If you have several certificates from which to choose, and the desired certificate doesn't appear in the Sign dialog box, you can click Change to display the Select Certificate dialog box. In the Select Certificate dialog box, click the certificate with which you want to sign the workbook, and then click OK. The Select Certificate dialog box closes, and the certificate with which you signed the workbook appears in the Sign dialog box. As before, click Sign to sign your document by using the digital certificate.

In this exercise, you'll create a digital certificate and digitally sign a workbook by using the certificate.

> **IMPORTANT** You must have a digital certificate, such as one generated by selfcert.exe or purchased through a third-party vendor, to complete this exercise. If you don't have a third-party digital certificate and don't have selfcert.exe installed on your computer, read through the steps of the procedure to become familiar with the process.

➡ SET UP **You need the ProjectionsSigned workbook located in the Chapter14 practice file folder to complete this exercise. Open the workbook, and then follow the steps.**

1 On the drive where you installed Office 2013, navigate to the folder (such as *C:\Program Files (x86)\Microsoft Office\Office15*) that contains the Office 2013 program files, and then double-click **selfcert.exe**. The **Create Digital Certificate** dialog box opens.
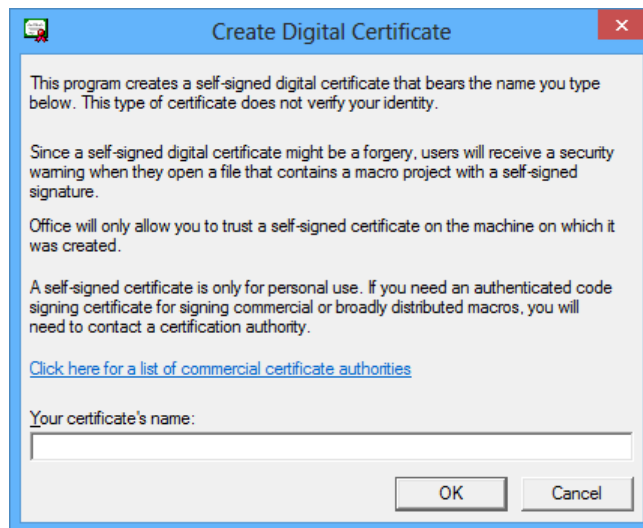
2   In the **Your certificate's name** box, enter **Excel2013SBS**, and then click **OK**. When you do, a message box indicates that the program created your certificate successfully.

3   Click **OK** to close the message box.

4   Display the **Backstage** view, and then, if necessary, click **Info**. Click **Protect Workbook**, and then click **Add a Digital Signature** to open the **Sign** dialog box.
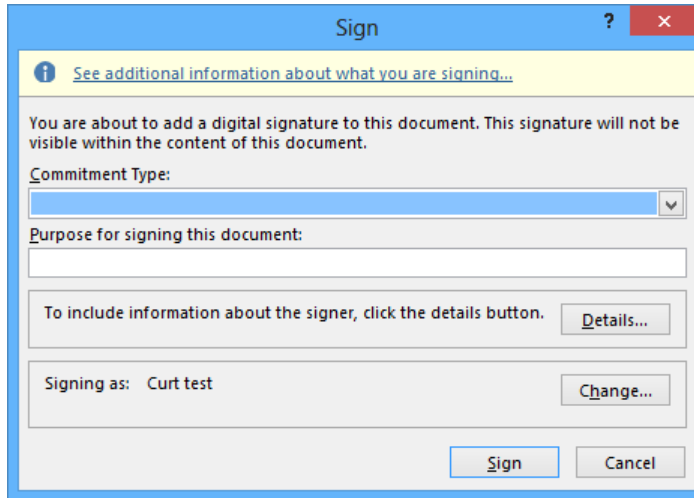
5   In the **Purpose for signing this document** box, enter **Testing**.

6   Verify that the name of your certificate appears in the **Signing as** area of the dialog box, and then click **Sign**. When you do, a dialog box opens, indicating that using a selfcert.exe certificate prevents users from validating the signature.

7   Click **OK** to acknowledge the message and display the **Signature Confirmation** dialog box.

8   Click **OK**. The **Signatures** pane opens and the workbook is marked as final. If you edit the workbook, it will invalidate the digital signature, which is based on the workbook's contents at the time you signed it.

❌ CLEAN UP **Close the ProjectionsSigned workbook, saving your changes if you want to.**

14

Saving workbooks as web content

With Excel, you can save your workbooks as web documents, so you and your colleagues can view workbooks over the Internet or an organization's intranet. For a document to be viewable on the web, it must be saved as an HTML file. These files, which end with either an *.htm* or an *.html* extension, include tags that tell a web browser such as Windows Internet Explorer how to display the contents of the file.

For example, you might want to set the data labels in a workbook apart from the rest of the data by using bold text for the labels. The coding that you use in an HTML file to indicate that text should be displayed as bold is *...*, where the ellipsis between the tags is replaced by the text to be displayed. So the following HTML fragment would be displayed as **Excel** in a webpage.

```
<b>Excel</b>
```

You can create HTML files in Excel by displaying the Backstage view, and then clicking Save As to open the Save As dialog box. To save a workbook as an HTML file, click the Save As Type arrow, and then click Web Page. In the Save As dialog box, click Entire Workbook, enter a name for the file in the File Name box, and click Save to have Excel create an HTML document for each sheet in the workbook.

TIP If the only sheet in your workbook that contains data is the one displayed when you save the workbook as a webpage, Excel saves only that worksheet as a webpage.

After you save an Excel workbook as a set of HTML documents, you can open it in your web browser. To open the Excel file, start Internet Explorer, and then click Open in the Backstage view to open the Open dialog box. In the Open dialog box, click the Browse button to open the Windows Internet Explorer dialog box. You can use the commands in that dialog box to identify the file you want to open.

When you double-click the file you want to open, the Windows Internet Explorer dialog box closes and the file's name and path appear in the Open box. To display the Excel workbook, click OK, and the workbook appears in Internet Explorer. You can move among the workbook's worksheets by clicking the sheet tabs in the lower-left corner of the page.

When you save a workbook to an organization's intranet site, you can share data with your colleagues. For example, Consolidated Messenger's chief operating officer, Lori Penor, could save a daily report on package misdeliveries to her team's intranet site so that everyone could examine what happened, where the problem occurred, and how to fix the problem. It's also possible to save a workbook as a web file that retains a link to the original workbook. Whenever someone updates the workbook, Excel updates the web file to reflect the new content.

To publish a workbook to the web, display the Backstage view, click Save As and then, in the Save As Type list, click Web Page. When you do, Excel displays the Publish button; when you click the Publish button, the Publish As Web Page dialog box opens.

14
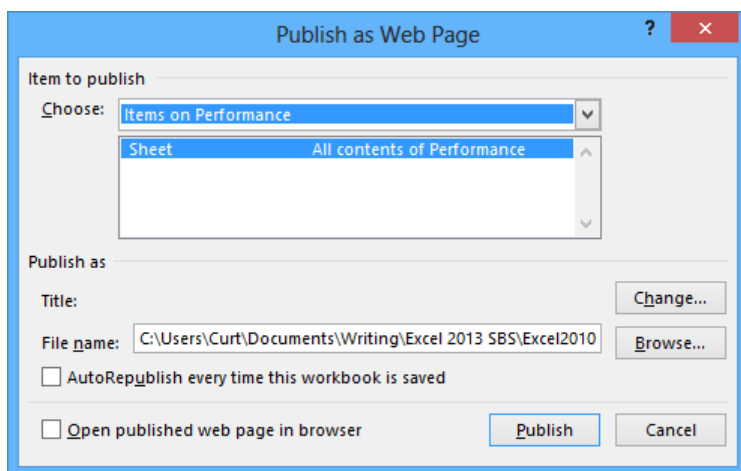
You can use the options in the Publish As Web Page dialog box to select which elements of your workbook you want to publish to the web. Clicking the Choose arrow displays a list of publishable items, including the option to publish the entire workbook, items on specific sheets, or a range of cells. To have Excel update the webpage whenever someone updates the source workbook, select the AutoRepublish Every Time This Workbook Is Saved check box. You can also specify what text appears on the web page's title bar. To do so, click the Change button, enter the page title in the Set Title dialog box, and click OK. When you save a workbook that has AutoRepublish turned on, Excel displays a dialog box that indicates that the changes will update the associated web file.

> **IMPORTANT** When you save a PivotTable to the web, the PivotTable doesn't retain its interactivity. Instead, Excel publishes a static image of the PivotTable's current configuration. For information about publishing a workbook with an interactive PivotTable to the web, see "Working with SkyDrive and Excel Web App" later in this chapter.

In this exercise, you'll save a workbook as a webpage and then publish a worksheet's PivotTable to the web.

➡ SET UP **You need the ShipmentSummary workbook located in the Chapter14 practice file folder to complete this exercise. Open the workbook, and then follow the steps.**

1 Display the **Backstage** view, and then click **Save As** to display the **Save As** page.

2 Click the **Browse** button to open the **Save As** dialog box.

3 In the **File name** box, enter **ShipmentSummaryWeb**.

4 In the **Save as type** list, click **Web Page**. The **Save As** dialog box changes to reflect the **Web Page** file type.
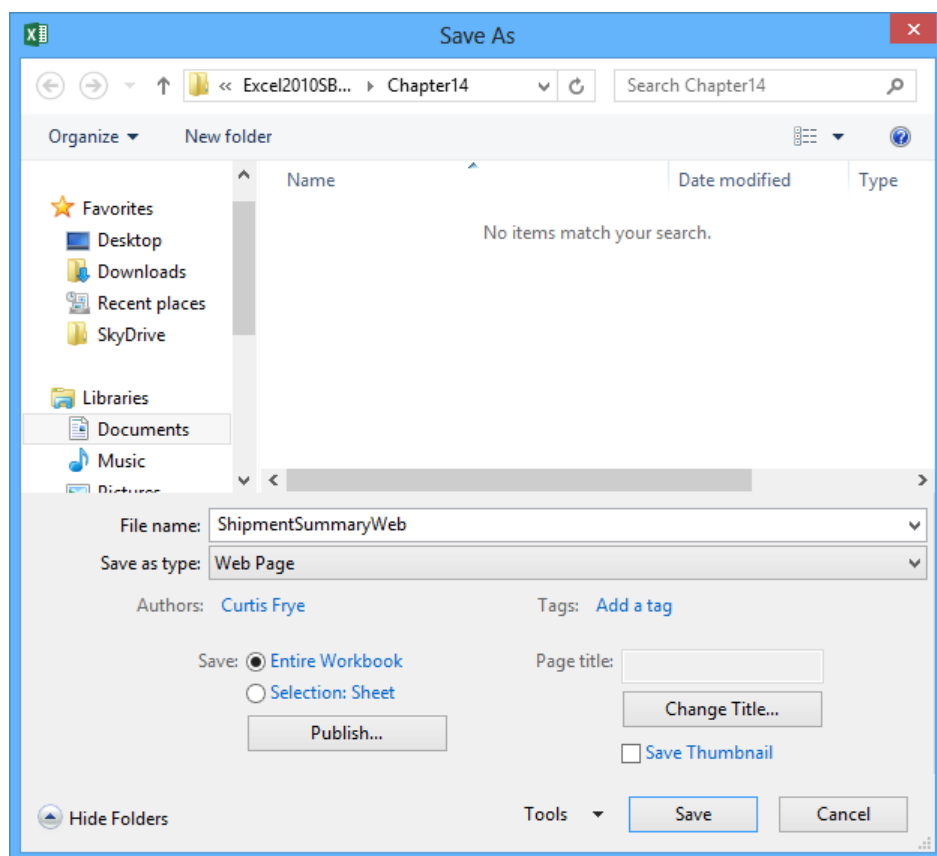
5   Click **Save**. When you do, a warning message box appears, indicating that the work-book might contain elements that can't be saved in a webpage.

6   Click **Yes** to save the workbook as a web file. The message box closes, and Excel saves the workbook as a webpage.

7 Display the **Backstage** view, and then click **Close**.

8 In the **Backstage** view, click **Open**, click **Recent Workbooks**, and then, in the list of recently viewed files, click **ShipmentSummary** to open the **ShipmentSummary** workbook.

9 In the **Backstage** view, click **Save As**, and then click **Browse** to open the **Save As** dialog box.

10 In the **File name** box, enter **ShipmentSummaryPublish**.

11 In the **Save as type** list, click **Web Page**. The **Save As** dialog box changes to reflect the **Web Page** file type.

12 Click **Publish** to open the **Publish as Web Page** dialog box.

13 In the **Choose** list, click **Items on Sheet2** to display the available items on **Sheet2**.
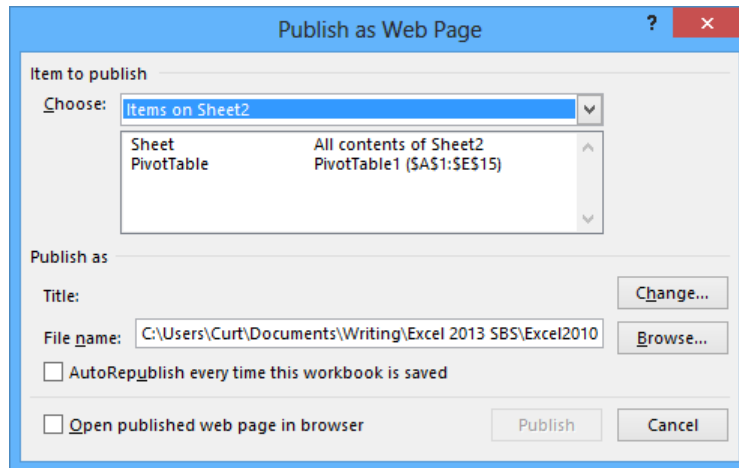
14 In the **Item to publish** list, click **PivotTable**.

15 Select the **AutoRepublish every time this workbook is saved** check box.

16 Click **Publish** to publish the PivotTable to a webpage. Excel will update the contents of the webpage whenever a user saves the **ShipmentSummary** workbook.

✖ CLEAN UP **Close the ShipmentSummary workbook, saving your changes if you want to.**

Importing and exporting XML data

By using HTML, you can determine how a document will be displayed in a web browser, such as by telling Internet Explorer to display certain text in bold type or to start a new paragraph. However, HTML doesn't tell you anything about the meaning of data in a document. Internet Explorer might "know" it should display a set of data in a table, but it wouldn't "know" that the data represented an Excel spreadsheet.

You can add metadata, or data about data, to web documents by using XML. Although a full discussion of XML is beyond the scope of this book, the following bit of XML code shows how you might identify two sets of three values (Month, Category, and Exceptions) by using XML.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns2:exceptions xmlns:ns2="http://www.w3schools.com">
<exception>
    <Month>January</Month>
    <Category>2Day</Category>
    <Exceptions>14</Exceptions>
</exception>
<exception>
    <Month>January</Month>
    <Category>3Day</Category>
    <Exceptions>3</Exceptions>
</exception>
</ns2:exceptions>
```

XML is meant to be a universal language, allowing data to move freely from one program to another. Excel might display those two sets of Exceptions data as rows of data in an Excel worksheet.

	A	B	C
1	Month	Category	Exceptions
2	January	2Day	14
3	January	3Day	3
4			

14

Other programs could display or process the XML file's contents in other ways, but you wouldn't have to change the underlying XML file. All of the work is done by the other programs' programmers.

To work with XML data in Excel, you must use the controls on the Developer tab. If the Developer tab doesn't appear on the ribbon in your copy of Excel 2013, display the Backstage view, and then click Options to open the Excel Options dialog box. Click Customize Ribbon to display that page of the dialog box and then, in the Main Tabs list in the panel on the right, select the Developer tab's check box.
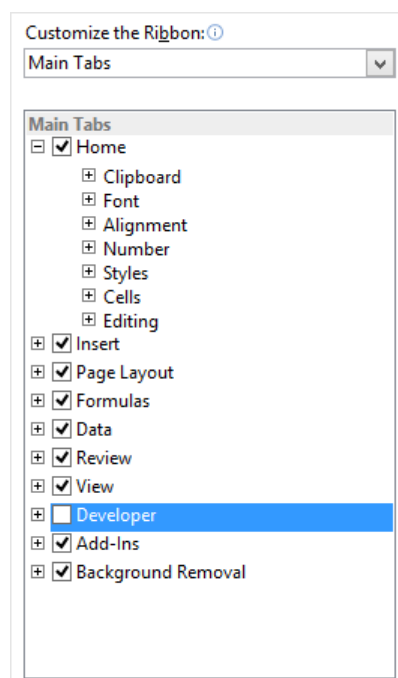
When you click OK, the Developer tab appears on the ribbon.

To import XML data into an Excel worksheet, click the cell in which you want the first value to appear. Next, click the Developer tab and then, in the XML group, click the Import button to open the Import XML dialog box. Click the XML file you want to import and then click Open. When you do, Excel will display a dialog box that indicates that the XML source file doesn't refer to a schema, so the program will create one for you. Click OK, verify that the cell you selected appears in the XML Table In Existing Worksheet box of the next dialog box that opens, and click OK to import the data.
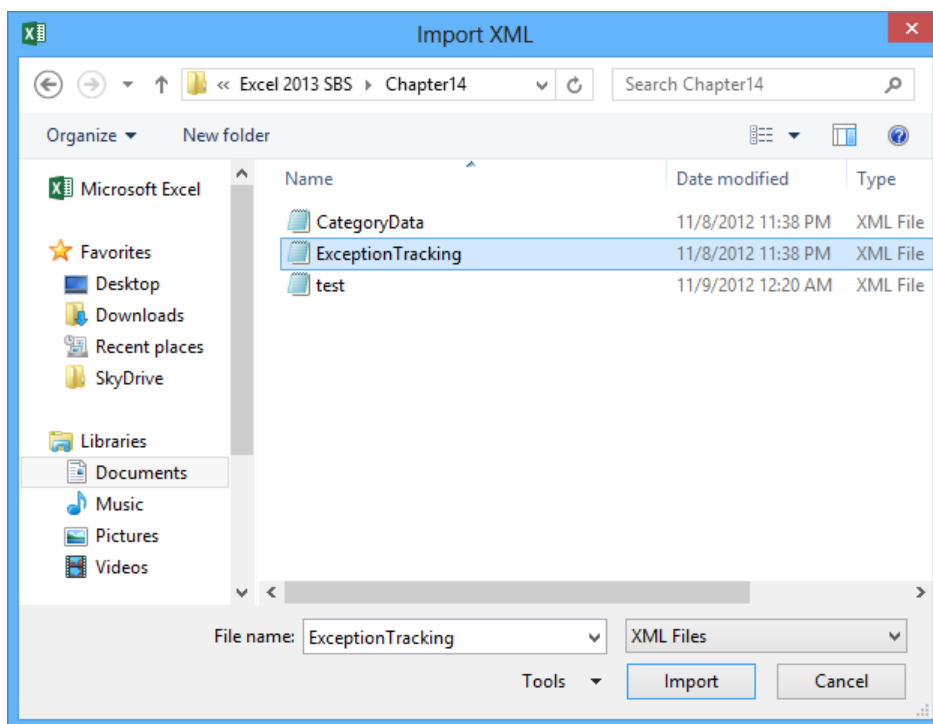
TIP If you think the XML data file has changed, click the Refresh Data button in the Developer tab's XML group to update your worksheet.

14

To export XML data, click any cell in an XML table and then, on the Developer tab, click the Export button to display the Export XML dialog box. Navigate to the folder in which you want to export your data, enter a name for the file, ensure that the Save As Type field's value is XML Files, and click Export.

For programs to process XML data properly, developers must create a formal model of the data's structure. That model is called a schema. The schema for the Exceptions data collection is as follows.

```xml
<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
           targetNamespace="http://www.w3schools.com"
           xmlns="http://www.w3schools.com"
           elementFormDefault="qualified">
 <xs:element name="exception">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Month"      type="xs:string"/>
      <xs:element name="Category"   type="xs:string"/>
      <xs:element name="Exceptions" type="xs:integer"/>
    </xs:sequence>
  </xs:complexType>
 </xs:element>
</xs:schema>
```

Toward the bottom of the schema's text are the elements for Month, Category, and Exceptions, plus their data types. Creating a schema is a technical challenge that's beyond the scope of this book, but Excel can create a schema from your XML data for all but the most complicated data sets.

In this exercise, you'll display the Developer tab of the ribbon, import XML data into a workbook, create a schema based on the structure of the data, and then export the data to another XML file.

1   If the **Developer** tab doesn't appear on the ribbon, display the **Backstage** view, and then click **Options** to open the **Excel Options** dialog box.

2   In the **Excel Options** dialog box, click **Customize the Ribbon** to display that page of the dialog box.

3   In the **Customize the Ribbon** list at the right side of the dialog box, select the **Developer** check box to indicate that you want Excel to display that tab on the ribbon.

4   Click **OK** to apply your changes.

5   Click the **Developer** tab, and then, in the **XML** group, click **Import** to open the **Import XML** dialog box.

6   Navigate to the **Chapter14** practice file folder, click **ExceptionTracking**, and then click **Open** to start the import process.

7   In the alert box that appears, click **OK** to have Excel create a schema for the imported data and display the **Import Data** dialog box.

8   Verify that cell **A1** appears in the **XML table in existing worksheet** box, and then click **OK** to import the data.

	A	B	C	D
1	Month	Category	Exceptions	
2	January	2Day	14	
3	January	3Day	3	
4	January	Ground	7	
5	January	Overnight	1	
6	January	PriorityOvernight	0	
7	February	2Day	9	
8	February	3Day	2	
9	February	Ground	20	
10	February	Overnight	10	
11	February	PriorityOvernight	0	
12				

9   With the active cell still in the imported data range, click the **Developer** tab and then, in the **XML** group, click **Export**. The **Export XML** dialog box opens.

14
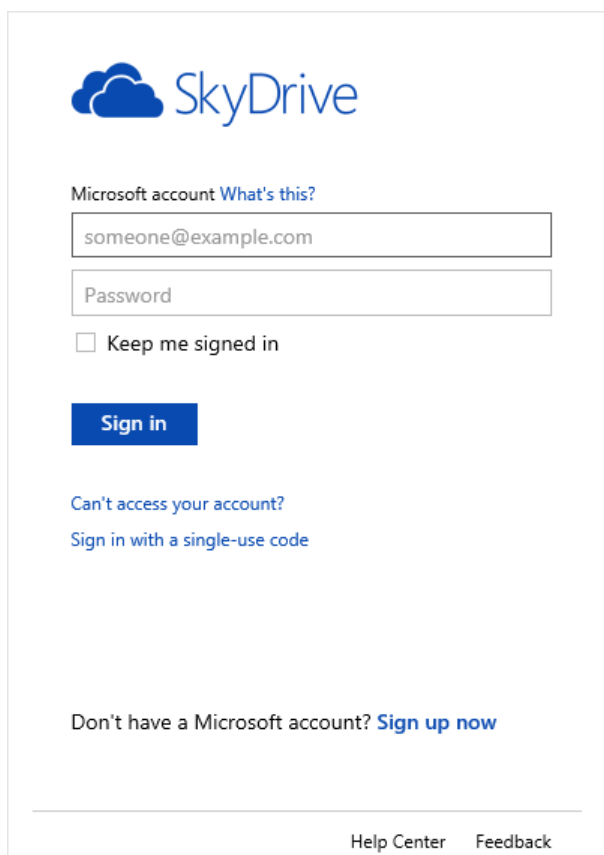
10   In the **File name** field, enter **ExceptionsExport**, and then click the **Export** button to create your new XML file.

✖ CLEAN UP **Close the CategoryXML workbook, saving your changes if you want to.**

Working with SkyDrive and Excel Web App

As information workers become increasingly mobile, they need to access their data from anywhere and to have a single version of a file to which they can turn. Excel 2013 is integrated with SkyDrive, a Microsoft cloud service that stores your files remotely and lets you access them over the Internet.

To use SkyDrive, go to *www.skydrive.com*. You will need a Microsoft account to use SkyDrive.

If you don't have a Microsoft account, click the Sign Up Now link to create one. After you create your account, sign in by using those credentials. When you do, the Files page of your SkyDrive account is displayed.
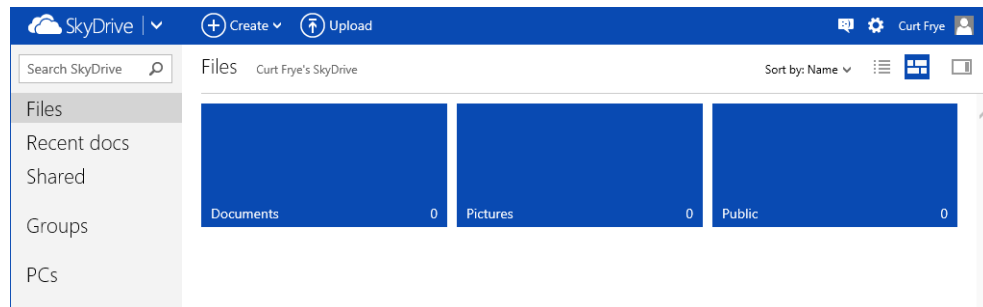
You can upload files to your SkyDrive account by clicking the Upload button on the menu bar at the top of the page and then clicking Select Them From Your Computer to display the Open dialog box. Select the files you want to upload, and click Open to add them to your account.

To open a folder, such as Documents, Pictures, or Public, click that folder in the Files pane. You can create a new folder anywhere in the SkyDrive site structure by clicking the Create button and then clicking Folder.

14
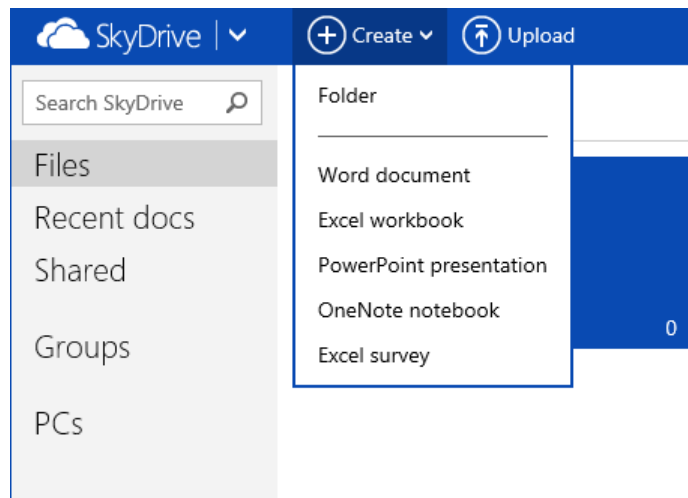
When you click Create, SkyDrive also displays options to create a Word document, an Excel workbook, a PowerPoint presentation, a OneNote notebook, or an Excel survey. If you click Create and then click Excel Workbook, SkyDrive displays the New Microsoft Excel Workbook dialog box. Enter a name for the new file, and then click Create to create it by using Excel Web App.
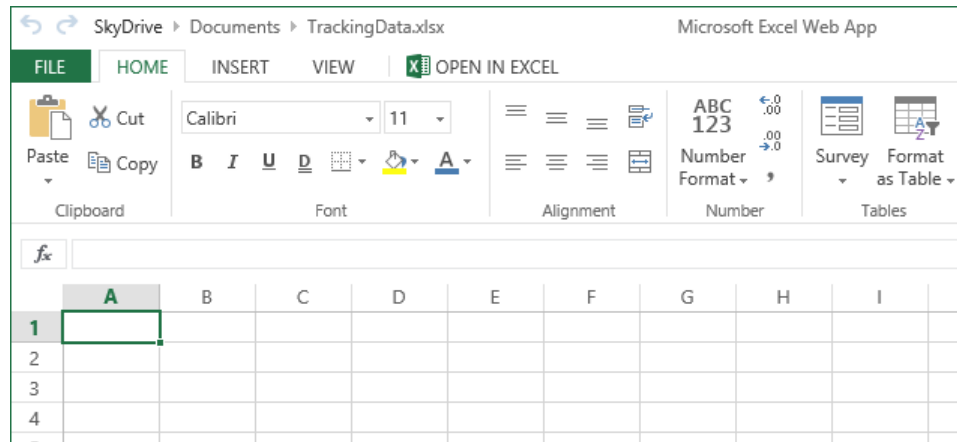
TIP Excel Web App saves your workbook every time you edit a cell, so there's no Save button on the Quick Access Toolbar.

Excel Web App provides a rich set of capabilities that you can use to create new workbooks and edit workbooks you created in the desktop version of the program. If you find you need some features that aren't available in Excel Web App, click Open In Excel on the ribbon to open the file in the Excel 2013 desktop program.

TROUBLESHOOTING You might encounter a series of dialog boxes that ask you to sign back in to your Microsoft account and to provide other information. These queries are normal and expected.

In this exercise, you'll upload an Excel workbook to your SkyDrive account, open the workbook in Excel Web App, and open the file in the Excel desktop program.

> **IMPORTANT** You need an active SkyDrive account and a working Internet connection to successfully complete the following exercise.

➜ SET UP **You need the SkyDriveFile workbook located in the Chapter14 practice file folder to complete this exercise. Don't open the workbook yet; just follow the steps.**

1 Start Internet Explorer, go to **http://www.skydrive.com**, and sign in to your SkyDrive account.

2 On the menu bar at the top of the SkyDrive **Files** page, click **Upload** to open the **Choose File to Upload** dialog box.

3 Navigate to the **Chapter14** practice file folder, click **SkyDriveFile**, and then click **Open** to upload your file.

4 When SkyDrive displays a dialog box that indicates that the file was uploaded successfully, click the **Close** button in the dialog box to dismiss it.

5 In SkyDrive, click the **SkyDriveFile** workbook's tile to open it in Excel Web App.

6 Click cell **A14**, enter April into the cell, and press **Tab**; enter Ground into cell **B14** and press **Tab**; then enter 102 in cell **C14** and press **Enter**.

7   On the Excel Web App ribbon, click **Open in Excel** to start the process of opening the file in the Excel desktop program.

8   Click **Yes** or **OK** as appropriate to clear the message boxes that appear. When you're done, the **SkyDriveFile** workbook opens in Excel.

9   Close Excel. Then, in Internet Explorer, click **Close the Excel Web App** to indicate that you opened the file successfully in the desktop program.

❌ CLEAN UP **Exit Internet Explorer and, if necessary, Excel.**

Key points

- When you share a workbook, more than one user can view and edit the data at one time, which is useful in group projects in which each member has a distinct area of responsibility.

- You can send files by email to efficiently collaborate with colleagues.

- You can add comments to cells to quickly let your colleagues know what you're thinking without taking up valuable space in a cell.

- Tracking changes is vital when you share responsibility for a workbook with several other people.

- When your workbook's data is too important to leave lying around in the open, use passwords to protect all or part of the file!

- Authenticating workbooks with digital signatures helps to identify the source of your files, so you won't have to guess about the origins of that next attachment in your email Inbox.

- Saving a workbook as a web-accessible HTML document is as easy as saving it as a regular Excel file, and opening a workbook saved for the web is just as easy as opening any other webpage.

- Use the AutoRepublish feature to update Excel files on the web. Whenever anyone changes the original workbook, Excel writes the edits to the HTML version of the file.

- You can import and export XML data in Excel 2013. When you import XML data, Excel creates the schema required to manage the data within the program.

- With SkyDrive and Excel Web App, you can work with data in the native Excel 2013 workbook format wherever you have web access. If you have Excel 2013 installed on your computer, you can open a file stored on SkyDrive and edit it by using the full power of the desktop program.

14

Glossary

3-D reference A pattern for referring to the workbook, worksheet, and cell from which a value should be read.

absolute reference A cell reference, such as B3, that doesn't change when you copy a formula that contains the reference to another cell. See also *relative reference*.

active cell The cell that is currently selected and open for editing.

add-in A supplemental program that can be used to extend functions in Excel.

alignment The manner in which a cell's contents are arranged within that cell (for example, centered).

arguments The specific data that a function requires to calculate a value.

aspect ratio The relationship between a graphic's height and its width.

auditing The process of examining a worksheet for errors.

AutoComplete The Excel functionality that completes data entry for a cell based on similar values in other cells in the same column.

AutoFill The Excel functionality that extends a series of values based on the contents of a single cell. See also *FillSeries, Flash Fill*.

AutoFilter An Excel tool that you can use to create filters.

AutoRepublish An Excel technology that maintains a link between a web document and the worksheet on which the web document is based, and updates the web document whenever the original worksheet is saved.

Backstage view A view introduced in Excel 2010, accessed by clicking the File tab, that gathers workbook management tasks into a single location.

browser A program with which users view web documents.

cell The box at the intersection of a row and a column.

cell range A group of cells.

cell reference The letter and number combination, such as C16, that identifies the row and column intersection of a cell.

chart A visual summary of worksheet data; also called a *graph*.

column Cells that are on the same vertical line in a worksheet.

conditional format A format that is applied only when cell contents meet specific criteria.

conditional formula A formula that calculates a value by using one of two different expressions, depending on whether a third expression is true or false.

data bar A horizontal line within a cell that indicates the relative magnitude of the cell's value.

data consolidation Summarizing data from a set of similar cell ranges.

dependent A cell with a formula that uses the value from a particular cell.

Document Inspector A utility with which you can inspect an Excel workbook for personal information, tracked changes, and other sensitive data.

embed To save a file as part of another file, as opposed to linking one file to another. See also *link*.

error code A brief message that appears in a worksheet cell, describing a problem with a formula or a function.

Excel table An Excel object with which you can store and refer to data based on the name of the table and the names of its columns and rows.

Excel Web App A browser-enabled version of the Excel desktop program.

field A column of data used to create a PivotTable.

fill handle The square at the lower-right corner of a cell that can be dragged to indicate other cells that should hold values in the series defined by the active cell.

FillSeries The ability to extend a series of values based on the contents of two cells, where the first cell has the starting value for the series and the second cell shows the increment. See also *AutoFill*, *Flash Fill*.

filter A rule that Excel uses to determine which worksheet rows to display.

Flash Fill A capability that senses patterns of data combination and separation and offers to continue the pattern for the remainder of the rows in a data list. See also *AutoFill*, *FillSeries*.

format A predefined set of characteristics that can be applied to cell contents.

formula An expression used to calculate a value.

Formula AutoComplete The Excel functionality with which you can enter a formula quickly by selecting functions, named ranges, and table references that appear when you begin to enter the formula into a cell.

formula bar The area just above the worksheet grid that displays the active cell's formula and within which you can edit the formula.

function A predefined formula.

Goal Seek An analysis tool that finds the value for a selected cell that would produce a given result from a calculation.

graph A visual summary of worksheet data; also called a *chart*.

header An area of the worksheet that appears above the contents of the worksheet grid when you print the worksheet or view it in Layout view.

HTML A document-formatting system that tells a web browser such as Windows Internet Explorer how to display the contents of a file.

hyperlink A connection from a hyperlink anchor such as text or a graphic that you can follow to display a link target such as a file, a location in a file, or a website. Text hyperlinks are usually formatted as colored or underlined text, but sometimes the only indication is that when you point to them, the pointer changes to a hand..

icon set A conditional format that uses distinct visual indicators to designate how a value compares to a set of criteria.

landscape mode A display and printing mode whereby columns run parallel to the short edge of a sheet of paper.

link A formula that has a cell show the value from another cell. See also *embed*.

Live Preview A feature of Excel that displays the result of an operation, such as pasting data or applying a cell style, without implementing the change until you complete the operation.

locked cell A cell that cannot be modified if its worksheet is protected.

macro A series of recorded automated actions that can be replayed.

mailto hyperlink A special type of hyperlink with which a user creates an email message to a particular email address.

map A correspondence between an XML schema and an Excel worksheet.

Merge And Center An operation that combines a contiguous group of cells into a single cell. Selecting a merged cell and clicking the Merge And Center button splits the merged cells into the original group of separate cells.

named range A group of related cells defined by a single name.

Paste Options A button that appears after you paste an item from the Microsoft Office Clipboard into your workbook, and which provides options for how the item appears in the workbook.

Pick From List The Excel functionality that you can use to enter a value into a cell by choosing the value from the set of values already entered into cells in the same column.

pivot To reorganize the contents of a PivotTable.

PivotChart A chart, which can be linked to a PivotTable, that can be reorganized dynamically to emphasize different aspects of the underlying data.

PivotTable A dynamic worksheet that can be reorganized by a user.

portrait mode A display and printing mode whereby columns run parallel to the long edge of a sheet of paper.

precedent A cell that is used in a formula.

primary key A field or group of fields with values that distinguish a row of data from all other rows.

property A file detail, such as an author name or project code, that helps identify the file.

Quick Access Toolbar A customizable toolbar that contains a set of commands that are independent of the ribbon.

Quick Analysis A selection of tools that a user can use to summarize data quickly by using formulas and charts.

range A group of related cells.

Recommended Chart A chart, designed by the Excel program, that summarizes a selected data range.

Recommended PivotTable A PivotTable, designed by the Excel program, that summarizes a selected data range.

refresh To update the contents of one document when the contents of another document are changed.

relative reference A cell reference in a formula, such as =B3, that refers to a cell that is a specific distance away from the cell that contains the formula. For example, if the formula =B3 were in cell C3, copying the formula to cell C4 would cause the formula to change to =B4. See also *absolute reference*.

ribbon The tab-based user interface introduced in Microsoft Office 2007.

row Cells that are on the same horizontal line in a worksheet.

scenario An alternative data set with which you view the impact of specific changes on your worksheet.

schema A defined structure that a program can use to interpret the contents of an XML file.

search filter A filter in which you enter a string of characters and have Excel display every value within an Excel table, data set, or PivotTable that contains that character string.

sharing Making a workbook available for more than one user to open and modify simultaneously.

sheet tab The indicator for selecting a worksheet, located at the bottom of the workbook window.

SkyDrive An online service, accessed through a Microsoft account, that a user can use to store data in the cloud.

slicer An Excel tool with which you can filter an Excel table, data list, or PivotTable while indicating which items are displayed and which are hidden.

Solver An Excel add-in that finds the optimal value for one cell by varying the results of other cells.

sort To reorder the contents of a worksheet based on a criterion.

sparkline A compact chart that summarizes data visually within a single worksheet cell.

subtotal A partial total for related data in a worksheet.

template A workbook used as a pattern for creating other workbooks.

theme A predefined format that can be applied to a worksheet.

tracer arrow An arrow that indicates the formulas to which a cell contributes its value (a dependent arrow) or the cells from which a formula derives its value (a precedent arrow).

trendline A projection of future data (such as sales) based on past performance.

validation rule A test that data must pass to be entered into a cell without generating a warning message.

watch Display of a cell's contents in a separate window even when the cell is not visible in the Excel workbook.

what-if analysis Analysis of the contents of a worksheet to determine the impact that specific changes have on your calculations.

workbook The basic Excel document, consisting of one or more worksheets.

worksheet A page in an Excel workbook.

XML A content-marking system with which you store data about the contents of a document in that document.

Keyboard shortcuts

This list of shortcuts is a comprehensive list derived from Microsoft Excel 2013 Help. Some of the shortcuts might not be available in every edition of Excel 2013.

Ctrl combination shortcut keys

Key	Description
Ctrl+Shift+(	Unhides any hidden rows within the selection.
Ctrl+Shift+&	Applies the outline border to the selected cells.
Ctrl+Shift+_	Removes the outline border from the selected cells.
Ctrl+Shift+~	Applies the General number format.
Ctrl+Shift+$	Applies the Currency format with two decimal places (negative numbers in parentheses).
Ctrl+Shift+%	Applies the Percentage format with no decimal places.
Ctrl+Shift+^	Applies the Scientific number format with two decimal places.
Ctrl+Shift+#	Applies the Date format with the day, month, and year.
Ctrl+Shift+@	Applies the Time format with the hour and minute, and A.M. or P.M.
Ctrl+Shift+!	Applies the Number format with two decimal places, thousands separator, and minus sign (-) for negative values.
Ctrl+Shift+*	Selects the current region around the active cell (the data area enclosed by blank rows and blank columns). In a PivotTable, it selects the entire PivotTable report.
Ctrl+Shift+:	Enters the current time.
Ctrl+Shift+"	Copies the value from the cell above the active cell into the cell or the formula bar.
Ctrl+Shift+Plus (+)	Opens the Insert dialog box to insert blank cells.
Ctrl+Minus (-)	Opens the Delete dialog box to delete the selected cells.
Ctrl+;	Enters the current date.
Ctrl+`	Toggles between displaying cell values and displaying formulas in the worksheet.
Ctrl+'	Copies a formula from the cell above the active cell into the cell or the formula bar.
Ctrl+1	Opens the Format Cells dialog box.

Key	Description
Ctrl+2	Toggles to apply or remove bold formatting.
Ctrl+3	Toggles to apply or remove italic formatting.
Ctrl+4	Toggles to apply or remove underlining.
Ctrl+5	Toggles to apply or remove strikethrough.
Ctrl+6	Toggles between hiding and displaying objects.
Ctrl+8	Toggles to display or hide the outline symbols.
Ctrl+9	Hides the selected rows.
Ctrl+0	Hides the selected columns.
Ctrl+A	Selects the entire worksheet. If the worksheet contains data, pressing Ctrl+A selects the current region. Pressing Ctrl+A a second time selects the entire worksheet. When the cursor is to the right of a function name in a formula, pressing Ctrl+A opens the Function Arguments dialog box.
Ctrl+Shift+A	Inserts the argument names and parentheses when the cursor is to the right of a function name in a formula.
Ctrl+B	Toggles to apply or remove bold formatting.
Ctrl+C	Copies the selected cells.
Ctrl+D	Uses the Fill Down command to copy the contents and format of the topmost cell of a selected range into the cells below.
Ctrl+F	Opens the Find And Replace dialog box, with the Find page active. Shift+F5 also displays this page, whereas Shift+F4 repeats the last Find action.
Ctrl+Shift+F	Opens the Format Cells dialog box, with the Font page active.
Ctrl+G	Opens the Go To dialog box. F5 also opens this dialog box.
Ctrl+H	Opens the Find And Replace dialog box, with the Replace page active.
Ctrl+I	Toggles to apply or remove italic formatting.
Ctrl+K	Opens the Insert Hyperlink dialog box for new hyperlinks or the Edit Hyperlink dialog box for selected existing hyperlinks.
Ctrl+L	Opens the Create Table dialog box.
Ctrl+N	Creates a new, blank workbook.
Ctrl+O	Opens the Open dialog box to open or find a file.
Ctrl+Shift+O	Selects all cells that contain comments.
Ctrl+P	Displays the Print page in the Backstage view.
Ctrl+Shift+P	Opens the Format Cells dialog box, with the Font page active.
Ctrl+R	Uses the Fill Right command to copy the contents and format of the leftmost cell of a selected range into the cells to the right.
Ctrl+S	Saves the active file with its current file name, location, and file format.
Ctrl+T	Opens the Create Table dialog box.

Key	Description
Ctrl+U	Toggles to apply or remove underlining.
Ctrl+Shift+U	Toggles between expanding and collapsing the formula bar.
Ctrl+V	Inserts the contents of the Microsoft Office Clipboard at the cursor and replaces any selection. Available only after you have cut or copied an object, text, or cell contents.
Ctrl+Alt+V	Opens the Paste Special dialog box. Available only after you have cut or copied an object, text, or cell contents on a worksheet or in another program.
Ctrl+W	Closes the selected workbook window.
Ctrl+X	Cuts the selected cells.
Ctrl+Y	Repeats the last command or action, if possible.
Ctrl+Z	Performs the Undo command to reverse the last command or to delete the last entry that you entered.

TIP The Ctrl combinations Ctrl+E, Ctrl+J, Ctrl+M, and Ctrl+Q are currently unassigned to any shortcuts.

Function keys

Key	Description
F1	Displays the Excel Help pane.
Ctrl+F1	Displays or hides the ribbon.
Alt+F1	Creates an embedded chart of the data in the current range.
Alt+Shift+F1	Inserts a new worksheet.
F2	Opens the active cell for editing and positions the cursor at the end of the cell contents. It also moves the cursor into the formula bar when editing in a cell is turned off.
Ctrl+F2	Displays the print preview area on the Print page in the Backstage view.
Shift+F2	Adds a cell comment or opens an existing comment for editing.
F3	Opens the Paste Name dialog box. Available only if names exist in the workbook.
Shift+F3	Opens the Insert Function dialog box.
F4	Repeats the last command or action, if possible.
Ctrl+F4	Closes the selected workbook window.
Alt+F4	Exits Excel.

Key	Description
F5	Opens the Go To dialog box.
Ctrl+F5	Restores the window size of the selected workbook window.
F6	Switches between the worksheet, ribbon, pane, and Zoom controls. In a worksheet that has been split, F6 includes the split panes when switching between panes and the ribbon area.
Ctrl+F6	Switches to the next workbook window when more than one workbook window is open.
Shift+F6	Switches between the worksheet, Zoom controls, pane, and ribbon.
F7	Opens the Spelling dialog box to check spelling in the active worksheet or selected range.
Ctrl+F7	Performs the Move command on the workbook window when it is not maximized. Use the arrow keys to move the window, and when finished press Enter or Esc to cancel.
F8	Turns extend mode on or off. In extend mode, *Extended Selection* appears in the status line, and the arrow keys extend the selection.
Ctrl+F8	Performs the Size command (on the Control menu for the workbook window) when a workbook is not maximized.
Alt+F8	Opens the Macro dialog box to create, run, edit, or delete a macro.
Shift+F8	Enables you to add a nonadjacent cell or range to a selection of cells by using the arrow keys.
F9	Calculates all worksheets in all open workbooks.
Ctrl+F9	Minimizes a workbook window to an icon.
Shift+F9	Calculates the active worksheet.
Ctrl+Alt+F9	Calculates all worksheets in all open workbooks, regardless of whether they have changed since the last calculation.
Ctrl+Alt+Shift+F9	Rechecks dependent formulas, and then calculates all cells in all open workbooks, including cells not marked as needing to be calculated.
F10	Turns key tips on or off. (Pressing Alt does the same thing.)
Ctrl+F10	Maximizes or restores the selected workbook window.
Shift+F10	Displays the shortcut menu for a selected item.
Alt+Shift+F10	Displays the menu or message for an Error Checking button.
F11	Creates a chart of the data in the current range in a separate Chart sheet.
Alt+F11	Opens the Microsoft Visual Basic Editor, in which you can create a macro by using Visual Basic for Applications (VBA).
Shift+F11	Inserts a new worksheet.
F12	Opens the Save As dialog box.

Other useful shortcut keys

Key	Description
Arrow keys	Moves one cell up, down, left, or right in a worksheet.
Ctrl+Arrow key	Moves to the edge of the current data region (range of cells that contains data and that is bounded by empty cells or datasheet borders) in a worksheet.
Shift+Arrow key	Extends the selection of cells by one cell.
Ctrl+Shift+Arrow key	Extends the selection of cells to the last nonblank cell in the same column or row as the active cell, or if the next cell is blank, extends the selection to the next nonblank cell.
Left Arrow or Right Arrow	Selects the tab to the left or right when the ribbon is selected. When a submenu is open or selected, these arrow keys switch between the main menu and the submenu.
Down Arrow or Up Arrow	Selects the next or previous command when a menu or submenu is open. When a ribbon tab is selected, these keys navigate up or down the tab group. In a dialog box, arrow keys move between options in an open drop-down list, or between options in a group of options.
Down Arrow or Alt+Down Arrow	Displays a selected drop-down list.
Backspace	Deletes one character to the left in the formula bar. Also clears the content of the active cell. In cell editing mode, deletes the character to the left of the cursor.
Delete	Removes the cell contents (data and formulas) from selected cells without affecting cell formats or comments. In cell editing mode, deletes the character to the right of the cursor.
End	Turns End mode on. In End mode, you can press an arrow key to move to the next nonblank cell in the same column or row as the active cell. If the cells are blank, pressing End followed by an arrow key moves to the last cell in the row or column. End also selects the last command on the menu when a menu or submenu is visible.
Ctrl+End	Moves to the last cell on a worksheet, to the lowest used row of the rightmost used column. If the cursor is in the formula bar, Ctrl+End moves the cursor to the end of the text.

Key	Description
Ctrl+Shift+End	Extends the selection of cells to the last used cell on the worksheet (lower-right corner). If the cursor is in the formula bar, Ctrl+Shift+End selects all text in the formula bar from the cursor position to the end—this does not affect the height of the formula bar.
Enter	Completes a cell entry from the cell or the formula bar, and selects the cell below (by default). In a data form, moves to the first field in the next record. Displays a selected menu (press F10 to activate the menu bar) or performs the action for a selected command. In a dialog box, performs the action for the default command button in the dialog box (the button with the bold outline, often the OK button).
Alt+Enter	Starts a new line in the same cell.
Ctrl+Enter	Fills the selected cell range with the current entry.
Shift+Enter	Completes a cell entry and selects the cell above it.
Esc	Cancels an entry in the cell or formula bar. Closes an open menu or submenu, dialog box, or message window. Also closes full screen mode when this mode has been applied, and returns to normal screen mode to display the ribbon and status bar again.
Home	Moves to the beginning of a row in a worksheet. Moves to the cell in the upper-left corner of the window when Scroll Lock is turned on. Selects the first command on the menu when a menu or submenu is visible.
Ctrl+Home	Moves to the beginning of a worksheet.
Ctrl+Shift+Home	Extends the selection of cells to the beginning of the worksheet.
Page Down	Moves one screen down in a worksheet.
Alt+Page Down	Moves one screen to the right in a worksheet.
Ctrl+Page Down	Moves to the next sheet in a workbook.
Ctrl+Shift+Page Down	Selects the current and next sheet in a workbook.
Page Up	Moves one screen up in a worksheet.
Alt+Page Up	Moves one screen to the left in a worksheet.
Ctrl+Page Up	Moves to the previous sheet in a workbook.
Ctrl+Shift+Page Up	Selects the current and previous sheet in a workbook.
Spacebar	In a dialog box, performs the action for the selected button, or selects or clears a check box.
Ctrl+Spacebar	Selects an entire column in a worksheet.
Shift+Spacebar	Selects an entire row in a worksheet.

Key	Description
Ctrl+Shift+Spacebar	Selects the entire worksheet. If the worksheet contains data, pressing Ctrl+Shift+Spacebar selects the current region. Pressing Ctrl+Shift+Spacebar a second time selects the current region and its summary rows. Pressing Ctrl+Shift+Spacebar a third time selects the entire worksheet. When an object is selected, pressing Ctrl+Shift+Spacebar selects all objects on a worksheet.
Alt+Spacebar	Displays the Control menu for the Excel window.
Tab	Moves one cell to the right in a worksheet. Moves between unlocked cells in a protected worksheet. Moves to the next option or option group in a dialog box.
Shift+Tab	Moves to the previous cell in a worksheet or the previous option in a dialog box.
Ctrl+Tab	Switches to the next page in a dialog box.
Ctrl+Shift+Tab	Switches to the previous page in a dialog box.

Index

Symbols

A

lists
   associating data between, 189
   creating, 380
live preview, 54, 114, 454
locked cells, 426, 454
logos, adding to worksheets, 138–140, 335
Look In box, 59
lookup_value argument, 190

M
Macro dialog box, 364, 372
macro-enabled templates, 197
macros
   changing security settings, 362
   creating, 369
   defined, 454
   enabling, 362
   enabling selectively, 377
   examining, 364
   modifying, 370
   running by button click, 372, 391
   running by menu item, 366
   running on opening, 376, 391
   sharing between workbooks, 364
MailingNames workbook, 52–53
mailto hyperlink, 404, 455
Manage Rules, 131
manual calculation option, 95
map, 455
margins, setting for printing, 341
Match Case check box, 60
Match Entire Cell Contents check box, 60
mathematical equations
   adding to shapes, 281
   creating, 278
mathematical operators, precedence of, 80
matrix diagrams, 274
MAX function, 82, 160, 162
MEDIAN function, 162
Merge And Center, 455
Message Bar, security warnings, 363
metadata, 441
Microsoft cloud service, 446

Microsoft Encarta dictionary, 63
Microsoft Office 2013 suite, 4
Microsoft Office system installation CD, 233, 240
Microsoft Outlook 2013, 414
Microsoft Visual Basic for Applications (VBA), 362
MIN function, 82, 160, 162
Mini Toolbars, formatting tools, 110
MisroutedPackages workbook, 16
MODE.SNGL function, 162
Monday-through-Sunday week, 179
More Colors link, 120
More functions menu item, 69–70
Move Chart dialog box, 251
Move Down button, 177
Move Up button, 177
Move Up/Down button, 132
moving
   columns, 54
   data within workbooks, 54–56
MS Excel 4.0 Macro, 199
MS Excel 5.0 Dialog icons, 199
multiple alternative data sets, 223
multiple cells, pasting formatting to, 115
multiple criteria, for conditional functions, 92
multiple scenarios, 223
MultipleScenarios workbook, 224
multiplication (*), 80
multiplication operations, precedence of
         operators, 80
My Data Has Headers check box, 176
My Table Has Headers check box, 68

N
Name box, 77
named ranges, 76, 83, 105, 455
name fields, combining, 50
Name Manager dialog box, 78
Name property, 379, 382
names/naming
   choosing descriptive, 76
   groups of data, 76, 76–78
negation (-), 80
Negative Value And Axis button, 134