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Bill Jelen, Excel MVP and MrExcel, has been using spreadsheets since 1985, and he launched the MrExcel.com website in 1998. His team provides custom Excel applications to clients around the world. You can see Bill as a regular guest on Call for Help with Leo Laporte in Australia, in Canada, and on Google Video. Bill produces a daily video podcast about Excel. He also enjoys taking his show on the road, doing a one- to four-hour power Excel seminar anywhere that a room full of accountants or Excellers will show up.
DEDICATION

To Mary Ellen Jelen

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Keeping the MrExcel name proud in Toronto are the ‘Cellers softball team. Thanks to Matt, Doug, Denise, Rahul, Cat, Big Dog, The Rick, Michelle, Jono, Lori, Jeff, Scoop, Laurie, Jen, Johnny T, Andy, and Shari.

Finally, thanks to Josh Jelen, Zeke Jelen, and Mary Ellen Jelen. It is cool to work at home, but that means that I am always at work. There were weeks where “let me check on this chapter” turned into the entire evening. Thanks for your patience during 2006.
**We Want to Hear from You!**

As the reader of this book, you are our most important critic and commentator. We value your opinion and want to know what we’re doing right, what we could do better, what areas you’d like to see us publish in, and any other words of wisdom you’re willing to pass our way.

As an associate publisher for Que Publishing, I welcome your comments. You can email or write me directly to let me know what you did or didn’t like about this book—as well as what we can do to make our books better.

*Please note that I cannot help you with technical problems related to the topic of this book. We do have a User Services group, however, where I will forward specific technical questions related to the book.*

When you write, please be sure to include this book’s title and author as well as your name, email address, and phone number. I will carefully review your comments and share them with the author and editors who worked on the book.

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In this introduction

Jaw-Dropping New Excel Features  2
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Introducing the Ribbon  11
Where Is the Classic Mode?  16
Conventions Used in This Book  17
I get to play the role of comic book superhero. As the “mighty man of macro,” I take the stage and wow people with the amazing things they can do in Excel. In small teaching settings, I ask everyone to answer the most pointless question: “What version of Excel are you using?”

Why is this a pointless question? Because it simply does not matter. If the answer is any version of Excel that has come out in the past decade—going back to Excel 97—then every tip I have to share will work.

Microsoft has asked us to upgrade from Excel 97 to 2000, 2000 to XP, and XP to 2003, all without giving Excel fans much new content. Yes, they changed the PivotTable Wizard in Excel 2000, added function tips in XP, and began to support XML in 2003. But there was really nothing new.

I have long theorized that once Microsoft had driven a stake through the heart of Lotus 1-2-3, there was simply no need to innovate. Today, Microsoft is aware that Star Office is becoming a credible threat, and the Excel development team has responded with a vengeance.

**JAW-DROPPING NEW EXCEL FEATURES**

Excel 2007 is a complete rewrite of the program. The new feature set is amazing. You can now do far more with Excel and do it far faster than ever before. The following sections describe just a few of the new features of Excel 2007.

**THE MASSIVE GRID**

For the past decade, we’ve dealt with 65,536 rows by 255 columns on a worksheet. 16.7 million cells sounds like a lot, but it is amazing how many times people encounter a dataset with 70,000 rows or 300 columns. Excel was almost big enough, but not quite. For many people, Access was only used as a product of desperation when they had more rows than Excel could accommodate.

A few years ago, I was able to spend a few hours with the Microsoft Excel project managers. They revealed that they were thinking of adding more rows and asked what I thought would be a reasonable figure. I remember telling them that if they didn’t at least double the rows—going to at least 131,072—the increase would not be impressive. They also let on that many people wanted to have three years of daily dates plus totals stretching across the columns. I walked away from that meeting predicting a new grid of 131,000 rows by 1,024 columns.

At the MVP Summit in September 2005, Microsoft gave us the first look at the new version of Excel. I was blown away by the size of the grid: 1,048,576 rows by 16,384 columns. That is more than 17 billion cells on one worksheet! I was sitting next to Ken Wright, an Excel MVP from England. In his British accent, Ken dryly quipped, “…and if we fill that up, we could always just go to Sheet2.”

The enormity of 17 billion cells is staggering. There is not a PC you could buy today that would hold 17 billion formulas. Microsoft has truly come out with a new file format that will last for the next 10 to 15 years. I am sure that by the time Excel 15 comes out, everyone will think it is commonplace to load up a half million records of transactional data.
To help you picture the situation, Figure I.1 contains an XY chart. The solid black rectangle in the upper-left corner is the relative size of Excel 2003. The large white square that makes up the rest of the chart is the relative size of Excel 2007. For a decade, you’ve been living in a tiny patch of real estate, and now the bounds are nearly endless.

To learn more about the Big Grid, see Chapter 7.

**Figure I.1**
The tiny black rectangle is the size of the old Excel compared to the new Excel.

---

**FANTASTIC DATA VISUALIZATIONS**

Excel 97 introduced conditional formatting. It was hard to use. A number of gotchas made it hard to figure out whether your conditional formatting was really working. When you figured out how to successfully set up conditional formatting, the feature was limited to three conditions. I eventually dropped this out of my power Excel seminar: It was too obscure, too hard, and not worth the effort to try to teach it.

Conditional formatting gets a complete makeover in Excel 2007. You now have one-click access to gradients, heat maps, and in-cell data bars. Managers’ eyes tend to glaze over when they are presented with a table of numbers. Add a full-color data visualization, and the meaning of a table can spring to life, as shown in Figure I.2. For more about data visualization, see Chapter 9.
Case Study: Backward Functionality Compatibility
The new data visualizations are designed to bring conditional formatting to the masses. What if you were one of the people who had taken the time to learn the old conditional formatting system?

Figure I.3 shows the Excel 2003 method for highlighting all rows that are above average in a range. Finding the Formula Is version of the conditional formatting dialog was beyond 99% of the Excel customers.

Figure I.3
Figuring out conditional formatting in Excel 2003 was difficult.

Excel 2007 provides options to highlight cells that are above average with just a few mouse clicks. A novice Excel customer could nearly duplicate Figure I.3 by selecting Home, Conditional Formatting, Top/Bottom Rules, Above Average, as shown in Figure I.4.

However, if you are a power user and still want to build conditional formatting the old way, you are more than welcome to. Near the bottom of each icon is a More Rules selection that takes you back to the familiar dialog boxes from prior versions of Excel. The new conditional formatting dialog, shown in Figure I.5, is not exactly like the old version shown in Figure I.3, but after you select the intuitive words Use a Formula to Determine Which Cells to Format, you are back in familiar territory.
Power users should be relieved that they can easily get back to their familiar dialog boxes. Look for the arrow icon in the bottom-right corner of many groups on the ribbon (you’ll learn more about ribbons later in this Introduction). Clicking this icon is the fast shortcut back to the old-style dialog box, which is shown in Figure I.6.

Figure I.6
You can click the expand icon in the lower right corner of most groups’ + sign in the triangle to access the old-style dialog boxes.
**Twenty-First Century Charting**

The charting in Excel 2003 is antique. It really had not changed in 15 years. Microsoft has provided a great new charting and diagramming engine and applied it to all Office 2007 components.

Features such as beveled edges, glow, and metallic bars are now just a click away. Rather than trying to format each element, you can simply hover over any of the 20 prepackaged themes to create charts that match your corporate color scheme and other designs. For more about charting, see Chapter 15.

**Business Intelligence**

Excel 2007 has a new, easier-to-use interface for the pivot table engine. You can now quickly apply data visualizations to a pivot table. In addition, if you regularly build pivot tables from OLAP cube datasources, you can now convert a pivot table into a range of high-powered formulas that will query certain dimensions of the cube. For more about Business Intelligence, see Chapter 10.

**Easier-to-Enter Formulas and Functions**

Anyone who dabbled with the VBA programming language in Excel has enjoyed the AutoComplete functionality in VBA for several versions of Excel. This technology now comes to the user interface side of Excel, with AutoComplete technology guiding you through the entry of functions and formulas. For more about tables and easier formulas, see Chapter 8.

All the functions formerly housed in the Analysis ToolPack have now been promoted to full-fledged members of the Excel family. It was frustrating to find a cool function in the Analysis ToolPack but not know whether someone in your recipient list had failed to enable this add-in.

Excel 2007 replaces the Excel 2003 list functionality with new table functionality. This powerful option renders obsolete the need to double-click the fill handle to copy formulas. It also makes the concept of English-language formulas automatic for formulas next to a table.

**Where Are My Menus and Toolbars?**

Everything we’ve discussed so far has been a good change. The grid size is amazing. The ease of use is amazing. So why did Microsoft have to drop the other shoe and remove the familiar File, Edit, View, Insert, Format, Tools, Data, Window, and Help menus from the top of the Excel window?

This is the single biggest problem with Excel 2007. I guarantee that by the time Excel 14 or Excel 15 rolls around, you will love it, but right now, right here, in the next two weeks, you will curse Microsoft more than you have ever cursed Microsoft.
The menu, toolbars, and task pane have been completely removed from Excel 2007.

Stop. Read that again.

The menu, toolbars, and task pane have been completely removed from Excel 2007.

If you are an intermediate Excel user, this change means that all the toolbar functionality you use everyday has been removed. This is a shocking change. It will take you a couple weeks to get used to it. Chapters 1 through 6 will cover this change in detail.

Although you won’t like it at first, it might help to understand why Microsoft had to do away with the old system.

**Why Couldn’t They Leave Well Enough Alone?**

Figure I.7 shows a screenshot of Word for Windows 1.0 from 1989. There were 2 toolbars, sporting a total of 26 icons.

**Figure I.7**
Word 1.0 featured 26 icons on two toolbars.

Word 2.0 in 1992 grew slightly, to 37 icons on 2 toolbars. By 1994, the common screen resolution had jumped from 640x480 to 800x600, and the number of toolbars had grown to eight. Context (right-click) menus were added. The icons were so confusing that Microsoft added ToolTips to each toolbar. Plus, Microsoft let you opt out of toolbars altogether with the new context menus.

Word 95 had nine toolbars. Word 97 had 18 toolbars and introduced cascading menus; there were too many commands to fit on a single list of menus, so you had to go searching through fly-out menus that populated each toolbar.

As new functionality was added, the number of toolbars continued to grow. A whole new feature called the task pane was introduced in Excel 2002. Microsoft was now using the top, bottom, and right edges of the screen to try to shoehorn in all the features.

Excel 2003 had 1,223 commands on 127 commandbars. If you tried to display them all at once, you would not be able to see the Excel grid at all, as shown in Figure I.8.
Furthermore, by Excel 2003, a lot of the toolbars were somewhat unpredictable. The Drawing toolbar was usually displayed at the bottom of the screen, but it could be moved anywhere on a particular computer. The List toolbar in Excel 2003 tended to come and go, without any rhyme or reason. Some toolbars would hang around long after they were needed (for example, there is no need to have the Picture toolbar displayed if there is not a picture on the worksheet, but Excel 2003 didn’t seem to know that). Some crazy add-in on my computer kept disabling the PivotTable toolbar, which meant I wrote a couple lines of VBA to get it back every time I wanted to create a pivot table.

Microsoft figured that if it didn’t make some sort of big change, this problem would only get worse in Excel 2007, Excel 14, Excel 15, and so on. Jensen Harris at Microsoft had predicted that there would be more than 100 different task panes shipping with Office 2007. Microsoft was, as always, intent on making the software more feature rich, but there was no real estate left in order to add these commands.

The Most Requested New Features…

Microsoft conducts many usability studies. It visits companies, watches people use Office, and then asks them what new features would make their jobs easier. The common thread: People asked for features that had been added in Excel 97. But no one could find them.

Imagine how frustrated you would be if your boss walked in and asked you to produce the XYZ report. You would respond for the 400 millionth time, “I already gave you that report!” The boss would keep repeating this routine every day for 10 years. Very frustrating, indeed.
I can judge audience reaction in my seminars by the gasps. If I hear a gasp, it means that someone in the audience has been wasting hours each day and will be able to reduce that to a button click tomorrow at work. The “gasp” items—for example, automatic subtotals, the fill handle—were all added 10 years ago. The people in my seminars aren’t stupid. There is clearly a problem when the average Joe can’t find the features that are in Excel.

Microsoft would win big if it could allow people to actually find the powerful features that it added a decade ago. For a whole generation of beginning to intermediate users, all the power in Excel would suddenly be “new to you.”

A **Scientific Approach to Popular Features**

Do you remember when Office introduced adaptive menus back in Excel 2000? The idea was that the menus had become too complex, so they would show you only the most popular menu items.

Do you have any idea how Microsoft decided what was most popular? It guessed. But it failed miserably.

A couple days after you installed Office 2003, an innocuous message would pop up, asking “Would You Like to Help Make Office Better?” If you chose Yes, Office collected information about how you selected commands—which toolbar buttons you pressed and in what order, whether you pasted by right-clicking or by pressing Ctrl+V? Since Office 2003 shipped, Microsoft has collected information on 1.3 billion sessions. Externally, this is called the Customer Experience Improvement Program. Internally, it is Service Quality Monitoring (SQM). The data from this program is SQM (pronounced “skwim”) data. This is a fantastic amount of information about how real people use the software in real-life situations.

One interesting example is that power users had a hunch that everyone pasted by using Ctrl+V or by using the right-click context menu. There was a move to remove the Paste icon from the ribbon. In response to this hunch, someone pulled out the SQM data. Despite there being much faster ways to execute a paste, the toolbar button for paste was the most-used button in all of Office! Rather than rely on a hunch and remove the Paste button, Microsoft has vast amounts of statistical data and knew which were the most popular commands.

Here’s another example: The Superscript button isn’t even installed on the Formatting toolbar in Word 2003. A person has to customize the toolbar to add the icon. However, this customized button is used more frequently than 30% of the default buttons on the Formatting toolbar.

When you understand that Microsoft wasn’t just being capricious in selecting the toolbar icons to use, the removal of the well-known top-level menus starts to make a lot more sense.

Let’s look at an example that affects Excel customers. Figure I.9 shows a typical dataset in Excel 2003. One column holds free-form text, so it ends up being too wide.
My usual tack in such a situation is to select Column D, turn on Word Wrap, and make the column narrower. As shown in Figure I.10, that fixes Column D, but then all the other columns have problems because I really want the words lined up with the top of each cell.

To fix the problems that now exist in this example, I could select all cells and then choose Format, Cells, Alignment; change the vertical alignment to Top; and then click OK. I know most of the keyboard shortcuts, so I can accomplish all this with 19 keystrokes and two trips to the Format Cells dialog box. I’ve never complained about this. It is just the way I had to do it in Excel 2003. I bet that you’ve repeated these steps a few times in your career.
Well, a lot of people sending SQM data to Microsoft must have been having exactly the same problem! As shown in Figure I.11, Excel 2007 now has a group on the ribbon that contains an icon for Wrap Text as well as an icon for top vertical alignment. On the face of it, this is not a big thing. But it means I can fix the problem described earlier with 2 clicks instead of 19 keystrokes. This type of change will really make me hate going back to Excel 2003 every time I have to handle data there.

Clearly, enough people had SQM data turned on and had the same problem I had. Microsoft was able to detect that probably a million people were feeling the same pain on this issue, so it made life far easier for all Excel customers.

So although the initial reaction is to complain that Microsoft took away the old toolbars and menu, you need to stay calm and give the new design a chance. You will come to appreciate the thought (and data analysis) that was put into the decisions.

**Introducing the Ribbon**

Instead of the menus and Standard and Formatting toolbars, Excel now has the ribbon. The ribbon is designed based on the thought that most people are using 1,280×1,024, or even 1,024×768, monitors. Instead of being a meaningless array of tiny icons, the ribbon uses lots of words and icons. Instead of being a single horizontal row of icons, the ribbon supports a two-dimensional layout of icons. Really popular features are large icons. Other functions can be grouped into related groups of icons.
The ribbon is tall, but it is no taller than the old setup, with the menus and the Standard and Formatting toolbars. Furthermore, you can completely hide the ribbon by pressing Ctrl+F1.

Although only one ribbon is visible at a time, there are actually seven ribbons available all the time: Home, Insert, Page Layout, Formulas, Data, Review and View. The most important stuff is on the left-most ribbon, so when you are looking for something, you should start there.

Depending on what is selected, more ribbon options appear. When you are adding a new business graphic (SmartArt), two new ribbons appear for SmartArt tools — Design and Format—as shown in Figure I.12. These ribbons appear only when the graphic is selected. When you go back to selecting a cell in your worksheet, the extra ribbons disappear.

![Figure I.12](image)

Two new ribbons appear anytime a SmartArt graphic is selected.

Extra ribbons appear for pivot tables, charts, pictures, and so on. In each case, the ribbon appears only as long as the pivot table, chart, picture, and so on is selected. As shown in Figure I.13, the Picture Tools ribbon offers functionality that is light-years ahead of previous versions of Excel, but it is not in the way until you actually insert a picture in your worksheet.

**Ribbon Limitations**

The ribbon is always at the top. In recent versions of Excel, you could have toolbars docked at the bottom, the sides, or floating over your document. This functionality is no more. The ribbon is permanently at the top.

In previous versions of Excel, you could create a new custom toolbar with your favorite icons and have it floating over your document. This functionality is no more. There now is a Quick Access toolbar where you can add your favorite icons, but this toolbar is always at the top of the screen, either immediately below or immediately above the ribbon.
Ribbon Tricks

As you resize the Excel window, the ribbon becomes progressively more compact, but it does this intelligently. Figure I.14 shows the Home ribbon at a full 1,280 width. Figures I.15 and I.16 show the Home ribbon at progressively smaller window sizes. Even at a tiny window size, Excel still tries to intelligently group the major icons on the ribbon into a logical sequence, as shown in Figure I.17.

Figure I.13
The temporary ribbons often provide incredibly powerful tools.

Figure I.14
The Home ribbon at full size shows every icon.

Figure I.15
Initially, some groups become smaller. Notice that the Cells group now has three small icons.
It is interesting to note that even as the icons get smaller, Microsoft opted to keep words and pictures for the icons. It has realized that people don’t learn or remember the functionality based on a single 16×16 unlabeled icon. Learn more about the ribbon in Chapter 1.

**The Mini Toolbar**

If you were lucky enough to use Outlook 2003, you know that Microsoft added one really cool feature to that version. When a new email arrives in Outlook 2003, a small rectangle appears in the lower-right corner of your screen. The rectangle fades into view and lists the sender of the email and the first few sentences of the message. If you move your mouse toward the rectangle, it becomes solid and stays around. You can use quick icons to instantly delete or open the email. However, if you ignore the rectangle and just keep working in the other application, the rectangle quickly fades away.

Microsoft has added this feature to Excel 2007. It is sort of like popping up a context menu, except you don’t have to right-click. The Mini Toolbar occasionally appears just above the active cell. If you move your mouse toward the Mini Toolbar, it solidifies and hangs around. Otherwise, the Mini Toolbar fades away. Learn more about the Mini Toolbar in Chapter 3.

**Live Preview**

Another amazing new feature in Excel 2007 is Live Preview. Say you are selecting fonts for a range. As you hover over each font in the list, the view of the spreadsheet instantly updates to show how the change would appear in the spreadsheet.

The Live Preview feature works for charts, images, and cells. It is amazing how fast the preview works. Learn more about Live Preview in Chapter 5.
Where Is the Classic Mode?

Don’t feel bad. Bill Gates asked this same question. Certainly, with changes this radical, there would be a way to switch back to a classic view, right?

There is not.

I am convinced that Microsoft took away the floating command bar in order to prevent every Excel guru out there from bringing back the classic mode.

Classic Mode for Keyboard Users

There is some relief for those who love keyboard shortcuts (also known as hotkeys). Consider the menus in Excel 2003. Notice that the E in Edit is underlined. If you hold down the Alt key while typing E, Excel opens the Edit menu. Within the Edit menu is the Fill command. The i in Fill is underlined. Typing Alt+I within the Edit menu brings up the Fill submenu. In the Fill submenu, the J in Justify is underlined. Typing Alt+J therefore invokes the Justify command.

Thus, without using the mouse, you can type Alt+EIJ to invoke the Edit, Fill, Justify command. I use these commands all the time, so I’ve memorized this keystroke combination.

If you have favorite keystroke combinations that you use all of the time, Microsoft will honor your knowledge. You can type Alt+EIJ to invoke Edit, Fill, Justify—or use your favorite hotkeys to invoke your favorite commands. A pop-up rectangle at the top of the screen shows the Office 2003 access key that you typed. You can continue typing access keys or press escape to cancel.

The Journey

It is difficult to predict how the press will react to the ribbon. Will there be praise or ridicule of Microsoft’s bold new user interface? That is a big question.

If you are reading this paragraph, I presume that you’ve made the leap and are at least trying out Excel 2007. This book will guide you on a journey through the new features in Excel 2007, hopefully easing the transition.

The book is organized into the following parts:

- **Part I, “Mastering the New User Interface”**—This first part of the book shows you in detail how best to deal with the ribbon.

- **Part II, “A Tour of What’s New”**—This part walks you through the amazing new features in Excel 2007. There might be topics here that would generally be found later in an Excel book. For example, pivot tables are usually in the advanced chapters of a book. In this case, they are up front because they are new.

- **Part III, “Working in a Legacy Environment”**—In a perfect world, you, all your co-workers, and everyone you share files with will have switched to Excel 2007 at the same time. In reality, you are going to have to share files with people who don’t have 1.1 million rows in their spreadsheets. This part of the book addresses how to enjoy the benefits of the new version while working with people who still use old ones.
Part IV, “Calculating with Excel”—This part covers all the stuff that needs to be in an Excel book, from formulas to functions to linking.

Part V, “Formatting and Sharing Information”—This part discusses how to make a workbook look good and how to share your workbooks by printing, creating PDFs, or publishing to the Web.

Part VI, “More Power”—This part provides an introduction to VBA and information on customizing the ribbon, Excel Server, and more.

CONVENTIONS USED IN THIS BOOK

The special conventions used throughout this book are designed to help you get the most from the book as well as Excel 2007.

TEXT CONVENTIONS

Different typefaces are used to convey various things throughout the book. They include those shown in Table I.1.

<table>
<thead>
<tr>
<th>Typeface</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monospace</td>
<td>Screen messages and Web addresses appear in monospace.</td>
</tr>
<tr>
<td><em>Italic</em></td>
<td>New terminology appears in this italic.</td>
</tr>
<tr>
<td><strong>Bold</strong></td>
<td>References to text you should type appear in bold.</td>
</tr>
</tbody>
</table>

Ribbon names, dialog box names, and dialog box elements are capitalized in this book (for example, Add Formatting Rule dialog, Sheet ribbon).

In this book, key combinations are represented with a plus sign. If the action you need to take is to press the Ctrl key and the T key simultaneously, the text tells you to press Ctrl+T.

SPECIAL ELEMENTS

Throughout this book, you’ll find tips, notes, cautions, cross-references, case studies, Excel in Practice boxes, sidebars, and Troubleshooting Tip boxes. These elements provide a variety of information, ranging from warnings you shouldn’t miss to ancillary information that will enrich your Excel experience but isn’t required reading.

Tips point out special features, quirks, or software tricks that will help you increase your productivity with Excel 2007.

Notes contain extra information or alternative techniques for performing tasks.
CAUTION
Cautions call out potential gotchas.

Cross References
See Chapter 99 for more information.

Case Study: Other Elements
Sections such as Case Study, Excel in Practice, and Troubleshooting Tips are set off in boxes such as this one:

- Case studies walk you through the steps to complete a task.
- Excel in Practice boxes walk through real-life problems in Excel.
- Troubleshooting Tips boxes walk through steps to avoid certain problems or how to react when certain problems occur.

Sidebars
Historical glimpses and other information that is not critical to your understanding appears as sidebars. I imagine that if the Cliff Claven character from Cheers knew a lot about Excel, these would be the kinds of things he would write.
CHAPTER 3

THE MINI TOOLBAR AND OTHER U.I. IMPROVEMENTS

In this chapter

Using the Mini Toolbar to Format Selected Text  54
Expanding the Formula Bar  58
Zooming In and Out on a Worksheet  59
Using the Status Bar to Add Numbers  60
Switching Between Normal View, Page Break Preview, and Page Layout View Modes  61
Using the New Sheet Icon to Add Worksheets  63
Although the ribbon and Quick Access toolbar are likely to be the most talked-about features in the new Excel interface, several other features are worth mentioning:

- **Mini toolbar**—The mini toolbar appears whenever you select text. Although this may happen rarely when you’re editing cells in Excel, it does happen frequently when you are working with charts, text boxes, and so on. The Mini toolbar offers quick access to font, size, bold, italics, alignment, color, indenting, and bullets.

- **Formula bar**—The formula bar includes the ability to expand or contract itself at your whim instead of the whim of Excel.

- **Zoom slider**—The Zoom slider allows you to quickly change from seeing one page to hundreds of pages at a time.

- **Status bar**—The status bar appears at the bottom of your worksheet window. Although you probably never noticed it, the status bar in previous versions of Excel reported the total of any selected cells. This information is now improved and expanded in Excel 2007.

- **View control**—The View control gives you one-click access to Page Break Preview mode, Normal mode, and the new Page Layout view.

- **New Sheet icon**—The New Sheet icon allows you to add new worksheets to a workbook with a single click.

### Using the Mini Toolbar to Format Selected Text

The Mini toolbar is a shy attendant. When you select some text, almost imperceptibly, the Mini toolbar faintly appears above the text.

If you ignore the Mini toolbar, it fades away. However, if you move the mouse toward the Mini toolbar, the toolbar solidifies and offers you several text formatting options.

**Note**

Microsoft began experimenting with fading toolbars in Outlook 2003. In that version, a new message toolbar would fade into view in the lower-right corner of your screen. You could glance down and read the first line of the email. You could ignore the toolbar, and the message would be waiting for you later in your inbox. Or you could move the mouse toward the notifier, and it would stay long enough for you to click Delete or Open. I enjoyed this feature of Outlook 2003. If my attention needed to stay on the task at hand, I could ignore the notifier, and it would unobtrusively fade away. However, if I was waiting for a message, I could handle it as it came in, avoiding a buildup of messages in my inbox.

The new Mini toolbar is another feature that fades in if you move toward it and fades out if you ignore it. I expect to see more fade-in/fade-out features in future versions of Office.

In your initial use of Excel 2007, you might not see the Mini toolbar. Although you often select cells or ranges of cells, it is rare to select only a portion of a cell value in Cell Edit mode.
However, as you begin using charts, SmartArt diagrams, and text boxes, you will have the Mini toolbar appearing frequently.

To use the Mini toolbar, you follow these steps:

1. Select some text. If you are selecting text in a cell, you must select a portion of the text in the cell by using Cell Edit mode. In a chart, SmartArt diagram, or text box, you can select any text.
   
   The Mini toolbar appears faintly. On some computers and with some color schemes, “faintly” actually means “completely transparently.”

2. Move the mouse pointer toward the Mini toolbar, and the toolbar solidifies. The Mini toolbar stays visible if your mouse is above it. After a period of inactivity, it disappears. If you move the mouse away from the Mini toolbar, it fades away.

3. Make changes in the Mini toolbar to affect the text you selected in step 1. The Mini toolbar always has the same icons, even though some of them may not apply in the current situation. In Figure 3.1, for example, it does not make sense to apply indenting to the chart axis title, but the icons are always there and in the same place.

4. When you are done formatting the selected text, you can either move the mouse away from the Mini toolbar or use the Format Painter icon to apply the changes to additional text.

5. To use the Format Painter icon, click the paintbrush in the upper-right corner of the Mini toolbar. Then move toward other text in the document. The mouse pointer is a black-and-white paintbrush, to indicate that you are in Format Painter mode. When you click the other text, Excel applies the same formatting to the new text.

Initially, it is difficult to see the Mini toolbar. In Figure 3.1, look for the word Magneto just above the year 2005 on the x-axis. This word is the font name drop-down in the Mini toolbar. Plus, this is the second level of visibility; you actually have to have started moving your mouse toward the Mini toolbar in order to get it to appear this much.

If you continue moving the mouse toward the Mini toolbar, it solidifies a bit more. In Figure 3.2, the mouse pointer is just outside the border of the Mini toolbar. At this point, you can start to identify all the controls on it.
In Figure 3.3, the Mini toolbar is completely visible. At this point, you can use any of its 14 controls in order to format the selected text.

In the top row, the Mini toolbar offers five controls:

- **Font name drop-down**—You open this drop-down to choose a typeface. Each of the various font names is displayed in its own font so that you can select an appropriate font easily.

- **Font Size drop-down**—This drop-down offers font sizes from 8 to 96, in several increments.

- **Increase Font Size icon**—You click this icon to bump the font up to the next larger size.

- **Decrease Font Size icon**—You click this icon to make the font one size smaller.

- **Format Painter**—The format painter allows you to copy formatting from one place to another. (The format painter is discussed in detail in the following section.)

In the bottom row, the Mini toolbar offers nine controls:

- **Bold icon**—You use this to toggle bold on and off. If bold is already applied, the Bold icon has a glow effect around it.

- **Italics icon**—You use this to toggle italics on and off.

- **Align Left icon**—You click this control to left-align the text.

- **Center Align icon**—You click this control to center the text.

- **Right Align icon**—You click this control to right-align the text.

- **Font Color drop-down**—You use this drop-down to select a color. A menu item at the bottom of this drop-down allows you to display the Colors dialog box.

- **Decrease Indent icon**—You click this control to decrease the indent.
- **Increase Indent icon**—You click this control to increase the indent.
- **Bullet drop-down**—You can choose from seven styles of bullets or none. A menu item at the bottom of the drop-down allows you to open the Bullets and Numbering dialog box.

**Using the Format Painter to Copy Formats**

After you have formatted the selected text by using the Mini toolbar, you might want to apply the same formatting to other text. To do so, you follow these steps:

1. Click the Format Painter icon in the upper-right corner of the Mini toolbar.
2. Move your mouse away from the Mini toolbar, and it disappears. Your mouse pointer is now in the shape of a paintbrush, as shown in Figure 3.4.
   
   **Figure 3.4**
   The paintbrush icon indicates that the selected format will be applied to whatever you select next.

3. Click the vertical axis title. The selected format is applied, as shown in Figure 3.5.

   **Figure 3.5**
   You can click another text element to apply the same formatting you have applied to other text.

**Caution**

Using the Format Painter icon is difficult to master. You only get one click to apply the formatting. If you inadvertently click on a non-text element, you lose the Format Painter mouse pointer.
Getting the Mini Toolbar Back

The shyness of the Mini toolbar might be the most frustrating part of using it. If you move the mouse away from the Mini toolbar, it fades away. If you immediately move back toward the Mini toolbar, it comes back. If you use the mouse for some other task, such as scrolling, the Mini toolbar permanently goes away. In this case, you might have to re-select the text in order to get the Mini toolbar to come back.

Disabling the Mini Toolbar

If you are annoyed by the Mini toolbar, you can turn it off for all Excel workbooks. Here’s what you do:

1. Select Office Icon, Excel Options.
2. In the Personalize category of the Excel Options dialog, clear the Show Mini Toolbar on Selection check box.

Expanding the Formula Bar

Formulas range from very simple to the very complex. As people began writing longer and longer formulas in Excel, an annoying problem began to appear: If the formula for a selected cell was longer than the formula bar, the formula bar would wrap and extend over the worksheet (see Figure 3.6). In many cases, the formula would obscure the first few rows of the worksheet. This was frustrating, especially if the selected cell was in the top few rows of the spreadsheet.

Figure 3.6
In prior versions of Excel, the formula bar could obscure cells on a worksheet. In this case, both the active cell, E4, and the dependent cell, F4, are hidden.

Excel 2007 features a new formula bar that prevents the formula from obscuring the spreadsheet. For example, in Figure 3.7, Cell E4 contains a formula that is longer than the formula bar. Notice the two new controls at the right end of the formula bar: a scrollbar and Expand Formula Bar icon (which looks like a down-pointing double arrow).
You use the formula bar scrollbar to scroll through the formula, one line at a time. You use the Expand Formula Bar icon to expand the formula bar. As shown in Figure 3.8, expanding the formula bar actually moves the grid down. This way, you can see the formula bar and still see the cells in the grid, too. In expanded mode, the Expand Formula Bar icon is replaced by a double up-pointing arrow that you can use to contract the formula bar back to one line.

After you collapse the formula bar, Excel has the annoying tendency to show only the last line of the formula. This could be confusing, especially if you look in the formula bar to learn whether a cell starts with an equals sign. For example, someone new to the spreadsheet shown in Figure 3.9 might not understand that Cell E4 contains a formula.

Zooming In and Out on a Worksheet

In the lower-right corner of the Excel window, a new Zoom slider allows you to zoom from 400% to 10% with lightning speed. You simply drag the slider to the right to zoom in and to the left to zoom out. The Zoom Out and Zoom In buttons on either end of the slider allow you to adjust the zoom in 10% increments.

Figure 3.10 shows the zoom control set to the maximum zoom of 400%.
At the opposite end of the zoom spectrum, the 10% view shows an overview of 158 printed pages of the worksheet. As shown in Figure 3.11, you cannot make out any numbers at a 10% zoom. However, in the 40%–60% zoom range, you can see 3 to 10 pages and actually make out the numbers in the cells.

### Using the Status Bar to Add Numbers

If you select several cells that contain numeric data and then look at the status bar, at the bottom of the Excel window, you can see that the status bar reports the average, count, and sum of the selected cells (see Figure 3.12).

If you need to quickly add the contents of several cells, you can simply select the cells and look for the total in the status bar. This feature has been in Excel for a decade, yet very few people realized it was there. In prior versions of Excel, only the sum would appear, but you could right-click the sum in order to see other values, such as the average, count, minimum, and maximum.
As with past versions of Excel, in Excel 2007 you can customize which statistics are shown in the status bar. In Excel 2007, you can configure all of the status bar elements. To do so, you right-click the status bar to display the Status Bar Configuration panel. In this panel, you can see the current value of all status bar icons, whether they are hidden or not (see Figure 3.13).

To add new items to the status bar, you click them in the Status Bar Configuration panel.

SWITCHING BETWEEN NORMAL VIEW, PAGE BREAK PREVIEW, AND PAGE LAYOUT VIEW MODES

Three shortcut icons in the status bar allow you to quickly switch between three view modes as shown in Figure 3.14:
Normal View—This mode shows worksheet cells as normal.

Page Break Preview—This mode draws the page breaks with blue. You can actually drag the page breaks to new locations in Page Break preview. This mode has been available in several versions of Excel.

Page Layout View—This is a new view in Excel 2007. It combines the best of Page Break Preview and Print Preview modes.

In Page Layout View mode, each page is shown, along with the margins, header, and footer. A ruler appears above the pages and to the left of the pages. You can make changes in this mode in the following ways:

- To change the margins, you drag the gray boxes in the ruler.
- To change column widths, you drag the borders of the column headers.
- To add a header, you click Click to Add Header.

Because it is possible to navigate and enter formulas in any of the view modes, you might want to do actual worksheet editing in the new Page Layout View mode.
Using the New Sheet Icon to Add Worksheets

The final new control in the Excel 2007 user interface is the Insert Worksheet icon. This icon appears as a small worksheet tab with a New icon. The tab appears to the right of the last worksheet tab, as shown in Figure 3.16.

Figure 3.16
Add a new worksheet to the end of your workbook by using the New Worksheet icon.

You click the icon to add a new worksheet to the end of the workbook.

Dragging a Worksheet to a New Location

After a worksheet has been added to the end of the workbook, you can drag the sheet to a new location in the middle of the workbook. Follow these steps to move a worksheet to a new location:

1. Click on the Worksheet tab.
2. Drag the mouse left or right. The mousepointer shows a sheet of paper under the mousepointer.
3. Watch for the insertion triangle just above the row of sheet names. In general, the insertion triangle will indicate that the sheet is dropped to the left of the sheet you are hovering above.
4. When the insertion triangle is in the correct location, release the mouse button.

The worksheet will be moved to the new location.

Inserting a Worksheet in the Middle of a Workbook

Although using the New Worksheet icon and then dragging a worksheet to a new location is easier, you can also insert a worksheet in a particular location. To insert a worksheet to the left of the current worksheet, for example, you choose Home, Cells, Insert, Insert Sheet. The new sheet is added before the current sheet.

Alternatively, you can right-click any sheet and choose Insert. The Insert dialog appears, where you can choose to insert a worksheet or a variety of templates. The new sheet appears to the left of the selected tab.
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