



and the Digital Music Revolution

Turn Your PC into a CD-Quality Digital Jukebox!



by **John Hedtke**

780.285 HED



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MP3 and the Digital Music Revolution:

Turn Your PC into a CD-Quality Digital Jukebox!

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Trademark and service mark terms used in this book are the property of the trademark holders. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark. This book is dedicated to Richard & Marcia Baugh, my uncle and aunt.

Thanks for everything.

A B O U T T H E A U T H O R

John Hedtke is the award-winning author of 18 books, including *Peachtree Made Easy* and *Using Computer Bulletin Boards, Third Edition*. A software expert with over 20 years of experience, John has developed and written books and manuals for many leading software products, as well as contributing frequent articles to computer magazines. John is the Past President of the Puget Sound chapter of the Society for Technical Communication. When not otherwise occupied, he plays the banjo and collects novelty tunes. He can be reached through his web site at http://www.hedtke.com.

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1

Getting Started

his chapter will introduce you to the basics of MP3 files. You'll learn what you need in the way of hardware and software and how to play MP3 files using the standard Windows Media Player. You'll also see how to install MusicMatch Jukebox on your computer, play a single track with it, and learn about the basic MusicMatch Jukebox features and options. Finally, you'll also see how to use MusicMatch Jukebox with other MP3 players, such as Winamp.

WHAT IS MP3?

MPEG (pronounced "EM-peg") is an acronym for Moving Pictures Experts Group. MPEG is a group of standards for compressing and storing audio and video in files. MP3 is actually short for MPEG 1, layer 3, the portion of the MPEG standard that specifies how audio files are stored.

What makes MP3 files special is that they give CD-quality sound in a file that only requires about one megabyte for every minute of sound. (By comparison, the format used on CDs for recording requires about 11 megabytes for every minute.) This means that you can fit 10 to 11 hours of music stored in MP3 format on a single CD, compared to the 60 minutes you usually get on a CD. Furthermore, at three to five megabytes per track, MP3 files—also referred to as tracks—are small enough to download from web sites. This, combined with their high quality of sound reproduction, has made them enormously popular for distributing and exchanging songs and music. Many search engines list MP3 as the second-most-popular search topic.

IN THIS CHAPTER

What Is MP3?

1

What Do You Need to Play and Create MP3 Files?

2

Finding an MP3 File to Play

4

Installing MusicMatch Jukebox

6

Exploring MusicMatch Jukebox

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A Word about Freeware and Shareware

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WHAT DO YOU NEED TO PLAY AND CREATE MP3 FILES?

There are minimum hardware requirements for playing and creating MP3 files. You also need to know a little about the variety of software available.

WHAT HARDWARE DO YOU NEED?

For Windows computers, the practical minimum for playing MP3

- ◆ Pentium 90 MHz (for playing only; for creating your own MP3 files, you'll need at least a P-133)
- ♦ 16 MB of RAM
- ♦ 256-color display card and monitor
- ♦ Windows 95 or Windows 98
- ♦ A CD-ROM drive
- ♦ A 16-bit sound card
- External speakers or headphones

For Macintosh computers, you'll need the following minimum hardware:

- ♦ A 68020 or a Power Macintosh
- ♦ System 7.5
- ◆ Apple's Sound Manager 3.1
- ♦ A CD-ROM drive
- External speakers or headphones

Regardless of the type of computer you're using, it's a good idea to have at least half a gigabyte of spare hard disk to store MP3 files. (At 3-5 megabytes per file, they can add up fast.) Both Windows and Macintosh users should also give serious thought to purchasing a CD-ROM burner, a CD-ROM drive that lets you create your own CDs. The blank CDs cost about \$1 each these days. (This kind of drive is known as a Write Once, Read Many or WORM drive.) Rewritable CD-ROM burners and CDs will be more expensive and probably aren't the kind you'll want. You can use the burner for backing up volumes of MP3 files and for creating your own custom CDs.

WHAT SOFTWARE DO YOU NEED?

There are several different kinds of software you will need to play and record your own MP3 files.

NOTE Jukebox isn't yet Mac compatible but a Mac version is planned. Check the Music-Match web site for information.

2

MP3 AND THE DIGITAL MUSIC REVOLUTION

SOME THOUGHTS ON MODEMS

Strictly speaking, you don't need a modem or an Internet connection to play MP3 files, but for all practical purposes, you'll want to cruise web sites looking for MP3 files and new versions of software. You'll need a 28.8K modem at the very least for downloading files and getting information from MP3 web pages. If you already have a 28.8K modem, you may want to consider upgrading to a 56K modem, a cable modem, or ADSL (a high-speed connection offered by the phone companies in many areas of the country). At 3–5 megabytes, a single MP3 file can easily take the better part of an hour to download. If you start collecting MP3 files from web sites, getting a faster modem can easily cut your download times in half.

The first and most important type of software is the *player*. Very simply, the player plays MP3 files. Many players play a variety of files in addition to MP3 files, including WAV, MIDI, AAC, and other types of sound files. Some typical Windows players include Winamp and Sonique. On the Macintosh, look for MacAMP or SoundApp.

The next type of software is a playlist editor. A playlist is a list of the MP3 files you want to play in the order you want to play them. Playlists can be set up in advance and saved, letting you create your own "albums" for a specific mood or occasion. Many players already have playlist editors built in, but you can get stand-alone playlist editors that create playlists for a range of other players. Typical playlist editors include the MP3 Explorer for Windows or Trax for the Macintosh.

To create your own MP3 files, you will need two tools: a ripper and an encoder. A ripper extracts the tracks from the CD and converts them into WAV files on your computer's hard disk. An analog ripper does the same thing but with analog signals from cassette tapes, vinyl, or radio. (MusicMatch Jukebox does both digital and analog ripping.) An encoder takes ripped files and turns them into MP3 files. Rippers and encoders are frequently bundled into a single product. Examples of rippers and encoders for Windows are Audiograbber and Audio-Catalyst; for the Macintosh, check out Recordit and MPecker.

If you don't want to have to pick and choose, you can get an all-inone program that does everything you need. The best-known example of this is MusicMatch Jukebox, which is on the CD accompanying this book. The CD also includes a selection of players, rippers, encoders, and other programs. See Appendix B, "How to Use the CD" for more information about the CD and how to install it on your computer.

NOTE

The CD accompanying this book does not contain Macintosh software, although it does contain a substantial number of MP3 files. If you are using a Macintosh, you'll need to download MP3 software from one of the resources listed in Appendix A, "Resources."

TIP The Windows Media Player shown in Figure 1.1 is v6.00 for Windows 95, which is currently the same version as for Windows 98. Microsoft posts updates to the Media Player on their Web site, http:// www.microsoft.com. It's a good idea to check the Microsoft Web site periodically to make sure you have the latest version of the software.

(MusicMatch Jukebox is not yet Mac compatible but should be by late 1999.)

While it's not to be denied that the majority of MP3 software is written for Windows and the Macintosh, there is a wide selection of MP3 software available for most other operating systems in common use, including Linux, Unix, and OS/2. There are also a number of utilities for editing and tweaking MP3 files, filtering for better sound, and adding information such as lyrics, notes, cover art, and the like. In addition, new programs and new versions of existing software are released frequently. For more information on all kinds of MP3 software, be sure to check out some of the web sites and newsgroups listed in Appendix A, "Resources."

FINDING AN MP3 FILE TO PLAY

There are thousands of MP3 files available online from Web sites and newsgroups via FTP. You'll see how to collect these later in the book in Chapter 3, "Getting More MP3 Files," but for now, you'll work with files from the CD accompanying this book.

There are a number of MP3 files on the CD. Here's how to play one of them:

- 1. Insert the CD in your computer's CD-ROM drive.
- Go to the Windows Start menu. From the Program menu, start the Windows Explorer.
- 3. Select the CD-ROM drive and go to the \music folder.
- Double-click one of the MP3 files. The Windows Media Player will start (as shown in Figure 1.1) and the file will start playing.

If all has gone well, you should be hearing MP3 music in all its glory... and it's pretty neat. The sound quality is good, and, looking at the files on the CD with the Windows Explorer, you can see that they're relatively small—only a few megabytes each.

This, anyway, is the way things *should* work. But this procedure might not work as described for one of a couple of reasons:

◆ You don't have the Windows multimedia options installed, in which case the MP3 file won't play. (You can find out by going to the Windows Control Panel and seeing if you have a Multimedia icon in the selections or by looking on the Windows Start menu, then going to Programs, Accessories, Multimedia, and looking for an entry for the Windows Media Player.)

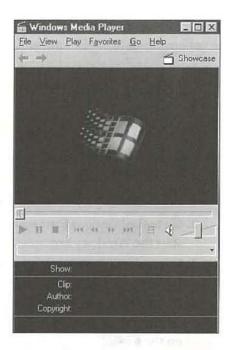


FIGURE 1.1: The standard Windows Media Player.

♦ You already have another MP3 player set up on your computer, in which case the other MP3 file player will play the file.

But even if everything worked perfectly, the bottom line is that Windows Media Player is only so-so as an MP3 player. Oh, it handles MP3, WAV, MIDI, and a host of other sound file formats, MPG, AVI, QuickTime, and other video formats, and the RealNetworks, RealAudio, and RealVideo formats... so many that you should always have the Windows Media Player on your system just because of the range of formats it will handle. But despite this, it's simply not the most effective or full-featured program to use for playing your MP3 files. And if you install Windows Media Player after you've installed MusicMatch Jukebox or other MP3 audio players, it will disable them without asking. To enable those players again, you have to mess around with the file associations in the View Options menu in the Windows Explorer or uninstall Media Player.

One of the most popular MP3 products these days is MusicMatch Jukebox. (A copy of MusicMatch Jukebox appears on the CD.) MusicMatch Jukebox is not just a player; it's a complete system for playing, recording, and maintaining MP3 files. You'll see how to use each of its features in this and subsequent chapters. Another popular player is Winamp (which also appears on the CD). Winamp is just a player, but it's a good one. (You'll see later how you can set up Music-

If you have a slower CD-ROM, such as a 4x or 8x, you may want to copy the files to your hard disk for faster, smoother playing. However, you should remember that MP3 files can take up a lot of room, so if space on your hard disk is tight, leave the MP3 files on

the CD.

TIP

Match Jukebox to use Winamp as its default MP3 player.) Yet another very popular player is Sonique, which plays a wide range of file types.

The next section shows you how to install MusicMatch Jukebox on your system and introduces you to its basic features.

INSTALLING MUSICMATCH JUKEBOX

MusicMatch Jukebox appears on the CD accompanying this book in the MusicMatch folder. To install MusicMatch Jukebox from the CD, follow these directions:

- 1. Insert the CD in your computer's CD-ROM drive.
- 2. Go to the Windows Start menu. From the Program menu, start the Windows Explorer.
- 3. Select the CD-ROM drive and go to the \MusicMatch folder.
- Double-click the MMSETUP.EXE file. The MusicMatch Jukebox setup procedure will begin. Follow the directions on the screen.

When you install MusicMatch Jukebox (or most any other MP3 player for that matter), the setup program will supplant the Windows Media Player as the default MP3 player on your computer if that option is selected during installation.

Once you've installed MusicMatch Jukebox, start it by selecting the Windows Start menu, then going to the Programs menu and selecting MusicMatch Jukebox. (If you set up MusicMatch Jukebox as an icon on the desktop, you can just double-click the icon.)

The first time you run MusicMatch Jukebox, you'll see the main screen, the Track Info window, and a welcome screen, shown in Figure 1.2. (After you've run the program the first time, you won't see the welcome screen when you run the program, although you can display it from the help files.)

The MusicMatch Jukebox main screen has many features you should take a moment to acquaint yourself with. The player window occupies the upper left half of the screen. The player controls are modeled after a cassette player. The cover art for the MP3 file (if any) appears in the cover art window. Songs in the playlist appear in the playlist window on the right side of the screen.

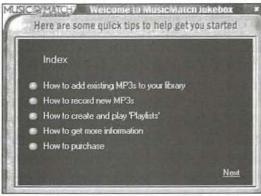
When you start MusicMatch Jukebox by double-clicking an MP3 file, you automatically start playing the file. The file information will appear in the player's fields (an example of this appears in Figure 1.3).

CAUTION

If you install more than one MP3 player, the default MP3 player will probably be the last one you installed. You can change the default player for MP3 files from the File Types folder in the View Options menu in the Windows Explorer.



FIGURE 1.2: The MusicMatch Jukebox main screen, Track Info window, and welcome screen.





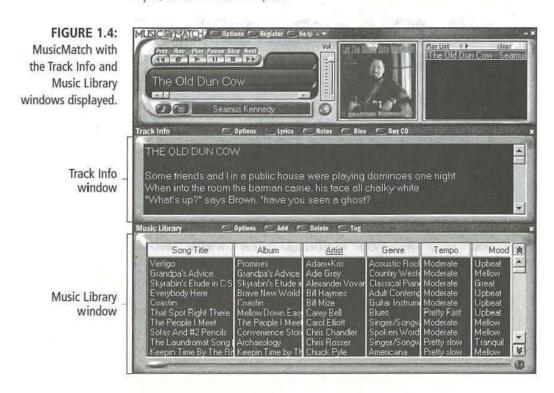
As you can see from Figure 1.3, there's often more information to be had about the track than just the artist's name and the name of the track. One of the versatile features of MP3 files is that they can contain a lot of text and graphics information in addition to the music

itself. The Track Info window displays information about the song you're playing. You can view the lyrics (and sing along if you like!), read notes about the song, and see biographical information about the artist by clicking the appropriate button at the top of the Track Info window. One of the really convenient features of the Track Info window is that you can also buy the CD if you like the track you're listening to. Clicking Buy CD will link you to a web page that will let you order this CD. If the Track Info window isn't visible, click Track Info () at the bottom of the player.

Adding the information displayed in the Track Info window takes a little extra effort on the part of the person creating the MP3 file, though, so many MP3 files will simply contain the name of the song and the artist. You'll see later in this book how you can add lyrics, notes, cover art, and other information to an MP3 file yourself.

MusicMatch Jukebox also has a built-in database for your MP3 files, which you can open by clicking the Music Library button (). Figure 1.4 shows MusicMatch Jukebox with the Music Library displayed.

The Music Library contains a list of your MP3 files. When you first start MusicMatch Jukebox, there won't be any files listed. You'll see how to add MP3 files to the Music Library later in this chapter. You'll also see how to sort tracks to find all the songs by one group or of one style, such as blues or jazz.



Here are some tips for playing MP3s:

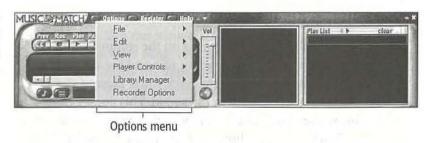
- ♠ Any time you're doing something on the computer other than playing a track, you're going to be taking the computer's attention away from the track you're playing... and you'll hear a brief dropout in the sound. This doesn't hurt the file you're playing, but it can be annoying if you're trying to listen to a symphony and then have to load programs, start software, and do other things that require a lot of computer power that should otherwise be spent on entertaining you. During recording, you don't want to run any power-hungry applications because the lack of computer power can damage the sound file. (However, I can attest that I listened to a lot of MP3 files while I was writing this book, and word processing by itself will not affect your sound output one whit.)
- ◆ You can play MP3 files with the built-in speaker on your computer, but who'd want to? The standard inexpensive stand-alone speakers are about 40 watts and will give you adequate sound. However, if you find you're spending a lot of time listening to MP3 files, you may want to invest in a good set of computer speakers with some bass response, or a good set of headphones if you're in an office or other setting where you can't just crank up the volume for a particularly good guitar solo. For the best sound output, you should give serious consideration to plugging your computer into your sound system as described in Chapter 5, "Recording from Your Computer to Your Audio System."
- ◆ Just about all the sound cards sold today will work okay for playing and recording MP3 files. If you buy a really expensive sound card, you may notice a very slight improvement, but there's no real difference in playing MP3 files on an average sound card or one of the very best.

EXPLORING MUSICMATCH JUKEBOX

The previous section showed you some of the basic features of MusicMatch Jukebox. Now you'll have a chance to explore the program in more detail. Click Options on the main screen. A drop-down list of menu options (shown in Figure 1.5) appears.

The Options menu has half a dozen different menus you can select from, as described in Table 1.1.

FIGURE 1.5: The Options menu in the MusicMatch Jukebox main screen.



TARIF	1 1.	THE	OPTIONS	MENII
IMPLL	1.1.		OLLIOIA	IVILIVO

MENU SELECTION	WHAT YOU USE IT FOR
FILE	Add tracks to the Music Library, create, open, and save playlists, export playlists, convert files. (See Chapter 2, "Creating and Using Playlists," for information on the playlist options and Chapter 4, "Creating Your Own MP3 Files," for information on converting files.)
EDIT	Clear or delete playlists, delete individual tracks from the Play List window, edit the information for a specific track. (See Chapter 2, "Creating and Using Playlists," for information on these options.)
VIEW	Display a track's cover art, display the Track Info, Play List, or Music Library windows, display the Recorder. (See Chapter 2, "Creating and Using Playlists," for information on these options.)
PLAYER CONTROLS	Change the play cycle and play order, change the default player used in MusicMatch. (See Chapter 2, "Creating and Using Playlists," for information on the play cycle and play order options and see the "Using Other MP3 Players with MusicMatch" section later in this chapter for information on changing the default player.)
LIBRARY MANAGER	Clear the tracks from the Music Library, load a predefined set of tracks, save a database of tracks. (See Chapter 2, "Creating and Using Playlists," for information on these options.)
RECORDER OPTIONS	Set recorder options and record tracks. (See Chapter 5, "Recording from Your Computer to Your Audio System," for information on these options.)

You'll see how to use all of these commands and options in this and subsequent chapters.

USING OTHER MP3 PLAYERS WITH MUSICMATCH

If you've already been doing a little experimenting with MP3 files, you may have tried another MP3 player called Winamp. Winamp is a very good (and very popular) MP3 player. You'll be pleased to know that you don't need to give up using Winamp to take advantage of the features of MusicMatch Jukebox. Although the default settings for MusicMatch Jukebox use the MusicMatch player, you can also designate Winamp as your default player.

To set Winamp as your default player, do the following:

- 1. Click Options on the main MusicMatch screen.
- Select Player Controls, then choose Use Winamp Player. MusicMatch will display a dialog box for you to specify where to find the Winamp player.
- 3. When you are satisfied with your entry, click OK. Music-Match displays a message in the main screen that shows you that the active player is now Winamp, as you can see in Figure 1.6.

Now, when you play a track, MusicMatch will use Winamp as the player. As you can see in Figure 1.7, the Winamp player window appears in place of the MusicMatch player when it's playing a track.

You can use this feature to specify players other than Winamp as the default, too, but only if you're sneaky. For example, suppose you want to use Sonique (another popular player). When you select



FIGURE 1.6: MusicMatch main screen with the default player set to Winamp.



FIGURE 1.7: Winamp playing an MP3 file.

Winamp player

Player Controls from the Options menu, then choose Use Winamp Player, MusicMatch asks you to specify where to find the Winamp player. You can't tell MusicMatch you want to use a player with a name other than WINAMP.EXE, but you can copy the SONIQUE. EXE file to WINAMP.EXE and then tell MusicMatch to use *that* file. Lo and behold, when you play a file, MusicMatch will use the file it thinks is Winamp. Sneaky? You bet. But it works.

To go back to the way things were, you can switch back by choosing Use MusicMatch Player from the Player Controls menu. If you ever move Winamp from its current location on your computer, you can use the Change Winamp Path option to tell MusicMatch where to find Winamp. You can also use this to switch between alternate players.

A WORD ABOUT FREEWARE AND SHAREWARE

Freeware is software that's been developed and released to the public at no charge, such as Sonique. Freeware may not always have everything you want, but you don't pay anything for it, so what the heck? Other programs are *shareware*. Shareware lets you try the software before you buy it. If you like it, you pay a nominal fee (usually less than \$40) for the right to keep using it. The shareware system works because there's no cost of goods or cost of distribution for the shareware version of the product.

Registration can usually be done by mail, phone, and the Internet. Some programs (such as MusicMatch Jukebox) give you additional features when you register. Registering a program like this will get you a registration key of some kind that you enter in the program to unlock the additional features, including unlimited recording capabilities and converting WAV files to MP3. Other programs (like Winamp) work exclusively on the honor system: you don't get anything extra in the program for registering, although you may get free updates, documentation, or support, as well as the warm glow of having done the right thing.

Generally, if you use a shareware program for more than 30 days, you're expected to pay for it. If you don't like it, remove it from your computer and try something else. The cost of registering your shareware is minimal. Check the documentation and the help files for each of the programs for information on how much they cost to register and what you'll get for it.

This chapter introduced you to the basics of MP3 files, what you need in the way of hardware and software, and how to play MP3 files using the standard Windows Media Player. You also installed Music-Match Jukebox on your computer, saw how to play a single track, and were introduced to the basic features and options in MusicMatch Jukebox. Finally, you saw how to use a different MP3 player. In the next chapter, you'll explore the Music Library and the Play List features in MusicMatch Jukebox, learn how to create databases of music, and see how to create and use playlists of tracks.

3

Getting More MP3 Files

he previous chapter showed you how to use the Play List window to create and use playlists of tracks. You also saw how to use the Music Library to create and maintain databases of tracks and how to edit track information and add your own categories. In this chapter, you'll see how to get MP3 files from the Internet. You'll also see how to upgrade your computer to accommodate the vast numbers of MP3 files you'll be getting.

"AVAST, ME HEARTIES!" PIRACY AND COPYRIGHT LAW

There's something you should know about some of the MP3 files you're likely to run into online: they may be illegal. That's right, if someone creates an MP3 file of a song and posts it to the Internet without the permission of the owner of the music, then they've committed a crime; specifically, a violation of federal copyright laws and also of the No Electronic Theft, or NET, Act of 1997, which makes it a felony to create or distribute unauthorized digital music. Such felonies aren't cheap, either: even if there is no financial gain, the potential penalties are up to 3 years in jail and \$250,000 in fines.

The Recording Industry Association of America (RIAA) has been keeping an eye on what's being distributed. When MP3 files were first being distributed on the net, they were mostly illegal. However, in the last year a lot of the MP3 sites have cleaned up their acts and are only distributing authorized MP3 files.

IN THIS CHAPTER

"Avast, Me Hearties!" Piracy and Copyright Law

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Getting Digital Music Online

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Buying Digital Music Online

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Upgrading Your Computer

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The issue of creating MP3 files at home is still under discussion. While the Supreme Court has ruled that you can record your own videos at home for purely personal use without violating the copyright laws relating to the copying of a copyrighted film, there is no clear ruling yet on whether it's legal to create MP3 files from CDs or albums that you own. The RIAA contends that it is illegal to do so and is a violation of the Audio Home Recording Act of 1972. They could be right, too.

Isn't this like the flap in the early 1970s over people owning cassette recorders that would let them duplicate vinyl albums and distribute cassette copies? No, not really. With your own cassette recorder, you could only make copies by recording the album onto a cassette, which would get you perhaps one cassette every 45 minutes or so. It definitely violated the copyright of the music but the quantity was relatively small. There was some signal loss, too: a cassette tape you recorded off an album wouldn't be quite as good as a commercial copy of the album on cassette (just like a video you taped off cable won't be quite as crisp as a commercial copy you rented). Moreover, the cassette would fade with time the more you played it. In contrast, you could rip the tracks from a new CD into MP3 format with virtually no loss of quality, upload them to a newsgroup or web site, and have thousands of people a day downloading them. Both kinds of piracy are illegal and cost the artists money in lost royalties, but MP3 files can be a lot more devastating. And this is what's causing concern with the RIAA and regulatory agencies.

"So what is legal about MP3 files, then?" I hear you cry. Well, a rapidly growing number of musicians and artists are releasing authorized MP3 tracks for distribution on MP3 web sites, newsgroups, FTP sites, and on collections of MP3 files on CD. You can also record and distribute MP3 files of anything you have the rights to, such as music your band has written and recorded. (It's worth noting that making copies of CDs or vinyl that you own onto cassettes that are intended for your own personal, noncommercial use is also legal.) Ripping MP3 files from your CDs and albums is a no-no, but I doubt you'll get busted for doing either one. But you should think twice before ripping the entire *Titanic* soundtrack and tossing it up on the net for several thousand of your closest friends to download, because you may find yourself in water that's surprisingly hot.

GETTING DIGITAL MUSIC ONLINE

The CD accompanying this book contains a number of MP3 files, but sooner or later you're going to want more files. The most effective way to do this is to download files from the Internet.

There are hundreds of web sites, newsgroups, and FTP sites devoted to distributing MP3 files. Many of the web sites are general covering a wide range of MP3 files, but others—particularly newsgroups—tend to focus on specific types of music, such as classical, 1960s, or Brazilian. There's something for everybody: you should be able to find something you like on the Internet, no matter what your musical tastes.

GETTING MP3 FILES FROM WEB SITES

The most popular way of finding MP3 files is through MP3 web sites. There are hundreds of MP3 web sites in existence that distribute MP3 files, software, news bulletins about MP3, and provide a forum for discussions by MP3 users. Many of these sites are listed in Appendix A, "Resources."

One of the most popular web sites for MP3 files is http://www.mp3. com. This site is probably the best-known MP3 site in existence. As you can see from Figure 3.1, there's an extensive free music section that is cataloged and cross-referenced in a variety of ways.

One really interesting feature of mp3.com is the Top 40 list, shown in Figure 3.2. The Top 40 list is the top 40 MP3 files being downloaded on the Internet. But perhaps equally interesting is the Bottom 40 list (shown in Figure 3.3), which shows you the 40 least popular MP3 files on the list. (You might think of listing the bottom 40 tracks as a way of "churning the stock;" people will perversely want to know what some of the least popular tracks sound like, download them, and presto! they're no longer the least popular songs.)

You can also select songs by category. For example, Figure 3.4 shows some of the songs in the Folk category. Songs in the list are sorted in order of popularity.



NOTE

For a list of popular web sites, newsgroups, and other online sources for MP3 files, be sure to look at Appendix A, "Resources."

FIGURE 3.1: The mp3.com main screen.

CHAPTER THREE: GETTING MORE MP3 FILES

FIGURE 3.2: mp3.com's Online Top 40 list.

Music	MP3.com - Online Top 40								
Search Engines						•			
Top 40 Bottom 40						OUTcast broadcast of tast.mp3 com:8000	the MP3.com Top 4	IO by selecting "F	Play Location*
Alternative Blues Classical Gemedy Countin Dance Electronica Experimental FoR	MP3.	Com. A e visit M	II of the f AP3 for B	ollowing leginners	songs : to obta	d February 11, 1999) i are available for free d ain the necessary soft 40 just go to our <u>Att</u> i	ownload, MP3 softy ware. If you are an	ware is required to artist or a label a	o play songs,
Gespel HeavyMetal HisMose Industrial Instrumental	1	33	10	1133		You Really Dont Know What You Want	Cobain Morrisson	Rock	om ad
Jazz Love Songs NemApsWorldMusic Post	2	3	2	5		Beathoven, Moonlight Sonata, Op.14	Richard Morris	Classical	1
Punk Ras RB Reggae Rock	3	2	I ay	4		Varsity Blues - Cybersampler™	Artists from the Varsity Blues Moviel	Rock	SUSJECT TO SERVICE TO

FIGURE 3.3: mp3.com's Online Bottom 40 list.

Music	MP3.com - Online Bottom 40						
Search Engines	000000						
Top 40 Bottom 40 Alternative Blues Classical Comedy	be dis comp of the	covere iled we followi	d? Or an ekly (last ng songs	they just updated are avail	t a waste of your disk spa February 11, 1999) from	.com. Are they new brand new ace and bandwidth? You'll have the Net's #1 downloadable mu 93 software is required to play	e to decidel Data is sic site - <u>MP3 Com</u> , All
Country Dance	This Week	Last Week	2 Weeks Ago	Weeks On Chart	Song	Artist	Genre
Electronica Experimental	1			1	Motion Picture Lovers	toogreen	Electronica
Folk Funk	2			t	Party Girl	Chanel Feux	Eolk
Gospel HegyyMetal HipHop	3			1	Ritchie	Chanel Feux	Folk
ndustrial	4			1	Jezebel	IdEE FixEE	Experimental
netrum ental Lazz	5			1	Pills (remix)	Abstinence	Punk
Love Songs New Age World Music	6			1	Rage	Duke Resonant	Alternative
Peg Punk	7			1	The Black Ghostbuster	Pizza Music	Experimental
Rau RB Reugae Rock	8			1	Anything But Tangerines	the American Flyers	Rock

FIGURE 3.4: A specific category of MP3 tracks on mp3.com.



You can also search for specific artists or songs in the site by entering the artist or name in the Search field (shown in the upper left corner of Figure 3.4). Figure 3.5 shows the results of a search for "Squirrel" to see if there are any tracks by the Squirrel Nut Zippers. As you can see, the search turned up tracks by six different artists and one song match. Clicking the "Under the Attic" artist name displays the information shown in Figure 3.6, which contains a reference to the Squirrel Nut Zippers in the "Similar Artists" section of the band's information.

Once you've found an artist or band you like, you can read more about them, download MP3 files for that artist, send e-mail, or go to the artist's web site. All of this is designed to help you find both the MP3 files you're interested in and enough information to find other artists you might also enjoy.

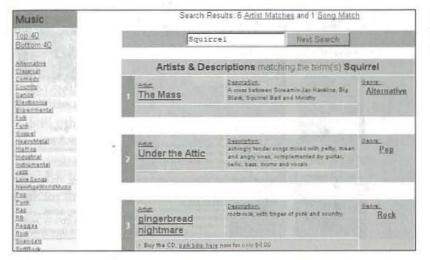


FIGURE 3.5: Searching for MP3 files on mp3.com.

Music	Under the Attic Next Artist in Pop	Band Info		
	Under the Affic Radio Back to Pep	Band description		
Search Music Other Searches	Instant Play and Radio versions require Windows Media Player or Real Player.	achingly lender songs mixed with petty, mean and angry ones, complemented by guitar, cello, bass, drums and vocals. Music style:		
Top. 40 Bottom 40 Bottom 40 Bottom 40 Bottom 40 Bites Sheet Classical Cameata Country Bottom Bites Sheet Bites She	Breathless Get MP3 (4.0 MB) Instant Play Song lyrics Description: this song has a fullably quality to it due to the 3-part harmony with lotsa reverb CD: my least favourite word Credits: lyrics: N. Ysabet, music: A. Bolduc.	happy daggers Musical Influences: Tom Walts, Dar Williams, Ani Difranco, Big Sugar Similar Artists: We sorts sound like what would happen if the Wild Strawbernes and Radiohead got together and sold their synthesizers, spent a week listening to the Squirrel Nut Zippers and then decided to play Peter Gabirel tunes. sorta. Band history: We started as an acoustic duet (Nicole and Adam) abintal 3 years ago, in the last year or		
	Brand New Attraction Get MP3 (3.2 MB) Instant Play Song lyrics Description: a funk thing about a woman who is tired of dating men CD: my least favourite word Credits: lyrics and music: A. Bolduc			
	Anecdote Get MP3 (4.4 MB) Instant Play Song livrics Description: an angry song about violence against women CD: my least favourite word Credits: lyrics & music: A. Bolduc	so, we've put together a full-fledged ensemble, and have moved from Peterborough ON, to Toronto (well, some of us have). Band members: Adam Bolduc: guitar, vox; Ryan Henderson.		

FIGURE 3.6: Examining a file in detail on mp3.com.

The search item

CHAPTER THREE: GETTING MORE MP3 FILES

Another very popular web site is http://www.songs.com (shown in Figure 3.7). Songs.com is a web site based in Nashville, TN, for several hundred independent musicians who are jointly promoting their work online. Many of the artists are popular and tour regularly but may not be as recognizable as some of the stars in their genre.

Songs.com features more than MP3 files; it's also a promotional venue for the artists themselves. Most of the artists have web sites and e-mail. You can search for a category of music by selecting the category from the drop-down list. Figure 3.8 shows the results of searching for Novelty tunes. As you can see, the results are similar to the search shown earlier in Figure 3.4.

FIGURE 3.7: Main screen for songs.com



FIGURE 3.8: Displaying a category on songs.com.



Clicking on the artist's name will display masses of information about the artist: pictures, bios, concert dates, CDs and how to order them, fan club info... everything you might like to know about the artists and their music. Clicking on the MP3 download logo will let you download the track. Figure 3.9 shows an MP3 file ready to be downloaded.

You can search by artist name, category, and other criteria just like you did on the *mp3.com* web site.

There are a number of other excellent MP3 sites. Dimension Music (http://www.dmusic.com) focuses on providing artists with the tools they need to survive and thrive in the digital music arena. Dimension Music gives artists the ability to reach their fans though mailing lists, web pages, and help with creating MP3 files. They also can provide assistance with other marketing tasks such as designing logos and T-shirts as well as burning custom CDs. In addition to artist support, the web site showcases popular bands and maintains a large library of MP3 files for downloading. The Dimension Music main screen appears in Figure 3.10.

MP3-2000 (http://www.mp3-2000.com) features a variety of MP3 files, news, and software. The main screen appears in Figure 3.11.

Still other sites worth checking out include http://www.mp3place.com and http://www.audiodreams.com. For a more complete list of MP3 web sites, look at Appendix A, "Resources." Most of the larger web sites will also have links to other web sites themselves. Be sure to look for links to other MP3 web sites.

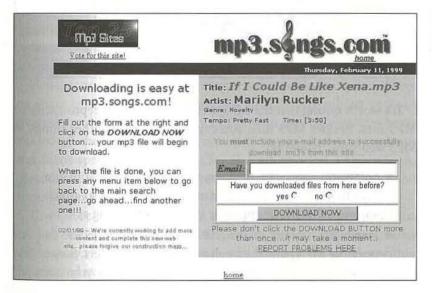


FIGURE 3.9: Downloading an MP3 file on *songs.com*.

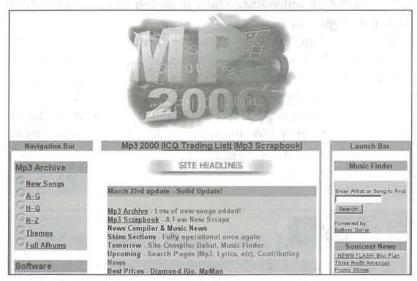
CHAPTER THREE: GETTING MORE MP3 FILES

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FIGURE 3.10: The Dimension Music main screen.



FIGURE 3.11: The MP3-2000 main screen.



It's worth noting that the MP3 web sites aren't just repositories of MP3 files. Besides MP3 files, you can get all sorts of other things at MP3 web sites, including:

- ◆ Software—You can find every kind of MP3 software imaginable on web sites. Some of them have so much software that it's arranged by type and operating system.
- ◆ Hardware—Many of the MP3 web sites sell the Rio (a portable MP3 player) as well as other MP3 players. Some of them also sell equipment such as cables so you can

hook your computer up to your sound system and play MP3 files through a really good set of speakers.

- ♦ Newsletters—There are half a dozen e-mail newsletters about MP3 that you can sign up for through the sponsoring web site.
- ◆ Reviews—Web sites have reviews of MP3 tracks, software, hardware.
- ◆ FAQs and technical info—There is a wealth of background information for all expertise levels, from the beginner to the serious audiophile.
- ♦ Message forums—Some of the larger MP3 web sites have bulletin boards and other message forums where you can post comments, swap opinions, and ask questions.
- ◆ Breaking news—There are lots of developments in MP3 technology, legislation, and policies. Most of the sites have some kind of daily news column; many also have regular editorials and feature articles.

One final tip about downloading MP3 files from web sites: it's not always possible to tell if a track is legal or illegal. Some unabashedly illegal MP3 files are often recognizable by being referred to as warez (slang for pirate software of any kind) or simply MP3z. But most illegal MP3 files don't advertise that they're illegal. They just are.

GETTING MUSIC FROM NEWSGROUPS

Although most people tend to think of the Internet as being web sites and e-mail, there are other ways of getting information, such as newsgroups. *Newsgroups* (also known as *Usenet groups*) are a bit like large cork bulletin boards on a wall on which you can post messages (known in newsgroup parlance as *articles*), ask questions, and get files, including the latest versions of MP3 software, files, and other information.

Newsgroups provide an enormous amount of information. There are more than 30,000 newsgroups on virtually any subject you can imagine (and a lot you probably can't), with new newsgroups being created all the time. There are currently several dozen newsgroups that focus specifically on MP3 files and information. (Appendix A, "Resources," lists a number of newsgroups that contain MP3 files and information.)

To explore newsgroups, you'll need a *newsreader*, a program that lets you read newsgroups and post articles to them. The newsreader will display the newsgroups in one window and the articles within the selected newsgroup in another. The content of the selected article

TIP

Web sites change, move, and go out of existence all the time. It's a good idea to check your favorite MP3 sites regularly as well as be on the lookout for new MP3 sites.

will appear in a third window. Most newsreaders will have features that let you search and sort newsgroups and individual articles.

Both the Netscape Navigator and Internet Explorer browsers already have adequate newsreaders built into them that will let you explore newsgroups and post articles. In Netscape Navigator 4.5, look for the Newsgroups option on the Communicator menu. In Internet Explorer 4.0, selecting News from the Go menu will start Microsoft Outlook Express. Similarly, if you're using AOL for your Internet access, you can use the AOL newsgroup reader at Keyword: Newsgroups. All of these newsreaders are adequate, but you may want to consider getting one of the best newsreaders out there, Free Agent from Forté, Inc.

In addition to being a very good program, one of Free Agent's major advantages is that it's free. (Agent, the registered version, has more features and options.) You can download both from the Free Agent web site (http://www.forteinc.com). You'll also find a lot of FAQs, tips, and information about the products. Free Agent and Agent also provide you with extensive options for sorting and filtering to keep you from being overwhelmed by useless or irrelevant information. Figure 3.12 shows the Agent main window with a number of sample MP3 newsgroups displayed.

Take a look at the Agent main window for a moment. On the left side of this window, you can see the newsgroups that are selected for monitoring. The number of articles in each newsgroup appears to the left of the newsgroup's name. On the top right of the window are the articles in the newsgroup. The articles in this group have been downloaded for reading. The number of lines in each article appears to the left of the article's subject. You can see that the first article, "Hottest new music out of Detroit!!!" is displayed in the bottom of the win-

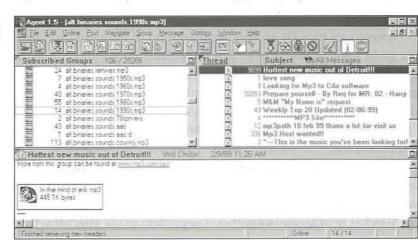


FIGURE 3.12: Agent main window

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dow. As you can see, this article has an attached file, an MP3 file called "In the mind of erik.mp3" that's 441.5K.

Articles posted to a newsgroup have a lot in common with e-mail. They can be as simple as a few lines of text, or they can contain attached files. Like files attached to e-mail, files attached to newsgroups are encoded. The articles with attached files will have a large number of lines. For example, the "Prepare yourself" article in Figure 3.12 has 32093 lines in it, which will probably be a file of about 3 times the size of the one shown in the message window in Figure 3.12. Free Agent is pretty slick software; once you've downloaded the article, all you need to do to save the attached file is select Save All Attachments from the File menu and the file is yours.

By the way, you may see ostensibly the same MP3 file from two different sources that comes in two slightly different sizes. This can be because different settings in ripping options or minor variations in the actual ripping process created files of different sizes. In general, if you select the larger of the two files, you'll usually have the file with the better sound quality.

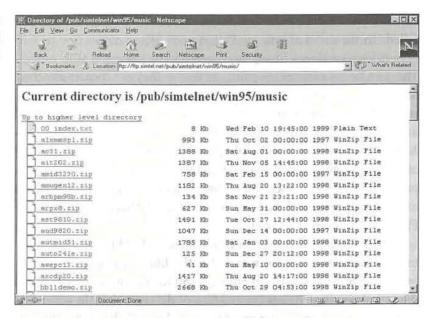
MP3 newsgroups let you ask questions about MP3 files and software, download MP3 files and software, read announcements about MP3 technology, and meet other MP3 users. However, it should be noted that most of the files that appear in MP3 newsgroups are... well... illegal. People will frequently rip tracks from CDs and upload them to a newsgroup just because they like the track. This is deplorable, but it's the way things are right now. The RIAA and a lot of music companies are very unhappy about newsgroups, because they're harder to monitor. Web sites are stationary and easy to shut down, but anyone can post anonymously to a newsgroup if he or she wants to.

There are some tricks to downloading files from newsgroups. For example, large tracks may be split into several articles, all of which must be downloaded and saved to have the complete track. Some files will be in a format that you can't read automatically, and you'll have to use a decoding utility such as WinCode. And never post marketing or advertising information to a newsgroup before you find out if it's OK. (This kind of behavior is usually frowned on.) Finally, it's always a good idea to read the newsgroup for a while first before posting questions. See if the newsgroup has a list of frequently asked questions (also known as a FAQ); these will provide a wealth of information.

USE FTP TO FIND DIGITAL MUSIC ONLINE

So far, you've seen how to use web sites and newsgroups to get MP3 files and information. Now, you're going to learn about the third way to get files online: from FTP sites.

FTP site displayed in a browser.



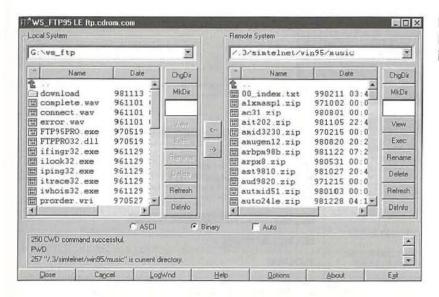
FTP (an acronym for File Transfer Protocol) is the general way for transferring files online. An FTP site is sort of a no-frills stack of files you can download. There are lots of FTP sites for MP3 software and tracks. Many of these are actually accessed directly through a web site: when you click on a specific file in a listing, you may be routed seamlessly to an FTP site maintained or accessed by the web sites.

FTP sites have an easily recognizable "no-frills" look. Figure 3.13 shows a popular FTP site for software, *ftp.cdrom.com*. Most directories in an FTP site will have an index file at the start of the files. These index files list the files in the directory and generally provide a brief description of what the files are. You can view this by double-clicking the file icon to the left of the file. (You can download any of the files in the directory in the same fashion.)

As you can see from Figure 3.13, the FTP site will look very much like a directory on your own computer. You can navigate between folders by double-clicking a folder icon to drill down a level or on the "Up to a higher level directory" link to move back up a level.

You don't need to have a special tool for accessing FTP sites. You can open FTP sites in your browser simply by entering the name of the FTP site. However, you can use FTP software such as Ipswitch's WS_FTP (available from http://www.ipswitch.com) or CuteFTP (http://www.cuteftp.com) to access FTP sites. Figure 3.14 shows ftp.cdrom.com opened using WS_FTP.

FTP sites will frequently have an array of MP3 software and utilities as well, but some are just MP3 files. Like MP3 web sites, FTP sites



FTP site displayed in WS_FTP.

vary in the level of legitimacy of the MP3 files you're likely to find there, from the absolutely legal to the latest MP3 files from Rusty Cutlass Productions. Be careful if you're concerned about downloading illegal or unauthorized files.

SEARCHING FOR SPECIFIC TRACKS

All the methods described so far will get you more MP3 files than you could possibly download, but what if you're after a specific track? You'll need to use a search engine for this. Search engines are nothing new to the Web; however, there are specialized search engines for MP3 files. One of the most effective search engines is the Lycos MP3 search engine at http://www.lycos.com, shown in Figure 3.15.

The Lycos search engine currently lists well over 500,000 MP3 files. To use it, you simply enter the name of the artist or the song and then click Go Get It! Lycos returns a list of the MP3 files that meet the criteria you entered. Figure 3.16 shows the results of a typical search for George Clinton's work.

As cool as the Lycos search engine is, you may actually want to use the search engine page in http://www.mp3.com (shown in Figure 3.17). You can enter your search criteria in the field for the appropriate search engine—there are about a dozen on this page—and then click Search. You'll be routed to the appropriate search engine, which will look up the MP3 files that match your criteria.

Another first-rate search engine is the *Scour.net* web site (*http://www.scour.net*). The main *Scour.net* screen appears in Figure 3.18.

FIGURE 3.15: The Lycos MP3 search engine.



FIGURE 3.16: Results of a typical Lycos MP3 search.



You can use *Scour.net* to search for MP3 files as well as a wide variety of other audio, video, and graphics formats. Figure 3.19 shows a portion of the results for a search for Randy Newman MP3 files.

BUYING DIGITAL MUSIC ONLINE

One of the advantages of MP3 files, both to you and to the artist, is that you can order a CD online with the click of a button. For example, if the MP3 track has a URL entered in the Buy CD URL field on the Track Information screen (shown in Chapter 2 in Figure 2.12),

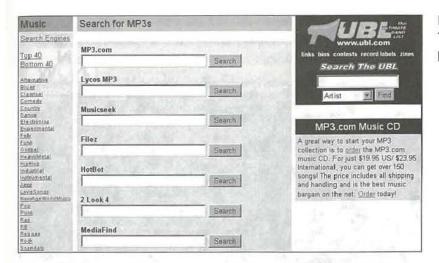


FIGURE 3.17: The search engine page on mp3.com.

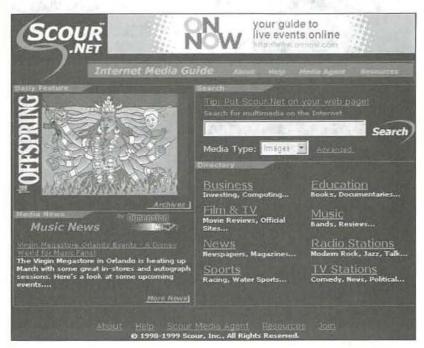


FIGURE 3.18: The scour.net main screen.

clicking Buy CD on the Track Info window will take you to the specified URL where you can order the CD. If there's no specific URL set up to let you buy the CD, you can also use any of the large book and CD web sites to search for and purchase a CD.

Some web sites are set up on the principle of paying for the music you download at a nominal fee (usually around 99 cents) and letting you buy the CD directly. A good example of this kind of web site is http://www.goodnoise.com, shown in Figure 3.20.

FIGURE 3.19: Results of a typical scour.net search.

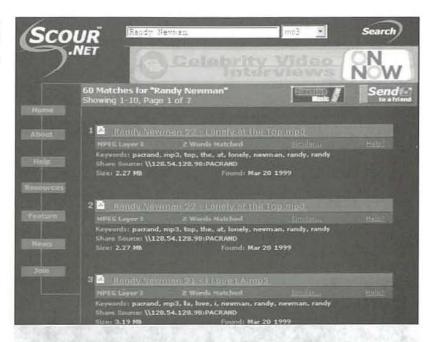


FIGURE 3.20: The GoodNoise.com main page.

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The idea behind *GoodNoise.com* and other sites is that you buy the right to download a single track in MP3 format for a small fee or an entire CD for much less than you'd pay for it in the store. The advantages to this are:

- ◆ You can try before you buy. You can listen to a track or two of a CD before you buy the whole thing.
- ♦ You don't have to buy the whole album. If you like just one or two tracks on the CD, you don't have to buy the whole album.

- ◆ You can get tracks you wouldn't otherwise be able to get. There are a number of artists whose work isn't available as free files but that you can buy online.
- It's cheaper than buying a CD. You're buying the album online rather than on a CD, so you're not paying for the costs of distribution.

The only disadvantage to this system may be that there's a lot of competition with free MP3 files, but web sites such as http://www.nordicdms.com, and others have been making a go of it so far, so time will tell.

UPGRADING YOUR COMPUTER

As you add more MP3 files, you're going to want to consider getting a faster Internet connection and adding more disk space. This section will outline a few of the options.

GETTING A FASTER INTERNET CONNECTION

As you read in Chapter 1, one of the biggest reasons MP3 files are so popular is that they're relatively small compared to CD-DA or WAV files. In particular, they're small enough (3–5 MB) to send at current speeds over the Internet. But even at this size, if you have a 28.8K modem connection, a 3 MB MP3 file will take around 18 minutes to download; slightly faster if you are using a 33.6K modem. If you download a lot of MP3 files, you may want to consider increasing the speed of your Internet connection.

Possibly the easiest thing to do if you're using a 28.8K or a 33.6K modem is to upgrade to a 56K modem. This will cut your download times by about 40% (most phone lines will not support true 56K connectivity even if the modem will; the fastest connection is rarely better than about 40K). If you're just buying a modem now, buy a 56K modem. 56K modems are only about \$20 to \$50 more than a 28.8K modem. The cost difference will be recouped in time savings in the first month you own it.

For something even faster, you might want to consider one of the cable modems from your local cable provider (such as TCI's "@Home" service). These can give you much higher download speeds. Installation is handled by the cable company providing the service, and you don't need to install a second phone line for your computer, which can underwrite a substantial portion of the monthly cost (around \$40/month).

For the most in residential Internet access, you should look at *Digital Subscriber Line* (*DSL*) service. DSL provides a direct 24-hour link

to the Internet at speeds of at least 144K, six times the speed of the average modem. This kind of service is offered by phone companies in many cities as well as a growing number of *Internet service providers* (*ISPs*). There are a number of varieties of DSL service, but they're all roughly similar in the way they work: a piece of hardware called a *digital modem* connects your computer to a separate phone line. Depending on the type of DSL service you've subscribed for, you can get speeds of up to 1.5 M, which is probably far more than you need: at 1.5 M, a 3 MB MP3 file would take 20 seconds to download. (At this rate, you could fill up a 2GB hard disk in a little under 4 hours!)

One of the most convenient and low-cost methods of downloading MP3 files is to use your company's Internet connection, which will usually be something much faster than you're likely to be able to afford for yourself. You'll have to figure out how to transfer files from work to home, though, probably using a Zip disk or by putting collections of MP3 files on a CD-ROM. (Make sure that you're not violating your company's policies on using the Internet before you download MP3 files. Many companies have rather strict policies with regard to personal use of the Internet and you might get into trouble by doing so.)

ADDING MORE DISK SPACE

MP3 files are relatively compact, but they aren't microscopic. There is probably nothing these days that will fill your computer's hard disk faster than downloading a bunch of MP3 files. (Trust me on this: in my first two weeks of exploring MP3 web sites, I downloaded a gigabyte of MP3 files from some of the larger web sites.)

The bottom line is that you're going to need a couple of gigabytes of hard disk dedicated to MP3 files. Fortunately, hard disks are absurdly cheap these days: 10 GB hard disks and larger can easily be had for less than \$200. Even a \$100 6.4 GB hard drive will hold over 100 hours' worth of MP3 files. Whenever you buy a hard disk, it's a good idea to figure out how big a hard disk you need—be generous in your estimates—and then buy the next size up from that. You'll still use up all that space, but it'll take a little longer.

In this chapter, you saw how to get MP3 files from the Internet from web sites, newsgroups, and FTP sites, and how to buy digital music online. You also saw how to speed up your Internet connection and increase your computer's hard disk capacity to store your growing collection of MP3 files. In the next chapter, you'll learn how to rip MP3 tracks of your own from CDs, cassettes, and albums.