



In addition to being a jukebox, disc burner, and interface to your iPod, iTunes is a powerful organizational tool, and your iTunes music library is the guts of this part of the program. Using the tag information attached to your digital music files (see Tags and Track Info), iTunes maintains a database of all your songs and their locations on your hard disk. Your iTunes music library is like your record or CD shelf, or a box full of CDs. The difference is the voodoo under the hood that lets iTunes know what all your tracks are and where they come from.

By default, iTunes “organizes” your iTunes Music folder. This means that each time you add songs to your iTunes library, the program places them in folders and subfolders named after the artist and album, and iTunes numbers the tracks and adds their names, if these are not already applied to the files.

To maintain this organization, and to record any additional information you’ve added to your music library, such as ratings, iTunes uses two special files: the iTunes 4 Music Library file and the iTunes Music Library.xml file. (You may not see the file extension, depending on how you have your computer set up.) The former contains a database of all your songs and playlists, as well as some information about songs. If you delete this file, iTunes creates a new one the next time you launch the program, but you’ll lose your playlists, song ratings, and some other information. The iTunes Music Library.xml file contains

### DO OR DIE:

- >> [Understand your iTunes music library](#)
- >> [Manage your library](#)
- >> [Search and browse for tunes](#)

#### OTHER THINGS YOU CAN DO AT THE iTUNES MUSIC STORE

*Apple has tried to keep control of your eyes by adding lots of interesting things to the iTunes Music Store. It is conceivable that, in*



**UNDER  
THE  
HOOD**

some of the information from the first file, but is used to make your music available to other programs. Both of these files are stored in your iTunes folder.



## TOOL KIT

### Toolkit: Where iTunes Stores Its Files

iTunes stores its library files in a fixed location, but you can change where your music is stored. Here is where iTunes files are kept on your computer:

#### Mac OS X:

- /Users/username/Music/iTunes/iTunes Music
- /Users/username/Music/iTunes/iTunes 4 Music Library
- /Users/username/Music/iTunes/iTunes Music Library.xml

#### Microsoft Windows:

- \Documents and Settings\username\My Documents\My Music\iTunes\iTunes Music
- \Documents and Settings\username\My Documents\My Music\iTunes\iTunes 4 Music Library.itl
- \Documents and Settings\username\My Documents\My Music\iTunes\iTunes Music Library.xml

iTunes stores your music files in the iTunes Music folder, which, as you can see in the Toolkit sidebar, is either in your Mac OS X Music folder or your Windows My Music folder. But this can be a problem for people with lots of music who want to back up their music files. If you have, say, 30GB of music files in your Home or My Documents folder, and store other files there as well, backing up these folders may be time-consuming. For this reason, you can change the location of the iTunes Music folder.

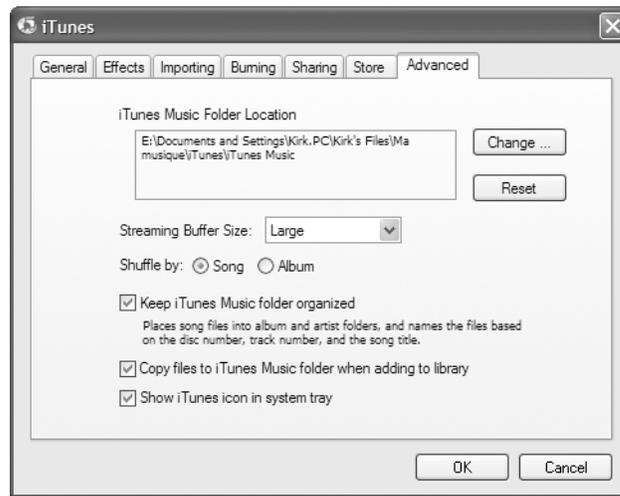
Open the iTunes preferences. (Select iTunes > Preferences on Mac, or Edit> Preferences on Windows.) Click the Advanced tab. As you can see in Figure 1-28, there is an iTunes Music Folder Location section on this tab, showing the current location.

Click Change, then find a new location for your iTunes Music folder. If you have more than one hard disk or partition, it's a good idea to use a second disk or partition for your music files. You'll probably have more space, and it will be easier to back up your files. If you only have one hard disk or partition, you're better off leaving the default setting.

But if you change your iTunes music location after you already have some music in your library, iTunes does not move the existing music. It creates a new library with all your songs linked to the old location, and imports new songs to the new location.

*the future, Apple will offer even more content to view and purchase. After all, downloading movies will be easy once people have the appropriate bandwidth.*

*For now, at least at press time, you can view movie trailers and music videos from the iTunes Music Store. You can also check out Billboard charts*

**Figure 1-28**

You can change the location of your iTunes Music folder, as well as other settings for your iTunes library, on this tab.

If you want to move your entire library, including songs you've already imported, move the iTunes Music folder manually to a new location, then select that folder in the preferences, as shown in Figure 1-28.

## iTunes Music Library Settings

As you can see in Figure 1-28, there are other settings for your iTunes music library. It can be useful to uncheck these in some cases.

- Keep iTunes Music Folder Organized:** When this is checked, iTunes copies all your music files to folders containing the artists' names and subfolders containing album names. If you import music that doesn't have artist and album tags, however, these files go in Unknown Artist and Unknown Album folders. For most people, this is not a problem, but if, for example, you're a fan of live bands whose music is freely (and legally) traded over the Internet, you'll be downloading files without tags. Unchecking this allows you to create your own folders. It takes a bit longer, but it makes it easier to find your tunes. You can always turn it back on when you rip CDs, to ensure that they get automatically organized according to artist and album. (If you're using iTunes for Windows, you may recall that the iTunes Setup Assistant offered to do this already. If you made your choice then, you can change it now, at

*as well as charts for radio stations in hundreds of cities around the US. And you can send gift certificates or create monthly allowance accounts for people you want to allow to buy music, but who shouldn't have free rein with your credit card.*

least for future music you add to your library. If you're a Mac user, here is where you choose.)

- **Copy Files to iTunes Music Folder when Adding to Library:** If you store all your music files in your iTunes Music folder, it's best to leave this checked. Whenever you double-click a song file, iTunes copies it into your iTunes Music Library folder in the appropriate subfolder. But if you store your files in several places, this will make unnecessary copies. You don't need to have your files in the iTunes Music Library folder; you can drag files and folders into iTunes from any location on your hard disk, but if you move or rename files or folders, iTunes might lose track of them. In my experience, it makes sense to at least keep them in a central location so you can back them up when you need to.

The remaining settings on this dialog are self-explanatory. The streaming buffer size depends on your network connection; the faster the connection, the higher the buffer. If you have a dialup connection, choose Small; a cable, DSL, or other broadband connection, choose Large.

The Shuffle By option lets you choose to have iTunes shuffle music by song or by album.

Finally, if you're using Windows, you have the option to Show iTunes Icon in System Tray for quick access. (As you've seen in Listening to Music with iTunes, this lets you control iTunes from the System Tray, so it's a good idea to leave it checked.)

## Managing Your iTunes Music Library

I explained earlier that you have two options for managing your iTunes music library: Either you can let iTunes do everything, or you can do it yourself. If you've chosen the first option, just skip this section.

If you want to manage your library manually, you need to consider where you store your music files, and you then need to manually add them to your iTunes library. You've seen earlier in this topic that you can choose an alternate location for your iTunes Music folder. If you do this, iTunes still manages your music library; it just puts the files in a nondefault folder. But you can also keep your files in another folder or even in several folders. If you do this, you need to manually add your music to your iTunes library.

There are two ways to do this. First, you can click Library in the iTunes Source column, then just drag all your music files from their respective folders into the right-hand section of the window. iTunes records the location of all the files and adds them to your library.

The second way is to add your songs by folder, creating playlists, as explained in Working with Playlists. Dragging a folder into the Source column creates a playlist and adds the contents of the folder (and its subfolders, if any) to your library.

If you store your music files in a central location—a hard disk or partition, or a specific folder—you'll always know where they are, but if you have files in different locations and then drag them into iTunes, you may not remember where they are located. If you ever want to see where a specific song file is located, right-click the name of a song (or Control-click on Mac, if you don't have a two-button mouse) and select Show Song File (see Figure 1-29). This opens the folder containing that file and selects it.

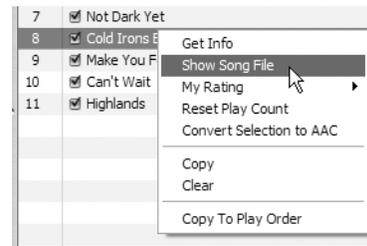
Managing your iTunes music library manually can be a headache, and I only recommend it for people who have a lot of music and who get it from different sources: ripping CDs on different computers, downloading legally shared live music, and so on. There may come a time when you find it easier to centralize all this music. If you want to move it all into your iTunes Music folder, select **Advanced > Consolidate Library**. This tells iTunes to copy all your song files to the iTunes Music folder, without deleting the original songs. This can take a while if you have a lot of music.

Consolidating your library is a one-way operation—you cannot undo it, and iTunes replaces the original pointers to your files and looks for all your music files in the iTunes Music folder. So make sure you really want to do this before you click **Consolidate**.

## Browsing Your Library

When you want to find music in your iTunes music library, there are several ways you can do this. If you haven't created playlists when ripping your CDs, or dragged folders containing music files into iTunes, you can browse your library (see Figure 1-30), looking for individual songs by genre, artist, or album. Even if you have no playlists and just dumped all your music into iTunes without paying any attention to it, as long as the music has the right tags, it will show up here.

Clicking this button (or pressing **Command-B** on Mac, or **Control-B** on Windows) displays or hides the iTunes Browse pane (Figure 1-31).



**Figure 1-29**

*To find where a song file is stored, select **Show Song File** from the contextual menu.*

**Figure 1-30**

*To browse your library, click the **Browse** button.*



**Figure 1-31**

*The iTunes Browse pane, where you can browse your music library by genre, artist, or album*

The iTunes Browse pane displays only those genres contained in your music library and all the artists you have music by. The Album column displays the albums that your songs come from, not only entire albums; if you only have one song from an album, it's still listed there.

You can find music by clicking any of the genres, artists, or albums. If you click a genre, only those artists and albums that belong to the genre display; you can further narrow down your search by clicking an album. In all cases, the bottom pane displays the songs that meet your selection.

## Browsing Preferences

There are a couple of settings you can turn on or off to change the way you see music when browsing. Select iTunes > Preferences, then click General. If you check Show Genre when Browsing, you'll see the Genre column, as in Figure 1-31. If you check Group Compilations when Browsing, your compilation albums won't be listed under each artist, but rather as compilations. If you don't check

this, you may find hundreds of artists who you only have one song by; each one shows up in the Artists column, even if their songs are on a compilation.

## Sorting Songs

Whenever you look at songs in your iTunes library or in a playlist, you see the songs' information listed in columns. In Figure 1-31, for example, you can see columns for Song Name, Time, Artist, Album, and Genre. You can sort your songs by any of these columns by clicking the header above the column. So, in Figure 1-31, you can see that the Album column is selected, and the songs are sorted in the order in which they appear on the albums. To change the sort order, just click the column again; the arrow at the end of the column will change direction, and the sort order will be the opposite. (Instead of alphabetical order, it will be reverse alphabetical order; or if you sort by time, it will sort by shortest to longest, instead of longest first.)

## Searching for Songs in Your Library

Browsing is one way to find music, but if your song files don't have the appropriate tags (see Tags and Track Info for more on tags), it won't be listed according to the appropriate genre, artist, or album. Also, if you have a lot of music, it can be quicker to use iTunes' search function to find specific songs.

iTunes has a Search field (Figure 1-32) at the top of its window. Just enter text in this field—a word in a song title, the name of an artist, part of an album name, or a composer—and iTunes finds corresponding tracks as you type.

If you want to limit your search to a specific criterion, click the triangle next to the magnifying glass (Figure 1-33) and select one of the choices: Artists, Albums, Composers, or Songs. As you type, iTunes will only look for matches in the field you select. Note that iTunes can only find songs if their tag info has been filled in.



**Figure 1-32**

*The iTunes Search field. Type a keyword, and iTunes displays corresponding tracks.*



**Figure 1-33**

*Narrow down your search by selecting an item from the popup menu.*

If you have the Comment field displayed in your library or the current playlist, the popup menu allows you to search in your comments as well.

## Deleting Songs

You thought that hard disk would be big enough, didn't you? When you bought your computer, you never thought that you'd want to put 100GB of music on your disk, and, all of a sudden, you're running out of space...

So it's time to do some spring-cleaning. You can easily delete your music by going to your iTunes Music folder, or wherever it's stored, and just deleting the files, but if you do this, they remain in your library. Not the actual files, of course, but pointers to them.

The best way to delete your songs is to do so from the main iTunes library. Either by using the Browse pane or by searching, find the songs you want to delete. Select them, then press the Delete key. iTunes first asks if you're sure you want to remove the selected items. Click Yes. If the music files are in your iTunes Music folder, the program then asks if you want to move the files to the Trash or the Recycle Bin. If you're sure you want to remove the files—if you're sure you have a backup or still have the original CD—you can click Yes. You can still retrieve the files from the Trash or the Recycle Bin, but that's your last chance.

If you're a mouse lover, you can also delete selected items by Control-clicking (Mac) or right-clicking (Windows) and selecting Clear from the contextual menu.

If you want to work without a net, press Command+Delete (Mac) or Shift+Delete (Windows) to delete songs without an alert. They'll get removed from your library and deleted at the same time, so make sure you really want to do this.

### TOOL KIT



#### Finding Songs to Delete

If you need to make space, start by looking for the songs you listen to the least. Click Library in the Source column, then select Edit > View Options, and click Play Count. Click the top of the Play Count column, and you'll sort your songs by the number of times you've listened to them.

You can scroll up and down to see which songs you listen to most, and if you click the Play Count column header again, the sort order changes.

While the number of times you listen to songs is not the only criterion for deletion, when you need to make room on your hard disk, it's a good place to start.