



Inside **OUT**

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with expert advice
Companion eBook + sample files

Microsoft Excel 2013

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Introduction

MICROSOFT EXCEL 2013 has evolved from being a robust grid-based number-cruncher, to becoming the world's most robust grid-based number-cruncher that also happens to be pretty good at text manipulation, graphics, and many other things that were barely imaginable back in the days of Excel 1.0.

Excel is a tool that can be applied to many business tasks, including statistics, finance, data management, forecasting, analysis, inventory, billing, business intelligence, even word processing and graphic design. Excel is also one of the world's most popular programs for keeping all kinds of business and personal lists, from professional contacts to family addresses to home inventories.

There are a lot of great features to learn about, so let's get started.

Who this book is for

This book offers a comprehensive look at the features most people will use in Excel 2013 and serves as an excellent reference for users who need to understand how to accomplish what they need to do. In addition, this book goes a step or two further, providing useful information to advanced users who need to understand the bigger picture.

Assumptions about you

The *Inside Out* series is designed for readers who have some experience with Excel and are pretty comfortable finding their way around the program. You don't have to be a power user or an Excel developer.

How this book is organized

This book gives you a comprehensive look at the various features you will use. This book is structured in a logical approach to all aspects of using and managing Excel 2013.

Part 1, "Examining the Excel environment," covers the new features in the 2013 release, and also discusses the basics of using Excel.

Part 2, "Building worksheets," covers the details of how to construct and organize worksheets, and how to work with multiple sheets and workbooks.

Part 3, "Formatting and editing worksheets," covers all aspects of editing text and data, and applying cosmetics to make your worksheets more user-friendly.

Part 4, "Adding graphics and printing," describes how to work with Excel's full-featured graphics tools and how to prepare your worksheets for printing.

Part 5, "Creating formulas and performing data analysis," explains in detail how to construct formulas, and how to use Excel's sophisticated analysis tools.

Part 6, "Creating charts," shows how to get the most out of Excel's robust charting tools.

Part 7, "Managing databases and tables," covers the special properties of tables and PivotTables, and describes how to work with external data.

Part 8, "Using Excel collaboratively," discusses issues surrounding the use of Excel workbooks and worksheets on the Internet and with email systems, and also covers Office 365.

Part 9, "Automating Excel," covers recording and debugging macros and creating custom functions.

Part 10, "Integrating and extending Excel," discusses the use of hyperlinks, the sharing of data among Office programs, and more.

Does your ribbon look different?

The screen images shown in this book were captured at the screen resolution, magnification, and text size that are optimum for publication purposes. The ribbon on your screen might not look the same as the one shown in the book. For example, you might see more or fewer buttons in each of the groups, the buttons you see might be represented by larger or smaller icons than those shown, or the group might be represented by a single button that you click to display the group's commands.

About the companion content

We have included this companion content to give you an opportunity to gain hands-on experience with some of the concepts explored in this book. You can download this book's companion content from the following page:

<http://aka.ms/Excel2013InsideOut/files>

The companion content includes sample Excel workbooks and other sample content referred to in the text.

Acknowledgments

We are lucky to have the best editorial team in the business, making authors look better than they deserve and facing inevitable issues with grace and thoughtfulness. Many thanks to project manager and shepherd-in-chief Curtis Philips; eagle-eye tech editor Rozanne Whalen; our copy editor, the incessantly nit-picky Roger LeBlanc; our proofreader and last line of defense, Andrea Fox; and the intrepid Valerie Woolley and Rosemary Caperton, cranking the big ol' book-making machine at Microsoft Press. It's always a pleasure to play with the A-team.

Support and feedback

The following sections provide information on errata, book support, feedback, and contact information.

Errata & support

We've made every effort to ensure the accuracy of this book and its companion content. Any errors that have been reported since this book was published are listed on our Microsoft Press site at oreilly.com:

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YOU NEEDN'T settle for the way the Microsoft Excel 2013 command and control system is organized. You can customize the Quick Access Toolbar and the ribbon, so if you feel that the Microsoft interface designers didn't exactly have you in mind, you can make a lot of adjustments to Excel 2013.

Customizing the ribbon

When the ribbon was introduced in Office 2007, it was fixed—you couldn't modify the user interface unless you were conversant in VBA or XML. In Office 2013, the ribbon is open for interpretation; you can freely rearrange command groups; change the order and position of tabs; remove groups; and create custom commands, groups, and tabs. The bad news: you cannot add or delete commands from existing groups, and you cannot delete existing tabs. But this really isn't much of a problem; a truly dedicated customizer can create a whole new set of tabs and stick them in front, forcing the default tabs off the screen, or simply hide all the default tabs.

Start by right-clicking anywhere on the ribbon and selecting the Customize The Ribbon command on the shortcut menu that appears. This opens the Excel Options dialog box with the Customize Ribbon category selected (saving you several mouse clicks), as shown in Figure 3-1.

Does your ribbon look different?

The screen images shown in this book were captured at the screen resolution, magnification, and text size that is optimum for publication purposes. The ribbon on your screen might not look the same as the one shown in the book. For example, you might see more or fewer buttons in each of the groups, the buttons you see might be represented by larger or smaller icons than those shown, or the group might be represented by a single button that you click to display the group's commands

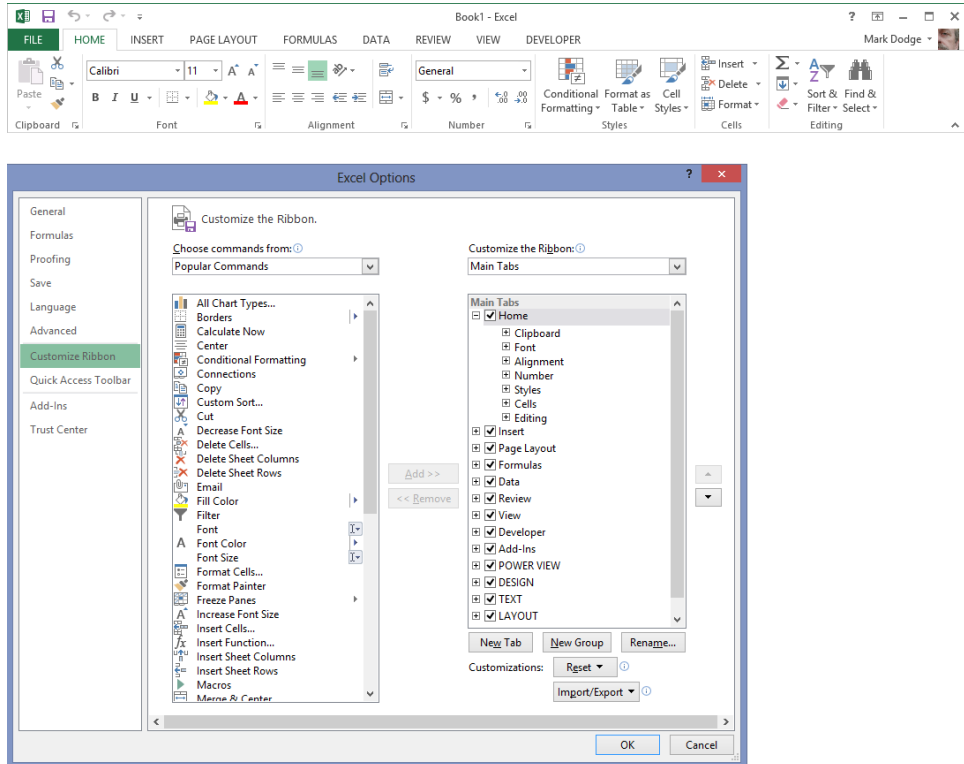


Figure 3-1 The outline on the right side of the dialog box controls the ribbon's structure.

The Customize Ribbon category in the Excel Options dialog box displays two scrollable lists. The Choose Commands From list on the left displays commands you can use to create your own command groups and tabs. The list on the right shows the current contents of the ribbon as a collapsible outline, making it easy to see the ribbon's structure. The first level of the outline represents tabs, and the second level of the outline represents command groups, corresponding to the labels at the bottom of each group (Clipboard, Font, Alignment, and so on) on the ribbon. Click the plus sign icons to reveal the subordinate groups and commands. Many groups have additional plus signs that expose another level of commands. For example, Figure 3-2 shows the outline for the Font group fully expanded. There are a lot of commands in this one group—more than you can see at once.

Note

Some items in the outline might be wider than can be displayed in the dialog box at its default size. Just drag any border of the dialog box to make it wider or deeper. The next few figures were created after making the dialog box a bit larger for ease of viewing.

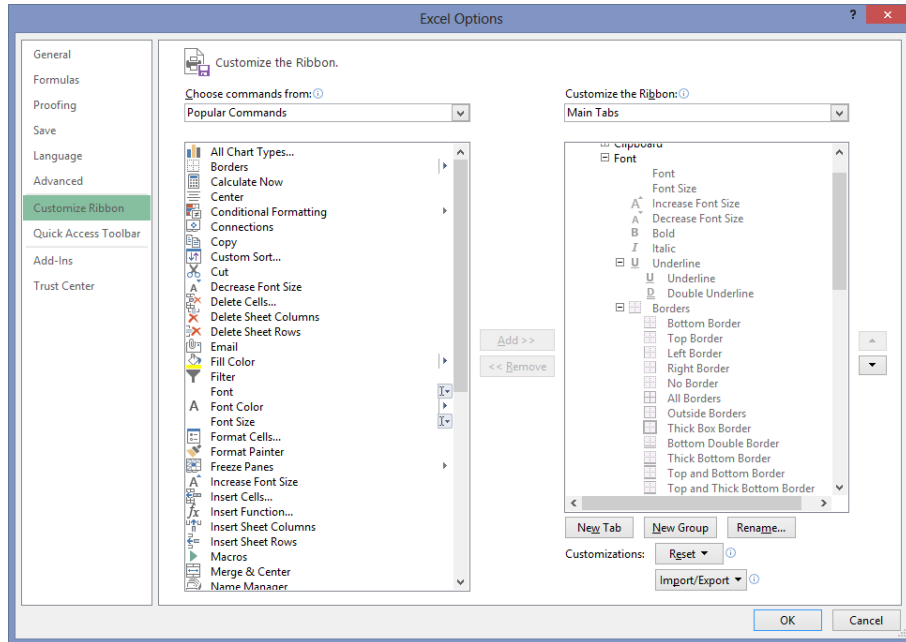


Figure 3-2 The list on the right is a collapsible outline listing the current contents of the ribbon.

The drop-down list boxes above each list contain categories you use to filter the list of displayed commands. For example, Figure 3-3 shows the drop-down list with one of the more interesting categories selected: Commands Not In The Ribbon. This category is fun to browse just to see what you've been missing.

Note

You can clear the check box next to a tab in the outline to hide it on the ribbon; select it to display it. Note that many tabs are dynamic, such as the Add-Ins tab in Figure 3-1, and all of the Tool tabs in Figure 3-3. Even if they are selected in the outline, they do not appear on the ribbon until they're needed.

On the right side of the dialog box in Figure 3-3, the Tool Tabs option is selected in the drop-down list. This displays a wealth of hidden tabs and groups on the ribbon that are normally invisible but that appear dynamically when the appropriate object or tool is selected.

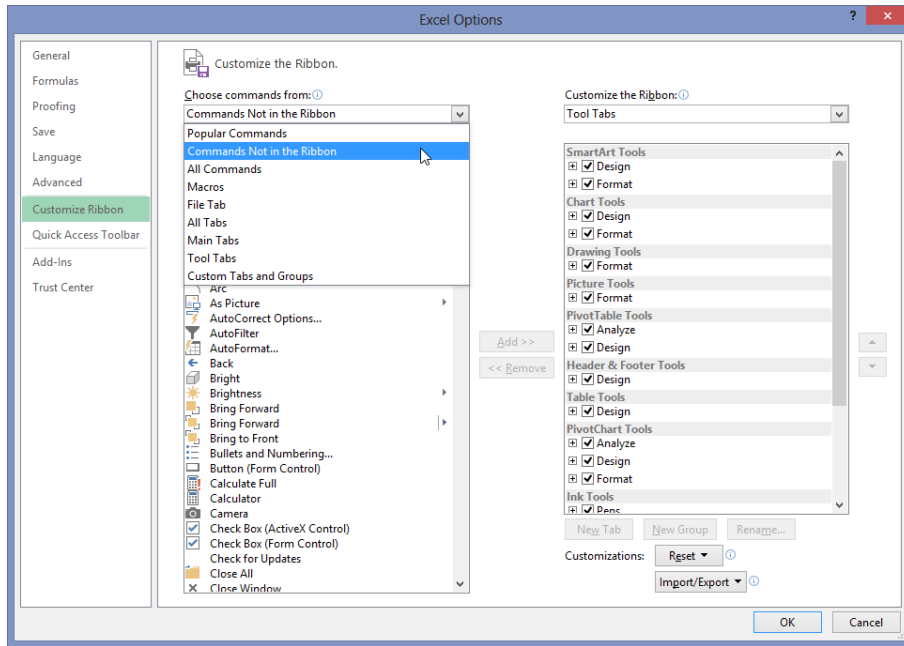


Figure 3-3 Choose options from the drop-down lists above to filter the contents of the scrollable lists below.




Identifying items in the Customize Ribbon and Quick Access Toolbar categories

Most of the items you can see in the command list on the left side of the Customize Ribbon category in the Excel Options dialog box are buttons. That is, clicking the command button on the ribbon executes the associated command immediately. You can see that some items also have a small icon to the right of the command name in the dialog box. These are called *command modifiers*, and they tell you that although the item might still be a button, it is also something more, as detailed in Table 3-1. (Note that this also applies to the Quick Access Toolbar category in the Excel Options dialog box. The controls are almost identical to those in the Customize Ribbon category.)

The Quick Access Toolbar is discussed later in “Customizing the Quick Access Toolbar.”

If you want a little more information about the commands in the command list, rest the pointer on any command to display a ScreenTip.

TABLE 3-1 Command modifiers

Item	Description	Image
Drop-down list	A control that displays a menu or palette from which you select an option, such as the Conditional Formatting button on the Home tab	
Split button	A two-part item—one side looks and acts like a button, and the other side has a small arrow that displays a drop-down list, such as the Font Color button on the Home tab	
Edit control	A control you can type into—for example, the Font drop-down list on the Home tab	

Creating a custom ribbon tab

You can add custom groups to existing tabs, but if you have limited screen real estate, creating your own tabs might make more sense. To do so, first right-click the ribbon, click *Customize The Ribbon*, and then click the *New Tab* button. This creates a new top-level outline item provisionally titled *New Tab (Custom)*. Select *New Tab (Custom)*, and then click the *Rename* button to display the dialog box shown in Figure 3-4. The new tab is inserted below the selected tab in the outline.

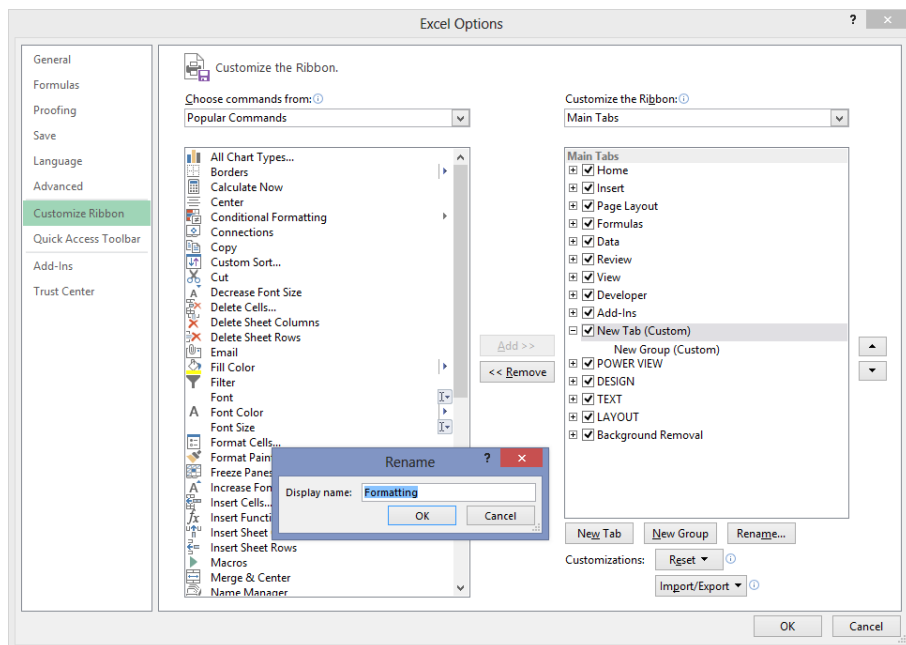


Figure 3-4 Create a new ribbon tab by clicking the *New Tab* button, and then click *Rename* to give it a sensible moniker.

After you create a tab, you need a group, because commands can be added only to groups. Helpfully, a custom group is created automatically whenever you create a custom tab, as shown in Figure 3-4. Even after you rename a tab or a group, (Custom) continues to appear, appended in the outline to any title you provide, which helps to quickly identify your own tabs and groups.

You can reposition any tab or group in the outline by simply dragging it to a new location, or you can select it and click the arrow buttons located to the right of the list box. You cannot reposition commands within preset groups, but you can move groups around from tab to tab all you like.

Note

The first tab in the Customize The Ribbon outline—even a custom tab—becomes the default tab that is active every time you start Excel.

Creating a custom command group

Creating custom command groups is similar to creating custom tabs. First, select the tab where you want the custom group to live, and then click the New Group button in the Excel Options dialog box. (If you created a new tab, a new group already appears on the new tab.) Select your new group, and click the Rename button to display the dialog box shown in Figure 3-5.

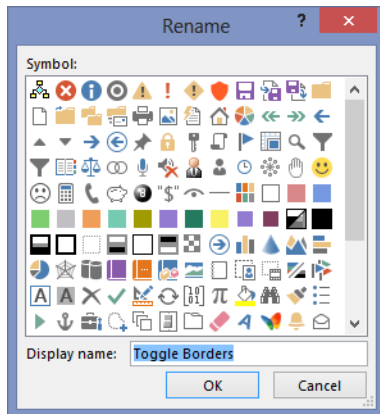


Figure 3-5 Clicking the Rename button with a group selected allows you to select an icon for the group as well.

As you can see, you can rename your new group and also assign an icon to it, which is visible only when you add the group to the Quick Access Toolbar. If you look at the Home tab on the ribbon, you'll notice that most of the commands do not have labels displayed; they appear as buttons. For example, there are no command labels visible at all in the Font group. The ribbon shown at the top of Figure 3-6 displays a custom Formatting tab populated with border-specific commands with their command labels visible. If you want to create a tab filled with other kinds of Formatting commands, you'll need a lot more space, and hiding the labels helps a lot.

To hide command labels, right-click the ribbon, select *Customize The Ribbon*, and then right-click any custom group in the outline and select *Hide Command Labels*. Note that this command appears on the shortcut menu only when you select a custom group. You cannot change the command labels of default groups. The ribbon shown at the bottom of Figure 3-6 shows the result—now there is plenty of space left on the custom Formatting tab for more groups. Notice that hiding the command labels does more than what the command's name implies; the button icons become considerably smaller as well.

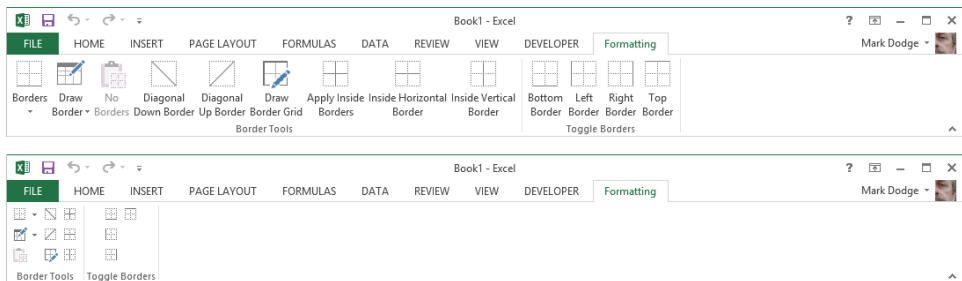


Figure 3-6 It is a good idea to hide the command labels when you create new groups.

After hiding the command labels so that they are not visible on the ribbon, you can still easily see the command names by resting the mouse pointer over the buttons.

Adding existing command groups to custom tabs

When constructing custom tabs, you can take advantage of predefined command groups. Microsoft decided to make the built-in groups noncustomizable partly because a lot of sweat and tears went into creating them as they are today. Decades of usability studies and real-world usage of menus and command trees went into the design of the ribbon, and as such it makes sense for 80 percent of our needs. But we're talking about the other 20 percent here. Because you can create your own groups anyway, there is no harm in having the default groups fixed—and plenty of good reasons for you to take advantage of them.

Right-click the ribbon, and then click Customize The Ribbon. In the Choose Commands From drop-down list, click All Tabs to display an outline of all the predefined command groups, as shown in Figure 3-7.

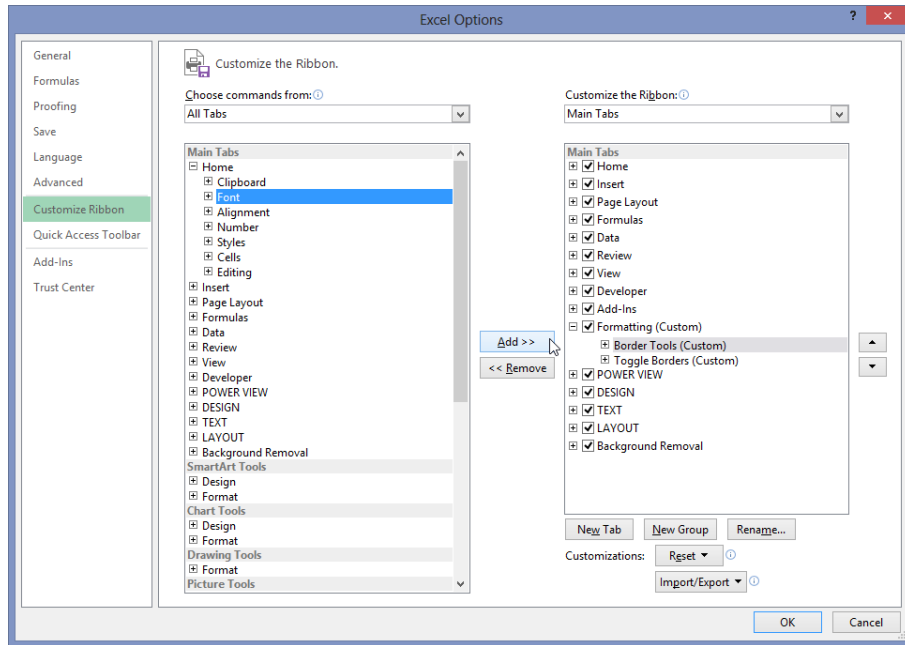


Figure 3-7 Displaying All Tabs reveals all the predefined command groups.

First, select a tab or group in the outline on the right below which you want to insert a preset group. Next, in the All Tabs list on the left, click the plus sign icons to expand the outline and locate the group you want. Select it, and click the Add button to insert the group into the outline on the right. If you decide you want your inserted groups somewhere else, you can always move them up and down the outline by using the arrow buttons. A well-populated custom Formatting tab is shown in Figure 3-8, along with the outline in the Excel Options dialog box that created it.

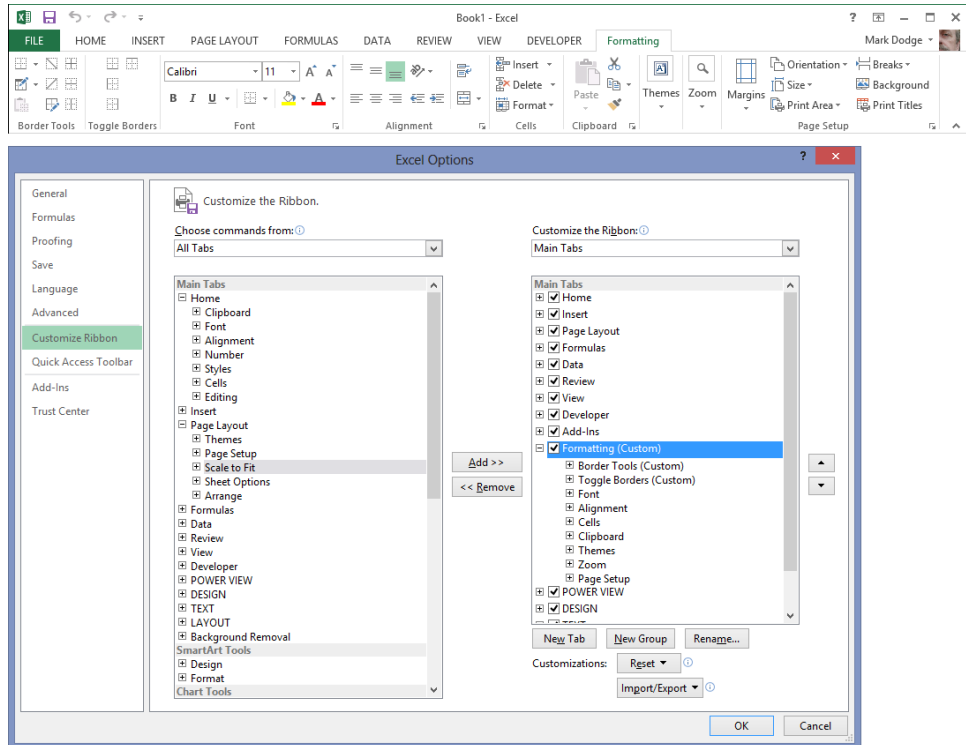


Figure 3-8 The modified outline in the Customize The Ribbon list and its custom tab.

Resetting and recycling your customizations

When you customize the ribbon, it stays customized; everything is still there the next time you start Excel. But if you ever joke about “hitting the reset button,” well, now you actually have one. In the Customize Ribbon category in the Excel Options dialog box, the Reset button does the eponymous trick, discarding your customizations and returning the ribbon and the Quick Access Toolbar to their original states. The button is also a menu, offering the dual options of resetting only the selected tab (if one is selected) or resetting all customizations (which resets both the ribbon and the Quick Access Toolbar). Before you reset either, though, you might want to save your customization work so that you can retrieve it later. Below the Reset button, the Import/Export button allows you to reuse and recycle your work. This button is also a menu from which you can choose to import or export a special file containing all your customizations. Figure 3-9 shows a version of the File Open dialog box that appears when you select Import Customization File from the Import/Export menu, with a couple of saved customization files. The first file—Excel Customizations.exportedUI—is the rather clunky default name offered. The proprietary extension for the resulting file—.exportedUI—is appended to any file name you supply.

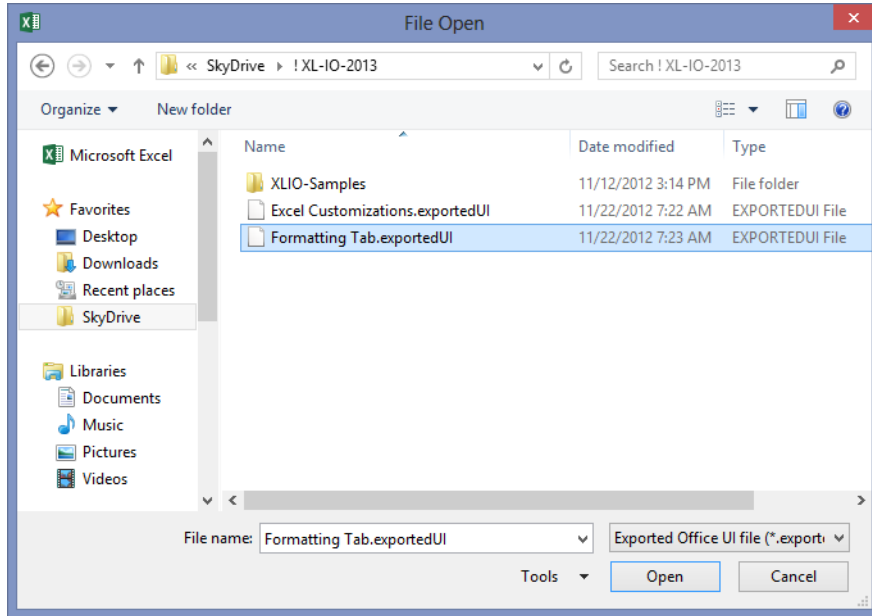


Figure 3-9 You can export any number of ribbon customization files for retrieval later.

Using these exported customization files and a web storage location such as Microsoft SkyDrive, you can store your custom tool sets as well as your workbooks, making them available from any Internet-connected computer in the world running Office 2013.

Customizing the Quick Access Toolbar

The Quick Access Toolbar might be small, but you can pack a lot of tools onto it. If you are stuck using a small screen, or if you prefer an uncluttered workspace, you can set up the Quick Access Toolbar as a sort of “ribbon lite” to help free up some screen real estate.

Positioning the toolbar

When you first start Excel, the Quick Access Toolbar appears above the ribbon, as shown in Figure 3-10. You can change this so that the toolbar appears below the ribbon. Click the Customize Quick Access Toolbar button (the little arrow at the right end of the toolbar), and click Show Below The Ribbon. If you click the Collapse The Ribbon button, as shown in Figure 3-11, you can reveal several more rows of worksheet.

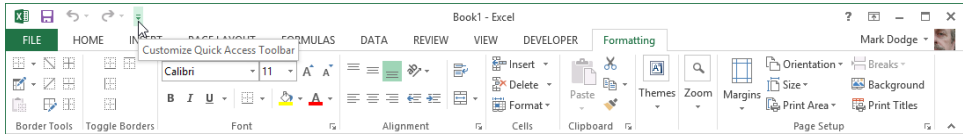


Figure 3-10 The Quick Access Toolbar usually appears above the ribbon on the title bar.

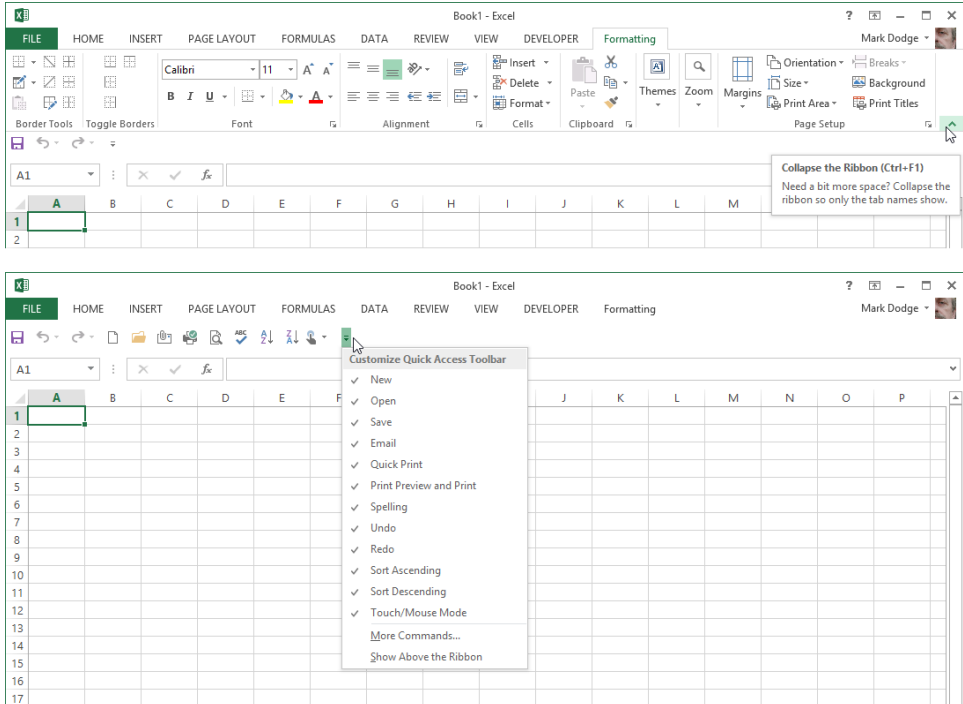


Figure 3-11 You can collapse the ribbon and move the Quick Access Toolbar below it.

Moving the Quick Access Toolbar below the ribbon offers you a couple of advantages: it's closer to the action on the worksheet, and more space is available for additional tools, which we discuss in depth next in "Adding tools to the toolbar." Conversely, the advantage of leaving it at the top of the screen is that it can occupy unused space on the title bar.

Adding tools to the toolbar

You get three tools to start with on the Quick Access Toolbar: Save, Undo, and Redo. These are undeniably heavily used commands, but you perform other tasks often too and might like to have them just a click away, readily available regardless of which ribbon tab is currently visible. It's easy to customize the toolbar, and you have a couple of ways to do it.

Adding tools as you work

If you find yourself continually returning to the same tab on the ribbon and using a particular command, you might consider adding it to the Quick Access Toolbar. The easiest way to do this is to right-click the command to display the shortcut menu shown in Figure 3-12.

In Figure 3-12, we added the Switch Windows command to the Quick Access Toolbar by right-clicking the command and clicking Add To Quick Access Toolbar. A button then appears on the toolbar that looks similar to the command on the ribbon. Each new button you add appears to the right of the previous button. Not all toolbar buttons are easy to identify, but you can always rest the pointer on a button to display a ScreenTip explaining its function, as shown at the bottom of Figure 3-12. If you add a lot of buttons, these ScreenTips are indispensable.

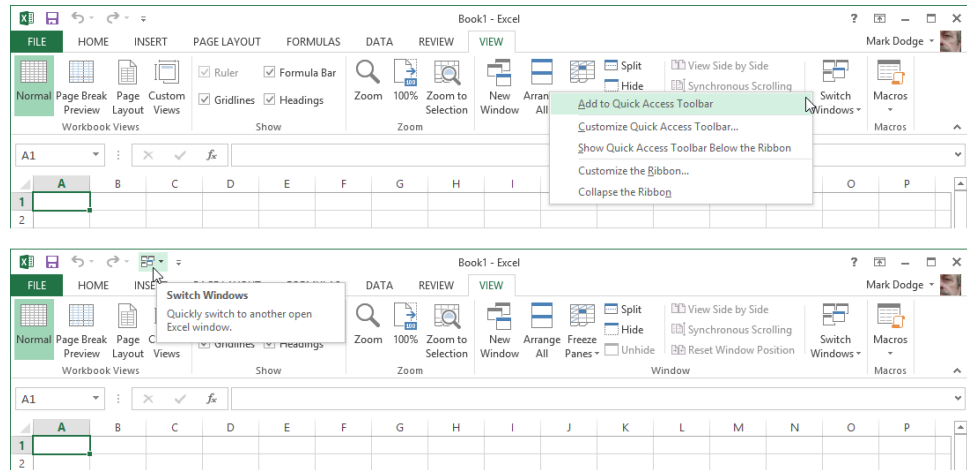


Figure 3-12 Right-click any command or group, and you can add it to the Quick Access Toolbar.

Removing tools

You can remove tools from the Quick Access Toolbar by using the same technique you use to add them. Right-click any tool on the toolbar, and click Remove From Quick Access Toolbar.

Adding and organizing tools

You can add virtually any command or group to the Quick Access Toolbar by using the right-click technique, but if you want to dig in and really create an organized toolbar, you should use the Excel Options dialog box. Right-click the toolbar, and click Customize Quick Access Toolbar to open the Quick Access Toolbar category in the Excel Options dialog box, shown in Figure 3-13.

As you can see in Figure 3-13, the list on the right shows the buttons currently visible on the toolbar. The controls here work just like the Customize Ribbon category—select any item on the left side, and then click the Add button to add it to the list on the right. Select any item on the right side, and click the Remove button to get rid of it; when you select an item, you can click the up and down arrows to reposition the item in the list. You can always click the Reset button if you want to discard all your changes and return to the original configuration.

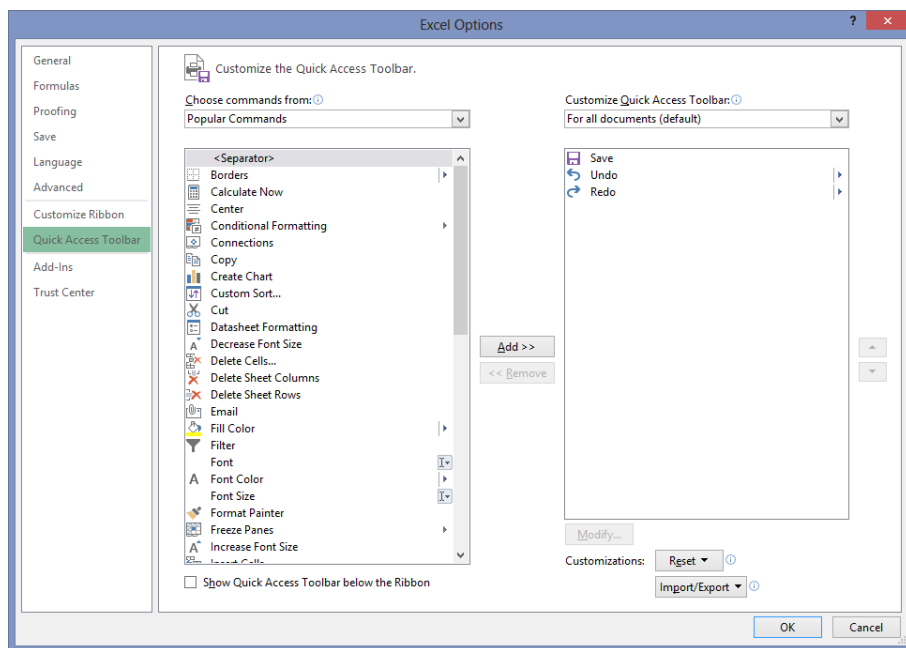


Figure 3-13 The Quick Access Toolbar category in the Excel Options dialog box is the command center for the Quick Access Toolbar.

Notice in Figure 3-13 that *Separator* is the first item in the list on the left. This item is first in each command category, and with it you can insert small vertical bars on the Quick Access Toolbar to visually separate groups of related commands. You can add separators and move them up and down the list on the right side of the dialog box, just as you do with commands. (This item is not available for ribbon customization because you create groups first instead of using separators.)

The items in the Choose Commands From drop-down list include an eponymous item for each of the command tabs visible on the ribbon, plus all the other contextual tabs that appear on the ribbon only when an object is selected, as shown in Figure 3-14. Select any item from the drop-down menu, and the corresponding list of commands appears in the list below.

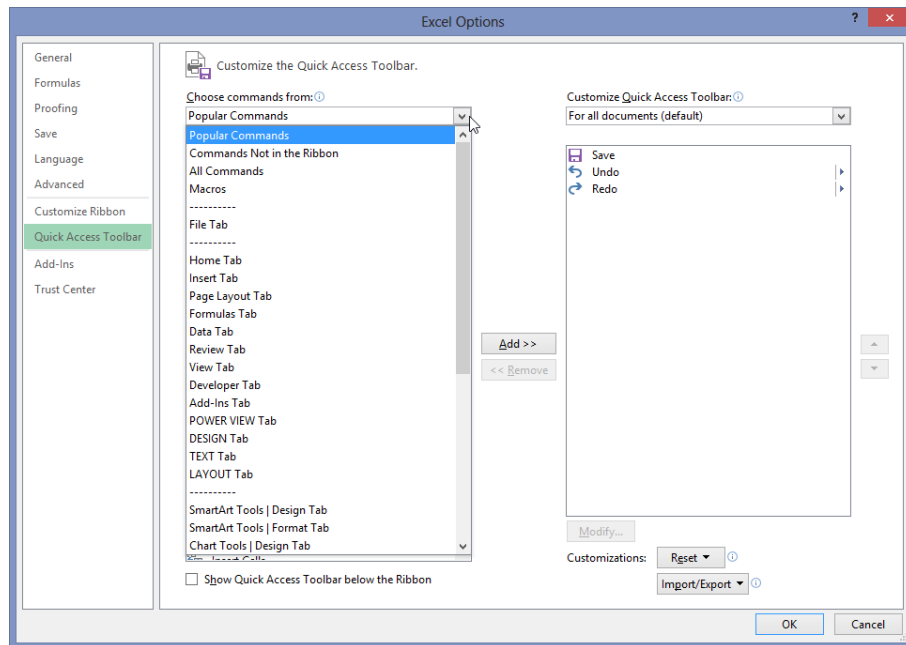
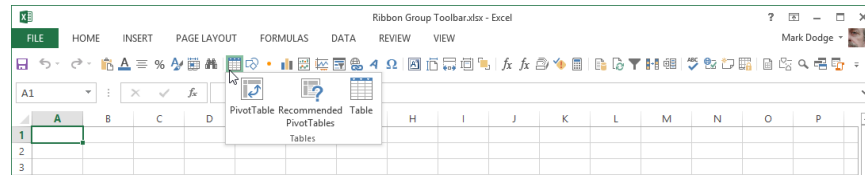


Figure 3-14 Each item in the Choose Commands From drop-down list corresponds to a tab on the ribbon.

INSIDE OUT Create a mini ribbon

Here is a trick you can use if it just seems like too much bother to click those tabs at the top of the ribbon, or if you just want to maximize screen space. Saving a click here and there can make quite a difference if you do a lot of repetitive work. The following illustration shows the Quick Access Toolbar displayed below the ribbon (which is minimized) and loaded with buttons that correspond to every group on every default tab on the ribbon:



The toolbar shown here includes only buttons that correspond to the command groups (not individual commands) on every default tab. Notice that clicking the Tables button displays a drop-down list of commands identical to those in the ribbon group of the same name on the Insert tab. To customize the toolbar this way, use the Excel Options dialog box. Although you can build a similar toolbar using the right-click approach, using the dialog box offers the advantage of being able to insert separators between groups of buttons.



You'll find the Ribbon Group Toolbar.xlsx file on the companion website.

Too many tools?

It is certainly possible to load more buttons onto the Quick Access Toolbar than can fit across the screen, even if you move the toolbar below the ribbon. If this happens, a More Controls button appears at the right end of the toolbar, looking like a fast-forward button (>>). As shown in Figure 3-15, clicking More Controls displays the hidden controls on a drop-down toolbar.

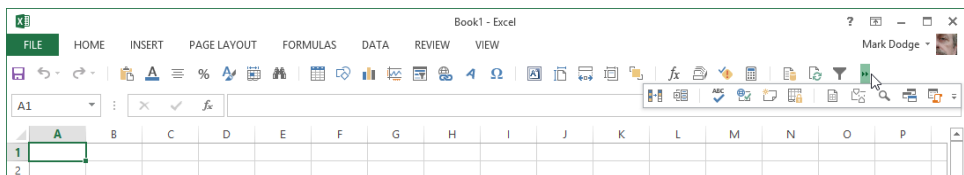


Figure 3-15 If you add more buttons than can be displayed, click the More Controls button.

Note that when the More Controls button appears, the Customize Quick Access Toolbar button (the downward-pointing arrow) that usually appears at the right side of the toolbar moves to the “overflow” area of the toolbar.

Creating your own buttons

Right-click any button on the ribbon, click Customize Quick Access Toolbar, and click the Choose Commands From drop-down list. You’ll see a special option listed there: Macros. *Macros* are sequences of commands you can create to help perform repetitive tasks. When you select the Macros option, nothing appears on the left side of the dialog box unless you have opened a macro-enabled workbook and the workbook actually contains macros. All the macros available appear here. Figure 3-16 shows the Customize Quick Access Toolbar list containing a single macro that has been added to the toolbar.

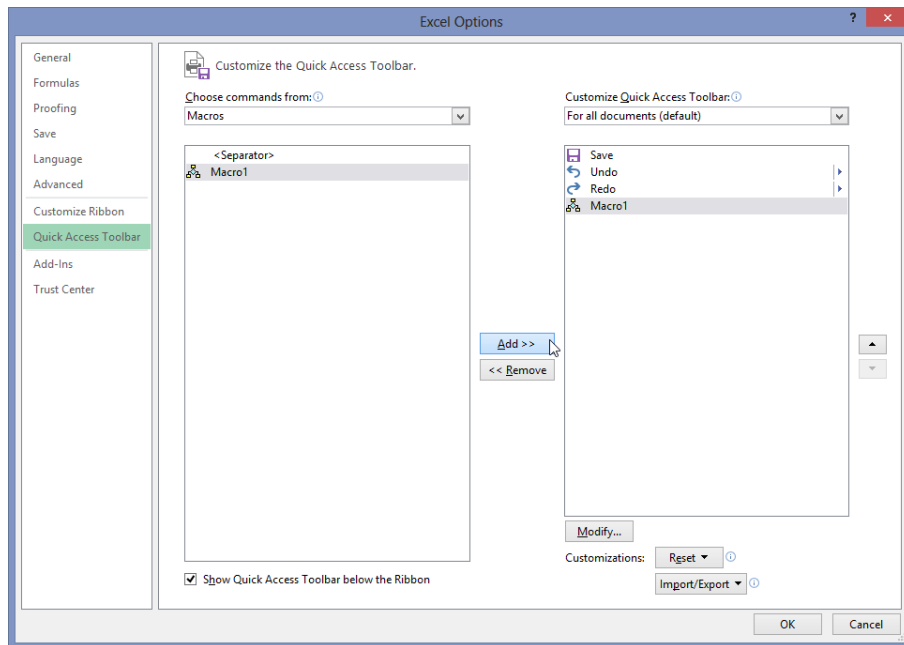


Figure 3-16 You can add custom buttons to run macros in macro-enabled workbooks.

You might notice that the Modify button below the list is active when you add a macro to the list on the right side of the dialog box. By clicking it, you can modify the button image displayed on the toolbar if the default image doesn’t do it for you. In case you are wondering, you can modify only custom macro buttons, which is why the Modify button is not available when you select built-in commands. When you click the Modify button, the

Modify Button dialog box appears, as shown in Figure 3-17, and you can use it to select a different image.

For more information about macro-enabled workbooks, see “Saving files” in Chapter 2, “Exploring Excel fundamentals.” For more information about macros and VBA, see Chapter 28, “Recording macros.”

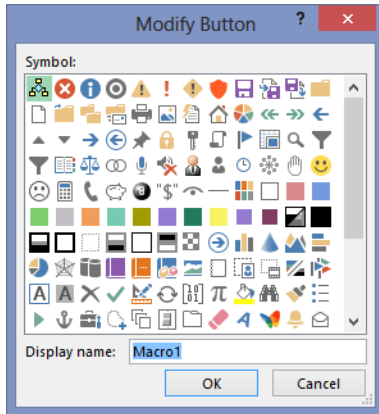


Figure 3-17 You can change the default button image for your custom macro-driven buttons.

Saving and resetting your custom Quick Access Toolbar

In the Quick Access Toolbar category of the Excel Options dialog box, the default setting in the Customize The Quick Access Toolbar drop-down list is For All Documents. In this case, Excel saves the configuration of the Quick Access Toolbar when you exit the program. If you want to go back to the way things were, click the Reset menu and select Reset Only The Quick Access Toolbar or Reset All Customizations (which resets both the ribbon and the Quick Access Toolbar).

If you want to save your custom toolbar so that you can use it again later, there are two ways to do it. The Import/Export button allows you to save or retrieve a special file containing all your customizations (both toolbar and ribbon). Figure 3-9 earlier in this chapter shows a version of the File Open dialog box that appears when you click Import Customization File from the Import/Export menu, displaying files with the extension *.exportedUI*.

The second way to save a custom toolbar is to attach it to a workbook. To do so, right-click any button or tab, and click Customize Quick Access Toolbar. In the Excel Options dialog box, click the Customize Quick Access Toolbar drop-down list, as shown in Figure 3-18.



You'll find both a customizations file—`MiniRibbon.exportedUI`—and a file with an attached toolbar—`Ribbon Group Toolbar.xlsx`—with the other examples on the companion website.

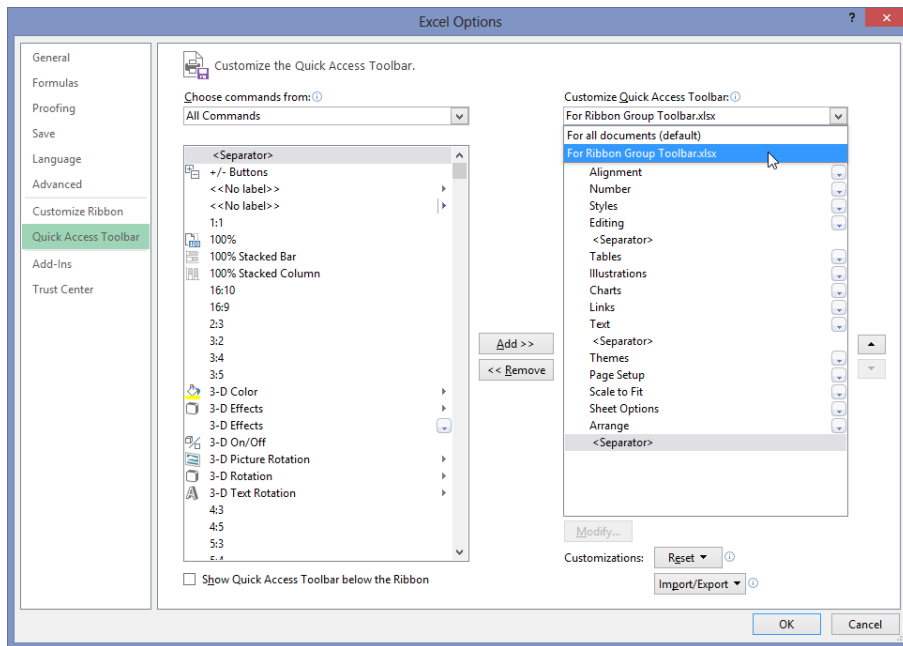


Figure 3-18 You can configure a custom version of the Quick Access Toolbar that travels with a workbook.

The drop-down list shows two items: For All Documents and For <the active workbook name>. If you select the active workbook, the command list starts out blank, and you can begin adding items from the list on the left. (Even though the list starts out blank, the default tools—Save, Undo, and Redo—always appear at the left end of your custom bar.) Any commands you add to the active workbook's toolbar are relevant only to the active workbook; they are saved with the workbook and reappear on the toolbar the next time you open the workbook. To remove a custom toolbar configuration from a workbook, select its name in the Customize Quick Access Toolbar drop-down list and click the Reset button.

Restoring the toolbar

Now that you've thoroughly scrambled the Quick Access Toolbar, perhaps you're experiencing a bit of remorse. Don't worry—it's easy to return it to normal:

- **Restoring the toolbar** Select Quick Access Toolbar in the Excel Options dialog box, click the Reset button, and select either Reset Only Quick Access Toolbar or Reset All

Customizations (which also resets the ribbon). Click Yes to confirm the restoration, and then click OK.

- **Removing individual buttons** On the Quick Access Toolbar, right-click the button you want to remove and then click the Remove From Quick Access Toolbar command, as shown in Figure 3-19.

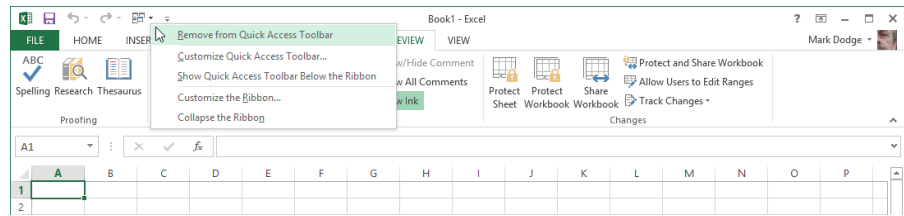
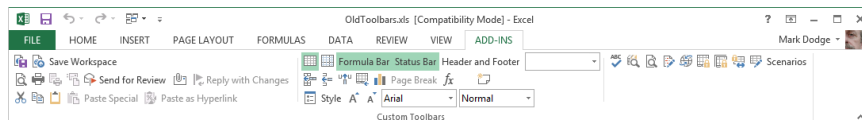


Figure 3-19 You can easily remove any button from the Quick Access Toolbar.

INSIDE OUT

What happened to my custom toolbars?

Custom toolbars you created and attached to workbooks in versions of Excel prior to 2007 are still accessible, though you might not think so at first glance. If you open an old workbook with attached toolbars, the toolbars won't appear on the screen. But look at the Add-Ins tab on the ribbon. You might not have seen the Add-Ins tab before, but click this tab, and there they are—your custom toolbars. The following graphic shows an example of having way too many custom toolbars on the Add-Ins tab:



So all your hard work creating custom toolbars is not lost—provided you attached them to workbooks. After you open a workbook containing attached toolbars, the toolbars continue to appear on the Add-Ins tab each time you start Excel. To get rid of them, right-click each toolbar (each row of buttons is a toolbar on the Add-Ins tab) and close it by using the Delete Custom Toolbar command. When you delete the last custom toolbar, if it is the only item on the Add-Ins tab, the Add-Ins tab disappears as well.

Exploring other toolbar and ribbon options

The following are a few more customization options that are quite helpful. Unless otherwise noted, you can find these options by clicking the File menu, clicking Options, and then selecting the General category:

- Show Mini Toolbar On Selection** Controls the display of the Mini toolbar whenever you right-click a cell or object where its formatting tools are applicable, as shown in Figure 3-20.

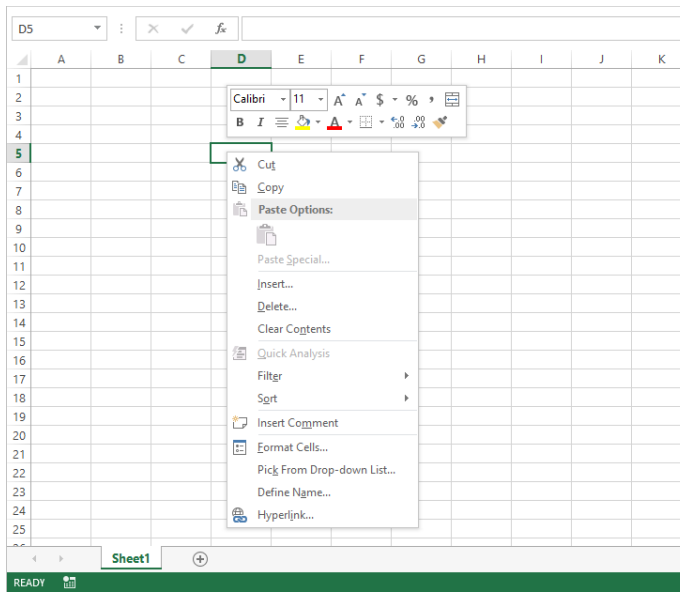


Figure 3-20 You can control whether the Mini toolbar appears when you right-click cells or relevant objects.

- Enable Live Preview** Allows you to simply rest the pointer on many palette items to show what the effect would look like, without even clicking.
- Office Background** Offers several optional “skins,” that is, background graphics that appear in the title bar, formula bar, Quick Access Toolbar, ribbon, sheet tabs, scroll bars, and headings.
- Office Theme** Applies your choice of three color schemes to window frames and other interface elements: White, Light Gray, or Dark Gray.

- ScreenTip Style** Offers three options that apply to the pop-up label that appears when you rest the pointer on any item on the toolbar or the ribbon. You can choose to see only a small label with the name of the item, a larger ScreenTip that includes a description, or no label at all. (For more information, see “Enhancing accessibility” later in this chapter.)

For more information about fonts and formatting and live preview, see Chapter 9, “Worksheet formatting techniques.”

Controlling other elements of the Excel 2010 interface

In several important locations in Excel, you can control the way your worksheets appear on the screen. These include the View tab on the ribbon, shown in Figure 3-21, and the General and Advanced categories in the Excel Options dialog box. Some options, such as Gridline Color, are self-explanatory; here we’ll talk about options with “issues.”

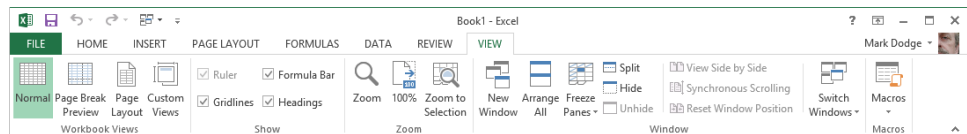


Figure 3-21 The View tab on the ribbon contains commands you can use to control the appearance of your workbook.

The Show group on the View tab controls the display of the formula bar as well as the appearance of gridlines, column and row headings, and the ruler (which is active only in Page Layout view). These are the options that are most often used, which is why they appear on the ribbon. But you’ll discover more ways to tweak your UI when you click the File menu and then click Excel Options.

For more about Page Layout view, see Chapter 11, “Printing and presenting.” For more about security issues, see Chapter 4, “Security and privacy.”

The Advanced category in the Excel Options dialog box contains three groups of options, shown in Figure 3-22 (you’ll need to scroll down a bit), that control different display behaviors for the program in general and for workbooks and worksheets in particular.

The Display area, shown scrolled to the top of the dialog box in Figure 3-22, offers display options for the program itself. The options in the Display Options For This Workbook area affect only the workbook selected in the drop-down list, which lists all the currently open workbooks; these options do not change the display of any other workbooks, and they do not affect the way the worksheets look when you print them. Similarly, the options in the Display Options For This Worksheet area apply only to the worksheet you select in the drop-down list.

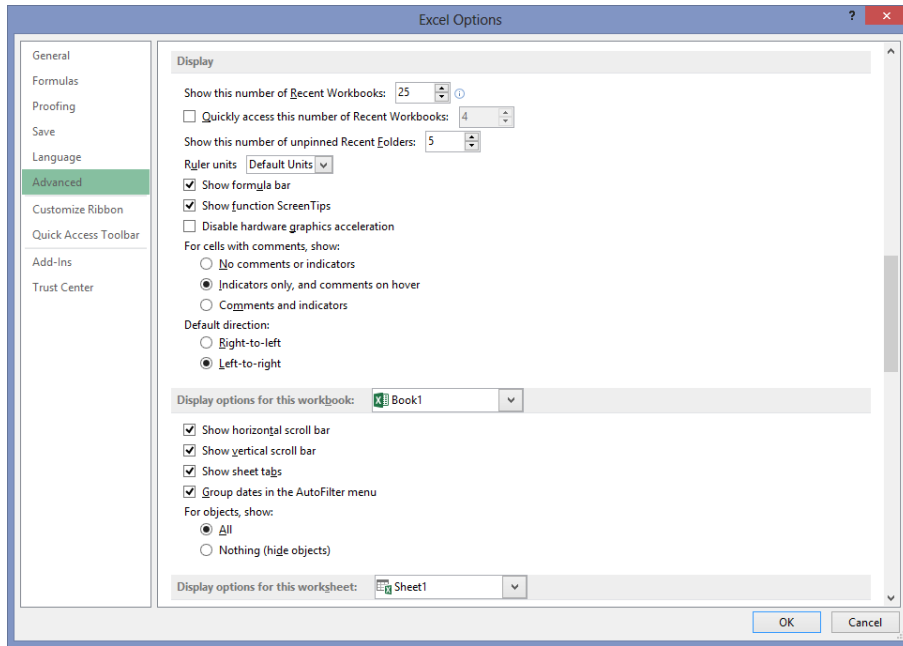


Figure 3-22 The Advanced category in the Excel Options dialog box includes a number of display options.

Displayed vs. printed gridlines and headings

Normally, Excel displays a grid to mark the boundaries of each cell on the worksheet and also displays row and column headings, but these are not printed unless you say so. The grid and headings are usually helpful for selecting and navigating, but you might not want them displayed all the time. The options for these items on the View tab control your screen display, but they do not affect whether these elements will be printed. You can control both display and printing on the Page Layout tab. In the Sheet Options group, select or clear the View and Print check boxes under Gridlines or Headings. For convenience, the View check boxes under Gridlines and Headings on the Page Layout tab are linked to the Gridlines and Headings check boxes on the View tab.

For more about printing a document, see Chapter 11.

Displaying underlying formulas

Usually, cells containing formulas display the results of that formula, not the formula itself. Similarly, when you format a number, you no longer see the underlying (unformatted) value displayed in the cell. You can see the underlying values and formulas only by selecting individual cells and looking at the formula bar or by double-clicking the cell. But what if you want to see more than one formula at once?

Click the File tab and click Options. In the Advanced category of the Excel Options dialog box, scroll down to the Display Options For This Worksheet group and select the Show Formulas In Cells Instead Of Their Calculated Results check box. This displays underlying values and formulas, only for the worksheet you select in the Display Options For This Worksheet drop-down list. As you can see in the worksheet view shown at the bottom of Figure 3-23, the underlying contents of each cell appear, as in the sum formulas in rows 6 through 10, and all the cells are left aligned. (Excel ignores any alignment formatting when you select the Show Formulas check box.) In addition, the width of each column on the worksheet approximately doubles to accommodate the underlying formulas. (The actual width of the columns remains unchanged; columns appear wider only on the screen.) When you clear the Show Formulas check box, Excel restores all columns to their former widths.

Note

You can quickly display and hide formulas in your worksheet by pressing **Ctrl+`** (accent grave), which is located on the tilde (~) key on most keyboards. To redisplay values, press **Ctrl+`** again.

The figure shows two screenshots of an Excel worksheet titled 'Loan Payment Calculator'. The top screenshot shows the table with calculated values, and the bottom screenshot shows the same table with underlying formulas displayed in the cells.

Loan Payment Calculator				
Years:	15			
Loan Amount				
Rate:	\$ 10,000	\$ 20,000	\$ 30,000	\$ 40,000
3.00%	838	1,675	2,513	3,351
3.50%	868	1,737	2,605	3,473
4.00%	899	1,799	2,698	3,598
4.50%	931	1,862	2,793	3,725
5.00%	963	1,927	2,890	3,854

Loan Payment Calculator				
Years:	15			
Loan Amount				
Rate:	10000	20000	30000	40000
0.03	=PMT(\$B6,\$C\$3,\$C\$5)	=PMT(\$B6,\$C\$3,\$D\$5)	=PMT(\$B6,\$C\$3,\$E\$5)	=PMT(\$B6,\$C\$3,\$F\$5)
0.035	=PMT(\$B7,\$C\$3,\$C\$5)	=PMT(\$B7,\$C\$3,\$D\$5)	=PMT(\$B7,\$C\$3,\$E\$5)	=PMT(\$B7,\$C\$3,\$F\$5)
0.04	=PMT(\$B8,\$C\$3,\$C\$5)	=PMT(\$B8,\$C\$3,\$D\$5)	=PMT(\$B8,\$C\$3,\$E\$5)	=PMT(\$B8,\$C\$3,\$F\$5)
0.045	=PMT(\$B9,\$C\$3,\$C\$5)	=PMT(\$B9,\$C\$3,\$D\$5)	=PMT(\$B9,\$C\$3,\$E\$5)	=PMT(\$B9,\$C\$3,\$F\$5)
0.05	=PMT(\$B10,\$C\$3,\$C\$5)	=PMT(\$B10,\$C\$3,\$D\$5)	=PMT(\$B10,\$C\$3,\$E\$5)	=PMT(\$B10,\$C\$3,\$F\$5)

Figure 3-23 Display underlying values and formulas for easier auditing.

Note

If you click the New Window command on the View tab to create two or more windows in which to view the same workbook, you can use different display options in each window. For example, you can display formulas in one window and see the results of those formulas (the usual view) in another window.

The Show Formulas check box is particularly helpful when you need to edit a large worksheet. You can see your formulas without having to activate each cell and view its contents on the formula bar. You can also use the Show Formulas check box to document your work: After you select the Show Formulas check box, you can print your worksheet with the formulas displayed for archiving purposes.

Hiding zeros

Usually, zeros entered in cells, or the results of formulas that produce zero values, display on your worksheet. Sometimes, especially for presentation purposes, it is helpful to eliminate the clutter of excessive zero values on a worksheet. Under the heading Display Options For This Worksheet in the Advanced category of the Excel Options dialog box, clearing the Show A Zero In Cells That Have Zero Value check box causes any such cells to appear as blank cells on the worksheet. The underlying entries are unaffected, of course. If you edit an entry or if the result of a formula changes so that the cell no longer contains a zero value, the value immediately becomes visible. If the Show Formulas check box is also selected, clearing the Show A Zero In Cells That Have Zero Value check box has no effect on the display.

CAUTION!

If you hide zero values, be careful when editing your worksheet. What appears to be an empty cell might actually contain a formula.

Changing the display font

The display font is not only used for all text and numbers you enter in a workbook, but it also determines the font used in row and column headings. You can select fonts to be used when creating new workbooks with the Use This Font As The Default Font and Font Size drop-down lists in the General category in the Excel Options dialog box. The default display font is Body Font, which uses the font defined as such in the current theme. The new display font does not become active until you exit and restart Excel. When you do, the new font is used in all new workbooks you create. You can learn a lot more about formatting and themes in Chapter 9.

Enhancing accessibility

Excel 2013 and all other Microsoft Office 2013 programs support the Microsoft Active Accessibility (MSAA) specification. This makes various accessibility aids more effective, including screen readers and screen enlargers. For more information, visit the Microsoft Accessibility website at www.microsoft.com/enable/.

The following is a list of built-in features that, either by design or by default, enhance the accessibility of Excel:

- The Accessibility Checker** The most visible accessibility feature appears on the Info screen in Backstage view, and Microsoft calls it the *Accessibility Checker*. Click the File tab, select Info, click the Check For Issues button, and then click Check Accessibility to display the task pane shown in Figure 3-24. This task pane lists all the problematic items identified by the Accessibility Checker in the active workbook; click any item to display an explanation, as shown in Figure 3-24.

The screenshot shows the Excel 2013 interface with the 'Monthly Claims' workbook open. The ribbon is set to 'REVIEW'. The Accessibility Checker task pane is open on the right side of the window. The task pane title is 'Accessibility Checker' and it shows 'Inspection Results' with a green checkmark and the text: 'No accessibility issues found. People with disabilities should not have difficulty reading this workbook.' Below this, there is an 'Additional Information' section with a dropdown arrow. The spreadsheet data is as follows:

Month	Northern Region	Southern Region	Eastern Region	Western Region	TOTAL
January	123,456	111,112	137,872	173,622	546,062
February	243,568	121,731	270,277	227,893	863,469
March	153,623	188,999	136,934	123,282	602,838
April	207,894	125,778	133,132	255,687	722,491
May	103,283	35,333	233,824	122,344	494,784
June	235,688	155,445	244,443	118,542	754,118
July	102,345	65,500	122,024	219,234	509,103
August	98,543	119,771	113,824	229,853	561,991
September	199,235	15,160	158,045	107,434	479,874
October	209,854	147,565	278,157	99,234	734,810
November	87,435	14,222	188,212	143,455	433,324
December	79,235	10,420	242,483	263,567	595,705
TOTAL	1,844,159	1,111,036	2,259,227	2,084,147	5,054,856

Figure 3-24 The Accessibility Checker lists all the issues found in the current workbook.

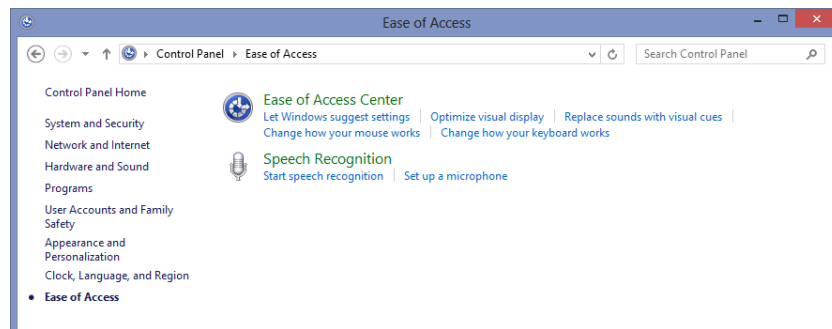
- ScreenTips** These are the little descriptive labels that appear under toolbar buttons and ribbon controls when you rest the pointer on them. Select one of three display options from the ScreenTip Style drop-down list in the General category in the Excel Options dialog box. For more information, see “Exploring other toolbar and ribbon options” earlier in this chapter.

- **Audio feedback** The Advanced category in the Excel Options dialog box contains the Provide Feedback With Sound option. Using this option, you hear sounds where you might not expect them, such as when you click the Undo or Redo button. Note that if you select the sound option, you might be prompted to download an add-in from the Microsoft Office website that requires you to exit and restart Excel.
- **Function ScreenTips** This is a type of pop-up label that displays the syntax and arguments for functions as they are entered or selected on the formula bar or in cells. Select the Show Function ScreenTips check box in the Advanced category of the Excel Options dialog box in the Display group. For more information, see Chapter 13, "Using functions."
- **Cell value AutoComplete** When entering data in a column, the AutoComplete feature automatically inserts entries in the same column that match the current entry. This option saves keystrokes, for example, when you are repeatedly typing the same entry. In the Advanced category in the Excel Options dialog box, select the Enable AutoComplete For Cell Values check box in the Editing Options group. For more information, see "Letting Excel help with typing chores" in Chapter 8, "Worksheet editing techniques."
- **Gridline color** You can change the color of gridlines on individual worksheets. Under Display Options For This Worksheet in the Advanced category in the Excel Options dialog box, click the Gridline Color drop-down list and then select a color.
- **Colored sheet tabs** You can apply color to a single worksheet tab to make it easier to find a key worksheet, or you can assign different colors to each tab. Right-click the worksheet tab you want to color, point to Tab Color, and then click the color you want from the palette.
- **Keyboard shortcuts** Keyboard shortcuts give you access to any command in Excel using the keyboard. For more information, see Appendix B, "Keyboard shortcuts."
- **Keyboard access** Pressing the Alt key activates keyboard access, allowing you to issue ribbon commands using the keyboard. Labels appear adjacent to each command, displaying the key you need to press on the keyboard to select that command. For more information, see "Accessing commands with the keyboard," in Chapter 2.
- **Scroll and pan** If you have a Microsoft IntelliMouse pointing device, you can scroll through a worksheet simply by turning the wheel in the direction you want to scroll. If you press the wheel and drag the mouse, you can pan the worksheet in any direction.
- **Zoom** You can enlarge the worksheet display up to 400 percent by using the Zoom slider in the lower-right corner of the Excel window, by using the Zoom commands

on the View tab on the ribbon, or by holding down Ctrl and turning the wheel on a Microsoft IntelliMouse pointing device.

Ease of access in Windows 8

Windows 8 (as well as Windows 7 and Windows Vista) includes a number of accessibility options referred to as the *Ease Of Access* options. You can find these by opening the Windows Control Panel and then clicking Ease Of Access Center to display the dialog box shown here:



Many of these settings used to be scattered around or available only as add-ins to Windows, so these Ease Of Access options further improve the usability of Excel for folks with varying abilities.

Installing apps

The term “app,” which has become ubiquitous, is just another way of saying “program.” Programming languages translate human commands into ones and zeros that the computer machine understands. A *program* is the result of the *application* of a particular programming language to make the machine solve a specific problem. While the term “application” never really caught on, the term “app” is so easy and friendly that we now have apps for phones and TVs and tablets. And in 2013 you can download apps for Office applications, too...apps for apps.

Apps live in the cloud, so the first time you click the Apps For Office button on the Insert menu, you’ll probably need to click the See All command, which opens the Office Store in your browser, as shown in Figure 3-25.

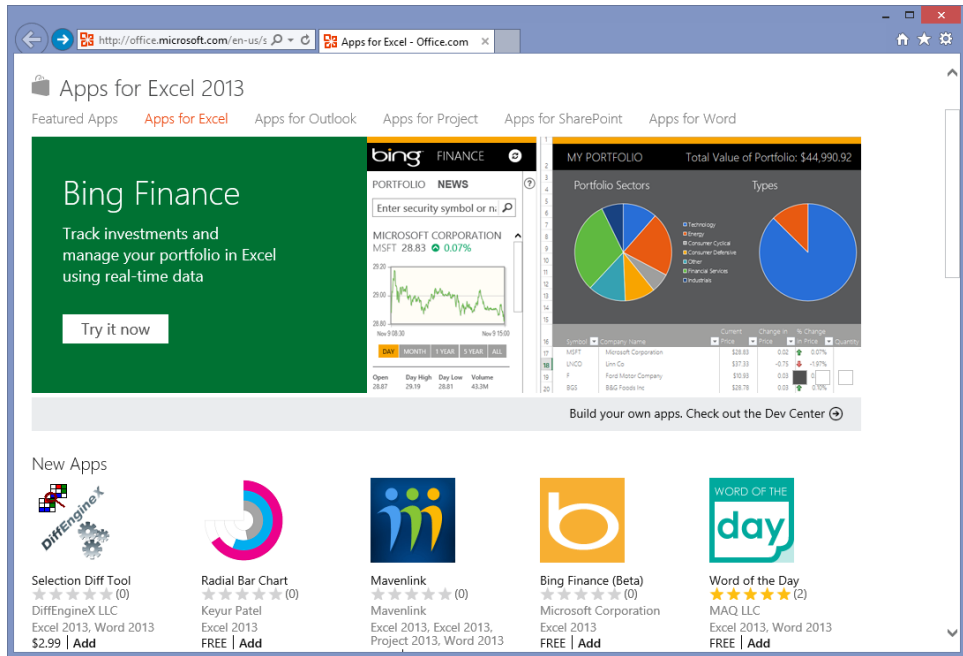


Figure 3-25 Click the See All command to open the Office Store on the web.

Many of the apps listed in the Office Store are free, such as the Radial Bar Chart app shown in Figure 3-25. Click an app to go to a webpage with more information; then if you want it, click the Add button when you're ready. What happens next is...nothing, really. You'll be instructed to go back to Excel and click the Apps For Office button again. This time when you click the See All command, the app you just added is shown in a dialog box, as shown in Figure 3-26.

Select an app in the Apps For Office dialog box, and then click the Insert button to add it to the current worksheet. (You can also click the Featured Apps link in the Apps For Office dialog box to display other apps available from the Office Store.) This is when the actual downloading occurs. Once it is inserted, just follow the app's instructions. After you insert an app, it appears on the Apps For Office menu, as shown in Figure 3-27.

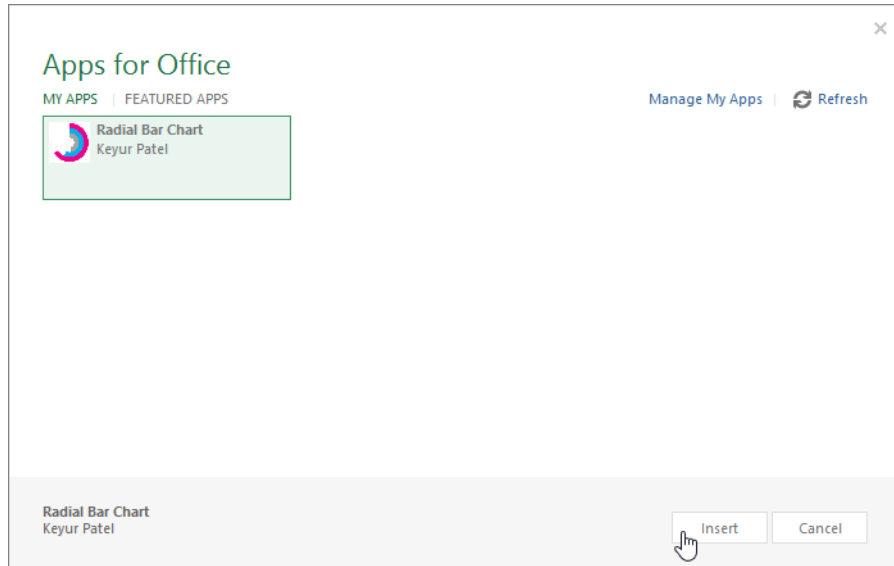


Figure 3-26 After you add an app in the Office Store, it shows up in the dialog box that appears when you click the Office Apps button and click the See All command.

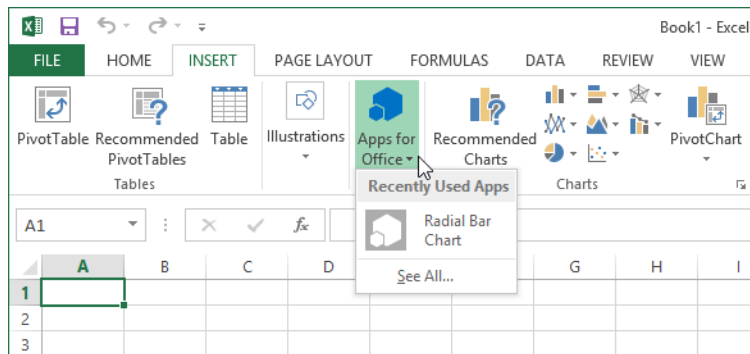


Figure 3-27 After you insert an app, it appears on the Apps For Office menu.



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About the authors

Mark Dodge has been working with and writing about Microsoft software since 1989, and is co-author of over a dozen Microsoft Press books on Microsoft Excel. As a former senior technical writer at Microsoft, he created print, online, and multimedia documentation for all Microsoft Office programs. Mark is a lifelong jazz and rock musician, as well as an award-winning fine art photographer.

Craig Stinson, an industry journalist since 1981, was editor of *Softtalk for the IBM Personal Computer*, one of the earliest machine-specific computer magazines. He is the author of more than 20 Microsoft Press books about Windows and Excel.

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