



Inside **OUT**

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with expert advice
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Microsoft Excel 2013

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For Roger

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Contents at a glance

Part 1: Examining the Excel environment

Chapter 1	
What's new in Microsoft Excel 2013.....	3
Chapter 2	
Exploring Excel fundamentals.....	15
Chapter 3	
Custom-tailoring the Excel workspace.....	75
Chapter 4	
Security and privacy	105

Part 2: Building worksheets

Chapter 5	
Planning your worksheet design.....	123
Chapter 6	
How to work a worksheet	131
Chapter 7	
How to work a workbook.....	173

Part 3: Formatting and editing worksheets

Chapter 8	
Worksheet editing techniques	191
Chapter 9	
Worksheet formatting techniques.....	285

Part 4: Adding graphics and printing

Chapter 10	
Creating and formatting graphics	371
Chapter 11	
Printing and presenting	437

Part 5: Creating formulas and performing data analysis

Chapter 12	
Building formulas.....	467
Chapter 13	
Using functions	527
Chapter 14	
Everyday functions	537
Chapter 15	
Formatting and calculating date and time.....	565
Chapter 16	
Functions for financial analysis	583
Chapter 17	
Functions for analyzing statistics	601
Chapter 18	
Performing a what-if analysis	633

Part 6: Creating charts

Chapter 19	
Designing charts	667
Chapter 20	
Formatting charts	697
Chapter 21	
Using sparklines.....	711

Part 7: Managing databases and tables

Chapter 22	
Managing information in tables	721
Chapter 23	
Analyzing data with PivotTable reports.....	767

Chapter 24
An introduction to PowerPivot 805

Chapter 25
Working with external data 839

Part 8: Using Excel collaboratively

Chapter 26
Collaborating on a network or by email 879

Chapter 27
Working in the cloud 895

Part 9: Automating Excel

Chapter 28
Recording macros 913

Chapter 29
Creating custom functions 935

Chapter 30
**Debugging macros and custom
functions 947**

**Part 10: Integrating and
extending Excel**

Chapter 31
Linking, hyperlinking, and embedding 961

Chapter 32
Using Excel data in Word documents 977

Appendixes

Appendix A
Menu-to-ribbon command reference 997

Appendix B
Keyboard shortcuts 1013

Appendix C
Function reference 1033



Table of contents

Introduction	xxiii
Who this book is for	xxiii
How this book is organized	xxiii
About the companion content	xxv
Acknowledgments	xxv
Support and feedback	xxv

Part 1: Examining the Excel environment

Chapter 1:	What's new in Microsoft Excel 2013	3
	New and improved for 2013	4
	New templates	4
	Quick analysis	5
	Flash Fill	5
	Recommended charts	6
	New chart-formatting controls	7
	Timeline	8
	Other improvements	8
	Retired in 2013	10
	If you missed the last upgrade	10
	If you missed the last two upgrades	11
	Moving onward with Office 2013	14
Chapter 2:	Exploring Excel fundamentals	15
	Examining the Excel 2013 workspace	15
	Facts about worksheets	15
	Using the workbook window	16
	Exploring the ribbon	22

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Using the Quick Access Toolbar	30
Accessing commands with the keyboard	31
The joy of shortcut menus	32
Using the Quick Analysis tool	33
Meet the formula bar	34
Facts about the status bar	37
Introducing Backstage view	39
Exploring file-management fundamentals	40
Creating workbooks	40
Saving files	44
Opening files	57
Importing and exporting files	61
Importing and exporting files	62
Sharing data with Excel for the Macintosh	63
Sharing data beyond Excel	64
Using the Help system	67
Help on the surface	67
Help in depth	68
Recovering from crashes	71
Understanding AutoRecover	71
Managing versions	72

Chapter 3: Custom-tailoring the Excel workspace	75
Customizing the ribbon	75
Identifying items in the Customize Ribbon and Quick Access Toolbar categories . .	78
Creating a custom ribbon tab	79
Creating a custom command group	80
Adding existing command groups to custom tabs	81
Resetting and recycling your customizations	83
Customizing the Quick Access Toolbar	84
Positioning the toolbar	84
Adding tools to the toolbar	86
Creating your own buttons	90
Saving and resetting your custom Quick Access Toolbar	91
Restoring the toolbar	92
Exploring other toolbar and ribbon options	94
Controlling other elements of the Excel 2010 interface	95
Displaying underlying formulas	97
Hiding zeros	98
Enhancing accessibility	99
Installing apps	101

Chapter 4:	Security and privacy	105
	The Trust Center	105
	Trusted publishers, locations, and documents	107
	App catalogs, add-ins, ActiveX settings, and macro settings	108
	Message bar	111
	External content	111
	File block settings	112
	Privacy options	113
	File security	115
	Removing personal information from your workbooks	115
	Using digital signatures	116
	Other security features	120

Part 2: Building worksheets

Chapter 5:	Planning your worksheet design	123
	Which data should be in rows, and which in columns?	123
	Will you need to print the worksheet?	125
	Who is the audience?	126
	Would your worksheet survive without you?	127
	Does the worksheet rely on imported data?	127
	Do you need more than one worksheet?	129
	Have you allowed room for new data?	129
Chapter 6:	How to work a worksheet	131
	Moving around regions	131
	Navigating regions with the keyboard	132
	Navigating regions with the mouse	132
	Navigating with special keys	134
	Understanding selection	134
	Selecting with the mouse	135
	Using the find and select commands	138
	Selecting with Go To Special	139
	Techniques for entering data	143
	Making entries in cells and in the formula bar	143
	Making entries in ranges	151
	Editing and undoing entries	152
	Managing worksheets	154
	Inserting and deleting worksheets	154
	Naming and renaming worksheets	156
	Moving and copying worksheets	156
	Viewing worksheets	159
	Splitting worksheets into panes	159
	Freezing panes	160
	Zooming worksheets	162
	Using custom views	164

Protecting worksheets	165
Unlocking individual cells	165
Protecting the workbook.....	167
Allowing password access to specific cell ranges	167
Hiding cells and worksheets	170
Using passwords	171

Chapter 7: **How to work a workbook..... 173**

Managing multiple workbooks	173
Navigating between open workbooks	173
Arranging workbook windows	174
Comparing worksheets side by side	176
Opening multiple windows for the same workbook	178
Useful inconsistencies of new windows.....	179
Hiding and protecting workbooks	182
Hiding workbooks.....	182
Protecting workbooks	183
Encrypting workbooks.....	184
Saving workbooks or windows as hidden.....	185
Hiding worksheets	185
Marking as final.....	185

Part 3: Formatting and editing worksheets

Chapter 8: **Worksheet editing techniques..... 191**

Copying, cutting, and pasting	191
Copying and pasting	192
Cutting and pasting	197
Pasting hyperlinks.....	203
Moving and copying with the mouse	204
Inserting and deleting.....	206
Inserting columns and rows	206
Inserting cells.....	208
Deleting cells, columns, and rows	210
Clearing cells	214
Inserting, deleting, and clearing cells with the mouse.....	214
Dragging with the right mouse button.....	216
Undoing previous actions	217
Redoing what you've undone.....	218
Repeating your last action.....	218
Editing cell contents	219
Editing in cells or in the formula bar	219
Editing options	220
Filling cells and creating data series	223
Controlling automatic formatting	236
Finding and replacing stuff	237
Finding formatting	240

Specifying variables using wildcard characters	242
Replacing what you find	242
Getting the words right	244
Fixing errors as you type	244
Letting Excel help with typing chores	247
Cheking yer speling	249
Research resources	250
Editing multiple worksheets	253
Grouping worksheets for editing	253
Filling a group	258
Auditing and documenting worksheets	259
Tracing cell references	264
Adding comments to cells	269
Outlining worksheets	271
Outlining a worksheet with nonstandard layout	273
Extending the outline to new worksheet areas	274
Hiding an outline	274
Collapsing and expanding outline levels	274
Displaying a specific outline level	275
Ungrouping and grouping columns and rows	276
Consolidating worksheets	276
Consolidating by position	278
Consolidating by category	280

Chapter 9: **Worksheet formatting techniques** 285

Formatting fundamentals	286
Formatting tables	288
Painting formats	296
Using themes and cell styles	296
Formatting with themes	296
Formatting with cell styles	299
Formatting conditionally	306
Creating conditional formatting rules	311
Managing conditional formatting rules	312
Creating conditional formatting formulas	315
Formatting in depth	317
Formatting individual characters	317
Formatting as you type	318
Understanding the General format	319
Formatting numbers	320
Aligning data in cells	339
Aligning text vertically	344
Using fonts	348
Customizing borders	350
Applying colors and patterns	354
Controlling the size of cells	359
Using template files to store formatting	365

Part 4: Adding graphics and printing

Chapter 10:	Creating and formatting graphics	371
	Using the Shapes tools	372
	Drawing constrained objects	374
	Drawing freehand lines and polygons	376
	Working with text boxes	379
	Working with shapes	381
	Creating WordArt	386
	Creating SmartArt	388
	Inserting other graphics	393
	Inserting online pictures and clip art	393
	Inserting pictures	394
	Inserting other objects	396
	Formatting graphics	399
	Using picture tools	399
	Using drawing tools	405
	Using SmartArt tools	407
	Formatting text in graphics	407
	Applying compression to pictures	409
	Using advanced object formatting effects	410
	Formatting embedded objects	419
	Working with graphic objects	420
	Selecting and grouping objects	420
	Positioning objects	422
	Protecting objects	428
	More tricks with graphic objects	429
	Assigning macros to objects	429
	Creating screenshots or pictures of your worksheets	430
Chapter 11:	Printing and presenting	437
	Controlling the appearance of your pages	437
	Setting page options	437
	Working in Page Layout view	441
	Setting margins	443
	Creating a header and footer	445
	Setting worksheet options	451
	Controlling what and where to print	455
	Adjusting page breaks	457
	Using Page Break Preview	457
	Inserting and removing manual page breaks	458
	Using Print Preview	459
	Creating portable documents	461

Part 5: Creating formulas and performing data analysis

Chapter 12:	Building formulas.	467
	Formula fundamentals	467
	Understanding the precedence of operators.	467
	Using cell references in formulas	469
	Editing formulas	477
	Understanding error values.	480
	Using functions: A preview.	480
	Using the Sum button	481
	Inserting a function	482
	Using Formula AutoComplete	483
	Working with formulas	484
	Naming cells and cell ranges	484
	Getting explicit about intersections.	496
	Creating three-dimensional formulas	496
	Formula-bar formatting.	497
	Using structured references	498
	Worksheet calculation.	505
	Recalculating manually	506
	Calculating part of a formula	507
	Working with circular references	508
	Understanding the precision of numeric values	511
	Using arrays.	512
	One-dimensional arrays.	512
	Array formula rules.	514
	Two-dimensional arrays.	514
	Single-cell array formulas	515
	Using array constants.	516
	Understanding array expansion	517
	Linking workbooks	517
	Saving linked workbooks.	518
	Opening a dependent workbook.	519
	Editing links	519
	Copying, cutting, and pasting in linked workbooks.	520
	Creating conditional tests.	521
	Using conditional functions	522
	Using lookup functions	525
Chapter 13:	Using functions	527
	Using the built-in function reference in Excel.	527
	Exploring the syntax of functions	531
	Expressions as arguments	531
	Types of arguments	532
	Inserting functions.	533
	Inserting references and names.	536

Chapter 14:	Everyday functions	537
	Understanding mathematical functions	537
	Using the SUM function	537
	Using selected mathematical functions	538
	Using the rounding functions	542
	Understanding text functions	545
	Using selected text functions	545
	Using the substring text functions	548
	Understanding logical functions	551
	Using selected logical functions	551
	Understanding information functions	554
	Using selected information functions	554
	Using the IS information functions	554
	Understanding lookup and reference functions	556
	Using selected lookup and reference functions	556
Chapter 15:	Formatting and calculating date and time	565
	Understanding how Excel records dates and times	565
	Entering dates and times	566
	Entering a series of dates	568
	Formatting dates and times	571
	Creating your own date and time formats	572
	Calculating with date and time	576
	Working with date and time functions	577
	Working with specialized date functions	579
Chapter 16:	Functions for financial analysis	583
	Calculating investments	583
	The PV function	584
	The NPV function	585
	The FV function	586
	The PMT function	586
	The IPMT function	587
	The PPMT function	588
	The NPER function	588
	The RATE function	588
	The IRR function	589
	The MIRR function	590
	Calculating depreciation	590
	The SLN function	591
	The DDB and DB functions	591
	The VDB function	592
	The SYD function	592
	Analyzing securities	593
	The DOLLARDE and DOLLARFR functions	594
	The ACCRINT and ACCRINTM functions	594
	The INTRATE and RECEIVED functions	595
	The PRICE, PRICEDISC, and PRICEMAT functions	595

	The DISC function	596
	The YIELD, YIELDDISC, and YIELDMAT functions	596
	The TBILLEQ, TBILLPRICE, and TBILLYIELD functions	596
	The COUPDAYBS, COUPDAYS, COUPDAYSNC, COUPNCD, COUPNUM, and COUPPCD functions	597
	The DURATION and MDURATION functions	597
	Using the Euro Currency Tools add-in	598
Chapter 17:	Functions for analyzing statistics	601
	Analyzing distributions of data	601
	Using built-in statistical functions	601
	Using functions that analyze rank and percentile	604
	Using sample and population statistical functions	607
	Understanding linear and exponential regression	608
	Calculating linear regression	609
	Calculating exponential regression	615
	Using the Analysis Toolpak data analysis tools	616
	Installing the Analysis Toolpak	616
	Using the Descriptive Statistics tool	617
	Creating histograms	619
	Using the Rank And Percentile tool	622
	Generating random numbers	625
	Sampling a population of numbers	629
	Calculating moving averages	630
Chapter 18:	Performing a what-if analysis	633
	Using data tables	633
	Data tables based on one input variable	633
	Single-variable tables with more than one formula	636
	Data tables based on two input variables	636
	Editing tables	638
	Using the Scenario Manager	639
	Defining scenarios	641
	Browsing your scenarios	643
	Adding, editing, and deleting scenarios	644
	Routing and merging scenarios	644
	Creating scenario reports	646
	Using the Goal Seek command	649
	Precision and multiple solutions	651
	Using the Solver	652
	Stating the objective	654
	Specifying variable cells	655
	Specifying constraints	655
	Other Solver options	658
	Saving and reusing the Solver parameters	661
	Assigning the Solver results to named scenarios	661
	Generating reports	661

Part 6: Creating charts

Chapter 19:	Designing charts	667
	Selecting data for your chart	667
	Creating a new chart	668
	Changing the chart type	672
	Assigning a series to a secondary axis	674
	Switching rows and columns	676
	Choosing a chart layout	678
	Choosing a chart style	678
	Moving the chart to a separate chart sheet	679
	Adding, editing, and removing a chart title	680
	Adding, editing, and removing a legend	681
	Adding and positioning data labels	682
	Adding a data table	682
	Adding and removing gridlines	682
	Adding and editing axis titles	683
	Working with axes	683
	Changing the scale of a value axis	684
	Changing the scale of a category axis	685
	Modifying a chart's data	690
	Using the mouse to add data points	690
	Filtering chart data	691
	Plotting noncontiguous source ranges	692
	Adding moving averages and other trendlines	693
	Adding error bars	694
Chapter 20:	Formatting charts	697
	Formatting charts with the Chart Styles gallery	697
	Selecting chart elements	698
	Repositioning chart elements with the mouse	699
	Formatting lines and borders	699
	Formatting areas	702
	Choosing a solid fill	702
	Filling an area with a color gradient	702
	Filling an area with a texture or picture	703
	Making areas transparent	704
	Formatting text	705
	Using WordArt	705
	Changing the rotation of axis labels	706
	Changing the interval between axis labels	707
	Changing the position of axis labels	708
	Changing the numeric format used by axis labels	709
	Adding arrows, shapes, and text	709

Chapter 21:	Using sparklines	711
	Creating sparklines	712
	Creating groups of sparklines	713
	Expanding a set of sparklines	713
	Customizing sparklines	714
	Changing the sparkline color and weight	714
	Emphasizing particular points	714
	Customizing axes	715
	Adding text to sparklines	717
	Removing sparklines	717

Part 7: Managing databases and tables

Chapter 22:	Managing information in tables	721
	How to organize a table	723
	Creating a table	723
	Overwriting default headers	724
	Turning a table back into an ordinary range	724
	Naming a table	725
	Expanding a table	725
	Adding totals to a table	728
	Sorting tables and other ranges	730
	Sorting on a single column	730
	Sorting on more than one column	731
	Sorting only part of a list	733
	Sorting by column	733
	Sorting cells that contain formulas	735
	Sorting months, weekdays, or custom lists	737
	Performing a case-sensitive sort	738
	Filtering a list or table	739
	Using filters	739
	Using the Advanced Filter command	744
	Removing duplicate records	753
	Using formulas with tables	754
	Referencing the total row	756
	Explicitly referencing the current row	758
	Referencing parts of a table	759
	Formatting tables	760
	Using themes to change style appearance	762
	Customizing table styles	763

Chapter 23:	Analyzing data with PivotTable reports	767
	Introducing PivotTables	767
	Creating a PivotTable	771
	Rearranging PivotTable fields	775
	Refreshing a PivotTable	777
	Changing the numeric format of PivotTable data	778
	Choosing report layout options	778
	Formatting a PivotTable	779
	Customizing the display of empty or error cells	779
	Merging and centering field labels	779
	Hiding outline controls	780
	Hiding the Row Labels and Column Labels headings	780
	Displaying totals and subtotals	781
	Customizing subtotals	781
	Sorting PivotTable fields	784
	Filtering PivotTable fields	785
	Filtering with the Report Filter axis	785
	Filtering with slicers	786
	Formatting slicers	787
	Filtering in the PivotTable Fields pane	788
	Changing PivotTable calculations	792
	Using a different summary function	792
	Applying multiple summary functions to the same field	793
	Using custom calculations	793
	Using calculated fields and items	795
	Grouping and ungrouping data	798
	Creating ad hoc item groupings	798
	Grouping items in date or time ranges	799
	Displaying the details behind a data value	801
	Creating PivotCharts	801
	Moving beyond PivotTables	803
Chapter 24:	An introduction to PowerPivot	805
	Using a PivotTable on an Excel table	806
	Using PowerPivot in Office 2013	808
	Adding information to the Excel table	810
	Creating a data model with many tables	812
	Understanding relationships	814
	Understanding the data model	816
	Querying the data model	817
	The PowerPivot add-in	819
	Creating a Power View report	822
	Loading data from external sources	827
	Using the DAX language	831
	Creating a calculated column	831
	Creating a calculated field	835
	Refreshing the PowerPivot data model	837

Chapter 25:	Working with external data	839
	Using and reusing Office Data Connections	839
	Setting refresh options	841
	Requiring or not requiring a password to refresh	842
	Refreshing on demand	842
	Opening an entire Access table in Excel	843
	Working with data in text files	844
	Using the Text Import Wizard	844
	Parsing Clipboard text	848
	Working with XML files	848
	Creating an ad hoc mapping of XML elements to table columns	850
	Importing XML data using an existing XML structure	851
	Using Microsoft Query to import data	852
	Choosing tables and fields (columns)	854
	Filtering records	854
	Sorting records	856
	Working directly with Microsoft Query	857
	Using a web query to return Internet data	872
	Using an existing web query	872
	Creating your own web query	874

Part 8: Using Excel collaboratively

Chapter 26:	Collaborating on a network or by email	879
	Saving and retrieving files over a network	879
	Sharing workbooks on a network	880
	Using advanced sharing options	884
	Tracking changes	886
	Protecting the change history	887
	Reviewing changes	888
	Canceling the shared workbook session	889
	Combining changes made to multiple workbooks	890
	Distributing workbooks and worksheets by email	892
	Sending an entire workbook as an email attachment	892
	Sending a worksheet, chart, or range by email	893
	Sending a workbook for review	894
Chapter 27:	Working in the cloud	895
	Using SkyDrive	895
	Working with the SkyDrive application	896
	Saving workbooks to and retrieving them from SkyDrive	898
	Working with your cloud-based SkyDrive	898
	Using Microsoft Office Web Apps	907
	How the Web App handles unsupported features	909

Part 9: Automating Excel

Chapter 28:	Recording macros	913
	Configuring macro security	914
	Using the macro recorder	917
	Recording with relative references	918
	What to do when the macro recorder does not give you what you expect	919
	Introducing the Visual Basic Editor	920
	Learning the basics of Visual Basic	921
	Objects, methods, and properties	921
	The Object Browser	923
	Collections of objects	924
	Manipulating an object's properties without selecting the object	926
	Naming arguments to methods	926
	Adding code to or editing recorded macros	927
	Using subroutines in macros	930
	Using the Personal Macro Workbook	932
	Going on from here	932
Chapter 29:	Creating custom functions	935
	Creating a simple custom function	935
	Using custom functions	937
	Understanding custom function rules	939
	Using VBA keywords in custom functions	939
	Documenting macros and custom functions	940
	Creating custom functions with optional arguments	941
	Making your custom functions available anywhere	943
Chapter 30:	Debugging macros and custom functions	947
	Using design-time tools	947
	Catching syntax errors	948
	Catching misspelled variable names	949
	Stepping through code	950
	Setting breakpoints with the Toggle Breakpoint command	951
	Setting conditional breakpoints using <i>Debug.Assert</i>	952
	Using the Watch Window to monitor variable values and object properties	953
	Using the Immediate window	954
	Dealing with run-time errors	955

Part 10: Integrating and extending Excel

Chapter 31:	Linking, hyperlinking, and embedding	961
	Linking and embedding with OLE technology	961
	Embedding vs. linking	961
	Embedding vs. static pasting	962
	Embedding and linking from the Clipboard	964
	Embedding and linking with the Object command	965
	Managing links	966
	Linking with hyperlinks	967
	Creating a hyperlink in a cell	968
	Linking to a website or local file	970
	Assigning a hyperlink to a shape, image, or chart	974
	Selecting a cell or an object without triggering the hyperlink	974
	Using formulas to create hyperlinks	974
Chapter 32:	Using Excel data in Word documents	977
	Using Excel tables in Word documents	977
	Pasting an Excel table from the Clipboard	977
	Using Paste Special to control the format of your table	979
	Using the Object command	985
	Using Excel charts in Word documents	987
	Using Excel to supply mail-merge data to Word	990

Appendixes

Appendix A:	Menu-to-ribbon command reference	997
	Excel 2003 File menu	997
	Excel 2003 Edit menu	999
	Excel 2003 View menu	1000
	Excel 2003 Insert menu	1002
	Excel 2003 Format menu	1003
	Excel 2003 Tools menu	1003
	Excel 2003 Data menu	1005
	Excel 2003 Chart menu	1007
	Excel 2003 Window menu	1008
	Excel 2003 Help menu	1008
	Excel 2003 Standard toolbar	1008
	Excel 2003 Formatting toolbar	1010
Appendix B:	Keyboard shortcuts	1013
	Shortcuts by key: Function keys	1013
	Shortcuts by key: Control and navigation keys	1015
	Shortcuts by key: Numeric keys	1018
	Shortcuts by key: Symbol keys and keypad	1019
	Shortcuts by key: Letter keys	1020

Shortcuts by task: Insert charts	1021
Shortcuts by task: Work in dialog box text boxes	1021
Shortcuts by task: Work in dialog boxes	1021
Shortcuts by task: Edit data	1022
Shortcuts by task: Work with formulas	1022
Shortcuts by task: Enter data	1023
Shortcuts by task: Select cells	1024
Shortcuts by task: Filter tables	1025
Shortcuts by task: Work with borders	1025
Shortcuts by task: Format data	1025
Shortcuts by task: Work with Help	1026
Shortcuts by task: Insert, delete, and copy cells	1026
Shortcuts by task: Work with macros	1027
Shortcuts by task: Work with the ribbon	1027
Shortcuts by task: Move and scroll in End mode	1027
Shortcuts by task: Move and scroll in worksheets	1028
Shortcuts by task: Move within a selected range	1028
Shortcuts by task: Print	1029
Shortcuts by task: Work in Backstage view	1029
Shortcuts by task: Select cells, rows, columns, and objects	1029
Shortcuts by task: Select cells with special characteristics	1030
Shortcuts by task: Work with outlines	1030
Shortcuts by task: Work with options menus	1030
Shortcuts by task: Work with task panes	1031
Shortcuts by task: Navigate Windows	1031
Shortcuts by task: Work with worksheets	1032
 Appendix C: Function reference	 1033
Alphabetical list of Excel 2013 functions	1034
 Index to troubleshooting topics	 1089
 Index	 1091

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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 Pivot-Tables, 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:

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If you need additional support, email Microsoft Press Book Support at *mspinput@microsoft.com*.

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PART 1

Examining the Excel environment

CHAPTER 1

What's new in Microsoft Excel 2013.....3

CHAPTER 2

Exploring Excel fundamentals.....15

CHAPTER 3

Custom-tailoring the Excel workspace.....75

CHAPTER 4

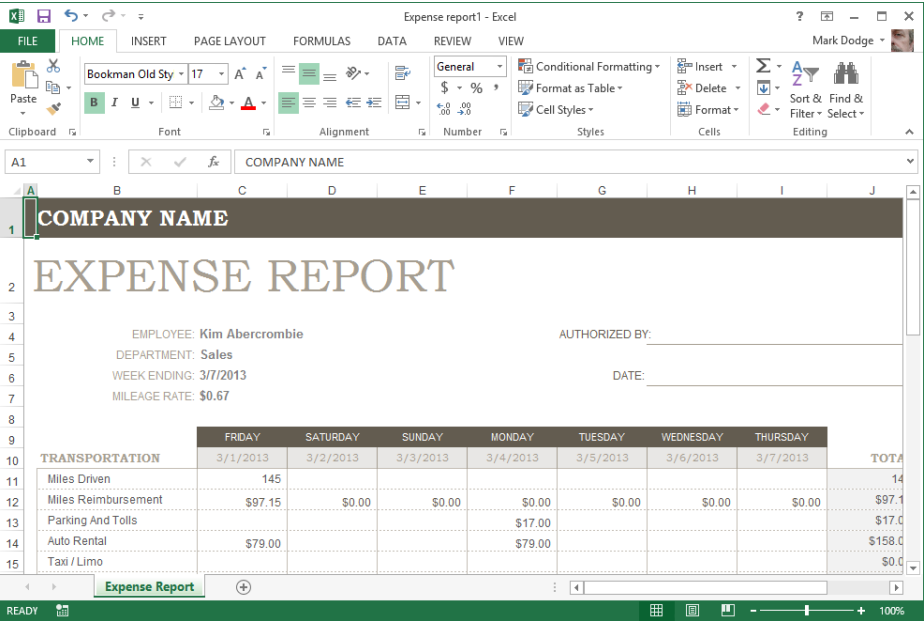
Security and privacy 105



What's new in Microsoft Excel 2013

New and improved for 2013.....	4	If you missed the last two upgrades	11
Retired in 2013	10	Moving onward with Office 2013	14
If you missed the last upgrade.....	10		

CONSIDERING recent computing history, including the advent of Microsoft Windows 8 and the increasing ubiquity of tablets and touch interfaces, the modest but important improvements made to Microsoft Excel 2013 might seem like a relative island of calm in rough digital seas. In 2007, there was truly a paradigm shift in Microsoft Excel and Office, and Office 2010 was a significant refinement. The 2013 version represents a further refinement, a “flatter” appearance, and an increased presence of the Office brand. Web Apps have been available for years now, becoming ever more capable, and are available to anyone with even a free Microsoft account. You can run Office apps on Windows phones, and Microsoft Surface tablets come with Office installed. More people are using Excel in more places. We’re happy to say, it’s better than ever.



New and improved for 2013

First, we'll highlight the new features in the 2013 release of Microsoft Excel. Later, we'll talk about features that have been retired from the program and summarize the features that will be new to you if you skipped the last upgrade or two.

New templates

It seems as if templates have always been a bit of an afterthought—as if someone slapped together some generic sheets quickly, after everything else was done. No more. Excel 2013 has a new interface for templates, as shown in Figure 1-1, and now it offers some of the most sophisticated and useful prepackaged workbooks you've ever seen. They succeed in banishing the typical wall of numbers from your desktop, while delivering a lot of useful, well-thought-out functionality. These templates are useful, and what's more, you can learn from them. For more information, see “Creating workbooks” in Chapter 2, “Exploring Excel fundamentals.”

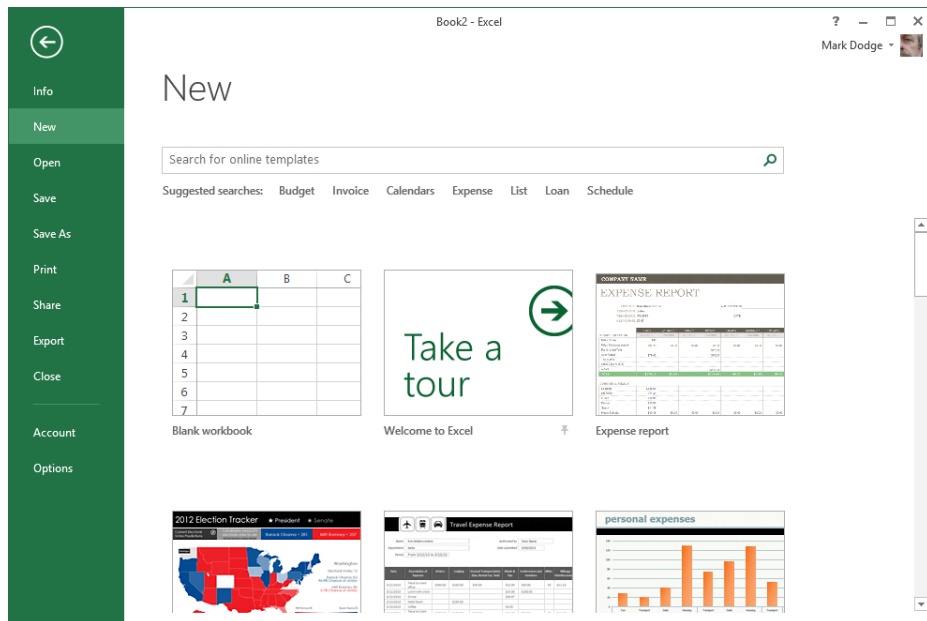


Figure 1-1 The New command on the File tab reveals a wealth of sophisticated templates.

Quick analysis

If you select more than one nonempty cell, the new Quick Analysis tool appears at the lower right corner of the selected range. Clicking it displays a context-sensitive toolbar containing tabs and controls applicable to the contents of the selected cells. As you move the pointer over icons on the Quick Analysis toolbar, as shown in Figure 1-2, a live preview is applied to the selected data on the worksheet. Just click the icon to make it stick. For more information, see “Using the Quick Analysis tool” in Chapter 2.

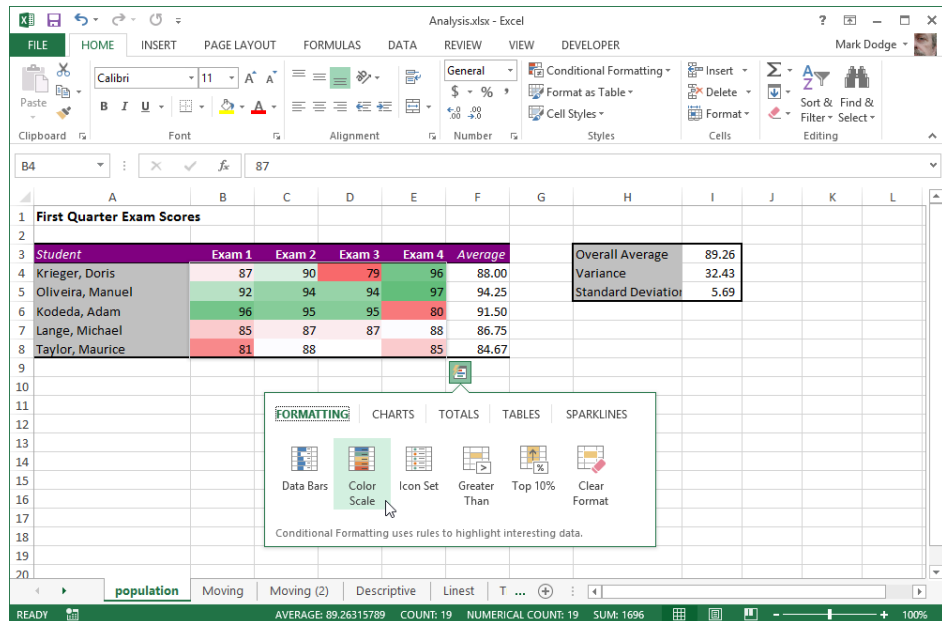


Figure 1-2 Select a range and click the Quick Analysis button to display sets of applicable tools.

Flash Fill

Microsoft describes Flash Fill as a “data assistant that finishes your work for you.” Perhaps it’s more like “finishing your sentences for you,” but as it turns out, Flash Fill is an impressive feature that might better be described as a live concatenation function. As you type data into cells, Excel compares it to data in adjacent cells, and if a pattern is detected, Flash Fill offers a solution, such as the list of full names in column H, shown in Figure 1-3. For

more information, see “Automatic parsing and concatenation using Flash Fill” in Chapter 8, “Worksheet editing techniques.”

	A	B	C	D	E	F	G	H	I
1	Last Name	First Name	Date of Hire	Date of Birth	Sex	Salary	Age		
2	Nadav	Yinson	6/17/86	11/29/62	M	96000	50	Yinson Nadav	
3	Abrus	Luka	6/22/86	5/15/49	F	32000	63	Luka Abrus	
4	Kopac	Barbara	8/16/86	11/2/59	M	46000	53	Barbara K	
5	Bouraima	Herve	10/15/86	5/3/60	M	42000	52	Herve Bou	
6	Seidler	Joachim	10/21/86	12/15/76	M	82000	36	Joachim S	
7	Weinfurter	Walter	11/20/86	10/17/49	M	100000	63	Walter We	
8	Overeem	Pascaline	11/30/86	5/10/76	M	26000	36	Pascaline	
9	Gil	Enrique	1/20/87	3/4/58	M	63000	54	Enrique G	
10	Amireh	Kamil	1/23/87	10/22/56	F	94000	56	Kamil Ami	
11	Ozolins	Gatis	2/4/87	4/26/58	F	51000	54	Gatis Ozol	
12	Tuntisangaroon	Sittichai	2/19/87	10/13/78	M	82000	34	Sittichai T	
13	Krenthaller	Elisabeth	2/21/87	3/26/76	M	53000	36	Elisabeth K	
14	Park	Dan	2/24/87	11/14/74	M	58000	38	Dan Park	
15	Sario	Esko	5/4/87	6/24/73	M	82000	39	Esko Sario	
16	Riis	Bjarne	6/23/87	10/12/51	M	68000	61	Bjarne Riis	
17	Madigan	Tony	6/30/87	6/16/77	M	100000	35	Tony Madi	
18	Wacker	Roland	8/11/87	12/4/70	M	84000	42	Roland Wa	
19	Sasaki	Rie	8/24/87	9/4/67	M	77000	45	Rie Sasaki	
20	Cletus	Christian	8/26/87	12/3/69	M	92000	43	Christian C	
21	Marques	Leonor	10/15/87	1/16/78	M	57000	35	Leonor Ma	
22	Belishky	Kostadin	11/15/87	9/27/63	M	63000	49	Kostadin B	
23	Paturskis	Leonids	12/1/87	12/26/60	M	70000	52	Leonids P	
24	Pan	Yossi	1/2/88	11/8/65	M	82000	47	Yossi Pan	

Figure 1-3 Typing one full name into cell H2 was all the information Flash Fill needed to correctly guess the desired results, which were suggested after only one letter was typed into cell H3.

Recommended charts

Like Flash Fill, the Recommended Charts button on the Insert tab is another brainy feature that attempts to figure out what you're after and limits your choices accordingly, rather than presenting you with every available option. When the active cell is in a table, clicking the Recommended Charts button displays the Insert Chart dialog box, as shown in Figure 1-4, which now opens to a special tab containing thumbnails of your data displayed in Excel's selected chart types. If you still need more options, the All Charts tab is just a click away. For more information, see “Creating a new chart” in Chapter 19, “Designing charts.”

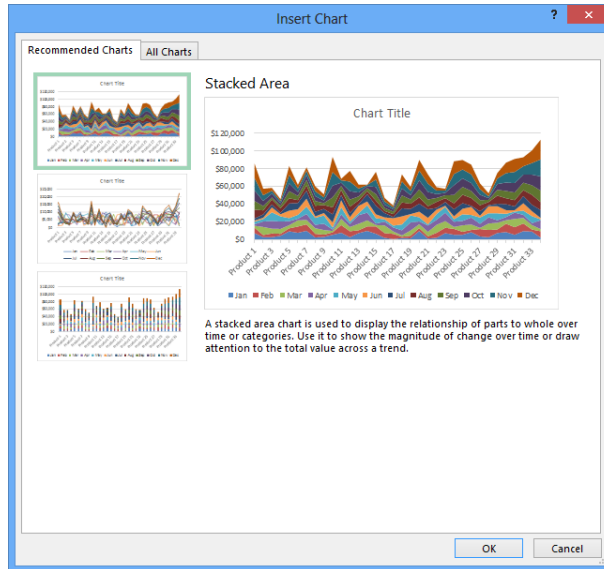


Figure 1-4 Recommended Charts analyzes your data and suggests a few appropriate charts.

New chart-formatting controls

After you create a chart, it is now easier than ever to modify it. The Chart Elements and Chart Styles buttons appear to the right of a chart when it is selected, offering instant chart-formatting gratification, as shown in Figure 1-5. Click options to add or remove elements in the chart, or change the chart's styles and colors. For more information, see “Adding, editing, and removing a chart title” in Chapter 19.

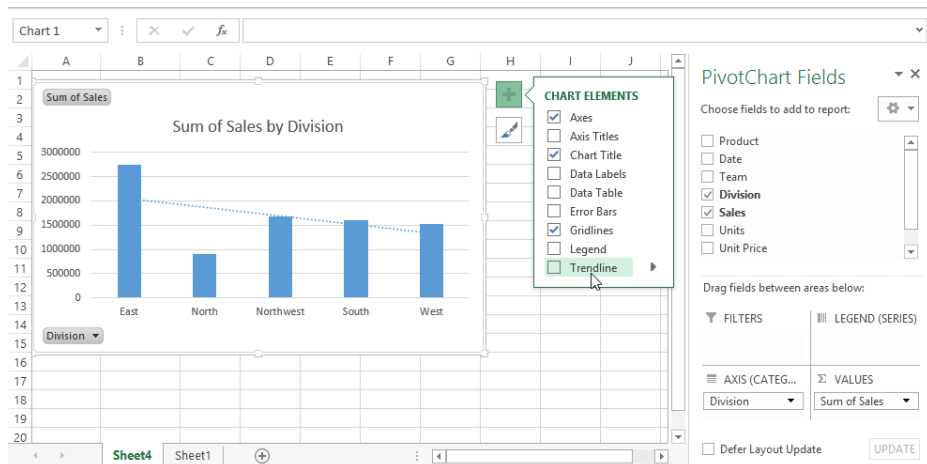


Figure 1-5 The Chart Elements and Chart Styles buttons appear whenever a chart is selected.

Timeline

You might call the new Timeline feature a *date slicer*. If your data includes dates, as in Figure 1-6, you can include a Timeline with your PivotTable or PivotChart that is used to limit the displayed data to any date range you want—in days, months, quarters, or years. For more information, see “Creating a Power View report” in Chapter 24, “Using PowerPivot.”

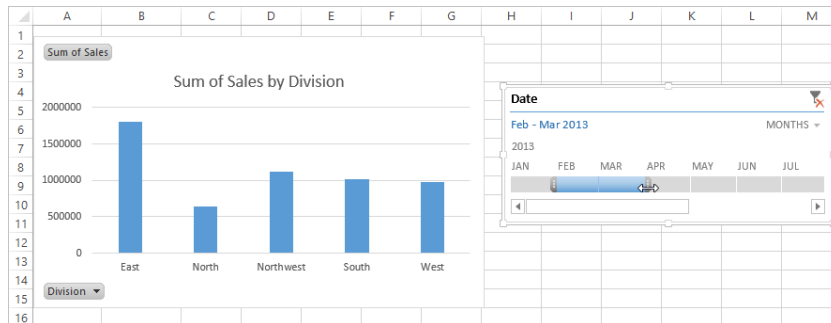


Figure 1-6 You can click any month segment on the Timeline bar to display only that month's data, or drag a handle to include as many months as you want.

Other improvements

Here are more upgrades and enhancements you'll find in Excel 2013:

- Recommended PivotTables** Similar to the Recommended Charts feature, Recommended PivotTables analyzes the selected data and offers appropriate suggestions. For more information, see Chapter 24.
- Table slicers** Slicers were introduced in 2010, but they worked only with PivotTables. The interface has been upgraded for 2013, and you can now use slicers with other kinds of data tables as well. For more information, see “Creating a Power View report” in Chapter 24.
- One workbook, one window, one worksheet** New workbooks contain a single sheet in 2013, not three. And previously, all open workbooks were enclosed within a single Excel window. Now, each workbook is its own window, making it easier to work with multiple workbooks, particularly for multiple-monitor users. For more information, see Chapter 7, “How to work a workbook.”
- Rich chart data labels** Data labels in charts are more customizable in 2013. You can create labels with text that updates automatically, you can apply rich formatting, and you can display text inside shapes. For more information, see “Adding and positioning data labels” in Chapter 19.

- **Animations** As you work in Excel 2013, you'll notice subtle animations in various situations, including updating charts, inserting data, and copying and pasting. For example, when you insert a row, the rows below the new row appear to scroll downward. This was formerly referred to as *visceral feedback*, which is a clue to its true value. The animations are not exactly essential, but they help illustrate the changes incurred by your actions.
- **Standalone PivotCharts** Now, your Pivot Charts do not need to remain tethered to a PivotTable; you can copy and paste them as you wish, without the baggage. For more information, see "Creating PivotCharts" in Chapter 23, "Analyzing data with PivotTable reports."
- **New functions** There are always new functions, and this time, most of them are meant to increase compatibility with the Open Document format.
- **The Excel Data Model** Some of the power from the PowerPivot add-in that was introduced in Excel 2010 has now been incorporated into Excel as the Excel Data Model, which you can use to address multiple tables of data from within Excel. For more information, see Chapter 24.
- **Power View** This new feature leverages the power of the Excel Data Model, which you can use to construct elaborate presentation-ready reports that include graphics and data from multiple tables or external data sources. For more information, see "Creating a Power View report" in Chapter 24.

Does your ribbon look different?

In this book, we provide instructions based on traditional keyboard and mouse input methods. If you're using Excel on a touch-enabled device, you might be using a stylus or your finger to give commands. If so, substitute a tapping action any time we instruct you to click a user interface element. Also note that when we tell you to enter information in Excel, you can do so by typing on a keyboard, tapping an on-screen keyboard, or even speaking aloud, depending on your computer setup and your personal preferences.

Retired in 2013

These are features whose services were no longer required this time around:

- **Save Workspace** Because of the new “One workbook, one window” interface, the Save Workspace command lost most of its reason to exist.
- **Window Split box** Near the vertical scroll bar, lived a little box you could double-click to split the worksheet into panes. Although you can do the job using the Split button on the View tab, the box was inexplicably removed—perhaps another casualty of the “one workbook, one window” interface.

If you missed the last upgrade

Just in case you leapfrogged a software upgrade and missed the last big Microsoft Office release, here is a brief description of a few features that are essentially new to you but were introduced in the previous release:

- **Backstage view** The File tab opens what Microsoft calls *Backstage view*, a single location where you find essential controls and information about your documents and where most of Excel's behind-the-scenes options and settings reside. The traditional File menu commands are here, too—for opening, saving, and creating new files; using templates; printing; and sharing information with others.
- **Ribbon customization** Users of the static ribbon in Excel 2007 will be happy to know they can now freely rearrange command groups; change the order and position of tabs; remove groups; create custom commands, groups, and tabs; and show or hide existing tabs.
- **Sparklines** Sparklines are tiny charts that fit within a cell and give you a visual summary alongside your data.
- **Paste Preview** In Excel, you now can preview how copied information will look before you paste it. When you copy and then click the Paste menu (on the Home tab in the Clipboard group), hovering over the option buttons displays what each one will do on the worksheet if and when you actually click it.
- **Improved picture editing** Now when you want to insert a picture in a workbook, you can edit it directly in Excel—you no longer need to prepare it in advance using a photo-editing program.
- **Office Web Apps** Providing a familiar Microsoft Office experience when you are away from your computer, Office Web Apps allow you to work with Excel, Word,

PowerPoint, and OneNote files from just about anywhere, offering browser-based viewing and lightweight editing.

- **Slicers** Slicers provide an easy way to filter large PivotTables so that you can see exactly the data you need without being distracted by data you don't need.
- **Improved conditional formatting** New conditional formatting options let you quickly visualize and comprehend data. You will find more styles, icons, and data bars, and you now have the ability to highlight specified items (such as the maximum or minimum value) in a few clicks.
- **New functions and functional consistency** Microsoft added a number of statistical and financial functions that extend or refine existing functionality. Most of the new functions are statistical distribution functions. For example, in addition to the existing COVAR function, a measure of deviation between data sets, you can now choose COVARIANCE.P or COVARIANCE.S, which applies to an entire population of data (P) or a representative sample (S).
- **Improved math equation support** Create and display math equations with a rich set of equation-editing tools.
- **Improved charting capacity** Two-dimensional charts in Excel 2007 were limited to 32,000 data points per series. Chart series are now limited only by system memory.
- **Additional SmartArt graphics** Incorporate great-looking graphics into your professional documents without a large consulting team or time commitment.
- **64-bit edition** Excel 2010 introduced 64-bit scalability for the Excel guru or analyst working with massive, memory-intensive datasets.
- **Office Mobile** Microsoft Office Mobile brought Office tools to the mini screen of your mobile device.

If you missed the last two upgrades

If you are one of the people clinging to Excel 2007 and managed to hang in there all this time, well . . . hey, it's time to upgrade. Here is a summary of the things that were changed in Excel 2007:

- **Results-oriented user interface** The old toolbars and menu bar have been replaced by a single toolbar and a new dashboard called the *ribbon*, which has a task-oriented structure and easily recognizable tools. Most of the old menus have been reborn as tabs.

- **Graphics enhancements** Excel has improved greatly over the years as a platform for graphics and design, and the 2007 release incorporated a few subtle enhancements, including a robust SmartArt feature; improvements to conditional formatting, shapes, and charting; and new document themes and cell styles.
- **Improved formatting** Microsoft built a lot more intelligence into the formatting features of Excel 2007—including themes, cell styles, and galleries. You can use Live Previews to rest the pointer on an item in a palette of options to see what will happen when and if you click.
- **Page Layout view** Really more than a view, Page Layout view became a working mode with rulers and page previews in which you have full editing functionality and control over the appearance of your documents.
- **Increased capacity and speed** The new XML file format and other internal improvements gave Excel 2007 greatly increased capacities in just about every specification—for example, spreadsheets that can hold more than one million rows of data, 64 levels of nesting in formulas, and built-in support for multicore processors and multithreaded chipsets. Other major specification changes included
 - The total number of available columns: 16,384 (was 256).
 - The total number of available rows: 1,048,576 (was 65,536).
 - The total amount of computer memory: Excel can now use the maximum allowed by Windows (was 1 gigabyte).
 - The number of unique colors allowed in a single workbook: 4.3 billion (was 56).
 - The number of conditional format conditions on a cell: Limited only by available memory (was 3).
 - The number of levels of sorting you can perform on a range or table: 64 (was 3).
 - The number of items allowed in the Filter drop-down list: 10,000 (was 1,000).
 - The total number of unique cell formats in a workbook: 64,000 (was 4,000).
 - The maximum number of characters allowed in formulas: 8,000 (was 1,000).
 - The number of levels of nesting that Excel allows in formulas: 64 (was 7).
 - The maximum number of arguments allowed to a function: 255 (was 30).

- The maximum number of items returned by the Find command: 2 billion (was 64,000).
 - The number of rows allowed in a PivotTable: 1 million (was 64,000).
 - The number of columns allowed in a PivotTable: 16,000 (was 255).
 - The maximum number of unique items within a single PivotTable field: 1 million (was 32,000).
 - The maximum length of the MDX name for a PivotTable item, the string length for a relational Pivot Table, the caption length, and the field label length: 32,000 (was 255).
 - The number of fields that a single PivotTable can have: 16,000 (was 255).
 - The number of array formulas that can refer to another worksheet: Limited only by available memory (was 65,000).
 - Limit to the number of rows that you can refer to in an array formula: None (was 64,000).
 - The number of categories allowed for custom functions: 255 (was 32).
 - Excel now supports multicore processors and multithreaded chipsets.
- **Better and easier tables** Excel 2007 introduced a more robust table feature, incorporating PivotTable-like intelligence with easier formatting and editing. New features included the Table Styles gallery, structured referencing, the Remove Duplicates feature, and more.
 - **Improved PivotTables and PivotCharts** Excel 2007 added a few key improvements to PivotTable filtering, design, and layout. The greatly improved appearance of the charting features enabled more compelling PivotCharts.
 - **Better database connectivity** Along with better PivotTables, Excel 2007 provided built-in access to SQL Server Analysis Services and included support for the Unified Dimensional Model (UDM), as well as for online analytical processing (OLAP) browsers and key performance indicators (KPIs).
 - **Formula AutoComplete** Typing functions in formulas became a little easier in Excel 2007. When you type an equal sign (=) followed by any letter, you get a drop-down list of functions that start with that letter, along with a ScreenTip description of the highlighted function. Type another letter, and the list is filtered again. If you have defined cell range names in your workbook, these appear in the list as well.

- **Tools for creating formulas** In Excel 2007, the formula bar became manually resizable to let you display or hide lengthy formulas. This allowed you to enter longer formulas than before, with more levels of nesting (parenthetical expressions within expressions). The Name Manager dialog box provided greater organization and editing possibilities. In addition, Excel 2007 included many small improvements in the way it works internally, including improvements in subtotals and regression formulas.
- **Built-in Analysis Toolpak functions** The trusty statistical functions of the venerable Analysis Toolpak were fully integrated into the program in 2007.
- **Enhanced charting features** Excel 2007 included lots of new chart types, updated graphics, and a new set of Chart Tools contextual tabs, all of which made experimentation and modification a whole lot easier. Microsoft Office PowerPoint 2007 and Office Word 2007 started using the same charting engine as Excel.
- **XLSX file format** The Microsoft Office Open XML file formats (with the extension .xlsx in Excel) provided better integration with external data sources and resulted in significantly smaller file sizes.
- **Improved sorting and filtering** The Sort command, which previously allowed only three levels of sorting at a time, was improved to allow 64 levels in Excel 2007. The Filter feature was improved, and the Remove Duplicates button helped make managing database information easier, letting you specify in which columns to look for duplicate information.
- **Enhanced security features** Microsoft added a number of new features in Excel 2007, including the Trust Center and a digital signatures interface to help secure documents you share with others.

Moving onward with Office 2013

The improvements made in Microsoft Office and Excel 2013 are solid, and the release is significant, considering the new intelligent features and the new platforms supported, including Microsoft's first computer, Surface. If you skipped the 2010 release, you'll find some nice new surprises. If you skipped the 2007 release, you have a lot of catching up to do. Read on!



Examining the Excel 2013 workspace	15	Using the Help system.....	67
Exploring file-management fundamentals.....	40	Recovering from crashes.....	71
Importing and exporting files	61		

BEFORE you can get the feel of the controls, you need to know where they are and what they do. This chapter discusses the essential commands, controls, tools, and techniques you need to operate the Microsoft Excel 2013 machine.

Examining the Excel 2013 workspace

This section takes you on a tour of not only the dashboard of Excel 2010 but also the trunk and the glove compartment. We might even slip on some gloves and take a peek under the floor mats.

Facts about worksheets

Here are some tidbits of information about the grid called the *worksheet*, shown in Figure 2-1:

- Column letters range from A through XFD. (After column Z comes column AA, after column ZZ comes column AAA, and so on, up to XFD.) Row numbers range from 1 through 1,048,576.
- The currently selected cell is referred to as the *active cell*. When you select a range of cells, only the cell in the top-left corner is considered the active cell. The reference of the active cell appears in the Name box on the left end of the formula bar.
- The headings for the columns and rows containing selected cells are highlighted, making it easier to identify the location of selected cells.
- With 16,000 columns and 1,048,576 rows, your worksheet contains more than 16 billion individual cells. Before you try to unravel the mysteries of the universe on a single worksheet, however, remember that the number of cells you can use at one time is limited by the amount of memory your computer has. Although Excel allocates memory only to cells containing data, you might have trouble actually using all the cells on one worksheet, no matter how much memory you have.

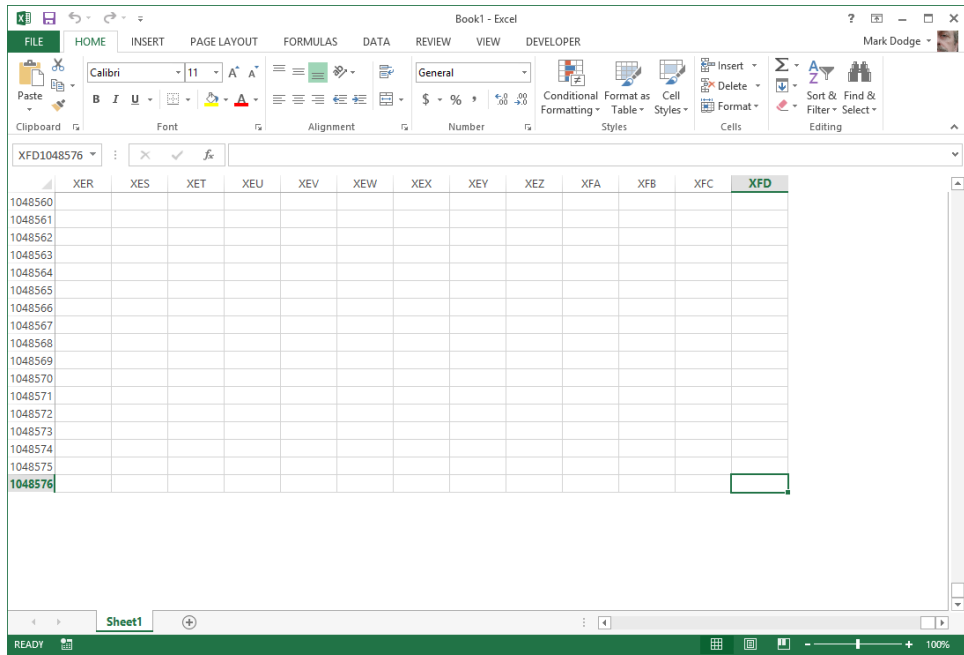


Figure 2-1 There is a huge amount of available space on a worksheet.

The porthole window

The workbook window is like a porthole through which you can see only a portion of a worksheet. To illustrate, suppose you were to cut a small, square hole in a piece of cardboard and place the cardboard over this page. At any given time, you could see only a portion of the page through the hole. By moving the cardboard around the page, however, you could eventually read the entire page through the window in your piece of cardboard. Viewing worksheets in Excel is much the same. You can also open another window to view different sections of the same worksheet simultaneously.

Using the workbook window

A new workbook, shown in Figure 2-2, originally consists of a single worksheet; you click the New Sheet button to add more sheets. This is a change from previous versions, in which new workbooks contained multiple sheets.

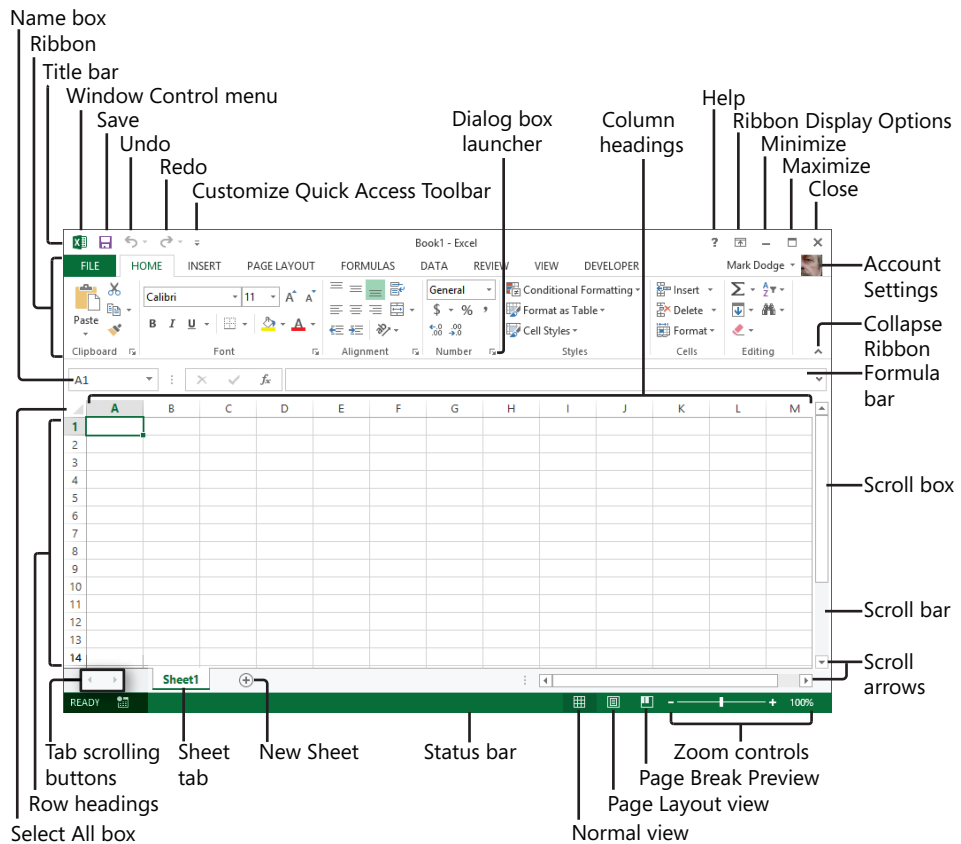


Figure 2-2 Workbooks initially comprise a single sheet, but you can add as many as you need.

For more information about using workbooks, see Chapter 7, “How to work a workbook.”

Workbooks are great organizational tools. For example, you can keep in the same workbook all the documents that relate to a specific project, department, or individual. Workbooks can eliminate a considerable amount of clutter on your hard disk. The more documents you have to manage, the more valuable workbooks become. You can use workbooks as a multiuser management tool. For example, you can organize worksheets in groups for individual tasks or individual users. You can also share a workbook so that more than one person can work on it at the same time.

If you routinely create folders on your hard disk to contain groups of related files, you can think of workbooks as folders where you can keep all related worksheets.

For more information about using and sharing workbooks, see Chapter 26, “Collaborating on a network or by email.”

Getting around in the workbook

At the bottom of the workbook window are controls you can use to move from sheet to sheet in a workbook. Just click any sheet tab to activate it, but if there are too many tabs to fit across your screen at once, sheet-navigation controls appear to help you get around, as shown in Figure 2-3. Note that the More Sheets (ellipsis ...) buttons will not appear until there are too many sheets to display at once.

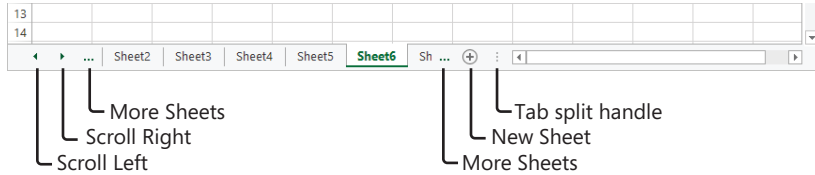
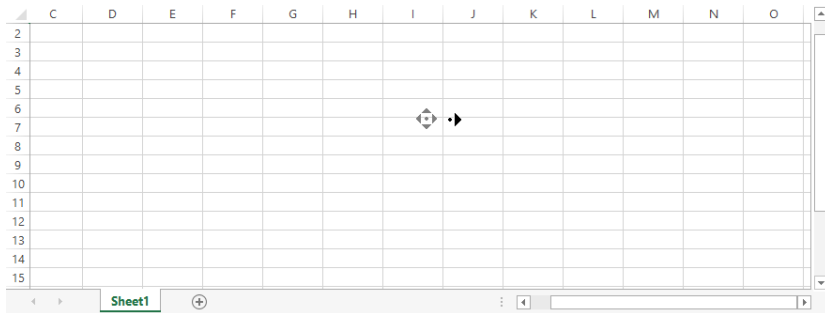


Figure 2-3 Use the workbook navigational controls to move among undisplayed worksheets.

If you have a wheel mouse

If you have one, you can use the wheel on your Microsoft IntelliMouse (and most other wheeled pointing devices) to scroll through your worksheet. Turn the wheel toward you to scroll down or away from you to scroll up. To scroll left or right (called *panning*), press the wheel button, and drag the mouse in the direction you want to move. A gray four-headed arrow appears, anchored to the spot where you pressed the wheel button. The speed of panning depends on how far you drag away from the anchor. As you press the button down and drag, a black arrow appears, pointing in the direction you're dragging:



You can change the default behavior of the wheel from scrolling to zooming. To do so, click the File tab and then click Options. In the Advanced category, below Editing Options, select the Zoom On Roll With IntelliMouse check box. For more information, see "Zooming worksheets" in Chapter 6, "How to work a worksheet."

Workbook navigation tips

Many features and controls can help you navigate through the rows, columns, and worksheets in a workbook. Here are the highlights:

- Use the sheet tab navigation buttons to view all the sheet tabs in your workbook; click a tab to view the contents of that worksheet.
- Drag the tab split handle to the right if you want to see more sheet tabs at the expense of the horizontal scroll bar's width. To return to the usual tab display, double-click the tab split handle.
- Press Ctrl+Page Down to activate the next worksheet in the workbook; press Ctrl+Page Up to activate the previous worksheet.
- Press Ctrl+Home to jump to cell A1 from anywhere on a worksheet.
- Right-click any scroll bar to display a shortcut menu dedicated to scrolling actions, as shown in Figure 2-4.

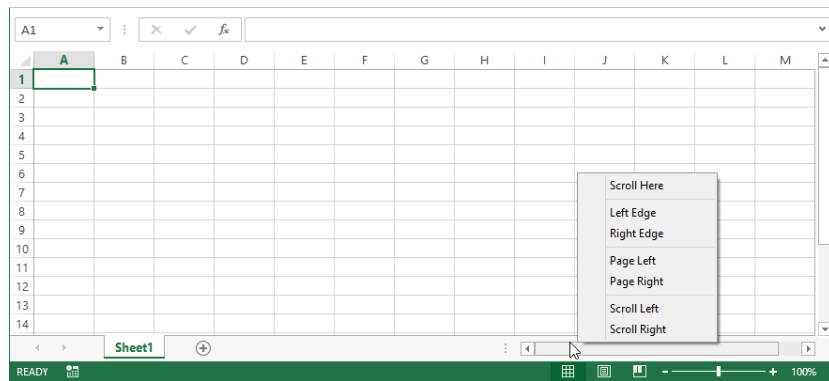


Figure 2-4 Right-click a scroll bar to display a shortcut menu of navigational commands.

- Drag the scroll box (also known as the *scroll thumb*) to move around the worksheet. Click the scroll bar anywhere outside the scroll box to move one screen at a time in the direction in which you clicked.
- The size of the scroll box changes depending on the size of the scrollable area. For example, the scroll boxes shown in Figure 2-4 are more than half as large as the scroll bars themselves, indicating there is little more to see in the active area of the worksheet—nothing, in fact, because this is a blank worksheet. As you add data to more columns and rows than can appear on a single screen, the scroll boxes get

proportionally smaller, giving you immediate feedback about the size of the worksheet. A tiny scroll thumb indicates a huge worksheet.

- Using the scroll arrows at either end of the scroll bars, you can move through the worksheet one column or row at a time.
- The Name box at the left end of the formula bar always displays the active cell reference, regardless of where you scroll the window.
- To scroll the worksheet without changing the active cell, press Scroll Lock. For example, to scroll to the right one full screen without moving the active cell, press Scroll Lock and then press Ctrl+Right Arrow.

Note

The active area of a worksheet is simply the rectangular area that encompasses all the data the worksheet contains. So, if you have just three rows and columns of actual data in the top-left corner of the worksheet, the active area would be A1:C3. If, on the same worksheet, a stray character (even a space) happens to be in cell AB1299, the active area would be A1:AB1299. On a new blank worksheet, however, Excel considers the default active area to be roughly what you can see on the screen, even before you enter any data.

Working with workbook windows

In Excel 2013, workbook windows behave differently than in any previous version. Previously, there was one Excel window that contained all open worksheets, which appeared as separate windows within the Excel *workspace*. (Even the term “workspace” has been retired for 2013.) Each workbook appears as a separate *instance* of Excel in the 2013 version. If you have three workbooks open, there will be three windows, each with a complete Excel interface, including ribbon tabs, a formula bar, a status bar, and other such items.

So workbook windows now behave like any other windows in Windows. At the right end of each title bar are the familiar Minimize, Maximize/Restore, and Close buttons. After you maximize a window, a button with two small boxes—the Restore button—takes the place of the Maximize button. Clicking the Restore button changes the maximized window into a floating window.

INSIDE OUT

See more rows on your screen

You can set the Windows taskbar at the bottom of the screen to automatically hide itself when not in use. Right-click the taskbar to display the shortcut menu, click the Properties command, and on the Taskbar tab of the Taskbar Properties dialog box select the Auto-Hide The Taskbar check box and then click OK. Now the taskbar stays hidden and opens only when you move the pointer to the bottom of the screen.

When you click the Minimize button (the one with a small line at the bottom), the window collapses and is relegated to an icon in the Windows taskbar, which you can click at any time to restore the window to its previous configuration. You can also drag the borders of any window to control its size.

Because you can open multiple windows for the same workbook, you might find it convenient to view different parts of the workbook, or even different parts of an individual worksheet, side by side in separate windows, rather than switching between worksheets or scrolling back and forth in one large window.

For more information, see “Opening multiple windows for the same workbook” in Chapter 7.

INSIDE OUT

Microsoft and the SDI

What is SDI? The single document interface (SDI) initiative that Microsoft implemented in its Office programs several versions ago was only an option in Excel 2010, but now... it's the law! Prior to SDI, regardless of the number of documents you had open, the applications were individual; if you had three Excel workbooks open, only one instance of Excel was visible in the Windows taskbar.

Microsoft's SDI initiative now dictates that each document now generates its own window, each of which becomes a separate item on the Windows taskbar. Open three Excel workbooks, and three items appear on the taskbar. This is arguably a more realistic way to handle documents, which is why Microsoft did it in the first place. Multiple-monitor users rejoice!

So in 2013, multiple document interface (MDI) is no more; long live the SDI. By the way, you won't see these terms used very much—for good reason: “multiple” DI creates a single window, and “single” DI creates multiple windows. Geek double-speak!

Exploring the ribbon

After you get the raw data into Excel by whatever means, you'll spend a lot of time using the ribbon to massage and beautify your data. The ribbon was introduced in Microsoft Office 2007 and was one of the most sweeping user interface (UI) changes ever implemented, redefining the workflow in every Office program. By this time—the third generation of the ribbon—the dust has settled, and even grumpy, old Excel users have come to terms with it. Figure 2-5 shows the ribbon at rest.

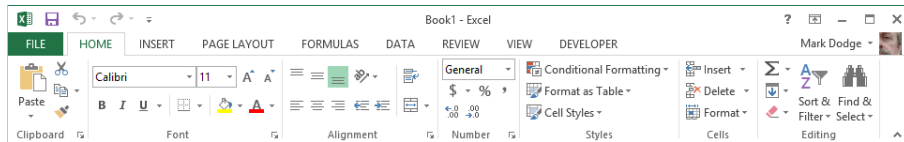


Figure 2-5 The ribbon dominates the top of the Excel window.

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.

The ribbon comprises a number of tabs, each containing several ribbon groups, which in turn contain sets of related controls: commands, buttons, menus, galleries, and dialog box launchers. The hierarchy within and among ribbon tabs is designed to approximate a general workflow model, with the most-often-used features and options stacked more or less from left to right within and among tabs. For example, the Home tab contains commands you need when you create a new worksheet and start performing tasks such as cutting and pasting, formatting, and sorting, while the Review tab contains commands related to documents that are more or less complete, addressing issues such as verifying spelling and protecting the document.

Note

The 2007 version of the ribbon was not customizable; thankfully, this was remedied in Excel 2010 and continues to be customizable in 2013. Die-hard toolbar-modification aficionados such as your friendly Excel book authors were thrilled. This is explored in detail in "Customizing the ribbon" in Chapter 3, "Custom-tailoring the Excel workspace."

The ribbon speaks

For years now, many of us in the computer-book-writing business have been anticipating early retirement due to the expected advent of stunningly simple user interfaces and the holy grail of “self-documenting” software. In reality, this goal has proven as elusive as the “paperless office,” so we’ve kept pretty busy. But Office 2013 represents another fine attempt at rendering our jobs obsolete. You can gain helpful information about your immediate surroundings simply by brandishing your pointer. For example, the left side of Figure 2-6 shows the ScreenTip that opens when you rest the pointer anywhere in the Number Format drop-down list. The right side of Figure 2-6 shows what happens when you click the Number Format drop-down list.

The icons representing the various options in the Number Format drop-down list shown in Figure 2-6 are another step in the right documentation direction, although further exploration might be required to discover the meaning of items such as the cryptic “12” icon for the Number format. (See “Using Accounting formats” in Chapter 9, “Worksheet formatting techniques.”) And, as always, you can press F1 at any time to open the Excel Help window and gain additional insight.

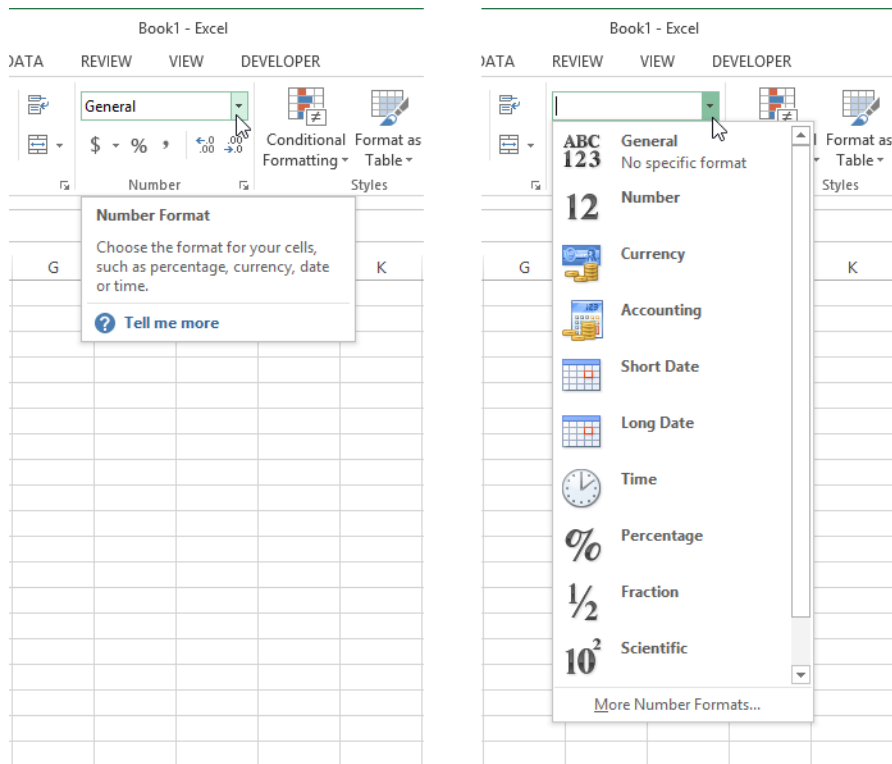


Figure 2-6 Rest your pointer on an object on the ribbon to display an explanatory ScreenTip. Click any arrow on the ribbon to display a menu, list, or gallery of options.

Note

If you need to maximize your worksheet area, you can temporarily hide the ribbon by double-clicking the active tab. Once it is hidden, clicking any tab puts the ribbon back into view.

Drop-down lists and dialog box launchers

The Number group on the Home tab, shown in Figure 2-6, contains the aforementioned Number Format drop-down list, four regular buttons, and a menu button (the \$ sign), which acts like any other button when you click the button proper, but when you click the arrow next to it, it displays a drop-down list of alternate actions for that button. Anytime you see an arrow directly to the right of a button or a box on the ribbon, clicking the arrow reveals more options. (Just to confuse the issue a bit, the Increase Font Size and Decrease Font Size buttons in the Font group display arrows that are identical to the menu arrows but are actually part of the button images and don't invoke drop-down lists.)

Many groups display a tiny button in the bottom-right corner called a *dialog box launcher* (labeled for your convenience in Figure 2-2). This is a visual cue telling you there is more you can do there. When you rest the pointer on a dialog box launcher, a ScreenTip opens with details about its function; click the dialog box launcher to display the promised result, as shown in Figure 2-7.

INSIDE OUT**Just pin it**

Whether you have Windows 7 or Windows 8, Excel lives in similar surroundings. In Windows 8, Excel runs on the desktop, which is similar to Windows 7, but without a Start button. This means that there is no Start menu with programs pinned to it, and no All Programs menu, either. If you are on the Windows 8 Start screen, click the Excel tile, which activates the desktop and starts Excel. But if you're on the desktop, you have to go back to the Start screen to start Excel. Or you can pin it to the taskbar. The taskbar is standard equipment in both Windows versions. On the Windows 8 Start screen, right-click the Excel tile, and then click the Pin To Taskbar icon. In Windows 7, right-click the Excel icon and click the Pin To Taskbar command.

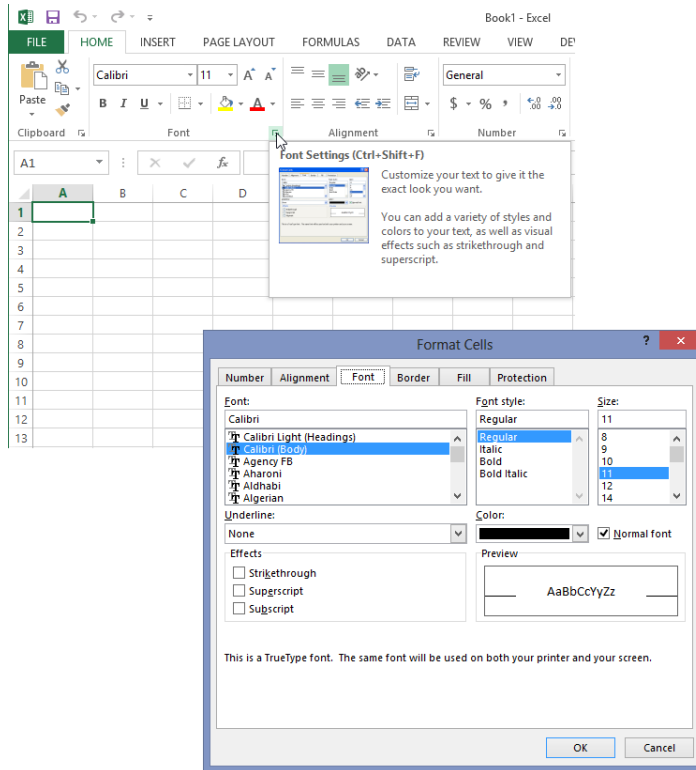


Figure 2-7 Rest the pointer on a dialog box launcher for an explanation of its function; click it to open the corresponding dialog box.

Sometimes dialog box launchers actually launch dialog boxes, as shown in Figure 2-7; other times, clicking the dialog box launcher displays a task pane on the side of the window, as shown in Figure 2-8. In the latter case, the dialog box launcher acts as a toggle—that is, clicking it opens the task pane, and clicking it again closes the task pane.

Another way to access advanced options relegated to dialog boxes is to look for commands sporting an ellipsis (...) at the bottom of menus and galleries. For example, at the bottom of the Number Format drop-down list shown in Figure 2-6 is a command called More Number Formats. Just as you can with the dialog box launcher, you can click this command to display the Format Cells dialog box. As was the case in previous versions of Excel, an ellipsis adjacent to the name of a command indicates that clicking that command displays a dialog box with additional options rather than immediately issuing the command.

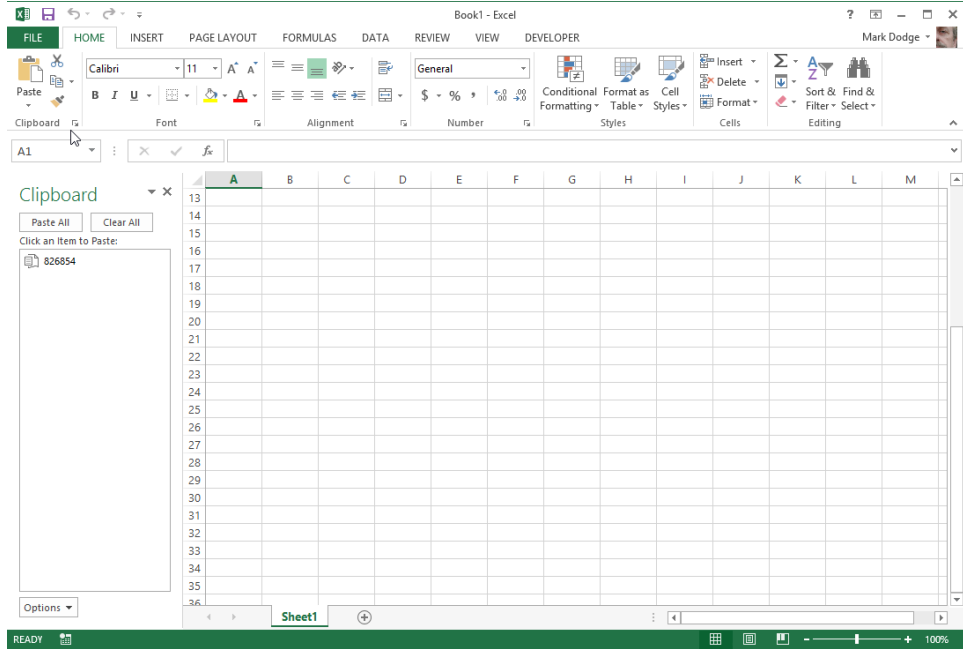


Figure 2-8 Clicking some dialog box launchers causes a task pane to open, docked to the left or the right of the worksheet.

Galleries and live preview

The concept of galleries goes way back. The idea is to provide a visual clue about what's going to happen when you click something, besides just the name of a command or button. Microsoft has done this with fonts for some time now. When you click the Font menu or drop-down list, each font name appears in its own font. Excel 2013 includes a bunch of other galleries that provide similar visuals and adds nifty functionality called *live preview*. Taking the same example one step further, Figure 2-9 shows the Font drop-down list displaying the available fonts in situ. With live preview, you simply rest the pointer on the font name to momentarily cause selected cells to display that font. (In the figure, the entire worksheet is selected.) Helpfully, the selection highlight temporarily disappears while you are previewing fonts.

As you can see in Figure 2-9, Berlin Sans FB Demi is perhaps a questionable choice for a table of sales totals, but it's easy to get a look at a lot of options this way. And helpfully,

although you need to select the cells you want to format, the selection highlight goes away temporarily while you are live-previewing. The cell contents are not affected; this is simply a way to visualize what would happen if you actually commit by clicking. Have some fun by dragging the pointer up and down the list of fonts, and watch the cell contents change almost as fast as you can drag.

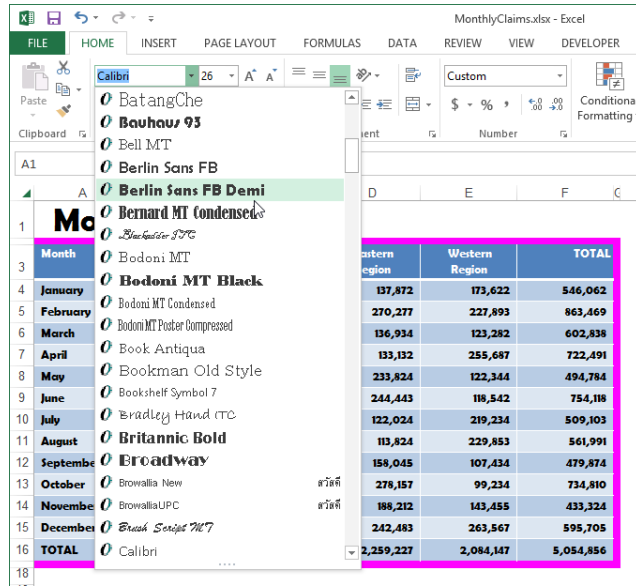


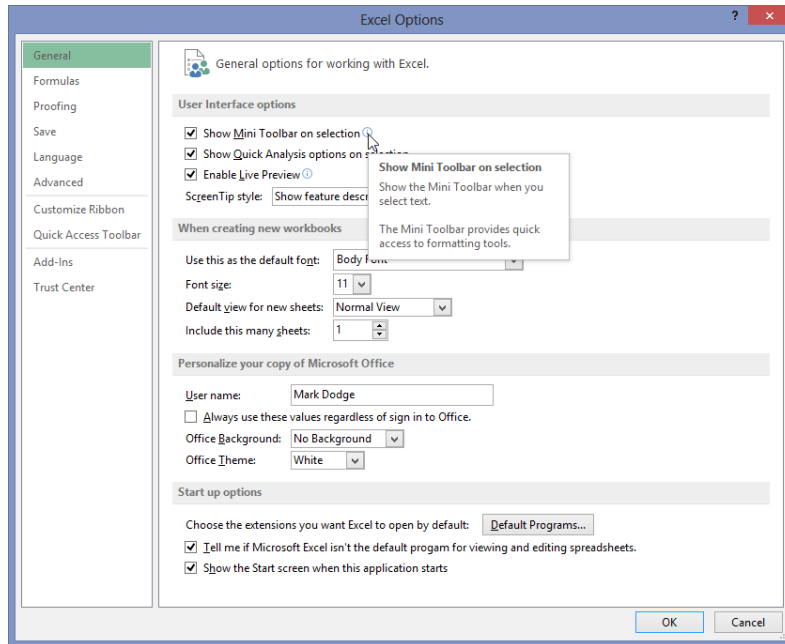
Figure 2-9 Not only are font names displayed in their respective fonts in the drop-down list, but simply resting the pointer on a font name temporarily displays that font in selected cells. (All cells are selected here.)

Note

Not all of the seemingly gallery-like items on the ribbon exhibit live preview behavior. For example, you might think the Number Format drop-down list would be an excellent application of live preview, but it doesn't work that way. As we explain features in detail throughout the book, we'll point out any live preview opportunities.

The omnipotent Excel Options dialog box

The dialog box that opens when you click the File tab and then click Options is probably the most important dialog box in Excel. The Excel Options dialog box controls nearly every aspect of Excel, including general settings such as how many sheets appear in a default workbook and the name and point size of the default font:



You'll see little *i* (for information) icons adjacent to many of the items shown in the dialog box; rest the pointer on them to display ScreenTips. The Excel Options dialog box also provides special settings for default file-saving formats, worksheet-level and workbook-level display settings, and many other hard-to-classify options. If you take a moment to click each category on the left side of the dialog box and look through the options available, you'll get an idea of the scope of the program as well as the degree of control you have over your workspace. If you're unsure about what a particular setting or option does, simply click the Help button (the question mark icon) in the title bar of the dialog box to open the Help system.

Understanding contextual tool sets

Microsoft has been dancing with context sensitivity for several releases now. In Office 2000, Excel shipped with default “learning” menus and toolbars that modified themselves based on usage patterns, which turned out to be somewhat unpopular because commands would tend to “disappear” with lack of use. Some of this functionality carried through to Excel 2003, with a somewhat better implementation. Since the 2007 release, context sensitivity is smarter and, best of all, does not take little-used items away like the previous approaches—in fact, the ribbon and its normal contents remain steadfast, while additional context-triggered tools appear on ribbon tabs that are displayed only when needed. Figure 2-10 shows what happens when you click a chart object.

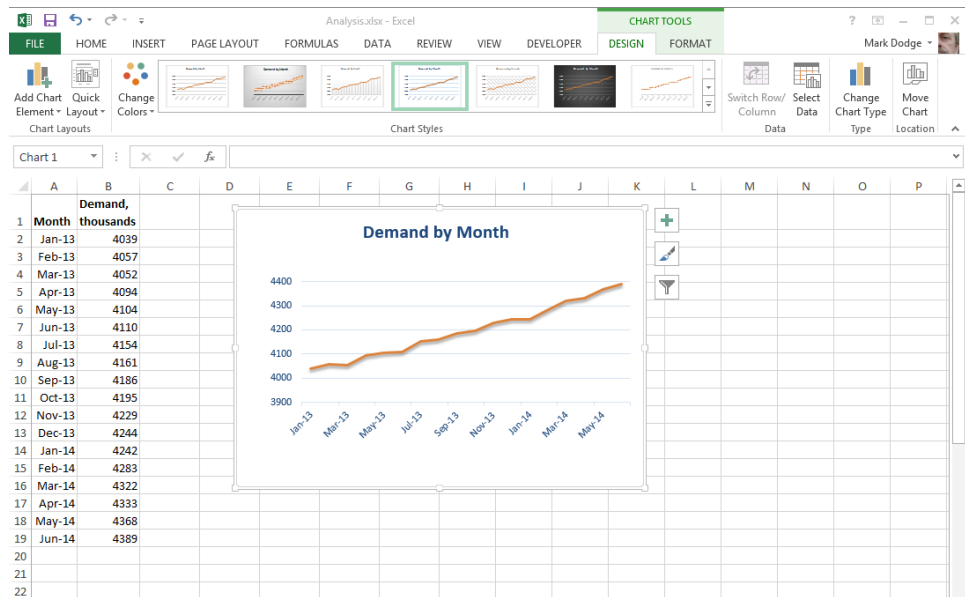


Figure 2-10 When you select an object, tabs appear containing tools that apply only to that object. Here, two tabs of chart tools appear on the ribbon when you select a chart.

Not only do two new tabs appear on the ribbon in Figure 2-10—Design and Format—but a higher-level heading, entitled Chart Tools, is displayed above the new tabs. Headings like this appear over sets of contextually triggered tabs to define their overall function. Chart objects are complex enough that clicking one triggers several tabs’ worth of contextual tools; other objects might generate only one tab. This functionality helps reduce clutter in the interface, taking groups of task-specific tools out of the way until you need them.

Using the Quick Access Toolbar

It's hard not to think of the ribbon as a toolbar, especially if you skipped a couple of upgrades. The ribbon is not a toolbar according to Microsoft, and only one "real" toolbar is left. It's at the top of the screen, and it's called the Quick Access Toolbar, as shown in Figure 2-11.



Figure 2-11 The Quick Access Toolbar sits atop the Excel workspace unless you move it under the ribbon.

Note

To suit your work style, you can add buttons and even entire ribbon groups to the Quick Access Toolbar. For more information, see "Customizing the Quick Access Toolbar" in Chapter 3.

The Quick Access Toolbar is pretty much like toolbars as you knew them, with a few exceptions. You can dock it in only two locations—either above or below the ribbon—unlike previous toolbars that could "float" over the worksheet or be docked at the top, bottom, or sides of the screen. And you cannot close or hide the Quick Access Toolbar.

INSIDE OUT

Toolbar and ribbon customization

Some of us have spent a lot of time modifying the UI of pre-2007 versions of Excel by changing and adding toolbars and menus. Since Excel 2007, there has been only one toolbar, and you cannot create new ones. Perhaps not surprisingly, 98 percent of the Excel-using public will not miss this functionality. (This statistic was gleaned from usability surveys.) Those of us in the other 2 percent can customize the Quick Access Toolbar, and since 2007, we have been able to tweak the ribbon as well. Hooray! See "Customizing the Quick Access Toolbar" in Chapter 3 for more information.

Accessing commands with the keyboard

When you press the Alt key, Excel activates keyboard command mode and displays little pop-up labels adjacent to each tab and toolbar button, as shown at the top of Figure 2-12.

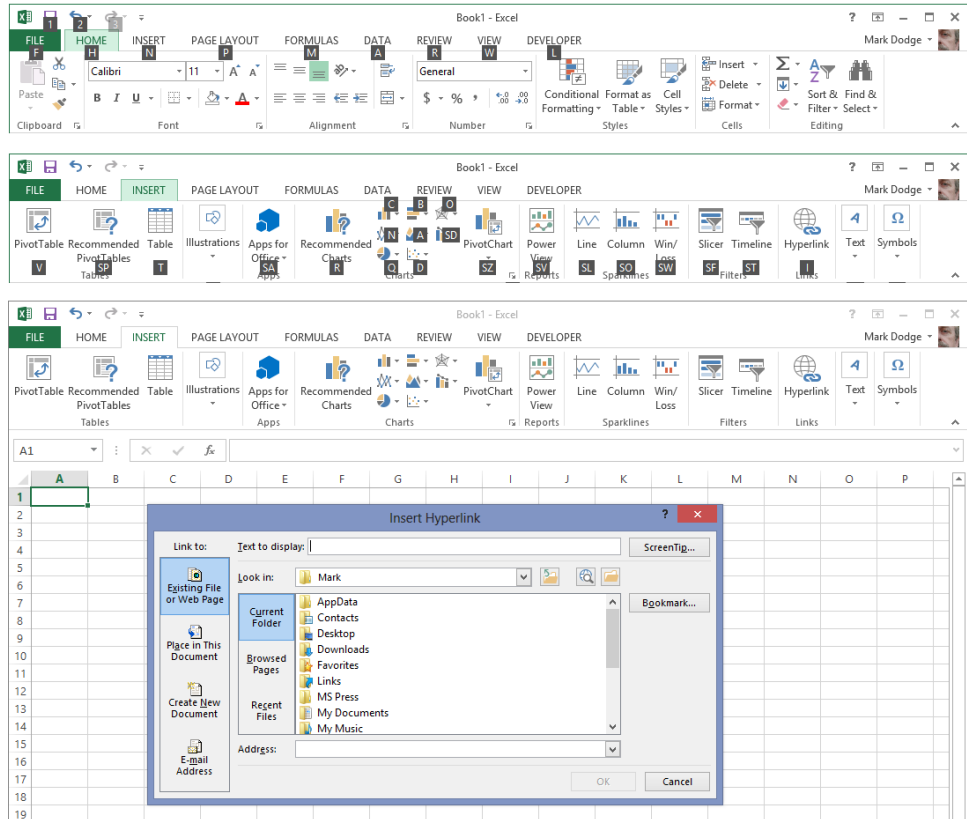


Figure 2-12 Press the Alt key to activate keyboard command mode and display pop-up labels showing you the keys you can press to activate the respective tab, button, or command.

For example, after you press the Alt key to activate the pop-up labels, you can press the N key to display the Insert tab and add pop-up labels to the commands it contains. Then, press the H key—the pop-up letter adjacent to the Hyperlink button—to display the Insert Hyperlink dialog box, as shown in Figure 2-12. So, instead of reaching for the mouse, simply pressing Alt, N, H gets you there. This makes for extremely fast command access after you learn the right keys for tasks you do often.

Keyboard command activation options

You can use the slash (/) key just like the Alt key to access the Excel command structure. But you can alternatively set a different key to activate menus. Click the File tab, click Options, select the Advanced category, scroll way down to the Lotus Compatibility options, and then type a different character in the Microsoft Excel Menu Key text box.

The joy of shortcut menus

Shortcut menus contain only those commands that apply to the item indicated by the position of the pointer when you activate the menu. Shortcut menus provide a handy way to access the commands most likely to be useful at the pointer's location and to help minimize mouse movements (which are hard on wrists!).

To access a shortcut menu, right-click. The menu opens adjacent to the pointer, as shown in Figure 2-13.

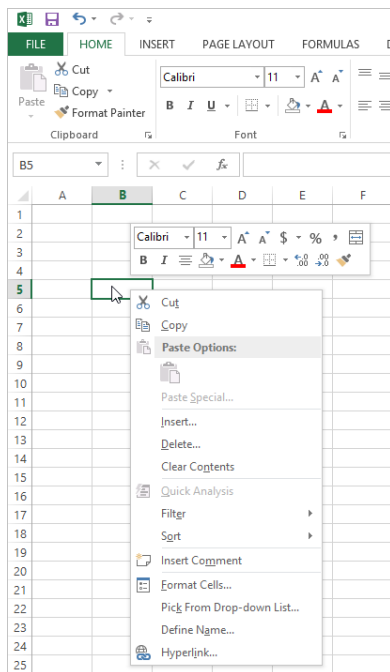


Figure 2-13 Right-clicking almost anywhere displays a shortcut menu with pertinent commands.

Shortcut menus can contain many combinations of commands, depending on the position of the pointer and the type of worksheet. For example, if you display a shortcut menu when the pointer is on a cell rather than a column heading, some of the commands change to ones specific to cells rather than columns.

Belly up to the mini-bar

A small floating toolbar opens along with the shortcut menu whenever the selected object might contain any kind of text, as you can see in Figure 2-13. You can control whether the Mini toolbar appears by using the Excel Options dialog box. Click the File tab, and click Options. Then, in the General category, select or clear the Show Mini Toolbar On Selection check box.

Using the Quick Analysis tool

The top 2013 addition to the Excel cavalcade of context-sensitivity is the Quick Analysis tool, which pops up in the lower-right corner of the selected range any time you select more than one non-empty cell. The Quick Analysis tool takes some of the most sophisticated features of Excel and puts them right near the action. One reason this is helpful is that, often, menus and palettes on the ribbon drop down and obscure the cells you are trying to format. Putting the Quick Analysis tool in the lower-right corner of the range allows you to position the selection on the screen so that you can see more of the cells you are modifying. For example, in Figure 2-14, we selected the totals in cells B4:E15, scrolled the worksheet down a bit to allow room below the table, and clicked the Quick Analysis tool. Resting the mouse pointer over any icon displays a live preview.

The Quick Analysis tool is like a mini-ribbon; across the top are categories (tabs) you click to reveal different sets of icons. The type of data you select determines the tools that are active and available for application. You can use the Quick Analysis tool to apply and remove formatting, insert formulas and tables, create charts and PivotTables, and more.

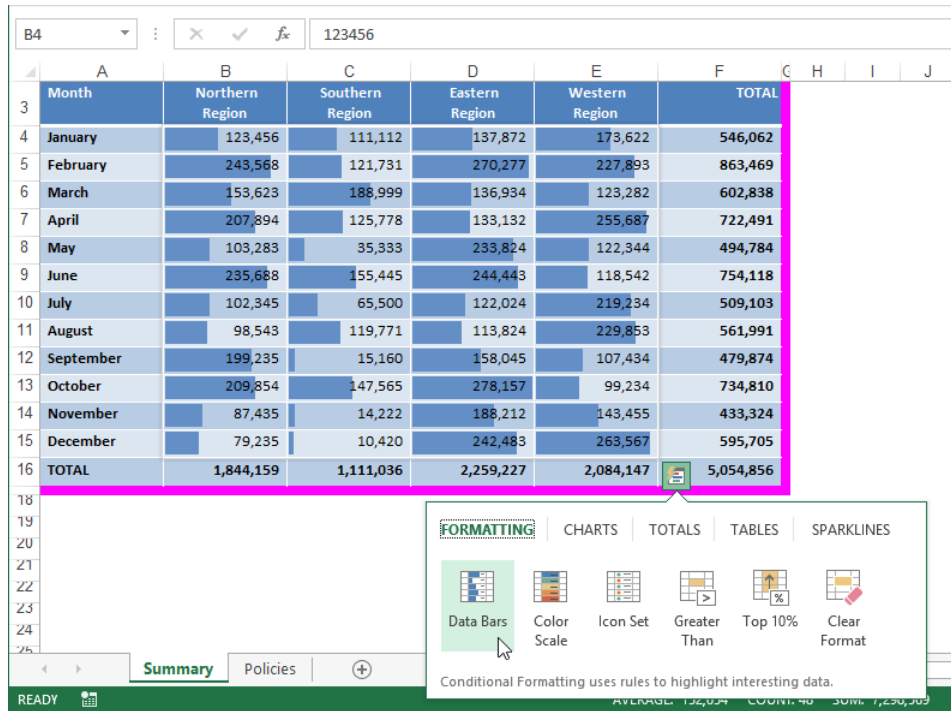


Figure 2-14 Click the Quick Analysis tool to display a context-sensitive “ribbon” with “tabs” containing appropriate actions you can apply to the selected cells.

Meet the formula bar

Worksheet cells are the building blocks of Excel. They store and display the information you enter on an Excel worksheet so that you can perform worksheet calculations. You can enter information directly in a cell, or you can enter information through the formula bar, as shown in Figure 2-15.

The contents of the active cell appear in the formula bar, and the address of the active cell appears in the Name box at the left end of the formula bar. The formula bar split handle and the Insert Function button are always available, but the other two formula-editing buttons are active only while you are entering or editing data in a cell, as shown in Figure 2-15. Click the Cancel button to cancel the current action in the cell, which is the same as pressing the Esc key. Click the Enter button to consummate the current action in the cell, which is the same as pressing the Enter key.

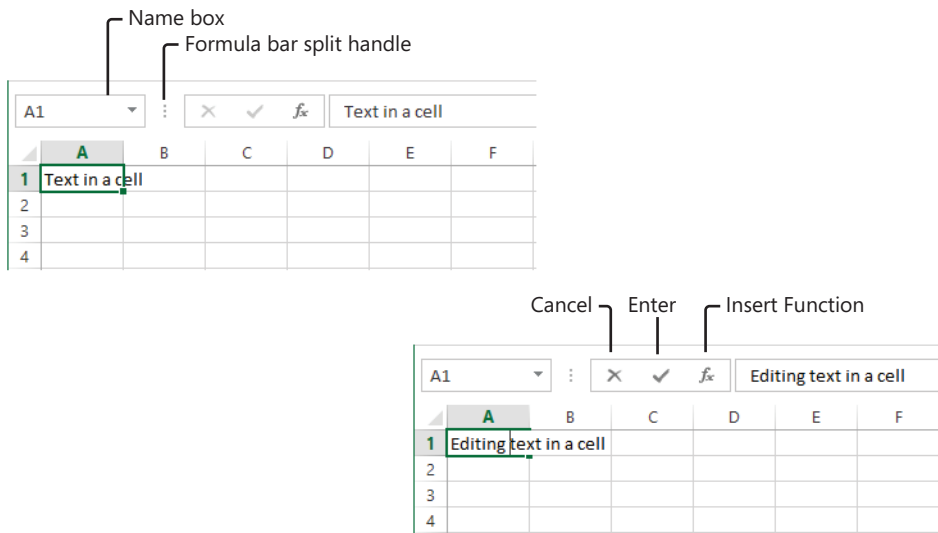


Figure 2-15 The formula bar displays the contents of the active cell.

Note

When you press Enter, Excel finishes the action in the active cell and moves the selection down one cell. You can change this behavior by clicking the File tab, clicking Options, and clicking the Advanced category. If you clear the After Pressing Enter, Move Selection check box, the active cell does not change after you press Enter. Or leave the option selected and choose a different direction (Up, Right, or Left) from the drop-down list.

You can drag the formula bar split handle to the left to make more room for formulas, or to the right to increase the size of the Name box; double-click it to return to the default position. Clicking the Insert Function button displays a dialog box that helps you construct formulas. For information about creating formulas and using the Insert Function dialog box, see Chapter 12, "Building formulas."

Note

By default, Excel displays the formula bar in your workspace. If you prefer to hide the formula bar, click the View tab and clear the Formula Bar check box in the Show group. To redisplay the formula bar, simply reverse this process.

Excel allows you to expand and contract the formula bar to display or hide long formulas. The formula bar split handle helps a bit, but for really long formulas the formula bar is vertically expandable, as shown in Figure 2-16.

When you select a cell containing a long formula, you see only part of the formula in the formula bar. If there is more of the formula to be seen, Excel displays a set of up and down arrows at the right end of the formula bar that you can use to scroll through the formula one line at a time. At the far right end of the formula bar is the Expand Formula Bar button (down arrow), which when clicked expands the formula bar as shown in Figure 2-16. If you need to see more, drag the bottom border of the formula bar as far as you need to. (This particular 100-cell formula is good for illustrating the expanding formula bar, but failure to use the SUM function in this situation might get you drummed out of the Sensible Formulas Guild.) The next time you click the Expand Formula Bar arrow, the bar expands to the last size you specified.

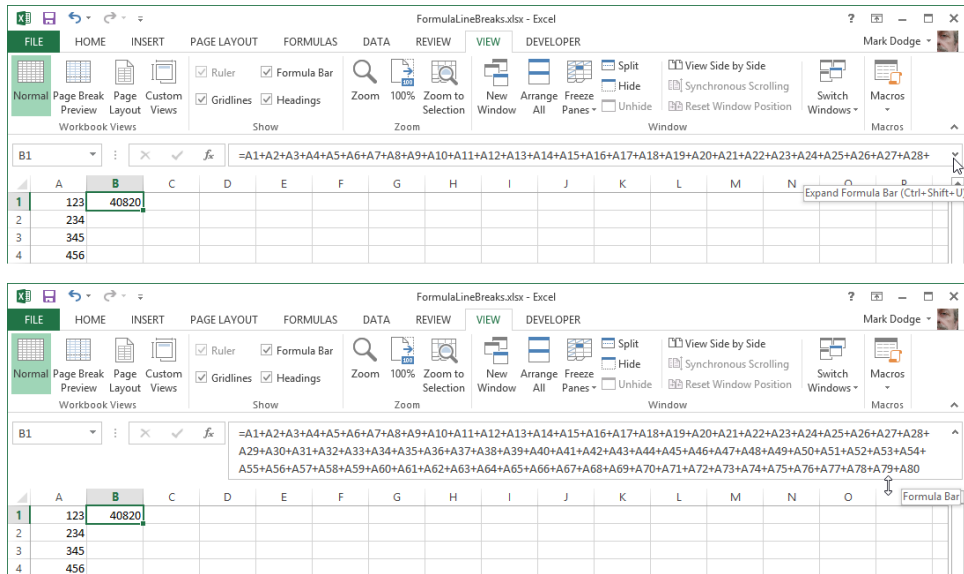


Figure 2-16 The formula bar expands and contracts to show or hide long formulas.

To return the formula bar to its regular size, click the Collapse Formula Bar button. (The Expand Formula Bar button changes its name when the formula bar is expanded.) Note that in the bottom screen shot in Figure 2-16, the pointer turns into a double-headed arrow when you position it over the lower border of the formula bar. You can also drag this border to expand the formula bar.

Note

Functions are the Clydesdales of Excel—they do most of the heavy work. To learn all about them, see Chapter 13, “Using functions.”

Facts about the status bar

The status bar, located at the bottom of the Excel window, displays information about what's happening in your workspace. For example, most of the time, Excel displays the word *Ready* at the left end of the status bar. When you type, the status bar displays the word *Enter*; when you double-click a cell that contains data, the status bar displays the word *Edit*.

Several items appear at the right end of the status bar: a few buttons, a slider, and a display area for various purposes—including summary information, keyboard modes, page numbers, and much more—any of which you can turn on or off. Right-click the status bar anywhere to show the Customize Status Bar shortcut menu filled with options, as shown in Figure 2-17.

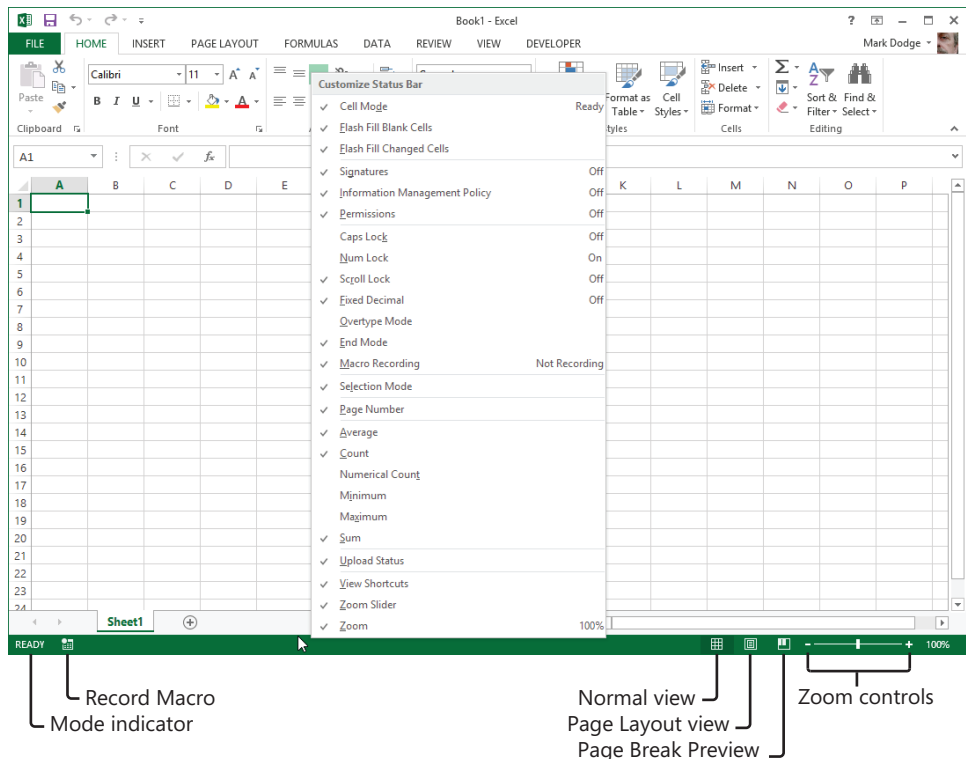


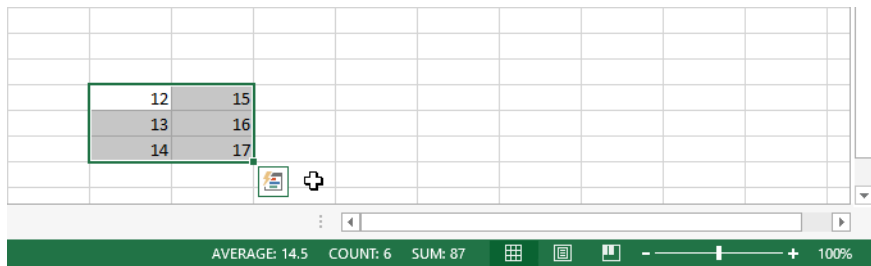
Figure 2-17 You have numerous options for displaying information on the status bar.

All the commands on the Customize Status Bar menu with check marks adjacent to them are turned on by default. Most of the commands on this menu control the display of different types of information, depending on what is selected. Cell Mode refers to the aforementioned Ready/Enter/Edit indicators when working in cells. The icon that looks like a worksheet with a dot, shown in Figure 2-17 on the left side of the status bar, is a record button for macros. The Macro Recording command controls its display. (If any macros are available, a Play arrow appears next to the icon, the display of which is controlled by the Macro Playback command.) The last three commands on the menu control the display of items on the right end of the status bar. View Shortcuts turns on or off the display of the three buttons (Normal View, Page Layout View, and Page Break Preview) visible next to the Zoom percentage and the Zoom slider, which also have corresponding commands controlling their display. Drag the Zoom slider to change the percentage, or click the percentage indicator to display the Zoom dialog box for more precision.

For more information about keyboard modes, see “Navigating regions with the keyboard” in Chapter 6. For more about views, see Chapter 11, “Printing and presenting.” For more about macros, see Chapter 28, “Recording macros.”

Quick totals on the status bar

When you select two or more cells that contain values, Excel displays summary information using those values on the status bar:



This is the AutoCalculate feature. The status bar normally displays the sum and average of the selected values, as well as the number of cells selected that contain any kind of data (blank cells are ignored). As you can see in Figure 2-17, additional AutoCalculate options are available, including Minimum and Maximum values in selected cells and Numerical Count, which counts only cells containing numbers and ignores cells containing text.

Introducing Backstage view

At first, when you begin working with one of the “ribbon versions” of Excel (starting with Excel 2007), it looks like the old menus are still there across the top of the screen—until you start clicking and you see that no menus are dropping down. Even more interesting if you have been using Excel 2007 is that the File menu, which had been removed, came back in Excel 2010 (and remains in 2013) as a tab, and the Office Button, which was where the File menu used to be, is gone. Now, when you click the File tab, what you see is not so much a menu or a dialog box, but a screen full of information and options that Microsoft calls *Backstage view*. Here you can find the familiar File menu commands, and Backstage view also serves as the access point for most of Excel’s “behind-the-scenes” commands and settings.

Clicking the File tab on the ribbon reveals the default Info screen in Backstage view, as shown in Figure 2-18.

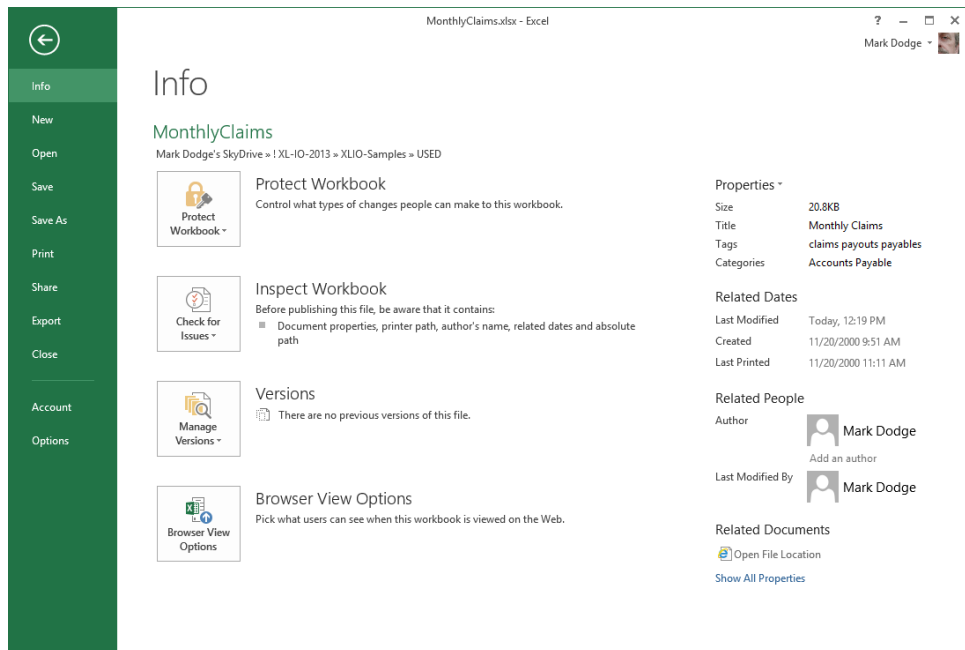


Figure 2-18 Click the File tab to open Backstage view, which includes the old File menu commands; click the arrow button in the upper-left corner to return to the worksheet.

As you can see, many of the old File menu commands are still here as clickable items on the left side of the screen, and the right side of the screen provides additional clickable items. Clicking Info, New, Open, Save As, Print, Share, Export, or Account controls the content

visible on the right side of the screen, which offers pertinent options and commands. Clicking Save, Open, Close, or Options launches a separate dialog box.

You can use the new Account command to change settings for your Microsoft account, including connected services such as SkyDrive, and to select a common theme. There is also a Background menu you can use to personalize the appearance of your Office programs using selected designs that appear in the title bar area.

You'll be seeing more of Backstage view and all of its "children" throughout this book.

Exploring file-management fundamentals

One of the advantages of working with computers is the convenience of electronic files. In this section, we describe both the usual and unusual ways you can manage your Excel files.

Creating workbooks

To create a new workbook, click the File tab and then click New to display the screen shown in Figure 2-19. Click the arrow at the top left of the New screen at any time to return to the worksheet. Click Blank Workbook, and a fresh workbook opens. Each new blank workbook you create during the current Excel session is numbered sequentially: Book1, Book2, and so on.

Excel 2013 offers a staggering array of sophisticated templates representing hundreds of hours of thought and effort, and revealing the potential of Excel. There are a lot of helpful templates you can use right away. And if you ever need some inspiration, open a template you find interesting and examine it to see how it was constructed. There is a lot to learn just by looking. Templates are continually added to the online inventory, so be sure to use the search box to see what's new and available on the web. Suggested Searches are clickable links that display categories of available templates gleaned from the Microsoft website at the moment.

Excel is more web connected than ever. Some templates are installed on your system, but most are in the cloud. This not only saves space for you, but also makes it possible to offer more templates, more complex templates, and a constant source of new templates. Keeping templates in the cloud also makes it easy for developers to fix problems and make enhancements. Figure 2-19 shows the nifty templates available with an Internet connection. Figure 2-20 shows the search box disabled and the selection of relatively Spartan (but equally useful) templates that are available when your computer is offline.

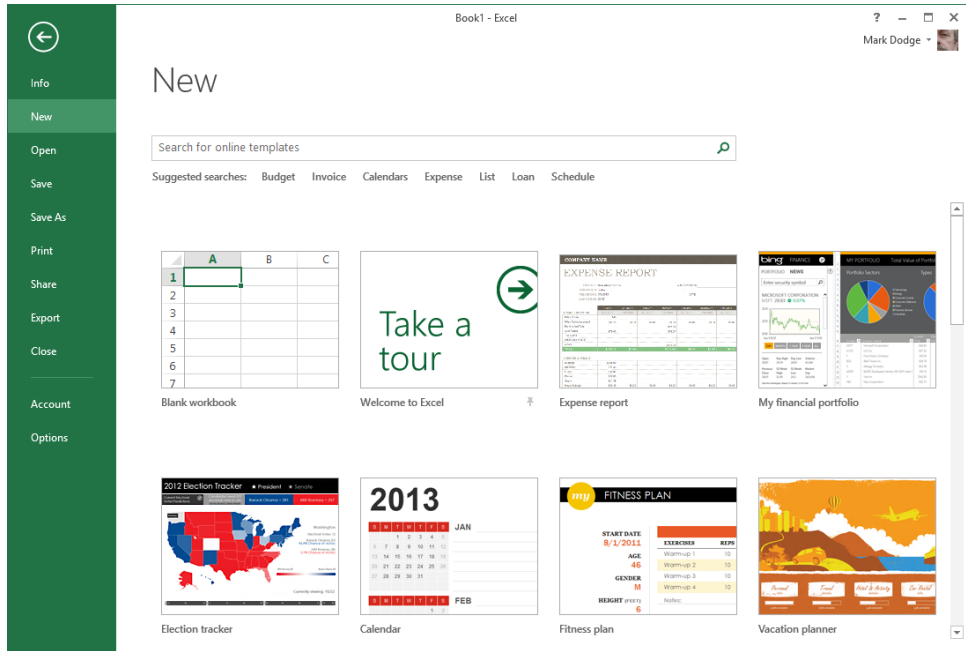


Figure 2-19 Click the File tab and then click New to display a selection of available templates, both installed and online.

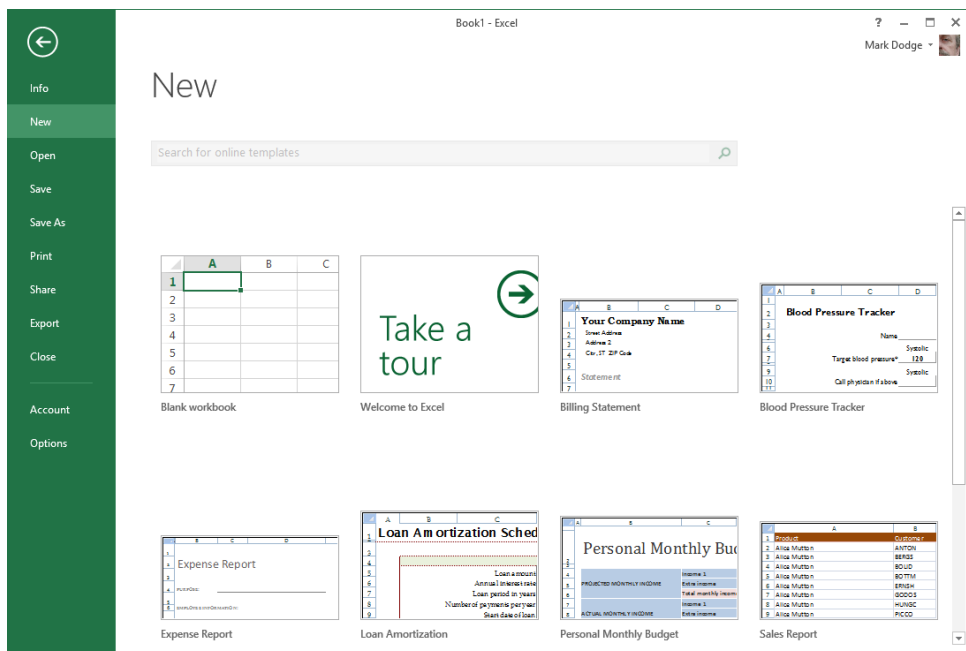


Figure 2-20 The selection of available templates narrows considerably when no Internet connection is available.

Installing your own templates

Creating your own templates is a great idea for worksheets you use a lot. The steps involved are a little different in Excel 2013 than in previous versions. First, organize and format a workbook the way you want (minus the data). Then when you're ready to save the template, click the File tab, click Save As, click Computer, and then click Browse to display the Save As dialog box. Click the Save As Type box and select *Excel Template (*.xltx)* from the list, and the destination folder immediately changes to the Custom Office Templates folder, as shown in Figure 2-21.

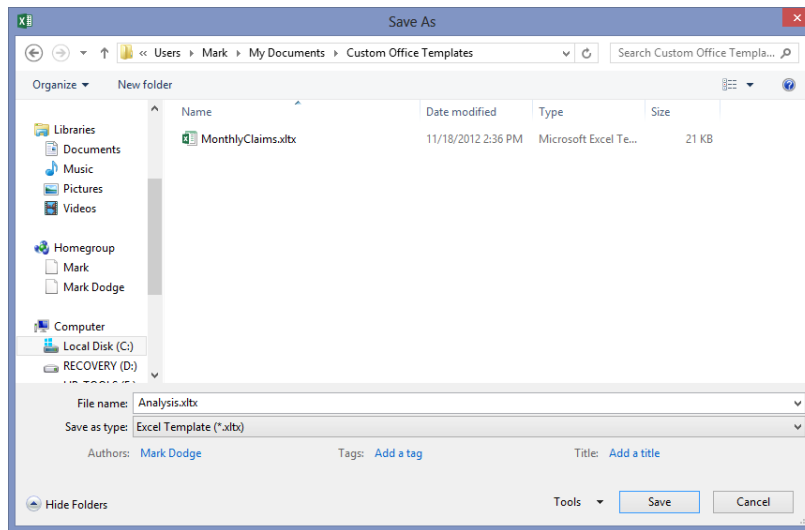


Figure 2-21 Choosing the Excel Template file type activates the Custom Office Templates folder.

When you click the Save button, your new template is installed. You can find this folder in the following locations:

- **Windows XP** C:\Documents and Settings\<your name>\Application Data\Microsoft\Custom Office Templates
- **Windows 7 or Windows Vista** C:\Users\<your name>\AppData\Roaming\Microsoft\Custom Office Templates
- **Windows 8** C:\Users\<your name>\My Documents\Custom Office Templates

Templates in this folder appear on the New screen in the Personal category, as shown in Figure 2-22. The two categories, Featured and Personal, appear only after you save a template for the first time.

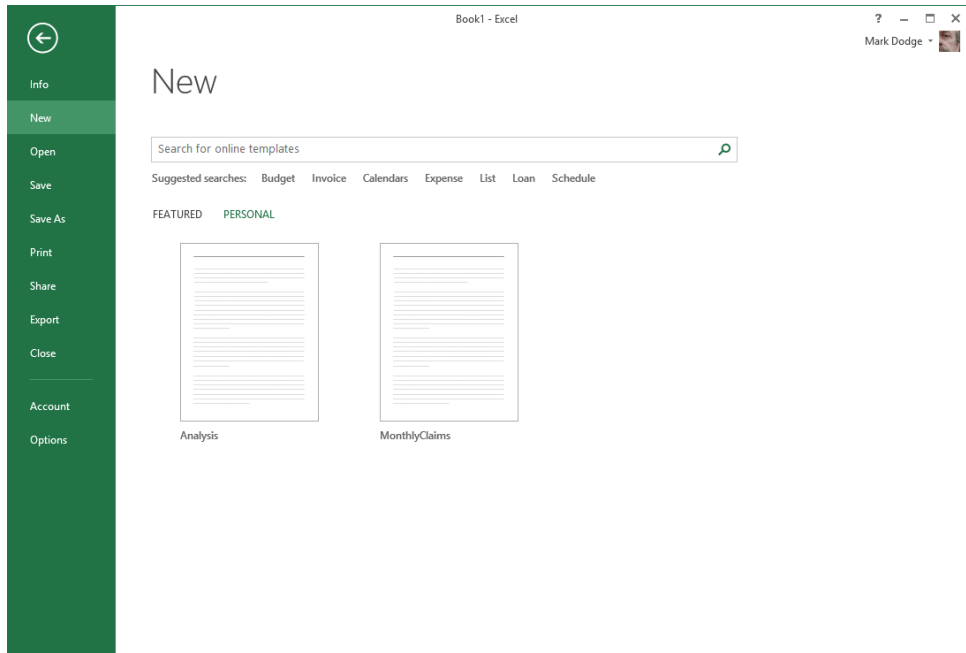


Figure 2-22 When you save a template, two new categories appear on the New screen, Featured and Personal; in this figure, the Personal category is active.

INSIDE OUT

Hidden Windows folders revealed

You probably have to change a Windows setting to find the AppData folder (Application Data in Windows XP) because it is normally hidden. To reveal it, navigate to the folder that bears your name in File Explorer (or Windows Explorer in Windows 7, Windows Vista, or Windows XP), as shown in the previous paths. Then, in Windows 8, click the View tab and select the Hidden Items option in the Show/Hide group. In Windows 7, click the Organize menu (the Tools menu in Windows XP), click Folder And Search Options, and on the View tab, select Show Hidden Files And Folders. Note that *<your name>* is the user name you use when logging on to Windows.

Saving files

Arguably, the most important function of any computer application is preserving data. In Excel, you can save your files in many ways, including by clicking the Save, Save As, Share, or Export command. You can also click the Close command or click the Windows Close button (X) and you'll be prompted to save, if you have made any changes. The easiest way to save is either by clicking the Save button on the Quick Access Toolbar or by pressing Ctrl+S on the keyboard.

One other command that saves your workbooks is the Share Workbook command in the Changes group on the Review tab. When you click this command, you save your workbook in shared mode. Besides saving the file, this command makes the workbook available to others on a network, who can then open it and make changes of their own.

For more information, see “Sharing workbooks on a network” in Chapter 26.

The first time you save a file, the Save As screen appears in Backstage view, as shown in Figure 2-23.

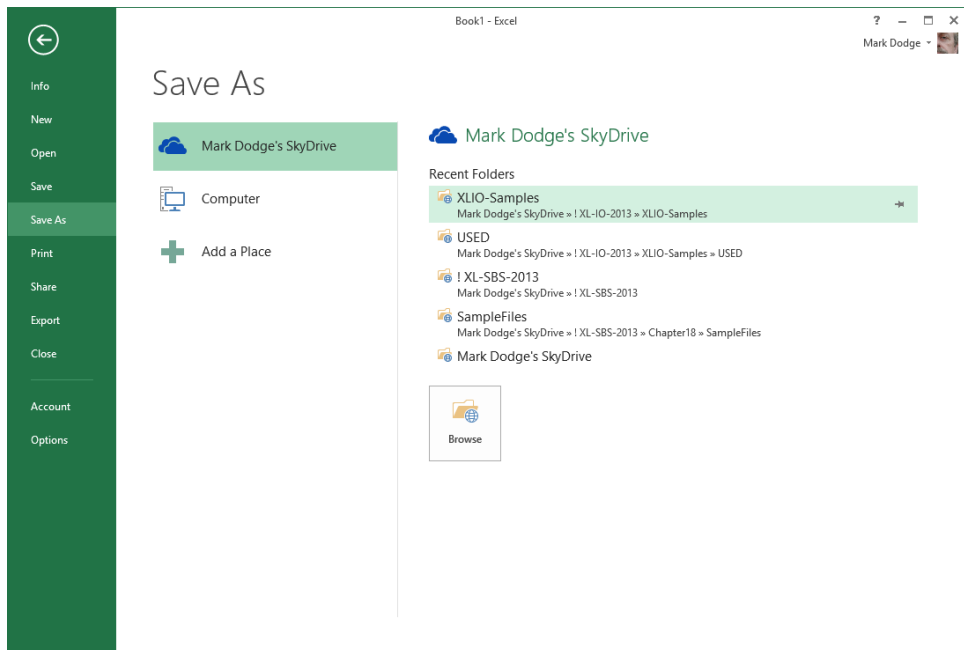


Figure 2-23 The Save As screen appears when you save a file for the first time.

Note

If you use the same folder most of the time, you can specify that folder as the default location that the Open, Save, and Save As dialog boxes use when you first open them. Click the File tab, click Options, select the Save category, and type the full path and file name for the folder you want to use in the Default Local File Location text box.

The Save As screen offers another set of choices, including SkyDrive and your computer. The most recent folders used in the location selected on the left are shown on the right. If the one you want is not listed, click the Browse button, which displays the Save As dialog box, as shown in Figure 2-24.

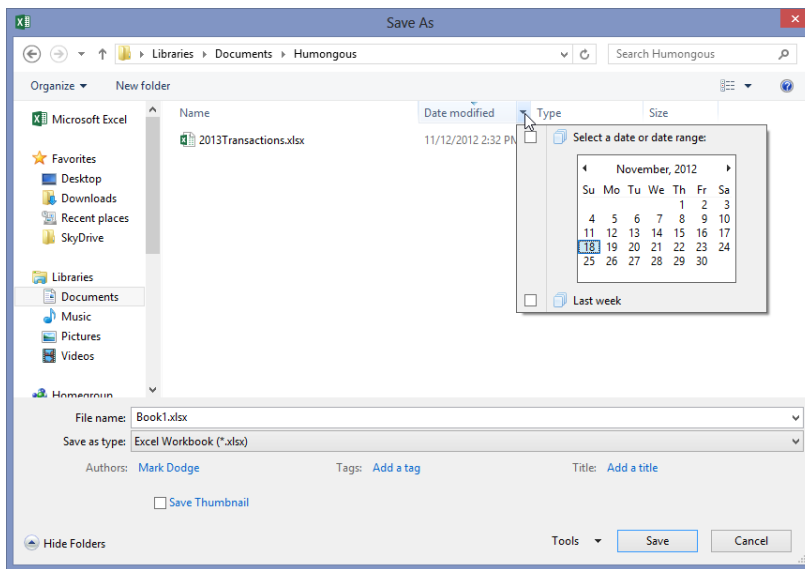


Figure 2-24 When you select a destination or click Browse, the Save As dialog box appears, which you can use to specify a date or date range, if desired.

The Save As dialog box (along with other dialog boxes that are provided by the operating system, including Save and Open) has a sophisticated file interface that includes a number of useful features, such as the ability to find files by using a date range you specify using a calendar, as shown in Figure 2-24. For details, click the Help button (the question mark icon) in the Save As dialog box to display the corresponding Windows Help file.

Rules for file naming

File names in Excel can have up to 218 characters. They can include any combination of alphanumeric characters, spaces, and special characters, with the exception of the forward slash (/), backslash (\), greater-than sign (>), less-than sign (<), asterisk (*), question mark (?), quotation mark ("), pipe symbol (|), colon (:), and semicolon (;). Although you can use any combination of uppercase and lowercase letters, keep in mind that Excel does not distinguish case in file names. For example, to Excel the names MYFILE, MyFile, and myfile are identical.

The old familiar MS-DOS-style file name extensions (which are usually four characters these days, not three) help identify your Excel files, and they are added automatically when you save a file. Table 2-1 lists Excel extensions in the order in which they appear in the Save As dialog box's Save As Type list.

TABLE 2-1 The Excel file extensions

Document type	Extension
Excel Workbook	.xlsx
Excel Macro-Enabled Workbook	.xlsm
Excel Binary Workbook	.xlsb
Excel 97-2003 Workbook	.xls
XML Data	.xml
Excel Template	.xltx
Excel Macro-Enabled Template	.xltn
Excel 97-2003 Template	.xlt
XML Spreadsheet 2003	.xml
Microsoft Excel 5.0/95 Workbook	.xls
Excel Add-In	.xlam
Excel 97-2003 Add-In	.xlm

INSIDE OUT

Hidden file name extensions revealed

File name extensions might not appear with Windows file names, depending on your settings. To display file name extensions in Windows 8, click the File Explorer, click the View tab, and select the File Name Extensions option. In Windows 7, click the Start button, click Computer (Control Panel in Windows XP), click the Organize menu, select Folder And Search Options and on the View tab, and then scroll down and clear the Hide Extensions For Known File Types check box.

File formats

In addition to providing the file name and location, you can specify a different file format in the Save As dialog box. Click the Save As Type drop-down list, which expands to reveal all the formats in which you can save your files.

The default format is Excel Workbook (*.xlsx), and you'll almost always use this option. If you want to export an Excel file to another program, however, you can use one of the other options to convert the file to a format that is readable by that program.

For more information about the Excel export formats, see "Importing and exporting text files" later in this chapter.

Ensuring file compatibility with previous versions of Excel

When you open a workbook in Excel 2013 that was created in a previous version of Excel, it automatically opens in Compatibility mode, a condition that is indicated in the Excel title bar, as shown in Figure 2-25. You can always tell by looking at the title bar whether you've converted a file to the new format.

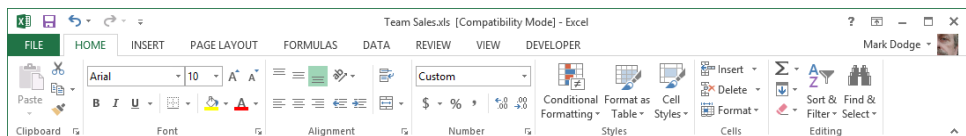


Figure 2-25 Files created by any previous version of Excel open in Compatibility mode.

You can work normally with Compatibility mode, and when you save the file, it remains in the old file format. If, however, you make any changes using features that are not compatible with the older version, the Excel Compatibility Checker intervenes when you save and displays a dialog box like the one in Figure 2-26.

The Compatibility Checker lets you know exactly what is causing the problem, so you can click Cancel and rework your worksheet using a different approach or save it anyway. Clicking the Copy To New Sheet button adds a new worksheet to the current workbook titled Compatibility Report, containing a copy of the information displayed in the dialog box—sort of a compatibility paper trail. If you clear the Check Compatibility When Saving This Workbook check box, this dialog box no longer opens when you save the current workbook. You might prefer this if you plan to repeatedly edit and save without updating the workbook to the new file format.

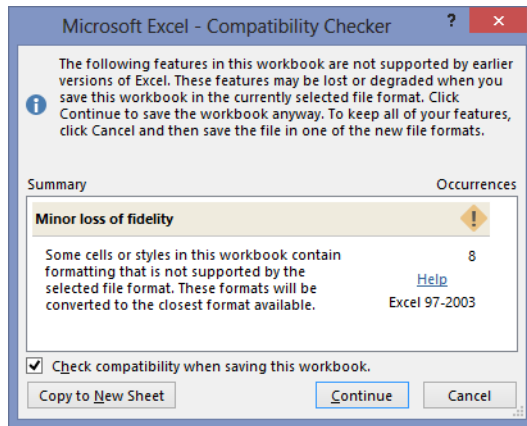


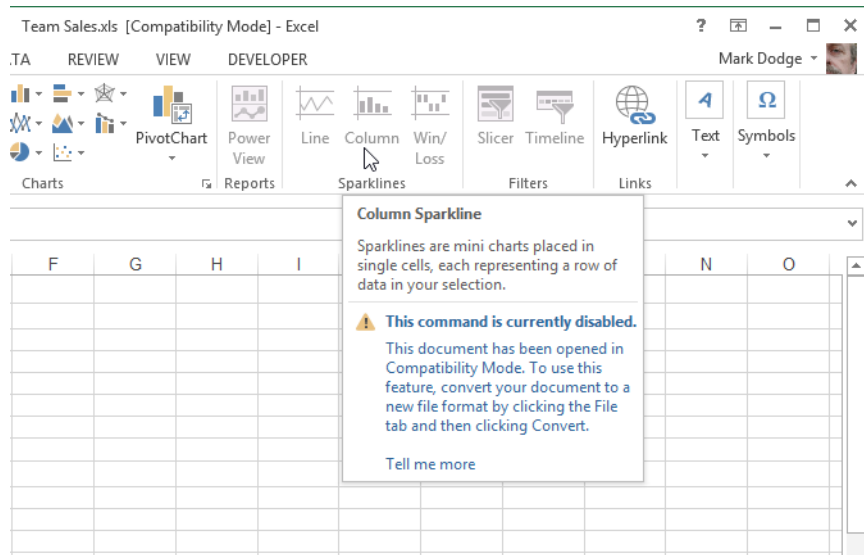
Figure 2-26 The Compatibility Checker opens when you try to save an old-format workbook containing features not supported by the older version of Excel.

But fear not, you can always look for problems at your convenience. Click the File tab, click the Info command, click Inspect Workbook, and click Check Compatibility to display the same dialog box shown in Figure 2-26.

INSIDE OUT

What doesn't work in Compatibility mode?

When Compatibility mode is on, Excel disables a number of features that produce results that cannot be transferred to older versions of Excel. You can still click disabled commands, but when you do, Excel displays a ScreenTip explaining why you can't use them. For example, sparklines were introduced in Excel 2010. If you are working on a workbook saved as an Excel 97-2003 workbook (.xls), Excel displays a ScreenTip when you hover the pointer over one of the sparklines buttons:



Here are some of the things that can trigger compatibility error messages:

- A workbook contains too many rows, columns, or both
- A formula exceeds the maximum allowed number of characters
- A formula exceeds seven nested levels
- A formula exceeds the maximum number of arguments in a function
- A formula contains more than 40 operands
- A workbook contains too many cross-sheet array formulas
- A workbook has more than 4,050 unique cell formats
- A PivotTable field has more than 32,500 unique items
- A PivotTable item has a string length greater than 255 characters
- A PivotTable caption has more than 255 characters
- A PivotTable field list has more than 1,024 fields

In case you're wondering how to get out of Compatibility mode, all you have to do is use the Save As command to save the workbook in one of the new file formats, such as XLSX or XLSM, and then close and reopen the new converted file you just saved.

If you need to save files in other formats, the Save As Type drop-down list in the Save As dialog box includes a number of special formats you can select, including Excel 97-2003 Workbook and Microsoft Excel 5.0/95 Workbook.

For more information about the newer, less-restrictive limitations of Excel, see “If you missed the last two upgrades” in Chapter 1, “What’s new in Microsoft Excel 2013.”

Understanding the “XL” formats

Although Microsoft trimmed some of the lesser-used file formats from the last release, the volume of native Excel file formats has swelled somewhat, largely due to accommodating *legacy* file formats—that is, file formats employed in previous versions of Excel. We’ll explain the major differences here:

- **Excel Workbook (XLSX)** This is the default Excel 2013 (and Excel 2010 and 2007) file format, which is based on XML and uses ZIP compression for reduced file size and increased security. Unlike the default file format in older versions of Excel (XLS), this format does not support VBA or XLM macro code.
- **Excel Macro-Enabled Workbook (XLSM)** Microsoft created a completely separate XML-based file type to be used for workbook files containing VBA or XLM macro code. This increases security by making it impossible to inject macro code into non-macro-enabled workbooks and makes for easier identification of files containing code.
- **Excel Binary Workbook (XLSB)** This is a lean and mean file format designed for the fastest possible loading and saving. It supports all the features of Excel 2013 and also supports macro code, but it is not XML based, does not use compression, and is less secure than XML-based formats.
- **Excel Template (XLTX)** This is the template version of the Excel 2013 (and Excel 2010 and 2007) file format. This format does not support VBA or XLM macro code.
- **Excel Macro-Enabled Template (XLTM)** This is the template version of the Excel 2013 (and Excel 2010 and 2007) file format that does allow VBA and XLM macro code.
- **Excel 97-2003 Workbook (XLS)** This is a legacy file format used by previous versions of Excel.
- **Microsoft Excel 5.0/95 Workbook (XLS)** This is a legacy file format used by previous versions of Excel.

- **Excel 97-2003 Template (XLT)** This is a legacy template format used by previous versions of Excel.
- **Excel Add-In (XLAM)** This is a special type of VBA-enabled workbook that can be loaded as a supplemental program in Excel.
- **Excel 97-2003 Add-In (XLM)** This is a legacy type of VBA-enabled workbook that can be loaded as a supplemental program in Excel.

In addition to these “XL” file types, there are two XML file types that are somewhat related. XML Spreadsheet 2003 (XML) is the previous XML file format provided as an option in Excel 2003. Another format, XML Data (XML), shares the same extension but produces entirely different results. This format is a proprietary XML format that requires specific programmatic data maps to be present before you can even save the file. You’ll know if you need it.

INSIDE OUT

What is XML?

The Excel 2013 (and Excel 2010 and 2007) file format is based on XML, which was created as a way for structured data to be interpreted and was originally envisioned for use on the web. Excel 2003 introduced XML as an optional file format; Excel versions from 2007 through 2013 use XML as their default format, indicated by the file name extension *.xlsx*. Based on a file format specification called *SpreadsheetML*, Microsoft’s implementation of XML has undergone significant improvements since being introduced. At first, the format didn’t have, shall we say, sufficient language skills to interpret all of what Excel could do, including objects such as charts and graphics. Now, *SpreadsheetML* can handle everything Excel can dish out and does so in a much more efficient manner than the old XLS format, resulting in significantly smaller file sizes. The new XML formats also provide improved recovery of damaged files and better overall security. And because *SpreadsheetML* is part of an overall extensible Open XML format initiative, it’s easier for developers to create ways to hook things together.

For some additional information about XML, see “Working with XML files” in Chapter 25, “Working with external data.”

Specifying the default file format

Usually when you save a new workbook, you save it in the Excel Workbook format (XLSX). You can specify a different format as the default for saving files. This might be helpful, for example, if you share files regularly with users of Excel 2003. To do so, click the File tab, click Options, and select the Save category, shown in Figure 2-27.

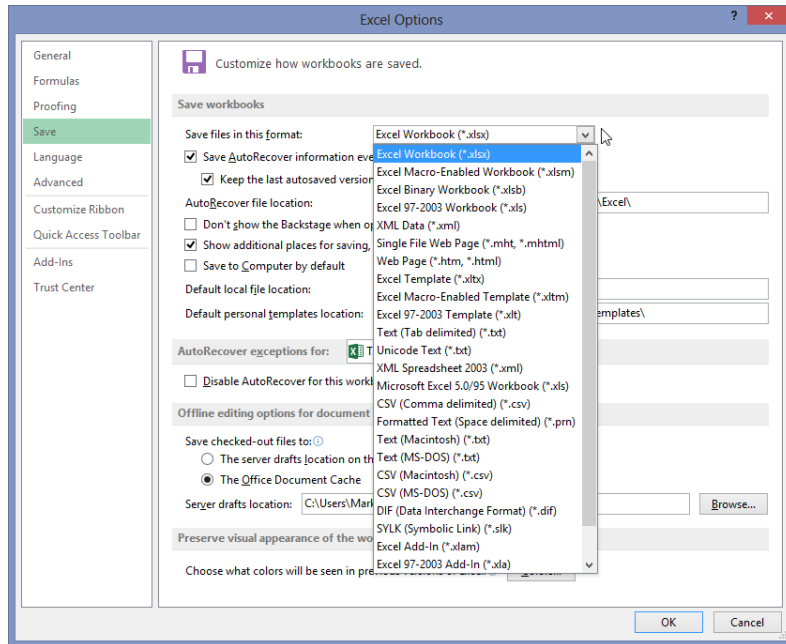


Figure 2-27 You can specify the default format to use when saving.

The Save Files In This Format drop-down list contains all the same file formats as the Save As Type drop-down list in the Save As dialog box.

Creating automatic backup files

You can have Excel create a duplicate copy of your file on the same disk and in the same folder as the original every time you save. Click the File tab, click Save As, click Tools at the bottom of the Save As dialog box, and click General Options to display the dialog box shown in Figure 2-28. Then select the Always Create Backup check box.

The backup file is a duplicate file that carries the same name as your original, but the name is preceded by “Backup of” and has the file name extension *.xlk*.

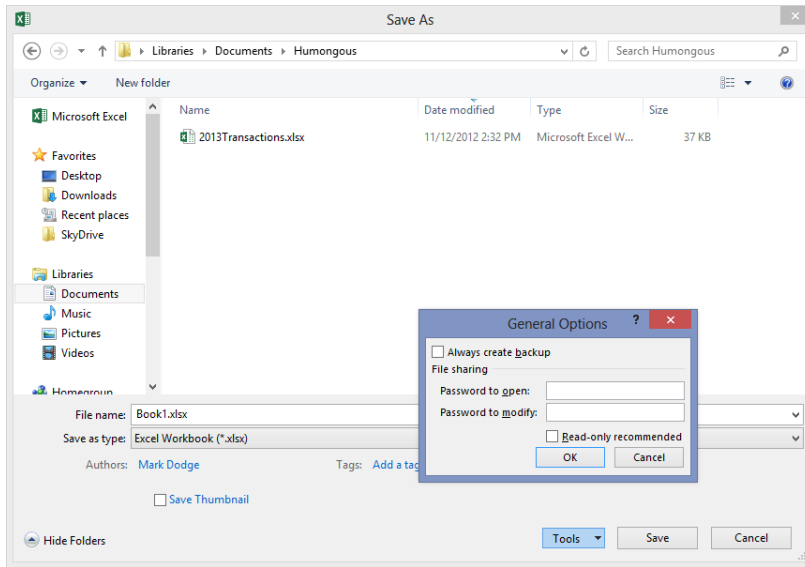


Figure 2-28 To display the General Options dialog box, click the File tab, click Save As, and then click Tools, General Options.

Protecting files

You can password protect your files by using options in the General Options dialog box shown in Figure 2-28. Select from two types of passwords: Password To Open and Password To Modify. Passwords can have up to 15 characters, and capitalization matters. Thus, if you assign the password *Secret* to a file, you can't reopen that file by typing *SECRET* or *secret*.

- **Password To Open** Excel prompts you to supply the password before reopening the file.
- **Password To Modify** Anyone can look at the file, but they need the password to edit it.
- **Read-Only Recommended** This politely suggests that the user open the file as read-only.

INSIDE OUT

Create a better password

Although Microsoft has tightened the under-the-hood security measures of Excel over the years, some people delight in finding new and better ways to crack passwords. You can help by simply building better passwords. Make sure your password is eight or more characters long—the longer, the better—and try to use a healthy mix of uppercase and lowercase alphanumeric characters and nonalphanumeric characters. Never use birthdays, anniversaries, or the names of your children or pets as passwords.

Adding summary information to files

When you click the File tab, the Info screen that first appears includes a short list of properties on the right. The Properties heading is a button; click it and a menu appears. Click Show Document Panel to display the Document Properties panel, which appears below the ribbon, as shown in Figure 2-29. Use this to record general information about the active workbook. If you juggle a lot of files, getting into the habit of adding properties can make it a lot easier to find something later. Windows looks at these property values when you use the Search command to locate files on your computer.

You can quickly view properties for the active workbook by clicking the File tab and looking on the right side of the Info screen. Several properties are displayed there. Click Properties, and then click Advanced Properties to display the Properties dialog box, as shown in Figure 2-30. Most of the information visible on the Document Properties panel is available and editable on the Summary tab.

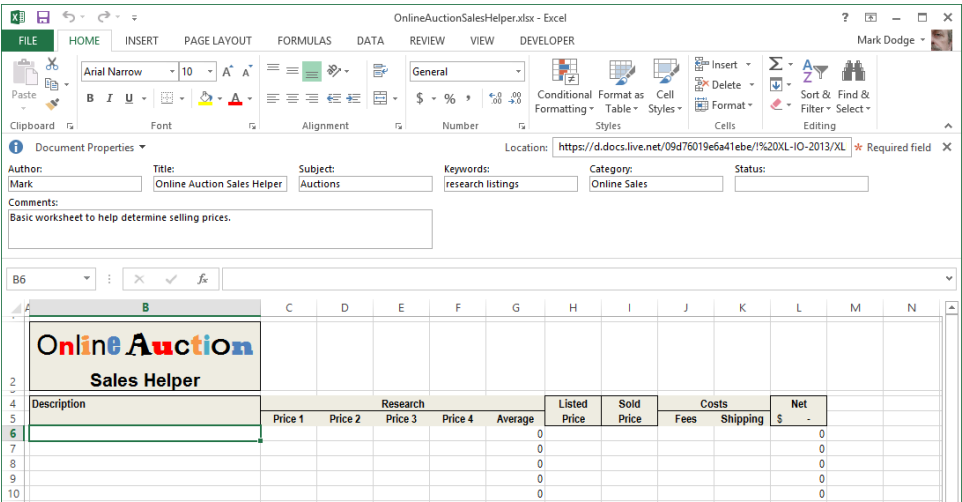


Figure 2-29 Use the Document Properties panel to add descriptive information you can use later when looking for that needle in a file stack.

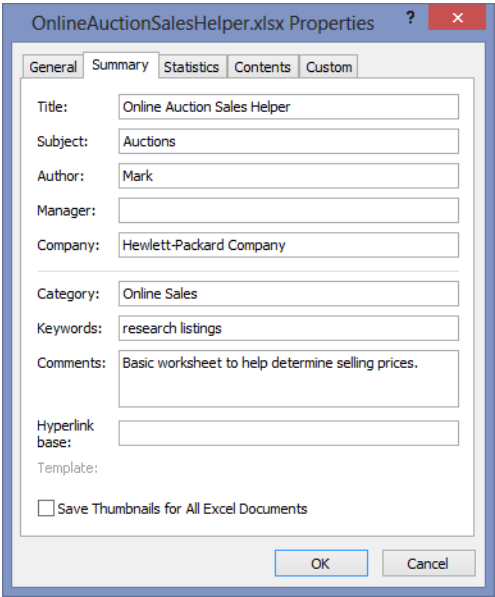


Figure 2-30 View properties about any file before you open it.

Linking custom properties to cells

You can link your own custom-built properties to named cells on your worksheet. When you do, the value of the custom property becomes whatever the named cell contains and changes whenever the value in the cell changes. First you must name a cell. (See “Rules for naming” in Chapter 12.) Then click the File tab, click Properties, and then click Advanced Properties. On the Custom tab in the Properties dialog box, selecting the Link To Content check box displays the workbook’s defined names in the Value box (which changes to a drop-down list named Source when linking content), as shown in Figure 2-31.

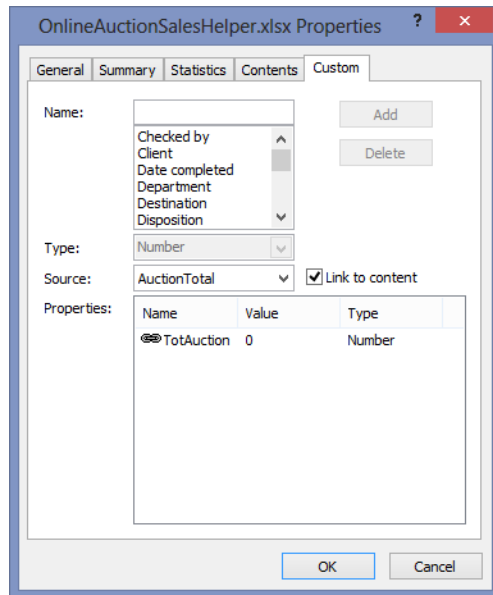


Figure 2-31 Use named cells to create dynamic properties based on worksheet cells.

Select or create a name for the custom property in the Name box. (The Type drop-down list becomes unavailable when you’re linking to content.) When you’ve specified a source (the named cell to which you want to link), click Add, and the custom property appears in the Properties list.

If the link is broken (the defined name is later deleted, for example), the Properties dialog box stores the last value recorded for that property.

If the name defines a range of cells, only the value in the cell in the upper-left corner of the range appears as the property value.

Opening files

Only slightly less basic than saving files is opening them. Click the File tab, and click Open to display the Open screen in Backstage view, shown in Figure 2-32.

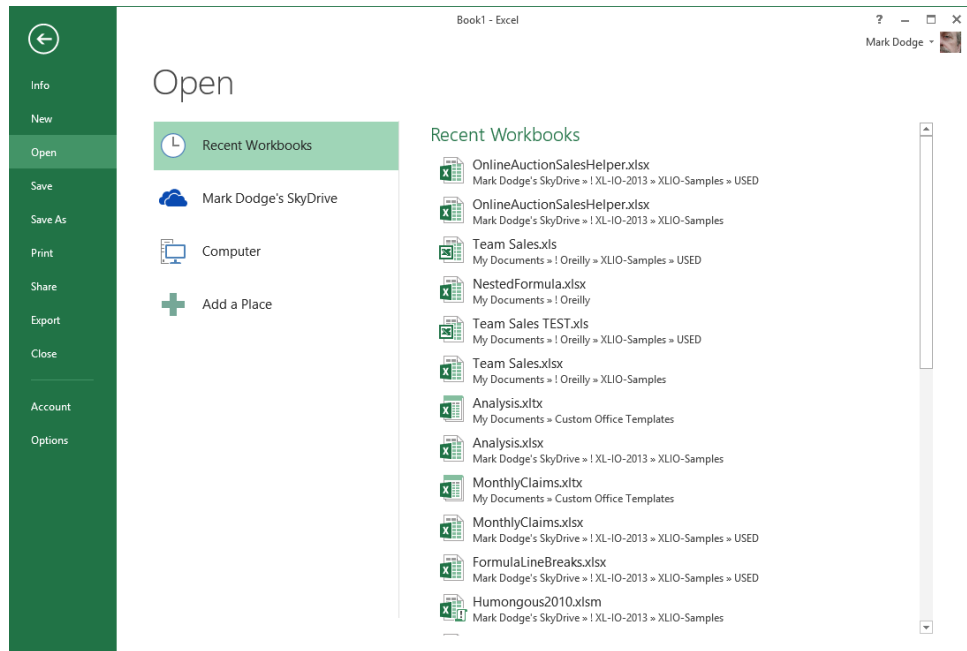


Figure 2-32 Click the Open command, and select a location or a recent workbook.

Click one of the icons on the left side of the dialog box to display the corresponding files on the right side. Recent workbooks are displayed when you first click the Open command. If you click one of the other locations, the recent folders are displayed. If you need something that is not recent, click the Browse button to display the Open dialog box, as shown in Figure 2-33.

The drop-down list to the right of the File Name text box at the bottom of the Open dialog box determines which files are available for selection. The default option is All Excel Files, which displays file names whose extensions begin with *xl*. You can display specific file types or all files by clicking the arrow to the right of the text box.

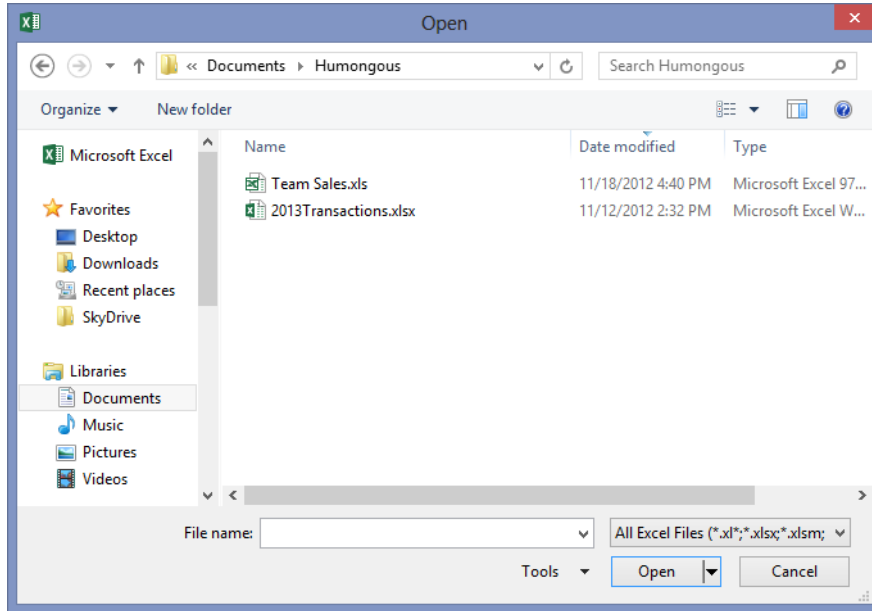


Figure 2-33 Click the Browse button to display the Open dialog box.

Note

To open several files at once, press the Ctrl key and select each file you want to open.

Notice that headings appear at the top of the file list in the Open dialog box. When you click one of these headings, you sort the files in order, based on that heading. For example, if you click the Date Modified heading, you sort the files in date order. Click the same heading again to re-sort in reverse order. You can further refine your quest by using the hidden menus adjacent to each heading. When you rest the pointer on a heading, a downward-pointing arrow appears to the right of the heading; click it to display a menu of additional options pertinent to that heading.

Note

You can right-click most files listed in the Open and Save As dialog boxes to display a shortcut menu that contains commands you can use with the selected file. For example, you can delete a file displayed in the Open dialog box by using this shortcut menu.

Each heading has its own menu of options, some of which are based on the actual files contained in the current folder. For example, when you click the menu arrow for the Type heading, you can select from a list of file types contained in the folder.

Special ways to open files

To the right of Open at the bottom of the Open dialog box is a small arrow. Clicking this arrow displays a menu containing the following options:

- **Open Read-Only** This opens the file so that you cannot save any changes made to it without renaming it.
- **Open As Copy** This creates a duplicate of the selected file, adds the words *Copy of* to the file name, and leaves the original untouched.
- **Open In Browser** This applies only to HTML documents and opens the selected file in your default web browser.
- **Open In Protected View** This opens the document for viewing but not editing. All active content is disabled, including any kind of macro or HTML code. Once you have established the bona fides of the file, you can click the Enable Editing button to carry on.
- **Open And Repair** This is a powerful feature you can use to try opening corrupted files. For more information, see “Recovering corrupted files” later in this chapter.

Opening files when you start Excel

If you have files you need to work on every day, you can store them in a special folder called XLStart. Every time you start Excel, any files in the XLStart folder automatically open. The XLStart folder is created when you install Excel (or you can create it yourself) and is located in the following place:

- **Windows 8, 7, or Vista** C:\Users\<your name>\AppData\Roaming\Microsoft\Excel\XLStart
- **Windows XP** C:\Documents and Settings\<your name>\Application Data\Microsoft\Excel\XLStart

If you want to start Excel and simultaneously open files that are in a folder other than the XLStart folder, you can specify an alternate startup folder. Click the File tab, click Options, and select the Advanced category. Scroll down to the General category, and in the edit box labeled At Startup, Open All Files In, type the full path of the folder. This feature is particularly useful if your computer is connected to a network and you want to open files from a shared folder.

Recovering corrupted files

Figure 2-33 shows the Open dialog box, where you can find the Open Options menu (click the arrow next to the Open button) containing the Open And Repair command. This command gives you a fighting chance at either repairing a corrupted file or extracting the data from it if it doesn't respond to a repair attempt. When you select a file and click the Open And Repair command, the message box shown in Figure 2-34 opens.

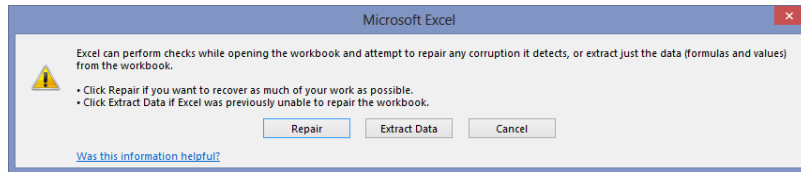


Figure 2-34 The Open And Repair command gives you a ray of hope for recovering lost data.

Try the Repair button first, and if Excel still has no luck opening the file, try the Extract Data button, which displays the message box shown in Figure 2-35.

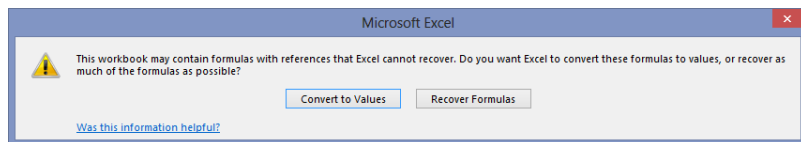


Figure 2-35 The Extract Data button offers two ways to recover your data.

You'll have to make a judgment call here—if you think your formulas will be OK after extraction, click Recover Formulas; otherwise, click Convert To Values. Recovering formulas will probably work unless the formulas include references to cells that were lost in corruption. Whatever you select, the Extract Data feature pulls all the data from your workbook, including all worksheets and tabs, in the same order in which they appear in the original file. Unfortunately, the recovery process ignores all formatting, charts, and other objects—you can recover only the actual cell contents (the important stuff).

Note that unless the part of the file that became corrupted was the part storing passwords, you probably won't be able to use this technique to retrieve data from a password-protected file.

INSIDE OUT

Recover data using links

You can try to recover data from a corrupted workbook by using another trick. It is essentially the same trick used by the Excel Open And Repair command, but it still might be worth a try if Open And Repair fails.

First, open two new workbooks. Select cell A1 in one of the workbooks, and then press Ctrl+C to copy. Activate the second workbook, and right-click cell A1. Click Paste Special, and then click the Paste Link button. Next, click the File tab and click Edit Links To Files on the Info screen (this command is in tiny type at the bottom of the shaded area on the right), click Change Source, and locate the corrupted workbook. Click OK, and then click Close to close the Edit Links dialog box.

If luck is with you, data from cell A1 in the lost workbook appears in cell A1, thanks to the linking formula. If it does, press F2 to activate Edit mode, and press F4 three times to change the absolute reference \$A\$1 to its relative form, A1. Finally, copy the formula down and across until you can see all the data you need to retrieve. Repeat for each worksheet in the workbook. You lose the formatting and formulas, of course, and zeros appear in every blank cell, but at least you can get at the important stuff. Although you can save this worksheet with linking formulas, you might consider converting all the formulas to their underlying values, just in case the original corrupted file has any further degradation. To do so, select all the cells containing the formulas you just created, click Ctrl+C to copy, right-click, click Paste Special, select Values, and then click OK.

For more information about document recovery, see “Recovering from crashes” later in this chapter. For more information about passwords, see “Hiding and protecting workbooks” in Chapter 7.

Importing and exporting files

Excel gracefully accepts proprietary data created in many other applications. Excel also makes it easy to import data from text files and helps you parse it into worksheet columns.

Note

Mountains of very specific, sleep-inducing technical details are available about importing and exporting files. If you need details, you should consult Microsoft Office Online (office.microsoft.com). Also, for information regarding sharing data with other Microsoft Office 2013 applications and working with external databases, see Chapter 32, “Integrating Excel and Word,” and Chapter 25, “Working with external data.”

Importing and exporting files

To import a file from another application or from an earlier version of Excel, click the File tab, click Open, select a location, and click Browse to open the Open dialog box. Then to specify the file type you want to import, use the drop-down list adjacent to the File Name box. If you're not sure, select All Files (*.*), or select a file type and only files of that type are displayed.

To export an Excel file to another application or to an earlier version of Excel, click the File tab and click Export. Then select either Create PDF/XPS Document or Change File Type, as shown in Figure 2-36.

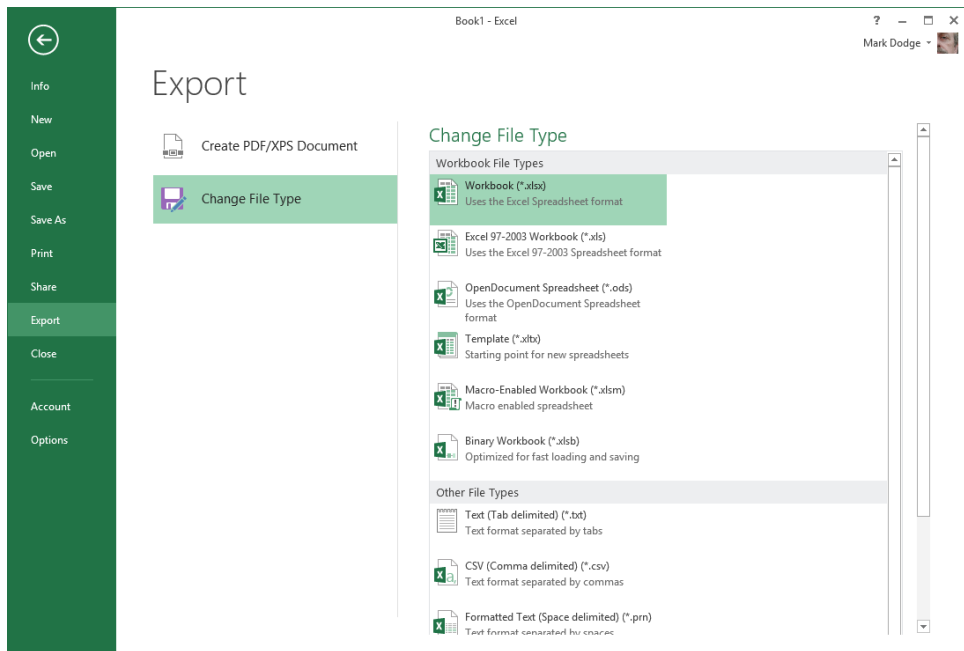


Figure 2-36 Use the Export screen in Backstage view to change to another file type.

Portable Document Format (PDF) and XML Document (XPS) are formats that allow accurate visual representations of documents to be easily shared across platforms by using free and easily obtainable web-based viewers.

Sharing data with Excel for the Macintosh

Excel for the Macintosh since 1998 has been using the same file format as Windows versions of Excel from Excel 97 through Excel 2003. You can share these files with Macintosh users by simply transferring files from one computer to the other. (Note that you cannot share Excel files containing macros—.xslm files—with Macintosh Excel versions through 2011.)

To save an Excel 2013, 2010, or 2007 file to share with someone using the Macintosh version of Excel, click the File tab, click Save As, select a location, and click the Browse button. You can save it as a regular Excel Workbook (*.xlsx) file when sharing with users of Macintosh Excel 2011, or for greater compatibility, select the Microsoft Excel 97-2003 Workbook (*.xls) option in the Save As Type drop-down list.

To import Macintosh files to your PC, you first need to transfer the file to your PC via a cable, a disk, a thumb drive, a network, an email attachment, a website, or a software tool such as MacOpener. Exporting files from a Windows version of Excel to the Macintosh version is just as easy as importing Macintosh files. Simply transfer the file from the Windows computer to the Macintosh using your method of choice, and then use the Open command to load it into Excel.

Adjusting date values

Although the Windows and Macintosh versions of Excel share many characteristics and capabilities, they might not use the same date system. In the Windows version of Excel, the base date is January 1, 1900. Macintosh Excel 2011 uses the same date system as all Windows versions, so you can share these files as you will. In Macintosh Excel version 2008 and earlier, the base date is January 2, 1904. When you transfer files either to or from the Macintosh, Excel maintains the date type by selecting or clearing the Use 1904 Date System check box in the When Calculating This Workbook area in the Advanced category in the Excel Options dialog box. This technique is usually acceptable, but it can cause problems when a date from a Macintosh file is compared with a date from a Windows file. For this reason, we suggest you use the same date setting on all your machines.

Sharing data beyond Excel

Yes, some people don't use Excel, and you might meet one someday. Seriously, plenty of reasons exist for making Excel-based data accessible outside the program, whether or not Excel is available at the destination. Posting data to a website or creating data sets for proprietary analysis software are two possible applications where you might want data that can fly free, independent of the Excel mother ship.

Office Web Apps

Office Web Apps give you a familiar Office experience when you are away from your Office applications on your computer. With your Office files uploaded to a web storage location such as your own website or Windows Live SkyDrive, you don't need your own computer or software to view and perform light editing of Word, Excel, PowerPoint, and OneNote files. You just need a computer running a popular Web browser.

For more information about Office Web Apps, see Chapter 27, "Working in the cloud."

Using web file formats

Two options in the Save As Type drop-down list in the Save As dialog box produce files you can use as webpages: Web Page (HTM, HTML) and Single File Web Page (MHT, MHTML). They produce essentially the same result, the important difference being that the Web Page format saves not only a main HTML file but also a folder containing supporting files that must travel with the main file. As you might expect, the Single File Web Page format manages to cram it all into a single file without using the supporting folder. Single File Web Page has the advantage of being more portable, but Web Page gives you more control over individual elements. A separate cascading style sheet is created using the Web Page format, along with individual HTML files for each worksheet in the workbook. Figure 2-37 shows the contents of the supporting folder that is created after saving a five-sheet workbook named Team Sales using the Web Page file format.

If you are an HTML aficionado, you can open the supporting files in other programs. For example, if the original workbook contains graphics, Excel saves them as separate image files (JPEG, PNG, or GIF) you can modify with an image-editing program. Or you can change the fonts used by editing the cascading style sheet with a text editor such as Notepad. This is not work for the timid, of course. The slightest editing error in the HTML code for any of the files has the potential to render them all unusable.

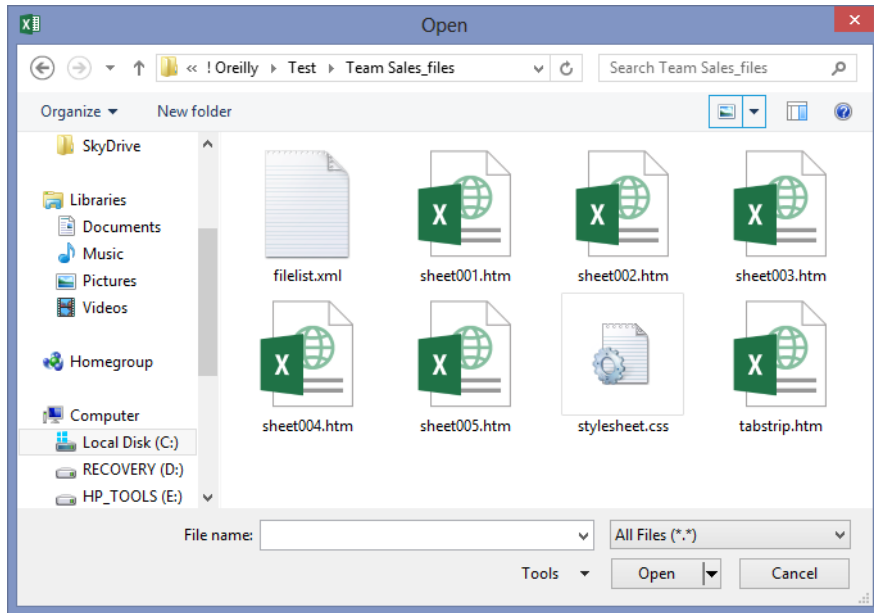


Figure 2-37 The Web Page file format creates a folder full of supporting files to go with the main webpage.

Importing and exporting text files

To export an Excel file as a text file, select one of the following eight text formats from the Save As Type drop-down list in the Save As dialog box. In all of these formats, Excel saves only the current worksheet. Number formatting is preserved, but all other formatting is removed.

- **Formatted Text (Space Delimited) (*.PRN)** This creates a file in which column alignment is preserved by adding space characters to the data in each column so that each column is always filled to its maximum width.
- **Text (Tab Delimited) (*.TXT)** This separates the cells of each row with tab characters.
- **Unicode Text (*.TXT)** This is a worldwide standard text format that stores each character as a unique number; Unicode defines a number for every character in every language and on any computer platform.
- **CSV (Comma Delimited) (*.CSV)** This separates the cells of each row with commas. Comma-delimited text files are preferable to tab-delimited files for importing into database management programs. (Many database management programs can accept either form of text file, but some accept only .csv files.) Also, many

word-processing applications can use .csv files to store the information for mail merge operations.

- **Text (Macintosh) (*.TXT)** This saves the current worksheet as a tab-delimited text file using the Macintosh character set.
- **Text (MS-DOS) (*.TXT)** This saves the current worksheet as a tab-delimited text file compatible with the character-based MS-DOS interface.
- **CSV (Macintosh) (*.CSV)** This saves a comma-delimited text file using the Macintosh character set. The differences between the normal, Macintosh, and MS-DOS variants of each file type have to do only with characters that lie outside the normal 7-bit ASCII range.
- **CSV (MS-DOS) (*.CSV)** The MS-DOS options use the IBM PC extended character set. (You might see this referred to also as *OEM text*.) Select one of these options if you intend to import your text file into a non-Windows-based application.

Note

Excel 2013, 2010, and 2007 use a file format that is incompatible with previous Excel versions. Excel versions 97 through 2003 share a file format that is incompatible with even older versions. However, you can use the Save As command and Save As Type list to export Excel 2013, 2010, and 2007 workbooks using two formats that play nicely with older versions of Excel: Excel 97-2003 Workbook and Microsoft Excel 5.0/95 Workbook.

If you regularly share files with colleagues using different vintages of the program, you might want to read “Ensuring file compatibility with previous versions of Excel” earlier in this chapter.

Other file formats

You can use a few other file formats, most of which you won’t even need unless you have a particular program with which you want to share data. Data Interchange Format (DIF) is a legacy format that allows the specification of data in rows and columns, saves only the active worksheet, and does not process graphic content. Symbolic Link (SYLK), a format that dates back to the days of VisiCalc and Multiplan, is a sort of “rich-text format” for spreadsheets that saves only the active worksheet and does not process graphic content.

Using the Help system

Excel was a powerful program right out of the starting gate way back in 1985. Over the years, Excel has developed into an extremely complex and sophisticated application. It's so complex that most people need to learn only about 20 percent of its capabilities. Many people turn to books like this one to help them make sense of it all. But almost every Excel user turns to the Help system; all Excel users should. After years of working out the kinks, Microsoft has made the Help system more "helpful," less obtrusive, more comprehensive, and much easier to use.

Help on the surface

Although the mythical, magical, space-age vision of easily understood, self-documenting software has yet to be fully realized, Microsoft is taking steps in the right direction. Dynamic pop-up labels called ScreenTips have been around for quite a while providing visual clues to elements in the interface. Many of these ScreenTips have increased in size considerably over the years, and they contain more and better information. Simply rest the pointer on any button or command on the ribbon or the Quick Access Toolbar to display a ScreenTip, as shown in Figure 2-38.

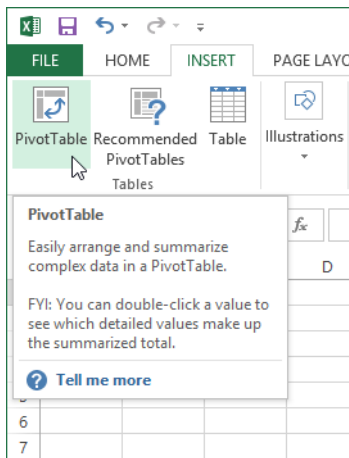


Figure 2-38 Rest the pointer on any command or button on the ribbon or the Quick Access Toolbar to display a ScreenTip.

Help in the form of ScreenTips is also available for many items in dialog boxes such as Excel Options. (To open this dialog box, click the File tab and then click Options.) In this context, look for the little *i* (for *information*) icons next to items in the dialog box, which indicate more information is available. Just rest the pointer on the icon to display the ScreenTip, as shown in Figure 2-39.

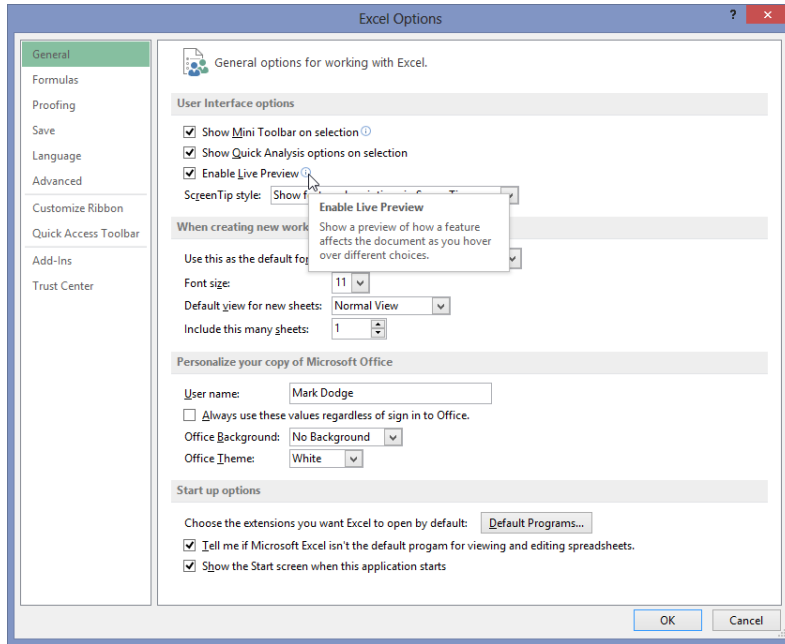


Figure 2-39 A little circle icon containing an *i* means you can see more information by simply resting the pointer on the icon.

Help in depth

When you need more information than a ScreenTip can provide, it's time to invoke the Help dialog box. Simply click the Help button (the question mark icon) that is always available in the upper-right corner of the screen (or any dialog box) to display the Help dialog box. When you first open the dialog box, it attempts to connect to the Microsoft Office Online website, as shown on the left in Figure 2-40. If you are connected to the Internet, the dialog box should quickly display an opening menu of topics, similar to the one shown on the right in Figure 2-40. As mentioned previously, one of the beauties of web-based Help is that it can be continually updated, so it is quite possible this opening screen will change in content and appearance over time; more and more Help topics should be added as well.

As long as you have the Help dialog box open and your Internet connection remains active, web-based Help continues to be available. If you lose your Internet connection, Excel stops trying to connect to the web and displays the “offline” Help system—that is, only those Help topics installed on your computer. You can also do this manually by clicking Connected To Office.com at the bottom of the Help dialog box and clicking Show Content Only From This Computer.

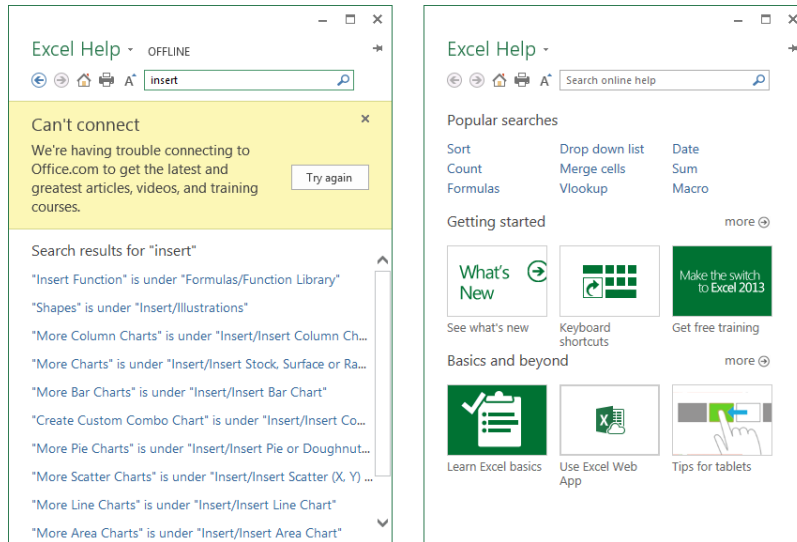


Figure 2-40 Your Help system works best when you're connected to the web.

You can prevent Excel from automatically trying to connect to the web by using the Trust Center dialog box. See "Privacy options" in Chapter 4, "Security and privacy."

You'll find that not much good information is available if you're not connected to the web. The few search results shown on the left in Figure 2-40 are simple Excel menu-to-ribbon command references. The help content is all on the web now, but it's robust with procedures, templates, samples, interactive quizzes, tutorials, introductions, references, live samples, and more as time goes by.

You'll notice that the Help dialog box has a tiny toolbar with controls that look—and act—similarly to the controls on your web browser's toolbar. The first two buttons are Back and Forward, which operate like their browser counterparts—they move you to the next or previous topic in your history list. The Home button returns you to the opening Help screen, and the Print button prints the current topic. Clicking the Use Large Text button is a toggle; click to make the text a bit larger, and click again to return to normal.

The pushpin button in the Help dialog box is Keep On Top. It is set to Keep On Top by default. When the pushpin is horizontal, the dialog box behaves like a normal window, giving way to the active window when you click outside the dialog box. When the pushpin button is vertical, the window stays on top of the Excel workspace, allowing an unobstructed view of the Help window while you work. This button is a toggle; repeated clicking changes the pushpin's ScreenTip from Keep Help On Top to Don't Keep Help On Top. Whatever setting was active when you close the dialog box persists the next time you open it.

Note

Most dialog boxes include a Help button located in the title bar (identified by a question mark icon). Clicking this button displays a Help topic describing the function of and options within that dialog box. If you click the Help button in a tabbed dialog box, you'll see information pertaining to that particular tab.

INSIDE OUT

A user-assistance odyssey

The implication of the term *online Help* has changed somewhat over the years. It used to mean that in addition to the primary source of user assistance—the printed manual—how-to topics and explanations of commands and features were available right on your computer by pressing F1. What a concept! Today, Help really is online, and an Internet connection is almost essential—preferably broadband.

Those who write user-assistance topics and implement the Help system historically had to limit the amount of actual assistance they could provide, being constrained by the amount of space allocated for Help files on the installation CDs (or floppy disks!). Over the past few Office releases, the need for Help files actually shipped on CD has decreased because of the new user-assistance paradigm: web-based Help. This offers tremendous advantages over in-the-box Help. First, instead of having to cram increasing amounts of information into a finite amount of space on a CD, keeping Help files on the web allows virtually unlimited information to be made available. Second, it allows information to be more up to date, which is actually an incredible understatement.

Consider that under the old paradigm, Help content had to be written early and sent through the editorial pipeline many weeks prior to shipping the software—often before developers were finished tweaking features. (Add another month or so for printed manuals! Remember those?) With the constraints on disk space, tough decisions often were made regarding helpful topics and useful aids such as videos and presentations that would simply have to be eliminated to save room. No wonder Help systems have historically been dissed for being inaccurate and incomplete. Under the new “truly online” Help paradigm, topics that would never have made it onto the CD are instead available on the web, and user-assistance writers can update and add more Help topics, videos, presentations, and templates long after the product ships.

Recovering from crashes

In the past, *crash recovery* largely involved an initial flurry of expletives followed by a brisk walk around the office and perhaps a couple of aspirin. Excel 2013 provides something beyond comfort and sympathy for digital mishaps—an actual mechanism that attempts to tuck away open files before the program comes screeching to a halt. And it works pretty well. If Excel encounters a problem, it attempts to save any files that are open at the time the problem occurs, before bad things happen to them when the program crashes and burns.

Understanding AutoRecover

Over the years, Excel has greatly improved its ability to recover lost work after a crash. By default, all unsaved workbooks are backed up automatically every 10 minutes, storing what Excel calls AutoRecover information. This is not the same as saving your workbook, because Excel stores AutoRecover information in a different place with a cryptic file name. You might lose a few minutes worth of work, but you can change the time interval anywhere from 1 to 120 minutes. If Excel or your system crashes, the AutoRecover feature presents a list of rescued versions of all files that were open when the crash occurred the next time you start Excel.

To change settings or turn off AutoRecover, click the File tab, select Options, and select the Save category to display the dialog box shown in Figure 2-41.

AutoRecover File Location is set to a subfolder buried deep in your hard disk—this is OK because you should save the real files elsewhere rather than cluttering up your working directories with recovery files. If you want, you can easily change the location. You can also choose to disable AutoRecover for specific workbooks without having to turn it off and on manually. You can use the AutoRecover Exceptions For area in the dialog box to do this. Just select a workbook in which you want to disable AutoRecover from the drop-down list displaying all the currently open workbooks, and select the Disable AutoRecover For This Workbook Only check box. You can do this separately for any open workbook.

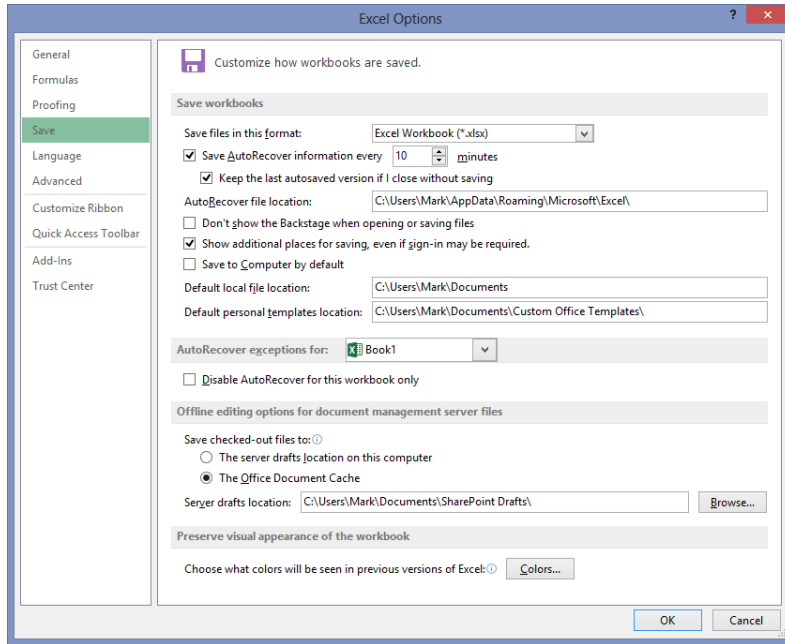


Figure 2-41 With AutoRecover, you can specify how often Excel automatically saves your work.

Managing versions

The AutoRecover feature essentially stores a copy of each unsaved workbook every 10 minutes (unless you specify otherwise). So what happens to these copies? Excel stores one copy of each file you work on—and fail to save—for four days, deleting older copies automatically. Luckily, Excel provides access to these copies. Click the File tab, click Info, click Manage Versions, and click Recover Unsaved Workbooks to display the dialog box shown in Figure 2-42, a version of the Open dialog box, which automatically opens to the specified AutoRecover location.

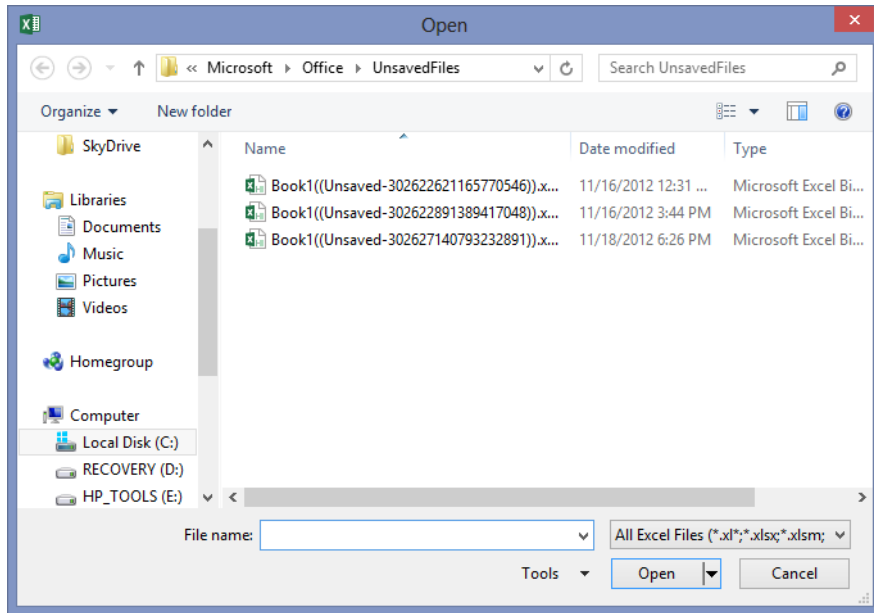


Figure 2-42 You can recover recent versions of your workbooks by using the Recover Unsaved Workbooks command.

When you open an unsaved workbook, it opens in read-only format, and Excel displays “Unsaved File” in the message bar, along with a handy Save As button in the warning area above the formula bar. If you do nothing, the previously scheduled four-day deletion schedule remains and the draft is removed. Clicking Save As displays the dialog box of the same name, open to your normal documents folder.



Custom-tailoring the Excel workspace

Customizing the ribbon.....	75	Enhancing accessibility	99
Customizing the Quick Access Toolbar	84	Installing apps.....	101
Controlling other elements of the Excel 2010 interface.....	95		

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

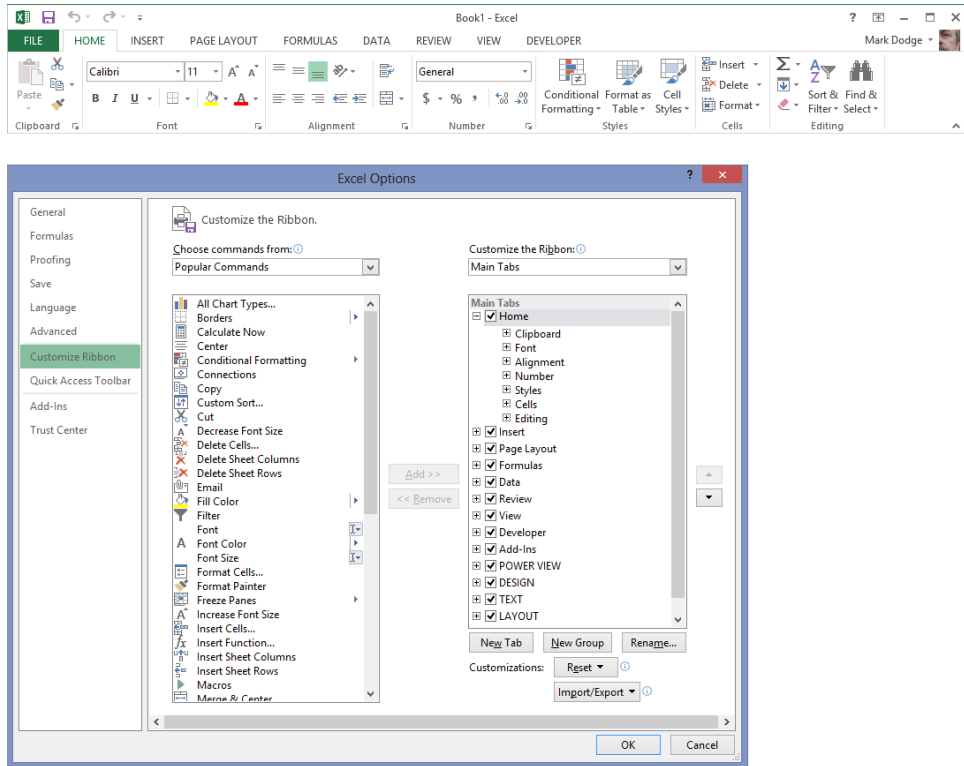


Figure 3-1 The outline on the right side of the dialog box controls the ribbon's structure.

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.

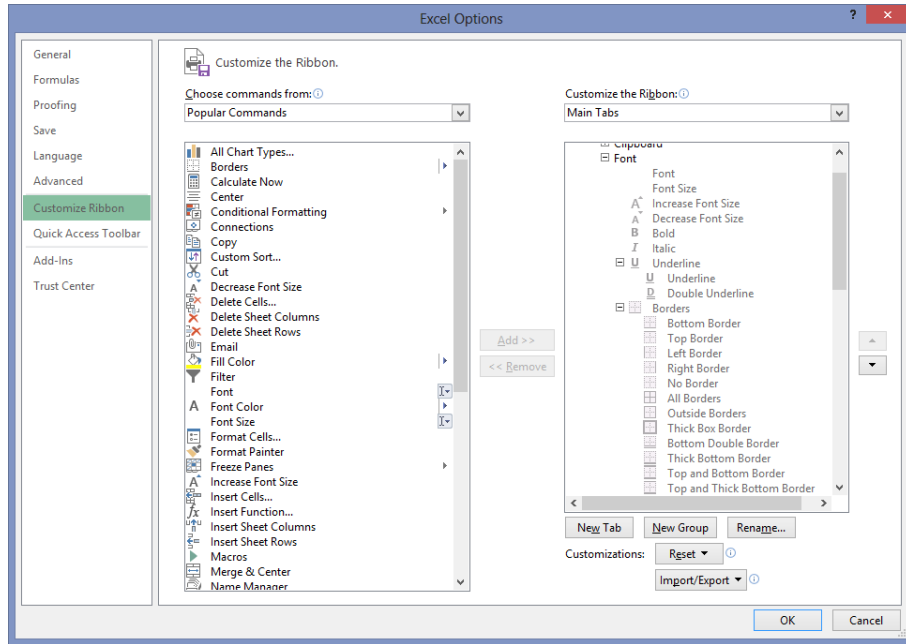


Figure 3-2 The list on the right is a collapsible outline listing the current contents of the ribbon.

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.

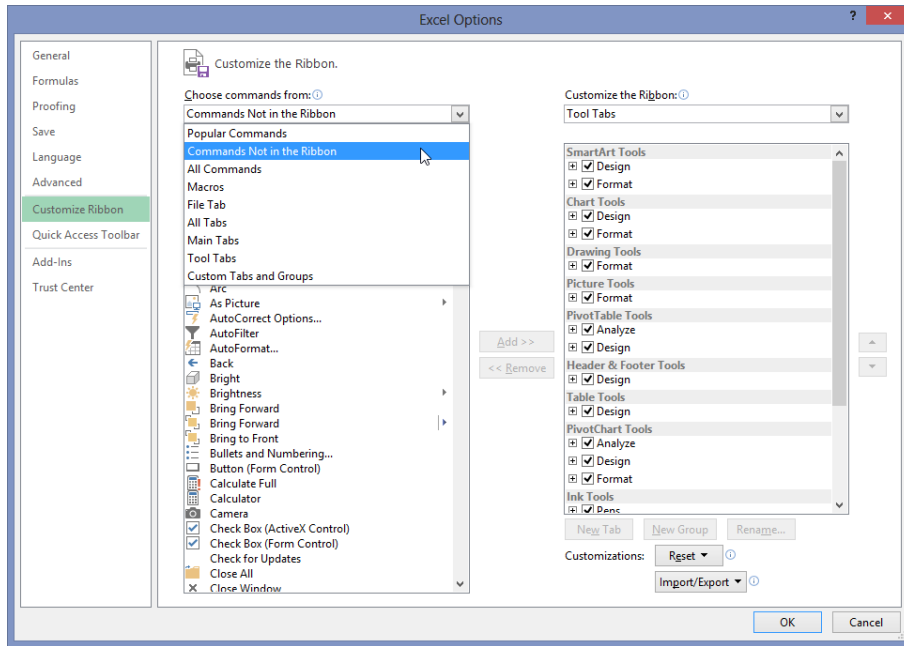


Figure 3-3 Choose options from the drop-down lists above to filter the contents of the scrollable lists below.




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.

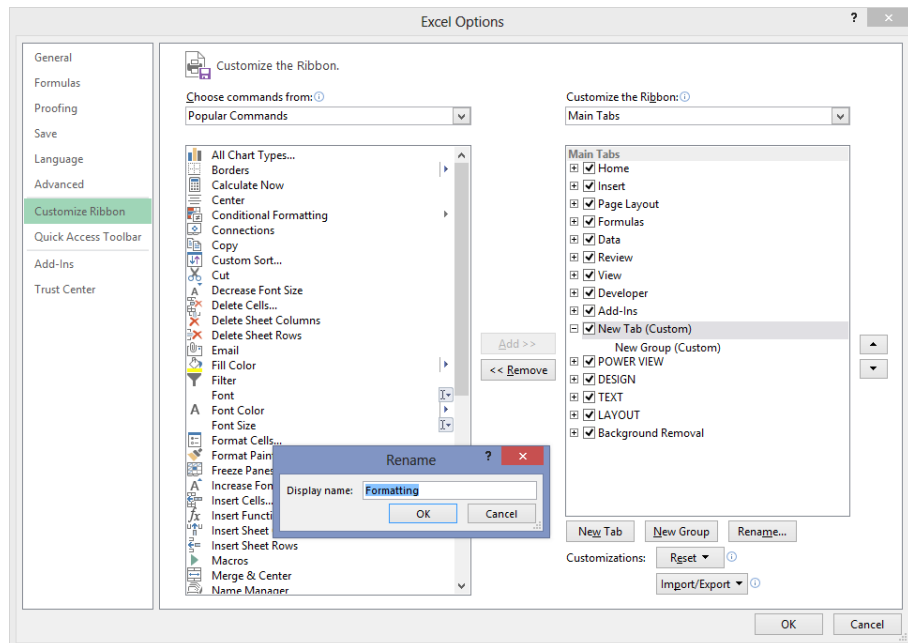


Figure 3-4 Create a new ribbon tab by clicking the *New Tab* button, and then click *Rename* to give it a sensible moniker.

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.

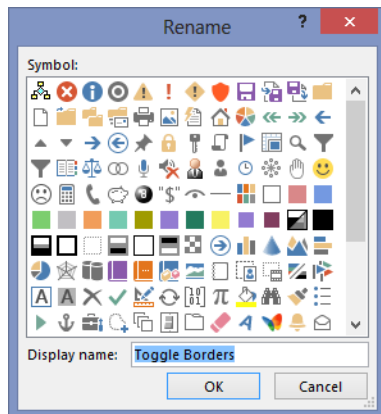


Figure 3-5 Clicking the Rename button with a group selected allows you to select an icon for the group as well.

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.

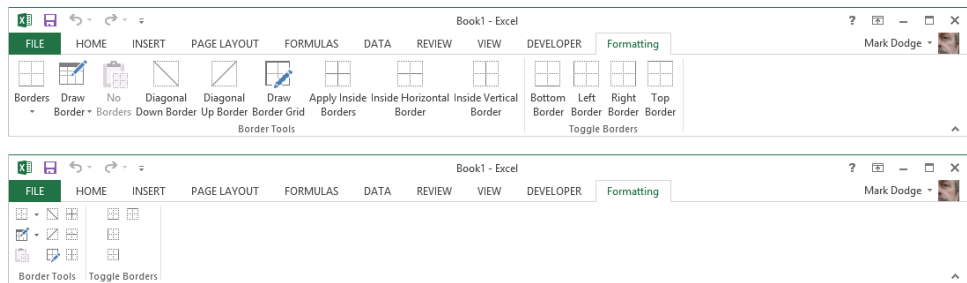


Figure 3-6 It is a good idea to hide the command labels when you create new groups.

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.

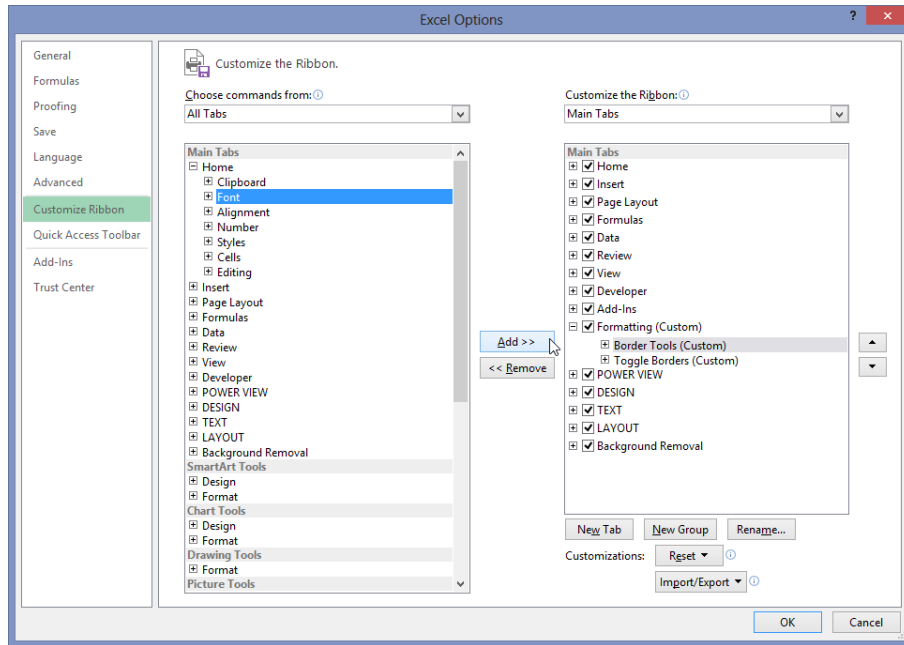


Figure 3-7 Displaying All Tabs reveals all the predefined command groups.

First, select a tab or group in the outline on the right below which you want to insert a pre-set 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.

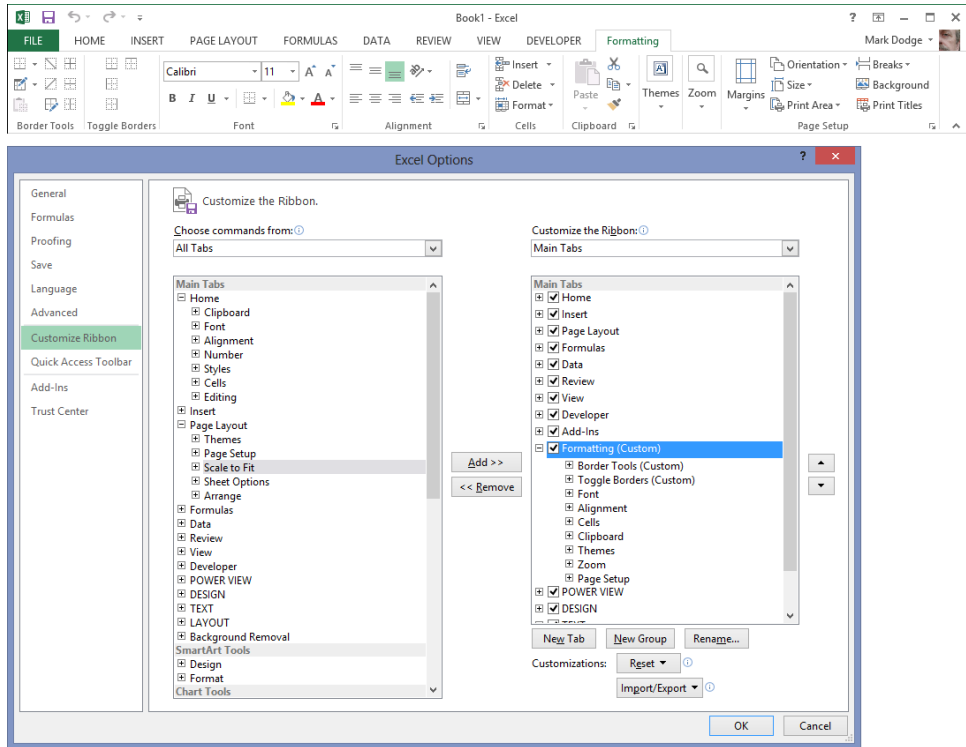


Figure 3-8 The modified outline in the Customize The Ribbon list and its custom tab.

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.

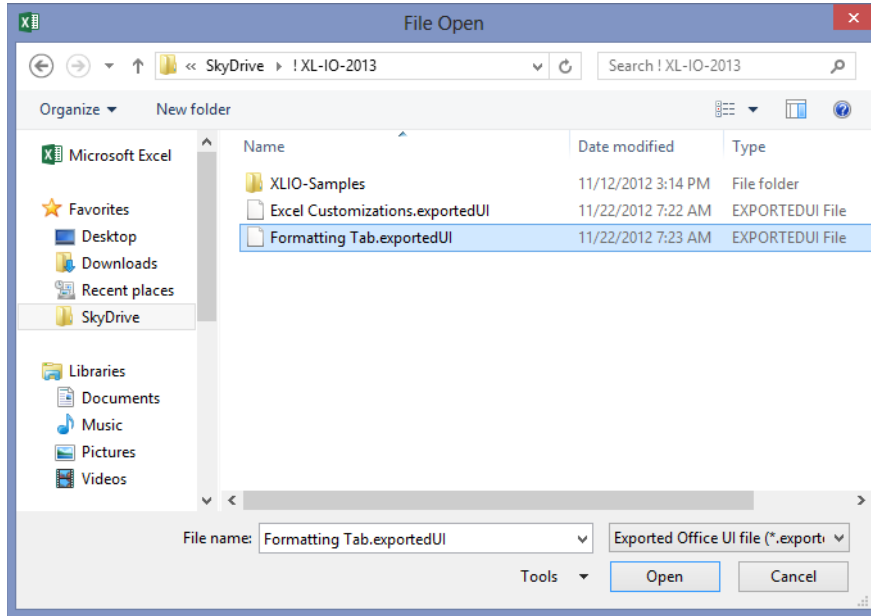


Figure 3-9 You can export any number of ribbon customization files for retrieval later.

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.

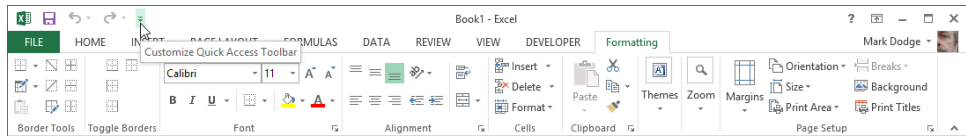


Figure 3-10 The Quick Access Toolbar usually appears above the ribbon on the title bar.

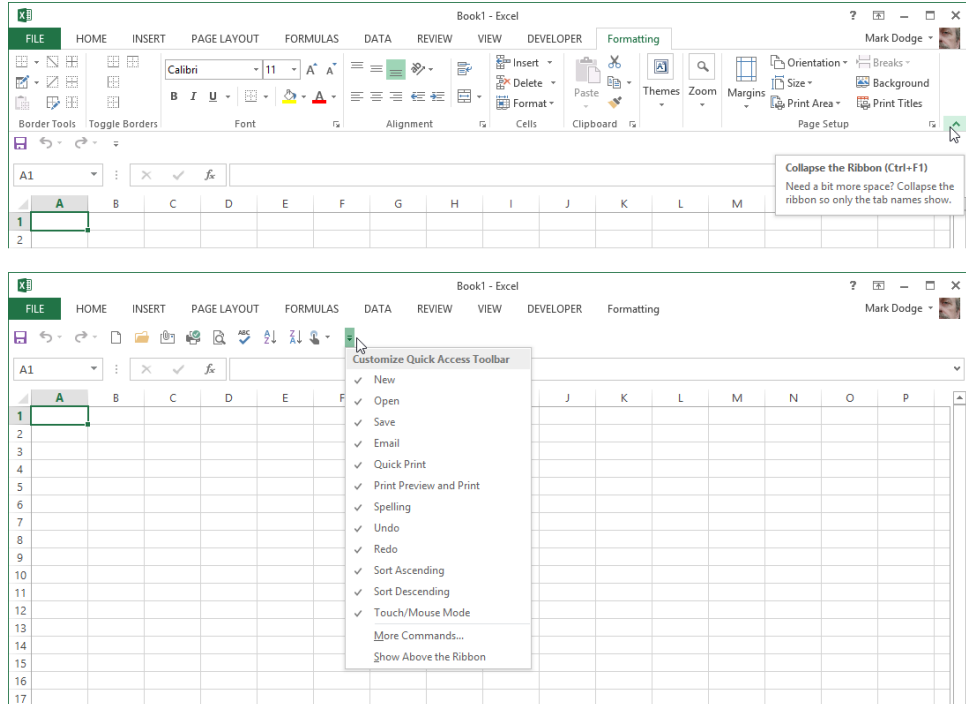


Figure 3-11 You can collapse the ribbon and move the Quick Access Toolbar below it.

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.

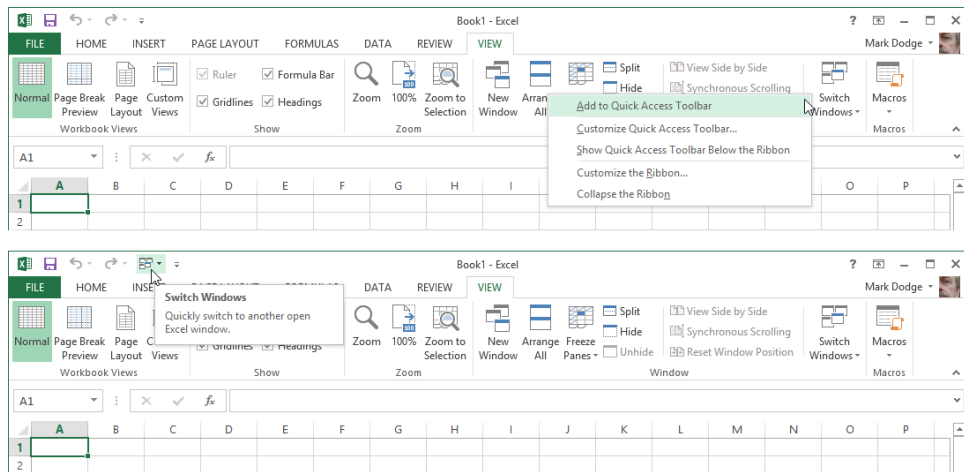


Figure 3-12 Right-click any command or group, and you can add it to the Quick Access Toolbar.

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.

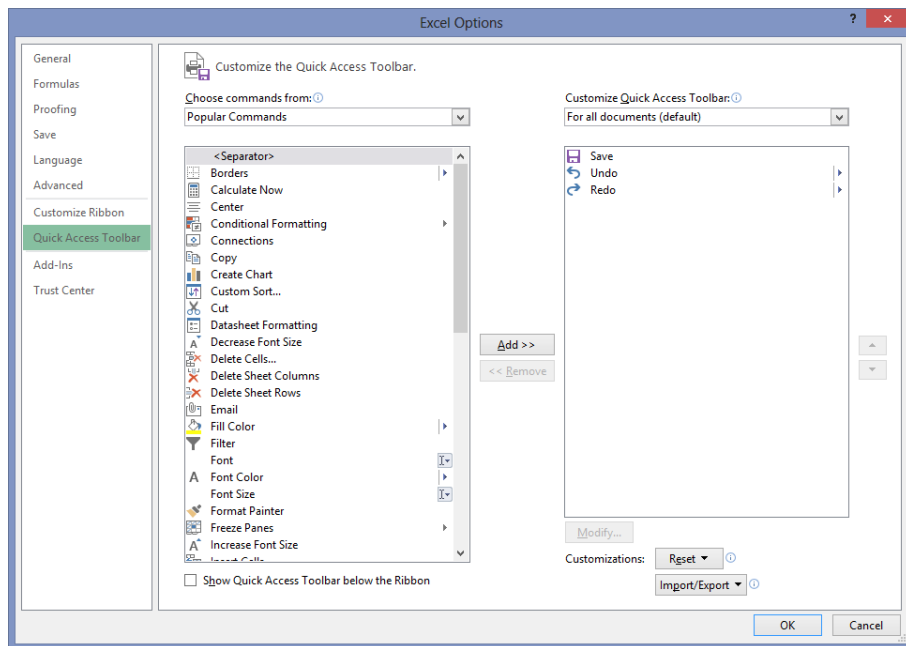


Figure 3-13 The Quick Access Toolbar category in the Excel Options dialog box is the command center for the Quick Access Toolbar.

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.

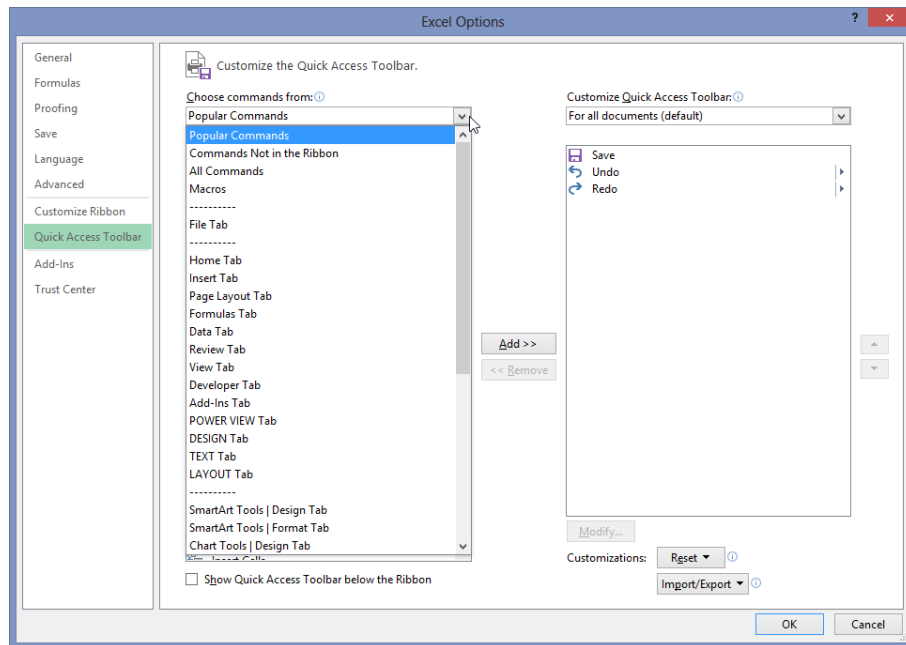
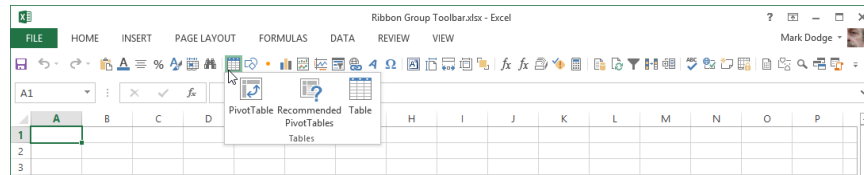


Figure 3-14 Each item in the Choose Commands From drop-down list corresponds to a tab on the ribbon.

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.

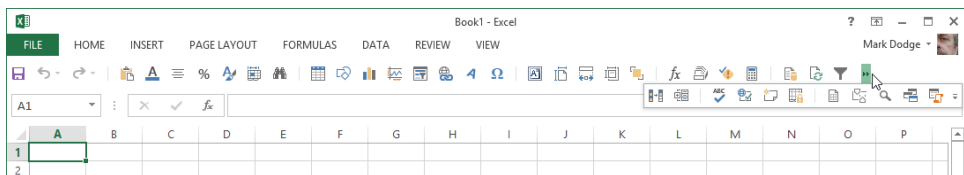


Figure 3-15 If you add more buttons than can be displayed, click the More Controls button.

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.

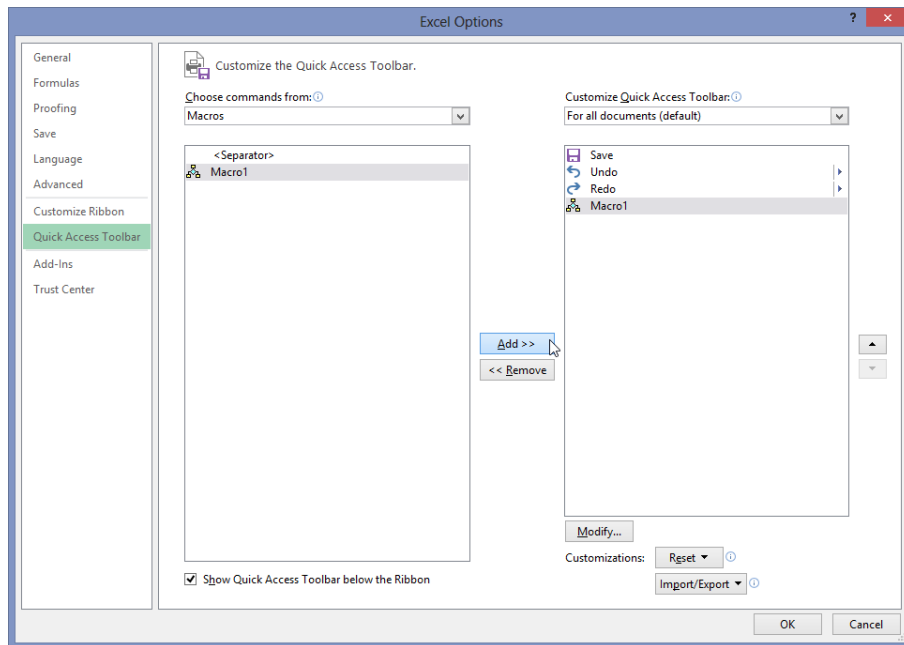


Figure 3-16 You can add custom buttons to run macros in macro-enabled workbooks.

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.”

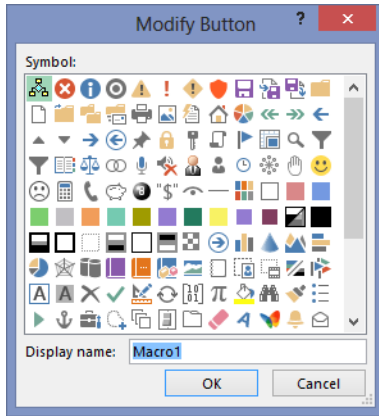


Figure 3-17 You can change the default button image for your custom macro-driven buttons.

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.