won't see the toolbar's shortcut menu. When you're finished making changes to the toolbar, lock the taskbar again if you wish.)

Tip: How much horizontal taskbar space a toolbar consumes is up to you. Drag the perforated border at the left edge of a toolbar to make it wider or narrower. That's a good point to remember if, in fact, you can't *find* a blank spot to right-click.

The resulting shortcut menu offers these choices:

- **View** lets you change the size of the icons on the toolbar.
- **Open Folder** works only with the Quick Launch and Links toolbars (or toolbars you've created yourself). It opens a window that lists what's in the toolbar, so that you can delete or rename the icons. (Of course, you can also delete or rename any icon on these toolbars by right-clicking it and choosing Delete or Rename from the shortcut menu. But the Open Folder command is a better bet when you're performing more extensive surgery on the toolbar, since you're able to work in a window that isn't nearly as claustrophobic as the toolbar itself.)
- **Show Text** identifies each toolbar icon with a text label.
- **Show Title** makes the toolbar's name (such as "Quick Launch" or "Desktop") appear on the toolbar.
- **Close Toolbar** makes the toolbar disappear.
- **Always on Top** and **Auto-Hide** appear on a toolbar's shortcut menu *only* when you've detached the toolbar, turning it into a floating palette as described in the next section. They make any toolbar as flexible as the taskbar, at least when it comes to hiding itself on cue.

  If you turn on Always on Top, then document windows can't cover up your toolbar. And if you turn on Auto-Hide, a toolbar that you've attached to one edge of your screen hides almost completely, until you point to it with your cursor.

FREQUENTLY ASKED QUESTION

The Not-So-Amazing Disappearing Toolbar

Hey, what's going on? I made a custom toolbar, and actually spent quite a lot of time on it. And then, when I needed more space on my taskbar, I right-clicked it and chose Close from the shortcut menu.

Now I want it back, but when I right-click a blank area on the taskbar and choose Toolbars, my custom toolbar isn't listed there! How do I get it back?

You've discovered an unfortunate little quirk of custom toolbars: they don't really exist. All you've done is add a folder listing to your taskbar, as fleeting as the morning dew. If you close a custom toolbar, it no longer appears on that shortcut menu; it's gone forever.

The folder from which you created it, however, is still hanging around. To get the toolbar back, you need to create it all over again (as described in this section)—but at least you don't have to create its folder from scratch.

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Moving toolbars

You don't need to keep toolbars on the taskbar; you can move them to any spot on the screen that you find handy, as shown in Figure 2-18. (The taskbar must first be unlocked, as described on page 96.) To return the toolbar to its original location, drag its title bar back onto the taskbar.

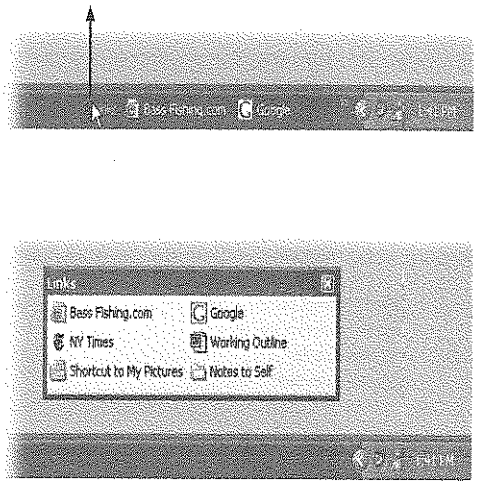


Figure 2-18:

To park a toolbar in a different location, drag upward on the "perforated" handle at the left edge (top). The result is a strange sort of floating toolbar (bottom); it's now an onscreen, perpetually available launcher. (Use tooltips, or choose Show Text from its shortcut menu, to identify the icons.) If you drag the toolbar to an edge of the screen, it glues itself there like a second taskbar.

Creating toolbars

The Quick Launch area of the taskbar is such a delight that you may actually develop a syndrome called Quick Launch Envy—you'll find that having only one isn't enough. You might wish to create several different Quick Launch toolbars, each stocked with the icons for a different project or person. One could contain icons for all the chapters of a book you're writing; another could list only your games.

Fortunately, it's easy to create as many different custom toolbars as you like, each of which behaves exactly like the Quick Launch toolbar.

The short way

Windows XP creates toolbars from *folders;* so before creating a toolbar of your own, you must create a folder (unless you already have a folder that's filled with the stuff you want to toolbarize).

Here's the easiest way to turn a folder into a toolbar: Just drag the folder icon until your cursor strikes the edge of your monitor (any edge except the one where the taskbar is). When you let go, you'll see a brand-new toolbar whose buttons list the contents of the folder you just dragged. From here, it behaves just like any other toolbar. You can right-click it to make the icons smaller, you can drag it into the center of the screen to make it a floating palette, and so on.

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The long way

The drag-and-drop method is new to Windows XP. The old way is still around, however, for people who bill by the hour.

To begin, right-click a blank spot on the taskbar. From the shortcut menu, choose Toolbars→New Toolbar to open the New Toolbar dialog box, as shown in Figure 2-19. Find and click the folder you want, and then click OK.

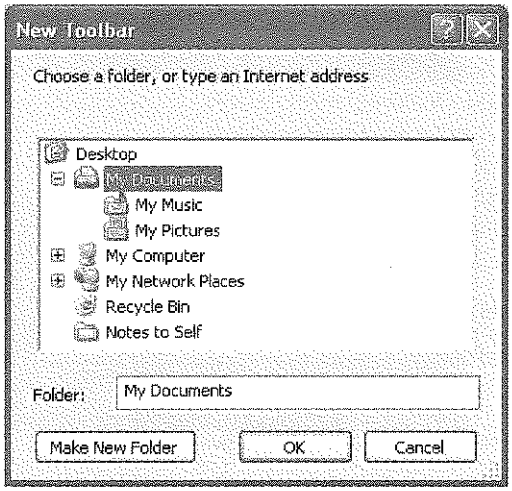


Figure 2-19:
The major folders of your computer are displayed in the New Toolbar dialog box. Click the + sign to expand a disk or folder—and continue to expand disks and folders—until you find the folder you're seeking. Or you can create a new folder for your toolbar anywhere on the hard drive.

Your new toolbar is on the taskbar. Feel free to tailor it as described in the previous discussions—by changing its icon sizes, hiding or showing the icon labels, or adding new icons to it by dragging them from other desktop windows.

TROUBLESHOOTING MOMENT

The Disappearing Language Toolbar

Did you turn the Language bar off, and now can't get it back?

You've probably changed an important option ("Turn off advanced text services") at the Control Panel level.

To check this option, choose Start→Control Panel, and then (in Classic view) opening the Regional and Language Options icon. Click the Languages tab, and then click Details. The Text Services and Input Languages dialog box appears.

On the Settings tab, you'll probably see that the Language Bar button is dimmed, preventing you from turning on the Language bar and making changes to it.

To make the Language bar available, click the Advanced tab. In the System Configuration section, turn off "Turn off advanced text services" and then click Apply. You've just undone the damage.

Click the Settings tab and then the Language Bar button to ensure that the "Show the Language bar on the desktop" checkbox is selected, and then click OK. The Language bar should once again appear on your desktop and in the Toolbars shortcut menu.

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CHAPTER
3

Organizing Your Stuff

Every disk, folder, file, application, printer, and networked computer is represented on your screen by an icon. To avoid spraying your screen with thousands of overlapping icons seething like snakes in a pit, Windows organizes icons into folders, puts those folders into *other* folders, and so on.

This folder-in-a-folder-in-a-folder scheme works beautifully at reducing screen clutter, but it means that you've got some hunting to do whenever you want to open a particular icon.

Helping you navigate and manage your files, folders, and disks with less stress and greater speed was one of the primary design goals of Windows—and of this chapter.

Tip: To create a new folder to hold your icons, right-click where you want the folder to appear (on the desktop, or in any desktop window except My Computer), and choose New→Folder from the shortcut menu. The new folder appears with its temporary "New Folder" name highlighted. Type a new name for the folder and then press Enter.

UP TO SPEED

Directories vs. Folders

Before Windows took over the universe, folders were called *directories*, and folders inside them were called *subdirectories*. Keep that in mind the next time you're reading an old user guide, magazine article, or computer book.

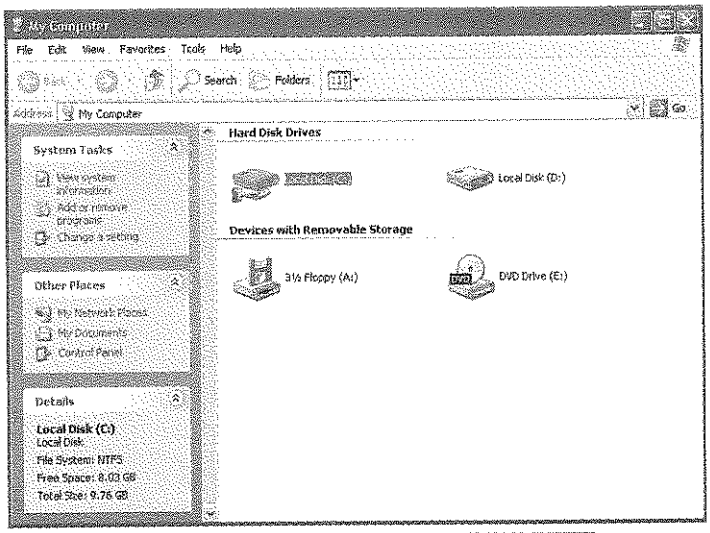
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The Folders of Windows XP

The top-level, all-encompassing, mother-ship window of your PC is the My Computer window. From within this window, you have access to every disk, folder, and file on your computer. Its slogan might well be: "If it's not in here, it's not on your PC."

To see it, choose Start→My Computer, or double-click its icon on the desktop, if you've put it there (page 22). (And if it is on your desktop, remember that you can rename it something that's a little more, well, dignified, by clicking it and then pressing the F2 key.)

No matter how you open the My Computer window (Figure 3-1), you generally see several categories of icons:



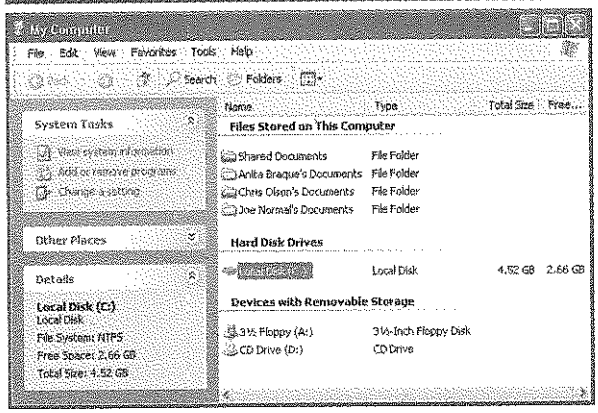


Figure 3-1:
Top: The My Computer window, shown here on a corporate-network PC, is the starting point for any folder-digging you want to do. It shows the disk drives of your PC. If you double-click the icon of a removable-disk drive (like your CD-ROM drive, Zip drive, or Jaz drive), you receive only an error message unless there's actually a disk in the drive.

Bottom: The My Computer window on a workgroup computer (that is, not part of a corporate domain network) includes all the perks included on a network computer with the added advantage of the "Files on This Computer" category.

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- **Hard Disk Drives.** These icons, of course, represent your PC's hard drive (or drives, if you've installed or attached additional ones). Most people, most of the time, are most concerned with the Local Disk (C:), which represents the internal hard drive preinstalled in your computer. (You're welcome to rename this icon, by the way, just as you would any icon.)
- **Files on This Computer.** This category appears only if your computer is a member of a *workgroup*, not if it's part of a domain network (see page 19). These folders, which bear the names of people with accounts on that PC (page 513), store links to all files and preferences for each person.
- **Devices with Removable Storage.** Here, Windows is talking about your floppy drive, CD or DVD drive, Zip drive, USB flash drive, and so on.

Tip: Ordinarily, if your name is, say, Chris, you're not allowed to open the Frank's Documents folder; if you've been given a *Limited* XP account (page 517), then double-clicking it produces only an error message. That's the Windows XP security system at work.

But My Computer also contains a folder called Shared Documents. This folder is like the community bulletin board, in that everybody who uses this PC is free to deposit things, take things out, and read whatever resides there. See Chapter 20 for details.

- **Scanners and Cameras.** This is where you see the icons for any digital cameras or scanners you've installed.
- **Other.** You may also see a Control Panel icon here—if, for example, you added it as directed on page 87.

What's in the Local Disk (C:) Window

You might be surprised to learn that your main hard drive window doesn't actually contain anything much that's useful to you, the PC's human companion. It's organized primarily for Windows' own benefit.

If you double-click the Local Disk C: icon in My Computer—that is, your primary hard drive's icon—a direly worded message lets you know that these files are hidden. "This folder contains files that keep your system working properly," it says. "You should not modify its contents." (Figure 3-2 shows a similar message.)

All of this important-sounding prose is aimed at the kind of person who, before the invention of this warning message, fearlessly or naïvely cruised through the important system files of their PCs, deleting and moving files until the computer was inoperable (and then calling Microsoft for tech support).

Truth is, the C: drive also contains a lot of stuff that *doesn't* belong to Windows—including your files. So when you're just looking (but not touching) the Windows system files, or when you want to burrow around in your own folders, it's perfectly OK to click the "Show the contents of this folder" link. Suddenly the C: drive's formerly invisible contents appear. They include these standard folders:

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Documents and Settings

Windows XP has been designed from the ground up for *computer sharing*. It's ideal for any situation where different family members, students, or workers share the same machine.

In fact, in Windows XP, each person who uses the computer will turn on the machine to find his own secure set of files, folders, desktop pictures, Web bookmarks, font collections, and preference settings. (Secure, at least, from other people who don't have *administrative* accounts. Much more about this feature in Chapter 17.)

Like it or not, Windows considers you one of these people. If you're the only one who uses this PC, fine—you can simply ignore the sharing features. But in its little software head, Windows XP still considers you an account holder, and stands ready to accommodate any others who should come along.

In any case, now you should see the importance of the Documents and Settings folder. Inside are folders named for the different people who use this PC. In general, Limited account holders (page 517) aren't allowed to open anybody else's folder.

If you're the sole proprietor of the machine, there's only one account folder here—and it's named for you, of course. If not, there's a folder here for each person who has an account on this PC. (As noted above, if your PC isn't part of a corporate domain network, icons for these folders also appear in the My Computer window. Those are only pointers to the *real* folders, which are here in Documents and Settings.)

This is only the first of many examples in which Windows imposes a fairly rigid folder structure, but this approach has its advantages. By keeping such tight control over which files go where, Windows XP keeps itself pure—and very stable. Furthermore, keeping all of your stuff in a single folder will make it very easy to back up your work.

Program Files

This folder contains all of your applications—Word, Excel, Internet Explorer, your games, and so on. But that isn't the impression you get when you first open the folder (Figure 3-2).

Fortunately, making them appear on your screen is easy enough: Simply click the words "Show the contents of this folder." They appear just below the "These files are hidden" message, and also in the task pane. (The Local Disk (C:) drive window works the same way.)

This peculiar behavior requires some explanation. A Windows program isn't a single, self-contained icon. Instead, each is accompanied by a phalanx of support files and folders like the ones shown in Figure 3-2. Nestled among all of these auxiliary files is the actual application icon, which can't even run if it's separated from its support group.

As mentioned previously, Microsoft and other software companies grew weary of taking tech-support calls from people whose programs stopped working after being moved around. Finally, as a preemptive strike, Microsoft simply made them invis-

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ible. The "These files are hidden" message is meant to say: "Nothing to see here, folks. Move along."

So how are you supposed to launch your programs if you can't see them in the Program Files folder? Just take your pick of a half-dozen ways, all of which are described in the beginning of Chapter 5.

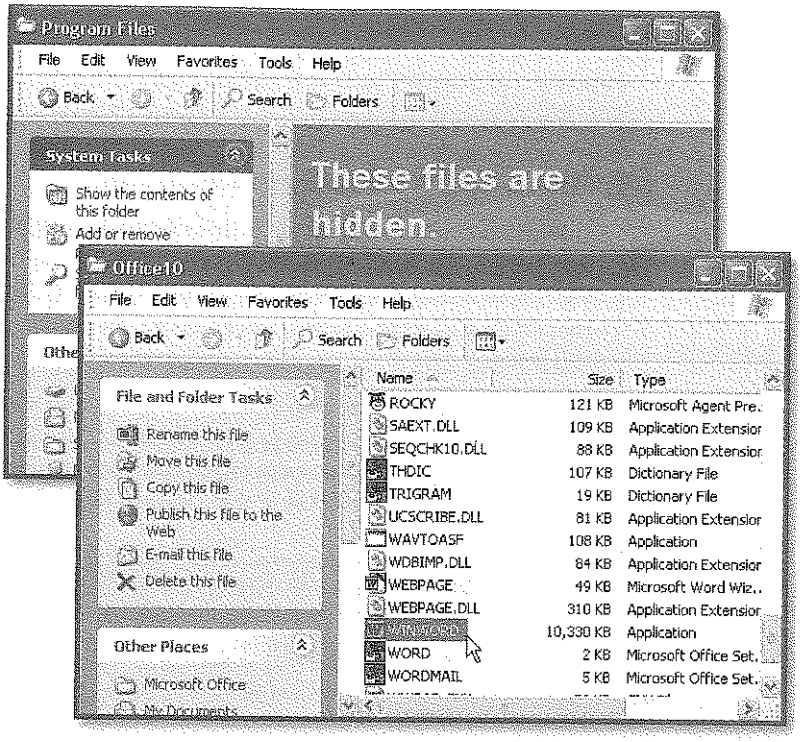


Figure 3-2: *Top: The C: drive and the Program Files folder may start out looking empty.*

Bottom: Here's what Microsoft Word actually looks like—75 little software crumbs in your Program Files→ Microsoft Office→ Office10 folder. Only one of these icons (the one called WINWORD) is the actual program. But don't try to move it, or any of its support files, out of this folder. (It's OK, however, and even encouraged, to drag this icon onto your Start menu or Quick Launch toolbar.)

Windows or WINNT

Here's another folder that Microsoft wishes its customers would simply ignore. This most hallowed folder contains Windows itself, the thousands of little files that make Windows, well, Windows. Most of these folders and files have cryptic names that appeal to cryptic people.

Note: This folder is usually called Windows; however, it's called WINNT if you upgraded your operating system from Windows 2000. In the remaining pages of this book, let the term "Windows folder" refer to "the folder called Windows or WINNT, depending on whether or not you upgraded your machine from Windows 2000."

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In general, the healthiest PC is one whose Windows folder has been left alone. (One exception: The Fonts folder contains the icons that represent the various typefaces installed on your machine. You're free to add or remove icons from this folder.)

Your Account Folder

Everything that makes your Windows XP experience your own sits inside the Local Disk (C:)→Documents and Settings→[Your Name] folder. This is where Windows stores your preferences, documents, pictures and music, Web favorites and *cookies* (described below), and so on.

In general, you won't have much business interacting directly with this folder, except perhaps to back it up. But understanding how Windows works—and how it keeps your stuff separate from that of everybody else who uses the machine—is much easier once you've had a tour of your own account folder.

- **Cookies.** A cookie is a small (and controversial) preference file that some Web sites deposit on your hard drive. This special file is how sites recognize you when you visit them again. A cookie is responsible for the "Hello, [Your Name]!" message that greets you when visiting Amazon.com, for example. Windows keeps them in this folder.

- **Desktop.** When you drag an icon out of a folder or disk window and onto your Windows XP desktop, it may *appear* to show up on the desktop. But that's just an optical illusion—a visual convenience. In truth, nothing in Windows XP is ever *really* on the desktop; it's just in this Desktop *folder,* and mirrored on the desktop area.

  Remember that everyone who shares your machine will, upon logging on (Chapter 17), see his own stuff sitting out on the desktop. Now you know how Windows XP does it: There's a separate Desktop folder in every person's account folder.

  You can entertain yourself for hours trying to prove this. If you drag something out of your Desktop folder, it also disappears from the actual desktop. And vice versa.

- **Favorites.** See page 658 for a definition of favorites. For now, it's enough to note that this folder stores shortcuts of the files, folders, and other items you designated as favorites. This information can be handy if you want to delete a bunch of your favorites all at once, rename them, and so on.

Tip: This folder may also contain a Links folder. It's the folder representation of the Links toolbar described on page 91.

- **My Documents.** Windows XP makes it look like you're setting up your nest (your documents, photos, music files, and so on) in the My Documents folder—the one that opens when you choose Start→My Documents. And whenever you save a new document (when you're working in Word, for example), the Save dialog box proposes storing the new file in this folder.

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Behind the scenes, however, My Documents is actually just one of several folders in your own account folder. It's a good idea to back this one up periodically.

- **Start menu.** This folder is the true home for the icons whose names appear in your Start menu. By renaming, deleting, or adding to the contents of this folder, you can quickly and easily reorganize your Start menu.

Your account folder actually holds much more than this, but the rest of the folders are hidden, reserved for use by Windows itself. The hidden folders include: Application Data (which your programs may use to store user-specific settings and files), Local Settings (Internet Explorer's history list and cache file, for example), NetHood (shortcuts for the icons in your My Network Places window), My Recent Documents (document shortcuts, the ones that show up in the optional My Recent Documents submenu of the Start menu), and SendTo, which is described later in this chapter.

Navigating My Computer

Most of the time, you can get where you're going on your computer using the commands, programs, and folders listed in the Start menu. But when you need to find something that isn't listed there—when you need to burrow manually through the labyrinth of folders on the machine—Windows offers two key methods of undertaking a folder quest.

First, you can open the My Computer window, as described at the beginning of this chapter. From there, you double-click one folder after another, burrowing ever deeper into the folders-within-folders.

NOSTALGIA CORNER

Turning Off Simple Folder View

When it set about creating Windows XP, Microsoft left no stone unturned in its reevaluation of every existing Windows feature—and Windows Explorer, described on the following pages, is no exception.

You may have noticed, for example, that vertical dotted lines no longer indicate how deeply you've burrowed in your "tree" of folders within folders, as shown at left in Figure 3-3.

There's an even more important change, too. When you click a *folder icon* (not its + button) on the left side of an Explorer window, Windows expands that folder's listing *and* instantly closes whichever folder you previously expanded. In other words, it's much harder to get lost in the navigation of your folder tree by expanding the listings of too many folders within folders.

But if you really want to open two different "branches" (subfolders) of your folder tree simultaneously—to compare the contents of two folders simultaneously, for example—the process is easy enough. Just click the little + symbols beside folder names instead of clicking the folder names themselves. When you click the + buttons, Explorer works exactly as it did in previous versions, leaving open the listings for the subfolders you've already opened.

That still doesn't bring back the dotted lines, however. If you really prefer the old Explorer in all regards, choose Tools→Folder Options→View Tab in any open folder window. Turn off "Display simple folder view in Explorer's Folders list," and click OK. Now Explorer looks exactly as it did in previous Windows versions.

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Tip: As you navigate your folders, keep in mind the power of the Backspace key. Each time you press it, you jump to the *parent* window of the one you're now looking at—the one that contains the previous folder. For example, if you're perusing the My Pictures folder inside My Documents, pressing Backspace opens the My Documents window. (Backspace also works in most Web browsers, functioning as the Back button.)

Likewise, the Alt key, pressed with the right and left arrow keys, serves as a Back and Forward button. Use this powerful shortcut (instead of clicking the corresponding buttons on the Standard toolbar) to "walk" backward or forward through the list of windows most recently opened.

Navigating with Windows Explorer

The second method of navigating the folders on your PC is called Windows Explorer—for long-time Windows veterans, a familiar sight. (Note that some people use the term "Windows Explorer" to refer to everyday folder windows. In this book, the term refers exclusively to the split-window view shown in Figure 3-3.)

Using this method, you work in a single window that shows every folder on the machine at once. As a result, you're less likely to lose your bearings using Windows Explorer than burrowing through folder after folder, as described above.

You can jump into Explorer view using any of these methods:

- Shift–double-click any disk or folder icon.
- Right-click a disk or folder icon (even if it's in the Start menu) and choose Explore from the shortcut menu.
- Click Folders on the Standard toolbar.
- Choose View→Explorer Bar→Folders.
- Choose Start→All Programs→Accessories→Windows Explorer.
- Choose Start→Run, type *explorer,* and then press Enter.

No matter which method you use, the result is a window like the one shown in Figure 3-3.

As you can see, this hierarchical display splits the window into two panes. The left pane displays *only* disks and folders. The right pane displays the contents (folders *and* files) of any disk or folder you click. You can manipulate the icons on either side much as you would any other icons. For example, double-click one to open it, drag it to the Recycle Bin to delete it, or drag it into another folder in the folder list to move it elsewhere on your machine.

This arrangement makes it very easy to move files and folders around on your hard drive. First, make the right pane display the icon you want to move. Then, set up the left pane so that you can see the destination folder or disk—and drag the right-side icon from one side to the other.

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When the panel is too narrow

As shown in Figure 3-3, expanding a folder provides a new indented list of folders inside it. If you expand folders within folders to a sufficient level, the indentation may push the folder names so far to the right that you can't read them. You can remedy this problem with any of the following actions:

- Adjust the relative sizes of the window halves by dragging the vertical bar between them.
- Position your mouse pointer over a folder whose name is being chopped off. A tooltip balloon appears to display the full name of the folder.
- Use the horizontal scroll bar at the bottom of the left pane to shift the contents.

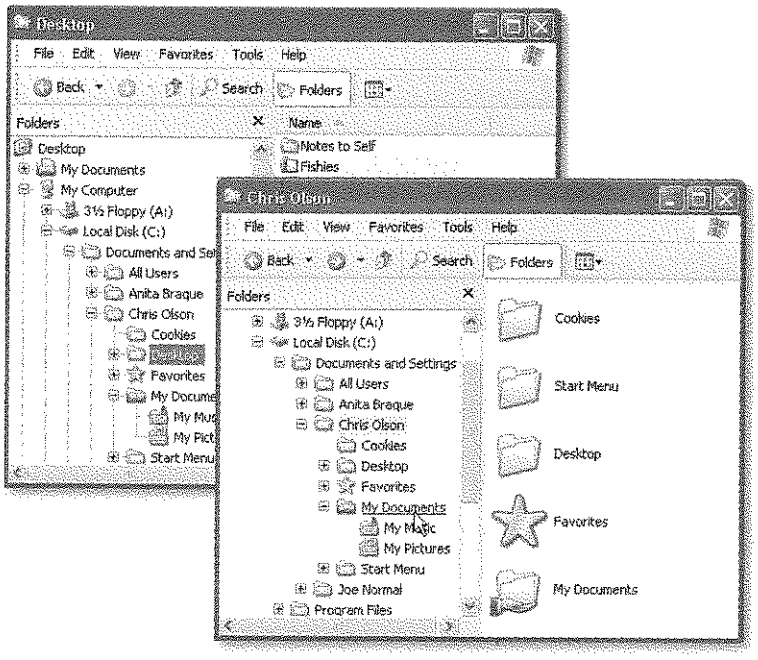


Figure 3-3:
Front: Windows Explorer offers a treetop view of your computer's hierarchy. When you click a disk or folder in the left pane, the right pane displays its contents, including files and folders. Click the + button to expand a disk or folder, opening a new, indented list of what's inside it. Click the – button to "collapse" the folder list again.

Back: If you turn off the new "simple folder view" display, the dotted vertical and horizontal lines in the left pane help you keep track of the hierarchical levels.

Viewing folder contents

To see what's in one of the disks or folders listed at the left side of the Explorer window, you can use any of these techniques. (See the box on page 111 for details on simple folder view.)

- *With simple folder view turned on:* In the left pane, click the icon, name, or + button of a disk or folder. The branch of your folder tree expands in the left pane, while the right pane displays its contents.

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- *With simple folder view turned off:* In the left pane, click a folder or disk; the contents appear in the right pane. To expand the listing for a disk or folder, double-click its name, double-click its icon, or single-click the + button beside it.
- Right-click a folder in the left pane and select Open from the shortcut menu. A new window opens, displaying the contents of the folder you clicked. (To open a *program or document* appearing in either side of the window, double-click it as usual.)

The right-side pane of the Explorer window behaves exactly like any folder window. Don't forget that you can change it to an icon view or list view, for example, using the View menu as usual.

Keyboard shortcuts

If you arrive home one day to discover that your mouse has been stolen, or if you just like using the keyboard, you'll enjoy the shortcuts that work in the Windows Explorer window:

left arrow	Collapses the highlighted folder, or if it's already collapsed, highlights its "parent" folder. (The + key on your numeric keypad does the same thing.)
right arrow	Expands a highlighted folder, or if it's already expanded, highlights the first folder inside it. (The – key on your numeric keypad does the same thing.)
* (on number pad)	Displays *all* of the selected folder's subfolders.
F6 or Tab	Highlights the other half of the window.
Alt+left arrow	Highlights whichever folder you last highlighted.
Backspace	Highlights the "parent" disk or folder of whatever is highlighted.
Ctrl+Z	Undoes whatever you just did in this Explorer window.
Home, End	Highlights first or last icon in the folder list.
A, B, C...	Highlights the first visible file or folder in the left-pane hierarchy that matches the letter you typed. Type the same letter again to highlight the *next* matching icon.

You can also press the letter keys to highlight a folder or file that begins with that letter, or the up and down arrow keys to "walk" up and down the list.

Life with Icons

Both of the navigational schemes described so far in this chapter have only one goal in life: to help you manage your icons. You could spend your entire workday just mastering the techniques of naming, copying, moving, and deleting these icons—and plenty of people do.

Here's the crash course.

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Renaming Your Icons

To rename a file, folder, printer, or disk icon, you need to open up its *renaming rectangle*. You can do so with any of the following methods:

- Highlight the icon and then press the F2 key at the top of your keyboard.
- Click carefully, just once, on a previously highlighted icon's name.
- Right-click the icon and choose Rename from the shortcut menu.

Tip: You can even rename your hard drive, so that you don't go your entire career with a drive named "Local Disk." Just rename its icon (in the My Computer window) as you would any other. You're not allowed to rename important system folders like Documents and Settings, Recycle Bin, Windows, WINNT, and System32, however.

In any case, once the renaming rectangle has appeared around the current name, simply type the new name you want, and then press Enter. Feel free to use all the standard text-editing tricks while you're typing: Press Backspace to fix a typo, press the left and right arrow keys to position the insertion point, and so on. When you're

POWER USERS' CLINIC

Long Names and DOS Names

Windows XP permits long filenames, but DOS—the ancient operating system that used to lurk beneath Windows—doesn't.

PC pros refer to the folder DOS naming system as the "eight dot three" system, because the actual name of the folder or file can't be any longer than eight characters, and it requires a file suffix that's up to three letters long. To accommodate DOS rules, Windows XP creates an 8.3 version of every long filename. As a result, every file on your computer actually has two *different* names—a long one and a short one.

Every now and then, you'll run up against DOS filename limitations. For example, this quirk explains why the actual name of an application is a cryptic, shortened form of its full name (WINWORD instead of Microsoft Word, for example).

Windows creates the shortened version by inserting the tilde character (~), followed by sequential numbers, after the sixth character of the filename—plus the original extension. For example, the *My Documents* folder shows up as *My Docu~1* when you view it in a DOS window. If you name a file *letter to mom.doc*, it appears in DOS as *letter~1.doc*. If you then name a file *letter to dad.doc*, it appears in DOS as *letter~2.doc*, and so on.

This naming convention only becomes important if you work in DOS, or you exchange files with someone who uses Windows 3.1 or DOS.

Even when working in DOS, however, you can still use the long filenames of Windows XP if you wish. The trick is to enclose the names in quotation marks. For example, if you want to see what's in the My Documents folder, type *cd "my documents"* (*cd* is the command to change folders). (You also need quotation marks if there's a space in the file or folder's name.)

To copy, delete, or rename files from the DOS command line, just use the same trick. (Renaming files is usually much easier in DOS than in Windows because you can change batches of files at once.) When you enter the *dir* command, you see *both* the DOS filename and the long filename, thus making it easy to use either the 8.3 or long filename (using quotes, of course).

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finished editing the name, press Enter to make it stick. (If another icon in the folder has the same name, Windows beeps and makes you choose another name.)

A folder or file name can be up to 255 characters long, including spaces and the *filename extension* (the three-letter suffix that identifies the file type). Because they're reserved for behind-the-scenes use, Windows doesn't let you use any of these symbols in a folder or filename: \ / : * ? " < > |

Tip: If you highlight a bunch of icons at once and then open the renaming rectangle for any *one* of them, you wind up renaming *all* of them. For example, if you've highlighted folders called Cats, Dogs, and Fish, renaming one of them *Animals* changes the original names to Animals (1), Animals (2), and Animals (3).

If this new Windows XP feature hits you unexpectedly, press Ctrl+Z repeatedly until you've restored all the original names. (On the other hand, if you wish you had even more mass-renaming power (the ability to add a certain prefix to every file, for example, or even to search-and-replace text within the files' names), use Better File Name, a piece of shareware listed on the "Missing CD" page at *www.missingmanuals.com.*

If you like, you can give more than one file or folder the same name, as long as they're not in the same folder. For example, you can have as many files named "Letter to Smith" as you wish, as long as each is in a different folder.

Note: Windows XP comes factory set not to show you filename extensions. That's why you sometimes might *think* you see two different files called, say, Quarterly Sales, both in the same folder.

The explanation is that one filename may end with *.doc* (a Word document), and the other may end with *.xls* (an Excel document). But because these suffixes are hidden (page 169), the files look like they have exactly the same name.

Icon Properties

As every Windows veteran knows, *properties* are a big deal in Windows. Properties are preference settings that you can change independently for every icon on your machine.

To view the Properties dialog box for an icon, choose from these techniques:

- Right-click the icon; choose Properties from the shortcut menu.
- While pressing Alt, double-click the icon.
- Highlight the icon; press Alt+Enter.

These settings aren't the same for every kind of icon, however. Here's what you can expect when opening the Properties dialog boxes of various icons (see Figure 3-4).

My Computer

This Properties dialog box is packed with useful information about your machine.

- The **General** tab tells you what kind of processor is inside, how much memory (RAM) your PC has, and what version of Windows you've got.

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- The **Hardware** tab (shown in Figure 3-4) includes a link to the Device Manager, which breaks down your equipment even more specifically—it provides the manufacturer and model name of each component on your machine (modem, monitor, mouse, and so on).

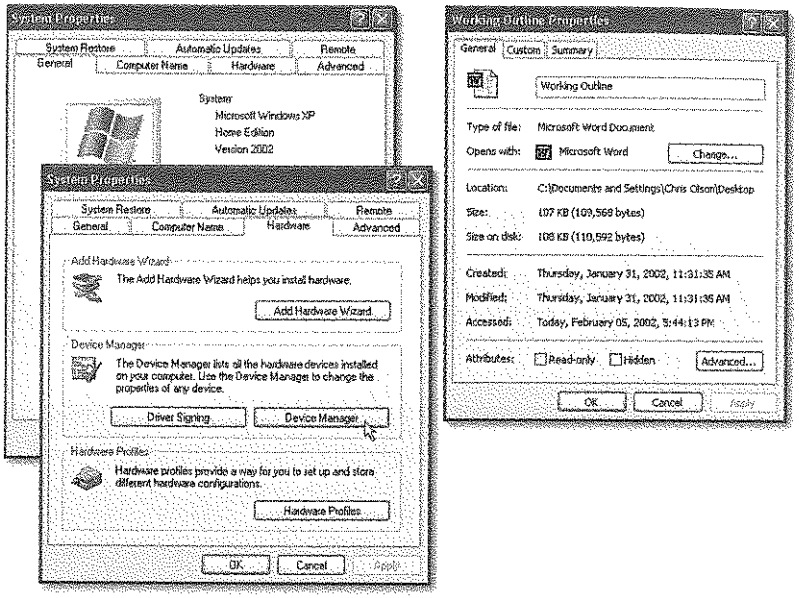


Figure 3-4: *The Properties dialog boxes are different for every kind of icon. In the months and years to come, you may find many occasions when adjusting the behavior of some icon has big benefits in simplicity and productivity. Left: Two tabs of the System Properties dialog box (which appears when you check the proper-ties of your My Computer icon).*

Right: The Properties dialog box for a Word document.

- The **Computer Name** tab is where you set up your computer's name, as it will appear to other people on an office network.
- The **Advanced** tab offers buttons that serve as rabbit holes into ever more technical dialog boxes. They include **Performance** (see the box on page 118), **User Profiles** (see page 541), and **Startup and Recovery** (advanced controls related to dual-booting [page 638] and what happens when the system crashes).

Tip: One button on the Advanced tab is actually not advanced at all—the Error Reporting button. 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, you can turn off this frequent attempt to contact the mother ship—or limit the attempts to certain programs.

- See page 475 for details on the **System Restore** tab, page 331 for information on **Automatic Updates**, and page 139 for details on the **Remote** tab.

Disks

In a disk's Properties dialog box, you can see all kinds of information about the disk itself:

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- **General.** This tab shows you the disk's name (which you can change), its capacity (which you can't change), and how much of it is full.
- **Tools.** Offers quick access to disk tools like ScanDisk and Defrag (Chapter 16).
- **Hardware.** Lists the individual drives—hard drives, CD drives, and so on—connected to your machine, complete with troubleshooting and Properties buttons.
- **Sharing.** Controls who can access the disk, in person or by network (Chapter 20).
- **Security.** Not only can you share certain folders or files with other people (either across a network or when they log into your PC using their own accounts), but you can also specify exactly who is allowed how much access to each file or folder. More about file security in Chapter 18.

Note: If you don't see the Security tab, it's probably because *simple file sharing* is turned on (see page 591). If you turn it off, the Security tab reappears (*if* you've formatted your hard drive using the NTFS file system, as described on page 636).

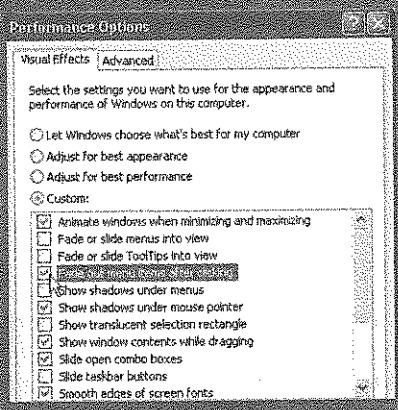
GEM IN THE ROUGH

Performance Options

It's a funny quirk of people in the computer industry that they can't bring themselves to use English. They say *form factor* when they means size, *the user* when they mean you, and *price point* when they mean price.

As the System Properties dialog box illustrates, they also say *performance* when they mean speed.

For example, if you click the Advanced tab and then the Setting button in the Performance section of the box, you get to the Visual Effects tab of the Performance Options dialog box. It 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 animate the shrinking of a window onto the taskbar when you minimize it. "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.



All these little animations and shadows look cool, but each saps away a tiny scrap of speed and power from your processor. Using this dialog box, you can turn off the checkboxes of features you can do without. Turning all of them off often produces a PC that feels snappier and more responsive, although 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.)

The Advanced tab of this dialog box is a far less casual business. It controls how Windows XP uses your processor power and memory, and provides a button that opens the Virtual Memory control center for your machine. These are extremely technical settings that you should adjust only with the guidance of a licensed geek.

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- **Quota.** If different people use this PC, each with a different account, you can limit the amount of disk space each person is allowed to use. Details await on page 472.

Data files

The Properties for a plain old document depend on what kind of document it is. You always see a General tab, but other tabs may also appear (especially for Microsoft Office files).

- **General.** This screen offers all the obvious information about the document—location, size, modification date, the program that opens the document (which you can change with a click of the Change button), and so on—along with a few interesting-looking checkboxes. For example, the **read-only** checkbox locks the document. In the read-only state, you can open the document and read it, but you can't make any changes to it.

Note: If you make a *folder* read-only, it affects only the files already inside. If you add additional files later, they remain editable.

Hidden turns the icon invisible. (It's a great way to prevent something from being deleted. Of course, because the icon becomes invisible, you may find it a bit difficult to open it *yourself,* unless you've turned off "Do not show hidden files and folders" in the Folder Options dialog box, as described on page 84.)

The Advanced button offers a few additional options. **File is ready for archiving** means, "Back me up." This message is intended for the Backup program described in Chapter 16, and indicates that this document has been changed since the last time it was backed up (or that it's never been backed up). **For fast searching, allow Indexing Service to index this file** lets you indicate that this file should, or should not, be part of the quick-search database created by Indexing Service (described on page 50). **Compress contents to save disk space** and **Encrypt contents to secure data** are both described later in Chapter 15.

- **Security.** The Security tab shows who's allowed to open this file or folder and how much freedom they have to mess with its contents (Chapter 18). You can use this tab to delete or add groups, users, or permission.

- **Custom.** As explained below, the Properties window of Office documents includes a Summary tab that lets you look up a document's word count, author, revision number, and many other statistics. But you should by no means feel limited to these 21 properties—nor to Office documents.

  Using the Custom tab, you can create properties of your own—Working Title, Panic Level, Privacy Quotient, or whatever you like. Just type the property name into the Name text box (or choose one of the canned options in the Type drop-down menu) and then click Add. You can then fill in the Value text box for the individual file in question (so that its Panic Level is Red Alert, for example). Especially technical

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people can later use Indexing Service (see page 50) to perform query-language searches for these values.

- The **Summary** tab tells you how many words, lines, and paragraphs are in a particular Word document. For a graphics document, the Summary tab indicates the graphic's dimensions, resolution, and color settings.

Folders

The Properties boxes for folders reveal the same checkbox options as found for data files. But now there's a separate tab called **Sharing**, which makes the folder susceptible to invasion by other people—either in person, when they log into this machine, or from across your office network (see Chapters 18 and 21).

Program files

There's not much here that you can change yourself, but you certainly get a lot to look at. For starters, there are the General, Security, and Summary tabs described earlier. But wait—that's not all:

- **Version.** This tab offers a considerable wealth of detail about the program's version number, corporate parent, language, and so on.

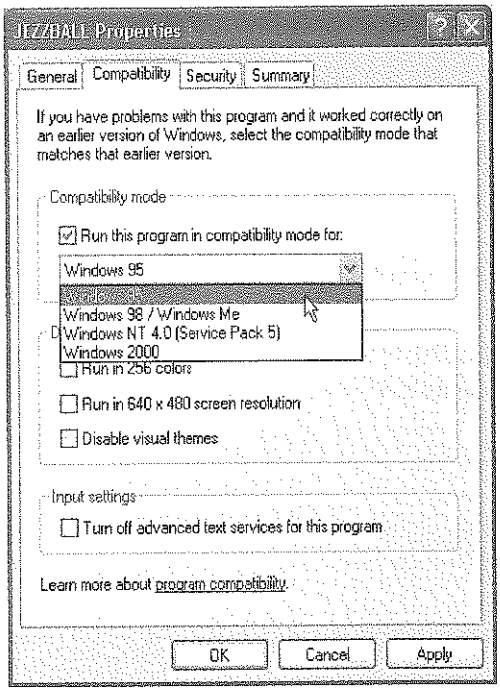


Figure 3-5:
By turning on "Run this program in compatibility mode for" and choosing the name of a previous version of Windows from the drop-down list, you can fool that program into thinking that it's running on Windows 95, Windows Me, Windows NT, or whatever. While you're at it, you can also specify that this program switch your screen to certain settings required by older games—256 colors, 640 x 480 pixel resolution, and so on—or without the new Windows XP look (turn on "Disable visual themes").

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- **Compatibility.** There may come a day when you're more grateful for this tab than just about any other new Windows XP feature. The idea is to provide you with a way out of an uncomfortable situation. An example might be when you try to run a pre-2002 program on Windows XP, and (because it's never heard of Windows XP) it doesn't work right, or doesn't work at all. Figure 3-5 illustrates the magic in action.

Shortcuts

You can read about these useful controls later in this chapter.

Changing Your Icons' Icons

You can change the inch-tall illustrations that represent the little icons replete in your electronic world. You can't, however, pick a single method to do so, because Microsoft has divided up the controls among three different locations.

For example, one approach is to change the icon used by *all* files of a certain type. If you're French, for example, you might want to change the big W on a Word document to a big M (for *Mot*). Instructions appear on page 172.

You can also change the icon for some of the important Windows desktop icons: the Recycle Bin, My Documents, and so on. Open the Display program in the Control Panel (see Chapter 8), click the Desktop tab, then click Customize Desktop. You'll see a sliding collection of those important Windows icons. Click one, and then click Change Icon to choose a replacement from a collection Microsoft provides. (You haven't *lived* until you've made your Recycle Bin look like a green, growing tree.)

Finally, if you're sneaky, you can replace the icons for individual folder and shortcut icons on your PC. Here's how:

1. **Right-click the folder or shortcut whose icon you want to change. From the shortcut menu, choose Properties.**

   The Properties dialog box appears.

2. **Click the Customize tab (for a folder) or the Shortcut tab (for a shortcut). At the bottom of the dialog box, click the Change Icon button.**

   Yet another dialog box, filled with prefab replacement icons, appears. If you see one that suits your fancy, click it; otherwise, continue.

3. **Click Browse.**

   Windows XP now lets you hunt for icons on your hard drive. These can be icons that you've downloaded from the Internet, icons embedded inside program files and .dll files, or icons that you've made yourself using a freeware or shareware icon-making program like AX-Icons (available at *www.missingmanuals.com*, among other places).

4. **Click OK twice.**

   You should see your new replacement icon happily in place.

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Copying and Moving Folders and Files

Windows XP offers two different techniques for moving files and folders from one place to another: dragging them, and using the Copy and Paste commands.

Whichever method you choose, you must start by showing Windows which icons you want to copy or move—by *highlighting* them.

Highlighting Icons

To highlight (that is, select) one icon, just click it once. But you don't have to move, copy, or delete one icon at a time; you can select a number of icons in the same folder or disk window. You may want to employ this technique, for example, when moving a bunch of documents from one folder to another, or copying them onto a backup disk en masse.

Tip: It's easiest to work with multiple icons in Details view (page 81), where every icon appears in a single column.

To highlight multiple files in preparation for moving, copying, or deleting, use one of these techniques:

To highlight all the icons

To select all the icons in a window, press Ctrl+A (the keyboard equivalent of the Edit→Select All command).

To highlight several icons

You can drag across file and folder names to highlight a group of consecutive icons. Start with your cursor above and to one side of the icons, then drag diagonally. As you drag, you create a temporary dotted-line rectangle. Any icon that falls within this rectangle darkens to indicate that it's been selected.

Alternatively, click the first icon you want to highlight, and Shift-click the last file. All the files in between are automatically selected, along with the two icons you clicked. (These techniques work in any folder view: Details, Thumbnails, or whatever.)

Tip: If you include a particular icon in your diagonally dragged group by mistake, Ctrl-click it to remove it from the selected cluster.

To highlight only specific icons

Suppose you want to highlight only the first, third, and seventh icons in the list. Start by clicking icon No. 1, then Ctrl-click each of the others. (If you Ctrl-click a selected icon *again*, you *de*select it. A good time to use this trick is when you highlight an icon by accident.)

Tip: The Ctrl key trick is especially handy if you want to select *almost* all the icons in a window. Press Ctrl+A to select everything in the folder, then Ctrl-click any unwanted subfolders to deselect them.

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Copying by Dragging Icons

As you know, you can drag icons from one folder to another, from one drive to another, from a drive to a folder on another drive, and so on. (When you've selected several icons, drag any *one* of them and the others will go along for the ride.)

Here's what happens when you drag icons in the usual way (using the left mouse button):

- Dragging to another folder on the same disk *moves* the folder or file.
- Dragging from one disk to another *copies* the folder or file.
- Pressing the Ctrl key while dragging to another folder on the same disk *copies* the icon. (If you do so within a single window, Windows creates a duplicate of the file called "Copy of [filename].")
- Pressing Shift while dragging from one disk to another *moves* the folder or file (without leaving a copy behind).
- Pressing Alt while dragging an icon creates a shortcut of it.

Tip: You can move or copy icons by dragging them either into an open window or directly onto a disk or folder icon.

The right-mouse-button trick

Think you'll remember all of those possibilities every time you drag an icon? Probably not. Fortunately, you never have to. One of the most important tricks you can learn is to use the *right* mouse button as you drag. When you release the button, the menu shown in Figure 3-6 appears, so that you can either copy or move the icons.

Tip: Press Esc to cancel a dragging operation at any time.

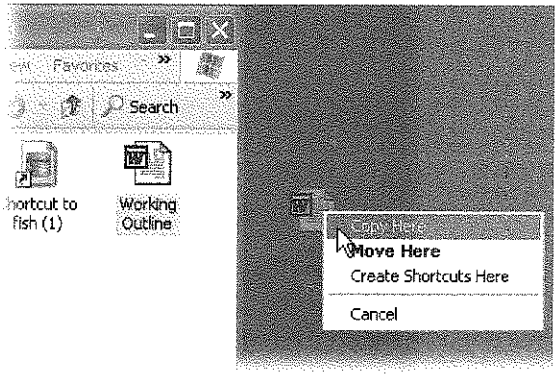


Figure 3-6:
Thanks to this shortcut menu, right-dragging icons is much easier and safer than left-dragging when you want to move or copy something.

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Dragging icons in Windows Explorer

You may find it easier to copy or move icons in Windows Explorer, since the two-pane display format makes it easier to see where your files are and where they're going. (See page 112 for a list of the ways to open the Explorer window.) Here's how to do it:

1. **Make the destination folder visible by clicking the + buttons next to your folder names, expanding your folder "tree" as necessary.**

   For example, to copy an icon into a certain folder, click the Local Disk (C:) icon to see its list of folders. If the destination is a folder *within* that folder, expand its parent folder as necessary.

2. **In the left pane, click the icon of the disk or folder that contains the icon you want to manipulate.**

   Its contents appear in the right pane.

3. **Locate the icon you want to move in the right pane, and drag it to the appropriate folder in the left pane (see Figure 3-7).**

   Windows copies the icon.

Copying by Using Copy and Paste

Dragging icons to copy or move them feels good because it's so direct. You actually see your arrow cursor pushing the icons into the new location.

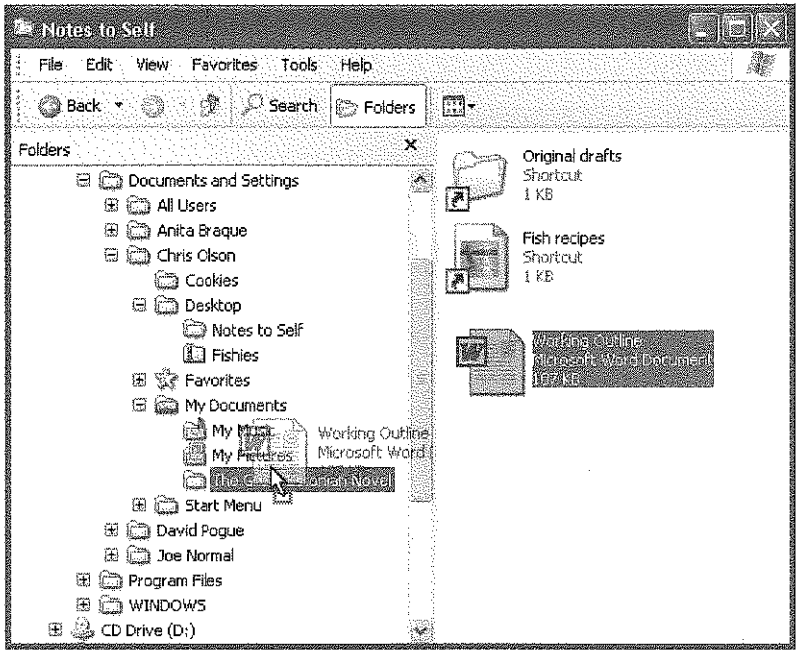


Figure 3-7: *The file Working Outline, located in the Notes to Self folder on the desktop, is being dragged to the folder named The Great Estonian Novel (in the My Documents folder). As the cursor passes each folder in the left pane, the folder's name darkens to show that it's ready to receive the drag-and-dropped goodies. Let go of the mouse button when it's pointing to the correct folder or disk.*

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But you also pay a price for this satisfying illusion. That is, you may have to spend a moment fiddling with your windows, or clicking in the Explorer hierarchy, so that you have a clear "line of drag" between the icon to be moved and the destination folder.

Fortunately, there's a better way: You can use the Cut, Copy, and Paste commands to move icons from one window into another. The routine goes like this:

1. **Highlight the icon or icons you want to move or copy.**

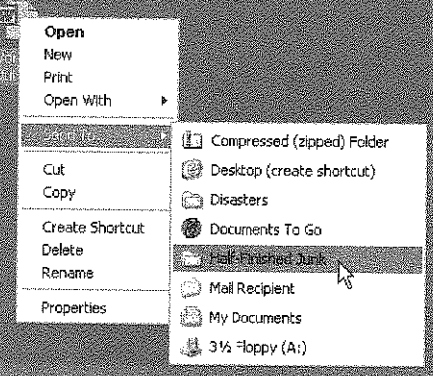
   You can use any of the tricks described on page 122.

POWER USERS' CLINIC

Secrets of the Send To Command

If you find yourself copying or moving certain icons to certain folders or disks with regularity, it's time to exploit the File→Send To command that lurks in every folder window (and in the shortcut menu for almost every icon).

This command offers a quick way to copy and move highlighted icons to popular destinations. For example, you can teleport a copy of a highlighted file directly to a floppy disk by choosing File→Send To→3 1/2 Floppy, or to a blank CD by choosing Send To→CD Burner. You're spared the tedium of choosing Copy, selecting the floppy drive, and choosing Paste.



Another useful command is Send To→"Desktop (create shortcut)," which dumps a shortcut icon onto your desktop background. Then there's the Send To→Mail Recipient, which bundles the highlighted icon as an email attachment that's ready to send. You can also zip up a folder (see Chapter 15) by choosing Send To→"Compressed (zipped) Folder."

But the real power of the Send To command is its ability to accommodate your *own* favorite or frequently used folders. Lurking in your My Computer→Local Disk (C:)→Documents and Settings→[Your Name] folder is a folder called SendTo. Any shortcut icon you place here shows up instantly in the Send To menus within your desktop folders and shortcut menus.

Alas, this folder is among those that Microsoft considers inappropriate for inspection by novices. As a result, the SendTo folder is *hidden* in Windows XP.

To make it appear, open any folder window. Choose Tools→Folder Options, click the View tab, turn on "Show hidden files and folders", and click OK. Now, when you open your own account folder, you'll see the SendTo folder.

Most people create shortcuts here for folders and disks (such as your favorite backup disk). When you highlight an icon and then choose Send To→Backup Zip, for example, Windows XP copies the icon to that disk. (And if you simultaneously press Shift, you *move* the icon to the other disk or folder.)

You can even add shortcuts of *applications* (program files) to the SendTo folder. By adding WinZip to this Send To menu, for example, you can drop-kick a highlighted icon onto the WinZip icon (for decompressing) just by choosing Send To→WinZip. You can even create shortcuts for your printer or fax modem, so that you can print or fax a document just by highlighting its icon and choosing File→Send To→[printer or fax modem's name].

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2. **Right-click one of the icons. Choose Cut or Copy from the shortcut menu.**

   Alternatively, you can choose Edit→Cut or Edit→Copy, using the menu bar at the top of the window. (Eventually, you may want to learn the keyboard shortcuts for these commands: Ctrl+C for Copy, Ctrl+X for Cut.)

   The Cut command makes the highlighted icons show up dimmed; you've now stashed them on the invisible Windows Clipboard. (They don't actually disappear from their original nesting place until you paste them somewhere else.)

   The Copy command also places copies of the files on the Clipboard, but doesn't disturb the originals.

3. **Right-click the window, folder icon, or disk icon where you want to put the icons. Choose Paste from the shortcut menu.**

   Once again, you may prefer to use the appropriate menu bar option—Edit→Paste. *Keyboard equivalent:* Ctrl+V.

   Either way, you've successfully transferred the icons. If you pasted into an open window, you'll see the icons appear there. If you pasted onto a closed folder or disk icon, you need to open the icon's window to see the results. And if you pasted right back into the same window, you get a duplicate of the file called "Copy of [filename]."

The Recycle Bin

The Recycle Bin is your desktop trash basket. This is where files and folders go when they've outlived their usefulness, like a waiting room for data oblivion. Your files stay here until you *empty* the Recycle Bin—or until you rescue them by dragging them out again.

While you can certainly drag files or folders onto the Recycle Bin icon, it's usually faster to highlight them and then perform one of the following options:

- Press the Delete key.
- Choose File→Delete.
- Right-click a highlighted icon and choose Delete from the shortcut menu.

Windows XP asks if you're sure you want to send the item to the Recycle Bin. (You don't lose much by clicking Yes, since it's easy enough to change your mind, as noted on the facing page.) Now the Recycle Bin icon looks like it's brimming over with paper.

Tip: To turn off the "Are you sure?" message that appears when you send something Bin-ward, right-click the Recycle Bin. Then choose Properties from the shortcut menu, and turn off "Display delete confirmation dialog." Turning off the warning isn't much of a safety risk. After all, files aren't really being removed from your drive when you put them in the Recycle Bin.

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You can put unwanted files and folders into the Recycle Bin from any folder window, from within Windows Explorer, or even inside the Open File dialog box of many Windows applications (see Chapter 5).

Note: All of these methods put icons from your *hard drive* into the Recycle Bin. But deleting an icon from a removable drive (floppy or Zip drives, for example), or other computers on the network, does *not* involve the Recycle Bin, giving you no opportunity to retrieve them. (Deleting anything with the DOS *del* or *erase* commands bypasses the Recycle Bin, too.)

Restoring Deleted Files and Folders

If you change your mind about sending something to the software graveyard, open the Recycle Bin by double-clicking it. A window like the one in Figure 3-8 opens.

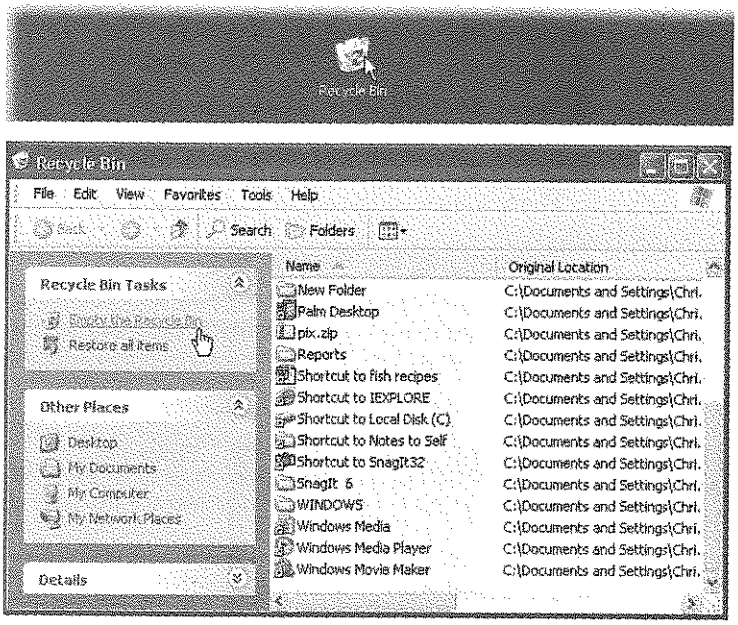


Figure 3-8: *When you double-click the Recycle Bin (top), its window (bottom) displays information about each folder and file that it holds. To sort its contents in Details view, making it easier to find a deleted icon, click the gray column heading for the type of sort you need.*

To restore a selected file or a folder—or a bunch of them—click the "Restore the selected items" link in the task pane, or choose File→Restore, or right-click any one of the selected icons and then choose Restore from the shortcut menu.

Restored means returned to the folder from whence it came—wherever it was on your hard drive when deleted. If you restore an icon whose original folder has been deleted in the meantime, Windows XP even re-creates that folder to hold the restored file(s).

Tip: You don't have to put icons back into their original folders. By *dragging* them out of the Recycle Bin window, you can put them into any folder you like.

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Emptying the Recycle Bin

While there's an advantage to the Recycle Bin (you get to undo your mistakes), there's also a downside: The files in the Recycle Bin occupy as much disk space as they did when they were stored in folders. Deleting files doesn't gain you additional disk space until you *empty* the Recycle Bin.

That's why most people, sooner or later, follow up an icon's journey to the Recycle Bin with one of these cleanup operations:

- Right-click the Recycle Bin icon, or a blank spot in the Recycle Bin window, and choose Empty Recycle Bin from the shortcut menu.
- Click the "Empty the Recycle Bin" link on the task pane in the Recycle Bin window.
- In the Recycle Bin window, highlight only the icons you want to eliminate, and then press the Delete key. (Use this method when you want to nuke only *some* of the Recycle Bin's contents.)
- Wait. When the Recycle Bin accumulates so much stuff that it occupies a significant percentage of your hard drive space, Windows empties it automatically, as described in the next section.

The first three of these procedures produce an "Are you sure?" message.

Customizing the Recycle Bin

You can make two useful changes to the behavior of the Recycle Bin. To investigate these alterations, right-click the Recycle Bin icon and choose Properties from the shortcut menu. The Recycle Bin Properties dialog box appears (see Figure 3-9).

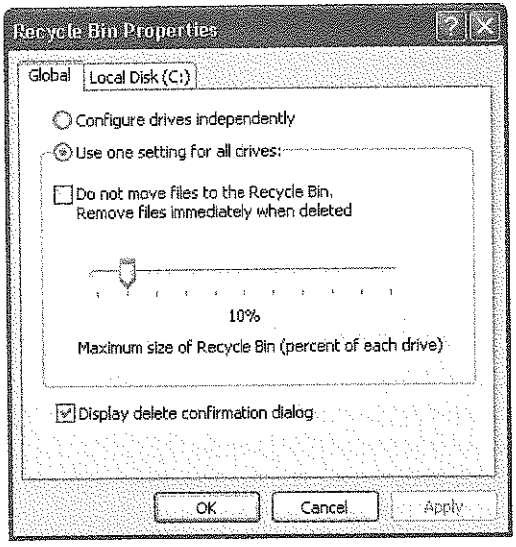


Figure 3-9:
Use the Recycle Bin Properties dialog box to govern the way the Recycle Bin works, or even if it works at all. If you have multiple hard drives, the dialog box offers a tab for each of them so you can configure a separate and independent Recycle Bin on each drive. To configure the Recycle Bin separately for each drive, select the "Configure drives independently" option.

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Skip the Recycle Bin

If you, a person of steely nerve and perfect judgment, never delete a file in error, then your files can bypass the Recycle Bin entirely when you delete them. Furthermore, you'll reclaim disk space instantly when you press the Delete key to vaporize a highlighted file or folder.

To set this up, turn on the "Do not move files to the Recycle Bin" checkbox (shown in Figure 3-9). And voilà: Your safety net is gone. (Especially if you *also* turn off the checkbox shown at bottom in Figure 3-9—then you're *really* living dangerously.)

If that suggestion seems too extreme, consider this safety/convenience compromise: Leave the Recycle Bin safety net in place most of the time, but bypass the Recycle Bin on command only when it seems appropriate.

The trick to skipping the Recycle Bin on a one-shot basis is to press the Shift key while you delete a file. Doing so—and then clicking Yes in the confirmation box—deletes the file permanently, skipping its layover in the Recycle Bin. (The Shift-key trick works for every method of deleting a file: pressing the Delete key, choosing Delete from the shortcut menu, and so on.)

Auto-emptying the Recycle Bin

The Recycle Bin has two advantages over the physical trash cans behind your house: First, it never smells. Second, when it's full, it can empty itself automatically.

To configure this self-emptying feature, you specify a certain fullness limit as a percentage of the hard drive capacity. When the Recycle Bin contents reach that level, Windows begins deleting files (permanently) as new files arrive in the Recycle Bin. Files that arrived in the Recycle Bin first are deleted first.

Unless you tell it otherwise, Windows XP reserves 10 percent of your drive to hold Recycle Bin contents. To change that percentage, just move the slider on the Properties dialog box (Figure 3-9). Keeping the percentage low means you're less likely to run out of the disk space you need to install software and create documents. On the other hand, raising the percentage means you'll have more opportunity to restore files you later want to retrieve.

Note: Every disk has its own Recycle Bin, which holds files and folders you have deleted from that disk. As you can see in the Recycle Bin Properties dialog box, the factory setting for automatic trash-deletion is 10 percent for *all* of your drives. If you click "Configure drives independently," you can use the separate dialog-box tabs for each of your hard drives. Accordingly, each hard drive will then have its own trash-limit slider and "Do not move files to the Recycle Bin" checkbox. (None of this affects the "Display delete confirmation dialog" checkbox on the Global tab, which you can't change on a disk-by-disk basis.)

Shortcut Icons

A *shortcut* is a link to a file, folder, disk, or program (see Figure 3-10). You might think of it as a duplicate of the thing's icon—but not a duplicate of the thing itself.

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(A shortcut takes up almost no disk space.) When you double-click the shortcut icon, the original folder, disk, program, or document opens. You can also set up a keystroke for a shortcut icon, so that you can open any program or document just by pressing a certain key combination.

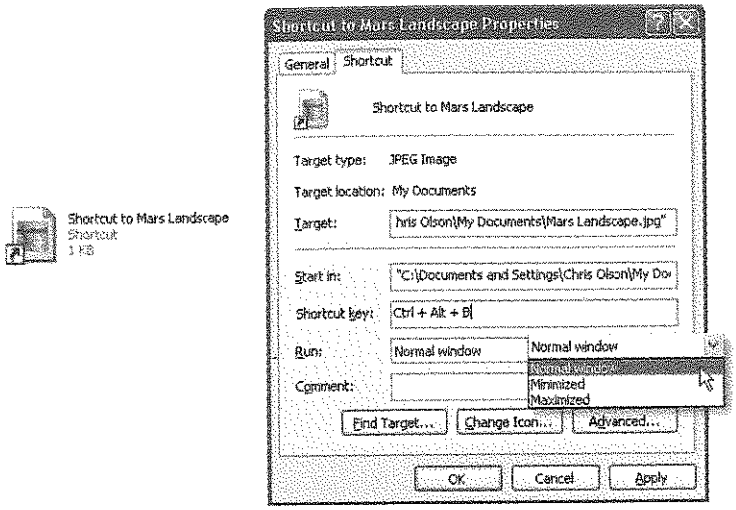


Figure 3-10: *You can distinguish a desktop shortcut (left) from its original in two ways. First, the tiny arrow "badge" identifies it as a shortcut. Second, its name contains the word shortcut (unless you've renamed it or an application has created its own shortcut on the desktop).*

The Properties dialog box for a shortcut (right) indicates which actual file or folder this one "points" to. The Run drop-down menu lets you control how the window opens when you double-click the shortcut icon.

Shortcuts provide quick access to the items you use most often. And because you can make as many shortcuts of a file as you want, and put them anywhere on your PC, you can effectively keep an important program or document in more than one folder. Just create a shortcut of each to leave on the desktop in plain sight, or drag their icons onto the Start button or the Quick Launch toolbar. In fact, everything listed in the Start→Programs menu *is* a shortcut—even the My Documents folder on the desktop is a shortcut (to the actual My Documents folder).

Tip: Don't confuse the term *shortcut,* which refers to one of these duplicate-icon pointers, with *shortcut menu,* the context-sensitive menu that appears when you right-click almost anything in Windows. The shortcut *menu* has nothing to do with the shortcut icons feature. Maybe that's why it's sometimes called the *context* menu.

Creating and Deleting Shortcuts

To create a shortcut, right-drag an icon from its current location (Windows Explorer, a folder window, or even the Search window described on page 37) to the desktop. When you release the mouse button, choose Create Shortcut(s) Here from the menu that appears.

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Tip: If you're not in the mood for using a shortcut menu, just left-drag an icon while pressing Alt. A shortcut appears instantly. (And if your keyboard lacks an Alt key—yeah, right—drag while pressing Ctrl+Shift instead.)

You can delete a shortcut the same as any icon, as described in the Recycle Bin discussion earlier in this chapter. (Of course, deleting a shortcut *doesn't* delete the file it points to.)

Unveiling a Shortcut's True Identity

To locate the original icon (program, folder, document, or whatever) from which a shortcut was made, right-click the shortcut icon and choose Properties from the shortcut menu. As shown in Figure 3-10, the resulting box shows you where to find the "real" icon—and offers you a quick way to jump to it, in the form of the Find Target button. When you click Find Target, you jump to the folder that stores the icon, which shows up highlighted.

Tip: See the little curved-arrow badge on the shortcut's icon? In a fit of interior-decorating passion, you can actually change what it looks like. TweakUI does the trick; see page 662.

Shortcut Keyboard Triggers

Even after reading all of this gushing prose about the virtues of shortcuts, efficiency experts may still remain skeptical. Sure, shortcuts let you put favored icons everywhere you want to be, such as your Start menu, Quick Launch toolbar, the desktop, and so on. But they still require clicking to open, which means taking your hands off the keyboard—and that, in the grand scheme of things, means slowing down.

Lurking within the Shortcut Properties dialog box is another feature with intriguing ramifications: the Shortcut Key text box. By clicking here and then pressing a key combination, you can assign a personalized keystroke for the shortcut. Thereafter, by pressing that keystroke, you can summon the corresponding file, program, folder, printer, networked computer, or disk window to your screen (no matter what you're doing on the PC).

Three rules apply when choosing keystrokes to open your favorite icons:

- The keystrokes work only on shortcuts stored *on your desktop or in the Start menu.* If you stash the icon in any other folder, the keystroke stops working.
- Your keystroke can't incorporate the Space bar or the Backspace, Delete, Esc, Print Screen, or Tab keys.
- There are no one- or two-key combinations available here. Your combination must include at least two of these three keys—Ctrl, Shift, and Alt—*and* another key.

  Windows XP enforces this rule rigidly. For example, if you type a single letter key into the box (like *E*), Windows automatically adds the Ctrl and Alt keys to your combination *(Ctrl+Alt+E)*. All of this is the operating system's attempt to prevent you from inadvertently duplicating one of the built-in Windows keyboard shortcuts and thoroughly confusing both your computer and yourself.

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Tip: If you've ever wondered what it's like to be a programmer, try this. In the Shortcut Properties dialog box (Figure 3-10), use the Run drop-down menu at the bottom of the dialog box to choose Normal window, Minimized, or Maximized. By clicking OK, you've just told Windows what kind of window you want to appear when opening this particular shortcut.

OK, controlling your Windows in this way isn't exactly the same as programming Microsoft Access, but you are, in your own small way, telling Windows what to do.

Burning CDs from the Desktop

In the old days (two years ago), every PC came with a CD-ROM drive. Nowadays, most new PCs come with a CD *burner*, a drive that can record new CDs that contain your own stuff.

If your PC has such a drive—either a CD-R drive (CD *recordable*, which means you can record each disc only once) or a CD-RW drive (CD *rewriteable*, for which you can buy CD-RW discs that you can erase and re-record as many times as you like), you're in for a treat. For the first time, Windows XP lets you burn your own CDs full of files and folders without having to buy a program like Roxio's Easy CD Creator.

That's because Windows XP *includes* Easy CD Creator (pieces of it, anyway). You now have a great feature for making backups, emailing people, or exchanging files with a Macintosh (the resulting CDs are cross-platform).

If your PC does, in fact, have a CD burner, start by inserting a blank CD. Windows offers to open a special CD-burning window, which will be the temporary waiting room for files that you want to copy to the CD (Figure 3-11, top left).

Note: If you've turned off this feature, you can open the CD window yourself: Open My Computer, and then double-click the CD icon.

FREQUENTLY ASKED QUESTION

Nothing to Lose

I'm burning a CD, and I get a message that I'm losing information. Why on earth would I want to click Yes?

When attempting to burn picture and music files onto a CD—not an uncommon task—you may be shown an error message that says, "This file has extra information attached to it that might be lost if you continue copying."

Windows is pointing out that some of the many informational tidbits it stores for *pictures and music files* (pixel dimensions of pictures, band name for music files, and so on) won't survive the transfer to a CD (whose more limited file format has only so much capacity for this kind of file trivia). This information won't be "lost" from the originals on your hard drive, of course—just in the CD copies.

Your best bet is to turn on "Repeat my answer each time this occurs" and then click Yes. (The alternative—clicking Skip so that Windows doesn't back up the file at all—is like throwing out the baby with the bathwater.)

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Now tell Windows which files and folders you want copied onto it, using one of these three methods:

- Scurry about your hard drive, locating the files and folders you want on the CD. Drag their icons into the open CD window, or onto the CD icon in the My Computer window.
- Highlight the files and folders you want burned onto the CD. Choose File→Copy. Click in the CD's window, and then choose File→Paste to copy the material there.
- Explore your hard drive. Whenever you find a file or folder you'd like backed up, right-click it. From the shortcut menu, choose Send To→CD Drive.

Note: All of this pertains to copying everyday computer files onto a CD. If you want to burn *music* CDs, don't use this method. Use Windows Media Player instead. (See page 232 for details.)

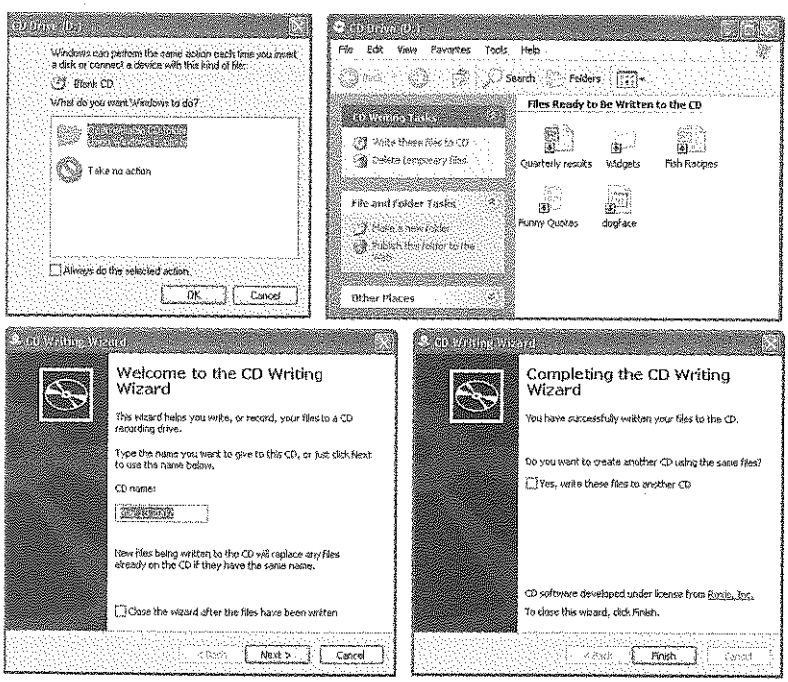


Figure 3-11: *Top left: When you insert a blank CD, this window appears, offering to open the CD "staging grounds" window that will hold shortcuts for the files you want to copy.*

Top right: The little down-arrows mean, "This icon hasn't been burned yet."

Lower left: The first screen of the CD Writing Wizard is your only chance to name the CD (even if it's a CD-RW disc).

Lower right: The final screen offers the chance to make a second copy of the same CD.

In any case, Windows now copies the files and folders into a temporary, invisible holding-tank folder. (If you're scoring at home, this folder is in the Local Disk C:)→Documents and Settings→[Your Name]→Local Settings→Application Data→Microsoft→CD Burning folder.) In other words, you need plenty of disk space before you begin burning a CD, at least double the size of the CD files themselves.

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Tip: Remember that a standard CD can hold only about 650 MB of files. To ensure that your files and folders will fit, periodically highlight all the icons in the My Computer→CD window (choose Edit→Select All). Then inspect the Details box in the task pane to confirm that the Total File Size is within the legal limit.

At last, when everything looks ready to go, click the "Write these files to CD" link in the task pane (top right in Figure 3-11), or choose File→Write these files to CD.

The CD Writing Wizard appears, as shown at bottom in Figure 3-11, to guide you through the process of naming the new CD and burning the disc.

Note: When using a CD-RW disc (that is, one that you can erase and re-record), you can't change the disc's name once it's been recorded for the first time. You can still replace its contents using the techniques described here, though.

Hard-core Windows power users, of course, sneer at all this. Only with a commercial CD-burning program, they point out, can you burn MP3 music CDs, create *mixed-mode* CDs (containing both music and files), create Video CDs (low-quality video discs that play on DVD players), and so on.

Still, if you use your burner primarily for quick backups, long-term storage, or transferring big files to other computers, a little bit of free software goes a long way.

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CHAPTER
4

Getting Help

As you've no doubt noticed, each version of Windows gets bigger and more capable, but seems to come with fewer pages of printed instructions. In Windows XP, Microsoft has relegated more of its wisdom than ever to online help screens—or, even less conveniently, to Web pages on the Internet.

On the other hand, Microsoft has improved the Help window by incorporating links to various diagnostic and repair tools, troubleshooting wizards, and help sources on the Web. It may take all weekend, but eventually you should find written information about this or that Windows feature or problem.

Navigating the Help System

To open the help system, choose Start→Help and Support, or press F1. The Help and Support window appears, as shown in Figure 4-1. From here, you can home in on the help screen you want using any of three methods: clicking your way from the Help home page, using the index, or using the Search command.

Help Home Page

The home page shown in Figure 4-1 contains three basic areas. In the left column: Frequently sought help topics, such as "Music, video, games, and photos" and "Printing and faxing." In the right column: buttons that take you to specialized interactive help systems and utility software. Finally, at the lower right, Microsoft treats you each day to a different "Did you know?" headline.

If one of the broad topics on the left side corresponds with your question, click any topic to see a list of subtopics. The subtopic list will lead you to another, more

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focussed list, which in turn leads you to an even narrower list. Eventually you'll arrive at a list that actually produces a help page.

Tip: If you seem to have misplaced your contact lenses, simply adjust the type size used by the Help Center. Click Options on the toolbar, and then click "Change Help and Support Center options" at the left side of the window. In the right pane, under "Font size used for Help content," you'll see the "Font size" buttons–Small, Medium, or Large.

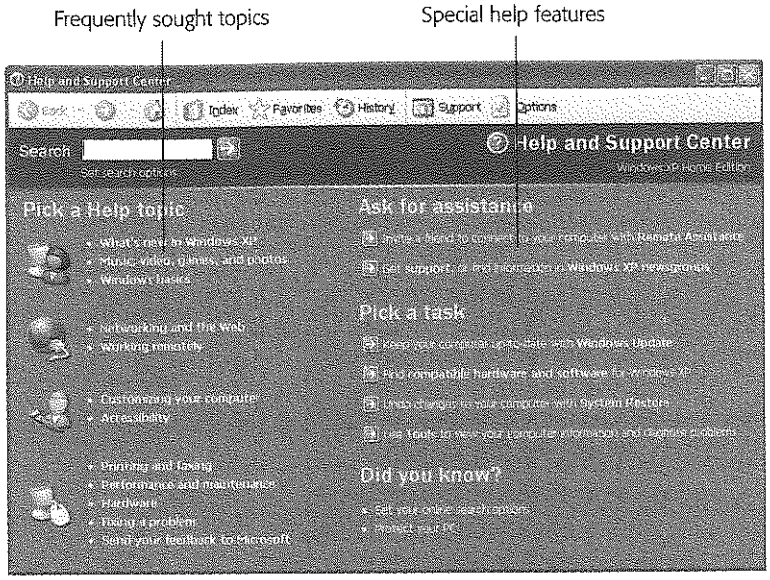


Figure 4-1: *When working in the Help and Support Center window, you can use the Back, Forward, Home, Favorites, and History buttons on the toolbar. They may look like the corresponding buttons in a Web browser, but these buttons refer only to your travels within the help system. The Favorites button here represents your favorite help pages–they're not the same favorites you see in Internet Explorer.*

Search the Help Pages

By typing a phrase into the Search text box at the top of the main page and then clicking the green arrow (or pressing Enter), you instruct Windows XP to rifle through its 10,000 help pages to search for the phrase you typed.

Here are a few pointers:

- When you enter multiple words, Windows XP assumes that you're looking for help screens that contain *all* of those words. For example, if you search for *video settings*, help screens that contain both the words "video" and "setting" (although not necessarily next to each other) will appear.
- If you would rather search for an exact phrase ("video settings"), click the "Set search options" link underneath the Search text box. The search options page appears; at the bottom, you'll find a "Search for" drop-down menu. Choose "The exact phrase" and then repeat the search.

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Tip: This same drop-down menu offers choices like "Any of the words," which means that if you type *video settings*, you'll find help pages that have *either* of those words. Choosing "The Boolean phrase" from this drop-down menu means that you intend to use the phrases *or*, *and*, or *not* in your search phrase for further specificity. For example, entering *video not settings* would yield all help pages concerning "video" that don't discuss "settings."

- Windows displays only the first fifteen topics it finds in each of its help databases. If you'd rather see more or fewer "hits," you'll find an adjustment control on, once again, the "Set search options" page. (That page also lets you turn off the *search highlight*, the dark rectangle shown in Figure 4-2 that appears around your search phrase on the resulting help pages.)

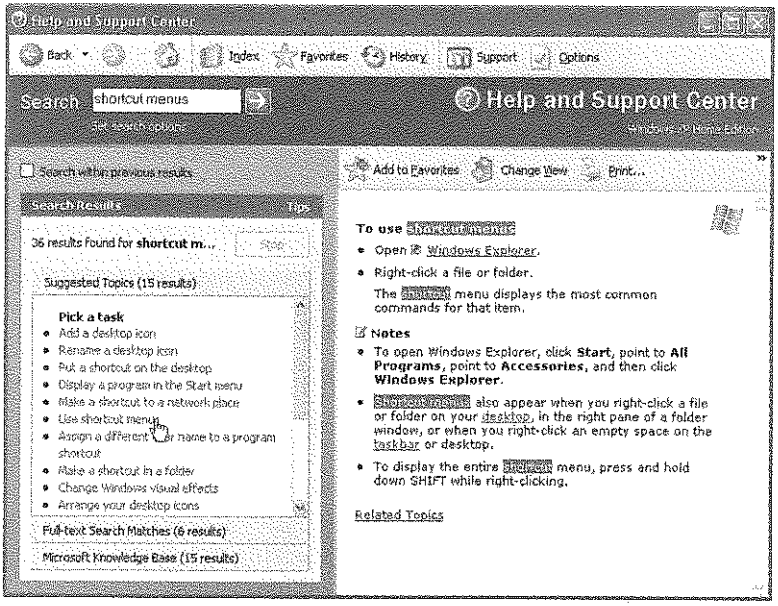


Figure 4-2: *Each document title in the list on the left is a link that opens up a help page on the right side of the menu. (The dark highlighting shows matches for your search phrase.) The results are divided into three different categories—Suggested Topics (fast but limited), Full-text Search Matches (slower but more complete), and Microsoft Knowledge Base (Internet-based). Click the appropriate category name.*

After each search, the left-side list shows three different categories of help topics:

- **Suggested Topics** reveals help pages whose *keywords*, invisibly assigned by Microsoft, match your search phrase. Of course, if you and Microsoft don't happen to use the same terminology, you won't find what you're seeking listed in this group.
- **Full-text Search Matches** are help pages on which your search phrase actually appears in the help page text.
- **Microsoft Knowledge Base** refers to the massive collection of technical articles on the Microsoft Web site. If you're not online, you can't read them.

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Tip: When you're on a laptop at 39,000 feet, you probably don't have an Internet connection. In that case, you may prefer that Windows not attempt to search the Microsoft Knowledge Base on the Internet. Click "Set search options" just beneath the Search text box, and then turn off the Microsoft Knowledge Base checkbox.

Help Index

The success of the Search command boils down to your using the same terminology Microsoft does. Sometimes, you may have better luck unearthing a certain help article by clicking the Index button on the toolbar.

Doing so produces a massive list of almost every help topic in the Windows repertoire, sorted alphabetically (Figure 4-3). Double-click a topic's name to see its corresponding help page Help window's right pane.

If you type a few letters into the Search box, the Index scrolls to the closest match. But if that doesn't produce a matching entry, you can still scroll through the index manually.

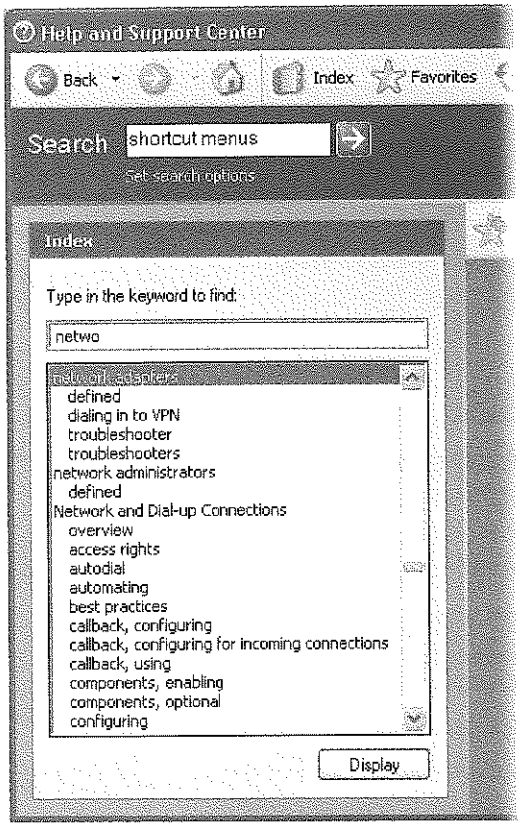


Figure 4-3:
As you type, Windows XP matches each character by highlighting successive index listings to correspond with the characters you've typed so far. Most of the entries in the index are indented—these are the links to actual help pages. Don't waste your time trying to double-click the category headings (the entries that aren't indented, but that have indented entries underneath them.) They don't do anything when double-clicked, since you're supposed to open one of the indented subentries.

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Tip: Ordinarily, the Help window fills most of your screen, so it may cover up whichever steps you're trying to follow. However, clicking the Change View button (above the help text in the right pane) hides the list of topics and shrinks the help page so it fills a much smaller window. Click the button again to return to the two-pane view.

"What's This?": Help for Dialog Boxes

If you're ever facing a dialog box (like the one shown in Figure 4-4) while scanning a cluster of oddly worded options, Windows XP's "What's This?" feature can come to the rescue. It makes pop-up captions appear for text boxes, checkboxes, option buttons, and other dialog box elements.

You can summon these pop-up identifiers (see Figure 4-4) in either of two ways:

- Right-click something in the dialog box. In the world's shortest shortcut menu that now appears, click What's This?

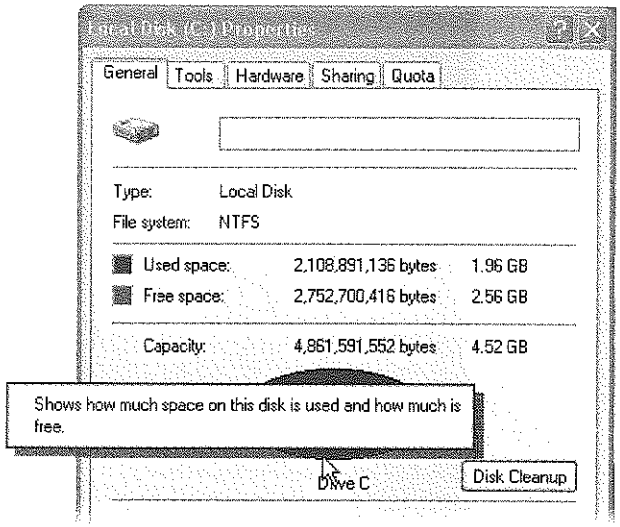


Figure 4-4: *After clicking the question-mark icon at the upper-right corner, you can click any control in the dialog box—in this case, the Screen Area slider—to read about its function. To make the pop-up box go away, click anywhere within its border. When the pop-up box containing the answer to What's This? appears on your screen, simply right-click in the box and choose Copy (to copy the text of the pop-up to the Clipboard) or Print Topic (to print the help page for that topic).*

- Click the question mark in the upper-right corner of the dialog box, and then click the element you want identified.

Remote Assistance

You may think you've experienced stress in your lifetime: deadlines, breakups, downsizing. But absolutely nothing approaches the frustration of an expert trying to help a PC beginner over the phone—for both parties. The expert is flying blind, using Windows terminology that the beginner doesn't know. Meanwhile, the beginner

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doesn't know what to look for and describe to the expert on the phone. Every little operation takes 20 times longer than it would if the expert were simply seated in front of the machine. Both parties are likely to age ten years in an hour.

Fortunately, that era is at an end. One of Windows XP's biggest big-ticket features is something called Remote Assistance. It lets somebody having trouble with the computer extend an invitation to an expert, via the Internet. Through Remote Assistance, the expert can actually see the screen of the flaky computer, and even take control of it by remotely operating the mouse and keyboard. The guru can make even the most technical tweaks—running utility software, installing new programs, adjusting hardware drivers, even editing the Registry (Appendix C)—by long distance remote control. Remote Assistance really *is* the next best thing to being there.

Remote Assistance: Rest Assured

Of course, these days, most people react to the notion of Remote Assistance with stark terror. What's to stop some troubled teenager from tapping into your PC in the middle of the night, rummaging through your files, and reading your innermost thoughts?

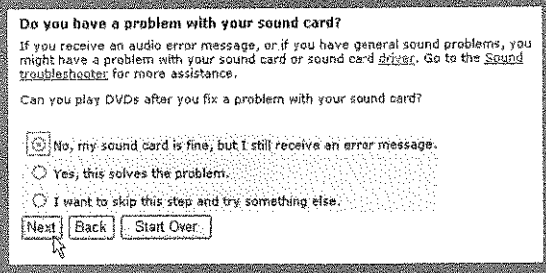
Plenty. First of all, you, the help-seeker, must begin the process by sending a specific electronic invitation to the expert. The invitation has a time limit: If the helper doesn't respond within, say, 10 minutes, the electronic door to your PC slams shut again. Second, the remote-control person can only see what's on your screen. She can't actually manipulate your computer unless you grant another specific permission. And finally, you must be present *at your machine* to make this work. The instant you see something fishy going on, a quick tap on your Esc key disconnects the interloper.

GEM IN THE ROUGH

Troubleshooters

When a PC feature isn't working the way you'd hope, or isn't working at all, Windows XP offers a special kind of wizard called a *troubleshooter*—a series of help screens specifically designed to solve problems.

If you follow all the steps the troubleshooter suggests, and you're unable to fix the problem, the troubleshooter apologizes and suggests another resource for more help.



You won't find troubleshooters for every conceivable problem; Microsoft created only a few. To see a list of them, open the main Help and Support window. Then type *troubleshooter* in the Search text box and press Enter. You can double-click a troubleshooter's name in the resulting list.

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Tip: If, despite all of these virtual locks and chains, you absolutely can't stand the idea that there's a tiny keyhole into your PC from the Internet, choose Start→Control Panel. Click "Switch to Classic View," if necessary, and then double-click the System icon. In the System dialog box, click the Remote tab, and turn off "Allow Remote Assistance invitations to be sent from this computer." Click OK. Now you've effectively removed the use of the Remote Assistance feature from Windows XP.

Remote Assistance via Windows Messenger

Windows Messenger is a little program that lets two people communicate across the Internet—by typing in a chat window, speaking into their microphones, or even watching each other via a video camera. It's all detailed in Chapter 11.

For now, it's enough to note that the Remote Assistance process is much simpler and more streamlined if both the helper and the helpee use Windows Messenger. Here's how it works.

Instructions for the novice

Suppose you're the person who needs help. If you suspect that your expert may need to install software or fiddle with your network settings while fooling around with your machine, sign into your PC with an *Administrator account* (page 517). Then connect to the Internet, and proceed like this:

1. Open Windows Messenger.

   For example, click Start→All Programs→Windows Messenger.

2. Choose Actions→Ask for Remote Assistance (Figure 4-5).

   Now the Ask for Remote Assistance dialog box appears.

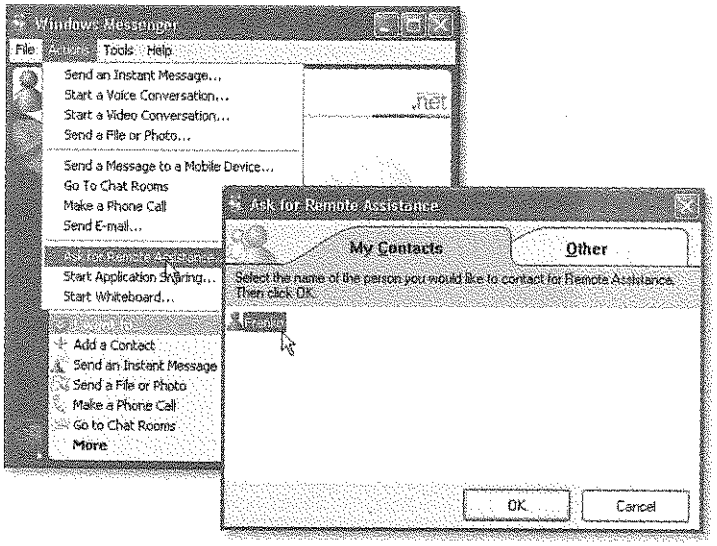


Figure 4-5: *Getting going in Remote Assistance is easiest in Windows Messenger (left). Just specify who's going to be the lucky one to troubleshoot your machine (right).*

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3. Specify who's going to help you.

   If the email address of your personal guru is listed on the My Contacts screen, just click the corresponding address (Figure 4-5, right). Otherwise, click the Other tab and type the guru's email address into the appropriate box.

4. Click OK.

   Windows Messenger sends an invisible invitation to your good Samaritan, who sees—thousands of miles away, perhaps—something like the top illustrations of Figure 4-6. If your buddy accepts the invitation to help you, then the message shown at bottom in Figure 4-6 appears, asking if you're absolutely, positively sure you want someone else to see your screen.

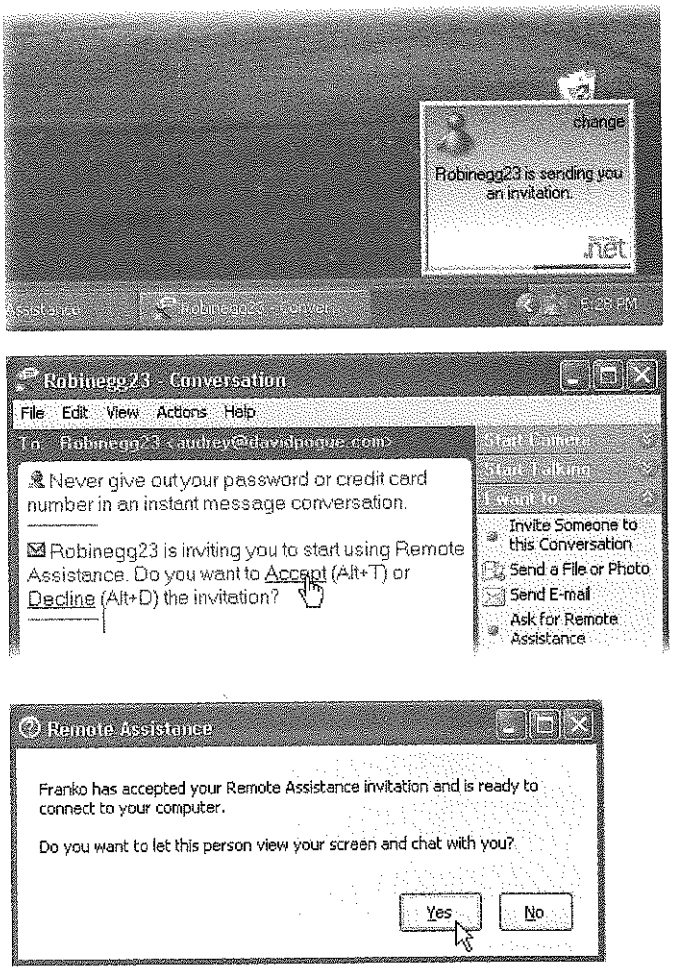


Figure 4-6:
Both parties have to be very, very sure that they want this connection to take place.

Top (expert's screen): Somebody wants your attention, master!

Middle (expert's screen): Click Accept or press Alt+T.

Bottom (beginner's screen): You must confirm one last time that you really want a visitation from someone who's technically savvier than you.

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5. Click Yes.

You're in good shape. Let the help session begin (Figure 4-7).

The only further action that's required on your part comes when the expert asks for permission to take charge of your machine. You'll see a request like the one shown in Figure 4-8. Click Yes, and then watch in amazement and awe as your cursor begins flying around the screen, text types itself, and windows open and close by themselves. That's just your friendly neighborhood computer wizard fixing your machine.

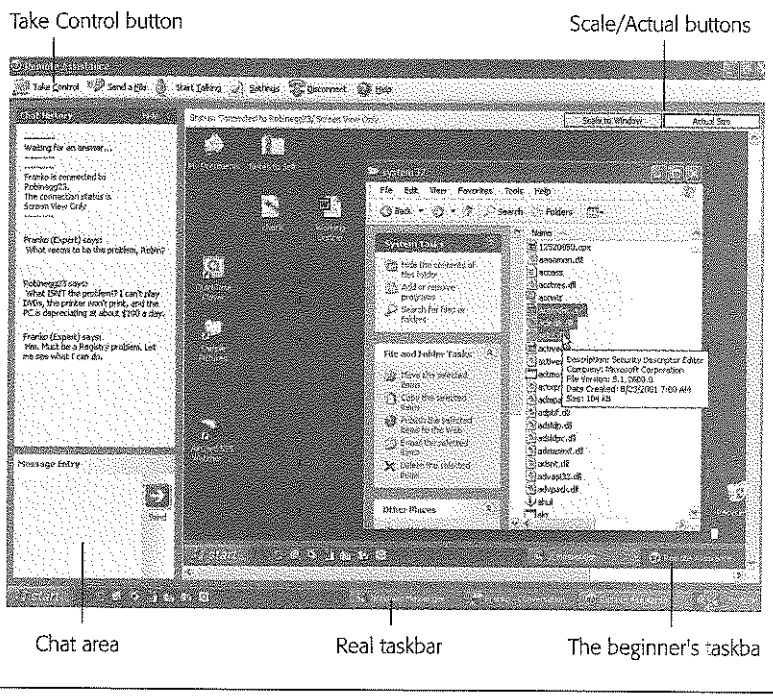


Figure 4-7: *If the victim's screen isn't exactly the same size as yours, you have two options. If you click Actual Size, the other person's screen is represented at full size, although you may have to scroll around to see all of it. If you click Scale to Window, Windows compresses (or enlarges) the other person's screen image to fit inside your Remote Assistance window, even though the result can be distorted and ugly.*

As noted earlier, if the expert's explorations of your system begin to unnerve you, feel free to slam the door by clicking the Stop Control button on the screen—or just by pressing the Esc key. Your friend can still see your screen, but can no longer control it. (To close the connection completely, so that your screen isn't even visible anymore, click the Disconnect button.)

Instructions for the expert

When your less-fortunate comrade sends you an electronic invitation to help, a little message on your Notification Area pops up, as shown in Figure 4-6 at top. Furthermore, the Windows Messenger on your taskbar changes color to signal the invitation. Bring Windows Messenger to the front, and then click Accept or press Alt+T (Figure 4-6, middle). Assuming that the hapless novice is skilled enough to click Yes to grant final permission (Figure 4-6, bottom), you're in.

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At this point, you observe a strange sight: the other person's screen in a special Remote Assistance window (Figure 4-7). To communicate with your troubled comrade, use any of the Windows Messenger communications tools described in Chapter 11 (chat, microphone, video, sending files back and forth)—or just by chatting on the telephone simultaneously.

When you want to take control of the distant machine, click the Take Control button on the toolbar at the top of your Remote Assistance screen. Of course, all you've actually done is just ask *permission* to take control (Figure 4-8). If it's granted, you can now use your mouse, keyboard, and troubleshooting skills to do whatever work you need to do. When your job is done, click Disconnect on the toolbar—or wait for your grateful patient to do so.

Tip: Once you've taken control of the other person's screen, your first instinct might be to close the gargantuan Remote Assistance window that's filling most of the screen. Don't. If that window closes, the connection closes, too. What you really want is to *minimize* it, so it's out of your way but not closed.

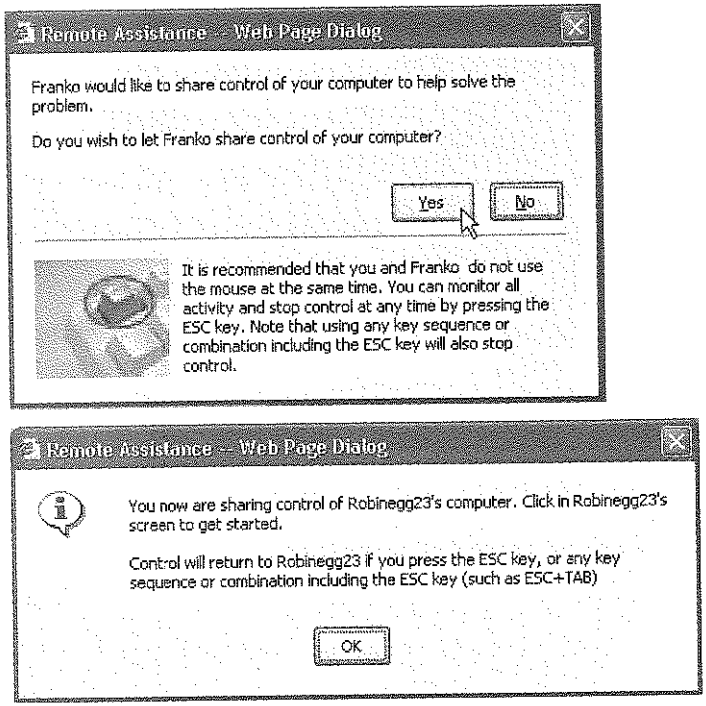


Figure 4-8:
Top (beginner's screen): Now the expert wants to touch, not just look. You're not actually relinquishing *control of your PC—you're going to* share *it. Both you and your expert will be able to move the mouse and type simultaneously—a comical, strange, and fairly useless phenomenon. It's probably best to keep your hands off your own machine while the work is being conducted.*

Bottom (expert's screen): Once you're controlling the other machine, you *can cancel at any time, too.*

Remote Assistance without Windows Messenger

As noted earlier, using Remote Assistance is most efficient and satisfying when both participants fire up the Windows Messenger program. That's not technically necessary, however. Although more steps are involved, anybody with Windows XP can

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help anyone else with Windows XP, even if neither person has a Passport nor uses Windows Messenger.

Instructions for the novice

If you're the one who wants help, send an invitation like this:

1. **Choose Start→Help and Support.**

   The Help and Support Center appears, as described earlier in this chapter.

2. **Click "Invite a friend to connect to your computer with Remote Assistance." On the next screen, click "Invite someone to help you."**

   The Remote Assistance Wizard is guiding you through the process of sending an invitation. You're offered two ways of sending it: using Windows Messenger, exactly as described in the previous section, and using email. Of course, since the entire purpose of this exercise is to seek the help of someone who *doesn't* have Windows Messenger, proceed like this:

3. **Type your guru's email address into the "Type an email address" box, and then click "Invite this person" (or press Enter).**

   This works only if you've already set up your PC for email, as described in Chapter 12.

   Now the screen changes again.

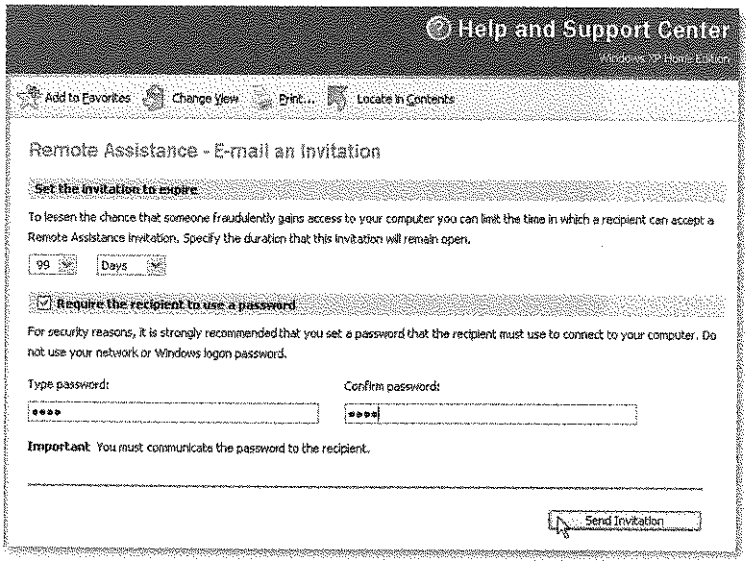


Figure 4-9: *Speaking of security, you can also set up a password here for even more protection. The guru won't be able to connect to your machine without the password. (Of course, you need to find some way of telling him what the password is—maybe calling on the phone or sending a separate email.)*

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Note: If you click "Save invitation as a file (Advanced)," instead, Windows saves a little invitation ticket (with the unusually long filename extension *.MsRcIncident)* as a file on your hard drive. You can transfer this little file—the actual invitation to inhabit your PC—via disk or via network instead of emailing it.

4. **In the From box, type the name you want to appear on the invitation. In the Message box, add a description of the problem, and then click Continue.**

   On this screen, Windows wants to know how long you want to keep your electronic invitation alive (Figure 4-9). If your guru doesn't respond within, say, an hour, you may want the invitation to expire quietly, for security reasons.

Tip: On the other hand, if the expert is a friend or family member who rescues you frequently, you may as well change the settings to the maximum—30 days—so that he can tap into your machine whenever it's convenient. (In fact, in the Control Panel program called System [page 295], you can crank up the maximum to 99 days by clicking the Remote tab and then Advanced.) You save several connection steps this way.

5. **Set up your security options. Make sure you're online, and then click the Send Invitation button.**

   A little dialog box may appear, warning you that a program is attempting to send an email message on your behalf. (This dialog box is designed to be a safeguard against viruses that transmit themselves without your knowledge.)

6. **Click the Send button.**

   Finally, the Remote Assistance wizard tells you, "Your invitation has been sent successfully."

TROUBLESHOOTING MOMENT

Making Remote Assistance Work

If you can't get Remote Assistance to work, the first thing to check is the master on/off switch—the "Allow Remote Assistance..." checkbox described in the Tip on page 141.

If that box is indeed turned on, the next issue to investigate is the *IP address*—the string of four numbers, such as 24.226.23.1, that identifies every single computer that's on the Internet at a given moment. Whenever you invite an expert to visit your PC using Remote Assistance, you're transmitting your IP address to the expert's computer behind the scenes.

Suppose, then, that you dial into the Internet using a standard phone line. In that case, your Internet service provider probably assigns you a different IP address each time you're online. Clearly, if your guru tries to "call you back" the day after you issue the invitation, it won't work, since you'll have a different IP address when you go online the next day. That's a good argument for prearranging the help session with your expert—so that you issue the invitation and actually *conduct* the session all during a single online session.

Other complications might arise if you have a cable modem or DSL connection that you share among several PCs using a piece of equipment called a router. Fortunately, most of these problems go away if you use the Windows Messenger method described in this chapter, rather than the email-an-invitation method.

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Instructions for the expert

When the novice sends you an email invitation, it arrives in your email program with an attachment—a tiny file called rcBuddy.MsRcIncident (see Figure 4-10). This is your actual invitation, a Remote Assistance ticket.

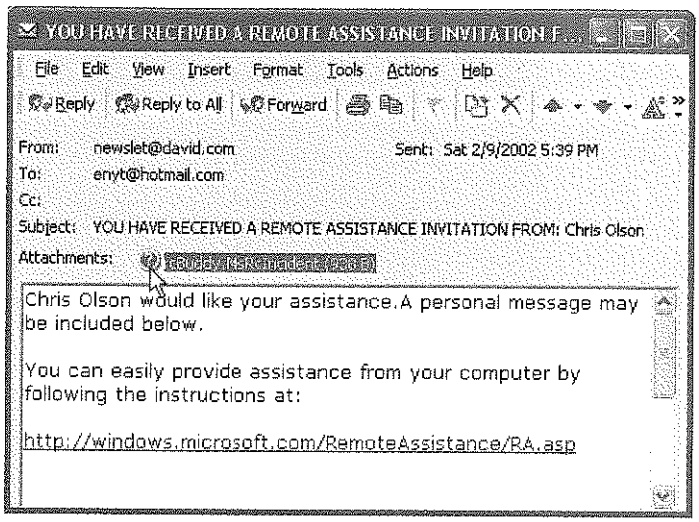
When you open it, a little electronic message goes back to the novice, where a message like the one shown at bottom in Figure 4-6 appears. The online help session can now begin.

Getting Help from Microsoft

If you run into trouble with the installation—or with any Windows XP feature—the world of Microsoft is filled with sources of technical help. For example, you can consult:

Figure 4-10:
You, the guru, have just received a .MsRcIncident ticket—an invitation to help somebody whose PC needs troubleshooting. Lucky you!

And by the way: If the novice, a trusting individual, has sent you a Remote Assistance ticket that doesn't expire for a very long time (99 days, for example), keep it around on your desktop or in your Start menu. From now on, both of you can skip all of the invitation-and-response rigamarole. Now, whenever he needs your help, he can just call you up or email you. And all you have to do is double-click your ticket and wait for the OK from the other side.



- **The Microsoft Help Web pages.** Direct your Web browser (if, indeed, your computer works) to *www.microsoft.com/support*. There you'll find a long list of help resources that handle many of the most common questions: a database of help articles that you can search, a list of known glitches that Microsoft has published, newsgroups (Internet bulletin boards) where you can post questions and return later to read the answers, and so on.
- **Free phone help.** If you bought Windows XP (that is, it didn't come on your computer), you can call Microsoft for free phone help during business hours. The company is especially interested in helping you get Windows XP installed and run-

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ning correctly—you can call as often as you like for help getting Windows going this way.

After that, you can call for everyday Windows questions for free—twice. You'll be asked to provide your 20-digit product ID number, which you can look up by right-clicking My Computer in your Start menu and clicking the Properties tab. The not-toll-free number is (425) 635-3311.

(If Windows XP came preinstalled in your machine, on the other hand, you're supposed to call the computer company with your Windows questions.)

- **Expensive phone help.** Once you've used up your two free calls, you can still call Microsoft with your questions—but it will cost you $35 per incident. (They say "per incident" to make it clear that if it takes several phone calls to solve a particular problem, it's still just one problem.) This service is available 24 hours a day, and the U.S. number is (800) 936-5700.

Tip: If you're not in the United States, direct your help calls to the local Microsoft office in your country. You'll find a list of these subsidiaries at *www.microsoft.com/support*.

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2

Part Two: The Components of Windows XP

Chapter 5: Programs and Documents

Chapter 6: The Freebie Software

Chapter 7: Pictures, Sounds, and Movies

Chapter 8: The Control Panel

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CHAPTER 5

Programs and Documents

When you get right down to it, an operating system like Windows is nothing more than a home base from which to launch *applications* (programs). And you, as a Windows person, are particularly fortunate, since more programs are available for Windows than any other operating system on earth.

But when you launch a program, you're no longer necessarily in the world Microsoft designed for you. Programs from other software companies work a bit differently, and there's a lot to learn about how Windows XP handles programs that were born before it was.

This chapter covers everything you need to know about installing, removing, launching, and managing programs; using programs to generate documents; and understanding how documents, programs, and Windows communicate with each other.

Launching Programs

Windows XP lets you launch (open) programs in many different ways:

- Choose a program's name from the Start→All Programs menu.
- Click a program's icon on the Quick Launch toolbar (page 99).
- Double-click an application's program-file icon in the My Computer→Local Disk (C:)→Program Files→application folder, or highlight the application's icon and then press Enter.
- Press a key combination you've assigned to the program's shortcut (page 131).

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- Choose Start→Run, type the program file's name in the Open text box, and then press Enter.
- Let Windows launch the program for you, either at startup (page 33) or at a time you've specified (see Task Scheduler, page 491).
- Open a document using any of the above techniques; its "parent" program opens automatically. For example, if you used Microsoft Word to write a file called Last Will and Testament.doc, double-clicking the document's icon launches Word and automatically opens that file.

What happens next depends on the program you're using (and whether or not you opened a document). Most present you with a new, blank, untitled document. Some, such as FileMaker and Microsoft PowerPoint, welcome you instead with a question: Do you want to open an existing document or create a new one? And a few oddball programs, like Adobe Photoshop, don't open any window at all when first launched. The appearance of tool palettes is the only evidence that you've even opened a program.

Switching Programs

In these days where PCs with 256, 512 or even gigabytes of RAM are common, it's the rare PC user who doesn't regularly run several programs *simultaneously*.

The key to juggling open programs is the taskbar, which lists all open programs (Figure 5-1). As explained at the end of Chapter 2, the taskbar also offers controls for arranging all the windows on your screen, closing them via the shortcut menu, and so on.

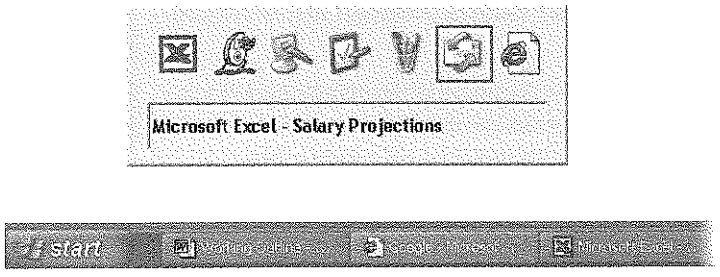


Figure 5-1:
Top: Press Alt+Tab to highlight successive icons in the list. When you release the Alt key, the program whose icon you've highlighted jumps to the front.

Bottom: The taskbar lets you know which programs are running; the darkest button tells you which program is active.

To bring a different program to the front, you can use any of these four tricks:

- **Use the Taskbar.** Clicking a button on the taskbar makes the corresponding program pop to the front, along with any of its floating toolbars, palettes, and so on.

  If you see a parenthetical number on a taskbar button, however, then button *grouping* is under way (page 93). In that case, clicking the taskbar button *doesn't* bring the program's windows forward. You must actually click a selection in the taskbar button's menu of open windows.

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- **Click the window.** You can also switch to another program by clicking the part of its window that's visible in the background.
- **The relaunch technique.** Repeat the technique you used to initially launch the program (choose its name from the Start→All Programs menu, press its keystroke, and so on).
- **Alt+Tab.** Finally, you can bring a different program to the front without using the mouse. If you press Tab while holding down the Alt key, a floating palette displays the icons of all running programs, as shown at the top in Figure 5-1. Each time you press Tab again (still keeping the Alt key down), you highlight the next icon; when you release the keys, the highlighted program jumps to the front, as though in a high-tech game of Duck Duck Goose.

To move *backward* through the open programs, press *Shift*+Alt+Tab.

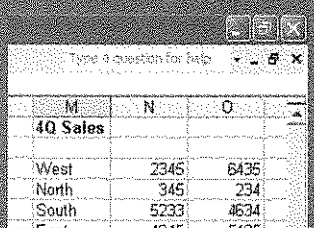
Tip: For quick access to the desktop, clear the screen by clicking the Desktop button on the Quick Launch toolbar (its icon looks like an old desk blotter)—or just press the Windows logo key+D. Pressing that keystroke again brings all the windows back to the screen exactly as they were.

UP TO SPEED

"Multiple Document Interface" Programs

The world of Windows programs is divided into two camps. First, there are *single-document interface* (SDI) programs, where the entire program runs in a single window. By closing that window, you also exit the application. (WordPad, Notepad, Internet Explorer, and Palm Desktop work this way.)

Second, there are *multiple-document interface* (MDI) programs, where the application itself is a mother ship, a shell, that can contain lots of different document windows. (Word, Excel, and PowerPoint work like this. As shown here, you may see two sets of upper-right window controls, one just beneath the other. The top one belongs to the *application*; the one below it belongs to the *document*. Here, if you close a document window, you *don't* also quit the program.



To help you navigate your various open windows, MDI programs usually offer commands that arrange all open windows to fit neatly on the screen, each occupying an even fraction of the screen space. (These commands work much like the Tile and Cascade commands in desktop windows.) In Microsoft Word, for example, the Windows menu offers a command called Arrange All.

Getting to know which way a program deals with windows is important for a couple of reasons. First, it explains why the taskbar sometimes displays only one button for an entire *program* (such as Word), but sometimes displays a button for each open *window* in a program (such as Internet Explorer). Second, it explains why closing a window sometimes exits the application (when it's a *single*-document interface program), and sometimes doesn't (when it's an MDI program).

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Exiting Programs

When you exit, or quit, an application, the memory it was using is returned to the Windows pot for use by other programs.

If you use a particular program several times a day, like a word processor or calendar program, you'll save time in the long run by keeping it open all day long. (You can always minimize its window to get it out of the way when you're not using it.)

But if you're done using a program for the day, exit it, especially if it's a memory-hungry one like, say, Photoshop. Do so using one of these techniques:

- Choose File→Exit.
- Click the program window's Close box, or double-click its Control-menu icon (at the upper-left corner of the window).
- Right-click the program's taskbar button and choose Close from the shortcut menu.
- Press Alt+F4 to close the window you're in. (If it's a program that disappears entirely when its last document window closes, you're home.)
- Press Alt+F, then X.

If you haven't yet saved the changes you've made to your document, the program offers the chance to do so before it shuts down all the way. Finally, after this step, the program's windows, menus, and toolbars disappear, and you fall "down a layer" into the window that was behind it.

When Programs Die

Windows XP itself may be a revolution in stability (at least if you're used to Windows Me), but that doesn't mean that *programs* never crash or freeze. They crash, all right—it's just that in XP, you rarely have to restart the computer as a result.

When something goes horribly wrong with a program, your primary interest is usually exiting it in order to get on with your life. But when a programs locks up (the cursor moves, but menus and tool palettes don't respond) or when a dialog box tells you that a program has "failed to respond," exiting may not be so easy. After all, how do you choose File→Exit if the File menu itself doesn't open?

As in past versions of Windows, the solution is to invoke the "three-fingered salute": Ctrl+Alt+Delete. What happens next depends on whether or not your PC is part of a domain network (page 19):

- **Part of a domain.** Ctrl+Alt+Delete summons the Windows Security dialog box, a special window shown at top in Figure 5-2. Click the Task Manager button. The Applications tab on the resulting dialog box (Figure 5-2, bottom) provides a list of every open program. Furthermore, the Status column should make clear what you already know: that one of your programs is ignoring you.

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- **Part of a workgroup (or not networked).** You save a step. Ctrl+Alt+Delete brings you directly to the Windows Task Manager dialog box (Figure 5-2, bottom).

Tip: You can also run Task Manager by right-clicking the taskbar and then selecting Task Manager from the shortcut menu. Doing this bypasses the Windows Security dialog box and brings you directly to Windows Task Manager, with the Applications tab selected. Or just press *Shift*+Ctrl+Alt+Delete.

As shown in Figure 5-2, shutting down the troublesome program is fairly easy; just click its name and then click the End Task button. (If yet another dialog box appears, telling you that "This program is not responding," click the End Now button.)

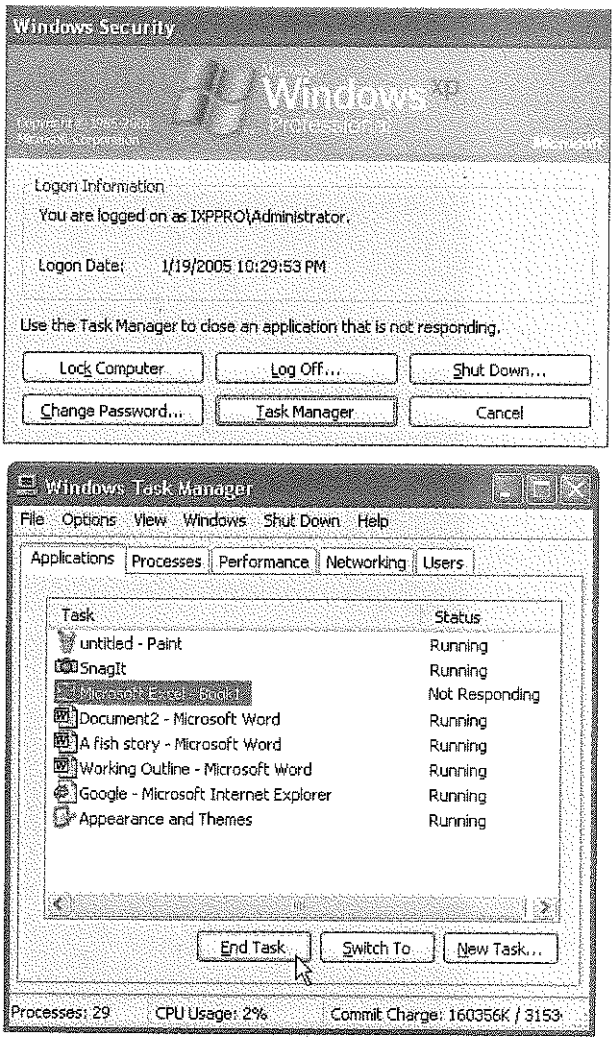


Figure 5-2:
Top: Click the Task Manager button on the Windows Security dialog box to check on the status of a troublesome program.

Bottom: As if you didn't know, one of these programs is "not responding." Highlight its name and then click End Task to slap it out of its misery. Once the program disappears from the list, close the Task Manager and get on with your life. You can even restart the same program right away—no harm done.

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When you jettison a recalcitrant program this way, Windows XP generally shuts down the troublemaker gracefully, even offering you the chance to save unsaved changes to your documents.

Tip: If even this treatment fails to close the program, you might have to slam the door the hard way. Click the Processes tab, click the name of the program that's giving you grief, and then click the End Process button. (The Processes list includes dozens of programs, including many that Windows XP runs behind the scenes. Finding the abbreviated short name of the program may be the hardest part of this process.)

Any unsaved changes to your documents will be lost using this method—but at least the frozen program is finally closed.

Saving Documents

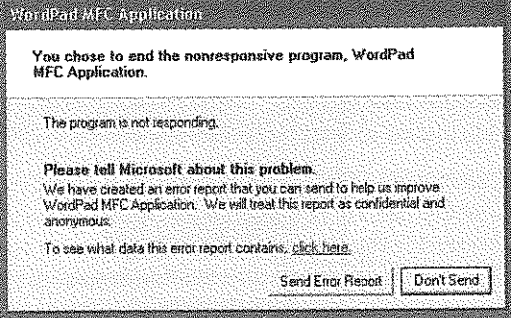
In a few programs, such as the Calculator or Solitaire, you spend your time working (or playing) in the lone application window. When you close the window, no trace of your work remains.

UP TO SPEED

Sending an Error Report to Microsoft

Whenever Windows XP discovers that you have terminated one program or another in some eccentric way—for example, by using the Task Manager (see Figure 5-2)—a dialog box that says, "Please tell Microsoft about this problem" appears.

If you click the Send Error Report button, your PC connects to the Internet and sends an email report back to Microsoft, the mother ship, providing the company with the technical details about whatever was going on at the moment of the freeze, crash, or premature termination. (To see exactly what information you're about to send, click the "click here" link.)



Microsoft swears up and down that it doesn't do anything with this information except to collate it into gigantic electronic databases, which it then analyzes using special software tools. The idea, of course, is to find trends that emerge from studying hundreds of thousands of such reports. "Oh, my goodness, it looks like people who own both Speak-it Pro 5 and Beekeeper Plus who right-click a document that's currently being printed experience a system lockup," an engineer might announce one day. By analyzing the system glitches of its customers en masse, the company hopes to pinpoint problems and devise software patches with much greater efficiency than before.

If you're worried about privacy, click Don't Send (or press Enter) each time this happens—or turn off this error-sending feature completely, as described on page 117. (On the other hand, if you're truly concerned about privacy and Windows XP, this particular feature is probably the least of your worries.)

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Most programs, however, are designed to create *documents*—files that you can re-open for further editing, send to other people, back up on another disk, and so on.

That's why these programs offer File→Save and File→Open commands, which let you preserve the work you've done, saving it onto the hard drive as a new file icon so that you can return to it later.

The Save File Dialog Box

When you choose File→Save for the first time, the computer shows you the dialog box shown in Figure 5-3, in which you're supposed to type a file name, choose a folder location, and specify the format for the file you're saving. Using the controls in this dialog box, you can specify exactly where you want to file your newly created document.

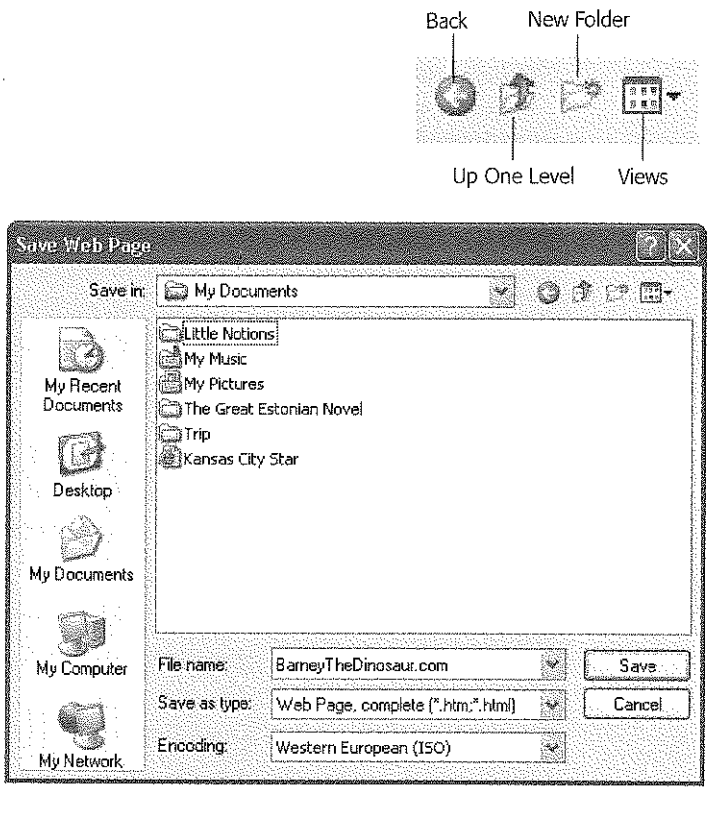


Figure 5-3:
Top: These buttons vary by application, but the basics always help you navigate and view your files and folders.

Bottom: The buttons at the left side of the Save As dialog box provide quick access to the folders where you're most likely to stash newly created documents: the My Documents folder, the desktop itself, and so on. But by using the "Save in:" drop-down list at the top of the screen, you can choose any folder you like.

Saving into My Documents

The first time you use the File→Save command to save a file, Windows proposes your My Documents folder as the new home of the document you've just created (Figure 5-3). Now you're free to navigate to some other folder location, as described in the

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next section. But the My Documents folder will suggest itself as the new-document receptacle every time.

Tip: Many programs let you specify a different folder as the proposed location for saved (and reopened) files. In Microsoft Word, for example, click Tools→Options→File Locations tab to change the default folders for the documents you create, where your clip art is stored, and so on.

What's the benefit? First, using the My Documents folder ensures that your file won't fall accidentally into some deeply nested folder where you'll never see it again (a common occurrence among first-time computer users). Instead, the newly minted document will be waiting for you in the My Documents folder, which itself is very difficult to lose.

Second, it's now very easy to make a backup copy of your important documents, since they're all in a single folder (which you can drag onto a backup disk in one swift move).

There's a third advantage, too: Whenever you use a program's File→Open command, Windows once again displays the contents of the My Documents folder. In other words, the Documents folder saves you time both when *creating* a new file and when *retrieving* it.

Tip: If the Documents folder becomes cluttered, feel free to make subfolders inside it to hold your various projects. You could even create a different default folder in My Documents for each program.

And incidentally, you're not stuck with Microsoft's favorite four folders listed at the left side (My Documents, Desktop, and so on). With a little help from TweakUI, a free program described on page 662, you can add the icons of any favorite folders you'd like here.

GEM IN THE ROUGH

Why You See Document Names in Black

In the Save dialog box, Windows XP displays a list of both folders *and documents* (documents that match the kind you're about to save, that is).

It's easy to understand why *folders* appear here: so that you can double-click one if you want to save your document inside it. But why do *documents* appear here? After all, you can't very well save a document into another document.

Documents are listed here so that you can perform one fairly obscure stunt: If you click a document's name, Windows XP copies its name into the "File name" text box at the bottom of the window. That's a useful shortcut if you want to *replace* an existing document with the new one you're saving. By saving a new file with the same name as the existing one, you force Windows XP to overwrite it (after asking your permission, of course).

This trick also reduces the amount of typing needed to save a document to which you've assigned a different version number. For example, if you click the Thesis Draft 3.1 document in the list, Windows copies that name into the "File name" text box, doing so keeps it separate from earlier drafts. To save your new document as *Thesis Draft 3.2*, you only need to change one character (change the 1 to 2) before clicking the Save button.

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Navigating in the Save As Dialog Box

If the My Documents method doesn't strike your fancy, use the Save As dialog box's various controls to navigate your way into any folder. That's the purpose of the "Save in:" drop-down list at the top of the dialog box. It lists, and lets you jump to, any disk or folder on your PC—or the desktop level, if that's a more familiar landscape.

To save a new document onto, say, a Zip disk or floppy, choose the drive's name from this drop-down list before clicking the Save button. To save it into a *folder* within a disk, simply double-click the successive nested folders until you reach the one you want.

Use the toolbar icons shown in Figure 5-3 to help you navigate, like this:

- Back shows you the contents of the last folder you browsed. Click its tiny black down-triangle button to see a drop-down list of folders you've opened recently within this program.

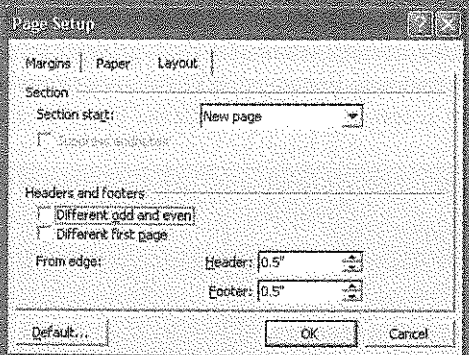
Tip: In Microsoft Office, if you point to this button without clicking, a tooltip identifies the previous folder by name.

UP TO SPEED

Dialog Box Basics

To the delight of the powerful Computer Keyboard lobby, you can manipulate almost every element of a Windows XP dialog box by pressing keys on the keyboard. If you're among those who feel that using the mouse takes longer to do something, you're in luck.

The rule for navigating a dialog box is simple. Press Tab to jump from one set of options to another, or Shift+Tab to move backward. If the dialog box has multiple *tabs*, like the one shown here, press Ctrl+Tab to "click" the next tab, or Ctrl+*Shift*+Tab to "click" the previous one.



Each time you press Tab, the PC's *focus* shifts to a different control or set of controls. Windows reveals which element has the focus using text highlighting (if it's a text box or drop-down menu) or a dotted-line outline (if it's a button). In the illustration shown here, the "Different odd and even" checkbox has the focus.

Once you've highlighted a button or checkbox, simply press the Space bar to "click" it. If you've opened a drop-down list or set of mutually exclusive *option buttons*, or *radio buttons*, press the up or down arrow key. (Tip: Once you've highlighted a drop-down list's name, you can also press the F4 key to open it.)

Each dialog box also contains larger, rectangular buttons at the bottom (OK and Cancel, for example). Efficiency fans should remember that tapping the Enter key is always the equivalent of clicking the *default* button—the one with the darkened or thickened outline (the OK button in the illustration here). And pressing Esc almost always means Cancel (or "Close this box").

Finally, remember that you can jump to a particular control or area of the dialog box by pressing the Alt key along with the corresponding underlined letter key.

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- **Up One Level** moves you up one level in your folder hierarchy (from seeing the My Documents contents to the hard drive's contents, for example). *Keyboard shortcut:* the Backspace key.
- **Create New Folder** creates a new folder in the current list of files and folders. Windows asks you to name it.
- **Views** changes the way file listings look in this dialog box. Each time you click the icon, you get a different view: List, Details, Thumbnails, and so on. (To choose one of these views by name, use the drop-down list rather than clicking the icon repeatedly.)

  The list of view options here depends on the program you're using. In general, they closely correspond to the View menu options described on page 78. But in some programs, including Microsoft Office programs, you may receive a few additional options—a choice of Large Icons or Small Icons, for example, or a Properties view that divides the window in half, with the list of files and folders on the left, and the properties (file size, date modified, and so on) of the highlighted icon on the right.

In some programs (such as Microsoft Office), you may find a few additional buttons across the top of the Save As dialog box, including:

- **Search the Web** closes the Save As dialog box, opens your browser, connects to the Internet, and prepares to search the Internet. (Next assignment: To figure out *why* you'd want to search the Web at the moment of saving your document.)
- **Delete** flings a highlighted file or folder into the Recycle Bin.
- **Tools** is drop-down menu that offers some very useful commands, including **Delete** and **Rename**, that let you manage your files right from within this dialog box. **Add to Favorites** creates a shortcut of the highlighted disk, server, folder, or file in your Favorites folder, so that you don't have to burrow through your folders every time you want access; instead, just click the Favorites folder icon, which also appears in the Save As dialog boxes of Office programs, to see everything you've stashed there. The **Properties** command lets you see an icon's description and stats.

  Map Network Drive lets you assign a drive letter (such as *G:*) to a folder that's on another PC of your network. Having that folder appear on your screen as just another disk makes it much easier to find, open, and manage. (See Chapter 20 for more on sharing networked folders.)

Navigating the List by Keyboard

When the Save As dialog box first appears, the "File name" text box is automatically selected so that you can type a name for the newly created document.

But as noted earlier in this chapter, a Windows dialog box is elaborately rigged for keyboard control. In addition to the standard Tab/Space bar controls, a few special keys work only within the list of files and folders. Start by pressing Shift+Tab (to

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shift Windows' attention from the "File name" text box to the list of files and folders) and then:

- Press various letter keys to highlight the corresponding file and folder icons. To highlight the Program Files folder, for example, you could type *PR*. (If you type too slowly, your key presses will be interpreted as separate initiatives—highlighting first the People folder and then the Rodents folder, for example.)
- Press the Page Up or Page Down keys to scroll the list up or down. Press Home or End to highlight the top or bottom item in the list.
- Press the arrow keys (up or down) to highlight successive icons in the list.
- When a folder (or file) is highlighted, you can open it by pressing the Enter key (or double-clicking its icon, or clicking the Open button).

The File Format Drop-Down Menu

The Save As dialog box in many programs offers a menu of file formats (usually referred to as the file *type*) below the "File name" text box. Use this drop-down menu when preparing a document for use by somebody whose computer doesn't have the same software.

For example, if you've typed something in Microsoft Word, you can use this menu to generate a Web page document or a Rich Text Format document that you can open with almost any standard word processor or page-layout program.

Closing Documents

You close a document window just as you'd close any window, as described in Chapter 2: by clicking the close box (marked by an X) in the upper-right corner of the window, by double-clicking the Control-menu icon just to the left of the File menu, or by pressing Alt+F4. If you've done any work to the document since the last time you saved it, Windows offers a "Save changes?" dialog box as a reminder.

UP TO SPEED

Playing Favorites

Most people think of Favorites as Internet Explorer's version of "bookmarks"—a list of Web sites that you've designated as worth returning to. But Windows XP lets you designate *anything* as a favorite—a folder you open often, a document you consult every day, a program, and so on.

You can designate a particular icon as a Favorite in any of several ways. For example, in the Save As or Open dialog box of Microsoft Office programs, you can use the Add to Favorites command. In a desktop window (Windows Explorer, for example), you can highlight an icon and then choose Favorites→Add to Favorites.

Later, when you want to open a Favorite icon, you can do so using an equally generous assortment of methods: choose from the Start→Favorites menu; choose File→Open (from within a program) and click the Favorites folder or icon; choose from the Favorites menu of any desktop window; and so on.

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As described on page 76, sometimes closing the window also exits the application, and sometimes the application remains running, even with no document windows open. And in a few *really* bizarre cases, it's possible to exit an application (such as Outlook Express) while a document window (an email message) remains open on the screen, lingering and abandoned!

The Open Dialog Box

To reopen a document you've already saved and named, you can pursue any of these avenues:

- Open your My Documents folder (or whichever folder contains the saved file). Double-click the file's icon.
- If you've opened the document recently, choose its name from the Start→My Recent Documents menu. (If you don't see this command, simply install it as described on page 56.)
- If you're already in the program that created the document, choose File→Open—or check the bottom of the File menu. Many programs add a list of recently opened files to the File menu, so that you can choose its name to re-open it.
- Type (or browse for) the document's path and name into the Start→Run box or into a folder window's Address toolbar.

The Open dialog box looks almost identical to the Save As dialog box. The big change: The navigational drop-down list at the top of the window now says "Look in" instead of "Save in."

Once again, you start out by perusing the contents of your My Documents folder. Here, you may find that beginning your navigation by choosing Look In→My Computer offers a useful overview of your PC when you're searching for a particular file. Here, too, you can open a folder or disk by double-clicking its name in the list, or by pressing the keystrokes described in the previous section. And once again, you can press Backspace to back *out* of a folder that you've opened.

When you've finally located the file you want to open, double-click it or highlight it (from the keyboard, if you like), and then press Enter.

In general, most people don't encounter the Open dialog box nearly as often as the Save As dialog box. That's because Windows offers many more convenient ways to *open* a file (double-clicking its icon, choosing its name from the Start→My Documents command, and so on), but only a single way to *save* a new file.

Moving Data Between Documents

You can't paste a picture into your Web browser, and you can't paste MIDI music information into your word processor. But you can put graphics into your word processor, paste movies into your database, insert text into Photoshop, and combine a surprising variety of seemingly dissimilar kinds of data. And you can transfer text

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from Web pages, email messages, and word processing documents to other email and word processing files; in fact, that's one of the most frequently performed tasks in all of computing.

Cut, Copy, and Paste

Most experienced PC users have learned to quickly trigger the Cut, Copy, and Paste commands from the keyboard—without even thinking. Figure 5-4 provides a recap.

Bear in mind that you can cut and copy highlighted material in any of three ways: First, you can use the Cut and Copy commands in the Edit menu; second, you can press Ctrl+X (for Cut) or Ctrl+C (for Copy); and third, you can right-click the highlighted material and choose Cut or Copy from the shortcut menu.

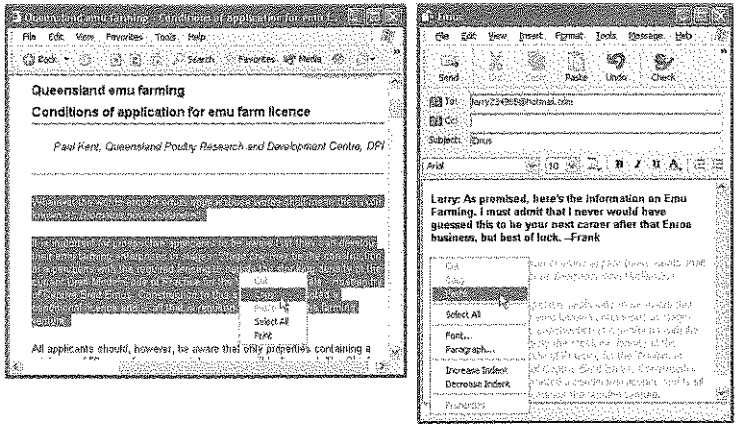


Figure 5-4: *Suppose you want to email some text on a Web page to a friend.*

Left: Start by dragging through it and then choosing Copy from the shortcut menu (or choosing Edit→Copy). Now switch to your email program and paste it into an outgoing message (right).

When you do so, the PC memorizes the highlighted material, socking it away on an invisible storage pad called the Clipboard. If you choose Copy, nothing visible happens; if you choose Cut, the highlighted material disappears from the original document.

At this point, you must take it on faith that the Cut or Copy command actually worked. (Windows XP no longer automatically pops open the Clipboard Viewer, as did previous Windows versions.)

Pasting copied or cut material, once again, is something you can do either from a menu (choose Edit→Paste), by right-clicking and choosing Paste from the shortcut menu, or from the keyboard (press Ctrl+V).

The most recently cut or copied material remains on your Clipboard even after you paste, making it possible to paste the same blob repeatedly. Such a trick can be useful when, for example, you've designed a business card in your drawing program and want to duplicate it enough times to fill a letter-sized printout. On the other hand,

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whenever you next copy or cut something, whatever was previously on the Clipboard is lost forever.

Drag-and-Drop

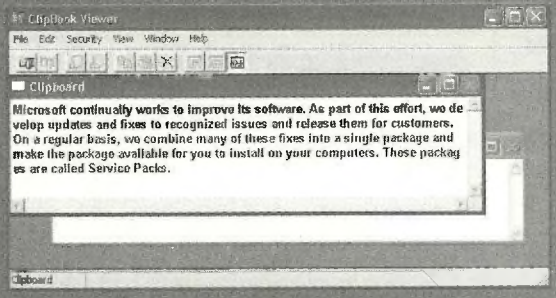
As useful and popular as it is, the Copy/Paste routine doesn't win any awards for speed; after all, it requires four steps. In many cases, you can replace that routine with the far more direct (and enjoyable) drag-and-drop method. Figure 5-5 illustrates how it works.

POWER USERS' CLINIC

ClipBook Viewer: The Missing Manual

The ClipBook Viewer of previous Windows versions is still available in Windows XP Pro; it's just hidden. To open it, choose Start→Run, type *Clipbrd.exe*, then press Enter.

As you cut or copy information (from a word processor, Web page, or whatever), it shows up in the Clipboard window within the ClipBook Viewer. Normally, cutting or copying anything new *replaces* what was on the Clipboard before—but that's where the ClipBook Viewer comes into play. It lets you *save* the current Clipboard contents for re-use later.



The instructions depend on what kind of network you're on (if at all); here goes:

Domain networks: Once ClipBook Viewer is open, choose Window→Local ClipBook window, and then choose Edit→Paste. When the Paste dialog box appears, type a name for the page of information stored in the Clipboard. Click OK to save this information to a file. You can go on with your work this way, pasting and saving each newly copied scrap of text.

Workgroup networks (or no network): In ClipBook Viewer, choose File→Save As. Name and save the scrap of information you've copied, and then click Save. You can save as many files as you want and then retrieve then later (as long as you remember the name of the folder where you stored them).

Of course, the purpose of saving them isn't just to give your fingers some exercise; the whole point is to retrieve them later to use in your documents. Here again, the instructions vary.

Domain networks: Bring the Local ClipBook window to the front again. If a list of your file names doesn't appear in this window, click View→Table of Contents. Double-click the file name you need. Make sure that the text or graphic is the one you're looking for, and then choose Edit→Copy. Voilà! You've put the information from the Local ClipBook window *back* into the Clipboard window, ready for pasting into a document just as you normally would (using Ctrl+V, right-clicking anywhere within your document and then selecting Paste from the shortcut menu, or choosing Edit→Paste).

Workgroup networks (or no network): In the ClipBook Viewer, choose File→Open. Locate the scrap you saved earlier, open it, and OK the vaporization of the *current* clipboard. Switch back into any other program; you're ready to paste the retrieved material.

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Tip: To drag highlighted material offscreen, drag the cursor until it approaches the top or bottom edge of the window. The document scrolls automatically; as you approach the destination, jerk the mouse away from the edge of the window to stop the scrolling.

Several of the built-in Windows XP programs work with the drag-and-drop technique, including WordPad and Outlook Express. Most popular commercial programs offer the drag-and-drop feature, too, including email programs and word processors, America Online, Microsoft Office programs, and so on.

As illustrated in Figure 5-5, drag-and-drop is ideal for transferring material between windows or between programs. It's especially useful when you've already copied

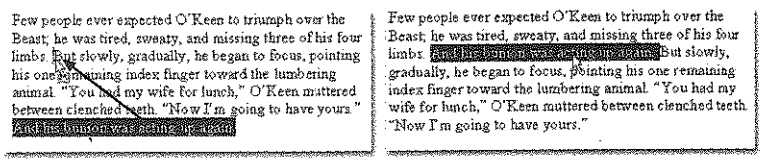


Figure 5-5: *Click in the middle of some highlighted text (left) and drag it into another place within the document—into a different window or program (right).*

FREQUENTLY ASKED QUESTION

When Formatting Is Lost

How come pasted text doesn't always look the same as what I copied?

When you copy text from Internet Explorer, for example, and then paste it into another program, such as Word, you may be alarmed to note that the formatting of that text (bold, italic, font size, font color, and so on) doesn't reappear intact. In fact, the pasted material may not even inherit the current font settings in the word processor. There could be several reasons for this problem.

For example, not every program *offers* text formatting—Notepad among them. And the Copy command in some programs (such as Web browsers) doesn't pick up the formatting along with the text. So when you copy something from Internet Explorer and paste it into Word or WordPad, you may get plain unformatted text. (There is some good news along these lines, however. Word XP maintains formatting pasted from the latest Internet Explorer.)

Finally, a note on *text wrapping*. Thanks to limitations built into the architecture of the Internet, email messages aren't like word processor documents. The text doesn't flow continuously from one line of a paragraph to the next, such that it reflows when you adjust the window size. Instead, email programs insert a press of the Enter key at the end of each line *within* a paragraph.

Most of the time, you don't even notice that your messages consist of dozens of one-line "paragraphs"; when you see them in the email program, you can't tell the difference. But if you paste an email message into a word processor, the difference becomes painfully apparent—especially if you then attempt to adjust the margins.

To fix the text, delete the invisible carriage return at the end of each line. (Veteran PC users sometimes use the word processor's search-and-replace function for this purpose.) Or, if you just need a quick look, reduce the point size (or widen the margin) until the text no longer wraps.

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something valuable to your Clipboard, since drag-and-drop doesn't involve (and doesn't erase) the Clipboard.

Its most popular use, however, is rearranging the text in a single document. In, say, Word or WordPad, you can rearrange entire sections, paragraphs, sentences, or even individual letters, just by dragging them—a terrific editing technique.

Tip: Using drag-and-drop to move highlighted text within a document also deletes the text from its original location. By pressing Ctrl as you drag, however, you make a *copy* of the highlighted text.

Drag-and-drop to the desktop

Figure 5-6 demonstrates how to drag text or graphics out of your document windows and directly onto the desktop. There your dragged material becomes an icon—a *Scrap file*.

When you drag a clipping from your desktop *back* into an application window, the material in that clipping reappears. Drag-and-drop, in other words, is a convenient and powerful feature; it lets you treat your desktop itself as a giant, computer-wide pasteboard—an area where you can temporarily stash pieces of text or graphics as you work.

Tip: You can drag a Scrap file onto a document's taskbar button, too. Don't release the mouse button yet. In a moment, the corresponding document window appears, so that you can continue your dragging operation until the cursor points to where you want the Scrap file to appear. Now release the mouse; the Scrap material appears in the document.

In Microsoft Office applications, this works with entire document icons, too. You can drag one Word file into another's window to insert its contents there.

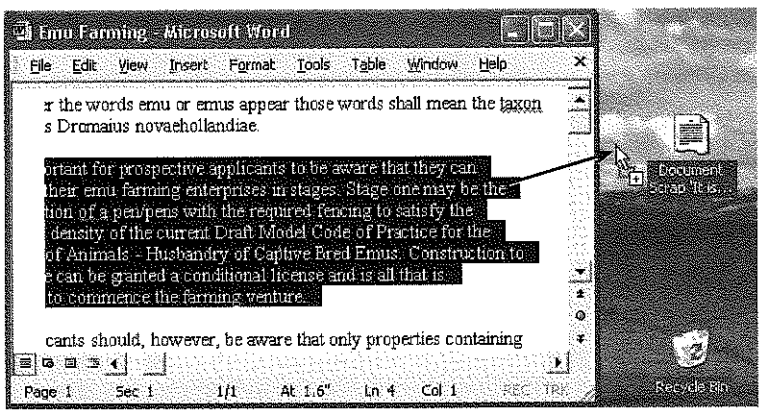


Figure 5-6:
A Scrap file will appear when you drag material out of the document window and onto the desktop. Its icon depends on the kind of material contained within, as shown here at left. You can view a clipping just by double-clicking it, so that it opens into its own window (right).

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Insert Object (OLE)

Here's yet another relative of the Copy and Paste duo: the Insert Object command, which is available—although usually ignored—in many Windows programs. (You may hear it referred to as Object Linking and Embedding technology, or OLE, or even "oh-LAY.")

Using this feature, you can insert material from one OLE-compatible program (like Paint) into a document running in another (like Word). When you click the painting, in this example, Word's menus change to those of the campaign program, so that you can edit the graphic. When you click off the graphic, the familiar Word menus return.

In general, OLE never became the hit that Microsoft hoped, probably because it can be flaky if you don't have a fast machine with a lot of memory. Still, if the idea of self-updating inserted material intrigues you, here's how to try it:

1. **Create a document in a program that offers OLE features.**

   Some programs that do: Excel, Word, WordPad, PowerPoint, and Paint.

2. **Click to indicate where you want the inserted object to appear. Choose Insert→Object.**

   (Insert→Object is the menu wording in Microsoft Office programs; its location may differ in other programs.)

   Now an Object dialog box appears, offering two tabs: Create New, which creates a *new* graph, picture, spreadsheet, or other embedded element; and Create from File, which imports a document you've *already* created (using, for example, Excel, Paint, Graph, or Imaging).

   If you choose Create from File, a "Link to file" checkbox appears (Figure 5-7). It determines whether the inserted material will be *embedded* or (if you turn on the checkbox) *linked*. If you choose to link the inserted material, the fun begins. Now you can make changes in the original document and watch the revision appear automatically in any documents to which it's been linked.

3. **Choose the kind of data you want to create, and click OK.**

   You've successfully embedded or linked new information. To edit the document, just double-click it; the menus and palettes you need to modify this info reappear. (If you're linked to a separate document, double-clicking the embedded object actually opens that other document.)

Export/Import

When it comes to transferring large chunks of information from one program to another—especially address books, spreadsheet cells, and database records—none of the data-transfer methods described so far in this chapter do the trick. For these purposes, use the Export and Import commands found in the File menu of almost every database, spreadsheet, email, and address-book program.

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These Export/Import commands aren't part of Windows, so the manuals or help screens of the applications in question should be your source for instructions. For now, however, the power and convenience of this feature are worth noting: Because of these commands, your four years' worth of collected names and addresses in, say, an old address-book program can find its way into a newer program, such as Palm Desktop, in a matter of minutes.

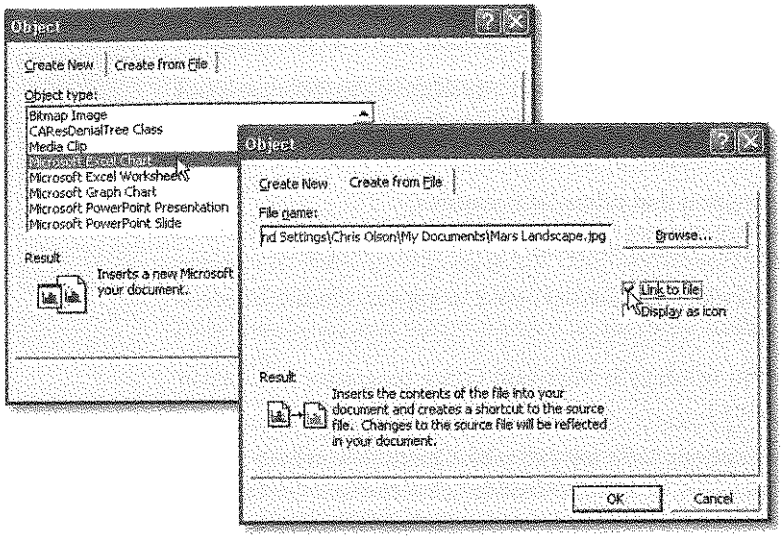


Figure 5-7:
Top: You can insert many kinds of "objects" into a Word or WordPad document: a Paint file ("Bitmap Image"), Image Document (something you've scanned), an Excel spreadsheet ("Worksheet"), and so on.

Bottom: You may prefer to slap an entire existing file into the middle of the one you're now editing. Do that using the Create from File tab. Turn on "Link to file" if you want the data to update itself when the source file is edited separately.

Filename Extensions

Every operating system needs a mechanism to associate documents with the applications that created them. When you double-click a Microsoft Word document icon, for example, Word launches and opens the document.

In Windows, every document comes complete with a normally invisible *filename extension* (or just *file extension)*—a period followed by a suffix that's usually three letters long. Here are some common examples:

When you double-click this icon ...	... this program opens it
Fishing trip.**doc**	Microsoft Word
Quarterly results.**xls**	Microsoft Excel
Home page.**htm**	Internet Explorer
Agenda.**wpd**	Corel WordPerfect
A home movie.**avi**	Windows Media Player
Animation.**dir**	Macromedia Director

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Tip: For an exhaustive list of every file extension on the planet, visit *www.whatis.com*; click the link for "Every File Format in the World."

Behind the scenes, Windows maintains a massive table that lists every extension and the program that "owns" it. To see this list, choose Tools→Folder Options from the menu bar of any folder window. When the Folder Options box appears, simply click the File Types tab (Figure 5-8).

Displaying Filename Extensions

It's possible to live a long and happy life without knowing much about these extensions. Indeed, because file extensions don't feel very user-friendly, Microsoft designed Windows to *hide* the suffixes on most icons (see Figure 5-9). If you're new to Windows, and haven't poked around inside the folders on your hard drive much, you may never even have seen them.

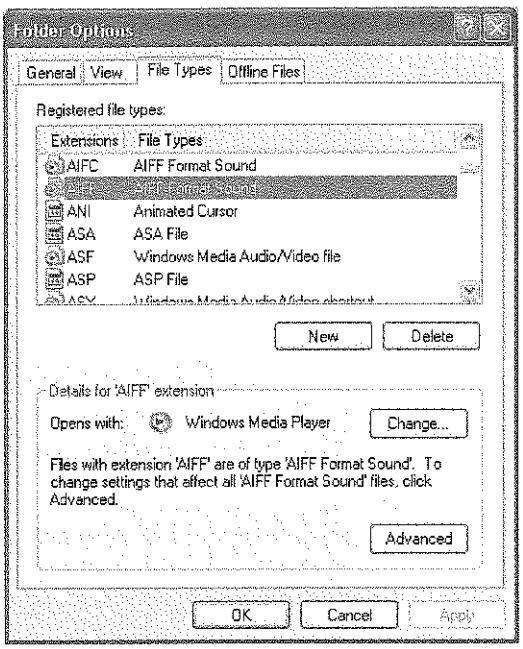


Figure 5-8:
Each software program you install must register *the file types it uses. The link between the file type and the program is called an* association. *This dialog box displays the icon for each file type and an explanation of the selected listing. In this example, the box tells you that sound files with the suffix .aiff open in Windows Media Player when double-clicked.*

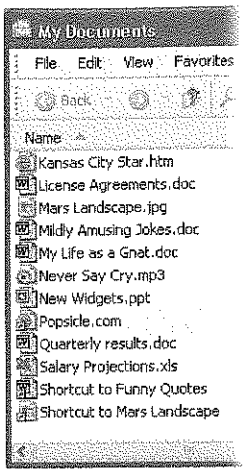
Some people appreciate the way Windows hides the extensions, because the screen becomes less cluttered and less technical-looking. Others make a good argument for the Windows 3.1 days, when every icon appeared with its suffix.

For example, in a single Desktop window, suppose one day you discover that three icons all seem to have exactly the same name: PieThrower. Only by making filename extensions appear would you discover the answer to the mystery: that is, one of them

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might be called PieThrower.ini, another is an Internet-based software updater called PieThrower.upd, and the third is the actual PieThrower program, PieThrower.exe.

One way to make sense of such situations is simply to look at the window in Details view (right-click in the window and choose View→Details from the shortcut menu).



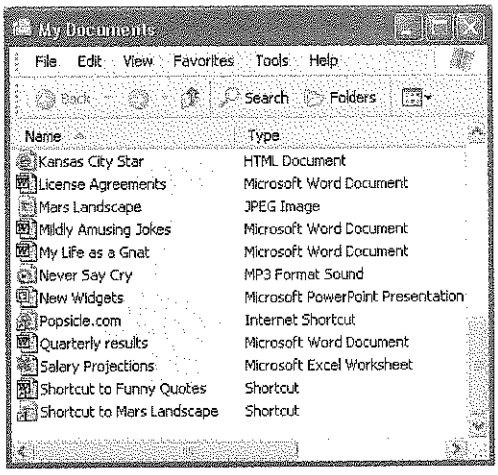


Figure 5-9: *Windows lets you see the filename extensions only when it doesn't recognize them.*

Right: If Windows recognizes the filename extension on an icon, it hides the extension (look closely at the filenames).

Left: You can ask Windows to display all extensions, all the time.

But that's too easy. To fully breathe in Windows technology, you can instruct Windows to reveal the file suffixes on *all* icons. To do so, choose Tools→Folder Options from any folder window's menu bar. In the Folder Options dialog box, click the View tab. Turn off "Hide extensions for known file types," and then click OK.

Now the filename extensions for all icons appear.

Tip: Even if you prefer to hide most file extensions, you may still want one particular type of document to appear on the screen with file extensions. For example, when working on a Web site, you may want to check whether the suffixes of your Web page documents are *.htm* or *.html*.

In these situations, choose Tools→Folder Options in any Desktop window. Click the File Types tab (see Figure 5-8). Scroll down to the file extension you want to make visible, click it, click the Advanced button, and—in the Edit File Type dialog box—turn on "Always show extension." Click OK, and then click the Close button.

Hooking up a File Extension to a Different Program

Windows XP comes with several programs (Notepad and WordPad, for example) that can open text files with the extension *.txt*. And Windows also comes with several programs (Paint, Imaging, Internet Explorer) that can open JPEG picture files with the extension *.jpg*. So how does it decide *which* program to open when you double-click a .txt or .jpg file?

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Windows comes with its own extension-to-application pairing list, as depicted in Figure 5-8. But at any time, you can reassign a particular file type (file extension) to a different application. Having just bought Photoshop, for example, you might want it to open up your JPEG files, rather than Windows Picture and Fax Viewer.

The long way to perform this reassignment surgery is to use the File Types tab of the Folder Options dialog box shown in Figure 5-8. Click the file type you want to change, click the Change button, and then proceed as shown in Figure 5-10.

Here's the short way: Right-click the icon of the file that needs a new parent program. In the shortcut menu, you'll see a command called Open With. As shown at right in Figure 5-10, it may offer a submenu that lists the programs capable of opening the file. If the submenu isn't offered—or if you bypass these proposals and select Choose Program from the submenu—Windows presents the Open With dialog box shown at left in Figure 5-10. Just find, and double-click, the name of the program you now want to open this kind of file.

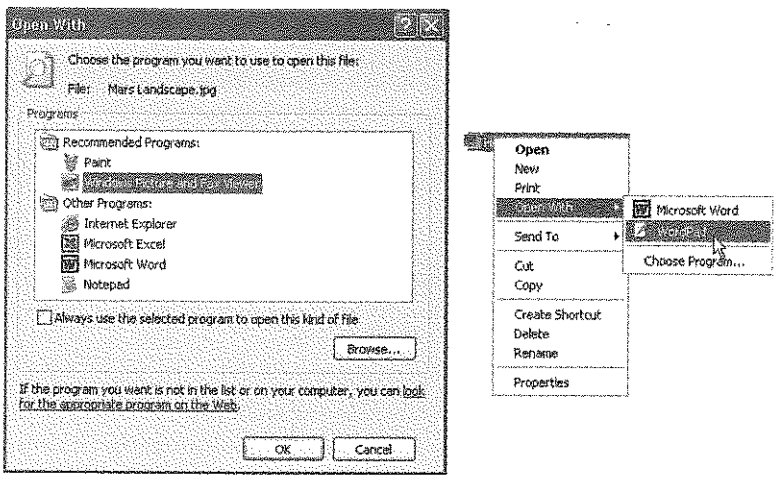


Figure 5-10: *Left: Windows is prepared to show you a list of every program that can open the mystery file. Scroll through the list of installed programs to select the one you want. By turning on the checkbox at the bottom of the dialog box, you create a file association that will handle similar files (those with the same file extension) in the future.*

Right: A shortcut to the dialog box shown at left is the Open With→Choose Program shortcut menu.

As you do so, be sure to check the status of the checkbox below the list, which says, "Always use the selected program to open this kind of file." If that checkbox is on, then *all* files of this type (.jpg, for example) will open in the newly selected application from now on. If the checkbox is off, then the new application will open only *this* .jpg file—just this once.

Tip: This technique is an effective cure if you've made a file association by mistake, or when a newly installed program performs the dreaded Windows Power Grab, claiming a particular file type for itself without asking you.

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Creating Your Own File Associations

Every now and then, you might try to open a mystery icon—one whose extension is missing, or whose extension Windows doesn't recognize. In that case, the dialog box shown in Figure 5-11 will appear. Maybe you've tried to double-click a document sent to you by a Macintosh fan (many Macintosh files lack file extensions), or maybe you're opening a document belonging to an old DOS program that doesn't know about the Windows file-association feature.

In any case, Windows offers you two different buttons:

- **Select the program from a list.** Windows displays a dialog box that looks a lot like the one at right in Figure 5-11. Click the name of the program you want, and then turn on "Always use the selected program to open this kind of file," if you like.

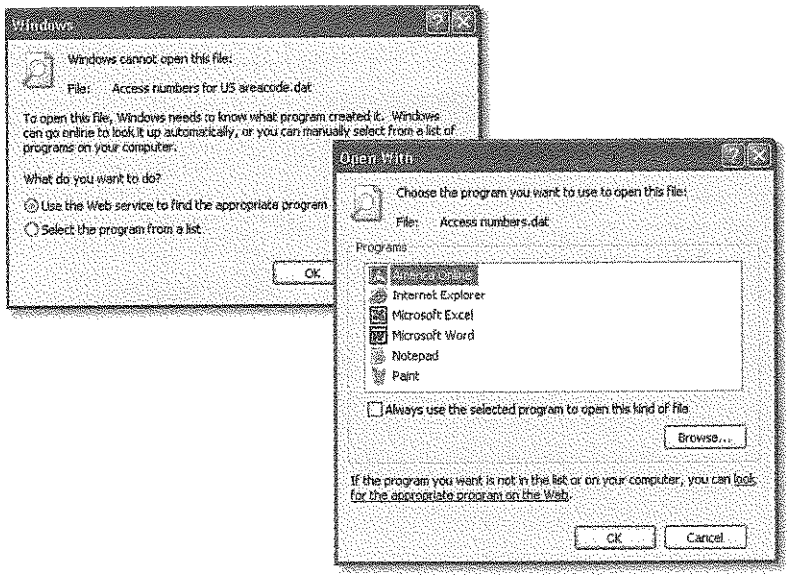


Figure 5-11: *Left: Sometimes Windows doesn't know what to do with an icon you've just double-clicked.*

Right: Use this window to select a program for opening the mystery file. It's sometimes useful to associate a particular document type with a program that didn't *create it, by the way. For example, if you double-click a text file, and the Open With dialog box appears, you might decide that you want such documents to open automatically into WordPad.*

- **Use the Web service to find the appropriate program.** In other words, Windows will take your PC onto the Internet and look up the mystery file extension on the Microsoft Web site.

Fun with File Associations

The File Types tab on the Folder Options dialog box shown in Figure 5-8 provides an excellent display of the icons, file extensions, and descriptions of your various file types. As noted earlier, it also offers the New button, which lets you tell Windows

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about new file types, and the Change button, which lets you reassign an existing file type to a different program.

At the bottom of the box, though, is an Advanced button. When you click it, the dialog box shown at top left in Figure 5-12 appears. This box contains a few tweaky settings that could come in handy someday. For example:

- **Change the icon.** By itself, Windows doesn't let you change the icon for just one file. But you *can* change the icon for a particular file *type* (JPEG files, for example).

  To do so, click Change Icon. Windows offers you a handful of replacement icons for the kind of file you're editing (Figure 5-12, top right). If you don't see a good one, click Browse. You'll be offered a Change Icon dialog box, which you can use to navigate to the folder containing a program that may contain better icons (details on page 122).

- **Make it open after downloading.** If you turn on "Confirm open after download," files of this type will automatically open, as though magically double-clicked, whenever you download one from the Internet. You might want to turn this option on for compressed file types (*.zip*, for example), so that they unpack themselves automatically. (But avoid turning on this option for file types that may contain viruses, such as *.exe*, *.vbs*, or *.bat*.)

- **Change what happens when you double-click it.** In the Actions list, you'll see a list of things that might happen when you double-click an icon: *open* (open) and *printto* (print), for example.

  Of course, icons almost always *open* when you double-click them. But by highlighting one of the other Actions listed here (if, indeed, Windows gives you a choice for this file type) and then clicking Set Default, you can establish a new behavior for the file that you double-click. For example, you might want the JPEG files to print automatically when double-clicked. (Well, maybe that's not such a great example.)

- **Edit its shortcut menu.** When you right-click an icon, Windows displays a shortcut menu containing commands like Open, Print, and so on. If you click the New button, you get the New Action dialog box, where you can add a new command to the shortcut menu of files of this type.

  You can't exactly go wild here, adding shortcut-menu commands like Email to Uncle Joe, Backdate 30 Days, and so on. In fact, all you can really do is add commands—for example, Open in Photoshop—that *open* the selected file in a certain program. Figure 5-12 (bottom left) illustrates how it's done.

Tip: Placing an ampersand (&) symbol into the shortcut-menu command, as shown at lower left in Figure 5-12, creates an underlined shortcut key, as shown at lower right.

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Installing Software

Today, almost all new software comes to your PC from one of two sources: a CD or the Internet. The era of floppy-disk installers is over; you'd need a wheelbarrow to hold all the floppies required to install the average program these days.

Modern software usually comes with an installer program that's designed to transfer the software files to the correct places on your hard drive. The installer also adds the new program's name to the Start→All Programs menu, tells Windows about the kinds of files (file extensions) it can open, and makes certain changes to your *registry* (Appendix C).

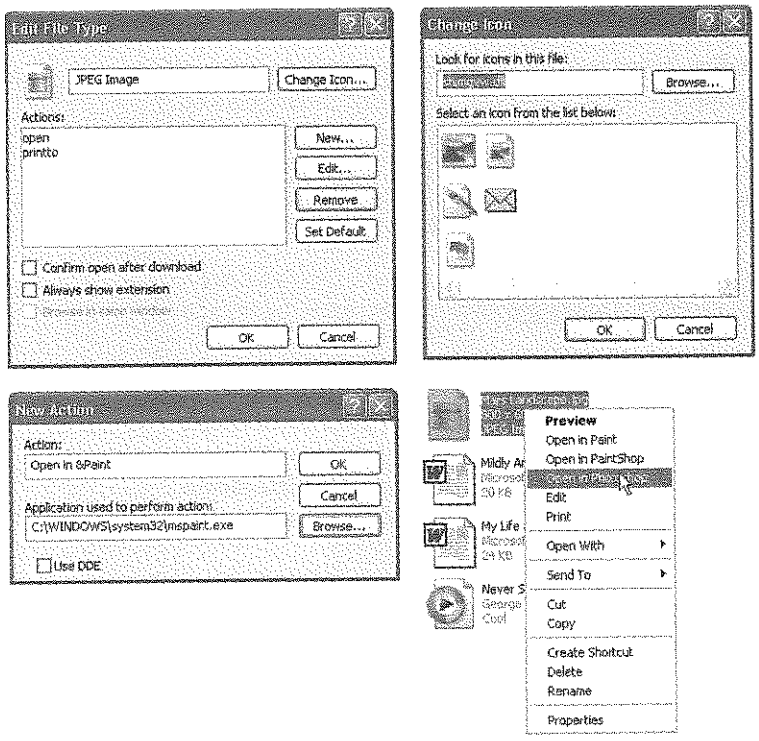


Figure 5-12: *Top left: The Advanced box lets you make even more decisions about each file type on your PC, including its auto-downloading behavior, double-click behavior, and (at top right) even its icon.*

Bottom left: In the top box, type the name for the new shortcut-menu command you want to create. Then click Browse to choose the program file for Photoshop itself. (Alternatively, you could type the path to the Photoshop program into the "Application used to perform action" text box.) Either way, add a space and then %1 to the end of the pathname shown in the lower box—a reference to the file being opened.

Bottom right: A doctored shortcut menu at work.

The Pre-Installation Checklist

You can often get away with blindly installing some new program without heeding the checklist below. But for the healthiest PC and the least time on hold with tech support, answer these questions before you install anything:

- **Are you an administrator?** Windows XP derives part of its security and stability by handling new software installations with suspicion. For example, you can't install most programs unless you have an *administrator account* (see page 517).

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(The exception: You may be able to install new software if you upgraded your PC from a copy of Windows 2000 on a corporate network, and your account was in the *Power Users* group.)

If you have only a normal account, most attempts to install new software crash and burn with some kind of error message. (If it's a relatively new program, the message might make sense: "To install this program, you must be an administrator or have administrator approval." Programs that predate Windows XP, on the other hand, may chug along happily for about a minute before conking out with some bizarre message of confusion.)

- **Does it run in Windows XP?** Windows XP is compatible with far more programs than Windows 2000 was—but far fewer than, say, Windows 98 or Windows Me.

  If the software or its Web site specifically says it's compatible with Windows XP, great. Install away. Otherwise, consult the Microsoft Web site, which includes a list—not a complete one, but a long one—of all XP-compatible programs. (The easiest way to get there is to choose Start→Help and Support, then click the "Find compatible hardware and software for Windows XP" link.)

Tip: See "Older Programs" later in this chapter for compatibility tips.

POWER USERS' CLINIC

Who Gets the Software?

As you're probably becoming increasingly aware, Microsoft designed Windows XP from Day 1 to be a *multi-user* operating system, in which each person who logs in enjoys an independent environment—from the desktop pattern to the email in Outlook Express. The question arises: When someone installs the new program, does every account holder have equal access to it?

In general, the answer is yes. If an administrator (page 499) installs a new program, a shortcut winds up in the Local Disk (C:)→Documents and Settings→All Users→Start Menu→Programs folder. In other words, a newly installed program generally shows up on the Start→All Programs menu of *every* account holder.

Occasionally, a program's installer may offer you a choice. Install the new software so that it's available *either* to everybody or only to you, the currently logged-in account holder.

Also occasionally, certain programs might just install software into your own account, so that nobody else who logs in even knows that the program exists.

In that case, you can proceed in either of two ways. First, you can simply log in to each account, one after another, reinstalling the program for each account.

Second, you may be able to get away with moving the program's shortcut from your own personal account folder to the corresponding location in the All Users folder. As page 525 makes clear, Windows XP actually maintains two different types of Programs folders: one that's shared by everybody, and another for each individual account holder.

Here's where that information pays off. Open your Start→All Programs menu; right-click the name of the program you want everyone to be able to access, and choose Copy from the shortcut menu. Now right-click the Start menu; from the shortcut menu, choose Open All Users. In the window that appears, right-click the Programs folder and choose Paste from the shortcut menu. The program now appears on the Start menu of everybody who uses the machine.

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- **Is the coast clear?** Exit all your open programs. (One quick way: Right-click the buttons on the taskbar, one at a time, and choose Close from the shortcut menu.) You should also turn off your virus-scanning software, which may take the arrival of your new software the wrong way.
- **Am I prepared to backtrack?** If you're at all concerned about the health and safety of the software you're about to install, remember that the System Restore feature (page 475) takes an automatic snapshot of your Windows system just before any new software installation. If the new program you've installed turns out to be a bit hostile, you can rewind your system to its current happier working condition, in the process wiping out every trace of damage (and software) that you've introduced.

Installing Software from a CD

Most commercial software these days comes on a CD. On each one is a program called Setup, which, on most installation CDs, runs automatically when you insert the disk into the machine. You're witnessing the *AutoPlay* feature at work.

If Autoplay is working, a few seconds after you insert the CD into your drive, the hourglass cursor appears. A few seconds later, the Welcome screen for your new software appears, and you may be asked to answer a few onscreen questions (for example, to specify the folder into which you want the new program installed). Along the way, the program may ask you to type in a serial number, which is usually on a sticker on the CD envelope or the registration card.

If the last installer window has a Finish button, click it. The installation program transfers the software files to your hard drive. When it's all over, you may be asked to restart the machine. In any case, open the Start menu; a yellow "New programs have been installed" balloon appears next to the All Programs button. If you click there, the program's name appears highlighted in orange, and your Start→All Programs menu is now ready for action.

Installing software using "Add or Remove Programs"

Windows XP offers a second, more universal installation method: the greatly improved, but still ingeniously named, "Add or Remove Programs" program. To see it, open Start→Control Panel→Add or Remove Programs.

FREQUENTLY ASKED QUESTION

Microsoft InstallShield?

I'm a bit confused. I bought a program from Infinity Workware. But when I run its installer, the Welcome screen says InstallShield. Who actually made my software?

Most of the time, the installer program isn't part of the software you bought or downloaded, and doesn't even come from the same company. Most software companies pay a license to installer-software companies. That's why, when you're trying to install a new program called, say, JailhouseDoctor, the first screen you see says InstallShield. (InstallShield is the most popular installation software.)

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As shown in Figure 5-16, this listing shows every program on your PC—well, at least those that were installed using a standard Windows installer. Click the name of one to expand its "panel," a thick gray bar that shows you how much disk space the program takes, when you last used it, and so on.

Tip: Some programs include a "Click here for support information" link, which produces a little window revealing the name, Web site, and sometimes the phone number of the software company responsible for the software in question.

Use "Add or Remove Programs" whenever the usual auto-starting CD installation routine doesn't apply—for example, when the CD hasn't been programmed for AutoPlay, when the installer comes on floppy disks (remember those?), or when the installer is somewhere else on your office network.

To make it work, insert the floppy disk or CD that contains the software you want to install. Then click the Add New Programs button at the left side of the window. Finally, click the CD or Floppy button to make Windows look around for the Setup program on the disk or CD you've inserted. If the technology gods are smiling, the installation process now begins, exactly as described above.

Installing Downloaded Software

The files you download from the Internet (see Figure 5-13) usually aren't ready-to-use, double-clickable applications. Instead, almost all of them arrive on your PC in the form of a *compressed* file, with all the software pieces crammed together into a

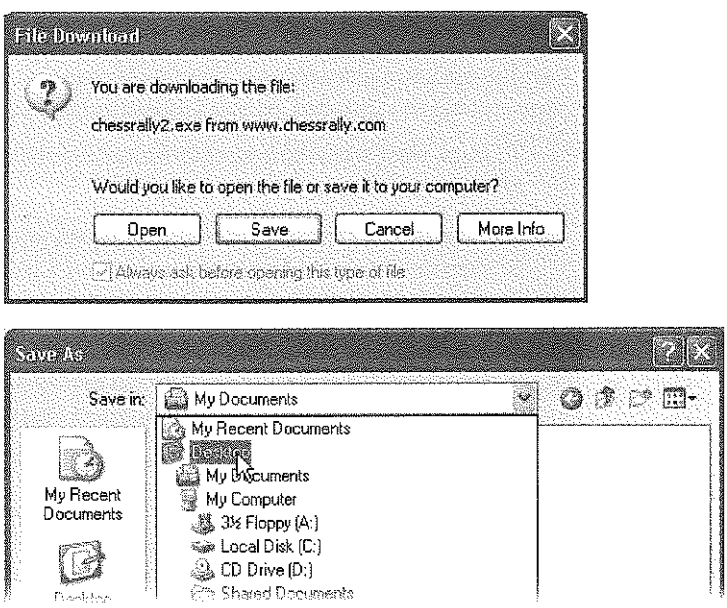


Figure 5-13:
You can find thousands of Windows programs (demos, free programs, and shareware) at Web sites like downloads.com, tucows.com, *or* computingcentral.msn.com.

Top: When you click a link to download something, this box appears. Click the Save button.

Bottom: To avoid losing the download in some deeply nested folder, choose Desktop from the "Save in:" drop-down list at the top of this box. After the download is complete, quit your browser. Unzip the file, if necessary, and then run the downloaded installer.

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single, easily downloaded icon. The first step in savoring your downloaded delights is restoring this compressed file to its natural state, as described on page 471.

After unzipping the software (if it doesn't unzip itself), you'll usually find, among the resulting pieces, an installer, just like the ones described in the previous section.

Installing Pre-Loaded Software

As you probably know, Microsoft doesn't actually sell PCs (yet). Therefore, you bought your machine from a different company, which probably installed Windows on it before you took delivery.

Many PC companies sweeten the pot by preinstalling other programs, such as Quicken, Microsoft Works, Microsoft Office, more games, educational software, and so on. The great thing about preloaded programs is that they don't need installing. Just double-click their desktop icons, or choose their names from the Start→All Programs menu, and you're off and working.

Installing Windows Components

The Windows XP installer may have dumped over a gigabyte of software onto your hard drive, but it was only warming up. Plenty of second-tier programs and features are left behind on the CD—stuff that Microsoft didn't want to burden you with right off the bat, but included on the CD just in case.

To see the master list of software components that you have and haven't yet installed, choose Start→Control Panel→"Add or Remove Programs." Click the Add/Remove Windows Components button at the left side of the window.

You've just launched the Windows Components Wizard—basically a list of all the optional Windows software chunks. Checkmarks appear next to some of them; these are the ones you already have. The checkboxes that aren't turned on are the options you still haven't installed. As you peruse the list, keep in mind the following:

- To learn what something is, click its name once. A description appears below the list.
- Turn on the checkboxes for software bits you want to install. Clear the checkboxes of elements you already have, but that you'd like Windows to delete in order to create more free space on your hard drive.
- To the right of the name of each software chunk, you can see how much disk space it uses when it's installed. Keep an eye on the "Space available on disk" statistic at the bottom of the dialog box to make sure you don't overwhelm your hard drive.
- Windows may ask you to insert your Windows CD.
- Some of these checkboxes' titles are just titles for bigger groups of independent software chunks (see Figure 5-14).

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As you click the name of a software component, the Details button may spring to life, "waking up" from its faded look. When you click it, another list of elements appears—the ones that make up the software category.

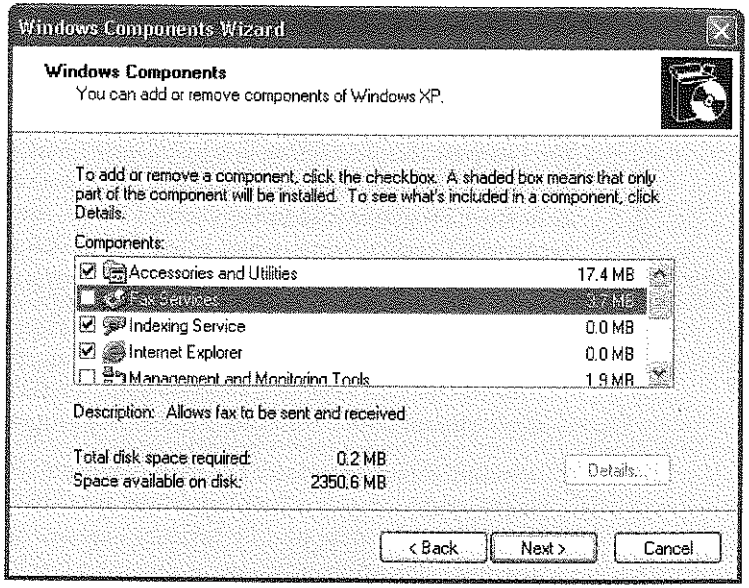


Figure 5-14: *Most of the optional installations involve networking and administrative tools designed for corporate computer technicians. One in particular, however, can be useful to just about anybody: Fax Services. This optional installation is the software that turns your PC into a fax machine.*

The truth is, most people find this list more useful for its ability to *remove* nonessential Windows files (including wallpaper, sounds, screen savers, and so on), saving multimegabytes of disk space on the process. (Some ideas: the 12 MB of games and the 13 MB of MSN Explorer [an America Online-like Web browser].) Just turn off the corresponding checkboxes, click OK, and then restart your machine.

Program Access and Defaults

Software is never finished—especially Microsoft's. That's why, in the fall of 2002, Microsoft released a 330 MB software updater called Service Pack 1, which it later rolled into Service Pack 2. (See Chapter 10 for details on getting and installing Service Pack 2.)

SP1 didn't do anything to change XP's looks, features, or speed. It was mostly what Automatic Update (page 331) had been feeding you all along: bug fixes, security patches for your Internet programs, and so on. But it also offered a few changes like these:

- It made Windows recognize USB 2.0, a faster kind of add-on equipment connector that's available on new PCs.
- It installed Java (page 356).

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- If you make substantial changes to your PC's guts—surgery so dramatic that you have to reactivate XP (page 16)—you now have a three-day grace period before Windows locks you out of your own machine.

The real *raison d'être* for SP1, though, was satisfying the U.S. Department of Justice. In its agreement, Microsoft promised to give its competitors a fighting chance at equal footing. For the first time, Windows offers you the chance to hide Internet Explorer, Outlook Express, and a few other standard Microsoft programs, which is presumably a benefit to people who prefer Netscape, Eudora, and Microsoft's other rivals.

You can view this new dialog box by choosing Start→All Programs→Set Program Access and Defaults. This command is actually nothing more than a link to the Add or Remove Programs icon in the Control Panel—specifically, its new "Set Program Access and Defaults" panel, which is listed at the left side. You see the display shown at top in Figure 5-15, where you can choose from among these options:

- **Microsoft Windows** means, "Use all of Microsoft's utility programs, just as Windows XP has been doing from Day One." You're saying that you prefer Microsoft's Web browser (Internet Explorer), email program (Outlook Express), Media Player (Windows Media Player), and instant messaging program (Windows Messenger).

  Selecting this option doesn't *prevent* you from using other browsers, email programs, and so on—you'll still find them listed in the Start→All Programs menu. But this option does put the Internet Explorer and Outlook Express icons, for example, into prime positions at the upper-left section of your Start menu for quick and easy access.

- **Non-Microsoft** means, "Use *anything* but Microsoft's programs! Instead, use Netscape Navigator, Eudora, RealPlayer, Sun's Java, or whatever—just nothing from Microsoft."

  You should install your preferred alternate programs *before* selecting this option. Otherwise, the only programs this feature "sees" are Microsoft programs, which would make selecting this option a tad pointless.

  As with the "Microsoft" option, choosing this option places your preferred programs' icons into the upper-left section of your Start menu. Unlike the "Microsoft" option, however, this option *removes access* to the corresponding Microsoft programs. If you choose a non-Microsoft program as your email program, for example, Outlook Express disappears completely from the All Programs menu and its folder (in C:→Program Files). Figure 5-15 shows the idea.

  Of course, Microsoft's programs aren't really gone—they're just hidden. They pop right back when you choose the "Microsoft" option, or when you choose Custom (described below) and then click the associated "Enable access to this program" checkbox. Just remember to click OK to apply your changes.

- **Computer Manufacturer** means, "Use whatever programs are recommended by Dell" (or whoever made the PC and signed deals with AOL, Real, and so on). This option doesn't appear on all PCs.

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- Custom lets you choose each kind of program independently, whether it comes from Microsoft or not. For example, you can choose Netscape, Internet Explorer, or your current Web browser as your default browser.

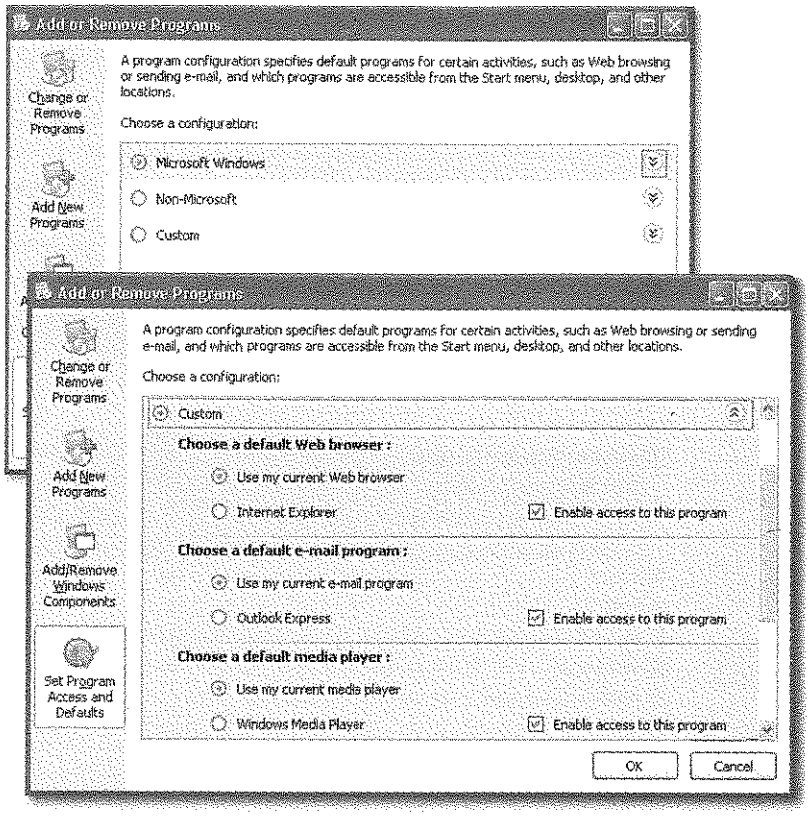


Figure 5-15: *Top: Justice at work. Microsoft's settlement with the U.S. government included giving you the opportunity of hiding non-Microsoft programs. Choosing "Non-Microsoft" completely hides all traces of Microsoft's Web browser, email programs, and so on. They don't even appear in the Start menu.*

Bottom: Choosing Custom lets you mix and match: Microsoft software for some functions, other companies for others.

During your selection process, make sure that you've turned on "Enable access to this program" for each program you want to access (whether or not you're choosing it as the *default* program). Otherwise, Windows may deny access to that program.

Note: Not all non-Microsoft programs show up here—only versions that have been released since SP1 became available.

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Uninstalling Software

When you've had enough of a certain program, and want to reclaim the disk space it occupies, don't just delete its folder. The typical application installer tosses its software components like birdseed all over your hard drive; therefore, only some of it is actually in the program's folder.

Instead, ditch software you no longer need using the "Add or Remove Programs" program described above. Click the Change or Remove Programs button at the top left, and then proceed as shown in Figure 5-16.

Tip: If your computer is a member of a workgroup and you're using Fast User Switching (see page 536), don't delete a program until you've verified that it isn't running in somebody else's account behind the scenes.

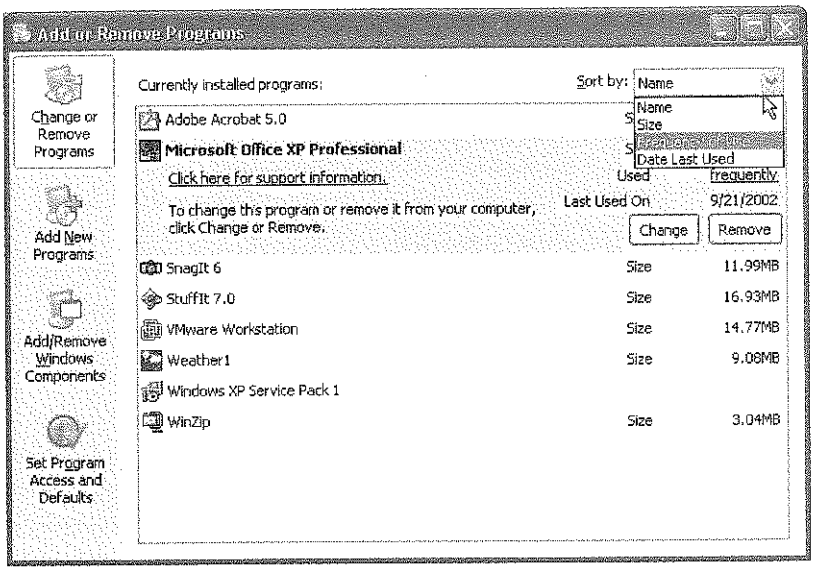


Figure 5-16: *To vaporize a program, click its name to reveal its gray, highlighted panel, as shown here, and then click the Remove button. You can use the "Sort by" drop-down menu to sort the list by Frequency of Use or Date Last Used. (Note, though, that Windows doesn't keep perfect track of all types of programs, especially those that run in the background, so these statistics are likely to be unreliable.)*

FREQUENTLY ASKED QUESTION

This File Is in Use

Hey, I tried to uninstall a program using Add or Remove Programs, like you said. But during the process, I got this scary message saying that one of the deleted program's files is also needed by other programs. It asked me if I was sure I wanted to delete it! Heck, I wouldn't have the faintest idea. What should I do?

Don't delete the file. Leaving it behind does no harm, but deleting it might render one of your other applications non-runnable.

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Even after you uninstall a program, the folder that contained it may still exist, especially if it contains configuration files, add-ons, or documents that you created while the program was still alive. If you're sure you won't need those documents, it's safe to remove the folder (discussed later in this section), along with the files inside it.

Note: Until Service Pack 2 came along, the list in this dialog box was cluttered up with dozens upon dozens of "Windows Hotfixes"—the little security patches that Microsoft sent out weekly or monthly via the Internet just to make your life interesting. In SP2, though, they're mercifully hidden—at least until you turn on the "Show updates" checkbox at the top of the window. Then a new Windows Updates category appears in the list, revealing the individual hotfixes you've installed so far. That's useful to remember if you suspect one day that a certain patch has broken something on your PC.

That's the theory of uninstalling Windows programs, of course. In practice, you'll probably find that the Add or Remove Programs program should more accurately be called the "Add or I'll-Make-My-Best-Effort-to-Remove-Programs,-But-No-Guarantees" program. A disappointing percentage of the time, one error message or another pops up, declaring that the installation can't proceed because Windows can't find this or that component.

Most of the time, it's not Windows's fault. The Add or Remote Programs window is simply a list of links, like the All Programs section of your Start Menu. When you highlight an entry and click Remove, Windows just fires up the program's own uninstaller program. When the uninstaller doesn't work, thanks to some bug or glitch, the fun begins.

The truth is, the world won't end if you just leave the crippled program on board your PC. You can join millions of other PC fans who slog along, hard drives corroded with bits of software they can't seem to remove. Apart from the waste of space and the uneasy feeling that your PC is getting clogged arteries, there's no harm done.

But if you'd rather wipe the slate clean, start by visiting the Web site of the company that made your program. Dig into its support section to see if the company has provided a fix or any removal instructions. (Some companies discover bugs in their uninstaller utilities just like any other part of their programs, and then release patches—or even special removal tools—that let their customers remove their software.)

If that step doesn't lead anywhere, you can get serious by eliminating the stubborn bits by hand. Turn off the phone, cancel your appointments for the afternoon, and proceed like this:

1. **Confirm that the program can actually be removed.**

   It may be that the program isn't really on your hard drive any more, but its orphaned listing in your Start menu lingers on. (For example, maybe you've installed a newer version of a program that overwrote the older version, or maybe you've deleted the program's files by hand.) In this case, follow the procedure described in the box on page 184 to remove the abandoned entry.

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Tip: If the program you're trying to remove doesn't seem to be listed in the Add or Remove Programs list, look for other versions of the name. For instance, to remove Word, look under "M" for Microsoft Word or Microsoft Office. If it's still not there, open the program's folder in your Start menu and look for an Uninstall icon.

2. **Look for an error message.**

When you click the Remove button next to a program's name, do you get an error message? If so, it's probably complaining about a missing configuration file.

Most of the time, the file that's missing is the installation log file, a list of the components that were copied to your hard disk when you originally installed the software. If the uninstaller can't find this log file, it won't be able to remove the software, at which point it resorts to petty complaining. In that case, the best tactic is to simply reinstall the program, and then try uninstalling again.

If reinstalling still doesn't work, see the box on the facing page.

3. **Find out where the program is.**

As you may know, Windows programs' real names are rarely as friendly as the names you see onscreen. To you, it's Start→Microsoft Word; to Windows, it's c:\Program Files\Microsoft Office\Office 11\WINWORD.EXE. So before you can eliminate a program, you have to know its secret location.

Most of the time, you can find out the program's secret location by opening the Start menu, opening the All Programs menu, and finding the program's listing. Right-click the shortcut, and from the shortcut menu, choose Properties. As you can see in Figure 5-17, the Target box tells you the name and folder location of the culprit. Leave the Properties box open for the moment.

POWER USERS' CLINIC

Clean Up the Add or Remove Programs List

Sometimes, even after you remove a program, its entry still appears in the Add or Remove Programs window. With the program's uninstaller long since uninstalled, the only way to erase it from this list is to dive into your Registry.

Open the Registry Editor (see Appendix C) and expand the branches to HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall. In this branch, you'll find dozens or even hundreds of keys (individual entries), each one corresponding to an entry in your Add or Remove Programs window. Most of the keys have names written in plain English, making it easy to locate the program you want to remove.

Now, keep in mind that once you remove an entry here, you may not be able to easily remove the program later on. Before you delete an entry, choose File→Export to create a backup.

When you've found the mischievous entry, just highlight it and press the Delete key.

If you can't find your program in the list, it's likely hidden behind one of the keys here with a cryptic name, such as {318966 or {74E2CD0C-D4A2-11D3-95A6-0000E86CFDE5}. These are easy enough to deal with. Just highlight the key and look for the DisplayName value in the right pane. Then press the up and down arrow keys to quickly scan the list.

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4. **Turn off any auto-loading components.**

Far too many Windows programs are designed to load some of their components into memory the moment you turn on the PC, where they stay until you shut down the machine. The problem is that Windows refuses to delete files that are

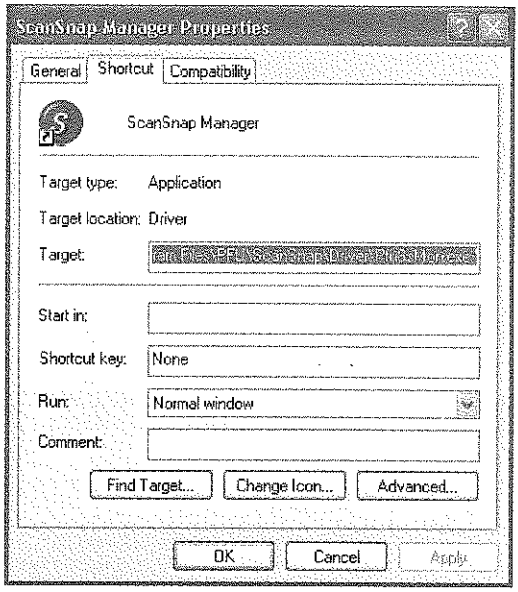


Figure 5-17:
As outlined on page 35, the path notation shown here identifies where this program sits; each slash indicates a folder within a folder. The name after the final slash identifies the actual program by its real name. In this case, the Target box says C:\Pgm Files\PFU\ScanSnap\Driver\PfuSsMon.exe.

Believe it or not, PfuSsMon.exe is the real name of a program that appears to you as ScanSnap Manager. Instead of trying to remember all these folder names, just click the Find Target button to open a folder window, complete with the program file highlighted.

POWER USERS' CLINIC

Help the Uninstaller Find Its Way

Software authors usually rely on off-the-shelf tools to handle the dirty business of installing and removing their software. Most of these tools are comprised of two files: a generic uninstaller program (.exe file) and a log file that was created when you originally installed the software. Sometimes, all it takes to fix a broken uninstaller is to put these two pieces together.

Start by opening Windows Explorer, navigating to the program's main folder (see step 3 on the facing page), and looking for the installation log file, usually called Delst1.isu, Uninst.isu, or install.log.

If you find an .isu file, it was put there by the popular InstallShield installer. Just double-click the file. When Windows asks what program you want to use to open the file, navigate to your Windows folder (usually on your C: drive), and select IsUninst.exe.

If you find an install.log file in the program's folder, it was probably put there by a WISE installer. In this case, double-clicking will probably just open Notepad, so you need a slightly different tactic. Open a second Windows Explorer window, and navigate to your Windows folder (usually C:\Windows). There in you should see a file named unwise.exe. Just drag-drop the .log file from the first window directly onto this unwise.exe file.

If you're lucky, the uninstaller will proceed to remove your program. But if this doesn't work, you need to do it by hand.

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in use, so you have to close any programs that are currently running before you can delete them.

To see if your subject has an auto-loading bit, choose Start→Run. In the dialog box, type *msconfig* and press Enter. (Msconfig is a handy little Windows utility—not listed in any menu or available in any store—that lists everything that goes on at startup time.)

As Figure 5-18 shows, the Startup tab in the resulting dialog box lists every program that starts up unbidden when you turn on the PC. Your job is to find any pieces of the program that may be loading when Windows starts, which isn't always obvious. The easiest way to do this is to look in the center column, Command, for the secret folder name you unearthed in step 3, and turn off the checkbox next to anything that matches.

Note: Don't go nuts here. Trimming the fat a little doesn't hurt, but this list includes a few essential Windows programs that the PC requires to start up. If in doubt, leave it alone.

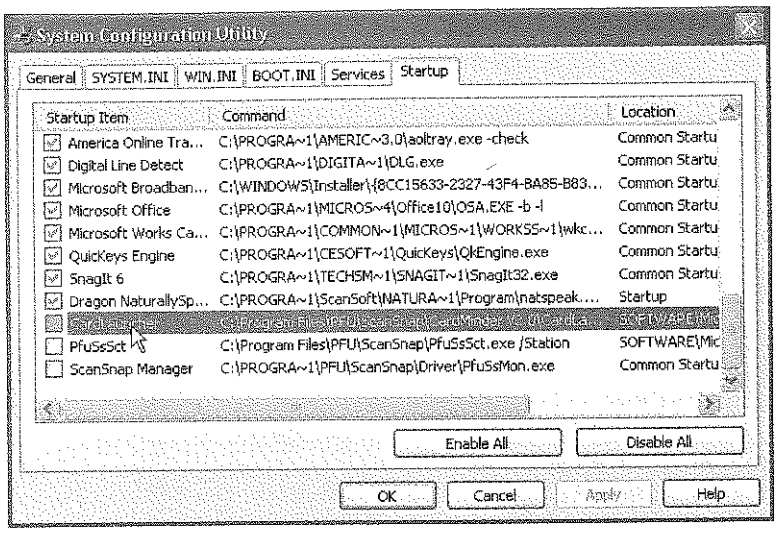


Figure 5-18: *In this example, the recalcitrant software bit stuffs two components into your startup process. One of them, you can identify by name (PfuSsSct). The other, you can identify by the path in the Command column (a familiar path).*

Click OK when you're done. If the PC tells you it must be restarted, click Restart. If you receive a "You have used the System Configuration Utility" dialog box when the PC comes to, click OK.

If the gods are smiling, you are now free to delete the program.

5. **Look for anything you want to keep.**

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With the program's folder window still open from step 3, look for any personal files you want to keep around. In most cases, these files are in your My Documents folder or on your desktop, and therefore safe from deletion. But it's best to make sure.

Tip: Select View→Details to reveal all the information about the files in the current folder, and then click the Date Modified column header to sort the listing by date. This way, you can more easily find recently changed files.

6. **Delete the files.**

   Select all the contents of the program's folder by pressing Ctrl+A, and then drag them into your Recycle Bin. Now didn't that feel good?

Tip: If Windows Explorer complains that one of the files is still in use, just click OK. Then select everything else, and keep deleting. If anything remains when you're done, you'll have to force those programs to close before you can delete them. Right-click an empty area of your taskbar and select Task Manager. Click the Processes tab, and look for the remaining files in the list. When you find the file, highlight it and click End Process. Finally, try to delete the file once again.

7. **Back in the real world, delete the visible scraps of the program from your Start menu and desktop.**

   For example, drag any unwanted files or folders into your Recycle Bin.

8. **Clean up the mess.**

   Your final task is to find and eliminate any lingering bits of the stubborn program. For instance, if the recently deceased program is still popping up in the Shortcut menus that appear when your right-click certain files, you'll have to update your file associations.

   The next time you open one of the program's documents, Windows will complain that it can't find the program. That's your opportunity to choose a new program to open those files.

Running Pre-XP Programs

As any Windows 2000 user can tell you, stability has its price. For years, people who ran Windows 2000 enjoyed far fewer system crashes than Windows Me people did—but they were limited to a much smaller set of compatible programs. (Barney the Dinosaur CDs, for example, simply wouldn't run on Windows 2000.)

Although it's based on Windows 2000, Windows XP isn't quite as limiting to your software library. Microsoft has pulled every trick in the book to make older, pre–Windows XP programs run successfully. For example:

16-Bit Programs

A 16-bit program is one that's so old, it was written when Windows 3.1 roamed the earth and George Bush Sr. was president. (Programs written for Windows 95 and

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later are known as *32-bit* programs.) Bit amazingly enough, even Windows XP can run most of these programs. It does so in a kind of software simulator—a DOS-and-Windows 3.1 PC impersonation called a *virtual machine*.

As a result, these programs don't run very fast, they don't understand the long filenames of the modern-day Windows, and they may crash whenever they try to "speak" directly to certain components of your hardware (the simulator stands in their way, in the name of keeping Windows XP stable). Furthermore, if just one of your 16-bit programs crashes, *all* of them crash, because they all live in the same memory bubble.

Even so, it's impressive that they run at all, ten years later.

DOS Programs

These programs are 16-bit programs, too, and therefore they run just fine in Windows XP, even though DOS no longer lurks beneath the operating system.

To open the black, empty DOS window that's familiar to longtime PC users, choose Start→All Programs→Accessories→Command Prompt. (See page 195.)

GEM IN THE ROUGH

Not Your Father's Keyboard

Keyboards built especially for using Windows contain some extra keys on the bottom row:

- On the left, between the Ctrl and Alt keys, you may find a key bearing the Windows logo (⊞). No, this isn't just a tiny Microsoft advertising moment; you can press this key to open the Start menu without having to use the mouse. (On desktop PCs, the Windows key is usually on the bottom row; on laptops, it's sometimes at the top of the keyboard.)
- On the right, you may find a duplicate Windows key, as well as a key whose icon depicts a tiny menu, complete with a microscopic cursor pointing to a command. Press this key to simulate a right-click at the current location of your cursor.

Even better, the Windows logo key offers a number of useful functions when you press it in conjunction with other keys. For example:

- ⊞+**D** hides or shows all of your application windows (ideal for jumping to the desktop for a bit of housekeeping).
- ⊞+**E** opens the My Computer window in Windows Explorer view (page 112).
- ⊞+**F** opens the Search window (page 37).
- ⊞+**Ctrl**+**F** opens the Search—Computers window.
- ⊞+**M** minimizes all open windows, revealing the desktop. (Windows key+D is better, however, since the same keystroke also returns the windows.)
- ⊞+**Shift**+**M** restores all minimized windows.
- ⊞+**R** opens the Run command (see page 33).
- ⊞+**V** turns your speaker on and off.
- ⊞+**Tab** switches through all the application buttons on the taskbar.
- ⊞+**Break** opens the System Properties dialog box.

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Programs Written for Windows 95, 2000, Etc.

In principle, programs that were written for recent versions of Windows should run fine in Windows XP. Unfortunately, some of them contain software code that deliberately sniffs around to find out what Windows version you have. These programs (or even their installer programs) may say, Windows *what?*"—and refuse to run.

Fortunately, the Properties box of every program (or program shortcut) offers you the opportunity to fool such programs into believing that they're running on a Windows 95 machine, Windows 2000 machine, or whatever. Figure 5-19 details the process, but a few footnotes are in order:

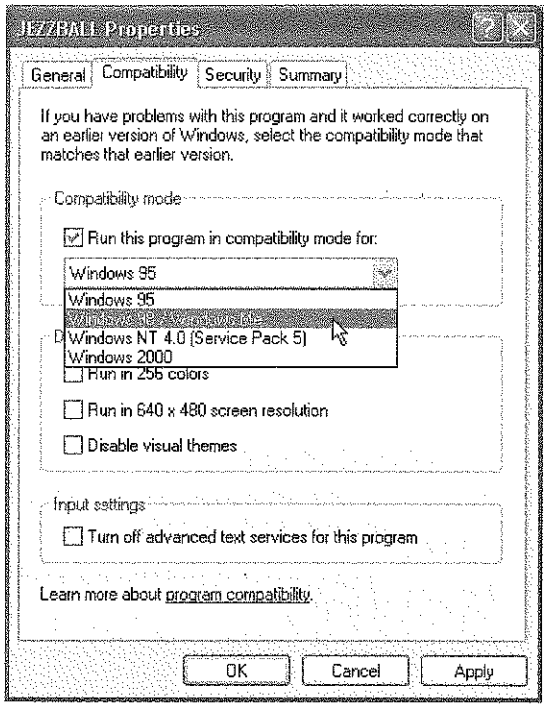


Figure 5-19:
If you've successfully installed an older program that doesn't seem to work in Windows XP, find its application icon as described on page 63. Right-click the icon and choose Properties from the shortcut menu. In the Properties dialog box, click the Compatibility tab, turn on "Run this program in compatibility mode for," and then, using the drop-down menu of past Windows versions, choose the version you suspect will make your program happiest. When you click OK, Windows XP will try to fake out the program, making it run. Your dialog box may differ slightly from the one you see here, depending on the program you are trying to run.

- You're much better off securing an updated version of the program, if it's available. Check the program's Web site to see if an XP-compatibility update is available.
- Don't try this trick with utilities like virus checkers, backup programs, CD burning software, and hard drive utilities. Installing older versions of these with Windows XP is asking for disaster.
- If the program you're trying to run is on a CD or on a hard drive elsewhere on the network, you won't be able to change its properties using the steps described in Figure 5-19. Instead, choose Start→All Programs→Accessories→Program

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Compatibility Wizard. A series of wizard screens explains the concept of compatibility-fooling, and then lets you choose the program you'd like to fool.

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CHAPTER 6

The Freebie Software

Even after a fresh installation of Windows XP, a glance at your Start→All Programs menu reveals a rich array of preinstalled Windows XP applications—as an infomercial might put it, they're your *free bonus gift.* This chapter offers a crash course in these programs, a few of which could probably merit Missing Manuals of their own.

The Windows XP Accessories

Microsoft calls many of these built-in programs *accessories.* They have two things in common. First, they're all smallish, single-purpose programs that you'll probably use only occasionally. Second, you get to them from the Start→All Programs→Accessories menu.

Accessibility Features

If you have trouble using your keyboard or making out small text on the screen, the programs in the Start→All Programs→Accessories→Accessibility menu may be just what you need.

Accessibility Wizard

Windows XP is one of the most disability-friendly operating systems on earth. It includes a long list of features that enables the PC to magnify, speak, or otherwise boost the elements of the screen.

The Accessibility Wizard offers these features to you, one feature at a time. Its screens invite you to enlarge all kinds of things: the type in dialog boxes and menus, scroll bars and window borders, desktop icons, the arrow cursor itself, and so on.

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Tip: Not all of these features are useful only to the disabled. If you have a flat-panel screen, for example, you may have noticed that everything on the screen is smaller than it might be on a traditional CRT screen. The result is that the cursor is sometimes hard to find and the text is sometimes hard to read.

Finally, the wizard offers specialized accessibility features for the hearing-impaired and people with trouble using the keyboard. All of these visibility options are duplicated in Windows XP's various Control Panel programs (see Chapter 8). Microsoft just hoped that by putting them all in a single wizard, in interview format, these features would be easier to find.

Magnifier

Magnifier is like a software magnifying glass—a floating rectangular window that enlarges whatever your cursor touches (see Figure 6-1). Using the Magnifier Settings dialog box shown in Figure 6-1, you can specify how much magnification you want (1 to 9 times), which area of the screen gets magnified, and so on.

On-Screen Keyboard

If you're having trouble typing, keep the On-Screen Keyboard program in mind. It lets you type just by clicking the mouse (Figure 6-1)—an option you may find useful in a pinch.

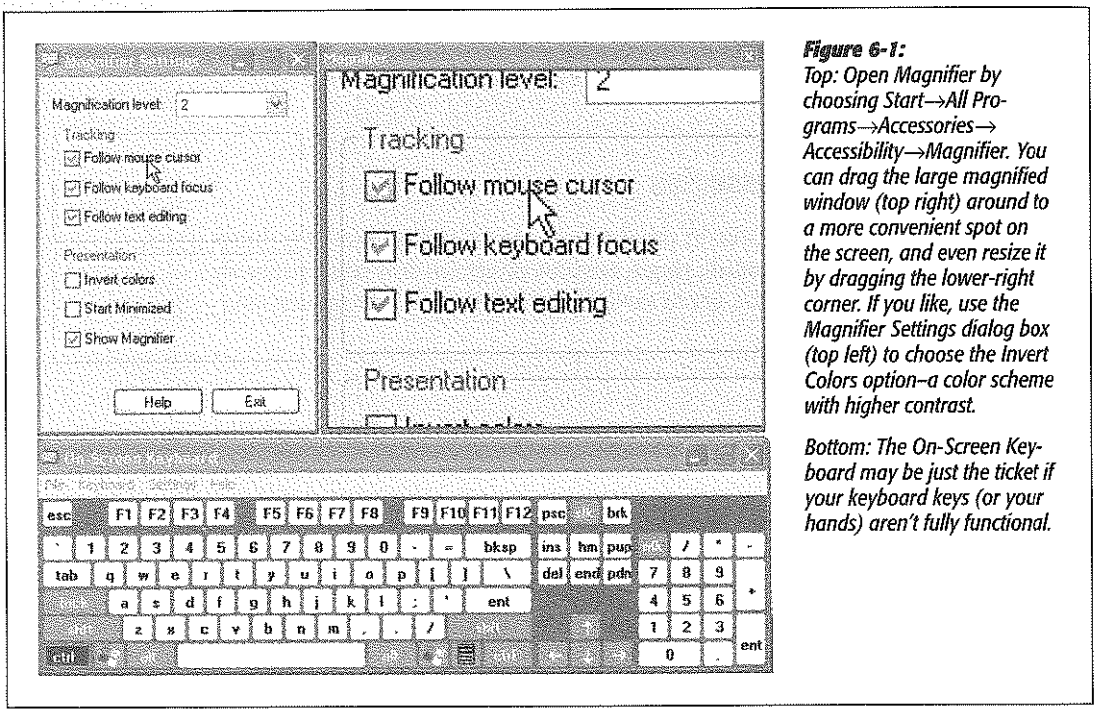


Figure 6-1:
Top: Open Magnifier by choosing Start→All Programs→Accessories→Accessibility→Magnifier. You can drag the large magnified window (top right) around to a more convenient spot on the screen, and even resize it by dragging the lower-right corner. If you like, use the Magnifier Settings dialog box (top left) to choose the Invert Colors option–a color scheme with higher contrast.

Bottom: The On-Screen Keyboard may be just the ticket if your keyboard keys (or your hands) aren't fully functional.

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Narrator

As the little welcome screen tells you, Narrator is a program that reads aloud whatever text appears on the screen—dialog boxes, error messages, menus, text you've typed, and so on. Narrator doesn't work in all programs, and it sounds a little bit like a Norwegian who's had a few beers. Still, if you have trouble reading text on the screen, or if you just like to hear your email read back to you, it's better than nothing.

Tip: By closing or moving the Welcome dialog box, you'll discover a second dialog box hiding squarely behind it—one that lets you control what Narrator reads, and when. For example, you might want to turn on "Move mouse pointer to the active item," so that Windows doesn't read anything to you until you've actually pointed to it.

Utility Manager

This strange little program is designed to control the three accessibility programs just described. The first time you open it, a strange little error message warns you that some of Utility Manager's features are available only if you start and stop the program using its keyboard shortcut (Windows logo key+U). That's good advice.

Once you're in, you'll find the same controls for Magnifier, Narrator, and On-Screen Keyboard: Start and Stop buttons, plus three checkboxes—one of which lets you start any of these accessibility programs automatically when you log into Windows XP.

Communications Menu

The Start→All Programs→Accessories→Communications menu contains several shortcuts:

- **HyperTerminal** is an old-time, text-only terminal program—the sort people once used to dial into BBS (bulletin board) systems in the pre-Web era. Even today, however, you may find this program useful for connecting to *telnet* systems—the text-only display system used by many public libraries.

  You can also use HyperTerminal to set up a PC-to-PC, modem-to-modem link—a useful setup when somebody wants to shoot a file over to you directly, completely bypassing the Internet. The most important thing to remember is that both computers must use precisely the same HyperTerminal settings. (The world is full of programs that are designed for this kind of file transfer, but this one is free.) If you yearn for additional details, see "To receive a file from a remote computer" in HyperTerminal Help.

- **Network Connections** is a shortcut to the Network Connections program in the Control Panel, a window that lists every connection you've established to the Internet or to an office network. See Chapter 18 for details.

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- Network Setup Wizard and New Connection Wizard are shortcuts to the setup programs described in Chapter 18.
- **Remote Desktop Connection.** As described in the Introduction, one of the differences between the Professional and Home editions of Windows XP is something called Remote Desktop connection—a feature that lets you dial into your PC from the road, bringing to your screen everything you'd see if you were sitting in front of the home PC.

  For this to work, only the machine you're dialing into (the *host* computer) needs to be running XP Pro. The PC doing the actual dialing (the *client* computer) can be running Windows 95, 98, Me, NT 4.0, 2000 or, of course, XP. Page 622 has the details.

Entertainment Menu

The truth is, you probably won't find the programs in the Entertainment menu particularly entertaining (unless there's *very* little going on in your life). A better name for this menu (Start→All Programs→Accessories→Entertainment) might be Multimedia, since all the programs in it relate to video and sound. They're described in Chapter 7, which is, by happy coincidence, called "Pictures, Sounds, and Movies."

System Tools Menu

This menu (Start→All Programs→Accessories→System Tools) is designed to be a toolbox for basic Windows administration, maintenance, and troubleshooting programs. These programs, including Disk Cleanup, Disk Defragmenter, Scheduled Tasks, System Information, and System Restore, are all described in Chapter 16.

Three of this submenu's contents, however, have nothing to do with PC health and fitness, and were stashed here perhaps because Microsoft couldn't find a more logical place to stash them. The items in question are Activate Windows, Character Map, and the Files and Settings Transfer Wizard.

Activate Windows

Few Windows features are more controversial than the activation scheme, a form of copy protection that prevents the installation of a single copy of Windows XP onto more than one PC.

If you're not ready to join the Windows XP generation, there's no need to activate your copy when the installer prompts you. In fact, you have 30 days to evaluate Windows XP and decide whether you want to leave it in place.

During that time, reminder balloons appear at the lower-right corner of your screen with all the subtlety of a blinking neon sign. If you ultimately decide to activate your copy, either click that reminder balloon or open this little program, which will walk you through the activation process. (Once you've activated your copy, you won't need this program anymore. Feel free to delete it from your Start menu.)

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Character Map

Your computer is capable of creating hundreds of different typographical symbols—the currency symbols for the yen and British pound, diacritical markings for French and Spanish, various scientific symbols, trademark and copyright signs, and so on. Obviously, these symbols don't appear on your keyboard; to provide enough keys, your keyboard would have to be the width of Wyoming. You *can* type the symbols, but they're hidden behind the keys you do see.

The treasure map that reveals their locations is the Character Map. When first opening this program, use the Font drop-down list to specify the font you want to use (because every font contains a different set of symbols). Now you see every single symbol in the font. As you hold your mouse down on each symbol, a magnified version of it appears to help you distinguish them. See Figure 6-2 for details on transferring a particular symbol to your document.

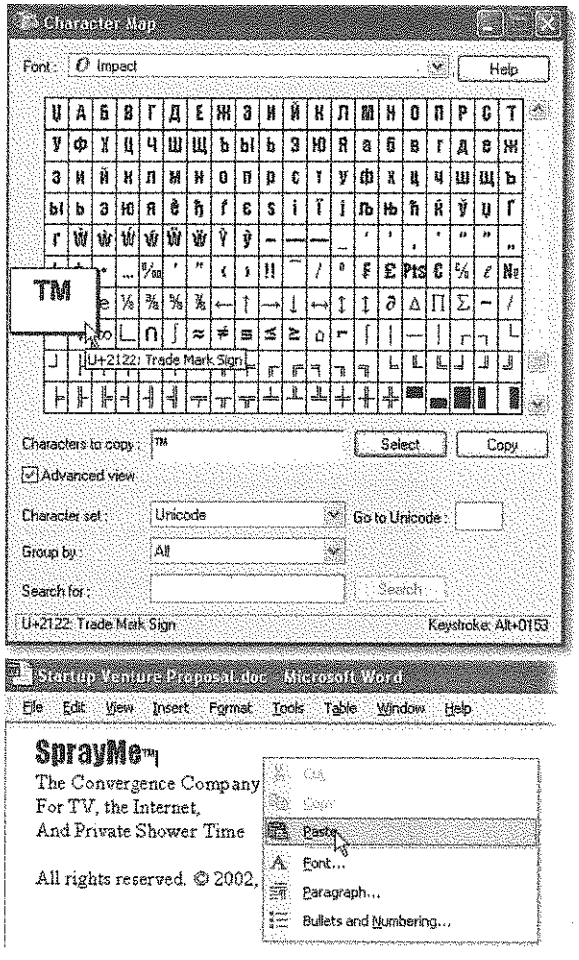


Figure 6-2:
Top: Double-click a character to transfer it to the "Characters to copy" box, as shown here. (Double-click several in a row, if you want to capture a sequence of symbols.) You may have to scroll down quite a bit in some of today's modern Unicode *fonts, which contain hundreds of characters. Click Copy, then Close.*

Bottom: When you've returned to your document, choose Edit→Paste to insert the symbols.

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Tip: In general, Internet email can't handle the fancy kinds of symbols revealed by the Character Map. Don't be surprised if your copyright symbol turns into a gibberish character when received by your lucky correspondent.

Files and Settings Transfer Wizard

This handy utility is designed to simplify the process of moving your life from an older PC to a new one. Page 648 has instructions.

Address Book

The Address Book (Start→All Programs→Accessories→Address Book) is a central Windows directory for phone numbers, email addresses, and mailing addresses.

Once you've launched the program (see Figure 6-3), choose File→New Contact. You're shown a dialog box with seven tabbed panels for various categories of contact information. Now you're supposed to type the name, email address, phone number, and other information for each person in your social or business circle. After you've gone to the trouble of typing in all of this information, Windows XP repays your efforts primarily in two places:

- **In Outlook or Outlook Express.** As Chapter 12 makes clear, a well-informed address book is extremely useful when sending an email message. There's no need to remember that Harold Higgenbottom's email address is *hhiggenbottom@crawlsapce.ix.net.de;* instead, you only need to type *hhig.* The program fills in the email address for you automatically.
- **In the Search dialog box.** As noted in Chapter 1, you can quickly look up somebody's number by choosing Start→Search→"Printers, computers or people." (If you're not part of a corporate domain, the command says "Computers or people" instead.) This function searches your address book and pulls up the requested name and number.

FREQUENTLY ASKED QUESTION

When Alt+0169 Is Faster

I use the copyright symbol quite a bit, so I figured I would just memorize the keystroke for it instead of having to open Character Map every time I need it. When I click the symbol in Character Map, the lower-right corner of the window says "Keystroke: Alt+0169." But when I try to enter that key sequence into my word processor, I don't get the copyright symbol!

That's absolutely right. You're leaving out two critical steps. First, you can't type those Alt+number codes unless you're in NumLock mode. If the NumLock light (usually at the top of your keyboard) isn't illuminated, press the NumLock key first.

Second, even once you're in NumLock mode, you must type the numbers using the numeric keypad at the right side of your keyboard, not the numbers on the top row. (If you're on a laptop without a numeric keypad, God help you.) Remember to keep the Alt key pressed continuously as you type the suggested numbers.

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Tip: To import address book information from another program, choose File→Import→Address Book (WAB) or File→Import→Other Address Book. Windows can inhale the information from any of several popular address book programs.

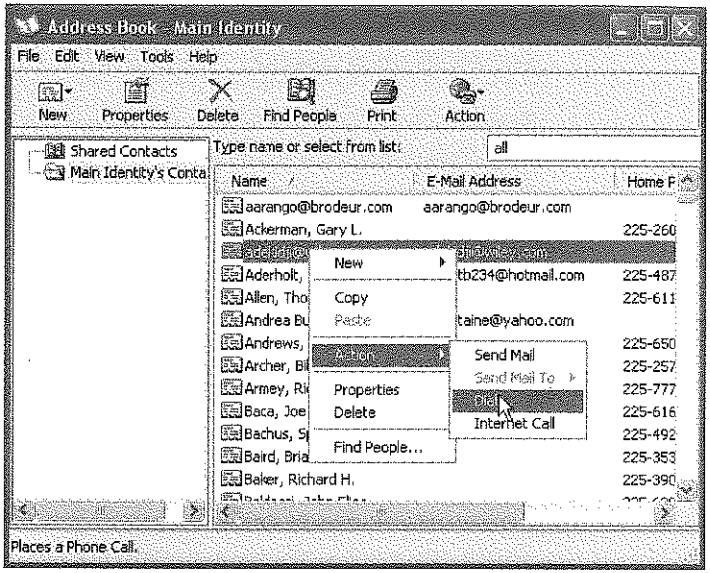


Figure 6-3:
Left column: Generally you can ignore this business of identities, *a system of separating the address books and email collections of several people who share the same PC. The Windows XP user accounts feature described in Chapter 17 is a far superior method of keeping everybody's stuff separate.*

Lower right: Right-clicking a name in your address book produces a shortcut menu that offers such useful commands as Send Mail and Dial.

Calculator

At first glance, this calculator (Start→All Programs→Accessories→Calculator) looks like nothing more than a thinner version of every pocket calculator you've ever seen (Figure 6-4). You can operate it either by clicking the buttons with your mouse or by pressing the corresponding keys on your keyboard.

Tip: Choosing View→Digit Grouping instructs the Calculator to display numbers with commas (123,456,789), making large numbers (123456789) a lot easier to read.

Most of the buttons look just like the ones on the plastic calculator that's probably in your desk drawer at this very moment, but several require special explanation:

- /. The slash means "divided by" in computerese.
- *. The asterisk is the multiplication symbol.
- sqrt. Click this button to find the square root of the currently displayed number.
- %. Type in one number, click the * button, type a second number, and then click this button to calculate what percentage the first number is of the second.

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Tip: This calculator may appear to have almost every feature you could desire, but, in fact, it lacks a paper-tape feature—and we all know how easy it is to get lost in the middle of long calculations.

The solution is simple: Type your calculation, such as *34+(56/3)+5676+(34*2)=*, in a word processor. Highlight the calculation you've typed, choose Edit→Copy, switch to the Calculator, and then choose Edit→Paste. The previously typed numbers fly into the Calculator in sequence, finally producing the grand total on its screen. (You can then use the Edit→Copy command to copy the result back out of the Calculator, ready for pasting into another program.)

But by choosing View→Scientific, you turn this humble five-function calculator into a full-fledged scientific number cruncher, as shown in Figure 6-4.

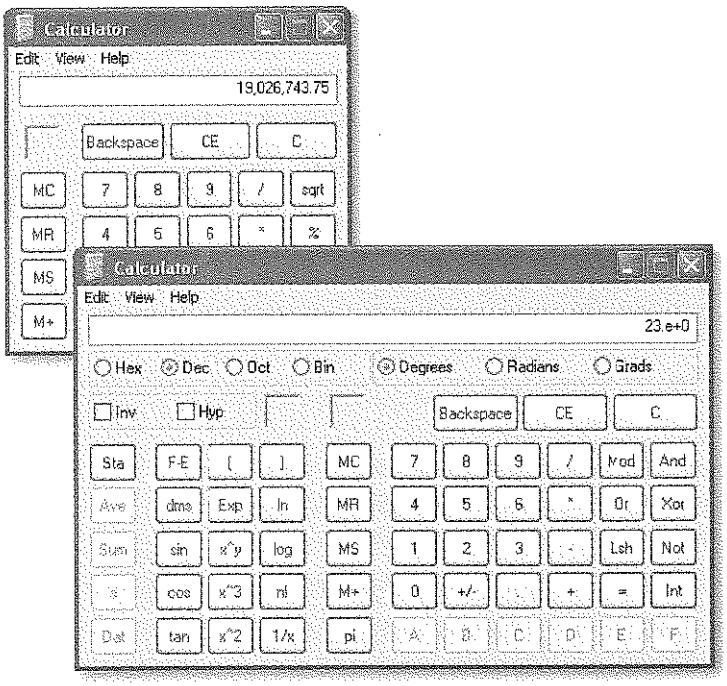


Figure 6-4: *After ducking into a phone booth, the humble Calculator (left) emerges as Scientific Calculator (right), which contains a hexadecimal/decimal/octal/binary converter for programmers, mathematical functions for scientists, and enough other buttons to impress almost anyone. To learn a particular button's function, right-click it and choose What's This? from the shortcut menu. Don't miss the online help, by the way, which reveals that you can control even the scientific mode from the keyboard.*

FREQUENTLY ASKED QUESTION

Clipboard Viewer

Hey, what happened to the Clipboard Viewer? It used to be in the System Tools group of my Start→Programs→Accessories menu, and now it's gone. It used to be a cool little program for seeing the material I'd most recently copied.

It's still around, it's just hidden. Choose Start→Run, type *Clipbrd.exe*, and press Enter. See page 164 for details.

If that seems like a hassle, you could always replace it with a shareware equivalent like AccelClip (available from *www.missingmanuals.com*, among other places).

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Command Prompt

This program summons the MS-DOS window—the black, empty screen that's familiar to longtime PC users. At the C:> prompt, you can type any of hundreds of DOS commands; when you press Enter, the PC executes your typed instruction.

You may need to use this DOS mode to run certain older programs that aren't Windows-compatible; masters of DOS also extol its ability to manipulate (rename, for example) many files at once, to poke and prod a network (using DOS utilities such as *ping.exe* and *netstat.exe*), and so on.

Tip: To learn a few of the hundreds of DOS commands at your disposal, consult the Internet, which is filled with excellent lists and explanations. To find them, visit a search page like *www.google.com* and search for *DOS command reference*. You'll find numerous ready-to-study Web sites that tell you what to type at the MS-DOS prompt.

Notepad

Notepad is a bargain-basement *text editor*, which means it lets you open, create, and edit files that contain plain, unformatted text, like the Read.txt files that often accompany new programs. You can also use Notepad to write short notes or edit text that you intend to paste into your email program after editing it.

Notepad basics

Notepad opens automatically when you double-click text files (those with the file extension *.txt*, as described in the previous chapter). You can also open Notepad by choosing Start→All Programs→Accessories→Notepad.

You'll quickly discover that Notepad is the world's most frill-free application. Its list of limitations is almost longer than its list of features.

For example, Notepad can't open large files. If you double-click a text file icon that contains more than about 50 KB of text, Windows XP automatically opens the file in WordPad (described next) instead of Notepad. Furthermore, the Notepad window has no toolbar and can only work with one file at a time.

What's more, the Print command on the File menu doesn't even open the Print dialog box. Instead, it sends the file directly to your printer, so you can't specify which pages you want, or how many copies of them.

Above all, Notepad is a *text* processor, not a *word* processor. That means that you can't use any formatting at all—no bold, italic, centered text, and so on. That's not necessarily bad news, however. The beauty of text files is that any word processor on any kind of computer—Windows, Mac, Unix, whatever—can open plain text files like the ones Notepad creates.

About word wrap

In the old days, Notepad didn't automatically wrap lines of text to make everything fit in its window. As a result, chunks of text often went on forever in a single line of text

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or got chopped off by the right side of the window, which could produce disastrous results when you were trying to follow, say, a soufflé recipe.

In Windows XP, lines of text wrap automatically, exactly as they do in a word processor. But you're still seeing nothing more than the effects of the Format→Word Wrap command—an option you can turn off, if you like, by choosing the command again. (You can tell when Word Wrap is on by the presence of a checkmark next to the command in the Format menu.)

Tip: When you print from Notepad, the text automatically wraps to the size of your printer's default paper, regardless of whether Word Wrap is on or off. Choose File→Page Setup from the Notepad menu bar to configure different margins for printing.

Paint

You can use Paint to "paint" simple artwork or to edit graphics files from other sources. You might say that Paint, in other words, is something like Adobe Photoshop (well, in the same way that you'd say that the local Cub Scout newsletter is like the *New York Times*). Common tasks for this program include making quick sketches, fixing dust specks on scanned photos, and entertaining kids for hours on end.

Launch Paint by choosing Start→All Programs→Accessories→Paint, and then:

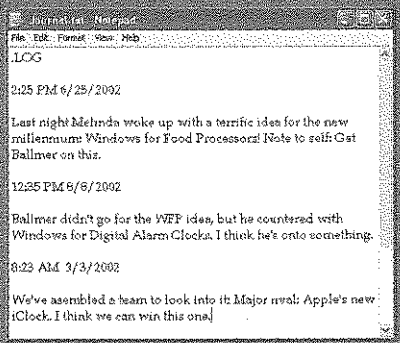
1. **Choose Image→Attributes to specify the dimensions of the graphic you want to create. Click OK.**

GEM IN THE ROUGH

Notepad Log Files

As stripped-down as it is, Notepad has one surprising feature not available in any other text processor or word processor: automated log files. Every time you open a certain file, Notepad can automatically insert the current date and time at the bottom of the file, creating a tidy record of when you last worked on it—a nifty way to keep any type of a log, like a record of expenditures or a secret diary.

To set this up, create a new Notepad document (choose File→New). Then type the phrase *.LOG* at the top of the new document. (Capitalize LOG, and put nothing, not even a space, before the period.)



Now save the document (File→Save) and give it a name. (Notepad adds the extension *.txt* automatically.)

When you next open the file, Notepad types out the date and time automatically, and puts your cursor on the next line. Now you're ready to type the day's entry.

To make your log file easier to read, press the Enter key to insert a blank line after each entry before saving the file.

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Later in your life, you may want to peruse the other commands in this menu, which let you stretch or flip your graphic.

2. **Click a tool on the palette at the left side.**

   If you need help identifying one of these tools, point to it without clicking. A tooltip identifies the icon by name, while a help message appears at the bottom of the window.

3. **If you've selected a painting tool, like the paintbrush, pencil, or line tool, click a "paint" color from the palette at the bottom of the window.**

   You may also want to change the "brush" by choosing from the options located below the tool palette, like the three spray-paint splatter sizes shown in Figure 7-5.

4. **If you've selected one of the enclosed-shape tools at the bottom of palette, *right*-click a swatch to specify the color you want to fill the *inside* of that shape.**

   These tools all produce enclosed shapes, like squares and circles. You can specify a different color for the border of these shapes and for the fill color inside.

5. **Finally, drag your cursor in the image area (see Figure 6-5).**

   As you work, don't forget that you can use the Edit→Undo command up to three times in a row, "taking back" the last three painting maneuvers you made. (Just don't screw up *four* times in a row.)

   For fine detail work, click the magnifying-glass icon and then click your painting. You've just enlarged it so that every dot becomes easily visible.

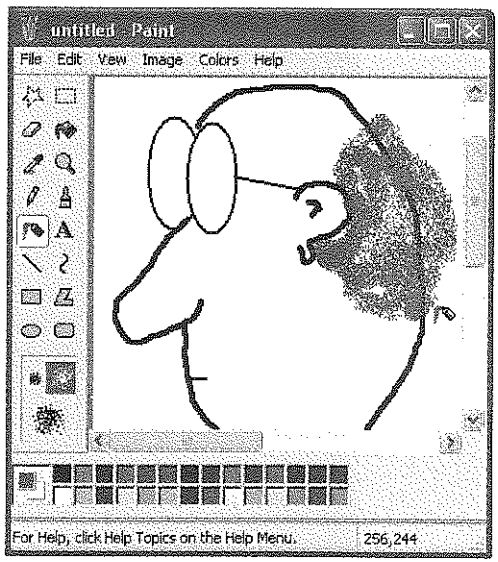


Figure 6-5:
The Paint tools include shapes, pens for special uses (straight lines and curves), and coloring tools (including an airbrush). The top two tools don't draw anything. Instead, they select portions of the image for cutting, copying, or dragging to a new location.

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