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ORACLE® CRYSTAL BALL, FUSION EDITION

*RELEASE 11.1.1.3*

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INSTALLATION AND LICENSING GUIDE

**ORACLE®**  
ENTERPRISE PERFORMANCE  
MANAGEMENT SYSTEM

Crystal Ball Installation and Licensing Guide, 11.1.1.3

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Authors: EPM Information Development Team

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## Before You Begin

This guide describes how to install and license the following Oracle products:

- Oracle Crystal Ball, Fusion Edition
- Oracle Crystal Ball Decision Optimizer, Fusion Edition
- Oracle Crystal Ball Enterprise Performance Management, Fusion Edition

Be sure you have completed all appropriate steps before you begin the installation process described in [Chapter 2, “Installing and Licensing Oracle Crystal Ball.”](#)

## System Requirements

The computer where you are installing Crystal Ball products should meet these system requirements:

- Windows XP Home Edition with Service Pack 3, Windows XP Professional with Service Pack 3, Microsoft Windows Server 2003, or Windows Vista
- Microsoft Excel 2002 (XP), 2003 with Service Pack 3, or Excel 2007 with Service Pack 2
- Microsoft Internet Explorer 6.0 or later
- Microsoft .NET Framework 2.0 (or 3.0 or 3.5 with Windows XP versions or Vista)
- Personal computer with Pentium-equivalent microprocessor (800 MHz or faster)
- At least 512 MB of RAM

- Free hard disk space for Microsoft .NET Framework if not already installed plus approximately 100 MB for Oracle Crystal Ball.
- Video graphics adapter and monitor with at least 1024x768 resolution and 16-bit color; a width of 1152 pixels is recommended
- Adobe Acrobat Reader 8.0 or later

## International Support for Oracle Crystal Ball

This version of Oracle Crystal Ball is supported on non-English versions of Microsoft Windows with Microsoft Office in the same language. This latest release of Oracle Crystal Ball is only available in English. Users of other languages who want to use Oracle Crystal Ball with Windows Vista or Excel 2007 must download and install the English version of Crystal Ball 7.3.x or 11.1.x.

If you are using this version on an English operating system with non-English regional settings, Oracle recommends that you install the Microsoft Multilingual User Interface (MUI) Pack for your version of Microsoft Office. (These are called Language Packs for Microsoft Office 2007.) If you do not install the Microsoft MUI Pack, Excel is displayed with the regional formatting and Oracle Crystal Ball is displayed with English formatting. For more information about the MUI Pack, see <http://www.microsoft.com> and search for MUI Pack on the Microsoft Web site.

**Note:** If you are using Oracle Crystal Ball on a non-English version of Excel 2007 and you save a Crystal Ball model in .xls format to one of the Excel 2007 formats (.xlsx, .xlsb, or .xlsm), a warning message is displayed. This message explains that the scripts in the workbook are an unsupported feature. Please ignore this message. The Crystal Ball data will be saved. For best results, Oracle Crystal Ball should be open when the model is saved.

## Microsoft .NET Framework 2.0, 3.0 and 3.5

The Microsoft .NET Framework is technology from Microsoft for developing secure and advanced Windows applications. Microsoft .NET Framework 2.0 (or 3.0 or 3.5 for Windows XP or Vista) must be installed on your computer before you can install and license this version of Oracle Crystal Ball. Oracle Crystal Ball must be locked to one of these supported versions of Microsoft .NET Framework to run properly. See [“Using the Application Manager” on page 16](#).

For more information about the Microsoft .NET Framework, see [Appendix B, “Microsoft .NET Framework.”](#)

## Oracle Crystal Ball and Microsoft Windows Vista

Files installed in the Windows Vista Program Files folder are opened as read-only files in Excel, even though that property is not set. If you want to modify the Crystal Ball Examples files, save them under another name before attempting to run a simulation on them.

If you are using Windows Vista, familiarize yourself with the locations of folders mentioned in this guide, such as My Documents and Application Data. For example, My Documents is under C:\Users instead of C:\Documents and Settings as in earlier versions of Windows.

## Notes for Users of Earlier Versions of Crystal Ball

**Important!** When you install this version of Oracle Crystal Ball on the same computer where an earlier released version of Crystal Ball 7.x or 11.x is installed, it will automatically be replaced by this version without prompting.

If you have modified Crystal Ball example models and saved them under the same name, they will be replaced by unmodified models. Be sure to rename them before you install this version of Oracle Crystal Ball.

For more information about migrating from earlier versions of Oracle Crystal Ball, see [Appendix C, “Migrating From Earlier Versions.”](#)

## Notes for Users of Crystal Ball Decision Optimizer

If you have Oracle Crystal Ball Decision Optimizer, Fusion Edition, the Extreme Speed feature is activated by default. Certain models created in earlier versions of Crystal Ball might not run in Extreme speed. In this case, a warning message is displayed with information about the problem. You can downshift into Normal speed and continue with the simulation. For details, see the Extreme Speed appendix of the latest *Oracle Crystal Ball User's Guide*.

## Additional Resources

Oracle offers technical support, training, and additional resources to increase the effectiveness with which you can use Oracle Crystal Ball products.

For more information about all of these resources, see the Oracle Crystal Ball Web site at:

<http://www.oracle.com/crystalball>





# 2

## Installing and Licensing Oracle Crystal Ball

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## Guidelines for Installing and Licensing Oracle Crystal Ball

Follow these steps to install and license Oracle Crystal Ball. The basic process is the same whether you are installing Oracle Crystal Ball with a permanent, textbook, classroom, or trial license:

1. Confirm that you have the required hardware and software, listed in [“System Requirements” on page 5](#).
2. Read the information in [Appendix B, “Microsoft .NET Framework,”](#) and be sure the appropriate version of Microsoft .NET Framework is installed on your computer.
3. Be sure you have downloaded Oracle Crystal Ball installation files.
4. When you ordered Oracle Crystal Ball or registered to download it, you should have received your username and serial number. The username is usually your email address.

**Tip:** If you received a serial number by email, locate it and have it ready to enter either by typing or by copying and pasting directly from the email.

5. Follow the instructions in the next section, [“Installing Oracle Crystal Ball” on page 9](#) to install Oracle Crystal Ball.
6. Follow the instructions in [“Licensing Oracle Crystal Ball” on page 12](#) to activate a Crystal Ball license.

## Installing Oracle Crystal Ball

Before you start to install Oracle Crystal Ball products, read through this guide to familiarize yourself with the process. For easiest installation, be sure you are connected to the Internet with Internet Explorer and can access your email.

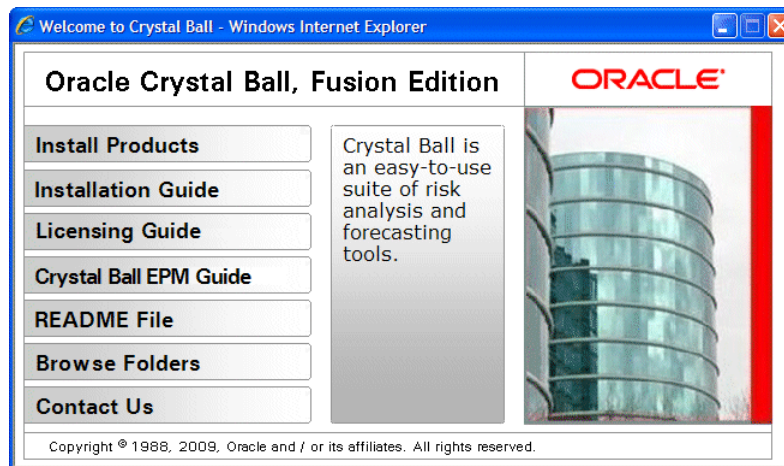
► To install Oracle Crystal Ball products:

- 1 Log in to the computer that will run the Oracle Crystal Ball software.

## 2 Start installing Oracle Crystal Ball in one of these ways:

- If you have a Oracle Crystal Ball installation CD, insert it into your CD-ROM drive. The installer should load automatically. If it doesn't, you can start it manually: browse for the main Oracle Crystal Ball folder on the CD and run `setup.html` in that folder. When the Welcome To Oracle Crystal Ball screen is displayed, continue with step 3.
- If you are installing a downloaded version of Oracle Crystal Ball, click the file that you downloaded. The file uncompresses its compressed contents. Then, browse to the folder where you unzipped the file and double-click `setup.html`. When the Welcome To Oracle Crystal Ball screen is displayed ([Figure 1](#)), continue with the following step.

Figure 1 Welcome To Oracle Crystal Ball installation screen



In the Welcome To Oracle Crystal Ball screen, click Install Products.

The Oracle Crystal Ball installer launches, as shown in [Figure 2](#).

Figure 2 The Oracle Crystal Ball installation Welcome dialog



- 3 In the installation wizard Welcome dialog, notice that any existing versions of Crystal Ball will be uninstalled and that Microsoft .NET Framework 2.0, 3.0, or 3.5 is required.

**Note:** If you do not have an acceptable version of Microsoft .NET Framework, or if you're not sure, click **Next**. The installer will look for the required Microsoft .NET Framework components. If a required version of Microsoft .NET Framework is not installed, a dialog opens and enables you to access the Microsoft Web site to download it.

**4 Click **Next** to continue.**

The installer checks for previous versions of Crystal Ball.

**5 If you are prompted to uninstall a previous version of Crystal Ball, click **Yes** both to uninstall and to confirm the uninstallation.**

If you are prompted to uninstall shared files, select **No To All**. When the uninstallation has successfully completed, click **OK**.

**6 In the **Customer Information** dialog, enter your name and organization (such as company or school) and click **Next**.**

**7 In the **Setup Type** dialog, select either **Complete** or **Custom** setup.**

- **Complete** installs the Oracle Crystal Ball product package plus HTML files of product documentation in the default installation folder.
- **Custom** enables you to choose a different installation folder.

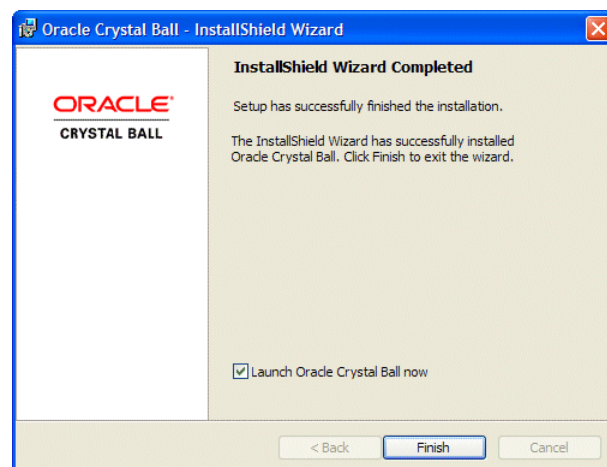
**Note:** Oracle strongly recommends that you select **Complete** and install to the default installation folder.

**8 Click **Next**.**

**9 In the **Ready to Install the Program** dialog, review the settings you have selected, then click **Install**.**

**10 Figure 3 shows the dialog that is displayed if a license from a version of Crystal Ball earlier than 11.1.1.0.00 is not found. Click **Finish** and skip to the next section, [“Licensing Oracle Crystal Ball” on page 12](#).**

Figure 3 The Setup Complete dialog



**11 If you already have a license for an older version of Crystal Ball, a different Setup Complete dialog is displayed with information about an earlier license type that was detected. Older versions of Crystal Ball use a different licensing scheme.**

The message indicates that you may not yet be licensed for this version of Oracle Crystal Ball. You can use Oracle Crystal Ball for up to 15 days without a license. At that time, you must enter a username and serial number to continue. You can enter the username and serial number when you start Oracle Crystal Ball, or you can choose a command from the Help menu or Help group in Excel 2007. See the following section, [“Licensing Oracle Crystal Ball” on page 12](#).

## 12 Click **Finish**.

Oracle Crystal Ball is ready to use.

# Licensing Oracle Crystal Ball

You can use Oracle Crystal Ball for 15 days without activating a license. During this time, Oracle Crystal Ball runs with a trial license. All features are available during trial. The Oracle Crystal Ball Welcome screen is displayed each time you start Oracle Crystal Ball and indicates how many days remain on the trial license before it expires.

**Note:** These conditions are also true for Oracle Crystal Ball textbook licenses, except they are valid for longer than 15 days, usually 140 days, and must be activated as described in the following section, [“Activating a License” on page 12](#).

You can click the Activate License button at any time to activate another kind of license, usually a license for a purchased version of Oracle Crystal Ball.

The following sections discuss ways to license Oracle Crystal Ball:

- [“Activating a License” on page 12](#)
- [“Installing and Licensing Oracle Crystal Ball with a Script” on page 13](#)
- [“Automatically Licensing Oracle Crystal Ball After Installation” on page 13](#)

## Activating a License

➤ To activate a license:

- 1 Locate the username and serial number you received from Oracle and start Oracle Crystal Ball.
- 2 In the **Oracle Crystal Ball Welcome** screen, click **Activate License**.
- 3 In the **Username** box of the Activate a License dialog, enter the username provided by Oracle. This is usually the email address you provided when you downloaded Oracle Crystal Ball.
- 4 In the **Serial Number** boxes, enter the serial number provided by Oracle.

The easiest way to do this is to copy the serial number from an email and paste it into the box at the left. It automatically pastes correctly into the other boxes.

- 5 Click **OK**.

If you entered the serial number correctly, the license is activated instantly and a confirmation message is displayed. When you click OK in the confirmation message, the Oracle Crystal Ball

Welcome screen is displayed. You can click Use Crystal Ball to start using Oracle Crystal Ball, or click another link. The *Oracle Crystal Ball User's Guide* describes the other links. Notice that you can click View Existing Licenses in the Activate a License dialog to review feature and expiration information for your license.

- If you need to open the Activate a License dialog after you have either started Oracle Crystal Ball or activated your license, select **Help**, then **Crystal Ball**, and then **Licensing** in the Excel menu bar. For Excel 2007, select **Resources**, and then **Licensing** in the Help group at the right end of the Crystal Ball ribbon.

## Installing and Licensing Oracle Crystal Ball with a Script

When installing Oracle Crystal Ball on a number of computers, it can be helpful to install and license using a script.

If you have access to the Oracle Crystal Ball .msi installation file, you can use msixec to run the installation by entering the following statement on one line:

```
msiexec /i "Oracle Crystal Ball.msi" CBUSERNAME=cusername CBSERIALNUMBER=cbserialnumber
```

cusername and cbserialnumber are the username and Oracle Crystal Ball serial number for the particular individual whose product is being installed and licensed.

If you only have access to the Oracle Crystal Ball setup.exe file, possibly through a download from the Web, you can perform a silent installation and license at the same time with this statement:

```
setup.exe /s /v"CBUSERNAME=\"cusername\" CBSERIALNUMBER=cbserialnumber /qn"
```

## Automatically Licensing Oracle Crystal Ball After Installation

You can use command line code to call CBLicenseActivator.exe and activate a user name and serial number combination.

- To automatically license Oracle Crystal Ball:
  - 1 Select **Start**, then **All Programs**, then **Accessories**, and open a command prompt window.
  - 2 Use the `cd` command to browse to the bin folder beneath the Oracle Crystal Ball installation folder. By default, this is `C:\Program Files\Oracle\Crystal Ball\bin`.
  - 3 At the prompt symbol, enter the following text:

```
CBLicenseActivator.exe username serialnumber
```

where *username* is the user name for the provided serial number.

**Note:** Do not include the hyphens (dashes) in the serial number and do not add spaces within the number.

If the license is activated successfully, a message is displayed beneath the command line. It indicates that the license was successfully activated and is displayed the username, serial number, version, and other information contained in the license, including licensed product features.

If a failure occurs, an exception message is displayed and the exit code for the command line is set to a non-zero value.

# 3

## Post-Installation Steps and Troubleshooting

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This chapter discusses post-installation steps along with issues you might encounter related to installation, licensing, and startup, and how to handle them.

## Starting Oracle Crystal Ball

- To start Oracle Crystal Ball, select **Start**, then **All Programs**, then **Oracle Crystal Ball**, then **Crystal Ball** in the Windows taskbar.

The following sections describe how to use the Oracle Crystal Ball Welcome screen and how to start Oracle Crystal Ball automatically with Excel:

- [“Welcome Screen” on page 15](#)
- [“Starting Automatically with Excel” on page 16](#)

### Welcome Screen

When you start Oracle Crystal Ball, the Welcome screen is displayed. For information about the application type settings, click the [What’s This?](#) hyperlink. Then, you can select one of the informational hyperlinks in the middle to learn more about Oracle Crystal Ball. Finally, click one of the icons on the right side. Click [Use Crystal Ball](#) to close the Welcome screen and move immediately to Excel.

If you are using a trial version or other time-limited version of Oracle Crystal Ball, you can see how many days remain before your license expires. If you already have a username and serial number for a permanent license but have not yet entered it, you can click a button to activate the license for your copy of Oracle Crystal Ball.

## Starting Automatically with Excel

There are several ways to set Oracle Crystal Ball so it starts automatically with Excel. The following topics describe them:

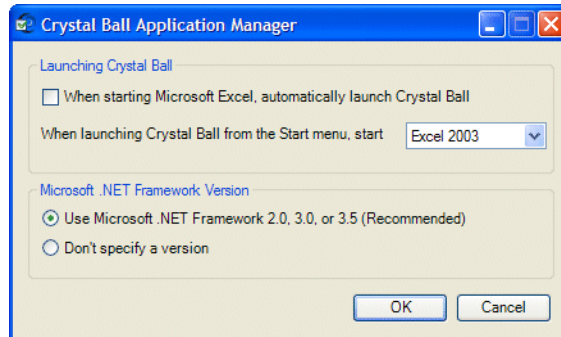
- “Using the Application Manager” on page 16
- “Using the COM Add-Ins Manager” on page 17
- “Using the Oracle Crystal Ball Developer Kit” on page 18

### Using the Application Manager

You can set Oracle Crystal Ball to start automatically with Excel using the Crystal Ball Application Manager.

- To start Oracle Crystal Ball every time you start Excel:
- 1 Select **Start**, then **All Programs**, then **Oracle Crystal Ball**, then **Application Manager**.
  - 2 In the Application Manager (Figure 4), ensure that the first setting, to automatically launch Oracle Crystal Ball with Excel, is checked. If others are using Oracle Crystal Ball on the same computer, each of you can have separate startup settings.

Figure 4 The Crystal Ball Application Manager



- 3 If multiple versions of Excel are installed, select which version of Excel should start with Oracle Crystal Ball.
- 4 If several versions of Microsoft .Net Framework are installed, select **Use Microsoft .NET Framework 2.0, 3.0, or 3.5 (Recommended)** to ensure the appropriate version is used.
- 5 When settings are complete, click **OK**.

**Note:** If you have set Oracle Crystal Ball to automatically start each time you set Excel and then Oracle Crystal Ball fails to load successfully, the first checkbox in the Crystal Ball Application Manager is cleared. You must select the setting again to start Oracle Crystal Ball automatically with Excel again.



## Using the COM Add-Ins Manager

You can start Excel and then load or unload Oracle Crystal Ball using the COM Add-Ins Manager. You can also use this Excel tool to set Oracle Crystal Ball to start whenever you start Excel.

To use the COM Add-Ins Manager for these tasks, follow the instructions below for your version of Excel:

- “For Excel 2002 (XP) and 2003” on page 17
- “For Excel 2007” on page 17

### For Excel 2002 (XP) and 2003

► To load Oracle Crystal Ball within Excel:

1 Follow these steps to display a list of available COM Add-ins:

- On the View menu, point to Toolbars, and then click **Customize**.
- Click the **Commands** tab.
- In the **Categories** box, click **Tools**.
- In the **Commands** box, select **COM Add-Ins** and drag it to a toolbar, for example, the Excel menu bar.
- On the toolbar, click **COM Add-Ins** to see a list of available add-ins.


2 In the **COM Add-Ins** dialog, select **Crystal Ball**.

3 Click **OK** to close the dialog and open Oracle Crystal Ball within Excel.

To unload Oracle Crystal Ball from within Excel, follow step 1 and then clear Crystal Ball in step 2.

### For Excel 2007

► To load Oracle Crystal Ball within Excel:

- 1 Click the **Office** button, .
- 2 Click the **Excel Options** button, and then click the **Add-Ins** link.
- 3 In the Manage list at the bottom of the Add-Ins dialog, select **COM Add-Ins** and click **Go**.
- 4 In the **COM Add-Ins** dialog, select **Crystal Ball**.
- 5 Click **OK** to close the dialog and open Oracle Crystal Ball within Excel.

To unload Oracle Crystal Ball from within Excel, follow steps 1 through 3 and then clear Crystal Ball in step 4.

## Using the Oracle Crystal Ball Developer Kit

If you are familiar with VBA programming, you can use the Oracle Crystal Ball Developer Kit to load and unload Oracle Crystal Ball from within Excel. For more information, open the *Oracle Crystal Ball Developer's Guide* and look up the calls listed in the “Opening and Closing Crystal Ball” section of Chapter 2.

## Uninstalling Crystal Ball and Oracle Crystal Ball

If you already have a version of Crystal Ball earlier than Crystal Ball 7.0, you are prompted to uninstall it. If you are replacing a released version of Crystal Ball 7.x or 11.x, it is automatically uninstalled before this version of Oracle Crystal Ball is installed. However, if you have a beta or other unreleased version of Crystal Ball or if you want to uninstall without running the installer, you can uninstall Crystal Ball manually.

**Note:** You must also uninstall Crystal Ball manually if you are removing your current version of Oracle Crystal Ball and changing to an earlier version.

➤ To uninstall Crystal Ball manually:

**1** Log in to the machine that is running the Crystal Ball client software.

You must have local administrator privileges.

**2** Select **Start**, then **Settings**, then **Control Panel**, then **Add or Remove Programs**.

**3** Select any Crystal Ball or Oracle Crystal Ball products from the list of programs.

**4** Click **Change/Remove**.

**5** In the confirmation dialog, click **Yes** to proceed with the uninstallation of the Crystal Ball product.

**6** If you are prompted to remove shared files during the uninstallation process, select **No To All**. Uninstallation continues.

**7** When the uninstallation completes, click **OK**.

## Troubleshooting

The following sections describe some error messages and other problems you might discover while you are installing or uninstalling Oracle Crystal Ball. Check here first for help with troubleshooting, then contact Technical Support if your question is not answered.

### Disabled Add-ins Message

If Excel closes unexpectedly when you are trying to start Oracle Crystal Ball, it is possible that Excel has disabled the Oracle Crystal Ball add-in so that Oracle Crystal Ball will not start when you try again.

If you think this happened, select Start, then All Programs, then Oracle Crystal Ball, then Application Manager. Then, close the Application Manager. If Excel disabled Oracle Crystal Ball, a warning message might display with a link to this section of the *Oracle Crystal Ball Installation and Licensing Guide*.

- To re-enable Oracle Crystal Ball as an Excel add-in in Microsoft Excel 2003:
  - 1 Select **Help**, then **About Microsoft Office Excel**, then **Disabled Items**.
  - 2 In the **Disabled Items** dialog, select **crystal ball** and click **Enable**.
- To re-enable Oracle Crystal Ball as an Excel add-in in Microsoft Excel 2007:
  - 1 Click the **Office** button.
  - 2 In the menu window, click **Excel Options** at the bottom of the window.
  - 3 In the **Excel Options** dialog, select **Add-Ins**.
  - 4 In the **Manage** dropdown list at the bottom of the Add-Ins panel, select **Disabled Items** and click **Go**.
  - 5 In the **Disabled Items** dialog, select **crystal ball** and click **Enable**.

## Antivirus Warning Is Displayed During Installation

Oracle Crystal Ball uses the Microsoft installer, `msiexec.exe`, during the installation process. According to knowledgebase articles available on Microsoft's Web site, certain antivirus applications identify the Microsoft installer as a malicious script.

If a message is displayed, warning that a malicious script is detected, you can select "allow this time only."

## System Clock Message Is Displayed

When you try to start Oracle Crystal Ball, you might see an error message that Oracle Crystal Ball cannot run because the system clock has been set back. This occurs when the system clock is set to a time and date earlier than when Oracle Crystal Ball was last started. If you see this message, set your system clock to the current time and date and try again.

## Running Oracle Crystal Ball from the Start Menu

If you have more than one version of Excel on your computer and are having trouble starting Oracle Crystal Ball with the version of Excel you want to use, set the preferred version with the Oracle Crystal Ball Application Manager. For instructions, see ["Using the Application Manager" on page 16](#).

## Checking the Release Notes

For information about other known issues and their solutions, check the Oracle Crystal Ball release notes file, available for download from the Enterprise Performance Management Documentation Library, posted on Oracle Technology Network (OTN).

➤ To open or download this file:

- 1 Go to <http://www.oracle.com/technology/documentation/epm.html>
- 2 Click **View Library** for version 11.1.1.
- 3 On the **Deployment** tab, locate *Oracle Crystal Ball, Fusion Edition Release Notes*, and then click the link.

## Viewing the Installation Log File

When you install Oracle Crystal Ball, a log of all of the settings and commands run during the installation of Oracle Crystal Ball is written to the %temp% folder of the computer with the file name **cbmsiinstall.txt**. If you have trouble installing Oracle Crystal Ball or receive Microsoft errors when using Oracle Crystal Ball, send this file to Oracle Crystal Ball Technical Support when you request assistance. To open the file, select Start, then Run and enter the following text into the Open dialog:

```
%temp%/cbmsiinstall.txt
```

The log file opens in Notepad. You can save it to the Desktop or My Documents to make it easier to attach to your email.

## Learning More About Crystal Ball

If you have questions or concerns about Oracle Crystal Ball products, visit the Oracle Crystal Ball Web site for current news and contact information:

```
http://www.oracle.com/crystalball
```



# Installation, Licensing, and Start-up FAQ

This appendix answers some frequently asked questions about Oracle Crystal Ball 11.1.x installation, licensing, and start-up. Start your trouble-shooting efforts here.

## **When I try to install Oracle Crystal Ball, my antivirus software warns that a malicious script is detected. Why?**

Oracle Crystal Ball uses the Microsoft installer, `msiexec.exe`, during the installation process. Certain antivirus applications identify the Microsoft installer as a malicious script. If the warning is displayed, you can choose to "allow this time only."

## **Can I install Oracle Crystal Ball with a script?**

Yes. You can use the Microsoft installer, `msiexec.exe`. For instructions, see [“Installing and Licensing Oracle Crystal Ball with a Script” on page 13.](#)

## **How has licensing changed since Crystal Ball 7.3.x?**

Crystal Ball 7.x versions earlier than version 7.3.2 used an encrypted license file on each user's machine to determine which features were licensed. Information about each computer was sent back and forth over the Internet before licensing was complete. In Oracle Crystal Ball 11.x, an Internet connection is not required and the licensing scheme is different. A license file is no longer stored on your computer.

## **Who needs an Oracle Crystal Ball license?**

Everyone needs a license to run Oracle Crystal Ball products, except for a trial version. If you are upgrading from a previous version of Oracle Crystal Ball, your old license will not work. You will need to activate a new license for Oracle Crystal Ball 11.x.

## **Do I need local administrator privileges to license my Oracle Crystal Ball product?**

Yes, you still need local administrator privileges to install Oracle Crystal Ball 11.x. However, you do not need to be an administrator to license those versions of Oracle Crystal Ball.

## **What is a license serial number?**

A license serial number is a unique identifier that indicates the features to include in your Oracle Crystal Ball license. If you need to upgrade from a basic Oracle Crystal Ball product to one with more features, you need to enter a different serial number so the new features will be available to you. For specific information about how to license Oracle Crystal Ball, see [“Licensing Oracle Crystal Ball” on page 12.](#)

### Why do I see the Crystal Ball toolbar but Oracle Crystal Ball will not work?

If you are using Microsoft Office XP or Office 2003, the Oracle Crystal Ball file can get disabled because of an error upon startup. If Oracle Crystal Ball is disabled, the Crystal Ball toolbar is displayed, but Oracle Crystal Ball itself is not loaded.

- To re-enable Crystal Ball if it is disabled (or to see whether it is disabled in the first place):
  - 1 In Excel, select **Help**, then **About Microsoft Excel**.
  - 2 In the **About Microsoft Office Excel** dialog, click **Disabled Items**.
  - 3 If Oracle Crystal Ball is listed in the Disabled Items dialog, it is disabled. To re-enable it:
    - a. Select `securecbaddin.dll`.
    - b. Click **Enable**.
    - c. Click **Close**.
  - 4 Exit and relaunch Excel. Oracle Crystal Ball should load properly.



# Microsoft .NET Framework

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## Introduction

The Microsoft .NET Framework is technology from Microsoft for developing secure and advanced Windows applications. This appendix describes the Microsoft .NET Framework and contains an FAQ with information that can help you troubleshoot problems that involve it.

## About Microsoft .NET Framework

Microsoft .NET Framework 2.0 (or 3.0 or 3.5 for Windows XP or Vista) must be installed on your computer before you can install and license this version of Oracle Crystal Ball. Oracle Crystal Ball must be locked to one of these supported versions of Microsoft .NET Framework to run properly. See [“Using the Application Manager” on page 16](#).

If a supported version of .NET Framework is not installed, you will have an opportunity to download and install an appropriate version from [www.microsoft.com](http://www.microsoft.com) when you install Oracle Crystal Ball.

**Note:** Supported versions of Microsoft Windows XP (listed in [“System Requirements” on page 5](#)) require Windows XP Service Pack 3.

If a supported version of .NET Framework is not installed, an appropriate version of Microsoft .NET Framework is installed when you install Oracle Crystal Ball.

- To see if .NET Framework 2.0, 3.0, or 3.5 is installed on your computer:
  - 1 Open the Windows Control Panel.
  - 2 Click the **Add or Remove Programs** icon.
  - 3 Look for Microsoft .NET Framework 2.0, 3.0, or 3.5 in the list.

**Important!** You **must** have version 2.0 (or 3.0 or 3.5, if you are using a version of Windows XP or Vista). Be sure “Use Microsoft .NET Framework 2.0, 3.0, or 3.5 (Recommended)” is selected in the Oracle Crystal Ball Application Manager ([Figure 4](#)).

**Note:** You can have more than one version of Microsoft .NET Framework, as long as one of them is a supported version. If you have Microsoft Windows Vista, Microsoft .NET Framework 3.0 or 3.5 is automatically installed. Microsoft .NET Framework 2.0 is included as a part of Microsoft .NET Framework 3.0 on Windows XP and Vista. Also, Microsoft .NET Framework 2.0 and 3.0 are included as a part of .NET Framework 3.5 on Windows XP and Vista.

- 4 If a supported version of Microsoft .NET Framework is not installed, follow the steps in the next section to install it.

**Note:** If you are installing Oracle Crystal Ball on a non-English operating system, you should install the .NET Framework Language Pack for your particular language and version of .NET Framework if you want to view any .NET-level error messages in that language. For more information, search on <http://www.microsoft.com>.

## Installing Microsoft .NET Framework 2.0

You can install Microsoft .NET Framework 2.0 from Microsoft’s Web site. It can also be downloaded automatically during installation.

► To install from Microsoft’s Web site:

- 1 Open <http://www.microsoft.com>.
- 2 Click the **Downloads and Trials** link, currently in the navigation bar at the right side of the window.
- 3 Select **Download Center**.
- 4 Search for .NET Framework 2.0.
- 5 Locate this product in the search results and click the link: .NET Framework Version 2.0 Redistributable Package (x86).

**Note:** When this guide was prepared, the link displayed directly on the Microsoft Download Center page in a section titled Popular Downloads and could be downloaded without searching.

- 6 Double-click the downloaded file `dotnetfx.exe` to install .NET Framework 2.0.

## Microsoft .NET Framework FAQs for Oracle Crystal Ball 11.1.x

Here are some questions and answers about Microsoft .NET Framework, the Oracle Crystal Ball development platform.



## What is the Microsoft .NET Framework?

The Microsoft .NET Framework is Microsoft's integrated services strategy to connect information, people, systems, and devices through software. Integrated across the Microsoft platform, Microsoft .NET technology provides the ability to quickly build, deploy, manage, and use connected, security-enhanced solutions with integrated deployment services.

Microsoft .NET-connected solutions enable businesses to integrate their systems more rapidly and in a more agile manner and help them realize the promise of information anytime, anywhere, on any device.

The Microsoft .NET Framework is a general-purpose software development platform, similar to Java. At its core is a virtual machine that turns intermediate language (IL) into machine code. High-level language compilers for C#, VB.NET and C++ are provided to turn source code into IL. C# is a new programming language, similar to Java. An extensive class library is included, featuring all the functionality one might expect from a contemporary development platform - Windows GUI development (Windows Forms), database access (ADO.NET), Web development (ASP.NET), Web services, XML, and so on.

## Why does Oracle Crystal Ball need the Microsoft .NET Framework to install?

The Microsoft .NET Framework supplies the underlying architecture upon which Oracle Crystal Ball is built. Our toolbars and integration components all require the Microsoft .NET Framework to function properly. Oracle Crystal Ball will not install without an appropriate version of the Microsoft .NET Framework installed on the host computer.

## What versions of the Microsoft .NET Framework are available?

Currently, five core versions of the Microsoft .NET Framework have been released:

- The final versions of the 1.0 SDK and Runtime were made publicly available in January 2002.
- Microsoft .NET Framework 1.1 was released in April 2003, and was mainly bug fixes for 1.0.
- Microsoft .NET Framework 2.0 was released in November 2005 and contains: 64-Bit Platform Support, Access Control List Support, new features in ADO.NET, significant enhancements to all areas of ASP.NET, Authenticated Streams, COM Interoperability Services Enhancements, and more. Please see the Microsoft Web site for further information. Service Pack 1 for the Microsoft .NET Framework 2.0 was released in November 2007.
- Microsoft .NET Framework 3.0 was released in late 2006 - early 2007 and is installed with Microsoft Windows Vista. Service Pack 1 for the Microsoft .NET Framework 3.0 was released in November 2007.
- Microsoft .NET Framework 3.5 was released in November 2007.

## **What version of Microsoft .NET Framework is required?**

Oracle Crystal Ball versions 11.1.1.x require .NET Framework 2.0, 3.0, or 3.5.

## **Can different versions of the Microsoft .NET Framework exist on the same machine?**

Yes, different versions of the Microsoft .NET Framework can exist on the same machine. In the case of multiple versions of the .NET Framework, you need to run the Oracle Crystal Ball Application Manager and directly lock Oracle Crystal Ball to the appropriate version of the .NET Framework. To access the Oracle Crystal Ball Application Manager, select Start, then All Programs, then Oracle Crystal Ball, then Application Manager.

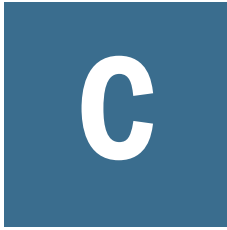
## **How can I tell if Microsoft .NET Framework is installed on my computer?**

Start by checking the Add/Remove Programs dialog in the Windows Control Panel. Look for Microsoft .NET Framework followed by a version number. If you have Windows Vista installed, you also have Microsoft .NET Framework 3.0.

## **What if I try to install Oracle Crystal Ball and the correct version of Microsoft .NET Framework is not installed?**

A dialog opens and enables you to access the Microsoft Web site:<http://www.microsoft.com>

You can search for Microsoft .NET Framework and download it from a Microsoft link.



# Migrating From Earlier Versions

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## Introduction

This appendix is for Oracle Crystal Ball users who are migrating from earlier versions of Crystal Ball or Microsoft Excel. It contains information about converting your models and troubleshooting conversion issues.

## Migrating From Crystal Ball Versions Earlier Than 7.0

If you load a model built in Crystal Ball 4.x or 2000.x (5.x), this version of Oracle Crystal Ball converts it the first time it is loaded and run.

**Note:** Note: If you open a workbook created in Crystal Ball 2000.x (5.x) in Excel 2007 with Oracle Crystal Ball loaded and either load the Crystal Ball data (for example, with the Define, then Select... command) or attempt to save the workbook, the data is converted to the current Oracle Crystal Ball format. To preserve the Crystal Ball data in 5.x format, avoid opening the workbook in Excel 2007.

Every effort will be made to convert data into an equivalent form. Where this is not possible, an error message is displayed stating that data in the specified worksheet could not be converted. An error log is written to the same folder where the model is stored. The log is named *worksheet name.xls.CB.txt*. The log file can be opened in a text editor for review.

The following are some potential causes of incompatibility:

- Models are protected and must be unprotected with an Oracle Crystal Ball Developer Kit macro: `CB.WorksheetProtection(ByVal aPassword As String, ByVal aTurnOn As Boolean)`. Instead, you could be sure the worksheet is unprotected by selecting Tools, then Protection, then Unprotect Sheet before you load it into Oracle Crystal Ball or run a simulation.

- Forecasts can no longer be defined in the same cell as assumptions and decision variables and will be discarded when converting data.
- Some distributions have different input parameters or are otherwise changed: the Beta distribution Scale parameter is changed to the Minimum and Maximum parameters, the Hypergeometric distribution Probability parameter is changed to the Success parameter, and the Extreme distribution is split into the Minimum Extreme and Maximum Extreme distributions.
- Some Developer Kit calls or constants are obsolete, have changed data types, or are not implemented for this release.
- Some Crystal Ball spreadsheet functions are not implemented for this release.

In addition, models might not run because they reference CB.xla or CB7.xla instead of cbdevkit.xla in VBA. To correct this, in the Visual Basic editor, select Tools, then References. Then, change the reference to cbdevkit.xla (in the main Oracle Crystal Ball installation folder by default, C:\Program Files\Oracle\Crystal Ball) and uncheck the reference to CB.xla. If you still want to use the model in an earlier version of Crystal Ball, save it in this version of Oracle Crystal Ball with a different name and check the reference to CB.xla before you load it back into the earlier version.

**Note:** Be aware also that models created or saved in the current version of Oracle Crystal Ball cannot be opened and used in versions of Crystal Ball earlier than Crystal Ball 7.0.

If you are using Oracle Crystal Ball with Excel 2007 and share files with users of earlier versions of Excel, there can be other file compatibility issues. You must remember to save files in .xls format for use with Excel 2003 and earlier.

## Other Compatibility Issues

### Extreme Speed

If you have Oracle Crystal Ball with Extreme Speed, this feature is activated by default. Certain models created in earlier versions of Crystal Ball might not run in Extreme speed. If so, a warning message is displayed with information about the problem. You can downshift into Normal speed and continue with the simulation. For details, see the Extreme Speed appendix of the latest *Oracle Crystal Ball User's Guide*.

### Data Conversion

If you load a model from an earlier version of Crystal Ball, every effort is made to convert data into the current form if conversion is necessary. Where this is not possible, an error message is displayed stating that data in the specified worksheet could not be converted. An error log is written to the same folder where the model is stored. The log is named worksheet

name.xls.CB.txt. For example, if a conversion error occurs in Model2.xls, the log file is named Model2.xls.CB.txt and can be opened in a text editor for review.

## Starting Oracle Crystal Ball Automatically

To set automatic startup for Crystal Ball 7.2.x and earlier versions of Crystal Ball 7.x, users were required to select Start, then Programs, then Oracle Crystal Ball, then Application Manager and select the check box that indicates you want to automatically launch Crystal Ball with Excel. Using Tools, then Add-Ins no longer worked for those versions.

You can use the Application Manager with this version of Oracle Crystal Ball. However, this version also supports the use of Excel commands to load and unload Oracle Crystal Ball into Excel.

To do this in Excel 2007, click the Office button. Then, click Excel Options and select Add-ins. Next, open the Manage drop-down list, select Manage COM Add-ins, and click Go. In the COM Add-ins dialog, select Crystal Ball. This loads Oracle Crystal Ball into the current instance of Excel 2007. If you uncheck Crystal Ball, Oracle Crystal Ball is immediately unloaded from the current instance of Excel 2007.

To load and unload Oracle Crystal Ball into other supported versions of Excel, see [“Starting Automatically with Excel” on page 16](#). Beginning with Crystal Ball 7.3, users of Crystal Ball can also use Oracle Crystal Ball Developer Kit calls to load and unload Oracle Crystal Ball. For instructions, see [“Starting Automatically with Excel” on page 16](#) and the current version of the *Oracle Crystal Ball Developer's Guide*.

## Oracle Crystal Ball Excel Functions

To view Crystal Ball distributions and macros implemented as Excel functions in this version of Oracle Crystal Ball, select Insert, then Functions. Then, open the Crystal Ball function category. The currently-implemented functions display, starting with CB. The probability distribution functions are described in Appendix A of the *Oracle Crystal Ball User's Guide* and the Oracle Crystal Ball online help. The remaining functions, beginning with CB. and ending in FN, such as CB.GetAssumPercentFN, are described in the current *Oracle Crystal Ball Developer's Guide*.

## Converting Models with CB.Get... Functions Defined as Forecasts

Users of Crystal Ball 7.0 or earlier versions occasionally used the CB.Get... functions in forecast cells to include current data, for example, in an optimization. If you try to use one of these models in Oracle Crystal Ball with Extreme Speed, the model will generate compatibility errors.

To change these models so they are compatible with Extreme Speed, remove the CB.Get... functions from forecast cells. Instead, use the Auto Extract tab in the expanded Define Forecast dialog or Forecast Preferences dialog to automatically extract forecast data to another cell following a simulation. Then you can reference that cell in a forecast formula to retain compatibility while using current data.

If you do not want to make these changes but still want to run the model in Normal speed, you will need to uncheck Stop On Calculation Errors in the Run Preferences dialog to continue running despite the calculation errors (#VALUE's) that will occur for many of the returned statistics in the first 5 to 10 trials of the simulation.

## User-Defined Macros

Global settings to identify user-defined macros no longer exist in Crystal Ball 7.x or 11.x. If users want to run certain macros for all simulations, they need to make sure that the workbook containing those macros is open in Excel. This change means that users can run specific macros only for certain models and are no longer required to turn the macros on and off depending on the model that is being run. For details, see the section on user-defined macros at the end of Chapter 5 of the current *Oracle Crystal Ball User's Guide*.

## Developer Kit Issues

Some models created in versions of Crystal Ball earlier than 7.0 might not run because they reference `CB.xla` instead of `cbdevkit.xla` in VBA. To fix this, in the VBA editor, set the reference to `cbdevkit.xla` (in the main Oracle Crystal Ball installation folder -- by default, `C:\Program Files\Oracle\Crystal Ball`) and uncheck the reference to `CB.xla`.

For Predictor, now shipping as part of Oracle Crystal Ball 11.1.x, the new file to reference is `CBCOMDevKit.tlb`. For information about necessary code changes, see the current *Oracle Crystal Ball Developer's Guide*.

## Backward Compatibility in Excel 2003 and Earlier Versions of Excel

If a file supports features that are not available in previous versions of Crystal Ball 7.x or 11.x, those features will be ignored in the earlier version, but the file will still open and run using available features.

For example, if you try to load Crystal Ball 7.3.x or later results into an earlier version of Crystal Ball, an error message might display explaining that the Crystal Ball data contained in the selected result set cannot be loaded. One reason this message could appear is that a new chart type, scatter charts, was added in Crystal Ball 7.3. Or, the error message might be triggered by the betaPERT distribution, new in Crystal Ball 7.3. In these cases, it could be helpful to load the entire model, not just saved results. If you load a model containing scatter charts or the betaPERT distribution into an earlier version of Crystal Ball, the model runs and the new charts or distribution are ignored.

## Excel 2007 Compatibility and Conversion Issues

Excel 2007 workbooks can be saved in several file formats that are radically different from those for previous versions of Excel. This version of Oracle Crystal Ball has been carefully designed to

preserve Crystal Ball data in existing workbooks as long as you follow a few simple rules when opening and saving files created in previous versions of Excel.

**Note:** These conditions also hold when using Excel 2003 with the Excel 2007 Compatibility Pack.

The following information is for those who are using Crystal Ball 7.3 or later versions of Oracle Crystal Ball with Excel 2007. Crystal Ball 7.2.2 and earlier versions of Crystal Ball are not supported on Excel 2007.

## New Excel 2007 File Types

Excel 2007 supports three main new XML-based file formats:

- XLSX—Office Open XML format without support for VBA or macros
- XLSM—Office Open XML format including support for VBA or macros
- XLSB—Office Open binary format (in an XML structure that contains binary data instead of XML data)

By default, any new workbooks created in Excel 2007 are created in one of these file formats. There are other formats for add-ins and templates, but these are the only relevant Excel 2007 formats for workbooks.

You can also open older Excel 97-2003 workbooks with file extension XLS in Excel 2007. These older workbooks are opened in a special compatibility mode (identified by "[Compatibility Mode]" after the filename in the window title) so you can operate on them in much the same manner as with newer file formats. You cannot, however, use any of the new Excel 2007 features such as the expanded grid size, new chart types, and so on.

You can use the Save As command in Excel 2007 to convert your older XLS files to one of the new file formats or, optionally, to convert the new formats to XLS.

## New Oracle Crystal Ball Data Format

Beginning with Crystal Ball 7.3.x, Oracle Crystal Ball stores its data in a new format within Excel 2007 files. Older Crystal Ball data formats are converted to the new format the first time you perform a Save or Save As command in Excel 2007. Oracle Crystal Ball must be loaded when you save the file.

Before converting older XLS files to one of the new Excel 2007 formats, Oracle recommends that you keep backup copies of your older workbooks for safekeeping.

## Portability of Analysis Toolpak Functions in Excel 2007

With Excel 2003 and earlier, a model created on an English-language version of Windows with English Analysis Toolpak functions was not portable to other language environments since the

function name would not be recognized. This is no longer a problem in Excel 2007 since the Analysis Toolpak is a part of the core XLL.

## Excel 2003 Compatibility in Excel 2007

Microsoft offers an Office 2007 Compatibility Pack (available as a separate download from Microsoft's Website). This Pack was designed to allow Office 2003 users to open, edit, and save data in the new Office 2007 formats. The use of the Office 2007 Compatibility Pack with Crystal Ball 7.3 or later is not recommended. For best results, users of Crystal Ball 7.3 or later can share data between Excel 2003 and 2007 using the .xls format.

## Excel 2007 Compatibility with Earlier Versions of Crystal Ball

Crystal Ball 7.2.2 and earlier cannot read data created by this version of Oracle Crystal Ball in the new Excel 2007 formats. To maintain compatibility with users of Crystal Ball 7.2.2 or earlier versions running in Excel 2003, you should keep your workbooks as XLS files (Excel 97-2003 format).

If you open an Excel 2007 file in Crystal Ball 7.2.2 and attempt to define assumption data, this error message is displayed:

You must first save your workbook 'name' in a new file format (Excel 97 or later).

Crystal Ball 7.2.2 users cannot create the specified XLS file themselves. Instead, you must obtain a version of the file saved in XLS format from a Crystal Ball 7.3 user.

Be sure Crystal Ball 7.3 or later is open whenever you save an Excel 2007 model with Crystal Ball data as an XLS file to share with 7.2.2 users.

**Note:** Warning! If you are saving to .xls format, be sure it is Excel 97-2003 format and not the earlier version. If you accidentally save it to Excel 5.0 or Excel 95 .xls format when Oracle Crystal Ball is NOT open, data is lost.

## Converting to Excel 2007

- To convert your XLS workbooks to one of the new file formats, Oracle recommends that you first create a backup copy of the XLS workbook and then follow these steps:
  - 1 Run Excel 2007 with Oracle Crystal Ball loaded.
  - 2 Open an XLS workbook.
  - 3 Select **Save As** from the Office button. The Save As command has a submenu where you can select a different file format, or you can use the Save As dialog to select the file format.

After you save the file to one of the new file formats, the Crystal Ball data is converted to the Excel 2007 format.



If you saved your XLS workbooks to one of the new file formats without Crystal Ball 7.3.x or later loaded, you may see the following warning message:

This workbook contains one or more of the following features that are not supported by the selected file format:

- \* Script objects

To save the workbook without these features, click OK.

To keep using these features, click Cancel, and then select a file format that supports these features.

This message is normal and you should click OK to proceed with the operation. Oracle Crystal Ball will convert its data to the Excel 2007 format the next time you save the file with Crystal Ball 7.3.x or later loaded.

**Note:** Pre-7.0 Crystal Ball data is converted in Excel 2007, even if you save it back to an .xls file. If you open a workbook created in Crystal Ball 2000.x (5.x) in Excel 2007 with Oracle Crystal Ball loaded, the data is converted to the current Oracle Crystal Ball format. Even if you save it back to a workbook with .xls extension, the Crystal Ball data remains in the current Oracle Crystal Ball format. To preserve the Crystal Ball data in pre- 7.0 format, avoid opening the workbook in Excel 2007. However, if you open a workbook created in Crystal Ball 2000.x (5.x) in Excel 2007 without Oracle Crystal Ball loaded, and then save it to an Excel 2007 format, the Crystal Ball data is lost.

## Using the Excel 2007 Convert Command

You can also convert XLS workbooks to the new Excel 2007 formats using the Convert command under the Office button. Crystal Ball data is converted to the current format as soon as the workbook is saved.

The Convert command, however, has a side effect of removing the older XLS file in the process. Oracle recommends that you use the Save As command to maintain a backup copy of the XLS file.

## Rare Data Loss Scenarios

In a few rare cases, there is potential to lose Crystal Ball data during a series of conversion processes.

To avoid virtually all problems, have Crystal Ball 7.3.x or later open whenever files with Crystal Ball data is opened and saved.

If you do this, you will probably never experience these difficulties. However, you should be aware of the following cases so you can avoid them.

## Forward, Then Backward Save

- Avoid this situation because data loss could occur if you :
  - 1 Run Excel 2007 or Excel 2003 with the Office 2007 Compatibility Pack *without* Crystal Ball 7.3.x or later loaded.
  - 2 Save an XLS workbook to one of the Excel 2007 file formats.
  - 3 In a separate session, run Excel 2007 or Excel 2003 with the Compatibility Pack *without* Crystal Ball 7.3.x or later loaded again.
  - 4 Open the workbook that was created in step 2 and resave it back to the XLS format.

## Save and Resave in Excel 2003

- Avoid this situation because data loss could occur if you :
  - 1 Run Excel 2003 with the Office 2007 Compatibility Pack *without* Crystal Ball 7.3 or later loaded.
  - 2 Save an XLS workbook to one of the Excel 2007 file formats.
  - 3 In a separate session, run Excel 2003 with the Office 2007 Compatibility Pack *without* Crystal Ball 7.3 or later loaded again.
  - 4 Open the workbook that was created in step 2 and resave it either in the same file format or back to XLS.

If one of these scenarios occurs, contact Customer Support for further assistance. For contact information, see

<http://www.oracle.com/crystalball>

## Publishing Workbooks to Excel Services

If your organization uses Excel Services with the Microsoft SharePoint Server, you can publish Excel workbooks with Crystal Ball data to the SharePoint Server in XLSX and XLSB formats for sharing with other Microsoft Office users or opening in Web browsers. The workbooks must be converted to XLSX or XLSB format before they are published. The Crystal Ball data is retained in the published workbooks. However, you cannot run Oracle Crystal Ball, Fusion Edition simulations in the Web browser.

## Crystal Ball 7.3 or Later, Excel 2007, and Multi-processor Computers

If you are using a computer with multiple processors - for example, dual cores - you can use a new "multi-threaded" option in Excel 2007 to split up spreadsheet model recalculations into separate tasks. These tasks can then be run independently on each processor to speed up the overall recalculation time. Since time for one calculation is reduced, the time to run an entire simulation is also reduced.

► To activate multi-threading in Excel 2007:

- 1 Click the **Office** button.
- 2 Select **Excel Options**, then **Advanced**.
- 3 In the **Advanced Options** dialog, scroll to the Formulas group and then check "**Enable multi-threaded calculation**."
- 4 Click **OK** to accept the setting and close the dialog.

To use multi-threading efficiently, you should be working with a spreadsheet model that:

- Is large (that is, it takes more than 0.5 sec for each recalculation).
- Can easily be divided into separate tasks by Excel 2007 (for example, it might have separate chains or groups of formulas that do not depend on each other).

