

iPod & iTunes

Second Edition

Covers
iTunes Music Store
(Mac & PC) and
the iPod Mini



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The iPod Sync Connection

Sleek and smart as the iPod may be, it can't do much by itself until it meets up with a computer. Once connected to a Mac or PC, however, the iPod is ready to accept whatever you want to give it—your whole music library, of course, but also everything from the complete recorded works of Tom Petty to your phone book, from news and calendar information to files too big to fit on a burned CD.

This chapter is dedicated to that concept of iPod as Satellite to Your Computer. It explains FireWire and USB 2.0, and how to use these connections to get songs and files off the mother ship and onto the ultraportable, ready-to-go iPod.

FireWire

Apart from boosting magazine sales, there's never been much value in sitting in front of the computer, waiting for large files to copy onto external drives and other add-ons. In the eternal search for faster data-transfer speeds, Apple developed a new high-speed cable called FireWire in the mid-1990s. It's easy to use, it's *hot-swappable* (you don't have to turn off anything before plugging or unplugging the cable), and—unlike SCSI cables, which came before it—it doesn't force you to go through configuration acrobatics to get multiple devices to all work properly.

Dozens of other companies, including Windows PC makers, eventually picked up FireWire. Some gave it other names along the way: IEEE 1394 (its official moniker from the Institute of Electrical and Electronics Engineers, an industry standards group) and i.LINK, used primarily by Sony. But whatever the name, it's still the same speedy connection underneath.

With its ability to move 400 megabits of data per second, FireWire was quickly adopted by a product that needs to get an enormous amount of information from Point A to Point B: the digital camcorder. Other hardware with a need for speed, like external CD burners and hard drives, followed the path to FireWire connectivity.

FireWire's speed makes possible one of the iPod's best tricks: slurping in an entire CD's worth of music from your computer in ten seconds. It's also how the iPod gets its battery charge. That's great if you have a Macintosh, because every Macintosh made since about 1998 has a FireWire connector built right in (see Figure 2-1).

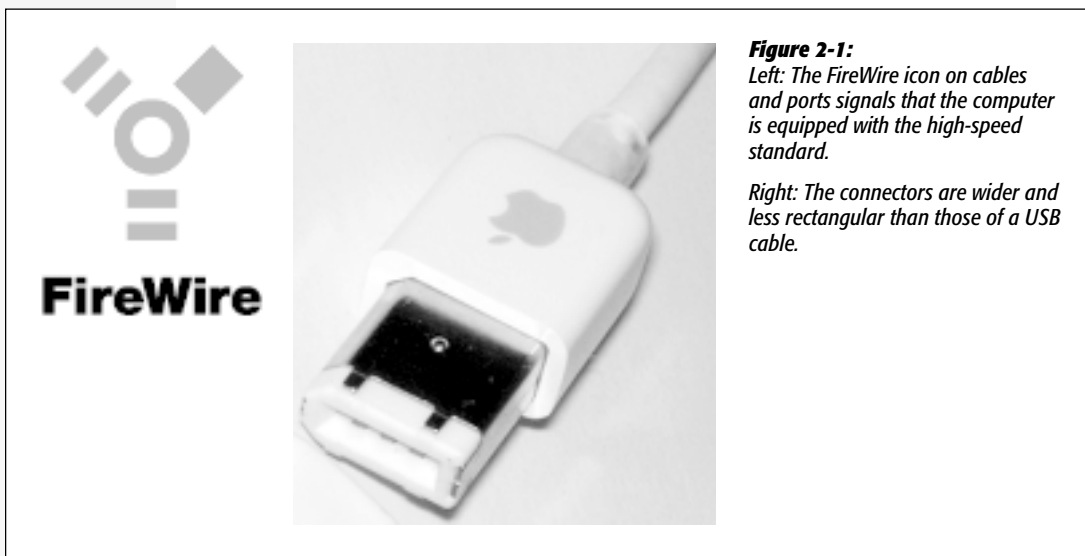


Figure 2-1:

Left: The FireWire icon on cables and ports signals that the computer is equipped with the high-speed standard.

Right: The connectors are wider and less rectangular than those of a USB cable.

If you're a Windows PC fan, however, FireWire isn't such a sure thing. If you bought an iPod and then found out to your horror that your computer doesn't *have* a FireWire port, you have two alternatives.

First, you can add a FireWire card to your computer, as described later in this chapter.

Second, if you have a 2003 (or later) iPod model, you can connect your iPod via a USB cable—a far more common PC connector. See page 40 for details.

Connecting Your iPod by FireWire

If you have a Mac, connecting the iPod is simple: Just plug in the FireWire cable.

If you have a PC, things are slightly more complicated, because there are so many different kinds of connectors your PC might have. For example:

- **FireWire connector, 6-pin.** If the white FireWire cable that came with your full-size iPod fits a socket on your PC's FireWire card, great! Connect the far end to the iPod, and you're ready to rock. (As a bonus, your iPod may even get its power charge from the same cable, depending on which brand of FireWire card you have.)

- **FireWire connector, 4-pin.** The FireWire cable that comes with the full-size iPod has a fattish 6-pin connector at one end. It doesn't fit the smaller 4-pin connectors common on Windows FireWire cards.

Fortunately, you also got a small white 4-pin adapter in the box. It fits over the *end* of the included 6-pin cable (see Figure 2-2). Just snap the adapter onto one end of the cable and plug it into the PC's port. Then plug the other end into the iPod (or its dock, if you have one).

The iPod Mini's FireWire cable has only a 6-pin connector, and it doesn't come with the adapter. You can buy one from a computer store—or you can just use USB 2.0 instead.

Note: Don't forget to connect the AC adapter. You can't charge an iPod from a 4-pin connector.

Figure 2-2:

The FireWire cable adapter included with full-size iPods snaps over the end of the standard 6-pin FireWire cable. The smaller 4-pin end then plugs into the PC. Sony Vaio laptops are among the computers that need the 4-pin adapter. The iPod Mini doesn't include the cable adapter, but you get your choice of a whole 6-pin FireWire cable or a USB 2.0 cable to use instead.



Installing a FireWire Card

Most computer stores, both retail and online, sell FireWire/1394 expansion cards (Figure 2-3); they're available for both desktop and laptop computers. FireWire cards designed for desktop machines fit into one of the computer's spare PCI slots on the motherboard, making the new FireWire ports available on the back of the case along with all the other port connectors.

There are expansion cards for FireWire, USB 2.0, and even combo cards that let you add ports for FireWire *and* USB 2.0 if you really want to go whole-hog toward faster data-transfer speeds. A basic FireWire card generally sells for less than \$60, a relatively small price to pay to give your computer the gift of FireWire.

FireWire cards for laptops, which are generally more expensive than the PCI cards, snap into the CardBus slot on the laptop. (CardBus is a ramped-up version of the PC cards used with laptops.) Most laptops manufactured after 1999 can handle CardBus cards, in either FireWire or USB 2.0 flavors.

Before you buy a FireWire card, make sure it's compatible with your operating system and hardware configuration. If you're pressed for time, you can go straight to proven, Apple-approved goods by buying a Belkin PCI expansion card and a PC-ready CardBus FireWire 400 card from the Apple Web site.

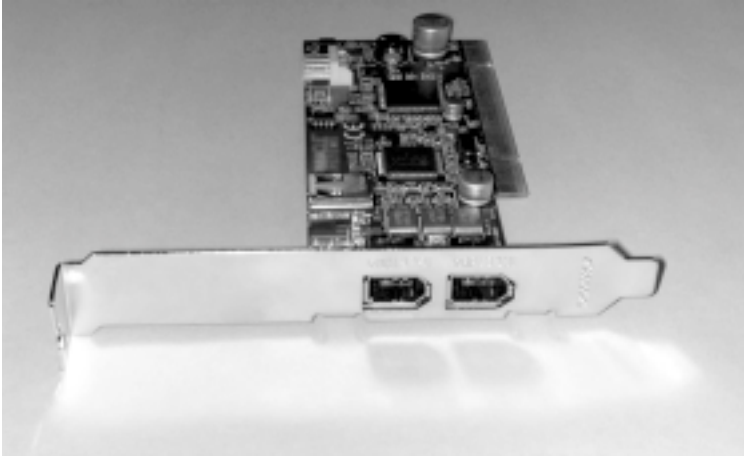


Figure 2-3:
FireWire cards come in all shapes and sizes and can add two, three, or four FireWire ports to a computer. The cards snap into an empty PCI slot on the computer's motherboard. Adding a FireWire card will allow you to use FireWire-enabled devices like digital camcorders, CD burners, and iPods.

Installing the Card

Your package will have instructions on how to install the FireWire card, but the general process is straightforward.

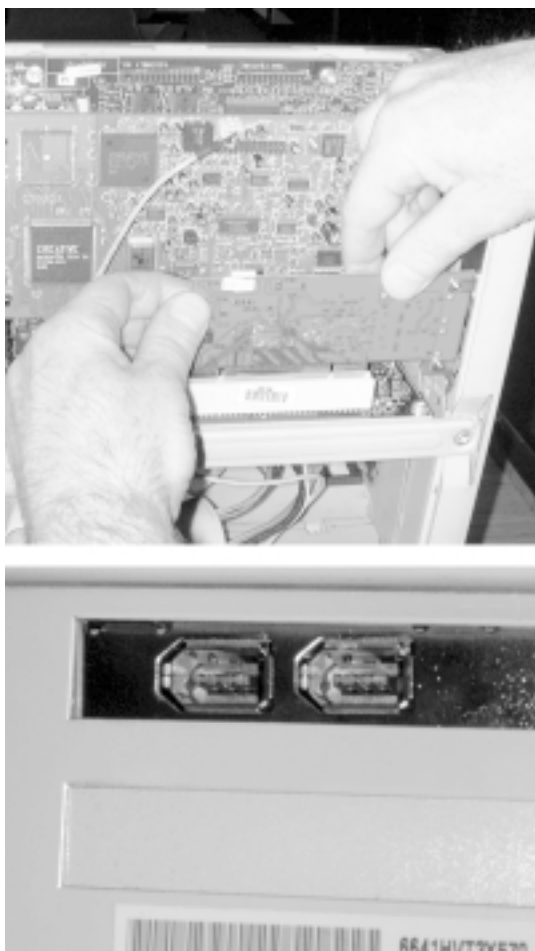
- First, turn off the computer and unplug it. Depending on the design of your computer, you may need to unplug all of the cables and cords coming out of the back in order to get to get the outer case off. You may also need a screwdriver.
- Static electricity is the enemy of an exposed circuit board, so discharge any built-up electricity in your body before poking around the PC. Touching the metal power supply (a big silver box inside the computer) or any metal on the back of the computer should release any pent-up static.
- Remove your new FireWire card from the antistatic bag it came in. Hold the card by the edges, making sure not to get your fingers on the metal connectors that go into the computer slot.
- Locate an empty PCI slot on the computer's motherboard. The PCI slots are usually in the back, rimmed with white plastic the same length as the connector strip on the bottom of the FireWire card. You may have to remove the screw that holds the card bracket to the inside of the computer's case. Remove the bracket and screw and set it aside.

- Line up the metal connectors on the bottom edge of the FireWire card over the empty PCI slot, making sure that the FireWire ports are facing the back of the computer. Press down firmly and evenly on both ends of the card, pushing it into the slot until the card is securely seated, as shown in Figure 2-4.
- Replace the screw you removed earlier, affixing the card in place inside the case. Replace the computer's outer case, reattach the cables and cords, and turn on the machine.

Figure 2-4:

Top: Remove any metal brackets shielding the back of the computer and gently push the FireWire card into the white plastic PCI slot on the computer's motherboard until it clicks onto place.

Bottom: After installation, the exposed FireWire ports are available alongside the rest of your PC's ports.



Nudging Windows

Once you've taken the trouble get a FireWire card (and its software) into your PC, you may need to take an extra step to make sure that Windows knows it's there.

- **Windows 2000 and XP.** Right-click My Computer; from the shortcut menu, choose Properties. In the System Properties box that results, click the Hardware tab, and then the Device Manager.

After the Device manager window opens, look down the list of devices and double-click “IEEE 1394 Bus Host Controllers.” If the card is installed correctly, you should see its name in the window. To further examine the card, click the General tab. In the Device Status field, you see a message saying that “This device is working properly.”

- **Windows Me (for use with MusicMatch Jukebox only).** Right-click My Computer; from the shortcut menu, choose Properties. In the System Properties box, click the Device Manager tab and then the OK button. Look for “1394 Bus Controller” and double-click it.

Click Host Controller, then click Properties to get the Host Controller window. You can see the status of the new FireWire card in the Device Status field. If everything is as it should be, you see the words, “This device is working properly.”

If you don’t see this message of acceptance from Windows, check to make sure the FireWire card is firmly seated in its PCI slot inside the computer and that you’ve installed any software drivers that came with the card.

USB 2.0

These days, you don’t have to use FireWire as the iPod-to-computer connection. If you own a 2003 or later iPod model, another option awaits you: USB 2.0.

Note: If you have a Windows PC, you can use a USB 2.0 cable for *any* 2003-or-later iPod, including the iPod Mini.

Make sure you connect the USB cable directly to a high-powered port on the PC or a powered USB hub. Low- or unpowered USB jacks, as on the side of a keyboard, don’t have enough mojo for your Mini.

About USB 2.0

Before USB 2.0 hit the streets, a FireWire connection was the fastest way to transfer big chunks of data onto a computer from devices like digital camcorders, external hard drives, and CD burners. FireWire, which transfers data at 400 megabits per second, whips the plastic off a USB 1.1 connection (about 12 megabits per second).

When USB 2.0 products began to crowd store shelves around 2002, FireWire was left in the dust, speed-wise. USB 2.0 (also known as Hi-Speed USB) can whisk data from device to device at 480 megabits per second. USB 2.0 is also backwards compatible, so people with a box full of USB 1.1 mice, scanners, and other peripherals can still plug in and use their old devices in USB 2.0 ports, even if they don’t get the 2.0 speed boost.

Note: Those are megabits, not megabytes. Data transfer speeds are traditionally measured in *megabits per second*; disk and file sizes are measured in *megabytes* (MB).

There are eight bits in a byte. To put USB and FireWire into more familiar terms, then, USB can transfer files at up to 1.5 MB per second. FireWire can move 50 MB of data per second, and USB 2.0 can shuttle to 60 MB per second.

(FireWire isn't standing still, of course; there's now FireWire 800, which, as you can probably guess, moves data at 800 megabits per second. To add to the confusion, the original FireWire standard is now sometimes called FireWire 400. FireWire 800 is available on high-end Macintosh computers and peripherals, but has not yet made the leap to the iPod.)

Connecting with USB 2.0

If you've got a PC with an USB 2 port, you can skip FireWire altogether. You can sync the iPod with USB 2 instead—if you have what it takes:

- **The proper iPod.** USB 2 requires a 2003-and-later iPod model, including the iPod Mini.
- **The proper operating system.** You need Windows Me, 2000, or XP.
- **iPod Software version 2.0.1 or later.** To find out what version you have, use the Settings→About command on your iPod. If you don't have the latest, download it from www.apple.com/ipod/download. (To learn how to update your iPod software, see page 296.)
- **The proper cable.** If you have a full-size iPod, buy Apple's \$20 combo FireWire/USB 2.0 cable from the Apple Web site or a computer store. This cable has a flat, wide iPod Dock connector plug on one end; the forked far end has both USB 2.0 and FireWire connectors. Plug the flat end onto the iPod (or its Dock) and the USB end into the PC.

You won't need the FireWire end of the cable until it's time to *charge* the iPod. The FireWire end snaps into the iPod's AC adapter and seeks its power from the nearest electrical outlet.

If you have an iPod Mini, a USB 2 cable came right in the box. Connect it straight into the Mini or its dock, and plug the other end into a PC. As a bonus, this cable charges up your Mini whenever it's connected to the computer.

Tip: Technically, you can sync your iPod via regular USB, even if your PC has only regular USB (not 2.0). You can use the same Apple cable. After all, USB 2.0 and USB 1.1 are compatible and use the same connector plug.

Remember, though, that USB 1.1 is very slow compared with 2.0. You may want to plan a day's worth of activities while leaving the PC and iPod to their data-transfer duet. (A performance of Wagner's entire *Ring Cycle* or the Boston marathon should do it.)

The iPod Software CD

The CD that comes with the iPod contains all the software you need to get up and iPodding in no time (Figure 2-5). (There's only one CD in the box of the latest iPod models. The iPod CD installer program is smart enough to figure out what kind of computer you're using and show you only the Mac or Windows installer on the disc.)

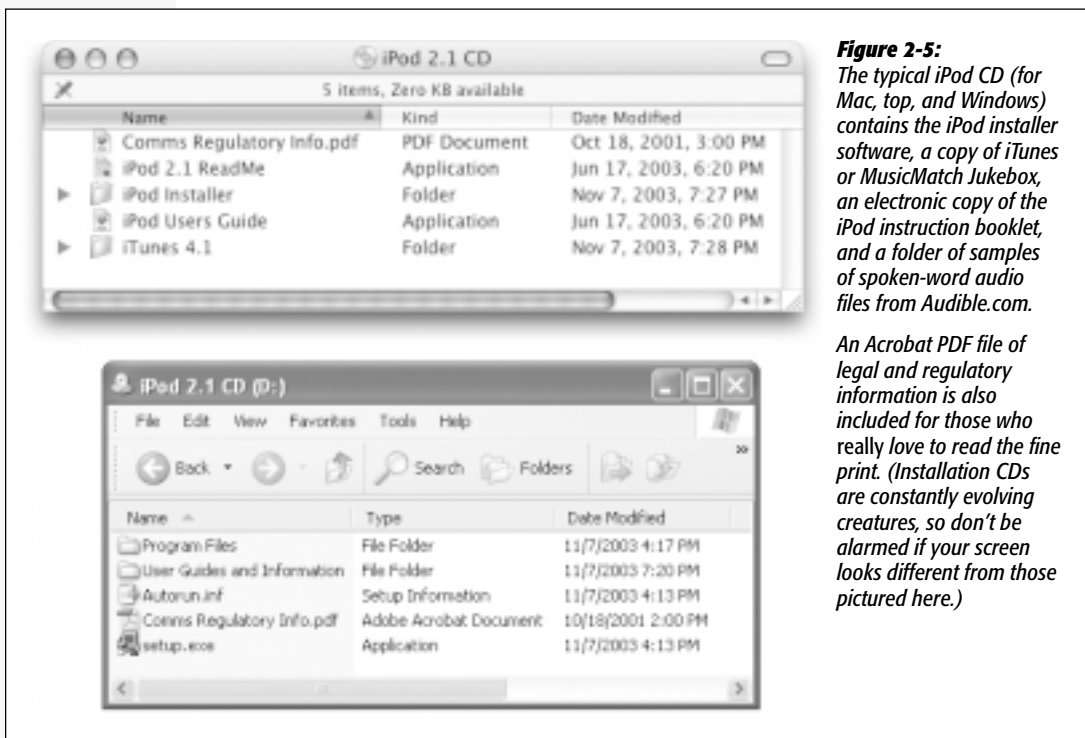


Figure 2-5: The typical iPod CD (for Mac, top, and Windows) contains the iPod installer software, a copy of iTunes or MusicMatch Jukebox, an electronic copy of the iPod instruction booklet, and a folder of samples of spoken-word audio files from Audible.com.

An Acrobat PDF file of legal and regulatory information is also included for those who really love to read the fine print. (Installation CDs are constantly evolving creatures, so don't be alarmed if your screen looks different from those pictured here.)

The Macintosh CD

Early versions of the iPod CD included software for both Mac OS 9 and Mac OS X. But beginning with the 2003 iPods, Apple expects you to use Mac OS X 10.1.5 or later. Recent versions of the iPod CD come with iTunes 4; if that's not the version you have, download the latest version of iTunes at www.apple.com/itunes.

Note: If you're a stalwart Mac OS 9 fan, there's still hope. Some people have reported being able to get a new iPod to work with iTunes 2 and the latest version of Mac OS 9, although sometimes erratically. A few folks have come up with detailed workarounds (like those described at www.phaster.com/ipod_hacks), but they're not for the technically faint of heart. If you want to use a new iPod in all its glory—with the iTunes Music Store, iSync, and other goodies described in this book—it's best to do it with the operating system Apple recommends.

To install the software, insert the iPod CD into the Mac. If necessary, install the iTunes jukebox software from the CD or download the latest version from Apple's Web site.

The iPod has an operating system of its own, too (see page 246), but you don't need to install it; it's already on your iPod. However, double-clicking the installer in the iPod Installer folder puts a copy of the iPod installer program on your Mac, so you'll have it handy if you ever need to reinstall the iPod's system software.

Along the way, you'll be asked for your iPod's serial number and your registration number.

When the software installer finishes, put the CD in a safe place. You'll need it if you ever need to reinstall your programs after a hard drive crash.

The first time you connect the iPod to the Mac, iTunes starts right up to greet it.

The Windows CD

If you have a PC, the software installer starts automatically when you insert the CD. (If you or someone you love has turned off the CD auto-start feature on your PC, open My Computer, and then open the icon for the CD-ROM drive. Locate and double-click the Setup.exe program on the disc; you can see this icon in Figure 2-5 at the bottom. Finally, click the Install button to kick-start the installation process.)

The installer gives you all the necessary iPod drivers, plus a handsome piece of jukebox software to organize your music and download it to the iPod:

- **iTunes for Windows.** This free software is arguably the best jukebox software available for Windows. It gives you access to Apple's online \$1-a-song music store (Chapter 6) and does a beautiful job of organizing, searching, and playing your tunes (Chapter 4).

There are only two reasons why you wouldn't want to install iTunes. First, it requires Windows 2000 or XP, and you might have something earlier. Second, you might already be using MusicMatch Jukebox—and love it.

Fortunately, iTunes isn't your only option.

- **MusicMatch Jukebox Plus.** If you're using an earlier version of Windows, or you're already using MusicMatch and you're perfectly happy there (and don't intend to use the iTunes Music Store), you're in luck. MusicMatch can also talk to, and work with, the iPod—and it, too, is free. Chapter 5 shows you how to use it.

Tip: If your CD came with only MusicMatch Jukebox and you'd prefer iTunes, go to www.apple.com/itunes and grab yourself a copy of the latest version for Windows.

When you install MusicMatch, you have to type in the serial number from the sleeve of your iPod's CD (if, indeed, your CD came with MusicMatch Jukebox; the latest iPod CD doesn't). It's responsible for turning the free version of the software to the full version called MusicMatch Jukebox Plus, which includes a

speed bump of 25 percent when ripping CD tracks to MP3 format and other goodies for working with CDs.

Tip: If MusicMatch asks whether you want to check its Web site for an updated version, decline the favor. Newer versions may not work with the iPod unless you do some plug-in tinkering; check with the Apple or MusicMatch Web site before proceeding. When in doubt, stick with the version that came on your iPod CD, which is specifically designed to work with Windows-based iPods. Version Hell details on page 116.

By the way, you should note that the iPod can sync with only one program. You must commit to *either* iTunes *or* MusicMatch Jukebox—the sooner the better. If you download and install iTunes after you install MusicMatch Jukebox, the iPod will automatically switch to iTunes with the next sync, and the songs you import from then on will go into the iTunes Music folder.

If you decide that you really liked MusicMatch Jukebox better, you'll have to uninstall iTunes and reinstall the MusicMatch software. See page 116 for details on *that* afternoon of fun.

A Windows Note for Current iPod Models

Back in the Olde Days of the iPod (2002), Macintosh and Windows iPods were preformatted at the factory and sold separately as Macintosh iPods or Windows iPods.

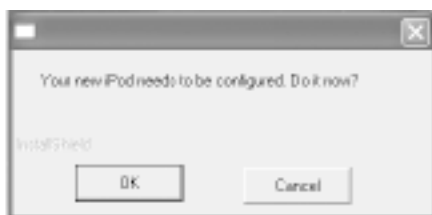


Figure 2-6:
It's not quite as dramatic a moment as watching a butterfly emerge, but the transformation of a brand-new iPod into a Windows iPod is beautiful in its own right.

Top: The installer asks whether you want to "configure" the iPod—that is, reformat it with the Windows FAT32 disk-formatting scheme.

Bottom: The iPod set-up process offers you the chance to install iTunes on the PC.

Although you might never suspect it, however, *all* 2003 and later iPods come out of their boxes formatted for *Macintosh*. When you run the setup program on a Windows PC, behind the scenes, it actually reformats your iPod's hard drive for Windows. See Figure 2-6 for details.

Your Very First Sync

For most people, the goal with any new electronics purchase is to get the new toy working right away so the fun can begin. For new iPod owners, getting to The Fun can be a very short wait. After unpacking the iPod and all its accessories, charging it up as described in Chapter 1, and installing the software, you're ready to dive in.

The First Sync (If You Use iTunes)

You may already have Apple's free iTunes program and plenty of songs stored in its music library. If so, the first synchronization between iPod and computer can be astoundingly simple. As soon as you connect the new iPod to the Mac or PC, iTunes opens automatically and begins copying your entire music library to the player (see Figure 2-7).

Tip: If you *don't* want iTunes to appear automatically every time the iPod is connected, you can turn off this option in the iPod Preferences dialog box (Figure 2-9).

Figure 2-7: The Source list (left side) displays an icon for the iPod whenever it's connected, as well as your music library, list of playlists, songs from the iTunes Music Store, and Internet radio stations. The bottom of the window shows the amount of space left on the iPod, the number of songs, and consecutive days the iPod can play music without repeating songs.



If you don't have iTunes or any MP3 files on your hard drive already, you'll have to install iTunes and snag some music files from your music CDs (Chapter 4) or download some songs from the Web (Chapter 3). Once you have a library of music built up that you'd like to transfer to the iPod, just plug it in, let iTunes open, and watch the two machines talk music together.

The First Sync (If You Use MusicMatch)

Once all the necessary software is installed, connect the iPod to the PC as described earlier in this chapter.

The Portables Plus window

When you plug in your iPod for the first time, MusicMatch Jukebox opens automatically. In a few seconds, another window pops up next to the Library window: the Portables Plus window (Figure 2-8).

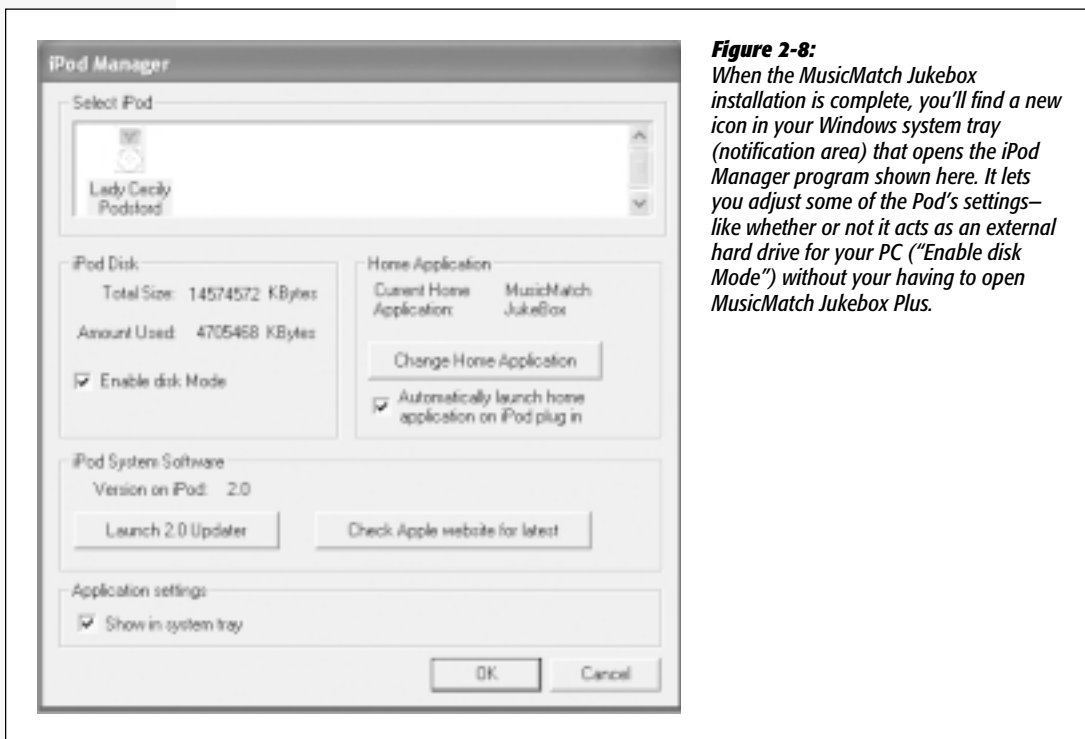


Figure 2-8: When the MusicMatch Jukebox installation is complete, you'll find a new icon in your Windows system tray (notification area) that opens the iPod Manager program shown here. It lets you adjust some of the Pod's settings—like whether or not it acts as an external hard drive for your PC ("Enable disk Mode") without your having to open MusicMatch Jukebox Plus.

The Portables Plus window (called the Portable Device Manager in the MusicMatch online help) is your portal to managing music on the iPod. If your iPod appears in the list, under the heading Attached Portable Devices, in the left pane of the box, then you know MusicMatch Jukebox has recognized it and is ready to shovel some symphonies the iPod's way.

In any case, if all is well, MusicMatch automatically transfers all of the songs in the PC's music library to the iPod. A status bar in the MusicMatch window keeps you abreast of the transfer situation.

Variations on the Auto-Transfer Theme

The beauty of the iTunes/iPod system is that whatever music you add to your Mac or PC gets added to the iPod automatically, effortlessly, quickly. You've always got your entire music collection with you. Just plugging in the iPod inspires iTunes (or MusicMatch) to open up and begin syncing.

It's conceivable, however, that you won't always want complete and automatic syncing to take place whenever you connect the iPod. Maybe you use the iPod primarily as an external hard drive (Chapter 11), so you don't especially care to have iTunes jumping up like a West Highland terrier every time you plug in the iPod. Maybe you want to synchronize only *some* of your music, not all of it.

Fortunately, you're in complete control of the situation.

Stop Auto-Opening iTunes (or MusicMatch)

If you like, you can command your jukebox software to open only when *you* want it to, rather than every time the iPod is plugged in.

- **iTunes.** When the iPod plugged in, click its icon in the Source list. Then click the iPod-shaped icon in the bottom right part of the iTunes window (identified in Figure 2-9). The iPod's Preferences box appears, where you can turn off the "Open iTunes when attached" checkbox.
- **MusicMatch.** Look for your iPod in the Portables Plus box, right-click it, and choose Options from the shortcut menu. Click the iPod tab in the box, and turn off "Automatically launch MusicMatch Jukebox on device connection." Click OK.

Tip: With MusicMatch Jukebox and 2003-and-later iPods, you can also turn off the auto-launch in the iPod Manager box, which appears when you click the iPod icon in the Windows system tray. Turn off "Automatically launch application on iPod plug in."

Transfer Only Some Songs

The auto-sync option pretty much removes any thought process required to move music to the iPod. But if you'd rather take control of the process, or you just want to transfer *some* songs or playlists, you can change the synchronization settings.

To control how this syncing goes, proceed like this:

- **iTunes (Mac and Windows).** With the main iTunes window open, click the name of your iPod in the Source list on the left side of the window. Look at the bottom of the iPod window for the four small buttons along the right side (Figure 2-9). Click the first button, which has a small graphic of an iPod on it, to open the iPod Preferences dialog box.
- **MusicMatch Jukebox.** When MusicMatch Jukebox opens after you plug the iPod in, the Portables Plus box also opens (Figure 2-10). The iPod's name appears in the list on the left side of the window.

There are two ways to open the Options box that lets you change your syncing preferences, as shown in Figure 2-10.

Once the Options dialog box is open, click the third tab, labeled Synchronization.

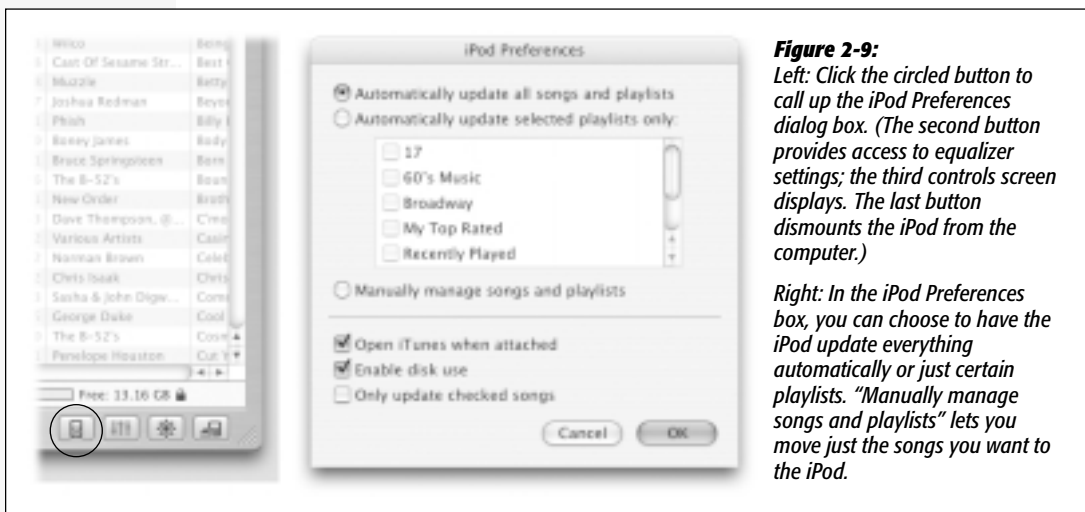


Figure 2-9: Left: Click the circled button to call up the iPod Preferences dialog box. (The second button provides access to equalizer settings; the third controls screen displays. The last button dismounts the iPod from the computer.)

Right: In the iPod Preferences box, you can choose to have the iPod update everything automatically or just certain playlists. “Manually manage songs and playlists” lets you move just the songs you want to the iPod.

Whether you’re using Mac or Windows, the dialog box before you lets you control how the autosyncing of your music library goes:

Complete automatic synchronization

The wording is a little different—“Automatically update all songs and playlists” (iTunes) or “Complete library synchronization” (MusicMatch Jukebox)—but the effect is the same. Your computer’s music collection and your iPod’s are kept identical, no matter what songs you add or remove from the computer.

If you have a PalmPilot or PocketPC, you may be thinking to yourself: “Ah, sweet synchronization! I won’t have to worry about losing any data, because everything is updated all the time no matter where I input them!”

There is a difference, however: Unlike a palmtop, the iPod’s synchronization with the computer is a one-way street. If a song isn’t in iTunes or MusicMatch, it won’t be on your iPod. Delete a song from iTunes or MusicMatch Jukebox, and it disappears from the iPod the next time you sync up.

Tip: One exception to that last remark: MusicMatch Jukebox offers an autosync option that never whacks tracks on the iPod, even if you’ve deleted them from the PC. It’s the Ignore Content Deletions checkbox shown in Figure 2-10.

This, of course, is the iPod’s system for preventing music piracy. If song copying were a two-way street, people could wander around with their iPods, collecting songs

from any computers they came across, and then copy the whole mass back up to their home computers.

On the bright side, the autosync system means that you never worry about which songs are where. With the autosync option, what is in the computer's music library is on the iPod, and that's that.

Figure 2-10:
Scenes from Music-Match.

Top: When the iPod is connected and the Portables Plus window is before you, there are two ways to open the Options dialog box. One way is to click the Options button in the lower-right corner. The other is to right-click the iPod icon at the left, and choose Options from the shortcut menu, as shown here.

Bottom: The Synchronization tab lets you change the way your iPod syncs its library to the PC. Turning off "Automatically synchronize on device connections" stops the computer from trying to download the entire music library to the iPod. You can also sync up only the selected playlists. The "Ignore all content deletions" option stops MusicMatch from erasing iPod songs that aren't in its own library.



Sync up selected playlists only

Choosing to only sync up only certain playlists can save you some time, because you avoid copying the entire music library each time. This tactic is helpful when, say, you have a workout playlist that you fuss with and freshen up each week. You can

choose to update only that playlist instead of waiting around for the whole iPod to sync. (This feature is also handy if you're a multi-iPod household. Each iPodder can maintain a separate playlist.)

Once you turn on “Automatically update selected playlists only” (iTunes) or “Selected playlist synchronization” (MusicMatch Jukebox), you're shown a list of the playlists you've created (see Chapters 4 and 5). Turn on the ones you want synced.

Manually manage songs and playlists

There may be times when you don't want any automatic synchronization at all. Maybe, for example, you've deleted some audio files from your hard drive that you still want to keep on your iPod. If you leave automatic syncing turned on, iTunes or MusicMatch will erase any songs from the iPod that it doesn't have itself.

- **Manual control in iTunes.** In iTunes for Mac or PC, turning on “Manually manage songs and playlists” means that no music will be auto-copied to the iPod. You'll have to do all the copying yourself.

Note: When you turn on this option, iTunes says, “Disabling automatic update requires manually unmounting the iPod before each disconnect.” It's telling you that from now on, when you're finished working with the iPod, you'll have to click the Eject button in the lower-right corner of the iTunes window. This action safely releases the iPod from the computer connection.

From now on, you'll have to drag songs onto the iPod manually (Figure 2-11). After you close the iPod Preferences box, click the small triangle next to your iPod in the Source list. It reveals all the songs and playlists on the iPod, which work just like any other iTunes playlists (see Chapter 4).

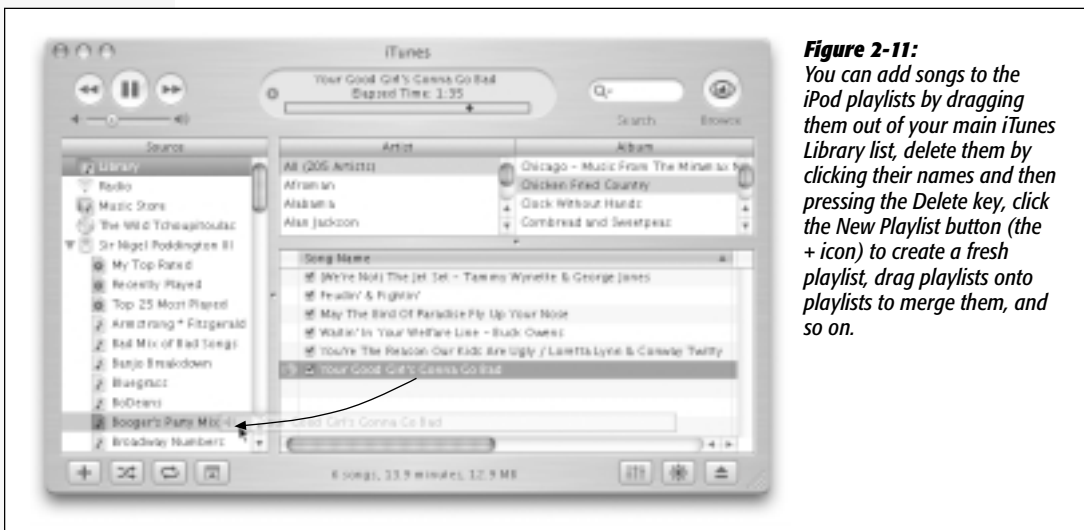


Figure 2-11: You can add songs to the iPod playlists by dragging them out of your main iTunes Library list, delete them by clicking their names and then pressing the Delete key, click the New Playlist button (the + icon) to create a fresh playlist, drag playlists onto playlists to merge them, and so on.

To delete songs off the iPod, click its icon in your iTunes Source list. Then, in the main song-list window, click the songs you don't want anymore, and then press Delete. The songs will vanish, both from the iPod's list in iTunes and from the iPod itself.

Tip: The Only Update Checked Songs option in the iPod Preferences box (Figure 2-9) can be useful in this situation. It ensures that iTunes will update the iPod only with songs whose title checkmarks you've turned on. If you have songs that aren't part of your iTunes music library, make sure they're unchecked—and therefore unerased—during an automatic synchronization.

- **Manual control in MusicMatch Jukebox.** To turn off autosync in Windows, connect your iPod. When MusicMatch Jukebox brings up the Portables Plus window, open the Options dialog box (see Figure 2-10 for instructions).

Click the Synchronization tab and turn off “Automatically synchronize device upon connection.”

Once you've deactivated automatic synchronization, what's on the iPod is up to you. You can add songs to it by dragging them from the My Library window onto the iPod's track list in the Portables Plus window. Or right-click the iPod icon and choose Add Track(s) to iPod from the shortcut menu. Or click Add at the bottom of the Portables Plus window.

In any case, when you're ready to perform the synchronization that you've lined up like this, click the Sync button in the right corner.

TROUBLESHOOTING MOMENT

“Do Not Disconnect”

The universal symbol for NO!, pictured as a circle with a slash through it (⊘), is a common sight when the iPod is connected to the Macintosh or PC. It appears whenever the two drives are busy exchanging music and data (and probably a little hard-disk humor on the side). If you're using the iPod as an external hard disk, or you've turned off the iPod's automatic synchronization feature, you'll see a lot of this Dr. ⊘.

Breaking the connection while all this is going on can result in lost files and possibly a scrambled song. So if you need to unplug the iPod and get going for work, be sure to *unmount* it properly (remove its icon from the screen) first.

Macintosh: You can disconnect the iPod by clicking the

Eject button in the iTunes window; by dragging the desktop icon of the iPod into the Mac's Trash; or by Control-clicking the iPod icon on your screen and choosing Eject from the contextual menu.

Windows: With the iPod selected in the iTunes Source list, click the Eject button in the lower right corner of the window to safely unmount the iPod. In MusicMatch Jukebox, click Eject in the lower-left corner of the Portables Plus window (Figure 2-9).

When you've ejected the iPod correctly, its screen flashes a large happy check mark (older iPods) or pulls up the standard main menu, ready for action (2003 and later models).

Tip: You can send a freshly created playlist and its accompanying songs right to the iPod by clicking Send in the MusicMatch Jukebox Plus Playlist window.

To delete songs or playlists from the iPod, right-click the item and choose Remove from the shortcut menu, or click the unwanted material and then click Remove in the Portables Plus window. (Deleting a playlist doesn't remove its songs from your iPod.)

Tip: You can change your iPod's name to something more exotic or memorable than just "iPod" or "[Your name]'s iPod" in a couple of different places. In iTunes, click its icon in the Source list once to highlight it, pause, and click again to open the renaming box. Type away.

In MusicMatch Jukebox, in the iPod Options box (Figure 2-10), click the iPod tab and type in a new handle in the box marked Device Name.

The Unspeakable Act: iPod-to-Computer Copying

The iPod was designed to be the destination of a one-way trip for your tunes: music slides down the cable *to* the iPod, but songs on the player never make the trip back to the Mac or PC.

This design was perfectly intentional on the part of its creators. As noted earlier, Apple's position appears on a sticker on every iPod: "Don't steal music." If the iPod let you copy music both ways, people might be tempted to turn the device into a pocket music-sharing service, capable of copying free copyrighted songs from computer to computer.

The truth is, though, that not everyone who wants to upload songs from the iPod to a computer is stealing music. You may perfectly have legitimate reasons for wanting to be able to do so.

For example, say your computer's hard drive self-destructs, vaporizing the 945 MP3 files that you've made from your paid-for CD collection. You legally own those copies. Shouldn't you have the right to retrieve them from your own iPod?

Most people would answer "yes." Some might even thump their fists on the table for emphasis.

And then they would clear their throats and ask, "Well, how can I do it, should I ever need to copy files off my iPod?"

Note: Once again, the following methods are printed here not to encourage you to steal music, but instead to help you back up and manage the songs that you already own.

The Hidden World of the iPod

Turning the iPod into a FireWire hard drive (Chapter 11) lets you copy everyday computer files back and forth from your Mac or PC. But when it comes to your *music* files, you won't even be able to *find* them. The iPod and its music management programs use a special database for storing and organizing the music files—and it's invisible.

The name of the super-secret invisible iPod music folder is called iPod_Control, and there are software utilities for both the Mac and the PC that can make it visible. Here are a few of the easiest and most reliable.

Copying Files to the Macintosh

A quick search on “iPod” on the VersionTracker.com Web site (www.versiontracker.com) or on any of the hardcore iPod fan sites mentioned in Chapter 16, will bring up plenty of iPod programs.

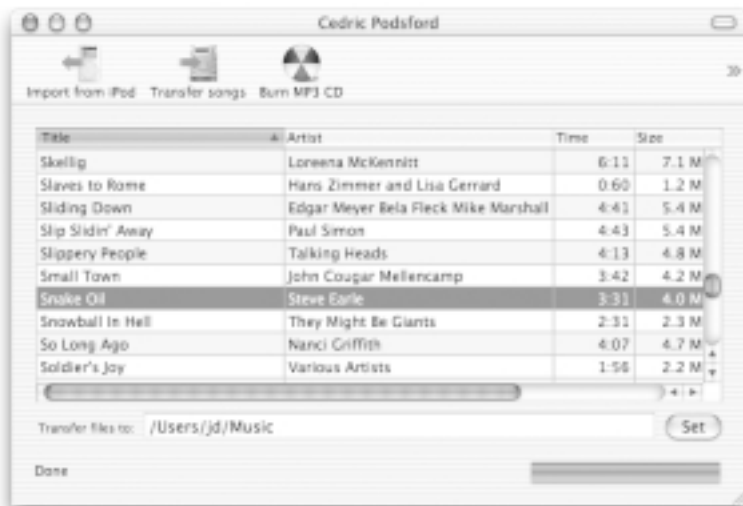
Note: On the other hand, you may find it quicker to download these programs directly from the “Missing CD” page at www.missingmanuals.com.

iPod Viewer

For beginners, the nicely designed iPod Viewer program (Figure 2-12) makes the whole copying-to-the-Mac procedure very simple. iPod Viewer 2.0 is designed for Mac OS X 10.2 (Jaguar) and later; iPod Viewer 1.5.2 is designed for Mac OS X 10.1. Both versions are available on the “Missing CD” page at www.missingmanuals.com.

Figure 2-12:

The free iPod Viewer program lets you select all or just some of the songs you want to copy over to the Mac. The program also gives you the option of deciding what folder to put the imported songs into. Just click the Transfer Songs button at the top of the window to start copying. You can also make a CD of the imported files by clicking the Burn MP3 CD button.



Once you install iPod Viewer, open the program with your iPod attached to the Mac; click your Poddy little pal in the list. The program's preferences let you arrange your songs in the order you want. Then, when you click the Import From iPod button at the top of the iPod Viewer window (Figure 2-12), the program pulls in the list of everything on the iPod.

OmniWeb

Yes, OmniWeb is a Web browser. But in addition to surfing the Net with it, you can also surf the hidden contents of your iPod and copy songs back to your computer. The OmniWeb browser sells for \$30, but you can download a trial copy from the "Missing CD" page at www.missingmanuals.com. (Although paying for a Web browser may seem like a bizarre idea, OmniWeb has some wonderful features like spell-checking, ad-blocking, and automatic bookmark-updating.)

To use OmniWeb to browse the iPod, drag the iPod icon off your desktop and into the browser window. (See Chapter 11 for details on making the iPod appear on your desktop.)

A list of all the files on the iPod appears, including the elusive iPod_Control folder. Double-click iPod_Control, and then the folder within it titled Music, shown in Figure 2-13. You see a list of folders, all starting with F. Within these folders lie your songs. Double-click the songs you want to copy to the Mac; OmniWeb does the rest.

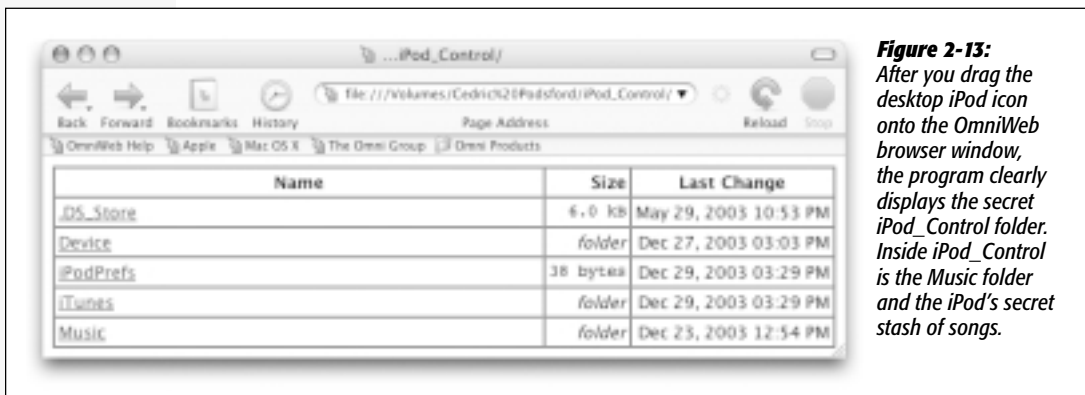


Figure 2-13: After you drag the desktop iPod icon onto the OmniWeb browser window, the program clearly displays the secret iPod_Control folder. Inside iPod_Control is the Music folder and the iPod's secret stash of songs.

TinkerTool

You know how in those Invisible Man movies, people could only see him if he had a hat or a coat or a mask on, or spilled something on his invisible self? It was all about revealing the hidden aspects.

You can do the same thing with your invisible iPod files with the aid of some helpful freeware by way of Germany. TinkerTool, available on the "Missing CD" page at www.missingmanuals.com, is a system utility for Mac OS X that can make hidden files visible.

Once you have installed TinkerTool on your Mac, you'll see an icon for it in System Preferences. Click TinkerTool; in the box that pops up, turn on "Show hidden and system files," and then click the Relaunch Finder button. Figure 2-14 shows the way.

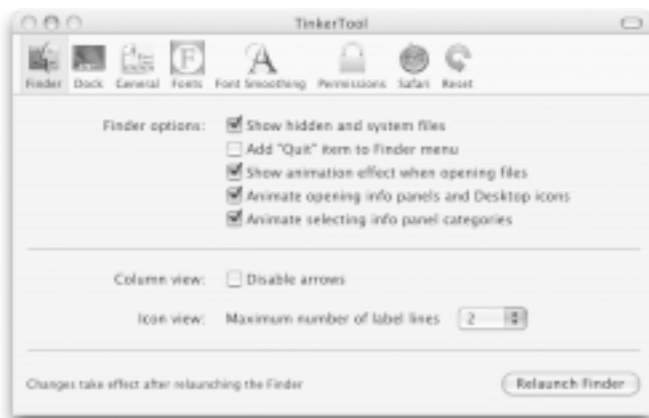
When the Finder restarts, you see all the formerly secret invisible system files right there on your screen, as though someone had spilled paint on the Invisible Man. You see a lot of .DS_Stores all over the place, but step over them and connect your iPod to the Mac. (Make sure you've turned on its FireWire disk feature as described in Chapter 11.)

Double-click the iPod's icon to see all the files that live on it, including the iPod_Control folder that holds all of your music files (Figure 2-14, bottom). You can click through the folders from iPod_Control→Music→F00 (all the iPod's music folders are named F-something) and drag the files you wish to copy to your Mac's own hard drive.

Figure 2-14:

Top: Turn on the box in the Finder options to show hidden and system files in the TinkerTool Finder preferences box, and you'll see a lot more on your iPod after you relaunch the Finder.

Bottom: With the hidden files out in the open courtesy of TinkerTool, you can browse the iPod's contents like any other hard drive.



iPod.iTunes

Built for speed, iPod.iTunes keeps the Mac and iPod constantly in sync with each other, and only copies songs *not* found in the iTunes library. In case of a disastrous hard drive crash on the Mac side, iPod.iTunes can fully restore music files and playlists in the iPod, and can even fix those accidents where you mistakenly delete music from iTunes.

The program also makes it possible to *clone* an iPod, making an exact duplicate of its contents, and can synchronize music and playlists together or separately. Once installed, iPod.iTunes walks you through its synchronization procedure in great detail. iPod.iTunes is yet another program available from the “Missing CD” page at www.missingmanuals.com.

iPod Free File Sync

Christian Vick, who crafted the iPod.iTunes shareware mentioned above, also has a similar file-copying utility that works on Mac OS 9. It’s called iPod Free File Sync, and it’s downloadable from www.missingmanuals.com. The program works with iTunes 2.

PodWorks

Combining a nice interface with plenty of iTunes-like organizational abilities, PodWorks lets you sort, search, and hear previews of the songs you want to copy back over to your Mac. The program, seen in Figure 2-15, can also copy playlists and On-The-Go playlists. PodWorks costs a mere \$8, but you can sample a limited trial version to get a feel for it.



Figure 2-15: Select all of your songs—or just one—from the iPod’s database and click the Copy button to restore the music to your library. A trial version of PodWorks is available (with limited features) so you can sample the ‘ware.

iPodRip

Whether it be an operating system upgrade that inadvertently trashes your hard drive and takes your tunes with it or some other hardware calamity, iPodRip can restore both your music and your sanity. The software can excavate your playlists and other supported audio files from the iPod's hard drive and copy them safely back to your Mac OS X 1.2 or 10.3 system. It can even rescue voice memos you've recorded with your iTalk or Belkin Voice Recorder microphone (page 260). The program, shown in Figure 2-16, has a free trial version, but only costs \$9 to buy—a small price to pay if you're facing the prospect of re-ripping 500 CDs to restore your music collection.

Figure 2-16: iPodRip offers a rather comforting—and familiar—interface. In the program's preferences, you can choose to import your songs and playlists into iTunes, onto your desktop, or to the disk or folder icon of your choice. It, too, is available from the "Missing CD" page at www.missingmanuals.com.



Copying Files to Windows

Getting songs from the iPod to the PC is also possible in Windows. You may not even need to download extra freeware or shareware.

Note: When a free or shareware program is mentioned on these pages, however, you can download it from the "Missing CD" page at www.missingmanuals.com.

The free way

Connect the iPod to the PC, and then proceed like this.

1. Open My Computer.

You can do this from an icon on your desktop or your Start menu.

2. On the list of drives connected to the computer, double-click the iPod.

Its icon appears in the list as long as you've turned on the FireWire disk option described on page 213.

3. Choose Tools→Folder Options.

The Folder Options dialog box pops up.

4. Click the View tab; turn on “Show hidden files and folders.” Click Apply.

As though by magic, the iPod_Control folder reveals itself, as shown in Figure 2-17 at top.

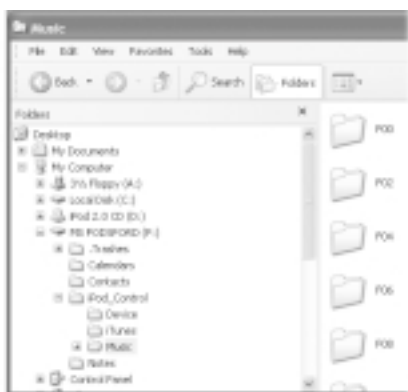
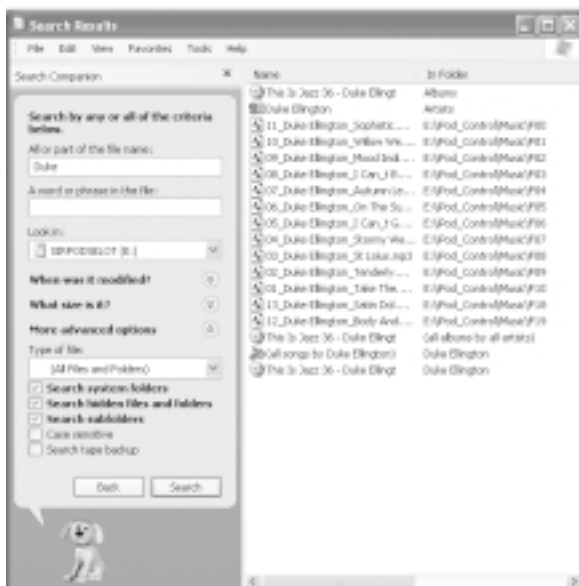


Figure 2-17:

Top: After you set your Windows preferences to reveal hidden files and folders, the iPod_Control folder and the music within become visible—and accessible.

Bottom: The Search feature in the toolbar can save time in looking for a specific song or songs with the dozens of individual folders stored in the Music folder inside iPod_Control.



5. Open the iPod_Control folder, and then open the folder within labeled Music.

You see a series of folders with names that only a computer could love, like F07, F08, and so on. If your old hard drive died and took all of your MP3 files with it, copy all the folders over to the PC's new hard drive. Songs can be jumbled and randomly scattered about, so if you just want to retrieve certain songs, click the toolbar's Search button and type in the specific song titles you're looking for (Figure 2-17, bottom).

6. Drag the songs you want over to the hard drive icon.

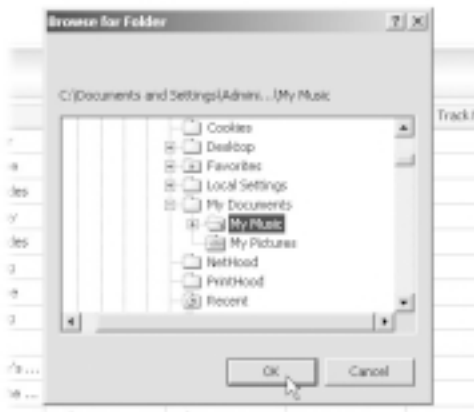
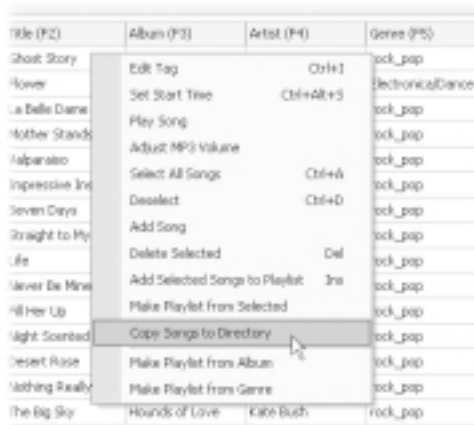
EphPod

Until Apple released Windows-compatible versions of the iPod, the EphPod program was one of the few options PC fans had for using the original Mac-only iPods. Even with the arrival of Windows-blessed iPods, the free EphPod continues to be a superior and beloved Windows utility for managing the iPod.

Figure 2-18:

Top: In the Songs area of the EphPod window, right-click the songs you'd like to copy. Then, from the shortcut menu, choose Copy Songs to Directory. The program copies the songs into the PC folder of your choosing.

Bottom: Once you've picked your songs, EphPod copies them to wherever you specify.



Tip: At www.ephpod.com, you can even find a thorough description for making the iPod work with Linux systems.

Once you launch EphPod and acquaint it with the iPod connected to your PC, it can show you the songs stored on your iPod. To copy them to your PC, see Figure 2-18.

XPlay

XPlay was one of the first commercial programs to let Windows fans use the original Mac-based iPods. The program's sales suffered once Apple released the Windows-compatible iPods in 2002, but it still offers plenty of management features that can ease the process of using the iPod with Mac or Windows, like drag-and-drop updates for music and Outlook contacts.

You can download the full program for \$30 at www.mediafour.com/products/xplay. A free trial version is available, too. See Figure 2-19 for instructions.



Figure 2-19:
In this exciting XPlay action shot, Avril Lavigne's Let Go album is on the cusp of getting copied to the computer. If, say, you just want a few songs off an album, double-click it to reveal the songs inside. XPlay can also play the iPod's songs through Windows Media Player, WinAmp, or another program that you prefer instead of MusicMatch Jukebox.

PodUtil

PodUtil is one of those rare freeware creatures that comes in versions for Mac OS 9, OS X, and Windows 2000 and XP. No matter what version you use, once PodUtil scans your iPod's hard drive, it presents you with a list of songs that you can then copy to your computer.

Anapod Explorer

If you've ever wished you could browse through the files on your Windows iPod as easily as you browse through the files on your PC, take a look at Anapod Explorer from Red Chair Software. This \$25 program can serve as a substitute for iTunes as well as get under the iPod's hood and push your music and data files around, even copying them back to the PC.

As shown in Figure 2-20, Anapod Explorer lets you access your iPod's contents from any Web browser and play its music via any MP3 program of your choice. You can even edit song tags right on the iPod. For people who get giddy at the thought of

databases, the program has an embedded database engine (AnapodSQL) so you can search the iPod using almost any criteria you can imagine and (*gasp!*) even generate reports in HTML or XML. A limited trial version is available to try before you buy.

Figure 2-20

Copying files back to the computer is only the tip of the iceberg with Anapod Explorer. It lets you see deep into the heart of your music player, much like you root around in your PC using Windows Explorer. Anapod Explorer works with all versions of the iPod, and Windows Me and later operating systems.

