p3's: Never buy another CD again!

Nicholas Klingaman

Ever have a tune stuck in your head that you just couldn't remember the words to? The odds of hearing that song on the radio are slim to none.   You could go out and buy a CD, take it home and pop it into your Mac's CD-ROM drive.   But that costs $10-15, a high price to pay just to get the words to one song.   And you end up with 10 songs, where you only wanted just that one.   And if you have a lot of CD's, you have to switch them every time you want to listen to a different band.   You could spend a few hundred and get a CD changer, but that's extra money.   All that just to get the words to one song you had stuck in your head one morning.   There's help, however, in the form of a relatively new technology called MP3.   MP3's are available for free over the Internet; they download to your computer in about twenty minutes; you can play them as many times you like; and you download only the songs you want.   Sound too good to be true?   It is.   They're illegal.

Alright, you've got me hooked.   What are MP3's?

MP3 stands for MPEG I Layer 3.   Using an MP3 encoder (more on this later) anyone can put a CD in their drive, make a copy of a song, and save it to their hard disk.   The MP3 technology compresses the music so that it doesn't take up too much space on your hard drive, while still providing you with near CD-quality sound.   Because the files are so small they can be easily transferred across the Internet.   Many individuals have put entire collections of CD's on the web, from Elvis to Puff Daddy.   With a standard modem, you can download one song in MP3 format in about twenty minutes.   Better yet, because regular people and not music companies are putting these songs on the Internet, they're free for the taking.   In short, you may never have to buy another CD again.

But I thought you said that MP3's were illegal

Unless you own a copy of the song you're downloading, it's illegal to keep any MP3 on your computer for more than 24 hours.   The MP3 standard was originally intended for use by record companies and artists who wanted to release previews of their music, not for mass Internet piracy.   But the thought of never having to pay outrageous sums of money for CD's again appealed to too many people.   There are thousands of MP3 sites

out there, most offering their music for free.   Tens of thousands of songs get downloaded every day by regular computer users, most of whom just want to remember the lyrics to one song without shelling out the cash for a CD.   Of course, there are exceptions, like the guy who has 300 pirated songs on the college network, but they are just that, exceptions.   My point is that a lot of people download a lot of illegal songs every day, people who may never download another pirated song again.   It's a good solution if you only want a few songs.   Sure it costs the record companies money, but it's not like they're in a huge money crisis.   And if you've already purchased the song, whether on record, cassette, or CD, then it's usually perfectly legal to download it.

How do I find these MP3's on the Internet?

Just like there are web page search engines (e.g. Yahoo!, AltaVista), there are MP3 search engines.   I would recommend starting with Music Seek (http://www.musicseek.net/).   It's very easy to use and gives detailed information about each site you can download from.   Once you get a little more experienced at downloading MP3's, you may want to try either Lycos' MP3 search (http://mp3.lycos.com/) or 2look4 (http://www.2look4.com/).   These three seem to have a good number of MP3 listings that update frequently, so you hardly ever run into a "File Not Found" error.   However, these sites can only search for you; they can't download the music.   Almost all MP3's are posted on FTP (File Transfer Protocol) sites.   You can access these with Netscape or Internet Explorer, but it's best to use a standalone FTP client, such as Anarchie Pro 3.5 (http://www.stairways.com/) and Transmit 1.2 (http://www.panic.com/).   I recommend Anarchie Pro over Transmit.

More on FTP clients and Downloading MP3's

This is where it gets a little tricky, so follow along closely.   Here are a series of steps to download an MP3 using Music Seek's search engine and Anarchie Pro's FTP client:

1.
The first step in downloading an MP3 is to get one of the FTP clients I mentioned above.   The second step is to to pick the right time of day.   Most sites are usually the busiest between 5 P.M. and midnight, so you want to get your downloading done either early in the morning or at your lunch break at work.

2.
Next you want to search for your song using Music Seek.   Before you go randomly clicking on links, it's time to talk about one of the downsides of MP3's: ratio sites.

A ratio site has MP3 songs for downloading, just like regular, non-ratio, sites do.   The only difference is that ratio sites want you to upload an MP3 before you can download one.   Obviously if you don't have any MP3's this is impossible, so don't go to any ratio sites just yet.   I have found that Music Seek is the best search engine at making this

distinction, while Lycos' site doesn't make it at all.   The reason they are called ratio sites is that each site has a specific ratio of songs that you upload to songs that you download.   A typical ratio is about 1 to 4: you have to upload one song for every four you can download.   So, for the time being, stay away from ratio sites; only use the ones with "none" printed for their ratio.

3.
After you find a site that looks acceptable, copy the location into your FTP client and attempt to download the song.   If your song starts downloading, great!!   You can go ahead to the next section.   More likely than not, however, you'll get an error saying "550: Permission denied."   This is usually because the FTP site requires a specific password and username to download a song.   Go under the "Window" menu and select "Show Transcript."   This will bring up a dialog box with all the commands the FTP client has received.   There will usually be a welcome message and instructions for downloading included in the list of commands; you just have to look for it.   If there are directions for obtaining a username and password (which usually involve going to a website or clicking on a banner), follow them.   Once you have obtained the correct information, click the "Edit Retry" button in Anarchie Pro, and type them in under "Username" and "Password."   Then try again, and hopefully this time it'll work.   If there are no downloading instructions, or the username and passowrd you obtained doesn't work, then pick a different site; it's probably not worth your time figuring out what to do.

Okay, so I have this file on my hard drive.   Now what?

Now that you've spent all this time downloading the MP3 (not to mention reading this rather long article), you probably want to play the song, right?   Well, there's a bit more downloading involved first.   You have to get an MP3 player.   I recommend SoundApp, a small application that cannot only play MP3's, but just about every other sound format under the sun.   The latest version can be found at http://www-cs-students.stanford.edu/~franke/SoundApp/.   Once you have this application, you're ready to listen to your new song.   With SoundApp, you can also make "play lists," which enable you to make a list of several songs that you can play in any order you want.   Just select the "New" option under the File menu, then drag and drop your files.

Can I make my own MP3's?
Sure.   You can make MP3 files off of a CD simply by using MPEG Audio Creator http://www3.pair.com/odreer/mpeg.html, an MP3 encoder.   Just pop a CD into your CD-ROM drive, click the "Extract" button, select the tracks that you want, and you're off. Combined with SoundApp's play lists, this is an excellent way to save money on that CD changer, since now you can have at your fingertips as many CD's as your hard drive will hold.

Some Technical Information About MP3's
MP3's take up about 1 meg of hard drive space for every minute of music.   Not bad for CD-quality sound.   They are cross-platform, you just have to add the ".mp3" extension onto your files to trade them with Windows users.   MP3's can be encoded at up to

128Kbit/sec. on a mono channel and up to 384Kbit/sec. on a stereo channel.   The higher you push it though, the more hard drive space you'll lose.   I once pushed a 5 minute song all the way up to 256 Kbit/sec stereo and it ate up 20 MB off my hard drive.   What was worse was that I couldn't tell the difference between that and the 128 Kbit encoding of the same song!   Most Internet MP3's are encoded at either 128 or 96 Kbit/sec.

The interesting thing about the MPEG Audio Creator program I mentioned above is that it can also encode MP3's from the sound in (microphone) jack on your Macintosh.   Using a standard 3.5 mm. cable, hooking one end up to the headphone jack on my tape player and the other end up to the microphone jack on my Mac, I was able to encode several songs off an old cassette.   There's a lot of noise in the background, but that could be reduced by getting a better cable and a better tape player.   If you use the "Realtime" command instead of the "Encode Direct Sound In...," you'll be able to hear the song as it's recording.

In the end, it's all about ethics
MP3's are a great way to transfer songs across the Internet.   They can save you a lot of money too.   But they are illegal (unless you own a copy of the song), and so in the end it all boils down to a moral decision.   If you want them, they're there for the taking.   If you, like thousands of other people, say "Screw the record companies," then go ahead and download to your hearts content.   If you don't believe it's right, then don't go near the darned things.   In my opinion, though, the Justice Department is hardly going to come after some guy who just downloaded a few MP3's to listen to every now and then.   Besides, they're too busy breaking up Microsoft.

Comments, suggestions, or flames?   Nick Klingaman welcomes your feedback on his new column.
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