Installing SensIt, RiskSim, and TreePlan

3

3.1 INSTALLATION OVERVIEW

SensIt, RiskSim, and TreePlan are decision analysis add-ins for Microsoft Excel 97–2007 for Windows and Macintosh. SensIt performs sensitivity analysis on your worksheet what-if model and creates simple plots, spider charts, and tornado charts. Sensitivity analysis can help you determine which of your input assumptions are critical. RiskSim provides random number generator functions for model inputs, automates Monte Carlo simulation, and creates Excel charts for a histogram and the cumulative distribution of the output variable. TreePlan helps you build decision tree diagrams.

These instructions are appropriate for installing the SensIt add-in (for sensitivity analysis), the RiskSim add-in (for Monte Carlo simulation) and the TreePlan add-in (for decision trees).

For each add-in, all of the functionality, including its built-in help, is a part of the single XLA file. There is no separate setup file or help file. When you use one of these add-ins on a Windows computer, it does not create any Windows Registry entries (although Excel may use such entries to keep track of its add-ins).

3.2 THE ADD-IN XLA FILE

EXE, ZIP, and XLA Files

As an example, a version of the SensIt add-in file could be named sens133s.xla, where "sens" is an abbreviation of SensIt, "133" indicates version 1.33, and "s" indicates standard license (and "t" indicates tryout license and "a" indicates academic license). Similarly, "risk" and "tree" are the first-four-letter abbreviations for the RiskSim and TreePlan files. Excel recognizes only the XLA file, not a ZIP file or an EXE file.

To view file extensions in the Windows XP operating system, choose Start | My Computer | Tools | Folder Options | View. In the Advanced settings list, uncheck Hide extensions for known file types, click Apply to All Folders, and click OK. In Windows Vista, choose Start | Control Panel, and double-click Folder Options. In Macintosh OS, choose Finder | Preferences | Advanced | Show all file extensions.

You may receive or download the add-in as a compressed ZIP file, e.g., sens133s.zip. To extract the XLA file using the Windows XP operating system, right-click the ZIP file, and choose Open With Compressed (zipped) Folder. Alternatively, download the WinZip evaluation version from www.winzip.com to extract the XLA file.

The SensIt, RiskSim, or TreePlan software may be received as an executable program file with an EXE extension, e.g., sens133s.exe. The EXE file contains the add-in ZIP file and software to extract or "unzip" the ZIP file. To extract the XLA file using a Windows operating system, double-click the EXE file, or right-click and choose Open. On a Macintosh, you may be able to extract using the free StuffIt Expander, available from www.stuffit.com.

The SensIt, RiskSim, and TreePlan XLA files may be combined in a single ZIP or EXE file, in which case the multiple XLA files are extracted.

There are several ways to open or install the add-in XLA file. Use the appropriate method in one of the following sections:

> Opening an Add-in in Excel 2007
>
> Installing an Add-in in Excel 2007
>
> Opening an Add-in in Excel 2003
>
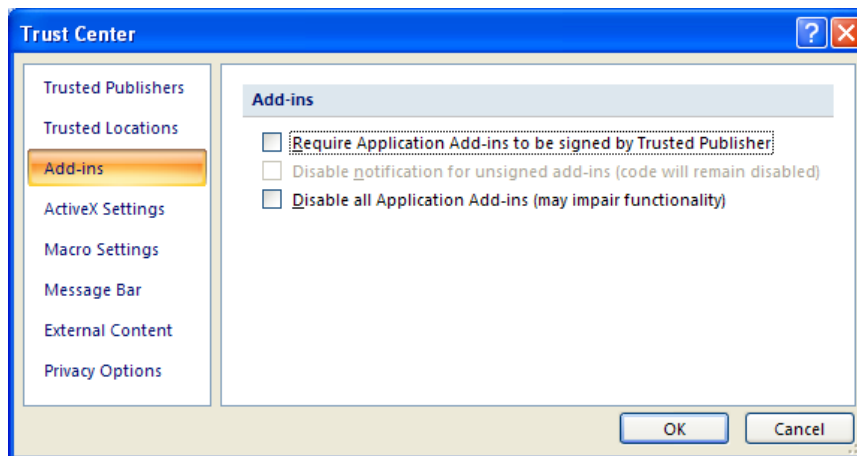> Installing an Add-in in Excel 2003
>
> Other Methods for Using an Add-in

The instructions for Excel 2003 are generally appropriate for earlier versions of Excel.

3.3 OPENING AN ADD-IN IN EXCEL 2007

The simplest method of using an add-in does not require any installation step. Start Excel, and choose Office Button | Open. This method is particularly useful when you want to use an add-in temporarily on another computer. Do not try to open the XLA file by double-clicking.

Each add-in XLA file is an unsigned macro file. To avoid a security warning each time you use an add-in in Excel 2007, choose Office Button | Excel Options | Trust Center | Trust Center Settings | Add-ins, uncheck all checkboxes as shown in Figure 3.1, and click OK.
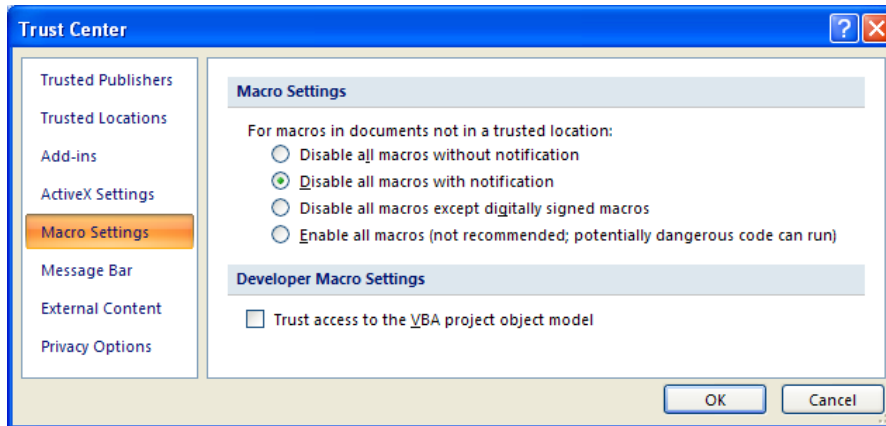
Figure 3.1 Excel 2007 Trust Center Add-Ins Settings

To use Excel's Office Button | Open command to load the an add-in XLA file, first choose Office Button | Excel Options | Trust Center | Trust Center Settings | Macro Settings | Disable all macros

with notification, as shown below, and click| OK | OK. You could also use the Office Button | Open command to load the XLA file if you choose "Enable all macros," but that setting is not recommended.

Figure 3.2 Excel 2007 Trust Center Macro Settings

When you use the "Disable all macros with notification" setting in Excel 2007 and open the XLA file, you will see security notice shown below. You must click Enable Macros if you wish to use the add-in's features.
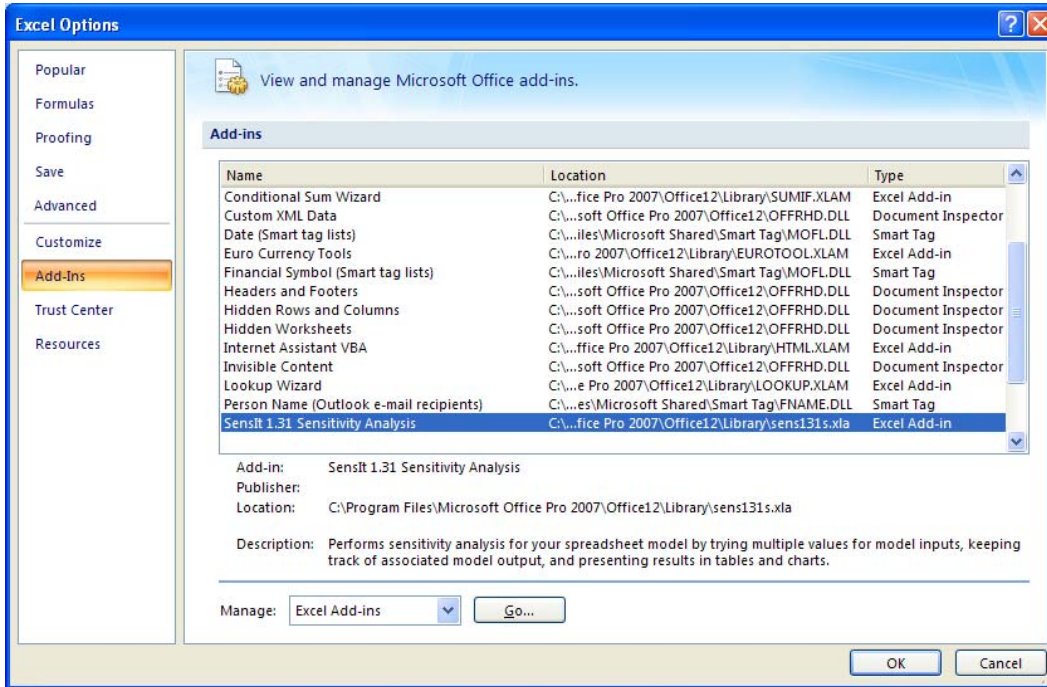
Figure 3.3 Excel 2007 Security Notice

To use the add-in, on the Add-Ins ribbon in the Menu Commands area, choose Sensitivity Analysis (SensIt), Risk Simulation (RiskSim), or Decision Tree (TreePlan).

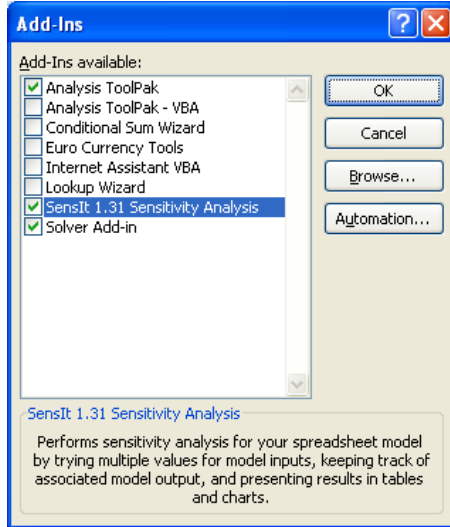# 3.4 INSTALLING AN ADD-IN IN EXCEL 2007

Copy the add-in XLA file to the Program Files \ Microsoft Office \ Office12 \ Library folder. On Windows Vista you must have Administrator privileges to move a file into the Library folder. As an alternative, if you do not have Administrator privileges, you may be able to move the file into

the C:\ Users \ *UserName* \ AppData \ Roaming \ Microsoft \ AddIns folder. The next time you run Excel 2007, choose Office Button | Excel Options | Add-Ins, and you will see the add-in listed as one of the inactive application add-ins, as shown below.

Figure 3.4 Excel 2007 Excel Options Add-Ins Dialog Box

To activate the add-in, select Excel Add-ins in the Manage drop-down list shown above, and click the Go button. In the Add-In Manager dialog box, click to put a check in the checkbox for the add-in, as shown in Figure 3.5, and click OK.

Figure 3.5 Excel 2007 Add-In Manager

To use the add-in, on the Add-Ins ribbon in the Menu Commands area, choose Sensitivity Analysis (SensIt), Risk Simulation (RiskSim), or Decision Tree (TreePlan).
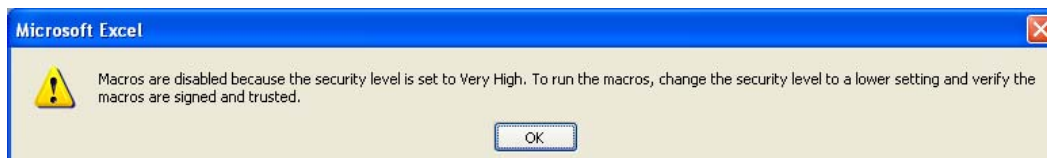
Uninstalling an Add-in in Excel 2007

Excel's add-in manager keeps track of the location of the XLA file. To uninstall, first delete, move, or rename the XLA file so that Excel can no longer find it. After the XLA file no longer exists where Excel expects to find it, start Excel. To delete the missing add-in from the add-in list, choose Office Button | Excel Options | Add-Ins | Manage Excel Add-Ins | Go, select the add-in file name in the "Add-Ins available" list, i.e., check or uncheck the box, and respond to the prompt to delete it from the list.

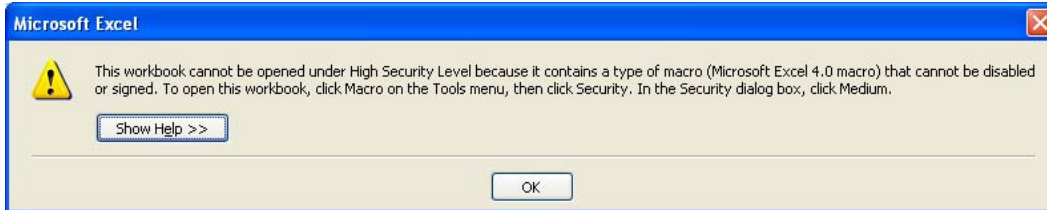## 3.5 OPENING AN ADD-IN IN EXCEL 2003

The simplest method of using an add-in does not require any installation step. Start Excel, and use Excel's File | Open command to open the add-in XLA file. This method is particularly useful when you want to use an add-in temporarily on another computer. Do not try to open the XLA file by double-clicking.

When you use Excel to open the SensIt or RiskSim XLA file on Windows computers, if Excel's security level is set to High or Very High, you may see a warning similar to Figure 3.6.

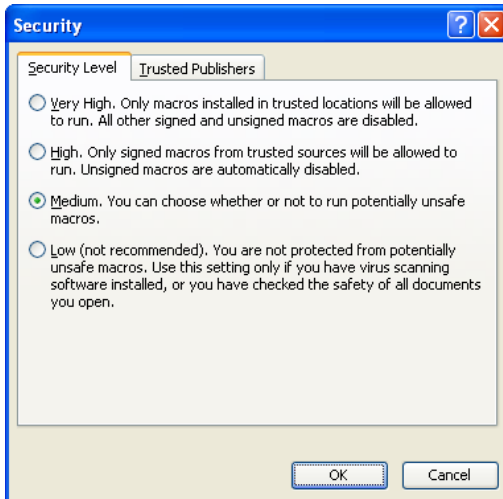**Figure 3.6** Excel 2003 Security Warning With Very High Security Level

SensIt and RiskSim are written in the Excel VBA programming language, and TreePlan is written in the Excel 4.0 macro programming language. When you use Excel to open the TreePlan XLA file on Windows computers, if Excel's security level is set to High or Very High, you may see a warning similar to Figure 3.7.

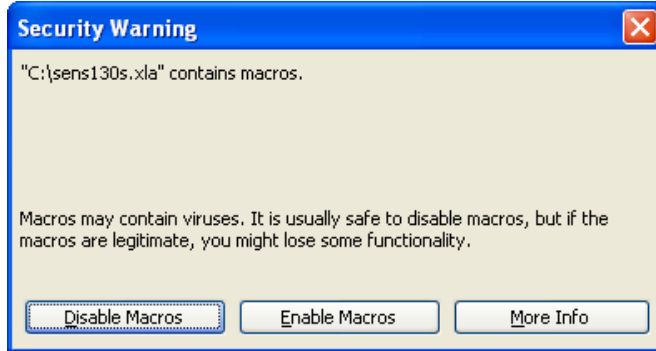**Figure 3.7** Excel 2003 Security Warning For TreePlan

Since each add-in is an unsigned macro, it is automatically disabled if Excel's security level is High or Very High. To use an add-in, start Excel, choose Tools | Macro | Security | Security Level, click Medium, and click OK, as shown in Figure 3.8. Then open the add-in XLA file.
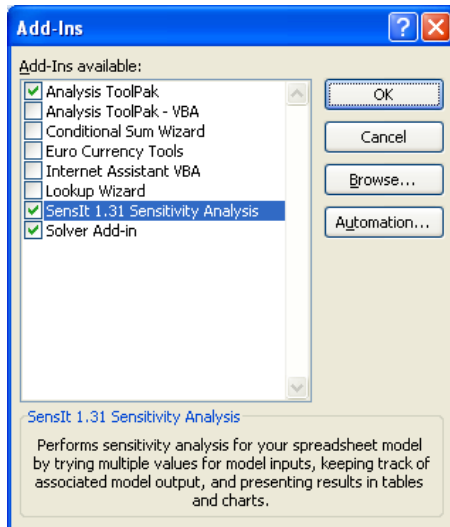
Figure 3.8 Excel 2003 Tools Macro Security Level

If the Security Level is set to Medium or Low when you open the add-in XLA file, you may see the warning shown in Figure 3.9. Click the Enable Macros button. To use the add-in's features, choose Sensitivity Analysis (SensIt), Risk Simulation (RiskSim), or Decision Tree (TreePlan) on Excel's Tools menu.

Figure 3.9 Excel 2003 Security Warning With Medium Security Level

In summary, to use Excel's File | Open command to load the an add-in XLA file, you must choose Tools | Macro | Security | Security Level | Medium, and you must click the Enable Macros button in the Security Warning dialog box.
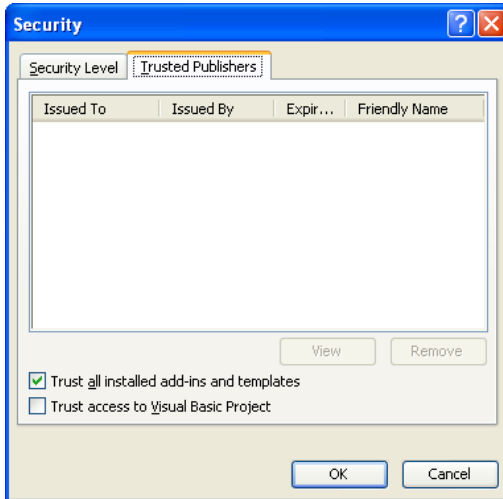
3.6 INSTALLING AN ADD-IN IN EXCEL 2003

For Windows computers, copy the add-in XLA file to the Program Files \ Microsoft Office \ Office11 \ Library folder of your hard drive. The next time you start Excel, the add-in will automatically appear in Excel's add-in manager. Start Excel, and use Excel's Tools | Add-Ins command to load and unload the add-in as needed by checking or unchecking the add-in's checkbox, as shown in Figure 3.10.

Figure 3.10 Excel 2003 Add-In Manager

Since the Library folder is a trusted location, you can set the security level to High or Very High and avoid security warnings when the add-in is loaded. Choose Tools | Macro | Security | Trusted Publishers, check the box for "Trust all installed add-ins and templates," and click OK, as shown

in Figure 3.11. To run an add-in during the same session when you change this setting, you may have to choose Tools | Add-Ins, uncheck the add-in in the list, click OK, choose Tools | Add-Ins again, check the add-in in the list, and click OK.

Figure 3.11 Excel 2003 Tools Macro Security Trusted Publishers

In summary, if you put the add-in XLA file in the Library folder on a Windows computer, you should choose Tools | Macro | Security | Trusted Publishers, and check the box for "Trust all installed add-ins and templates."

Uninstalling an Add-in in Excel 2003

Excel's add-in manager keeps track of the location of the XLA file. To uninstall an add-in, first delete, move, or rename the XLA file so that Excel can no longer find it. After the XLA file no longer exists where Excel expects to find it, start Excel, choose Tools | Add-Ins, check or uncheck the add-in's box, and answer the prompt for deleting the add-in from the list.

3.7 OTHER METHODS FOR USING AN ADD-IN

Another method for using an add-in is to place the add-in XLA file in Excel's XLStart folder, where it will be automatically opened when you start Excel without being installed via the add-in manager. And yet another method is to place the XLA file in any arbitrary folder and then install it using the add-in manager.

Add-In File in XLStart Folder

For Windows computers, copy the add-in XLA file to the Program Files \ Microsoft Office \ Office \ XLStart folder of your hard drive. The file will be opened every time you start Excel. Alternatively, copy the add-in XLA file to Documents and Settings \ *User name* \ Application Data \ Microsoft \ Excel \ XLStart, where *User name* is your Windows user name.

If you put the add-in XLA file in an XLStart folder on a Windows computer, you should choose Tools | Macro | Security | Trusted Publishers, and check the box for "Trust all installed add-ins and templates."

For Macintosh, copy the add-in XLA file to the Macintosh HD : Applications : Microsoft Office : Office : Startup : Excel folder.

To uninstall an add-in, delete the XLA file or move the XLA file from the Windows XLStart folder or from the Macintosh Startup : Excel folder.

Add-In File in Arbitrary Folder

Copy the add-in XLA file to a folder of your choice on the hard drive. For Windows computers with Excel 2003, start Excel, choose Tools | Add-Ins | Browse, navigate to the location of the add-in XLA file, select it, and click OK. To navigate in Excel 2007, choose Office Button | Excel Options | Add-Ins | Manage Add-Ins | Go | Browse. Subsequently, use Excel's Tools | Add-Ins command to load and unload the add-in as needed by checking or unchecking the add-in's checkbox.

If you put the add-in XLA file in an arbitrary folder on a Windows computer and specify its location using Tools | Add-Ins | Browse, you should choose Tools | Macro | Security | Trusted Publishers, and check the box for "Trust all installed add-ins and templates."

For Macintosh, start Excel, choose Tools | Add-Ins | Select, navigate to the location of the add-in XLA file, select it, and click Open.

Excel's add-in manager keeps track of the location of the XLA file. To uninstall an add-in, first delete, move, or rename the XLA file so that Excel can no longer find it. After the XLA file no longer exists where Excel expects to find it, start Excel, choose the add-in manager, check or uncheck the add-in's box, and answer the prompt for deleting the add-in from the list.