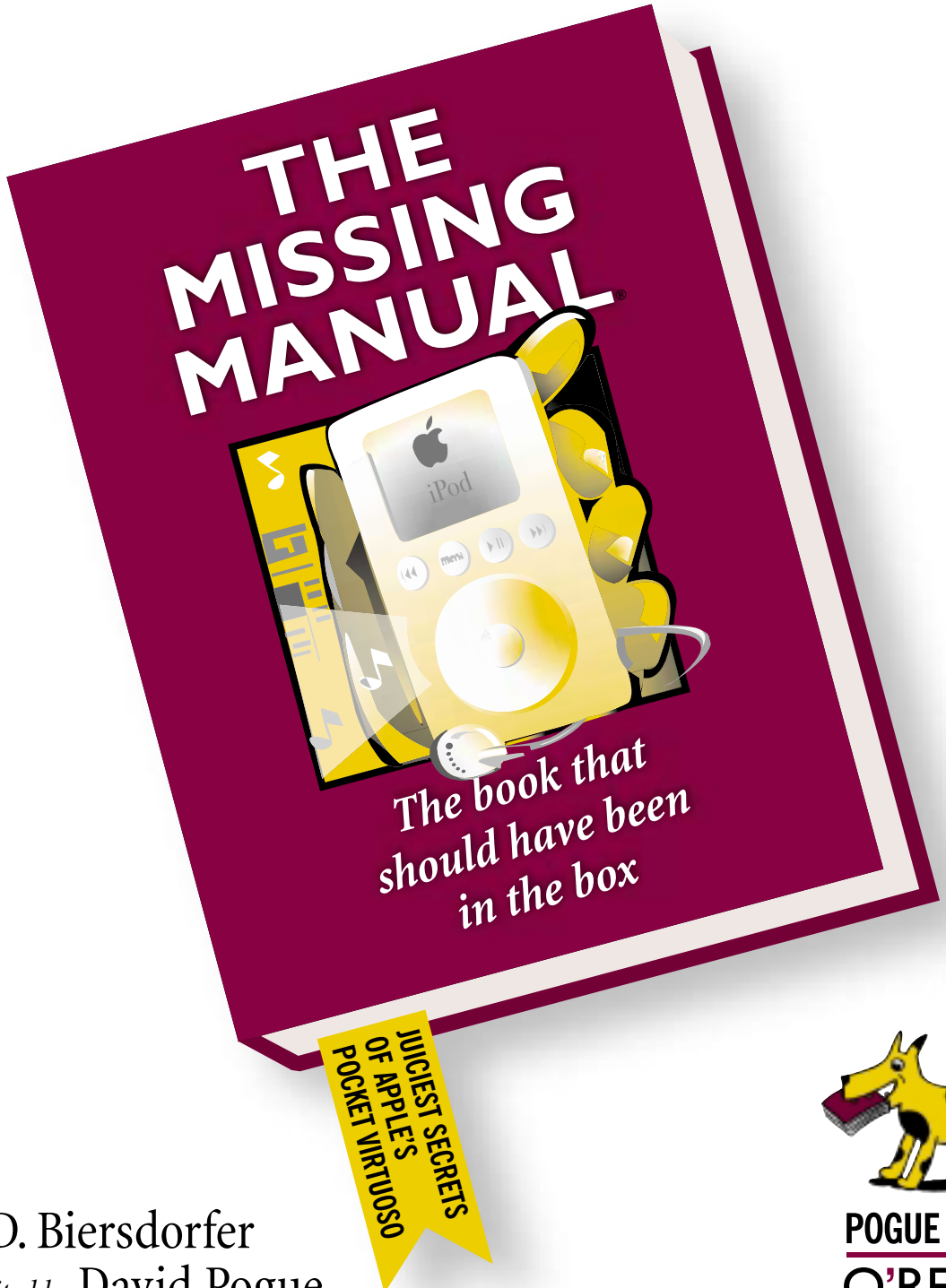
iPod

Covers 2003 iPods & the iTunes Music Store



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CHAPTER
2

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. This might include your whole music library, of course, plus everything from your phone book, news, and calendar information to files too big to burn on a CD.

This chapter is dedicated to the 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 the SCSI cables that 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 eventually picked up FireWire, some giving 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.

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.

The iPod was born to be a FireWire device. 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. FireWire is also how the iPod gets its battery charge.

That's great if you have a Macintosh, because every Mac made since about 1998 has a FireWire connector built right in (see Figure 2-1).

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 one of the 2003 (or later) iPod models, you can connect your iPod via a USB cable—a far more common PC connector. All you need is a software download from Apple's Web site and the purchase of a $20 combination USB 2.0/FireWire cable (also from Apple). With the special combo cable, your iPod uses the FireWire end and the AC adapter to charge up; it uses the USB 2.0 part of the cable to download the music library to the iPod at superspeed. See page 39 for more information about USB 2.0.

Note: At this writing, the USB 2.0 option for connecting the iPod to the computer is only available for computers running Windows Me, 2000, and XP. If you have purchased an iPod recently and your CD didn't come with the USB 2.0 software for iPod, you can download it from *www.apple.com.*

Figure 2-1:
Left: The FireWire icon on cables and ports indicates that the computer is equipped with the high-speed standard.

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

Installing a FireWire Card

Most computer stores, both retail and online, sell FireWire/1394 expansion cards like the one in Figure 2-2 for under $60; 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 combo cards that let you add ports for FireWire *and* USB 2.0 if you really want to go whole-hog towards 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.

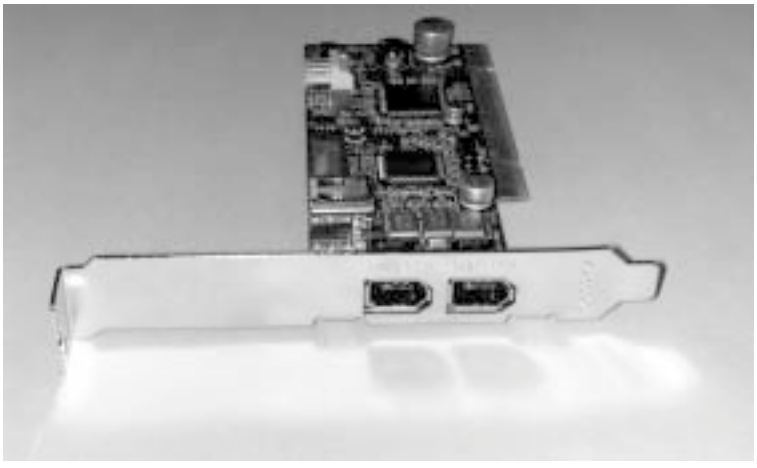

Figure 2-2: *FireWire cards come in all shapes and sizes and can add two, three, or four FireWire ports to a computer. The cards snap into an empty PCI slot on the computer's motherboard. Adding a FireWire card will allow you to use FireWire-enabled devices like digital camcorders, CD burners, and iPods.*

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 goods by buying (from the Apple Web site) a Belkin PCI expansion card and a PC-ready CardBus FireWire 400 card, both designed for Windows users looking to get something compatible with the iPod.

Installing the Card

Your card's package will include instructions on how to install it, 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 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.

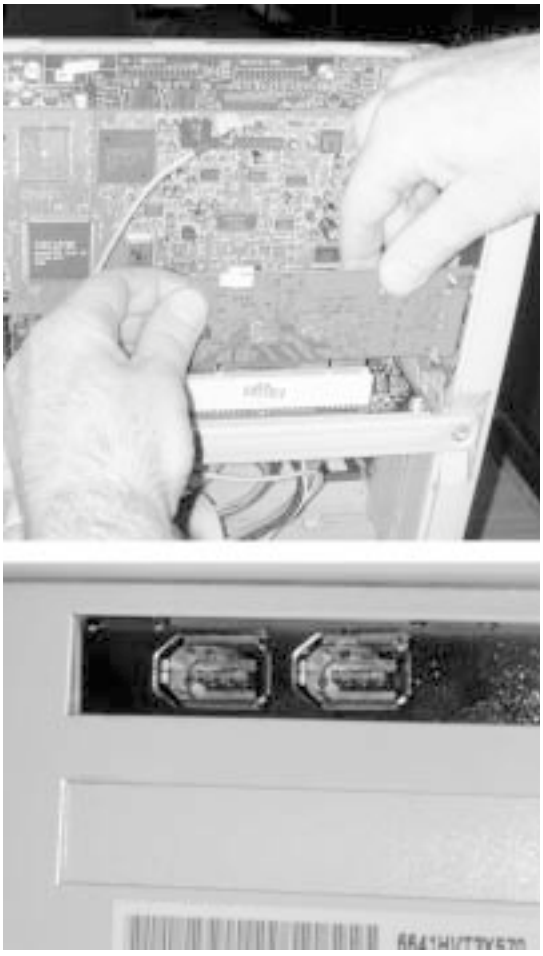

Figure 2-3:
Top: Remove any metal brackets shielding the back of the computer and gently push the FireWire card into the white plastic PCI slot on the computer's motherboard until it clicks into place.

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

- 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 them 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 2-3.
- 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.

Nudging Windows

Once you've taken the trouble to get a FireWire card—and then its software—into your PC, you may need to take an extra step to make sure Windows sees and acknowledges it.

- **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 click 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 that says "This device is working properly."

- **Windows Me.** Right-click My Computer; from the shortcut menu, choose Properties. In the System Properties box, click the Device Manager tab, and then click OK. 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

If you intend to use your iPod with a Windows PC, you don't have to use FireWire. If you have a 2003 or later iPod, another option awaits: USB 2.0.

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 the computer from devices like digital camcorders, external hard drives, and CD burners. FireWire, which could transfer data at 400 megabits per second, can still whip the plastic off a USB 1.1 connection (about 12 megabits per second).

Tip: Those are mega*bits,* not megabytes. (Data-transfer speeds are traditionally measured in *megabits* or *kilobits per second*; disk and file sizes are measured in *megabytes.*)

There are 8 bits in a byte. To put USB and FireWire into more familiar terms, then, USB can transfer files at up to 1.5 megabytes per second. FireWire can move 50 megabytes of data per second, and USB 2.0 can shuttle up to 60 megabytes per second.

When computers and products sporting the USB 2.0 connections 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 their old devices into USB 2.0 ports, even if they don't get the 2.0 speed boost.

Note: 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 either help with or add to the confusion, the original FireWire standard is now sometimes called FireWire 400. FireWire 800 is starting to turn up 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 2003 iPod and a Windows PC with an USB 2.0 port, you can skip FireWire altogether. If you buy Apple's iPod Dock Connector to FireWire and USB 2.0 Cable, you can sync the iPod with USB 2.0 instead. The cable is $19 at Apple's online store or some computer stores.

Tip: While you're on Apple's Web site, download the iPod Software 2.0.1 update for Windows, if you don't have it already, at *www.apple.com/ipod/download*. You'll need that, too. (To learn how to update your iPod software, see page 278.)

This two-tailed cable has a the 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 up the iPod. The FireWire end snaps into the iPod's AC adapter just as it always did and seeks its power from the nearest electrical outlet.

Tip: Technically, you can sync your iPod via regular USB, even if your PC has only regular USB (not USB 2.0). You can use the same $19 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 running 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. (Yes, 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 then show you only the Mac or Windows files on the disc.)

The Macintosh CD

Early versions of the iPod CD included software for both Mac OS 9 and Mac OS X, but the 2003 iPods are designed to work with Mac OS X 10.1.5 and later. If you're still running Mac OS 9, you'll have to make do with version 2.0.4 of iTunes and older iPod models.

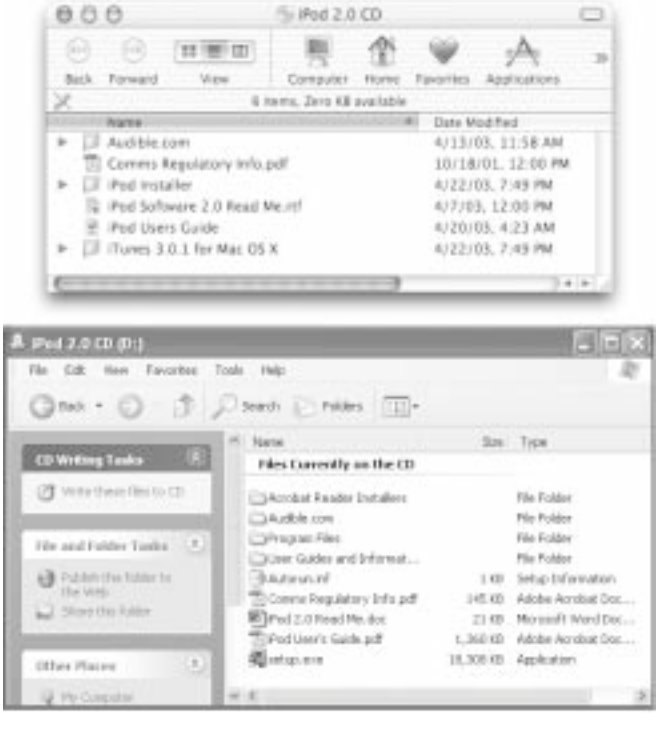

Figure 2-4:
Top: The Mac version of the iPod CD contains the iPod installer software, a copy of iTunes (Chapter 4), an electronic copy of the iPod instruction booklet, and samples of spoken-word audio files from Audible.com. An Acrobat PDF file of legal and regulatory information is also included for those who really *love to read the fine print.*

Bottom: The Windows version contains MusicMatch Jukebox Plus (Chapter 5) instead of iTunes, plus files equivalent to those for the Mac.

Note: If you, an early adopter, jumped on the 2003 iPod the day it went on sale, you may notice that iTunes 3 for Mac OS X comes on the iPod's CD, rather than the current iTunes 4 or later. If you want the latest version, jump out to *www.apple.com/itunes* and download it.

(Of course, if you're *really* an early adopter, you had iTunes 4 five minutes after Apple announced that it was available for download.)

To install the software, insert the iPod CD into the computer. If you have a Mac but no iTunes, install iTunes from the CD or download the latest version from Apple's Web site.

The iPod needs software, too—its operating system (page 278). The version on the CD is the version that's already on your new iPod, so there's nothing to install. Note, though, that 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; finally, click Install to kick-start the installation process.)

The installer gives you all the necessary iPod drivers, plus a copy of the MusicMatch Jukebox software, which you'll use to manage your music library on both the PC and the iPod. (You'll need to type in the serial number from the sticker on the CD sleeve. This number turns the free version of the software to the full version called MusicMatch Jukebox Plus, giving you a speed boost of 25 percent when ripping CD tracks to MP3 format and other goodies for working with CDs.)

Tip: If MusicMatch asks you if you want to check its Web site for an updated version, decline the favor. Newer versions may not work with the iPod software; 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.

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 iPod.

All 2003 iPods, however, come out of their sexy black boxes formatted for Macintosh. When you run the setup program on a Windows PC, you need to take a moment to reformat your iPod's hard drive for Windows. See Figure 2-5 for details.

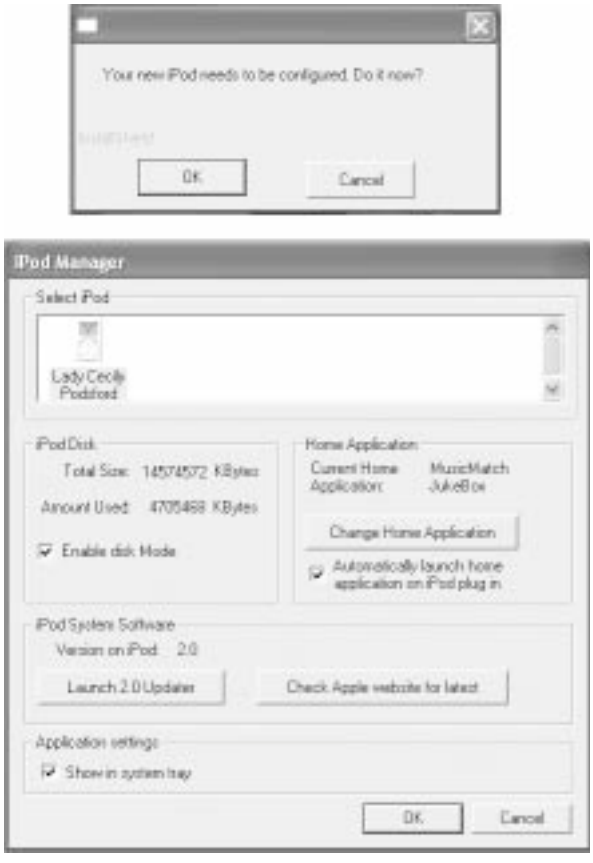

Figure 2-5:
It's not quite as dramatic a moment as watching a butterfly emerge, but the transformation of a brand-new 2003 iPod into a Windows iPod is beautiful in its own right.

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

Bottom: When the installation is complete, you'll find a new icon in your Windows system tray (notification area) that opens the iPod Manager program. It lets you adjust some of the iPod'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.

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 on the Macintosh

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 Mac can be astoundingly simple. As soon as you connect the new iPod to the Mac, iTunes opens

automatically and begins copying your entire music library to the player (see Figure 2-6).

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 2-8).

Figure 2-6: *The Source list (left side) displays an icon for the iPod whenever it's connected, as well as your Mac's music library, list of playlists, songs from the iTunes Music Store, and Internet radio stations. At the bottom of the window, you see the amount of space left on the iPod, as well as the number of songs and days the iPod can play music without repeating.*

If you don't have iTunes or any MP3 files on the Mac already, you'll have to install iTunes and snag some music files from your music CDs (Chapter 4) or buy some songs online (Chapter 6). 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 in Windows

After the iPod battery has enough charge to stand up on its own for a bit (page 16), you can proceed with the first sync. The iPod expects to fill its music library with a copy of whatever you've got in MusicMatch Jukebox.

This program has been a popular music-manager program for years. But even if you already have a copy, you should install the version that came on the iPod CD. (If you have no digital music on your PC, or have never used MusicMatch Jukebox, flip to Chapter 5 of this book to get acquainted with the software.)

Once all the necessary software is installed, connect the iPod to the PC. This process depends on the kind of connector your PC has:

- **FireWire connector, 6-pin.** If the included white FireWire cable 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 will get its power charge from the computer.)

- **FireWire connector, 4-pin.** You may have noticed that the included FireWire cable has a fattish 6-pin connector at one end. It won't fit the smaller 4-pin connectors common on Windows FireWire cards.

  Fortunately, Apple includes a small white 4-pin adapter with the iPod. It fits over the *end* of the included 6-pin cable (see Figure 2-7). 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).

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

Figure 2-7: *The FireWire cable adapter that comes with Windows iPods snaps over the end of the standard 6-pin FireWire cable. The smaller 4-pin end then plugs into the PC. Many models of Sony Vaio laptops are among the computers that need the 4-pin adapter.*

- **USB 2.0.** If you have chosen to use USB 2.0 as your data-transfer connection of choice for your 2003 iPod, plug your two-headed USB 2.0/FireWire combo cable into the computer's USB 2.0 port. The FireWire strand of the cord goes into the AC adapter. Finally, plug in the flat connector to the bottom of the iPod (or into the back of the dock).

The Portables Plus window

When you plug in your iPod for the first time after installing all your software, MusicMatch Jukebox opens automatically. In a few seconds, another window pops up next to the Library window: the Portables Plus window (Figure 2-9).

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.

Turning off auto-transfer

You're not condemned to watch MusicMatch seize control of the iPod-filling process. If you're tired of it jumping up like a West Highland Terrier every time you plug in the iPod, you can command MusicMatch Jukebox to open only when *you* want it to.

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: On 2003 iPods, you can also turn off the auto-launch in the iPod Manager box (Figure 2-5), which appears when you click the iPod icon in the Windows system tray. Turn off "Automatically launch application on iPod plug in."

Auto-Sync Override

You can, if you like, transfer only some of the music instead of all of it.

The auto-sync option pretty much removes any actual thought process required to get music moved 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 synching goes, open your Preferences or Options box (on Mac and Windows, respectively), like this:

- **Macintosh.** 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 2-8). Click the first button, which has a small graphic of an iPod on it, to open the iPod Preferences dialog box.

Figure 2-8:
Left: Click the first button, circled, to call up the iPod Preferences dialog box.

Right: Within the iPod Preferences box, you can choose to have the iPod update everything automatically or just certain playlists. "Manually manages songs and playlists" lets you move just the songs you want to the iPod. If you decided to manually manage, iTunes will give you a message about properly disconnecting your iPod from the Mac when you are finished updating it.

- **Windows.** When MusicMatch Jukebox opens after the iPod is plugged in, the Portables Plus box also opens (Figure 2-9). 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 synching preferences, as shown in Figure 2-9.

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

Figure 2-9:
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.

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.

Whether you're using Mac or Windows, the dialog box before you lets you control how the auto-synching of your music library goes.

Complete automatic synchronization

The wording is a little different—"Automatically update all songs and playlists" (Macintosh) or "Complete library synchronization" (Windows)—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 PDA, 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 auto-sync option that never whacks tracks on the iPod, even if you've deleted them from the PC. It's the Ignore Content Deletion checkbox shown in Figure 2-9.

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 auto-sync system means that you never worry about which songs are where. With the auto-sync option, what is in the computer's music library is on the iPod, and that's that.

Sync up selected playlists only

Choosing to sync up only certain playlists can save you some time, because you avoid copying the entire music library when you synch up. This tactic is helpful when, say, you have a workout or commute 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. (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" (Macintosh) or "Selected playlist synchronization" (Windows), you're shown a list of the playlists you've created (see Chapters 4 and 5). Turn on the ones that you want synched.

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 synching turned on, iTunes or MusicMatch will erase any songs from the iPod that it doesn't have itself.

- **Macintosh.** On the Mac, 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 Mac connection. (You can also unmount the iPod from the desktop by dragging its icon onto the Mac's Trash.)

From now on, you'll have to drag songs onto the iPod manually (Figure 2-10). After you close the iPod Preferences box, click the small triangle next to your iPod in the Source list. It reveals all the playlists on the iPod, which work just like other iTunes playlists (see Chapter 4).

Tip: The Only Update Checked Songs option in the iPod preferences box (Figure 2-8) 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 are not part of your iTunes music library, make sure they're unchecked and therefore unerased during an automatic synchronization.

Figure 2-10: *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.*

- **Manual control in Windows.** To turn off auto-sync in Windows, connect your iPod. When MusicMatch Jukebox brings up the Portables Plus window, open the Options dialog box (see Figure 2-9 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.

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 different places. On the Mac, click its icon in the iTunes Source list once to highlight it. After a slight pause, click again to open the renaming box. Type away.

On the PC, as long as you're in the iPod Options box (Figure 2-9), click the iPod tab and type in a new handle in the box marked Device Name.

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 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: 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 checkmark (older iPods) or pulls up the standard main menu, ready for action (2003 models).

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 FireWire 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 is 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 have perfectly 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 resounding emphasis.

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

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 supersecret invisible iPod music folder is called iPod_Control, and software utilities for both Mac and PC 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 hard-core iPod fan sites mentioned in Chapter 16, will bring up plenty of iPod programs like the following:

iPod Viewer

For beginners, the nicely designed iPod Viewer program 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.*

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 2-11), the program pulls in the list of everything on the iPod.

Figure 2-11: *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 in. 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 on the program's Burn MP3 CD button.*

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 right off your desktop and into the browser window. (See Chapter 11 for details on making the iPod show up on your desktop.)

A list of all the files on the iPod appears, including the elusive iPod_Control. Double-click iPod_Control, and then the folder inside titled Music, shown in Figure 2-12. 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.

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.

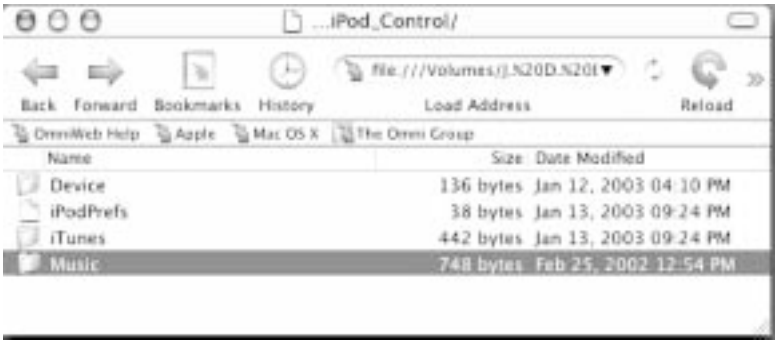

Figure 2-12: *After you drag the desktop iPod icon onto the OmniWeb browser window, the program clearly displays the secret iPod_Control folder. Inside iPod_Control is the Music folder and the iPod's secret stash of songs.*

Figure 2-13: *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.

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've 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 2-13 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'll 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 2-13, 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.

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.

Copying Files to Windows

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

The free way

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

1. **Open My Computer.**

   It may be an icon on your desktop, or it may be a listing in 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 in Chapter 11.

3. **Choose Tools→Folder Options.**

   The Folder Options dialog box pops up.

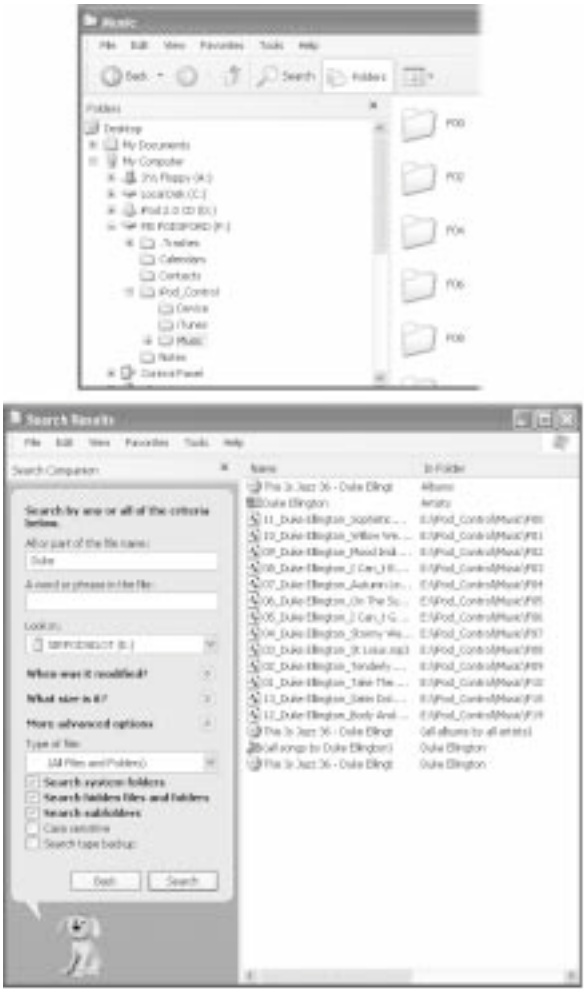

Figure 2-14:
Top: After the Windows preferences have been changed to reveal hidden files and folders, the iPod_Control folder and the music within become visible–and accessible.

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.

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 2-14 at top.

5. **Open the iPod_Control folder, and then open the inner folder 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 2-14, bottom).

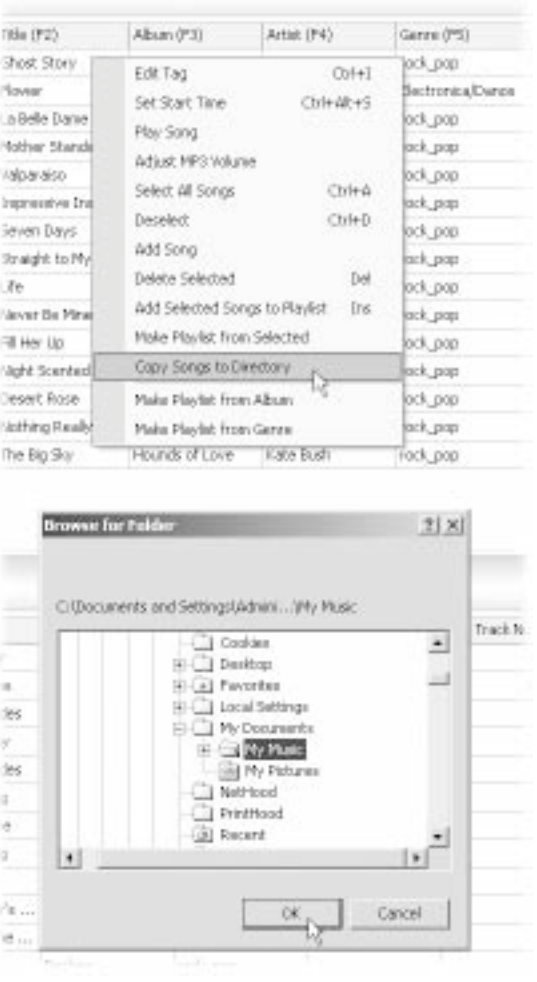

Figure 2-15:
Top: In the Songs area of the EphPod window, right-click the songs you'd like to copy. Then, from the shortcut menu, choose Copy Songs to Directory. The program copies the songs into the PC folder of your choosing.

Bottom: Once you've picked your songs, EphPod copies them to wherever you direct the program to send them.

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.

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 2-15.

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 make using the iPod with a Mac or a Windows system easier, like drag-and-drop updates for music and Outlook contacts.

You can download the full program (shown in Figure 2-16) for $30 at *www.mediafour.com/products/xplay.* A free trial version is available, too.

With XPlay installed and your iPod in FireWire disk mode, you can stroll through the iPod's Music folder and copy the songs you want to another folder on another drive (see Figure 2-16).

Figure 2-16: *In this exciting action shot, Avril Lavigne's* Let Go *album is on the cusp of getting copied to the computer. If, say, you just wanted a few songs off the album, double-clicking on the album's icon reveals the songs inside. XPlay can also play the iPod's songs through Windows Media Player, WinAmp, or another program you may prefer to MusicMatch Jukebox.*