

REVISED

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Laptops, Tablets, & Touchscreens

Portability is today's reality in computing. Laptop sales are trouncing desktop PC sales. Netbooks are cheap and insanely popular. And for millions of people, the computing platform of choice isn't a computer at all—it's a cellphone.

That's why Windows 7 is crammed with special features for the peripatetic PC. On a laptop, for example, you can change your power-consumption configuration with a quick click on the battery icon in the notification area. All the important laptop settings, like network switching and projector settings, are clustered in a single place: the Windows Mobility Center.

Touchscreen computing is, in Microsoft's opinion, ready for prime time, despite the fact that only about six people ever bought those tablet PC machines that Bill Gates was once so excited about. To prove its point, Microsoft has built iPhone-like multi-touch gestures—pinching and spreading, swiping a finger, rotating two fingers—right into the operating system, ready for any touchscreen-equipped PC that comes along.

Those features join all the existing tablet PC features like pen control, digital ink text input, and handwriting recognition. (This stuff used to be available only in a special Tablet PC Edition of Windows; now it's part of the basic operating system.)

And finally, if you're a fan of Windows Mobile smartphones, Pocket PC palmtops, or ultra-mobile PCs, the Sync Center is still around. **It keeps your address book, to-do lists, and email synchronized with your main PC.**

Note: Are you in the market for a netbook? Microsoft's take is that any version of Windows 7 will run on these lightweight, low-cost machines. But be careful to check the hardware specs for a netbook to be sure they meet Microsoft's minimum requirements. If you own a netbook that runs Windows XP, you must upgrade to Windows 7. You can purchase a copy online at <http://store.microsoft.com/win7netbooks>, and you can find more information by Googling "Windows 7 on a netbook."

Laptops

[All Versions](#)

Windows 7 is full of special software features designed expressly for battery-powered computing. There's a whole control panel, for example, dedicated to managing battery power. You can control screen brightness, when your computer sleeps, and other features, all in the name of saving juice.

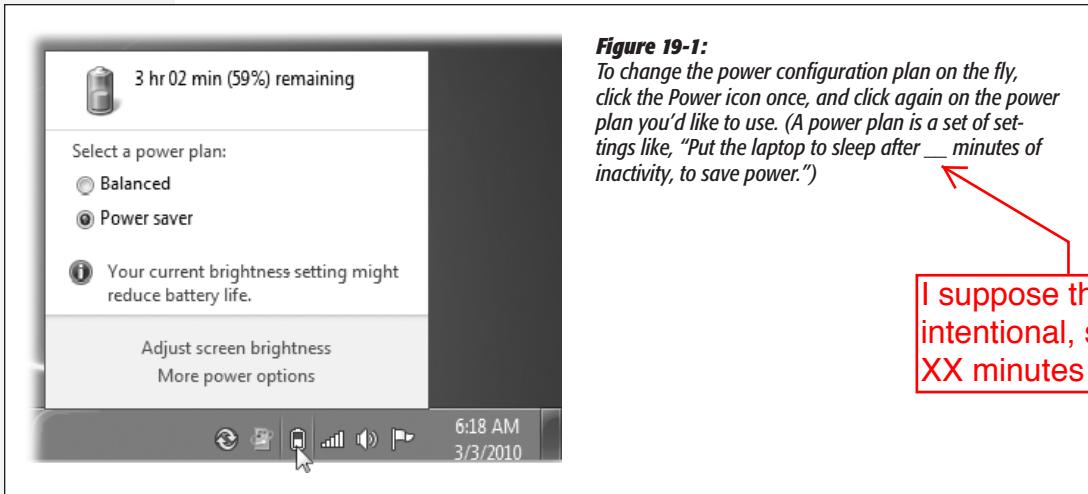
That's not the only gift to laptopers in Windows 7, however. Read on for all the good stuff.

Laptopers a real word? :)

Battery Meter

The notification area ([system tray](#)) has always displayed a little battery meter that shows how your laptop's battery charge is doing. Its icon looks like a tiny battery—or a battery with a plug (🔌) when the laptop's charging.

If you point to this icon, a tooltip displays the status of your laptop's battery, including the current battery charge. Click this icon, and you see what power plan (page xx298) you're using. There's even more to it than that, though, as you can see in Figure 19-1.



Mobility Center

The Windows Mobility Center is a handy, centralized hub for managing everything that makes a laptop a laptop (Figure 19-2): battery, wireless networking, external projector connection, and so on. To find it, open the Start menu. Start typing *mobility* until you see its name in the results list; click it.

Or just press **Win+X**, which is quite a bit quicker.

Tip: You can also open one of these icons entirely from the keyboard. See the underlined letter beneath each panel, such as Battery Status or Wireless Network? Tap that letter to highlight the icon, and then press Enter.

Figure 19-2: Each setting in Mobility Center is illustrated with a cute little icon—but don't be fooled. This is so much more than an icon! It's also a button that, when double-clicked, opens up a Control Panel applet or configuration page.



None italic!?

Here's the complete list of tiles that may appear in your Mobility Center. (You may not have all of them, depending on what kind of computer you're using and what components it has. And you may have more of them, if your computer company has installed its own options.)

- **Display brightness.** The slider dims your screen for this work session only, which can save enormous amounts of battery power. Click the icon to open the Power Options control panel, where you can make brightness changes that are always in effect.
- **Volume.** Change your speakers' volume, or mute them entirely. Click the icon to open the Sound control panel.
- **Battery Status.** This is your battery's fuel gauge. The drop-down menu lets you choose a canned setting like "High performance" (your PC doesn't go to sleep, but uses up battery power faster) or "Power saver" (the laptop goes to sleep sooner to conserve juice). Click the icon to open the Power Options control panel, where you can change the power-plan settings for good.

- **Wireless Network.** Turns your WiFi [circuitry](#) on or off (which saves power and makes flight attendants happy), and shows [how many bars of signal](#) you have. Click the icon to open the “Connect to a network” dialog box, which lists all wireless networks within your range.
- **Screen Orientation.** This one shows up mostly on tablet PCs. It lets you rotate the screen image 90 degrees. Click the icon to open the Display Settings control panel for additional screen settings.
- **External Display.** Have you hooked up a second monitor? If so, click the “Add a display” button to make Windows aware of its new responsibilities. Then click the “Display” icon to see whether or not Windows “sees” the second screen. Click the “Display” icon in the Display control panel, where you can configure the resolution and orientation of the second monitor.
- **Sync Center.** The Sync Center is the communications hub for [palmtops and other gizmos that synchronize their data with Windows](#). This tile shows you the status of a sync that’s already under way. Click the icon (or “Sync settings”) to open the Sync Center program, where you can set up new “sync partnerships” between your PC and your extra gizmos (page xx587).
- **Presentation Settings.** This feature is available only in the Professional, Enterprise, and Ultimate editions of Windows 7, but it’s great; it’s the answer to a million

Extra: Depending on graphics manufacturer, ctrl + alt and arrow keys does the same on laptops, rotate screen

Extra: Single to dual-display, Win + p

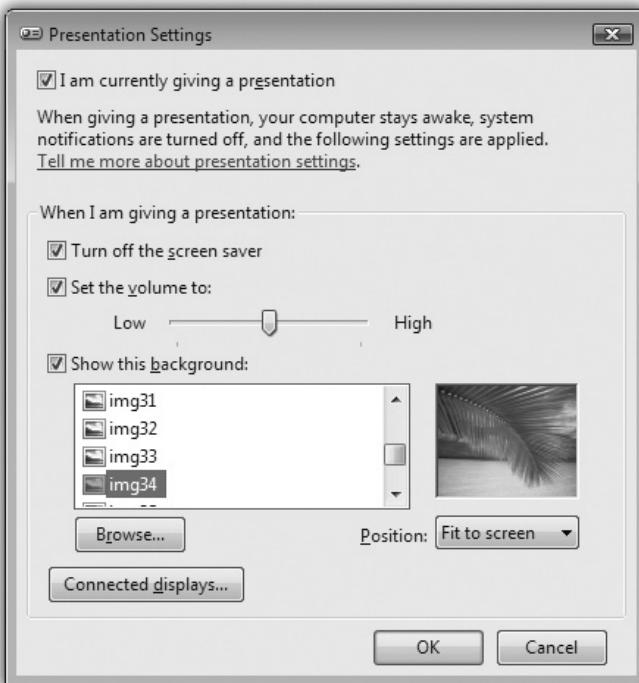


Figure 19-3:

When you’re in Presentation mode, your screen saver and system notifications don’t appear, and your laptop won’t go to sleep. You might also want to specify a piece of uncontroversial artwork for your desktop wallpaper, so your bosses and potential employers won’t accidentally spot the HotBikiniBabes.com JPEG you usually use.

PowerPoint pitchers' prayers. It makes sure that your laptop won't do anything embarrassing while you're in the middle of your boardroom presentation.

Click **"Turn on."** When the tile says "Presenting," your laptop won't go to sleep. No alarms or reminder dialog boxes appear. The screen saver doesn't kick in. You're free to give your pitch in peace. Click the icon to open the Presentation Settings dialog box shown in Figure 19-3.

Note: You also enter Presentation mode when you hook up a network projector (page xx256), or when you connect an external monitor.

Tablet PCs and Touchscreen PCs

Home Premium • Professional • Enterprise • Ultimate

A tablet PC is a laptop or a slate-shaped computer with a touchscreen that you operate with a stylus (pen). In theory, that design means a tablet PC can be thinner and lighter than a laptop, because it can do without a keyboard.

When Microsoft unveiled its concept for the tablet PC in 2002, it was convinced that the tablet was the future. "Within five years, I predict it will be the most popular form of PC sold in America," Bill Gates told the crowd at a keynote speech.

Clearly, that never happened. The tablet PC isn't exactly dead, but its popularity is concentrated in fairly rarefied circles: healthcare, insurance, and so on.

In the meantime, in the age of the Apple iPad, *finger*-touchscreen computers are coming on strong. Windows 7 was designed to handle, in fact, *multitouch* laptops and desktops, where you can touch the screen with two fingers to pinch, spread, or rotate objects, just as on the iPhone.

As a bonus, many of the existing Windows features for *pen*-based computers—digital ink, handwriting recognition, and so on—work very well on this newer breed of touch machines.

Handwriting Recognition

The accuracy and convenience of Window's handwriting recognition have come a very long way—which is fortunate indeed, since some tablet PCs don't have keyboards (or they have keyboards that you can detach). Hey, if tablet PCs can decipher doctors' handwriting, surely you can get your tablet PC to recognize yours.

Using a pop-up transcription window called the Input panel, you can enter text anywhere you can type: Microsoft Word, your email program, your Web browser, and so on. Windows 7 also comes with a special program called Windows Journal that's a note-taking module designed expressly for tablets.

Teaching Windows how you write

The first step in using the handwriting recognition feature is to *train* your PC to recognize your writing. You provide samples of your handwriting, and Windows studies your style.

To get started, open the Start menu. Start typing *handwriting* until you see “Personalize Handwriting Recognition” in the results list; click it. From the options, choose “Teach the recognizer your handwriting style.” Proceed as shown in Figure 19-4.

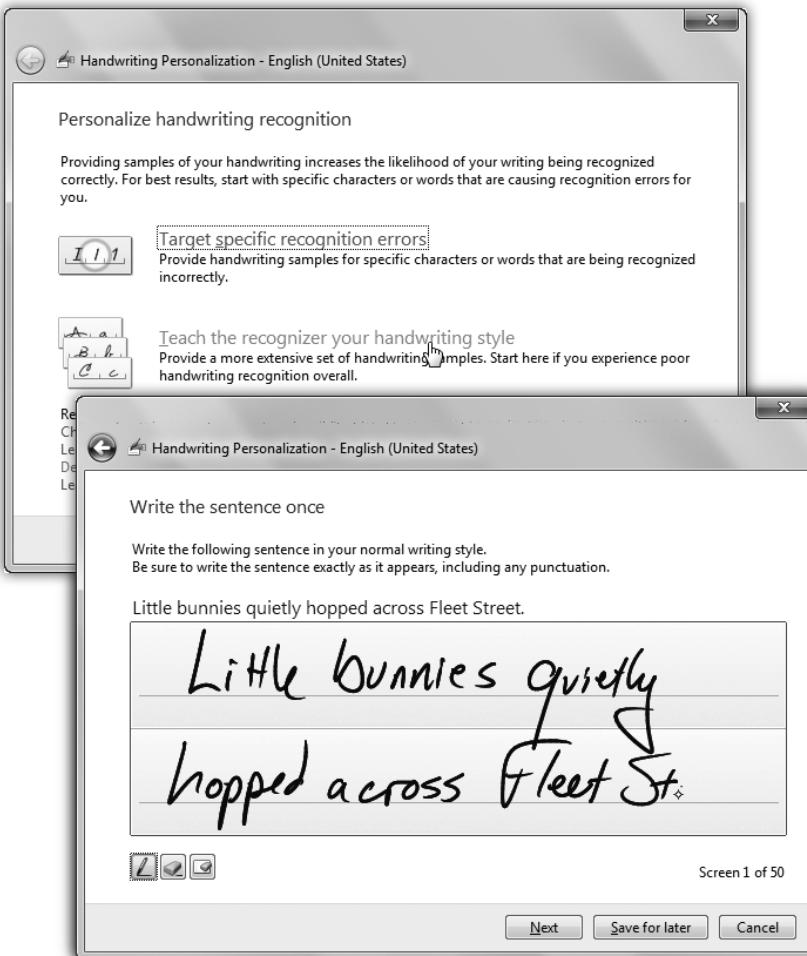
After working through the exercises, you can start using handwriting recognition.

Figure 19-4:

Top: The handwriting recognition training wizard offers you the chance to fix certain recognition errors (good if you’ve been at it awhile), or to teach it your general style (best if you’re just starting out).

You’re offered the chance to write either sentences or numbers, symbols, and letters; for best accuracy, you should work through both. More than once, in fact. (They’re not brief exercises—the Sentences option involves about 50 screens—but it’s all for a good cause.)

Bottom: Write just the way you would on paper—in cursive, printing, or a mixture of both.



Handwriting anywhere

To make Windows recognize your handwriting, open any program where you would otherwise type—a word processor, for example.

Now open the Input panel, which is a floating handwriting window that automatically converts anything you write into typed text (Figure 19-5). You can summon the Input panel in a couple of ways:

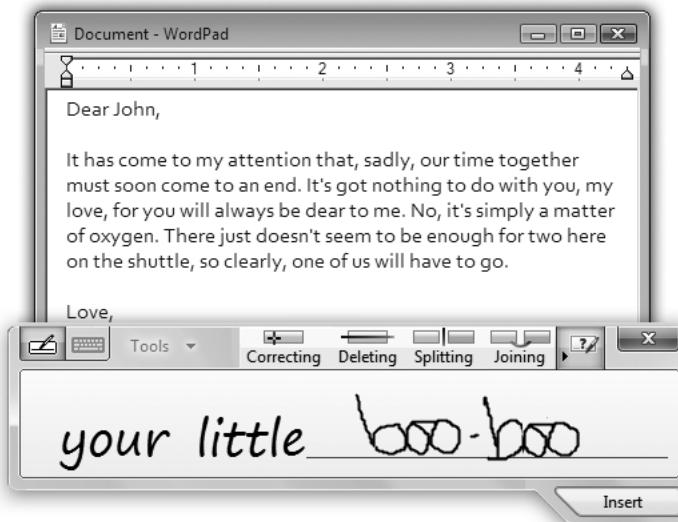
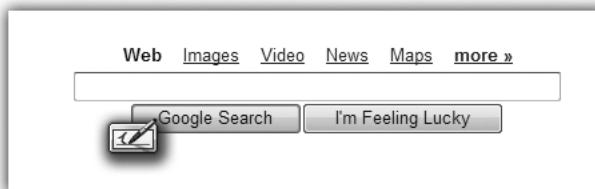
- Tap to put the insertion point in a text-entry area—an empty word processor document or email message, for example, or the address bar of a Web browser. A tiny Input panel *icon* appears right by the insertion point (Figure 19-5, top); tap it.

Figure 19-5:

Top: You can open the Input panel by tapping the Input panel icon that appears next to any selected text box.

Middle: You can also tap the tiny tab that hugs the edge of the screen.

Bottom: Once the Input panel is open, you can use it to enter text into any program at all. If you make an error before hitting the Insert button, you can just scratch it out, with a right-to-left horizontal line, to make it disappear. (Hint: You can customize the heck out of the Input panel—ink thickness, tab appearance, and so on—by choosing Tools→Options within the panel.)



- Tap the Input panel *tab*, which peeks out from the left edge of the screen (Figure 19-5, middle).
- If you have a touchscreen PC that's not technically a tablet, the Input panel may not appear automatically. But you can summon it easily enough. Open the Start menu. Start typing *tablet* until you see "Tablet PC Input Panel" in the results list; click it.

Tip: If you're left-handed, you'll probably want to move the panel to the *right* side of the screen, which you can do by clicking Tools→Options in the Input panel, and then choosing "Right edge of the screen" on the Opening tab.

Once the Input panel is open, the buttons in the top-left corner offer a couple of ways to enter text. (Point without clicking to see their names, or consult Figure 19-6.)

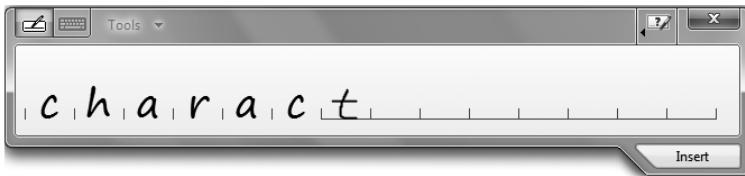


Figure 19-6:
Top: If Windows is having trouble understanding, say, an Eastern European last name, you can open the Character pad by choosing "Write character" on the tools menu. Write letters one by one and wait as they're recognized.

Bottom: The On-Screen keyboard. Use your pen (or your fingers on a touchscreen) to tap letters.



The Writing pad is by far the most convenient method. To use it, just start writing on the line. Use your normal writing style.

The buttons at the top *right* trigger tiny, short animations that illustrate the proper gestures for Correcting, Deleting, Splitting, and Joining words together inside the Input panel, thereby correcting mistakes before they get committed to your document. (You can hide this row of "play video" buttons by clicking the ► button to their right.)

Tip: The little video shows a single straight line, right to left, as the "Delete text" gesture. And it works fine. But it's a lot more fun to use the old one: literally scribble out a word, scritch-scratch up and down a few times to make it disappear.

Now then: The “digital ink” doesn’t just sit there where you wrote it. A split second after you finish each word, Windows transcribes that word into typed text within the Input panel, as shown at bottom in Figure 19-5. Cute how it uses a handwriting-style font to keep you in the mood, eh?

You can edit or correct this transcription while it’s still in the panel, as described below.

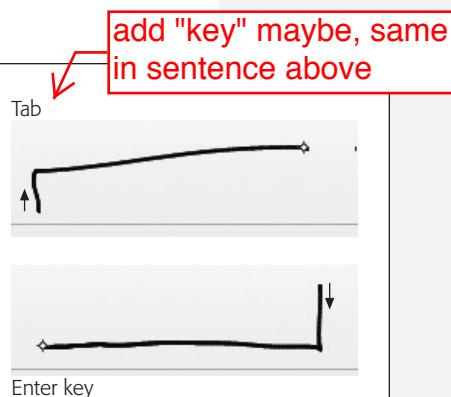
But finally, when you tap the little Insert button, all of this writing and typing vanishes—and the converted, typed text appears in your document or dialog box. (If you’d rather simply point to the Insert button, open the Input panel’s Tools menu and choose Options. On the Insertion tab, choose “Point to the Insert button.”)

Gestures

In the pen-computing world, a *gesture* is a quick pen movement that lets you “type” a space (a long, quick line to the right), a Backspace (long and quick to the left), a press of the Enter key, or a Tab (Figure 19-7).

Figure 19-7:

Mastering gestures can be tricky. If it’s not working for you, try writing faster, or making the horizontal strokes longer.



To try out a gesture or two, make sure the Input panel is *completely empty*. You’re going to draw one of these special shapes in the Input panel, but you’ll see its *effect* in whatever Windows program you’re using. You don’t have to tap Insert or wait, as you do when writing; Windows recognizes the gestures instantly.

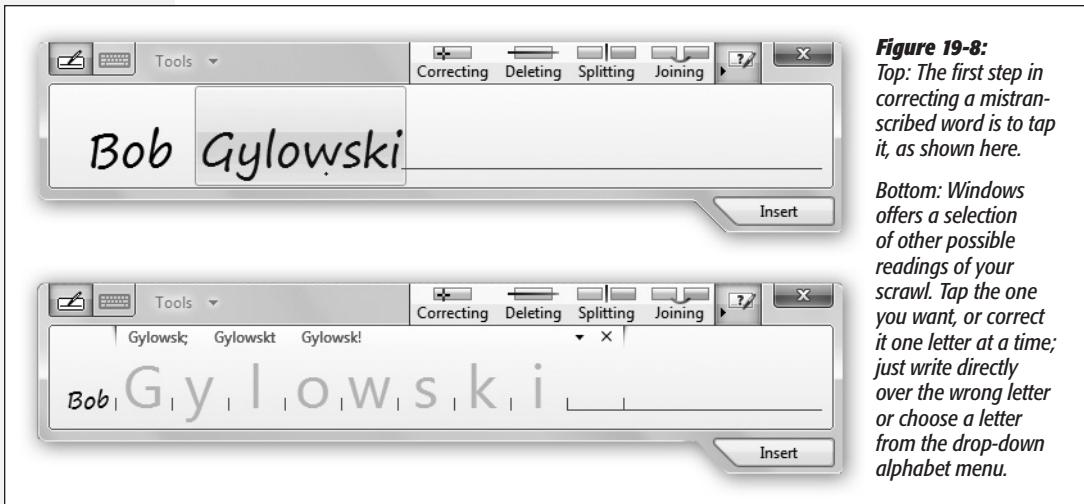
You can also scratch out text in the Writing pad *before* it gets transcribed. Scribble it out just as you’d scratch out handwriting on a real piece of paper. You can draw a straight line through what you’ve written, scribble out with an M or W motion, draw looping scribbles, and so on. The text disappears from the pad.

Fixing mistakes

Windows’s handwriting recognition is amazingly accurate. It is not, however, perfect—in part because your handwriting isn’t either.

Correcting a mistake is important for two reasons. First, it fixes the error in your document—and second, it *teaches* Windows so that it’s less likely to make that mistake

again. Figure 19-8 shows the steps. (This is where the Correcting, Deleting, Splitting, and Joining techniques illustrated by the videos at the top edge of the panel come in very handy.)



The finer points of handwriting recognition

The handwriting recognition feature in Windows 7 is considerably better than it was on the old Windows XP Tablet Edition. Here are a few reasons why:

- **AutoComplete.** As you write items in the Input panel such as email addresses, file-names, or URLs, AutoComplete attempts to save you time by guessing what you're going for. If it's right, tap the guess and enjoy how Windows finishes your word.
- **Scratch-out gestures.** As mentioned earlier, scratch-out gestures let you use your pen to erase anything you've handwritten by scratching it out with the pen.
- **Back-of-pen erase.** Some tablet pens have an "eraser end" that lets you erase text you've written. To find out if your pen is so equipped, flip it upside-down and drag across something you've written. If an eraser icon appears—and your text disappears—then you're one of the lucky ones.
- **Web quick keys.** The Web button in the Input panel opens a panel filled with one-tap bits of Web addresses: http://, www., .com, and so on. It's a lifesaver when you're using your tablet with a Web browser.

Note: Anything you tap on the Num, Sym, or Web panels gets deposited directly into your document. It doesn't first appear in the Input panel, like your handwriting does. After all, Windows is already *sure* of what you intended to type; there's no need for you to approve or correct it.

Some of the old features, meanwhile, are still useful:

Move to next page,
page break

- **Numbers and symbols.** The Input panel displays buttons for Bksp (Backspace), Del (Delete), Tab, Enter, Space, and left and right arrow keys. For ease in entering numbers and symbols, special number and symbol pads are available, too (tap Num or Sym).
- **Add words to the Handwriting Dictionary.** To add a word to the Handwriting Dictionary, write the word neatly in the Writing pad, and correct it if necessary in the Character pad. In the Character pad, tap the tiny arrow; select “Add to handwriting dictionary.” Consider adding your own name, acronyms, and other information you use often.
- **Calibrating.** Calibration involves fine-tuning how accurately your tablet detects the pen’s location. If you feel as though your tablet could benefit from calibration, choose Start→Control Panel. In the Search box, type *Tablet PC Settings*, and then choose this option in the list of results. On the Display tab, under Display Options, click Calibrate.

Tip: Windows Help is full of tips and tricks for getting better handwriting recognition. You’ve just read some of them (add words to the dictionary, recalibrate your screen, use the pads of shortcuts for numbers, symbols, and Web address bits). Help also advises lefties to inform the machine by opening the Tablet PC Settings dialog box from Control Panel and choosing Left-Handed.

Windows Journal

Among programs that work well with handwriting, few can top Windows Journal. It’s a program for taking notes, keeping a journal, or recording info-tidbits as you come across them during the work day. It’s a great tool for students, since it does away with the usual note-taking tools (notebooks, pens, and paper).

When you open it (type *journal* into the Start menu), you’re presented with a blank page of what looks like the lined paper of an old spiral notebook.

Note: The first time you start Windows Journal, click Install when Windows asks if you want to install the Journal Note Writer print driver.

So why not just make your scribbles, doodles, and math equations in a program like Word? Because Word doesn’t accept handwriting—only typed text *converted* from handwriting. Windows Journal, on the other hand, stores the actual graphic representation of anything you write (Figure 19-9).

As you write along, keep in mind that your notes and sketches aren’t locked in Journal forever. For example:

- **Mail it.** Choose File→Send to Mail Recipient to send a page by email. Be sure to choose Journal Note as the format for the message attachment if you want the recipient to be able to open and edit the note in Windows Journal.

Of course, there are a couple of problems with this approach. Some people might not have Windows Journal on their computers, which means they can’t open the

This didn't return anything on a desktop machine, double check this on a tablet.

attachment. You can also send the attachment as a Web page or as a TIFF file. People who receive your message can see the image of the note, but they can't work with it in Windows Journal. If you're using a recent version of Outlook, you can search for and find text you've written in a Windows Journal note that's stored in email.

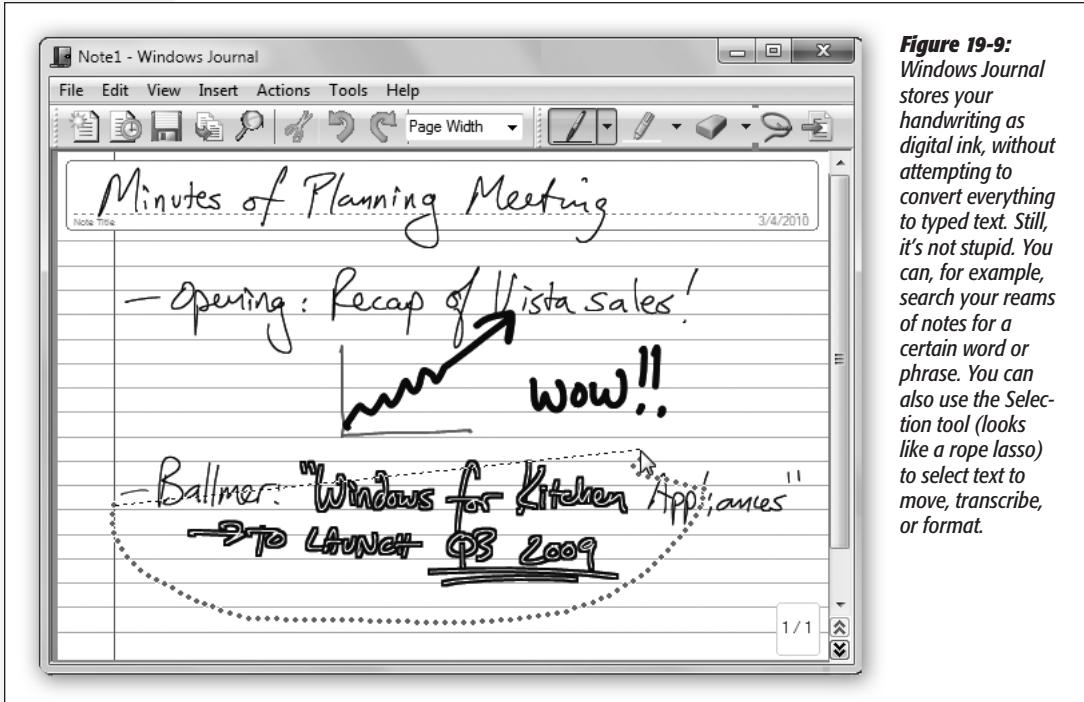


Figure 19-9: Windows Journal stores your handwriting as digital ink, without attempting to convert everything to typed text. Still, it's not stupid. You can, for example, search your reams of notes for a certain word or phrase. You can also use the Selection tool (looks like a rope lasso) to select text to move, transcribe, or format.

You can also select a swath of handwriting and choose Action→Convert Selection to E-mail. Journal does its best to convert the handwriting to text, which it then pastes into an open outgoing email message.

- Export it to a Web archive or a TIFF graphics file (File→Export As).
- Convert parts of it to text. See Figure 19-10.

Tip: Pressing the button on the side of your stylus automatically puts it into Selection mode, saving you a trip to the toolbar or Edit menu.

- Change your “pen.” Select some text, and then choose Edit→“Format ink” to change the thickness, color, and other attributes of the ink style.

Flicks

Pen flicks let you navigate documents and manipulate data using your stylus alone. With a flick of the wrist, you can scroll a page at a time, copy, paste, delete, undo,

Move,
more
suitable
pos?

and so on. You have eight pen flicks available to you: up, down, left, right, and the four diagonals.

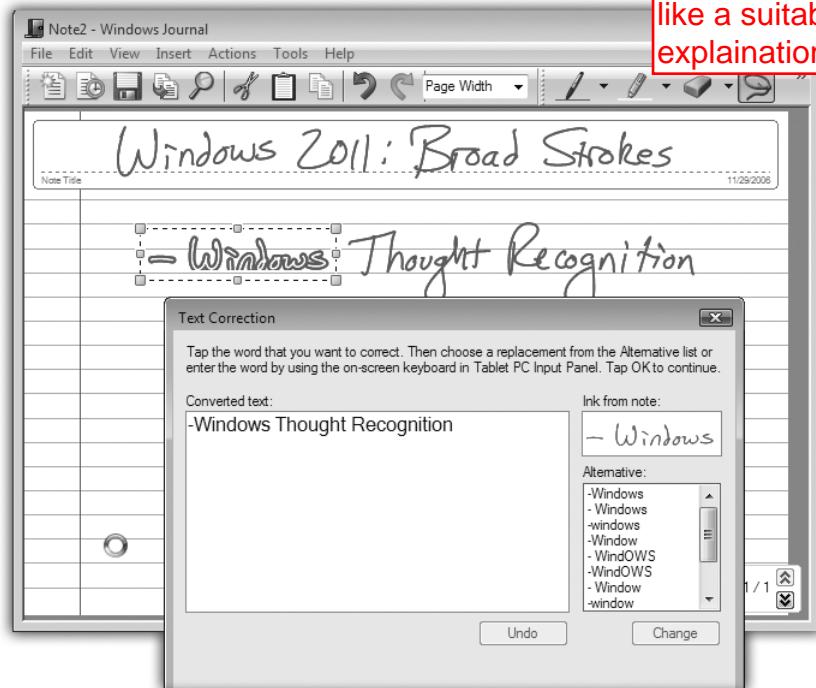
(So what's the difference between a *flick* and a *gesture*? Very little, except that to make a flick, you draw an invisible line across your *document*, rather than in the Input panel.)

To turn on this feature, open the Pen and Touch control panel (start typing *pen and touch* into the Start menu to find it). Once the dialog box opens, click the Flicks tab

Parentheses needed? Seems like a suitable inline explanation.

Figure 19-10:

Use the Selection tool (the rope lasso icon on the toolbar) to select any text you've written (by dragging a circle or oval around it); at that point, you can choose Action → Convert Handwriting to Text to turn the writing into typed text, suitable for pasting into another program or depositing right there on the Journal page.



The Flicks tab opens. Turn on “Use flicks...” at the top of the dialog box. At this point, you get only four flicks: up and down (for scrolling) and left and right (for Back and Forward, as in a Web browser). If you ~~turn on~~ “Navigational flicks and editing flicks,” however, you add the diagonal options, making flicks even more useful.

At the bottom, click “Practice using flicks.” The Flicks Training dialog box opens, probably startling you with the sudden appearance of an actual *video* that shows someone scrolling with the pen.

When you click Next, you're offered the opportunity to practice the flicking technique. It suggests that you draw short lines “as though you were brushing something off the screen with the tip of the pen,” which is well put.

For consistency in the above paragraph

Period outside of parentheses, might be tricky parentheses rule.

Figure 19-10 shows the built-in flick movements for Page Up and Page Down, Forward and Back, Delete, Copy, Paste, and Undo. You can change these assignments if you'd prefer (click Customize on the Flicks tab), either by rearranging the flick directions or assigning entirely different functions to them: Save, Open, Print, press the Alt key (or Ctrl, Shift, or ) , and so on. Figure 19-11 shows how.

Tablet and touch settings

If you get into flicking, you should know that, since Microsoft is Microsoft, you have a long list of customizations and tweaks available to you. Open the Pen and Touch control panel (page xx575). (Fastest way to get there: Open the Start menu. Start typing *pen and* until you see “Pen and Touch” in the results list; click it.)

Tip: If you have a tablet, you can make life easier for yourself by adding the Pen and Touch control panel to the top of your Start menu, where it's easy to get to. Click Start→Control Panel. Click Hardware and Sound. Drag Pen and Touch—either the little pen icon or the words “Pen and Touch”—to the Start button. Without releasing the mouse, wait for the Start menu to open, and then drop the icon at the top-right corner of the Start menu. You can now get to the settings quickly.

Figure 19-11 shows both the Pen and Touch control panel and the Tablet PC Settings control panel. Each offers useful adjustments for touch computing. Neither makes clear why they're two separate programs.

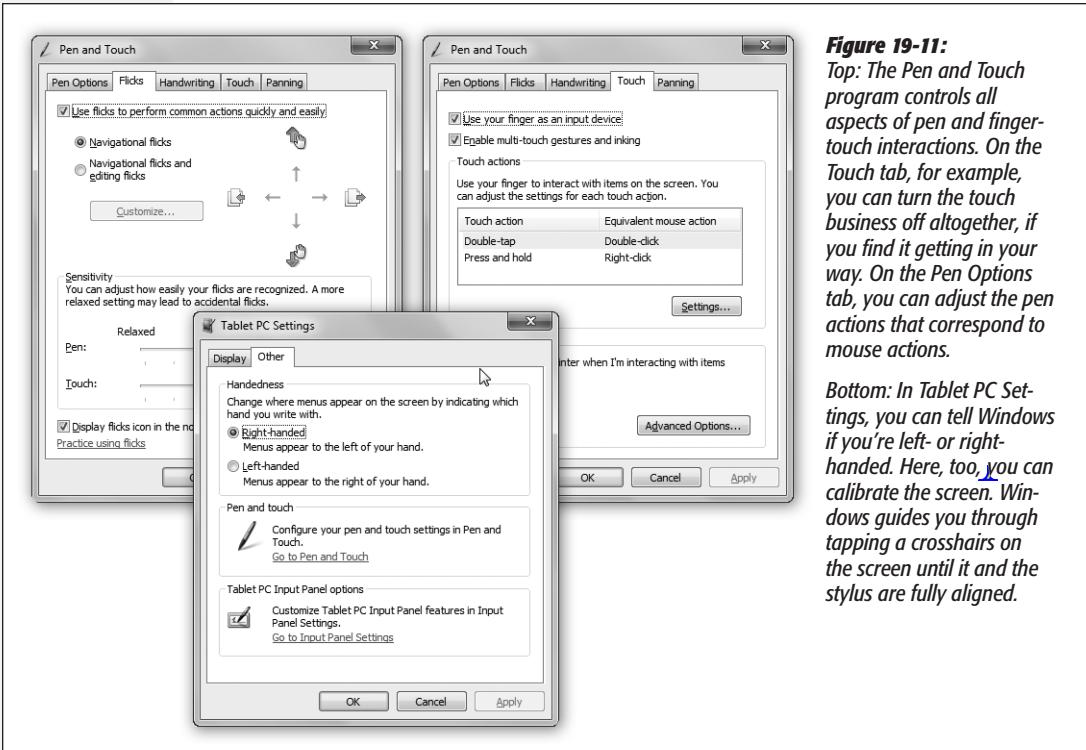


Figure 19-11: Top: The Pen and Touch program controls all aspects of pen and finger-touch interactions. On the Touch tab, for example, you can turn the touch business off altogether, if you find it getting in your way. On the Pen Options tab, you can adjust the pen actions that correspond to mouse actions.

Bottom: In Tablet PC Settings, you can tell Windows if you're left- or right-handed. Here, too, you can calibrate the screen. Windows guides you through tapping a crosshairs on the screen until it and the stylus are fully aligned.

Windows Touch

Home Premium • Professional • Enterprise • Ultimate

On a tablet PC, you navigate and operate your PC with gestures, flicks, and the touch of your pen. *Touchscreen* PCs, available as both laptops and desktops (usually all-in-one designs), take you one step further: You can scroll Web pages, select music and photos, zoom in and out, rotate things, or open documents by touching the screen with your *fingers*.

Windows 7 has *multitouch* features built in, meaning that—if your PC has a multitouch screen—you can use two fingers on the screen, iPhone style, to perform common commands. To imitate a right-click of the mouse, for example, you touch a file's icon with one finger and tap the screen with another.

All through Windows 7, you'll find indications that Microsoft designed Windows 7 with touch in mind. That's one reason icons on the taskbar are larger than before, making them more accessible to your touch. Jump lists are easily managed on a touchscreen. The onscreen keyboard, originally designed for tablets, has been upgraded for fingertip operation.

Touch Gestures

If your PC has a multitouch screen, here are the four basic built-in Windows 7 multitouch gestures that work at the desktop and in many programs:

- **Panning** is like scrolling with the mouse; it works anytime scroll bars are visible in a window. You can drag one or two fingers up, down, left, or right. (The problem with one-finger dragging is that you might accidentally select what's under your finger—a line of text, for example. Two-finger dragging is therefore usually safer.)

The faster you drag, the faster you scroll.

- **Flicking** is a quick horizontal swipe with one finger. It's the same thing as clicking a Back or Forward button—in your Web browser or Windows Explorer, for example. When you've opened a photo (in, for example, Windows Live Photo Gallery), flicking means next/previous photo.
- **Zooming** works just as it does on an iPhone or iPod Touch. Place two fingers on the screen. Spreading them apart zooms in (enlarges a smaller area of a picture or a map); pinching them together zooms out for a larger view. This feature works in most basic Microsoft programs: Internet Explorer, [Microsoft's various photo programs](#), Microsoft Office, and so on.
- **Rotating** a picture, a PDF page, or another object involves placing two fingers against the screen, then rotating them clockwise or counterclockwise.
- **Right-clicking**, to open something's shortcut menu, is done like this: While touching the object with one finger, tap another spot on the screen with a second finger.

Tip: You can use and customize flicks with a touchscreen PC in the same way you can use them with a tablet PC.

These gestures are supposed to work in all programs, even those that haven't been designed especially for touchscreens. Your mileage, however, may vary.

Minor Tweaks

Other nods to the new finger-driven generation are lurking everywhere in Windows 7. For example, on a touchscreen PC, you'll notice these changes:

- The Show Desktop button (far right of the taskbar) is twice as wide.
- Windows snap against the edge of the screen with more “magnetism,” so you don't have to be as precise.
- When you open a jump list (page xx) by flicking upward from a taskbar icon, the commands in it are spaced more widely than usual, for easier targeting with a finger.
- In Paint, you can paint with two fingers at once (or as many as your computer's multitouch screen is designed to track simultaneously).
- In Windows Media Center, you can swipe up, down, left, or right from most screens.
- The Hearts and Solitaire games have been rewritten for touch control.

Note: You can turn multitouch input off, if you like, in the Pen and Touch control panel. (But why?) Here, you can also set up custom touch actions to match common mouse actions.

Nex Firefox release, 3.6, will have Windows 7 touch support. Chrome unknown.

UP TO SPEED

Touch and Internet Explorer

Windows Touch and Internet Explorer go especially well together. There's something about the direct manipulation of Web links and buttons on the screen that makes this combination appealing.

All the usual two-finger gestures work here: panning (scrolling), zooming, and flicking (to go back or forward a page).

You can swipe downward from the address bar to see the list of recent Web sites and bookmarks, rather than having to aim for the tiny arrow next to it—and the resulting menu has extra-wide spacing, for greater finger comfort.

But links on traditional Web pages can be tiny—too tiny for fat fingers. There are, however, some workarounds.

For example, a two-finger tap zooms into that spot on any Web page, which is especially handy when you want to magnify the area of a link you want to tap, making a bigger target.

You can return the page to normal size with another two-finger tap. (Of course, you can also zoom in much more, and with much greater control, using the two-finger spreading gesture described above. Pinch to shrink the page back down.)

Remember, too, that you can flick right or left to simulate clicks on the Back or Forward buttons.

Finally, try this: To open a link in a new tab, don't just click it; drag it a short way in any direction. (It takes practice.)

Windows Mobile

All Versions

Windows Mobile isn't really Windows. It's a much smaller, simpler series of operating systems designed for cellphones, palmtops, ultra-mobile PCs, and portable media centers (handheld [music/video/photo](#) players).

All of them have certain Windows-esque interface elements—a Start menu is a common one—but they are not, in fact, all the same.

The Sync Center in Windows 7 is designed to keep Windows Mobile gadgets up to date with the latest info on your PC, including your email, address book, and calendar. (More information about the Sync Center follows.) It's probably not as full-featured as the software that came with your device. It's primarily designed to do a couple of things:

- Sync up a gadget with Microsoft Outlook.
- Sync up a laptop with a network server's files, in a feature called Offline Files.

Offline Files & Sync Center

Professional • Enterprise • Ultimate

The *offline files feature* is designed for laptop lovers. It lets you carry off files that generally live on your office network, so you can get some work done while you're away.

Then, when you return and connect your laptop to the office network, Windows automatically copies your edited, updated documents back to their original locations on the network, intelligently keeping straight which copies are the most recent. (And vice versa—if people changed the network copies while you were away, Windows copies them onto your laptop.)

Tip: If your purpose is to have the same files waiting for you at home that are on your PC at work, Windows Live Sync is a better choice. See page xx.

Offline Files is a great feature for corporate workers, which explains why it's not available in all versions of Windows 7. And it's been greatly simplified since the Windows XP version. For example, reconnecting to the network now triggers an automatic, seamless, invisible synchronization of the files you worked on while you were away—there's no more alert balloon, no need to shut down all programs and manually trigger the sync, and so on.

You can also command Windows to sync at more specific times: every time you connect to the network, for example, or at 3:00 a.m.

Preparing to Leave the Network

To tell Windows which files and folders you want to take away with you on the laptop, find them on the network. Proceed as shown in Figure 19-12.

Note: If you can't seem to make this work, it may be because the Offline Files master switch has been turned off. Open the Start menu. Start typing *offline* until you see "Manage offline files" in the results list; click it. On the General tab of the Offline Files dialog box, the Enable Offline Files button awaits. (Unless Offline Files is already turned on, in which case the button says "Disable offline files.")

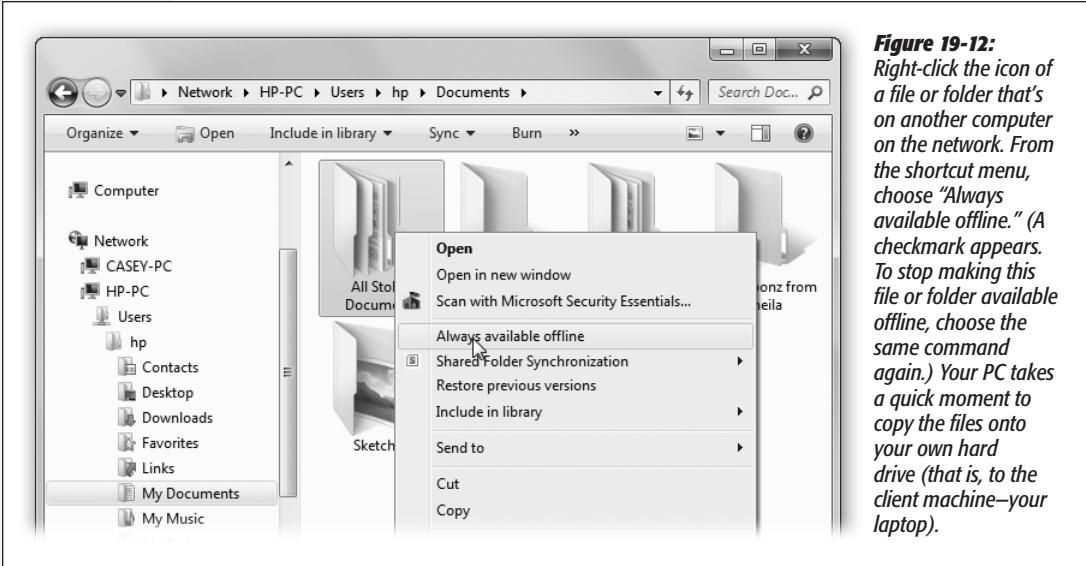


Figure 19-12: Right-click the icon of a file or folder that's on another computer on the network. From the shortcut menu, choose "Always available offline." (A checkmark appears. To stop making this file or folder available offline, choose the same command again.) Your PC takes a quick moment to copy the files onto your own hard drive (that is, to the client machine—your laptop).

Windows now takes a moment—well, quite a few moments, actually—to copy the selected files and folders to your laptop. Fortunately, it works in the background, between your mouse clicks and keystrokes.

Note: If somebody on the network is actually using those files right now—has them open—you'll get an error message at this point. Wait until those documents are closed, and then try again.

It's an excellent idea to synchronize your folders manually every time you're about to leave the network, so the files on your laptop are up to date. (In fact, if you're away and you try to edit an out-of-date file, Windows won't even let you open it!)

To trigger the syncing, right-click the folder; from the shortcut menu, choose "Sync selected offline files." See "The Sync Schedule," below, for some other approaches.

Working Offline

Now suppose you're untethered from the network, and you have a moment to get some work done. You can find the synced folders in three different places:

- **In the ghost of the networked PC.** This might seem weird, but you can actually navigate to the **PC** that originally stored those offline folders in the usual way—clicking its name in the Network folder in the Navigation pane, for example—even though you're no longer connected to it. Burrow into its folders far enough, and

you'll eventually find the folder you “subscribed” to, just as though you were still connected. (The folders you *haven't* subscribed to show up with X icons, indicating that you can't open them now.)

Tip: The folders you've subscribed to appear with a special green Offline Files logo. If you click it, the Details pane indicates that, indeed, this folder is “Always available.”

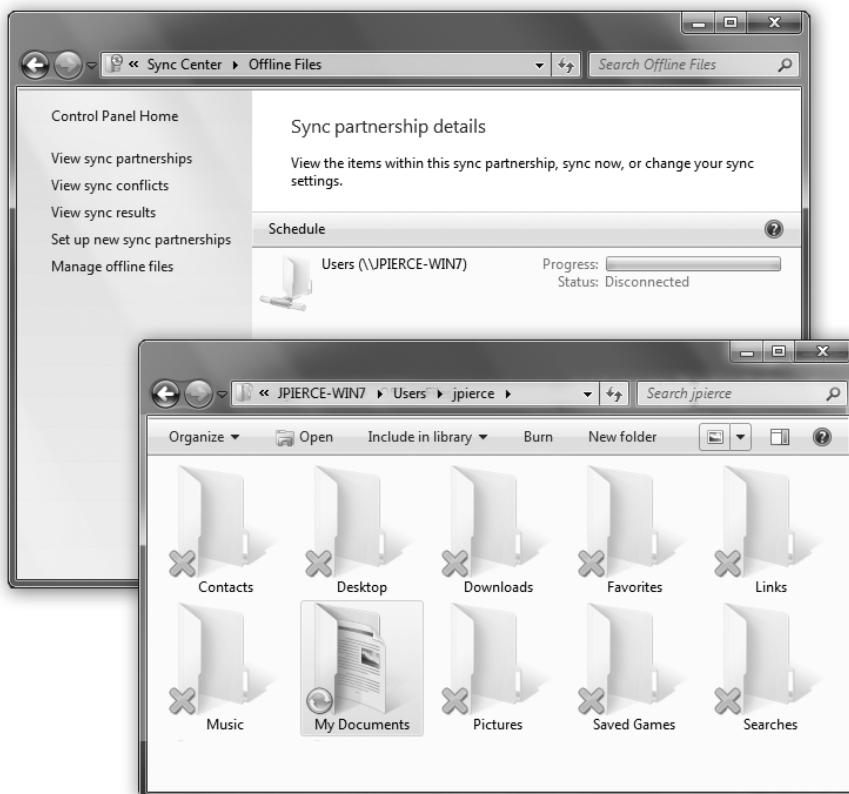
- **In the Offline Files folder.** To see a complete list of all offline files from all PCs, open the Start menu and type *offline files*. Click “Manage offline files”; in the resulting dialog box, click “View your offline files.”
- **In the Sync Center, described below.**

There, before you, is a list of all the folders to which you “subscribed” before you left the network. In fact, you also see icons for *all* the folders that were in that networked folder. Only the ones you explicitly requested are available, however; the rest display X's, as shown in Figure 19-13.

Figure 19-13:

Top: When you open Sync Center, double-clicking Offline Files shows you a list of the folders you added to your offline list.

Bottom: The folders you've subscribed to appear in green, with a special logo; the surrounding folders display X's to remind you that you haven't requested them for offline use.



You're free to work with offline files and folders exactly as you would if you were still connected to the network. You can revise, edit, and duplicate files, and even create new documents inside offline folders. The permissions remain the same as when you connect to the network.

Tip: Sometimes, you want to work with your laptop copies (not than the network copies) even if you're still on the network—if, say, the network connection is not so much *absent* as *slow*. To do that, open the folder on the network that contains the offline files. On the toolbar, click "Work offline."

Reconnecting to the Network

Now suppose you return from your jaunt away from the office. You sit down on your desk and reconnect the network cable.

Once Windows discovers that it's home again, it whirls into action, comparing your set of offline files and folders with the master set on the network. (This process is much faster than it was in Windows XP, because Windows 7 copies only the changed *pieces* of each file—not the entire file.)

Might come in from Wifi/3G/Internet (VPN). But cable works for generalization.

NOSTALGIA CORNER

The Briefcase

The trouble with progress is that it entails change—and when you change things, somebody, somewhere is going to be upset. Just ask Microsoft's Windows division.

Anyway, Windows 7 may have the Sync Center, but it also still has the Briefcase, which is something like its predecessor. Microsoft plays it *way* down, to the point of invisibility. But it still does one thing the Sync Center can't do. It keeps your files straight between two PCs (as opposed to one PC and a network server). That's handy when you transport files from desktop to laptop, or from home to work. If you learn to use the Briefcase, you'll be less likely to lose track of which copies of your documents are the most current.

To use the Briefcase, start by adding a Briefcase icon on your desktop. To do so, right-click any spot on the desktop; from the shortcut menu, choose New→Briefcase. A new icon appears, called New Briefcase. (If you're feeling inspired, rename it as you would any folder.)

Now round up the icons of the documents you'll work on when away from your main PC. Drag them onto the Briefcase icon. Windows copies the files into this special temporary holding tank.

Connect your laptop to the desktop PC, if you haven't already. (See Chapter 24 for tips on connecting machines.) Or, if you plan to take your files with you on a USB flash drive, insert it. Drag the Briefcase icon onto the laptop or the flash drive.

You're ready to leave your office. When you get to wherever you're going, open and edit the documents in the copied Briefcase "folder" icon. Whatever you do, don't move those files. (For example, work on the documents right on the flash drive.)

If the copied Briefcase is actually on the laptop's hard drive (not a flash drive), Windows can keep track of changes made to the documents on *both* computers, the original and the copy.

When you return to your main PC, reconnect the laptop or reinsert the flash drive. All your careful step-following is about to pay off.

Right-click the briefcase icon; from the shortcut menu, choose Update All. Windows copies the edited files back to their original folders on your desktop-PC hard drive, automatically replacing the older, original copies.

Add some reference to "Offline files" to get the mind off Briefcase from above

Along the way, Windows 7 attempts to handle discrepancies between the two sets of files as best it can. For example:

- If your copy and a network copy of a file don't match, Windows wipes out the older version with the newer version, so both locations have exactly the same edition.
- If you deleted your copy of a file, or if somebody on the network deleted the original, Windows deletes the corresponding file so that it no longer exists on either machine. (That's assuming that nobody edited the file in the meantime.)
- If somebody added a file to the network copy of a folder, you get a copy of it in your laptop's copy of the folder.
- If you've edited an offline file that somebody on the network has deleted in the meantime, Windows offers you the choice to save your version on the network or to delete it from your laptop.
- If you delete a file from your hard drive that somebody else on the network has edited in the meantime, Windows deletes the offline file from your hard drive but doesn't delete the network copy from the network.
- If both your copy and the network copy of a file were edited while you were away, a balloon in the notification area notifies you of the conflict. Click it to open the Sync Center, where you can decide which version "wins." (Until you do that, the file in question remains offline, on your laptop.)

Makes more sense in this order?!

The Sync Schedule

Ordinarily, Windows updates your offline files each time you connect to the network. (It also updates the folder a couple of times a day while you're still connected.)

If you're about to catch a flight, however, and you're nervous that you might not have the latest versions of all the network files you need, you can force Windows to do the entire copying job *right now*.

GEM IN THE ROUGH

Windows SideShow

Device lovers, take note. SideShow, which was introduced in Windows Vista, is a feature built into a few—very few—portable computers and mobile phones. Microsoft had high hopes for it, but the feature has disappeared almost completely.

Still, for the record: SideShow-compatible devices use a tiny display screen to show you certain kinds of important information—your calendar, new email, the time or weather, your address book, a PowerPoint slide—even if the laptop is turned off or asleep.

With a SideShow machine, you can specify which gadget (mini-program) you want to see. You can download gadgets by clicking Start and typing *gadgets* into the Search box. Then click "Get more gadgets online." Check out Windows Help and Support to learn more about installing a device that's compatible with Windows SideShow. (You can run SideShow gadgets on your desktop to preview them; just right-click the desktop, and from the shortcut menu, choose Gadgets, just as you would for regular gadgets.)

The quickest way to do that is to open the offline folder and then click the Sync icon on its toolbar.

Tip: You can even sync *one individual file* if you have to. Right-click it, and choose Sync from the shortcut menu. (The Sync buttons are available only while you are, in fact, connected to the network.)

If you'd like more control over the timing of the syncing, you should fire up the Sync Center (type *sync center* into the Start menu to find it). You get the special window shown in Figure 19-14, top.

Figure 19-14:
Top: Double-click Offline Files to see a summary of all the folders you've "subscribed" to.

Bottom: Click Offline Files; in the toolbar, click Schedule. Now a wizard walks you through an *interview* that lets you control when the syncing happens—not only at what time, but when certain triggers (like connecting or disconnecting) take place.

Note: In the old days, the Sync Center was also the hub for syncing Windows Mobile phones and music players with your PC. In Windows 7, the Sync Center is exclusively for managing offline files. Use the Device Stage, or the syncing software that came with your gadget, to handle those other gizmos.

