWEDISH

THAI

TRADITIONAL CHINESE

TURKISH

UKRAINIAN

VIETNAMESE

A.3.4 Territories

The following table lists the values to enter for `territory` in the `XPCharSet` setting.

Territory
ALGERIA
AMERICA
AUSTRIA
BAHRAIN
BANGLADESH
BRAZIL
BULGARIA
CANADA
CATALONIA
CHINA
CIS
CROATIA
CZECH REPUBLIC
CZECHOSLOVAKIA
DENMARK
DJIBOUTI
EGYPT
ESTONIA
FINLAND
FRANCE
GERMANY
GREECE
HONG KONG
HUNGARY
ICELAND

Territory
IRAQ
ISRAEL
ITALY
JAPAN
JORDAN
KOREA
KUWAIT
LATVIA
LEBANON
LIBYA
LITHUANIA
MALAYSIA
MAURITANIA
MEXICO
MOROCCO
NORWAY
OMAN
POLAND
PORTUGAL
QATAR
ROMANIA
SAUDI ARABIA
SLOVAKIA
SLOVENIA
SOMALIA
SPAIN
SUDAN
SWEDEN

Territory

SWITZERLAND

SYRIA

TAIWAN

THAILAND

THE NETHERLANDS

TUNISIA

TURKEY

UKRAINE

UNITED ARAB EMIRATES

UNITED KINGDOM

VIETNAM

YEMEN

A.3.5 Storage character sets

The following table lists the values to enter for `charset` in the `XPCharSet` setting. The value is specified in the Name column.

ID	Name	Description
1	US7ASCII	ASCII 7-bit American
2	WE8DEC	DEC 8-bit West European
3	WE8HP	HP LaserJet 8-bit West European
4	US8PC437	IBM-PC Code Page 437 8-bit American
5	WE8EBCDIC37	EDCDIC Code Page 37 8-bit West European
6	WE8EBCDIC500	EDCDIC Code Page 500 8-bit West European
8	WE8EBCDIC285	EDCDIC Code Page 285 8-bit West European
10	WE8PC850	IBM-PC Code Page 850 8-bit West European
11	D7DEC	DEC VT100 7-bit German
12	F7DEC	DEC VT100 7-bit French
13	S7DEC	DEC VT100 7-bit Swedish

ID	Name	Description
14	E7DEC	DEC VT100 7-bit Spanish
15	SF7ASCII	ASCII 7-bit Finnish
16	NDK7DEC	DEC VT100 7-bit Norwegian/Danish
17	I7DEC	DEC VT100 7-bit Italian
18	NL7DEC	DEC VT100 7-bit Dutch
19	CH7DEC	DEC VT100 7-bit Swiss (German/French)
20	YUG7ASCII	ASCII 7-bit Yugoslavian
21	SF7DEC	DEC VT100 7-bit Finnish
22	TR7DEC	DEC VT100 7-bit Turkish
23	IW7IS960	Israeli Standard 960 7-bit Latin/Hebrew
25	IN8ISCI	Multiple-Script Indian Standard 8-bit Latin/Indian Languages
31	WE8ISO8859P1	ISO 8859-1 West European
32	EE8ISO8859P2	ISO 8859-2 East European
33	SE8ISO8859P3	ISO 8859-3 South European
34	NEE8ISO8859P4	ISO 8859-4 North and North-East European
35	CL8ISO8859P5	ISO 8859-5 Latin/Cyrillic
36	AR8ISO8859P6	ISO 8859-6 Latin/Arabic
37	EL8ISO8859P7	ISO 8859-7 Latin/Greek
38	IW8ISO8859P8	ISO 8859-8 Latin/Hebrew
39	WE8ISO8859P9	ISO 8859-9 West European & Turkish
40	NE8ISO8859P10	ISO 8859-10 North European
41	TH8TISASCII	Thai Industrial Standard 620-2533 - ASCII 8-bit
42	TH8TISEBCDIC	Thai Industrial Standard 620-2533 - EBCDIC 8-bit
43	BN8BSCII	Bangladesh National Code 8-bit BSCII
44	VN8VN3	VN3 8-bit Vietnamese
50	WE8NEXTSTEP	NeXTSTEP PostScript 8-bit West European
70	AR8EBCDICX	EBCDIC XBASIC Server 8-bit Latin/Arabic

ID	Name	Description
81	EL8DEC	DEC 8-bit Latin/Greek
82	TR8DEC	DEC 8-bit Turkish
90	WE8EBCDIC37C	EBCDIC Code Page 37 8-bit Oracle/c
91	WE8EBCDIC500C	EBCDIC Code Page 500 8-bit Oracle/c
92	IW8EBCDIC424	EBCDIC Code Page 424 8-bit Latin/Hebrew
93	TR8EBCDIC1026	EBCDIC Code Page 1026 8-bit Turkish
94	WE8EBCDIC871	EBCDIC Code Page 871 8-bit Icelandic
95	WE8EBCDIC284	EBCDIC Code Page 284 8-bit Latin American/Spanish
110	EEC8EUROASCI	EEC Targon 35 ASCII West European/Greek
113	EEC8EUROPA3	EEC EUROPA3 8-bit West European/Greek
114	LA8PASSPORT	German Government Printer 8-bit All-European Latin
140	BG8PC437S	IBM PC Code Page 437 8-bit (Bulgarian Modification)
150	EE8PC852	IBM PC Code Page 852 8-bit East European
152	RU8PC866	IBM PC Code Page 866 8-bit Latin/Cyrillic
153	RU8BESTA	BESTA 8-bit Latin/Cyrillic
154	IW8PC1507	IBM PC Code Page 1507/862 8-bit Latin/Hebrew
155	RU8PC855	IBM PC Code Page 855 8-bit Latin/Cyrillic
156	TR8PC857	IBM PC Code Page 857 8-bit Turkish
158	CL8MACCYRILLIC	Mac Client 8-bit Latin/Cyrillic
159	CL8MACCYRILLICS	Mac Server 8-bit Latin/Cyrillic
160	WE8PC860	IBM PC Code Page 860 8-bit West European
161	IS8PC861	IBM PC Code Page 861 8-bit Icelandic
162	EE8MACCES	Mac Server 8-bit Central European
163	EE8MACCROATIANS	Mac Server 8-bit Croatian
164	TR8MACTURKISHS	Mac Server 8-bit Turkish
165	IS8MACICELANDICS	Mac Server 8-bit Icelandic
166	EL8MACGREEKS	Mac Server 8-bit Greek
167	IW8MACHEBREWS	Mac Server 8-bit Hebrew

ID	Name	Description
170	EE8MSWIN1250	MS Windows Code Page 1250 8-bit East European
171	CL8MSWIN1251	MS Windows Code Page 1251 8-bit Latin/Cyrillic
172	ET8MSWIN923	MS Windows Code Page 923 8-bit Estonian
173	BG8MSWIN	MS Windows 8-bit Bulgarian Cyrillic
174	EL8MSWIN1253	MS Windows Code Page 1253 8-bit Latin/Greek
175	IW8MSWIN1255	MS Windows Code Page 1255 8-bit Latin/Hebrew
176	LT8MSWIN921	MS Windows Code Page 921 8-bit Lithuanian
177	TR8MSWIN1254	MS Windows Code Page 1254 8-bit Turkish
178	WE8MSWIN1252	MS Windows Code Page 1252 8-bit West European
179	BLT8MSWIN1257	MS Windows Code Page 1257 8-bit Baltic
180	D8EBCDIC273	EBCDIC Code Page 273/1 8-bit Austrian German
181	I8EBCDIC280	EBCDIC Code Page 280/1 8-bit Italian
182	DK8EBCDIC277	EBCDIC Code Page 277/1 8-bit Danish
183	S8EBCDIC278	EBCDIC Code Page 278/1 8-bit Swedish
184	EE8EBCDIC870	EBCDIC Code Page 870 8-bit East European
185	CL8EBCDIC1025	EBCDIC Code Page 1025 8-bit Cyrillic
186	F8EBCDIC297	EBCDIC Code Page 297 8-bit French
187	IW8EBCDIC1086	EBCDIC Code Page 1086 8-bit Hebrew
188	CL8EBCDIC1025X	EBCDIC Code Page 1025 (Modified) 8-bit Cyrillic
190	N8PC865	IBM-PC Code Page 865 8-bit Norwegian
191	BLT8CP921	Latvian Standard LVS8-92(1) Windows/Unix 8-bit Baltic
192	LV8PC1117	IBM-PC Code Page 1117 8-bit Latvian
193	LV8PC8LR	Latvian Version IBM-PC Code Page 866 8-bit Latin/Cyrillic
194	BLT8EBCDIC1112	EBCDIC Code Page 1112 8-bit Baltic Multilingual
195	LV8RST104090	IBM-PC Alternative Code Page 8-bit Latvian (Latin/Cyrillic)
196	CL8KOI8R	RELCOM Internet Standard 8-bit Latin/Cyrillic
197	BLT8PC775	IBM-PC code Page 775 8-bit Baltic

ID	Name	Description
201	F7SIEMENS9780X	Siemens 97801/97808 7-bit French
202	E7SIEMENS9780X	Siemens 97801/97808 7-bit Spanish
203	S7SIEMENS9780X	Siemens 97801/97808 7-bit Swedish
204	DK7SIEMENS9780X	Siemens 97801/97808 7-bit Danish
205	N7SIEMENS9780X	Siemens 97801/97808 7-bit Norwegian
206	I7SIEMENS9780X	Siemens 97801/97808 7-bit Italian
207	D7SIEMENS9780X	Siemens 97801/97808 7-bit German
210	WE8GCOS7	Bull EBCDIC GCOS7 8-bit West European
211	EL8GCOS7	Bull EBCDIC GCOS7 8-bit Greek
221	US8BS2000	Siemens 9750-62 EBCDIC 8-bit American
222	D8BS2000	Siemens 9750-62 EBCDIC 8-bit German
223	F8BS2000	Siemens 9750-62 EBCDIC 8-bit French
224	E8BS2000	Siemens 9750-62 EBCDIC 8-bit Spanish
225	DK8BS2000	Siemens 9750-62 EBCDIC 8-bit Danish
231	WE8BS2000	Siemens EBCDIC.DF.04 8-bit West European
235	CL8BS2000	Siemens EBCDIC.EHC.LC 8-bit Cyrillic
239	WE8BS2000L5	Siemens EBCDIC.DF.04.L5 8-bit West European/Turkish
241	WE8DG	DG 8-bit West European
251	WE8NCR4970	NCR 4970 8-bit West European
261	WE8ROMAN8	HP Roman8 8-bit West European
262	EE8MACCE	Mac Client 8-bit Central European
263	EE8MACCROATIAN	Mac Client 8-bit Croatian
264	TR8MACTURKISH	Mac Client 8-bit Turkish
265	IS8MACICELANDIC	Mac Client 8-bit Icelandic
266	EL8MACGREEK	Mac Client 8-bit Greek
267	IW8MACHEBREW	Mac Client 8-bit Hebrew
277	US8ICL	ICL EBCDIC 8-bit American
278	WE8ICL	ICL EBCDIC 8-bit West European

ID	Name	Description
279	WE8ISOICLUK	ICL special version ISO8859-1
351	WE8MACROMAN8	Mac Client 8-bit Extended Roman8 West European
352	WE8MACROMAN8S	Mac Server 8-bit Extended Roman8 West European
353	TH8MACTHAI	Mac Client 8-bit Latin/Thai
354	TH8MACTHAIS	Mac Server 8-bit Latin/Thai
368	HU8CWI2	Hungarian 8-bit CWI-2
380	EL8PC437S	IBM-PC Code Page 437 8-bit (Greek modification)
381	EL8EBCDIC875	EBCDIC Code Page 875 8-bit Greek
382	EL8PC737	IBM-PC Code Page 737 8-bit Greek/Latin
383	LT8PC772	IBM-PC Code Page 772 8-bit Lithuanian (Latin/Cyrillic)
384	LT8PC774	IBM-PC Code Page 774 8-bit Lithuanian (Latin)
385	EL8PC869	IBM-PC Code Page 869 8-bit Greek/Latin
386	EL8PC851	IBM-PC Code Page 851 8-bit Greek/Latin
390	CDN8PC863	IBM-PC Code Page 863 8-bit Canadian French
401	HU8ABMOD	Hungarian 8-bit Special AB Mod
500	AR8ASMO8X	ASMO Extended 708 8-bit Latin/Arabic
554	AR8NAFITHA711	Nafitha Enhanced 711 Server 8-bit Latin/Arabic
555	AR8SAKHR707	SAKHR 707 Server 8-bit Latin/Arabic
556	AR8MUSSAD768	Mussa'd Alarabi/2 768 Server 8-bit Latin/Arabic
557	AR8ADOS710	Arabic MS-DOS 710 Server 8-bit Latin/Arabic
558	AR8ADOS720	Arabic MS-DOS 720 Server 8-bit Latin/Arabic
559	AR8APTEC715	APTEC 715 Server 8-bit Latin/Arabic
560	AR8MSAWIN	MS Windows Code Page 1256 8-Bit Latin/Arabic
560	AR8MSWIN1256	MS Windows Code Page 1256 8-Bit Latin/Arabic
561	AR8NAFITHA721	Nafitha International 721 Server 8-bit Latin/Arabic
563	AR8SAKHR706	SAKHR 706 Server 8-bit Latin/Arabic
565	AR8ARABICMAC	Mac Client 8-bit Latin/Arabic
566	AR8ARABICMACS	Mac Server 8-bit Latin/Arabic

ID	Name	Description
590	LA8ISO6937	ISO 6937 8-bit Coded Character Set for Text Communication
797	US8NOOP	No-op character set prohibiting conversions
829	JA16VMS	JVMS 16-bit Japanese
830	JA16EUC	EUC 16-bit Japanese
832	JA16SJIS	Shift-JIS 16-bit Japanese
833	JA16DBCS	IBM DBCS 16-bit Japanese
835	JA16EBCDIC930	IBM DBCS Code Page 290 16-bit Japanese
836	JA16MACSJIS	Mac client Shift-JIS 16-bit Japanese
840	KO16KSC5601	KSC5601 16-bit Korean
842	KO16DBCS	IBM DBCS 16-bit Korean
845	KO16KSCCS	KSCCS 16-bit Korean
850	ZHS16CGB231280	CGB2313-80 16-bit Simplified Chinese
851	ZHS16MACCGB231280	Mac client CGB2313-80 16-bit Simplified Chinese
860	ZHT32EUC	EUC 32-bit Traditional Chinese
861	ZHT32SOPS	SOPS 32-bit Traditional Chinese
862	ZHT16DBT	Taiwan Taxation 16-bit Traditional Chinese
863	ZHT32TRIS	TRIS 32-bit Traditional Chinese
864	ZHT16DBCS	IBM DBCS 16-bit Traditional Chinese
865	ZHT16BIG5	BIG5 16-bit Traditional Chinese
866	ZHT16CCDC	HP CCDC 16-bit Traditional Chinese
870	AL24UTFSS	Unicode UTF-8
997	JA16TSTSET2	ASCII-based 16-bit Test Character Set
998	JA16TSTSET	Shift-sensitive ASCII-based Test Character Set

4. Edit the value of the ZeroSmallNumbers setting if it exists; otherwise, create the setting. Specify one of the following values:.

Value	Description
0	displays an error message rather than displaying very small numbers in reports
1	rounds the very small numbers up to zero and displays them in reports (Default)

5. Save your changes and close the file.

A.4.4 Example setting for rounding

The following example shows a sample setting for the rounding setting.

```
[Options]
ZeroSmallNumbers = 0
```

A.5 Indents in Hierarchical Express Data

Express data may be stored in hierarchies, or levels. By default, hierarchies appear in reports with indents of two single-byte spaces. You may change the type of characters used to fill indents and the size of indents between levels of data by editing the `xpdata.ini` file

1. On the machine where Oracle Reports Developer is running, open the `ORACLE_HOME\BIN\xpdata.ini` file in the directory.
2. If the file does not exist, using a text editor, create `xpdata.ini`.
3. Scroll to `HierChar=`. This setting is located in the `[XRU]` section of the file.

`HierChar=` defines the indent character as a single-byte space. You may edit this setting for any keystroke character(s), such as asterisk (*) or dash (-). When editing, use quote marks around the character of your choice:

```
HierChar="*"
```

4. Scroll to `HierIndent=2`.

This setting may be any integer from 0 though 10. A value of 0 turns off indenting. Values of 1 through 10 specify the number of single-byte characters to include in the indent. The default setting is 2.

5. Save your changes and close the file.

A.5.1 Example settings for hierarchal data

Settings in the `xpdata.ini` file:

```
HierChar="+ "  
HierIndent=4
```

The report output would be formatted as follows:

```
Great Britain  
+ + + England  
+ + + + + London  
+ + + + + Salisbury  
+ + + Scotland  
+ + + + + Edinburgh  
+ + + + + Glasgow  
United States  
+ + + California  
+ + + + + Los Angeles  
+ + + + + San Francisco  
+ + + + + San Jose  
+ + + Pennsylvania  
+ + + + + Philadelphia  
+ + + + + Pittsburgh
```

Part III

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