

Chapter

5

Working with Multimedia and the Digital Hub











With the return of Steve Jobs to Apple, the Macintosh experience has changed in dramatic ways. Chief among these changes is the arrival of the Macintosh in its role as the “Digital Hub.” The idea behind the Digital Hub is that your Mac serves as the centerpiece of your digital world. You can connect still and video cameras, music devices such as the iPod, and CD and DVD burners to your Mac, the Digital Hub. The Mac OS takes care of coordinating tasks between these different devices, interpreting the media that each uses and producing useful output.

To help you along in your pursuit of digital nirvana, Apple saw fit to provide Mac users with iLife '05, a suite of digital media applications

that offer professional results with a beginner’s learning curve. This suite consists of iTunes and GarageBand for your music, iPhoto for your photographs, iMovie HD for working with video content, and iDVD for creating DVDs that play in home and computer DVD players.

Not only do the Digital Hub applications work great alone, but they also work well together. Apple has gone to great lengths to make the applications interoperate. The result is that your media tasks are easier to perform, take less time, and give you better results. With the Digital Hub, you can combine multimedia from audio, photo, and video sources into professional-looking presentations that you can then burn onto CD and DVD.

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GET PHOTOS

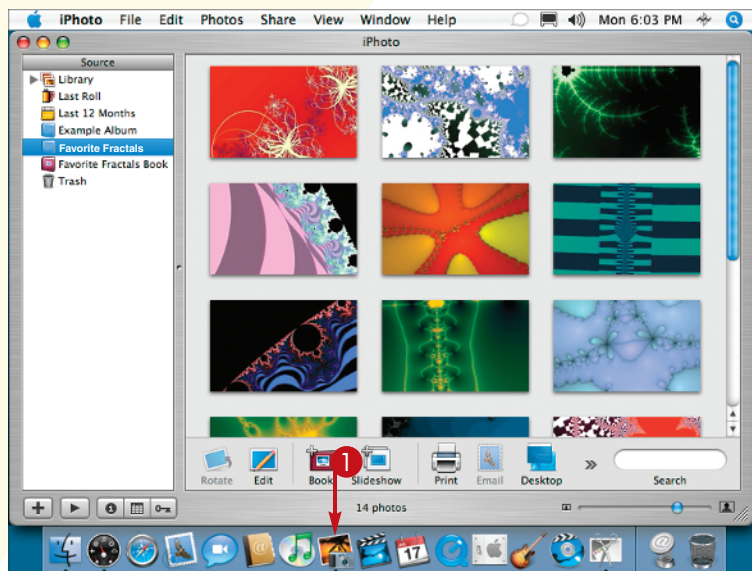
onto your Mac

You can quickly and easily transfer multimedia from your favorite device. Tiger can transfer and manipulate your favorite image, video, and audio media from digital and video cameras, audio CDs, an iPod, and just about anywhere else you can find it.

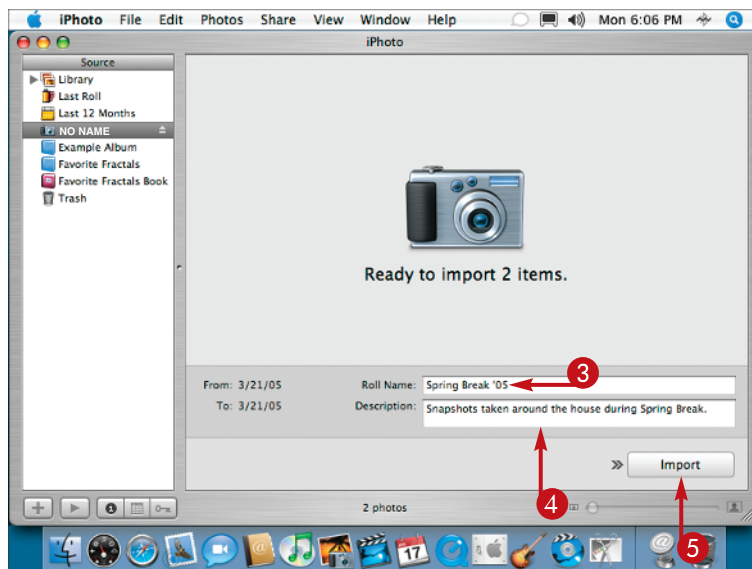
You can transfer photographs from digital cameras directly into iPhoto. This gives you the opportunity to tweak the look of the photos, catalog and print them, or even send them to friends. You can also import images into iMovie for use in your own movies.

You can import your favorite video content into iMovie HD. After import, you can add titles, mix in background music, and even add sophisticated professional-quality video effects.

Tiger also includes a complete set of tools for importing and working with audio. You can import your favorite songs from CD and the Internet using iTunes, iMovie HD, and iDVD, or you can create your own original songs with GarageBand. After import, you can catalog and listen to the song in iTunes or mix it in as background music for your movies in iMovie HD and iDVD.



- 1 Click the iPhoto icon in the Dock. The iPhoto window appears.
- 2 Connect a digital camera to your Mac.

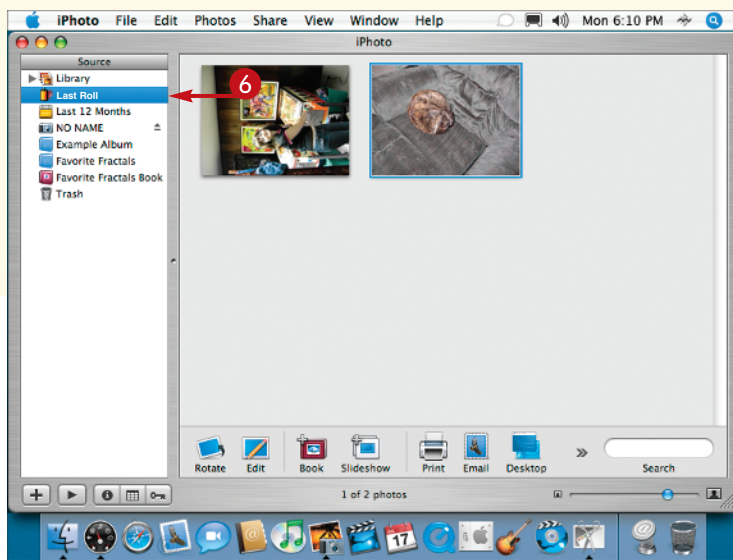


iPhoto displays the Import window.

- 3 Type a new name for this roll.
- 4 Type a brief description for this roll.

You can click Delete items from camera to erase the images on the camera after import.

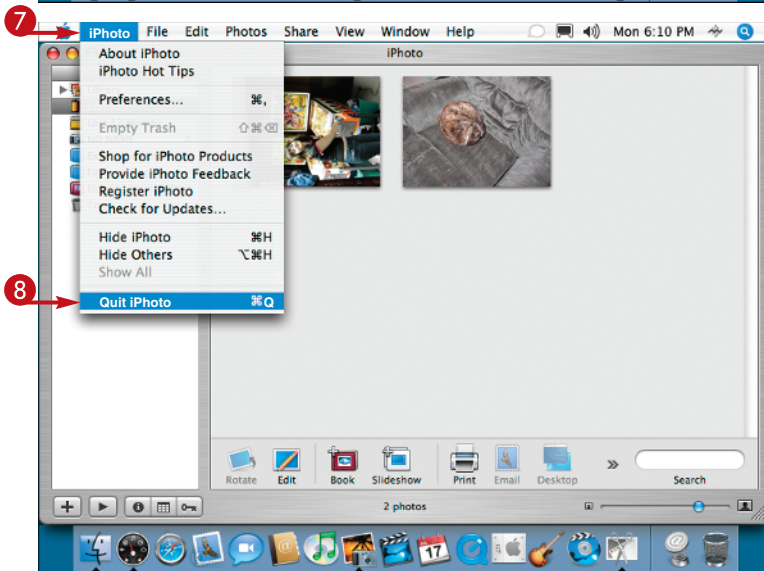
- 5 Click Import.



The new images appear in the Last Roll category in the Source list.

- 6 Click the Last Roll category to view your photos.

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- 7 Click iPhoto.

- 8 Click Quit iPhoto.

TIPS

Did You Know?

iPhoto is able to import from a wide range of digital cameras, but not every camera is supported and recognized. If you plug in your camera and iPhoto does not recognize it, make sure that your camera is turned on and ready to upload. To check whether your specific model of digital camera is supported, visit the Support page on Apple's Web site at www.apple.com.

Caution!

If you choose to erase the images from your digital camera when the import process in iPhoto is complete, be forewarned that you cannot reverse this procedure. After you erase the images from the camera, there is no way to regain them; your only copies of those images are now in your iPhoto library. Use this feature with care!

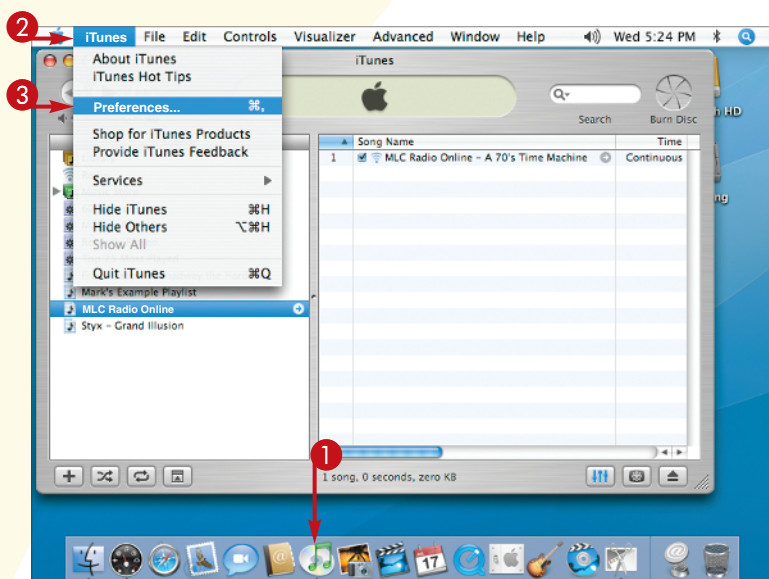
BURN CDS AND DVDS

with iTunes

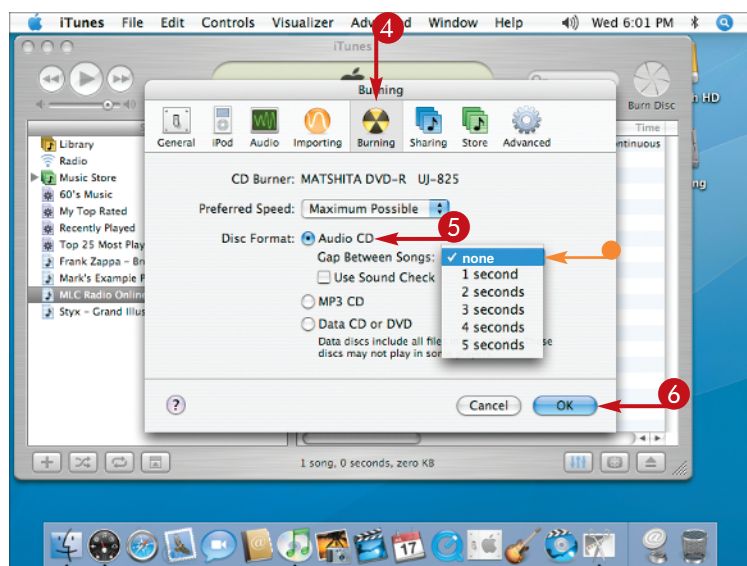
You can use iTunes to burn your music playlists onto CDs and DVDs in a number of popular formats. The iTunes Preferences window gives you several options for burning discs. You can select the optical drive with which you want to burn, how fast you want the burner to operate, and the format of the resulting burned disc.

You have three format choices for burning discs in iTunes — Audio, MP3, and Data. Audio CDs are the

discs that you will find in your home stereo, computer, boom box, or car. MP3 discs work in some CD players, some DVD players, and nearly all computers, such as your Microsoft Windows brethren. Data discs are only readable with a computer. Note that the Data format enables you to record on a DVD disc as well as a CD; using a DVD is a great way to back up large libraries. Select the appropriate format according to your specific needs.

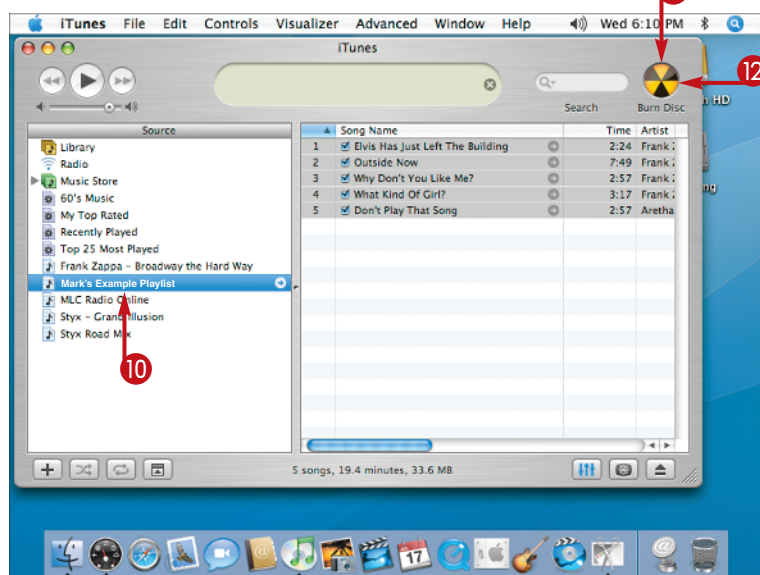
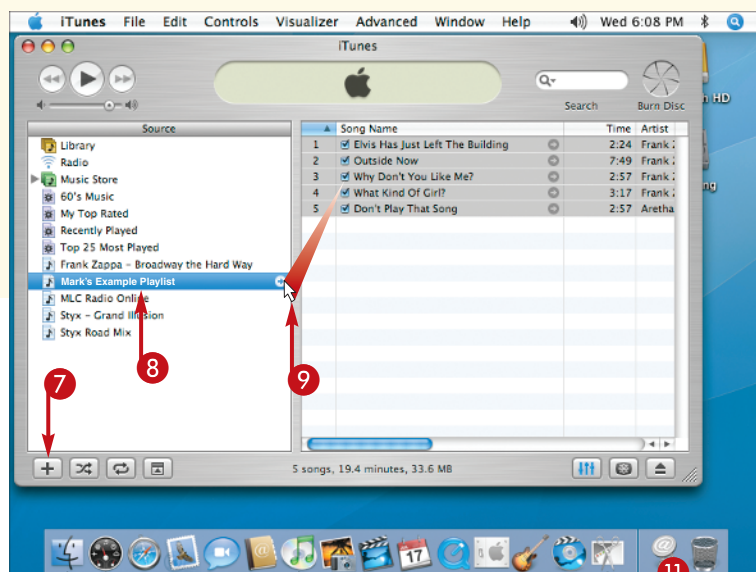


- 1 Click the iTunes icon in the Dock.
- 2 Click iTunes.
- 3 Click Preferences.



The iTunes Preferences window appears.

- 4 Click Burning.
- 5 Click the Audio CD option to create an audio CD (radio button changes to a filled circle).
- You can click the Gap Between Songs drop-down list and set the amount of silence that you want between each track on the audio CD.
- 6 Click OK.



- 7 Click the Add button (+) to create a new playlist.
- 8 Type the playlist name in the Source list.
- 9 Drag songs from the library to the playlist.

As you add items, the total time and size of all the files appears here.

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- 10 Click the playlist to select it.
- 11 Click Burn Disc.
iTunes prompts you to insert a blank disc if one is not inserted already.
- 12 Click Burn Disc again.
iTunes begins to record the disc.

TIPS

Apply It!

If you want to burn additional discs identical to one already burned, select the playlist and click Burn Disc again. You can make multiple copies, with one exception: The songs downloaded from the iTunes Music Store have limits on how many copies you can make. The number is large for individual use but is meant to prevent large-scale piracy.

Caution!

If you use CD-R media, make sure your playlist is set exactly as you want it. If you make a mistake, you waste a CD-R. Although CD-RW discs are erasable and give you more room for error, they cannot make up for the lost time of burning another disc. In addition, older audio CD players cannot read CD-RW discs.

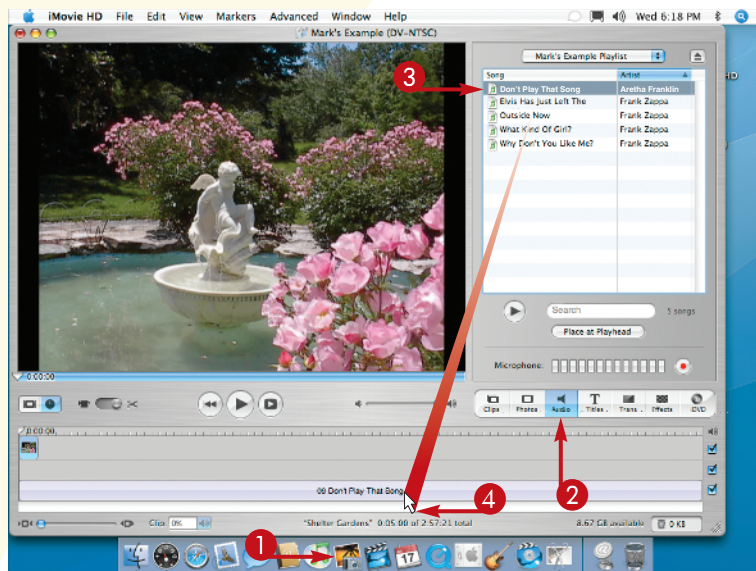
USE iTunes AUDIO in iMovie HD

You can use audio that you have imported into iTunes with the projects that you create in iMovie HD. This helps you keep audio files organized with iTunes excellent playlist feature while maintaining one-click access to that content in iMovie where you can use it.

You can use audio from iTunes to add background music for romantic movies, sound effects for action clips, and voice-over narration for documentaries. When you add iTunes audio to an iMovie HD project, iMovie HD imports a copy of the audio, which

becomes part of the current iMovie HD project. By importing the audio into your iMovie HD project, you keep the original iTunes audio unaltered for future use.

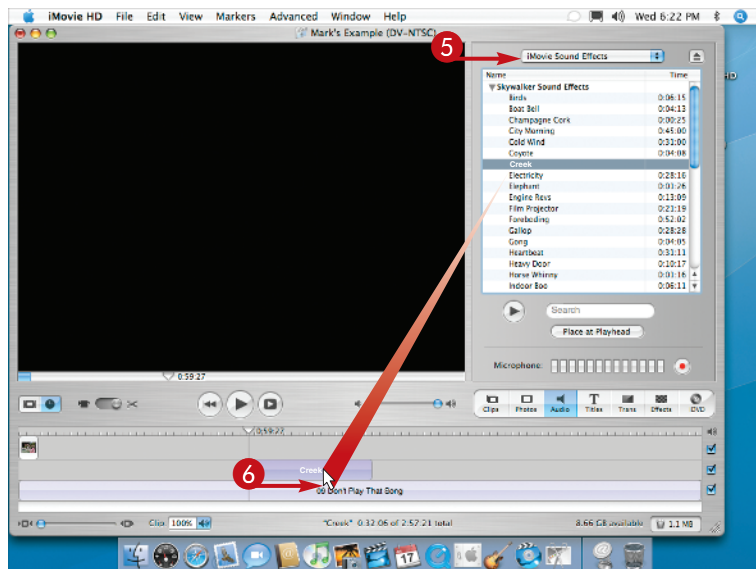
In iMovie HD, you can preview the audio you imported, adjust its volume, use it in a movie clip, and even fade it in and out. Again, the changes that you make to the audio in an iMovie HD project are saved separately by iMovie HD, so those changes do not affect the original audio in iTunes.



- 1 Click the iMovie HD icon in the Dock.
- 2 Click Audio to display the audio tray.

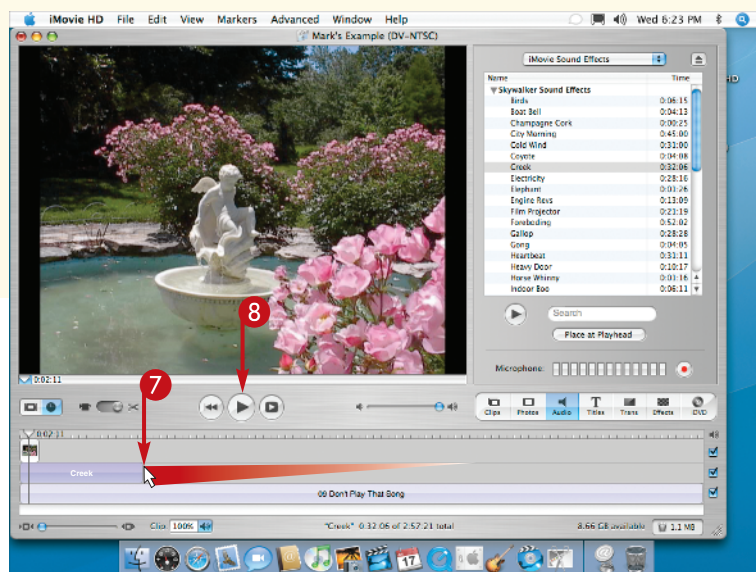
Your iTunes Library and playlists appear in the audio tray.

- 3 Click a song that you would like to use in a movie from one of your playlists.
- 4 Drag that song from the audio tray to an audio track in the Timeline.



- 5 Click here and select iMovie Sound Effects.
- 6 Drag a sound effect from the audio pane to the second audio track in the Timeline.

If you rewind the movie and click the Play button, iMovie HD mixes the two audio tracks together upon playback.



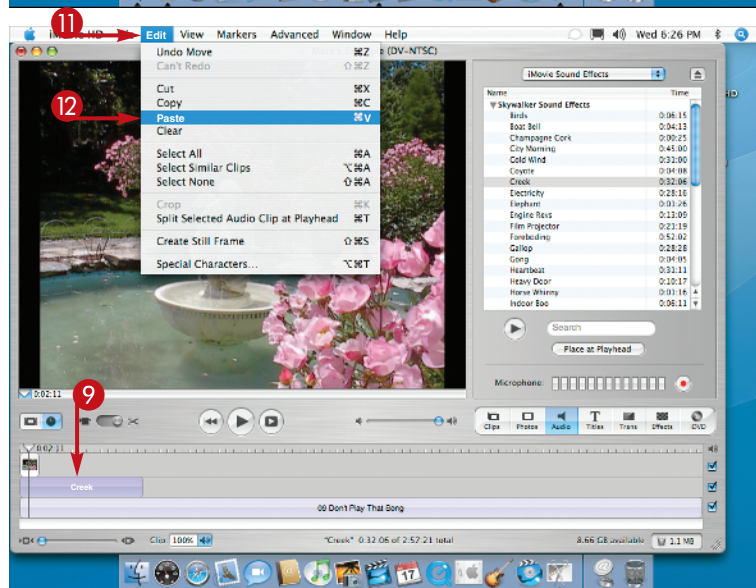
7 Drag the sound effect and place it somewhere earlier in the Timeline.

8 Click the Play button.

iMovie HD instantly remixes the audio tracks, accounting for any changes that you made.

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9 Click the sound effect that you added to the track.

10 Press ⌘-C to copy the sound effect to the Clipboard.

11 Click Edit.

12 Click Paste.

When you paste the sound effect, iMovie HD creates a copy of the audio snippet in the same track, immediately following the sound effect that you copied. This is handy for duplicating a sound quickly.

TIPS

Customize It!

Not only can you overlap your imported iTunes sounds in two different audio tracks, but you can even do so in the same audio track. If you drag one imported audio clip on top of another audio clip, the two clips will play back mixed together, at approximately the same volume.

Did You Know?

You can create echo effects by layering multiple copies of the same audio clip. To make the audio echo, move each clip to a position slightly later in the Timeline than its preceding clip. You can also adjust the volume of each clip, with each sound becoming quieter. The clips that form the echo can appear in the same track or in different tracks.

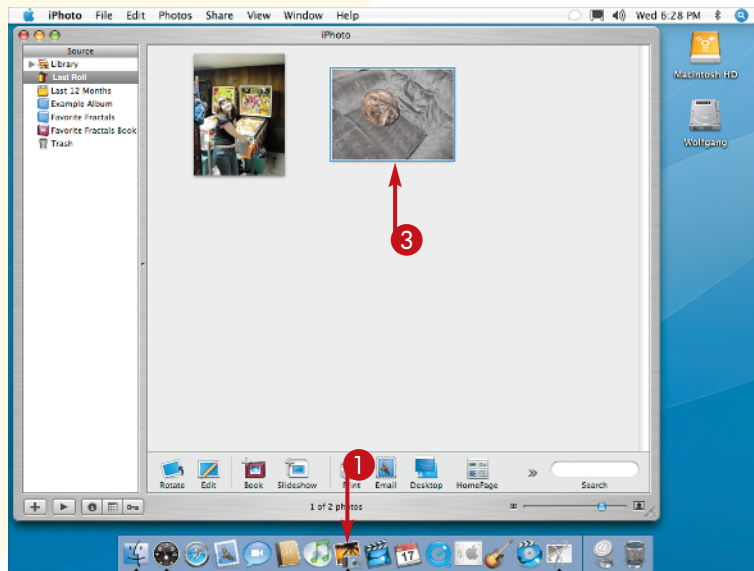
USE iPHOTO IMAGES in iMovie HD

You can take advantage of the organization that iPhoto affords you and maintain one-click access to iPhoto images in iMovie HD, in which you can use the images as part of a movie project.

Using your own images from iPhoto to create title screens, movie credits, background images, or animated photo slideshows is easy. When you add iPhoto images to an iMovie HD project, iMovie HD imports a copy of the photo as a separate still image, which in turn becomes part of the current iMovie HD

project. By importing the images into your iMovie HD project, you keep the original iPhoto images unchanged for other uses.

In iMovie HD, you can zoom in on a still image, place it in the frame wherever you want, add professional-looking animated titles, and apply motion effects to it. The changes that you make to a still image in an iMovie HD project do not affect the original photo in the iPhoto Library.

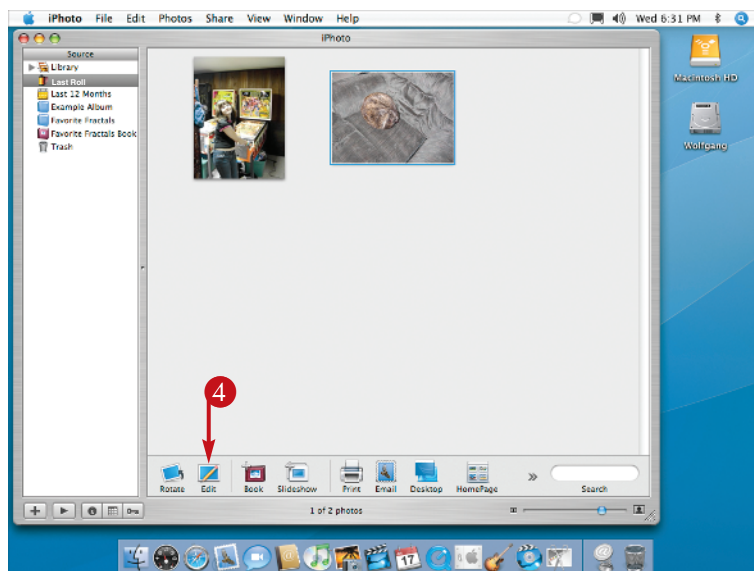


- 1 Click the iPhoto icon in the Dock.
- 2 Import a photo from a digital camera.

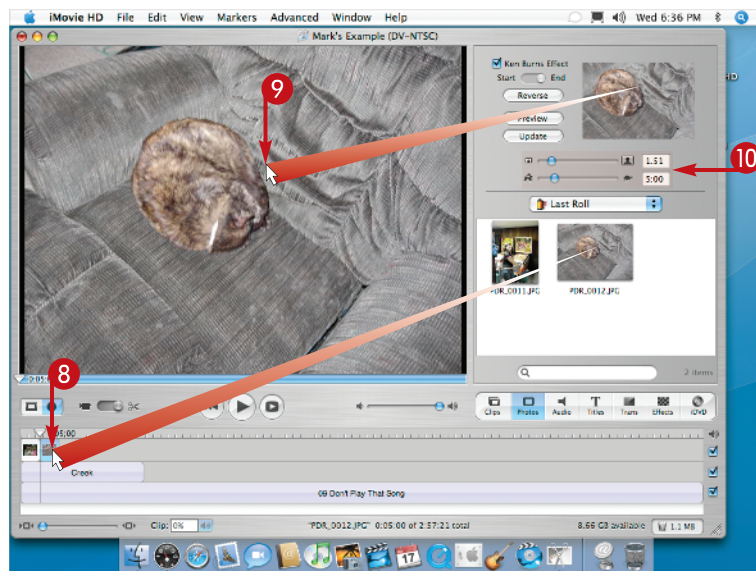
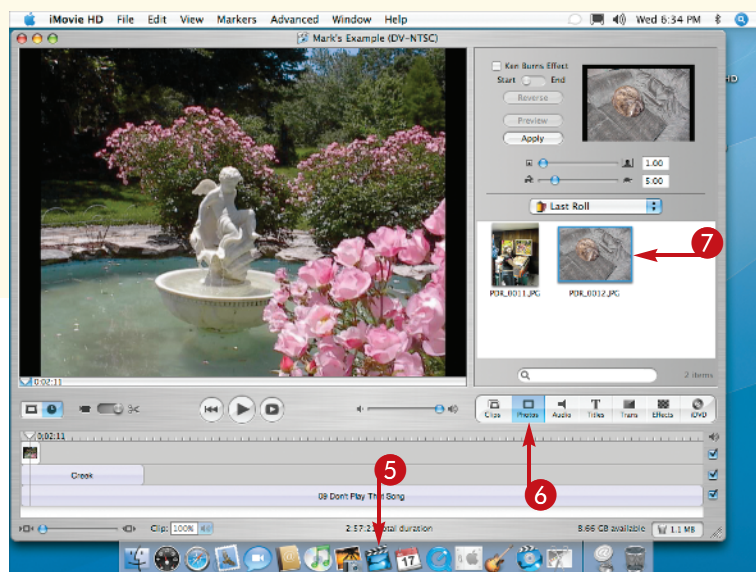
Note: See Task #41 for more information.

iPhoto adds the photo to the Photo Library.

- 3 Click the newly imported photo from the Photo Library.



- 4 Click Edit.
- You can adjust the brightness, contrast, red-eye reduction, and other aspects of the photo.



5 Click the iMovie icon in the Dock.

6 Click Photos to reveal the photo tray.

Your iPhoto Photo Library and photo albums appear in the Photos pane.

7 Click a photo that you would like to use in a movie from one of your photo albums.

8 Drag that photo from the Photo pane to the topmost track in the Timeline.

9 Drag the Duration and Zoom sliders to adjust your settings.

10 Click Update to apply the changes that you made to the photo.

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TIPS

Did You Know?

When you customize an existing image in iPhoto that you imported earlier in iMovie HD, those changes are not reflected in the iMovie HD version of the image; the two images are now stored separately on your hard drive. You must re-import the modified image back into your iMovie HD project for the changes to appear in your movie.

Caution!

When preparing images for use with iMovie, keep in mind that they should maintain a size ratio of 4 x 3 with 768 x 576 being the minimum dimensions. Using an image that does not conform to a 4 x 3 ratio may result in iMovie HD cropping the image to conform to 4 x 3, with lackluster results. Use a graphics application like Photoshop Elements to resize the image.

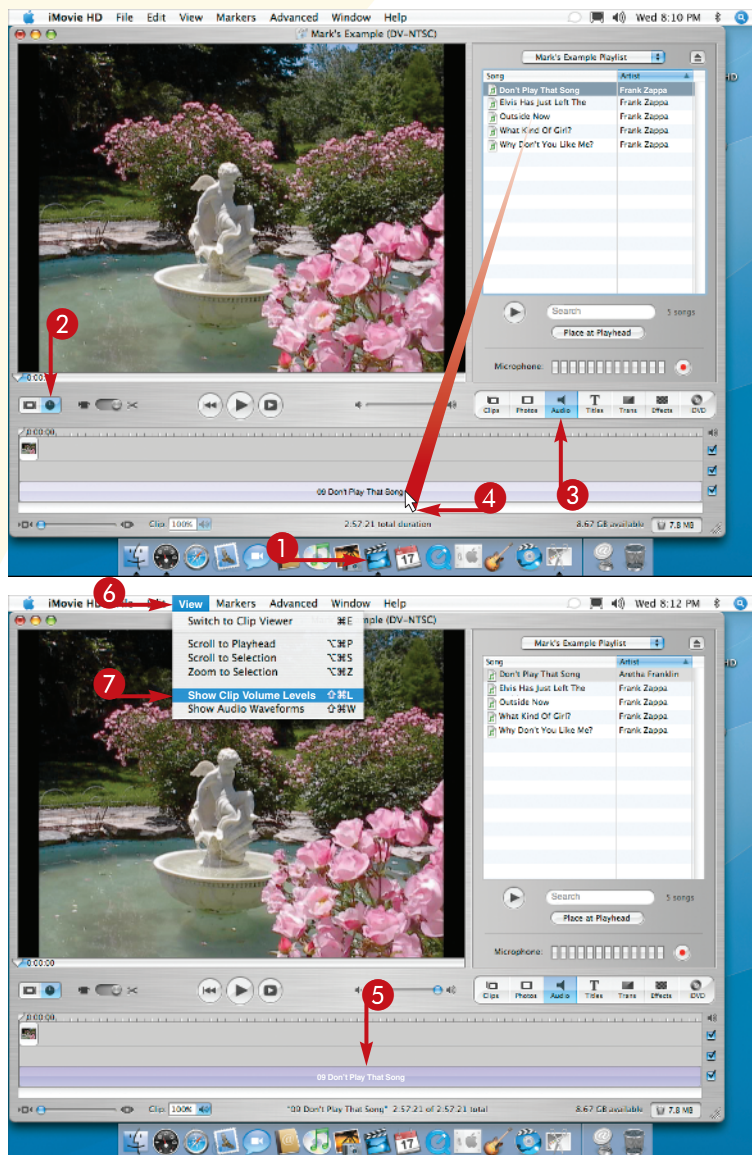
FADE iMOVIE HD AUDIO

in and out

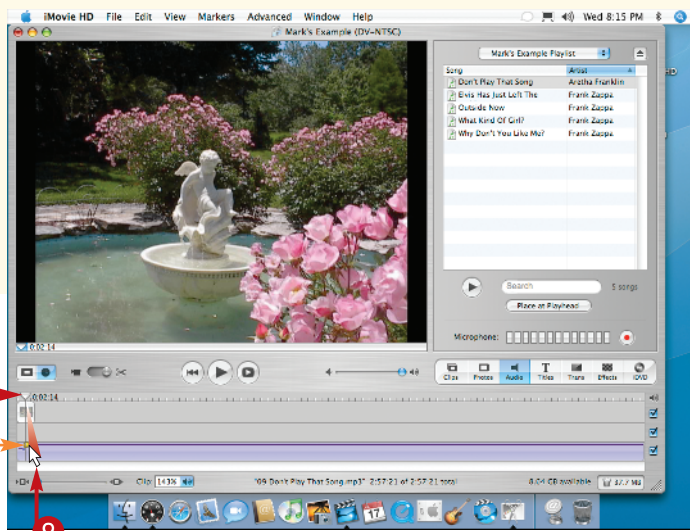
You can fade iMovie HD audio in and out over time. The iMovie HD interface has a convenient Timeline in which you arrange audio clips in the order that they will play during the movie and adjust the volume of the audio over time.

To create a fade, you first place two markers on the volume level bar in the Timeline. You adjust the volume of the second marker in relation to the first marker, making its volume lower.

Fading is useful for a multitude of tricks. Using two audio tracks — one with music and the other with speech — you can fade music to a lower volume when someone speaks. After the speech is completed, fade the music back in at a higher volume. You can also use fades to create audio effects that were not part of the original clip. As someone walks closer to the camera in a clip, for example, slowly increase the volume of the footsteps in the audio track. You will be surprised how professional the results seem when you use tricks like these.



- 1 Click the iMovie HD icon in the Dock.
- 2 Click the Timeline Viewer button.
The separate tracks appear in the Timeline at the bottom of the iMovie interface.
- 3 Click Audio.
The audio pane opens.
- 4 Drag an audio clip from the audio tray to the Timeline Viewer.
- 5 Select the audio clip in the Timeline.
- 6 Click View.
- 7 Click Show Clip Volume Levels.



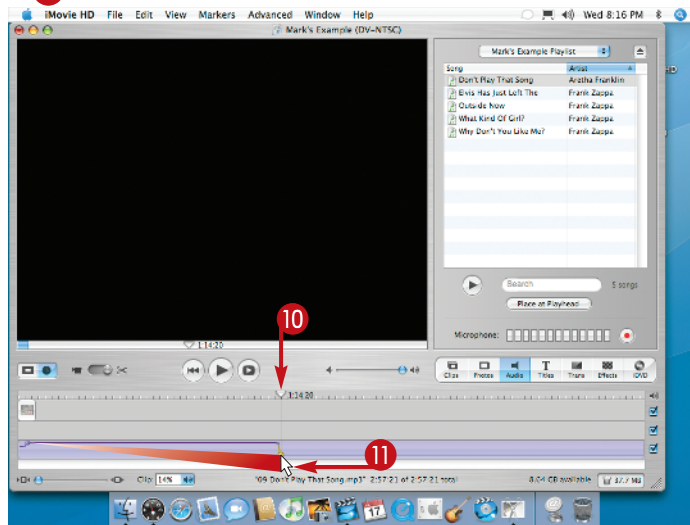
A horizontal volume-level line appears in the audio clip.

- 8 Click the horizontal line to add a handle to the audio clip.

A small circle appears on the horizontal volume level bar.

- 9 Drag the newly added handle toward the top of the volume-level bar.

The volume increases at that point in the audio clip.



- 10 Click the horizontal line and add another handle to the right side of the previous handle in the audio clip.

- 11 Drag the handle toward the bottom of the volume-level bar.

The volume decreases from the level of the first handle to the level of the second handle, fading the audio out upon playback.

TIPS

Customize It!

You can continue adding volume handles throughout the track to adjust its volume over time, allowing for control that is more precise during each scene. Using this technique, you can make a significant jump or drop in volume for a particularly dramatic effect at the proper point in your movie.

Did You Know?

To delete a handle, select it and press Delete. If you accidentally delete a handle that you did not want to eliminate, you can get it back: Press ⌘-Z to undo your action. The handle reappears with its curves intact. You can even undo multiple mistakes. If you inadvertently erase three handles, for example, press ⌘-Z three times to reinstate them in the Timeline.

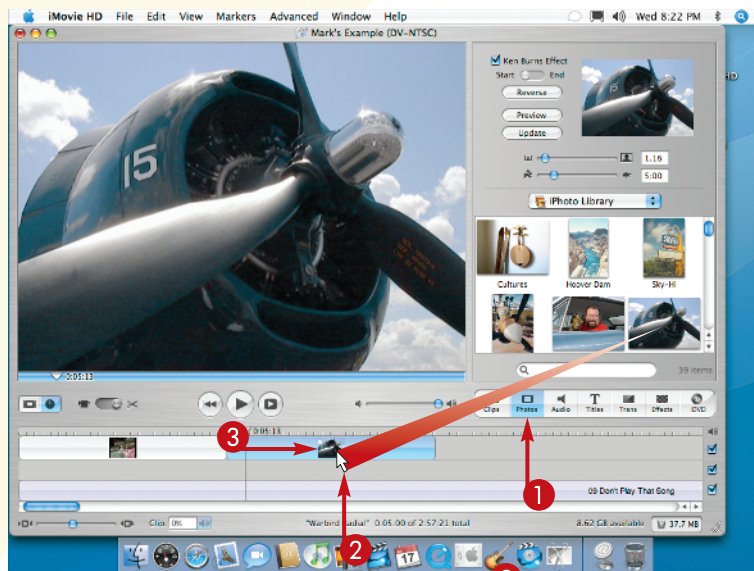
Add or remove the KEN BURNS EFFECT

When you work with photographs in iMovie, you can apply the famous “Ken Burns Effect” to an image. This effect adds motion to otherwise lifeless still images. Used sparingly, the Ken Burns Effect helps you create dramatic iMovie HD clips with just a few still images. If you use it too often, however, your movies can take on a gimmicky, if not seasick, feel.

Ken Burns is a world-renowned filmmaker, known particularly for creating documentaries. One of his signature styles is an effect whereby he positions a still photograph in front of a movie camera. He then

slowly moves the camera past the image and zooms in or out on the photograph, instilling a unique feel to the photograph when viewed as a movie. You have, no doubt, encountered this effect in many television programs and movies. When you know what it looks like, you will find it popping up everywhere. The Ken Burns Effect simulates this fancy camera work digitally.

Although the Ken Burns Effect can make your photographs fun to watch, remember that a little goes a long way.

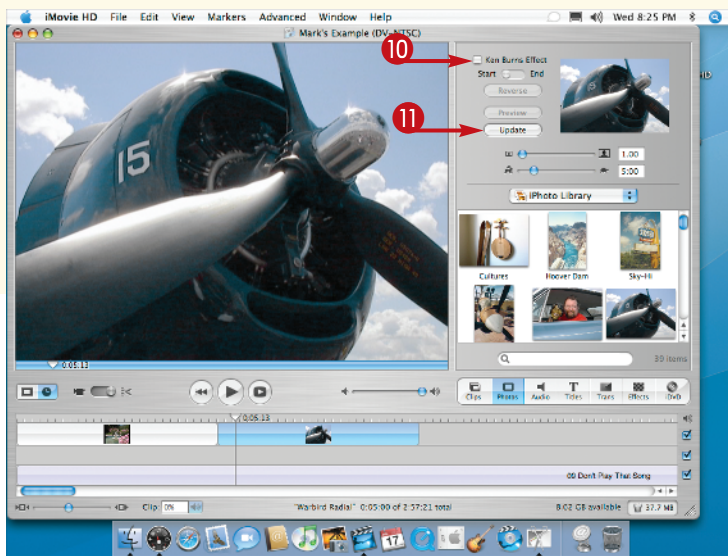


ADD THE KEN BURNS EFFECT

- 1 Click Photos in iMovie.
The Photos pane appears.
- 2 Drag a photo from the photo pane to the Timeline.
- 3 Click the new clip in the Timeline to select it.



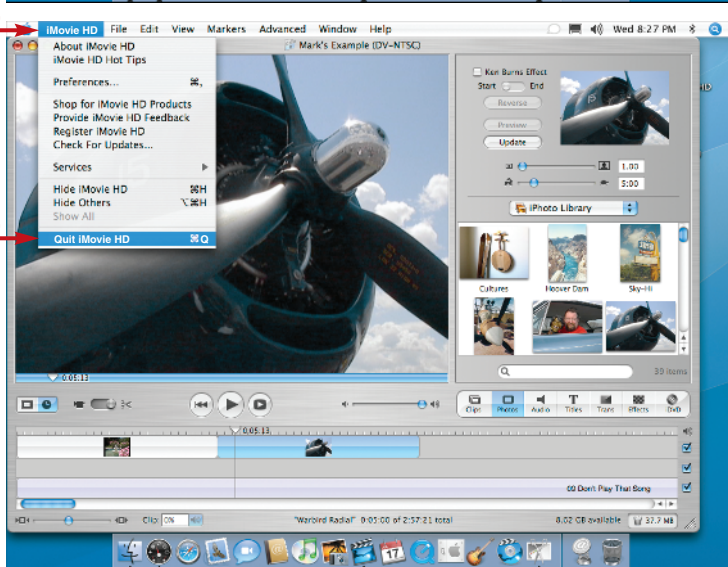
- 4 Click the Start option.
- 5 Drag the slider to adjust the speed and scale parameters for the starting image.
- 6 Click the End option.
- 7 Drag the slider to adjust the speed and scale parameters for the end of the clip.
- 8 Click the Ken Burns Effect check box (☐ changes to ☒.
- 9 Click Update to add the effect to your photo clip.



REMOVE THE KEN BURNS EFFECT

- 10 Click to uncheck the Ken Burns Effect check box (☐ changes to ☒.
- 11 Click Update.

The Ken Burns Effect is removed from the clip.



- 12 Click iMovie.
- 13 Click Quit iMovie.

TIPS

Apply It!

You do not have to use the Ken Burns Effect only for the standard narrative effect that he uses. For example, you may remember scenes in movies that slowly pan from someone's feet to their head to indicate that they are very large or tall. You can accomplish this feat with the Ken Burns Effect, too.

Customize It!

You can use the Ken Burns Effect to simulate the frame shaking. Move the image upward a small amount in the Preview window and set the speed for a very quick transition. Add the clip to the Timeline. Repeat the same effect in the reverse direction and add the clip to the Timeline. The quick up and down oscillations produce a believable frame movement.

EXPORT iMOVIES

for use in the hub

You can export your completed iMovie HD content to one of several formats: By default, you can export to a video camera, to a QuickTime file, or to an iDVD-ready file. If you have Roxio Toast installed, you may also see a VCD option in the Share dialog.

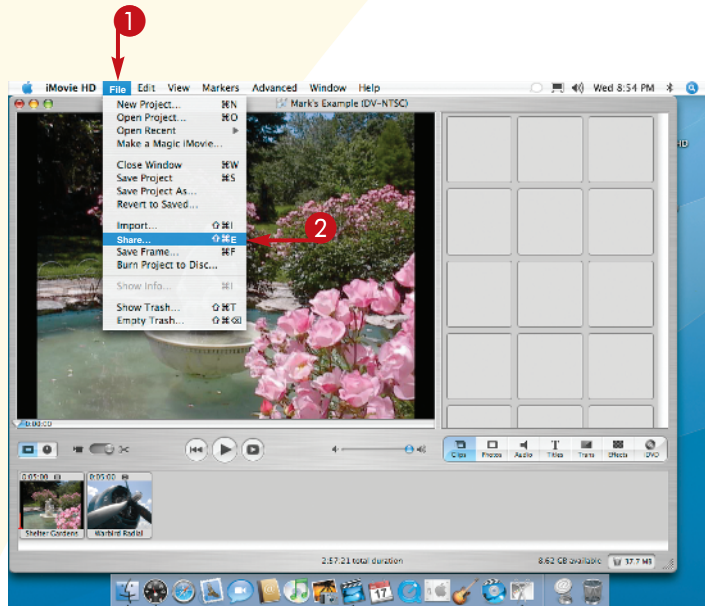
Video camera sharing sends the completed movie to a connected video camera. You can then use the camera as an intermediary to transfer the movie to a VCR or other similar device.

Sharing to iDVD simply presets the export settings to use the DV format that is appropriate for iDVD and

Apple's DVD Studio Pro. If you need finer control over these settings, you can accomplish the same thing by exporting to QuickTime and making the settings by hand.

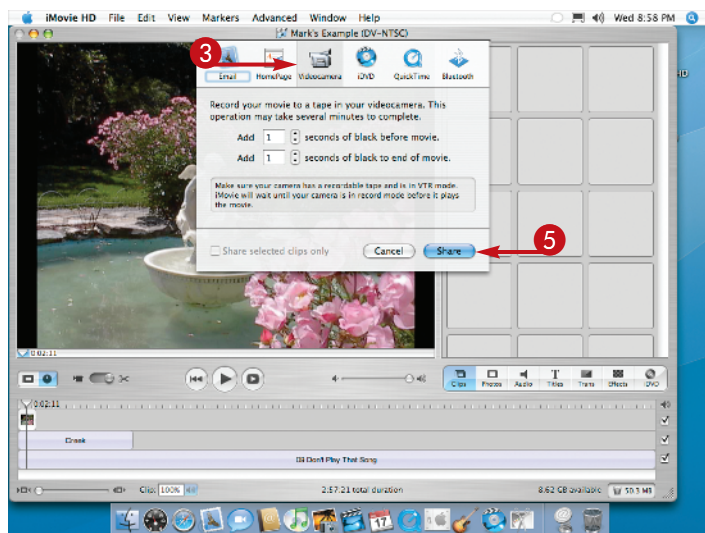
QuickTime export gives you the chance to export your movie to a large variety of video formats, including DV, AVI, and MOV.

You can also send your movie through email using Apple Mail, or publish a movie on your .Mac Web site. If you have Bluetooth hardware, you can even save your movie to a remote Bluetooth device!



OPEN THE SHARE DIALOG

- 1 In iMovie HD, click File.
- 2 Click Share.

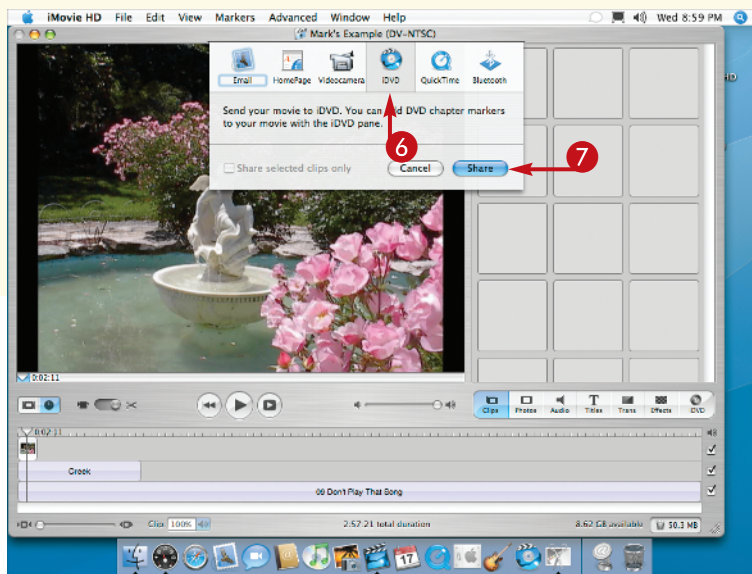


EXPORT TO A CAMERA

The Share settings appear.

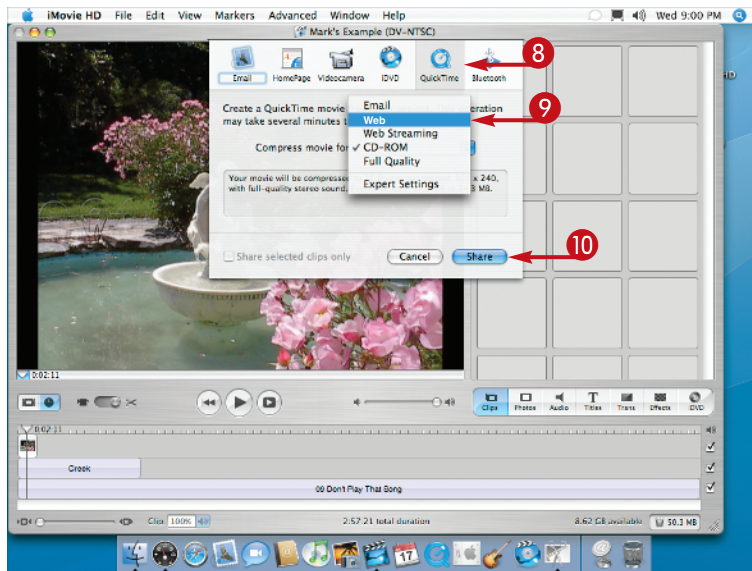
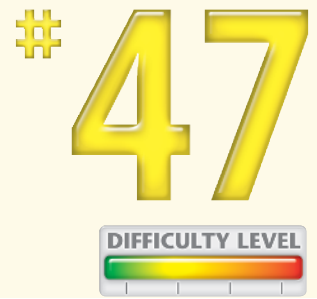
- 3 Click the Videocamera tab.
- 4 Check to make sure that your camera is in VTR mode with a writable tape in it.
- 5 Click the Share button.

The movie is exported to the camera.



EXPORT TO iDVD

- 6 Click the iDVD tab.
 - 7 Click the Share button.
- The movie is exported directly to the iDVD application.



EXPORT TO QUICKTIME

- 8 Click the QuickTime tab.
 - 9 Click here and select a compression level from the Compress movie for drop-down list.
- Note: For example, you can choose Web or Full Quality DV (Digital Video).*
- 10 Click the Share button to save the movie for the selected format.

TIPS

Customize It!

iMovie makes life easier by offering you several preset QuickTime formats. If these formats do not meet your needs, choose Expert Settings from the Compress movie for drop-down list to manually select a QuickTime export format.

Did You Know?

QuickTime Pro offers many more features for exporting video than the standard version of QuickTime. To register for QuickTime Pro, open the QuickTime pane of System Preferences. Click Registration and enter your registration code. If you do not have a code, click Register Online in the registration window.

Caution!

Video files are large. In fact, sometimes they are huge. Make sure that you have enough hard drive space before you decide to make several copies of your movie in DV format.

EXPORT iPHOTO IMAGES

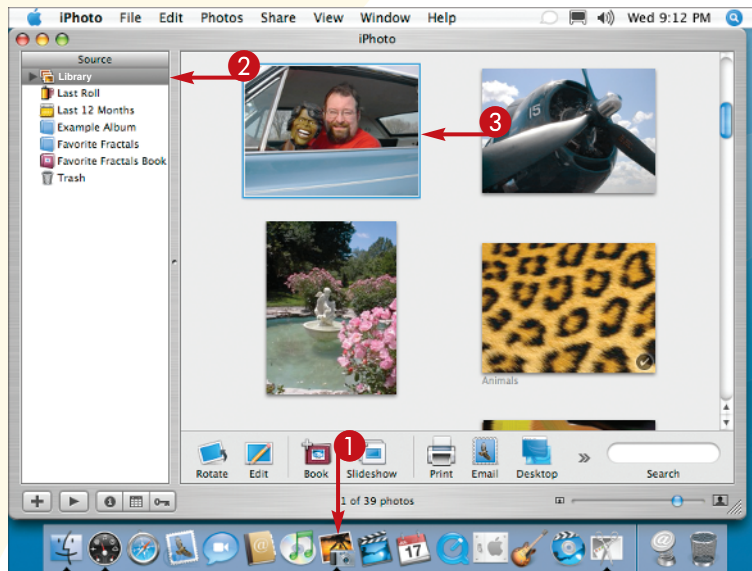
into iMovie HD

The iPhoto application gives you many different options for exporting photographs to use in other applications. You can export an image or entire rolls of images.

You can use the File Export tab of the Export Photos dialog to save images in JPG, PNG, and TIFF formats. JPG is useful for Web pages, e-mail attachments, and general-purpose uses where smaller file sizes are needed. TIFF files are much larger than JPG, but they also do not suffer from the degradation that JPG files do.

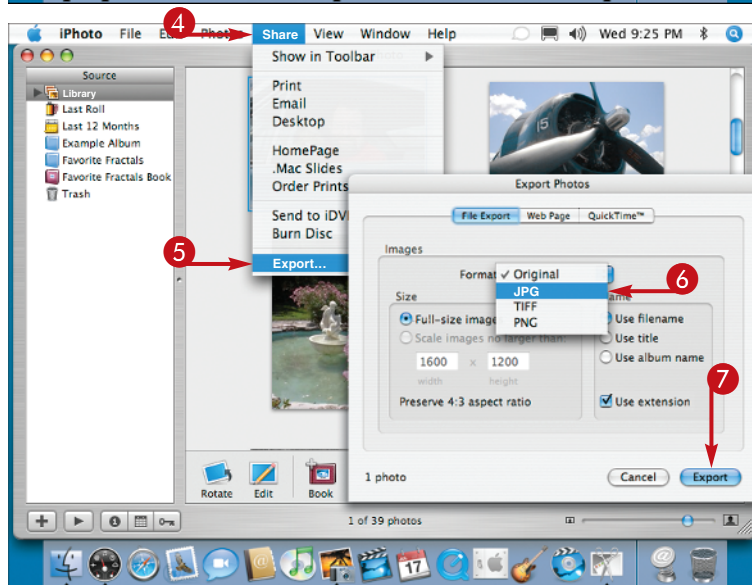
You can export a roll of photographs as a set of Web pages by exporting via the Web Page tab, which offers settings that affect the HTML output of the export. You can upload this export to your Web site or store it on your hard drive for personal use.

The QuickTime tab permits you to save the image or roll as a QuickTime movie. This works well for creating a slideshow movie or when you need the QuickTime format for a still image in another application.



EXPORT AS A JPEG

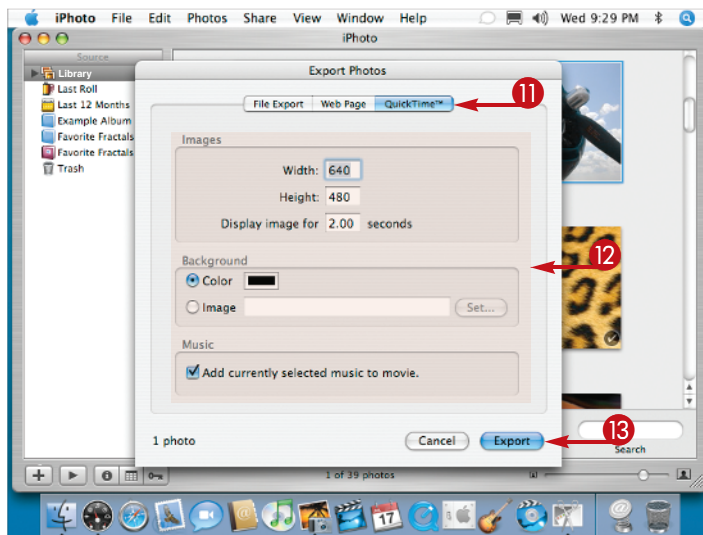
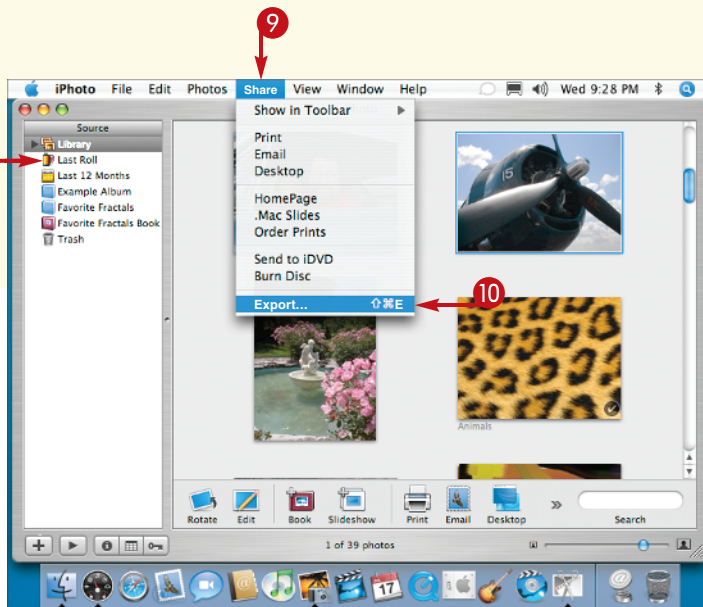
- 1 Click the iPhoto icon in the Dock.
- 2 Click Library in the Source list.
- 3 Click the photo that you would like to export from the Library.



- 4 Click Share.
 - 5 Click Export.
- The Export Photos dialog appears.
- 6 Click the Format drop-down arrow and select JPG as your image format.
 - 7 Click Export to export the image.

EXPORT TO QUICKTIME

- 8 Click to select a photo album in the Source list.
- 9 Click Share.
- 10 Click Export.



The Export Photos dialog appears.

- 11 Click QuickTime.
- 12 Adjust the settings for your QuickTime movie.
- 13 Click Export.

iPhoto creates a QuickTime slideshow movie from your photo album, including subtle transitions.

TIPS**Customize It!**

The images that iPhoto uses do not necessarily have to be photographs. For example, you can create an image in a graphics application such as Adobe Photoshop and import the image into iPhoto. This means that you can create a title page, text annotations, and other images, which you can in turn use as part of a QuickTime export in iPhoto.

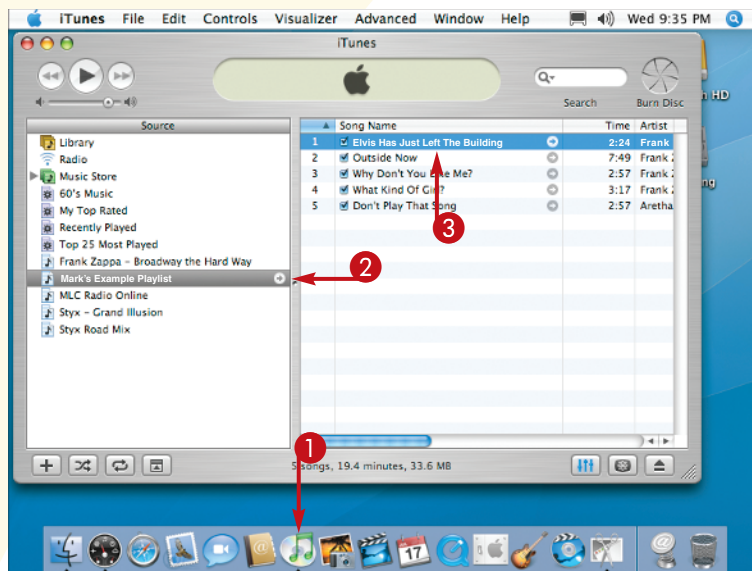
Did You Know?

Besides exporting images from an entire photo album, you can export individual photos to share as well. Click the Library or a specific album in the Source list, then select each of the images that you want to export by ⌘-clicking each one. After you have selected the desired images, export them as shown in this task. iPhoto exports only the selected photos.

Use iTunes to CROP AND SPLIT FILES

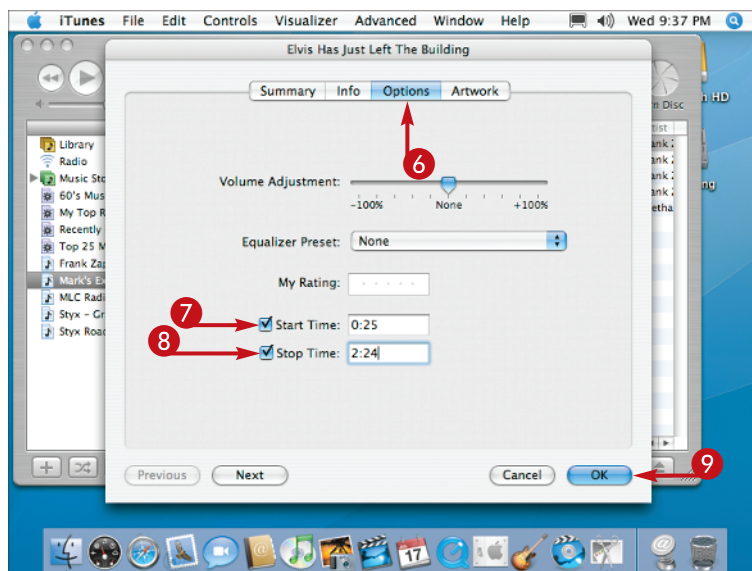
If you have an audio file that you would like to crop — that is, remove some of the audio, like cropping a photo — you can use iTunes to perform the operation. Cropping is not the most intuitive operation, but it is simple to use. This is handy when you want to remove extraneous sound at the beginning and end of an audio file. Cropping is also useful for isolating a small snippet of sound from a file.

Using a similar set of operations, you can also separate a lengthy file into smaller chunks, each of which is a new audio file. This is great when you have extremely long audio files that you would like to split. This may happen, for example, when you record an LP record. It is easier to simply record an entire side of an album and then chop it up in iTunes later, rather than start and stop the recording process for each song on the album.

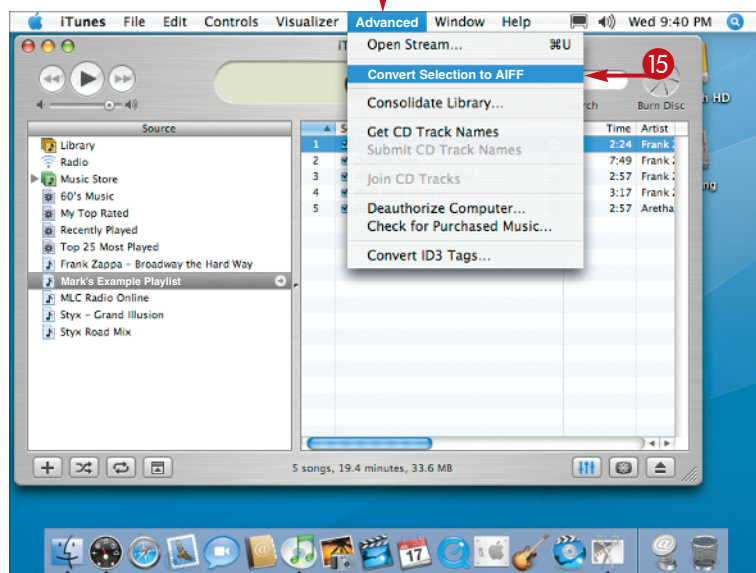
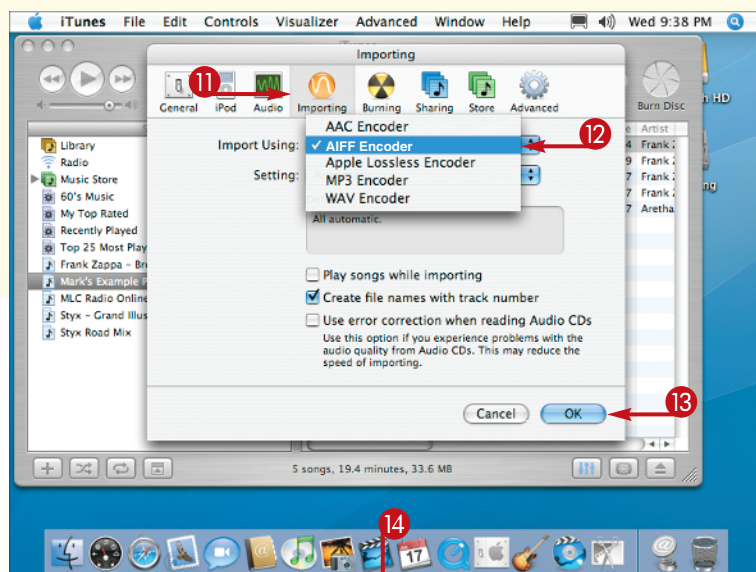


- 1 Click the iTunes icon in the Dock.
- 2 Click a playlist name.
- 3 In the playlist, click a song from which you would like to copy a segment.
- 4 Listen to the song and locate the exact times of the clip segment you would like to copy.

Note: To locate where you would like the clip to start, move the playback head in the display to the desired point. Write down that time. Then move the playback head to determine the end time of the segment.



- 5 Press ⌘-I .
The Info window opens.
- 6 Click Options.
- 7 Click Start Time (☐ changes to ☒) and type the beginning time of the segment to copy.
- 8 Click Stop Time (☐ changes to ☒) and type the ending time of the segment to copy.
- 9 Click OK.



10 Press ⌘-, (comma).

The iTunes Preferences dialog appears.

11 Click Importing.

12 Click the format of the new clip; for example, select AIFF Encoder.

13 Click OK to apply the settings and dismiss the Preferences dialog.

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DIFFICULTY LEVEL

14 Click Advanced.

15 Click Convert Selection to AIFF.

iTunes converts the segment that you defined into a new track.

iTunes plays a “ding” sound when the conversion is complete.

TIPS

Did You Know?

When you extract a segment from an audio file in iTunes, iTunes gives the copy the same name as the original. Locate and rename the file as soon as you have finished creating it to ensure you do not delete the wrong file. If you are not sure which file is which, look at the time column of both tracks – the smaller one is the copy.

Apply It!

After you complete the first conversion, you can continue separating audio segments from the file in a similar fashion. Select the start and end points as before, and perform a new conversion for each segment that you would like to extract. Do not forget to rename the new file each time.

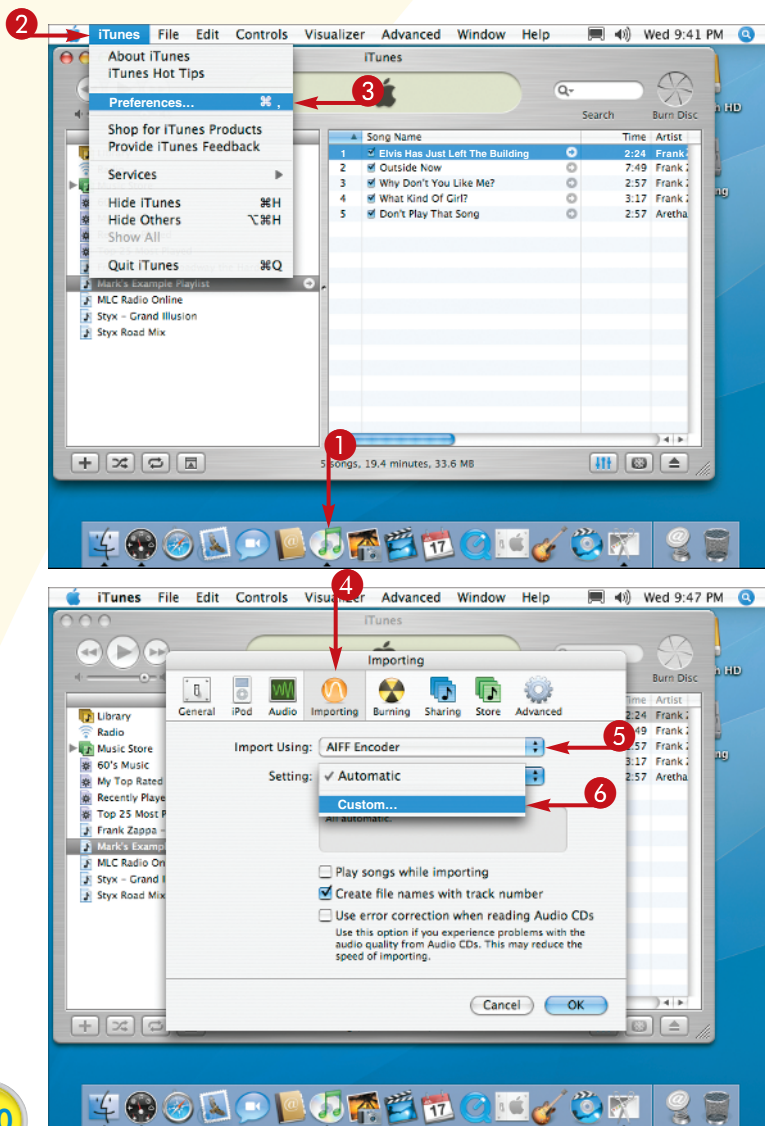
CONVERT AUDIO FORMATS

with iTunes

You can convert audio with the import tools built into iTunes — whether you are preparing audio for use on an audio CD or as content for a Web page.

Some audio applications require audio files to be in a particular format — AIFF or WAV. If you have files that are not in these formats and you need to convert the files to AIFF or WAV, you can convert the audio when you import it. (iTunes automatically takes care of all conversions for you when you burn an audio CD.)

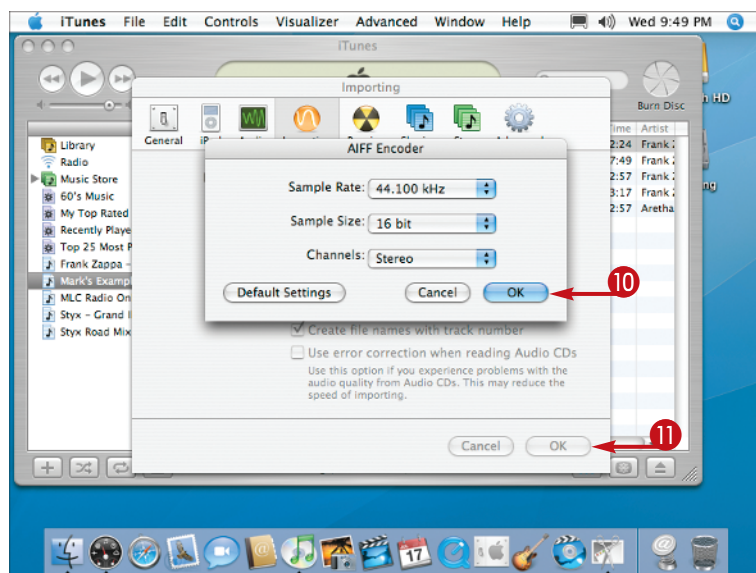
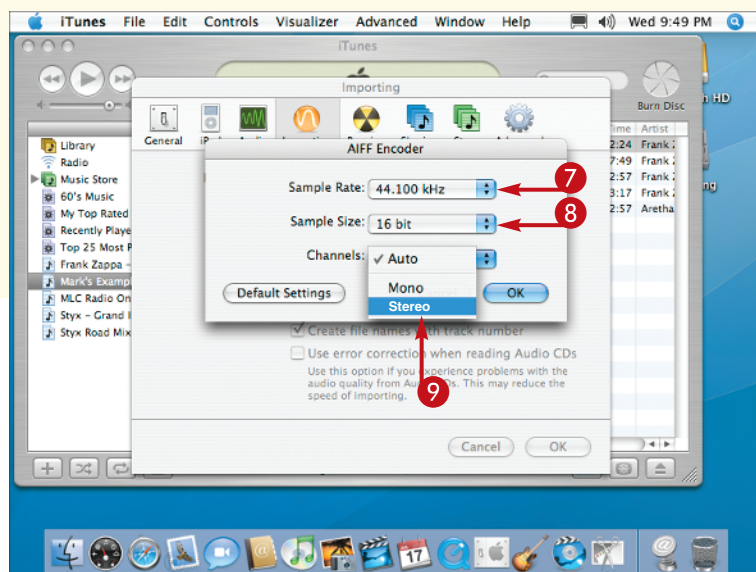
You can also import audio with the MP3, Apple Lossless, and AAC formats. These file formats offer good audio content with smaller file sizes than AIFF and WAV. MP3 preceded AAC, so it is more universal. AAC provides a better-sounding file that is smaller than MP3, but you may not notice the difference. Apple Lossless format provides the best sound quality, but the files are significantly larger than AAC or MP3. If you are importing audio for your personal playlists, go with Apple Lossless or AAC.



- 1 Click the iTunes icon in the Dock. The iTunes window appears.
- 2 Click iTunes.
- 3 Click Preferences.

The Preferences window appears.

- 4 Click Importing.
 - 5 Click here and select AIFF Encoder from the Import Using drop-down list.
 - 6 Click here and select Custom from the Setting drop-down list.
- The AIFF Encoder dialog appears.



- 7 Click here and select 44.100 kHz from the Sample Rate drop-down list.
- 8 Click here and select 16 bit from the Sample Size drop-down list.
- 9 Click here and select Stereo from the Channels drop-down list.



- 10 Click OK.
- 11 Click OK in the Preferences window.

TIPS

Did You Know?

If you are importing new tracks to trade with Windows users — or friends who use other types of MP3 players besides the iPod — then you should definitely select MP3 as your format for importing songs. Your friends are more likely to have a computer that recognizes MP3 than AAC or Apple Lossless, although this gap is narrowing.

Did You Know?

If you are wondering what sound quality you should select while importing tracks in MP3 format, remember that audio CDs use a 128 kbps sampling rate, so to achieve CD quality you should choose a minimum of Good Quality (128 kbps). If file size is less of an issue, the Higher Quality (192 kbps) setting is preferred.