Web sites you've "subscribed" to. (This feature is great for laptop owners who want to take work home from the office network, or network domain members want to keep working on documents even if the server that houses them goes down.)

Tour Windows XP

This command gives you a multimedia advertisement for the new features of Windows XP. Try to contain your excitement.

Windows Explorer

See page 108 for details on this navigational tool.

Windows Movie Maker

Chapter 7 has the details on this bare-bones video editor.

WordPad

Think of WordPad as Microsoft Word Junior, since it looks much the same as Word (see Figure 6-6) and creates files in exactly the same file format. That's a great feature if you don't *have* Microsoft Word, because WordPad lets you open (and edit) Word files sent to you by other people. (WordPad can open only one file at a time, however.)

If Microsoft Word isn't on your PC, then any icon with the file extension .doc opens into WordPad when double-clicked. (If you install Microsoft Word, however, it takes over the .doc extension.) WordPad can also open and create plain text files, Rich Text Format (RTF) documents, and Microsoft Write documents.

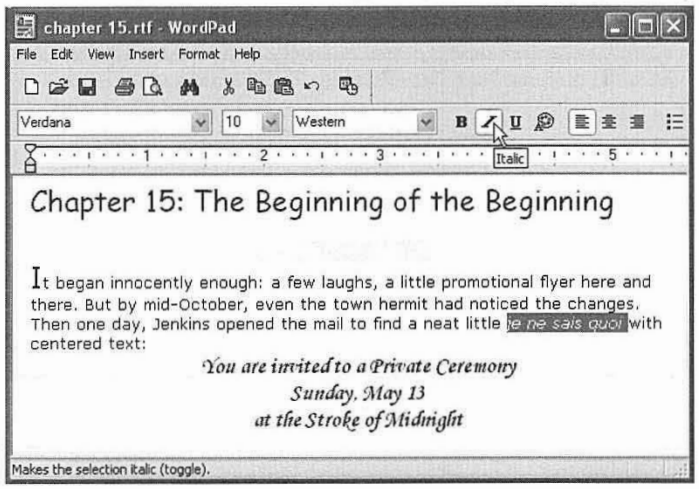


Figure 6-6: *WordPad has menu bars, toolbars, rulers, and plenty of other familiar Windows features. Unlike Notepad, WordPad lets you use bold and italic formatting to enhance the appearance of your text. You can even insert graphics, sounds, movies, and other OLE objects (see Chapter 5).*

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Using WordPad

When WordPad first opens, you see an empty sheet of electronic typing paper. Just above the ruler, you'll find drop-down menus and buttons that affect the formatting of your text, as shown in Figure 6-6. As in any word processor, you can apply these formats (like bold, italic, or color) to two kinds of text:

- Text you've highlighted by dragging the mouse across it.
- Text you're *about* to type. In other words, if you click the I button, the next characters you type will be italicized. Click the I button a second time to "turn off" the italics.

The rightmost formatting buttons affect entire paragraphs, as shown in Figure 6-7.

WordPad doesn't offer big-gun features like spell checking, style sheets, or tables. But it does offer a surprisingly long list of core word processing features. For example:

- **Edit→Find, Edit→Replace.** Using the Find command, you can locate a particular word or phrase instantly, even in a long document. The Replace command takes it a step further, replacing that found phrase with another one (a great way to change the name of your main character throughout an entire novel, for example).

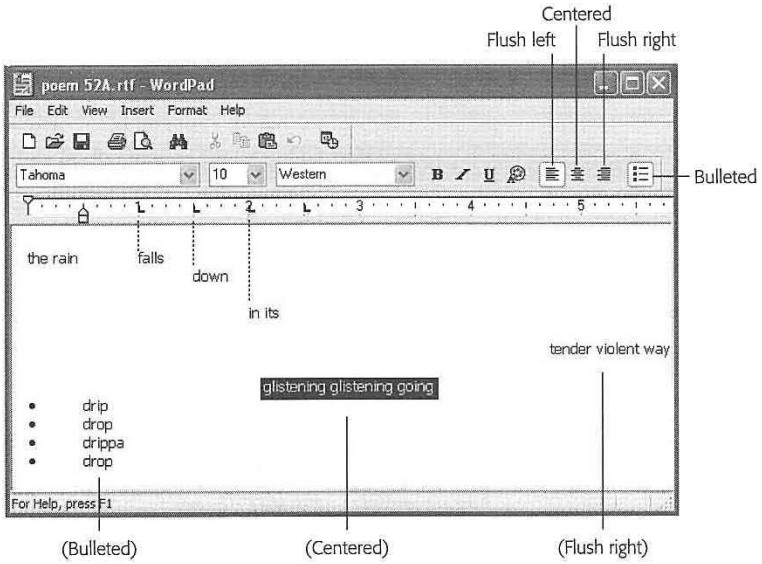


Figure 6-7: *The rightmost buttons make paragraphs flush left, centered, flush right, or bulleted as a list. You can drag through several paragraphs before clicking these buttons, or you can click these buttons to affect just the paragraph where your insertion point is already. The dotted lines in this illustration indicate how each press of the Tab key lines up the text with one of the tab stops you click onto the ruler.*

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- **Indents and Tab stops.** As shown in Figure 6-7, you click on the ruler to place Tab stops there. Each time you press the Tab key, your insertion point cursor jumps in line with the next tab stop.
- **Object Linking and Embedding.** As described in the previous chapter, this feature (Insert→Object) lets you create or insert a picture, graph, chart, sound, movie, spreadsheet, or other kind of data into your WordPad document.
- **Drag-and-drop editing.** Instead of using the three-step Copy and Paste routine for moving words and phrases around in your document, you can simply drag highlighted text from place to place on the screen. See page 199 for details.

Windows XP Games

Although the central concept of Windows XP—merging what were once separate Windows versions for corporations and homes—is a noble and largely successful one, a few peculiar juxtapositions result. If you're a corporate user, for instance, you may wonder what to make of things like Movie Maker (for editing home movies), Outlook Express (a stripped-down, free version of Outlook)—and games. Yes, Windows XP even includes eleven games for your procrastination pleasure.

More interesting still, several of them let you play against other people on the Internet. At the Microsoft Game Center (*www.zone.com*), players from all over the world gather to find worthy opponents. When you choose one of the Internet-enabled games, your PC connects automatically with this Game Center. An automated matchmaker searches for someone else who wants to play the game you chose, and puts the two of you together, albeit anonymously.

The game board that opens, like the one in Figure 6-8, provides more than just the tools to play; there's even a pseudo-chat feature. By choosing from the canned list of phrases, you can send little game exclamations to your opponent ("Good move," "King me!" "Bad luck," and so on).

Tip: The list of utterances available in your chat session is completely canned. For example, you can't type in, "That was uncalled-for, you sniveling roach!" Still, its canned nature has a virtue of its own: You can exchange platitudes with players anywhere in the world. Your quips show up automatically in the language of your opponent's copy of Windows, be it Korean, German, or whatever.

Here's the Windows XP complement of games, all of which are listed in the Start→All Programs→Games submenu.

Tip: Complete instructions lurk within the Help menu of each game. That's fortunate, since the rules of some of these card games can seem elaborate and quirky, to say the least.

- **FreeCell.** You might think of this card game as solitaire on steroids. When you choose Game→New Game, the computer deals eight piles of cards before you. The goal is to sort them into four piles of cards—one suit each and sequentially

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from ace to king—in the spaces at the upper-right corner of the screen. (To move a card, click it once and then click where you want it moved to.)

You can use the upper-left placeholders, the "free cells," as temporary resting places for your cards. From there, cards can go either onto one of the upper-right piles or onto the bottom of one of the eight piles in the second row. However, when moving cards to the eight piles, you must place them alternating red/black, and in descending sequence.

Tip: When you're stuck, move your cursor back and forth in front of the little king icon at top center. Watch his eyes follow your arrow as though hypnotized.

- **Hearts, Internet Hearts.** The object of this card game is to get rid of all the hearts you're holding by passing them off to other players. At the end of each round, all players counts up their points: one point for each heart, and thirteen points for the dreaded queen of spades. The winner is the person with the fewest points when the game ends (which is when somebody reaches 100).

  What makes it tricky is that even while you're trying to ditch your hearts, somebody else may be secretly trying to collect them. If you can collect *all* of the hearts *and* the queen of spades, you win big-time; everybody else gets 26 big fat points, and you get off scot-free.

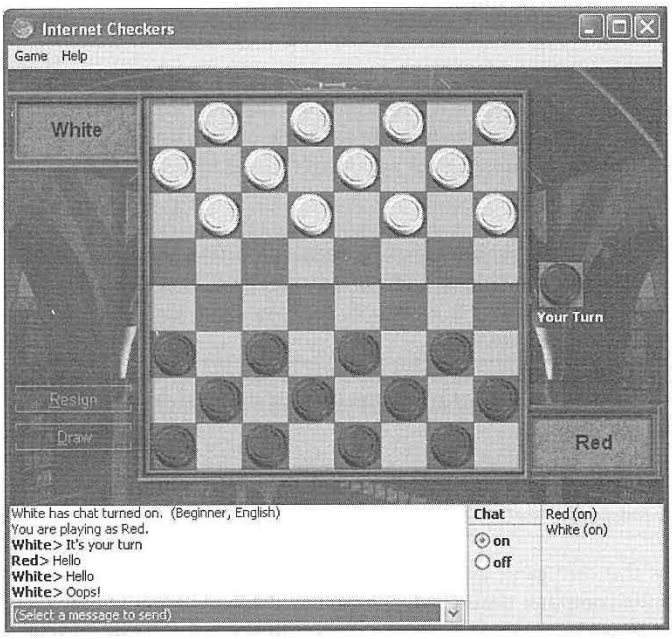


Figure 6-8:
It may look like a simple game of checkers, but you're actually witnessing a spectacular feature of Windows XP: instantaneous anonymous Internet gaming. Two Internet visitors in search of recreation have made contact, a game board has appeared, and the game is under way. The Chat window sits below the game board. You can even turn Chat off if you're planning to play a cutthroat game and don't want to fake having friendly feelings toward your opponent.

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You can play Classic Hearts either against Windows, which conjures up names and hands for three other fictional players to play against you, or against people on your network. And if you open Internet Hearts, you can play against other similarly bored Windows PC owners all over the world.

- **Internet Backgammon.** This is classic backgammon, but with a twist: Now you're playing against people you've never met, via the MSN Gaming Zone.
- **Internet Checkers.** It's just checkers; once again, though, you can now play against random players on the Internet (see Figure 6-8).
- **Internet Reversi.** Like Othello, you play this strategy game on a chess-type board against another player from the MSN Gaming Zone.
- **Internet Spades.** Here's yet another card game, again designed for Internet playing.
- **Minesweeper.** Under some of the grid cells are mines; under others, hints about nearby mines. Your goal: Find the mines without blowing yourself up.

  When clicking random squares, you run the risk of getting blown up instantly. If that happens, you lose; them's the breaks. But if you get lucky, you uncover little numbers around the square you clicked. Each number reveals how many mines are hidden in the squares surrounding it. Using careful mathematical logic and the process of elimination, you can eventually figure out which squares have mines under them. (To help keep track, you can right-click the squares to plant little flags that mean, "Don't step here.") You win if you mark all the mine squares with flags.
- **Pinball.** To start this noisy, animated, very realistic pinball machine (Figure 6-9), choose Game→New Game. You get three balls; launch the first one by tapping the Space bar. (For a more powerful launch, hold the Space bar down longer before releasing.)

Tip: The game becomes a lot more fun when it fills the screen. Press F4 to make it so.

- **Solitaire.** Here it is: The program that started it all, the application that introduced millions of people to the joys of a graphic interface like Windows. (Ask the advanced-beginner Windows fan to identify a good program-file code to type into the Start→Run dialog box, and he might not know *winword* or *msconfig*—but he'll probably know *sol.)*

  In Solitaire, the object is to build four piles of cards, one for each suit, in ascending order (starting with aces). To help achieve this, you maintain seven smaller stacks of cards in the second row. You can put cards onto these piles as long as you alternate red and black, and as long as the cards go in descending order (a four of hearts can be placed on a five of spades, for example). Click a face-down card on one of these piles to turn it over. If it helps you to continue the red/black/red/black sequence you've started, remember you can drag around stacks of face-up cards

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on these piles. And when you can't find any more moves to make, click the deck in the upper-left corner to reveal more cards.

If you win, an animated simulation of what's euphemistically called "52 Pickup" appears for your viewing pleasure.

Tip: You can't play Solitaire over the Internet. Even Microsoft hasn't yet figured out a way to turn Solitaire into a multiplayer game.



Figure 6-9: *Once the Pinball ball is in orbit around the screen, you twitch the flippers by pressing the Z and / keys. (Put your pinkies there–this feels much more logical than it reads. Even so, you can reassign these functions to other keys by choosing Options→ Player Controls.) You can even "bump the table" by pressing the X, period, or up arrow key.*

- **Spider Solitaire.** If your spirit needs a good game of solitaire, but you just don't have the time or patience for Solitaire or FreeCell, this kinder, gentler, *easier* game may be just the ticket. Thanks to the built-in cheat mechanism, which suggests the next move with no penalty, you can blow through this game with all of the satisfaction and none of the frustration of traditional solitaire games.

  You play with 104 cards. You get ten stacks across the top of the screen, and the rest in a pile in the lower-right corner of the screen. By dragging cards around, all you have to do is create stacks of cards in descending order, from king down to ace. As soon as you create such a stack, the cards fly off the playing board. The goal is to remove *all* of the cards from the playing board.

  In the easiest level, there's no need to worry about color or suit, because the game gives you *only* spades. If you run out of imagination, just press the letter M key to make the program propose a move, accompanied by a heavenly sounding harp

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ripple. And if even the game can't find a legal move, simply click the deck in the lower-right corner to distribute another round of cards, which opens up a new round of possibilities.

Sticking with the game to the very end delivers an animated confetti/fireworks display—and a tiny, budding sense of achievement.

Everything Else

The rest of the programs listed in the Start→All Programs menu (at least the ones that come with Windows XP) are covered elsewhere in this book. Internet Explorer is detailed in Chapter 11, Outlook Express in Chapter 12, Remote Assistance in Chapter 4, and Windows Media Player in Chapter 7.

Tip: There's much more free Microsoft software available to Windows XP gluttons. For example, you'll have a lot of fun trying out the popular PowerToys package (programs produced after the operating system's release), the Windows Media Bonus pack, and additional screen savers. You'll find them all here: *http://www.microsoft.com/windowsxp/pro/downloads/default.asp.*

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CHAPTER 7

Pictures, Sound, and Movies

Windows XP is the most advanced version yet when it comes to playing and displaying multimedia files—photos, sounds, and movies. New features make it easier than ever for your PC to control your digital camera or scanner, play movies and sounds, and play radio stations from all over the world as you work on your PC (thanks to your Internet connection).

In this chapter, you'll find guides to all of these features.

Digital Photos in XP

The new stability of XP is nice, and the new task pane can save you time. But if you have a digital camera, few of the new features in Windows XP are quite as useful as its ability to manage your digital photos. Microsoft has bent over backward to simplify and streamline a process that was once a chain of pain: transferring photos from your camera to the PC, and then trying to figure out what to do with them.

Hooking Up Your Camera

If your digital camera is less than a few years old, it probably came with a USB cable designed to plug into your PC. Fortunately, if your PC is young enough to run Windows XP, it probably has a USB jack, too.

Furthermore, Windows XP comes preloaded with drivers for hundreds of current camera models, generally sparing you the standard installation process described in Chapter 14. That's why, for most people, the instructions for transferring photos from the camera to the PC are as follows:

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1. Connect the camera to the PC, using the USB cable.

That's it—there is no step 2. As shown in Figure 7-1, Windows XP automatically opens the Camera and Scanner Wizard, a series of screens that guides you through the process of selecting and then transferring the photos you want.

Note: If hooking up the camera produces the dialog box shown at the top of Figure 7-1, then you've installed some photo-management software of your own (maybe some that came with the camera). In that case, you have a choice: Either select that program to download and manage your photos or click Cancel to let XP do the job as described in these pages. Then open your My Pictures folder (Start→My Pictures) and, at the left side of the window, click "Get pictures from camera or scanner."

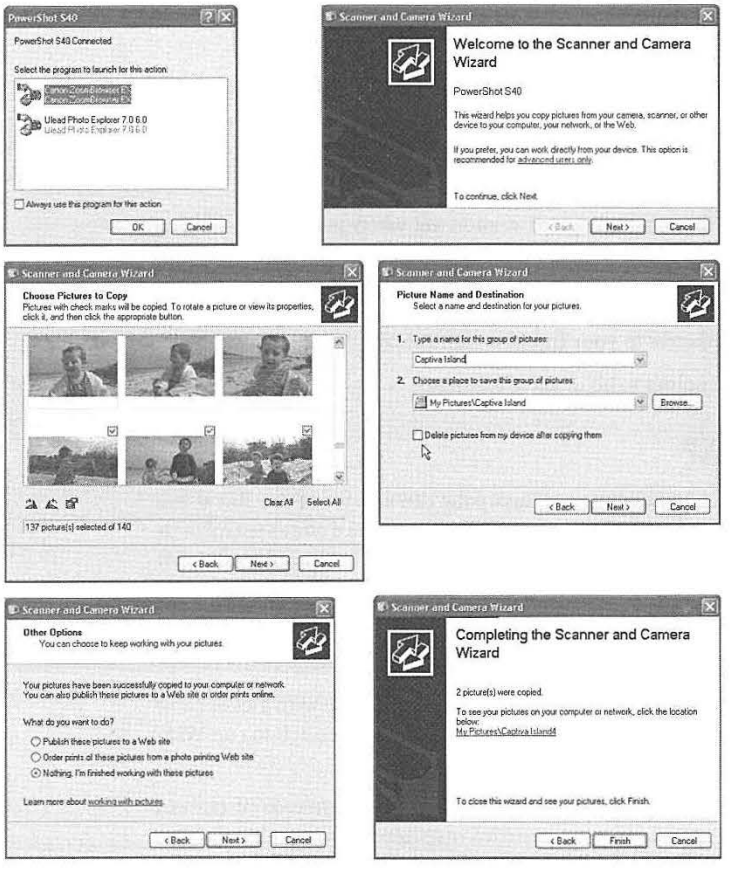


Figure 7-1: *Top left: When you connect the camera, you may be asked which editing program you want to open.*

Top right: Click "advanced users only" to work with the camera's memory card as though it's a disk.

Middle left: The Clear All and Select All buttons can save time when you want to include, or exclude, only a few pictures.

Middle right: Windows offers you the chance to create a new folder for the incoming pictures, and also to delete them from the camera after the transfer.

Lower left: After the transfer, Microsoft invites you to spend some money.

Lower right: Click Finish to open up the folder that now contains your pictures on the hard drive.

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The various screens of the Camera Wizard take you through these steps:

- **Welcome screen.** If you're the kind of person who prefers to let others do your grunt work, just click Next.

  Note, however, the "advanced users only" link (Figure 7-1, top right). If you click it, Windows XP opens up a new folder window that shows you the contents of the camera's memory card. Each photo is represented as a file icon. At this point, you can copy these photos to your hard drive by dragging them. Use this technique if you want to file them into different folders, for example, rather than using the wizard to dump them all into a single place.

- **Choose Pictures to Copy.** On this screen (Figure 7-1, middle left), you can look over slide-sized versions of the pictures currently on the camera and, by turning on the checkboxes above them, tell Windows which ones you want to copy to your hard drive.

Tip: To straighten a photo that's turned 90 degrees, click it and then click one of the two tiny Rotate buttons at the lower-left corner of the dialog box.

- **Picture Name and Destination.** On this screen (Figure 7-1, middle right), Windows asks you to type the name of the group of pictures to be imported. If you name this group *Robin's Party,* for example, Windows will put the downloaded photos into a My Pictures→Robin's Party folder. (It will, that is, unless you intervene by clicking the Browse button to choose a different folder.)

TROUBLESHOOTING MOMENT

When the Wizard Doesn't Show Up

If the wizard doesn't appear when you hook up your camera, you may be one of the unlucky ones whose camera driver didn't come installed with XP. Technically speaking, the Camera Wizard gets triggered only by cameras whose manufacturers promise *WIA (Windows Image Acquisition)* compatibility. Almost all cameras sold since the year 2000 *are* WIA-compatible.

If the wizard doesn't appear even though you have a compatible camera, you may have to install the driver yourself, using the CD-ROM that came with your camera, as described in Chapter 14. If the camera is reasonably new, it should thereafter work just as described on these pages.

If your camera is too old for Windows XP's tastes, you won't be able to use any of the automated downloading features described in this chapter. You can still get your pictures onto the PC, however, either by using the software provided with the camera (or an updated version—check the camera maker's Web site) or by buying a *card reader,* an inexpensive external "disk drive" that accepts the memory card from your camera. Once inserted, Windows treats the memory card exactly as though it's a giant floppy disk. Opening the card (from within the My Computer window) lets you manually drag the photos to your hard drive.

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Tip: This screen offers one of the most useful options: a checkbox called "Delete pictures from my device after copying them." If you turn on this checkbox, then you'll find your memory card freshly erased after the photo transfer, ready for more picture taking.

- **Other Options.** When the transfer process is over, the next screen (Figure 7-1, lower left) offers you direct links to publishing the photos to a Web site, ordering prints by mail via the Web, or Nothing—which is almost always what you want to do here.
- **Completing the Scanner and Camera Wizard.** The final screen (Figure 7-1, lower right) completes the process by offering you a link that opens the folder currently containing the pictures (on your hard drive). Click either the link or the Finish button, which does the same thing.

Fun with Downloaded Pictures

Once you've transferred pictures to your hard drive, you can enjoy a long list of photo-manipulation features, new in Windows XP. These features put to shame the national photo-management system: shoving drugstore prints into a shoebox, which then goes into a closet.

POWER USERS' CLINIC

Bypassing the Wizard

The Camera Wizard is user-friendly to the extreme, but it isn't the most efficient method of transferring your pictures to the hard drive. Plenty of people would rather have Windows just shut up and automatically copy all photos to the hard drive each time the camera is connected. Once the photos are there, *then* you can take the time to select which ones you want, rotate them, and so on. You don't need no stinkin' wizard.



To make it so, connect your camera and turn it on. Choose Start→Control Panel, then open the Scanners and Cameras icon. In the resulting window, you'll see an icon for your camera. Right-click it and choose Properties from the shortcut menu.

When you click the Events tab, shown here, you'll see that the Actions section options let you govern what happens when you plug in the camera. For example, use the drop-down list at the top to choose a different "digital shoebox" program to start automatically (instead of the Microsoft Scanner and Camera Wizard).

But by turning on "Save all pictures to this folder," you tell Windows to copy all pictures from the camera each time the camera is connected—no muss, no fuss. Using the associated checkboxes, you can also direct it to create a new folder (bearing the date) and, if you like, to erase the camera's memory card after the transfer.

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Suppose you've opened a folder of freshly downloaded pictures. (As noted above, they're usually in a folder in your My Pictures folder, which itself is in your My Documents folder. Unless you've deliberately removed My Pictures from your Start menu, just choose its name from the Start menu to get going. Or you can put a shortcut icon for My Pictures right on your desktop.)

Here are some of the ways you can manage your pictures after their safe arrival on your PC.

Download more photos

When a camera or scanner is turned on and connected to the PC, the first link in the task pane of your My Pictures folder is, "Get pictures from camera or scanner." Click it to launch the Camera and Scanner Wizard all over again.

Look them over

Windows XP comes with two folder window views especially designed for digital photos: Thumbnail and Filmstrip. You can read about them on page 74; for now, it's enough to note that Filmstrip view (Figure 7-2) is ideal for reviewing a batch of freshly transferred pictures at the size that's big enough for you to recognize them.

Remember to press the F11 key to maximize the window and hide a lot of the ancillary toolbar junk that eats into your photo-displaying space. (Press F11 again to restore the window size when you're done.) Also remember to rotate the photos that were

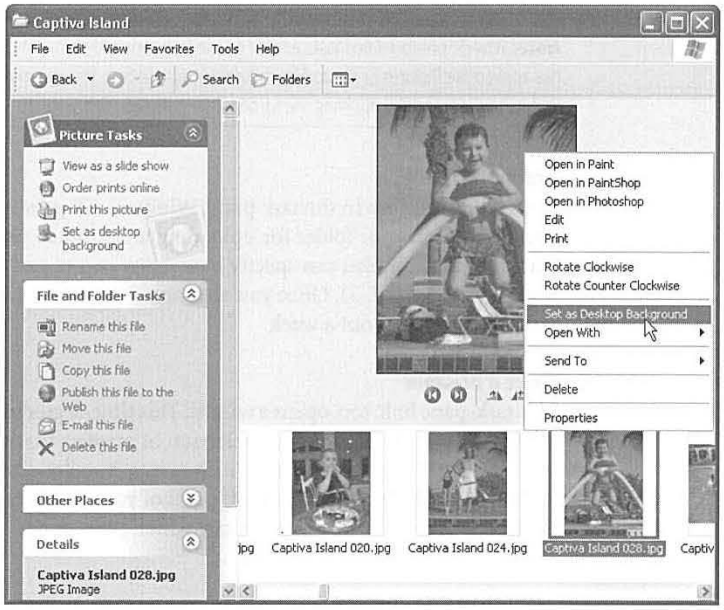


Figure 7-2: *In filmstrip view, the enlarged image shows the currently selected photo. You can select a different one for enlargement by clicking another image icon (bottom row) or by clicking the Previous and Next buttons beneath the selected photo. Don't miss the special tasks listed in the task pane at the left side—or the options in the menu that appear when you right-click the central enlarged image.*

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taken with the camera turned sideways, especially if you plan to use the slide show, Web page, or email features described in the following paragraphs.

Tip: When rotating a photo in Filmstrip view (Figure 7-2), Windows sometimes announces: "Because of the dimensions of this picture, rotating it might permanently reduce its quality. Do you want to proceed?"

This scary message pops up only when you're trying to rotate a photo whose dimensions (measured in pixels) aren't an even multiple of sixteen. Windows is letting you know that, thanks to a quirk in the science of JPEG compression, it must *recompress* the graphic in order to rotate it. Microsoft says that the "quality loss" is imperceptible to the human eye, and you'll probably agree. But if you're worried about it, make a copy of the original photo file before you rotate it.

Start a slide show

When you click "View as a slide show" in the task pane, your screen goes dark, thunder rumbles somewhere, and your entire monitor fills with a gorgeous, self-advancing slide show of the pictures in the folder. If you then move the mouse, a tiny palette appears in the upper-right corner with buttons of control buttons that correspond to Play, Pause, Previous, Next, and Stop.

The beauty of a slide show like this is that everyone at your presentation (or, if this is your home computer, in your family) can see it at once. It beats the pants off the ritual of passing out individual 4 x 6 drugstore prints to each person.

To stop the slide show, press the Esc key on your keyboard (or click the X button in the floating palette that appears when you move your mouse).

Note: Why do photo-related tasks appear on the task pane only in the My Pictures folder? Because Microsoft has applied the Pictures or Photo Album *folder template* to it. You can make these tasks appear in any other folder, however, just by applying the same folder template; see page 75.

Order prints online

If you click this link in the task pane, Windows XP presents a wizard that helps you select photos in your folder for uploading to an online photo processor, like Kodak, Shutterfly, or Fuji. You can specify how many copies you want of each print, and at what sizes (Figure 7-3). Once you've plugged in your credit card number, the prints arrive by mail in about a week.

Make a printout

This task-pane link, too, opens a wizard. This time, it guides you through a selection of photos in your folder to print, a selection of printers to use, and the layout of photos on each 8½ x 11 sheet (four 3 x 5 inch prints, 9 wallet-sized prints, and so on). Note that many of these layouts chop off parts of your pictures to make them fit the page; the layout previews will reveal exactly which parts of the image you'll lose.

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Install new wallpaper

The "Set as desktop background" link (which appears whenever you've highlighted a picture) plasters the currently selected photo across the entire background of your screen, turning your PC into the world's most expensive picture frame. (For instructions on changing or removing this background, use the Display program described on page 257.)

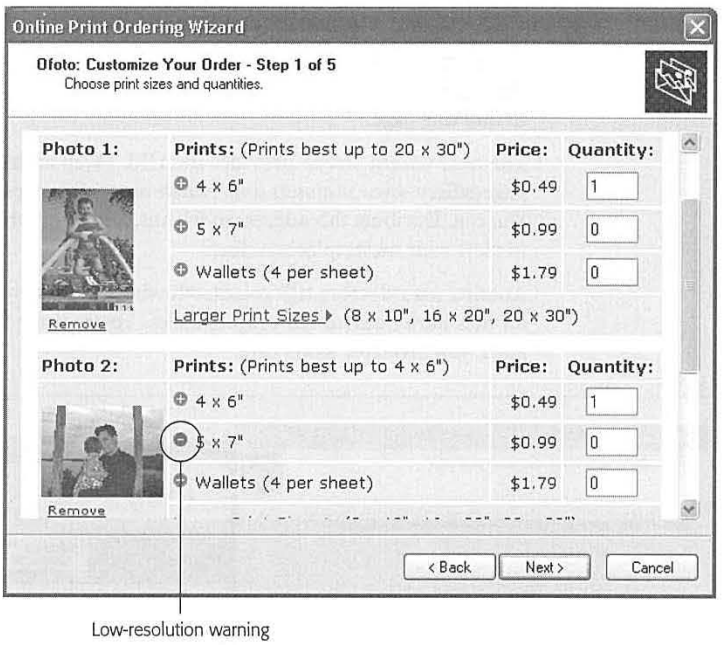


Figure 7-3: *The price for prints via Web is usually 50 cents for 4 x 6 prints, and up to $20 for a 20 x 30 inch poster. Be especially careful when you see the red minus symbol shown here. It lets you know that the reso-lu-tion of that photo is too low to make a good quality print at that size. A 640 x 480–pixel shot, for example, will look grainy when printed at 5 x 7 inches.*

Post the photos on the Web

In the old days, creating and posting Web pages was a task fit only for geeks. In Windows XP, however, anybody can create a gallery of photos that hangs on the Web for everyone in the world to see.

Start by clicking "Publish this file ([folder] if no file is selected) to the Web" in the task pane at the left side of your pictures folder window. Yes, it's the Web Publishing Wizard, whose screens walk you through this process:

- Choosing the photos (from the assortment in the current folder) that you want to put online.
- Choosing a Web-hosting company that will provide the disk space for your pictures on the Internet. Note that this means paying money—*unless* you choose MSN Groups from the selection on the third wizard screen.

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Although it's free to let Microsoft host your Web page in this way, there are two downsides. First, it limits you to 3 MB of storage—and that's not very many pictures (maybe a dozen). Second, using MSN requires that you have a Microsoft *Passport*. See page 358 for instructions and privacy considerations.

- Choosing an MSN Group (Web page) for displaying your new photos. The first time you do this, you'll want to select "Create a new MSN Group to share your files." Microsoft will name your first Web page for you, tell you the URL (Web address), and offer to add the URL to your list of Favorites. When you create subsequent pages, you'll be asked to type a name for each, enter your email address, and type a description. Whether you're creating new or additional Web pages, the wizard then asks you to indicate whether or not you want the Internet at large to be able to find this page.
- The next wizard screen provides the URL (Web address) for your finished Web page gallery: *www.msnusers.com/*[whatever name you provided for your Web page]. You can distribute this address to friends, family, or whomever you'd like to invite to view your masterpieces online.
- Another wizard screen tells you exactly where your Web-page document and graphics files have been stored online. Unless you're some kind of Web-savvy HTML guru, you probably won't care.

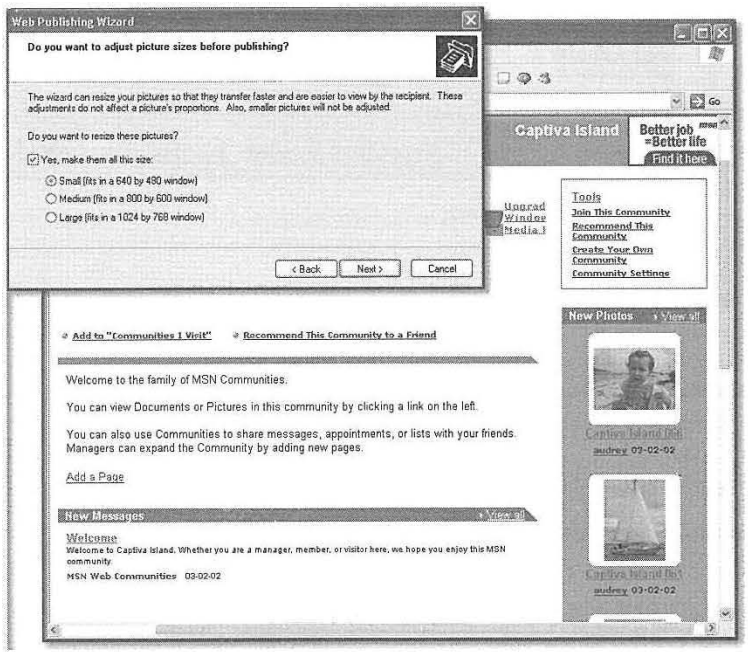


Figure 7-4: *Top: The Web Publishing Wizard offers to scale down your graphics (the Web versions, not the originals) to reasonable dimensions.*

Bottom: You're a published photographer! You'll find your photos at the lower-right side of the Web page. Click one to open up that photo at full size—complete with Previous and Next buttons that let your audience conduct a full-sized photo slide show on the Web.

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- Most digital cameras create enormous photo files, containing enough resolution for high-quality prints. Unfortunately, those files are much too large for use as Web-page graphics, which feature far lower resolution than printouts do. As a remedy, the wizard screen shown in Figure 7-4 offers to scale the photos down to reasonable dimensions, so that you won't tie up the modems of your potential audience all day.

At last, Windows uploads your reduced-size photos to the Internet, which can take some time. The final wizard screen offers you the chance to go online, opening your browser automatically to the new Web page.

Email photos

Photo files destined for *printing* are much too massive for *emailing*. A single digital photo can occupy 2 MB of disk space or more, which would take until Thanksgiving to send by email. Even then, a photo file might never reach your recipient. If it overflows her email account's storage limit (typically 5 or 10 MB), it will just bounce back to you. Then you'll be forced to sit and wait while it downloads right back to you—a fitting punishment for uploading such a big file to begin with!

The solution is the "E-mail this file" link in the task pane of your pictures folder, which appears whenever you've highlighted at least one picture. Clicking this link produces the dialog box shown in Figure 7-5, which offers to smoothly reduce the dimensions of your pictures in the process of emailing them.

Once you click OK, Windows automatically launches your email program and opens a new, outgoing email message, with the photo files (reduced in size, if that's what you specified) already attached. All you need to do is indicate the address, a subject line, and some comments (in the body of the message), if you like.

Tip: At this point, you can drag the reduced-size picture attachments directly out of the email and *back* to your desktop, or to a waiting folder, without ever addressing or sending the message. Doing so capitalizes on the photo-shrinking power of the "E-mail this file" feature—without actually emailing anything.

POWER USERS' CLINIC

Grabbing Screenshots

Screenshots—illustrations of the computer screen—are a staple of articles, tutorials, and books about computers (including this one). Windows XP has a built-in feature that lets you make them.

Press the Print Screen (PrntScrn) key to capture the entire screen, or Alt+ Print Screen to grab only the front (active) window. You've just stored the image on your invisible Windows Clipboard, and now it's ready for pasting into a graphics program—like Paint. Once it's there, you can print it, save it, email it, or go into the computer-book writing business on your own.

If you're really serious about capturing screenshots, you should opt instead for a program like SnagIt *(www.techsmith.com)*. This versatile program can capture virtually anything on the screen—even neatly snipping open menus out of the background image—and save it into your choice of graphics format.

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Create a photo screen saver

There's no "Create photo screen saver" link in the task pane of a photo folder, but Windows XP can still turn your favorite pictures into an automatic slide show whenever your computer isn't in use. Just right-click the desktop, choose Properties from the shortcut menu, click the Screen Saver tab in the resulting dialog box, and then choose My Pictures Slideshow from the "Screen saver" drop-down list.

Tip: The screen saver is composed of photos in your My Pictures folder. If you'd like to choose a different folder as fodder for the slide show, click the Settings button, and then click the Browse button. You'll be offered the chance to choose any folder on your hard drive.

From now on, whenever your PC has gone untouched for five minutes (or whatever interval you specify here), your pictures will fill the screen, complete with special transition effects between images, if you so choose.

Tip: If you're the impatient sort, simply press the right and left arrow keys on your keyboard to summon the next or previous photo while the screen saver is playing.

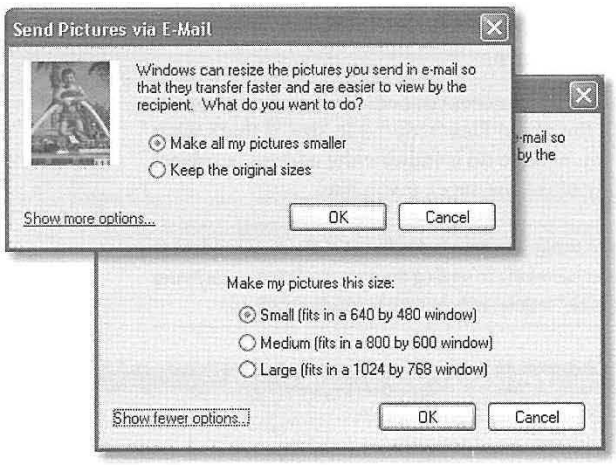


Figure 7-5:
Top: If you just click OK, the selected photos will get emailed at 640 x 480 pixel resolution–just right for satisfactory viewing (and fairly speedy transferring) by email.

Bottom: Clicking the "Show more options" link offers you the opportunity to specify which reduced size you want.

View them bigger

If you double-click a picture or scan a file whose file type you haven't assigned to open in a particular graphics program, it opens up in a program called Windows Picture and Fax Viewer. WPFV, as Windows veterans don't call it, is a strange, phantom little program. It doesn't show up in your Start menu and you can't find it by searching for it. You can only open it by double-clicking a graphic or by right-clicking a picture's icon and choosing Preview from the shortcut menu.

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The result is a simple preview window (Figure 7-6). At the bottom edge, you'll find buttons that do exactly the kinds of things you've been reading about: Show the previous or next image, start a slideshow, rotate the graphic, print it, email it, and so on.

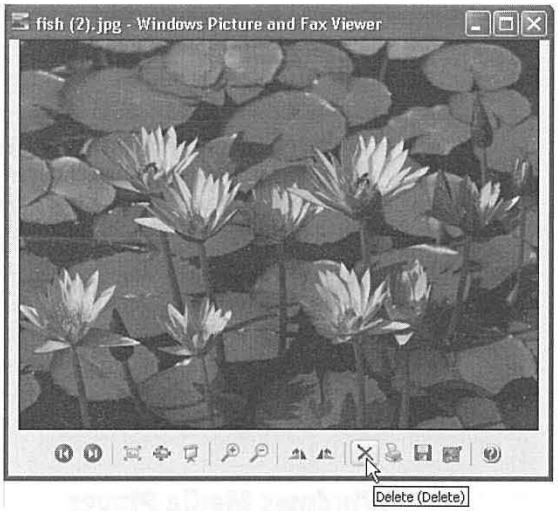


Figure 7-6:
To learn what each button does, point to it without clicking. The Zoom In and Zoom Out buttons magnify or reduce the image on the screen, and the Delete button deletes the file from your hard drive (or, rather, flings it into the Recycle Bin).

POWER USERS' CLINIC

Special Pictures for Special Folders

Filmstrip view, illustrated in Figure 7-2, isn't the only way to view pictures in Windows XP. Thumbnails view has charms of its own—including the ability to display folders like the ones illustrated here, complete with miniature photos on the folder icon to show you what's inside.



If you open your My Pictures folder and set it to Thumbnails view, for example, you'll see that Windows XP has already dressed up the icons of any picture folders inside.

It's worth knowing that, if the collection of pictures inside one of these folders changes, their miniatures on the folder icon itself don't change—at least not until you right-click the folder icon and choose Refresh Thumbnail from the shortcut menu.

Bear in mind that you're not stuck with seeing *four* tiny photos on the folder icon. If you prefer, you can choose a *single* photo to represent the folder contents, as shown here at right. Just right-click any folder in Thumbnails view, choose Properties from the shortcut menu, and click the Customize tab. Finally, click the Choose Picture button and, in the resulting dialog box, double-click the photo you want to plaster onto the folder's icon—and then click OK.

Or, when time is of the essence, try this wacky tip: Just put a graphics file named *folder.jpg* into a folder. That picture instantly becomes the folder's icon!

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Scanning

As far as Windows XP is concerned, a scanner is just another kind of digital camera. When an XP-compatible scanner is turned on and connected to the PC, for example, the Camera and Scanner Wizard starts up automatically. (If it doesn't, open your My Pictures folder. You'll see that the first link in the task pane is, "Get pictures from camera or scanner." Clicking launches—you guessed it—the Scanner and Camera Wizard.)

The options you see during the march of the wizard screens are very similar to the ones described in the previous pages. The chief difference is the Choose Scanning Preferences screen, where you're supposed to indicate what kind of scan you want to make (color, grayscale, or black and white) and what portion of the page you want scanned (by dragging the little square handles on the preview of the page).

To view and manipulate your scanned images, use the commands in the My Pictures task pane. You'd be nuts to order prints of something you've just scanned, however. Instead, you'll probably want to use the software provided by the manufacturer to open and edit your image files. Or, if you haven't installed such a program, you can just double-click the scanned document's icon to open it in the Windows Picture and Fax Viewer (page 214).

Windows Media Player

You can use Windows Media Player—one of the most useful freebie features of Windows XP—to play sounds, play digital movies, or tune in to Internet radio stations. It's the Grand Central Station for digital music and movies, as well as the junction for your hard drive, CD player, CD burner, MP3 player, and the Internet (from which you can download new music files and movie clips).

In its insatiable quest to dominate the world of digital music and video, Microsoft keeps updating Windows Media Player, usually redesigning it beyond recognition

FREQUENTLY ASKED QUESTION

Scanning Text—and Then Editing It

I scanned an article from a magazine. How do I copy a couple of paragraphs from it into my word processor?

When you scan an article or book, you're not capturing text; you're just taking a *picture* of text. You can no more copy and paste a paragraph out of the resulting graphic file than you can copy text out of a photograph. Your PC sees everything on the scanned page as one gigantic graphic.

If you do want to edit text that you've scanned, then you need *optical character recognition (OCR)* software, which comes free with certain scanners. This kind of software analyzes the patterns of dots in each scanned graphics file, and does a fairly good job of turning it into a word processor document that contains the original text. When businesses decide to convert old paper documents into computer files (insurance company policies, research papers, and so on), OCR software is what they use.

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with each update. For example, Windows XP originally came with version 8. Version 10, described in these pages, is infinitely better-looking and more clearly laid out. If you don't have Windows Media Player 10, you can download it for free from Microsoft's Web site.

The Lay of the Land

The top edge, as you may have noticed, now offers six primary tabs, which cover the essential functions of Media Player. They're described in more detail in the following pages, but here's a quick overview:

- **Now Playing.** Click this tab while music or video is playing from any source. This is where you can see a list of songs on the CD, a graphic equalizer, and a wild, psychedelic screen saver that pulses in time to the music.
- **Library.** This screen is like a Windows Explorer display—a folder tree on the left side, and the contents of a selected folder listed on the right—that lists every piece of music or video your copy of Media Player "knows about" on your hard drive. This is also where you can sort your songs into subsets called *playlists*.
- **Rip.** Use this screen to copy songs from one of your music CDs onto your hard drive, as described later in this chapter.
- **Burn.** After transferring some songs to your hard drive—from the Internet or your own music CD collection—you can then burn your own CDs. This screen is the loading dock.
- **Sync.** Here's where you line up music or video that you'd like transferred to a portable music or video player, if you have one that Media Player understands.
- **Guide.** This page is a rabbit hole into Alice in Marketingland. You wind up on a Microsoft Web site that tells (and sells) you everything about Media Player and the latest downloadable offerings from Microsoft and its partners.

Playing Music CDs

For its first trick, Media Player can simulate a $25 CD player, capable of playing your music CDs while you're working at your computer. To fire it up, just insert an audio CD into your computer's CD or DVD drive.

Unless you've fiddled with the settings, Media Player opens automatically and the CD begins to play. The screen even fills with a shimmering, laser-light show (called a *visualization)* that pulses along with the music. Ta-da!

(If Windows instead asks what you want to do with the CD, see Figure 7-7.)

Tip: If all the fancy dancing-to-the-music graphics are slowing down your machine as you try to work in other programs, you can always turn them off (choose View→Visualizations→No Visualizations). If you can't find the menu bar, see Figure 7-7.

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And if you have more than one CD drive with a disc in it (or, say, one audio CD and one DVD), you can tell Media Player which disc you want to play by choosing from the little down-arrow menu next to the Now Playing tab.

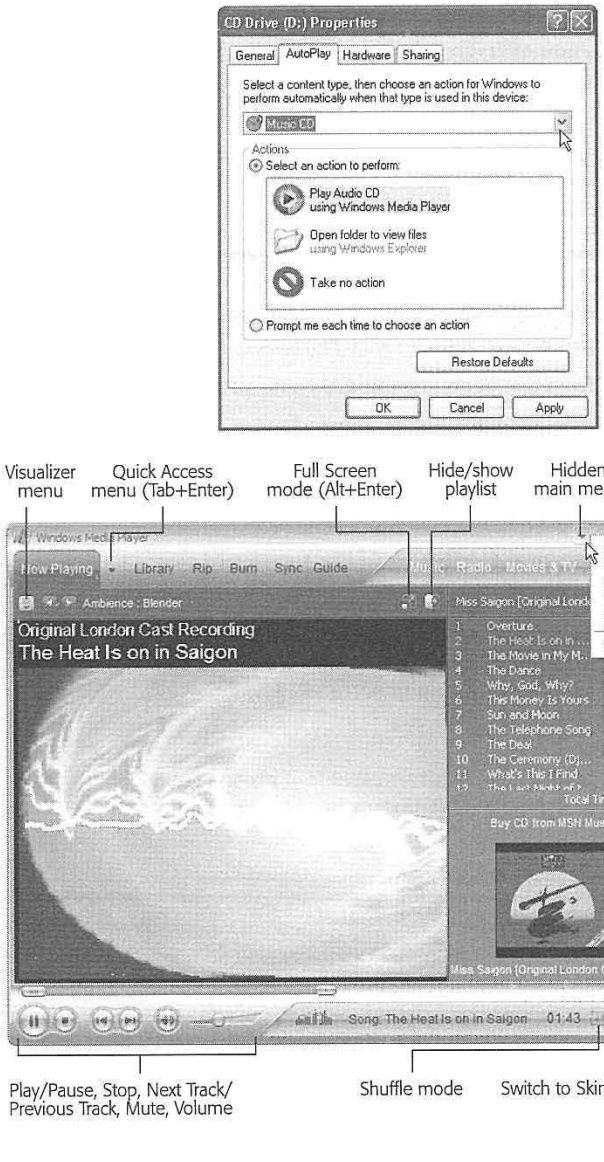


Figure 7-7:
Top: Windows may ask what you want it to do with a music CD. If you accept the Play Audio CD using Windows Media Player *option by clicking OK or pressing Enter, Windows Media Player opens automatically and begins to play the songs on your CD.*

Bottom: This illustration identifies the functions of some of the less obvious controls.

For example, whenever the Media Player window isn't maximized, the main menu bar is hidden. You can summon it–vertically instead of horizontally–by clicking the triangle identified here. Or you can return it to its rightful place by pressing Ctrl+M.

Or, no matter what your window situation, you can right-click the tabs or the title bar to produce a pop-up version of the menu bar.

If you don't see the list of tracks at the right side of the window, click the Hide/ Show Playlist button.

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Fun with Media Player

When your everyday work leaves you uninspired, here are a few of the experiments you can conduct on the Media Player screen design:

- **Switch visualizations.** To try a different visualization, click the Next Visualization or the Previous Visualization arrow (the tiny arrow buttons just below the Now Playing tab), or press Tab+Enter and then click the Video Settings button, or choose View→Visualizations. And if you tire of the displays built into Windows, then just download more of them from the Internet by choosing Tools→Download→ Visualizations.

Tip: One of the most interesting choices is Album Art, which displays a picture of the album cover for whichever song is now playing.

- **Shrink the window to show some skin.** If the Media Player window is taking up too much screen space, making it harder for you to work on that crucial business plan as you listen to *NSync, press Ctrl+2 to shrink the window, or choose View→ Skin Mode (see Figure 7-8). Press Ctrl+1 to return the Media Player window to its full-sized glory. (Of course, you can also just minimize Media Player, as you would any window.)
- **Expand the window.** On the other hand, if your PC is briefly serving as a glorified stereo system at a cocktail party, choose View→Full Screen (or press Alt+Enter).

UP TO SPEED

Which Disks Play Automatically?

As shown in Figure 7-7, inserting a music CD into a brand new Windows XP computer inspires Windows to ask what you want to do with it—play it, show you its contents, or do nothing. Similar choices appear when you insert a DVD, a CD containing pictures, a CD containing files, a blank CD, and so on.

If you'd rather avoid this questionnaire dialog box whenever you insert a disc, then visit the AutoPlay control center and make your selections all at once. Start by choosing Start→ My Computer. In the My Computer window, right-click your CD drive's icon. From the shortcut menu, choose Properties. In the resulting dialog box, click the AutoPlay tab shown here.



From the drop-down list at the top of the box, choose the kind of disc you want to affect. Choose "Music files" (a CD filled with MP3 files), "Music CD" (standard audio CDs), "DVD Movie," or whatever.

Then click one of the icons in the Actions list. Apart from Play, the most useful options here are "Open folder to view files" (the CD or DVD's contents window will simply open when you insert it) or "Take no action" (nothing will happen when you insert this kind of disk). The factory setting is, of course, "Prompt me each time to choose an action," which produces the dialog box that began this whole adventure, shown in Figure 7-7.

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The screen-saver effect now fills the entire screen, hiding all text, buttons, and controls. If you have an available coffee table and a laptop to put it on, you've got yourself a great atmospheric effect. (When the party's over, just click the mouse, or press Alt+Enter again, to make the standard controls reappear.)

- **Change the skin.** In hopes of riding the world's craze for MP3 files, Microsoft has helped itself to one of WinAmp's most interesting features: *skins*. (Definitions: (An MP3 file [MPEG Audio Layer-3] is a compact, downloadable, CD-quality sound file format. WinAmp is a popular MP3-playing program. And a skin is a design



Figure 7-8:
At full size, the Media Player window occupies a large chunk of your screen (Figure 7-7). In Skin Mode (shown here), it takes up less space on your screen and can use any of dozens of radical new design schemes. It can show both visualizations (when you're playing music) and video (when you're playing–well, you know).

To return to the full-size window and its full-size complement of controls, press Ctrl+1, or hunt through the various buttons on your skin until you find the Return to Full Mode button.

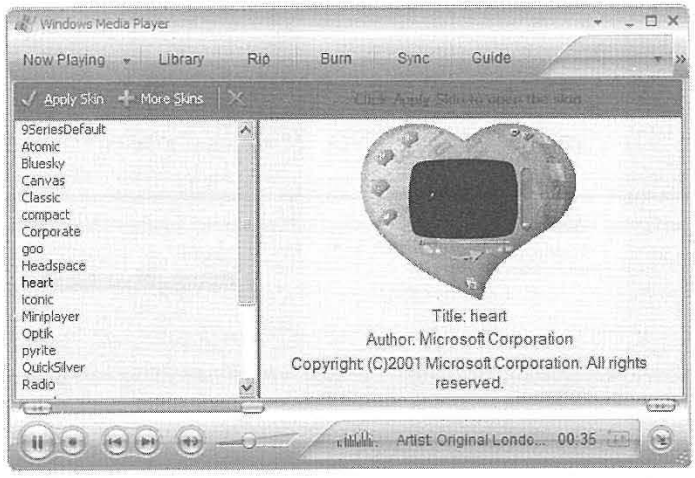


Figure 7-9:
Not all skins are, shall we say, masterpieces of intuitive design; in fact, it may take you several minutes just to find the Stop button. When you find a skin you like, click Apply Skin (above the list). If you don't like any of the designs or just want to keep looking, click More Skins. Windows sends you to the Internet for a visit to Microsoft's grisly-sounding Skin Gallery. If nothing there strikes your fancy, either search the Web or check back later, as Microsoft expands the collection periodically.

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scheme that completely changes the look of Windows Media Player, as shown in see Figure 7-9.)

To choose a new skin, choose View→Skin Chooser. Then click each of the available skins, listed down the left side, to see a preview of its appearance. When you click the Apply Skin button (at the top-left corner of the window), your player takes on the look of the skin you chose *and* shrinks down into the compact Skin mode, as described in the previous tip.

- **Fool around with the playback sequence.** You can make the songs on the CD play back in a random order, just as though you'd pushed the Shuffle button on a CD player. To do this, just click the Shuffle button (identified in Figure 7-7) or press Ctrl+H—the shortcut for the Play→Shuffle command. And if you love a particular CD so much that you'd like to hear it over and over again (instead of stopping at the end), press Ctrl+T—the shortcut for Play→Repeat.

Tip: These tricks work for whatever *playlist* you've currently selected–not just an audio CD. (Playlists are described later in this chapter.)

- **Fool around with the sound.** Don't miss the graphic equalizer, a little row of sliders that lets you adjust the bass, treble, and other frequencies to suit your particular speakers and your particular ears. In version 10, Microsoft made it pretty hard to get to—View→Enhancements→Graphic Equalizer—but it's there. (The same submenu offers something called SRS WOW, which simulates a 3-D sound experience through nothing more than stereo speakers or headphones.)
- **Read the "CD booklet."** If you click the Rip tab and then click Find Album Info, Media Player goes online to retrieve a useful display of information from the CD you're listening to. You're shown song titles, track links, singer names, and miscellaneous album information that even includes a little review and, needless to say, an opportunity to buy another copy of the CD online.

Copying CDs to Your Hard Drive

You can copy an album, or selected tracks, to your hard drive in the form of standalone music files that play when double-clicked (a process called *ripping,* much to the consternation of sleepless record executives who think that it's short for *ripping off).* Having CD songs on your hard drive is handy because:

- You can listen to your songs without having to hunt for the CDs they came from.
- You can listen to music even if you're using the CD-ROM drive for something else (like a CD-based game).
- You can build your own *playlists* (sets of favorite songs) consisting of cuts from different albums.
- You can compress the file in the process, so that each song takes up much less disk space.

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- You can transfer the songs to a portable music player or burn them onto a home-made CD.

If you're sold on the idea, begin with a quick trip to the Tools→Options menu. Click the Rip Music tab, and then inspect your settings. For example, if you intervene by clicking the Change button near the top, Windows will copy your song files into the My Documents→My Music folder.

Note, too, that Microsoft has designed Windows Media Player to generate files in the company's own proprietary format, something called Windows Media Audio (WMA) format (.wma). But many people prefer, and even require, MP3 files. For example, most recent CD players and portable music players (including the iPod) can play back MP3 files—but won't know what to do with WMA files.

If you'd prefer the more universally compatible MP3 files, use the Format pop-up menu to choose "mp3" (see Figure 7-10). And rejoice: Until Media Player 10 came along, you had to pay $10 extra for the ability to create MP3 files.

Tip: If you have a stack of CDs to rip, don't miss the two checkboxes here: "Rip CD when inserted" and "Eject CD when ripping is complete." Together, they turn your PC into an automated ripping machine, leaving nothing for you to do but feed it CDs and watch TV. (Of course, now Media Player won't automatically *play* CDs when you insert them.)

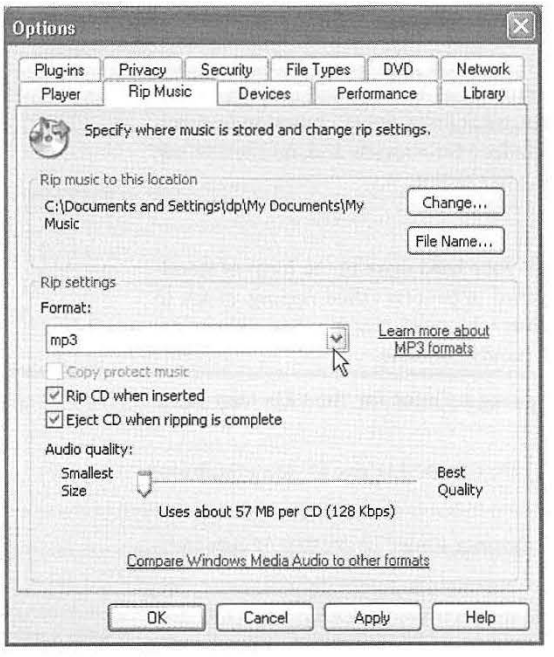


Figure 7-10:
Music files occupy a lot of space on the hard drive. By adjusting this slider, you can specify how much Windows compresses the song files, with the understanding that you sacrifice sound quality as you make the file smaller. Experiment with the other settings to accommodate your ears and speakers.

(If you've selected the Windows Media format, try the Variable option. It maximizes audio quality and minimizes file size by continuously adjusting the data rate along the song's length, as needed.)

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Finally, the slider in this dialog box lets you control the tradeoff, in the resulting sound files, between audio quality and file size. At 128 kbps, for example, a three-minute MP3 file might consume about 2.8 megabytes. At 192 kbps, the same file will sound much better, but it will eat up about 4.2 MB. And at a full 320 kbps, the file will be roughly 7 MB.

These are important considerations if you're ripping for a portable MP3 player, like the iPod. For instance: if your music player contains a 20 GB hard drive, it can hold 142 hours of music you've ripped at 320 kbps, or 357 hours at 128 kbps.

For MP3 files, most people find the 192 Kbps setting (on the "Audio quality" slider) to produce great-sounding, relatively compact files. For WMA, 128 Kbps might be a good starting point. Needless to say, let your ears (and the capacity of your portable music player) be your guide.

Click OK, then begin:

1. **Insert the music CD. Click the Rip tab at the top of the Media Player window.**

   The list of songs on the CD appears. See the box on the facing page for information on ensuring that the album name and track names are correct.

2. **Turn off the checkbox of any track you *don't* want to copy.**

GEM IN THE ROUGH

Filling in Track Names

Precious few audio CDs come programmed to know their own names (and song names). Every day, millions of people insert music CDs into their computers and see the songs listed as nothing more than "Track 1," "Track 2," and so on—and the album itself goes by the catchy name Unknown Album.

If your PC is online when you insert a certain music CD—you lucky thing—you'll bypass that entire situation. Windows takes a quick glance at your CD, sends a query to *www.allmusic.com* (a massive database on the Web containing information on over 200,000 CDs), and downloads the track list and a picture of the album cover for your particular disc.

If *allmusic.com* draws a blank, as it often does for classical recordings, no big deal. Media Player makes it easy to search the Web for this information at a later time. Just insert the CD, connect to the Internet, click "Copy from CD" at the left edge of the screen, and then click the Get Names button at the top of the screen. A wizard appears at the bottom of the screen to walk you through the process of finding your CD in the online database and, if you like, to help you edit the track information that the Web site finds.

If the online database still doesn't know about your CD, you'll be offered the chance to upload your information to the Web database for the benefit of future generations.

You can also type in the names of your songs manually. Once again, click "Copy from CD" at the left side of the screen to view the list of tracks. Now right-click the track and, from the shortcut menu, choose Edit. A little text box opens so that you can type in the track information manually.

No matter how the track names and album art gets onto your PC, Windows XP saves this information in your music library (see "Copying Music to Your Hard Drive" later in this chapter). Therefore, the next time you insert this CD, the Media Player will recognize it and display the track names and album information automatically.

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You've waited all your life for this: At last, you have the power to eliminate any annoying songs and keep only the good ones.

And while you're playing record-company executive, take a moment to drag the names of the songs up or down the list to rearrange them.

3. **Click Rip Music.**

You'll find this button in the narrow strip above the list of songs.

Media Player may take this opportunity to present a Rip Options dialog box, whose purpose is to beg you, one last time, to choose one of Microsoft's WMA formats instead of MP3. Click "Keep my current format settings" and click OK.

Windows begins to copy the songs onto your hard drive. The Copy Music button changes to Stop Copy, which you can click to interrupt the process.

Organizing Your Music Library

Every CD transferred to your hard drive winds up with an entry in your Library menu, identified in Figure 7-7. Make that several entries, actually, as this Explorer-like tree view lets you see your collection sorted by composer, album, year released, or whatever. Whenever you want to play back some music, just double-click its name in this list—there's no need to hunt around in your shoeboxes for the original CD the songs came from.

But that's just the beginning of Media Player's organizational tools; see Figure 7-11.



Figure 7-11: *Navigate your library (left and middle panels). Drag each song or CD name into the New Playlist list (right panel).*

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Transferring CD songs to your hard drive isn't the only way to log your files in the Media Player database. You can also add sound and video files to this master list using any of these methods:

- Use the Tools→Search for Media Files command (or press F3).
- Drag sound or video files directly from your desktop or folder windows into the Media Player window.
- Choose File→Add to Library (or click the Add to Library button at the bottom of the Library screen). From the submenu, choose Add Currently Playing Item, Add Folder, Add URL (for files on the Web), or whatever.
- The Internet is crawling with Web sites that sell downloadable music files that you can make part of your music library. At the top-right corner of the Media Player window, a drop-down menu lists them (Napster, Musicmatch, MSN Music, Wal-Mart Music Downloads, and so on). When you choose a music store's name, the Media Player window ducks into a phone booth and becomes a Web browser, filled with the corresponding company's wares. Anything you buy gets gulped right into your Library, ready for burning to a CD or syncing with an audio player.

Once you've created a well-stocked fridge of music, you can call up a particular song by typing into the Search box (at the top of the Library list), by navigating the folder tree (at the left side of the Media Library list), or by using the playlist list (in the My Playlists category of the Library list).

Playlists

As noted above, each CD that you transfer to your hard drive becomes a *playlist* in Windows Media Player: a group of songs, listed in the folder tree at the left side, that you can play back with a single click. Media Player automatically turns your CDs into playlists, but you can also create your own, mixing and matching songs from different albums for different purposes (which you might name Downer Tunes, Makeout Music, or whatever).

To create a new playlist, make sure you've selected the Library tab. Then click New Playlist (upper-right of the Media Player window). From the drop-down list, choose New List→Playlist.

The Playlist panel, at the right side of your screen, is empty. It says, "Drag items here to build a list of items for your playlist." Well, hey—it's worth a try. See Figure 7-11.

Once you've created a playlist, click that New Playlist button/menu thing above it once again. This time, choose Save Playlist As from the drop-down menu, type a name for your playlist, and thrill to the appearance of a new icon in the My Playlists "category" of your library list (left panel).

Deleting things

Whenever you want to delete a song, a playlist, or almost anything else, the key is to right-click it. You'll find the Delete command in the shortcut menu.

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Burning Your Own CDs

The beauty of a CD burner is that it finally frees you from the stifling restrictions put on your musical tastes by the record companies. You can create your own "best of" CDs that play in any CD player—and that contain only your favorite songs in your favorite order.

See Figure 7-12 for instructions.

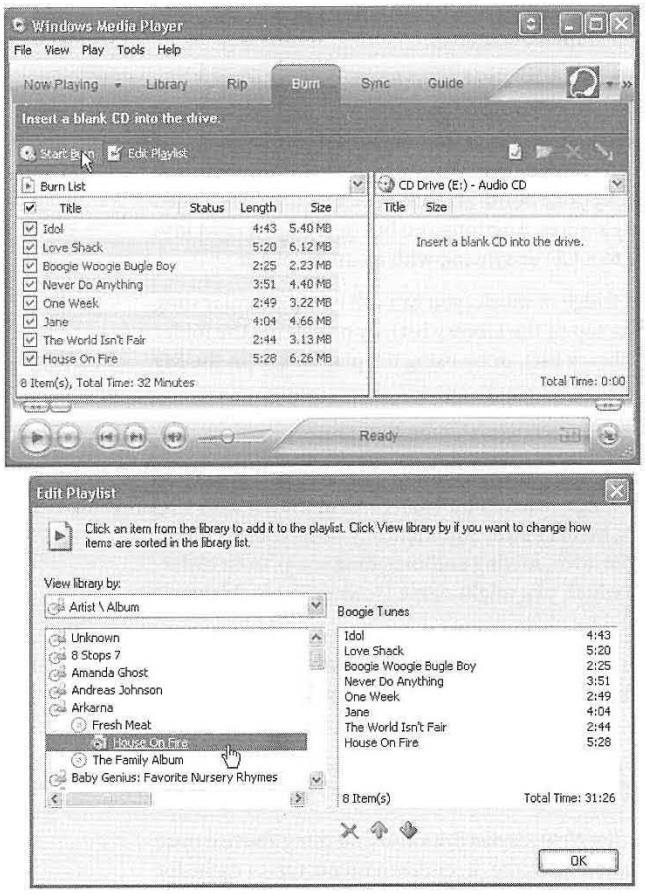


Figure 7-12:
Top: The easiest way to create a CD in Media Player is to assemble the songs you want in a custom playlist, as described in the previous section. Choose the playlist's name from the Burn List drop-down menu.

If you haven't already built a playlist, you can assemble a one-time list by clicking the Edit Playlist link.

Bottom: The resulting window lets you hand-pick songs from your library. Use the "View library by" drop-down list to choose how you'd like to see your library listed: by genre, album, TV show, and so on.

Once you've assembled the audio CD-to-be, insert a blank CD into your burner, and click the Start Burn link just above the list of songs. The transfer process takes quite a bit of time and quite a bit of hard drive space, so budget appropriately for both. When the process is complete, your PC spits out the CD automatically.

Copying Music or Video to a Portable Player

If you have a pocket gizmo that's capable of playing music (like a Diamond Rio or a Pocket PC) or even videos (like a Portable Media Center), the process for loading your favorite material onto it is very similar to burning your own CD. The only difference

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in the procedure is that you do your work on the Sync tab instead of the Burn tab. But you choose a playlist to transfer (or hand-pick material) in exactly the same way.

The beauty of a Portable Media Center gadget, in fact, is that Media Player can keep it synced. As your library grows, shrinks, or gets edited, you can sleep soundly, knowing that your portable gadget's contents will be updated automatically the next time you hook it up to your PC's USB port.

Tip: Media Player can play videos with the extensions .wmv, .wvx, .avi, .mpeg, .mpg, .mpe, .m1v, .mp2, .mpa, and .ivf.

As you may have noticed, this list doesn't recognize two of the most popular video-file formats: QuickTime and RealVideo. To play these files, you'll need the free QuickTime Player (available from *www.apple.com/quicktime*) or RealPlayer (from *www.real.com*).

Internet Radio

The 2000s' twist on listening to the radio as you work is listening *without a radio.* Nowadays, the computer itself is used as a radio, one that can tune in to hundreds of radio stations all over the world, each brought to you by the Internet.

Unfortunately, Microsoft opted to axe the radio feature from Media Player 10; it can no longer tune in Internet stations—at least, not for free. If you want to listen to radio from within Media Player, you're expected to sign up for a paid subscription from one of the online music stores described earlier. (Of course, you can find hundreds of free radio stations on the Web.)

DVD Movies

If your PC has a drive that's capable of playing DVDs *and* a piece of software called a DVD decoder, you're in for a treat. Media Player can play rented or purchased Hollywood movies on DVD as though it was born to do so—a new feature in Windows XP.

Note: If your PC came with a DVD drive built in, then the manufacturer probably did you the courtesy of installing DVD decoding software too. If not, or if you've installed your own DVD drive, you'll have to spring a few bucks for DVD decoding software like DVD XPack (*www.intervideo.com,* $15), NVidia DVD Decoder (*www.nvidia.com,* $20), or PowerDVD (*www.gocyberlink.com,* $15).

Watching movies on your screen couldn't be simpler: Just insert the DVD. Windows XP automatically detects that it's a video DVD—as opposed to, say, one that's just filled with files. Then, depending on the settings you made in the dialog box shown in Figure 7-7, it either opens Media Player automatically, opens your add-on DVD-playing software, or gives you the choice. (If not, no problem: Open Media Player yourself and then choose Play→DVD, VCD or CD Audio→[your DVD drive's name].)

Media Player starts out playing your movie in a relatively small window. But you didn't come this far, and pay this much, just to watch movies on a mere *slice of* your screen.

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Your first act, therefore, should be to enlarge the picture to fill the screen. Pressing Alt+Enter is the easiest way, but you can also choose View→Full Screen or click the Full Screen button (see Figure 7-13).



Figure 7-13: *Once the DVD is playing, you control the playback using the standard Media Player controls (at the bottom-left edge of the window). To switch to a different "chapter," use the list at right (click the little Show Playlist button if you don't see it).*

To change language or parental-control options, choose Tools→Options and click the DVD tab.

When you're playing the movie full screen, the playback controls reappear when you move the mouse a bit.

After you enlarge the screen, playback controls appear for a few seconds at the lower-left corner of the screen, permitting you to speed backward or forward through the movie, and then fade away so as not to obscure Arnold Schwarzenegger's face. To pause the movie, jump around in it, or advance one frame at a time, just twitch the mouse to make the controls (and the playlist of DVD chapters) reappear.

Alternatively, you can right-click anywhere on the "movie screen" itself to reveal a menu of disc-navigation features.

Tip: For real fun, turn on *English* subtitles but switch the *soundtrack* to a foreign language. No matter how trashy the movie you're watching, you'll gain much more respect from your friends and family when you tell them that you're watching a foreign film.

Ditching the remote control

When the remote control is hidden, you can always return it to the screen just by moving your mouse. But the true DVD master would never bother with such a sissy technique. The secret keystrokes of Media Player are all you really need to know:

Function	Keystroke
play	Ctrl+P
stop	Ctrl+S
fast forward	Ctrl+Shift+F

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rewind	Ctrl+Shift+B
louder	F10
quieter	F9
mute	F8
next/previous "chapter"	Ctrl+F, Ctrl+B
full-screen mode	Alt+Enter
eject	Ctrl+E

Tip: Watching a movie while sitting in front of your PC is not exactly the great American movie-watching dream. To enhance your viewing experience, you can always connect the video-output jacks of your DVD-equipped PC (most models) to your TV.

Just be sure to connect the cables from the PC's video-output jacks *directly* to the TV. If you connect them to your VCR instead, you'll get a horrible, murky, color-shifting picture–the result of the built-in copy-protection circuitry of most VCRs.

Making WAVs with Sound Recorder

Windows XP comes with a generous assortment of sound files that you can use as error beeps, using the Sounds and Audio Devices program in the Control Panel. But no error beep is as delightful as one that you've made yourself—of your two-year-old saying, "Nope!" for example, or your own voice saying, "Dang it!"

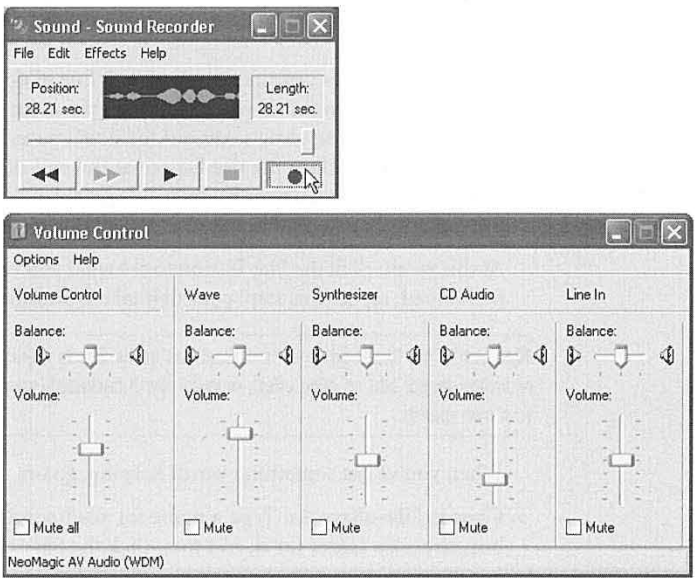


Figure 7-14: *Sound Recorder (top) lets you capture the sounds of your world–digitally. Volume Control (bottom) offers left-to-right stereo balance controls and volume adjustments for every sound-related component of your PC.*

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Using Sound Recorder (Figure 7-14) requires a sound card, speakers, and a microphone. If your PC is appropriately equipped, you can use this little program to record various snippets of your life, which can serve a number of purposes, including error beeps.

Recording a New Sound

Here's how to do it:

1. **Choose Start→All Programs→Accessories→Entertainment→Sound Recorder.**

   The window shown at top in Figure 7-14 appears.

   At this point, you may want to take a detour by choosing File→Properties. In the resulting dialog box, click Convert Now to specify the sound quality of the recording you're about to make. The choices in the Name drop-down list—Radio Quality, CD Quality, and so on—indicate not only the sound quality, but also how much disk space the file will consume. (Better quality takes up more disk space.) Click OK twice after you've made your selections.

2. **Click the Record button, make the sound, and then click Stop as soon as possible thereafter.**

   If you see animated sound waves in the Sound Recorder window, great; that's your VU (sound level) meter. It tells you that the PC is hearing you. If you don't see these yellow lines, however, then the sound isn't getting through. Most likely, the problem is that your PC control panel isn't set to record the appropriate sound source. Choose Edit→Audio Properties, and then use the Default Device drop-down list in the Sound Recording section to choose your microphone's name.

   If it's impossible to capture a clean sound, free of dead space—because you're recording babies or animals who refuse to perform on cue, for example—you're not out of luck. You can always edit out the dead space. Use the scroll bar to position the handle just before the dead space at the end of the sound, and then choose Edit→Delete After Current Position. (To get rid of dead space *before* the good part, position the handle and then choose Edit→Delete *Before* Current Position.)

   At this point, click the Play button to see what you've got. If it isn't quite what you had hoped, repeat this step; your first take is automatically obliterated.

Tip: Don't miss the good times that await you in the Effects menu. You can increase or decrease your recording speed, add an echo effect, or even play it backward–great for finding subliminal messages in your own speech.

When you've got something worth keeping, go on:

3. **Choose File→Save As. Type a name for your sound file in the "File name" text box, choose a folder for it, and then click the Save button.**

   You've just created a *.wav* file, a standard Windows sound file.

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What to Do with Sounds

When you double-click a *.wav* file that you've saved to your desktop, the file opens in Windows Media Player and plays back immediately. (Press Esc to interrupt playback.) Sound files are also ideal for emailing to other Windows users, posting on Web sites, transferring over the network, and so on. Many a Bart Simpson sound clip proliferates via the Internet in exactly this way.

Finally, if you put a *.wav* file into your my Computer→Local Disk (C:)→ Windows→ Media folder, it joins the other sound files that Windows uses for its various error beeps. You can then use the instructions on page 287 to replace Windows XP's sound effects with ones you've created.

Volume Control

This program has perhaps the most understated name of all time. As you can see by Figure 7-14 at bottom, the program looks more like a 747 cockpit than a simple volume knob.

In any case, the controls here govern the volume and balance levels of the speakers, microphones, and sound-card elements of your PC. Every PC's sound card and other features are different, so not all of the controls may be operational on your machine...but you get the idea.

Here are a few things you might want to do with Volume Control:

- **Shut your PC up.** Clicking "Mute all" at the lower-left corner of the window completely silences your PC—a handy feature, for example, when you don't want an errant beep or squawk to let everyone in church know you're using a laptop.
- **Adjust the stereo balance of your PC speakers.** If one of the speakers is farther away from your head, you might want to drag the Balance sliders so that the distant speaker plays a little bit louder.
- **Fine-tune Musical Instrument Digital Interface (MIDI) playback.** If your sound card can play back MIDI files (a compact file format for instrumental music), use the Synthesizer balance and volume controls to tweak its sound.
- **Adjust the bass and treble.** These knobs don't appear on the Volume Control screen. You must choose Options→Advanced Controls, and then click the Advanced button to see these sliders.

Tip: If you rarely use certain Volume Control features, or if some of them don't apply to your system, or if your system has features (like a microphone) that *don't* have corresponding controls, you can hide or show individual panels. To do that, choose Options→Properties. Then in the Properties dialog box, a scrolling list of checkboxes lets you independently hide or show each of the volume controls–Synthesizer, CD Audio, Line In, Microphone, and so on.

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Windows Movie Maker 2

Movie Maker 1.0 was Microsoft's first effort at video-editing software. It let camcorder owners edit the boring parts out of their footage, add crossfades, and save the result as a digital file for emailing to friends or saving onto a disk.

Otherwise, though, it was the very definition of lame, offering only a single kind of transition between clips, no special effects, no way to add credits and titles, and no way to send your masterpiece back out to the camcorder for playback on a TV.

Movie Maker 2, released at the end of 2002, remedies every one of those problems and more; it's now only *slightly* lame. Unfortunately, version 2 didn't come with the original copy of Windows XP. If you don't have it, you can download it from Microsoft's Web site (*www.microsoft.com/windowsxp/moviemaker*), or use the Windows Update feature described on page 249.

Equipment List

Editing is the easy part. The hard part is getting equipped to do so, since there's nowhere to plug a camcorder into a standard PC. To use Movie Maker, proceed in any of these three ways:

- **Use analog equipment.** In other words, use a standard camcorder or VCR, and play your footage into your PC from standard VHS, 8 mm, or Hi-8 tapes.

  A quick inspection of the back of your computer, however, should make clear that it has no connector for a VCR. Therefore, you also need to buy a *video capture card* or one of those inexpensive USB capture boxes designed to let you pour video into your PC. The quality might be grainy, though, since Movie Maker achieves its goal of creating emailable movie files by heavily compressing your video.

- **Use digital equipment.** If you prefer better quality, use Movie Maker with a *digital* (DV) camcorder. A digital camcorder ($600 and up) uses special tapes called MiniDV cassettes. (Sony Digital8 models are the exception, as they record onto ordinary Hi-8 tapes—saving you money in the process.)

Note: Although the new, shockingly tiny Sony MicroMV camcorders are indeed digital, their signal is incompatible with Movie Maker. Sony says that it's working with Microsoft on revising Movie Maker for MicroMV compatibility. In the meantime, you can use the software that comes with the camcorder–MPEG Movie Shaker–to grab the footage from the camera. You can then import the resulting files into Movie Maker.

Next, you need a *FireWire card* (about $60). You insert this kind of add-on circuit board, sometimes called an *IEEE-1394* or *i.link card*, directly into your PC. On the side of almost every digital camcorder model is a special connector, a FireWire port, that connects to the FireWire card with a special FireWire *cable*. This single cable communicates both sound and video, in both directions, between the PC and the camcorder.

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- **Use existing pictures or movies.** You can use Movie Maker to edit existing movie files you've downloaded from the Internet or copied from CD-ROMs, or even to splice together still photos that you've scanned or captured from a digital camera for the purpose of creating a living photo album.

Note: If you're working with a digital camcorder, you need a *lot* of hard drive space. Digital video footage takes up 3.6 MB *per second* of video—enough to fill up 10 GB in about 40 minutes.

See Chapter 14 for tips on installing cards. And be sure to ask about Movie Maker 2/Windows XP compatibility before you buy any cards.

Getting Started with Movie Maker 2

After you've downloaded and installed Movie Maker, you open the program by choosing Start→All Programs→Accessories→Windows Movie Maker. The Windows Movie Maker screen appears, shown in Figure 7-15. Its left-side task pane indicates the three major steps you'll take to putting a movie together: Capture Video, Edit Movie, and Finish Movie.

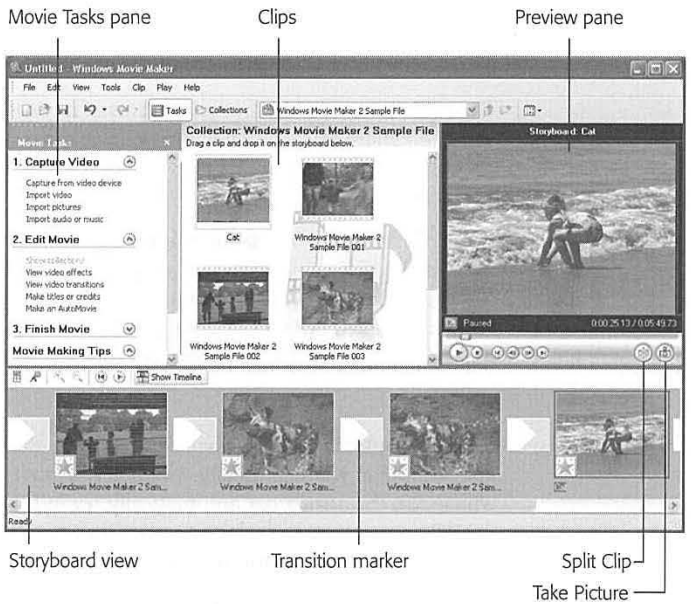


Figure 7-15: *Windows Movie Maker 2 sports a new Movie Tasks pane that provides quick access to the most-used menu options. The other major working areas of the program are all identified here. You'll do most of your work in the Storyboard or Timeline view at the bottom of the screen.*

Behind the scenes, Windows XP creates a folder in your My Documents folder called My Videos. This is where you'll find icons representing the various video clips that you capture from your camcorder. (You'll also find a few sample video clips there to fool around with until you get your equipment-buying act together.)

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How you transfer footage into Movie Maker for editing depends on what kind of equipment you've got—analog, digital, or none.

Capturing footage

To capture footage, hook up your VCR or camcorder to the PC. Then:

1. **Choose File→Capture Video, press Ctrl+R, or click "Capture from video device" in the Movie Tasks pane.**

   The Video Capture Device Wizard screen appears, shown at top in Figure 7-16.

2. **Click the icon for your camera or capture card.**

   If it has multiple input connections, like an S-video connection and a composite video connection, use the "Video input source" drop-down list to select the one you want to use. You can also take this opportunity to specify which connection the sound will be coming from, using the "Audio input source" drop-down list.

3. **Click Next. On the Captured Video File screen (second from top in Figure 7-16), type a name for the video file you're about to create, and choose a folder for saving it. Click Next.**

   The Video Setting screen appears, shown third from top in Figure 7-16.

4. **Choose the video quality you want.**

   The bigger the resulting movie (in terms of its onscreen dimensions when played back), the more disk space it will take up. A movie that fills your screen may look great on your PC, but you'll never be able to email it to anyone; the video file will be too huge.

   If you plan to show your movie only on the computer, "Best quality for playback on my computer" is a good choice. If you hope to export the result to your camcorder (for playback on TV), though, choose the "Digital device format (DV-AVI)" option (which is offered only if you have a digital camcorder). That's an extremely disk space–hungry format, but it preserves 100 percent of the original DV quality.

5. **Click Next.**

   If you're capturing from a digital camcorder, the Capture Method screen now appears. Here, you can specify whether you want to capture the *entire* tape (in which case the camcorder automatically rewinds and then starts playing back as the PC captures) or just selected scenes (in which case you're supposed to use the onscreen playback controls to stop and start the tape). Click Next.

6. **On the Capture Video screen (bottom in Figure 7-16), adjust your options.**

   If you turn on "Create clips when wizard finishes," Movie Maker will automatically chop up the incoming video into individual *clips*—icons, each representing one shot you made with your camcorder. If you don't select this option, Movie Maker will treat all the footage you import as one big video chunk.

7. **Click Start Capture.**

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If you have a digital camcorder, Movie Maker automatically commands it to begin playing; you're essentially controlling the camcorder by remote control. If you're using a non-digital camcorder or a VCR, it's up to you to push Play on the equipment. Either way, you can inspect the video as it arrives on your hard drive by watching it in the Preview window.

8. **When the recording is complete, click Stop Capture, and then click Finish.**

   You may be asked to wait while Movie Maker processes the incoming footage.

9. **To capture another clip, find it on your tape, and then repeat from step 6 on.**

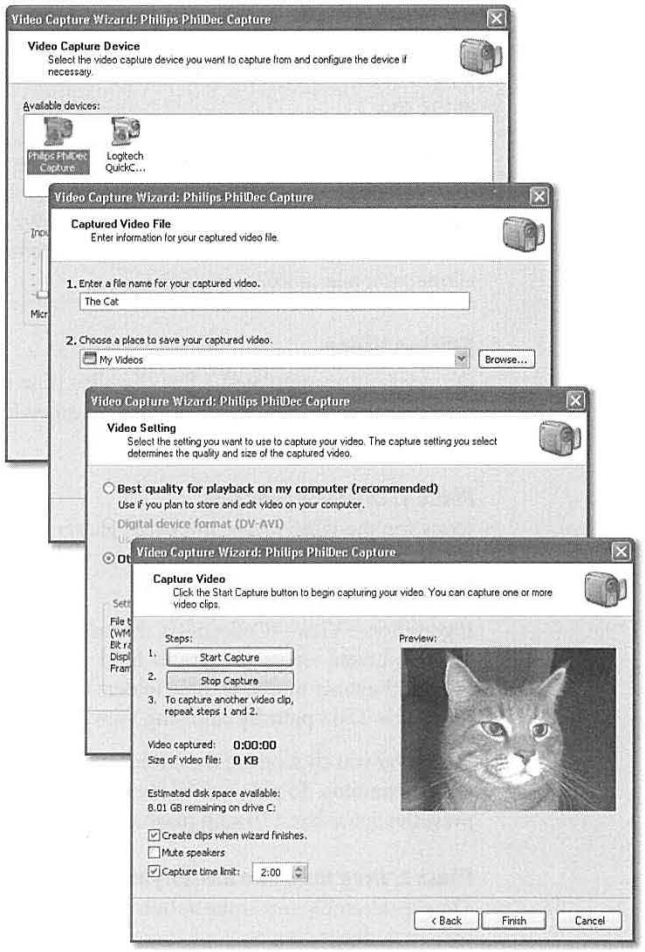


Figure 7-16:
Top: You select the video capture device, audio device, video input source, and audio input source in the Video Capture Device screen.

Second from top: In the Captured Video File screen, you name your captured video and select a folder to store it.

Third from top: Select one of three settings you want to use to capture your video in the Video Settings screen, and then verify the selected settings in the information boxes at the bottom of the screen.

Bottom: Finally, you and your tape are both ready to roll. Use the Start Capture and Stop Capture buttons to control the transfer of footage to your hard drive. (If you use a digital camcorder, you'll see Play, Stop, and Rewind buttons that let you control the camcorder right from the screen.)

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Repeat this process until you've captured all the pieces needed to create your masterpiece.

Importing pictures and movies

You don't necessarily need fancy equipment to fool around with Movie Maker. You can also bring any movie or picture file on your hard drive into your Movie Maker project by choosing File→Import into Collections (or clicking "Import video" or "Import pictures" in the Movie Tasks pane). Movie Maker turns the file into a clip, which you can edit, chop up, or manipulate, as described in the following paragraphs.

For example, while waiting for your video-capture card to arrive by mail order, you can try your hand at editing one of the existing movies that comes with Windows XP. In your My Documents→My Videos folder, you'll find a sample video file (called Windows Movie Maker 2 Sample File). After opening it, double-click one of the clip icons to watch a convincing home movie of a Microsoft employee's family romping at the zoo.

Tip: To the ancient question, "What is the sound of one hand clapping?" you can now add, "What is the duration of a still picture?" As far as Windows is concerned, the answer is, "Two seconds." When you drag a still-image clip into your Timeline, as described below, Windows gives it a two-second proposed duration. To make a still image stay on the screen for a longer or shorter interval, however, simply drag its right-hand triangle on the ruler, as shown in Figure 7-17.

Editing Video

Once you've accumulated a few clips, it's time to conduct some general organization—rearranging the clips; trimming off excess footage from the ends; adding credits, music, and effects, and so on.

Phase 1: Organize your clips

Icons for the clips you've imported gather in the Collection area at the center of the screen. (Behind the scenes, they're really in your My Documents→My Videos folder.)

If you choose View→Collections, the task pane disappears, replaced by an area where you can create virtual folders to hold your clips (choose Tools→New Collection Folder). Rename or delete these folders by right-clicking them. (You can bring back the Movie Tasks pane by choosing View→Task Pane.)

Whenever you click one of these folders, the middle part of the window shows you the clips it contains. To play one of these clips, double-click its icon, or click it and then press the Space bar. (To stop playback before the end of the clip, press Space again.)

Phase 2: Drag them into the storyboard

The clip-assembly area at the bottom of the Movie Maker screen can appear in either of two ways, depending on your current selection in the View menu (see Figure 7-17):

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- **Storyboard.** In this view, each clip appears as an icon, like a slide on a slide viewer. Each is the same size, even if one is eight minutes long and the next is only two.
- **Timeline.** In this view, each clip is represented by a horizontal bar that's as wide as the clip is long. Short clips have short bars; long clips stretch across your screen. Additional parallel "tracks" represent soundtracks playing simultaneously, titles and credits, and transition effects.

Either way, this is where you'll organize the scenes of your movie. Drag the clips from the Clips area (shown in Figure 7-15) down into this area to place them in the order you want. You can rearrange them once they're there, too, just by dragging. You can also trim unwanted material off the beginning or end of each clip by dragging the triangles in each icon.

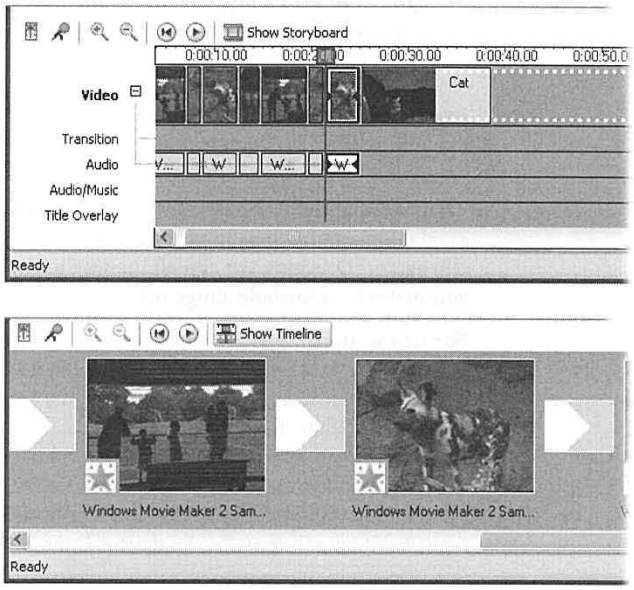


Figure 7-17: *The filmstrip at the bottom of the window offers two different views. Switch between them by clicking either the Show Storyboard or the Show Timeline button. In Storyboard view (bottom), there's no indication of the relative lengths of your clips, but you do get a good feel for the overall shape of your movie. In Timeline view (top), you see the relative timing of each clip.*

As you go, you can preview your film in progress by choosing Play→Play Storyboard (or Timeline, depending on which window you're working with). To interrupt playback, click the Pause button in the Preview pane, click Play→Pause Clip, or click Play→Stop.

Tip: Choose View→Full Screen (or press Alt+Enter) to make the movie fill your monitor as it plays back. Unless you're working with digital video, the blotchy, blurry enlargement may trigger your innate demand-your-money-back instincts. But this trick is useful, for example, when showing your finished movie to a group of people in a room. From a few feet away, the poor picture quality isn't as noticeable.

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Phase 3: Chop up the clips

As you work, you may frequently find it useful to cut your clips into smaller pieces, thereby eliminating boring material. You can do this in either of two ways:

- **Split a clip.** After aligning the scroll bar underneath the Preview pane with the spot where you want the clip chopped, choose Clip→Split, press Ctrl+L, or click the "Split the clip" button (shown in Figure 7-15). Movie Maker turns the single clip into two different clips, adding a number to the name of the second one.

Tip: You can do the opposite, too. After arranging a few clips into a satisfying sequence, you can merge them into a single, new uni-clip for easier manipulation. To do that, click the first one in the Storyboard or the Timeline window and then Shift-click successive clips. Finally, choose Clip→Combine.

- **Trim a clip.** Sometimes you just want to trim off unwanted footage from either *end* of a clip—a task Movie Maker lets you perform only after you've added a clip to the Timeline. Then just drag the triangle handles, which you can see in Figure 7-17.

Phase 4: Add video transitions

To create a *cross-dissolve* transition from one clip to another instead of just cutting, switch to the Timeline view shown at top in Figure 7-17. Then drag a clip in the Timeline slightly to the left, so that it overlaps the preceding clip. The amount of overlap determines how long the crossfade lasts; adjust this amount by dragging the clip again. (Dragging the clip all the way to the right, so that it no longer overlaps, eliminates the crossfade altogether.)

For fancier transitions, click Tools→Video Transitions (or click "View video transitions" in the Movie Tasks pane). The available transitions—60 of them—appear in the Video Transitions pane, shown in Figure 7-18. You can double-click any of these icons to see what the transition looks like. To use one in your movie, drag its icon down between two clips in either the Storyboard or the Timeline window.

Tip: It's easiest to drag transition icons when you're in the Storyboard view, because you have such a big target: the big square between the clips shown in Figure 7-18.

Phase 5: Add video effects

A video effect is a special effect: a color filter, frame rotation, slow motion, artificial zooms (in or out), and so on. As with transitions, using them with abandon risks making your movie look junky and sophomoric—but every now and then, a special effect may be just what you need for videographic impact.

To view your choices, choose Tools→Video Effects (or click "View video effects" in the Movie Tasks pane). You can apply a video effect in either of two ways:

- Drag its icon from the Video Effects pane directly onto the desired clip. (You can drag more than one onto the same clip.)

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- Right-click the clip icon in either the Storyboard or the Timeline window, then choose Video Effects from the shortcut menu. The Add or Remove Video Effects dialog box appears. If you promise to use good taste, you can even pile up multiple effects on a single clip and rearrange the order in which they're applied.

Note: When you apply an effect, Movie Maker 2 applies it to the entire clip. When you split, move, cut, or copy a clip or picture, its effects remain attached to it (or all of its parts). On the other hand, if you combine two clips, the first clip's effects retain control, and the second clip's effects are vaporized.

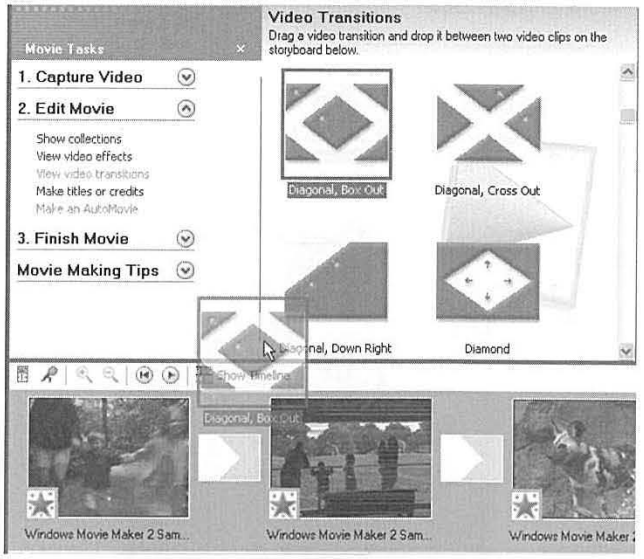


Figure 7-18:
Microsoft has provided 60 video transitions for your movies. Use them to soften transitions from one clip to the next–but use discretion. Going hog-wild with different nutty transitions in one movie will brand you as an amateur. Professional filmmakers rarely use anything beyond a simple cut or a cross-dissolve.

Phase 6: Add titles and credits

Text superimposed over footage is incredibly common in the film and video worlds. You'd be hard-pressed to find a single movie, TV show, or commercial that doesn't have titles, captions, or credits. In fact, it's the *absence* of superimposed text that pegs most camcorder videos as amateur efforts.

To add this kind of text in Movie Maker 2, begin by choosing Tools→Titles and Credits (or click "Make titles or credits" in the task pane).

As shown in Figure 7-19, you're offered five places to put text: at the beginning of the movie, at the end of the movie, before a clip, on a clip, or after a clip. Note that in Movie Maker terminology, text that appears before or after a movie is called *credits*, and it must take the form of name/job pairs (like "Director: Chris Olson"). Text that appears just before, after, or superimposed on a clip is just called a *title*.

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Once you've clicked your choice, you're offered the chance to type the actual text. This screen also offers "Change the title animation" and "Change the text font and color" links, which affect how the titles or credits drift across the screen (and in what type style). The animation effects duplicate just about every common TV title style: letters flying onto the screen, spinning onto the screen, scrolling across the screen, and so on.

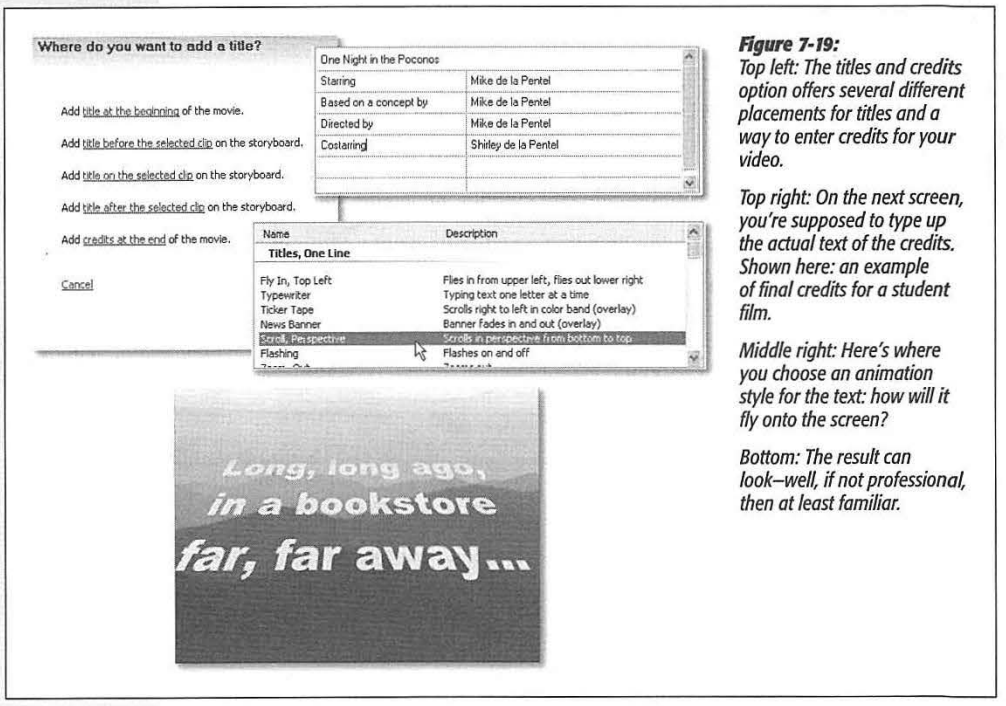


Figure 7-19:
Top left: The titles and credits option offers several different placements for titles and a way to enter credits for your video.

Top right: On the next screen, you're supposed to type up the actual text of the credits. Shown here: an example of final credits for a student film.

Middle right: Here's where you choose an animation style for the text: how will it fly onto the screen?

Bottom: The result can look—well, if not professional, then at least familiar.

When you click Done, the program switches to Timeline view and adds your text to the film in progress (Figure 7-19, bottom). On the Timeline, text gets its own block, which you can double-click to edit. You can also drag its ends to change the beginning or ending points. In Storyboard view, superimposed text doesn't show up at all; text inserted between clips appears as a separate clip.

Phase 7: Add background music

If you're lucky, you may someday get a chance to watch a movie whose soundtrack isn't finished yet. At that moment, your understanding of the film medium will take an enormous leap forward. "Jeez," you'll say, "without music and sound effects, this $100 million Hollywood film has no more emotional impact than…my home movies!"

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And you'll be right. Without music, sound effects (called SFX for short), and sound editing, even the best Hollywood movie will leave you cold and unimpressed. Fortunately, Movie Maker can use any MP3 or WMA file on your hard drive as a musical soundtrack. Just choose File→Import into Collections. The music file appears among your clips with a special musical-note icon.

Now, in Timeline view, drag the music clip onto the track marked Audio/Music. You can drag the appropriate rectangular strip left or right to control where it starts and ends. Using the Tools→Audio Levels command, you can also adjust its volume relative to the camcorder sound. Unfortunately, you can't create variations along the music's length (to make it softer during dialog, for example).

Tip: Even if you don't own a camcorder, one of the nicest things you can do with Movie Maker is produce a slide show with sound. After importing still images as described earlier, import a pop song to lay underneath it. You'll be surprised at how much impact the result has.

Phase 8: Save the movie

When your flick looks and sounds good, you can save it as a stand-alone file on your hard drive, which you can then double-click to play or send to potential investors.

To do so, Choose File→Save Movie File (Ctrl+P), or click "Save movie file" in the task pane. In the Movie Location screen, specify where you want to save the movie. You have five options:

- **My Computer.** Choose this option if you want to preserve the complete movie as a file on your hard drive.

ROUGH IN THE ROUGH

AutoMovie

AutoMovie might sound like a synonym for "drive-in theatre," but it really means "automatically assembled movie." This feature, new in Movie Maker 2, purports to do all of the editing for you. You just show it which clips or clip collections you want assembled, and the program does the rest.

"The rest," in this case, primarily consists of adding transitions and a few video effects between the clips. Don't expect the software to add a narrative arc and develop characters.

To use AutoMovie, choose Tools→AutoMovie (or click "Make an AutoMovie" in the Movie Tasks pane). A box appears, listing several canned style choices: Flip and Slide, Highlights Movie, Music Video, Old Movie, and so on—and links that let you insert a title or choose a soundtrack.

Unfortunately, there's no way to preview these canned editorial decisions. You have no choice but to click "Done, edit movie," take a look at the result, and then choose Edit→Undo AutoMovie if you'd like to try a different variation.

The truth is, you probably won't use AutoMovie very often. Video editing is an art, and letting a computer do the editing usually isn't any more successful than letting a computer write your term paper for you. But it sure looks good at trade show demos.

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- **Recordable CD.** A wizard appears to walk you through the process of saving a lower-resolution movie onto a blank CD, so you can distribute it to friends for playback on their PCs. (These disks will also play back on CD and DVD players that bear Microsoft's "High M.A.T." logo—of which there are very few.)
- **E-mail, The Web.** Video really isn't a good match for Internet distribution methods; video files are huge and slow to download. This wizard, then, guides you through making a very low-quality, small-framed, slightly jittery movie whose file size is small enough to transmit via the Internet.
- **DV camera.** For many people, this is the most important new feature of Movie Maker 2. While you're editing your movie, you watch your work-in-progress on the screen—but that's only a low-res representation of the spectacular clarity of digital video. Fortunately, behind the scenes, every shred of crisp, clear, smooth-motioned video is intact on your hard drive. To see it, you must export the movie *back* to your DV camcorder, where it appears with all of its high-resolution glory.

  Once the final production is back on a DV tape, you can play it on a TV with incredible quality, or copy it onto your VCR (at much lower quality) for distribution to family, friends, and Los Angeles agents.

Tip: You can turn any individual frame from your movie into a still picture (a JPEG file). In the Preview pane (shown in Figure 7-15), watch the footage until you see the frame you want to capture, and then click the round Take Picture button (also in Figure 7-15). Windows asks you to name your newly created graphics file and save it.

GEM IN THE ROUGH

The Narrator Speaks

If your PC has a microphone, you can narrate your own "voice-over" soundtrack as the video plays—a great way to create a reminiscence or identify the scene. Unfortunately, you can't add *both* music *and* narration; Movie Maker can tolerate only one added audio track.

In Timeline view, then choose Tools→Narrate Timeline; the Narrate Timeline pane appears. Drag the playback indicator to an empty point on the Audio/Music track and then click the Start Narration button. You can watch the video play as you speak into your microphone.

Click Stop Narration to wrap it up. You're asked to name and save your narration file (it gets a .wma filename extension). At this point, you can adjust the volume or starting/ending points of the narration track just as you would a music track: by adjusting its bar in the Audio/Music track.

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CHAPTER
8

The Control Panel

The Control Panel is an extremely important window in Windows XP. It's teeming with miniature applications that govern every conceivable setting for every conceivable component of your computer. Some are so important, you may use them (or their corresponding notification area controls) every day. Others are so obscure, you'll wonder what on earth inspired Microsoft to create them. This chapter covers them all.

Category View: The Big XP Change

To see your PC's collection of Control Panel programs, open the Control Panel window by choosing Start→Control Panel.

The first time you see the XP Control Panel, you may be in for a shock. Instead of the list of two dozen programs that used to be there, there are now only nine gigantic icons under the headline, "Pick a category" (Figure 8-1).

Microsoft developed this new design to be friendlier to novices. First click the category heading that you think contains the settings you want to change, such as Appearance and Themes. Now you'll see a second screen (Figure 8-1, bottom) that lists a few common tasks in that category: "Change the desktop background," "Choose a screen saver," and so on.

At this point, if you so desire, open the relevant Control Panel program by clicking its icon at the bottom of the screen (Display, in this example). But by clicking the name of the task instead, you're spared a bit of hunting around, since Windows XP takes you directly to the appropriate *tab* of the appropriate program.

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Tip: If you install software that comes with a Control Panel program of its own, it may not be smart enough to place itself into the correct category. In that case, you'll find it by clicking the link (in the task pane) called Other Control Panel Options (see Figure 8-1).

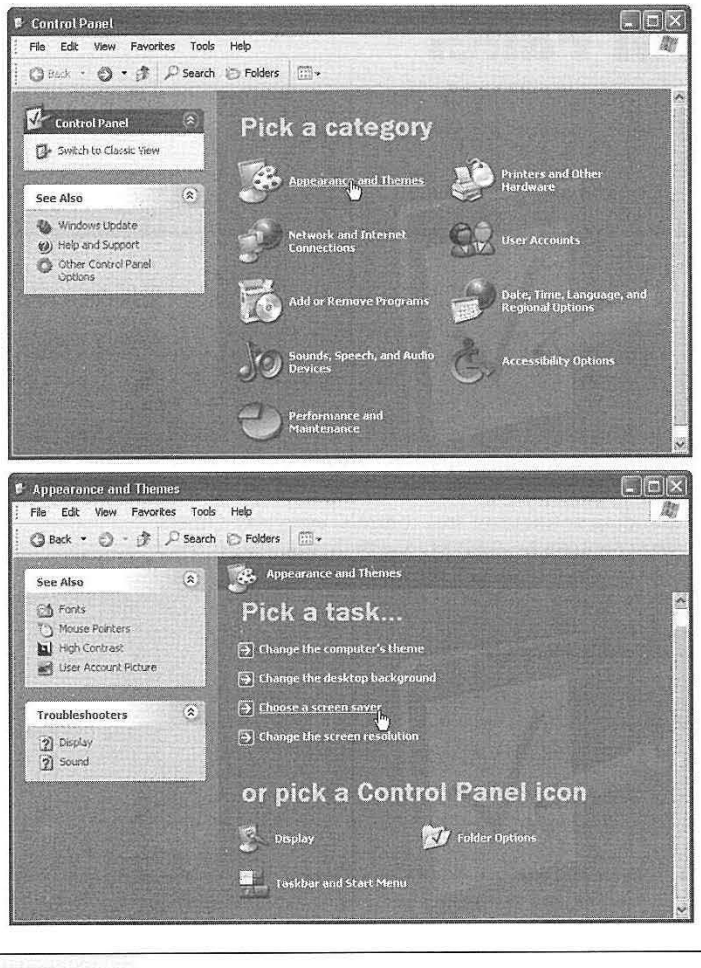


Figure 8-1:
Top: This new design is Microsoft's attempt to make the Control Panel look less overwhelming to first-timers. This arrangement groups the existing control panels into functional categories. When you click one of these headings, you're taken to another new screen.

Bottom: The next screen lists the corresponding control-panel icons at the bottom—but, perhaps more useful to the novice, it also lists the useful tasks that those control panels handle.

Restoring the Old Control Panel

If you're a veteran Windows user, the new arrangement of the Control Panel may strike you as just another drag on your efficiency. After all, it places another layer of red tape between you and familiar control panels.

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Fortunately, it's easy enough to eliminate the "Pick a category" display forever: Just click "Switch to Classic View" in the task pane (Figure 8-1, top). Now your programs appear just as they always have, as a tidy collection of individual icons (Figure 8-2).

The rest of this chapter assumes that you're looking at the list in Classic view—the one that presents an alphabetical arrangement.

Tip: If you're really a speed freak, even the Classic View method of accessing a particular Control Panel program is fairly inefficient. First you have to choose Start→Control Panel and wait for the window to open, then you have to double-click the individual program you want.

To save time, turn on the feature that lets you choose a certain program's name *directly* from the Start menu, as described on page 56.

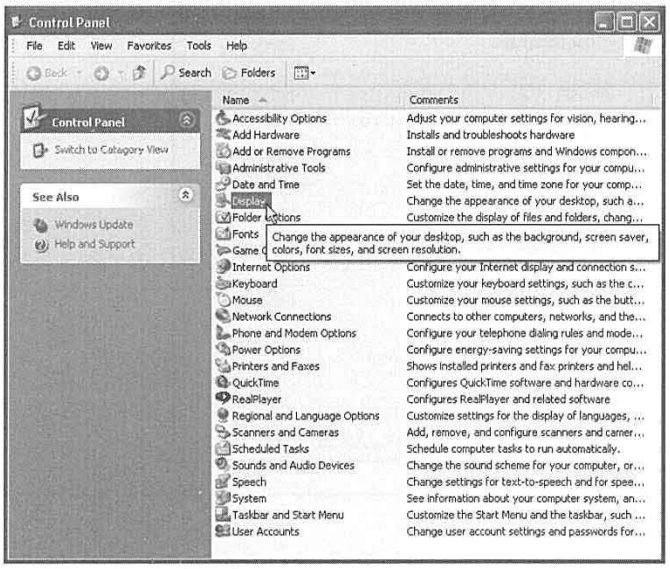


Figure 8-2:
If you're used to the old way of accessing the Control Panel programs, shown here, a single click on "Switch to Classic View" (Figure 8-1) does the trick. Even the standard Control Panel list (shown here in Details view) attempts to be helpful, though–the Comments column describes the function of each program, and tooltips appear when you point to programs without clicking.

Accessibility Options

Most of the options here are designed to make computing easier for people with disabilities, though some options can benefit almost anyone (Figure 8-3).

Keyboard Tab

The Keyboard adjustments make it easier for some people to type without errors.

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StickyKeys

StickyKeys is for people who have difficulty pressing two keys (such as Ctrl, Alt, and Shift key combinations) at once.

Once this feature has been turned on, you can press a single key of a specified combination one at a time instead of simultaneously. To do so, press the first key (Ctrl, Alt, or Shift) *twice*, which makes it "stick." Then press the second key (usually a letter key). Windows responds exactly as though you had pressed the two keys simultaneously.

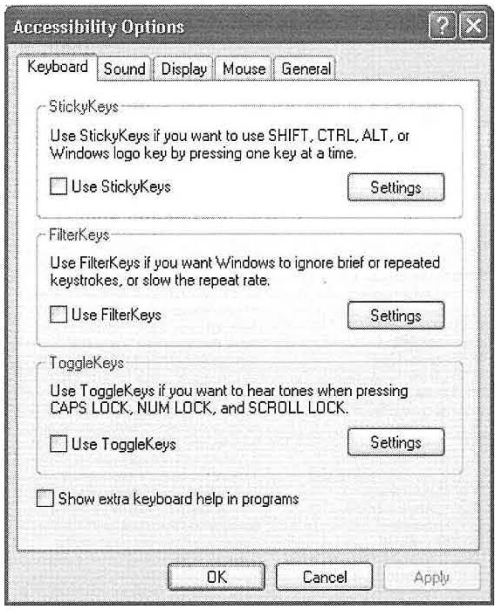


Figure 8-3:
Double-click the Accessibility Options icon in the Control Panel to open the dialog box shown here. You start out looking at the Keyboard tab, which offers useful ways to adjust keyboard behavior. Clicking any of the Settings buttons allows you to fine-tune many of these features, making it even easier to accommodate special computing needs.

If you click the Settings button, Windows displays a dialog box offering several useful options. One of them, for example, makes Windows XP beep when a key is double-pressed and "stuck"—a confirmation that you're about to trigger a keyboard shortcut.

FilterKeys

In Windows, holding down a key for longer than a fraction of a second produces repeated keystrokes (such as TTTTTTT). When you turn on the FilterKeys option, Windows XP treats a repeated key as a *single* keystroke, which can be useful if you have trouble pressing keys lightly and briefly.

The Settings button lets you access options like these:

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- **Use shortcut.** Requires that you also press the right-side Shift key for eight to sixteen seconds as the on/off switch for the filtering mode.
- **Show FilterKey status on screen.** Puts a stopwatch-like icon in the Notification Area when you're in FilterKeys mode.

ToggleKeys

When you turn on this option, the computer beeps whenever you press the CapsLock, NumLock, or ScrollLock key.

You don't have to be disabled to find this option attractive, since the confirmation beep prevents you from looking up after five minutes of typing to find a page of text tHAT lOOKS lIKE tHIS.

Sound Tab

Turning on SoundSentry instructs Windows XP to make your screen flash or blink when a sound occurs—a useful feature if you have trouble hearing. Use the "Choose the visual warning" drop-down list to select which part of the screen you want to use as a warning: the title bar of the active window, the active window itself, or the desktop.

Turn on ShowSounds if you'd like your applications to display an explanatory caption every time a sound is generated. (Not all programs do, although those specifically advertised as being Windows XP–compatible generally do.)

Display Tab

If your sight is going, you may find that Use High Contrast makes text easier to read. Use the Settings button to choose white lettering on black, black on white, or any color combination that works for you.

You can also use this dialog box to make your blinking insertion point (which appears when you're editing text) easier to see. Use the associated slider to change the blink rate, the width of the blinker, or both. (Making it fatter comes in especially handy on older laptops whose screens aren't the greatest.)

Tip: One of the simplest and most powerful aids to people with failing vision is the "Windows Standard (large)" and "Windows Standard (extra large)" *Desktop Themes*. You'll find these controls in the Display program's Appearance tab, as described later in this chapter. With a single click, you can make Windows enlarge the font used in all of its dialog boxes, menus, icon names, tooltips, and so on.

Don't miss the Mouse program (page 273), either, where you can select much larger arrow cursors.

Mouse Tab

If you find using the mouse difficult, or if you'd like more precision when using graphics programs, consider turning on the MouseKeys feature (by turning on the "Use MouseKeys" checkbox on this tab, and then pressing the NumLock key to turn MouseKeys mode on and off). It lets you use the number keypad to control the arrow cursor. Pressing the 2, 4, 6, and 8 keys on this pad moves the mouse around

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your screen—down, left, up, and right. (Check your keyboard for the corresponding directional arrows on these keys.)

In MouseKeys mode, the other numeric-keypad keys also have new assignments:

- Turn on "Hold down Ctrl to speed up and Shift to slow down" to do just what it says: make the cursor jump in larger or smaller increments when you press Ctrl or Shift, respectively.
- Use the 5 key to simulate a mouse click (left-click).
- Use the minus-sign key to simulate a right-click.
- Use the + key to simulate a double-click.

To fine-tune the MouseKeys behavior, click the Settings button. Here's one useful fine-tuning option: If you'd like to require that the left-side Alt and Shift keys be pressed in addition to NumLock (to prevent accidental MouseKeys triggering), turn on the "Use shortcut" checkbox. If you prefer to use both your numeric-keypad keys *and* MouseKeys, set "Use MouseKeys when NumLock is" to Off.

MouseKeys also offers a way to drag, so you can select text or move objects on the screen without using the mouse:

1. **Use the keypad arrows to position the cursor on the highlighted text, icon, or whatever you want to drag.**
2. **Press Ins (the zero key on your numeric keypad).**

   To "right-drag," press the minus-sign key, *then* Ins.
3. **Use the keypad arrows to drag to the target location.**
4. **Press Del on the keypad to "drop" the object.**

General Tab

Using the settings on the General tab, you can set Windows XP to turn *off* accessibility options if it's been awhile since you've used them. This setup is also useful when several people share the same PC on the same account (see Chapter 16), and only

POWER USERS' CLINIC

Keeping a Control Panel Program at Hand

If you're opening a certain Control Panel program frequently, you can give yourself one-click access to its icon.

Right-click the program's icon in the Control Panel window; choose Create Shortcut from the shortcut menu. Windows tells you that you can't create this shortcut in this folder, and asks if you want the shortcut placed on the desktop. Click Yes. Now drag the resulting desktop shortcut icon onto the Quick Launch toolbar (page 95) to give yourself one-click access from now on.

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one of them requires these options. You can also ask Windows XP to play a sound or a message to notify you when you turn options on or off.

The General tab also has an option to recognize *SerialKey* devices: special equipment (usually keyboard and mouse replacements) for people with disabilities.

Add Hardware

This icon isn't really a Control Panel program at all; it's a wizard, and it's described in Chapter 14.

Add or Remove Programs

This program, freshly overhauled in Windows XP, is described at length in Chapter 5. It offers three or four panels that offer important software-management functions.

Change or Remove Programs

This tab displays a list of every program you've installed onto your PC. To remove one from your system, click its name and then click the Remove or the Change/Remove button. Some program packages (like Microsoft Office) offer a Change button, too, so that you can add or remove individual components—*just* Excel, for example. When you click the Change button, have your installation CD handy, because the program may ask you to insert it into your drive.

Add New Programs

You won't need the first option here ("Add a program from CD-ROM or floppy disk") very often, because most software programs come with their own installers. Using the CD or Floppy button is just a roundabout way of launching the installer on the disk you've inserted.

The Windows Update button, however, is useful indeed. It takes you to the same Microsoft Web page as the Start→All Programs→Windows Update command, at *http://windowsupdate.microsoft.com.* (Figure 8-4 shows what you might see.)

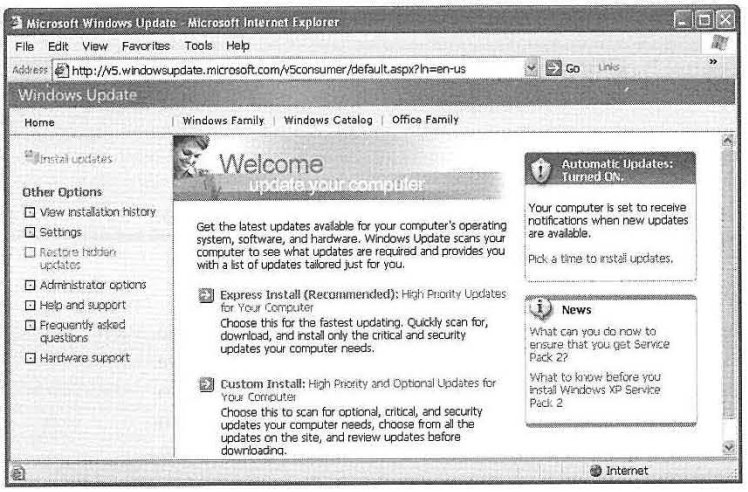
Here, you can get a list of the latest updates, bug fixes, and patches that Microsoft has released for your version of Windows XP. You'll soon discover that Windows XP is a constant work in progress; Microsoft seems to come up with another one of these fixes, patches, or updates every couple of weeks.

Note that Windows Update isn't quite the same thing as the *Automatic* Update feature, described on page 325.

The Windows Update page generally offers two links: Express Install (updates that Microsoft considers urgent) and Custom Install (less urgent items). Clicking either link makes the Web page begin a remote-control scan of your PC, which is a little bit creepy but ultimately produces a list of updates that Microsoft considers appropriate for your copy of Windows.

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Note: The first time you use the Windows Update Web page, it will probably mutter something to you about having to install some special components in order to work right. Sigh and click OK. You'll have to restart your PC in the process, but at least this is a one-time operation.



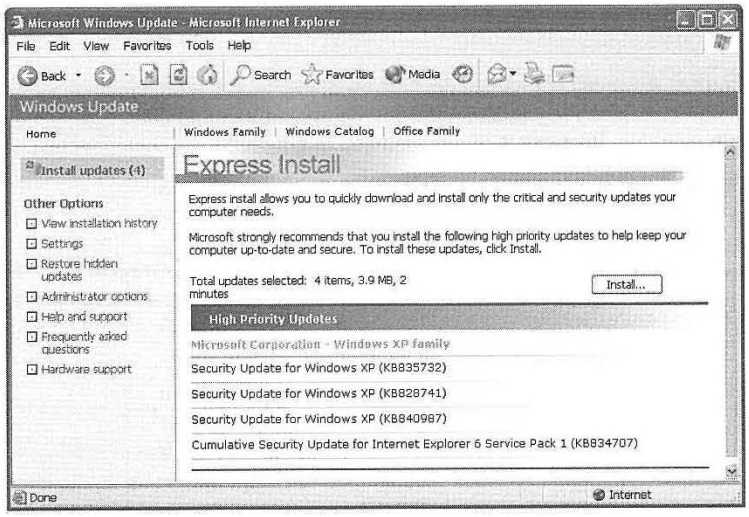


Figure 8-4:
Top: Clicking Express Install instructs Windows to check which updates you've already installed (middle). Be patient; this step can take a minute or so.

Bottom: After the scan, Windows Update shows you a list of the patches that Microsoft thinks your machine lacks. Click Install to begin the process of downloading and installing them. (You may have to restart the PC when it's over.)

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To see which updates Microsoft is offering you (and how to install them), see Figure 8-4.

Add/Remove Windows Components

Think of this tab as a miniature version of the Windows XP Installer described in Appendix A. It affords you the opportunity to install (or remove) a new Windows XP software component without having to reinstall all of Windows.

Set Program Access and Defaults

You see this option only if your PC has Windows XP Service Pack 1 or 2 installed. It's described in detail on page 50.

Administrative Tools

This icon is nothing more than a folder containing a handful of very technical diagnostic utilities—in fact, only shortcuts to them. You'll find brief descriptions of these tools in Chapter 15.

Automatic Updates

See page 325 for a discussion of this important security feature.

Bluetooth Devices

Bluetooth is a long-delayed, but promising, cable-elimination technology. It's designed to let gadgets communicate within about 30 feet, using radio signals.

You can get Bluetooth—either built in or as a slide-in cartridge—for computers, printers, Palm and PocketPC organizers, Sony camcorders, and so on. Microsoft's wireless keyboard and mouse both rely on Bluetooth. Even some cellphones have built-in Bluetooth transmitters. And more and more laptop models come with Bluetooth.

In theory, at least, the Bluetooth Devices appears on your PC only if it has a Bluetooth transmitter. (You'll find other Bluetooth programs scattered here and there in the Start menu, too, as you'll read shortly.)

Tip: So what's the difference between Bluetooth and WiFi (also known as 802.11)?

True, both features use radio waves to connect equipment wirelessly. But Bluetooth is a cable-elimination technology, used mostly for connecting dissimilar gadgets that are close to each other (laptop to cellphone, palmtop to cellphone, and so on).

WiFi is primarily a networking technology, with much greater range (and much greater power consumption), used to connect palmtops and laptops to each other and to the Internet.

You can use Bluetooth for all kinds of things. Among the most popular:

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- **Send files between gadgets.** Bluetooth lets you shoot files between computers no matter what the operating systems involved—Mac, Windows, Palm, Pocket PC, whatever—without wires or configuration. Figure 8-5 shows you the ropes.

  This is a huge convenience when you want to send ringtones to your cellphone from your PC, for example, or to download photos from a cellphone camera.



Figure 8-5:
If your PC has Bluetooth, start by choosing Start→ All Programs→Accessories→Communications→ Bluetooth File Transfer Wizard.

Top: When you click OK on the welcome screen, you get this screen, listing all the Bluetooth equipment you've "paired" as shown in Figure 8-6. If the computer or gadget you want isn't listed, click Search or Search Again.

(The other device must have Bluetooth, must be turned on, and must be "discoverable." You'll find the Discoverable checkbox in the device's preferences.)

In this example, you're sending a photo from your laptop to a Macintosh laptop.

Middle: The recipient sees a message like this and clicks Accept.

Bottom: On your machine, you see the file flying through the air. A message of congratulations appears when the transfer is complete.

(If someone sends you a file this way, you'll find it in your My Documents→Bluetooth Exchange Folder.)

Now, Bluetooth isn't especially fast—in fact, it's pretty slow. (You'll get file-transfer speeds of 30 to 50 K per second, depending on the distance and the hardware involved.) But when you consider the time you'd have taken for wiring and configuration using any other connection method, you may find that Bluetooth wins.

- **Inter-gadget communication.** Because Bluetooth is inexpensive and uses very little power, it's particularly popular in handheld devices, like connecting a cellphone

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to a Bluetooth headset (the first Bluetooth combo that really caught on). No more clumsy wires, which is a godsend when you're driving and trying to avoid hitting pedestrians.

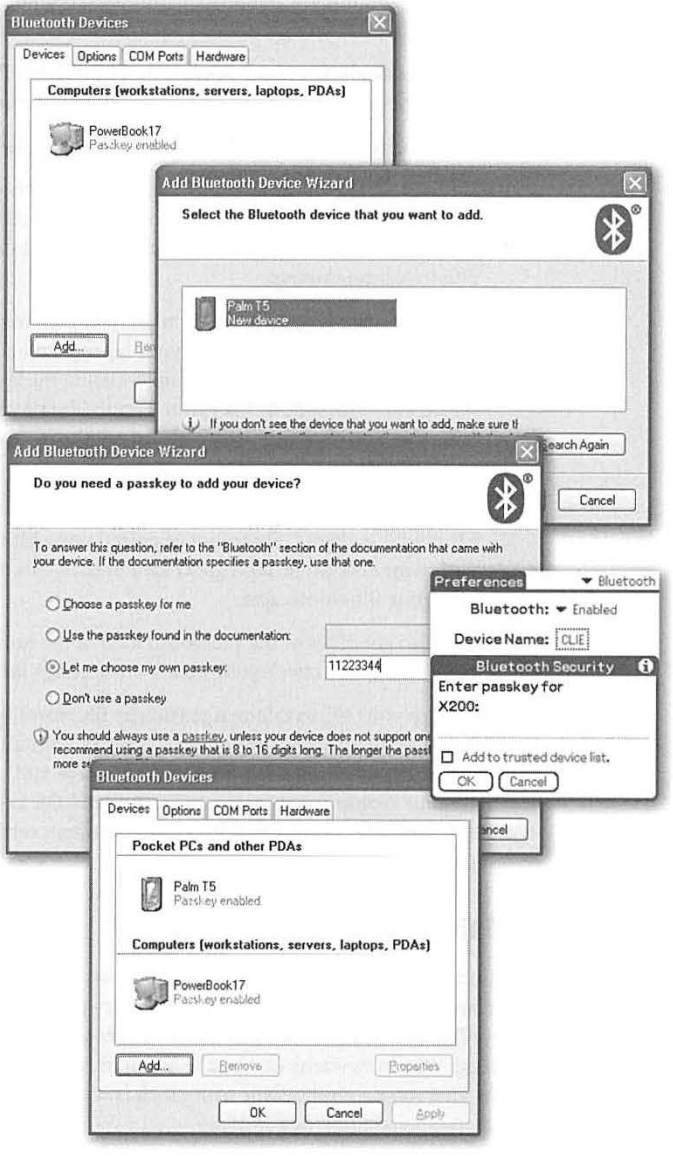


Figure 8-6:
The life cycle of a Bluetooth connection. (The dialog boxes shown here are the standard Microsoft offerings, but your Bluetooth adapter may come with its own, different-looking software.)

Top: You open the Bluetooth Devices control panel. It lists all of the other Bluetooth gadgets your PC has met so far (in this case, an Apple laptop). But you want to pair your PC with a new palmtop, so you click Add.

Second from top: After a moment, your PC finds the Palm, which you've made sure is turned on and is "discoverable" (you've done that in Preferences).

Third: Windows asks you to make up (or offers to make up) a one-time passkey. You'll have to enter the same one when the dialog box (shown at right) pops up on the Palm. (This is to prevent strangers from hooking into your Bluetooth gear without your knowledge—someone using a laptop to make calls using the cellphone in your pocket, for example.) You have 60 seconds to comply.

Bottom: If the pairing is successful, the Palm now appears in the Bluetooth Devices list.

At this point, you'd change your palmtop's synchronization settings to make them use the Bluetooth COM ports when syncing. (The same steps outlined here would apply to a PocketPC, by the way.)

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More examples: You can reduce clutter by buying a Bluetooth keyboard and mouse (from Microsoft, Logitech, and others), or sync your Palm or PocketPC without wires or cradles.

- **Wireless Internet.** If you have a Bluetooth cellphone, you can make Internet calls from your laptop or palmtop, without even taking the phone out of your pocket. (You may have to sign up for a $pecial $ervice plan from your cell carrier.)
- **Wireless GPS.** Place your Bluetooth GPS (Global Positioning Satellite) receiver on the dashboard of your car, and then use your palmtop or laptop for navigation.

In any case, here's a quick overview of this panel's two most important tabs:

- **Devices.** Here's where you introduce other Bluetooth equipment to your PC. Click Add to fire up the Bluetooth Setup Wizard, which scouts the local airwaves for Bluetooth gear in your vicinity and lets you add them to your PC's list. Figure 8-6 illustrates the process.

  When security is an issue—like when you plan to use your Bluetooth cellphone as a wireless Internet antenna for your laptop, and you'd just as soon not have other people in the airport waiting lounge surfing the Web via your cellphone—you can opt to *pair* your laptop with your phone (the passkey process illustrated in Figure 8-6). Once that's done, you're free to use the phone's Internet connection without any further muss, fuss, or passwords.

- **Options.** Here's where you make your PC discoverable (that is, "visible" to other Bluetooth gadgets). Once you've paired your Bluetooth gadgets, like your laptop with your cellphone, it's a good idea to turn this option off, so strangers can't tap into your Bluetooth gear.

  You also get a "Show the Bluetooth icon in the notification area" checkbox, so that you'll be able to check your Bluetooth settings faster the next time it's necessary.

Setting up your PC to talk to a particular Bluetooth gadget can be effortless (as with a Microsoft Bluetooth mouse, which comes with an easy-to-use installer) or it can take a Saturday of cruising Web pages for tips and tricks (as when you're trying to make your laptop communicate with a particular cellphone model, and you have to sleuth around until you find the proper modem settings). But it's all in the name of eliminating the world's cables, and that's a very good thing.

Date and Time

Your PC's conception of what time it is can be very important. Every file you create or save is stamped with this time, and every email you send or receive is marked with it. When you drag a document into a folder that contains a different draft of the same thing, Windows warns that you're about to replace an older version with a newer one (or vice versa)—but only if your clock is set correctly.

This program offers three different tabs:

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- **Date & Time.** To set the date, choose the month and year from the drop-down lists, and then click the correct calendar day square. To set the time, see Figure 8-7.
- **Time Zone.** This tab presents a world map—one that might tempt you to click to indicate your location on the planet. This display, too, is just for decoration; use the drop-down list above it to specify your time zone.

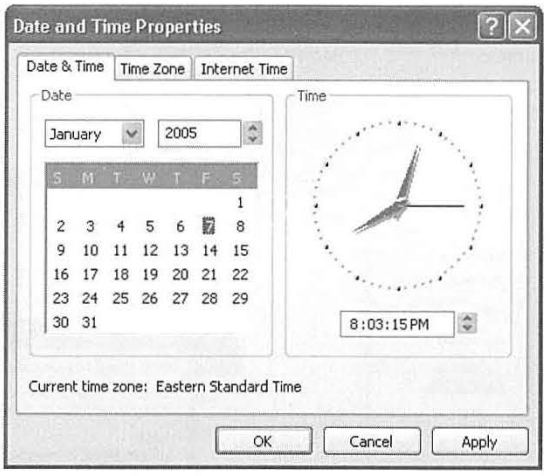


Figure 8-7:
To specify the current time, don't bother dragging the hands of the clock–they're just for decoration. Instead, click numbers in the time box, and then change it by typing numbers, pressing the up or down arrow keys on your keyboard, or by clicking the tiny up or down arrow buttons. To jump to the next number for setting, press the Tab key.

- **Internet Time.** By "Internet Time," Microsoft isn't referring to the recent, fanciful notion of a single, global timekeeping system (in which each day is divided into 1,000 equal time units). Instead, this tab lets you teach your PC to set its own clock by consulting a highly accurate scientific clock on the Internet. To activate this feature, turn on "Automatically synchronize with an Internet time server," choose one of the time server Web sites listed in the Server drop-down list, make sure you're online, and then click the Update Now button. (No need to worry about Daylight Savings Time, either, as the time servers take that into account.)

Note: Your PC will set its clock again once a week–*if* it's connected to the Internet at the time. If not, it will give up until the following week. If you have a dial-up modem, in other words, you might consider connecting to the Internet every now and then, and then using the Update Now button to compensate for all the times your PC unsuccessfully tried to set its own clock.

Display

Have you ever admired the family photo or Space Shuttle photo plastered across a co-worker's monitor desktop? The Display icon—one of the most important programs on your PC—is your ticket to such interior decoration stunts, and many others.

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This icon opens into a window (see Figure 8-8) whose controls are then divided into five tabs: Themes, Desktop, Screen Saver, Appearance, and Settings.

Tip: Here's a quick way to open the Display program: Right-click any blank spot on the desktop and choose Properties from the shortcut menu.

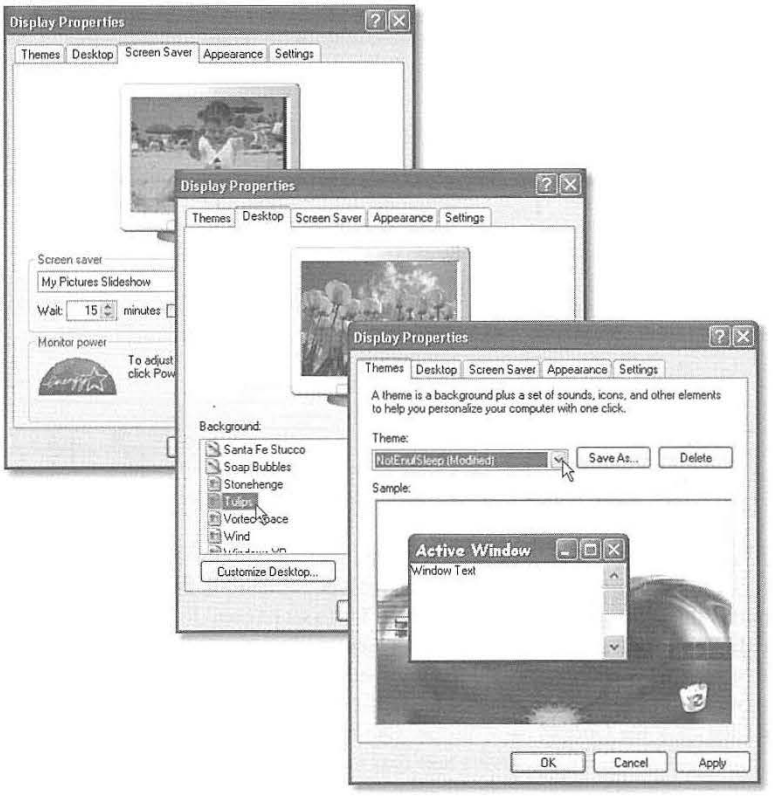


Figure 8-8: *Lower right: Here's a tool chest filled with everything you need to change the look of your desktop. In addition to redecorating the desktop, you can even redo the design scheme used for the windows you open as you work.*

Middle: The Desktop tab lets you choose a picture to plaster onto your desktop backdrop.

Upper left: Some screen savers are animated; they move, grow, or appear with fade-in effects. The My Pictures Slideshow shown here, for example, offers an endless slide show.

Themes Tab

Past versions of Windows let you change the background picture for your desktop, but that's kid stuff. This tab, new to Windows XP, lets you radically change the look and emotional tenor of your entire PC with a single click (see Figure 8-8, lower right).

Each of the themes listed here comes with a color scheme, font selection for your menus and dialog boxes, pictures for use as desktop icons, sounds, cursor shapes, and a desktop picture. (These special desktop pictures, by the way, are bonus backdrops

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that aren't listed in the Desktop tab, described next.) Now you know why it's so easy for people who don't care for the new, blue Windows XP graphic-design look to switch back to the old design—since each look is nothing more than a Theme.

Note: Choosing "More themes online" from the Theme drop-down list does indeed take you to a Microsoft Web page where you can download additional themes–as well as additional screen savers, games, and so on. But these aren't free. In fact, they're part of the $40 Microsoft Plus pack. (Operators are standing by.)

It's easy enough to design a new Theme of your own, however. Just use the other tabs in this program to set up the desired appearance of your PC screen, complete with your choice of desktop background, menu and window fonts, icons, and so on, exactly as described in the following pages. (Visit the Mouse and Sound programs in the Control Panel, too, to select cursor shapes and beep sounds.)

Then return to the Themes tab and click the Save As button. Finally, give your new theme a name, so that you can call it up whenever you like.

Desktop Tab

Your desktop's background surface doesn't have to show a sunlit hillside forever. You can very easily decorate it with a picture, pattern, or solid color.

Applying wallpaper

Wallpaper, in Windows lingo, is a picture that you can "hang" on your screen backdrop. Click one of the names in the Background list box (Figure 8-8, middle) to see how it looks on the miniature monitor in the dialog box. You'll quickly discover that Windows XP is blessed with some of the most spectacular full-screen photos ever amassed, including close-ups of flowers, the moon, spacey-looking ripples, Stonehenge, and several desert shots that some photographer must have sweat a lot to capture.

Tip: Not everything in the Background list box is a photo. Many of them are repeating patterns. Choosing one of these leaves a bit more memory in the PC pot for use by your programs.

GEM IN THE ROUGH

Webby Wallpaper

If there's a graphic on the Web that strikes your fancy, *it* can become wallpaper, too. Right-click the image–right there in your Web browser–and choose Set as Background (or Set as Wallpaper) from the shortcut menu. The graphic moves immediately to the middle of your desktop. (You'll probably have to close or minimize your browser window to see it.)

Windows XP saves the file in your Documents and Settings→[your name]→Application Data→Microsoft→Internet Explorer folder, naming it *Internet Explorer Wallpaper.bmp.* (If you use a Netscape browser, the file is called *Netscape Wallpaper.bmp* and lands in your Windows folder.) If you find another Web graphic you like and want to repeat the steps to turn it into wallpaper, be aware that Windows XP will save the new file with the same name, *replacing* the original file. To have access to both files, change the filename of the previous wallpaper file before grabbing a new image.

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If nothing in the list excites you, use one of your own graphic files as wallpaper, such as a scanned photo of your family or your family dog. Then click the Browse button to find the file you want. You can use any graphics file with one of these extensions: .bmp, .gif, .jpg, .jpeg, .png, .dib, .htm, or .html.

If the graphic is a small picture, you can specify how you want Windows to handle it by choosing one of these commands from the Position drop-down list:

- **Center** puts the graphic right smack in the middle of the screen, surrounded by a margin of whatever color you choose from the Color drop-down menu.
- **Tile** multiples the image, repeating it until it fills the entire desktop.
- **Stretch** distorts and expands the single image to fill the desktop, sometimes with coarse and grainy results.

After selecting a backdrop you like, click OK to apply it and close the dialog box. Or, to preview the wallpaper on your desktop, click the Apply button, leaving the dialog box open so that you can make another choice if the first one looks hideous.

To remove wallpaper, return to the Display Properties dialog box and select (None) at the top of the Background list box. Whatever color you've chosen in the Color drop-down menu reappears on your desktop in place of the wallpaper.

Solid colors

To change the color of your desktop without putting a picture there, click (None) in the Background list, and then choose a color from the Color drop-down menu.

The "Customize Desktop" Button

Clicking the Customize Desktop button at the bottom of the Display Properties dialog box takes you into an absolutely enormous world of additional options. The first thing you see after clicking Customize Desktop is the General tab.

General tab

A better name for this tab might have been "Desktop icons," since all of its options pertain to the icons that sit, or don't sit, on your desktop.

- **Desktop icons.** Microsoft is on a crusade to clean up the desktop. "The Start menu," its designers seem to say, "is the proper launching bay for opening files, programs, and folders. The desktop is just a placemat—so keep it clean."

  That's why most of the desktop icons that appeared in previous versions of Windows no longer appear on the desktop in Windows XP. This is Phase I of Microsoft's campaign to keep the desktop clean.

  If you want My Documents, My Computer, My Network Places, and Internet Explorer to sit out on your desktop, you must put them there yourself—by turning on the corresponding checkboxes here. (They also return to the desktop automatically when you switch the Start menu to its "Classic" view, as described on page 22.)

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- **Change Icon.** The middle section of the dialog box lets you change the pictures that Windows uses for the important desktop icons. If, say, you can't stand the look of the Recycle Bin icon, click it in this scrolling list and then click the Change Icon button. You'll be shown an assortment of potential replacement images. And if you've created or downloaded additional miniature pictures, you can use one of those by clicking the Browse button and navigating to the folder that contains them.



Figure 8-9: *Windows doesn't actually delete anything when it cleans away shortcut icons for your desktop. It just moves them into a folder called Unused Desktop Shortcuts (also on your desktop). You don't have to wait 60 days to reap the benefits of this little software janitor–just click the Clean Desktop Now button in the Display program→Desktop tab→Customize Desktop button→General tab. (Or, if it's easier, just right-click the desktop and choose Arrange Icons By→Run Desktop Cleanup Wizard from the shortcut menu.)*

- **Desktop cleanup.** Phase II of Microsoft's clean-up-your-desktop campaign involves the Desktop Cleanup Wizard. Every two months, a message pops up on your screen, offering to sweep away any desktop icons that you haven't used in a while (Figure 8-9).

Web tab

You use the Web tab to turn on *Active Desktop*, a feature that presents information from the Web directly on your desktop, live and self-updating. If you want to keep an eye on an approaching tornado, the stock market, or a live Webcast, this is the feature for you.

Of course, receiving live, continuous Internet information requires a live, continuous Internet *connection*. It's great if you have a cable modem or DSL line, for example, but less practical if you dial the Internet using a modem.

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Once the Web tab is in front of you, turn on a checkbox in the Web Pages list box (such as "My Current Home Page").

These checkboxes represent the various Web pages you'd like to see plastered across your desktop. To add to this list, click the New button, type the Web address, and click OK.

You can add any kind of Web information to your Active Desktop. Frequently updated pages like stock tickers are popular, but you can also use Web pages that don't change much.

In fact, by clicking New and then the Visit Gallery button, you can check out the Microsoft Web site, which offers an array of newsy, constantly updating Active Desktop elements—such as sports, weather, or travel news—that have been specially designed for desktop use. That is, they aren't actually Web pages, but blurbs that appear in their own little boxes on your living desktop.

And if you click the Browse button in the New Desktop Item dialog box, you can choose a graphics file or HTML (Web page document) on your hard drive for displaying on the desktop.

Tip: Here's something to tuck away for future Web-browsing sessions. Whenever you stumble onto a Web page that might make a good Active Desktop display, right-click its page—right there in Internet Explorer—and choose Set as Desktop Item from the shortcut menu. You've just added a new option without fiddling around in the Display program.

POWER USERS' CLINIC

Check Before You Sweep

When using Windows XP's *user accounts* feature (Chapter 16), keep in mind that the desktop icons you're sweeping away might not necessarily be *your* desktop icons. They might be *everybody's* desktop icons.

In other words, before you wildly nuke a bunch of desktop icons, it would be courteous to inspect them to make sure you're not deleting some shared icons that other people, when they log in, expect to find. To do so, right-click the desktop icon; from the shortcut menu, choose Properties. In the resulting dialog box, check the Location. Does the folder path display just your name, or "All Users"?

If it is, indeed, a shared desktop icon (All Users), you might want to leave it alone. Or, if you've already allowed the Desktop Cleanup Wizard to move the icon into the Unused Desktop Shortcuts folder, you can move it back manually to "everybody's" desktop by dragging them into the My Computer→Local Disk (C)→Documents and Settings→All Users→Desktop folder.

Conversely, if you fire up the PC one day and discover that someone else has cleared away shortcuts from *your* desktop, you can get them back. (Note that this trick requires you to use an Administrator account, of the sort described on page 492.)

Start by locating the Unused Desktop Shortcuts folder. It's in the Documents and Settings→[name of whoever deleted the icons]→Desktop→Unused Desktop Shortcuts folders. Once you find the missing icons, you can either move them back to the All Users→Desktop folder, or copy them back only to *your* Desktop folder.

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No matter how you select your desktop Web material, however, the process always ends with an "Add item to Active Desktop" confirmation box. It identifies both the name and the URL (Web address) of the page you've selected. It also contains a Customize button, which lets you specify how often you want your PC to update the Web page information with fresh data from the Internet. (Later, you can always adjust the schedule using the Properties button on the Web tab *of* the Desktop tab *of* the Display program in the Control Panel.)

When you click OK, a strange thing happens: Your entire desktop becomes a Web browser. Here's what you can do now:

- **Click links.** Web page material now appears directly on your desktop, complete with pictures, text—and links. Clicking one of these links takes you to a new Web page, exactly as in a Web browser—in fact, it *will* be in your Web browser, which opens automatically. You can actually surf the Web using the pages plastered to your desktop.
- **Move the page.** By pushing your cursor to the top of the Web page area, you can even make a little title bar/menu bar appear. Just drag it like a handle to move these little Web windows around the screen. (If you right-click *outside* the Web page portion of your desktop, you can choose Arrange Icons By→Lock Web Items on Desktop from the shortcut menu. You've just frozen the size and position of your Active Desktop windows. Repeat this process to unlock the positions.)

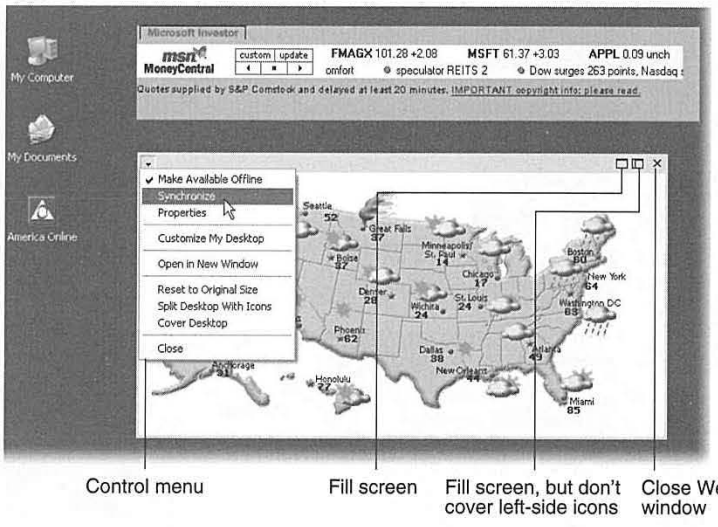


Figure 8-10: *The Control menu of each individual Active Desktop window contains useful commands. To make the menu appear, push your cursor close to the top of the mini-page.*

The Investor ticker (top) works a little bit differently. Click Custom to type in stock symbols you want to track; click the tiny square to pause the motion of the text. This item doesn't offer the usual mini-menu bar.

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- **Enlarge the page.** To make a little Web snippet fill your entire screen, or only the part unoccupied by icons, simply click one of the Fill Screen buttons shown in Figure 8-10. Of course, you can also drag the lower-right corner of a Web window to make it larger or smaller.
- **Update the page.** Unless you've set up a schedule, as described in the box below, your Active Desktop windows don't automatically update themselves to reflect the *latest* stocks, weather, and so on. To update the information, open the drop-down menu shown in Figure 8-10 and choose Synchronize.

GEM IN THE ROUGH

Active Desktop for Modem Fans

While Active Desktop works best with a full-time Internet connection, using it with a dial-up modem isn't impossible. Just set up your PC to connect at a certain time of day (just before you arrive at your desk, for example), update the Web page on your desktop, and then hang up. That way, a recent (but detached-from-the-Internet) Web page greets you each morning.

To arrange this, open the Desktop tab of the Display program, click the Customize Desktop button, and then click the Web tab. Click the name of the Web page you want to self-update, and then click the Properties button.



A special Properties dialog box appears. On the Web Document tab, turn on "Make this page available offline," and then click the Schedule tab. Turn on "Using the following schedule(s)"; click Add; use the controls to indicate the time of day you want your desktop updated; name the schedule, if you like; and turn on the "automatically connect for me" checkbox at the bottom of the window.

Before you click OK, though, consider this. At the specified time, your PC will dial the Internet and update the Web page on your desktop. But what then? You can read what's on the page, but you can't very well click one of the links on it. The Web page is frozen onto your desktop, disconnected from the Internet. As a result, if you click one of its links, you'll get only an error message.

That's the virtue of the final tab, the Download tab shown here. The "Download pages __ links deep from this page" option instructs your PC to download not just the specified Web page, but also all Web pages *connected* to it. If you change the number here to 2, then you'll also be able to click links on *those* pages, as well. In essence, you'll have the freedom to explore the links on your Active Desktop Web page to the extent of the pages-from-pages you specify. (All of these additional downloaded Web pages take up disk space, however, which is why there's a "Limit hard-disk usage" checkbox, too.) You can also conserve disk space by clicking the Advanced button and then omitting certain file types from the downloaded Web page, like graphics, sound, and video.

When you're finished setting up your automatic download, click OK.

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Tip: The usual Internet Explorer menu bar doesn't appear when your desktop is a browser. Therefore, you won't find standard commands like Back, Forward, Add to Favorites, and so on.

But if you right-click the desktop, a special shortcut menu appears that contains all of these important Web-browsing commands.

To turn off a particular Active Desktop window, choose Close from its drop-down menu (shown in Figure 8-10). You can also turn it off in the Display program, of course.

Screen Saver Tab

You don't technically *need* a screen saver to protect your monitor from burn-in. Today's energy-efficient monitors wouldn't burn an image into the screen unless you left them on continuously, unused, for at least two years, according to the people who actually design and build them.

No, screen savers are mostly about entertainment, pure and simple—and Windows XP's built-in screen saver is certainly entertaining.

The idea is simple: A few minutes after you leave your computer, whatever work you were doing is hidden behind the screen saver; passers-by can't see what's on the screen. To exit the screen saver, move the mouse, click a mouse button, or press a key.

Tip: Moving the mouse is the best way to get rid of a screen saver. A mouse click or a key press could trigger an action you didn't intend–such as clicking some button in one of your programs or typing the letter whose key you pressed.

Choosing a screen saver

To choose a Windows XP screen saver, use the Screen Saver drop-down list. A miniature preview appears in the preview monitor on the dialog box (see Figure 8-8, top).

POWER USERS' CLINIC

Password-Protecting Screen Savers

When you password-protect a screen saver, the act of "awakening" the PC by clicking the mouse or pressing a key merely produces a password dialog box. Until somebody types the correct password, the screen saver remains on the screen. This setup protects the data that's currently on your screen from prying eyes and also prevents anyone from using your computer.

To activate password protection, turn on "On resume, password protect" (if your PC belongs to a network domain) or "On resume, display Welcome screen" (if not). (Actually, the workgroup-PC wording depends on whether or not Fast User Switching is turned on, as described on page 502.)

A determined ne'er-do-well may think he can bypass this obstacle by unplugging the computer and turning it back on again. Of course, that tactic won't get him far, because he'll wind up right at the login dialog box, where once again, he'll need a password to get in.

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Tip: If you have graphics files in the Start→Documents→My Pictures folder, select the My Pictures Slideshow. Windows XP puts on a slide show that features your My Pictures images one at a time, bringing each to the screen with a special effect (flying in from the side, fading in, and so on). You can also click the Browse button to choose a different folder full of pictures.

To see a *full-screen* preview, click the Preview button. The screen saver display fills your screen and remains there until you move your mouse, click a mouse button, or press a key.

The Wait box determines how long the screen saver waits before kicking in, following the last time you moved the mouse or typed. Click the Settings button to play with the chosen screen saver module's look and behavior. For example, you may be able to change its colors, texture, or animation style.

At the bottom of this tab, click the Power button to open the Power Options Properties dialog box described later in this chapter.

Appearance Tab

Windows XP includes a number of *schemes*: predesigned accent-color sets that affect the look of all the windows you open. (Don't confuse schemes with *Themes*, of which schemes are just one portion.) These color-coordinated design schemes affect the colors of your window edges, title bars, window fonts, desktop background, and so on. They also control both the size of your desktop icons and the font used for their names (as shown in Figure 8-11), and even the fonts used in your menus.

The factory setting, called "Windows XP style," creates the sunlit blue look of window title bars, the new rounded shape of OK and Cancel buttons, and so on. By choosing "Windows Classic style" from the "Windows and buttons" drop-down list (Figure 8-11, left), you return your PC to the visual look of Windows Me/Windows 2000.

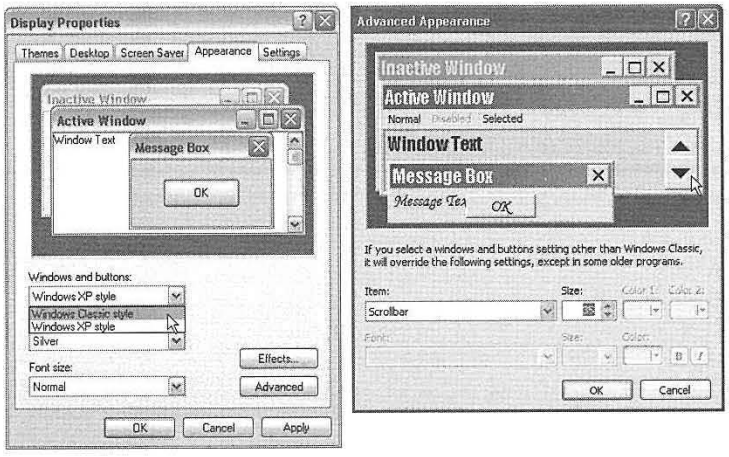


Figure 8-11:
Left: For the full arsenal of design-scheme controls, choose "Windows Classic style," as shown here, before clicking the Advanced button.

Right: As you click parts of the view pane, the Item list identifies what you clicked (such as Desktop, Scrollbar, and so on). Then use the drop-down lists to choose colors and type sizes for the chosen interface element.

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You, the interior designer

The real fun, however, awaits when you choose "Windows Classic style" (Figure 8-11, left) and *then* click the Advanced button. Now you find yourself in a dialog box that lets you change every single aspect of this scheme independently (Figure 8-11, right).

Note: Microsoft put a lot of work into the new look of XP, and doesn't want people diluting it with their own random changes. "If you want the XP look," the company is saying, "it's all or nothing." The bottom line: If "Windows XP style" is selected in the "Windows and buttons" list (Figure 8-11, left), the changes you make in the Advanced box (Figure 8-9, right) generally have no effect whatsoever.

Proceed with your interior decoration crusade in either of two ways:

- Change the elements of the scheme one at a time. Start by choosing from the Item drop-down list (or by clicking a piece of the view pane, as shown in Figure 8-11). Then use the Size, Color 1, and Color 2 drop-down lists to tailor the chosen element—such as Desktop or Scrollbar—to suit your artistic urges.
- Some of the screen elements named in the Item drop-down list have text associated with them: Icon, Inactive Title Bar, Menu, Message Box, ToolTip, and so on. When you choose one of these text items, the Font drop-down list at the bottom of the dialog box comes to life. Using this menu, you can change the typeface (font, color, and size) used for any of these screen elements. If you have trouble reading the type in dialog boxes (because you have a high-resolution, tiny-type screen), or you wish your icon names showed up a little more boldly, or you'd would prefer a more graceful font in your menus, these controls offer the solution.

If you create an attractive combination of colors and type sizes, remember that you can preserve it for future generations. Click OK to return to the Appearance tab, click the Themes tab, and then click Save As. You'll be asked to name your creation. Thereafter, you'll see its name listed alongside the "official" Microsoft themes.

Effects

Effects is the other button on the Appearance Tab. It takes you to a dialog box that lets you control what Microsoft calls *special effects* in Windows XP.

Now, these aren't exactly the kind of special effects they make at Industrial Light and Magic for use in *Star Wars* movies. On the contrary, they're so subtle, they're practically invisible. Nevertheless, here's what you'll find:

- **Use the following transition effect for menus and tooltips.** When this box is checked, menus, lists, and tooltips don't just pop open when clicked; instead, they gracefully *slide* open—an attractive, but time-wasting, effect. (Try it on your Start menu.) The drop-down list allows you to specify whether you want them to *fade* into view or *scroll* into view.

  If the checkbox is filled in with a solid color, then the transitions are turned on for some elements (like menus), but not for others (like tooltips).

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- **Use the following method to smooth edges of screen fonts.** When fonts are enlarged, they become ragged on the curves. But when you turn on this option, Windows XP softens the curves, making all text look more professional (or slightly blurrier, depending on your point of view; see Figure 8-12).

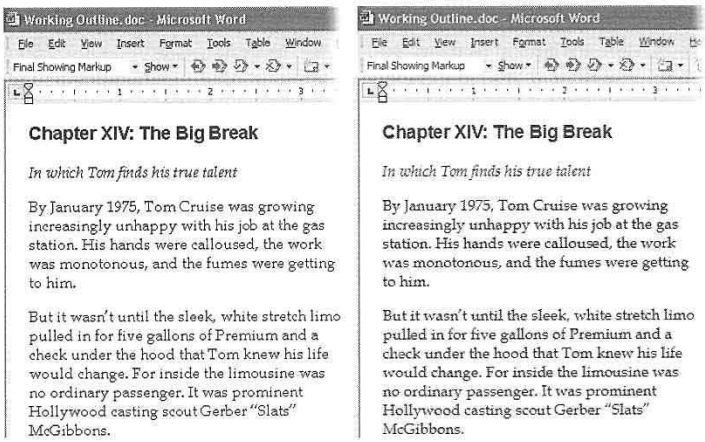


Figure 8-12: *Using the drop-down list, you can choose a smoothing technology that's new in Windows XP—something called ClearType. It's designed especially for flat-panel screens, including the ones on laptops. By changing the colors of the individual pixel on the edges of certain letters, it makes the type appear to be smoother than it really is.*

- **Use large icons.** This checkbox refers to desktop icons. If you're having trouble seeing your desktop icons, turn on this option to produce jumbo icons. *Factory setting:* Off.
- **Show shadows under menus.** Take a look: In Windows XP, open menus actually seem to cast faint, light gray drop shadows, as though the menu is floating an eighth of an inch above the surface of the window behind it. It's a cool, but utterly superfluous special effect that saps a tiny bit of speed from the proceedings. This checkbox is the on/off switch. *Factory setting:* On, if your PC belongs to a network domain; Off otherwise.
- **Show window contents while dragging.** If this option is off, when you drag a window, a faint outline of its border is visible; you don't see all the items *in* the window coming along for the ride. As soon as you stop dragging, the contents reappear. If it's on, however, as you drag a window across your screen, you see all its contents, too—which can slow the dragging process on slower machines. *Factory setting:* On.
- **Hide underlined letters for keyboard navigation until I press the Alt key.** This option refers to the small underlines that appear on certain letters in menus and dialog boxes, something like this. These are designed to help you remember the keyboard shortcuts for those menu commands. It's reminding you that by pressing the Alt key along with the underlined letter, you can choose the corresponding menu command without even using the mouse.

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In Windows XP, however, these underlined letters are hidden. They don't appear until you actually press the Alt key (or the Tab key, or an arrow key), which tells Windows XP: "I'd like to use my keyboard for navigating now, please."

The factory setting is On. If you turn off this checkbox, the underlines appear all the time, exactly as in older editions of Windows.

Settings Tab

The Settings tab (Figure 8-13) is where you can ensure that Windows XP is getting the most out of your video hardware.

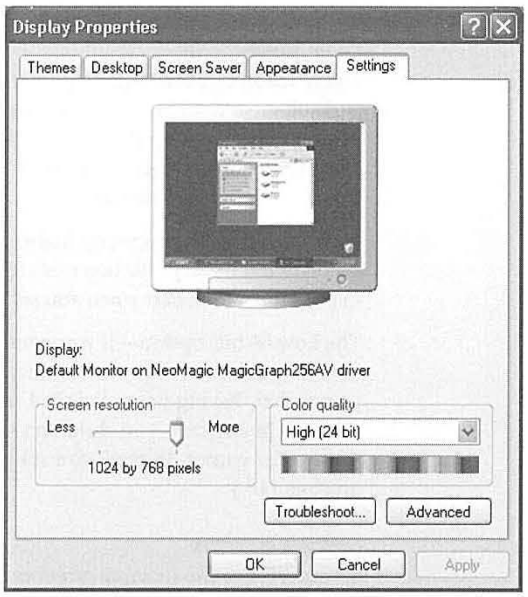


Figure 8-13:
All desktop screens today, and even most laptop screens, can make the screen picture larger or smaller, thus accommodating different kinds of work. Conducting this magnification or reduction entails switching among different resolutions *(the number of dots that compose the screen).*

FREQUENTLY ASKED QUESTION

Blurry Flat-Panel Screens

Yucko! I tried the 800 x 600 setting on my laptop, and everything got all blurry and fuzzy! How do I fix it?

On any flat-panel screen—not just laptop screens—only one resolution setting looks really great: the maximum one. That's what geeks call the *native* resolution of that screen.

At lower resolutions, the PC does what it can to blur together adjacent pixels, but the effect is fuzzy and unsatisfying. (On a traditional bulky monitor, the electron gun can actually make the pixels larger or smaller, but on flat-panel screens, every pixel is a fixed size.)

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Screen resolution

The "Screen resolution" slider snaps to the various possible *resolution* settings that your monitor's software driver makes available: 800 x 600, 1024 x 768, and so on.

When using a low-resolution setting, such as 640 x 480, the size of the pixels (dots) that comprise your screen image increase, thus enlarging the picture—but showing a smaller slice of the page. This setting is ideal, for example, when playing a small movie so that it fills more of the screen. At higher resolutions (such as 800 x 600 or 1024 x 768), the pixels decrease, reducing the size of your windows and icons, but showing more overall area. Use this kind of setting when you want to see as much screen area as possible: when working on two-page spreads in a page-layout program, for example.

Color quality

Today's monitors offer different *color depth* settings, each of which permits the screen to display a different number of colors simultaneously. This drop-down list varies by video driver, but generally offers settings such as Medium (16-bit), which was called High Color in previous versions of Windows; High (24-bit), once known as True Color; and Highest (32-bit).

In the early days of computing, higher color settings required a sacrifice in speed. Today, however, there's very little downside to leaving your screen at its highest setting. Photos, in particular, look best when you set your monitor to higher quality settings.

The Low (8-bit) option—if you even have it—makes photos look blotchy. It displays only 256 colors on the screen, and is therefore useful only for certain computer games that, having been designed to run on ancient PCs, require the lower color setting. (In any case, you shouldn't set your whole system to 256 colors just to run these older games. Instead, you should use the new compatibility mode described on page 116.)

Multiple monitors

If your PC has two or more graphics cards, one graphics card with multiple connections, or a standard laptop video-out connector, you can hook up a second monitor or a projector. You can either display the same picture on both screens (which is what you'd want if your laptop was projecting slides for an audience), or create a gigantic virtual desktop, moving icons or toolbars from one monitor to another. The latter setup also enables you to keep an eye on Web activity on one monitor while you edit data on another. It's a glorious arrangement, even if it does make the occasional family member think you've gone off the deep end with your PC obsession.

When you have multiple monitors attached, the controls on the Settings tab change; it now displays individual icons for each monitor, as shown in Figure 8-14. When you click a screen icon, the settings in the dialog box change to reflect *its* resolution, color quality, and so on.

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Tip: Don't have the cash for three more monitors? Then try the next best thing: a software version, courtesy of PowerToys for Windows XP, Microsoft's free goody bag of extra features (available from *www.missingmanuals.com*).

PowerToys includes Virtual Desktop Manager, a new taskbar toolbar that gives you four side-by-side *virtual* monitors. Each screenful can have its own background picture and holds its own set of open programs and windows. You can switch from one desktop to the next by pressing a keystroke of your choice, or by clicking the 1, 2, 3, or 4 buttons on the Desktop Manager toolbar.

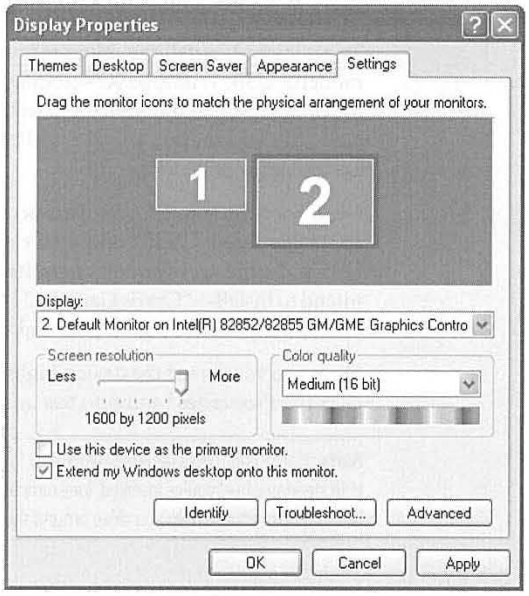


Figure 8-14:
One monitor is considered the primary *monitor. This is the screen that will display your opening Windows XP screen, the Login dialog box (if you use one), and so on.*

When you first start out, you'll probably see the same picture on both screens. But what if you'd like monitor #2 tto behave as an extension of monitor #1, rather than a mirror of it?

If you have a laptop, press whichever function key (F10, say) the manufacturer has designated to put an image only on the built-in screen. Now click screen #2's icon, and turn on "Extend my Windows desktop onto this monitor." When you click Apply or OK, you'll have a lot more screen real estate for your windows. (If screen #2 stays dark or displays an error message, lower its screen resolution and try again; your video card probably can't handle two full-res screens.)

While you're at it, drag the numbered screen icons to change how Windows "thinks" of them: beside one another, or even stacked vertically. The edge they have in common is where your cursor can fly off screen #1 and reappear on #2.

Advanced settings

If you click the Advanced button on the Settings tab, you're offered a collection of technical settings for your particular monitor model. Depending on your video driver, there may be tab controls here that adjust the *refresh rate* to eliminate flicker, install an updated adapter or monitor driver, and so on. In general, you'll rarely need to adjust these controls—except on the advice of a consultant or help-line technician.

Folder Options

This program offers three tabs—General, View, and File Types—all of which are described elsewhere in this book.

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Fonts

This icon is a shortcut to a folder; it's not a program. It opens into a window that reveals all of the typefaces installed on your machine, as described in Chapter 13.

Game Controllers

If you're a serious gamer, the Game Controllers program may interest you. You use it to configure and control the joysticks, steering wheels, game pads, flight yokes, and other controllers you've attached to your PC. After all, if your joysticks and controllers aren't installed and configured properly, you can't pulverize aliens to full capacity.

To get started, install the driver software that came with your gaming device. If it's a modern, USB, Windows XP–compatible gadget, you may not even need to do that much. Just plug in the device and watch the notification area for a message that Windows XP has detected it and installed the correct driver. (See Chapter 14 for more on installing gadgetry.)

Next, open the Game Controllers program, where you should see the newly installed controller listed. Click it and then click OK. If your device isn't listed, click the Add button. In the Add Game Controller dialog box, specify the kind of controller you intend to install—"Gravis GamePad Pro (GamePort)," "6-button joystick w/two POVs and throttle," or what have you, and then click OK.

Once you've selected the device, highlight its name in the Controller list box and then click the Properties button to test and set up its various buttons, wheels, and knobs.

Note: Game controllers generally work only in games that recognize them—not within Windows itself. That USB steering wheel you've installed, for example, will almost certainly work in your racing car simulator game, but don't expect it to help you drive around the icons on your desktop.

Internet Options

A better name for this program would have been "Web Browser Options," since all of its settings apply to Web browsing—and, specifically, to Internet Explorer. Its tabs break down like this:

- **General, Security, Privacy, and Content.** These tabs control your home page, cache files, and history list. They also let you define certain Web pages as off-limits to your kids. Details on these options are in Chapter 11.
- **Connections.** Controls when your PC modem dials; see page 309 for details.
- **Programs.** Use these drop-down lists to indicate which Internet programs you generally prefer for email, creating Web pages, and so on. For example, the email program you specify here is the one that will open automatically whenever you click an "email me!" link on a Web page. The checkbox at the bottom of the dialog box warns Windows to watch out for the day when you install a browser other

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than Internet Explorer. At that time, you'll be asked which program—IE or the new one—you want to use as your everyday browser.

- **Advanced.** On this tab, you'll find dozens of checkboxes, most of which are useful only in rare circumstances and affect your Web experience only in minor ways. For example, "Enable Personalized Favorites Menu" shortens your list of bookmarks over time, as Internet Explorer hides the names of Web sites you haven't visited in a while. (A click on the arrow at the bottom of the Favorites menu makes them reappear.) Turning off the "Show Go button in Address bar" checkbox hides the Go button at the right of the Address bar. After you've typed a Web address (URL), you must press Enter to open the corresponding Web page instead of clicking a Go button on the screen. And so on.

  For a relatively coherent description of each checkbox, click the question-mark button in the upper-right corner of the window and then turn on the checkbox in question.

Keyboard

You're probably too young to remember the antique known as a *typewriter*. On some electric versions of this machine, you could hold down the letter X key to type a series of XXXXXXXs—ideal for crossing something out in a contract, for example.

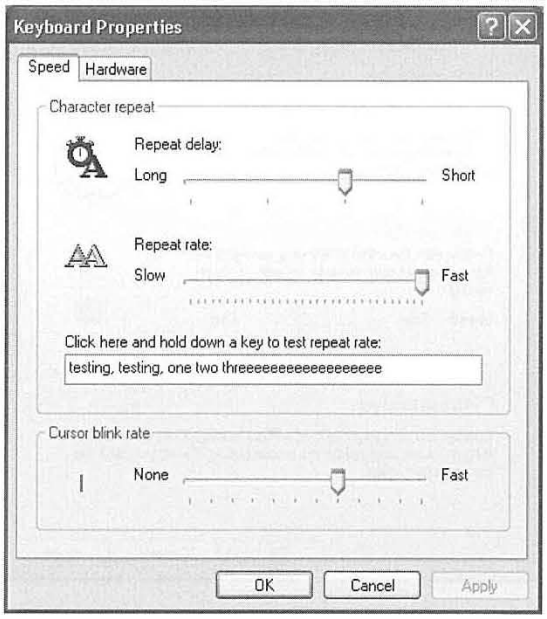


Figure 8-15:
How fast do you want your keys to repeat? This control panel also offers a Hardware tab, but you won't go there very often. You'll use it exclusively when you're trying to troubleshoot your keyboard or its driver.

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On a PC, *every* key behaves this way. Hold down any key long enough, and it starts spitting out repetitions, making it easy to type, "No WAAAAAY!" or "You go, grrrrrl!" for example. (The same rule applies when you hold down the arrow keys to scroll through the text document, hold down the = key to build a separator line between paragraphs, hold down Backspace to eliminate a word, and so on.) The Speed tab of this dialog box (Figure 8-15) governs the settings.

- **Repeat delay.** This slider determines how long you must hold down the key before it starts repeating (to prevent triggering repetitions accidentally).
- **Repeat rate.** The second slider governs how fast each key spits out letters once the spitting has begun.

After making these adjustments, click in the "Click here and hold down a key" test box to try out the new settings.

- **Cursor blink rate.** The "Cursor blink rate" slider actually has nothing to do with the *cursor,* the little arrow that you move around with the mouse. Instead, it governs the blinking rate of the *insertion point,* the blinking marker that indicates where typing will begin when you're word processing, for example. A blink rate that's too slow makes it more difficult to find your insertion point in a window filled with data. A blink rate that's too rapid can be distracting.

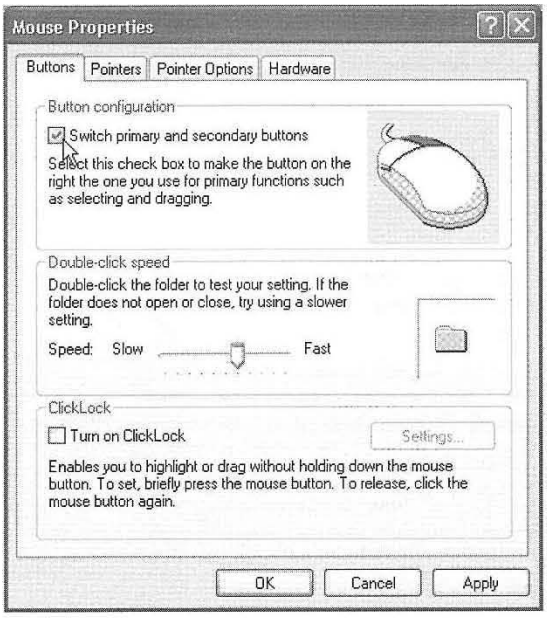


Figure 8-13:
If you're a southpaw, you've probably realized that the advantages of being left-handed when you play tennis or baseball were lost on the folks who designed the computer mouse. It's no surprise, then, that most mice are shaped poorly for lefties—but at least you can correct the way the buttons work.

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Mail

If you have this item, it's because you've installed Microsoft Outlook. The three buttons here offer direct access to the settings you need to teach Outlook about your email account.

Mouse

All of the icons, buttons, and menus in Windows make the mouse a very important tool. And the Mouse program is its configuration headquarters (Figure 8-13).

Buttons Tab

This tab offers three useful controls: button configuration, double-click speed, and ClickLock.

Button configuration

This checkbox is for people who are left-handed and keep their mouse on the left side of the keyboard. Turning on this checkbox lets you switch the functions of the right and left mouse buttons, so that your index finger naturally rests on the primary button (the one that selects and drags).

Double-click speed

Double-clicking isn't a very natural maneuver. If you double-click too slowly, the icon you're trying to open remains stubbornly closed. Or worse, if you accidentally double-click an icon's name instead of its picture, Windows sees your double-click as two single clicks, which tells Windows that you're trying to rename the icon.

The difference in time between a double-click and two single clicks is usually well under a second. That's an extremely narrow window, so let Windows XP know what you consider to be a double-click by adjusting this slider. The left end of the slider bar represents 0.9 seconds, and the right end represents 0.1 seconds. If you need more time between clicks, move the slider to the left; by contrast, if your reflexes are highly tuned (or you drink a lot of coffee), try sliding the slider to the right.

TROUBLESHOOTING MOMENT

Sharing a Computer Between a Lefty and Righty

If a right- and left-hander share a computer, confusion and marital discord may result. If the mouse is set for the righty, nothing works for the lefty, who then may assume that the PC is broken or cranky.

If you're using individual user accounts (see Chapter 17), Windows XP can solve the problem by switching the left- and right-button modes automatically when each person logs on.

But if you're not using user accounts, you probably need a quick way to switch the mouse buttons between lefties and righties. The easiest way is to create a shortcut to the Mouse control panel. Be sure to put it on the desktop or the Quick Launch toolbar, so that the button-switching checkbox is only a click away.

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Each time you adjust the slider, remember to test your adjustment by double-clicking the little folder to the right of the Speed slider. If the folder opens, you've successfully double-clicked. If not, adjust the slider again.

ClickLock

ClickLock is for people blessed with large monitors or laptop trackpads who, when dragging icons onscreen, get tired of keeping the mouse button pressed continually. Instead, you can make Windows XP "hold down" the button automatically, avoiding years of unpleasant finger cramps and messy litigation.

When ClickLock is turned on, you can drag objects on the screen like this:

1. **Point to the item you want to drag, such as an icon. Press the left mouse or trackpad button for the ClickLock interval.**

   Specify this interval by clicking the Settings button in this dialog box.

2. **Release the mouse button.**

   The button acts as though it's still pressed.

3. **Drag the icon across the screen by moving the mouse (or stroking the trackpad) without holding any button down.**

   To release the button, hold it down again for your specified time interval.

Pointers Tab

If your fondness for the standard Windows arrow cursor begins to wane, you can assert your individuality by choosing a different pointer shape.

Selecting a pointer scheme

Windows has many more cursors than the arrow pointer. At various times, you may also see the hourglass cursor (which means, "wait; I'm thinking" or "wait; I've crashed"), the I-beam cursor (which appears when you're editing text), the little pointing-finger hand made famous by Microsoft's advertising (which appears when you point to a Web page link), and so on.

All of these cursors come prepackaged into design-coordinated sets called *schemes*. To look over the cursor shapes in a different scheme, use the Scheme drop-down list; the corresponding pointer collection appears in the Customize list box. Some are cute: Dinosaur, for example, displays an animated marching cartoon dinosaur instead of the hourglass cursor. Some are functional: The ones whose names include "large" offer jumbo, magnified cursors ideal for very large screens or failing eyesight. When you find one that seems like an improvement over the Windows Default (system scheme) set, click OK.

Select individual pointers

It's worth noting that you don't have to change to a completely different scheme; you can also replace just one cursor. To do so, click the pointer you want to change, and then click the Browse button. You're shown the vast array of cursor-replacement icons

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(which are in the Local Disk (C:)→Windows→Cursors folder). Click one to see what it looks like; double-click to select it.

Create your own pointer scheme

Once you've replaced a cursor shape, you've also changed the scheme to which it belongs. At this point, either click OK to activate your change and get back to work, or save the new, improved scheme under its own name, so you can switch back to the original when nostalgia calls. To do so, click the Save As button, name the scheme, and then click OK.

Tip: The "Enable pointer shadow" checkbox at the bottom of this tab is pretty neat. It casts a shadow on whatever's beneath the cursor, as though it's skimming just above the surface of your screen.

Pointer Options Tab

This tab offers a few more random cursor-related functions.

Pointer speed

It comes as a surprise to many people that the cursor doesn't move five inches when the mouse moves five inches on the desk. Instead, you can set things up so that moving the mouse one *millimeter* moves the pointer one full *inch*—or vice versa—using the Pointer speed slider.

It may come as even greater surprise that the cursor doesn't generally move *proportionally* to the mouse's movement, regardless of your "Pointer speed" setting. Instead, the cursor moves farther when you move the mouse faster. How *much* farther depends on how you set the "Select a pointer speed" slider.

The Fast setting is nice if you have an enormous monitor, since it prevents you from needing an equally large mouse pad to get from one corner to another. The Slow setting, on the other hand, can be frustrating, since it forces you to constantly pick up and put down the mouse as you scoot across the screen. (You can also turn off the disproportionate-movement feature completely by turning off "Enhance pointer precision.")

Snap To

A hefty percentage of the times when you reach for the mouse, it's to click a button in a dialog box. If you, like millions of people before you, usually click the *default* (outlined) button—such as OK, Next, or Yes—the Snap To feature can save you the effort of positioning the cursor before clicking.

When you turn on Snap To, every time a dialog box appears, your mouse pointer jumps automatically to the default button, so that all you need to do is click. (And to click a different button, such as Cancel, you have to move the mouse only slightly to reach it.)

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Visibility

The options available for enhancing pointer visibility (or invisibility) are mildly useful under certain circumstances, but mostly, they're just for show.

- **Display pointer trails.** *Pointer trails* are ghost images of your mouse pointer that trail behind the pointer like a bunch of little ducklings following their mother. In general, this stuttering-cursor effect is irritating. On rare occasions, however, you may find that it helps locate the cursor if you're making a presentation on a low-contrast LCD projector.
- **Hide pointer while typing.** Hiding the mouse pointer while you're typing is useful if you find that it sometimes gets in the way of the words on your screen. As soon as you use the keyboard, the pointer disappears; just move the mouse to make the pointer reappear.
- **Show location of pointer when I press the CTRL key.** If you've managed to lose the cursor on an LCD projector or a laptop with an inferior screen, this feature helps gain your bearings. When you press and release the Ctrl key after turning on this checkbox, Windows displays an animated concentric ring each subsequent time you press the Ctrl key to pinpoint the cursor's location.

Hardware tab

The Mouse program provides this tab exclusively for its Troubleshoot and Properties buttons, for use when your mouse, or its driver, is acting up.

Network Connections

This icon opens up into a window containing icons representing the various network connections you've configured—for America Online, your Internet provider, your network (the Local Area Connection icon), and so on. See Chapter 18 for details.

Network Setup Wizard

You use this wizard to share one PC's Internet connection on a network, turn on file sharing, or share one printer with other PCs on the network.

Phone and Modem Options

You'll probably need to access these settings only once: the first time you set up your PC or laptop to dial out. Details in Chapter 9.

Power Options

The Power Options program manages the power consumption of your computer. That's a big deal when you're operating a laptop on battery power, of course, but it's

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also important if you'd like to save money (and the environment) by cutting down on the juice consumed by your *desktop* PC.

The options available in this program depend on your PC's particular features. Figure 8-17 displays the Power Options Properties dialog box for a typical laptop computer.

Power Schemes Tab

The Power Schemes tab lets you select, change, or create *power schemes*. A power scheme defines which components of your PC shut down since you last used your keyboard, mouse, or processor. Much like a screen saver, power schemes are designed to save power, but they offer a greater variety of tricks:

- **Turn off monitor.** Your monitor goes dark, and its power light changes from green to yellow.
- **Turn off hard disks.** The hard drives stop spinning.
- **System standby.** The computer goes into *standby mode*, which is similar to being asleep. The monitor, fan, hard drive, and other components go dark and still. (Only a trickle of electricity is required to keep alive what's stored in memory.) When you press a key or click the mouse, the PC wakes up in less than five seconds, returning to the screen everything you were doing before the computer dozed off. (The one

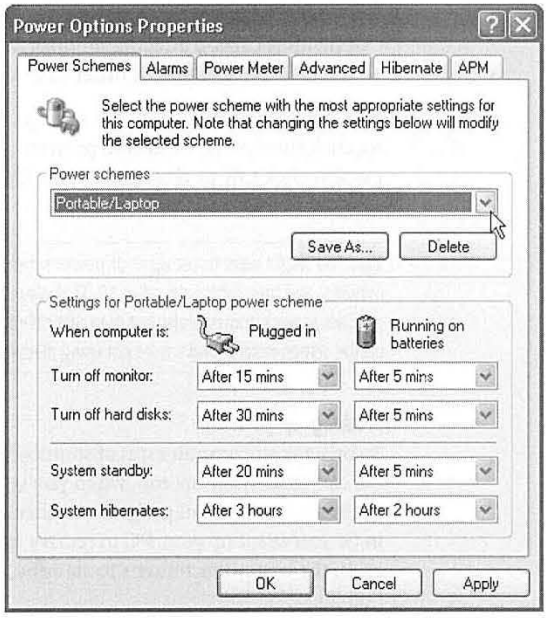


Figure 8-17:
The Power Options program is a shape-shifter, meaning which set of tabs it has, and which controls are available on each one, vary from one PC to the next. Some of these tabs appear only if you have a laptop (or an uninterruptible power supply). Others depend on how new the PC is, and which version of the standard power-management circuitry it contains.

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downside of standby mode: If the power goes out, you lose any unsaved changes in the documents on the screen.)

- **System hibernates.** As described in more detail on page 27, a PC that's about to hibernate copies everything in its memory into a file on the hard drive (a process that takes a minute or so). Then the computer completely shuts down, requiring no power at all. Even if the power goes out, everything you had open is safely preserved.

  Later, when you "awaken" the computer again (by pressing the power button), you're returned to the same open documents and programs. Copying all of this information from the hard drive back into memory takes 30 or seconds or so, but that's still a lot faster than the computer would have taken to turn on from its Off condition.

Use the "Power schemes" drop-down list to choose from Windows XP's built-in power schemes: Home/Office Desk, Portable/Laptop, Presentation, Always On, and so on. Each of these schemes calls up certain canned settings to match the situation. For example:

- **Home/Office Desk** is designed for desktop computers. The factory settings put the monitor into low-power mode first, then the hard drive, then the computer itself. (In other words, it goes into standby or hibernate mode.)
- **Always On** puts your monitor and hard drive to sleep after ten minutes or an hour, but never invokes standby for the PC itself.
- **Portable/Laptop** puts the monitor, hard drive, and computer to sleep sooner than the desktop schemes in order to save battery power.

You're welcome to change the settings for any of these schemes. Once you've done so, click the Save As button to preserve your new settings under a new scheme name. Finally, click OK to close the Power Options Properties dialog box and activate the selected power scheme.

Tip: You might want to set up your power scheme so that the PC goes into standby mode after, say, ten minutes, and then hibernates after 30. That way, if you're only away from your desk for a minute, you can get back to work immediately–but if you get called away longer, or even overnight, everything that was open on the screen is safe–and you're not using electricity while you're away.

Waking up your PC

To bring your computer out of standby mode, just move the mouse or press a key. The PC can wake itself up, too, when you've programmed something to happen (such as setting up your email program to check for new messages) or when a fax call comes in (if you've set up your PC to receive faxes). When the task or the phone connection ends, the computer returns to standby automatically.

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To bring the computer back from hibernation, you generally have to press the power key.

Alarms and Power Meter Tabs: For Laptops

Notebook computers offer additional power options, which help them conserve power when running on batteries.

Alarms tab

When your battery starts running out of juice, your laptop displays a warning message. When there are only a few seconds of power left, you get another, more urgently worded message. Both messages are designed to alert you that *now* is a good time to save whatever document you've been working on; the laptop is about to go to sleep until you've plugged the power cord into the wall.

The controls on this tab let you specify when (or whether) these messages appear, what kind of notification you want (a message, a sound, or both), and what the laptop does as a result (such as going into standby mode).

Power Meter tab

This tab is your laptop battery's fuel gauge. If your computer has two batteries, turn on "Show details for each battery." You'll see an icon for each battery, which slowly "empties" as your power runs down.

Advanced Tab

The "Always show icon on the taskbar" option puts a tiny power-plug icon (or battery icon, if you're using a laptop that's unplugged) in the notification area of the taskbar. Click this icon to produce a menu listing the power *schemes* you've established (see page 278), making it easy for you to switch among them. And if you right-click this icon, you're offered commands that take you directly to the Power Options program or its Power Meter tab.

If you select "Prompt for password when computer resumes from standby," you're asked to enter your login password (if you have one—see Chapter 16) each time you awaken the computer. That's handy protection when you wander away from the desk for some coffee or a candy bar.

Tip: Despite the name of this checkbox, Windows XP also demands a password in order to awaken from *hibernation* mode (not just standby).

On some PCs, this tab contains a third option, which lets you specify what happens when you press the power button on your computer. You may prefer that the power button put your computer into standby or hibernate modes, instead of turning the computer off. This feature is an ingenious hedge against a potentially disastrous situation: The computer is in standby mode but, upon seeing that your monitor is dark, you assume that it's turned off. You hit the power button to turn it *on*—but actually cut the power, obliterating any unsaved documents and possibly causing other file damage.

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Tip: If you've assigned the power button to the Standby or Hibernate functions, you can still use it to turn off the computer completely. Just hold the button down for a few seconds.

On a laptop, you can choose two different sets of settings, one for when the laptop is plugged in and one—presumably a more power-stingy configuration—for when it's running on batteries.

Laptops may also let you specify what happens when you close the lid (standby, hibernate, or do nothing) or press the sleep button (standby, hibernate, shut down, do nothing, or ask you what to do).

Hibernate Options

If you have a Hibernate tab—which is likely, since most computers young enough to run Windows XP are also young enough to include this relatively recent feature—you can use it to set up the *hibernation* feature (see page 27). Turning on "Enable hibernation" does the following:

- The Power Schemes tab displays a new power-scheme option called System Hibernates. Now you can specify the duration of idle time before your PC hibernates automatically. On some older PCs, you may not see the System Hibernates option until you turn on the "Enable Advanced Power Management Support" checkbox on the APM tab.
- The Shut Down dialog box (Start→Turn Off Computer) displays a Hibernate option (in addition to Shut Down and Restart). See page 27 for details.

Note: Because the hibernation feature saves everything in memory as a file, it consumes a lot of disk space–in fact, as much disk space as your PC has RAM. (Note for techies: When the PC hibernates, it copies everything that was in RAM into a file on the hard drive called *Hiberfil.sys*.)

The Hibernate tab displays the amount of free disk space, along with the amount of disk space that's required for the PC to hibernate.

Troubleshooting Standby and Hibernation

Both standby and hibernation modes can cause glitches. For example:

Standby doesn't save data

When your computer is in standby mode, any unsaved documents on the screen remain unsaved. In fact, your computer is in the same state it would be if you walked away without using standby; the only difference is that the PC is consuming less power. During hibernation, by contrast, everything in memory—that is, everything on the screen, including all open documents and programs—is saved to a file on your hard drive.

If you shut off the computer, or if power fails, any documents you forgot to save are gone forever. Therefore, it's a good idea to choose File→Save for any documents

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you're working on before putting the computer into standby mode or leaving your computer unattended (which triggers standby mode automatically).

Your disks don't work right away

Because standby mode affects every hardware device in your system, moving your mouse to wake up your computer from standby mode doesn't make every device available to you in a nanosecond. Some gear, notably removable-disk drives like Jaz, Zip, and CD-ROM drives, require several seconds to "warm up" after your PC awakens.

Computer fails to enter hibernate or standby mode

Standby and hibernate modes work only with the cooperation of all the gear attached to your system. Behind the scenes, Windows notifies the device drivers that power is being reduced. Those drivers are supposed to respond with a message indicating they're capable of *awakening* from standby or hibernate mode. If a device driver doesn't indicate that it can be awakened, the PC stays on.

In such cases, an error message appears telling you that your system can't enter standby/hibernate mode because "*<name of device driver>* failed the request." The exact wording of the message depends on whether you're trying to enter standby or hibernate mode, and on the specific hardware problem. The most common culprits are video-controller drivers and sound-card drivers.

Until you update the hardware driver (or replace the component with one that has a standby-capable driver), you won't be able to put the PC into standby or hibernate mode at all.

WORKAROUND WORKSHOP

UPS When the Lights Go Out

The typical UPS offers only a few minutes of battery power. The usual advice, then, is this: If you're working at your PC when the power fails, save your documents and shut down the PC (or activate hibernation mode) at the first opportunity.

That advice won't help, however, if you're away from your desk when the power goes out, thereby missing your chance to save the documents.

Fortunately, you can hedge against such disaster by instructing your PC to enter hibernation mode—thus saving all open documents—when the UPS battery drops to a certain level.



To do so, click the Alarm Action button (on the Alarms Tab—for USB-connected UPSes) or the Configure button (on the UPS Tab—for serial-connected UPSes), and then, from the drop-down list, instruct the computer to Hibernate, as shown here. Now you're protected.

Next challenge: figuring out how on earth you're going to spend your time in a house with no PC and electricity.

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APM Tab

This tab appears only on older PCs that don't meet a Microsoft standard called ACPI (Advanced Configuration and Power Interface).

Note: If your computer is ACPI-compatible—or OnNow-compatible, as it may be labeled—it offers a few extra power-management enhancements. Some examples include separate battery-level displays (if you have more than one), the ability to add and remove PC cards without restarting the computer, and the ability to wake up for network activity.

APM (Advanced Power Management), in other words, isn't quite so advanced by today's standards. Still, if you have this tab, be sure to turn on "Enable Advanced Power Management support" to receive the features it does offer—the very features described in these pages.

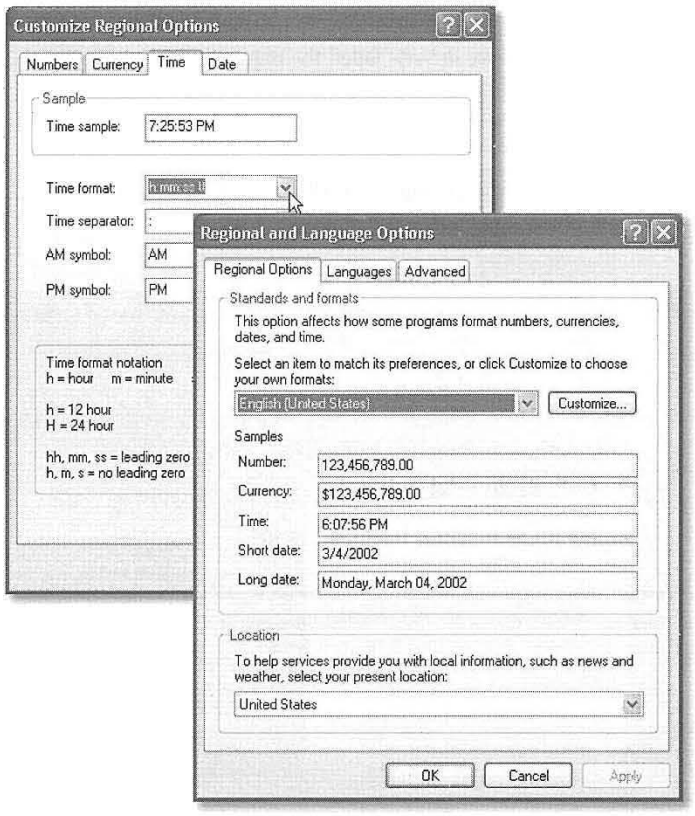


Figure 8-18:
Lower right: The Regional Options tab is a summary of the crazy settings that you can change by clicking the Customize button—which opens the Customize Regional Options dialog box, shown at top left.

Top left: The changes you make here are reflected in the date and time stamps on your files located in list-view folder windows, and in Microsoft Excel (in the case of your Currency-tab choices).

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UPS Tab

This tab has nothing to do with the United Parcel Service, even if that's how your PC was delivered. It refers instead to an uninterruptible power supply—a box (about $120) capable of generating a few minutes of battery power in the event of a blackout. This short reprieve provides just enough time for you to save your documents before the lights go out.

The truth is that this tab is designed to accommodate older UPS devices that plug into your PC's serial port. Using the controls here, you can check the battery in the UPS, click Configure to specify when you want its battery-low alarm to sound, and so on.

More recent UPS products, on the other hand, connect to your PC's USB port. Ironically, hooking it up to your computer makes the UPS Tab *disappear* from the Power Options program. In its place, you get the two tabs—Alarms and Power Meter—that usually show up only on laptops. After all, these dialog boxes are designed to let you monitor and configure battery power—and in effect, your desktop PC is now battery-powered.

Printers and Faxes

This one isn't a program at all; it's a shortcut to your Printers and Faxes folder, described in Chapter 13.

Regional and Language Options

Windows XP is by far the most internationally oriented version of Windows to date. It can accommodate any conceivable arrangement of date, currency, and number formats; comes with fonts for dozens of Asian languages; lets you remap your keyboard to type non-English symbols of every ilk; and so on.

For the first time in Windows, you can install multiple input languages on your computer and easily switch between them when the mood strikes (see page 96 for details about the Language bar). The key term here is *input language*; the language for the operating system doesn't change. If you installed Windows XP in English, you'll still see the menus and dialog boxes in English. But when you switch the input language, your keyboard will type the characters necessary for the selected language.)

Regional Options Tab

If you think that 7/4 means July 4 and that 1.000 is the number of heads you have, skip this section.

But in some countries, 7/4 means April 7, and 1.000 means one thousand. If your PC isn't showing numbers, times, currency symbols, or dates in a familiar way, click the Customize button to rearrange the sequence of date elements (see Figure 8-18).

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Tip: The Customize Regional Options box (Figure 8-15, left) is where you can specify whether you prefer a 12-hour clock ("3:05 PM") or a military or European-style, 24-hour clock ("1505").

Languages Tab

The symbols you use when you're typing in Swedish aren't the same as when you're typing in English. Microsoft solved this problem by creating different *keyboard layouts*, one for each language. Each keyboard layout rearranges the letters that appear when you press the keys. For example, using the Swedish layout, pressing the semicolon key produces an ö—not a semicolon (;).

For a choice of keyboard layouts, use the Settings tab of this dialog box to install the appropriate driver. Click Details, click Add, and, in the resulting window, choose the languages you want (see Figure 8-19).

After installing more than one keyboard layout, you can switch between them in either of two ways:

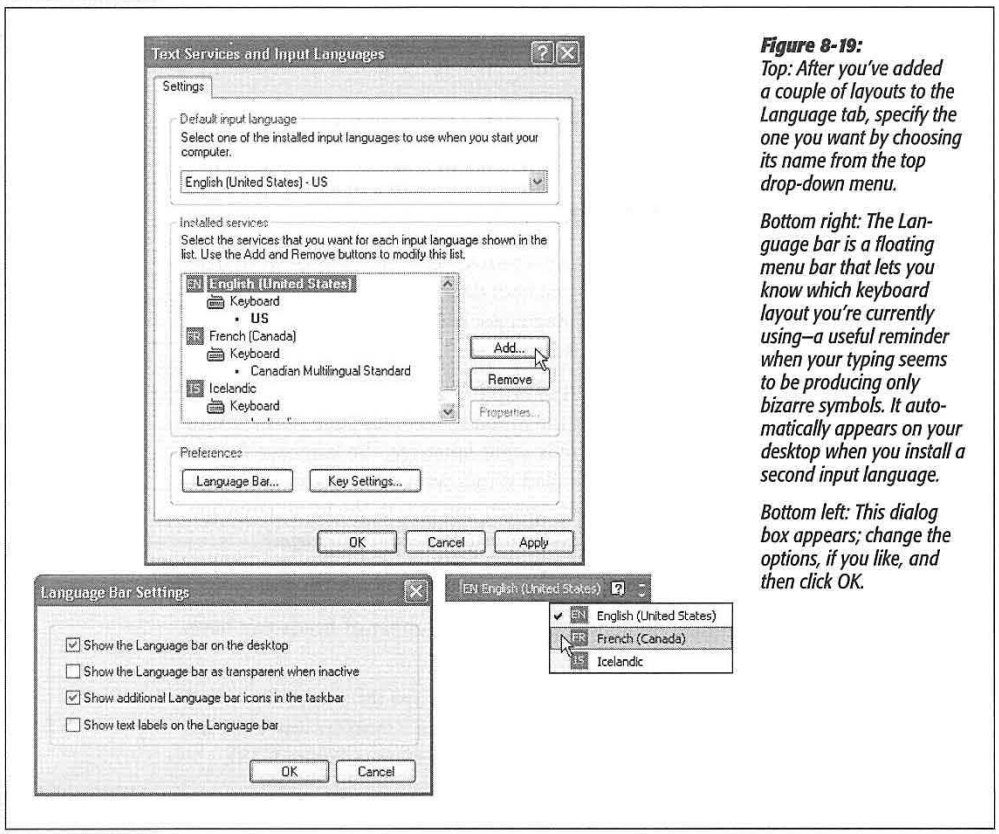


Figure 8-19:
Top: After you've added a couple of layouts to the Language tab, specify the one you want by choosing its name from the top drop-down menu.

Bottom right: The Language bar is a floating menu bar that lets you know which keyboard layout you're currently using—a useful reminder when your typing seems to be producing only bizarre symbols. It automatically appears on your desktop when you install a second input language.

Bottom left: This dialog box appears; change the options, if you like, and then click OK.

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- Use the Language bar, a floating, ghostly menu that lets you switch keyboard layouts no matter what you're doing on the PC (Figure 8-19, bottom).

Note: The Language bar also appears if you've turned on or installed handwriting-recognition systems, Microsoft speech-recognition systems, or additional input languages, including special input software designed to let you type Asian language characters.

- You can also switch from one keyboard layout to the next by simultaneously pressing the left-side Alt and Shift keys. Clicking the Key Settings button at the bottom of the dialog box shown at top left in Figure 8-19 lets you change this key combination, or set up individual key combinations for each language layout you've installed.

Tip: To view your new keyboard arrangement, use the Character Map program described on page 189.

The Languages Tab also offers checkboxes that let you install the additional software required to word process in right-to-left languages (Hebrew, Vietnamese, and so on) and East Asian languages (Chinese, Japanese, and Korean). Proceed at your own risk—these files consume about 250 MB of disk space.

Advanced Tab

When running certain programs that are written to display their menus and dialog boxes in other languages, you can, in theory, use these language conversion tables to help Windows XP correctly display those languages. Microsoft offers you the option of applying the settings to the current user account and to the default user profile. (You have to be an *administrator* [page 492] to install or remove these conversion tables.)

Scanners and Cameras

This icon isn't a program at all; it's a shortcut to the Scanners and Cameras window, where there's an icon for each digital camera or scanner you've installed. Fortunately, Windows XP largely automates the operation of these gadgets once you've hooked them up. Still, it's nice to have a central window that contains their icons, so that, if nothing else, you can right-click them to examine their properties.

Scheduled Tasks

Here's another folder masquerading as a program. For more on scheduled tasks, see Chapter 15.

Security Center

Chapter 10 covers this command center in detail.

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Sounds and Audio Devices

The five tabs within this panel control every aspect of your microphone, speakers, and associated software.

Volume Tab

These controls govern the speaker volume for your system, but you'd be crazy to open the Control Panel and this program every time you want to adjust your PC speakers. Fortunately, the "Place volume icon in the taskbar" checkbox puts a speaker icon in your notification area, near the time display. Click that icon to open a much more convenient volume slider.

This dialog box also offers these buttons:

- **Advanced.** Opens the Volume Control program described on page 231.
- **Speaker Volume.** Produces sliders that let you set the left and right channel volumes of your PC's audio independently. (This essentially duplicates the function of the Balance slider in the Volume Control program, but at least you can't claim you're unable to adjust your speaker balance.)

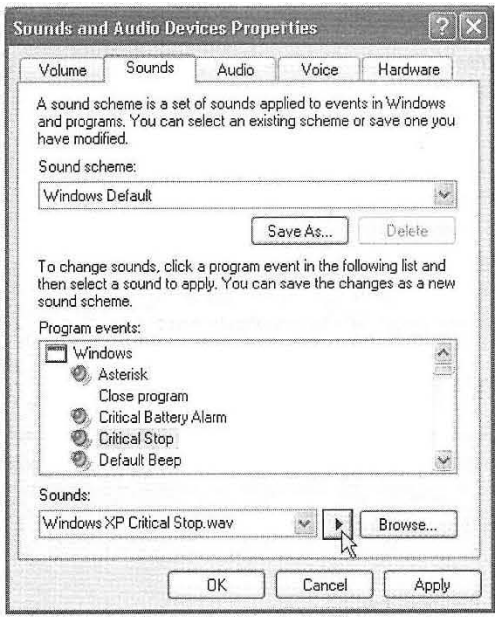


Figure 8-20:
The Program Events list box presents every conceivable category in which a sound is played: Windows, NetMeeting, Windows Explorer, and so on. (The installers for some programs–America Online, for example–may add categories of their own.)

- **Advanced** (yes, there's a second Advanced button, this one at the bottom of the dialog box, in the Speaker settings section). If you're an audiophile whose PC is

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the center of the sound system, this one is for you. It opens an Advanced Audio Properties dialog box that lets you specify exactly what kind of speakers are connected to your PC—5.1 surround sound, quadraphonic, monitor-mounted stereo speakers, and so on. Its Performance tab lets you specify how much of the PC's energy should be put into sound generation.

Sounds Tab

Windows plays little sound effects—beeps, musical ripples, and chords—all the time: when you turn on the PC, trigger an error message, empty the Recycle Bin, and so on. And if you like, you can hear them on many other occasions, such as when you open or exit a program, open a menu, restore a window, and so on. This tab lets you specify which sound effect plays for which situation (Figure 8-20).

Program events

A speaker icon denotes the occasions when a sound will play. If you click the name of some computer event, you can:

- Remove a sound from the event by choosing (None) from the Sounds drop-down list.
- Change an assigned sound, or add a sound to an event that doesn't have one, by clicking the Browse button and choosing a new sound file from the list in the Open dialog box.

When you select a sound, its filename appears in the Sounds drop-down list box. Click the triangular Play button to the right of the box to hear the sound.

Tip: When you click the Browse button, Windows XP opens the Local Disk (C:)→Windows→Media folder, which contains the *.wav* files that provide sounds. If you drag *.wav* files into this Media folder, they become available for use as Windows sound effects. Many people download *.wav* files from the Internet and stash them in the Media folder to make their computing experience quirkier, more fun, and richer in *Austin Powers* sound snippets.

Sound scheme

Each set of sounds is called a sound *scheme*. Sometimes the sound effects in a scheme are even sonically related (perhaps the collection is totally hip-hop, classical, or performed on a kazoo). To switch schemes, use the "Sound scheme" drop-down list.

You can also define a new scheme of your own. Start by assigning individual sounds to events, and then click the Save As button to save your collection under a name that you create.

Audio, Voice, and Hardware Tabs

The other three tabs on the Sounds and Audio Devices Properties dialog box control the settings of your various multimedia gadgets.

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- Use the Audio tab to select and configure your microphones and speakers. (Most people have only one gadget for each purpose, so making a choice isn't exactly a brainteaser.)
- Use the Voice tab to select and configure your microphone.
- The Hardware tab offers a subset of the Device Manager (see page 443). It presents a list of the sound, video, and movie-related hardware components on your PC, and identifies them by brand and model.

Speech

This little program, new in Windows XP, lets you set up all the speech-related features of Windows.

Unfortunately, Windows XP doesn't *have* any speech-related features.

Think of this program instead as the front end for the speech features of other software. For example:

Speech Recognition Tab

This tab isn't even visible unless you've installed the limited speech-recognition feature of Microsoft Office XP. Use the controls here to retrain the system, configure the microphone, set the pronunciation sensitivity level, and so on.

Tip: In the end, if you decide that voice dictation is destined to be a productive part of your work regimen, you'd be well advised to invest in a far superior, more mature program like NaturallySpeaking. However, such programs don't have anything to do with this control-panel program.

Text To Speech Tab

Here's where you configure the voice of Windows—the robotic voice, called Microsoft Sam—that you hear any time Windows reads text aloud.

The catch here is that Windows never *does* read text aloud, except when you're using Narrator (page 187)—and Narrator has its own set of voice-selection controls. Microsoft Word XP *can* read text to you, however, and for that reason, you may be happy to know that you can specify Sam's rate of speaking (or Michael's, or Michelle's) using this dialog box.

System

This advanced control panel is the same one that appears when you right-click your My Computer icon and choose Properties from the shortcut menu (or press Windows logo key+Break key). Its various tabs identify every shred of circuitry and equipment inside, or attached to, your PC.

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General Tab

You can't change anything on this screen, but that doesn't mean it's not useful. Here you can learn:

- Which version of Windows XP you have (don't be surprised if the version number contains far more decimal points than you were taught is legal).
- The model name and speed of your PC's processor chip (such as Pentium 4, 2.6 GHz).
- How much memory your PC has—a very helpful number to know, particularly when it comes time to sell your old computer.

Computer Name

You personally will never see whatever you type into the "Computer description" box here. If you're on a network, however, the blurb you type here is what others see from across the wires. You might use the "Computer description" box to inform your fellow network citizens as to the operating system your PC uses, or what its contents are.

Likewise, the computer description isn't the same thing as your computer *name*, which once again comes into play primarily when you, or your co-workers, view your network connections. (Click the Change button to change the computer's name.)

Hardware Tab

This dialog box is nothing more than a portal. Its four buttons lead to these four other dialog boxes:

Figure 8-21:
If you're confident about the hardware add-ons that you install—and the stability of their drivers—instruct Windows XP to stop warning you every time an unsigned driver attempts to infiltrate your hard drive (click the top option button). On the other hand, if you want to guarantee the continued stability of Windows XP, click the Block option button, so that such software is never allowed to enter your system.



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- **Add Hardware Wizard.** The best way to install the software for a new piece of equipment—a scanner, printer, camera, or whatever—is to use the installation CD that came with it. If you've downloaded a driver from the Internet, however, or in certain other circumstances, you can use this wizard to walk you through the installation.

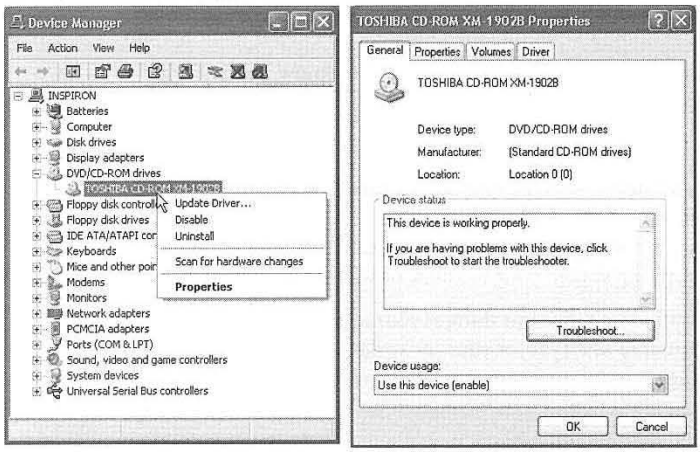


Figure 8-22: *Left: The Device Manager dialog box shows you where every dollar of your PC's purchase price went. Click a + sign to see exactly which CD-ROM drive, floppy circuitry, or other hardware you currently have.*

Right: Double-clicking a component (or right-clicking it and choosing Properties, as shown at left) lets you read about its specs.

- **Driver Signing.** After years of grief from its customers for having written an "unstable" operating system, Microsoft went to the root of the problem: buggy software drivers. In response, it created the driver *signing* program, in which the makers of various hardware add-ons can pay Microsoft to test and certify the safety and stability of their drivers. Whenever you install a driver that hasn't received this Microsoft blessing, a frightening dialog box appears to warn you, as described on page 442.

  By clicking this button, you can specify just how sensitive you want your PC to be when it encounters an installer putting an unsigned driver onto your system, as shown in Figure 8-21.

- **Device Manager.** This very powerful dialog box (see Figure 8-22) lists every component of your PC: CD-ROM, Modem, Mouse, and so on. Double-clicking a component's name (or clicking the + symbol) discloses the brand and model of that component. Many of these items are *controllers*—the behind-the-scenes chunks of electronics that control the various parts of your computer, with a technical-looking name to match. For much more on the Device Manager, see page 443.

- **Hardware Profiles.** If you're a laptop owner, your add-on equipment list probably changes from location to location. For example, when you're at the office, you may connect your laptop to a docking station—and when you're at 39,000 feet,

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you probably don't. The hardware profiles feature lets you switch between these configurations relatively easily. See page 447 for details.

Advanced Tab

Here's another dialog box that's nothing more than a nesting place for five buttons that open other dialog boxes—some of which aren't "advanced" in the least. Three of these buttons are called Settings, and here's what they cover:

Performance

The Visual Effects tab of the Performance Options dialog box (Figure 8-23) offers a long list of checkboxes that control the little animations and visual accents that define the more modern look and feel of Windows XP. For example, "Animate windows when minimizing and maximizing" makes Windows present a half-second animation showing your window actually shrinking down onto the taskbar when it's minimized. "Show shadows under mouse pointer" produces a tiny shadow beneath your cursor, as though it were floating a quarter-inch above the surface of your screen.

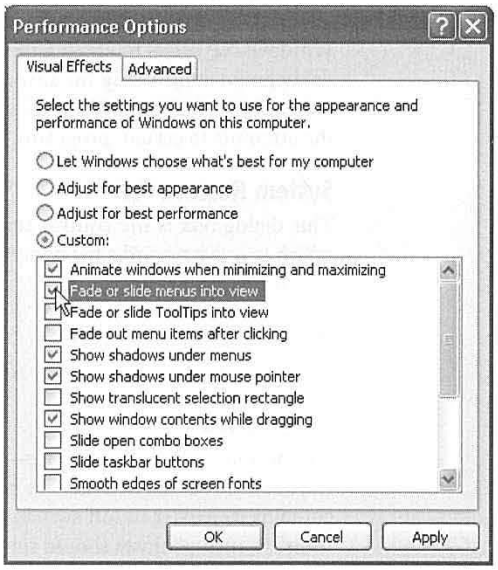


Figure 8-23:
Performance *means* speed. *Depending on the speed and age of your machine, you may find that turning off all of these checkboxes produces a snappier, more responsive PC—if a bit less Macintosh-esque. (Leave "Use visual styles on Windows and buttons" turned on, however, if you like the new, softened look of Windows XP.)*

All these little animations and shadows look cool, but each saps away a tiny scrap of speed and power. Using this dialog box, you can freely turn off the checkboxes for the features you could do without.

The Advanced tab of this dialog box is far less casual. It controls how Windows XP uses your processor power and memory, and provides a button that opens the Virtual

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Memory control center for your machine. These are extremely technical settings that you should adjust only with the guidance of a licensed geek.

User Profiles
This screen displays the master list of user profiles. See page 490 for details.

Startup and Recovery
This dialog box contains advanced options related to *dual-booting*—see page 561—and what happens when the system crashes. It also lets you edit the startup options file (boot.ini, beloved by tech-heads everywhere) by clicking the Edit button.

Environment Variables
This button opens a dialog box that's intended solely for the technically minded. It identifies, for example, the path to your Windows folder and the number of processors your PC has. If you're not in the computer-administration business, avoid making change here.

Error Reporting
You may have noticed that whenever a program crashes, freezes, or abruptly quits, Windows XP offers to email a report of the event to Microsoft for the benefit of its debugging teams. Using the Error Reporting dialog box (click the Error Reporting button), you can turn off this frequent attempt to contact the mother ship—or limit the attempts to certain programs.

System Restore Tab
This dialog box is the control center for the Windows XP System Restore feature, which lets you rewind a balky computer to an earlier date when it was working fine. Details in Chapter 15.

Automatic Updates Tab
This tab is a carbon copy of the Automatic Updates control panel.

Remote Tab
To read about Remote Assistance—the feature that lets a technical help person connect to your PC (via the Internet) to help you troubleshoot—turn to page 135. This tab contains its master on/off switch, and lets you specify how long one of your "invitations" to such geniuses should remain open.

This tab also offers the on/off switch for Remote Desktop, which lets someone at another computer take control of yours. For the full story, see Chapter 18.

Taskbar and Start Menu

This program controls every conceivable behavior of the taskbar and Start menu. You can read all about these options—the same ones that appear when you right-click

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the taskbar or the Start button and choose Properties from the shortcut menu—in Chapters 1 and 2.

User Accounts

This control panel is the master switch and control center for the user-accounts feature described in Chapter 16. If you're the only one who uses your PC, you can (and should) ignore it.

Windows Firewall

Windows XP has always had a firewall for protection against remote-controlled attacks from the Internet, but it used to be extremely hard to find. Now it has its own icon in the Control Panel, and its own chapter in this book (Chapter 10).

Wireless Network Setup Wizard

This listing is merely a link to a wizard that helps you set up a wireless network, as described in Chapter 17.

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