Adding spin buttons to UserForms

With Excel VBA UserForms, you and your colleagues can enter data quickly. Text boxes are flexible, but you can take more control over the numbers a user enters by linking a spin button to a text box. Clicking the spin button's up or down arrow changes the value in the attached control by an amount that you define.

To create a spin button, click the UserForm and then, in the Toolbox, click the SpinButton control and draw the spin button on the UserForm. Next, click the spin button and then, in the Properties panel, change the values of these properties:

- ***Max*** The largest value allowed in the spin button
- ***Min*** The smallest value allowed in the spin button
- ***SmallChange*** The amount that each click changes the spin button's value

Suppose you create a spin button with a *Min* value of *1*, *Max* value of *10*, and *SmallChange* value of *1*. Each click of the up button would increase the value by 1 (to a maximum of 10) and each click of the down button would decrease the value by 1 (to a minimum of 1).

After you create the spin button, create a text box to display the value assigned to the spin control. Write down the name of the text box, which you can discover by clicking the text box and observing the value of the *Name* property in the Properties panel.

Right-click the spin button and, from the shortcut menu that appears, click View Code. Doing so displays the outline of the event code that will run when the value of the spin button changes. To link the spin button with the text box, you set the text control's *Value* property so that it is equal to the same property of the spin button.

If the text box were named *PackageOunces* and the spin button were named *OuncesSpin*, your code would look like the following example.

```
Private Sub OuncesSpin_Change()
PackageOunces.Value = OuncesSpin.Value
End Sub
```

Writing UserForm data to a worksheet

After you've created your UserForm, you need to write VBA code to record the controls' values to a worksheet. You do that by adding a command button to your form and assigning code to the button's *On_Click* event that reads the controls' values and writes them to a worksheet.

The process to read and write these values identifies the first empty row in the target worksheet and then uses the *Value* property of the *Cells* object to write the data into the target cells. As an example, suppose you have a UserForm that collects four pieces of data for a shipment: the customer's name, origination postal code, destination postal code, and shipping method.

Next, create a command button to which you can attach code that writes the values to the worksheet. To create the command button, display a UserForm and then, in the Toolbox, click the CommandButton button. Draw the button on the UserForm and, if you want, change the button's Caption property so that the button's text describes its function.

Right-click the button and, from the shortcut menu that appears, click View Code to display the button's *On_Click* event handling code. You could use the following routine to find the first empty cell in column A of your worksheet, read the values in the four controls, and write values into the worksheet.

```
Private Sub CommandButton1_Click()
Dim lngFirstRow As Long

Worksheets("Sheet1").Activate
lngFirstRow = Worksheets("Sheet1").Range("A1048576").End(xlUp).Row + 1

Cells(lngFirstRow, 1) = txtCompName.Value
Cells(lngFirstRow, 2) = txtOrigPostCode.Value
Cells(lngFirstRow, 3) = txtDestPostCode.Value
Cells(lngFirstRow, 4) = lstMethod.Value
Cells(lngFirstRow, 4).Activate
End Sub
```

If two records were already in the target worksheet and you entered data from the UserForm, the result would be the following list.

	A	B	C	D
1	Company	Originating Postal Code	Destination Postal Code	Method
2	Contoso	22841	97220	Ground
3	Tailspin Toys	11210	54382	3Day
4	Northwind Traders	98013	33010	Overnight
5				

TIP On the Developer tab of the ribbon, you will also find buttons that you can use to add worksheet Form controls and ActiveX controls. You can use the skills learned in this section to create those controls and assign VBA code to them.

Displaying, loading, and hiding UserForms

After you create a UserForm, you must display it so that the user can interact with it. As an example, suppose you have a form named *frmShipmentEntry*. All you need to do to display the form is enter the name of the form followed by a period and the Show method. For example, the code to display *frmShipmentEntry* would be as follows.

```
frmShipmentEntry.Show
```

You can test a UserForm from within the Visual Basic Editor by displaying the UserForm and pressing the F5 key. You can also enter a UserForm into Excel's memory without displaying it by using the *Load* method. The command to load the same form into the Excel program's memory is as follows.

```
frmCustomerEntry.Load
```

When you want to display the UserForm in Excel, you can call the *Show* method as noted earlier.

Hiding a UserForm relies on the *Hide* method. The syntax follows the pattern used for the *Show* and *Load* methods.

```
frmCustomerEntry.Hide
```

The most common way to invoke the *Hide* method is to create a command button with the label Cancel and add the code including the *Hide* method in the command button's *On_Click* event handler. You can also hide a UserForm by clicking the Close box in the upper-right corner of the UserForm.

In this exercise, you'll create a UserForm, add a text box, add a list box, and then add a series of option buttons within a single group. You'll also add spin button controls to two text boxes, and use existing code to display the form and write its data to a worksheet.

SET UP **You need the PackageWeight workbook located in the Chapter12 practice file folder to complete this exercise. Open the workbook, click the Enable Content button on the Message Bar (if necessary), and then follow the steps.**

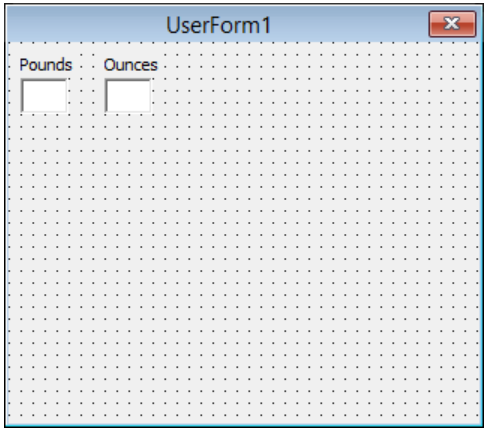
1 Press **Alt+F11** to open the Visual Basic Editor.

2 On the menu bar, click **Insert**, and then click **UserForm** to create a blank UserForm.

3 In the **Toolbox**, click the **Label** button and draw a label in the upper-left corner of the UserForm. Then, with the label still selected, in the **Caption** property box of the **Properties** panel, enter **Pounds**.

4 Click on the body of the UserForm and then, in the **Toolbox**, click the **Label** button and draw a label to the right of the **Pounds** label. Then, with the label still selected, in the **Caption** property box of the **Properties** panel, enter **Ounces**. Resize the label control so that the **Ounces** text fits within it.

5 Click on the body of the UserForm and then, in the **Toolbox**, click the **TextBox** button. Draw a text box below the **Pounds** label on the UserForm. Click the **TextBox** button again and, leaving some space for another control, draw a second text box below the **Ounces** label.



6 In the **Toolbox**, click the **SpinButton** button and then draw a spin button to the right of the text box beside the **Pounds** label.

7 With the new spin button still selected, in the **Properties** panel, enter **49** in the **Max** field. The spin button will now accept values from 0 to 49.

8 In the **Toolbox**, click the **SpinButton** button, and then draw a new spin button to the right of the text box beside the **Ounces** label.

9 With the new spin button still selected, in the **Properties** panel, enter **15** in the **Max** field. The spin button will now accept values from 0 to 15.

10 Click the spin button to the right of the text box below the **Pounds** label and make a note of its name (which is probably SpinButton1).

11 Right-click the spin button below the **Pounds** label and then click **View Code**. In the code window that appears, edit the code so it reads as follows.

```
Private Sub SpinButton1_Change()
TextBox1.Value = SpinButton1.Value
End Sub
```

TROUBLESHOOTING The preceding code assumes the text box is named TextBox1 and the spin button is named SpinButton1. If they aren't, edit the code to reflect the controls' actual names.

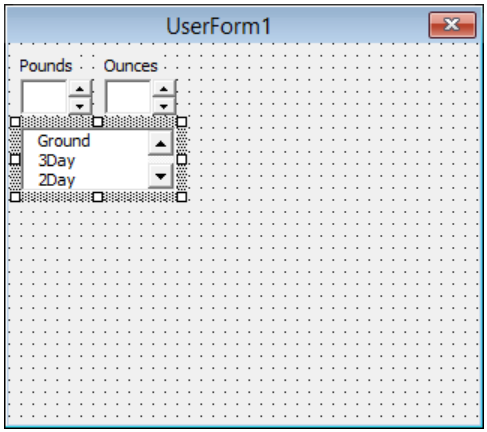
12 Right-click the spin button below the **Ounces** label, and then click **View Code**. In the code window that appears, edit the code so it reads as follows.

```
Private Sub SpinButton2_Change()
TextBox2.Value = SpinButton2.Value
End Sub
```

13 In the **Project** window, double-click the **UserForm1** icon to return to the UserForm.

14 Click on the body of the UserForm and then, in the **Toolbox**, click the **ListBox** button. Draw a list box below the text boxes that display the **Pounds** and **Ounces** values. Your list box should be wide enough to display the text string **Priority Overnight**.

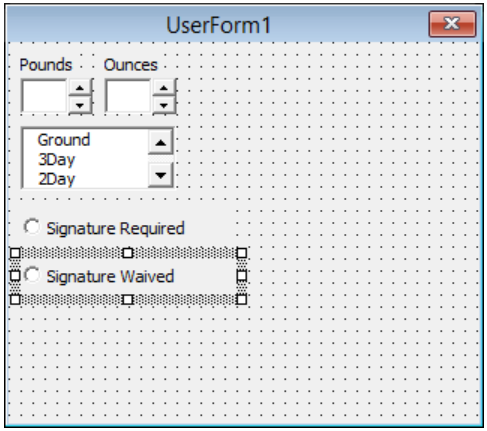
15 With the list box still selected, in the **RowSource** property box of the **Properties** panel, enter **=ShipMethods** and then press **Enter**. The methods appear in the list box.



16 Click on the body of the UserForm and then, in the **Toolbox**, click the **OptionButton** button. Click in the body of the UserForm below the list box you just created. When you do, an option button appears.

17 With the option button still selected, in the **Caption** box of the **Properties** panel, enter **Signature Required** and press **Enter**. Then, in the **GroupName** box, enter **Sig** and press **Enter**.

18 Repeat step 16 to create an option button below the first option button you created. With the new option button still selected, in the **Caption** box, enter **Signature Waived** and press **Enter**. Then, in the **GroupName** box, enter **Sig** and press **Enter**.



19 Click on the body of the UserForm and then, in the **Toolbox**, click the **CommandButton** button. Draw a command button below the **Signature Waived** option button and then, with the command button still selected, in the **Caption** box, enter **Submit** and press **Enter**.

20 Right-click the **Submit** command button and click **View Code** to display the button's **On_Click** event handling routine. Edit the **Private Sub ComandButton1_Click()** sub-routine so it reads as follows.

```
Private Sub CommandButton1_Click()
Dim lngFirstRow As Long

Worksheets("Records").Activate
lngFirstRow = Worksheets("Records").Range("A1048576").End(xlUp).Row + 1

Cells(lngFirstRow, 1) = TextBox1.Value
Cells(lngFirstRow, 2) = TextBox2.Value
Cells(lngFirstRow, 3) = ListBox1.Value
Cells(lngFirstRow, 4) = OptionButton1.Value
Cells(lngFirstRow, 5) = OptionButton2.Value
Cells(lngFirstRow, 5).Activate

End Sub
```

21 In the **Project** pane, click **UserForm1** to display it and then press **F5** to run the UserForm.

22 Use the **Pounds** spin button to enter **4** in the **Pounds** text box; use the **Ounces** spin button to enter **8** in the **Ounces** text box; select **3Day** in the list box; and then select the **Signature Waived** option button. Click the **Submit** command button. When you do, the UserForm writes your data to the first empty row in the **Records** worksheet.

23 Click the UserForm's **Close** button to close it and then press **Alt+F11** to display the workbook. If necessary, click the **Records** sheet tab to display the worksheet of the same name to view the data you entered.

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

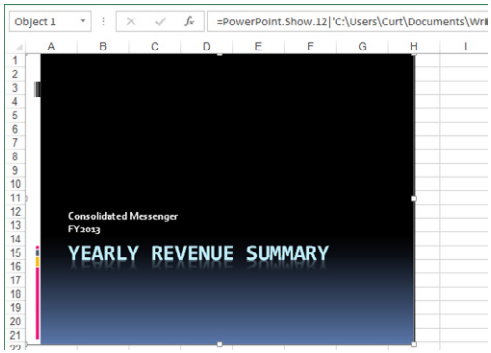
Key points

- Macros are handy tools that you can use to perform repetitive tasks quickly, such as inserting blocks of text.
- You don't have to be a programmer to use macros; you can record your actions and have Excel save them as a macro.
- Excel uses macro-enabled workbook types, which have the file extensions .xlsm (a macro-enabled workbook) and .xltm (a macro-enabled template workbook).
- If you're curious about what a macro looks like, you can display it in the Visual Basic Editor. If you know a little VBA, or if you just want to experiment, feel free to modify the macro code to find out what happens.
- You can create Quick Access Toolbar buttons and shapes that, when clicked, run a macro.
- If you want a macro to run whenever you open a workbook, create a macro named Auto_Open.
- UserForms provide a customizable interface for data entry.

Chapter at a glance

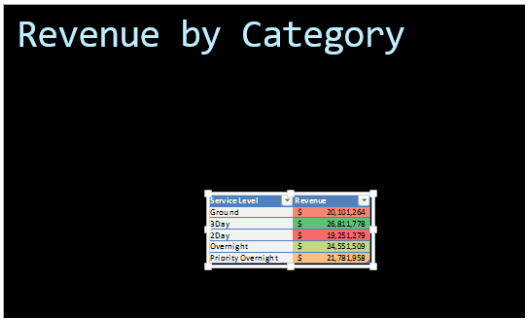
Link

Link to Office documents from workbooks, page 394



Embed

Embed workbooks into other Office documents, page 398



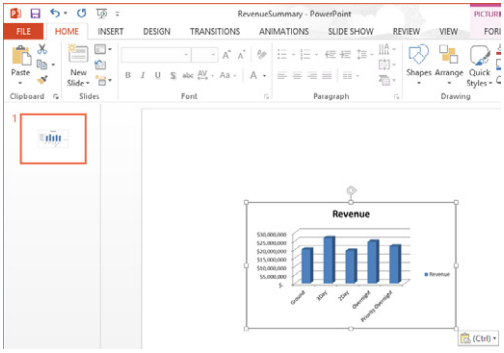
Create

Create hyperlinks, page 401

	A	B	C
1			
2		Level	Note
3		Ground	Revisit price structure at the start of the next quarter.
4		Priority Overnight	Consider incentives to encourage use.
5			
6		Consolidated Messenger	http://www.consolidatedmessenger.com
7			

Paste

Paste charts into other Office documents, page 407



Working with other Office programs

13

IN THIS CHAPTER, YOU WILL LEARN HOW TO

- Link to Office documents from workbooks.
- Embed workbooks into other Office documents.
- Create hyperlinks.
- Paste charts into other Office documents.

By itself, Microsoft Excel 2013 provides a broad range of tools that you can use to store, present, and summarize your financial data. When you use other Microsoft Office 2013 programs, you can extend your capabilities even further, by creating databases, presentations, written reports, and custom webpages through which you can organize and communicate your data in print and over networks.

All the Office programs interact with each other in many useful ways. For example, you can include a file created with another Office program in an Excel workbook. If you use Microsoft Word 2013 to write a quick note about why a customer's shipping expenditures decreased significantly in January, you can include the report in your workbook. Similarly, you can include your Excel workbooks in documents created with other Office programs. If you want to copy only part of a workbook, such as a chart, into another Office document, you can do that as well.

Excel integrates well with the web. If you know of a web-based resource that would be useful to someone who is viewing a document, you can create a hyperlink to connect from a document to a place in the same file or to another file anywhere on a network or the Internet that the user's computer can reach.

In this chapter, you'll link to an Office document from a worksheet, embed an Excel workbook into another Office document, create hyperlinks, and paste an Excel chart into another document.

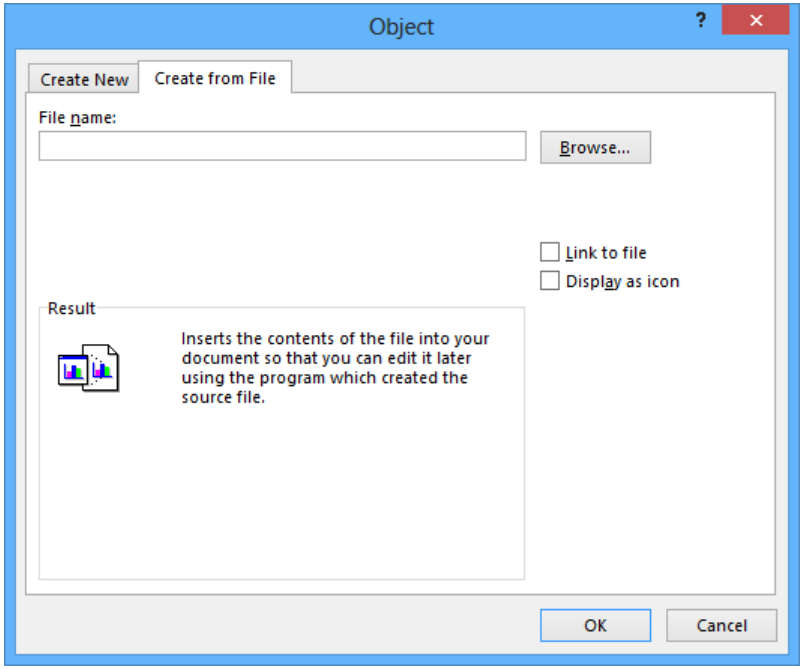
PRACTICE FILES To complete the exercises in this chapter, you need the practice files contained in the Chapter13 practice file folder. For more information, see "Download the practice files" in this book's Introduction.

Linking to Office documents from workbooks

One benefit of working with Excel 2013 is that, because it is part of Office 2013, it is possible to combine data from Excel and other Office programs to create informative documents and presentations. Just as you can combine data from one Excel workbook into another, you can combine information from another Office document with an Excel workbook, either by pasting the other document into the Excel workbook or by creating a link between the two.

There are two advantages to creating a link between your Excel workbook and the other file. The first benefit is that linking to the other file, as opposed to copying the entire file into your workbook, keeps the file size of your Excel workbook small. If the workbook is copied to another drive or computer, you can maintain the link by copying the linked file along with the Excel workbook or by re-creating the link if the linked file is on the same network as the Excel workbook. The second benefit of linking to another file is that any changes in the file to which you link are reflected in your Excel workbook. If the linked file has been moved or isn't available over a network, then any changes to the linked file won't be reflected in your workbook.

You create a link between an Excel workbook and another Office document by clicking the cell in which you want the document to appear, clicking the Insert tab and then, in the Text group, clicking Object to display the Object dialog box. In the Object dialog box, click the Create From File tab.



When you click the Browse button on the Create From File page, the Browse dialog box opens. In this dialog box, you can browse to the folder that contains the file you want to link to. After you locate the file, double-clicking it closes the Browse dialog box and adds the file's name and path to the File Name box of the Object dialog box. To create a link to the file, select the Link To File check box, and click OK. When you do, a preview of the file appears in your workbook near the active cell.

If you want to link a file to your workbook but don't want the file image to take up much space on the screen, you can also select the Display As Icon check box. After you select the file and click OK, the file will be represented by the same program icon used to represent it in Windows. Double-clicking the icon opens the file.

After you have linked a file—for example, a Microsoft PowerPoint 2013 presentation—to your Excel workbook, you can edit the file by right-clicking its image or icon in your workbook and then, on the shortcut menu that appears, clicking the appropriate Object command and clicking Edit. For a PowerPoint file, you click Presentation Object. The file will open in its native program. When you finish editing the file, your changes appear in your workbook.

TIP The specific menu command you click changes to reflect the program used to create the file to which you want to link. For a Word 2013 document, for example, the menu command you click is Document Object.

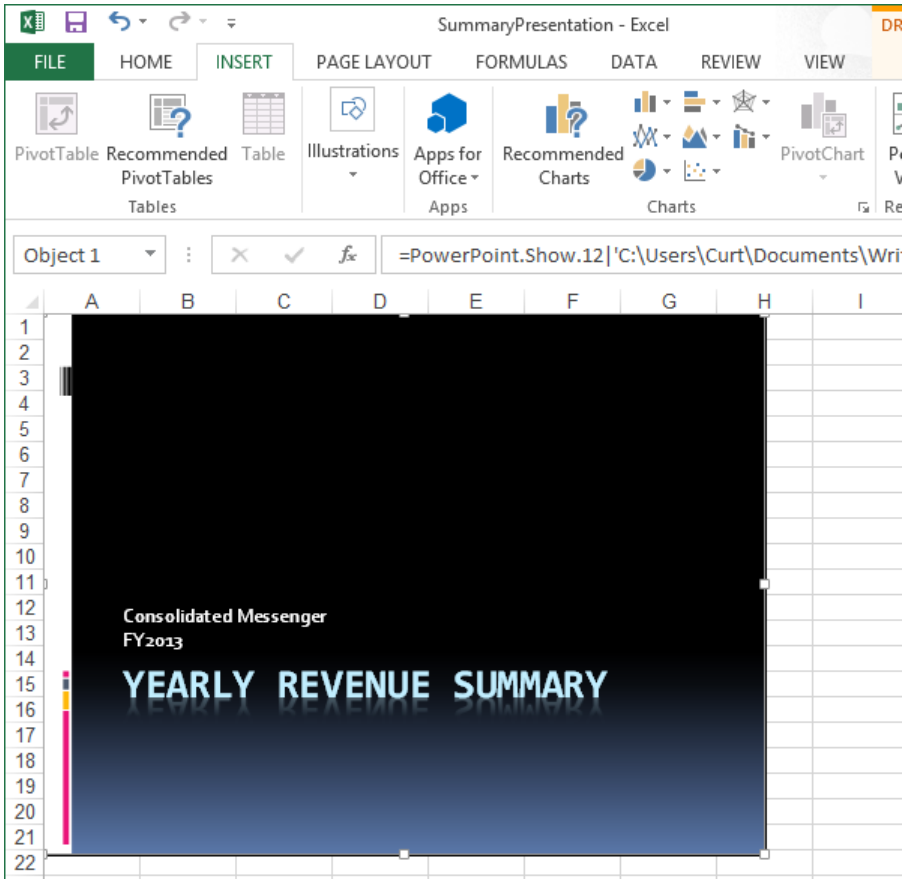
In this exercise, you'll link a PowerPoint 2013 presentation to an Excel workbook and then edit the presentation after it opens in PowerPoint from within Excel.

IMPORTANT You must have PowerPoint 2013 installed on your computer to complete this exercise.

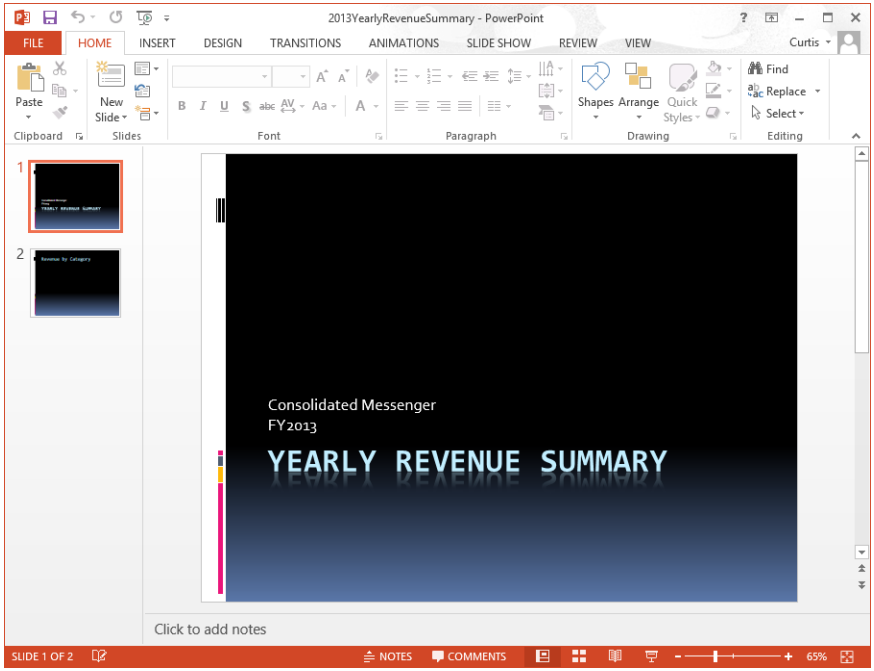
SET UP **You need the SummaryPresentation workbook and the 2013YearlyRevenueSummary presentation located in the Chapter13 practice file folder to complete this exercise. Open the workbook, and then follow the steps.**

1. In the **SummaryPresentation** workbook, on the **Insert** tab, in the **Text** group, click **Object** to open the **Object** dialog box.
2. Click the **Create from File** tab to display the **Create From File** page.
3. Click **Browse** to open the **Browse** dialog box.
4. Browse to the **2013YearlyRevenueSummary.pptx** presentation, and then click **Insert**. The **Browse** dialog box closes, and the full file path of the **2013YearlyRevenueSummary** presentation appears in the **File name** box.

5 Select the **Link to file** check box, and then click **OK** to create a link from your workbook to the presentation.



6 Right-click the presentation image in the workbook, click **Presentation Object**, and then click **Edit** to open the presentation in a PowerPoint 2013 window.



7 Click **Consolidated Messenger FY2013** to activate its text box.

8 Select the **FY2013** text, and then enter **Calendar Year 2013**.

9 In PowerPoint, on the **Quick Access Toolbar**, click the **Save** button. (You'll use this presentation again in the next exercise.) Because the presentation is linked to the workbook, Excel updates the linked object's appearance to reflect the new text.

CLEAN UP **Leave the 2013YearlyRevenueSummary presentation open for the next exercise. Close the SummaryPresentation workbook, saving your changes if you want to.**

Embedding workbooks into other Office documents

In the preceding section, you linked to another file from within your Excel workbook. The advantages of linking to a second file are that the file size of your workbook is kept small and any changes in the second document will be reflected in your workbook. The

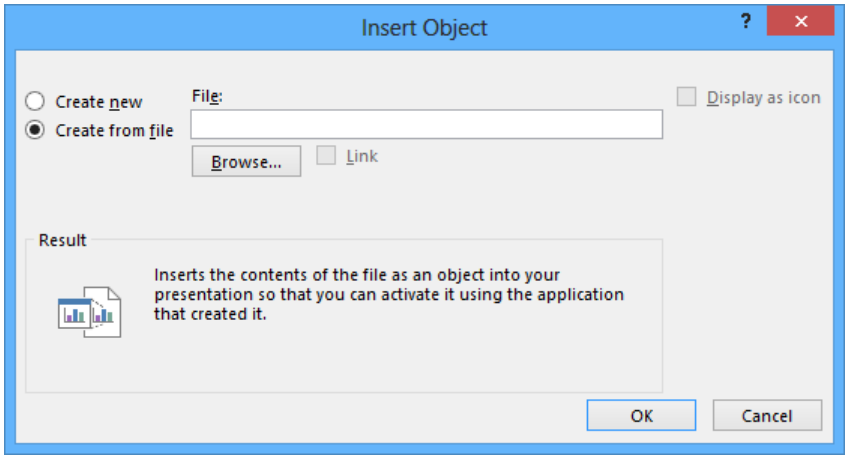
disadvantage is that the second document must be copied with the workbook—or at least be on a network-accessible computer. If Excel can't find or access the second file where the link says it is located, Excel can't display it. You can still open your workbook, but the linked file's contents won't be displayed.

If file size isn't an issue and you want to ensure that the second document is always available, you can embed the file in your workbook. Embedding another file in an Excel workbook means that the entirety of the other file is saved as part of your workbook. Wherever your workbook goes, the embedded file goes along with it. Of course, the embedded version of the file is no longer connected to the original file, so changes in one aren't reflected in the other.

IMPORTANT To view a linked or embedded file, you must have the program used to create it installed on the computer on which you open the workbook.

You can embed a file in an Excel workbook by following the procedure described in the preceding section but leaving the Link To File check box cleared.

It is also possible to embed your Excel workbooks in other Office documents. In PowerPoint, for example, you can embed an Excel file in a presentation by displaying the Insert tab in PowerPoint and then, in the Text group, clicking Object to display the Insert Object dialog box. Then in the Insert Object dialog box, select Create From File.



To identify the file that you want to embed, click the Browse button and then, in the Browse dialog box that opens, navigate to the folder in which the file is stored and double-click the file. The Browse dialog box closes, and the file path appears in the File box. Click OK to embed your workbook in the presentation.

If you want to embed a workbook in a file created with any other Office program but don't want the worksheet to take up much space on the screen, select the Display As Icon check box. After you select the file to embed and click OK, the file is represented by the same icon used to represent it in Windows. Double-clicking the icon opens the embedded document in its original application.

TROUBLESHOOTING If your Excel workbook's cells don't have a background fill color (that is, you have the No Fill option selected), PowerPoint treats the cells' backgrounds as if they were transparent. If you were to place cells with black text and no background fill over a dark background, the text would not be visible. To make your text visible, fill the cells with a very light gray color so that the presentation's background doesn't show through.

To open an embedded Excel workbook for editing, right-click the workbook (or the icon representing it) and then, on the shortcut menu that appears, click Worksheet Object and click Edit. After you finish making your changes, you can click anywhere outside the workbook to return to the presentation.

IMPORTANT You must have PowerPoint 2013 installed on your computer to complete this exercise.

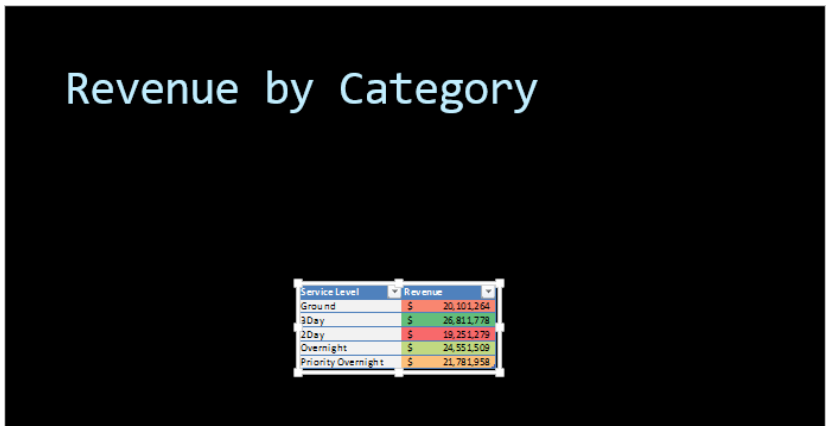
SET UP **You need the 2013YearlyRevenueSummary presentation you created in the previous exercise, and the RevenueByServiceLevel workbook located in the Chapter13 practice file folder to complete this exercise. If you did not complete the previous exercise, you should do so now. Open the workbook and, if necessary, open the presentation. Then follow the steps.**

1. In the **Slides** pane of the presentation window, click the second slide to display it.
2. On the **Insert** tab, in the **Text** group, click **Object** to open the **Insert Object** dialog box.
3. Select **Create from file**. The **Insert Object** dialog box changes to allow you to enter a file name.

4 Click **Browse** to open the **Browse** dialog box.

5 Browse to the **RevenueByServiceLevel** workbook and double-click it. The **Browse** dialog box closes, and the file's full path appears in the **File** box of the **Insert Object** dialog box for PowerPoint.

6 Click **OK** to add the workbook to your presentation.



CLEAN UP **Close the RevenueByServiceLevel workbook and the 2013YearlyRevenue-Summary presentation, saving your changes if you want to.**

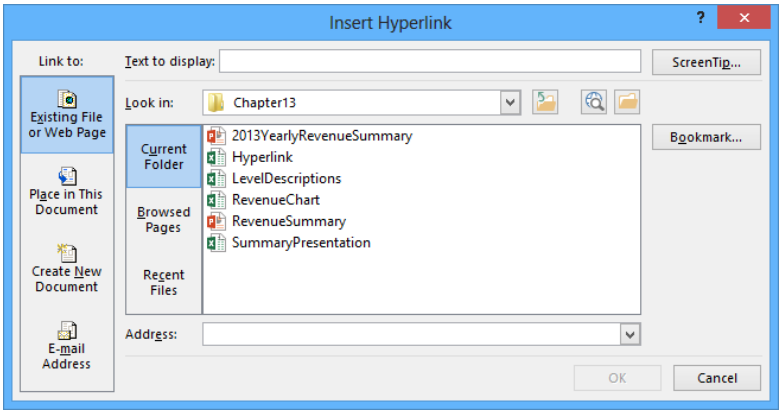
Creating hyperlinks

One of the characteristics of the web is that documents published on webpages can have references, or *hyperlinks*, to locations in the same document or to other web documents. A hyperlink functions much like a link between two cells or between two files, but hyperlinks can reach any computer on the web, not just those on a corporate network. Hyperlinks that haven't been clicked usually appear as underlined blue text, and hyperlinks that have been followed appear as underlined purple text, but those settings can be changed.

	A	B	C	D
1				
2		Level	Note	
3		Ground	Revisit price structure at the start of the next quarter.	
4		Priority Overnight	Consider incentives to encourage use.	
5				
6		Consolidated Messenger	http://www.consolidatedmessenger.com	
7				

To create a hyperlink, click the cell in which you want to insert the hyperlink and then, on the Insert tab, click Hyperlink. The Insert Hyperlink dialog box opens.

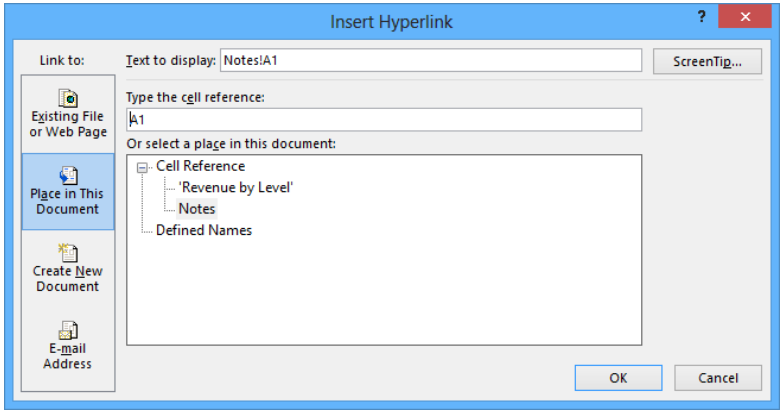
KEYBOARD SHORTCUT Press Ctrl+K to open the Insert Hyperlink dialog box. For a complete list of keyboard shortcuts, see "Keyboard shortcuts" at the end of this book.



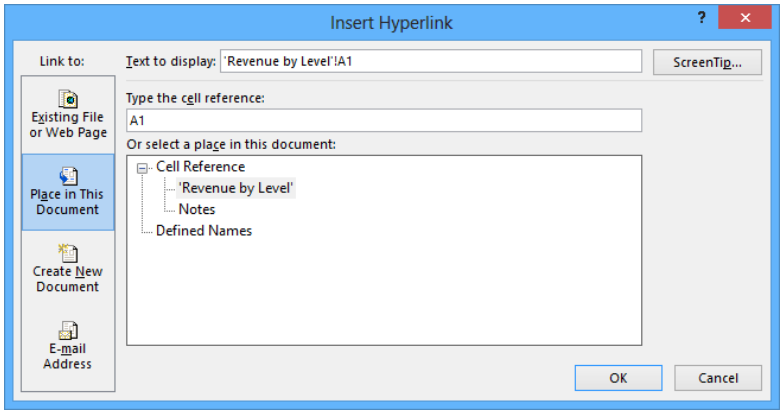
You can choose one of four types of targets, or destinations, for your hyperlink: an existing file or webpage, a place in the current document, a new document you create on the spot, or an email address. By default, the Insert Hyperlink dialog box displays the tools to connect to an existing file or webpage.

To create a hyperlink to another file or webpage, you can use the Look In navigation tool to locate the file. If you recently opened the file or webpage to which you want to link, you can click either the Browsed Pages or the Recent Files button to display the webpages or files in your History list.

If you want to create a hyperlink to another place in the current Excel workbook, you can click the Place In This Document button to display a list of available targets in the current workbook.



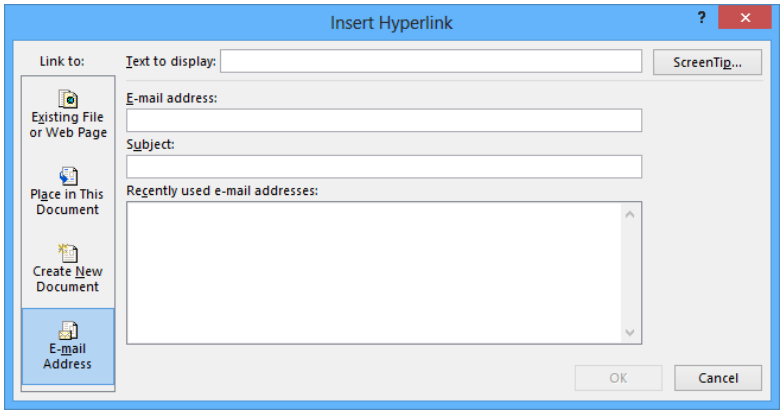
To select the worksheet to which you want to refer, you click the worksheet name in the Or Select A Place In This Document box. When you do, a reference with the name of the worksheet and cell A1 on that worksheet appears in the Text To Display box.



If you want to refer to a cell other than A1 on the selected worksheet, click the worksheet name in the Or Select A Place In This Document box, and then change the cell reference in the Type The Cell Reference box.

To have explanatory text appear when the user points to a hyperlink, click the ScreenTip button, enter the text you want in the ScreenTip Text box, and then click OK to close the Set Hyperlink ScreenTip dialog box.

You can also create a hyperlink that generates an email message to an address of your choice. To create this type of hyperlink, which is called a *mailto* hyperlink, click the E-mail Address button.



In the dialog box that opens, you can enter the recipient's email address in the E-mail Address box and the subject line for messages sent via this hyperlink in the Subject box.

TIP If you use Windows Mail, Microsoft Outlook, or Microsoft Outlook Express as your email program, a list of recently used addresses will appear in the Recently Used E-mail Addresses box. You can insert any of those addresses in the E-mail Address box by clicking the address.

Clicking a mailto hyperlink causes the user's default email program to open and create a new email message. The email message is addressed to the address you entered in the E-mail Address box, and the subject is set to the text you entered in the Subject box.

Regardless of the type of hyperlink you create, you can specify the text you want to represent the hyperlink in your worksheet. You enter that text in the Text To Display box. When you click OK, the text you enter there appears in your worksheet, formatted as a hyperlink.

TIP If you leave the Text To Display box empty, the actual link will appear in your worksheet.

To edit an existing hyperlink, right-click the cell that contains the hyperlink and then, on the shortcut menu that appears, click Edit Hyperlink. You can also click Open Hyperlink to go

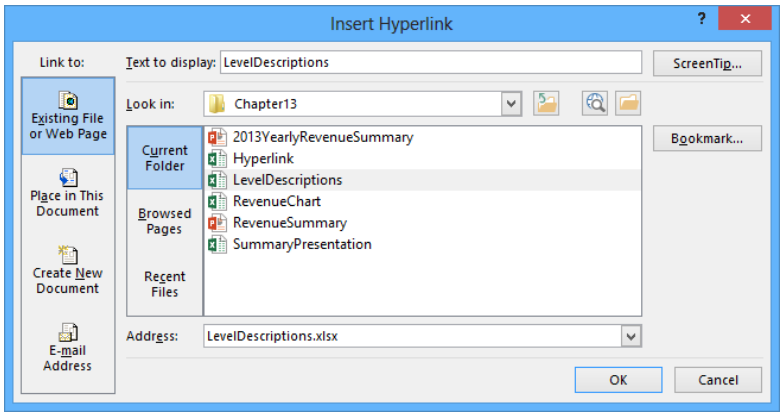
to the target document or create a new email message, or click Remove Hyperlink to delete the hyperlink.

TIP If you delete a hyperlink from a cell, the text from the Text To Display box remains in the cell, but it no longer functions as a hyperlink.

In this exercise, you'll create a hyperlink to another document and then a second hyperlink to a different location in the current workbook.

SET UP **You need the Hyperlink and LevelDescriptions workbooks located in the Chapter13 practice file folder to complete this exercise. Open the Hyperlink workbook, and then follow the steps.**

1. In the **Hyperlink** workbook, on the **Revenue by Level** worksheet, click cell **B9**.
2. On the **Insert** tab, in the **Links** group, click the **Hyperlink** button to open the **Insert Hyperlink** dialog box.
3. If necessary, click the **Existing File or Web Page** button.
4. If necessary, use the controls to the right of the **Look in** box to navigate to the **Chapter13** practice file folder and display the files in the **Insert Hyperlink** dialog box.
5. In the file list, click the **LevelDescriptions** workbook. The workbook's name appears in the **Text To Display** box and the **Address** box.
6. In the **Text to display** box, edit the value so that it reads **LevelDescriptions**.

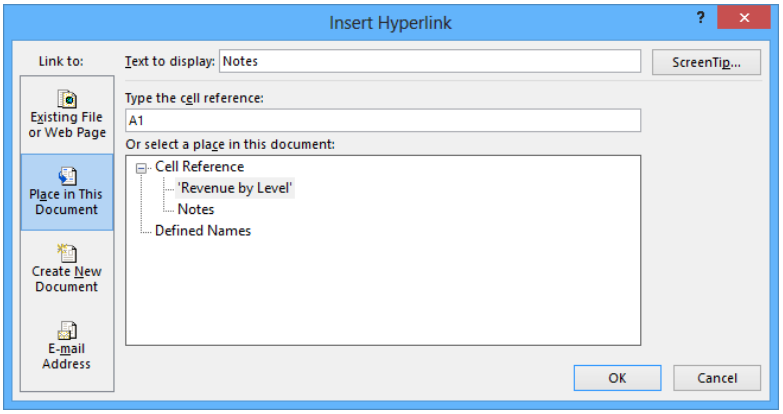


7. Click **OK**.
8. Click the hyperlink in cell **B9** to open the **LevelDescriptions** workbook.

9 In the **LevelDescriptions** workbook, display the **Backstage** view, and then click **Close** to close the workbook.

10 Right-click cell **B11**, and then click **Hyperlink** to open the **Insert Hyperlink** dialog box.

11 In the **Link to** pane, click **Place in This Document**. The document elements to which you can link appear in the dialog box.



12 In the **Or select a place in this document** pane, click **Notes**.

13 Click **OK** to close the **Insert Hyperlink** dialog box and create a hyperlink in cell **B11**.

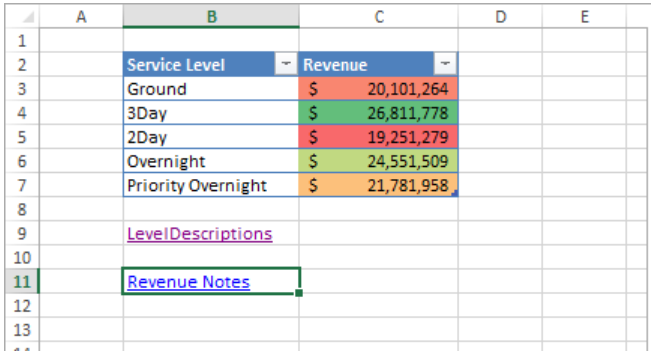
14 Right-click cell **B11**, and then click **Edit Hyperlink** to open the **Edit Hyperlink** dialog box.

15 Edit the **Text to display** box's value so that it reads **Revenue Notes**.

16 Click the **ScreenTip** button to display the **Set Hyperlink ScreenTip** dialog box.

17 In the **ScreenTip text** box, enter **Link to Notes worksheet in this workbook** and then click **OK** to close the **Hyperlink ScreenTip** dialog box.

18 Click **OK** to close the **Edit Hyperlink** dialog box and change the text in cell **B11** to **Revenue Notes**.



	A	B	C	D	E
1					
2		Service Level	Revenue		
3		Ground	$ 20,101,264		
4		3Day	$ 26,811,778		
5		2Day	$ 19,251,279		
6		Overnight	$ 24,551,509		
7		Priority Overnight	$ 21,781,958		
8					
9		LevelDescriptions			
10					
11		Revenue Notes			
12					
13					

CLEAN UP **Close the Hyperlink and LevelDescriptions workbooks, saving your changes if you want to.**

Pasting charts into other Office documents

One more way to include objects from one workbook in another Office document is to copy the object you want to share and then paste it into its new location. For example, you can copy Excel charts to Word documents and PowerPoint presentations to reuse your data without inserting a worksheet into the file and re-creating your chart in that new location.

Pasting a copied chart into another Office document by using Ctrl+V creates a link between the workbook and the other Office document. Whenever the original data changes, both copies of the chart will change as long as the files can connect on a computer or over a network. You can also select the Use Destination Theme & Link Data option or the Keep Source Formatting & Link Data option from the Paste Options list to create this link and control how the pasted chart should appear.

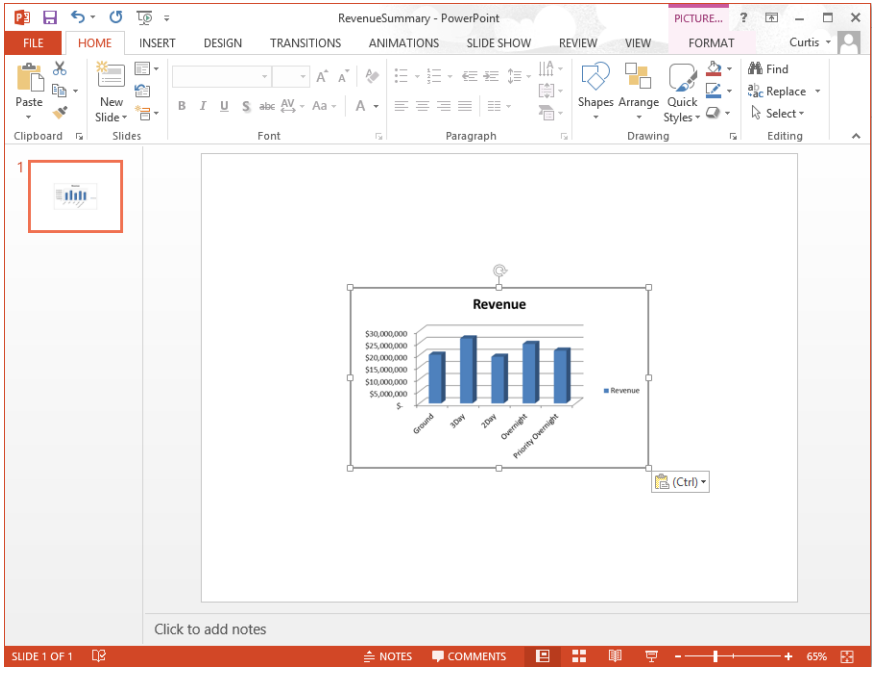
When you want to copy the current appearance of the chart to another document without creating a link back to the chart, you can right-click the chart and click Copy on the shortcut menu to copy the chart to the Microsoft Office Clipboard. Then, in the document into which you want to paste the chart's image, on the Home tab, in the Clipboard group, click the Paste button's arrow to display the menu of paste options that are available. The last option on the right, Picture, pastes an image of the chart in its current state.

In this exercise, you'll copy a chart to the Clipboard and paste an image of the chart into a PowerPoint presentation.

> **IMPORTANT** You must have PowerPoint 2013 installed on your computer to complete this exercise.

SET UP **You need the RevenueChart workbook and the RevenueSummary presentation located in the Chapter13 practice file folder to complete this exercise. Open the workbook and the presentation. Then follow the steps.**

1. In the **RevenueChart** workbook, right-click the chart, and then click **Copy** to copy the chart to the Clipboard.
2. Display the **RevenueSummary** presentation, which contains a single, blank slide.
3. Right-click a blank spot in the visible slide, and then, in the **Paste Options** area of the shortcut menu, click the **Picture** icon to paste the chart as a static image.



CLEAN UP **Close the RevenueChart workbook and the RevenueSummary presentation, saving your changes if you want to..**

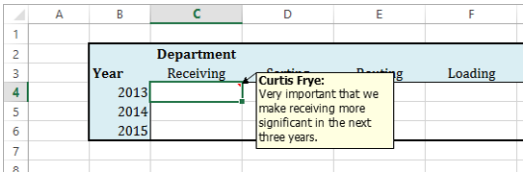
Key points

- Excel is a versatile program. You can exchange data between Excel and other Office programs in just a few steps.
- Because Excel is part of Office 2013, you can embed Excel worksheets into other Office documents and embed other Office documents into Excel workbooks.
- Excel works smoothly with the web You can add hyperlinks that go to webpages, other documents, or specific locations in the current workbook by using the options in the Insert Hyperlink dialog box.
- After you create a hyperlink, you can edit it to add a ScreenTip, change the text that appears in the link, or change the link's target.
- You can easily create charts in Excel. After you create a chart, you can paste it directly into another Office document.

Chapter at a glance

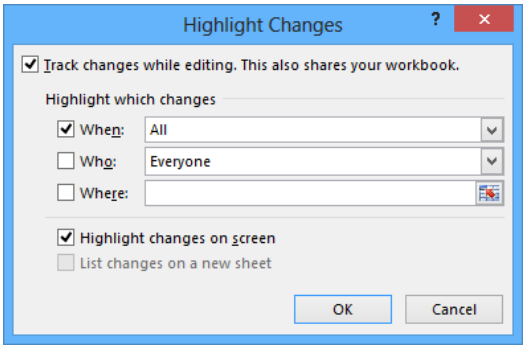
Manage

Manage comments,
page 418



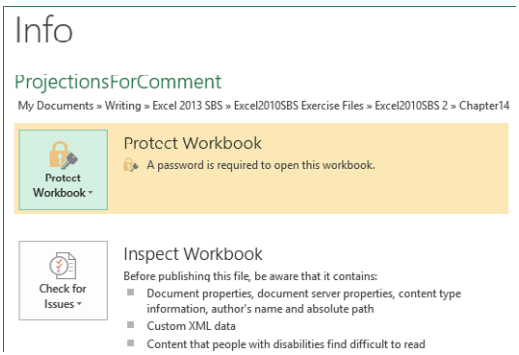
Track

Track and manage colleagues' changes,
page 420



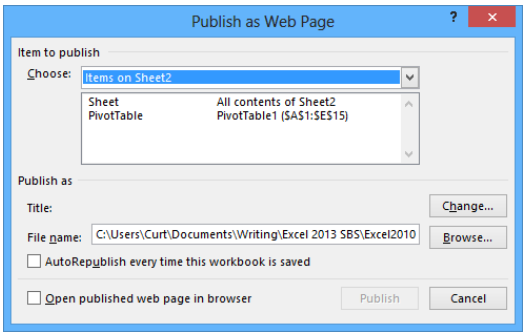
Protect

Protect workbooks and worksheets,
page 424



Save

Save workbooks as web content,
page 436



Collaborating with colleagues

14

IN THIS CHAPTER, YOU WILL LEARN HOW TO

- Share workbooks.
- Save workbooks for electronic distribution and as web content.
- Manage comments, and track and manage colleagues' changes.
- Protect workbooks and worksheets.
- Authenticate workbooks.
- Import and export XML data.
- Work with SkyDrive and Excel Web App.

Even though one individual might be responsible for managing an organization's financial data and related information, many people provide input about revenue projections. You and your colleagues can enhance the Microsoft Excel 2013 workbook data you share by adding comments that offer insight into the information the data represents, such as why revenue was so strong during a particular month or whether a service level might be discontinued. If the workbook in which those projections and comments will be stored is available on a network or an intranet site, you can allow more than one user to access the workbook at a time by turning on workbook sharing. When a workbook has been shared with your colleagues, you can have the workbook mark and record any changes made to it. You can then decide which changes to keep and which to reject.

If you prefer to limit the number of colleagues who can view and edit your workbooks, you can add password protection to a workbook, worksheet, cell range, or even an individual cell. By adding password protection, you can prevent changes to critical elements of your workbooks. You can also hide formulas used to calculate values.

If you work in an environment in which you and your colleagues, both inside and outside your organization, exchange files frequently, you can use a digital signature to help verify that your workbooks and any macros they contain are from a trusted source.

Finally, if you want to display information on a website, you can do so by saving a workbook as a webpage. Your colleagues won't be able to edit the workbook, but they will be able to view it and comment by email or phone.

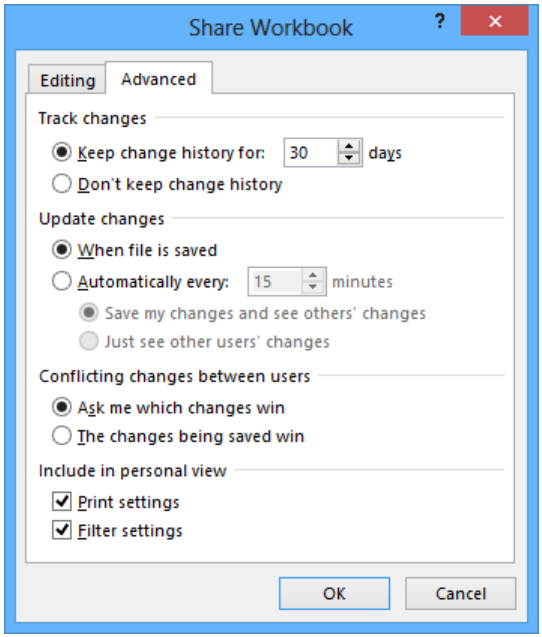
In this chapter, you'll share a workbook, save a workbook for electronic distribution, manage comments in workbook cells, track and manage changes made by colleagues, protect workbooks and worksheets, digitally sign your workbooks, and save your workbooks as web content. You'll also experiment with Microsoft SkyDrive and Microsoft Excel Web App.

PRACTICE FILES To complete the exercises in this chapter, you need the practice files contained in the Chapter14 practice file folder. For more information, see "Download the practice files" in this book's Introduction.

Sharing workbooks

For several users to edit a workbook simultaneously, you must turn on workbook sharing. Workbook sharing is perfect for an enterprise such as Consolidated Messenger, whose employees need to look up customer information, shipment numbers, and details on mistaken deliveries.

To turn on workbook sharing, on the Review tab, in the Changes group, click Share Workbook. On the Editing page of the Share Workbook dialog box, turn on workbook sharing by selecting the Allow Changes By More Than One User At The Same Time check box. You can then set the sharing options for the active workbook by clicking the Advanced tab.



IMPORTANT You can't share a workbook that contains an Excel table. To share the workbook, convert the Excel table to a regular cell range by clicking the Excel table, clicking the Design tab and then, in the Tools group, clicking Convert To Range. Click Yes in the dialog box that opens to confirm the change.

On the Advanced page of the Share Workbook dialog box, two settings are of particular interest. The first determines whether Excel should maintain a history of changes made to the workbook and, if so, for how many days it should keep the history. The default setting is for the program to retain a record of all changes made in the past 30 days, but you can enter any number of days you want. If you revisit your workbook on a regular basis, maintaining a list of all changes for the past 180 days might not be unreasonable. For a workbook that changes less frequently, a history reaching back 365 days (one year) could meet your tracking and auditing needs. Excel deletes the record of any changes made earlier than the time you set.

TIP You should find out whether your organization has an information retention policy that would affect the amount of time you should keep your workbooks' change histories.

The other important setting on this page deals with how Excel decides which of two conflicting changes in a cell should be applied. For example, a service level's price might change, and two of your colleagues might enter in what they think the new price should be. When Ask Me Which Changes Win is selected, you can decide whether to keep the original price or the changed price.

You can share a workbook with your colleagues in two main ways:

- You can make it available over your organization's network.
- You can send a copy of the file to your colleagues via email.

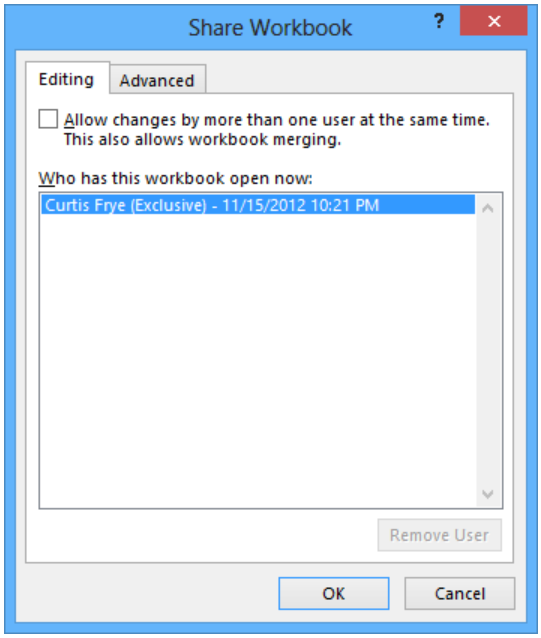
Every organization's network is different, so you should check with your network administrators to determine the best way to share a file. Similarly, although the specific command to attach a file to an email message is different in every email program, the most common method of attaching a file is to create a new email message and then click the Attach button, as you do in Microsoft Outlook 2013.

In this exercise, you'll turn on workbook sharing and then attach the file to an Outlook 2013 email message.

IMPORTANT You must have Outlook 2013 installed on your computer to follow this procedure exactly.

SET UP **You need the CostProjections workbook located in the Chapter14 practice file folder to complete this exercise. Open the workbook, and start Outlook. Then follow the steps.**

1 In Excel, on the **Review** tab, in the **Changes** group, click **Share Workbook** to open the **Share Workbook** dialog box.



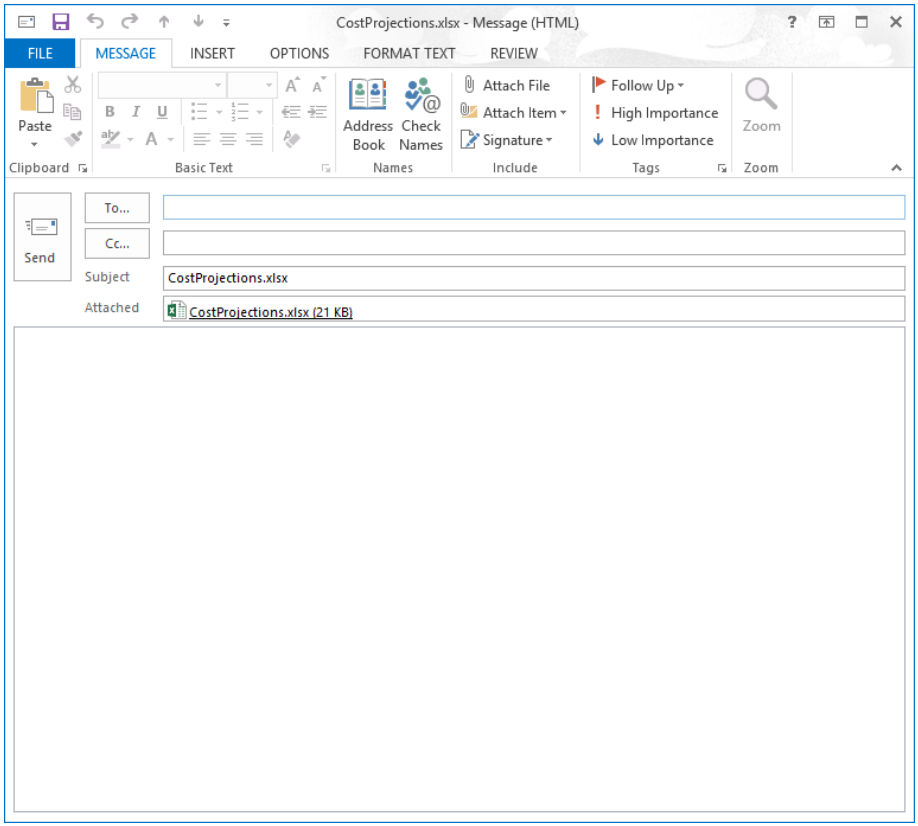
2 Select the **Allow changes by more than one user at the same time** check box.

TIP Workbook merging is the process of bringing changes from several copies of a shared workbook into the source workbook. For more information about the topic, press F1 to display the Excel Help dialog box, search for *workbook merging*, and then click the Merge Copies Of A Shared Workbook link.

3 Click **OK**. When you do, a message box appears, indicating that you must save the workbook for the action to take effect.

4 Click **OK** to save and share the workbook.

5 Click the **File** tab, click **Share**, click **Email**, and then click **Send as Attachment** to create a new email message with the **CostProjections** workbook attached.



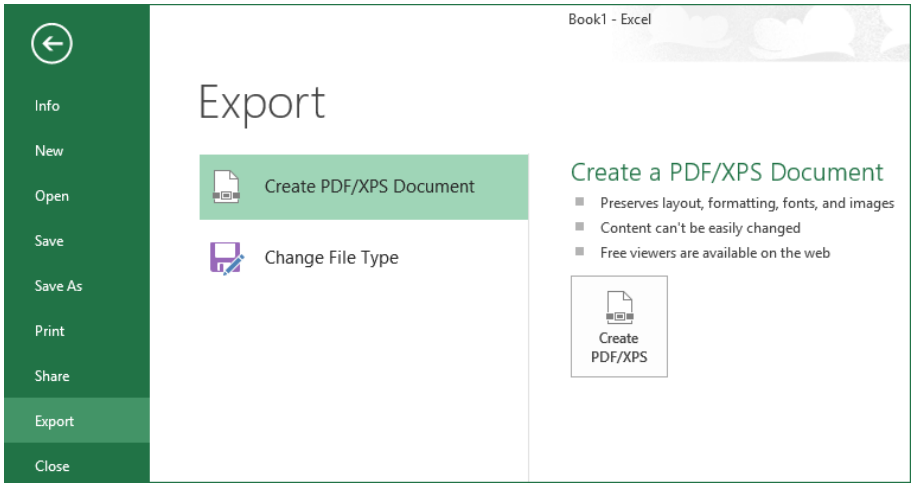
6 Enter an address in the **To** box.

7 Click **Send** to send the message. If Excel had to open your email program to send the message, the program would close at this point.

CLEAN UP **Exit Oulook and close the CostProjections workbook.**

Saving workbooks for electronic distribution

You can create a more secure, read-only copy of a workbook for electronic distribution by saving it as a Portable Document Format (PDF) or XML Paper Specification (XPS) file. The controls you use to do so are available on the Export page of the Backstage view.



Click the Create PDF/XPS button to open the Publish As PDF Or XPS dialog box. Enter a name for the destination file in the File Name box, select the file type you want from the Save As Type list, and then click Publish.

TIP You can also save a workbook as a PDF or XPS document by clicking Save As in the Backstage view. Then, in the Save As dialog box, in the Save As Type list, select either PDF or XPS to create the type of file you want.

In this exercise, you will save a workbook as a PDF file.

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

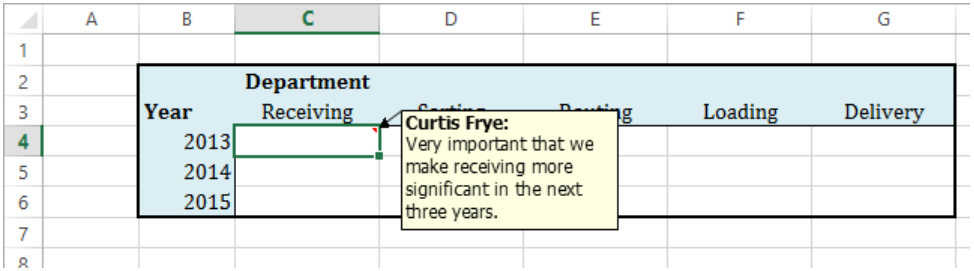
1. Click the **File** tab to display the **Backstage** view, and then click **Export** to display the **Export** page.
2. Click **Create PDF/XPS Document**, and then click the **Create PDF/XPS** button.
3. In the **Publish As PDF Or XPS** dialog box, select the file format you want.
4. If you plan to distribute the file online but not print it, click **Minimum Size**.
5. If you want to specify what portion of the workbook or types of content to publish, click the **Options** button, make your selections, and then click **OK**.
6. Click **Publish**.

CLEAN UP **Close the ProjectionsDistro workbook.**

Managing comments

Excel makes it easy for you and your colleagues to insert comments in workbook cells. Those comments can add insights that go beyond the cell data; for example, if a regional processing center's package volume is exceptionally high on a particular day, the center's manager can add a comment to the cell in which shipments are recorded for that day, and note that two very large bulk shipments accounted for the disparity.

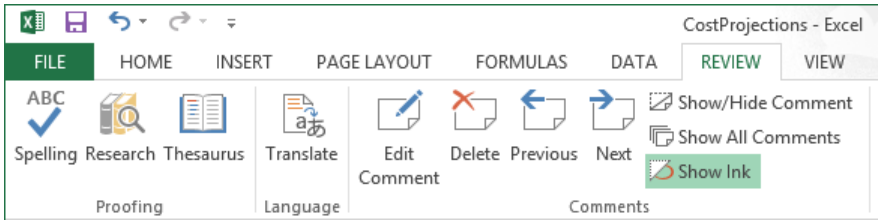
When you add a comment to a cell, a flag appears in the upper-right corner of the cell. When you point to a cell that contains a comment, the comment appears in a box next to the cell, along with the user name of the person who was logged on to the computer on which the comment was created.



IMPORTANT Note that the name attributed to a comment might not be the same as the name of the person who actually created it. Access controls, such as those that require users to enter account names and passwords when they access a computer, can help track the person who made a comment or change.

You can add a comment to a cell by clicking the cell, clicking the Review tab, and then clicking New Comment. When you do, the comment flag appears in the cell, and a comment box appears next to the cell. You can enter the comment in the box and, when you're done, click another cell to close the box.

If you want a comment to be shown the entire time the workbook is open, click the cell that contains the comment, click the Review tab and then, in the Comments group, click Show/Hide Comment. You can hide the comment by clicking the same button when the comment appears in the workbook, and delete the comment by clicking the Review tab and then, in the Comments group, clicking Delete. Or you can open the comment for editing by clicking Edit Comment in the Comments group.



TIP You can also manage comments by right-clicking a cell that contains a comment and then using the commands on the shortcut menu.

IMPORTANT When someone other than the original user edits a comment, that person's input is marked with the new user's name and is added to the original comment.

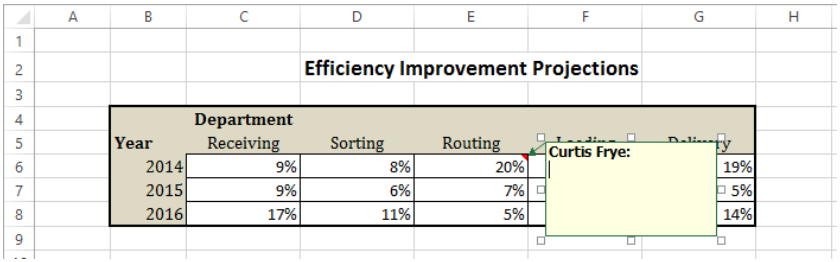
You can control whether a cell displays just the comment indicator or the indicator and the comment itself by clicking a cell that contains a comment and then, on the Review tab, clicking the Show/Hide Comment button. Clicking the Show/Hide Comment button again reverses your action. If you've just begun to review a worksheet and want to display all of the comments on the sheet, display the Review tab and click the Show All Comments button. To move through the worksheet's comments one at a time, click the Previous or Next button.

In this exercise, you'll add comments to two cells. You will then highlight the cells that contain comments, review a comment, and delete that comment.

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

1 Click cell **E6**.

2 On the **Review** tab, in the **Comments** group, click **New Comment**. When you do, a red comment flag appears in cell **E6** and a comment box appears next to the cell.



3 In the comment box, enter **Seems optimistic; move some improvement to the next year?**

4 Click any cell outside the comment box to hide the comment box.

5 Click cell **G7**.

6 On the **Review** tab, in the **Comments** group, click **New Comment**.

7 In the comment box, enter **Should have more increases as we integrate new processes**.

8 Click any cell outside the comment box to hide the comment box.

9 Click cell **G7**.

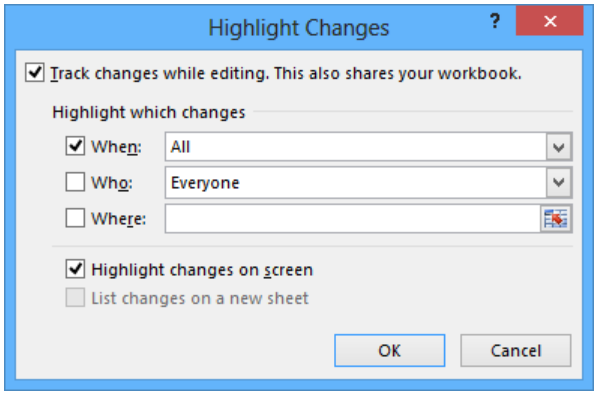
10 On the **Review** tab, in the **Comments** group, click **Delete** to remove the comment.

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

Tracking and managing colleagues' changes

Whenever you collaborate with your colleagues to produce or edit a document, you should consider tracking the changes each user makes. When you turn on change tracking, any changes made to the workbook are highlighted in a color assigned to the user who made the changes. One benefit of tracking changes is that if you have a question about a change, you can quickly identify who made the change and verify whether the change is correct. In Excel, you can turn on change tracking in a workbook by clicking the Review tab and then, in the Changes group, clicking Track Changes, and clicking Highlight Changes.

In the Highlight Changes dialog box that opens, select the Track Changes While Editing check box. Selecting this check box saves your workbook, turns on change tracking, and also shares your workbook, which enables more than one user to access the workbook simultaneously.



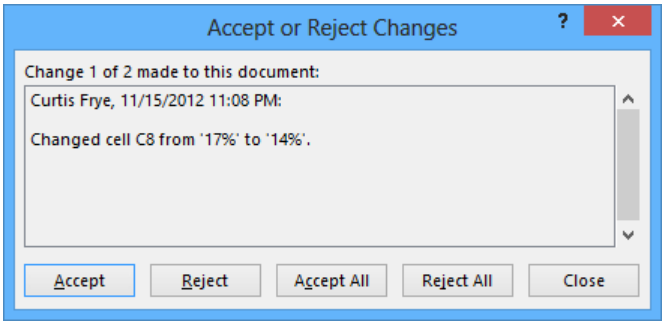
You can use the commands in the Highlight Changes dialog box to choose which changes to track. When the When, Who, and Where check boxes are selected, Excel will track all changes. By selecting a check box and using the commands to specify a time frame, users, or areas of the workbook, you can limit which changes are highlighted. Each user's changes are displayed in a unique color. When you point to a cell that contains a change, the date and time when the change was made and the name of the user who made it appear as a ScreenTip.

TIP Selecting the When check box and choosing the All option has the same effect as clearing the check box.

After you and your colleagues finish modifying a workbook, anyone with permission to open the workbook can decide which changes to accept and which changes to reject. To start the process, click the Review tab. In the Changes group, click Track Changes, and then click Accept Or Reject Changes. After you clear the message box that indicates Excel will save your workbook, the Select Changes To Accept Or Reject dialog box opens. From the When list, you can choose which changes to review. The default choice is Not Yet Reviewed, but you can also click Since Date to open a dialog box in which you can enter the starting date of changes you want to review. To review all changes in your workbook, clear the When, Who, and Where check boxes.

TIP After you and your colleagues have finished making changes, you should turn off workbook sharing to help ensure that you are the only person able to review the changes and decide which to accept.

When you are ready to accept or reject changes, click OK. The Accept Or Reject Changes dialog box opens and displays the first change, which is described in the body of the dialog box. Clicking the Accept button finalizes the change; clicking the Reject button removes the change, restores the cell to its previous value, and erases any record of the change. Clicking Accept All or Reject All finalizes all changes or restores all cells to their original values, but you should choose one of those options only if you are absolutely certain you are doing the right thing.



IMPORTANT Clicking the Undo button on the Quick Access Toolbar or pressing Ctrl+Z will not undo the operation.

You can create an itemized record of all changes made since the last time you saved the workbook by adding a History worksheet to your workbook. To add a History worksheet, click Track Changes in the Changes group, and then click Highlight Changes to open the Highlight Changes dialog box. Select the List Changes On A New Sheet check box. When you click OK, a new worksheet named History opens in your workbook. Excel will delete the History worksheet the next time you save your workbook.

In this exercise, you'll turn on change tracking in a workbook, make changes to the workbook, accept the changes, and create a History worksheet.

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

1 On the **Review** tab, in the **Changes** group, click **Track Changes**, and then click **Highlight Changes** to open the **Highlight Changes** dialog box.

2 Select the **Track changes while editing** check box to activate the **Highlight which changes** area, and then clear the **When** check box.

3 Click **OK**. When you do, a message box appears, indicating that Excel will save the workbook.

4 Click **OK** to close the message box. Excel saves the workbook and begins tracking changes.

5 In cell **E6**, enter 16%, and then press **Enter**. A blue flag appears in the upper-left corner of cell **E6**, indicating that the cell was changed.

6 In cell **E7**, enter 14%, and then press **Enter**.

	A	B	C	D	E	F	G	H
1								
2					**Efficiency Improvement Projections**			
3								
4			**Department**					
5		**Year**	Receiving	Sorting	Routing	Loading	Delivery	
6		2014	9%	8%	16%	13%	19%	
7		2015	9%	6%	14%	5%	5%	
8		2016	17%	11%	5%	5%	14%	
9								

7 On the **Quick Access Toolbar**, click the **Save** button to save your work.

8 On the **Review** tab, in the **Changes** group, click **Track Changes**, and then click **Highlight Changes** to open the **Highlight Changes** dialog box.

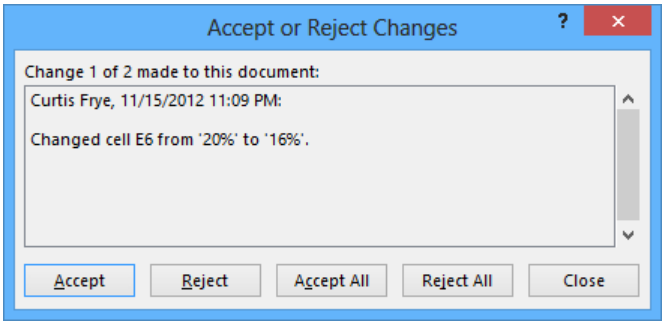
9 Select the **List changes on a new sheet** check box, clear the **When** check box, and then click **OK**. Excel creates and displays a worksheet named **History**, which contains a list of all changes made since the last time a user accepted or rejected changes.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Action Number	Date	Time	Who	Change	Sheet	Range	New Value	Old Value	Action Type	Losing Action	
2	1	11/15/2012	11:09 PM	Curtis Frye	Cell Change	Sheet1	E6	16%	20%			
3	2	11/15/2012	11:09 PM	Curtis Frye	Cell Change	Sheet1	E7	14%	17%			
4												
5	The history ends with the changes saved on 11/15/2012 at 11:09 PM.											
6												

10 Click the **Sheet1** sheet tab to display the **Sheet1** worksheet.

11 On the **Review** tab, in the **Changes** group, click **Track Changes**, and then click **Accept/Reject Changes**. The **Select Changes to Accept or Reject** dialog box opens.

12 Click **OK** to display the first change in the **Accept or Reject Changes** dialog box.



13 Click **Accept** to keep the change and display the next change.

14 Click **Accept** to keep the change and delete the **History** worksheet. The **Accept or Reject Changes** dialog box closes.

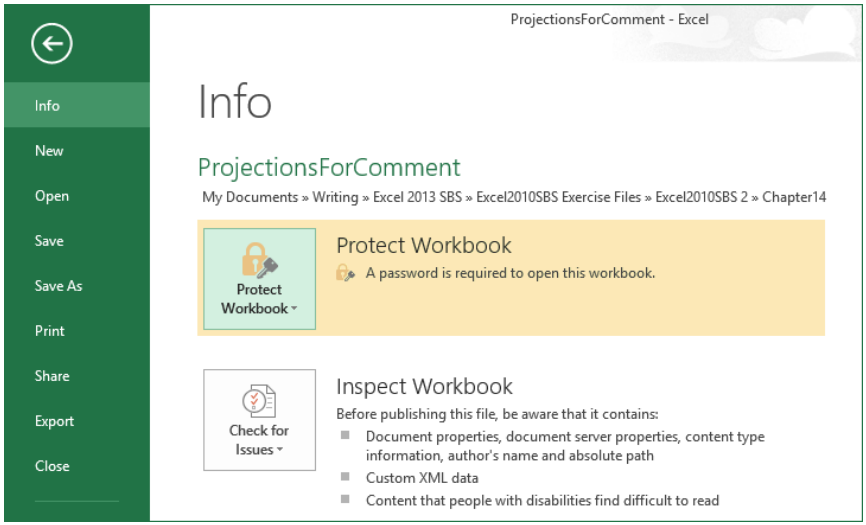
CLEAN UP **Close the ProjectionChangeTracking workbook, saving your changes if you want to.**

Protecting workbooks and worksheets

Excel gives you the ability to share your workbooks over the web, over a corporate intranet, or by creating copies of files for other users to take on business trips. An important part of sharing files, however, is ensuring that only those users who you want to have access to the files can open or modify them. For example, Consolidated Messenger might have a series of computers available in a processing center so that supervisors can look up package volumes and handling efficiency information. Although those computers are vital tools for managing the business process, it doesn't help the company to have unauthorized personnel, even those with good intentions, accessing critical workbooks.

You can limit access to your workbooks or elements within workbooks by setting passwords. When you set a password for an Excel workbook, any users who want to access the protected workbook must enter the workbook's password in a dialog box that opens when they try to open the file. If users don't know the password, they cannot open the workbook.

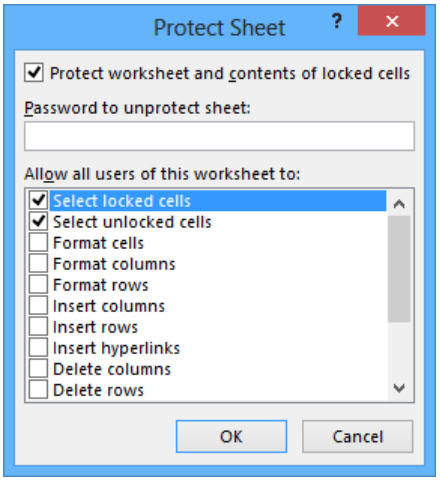
To set a password for a workbook, open the workbook to be protected, and display the workbook in the Backstage view. On the Info page of the Backstage view, click the Protect Workbook button, and then click Encrypt With Password. The Encrypt Document dialog box opens, with a Password box in which you can enter your password. After you click OK, the Confirm Password dialog box opens, in which you can verify the password required to open the workbook. After you have confirmed the password, click OK. Now the Info page indicates that users must enter a password to open the file.



To remove the password from a workbook, repeat these steps, but delete the password from the Encrypt Document dialog box and save the file.

TIP The best passwords are long strings of random characters, but random characters are hard to remember. One good method of creating hard-to-guess passwords is to string two or more words and a number together. For example, the password *genuinestarcalibration302* is 24 characters long, combines letters and numbers, and is easy to remember. If you must create a shorter password to meet a system's constraints, avoid dictionary words and include uppercase letters, lowercase letters, numbers, and any special symbols such as ! or # if they are allowed.

If you want to allow anyone to open a workbook but want to prevent unauthorized users from editing a worksheet, you can protect a worksheet by displaying that worksheet, clicking the Review tab and then, in the Changes group, clicking Protect Sheet to open the Protect Sheet dialog box.

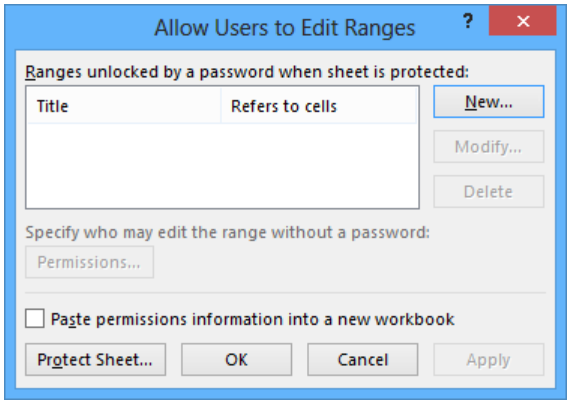


In the Protect Sheet dialog box, you can select the Protect Worksheet And Contents Of Locked Cells check box to protect the sheet. You can also set a password that a user must enter before protection can be turned off again, and choose which elements of the worksheet a user can change while protection is turned on. To allow a user to change a worksheet element without entering the password, select the check box next to that element's name.

The check box at the top of the worksheet mentions locked cells. A locked cell is a cell that can't be changed when worksheet protection is turned on. You can lock or unlock a cell by right-clicking the cell and then clicking Format Cells. In the Format Cells dialog box, you click the Protection tab and select the Locked check box.

When worksheet protection is turned on, selecting the Locked check box prevents unauthorized users from changing the contents or formatting of the locked cell, whereas selecting the Hidden check box hides the formulas in the cell. You might want to hide the formula in a cell if you draw sensitive data, such as customer contact information, from another workbook and don't want the name of the workbook in a formula to be viewed by casual users.

Finally, you can password-protect a cell range. For example, you might want to let users enter values in most worksheet cells but also want to protect the cells by using formulas that perform calculations based on those values. To password-protect a range of cells, select the cells to protect, click the Review tab and then, in the Changes group, click Allow Users To Edit Ranges. The Allow Users To Edit Ranges dialog box opens.



To create a protected range, click the New button to display the New Range dialog box. Enter a name for the range in the Title box, and then enter a password in the Range Password box. When you click OK, Excel asks you to confirm the password; after you do, click OK in the Confirm Password dialog box and again in the Allow Users To Edit Ranges dialog box to protect the range. Now, whenever users try to edit a cell in the protected range, they are prompted for a password.

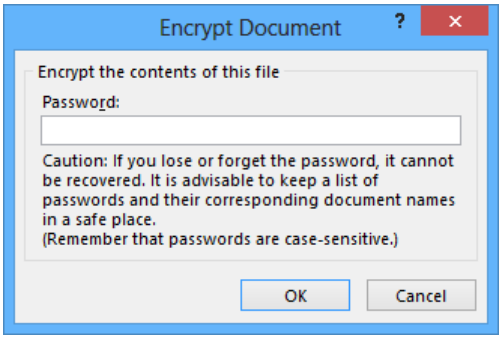
TIP Remember that a range of cells can mean just one cell.

In this exercise, you'll password-protect a workbook, a worksheet, and a range of cells. You will also hide the formula in a cell.

SET UP **You need the SecureInfo 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, if necessary, click **Info** to display the **Info** page.

2 Click the **Protect Workbook** button, and then click **Encrypt with Password** to open the **Encrypt Document** dialog box.



3 Enter **work14pro** in the **Password** box.

4 Click **OK**. When you do, the **Confirm Password** dialog box opens.

5 In the **Reenter password** box, enter **work14pro**.

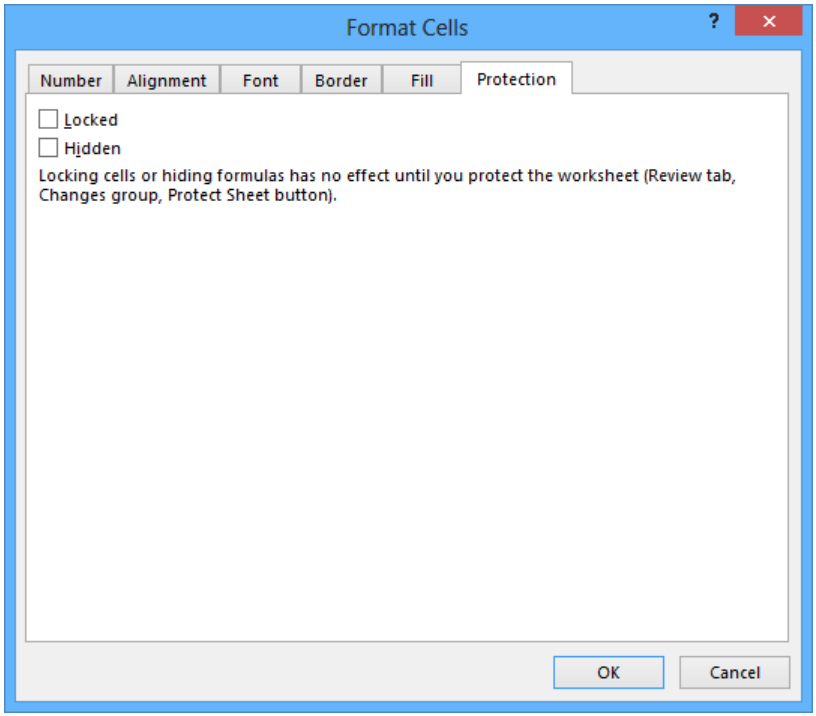
6 Click **OK** to close the **Confirm Password** dialog box.

7 Click the **Go Back** button in the upper-left corner of the **Backstage** view.

8 Click the **Review** tab and, if necessary, click the **Performance** sheet tab to display the **Performance** worksheet.

9 Right-click cell **B8**, and then click **Format Cells** to open the **Format Cells** dialog box.

10 Click the **Protection** tab to display the **Protection** page of the dialog box.



11 Select the **Hidden** and **Locked** check boxes, and then click **OK**. Excel formats cell **B8** so that it won't display its formula after you protect the worksheet.

12 On the **Review** tab, in the **Changes** group, click **Protect Sheet** to open the **Protect Sheet** dialog box.

13 In the **Password to unprotect sheet** box, enter **prot300pswd**.

14 Clear the **Select locked cells** and **Select unlocked cells** check boxes, and then click **OK**. When you do, the **Confirm Password** dialog box opens.

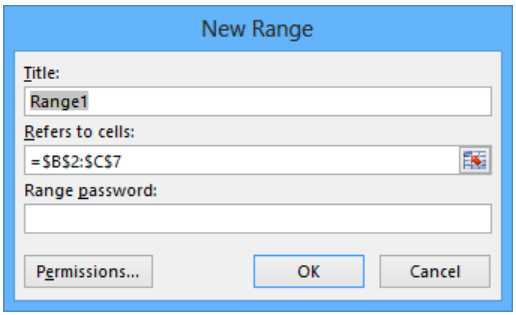
15 In the **Reenter password to proceed** box, enter **prot300pswd**, and then click **OK**.

16 Click the **Weights** sheet tab to display the **Weights** worksheet.

17 Select the cell range **B2:C7**.

18 On the **Review** tab, in the **Changes** group, click **Allow Users to Edit Ranges** to open the **Allow Users to Edit Ranges** dialog box.

19 Click **New**. When you do, the **New Range** dialog box opens, with the range **B2:C7** displayed in the **Refers to cells** box.



20 In the **Title** box, enter **AllWeights**.

21 In the **Range password** box, enter **work14pro**, and then click **OK**.

22 In the **Confirm Password** dialog box, reenter the password **work14pro**. The range appears in the **Allow Users to Edit Ranges** box.

23 Click **Protect Sheet** to open the **Protect Sheet** dialog box.

24 In the **Password to unprotect sheet** box, enter **work14pro**, and then click **OK**.

25 In the **Confirm Password** dialog box, reenter the password **work14pro**, and then click **OK**.

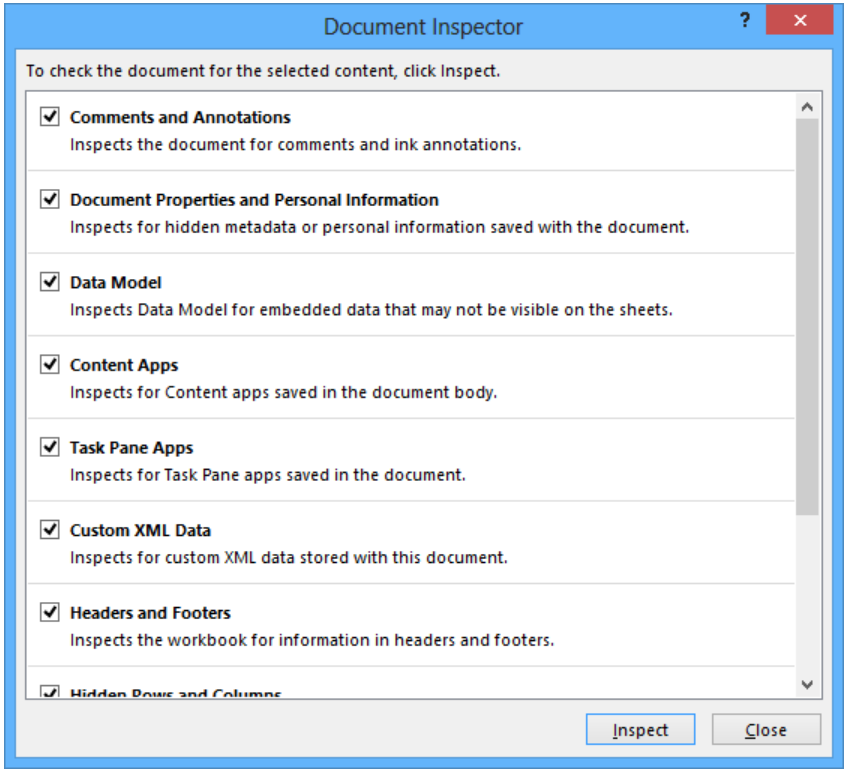
CLEAN UP **Close the SecureInfo workbook, saving your changes if you want to.**

Finalizing workbooks

Distributing a workbook to other users carries many risks, not the least of which is the possibility that the workbook might contain private information you don't want to share with users outside your organization. With Excel, you can inspect a workbook for information you might not want to distribute to other people, and create a read-only final version that prevents other people from making changes to the workbook content.

Using the Document Inspector, you can quickly locate comments and annotations, document properties and personal information, custom XML data, headers and footers, hidden rows and columns, hidden worksheets, and invisible content. You can then easily remove any hidden or personal information that the Document Inspector finds.

To start the Document Inspector, save the file, and then display the Info page of the Backstage view. Click the Check For Issues button, and then click Inspect Document to open the Document Inspector dialog box.



The Document Inspector checks your document for every category of information that is selected in the list. Clear the check box of any type of information you want to remain in the workbook, and then click Inspect. In the inspection results dialog box that appears, click the Remove All button to the right of any data you want to remove.

When you're done making changes to a workbook, you can mark it as final. Marking a workbook as final sets the status property to Final and turns off data entry and editing commands. To mark a workbook as final, display the Info page of the Backstage view, click Protect Workbook, click Mark As Final, and then click OK to verify that you want to finalize the workbook.

To restore functionality to a workbook that has been marked as final, display the Info page of the Backstage view, click Protect Workbook, and then click Mark As Final to change its status.

To inspect and remove hidden or personal information, follow these steps:

1. Press **Ctrl+S** to save the file.
2. Display the **Info** page of the **Backstage** view, click **Check for Issues**, and then click **Inspect Document** to open the **Document Inspector** dialog box.
3. Clear the check box of any content type that you want to remain in the document, and click **Inspect**.
4. In the inspection results list, click the **Remove All** button to the right of any category of data that you want to remove.

Marking a workbook as final sets the status property to Final and turns off data entry, editing commands, and proofreading marks.

To mark a workbook as final, follow these steps:

1. Display the **Info** page of the **Backstage** view, click **Protect Workbook**, and then click **Mark as Final**.
2. In the message box that indicates that the file will be marked as final and then saved, click **OK**.
3. In the message box that indicates that the file has been marked as final, click **OK**.

Authenticating workbooks

The unfortunate reality of exchanging files over networks, especially over the Internet, is that you need to be sure you know the origin of the files you're working with. One way an organization can guard against files with viruses or substitute data is to authenticate every workbook by using a digital signature. A digital signature is a character string created by combining a user's unique secret digital signature file mathematically with the contents of the workbook, which programs such as Excel can recognize and use to verify the identity of the user who signed the file. A good analogy for a digital signature is a wax seal, which was used for thousands of years to verify the integrity and origin of a document.

TIP The technical details of and procedure for managing digital certificates are beyond the scope of this book, but your network administrator should be able to create a digital certificate for you. You can also directly purchase a digital signature from a third party, which can usually be renewed annually for a small fee. For the purposes of this book, you can use the selfcert.exe Microsoft Office accessory program to generate a certificate with which to perform the exercise in this topic. This type of certificate is useful for certifying a document as part of a demonstration, but other users will not accept it as a valid certificate.

To create a digital certificate that you can use as a demonstration, navigate to the folder that contains your Office 2013 program files. Whether you have the selfcert.exe file and the specific folder it's in if you do have it depends on your computer's configuration, the drive onto which you installed Office 2013, and whether you installed all available files when you installed Office 2013. One typical folder is C:\Program Files (x86)\Microsoft Office\Office15. In that folder, which contains a large number of files, you will find the selfcert.exe program. Double-click the program to run it.

In the Create Digital Certificate dialog box, enter a name for your certificate and click OK to have the program create your trial certificate. Then, in Excel, display the Info page of the Backstage view, click Protect Workbook, and click Add A Digital Signature. In the Sign dialog box, enter your purpose for signing the document, select the certificate you want to use, and then click Sign to sign your workbook.

IMPORTANT After you click Add A Digital Signature, Excel checks your computer for usable digital certificates. If it can't find one, Excel displays a dialog box that indicates that you can buy digital signatures from third-party providers. To get information about those services, click the Signature Services From The Office Marketplace button. You won't be able to add a digital signature to a file until you acquire a digital certificate, either by generating a test certificate using the included selfcert.exe program or by purchasing one through a third-party vendor.