Introducing Excel

his chapter serves as an introductory overview of Excel. It is intended primarily for those who have no experience with this product. But even if you're already familiar with Excel, you may find a few new wrinkles here. If you're moving up from Excel 2002, you'll also find a quick summary of the new features in Excel 2003.

What Is It Good For?

Excel, as you probably know, is a spreadsheet program and is part of the Microsoft Office suite. Several other spreadsheet programs are available, but Excel is by far the most popular.

Much of the appeal of Excel is due to the fact that it's so versatile. Excel's forte, of course, is performing numerical calculations, but Excel is also very useful for non-numerical applications. Here are just a few of the uses for Excel:

- Number crunching: Create budgets, analyze survey results, and perform just about any type of financial analysis you can think of.
- Creating charts: Create a wide variety of highly customizable charts.
- Organizing lists: Use the row-and-column layout to store lists efficiently.
- Accessing other data: Import data from a wide variety of sources.
- Creating graphics and diagrams: Use Excel AutoShapes to create simple (and not-so-simple) diagrams.
- Automating complex tasks: Perform a tedious task with a single mouse click with Excel's macro capabilities.



In This Chapter

Understanding what Excel is used for

Using Excel menus, toolbars, and dialog boxes

Navigating Excel worksheets

Introducing Excel with a quick hands-on session 4

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Understanding Workbooks and Worksheets

The work you do in Excel is performed in a workbook file, which appears in its own window. You can have as many workbooks open as you need. By default, workbooks use an XLS file extension.

Each *workbook* is comprised of one or more worksheets, and each *worksheet* is made up of individual *cells*. Each cell contains a value, a formula, or text. Each worksheet is accessible by clicking the *tab* at the bottom of the workbook. In addition, workbooks can store chart sheets. A *chart sheet* displays a single chart and is also accessible by clicking a tab.

Newcomers to Excel are often intimidated by all of the different elements that appear within Excel's window. You'll soon see that the Excel screen really isn't all that difficult to understand after you learn what the various pieces do.

Figure 1-1 shows you the more important bits and pieces of Excel. As you look at the figure, refer to Table 1-1 for a brief explanation of the items shown in the figure.

Parts of the Excel Screen That You Need to Know		
Name	Description	
Active cell indicator	This dark outline indicates the currently active cell (one of the 16,777,216 cells on each worksheet).	
Application close button	Clicking this button closes Excel.	
Window close button	Clicking this button closes the active workbook window.	
Column headings	Letters range from A to IV — one for each of the 256 columns in the worksheet. After column Z comes column AA, which is followed by AB, AC, and so on. After column AZ comes BA, BB, and so on until you get to the last column, labeled IV. You can click a column heading to select an entire column of cells.	
Formula bar	When you enter information or formulas into Excel, they appear in this line.	
Horizontal scrollbar	Enables you to scroll the sheet horizontally.	

Name	Description
Maximize/Restore button	Clicking this button increases the workbook window's size to fill Excel's complete workspace. If the window is already maximized, clicking this button "unmaximizes" Excel's window so that it no longer fills the entire screen.
Menu bar	This is Excel's main menu. Clicking a word on the menu drops down a list of menu items, which is one way for you to issue a command to Excel.
Minimize application button	Clicking this button minimizes Excel's window.
Minimize window button	Clicking this button minimizes the workbook window.
Name box	Displays the active cell address or the name of the selected cell, range, or object.
Row headings	Numbers range from 1 to 65,536 – one for each row in the worksheet. You can click a row heading to select an entire row of cells.
Sheet tabs	Each of these notebook-like tabs represents a different sheet in the workbook. A workbook can have any number of sheets, and each sheet has its name displayed in a sheet tab. By default, each new workbook that you create contains three sheets.
Tab scroll buttons	These buttons let you scroll the sheet tabs to display tabs that aren't visible.
Status bar	This bar displays various messages as well as the status of the Num Lock, Caps Lock, and Scroll Lock keys on your keyboard.
Task pane	This pane displays options that are relevant to the task you are performing.
Task pane selector	Clicking here enables you to select from different task panes so you can open workbooks, use the Office Clipboard, or work with XML data.
Title bar	All Windows programs have a title bar, which displays the name of the program and holds some control buttons that you can use to modify the window.
Toolbars	The toolbars hold buttons that you click to issue commands to Excel. Some of the buttons expand to show additional buttons or commands.
Vertical scrollbar	Lets you scroll the sheet vertically.

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Figure 1-1: The Excel screen has many useful elements that you will use often.

Moving Around a Worksheet

This section describes various ways to navigate through the cells in a worksheet. Every worksheet consists of rows (numbered 1 through 65,536) and columns (labeled A through IV). After column Z comes column AA; after column AZ comes column BA, and so on. The intersection of a row and a column is a single cell. At any given time, one cell is the *active cell*. You can identify the active cell by its darker border, as shown in Figure 1-2. Its address (its column letter and row number) appears in the Name box. Depending on the technique that you use to navigate through a workbook, you may or may not change the active cell when you navigate.

The row and column headings of the active cell are displayed in different colors to make it easier to identify the row and column of the active cell.

	A	В	С	D	ET
1		Last Yr	This Yr		
2	January	68	103		
3	February	72	103		
4	March	72	106		
5	April	73	110		
6	May	74	112		
7	June	76	116		
8	July	80	116		
9	August	80	118		
10	September	84	120		
11	October	87	121		
12	November	88	124		
13	December	90	124		
14					
15					
14 4	→ H\Sheet1	/ Sheet2 / Sh	neet3 🖣		<u> </u>

Figure 1-2: The active cell is the cell with the dark border – in this case, cell C14.

Navigating with your keyboard

As you probably already know, you can use the standard navigational keys on your keyboard to move around a worksheet. These keys work just as you would expect: The down arrow moves the active cell down one row, the right arrow moves it one column to the right, and so on. PgUp and PgDn move the active cell up or down one full window. (The actual number of rows moved depends on the number of rows displayed in the window.)

Tip

You can scroll through the worksheet without changing the active cell by turning on Scroll Lock. This can be useful if you need to view another area of your worksheet and then quickly return to your original location. Just press Scroll Lock and use the direction keys to scroll through the worksheet. When you want to return to the original position (the active cell), press Ctrl+Backspace. Then, press Scroll Lock again to turn it off. When Scroll Lock is turned on, Excel displays SCRL in the status bar at the bottom of the window.

The Num Lock key on your keyboard controls how the keys on the numeric keypad behave. When Num Lock is on, Excel displays NUM in the status bar, and the keys on your numeric keypad generate numbers. Most keyboards have a separate set of navigational (arrow) keys located to the left of the numeric keypad. These keys are not affected by the state of the Num Lock key.

Table 1-2 summarizes all the worksheet movement keys available in Excel.

	Table 1-2 Excel's Worksheet Movement Keys
Кеу	Action
Up arrow	Moves the active cell up one row
Down arrow	Moves the active cell down one row
Left arrow	Moves the active cell one column to the left
Right arrow	Moves the active cell one column to the right
PgUp	Moves the active cell up one screen
PgDn	Moves the active cell down one screen
Alt+PgDn	Moves the active cell right one screen
Alt+PgUp	Moves the active cell left one screen
Ctrl+Backspace	Scrolls to display the active cell
Up arrow*	Scrolls the screen up one row (active cell does not change)
Down arrow*	Scrolls the screen down one row (active cell does not change)
Left arrow*	Scrolls the screen left one column (active cell does not change)
Right arrow*	Scrolls the screen right one column (active cell does not change)

* With Scroll Lock on

Navigating with your mouse

To change the active cell by using the mouse, click another cell; it becomes the active cell. If the cell that you want to activate is not visible in the workbook window, you can use the scrollbars to scroll the window in any direction. To scroll one cell, click either of the arrows on the scrollbar. To scroll by a complete screen, click either side of the scrollbar's scroll box. You also can drag the scroll box for faster scrolling.

If your mouse has a wheel on it, you can use the mouse wheel to scroll vertically. Also, if you click the wheel and move the mouse in any direction, the worksheet scrolls automatically in that direction. The more you move the mouse, the faster the scrolling. If you prefer to use the mouse wheel to zoom the worksheet, select Tools rightarrow Options, click the General tab, and then select the Zoom on Roll with IntelliMouse check box.

Using the scrollbars or scrolling with your mouse doesn't change the active cell. It simply scrolls the worksheet. To change the active cell, you must click a new cell after scrolling.

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Tip

Using the Excel Menus and Toolbars

If you've used other software, you will have no problem adapting to Excel. Its user interface (that is, the menus and toolbars) offers few surprises, and they work just like the other programs you've used.

In many cases, you can issue a particular command in several different ways. For example, if you want to save your workbook, you can use the menu (the File \Rightarrow Save command), a shortcut menu (right-click the workbook's title bar and click Save), a toolbar button (the Save button on the Standard toolbar), or a shortcut key combination (Ctrl+S). The particular method you use is up to you.

Using menus

Excel, like most other Windows programs, has a menu bar located directly below the title bar (see Figure 1-3). This menu bar is always available and ready for your command. The Excel menus change, depending on what you're doing. For example, if you're working with a chart, the menus change to give you options that are appropriate for a chart. This all happens automatically, so you don't even have to think about it.

lenu bar	Title bar	
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A	Toolbars	-
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3	<u>S</u> tatus Bar	
4	Header and Footer	
5	- Commente	_
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9	Full Screen	
10	<u>Z</u> oom	
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12		
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16		
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18		
19		
H + > > Sheet	Sheet2 / Sheet3 /	١ſ
Ready		

Figure 1-3: When you click an Excel menu, you gain access to the commands that tell the program what you want to do.

Using the menu is quite straightforward. Click the menu that you want to open, and it drops down to display menu items. Click the menu item to issue the command.

To issue a menu command from the keyboard, press Alt and then the menu's hot key. (The *hot key* is the underlined letter in the menu.) You can then press the appropriate hot key for a command on the menu. For example, to issue the Print command on the File menu, press Alt+F, followed by P.

Some menu items lead to an additional submenu; when you click the menu item, the submenu appears to its right. Menu items that have a submenu display a small triangle. For example, the View \Rightarrow Toolbars command has a submenu, as shown earlier in Figure 1-3. Excel's designers incorporated submenus primarily to keep the menus from becoming too lengthy and overwhelming to users.

Sometimes, you'll notice that a menu item appears grayed out. This simply means that the menu item isn't appropriate for what you're doing. Nothing happens if you try to select such a menu item.

Menu items that are followed by an ellipsis (three dots) always display a dialog box. Menu commands that don't have an ellipsis are executed immediately. For example, the File r Open command results in a dialog box because Excel needs more information about the command. Excel doesn't need any more information to execute the File r Print Preview command, so Excel performs this command immediately, without displaying a dialog box.



Tip

The Excel menu bar is actually a toolbar in disguise. Consequently, you can move it to a new location if you prefer. To move the menu bar, just click the set of vertical gray dashes at the left side of the menu bar and drag it to its new location. You can drag the menu bar to any of the window borders or leave it free-floating.

Changing Your Mind

Just about every command in Excel can be reversed by using the Edit ⇔ Undo command. Select Edit ⇔ Undo after issuing a command in error, and it's as if you never issued the command. You can reverse the effects of the last 16 commands that you executed by selecting Edit ⇔ Undo more than once.

Rather than use Edit ⇔ Undo, you may prefer to use the Undo button on the Standard toolbar. If you click the arrow on the right side of the button, you can see a description of the commands that can be reversed. In addition, you can press Ctrl+Z to undo the last action.

The Redo button performs in the opposite direction of the Undo button: Redo repeats commands that have been undone.

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Tip

When you click a menu, you may find that not all of the menu items are displayed. If this is the case, the *adaptive menu option* is in effect. I highly recommend that you turn off this option. To do so, choose View to Toolbars to Customize. In the Customize dialog box, click the Options tab and make sure that a check mark is next to Always Show Full Menus. Note to Microsoft: This is, without a doubt, the dumbest option you guys have ever come up with!

Using shortcut menus

Besides the omnipresent menu bar, Excel features a slew of shortcut menus, which you access by right-clicking just about anything within Excel. Shortcut menus don't contain every relevant command, just those that are most commonly used for whatever is selected.

As an example, Figure 1-4 shows the shortcut menu that appears when you rightclick a cell. The shortcut menu appears at the mouse-pointer position, which makes selecting a command fast and efficient. The shortcut menu that appears depends on what you're doing at the time. For example, if you're working with a chart, the right-click shortcut menu contains commands that are pertinent to what is selected.

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	A	В	С	D	E	F 🗖
1						
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6		12	Paste			
6			Dente C			
			Paste 5	рестат		
10			Insert			
11			<u>D</u> elete			
12			Clear C	o <u>n</u> tents		
13			Incast C			
14			insert C	omment		
15			<u>E</u> ormat	Cells		
16			Pick Fr	om Drop-d	own List	1
17				Itch		
19			Create	liet		
20		-	Create	List		
21		2	<u>H</u> yperli	nk		
22		説	Look U)		
23						
24			1			
je a	→ >I\\She	et1 / Sheet2	(Sheet3)			

Figure 1-4: Click the right mouse button to display a shortcut menu with the commands that you are most likely to use.

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Using shortcut keys

Some menu items also have shortcut keys associated with them. For example, the File ⇔ Save command's shortcut key combination is Ctrl+S. As you use Excel, you'll find that learning the shortcut keys for commands you use often can save you a lot of time.

The best way to learn the shortcut keys is to watch for them on the Excel menus. The most useful ones display next to the menu item when you open the menus.

Using toolbars

Excel includes convenient toolbars that provide another way of issuing commands. In many cases, a toolbar button is simply a substitute for a menu command. For example, the Copy button is a substitute for Edit $rac{>}$ Copy. Some toolbar buttons, however, don't have a menu equivalent. One example is the AutoSum button, which automatically inserts a formula to calculate the sum of a range of cells.

To learn what the toolbar buttons do, you can hold the mouse pointer over a toolbar button (but don't click it). A small box that tells you the name of the button appears. Often, this provides enough information for you to determine whether the button is what you want. If these toolbar tips do not display, choose Tools 🕁 Customize to display the Customize dialog box. Click the Options tab, and place a check mark next to Show ScreenTips on Toolbars.

Table 1-3 lists some of Excel's more useful built-in toolbars.

Ex	cel's Most Useful Built-In Toolbars
Toolbar	Use
Standard	Issues commonly used commands
Formatting	Changes how your worksheet or chart looks
Borders	Adds borders around selected areas
Chart	Manipulates charts
Drawing	Inserts or edits drawings on a worksheet
Control Toolbox	Adds controls (buttons, spinners, and so on) to a worksheet
Formula Auditing	Identifies errors in your worksheet
Picture	Inserts or edits graphic images
PivotTable	Works with pivot tables

Table 1-7

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Toolbar	Use
Protection	Controls what types of changes can be made in your worksheet
Reviewing	Provides tools to use workbooks in groups
Text to Speech	Provides tools to read aloud cell contents
Web	Provides tools to access the Internet from Excel
WordArt	Inserts or edits a picture composed of words

Hiding or showing toolbars

By default, Excel displays two toolbars (named Standard and Formatting). You have complete control over which toolbars are displayed and where they are located. In addition, you can create custom toolbars, made up of buttons that you find most useful.

To hide or display a particular toolbar, choose View r Toolbars or right-click any toolbar. Either of these actions displays a list of common toolbars (but not all toolbars). The toolbars that have a check mark next to them are currently visible. To hide a toolbar, click it to remove the check mark. To display a toolbar, click it to add a check mark.

For control over *all* toolbars, select Tools raching Customize. In the Customize dialog box, click the Toolbars tab to display a list of all available toolbars. Place a check mark next to the toolbars that you want to be displayed.

Moving toolbars

Toolbars can be moved to any of the four sides of the Excel window, or they can be free-floating. A free-floating toolbar can be dragged on-screen anywhere that you want. You also can change a toolbar's size simply by dragging any of its borders. To hide a free-floating toolbar, click its Close button.



When a toolbar isn't free-floating, it's said to be docked. A *docked toolbar* is stuck to the edge of the Excel window and doesn't have a title bar. Therefore, a docked toolbar can't be resized.

To move a docked toolbar, click the toolbar's vertical gray dashes and drag. To move a free-floating toolbar, click and drag the toolbar's title bar. When you drag a toolbar toward the window's edge, it automatically docks itself there. When a toolbar is docked, its shape changes to a single row or single column.

Working with Dialog Boxes

Many Excel commands display dialog boxes. In fact, all menu items that end with an ellipsis (three dots) display a dialog box. A dialog box is simply the Excel way of getting more information from you. For example, if you choose View \Rightarrow Zoom (which changes the magnification of the worksheet), Excel can't carry out the command until it finds out from you what magnification level you want.

The Excel dialog boxes vary in how they work. A few of them can remain on-screen as you work (for example, the Find dialog box, which appears when you select Edit \Rightarrow Find). But most of Excel's dialog boxes must be dismissed before you can do anything. If the dialog box obscures an area of your worksheet that you need to see, simply click the dialog box's title bar and drag the box to another location.

When a dialog box appears, you make your choices by manipulating the controls. When you're finished, click the OK button (or press Enter) to continue. If you change your mind, click the Cancel button (or press Esc), and nothing further happens it's as if the dialog box never appeared.

Understanding dialog box controls

Most people find working with dialog boxes to be quite straightforward and natural. If you've used other programs, you'll feel right at home. The controls can be manipulated either with your mouse or directly from the keyboard.

Figure 1-5 shows the Print dialog box, which contains most of the common dialog box controls you'll encounter. Table 1-4 describes these controls and a few others you may encounter.

Drop-down bo	x Check box	Spinner	
Print Printer Printer Vame: GB Brother HL-1040 (600 dpi) Status: Idle Type: Brother HL-1040 (600 dpi) Where: LPT1: Comment:	Properties Find Printer Print to file	Figure dialog b enter in control	I-5: Use the ox controls to formation and the dialog box.
Print range	Copies Number of <u>c</u> opies:		
Print what C Selection C Entire workbook C Active sheet(s) C List Preview	Collate		
Option buttons	Buttons		

	Table 1-4 Common Dialog Box Controls
Name	Description
Buttons	A button control is about as simple as it gets. Just click it, and it does its thing. Pressing the Alt key and the button's underlined letter is equivalent to clicking the button.
Option buttons	Option buttons are sometimes known as <i>radio</i> buttons because they work like the preset station buttons on an old-fashioned car radio. Like those car radios, only one option button at a time can be "pressed." When you click an option button, the previously selected option button is unselected. Option buttons usually are enclosed in a group box, and a single dialog box can have several sets of option buttons.
Check boxes	A check box control is used to indicate whether an option is on or off. Unlike option buttons, each check box is independent of the others. Clicking a check box toggles it on and off.
Range selection boxes	A range selection box enables you to specify a worksheet range by dragging inside the worksheet. A range selection box has a small button that, when clicked, collapses the dialog box to make it easier for you to select the range by dragging in the worksheet.
Spinners	A spinner control makes specifying a number easy. You can click the arrows to increment or decrement the displayed value. A spinner is almost always paired with an edit box. You can either enter the value directly into the edit box or use the spinner to change it to the desired value.
List boxes	A list box control contains a list of options from which you choose. If the list is longer than will fit in the list box, you can use its vertical scrollbar to scroll through the list.
Drop-down boxes	Drop-down boxes are similar to list boxes, but they show only a single option at a time. When you click the arrow on a drop-down box, the list drops down to display additional choices.

Navigating dialog boxes

Navigating dialog boxes is generally very easy—you simply click the control you wish to activate.

Although dialog boxes were designed with mouse users in mind, you can also use the keyboard. Every dialog box control has text associated with it, and this text always has one underlined letter (a *hot key* or *accelerator key*). You can access the

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control from the keyboard by pressing the Alt key and then the underlined letter. You also can use Tab to cycle through all the controls on a dialog box. Shift+Tab cycles through the controls in reverse order.



When a control is selected, it appears with a darker outline. You can use the spacebar to activate a selected control.

Using tabbed dialog boxes

Many of Excel's dialog boxes are "tabbed" dialog boxes. A *tabbed dialog box* includes notebook-like tabs, each of which is associated with a different panel. When you click a tab, the dialog box changes to display a new panel containing a new set of controls. The Options dialog box, which appears in response to the Tools \Rightarrow Options command, is a good example. This dialog box is shown in Figure 1-6; it has 13 tabs, which makes it functionally equivalent to 13 different dialog boxes.

Options		? ×	
Color International View Calculation E	Save Error Checking dit General Transition	Spelling Security	μ
Show	jormula bar 🔽 Status bar	<u> </u>	
C None	Comment indicator only	C Comment & indicator	
Show all	C Show placeholders	C Hide all	
Page breaks Formulas Gridlines	Row & column headers Outline symbols Zero values	 ✓ Horizontal scroll bar ✓ Vertical scroll bar ✓ Sheet tabs 	
Gridlines color: Automatic		in short tags	
	[OK Cancel	

Figure 1-6: Use the dialog box tabs to select different functional areas in the dialog box.

Tabbed dialog boxes are quite convenient because you can make several changes in a single dialog box. After you make all of your setting changes, click OK or press Enter.

Tip

To select a tab by using the keyboard, use Ctrl+PgUp or Ctrl+PgDn, or simply press the first letter of the tab that you want to activate.

Specifying Options in Excel: More Confusing Than It Should Be

Excel is a very flexible program, and it provides you with many options to control how it looks and works. But the problem is *finding* those options.

The Options dialog box is essentially Excel's junk drawer. With every new upgrade, the developers cram more options into this dialog box. This dialog box is a prime candidate for the cover of the *Journal of Bad User Interface Design*.

I've been using Excel for more than a decade, and when I bring up the Options dialog box, I still can't remember which tab to use. Typically, it will take two or three tab clicks to locate the desired option. But the main problem with the Options dialog box is inconsistency. Some of the options affect only the active sheet, and others affect Excel as a whole – and they are scattered all over the place, with no clear indication as to which is which.

To make matters worse, the Options dialog box contains a number of buttons that, when clicked, display other dialog boxes that contain even more options. Dig around in Excel's Options dialog box, and you'll find buttons that display a half dozen other dialog boxes.

But wait! There's more. Don't forget about the Customize dialog box (Tools raccessible Customize). Here you'll find still more options, which are not accessible from the Options dialog box. I'm not done yet. When you save a workbook, the Save As dialog box leads to even more options, accessible via the Tools menu in the dialog box. I'm sure most Excel users could never find this dialog box even if they knew what they were looking for.

We old-timers have grown accustomed to this user-interface nightmare, and we tend to take it in stride. But I have deep and sincere pity for the new user who simply wants to change a few things – and ends up on an unexpected adventure that may or may not be successful.

Every new release of Excel provides Microsoft with an opportunity to clean up this confusing mess, and they most certainly have the resources to do so. But, for some reason, Microsoft just keeps cramming more stuff into the junk drawer.

Creating Your First Excel Worksheet

This section presents an introductory hands-on session with Excel. If you haven't used Excel, you may want to follow along on your computer to get a feel for how this program works.

In this example, you'll create a simple monthly sales projection table along with a chart.

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Getting started on your worksheet

To begin, launch Excel by using the Windows Start button. You'll be greeted with an empty workbook.

The sales projection will consist of two columns of information. Column A will contain the month names, and column B will store the projected sales numbers. You begin by entering some descriptive titles into the worksheet. Here's how to begin:

- **1.** Move the cell pointer to cell A1 by using the direction keys. The Name box displays the cell's address.
- **2.** Enter **Month** into cell A1. Just type the text and then press Enter. Depending on your setup, Excel either moves the cell pointer to a different cell, or the pointer remains in cell A1.
- 3. Move the cell pointer to B1, type Projected Sales, and press Enter.

Filling in the month names

In this step, you enter the month names in column A.

1. Move the cell pointer to A2 and type **Jan** (an abbreviation for January).

At this point, you could enter the other month name abbreviations manually, but we'll let Excel do some of the work by taking advantage of the AutoFill feature.

2. Make sure that cell A2 is selected. Notice that the active cell is displayed with a heavy outline. At the bottom-right corner of the outline, you'll see a small square known as the *fill handle*. Move your mouse pointer over the fill handle, click, and drag down until you've highlighted from A2 down to A13. Release the mouse button, and Excel will automatically fill in the month names.

Your worksheet should resemble the one shown in Figure 1-7.

🖻 Book1 🛛 🗖 🛛 🛛												
	A	В	С	D	E	F						
1	Month	Projected Sales										
2	Jan											
3	Feb											
4	Mar											
5	Apr											
6	May											
7	Jun											
8	Jul											
9	Aug											
10	Sep											
11	Oct											
12	Nov											
13	Dec											
14							-					
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Figure 1-7: Your worksheet, after entering the column headings and month names.

Entering the sales data

Assume that January's sales are projected to be \$50,000 and that sales will increase by 2.5 percent in each of the subsequent months.

- 1. Move the cell pointer to B2 and type **\$50,000**, the projected sales for January. If your currency symbol is not a dollar sign, substitute the appropriate currency symbol.
- **2.** To enter a formula to calculate the projected sales for February, move to cell B3 and enter the following: =B2*102.5%. When you press Enter, the cell will display \$51,250.0. The formula returns the contents of cell B2, multiplied by 102.5%. In other words, February sales are projected to be 2.5% greater than January sales.
- **3.** The projected sales for subsequent months will use a similar formula. But rather than retype the formula for each cell in column B, once again take advantage of the AutoFill feature. Make sure that cell B3 is selected. Click the cell's fill handle, drag down to cell B13, and release the mouse button.

At this point, your worksheet should resemble the one shown in Figure 1-8. Keep in mind that, except for cell B2, the values in column B are calculated with formulas. To demonstrate, try changing the projected sales value for the initial month, January (in cell B2). You'll find that the formulas recalculate and return different values. But these formulas all depend on the initial value in cell B2.

🖾 Book1 🗕 🗆 🗙											
	A	В	С	D	E	F					
1	Month	Projected S	ales								
2	Jan	\$50,000									
3	Feb	\$51,250.0									
4	Mar	\$52,531.3									
5	Apr	\$53,844.5									
6	May	\$55,190.6									
7	Jun	\$56,570.4									
8	Jul	\$57,984.7									
9	Aug	\$59,434.3									
10	Sep	\$60,920.1					_				
11	Oct	\$62,443.1									
12	Nov	\$64,004.2									
13	Dec	\$65,604.3									
14							-				
H + H Sheet1											

Figure 1-8: Your worksheet, after creating the formulas.

Summing the values

The worksheet displays the monthly projected sales, but what about the total sales for the year? To display the yearly total, another formula is required.

- 1. Move to cell A14 and type Total.
- 2. Move to cell B14, which is the first empty cell below the sales data.

- **3.** Locate the AutoSum button, which is on the Standard toolbar. The AutoSum button contains the Greek letter sigma.
- 4. Click the AutoSum button and press Enter.

You'll find that Excel added this formula to cell B14: =SUM(B2:B13)

This formula calculates the sum of the cells beginning with B2 and ending with B13 and displays the result. You could have typed that formula yourself, but using the AutoSum button is faster.

Making your worksheet look a bit fancier

At this point, you have a functional worksheet — but it could use some help in the appearance department.

Notice that the existing information is "pushed down" to make room for the new rows. If you examine the formulas, you'll find that they still work—Excel adjusted the cell references just as you may have expected.

- 2. Move to cell A1 and type Sales Projections.
- **3.** To make this title stand out, select cell A1 and click the Bold button on the Formatting toolbar. (That button has a *B* on it.) Then change the font size to something larger, say 14 points. The font size control is directly to the left of the Bold button.
- **4.** You could apply other formatting to the actual table, but let Excel do the work. Start by selecting any cell within the data table—for example, cell B3. The exact cell doesn't matter because Excel will figure out the table's boundaries. Just make sure that you don't select a cell in rows 1 or 2, which are outside of the table. (Remember that the table now begins in row 3 because of the rows inserted in Step 1.)
- **5.** Click the Format menu and choose AutoFormat. Two things happen: Excel determines the table boundaries and highlights the entire table, and it displays the AutoFormat dialog box.
- **6.** The AutoFormat dialog box offers 16 canned formats to choose from (plus one called None that removes all formatting). Click the table format that you want to apply.
- **7.** Click the OK button. Excel applies the formats to your table.
- 8. If you don't like the result, choose Edit ↔ Undo to return to the original formatting. Or use the Format ↔ AutoFormat command again and try a different option. Because the table contains currency values, you may want to choose an AutoFormat that displays either two decimal places or no decimal places.

Creating a chart

Next, you create a chart that shows the projected sales for each month.

- **1.** Start by selecting the data that will appear in the chart. In this case, click cell A3, and then drag down and to the right to include cell B15. Notice that the total row (row 16) is not included in the selection.
- **2.** Click the Chart Wizard button, in the Standard toolbar (it has a picture of a column chart).
- 3. You'll see the Chart Wizard dialog box, which is shown in Figure 1-9.
- 4. In the Chart Type list, click Column. You'll see seven subtypes listed.
- 5. The default subtype will be fine, so click Finish to create your chart.



Figure 1-9: The Chart Wizard dialog box.

Excel puts the chart in the middle of the screen. You can drag the chart to a new location, and even change the size and proportions by clicking and dragging on the chart's border. You can make many other changes to the chart. For example, you may want to remove the legend. To do so, click the legend and press Del.

Figure 1-10 shows the chart after it was moved adjacent to the data table.

On the CD-ROM

This workbook is available on the companion CD-ROM.



Figure 1-10: Your worksheet, after creating a chart.

Printing your worksheet

Printing your worksheet is very easy (assuming that you have a printer attached and that it works properly). Before printing, it's a good idea to do a print preview.

- 1. First, make sure that the chart is not selected. Just press Esc or click any cell to deselect the chart.
- **2.** Click the Preview button on the Standard toolbar. Excel opens a new window and displays a preview of the printed output.
- **3.** Click Close to return to your worksheet.
- **4.** If the preview was acceptable, click the Print button on the Standard toolbar. (This button has an image of a printer on it.) The worksheet is printed using the default settings.

Note

You may need to adjust the size or position of the chart so it is not split across two pages.

Saving your workbook

Until now, everything that you've done has occurred in your computer's memory. If the power should fail, all may be lost — unless Excel's AutoRecover feature happened to kick in. It's time to save your work to a file on your hard drive.

- 1. Click the Save button on the Standard toolbar. (This button looks like a floppy disk.) Excel responds with the Save As dialog box.
- **2.** In the box labeled File Name, enter **Monthly Sales Projection**, and then click Save or press Enter.

Excel saves the workbook as a file. The workbook remains open so that you can work with it some more.

Note By default, Excel saves a copy of your work automatically every ten minutes. To adjust this setting (or turn if off), use the Options dialog box. (Select Tools Defines and click the Save teb.)

Options and click the Save tab.) But, of course, you've barely scratched the surface. The remainder of this book will

cover these tasks (and many, many more) in much greater detail.



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