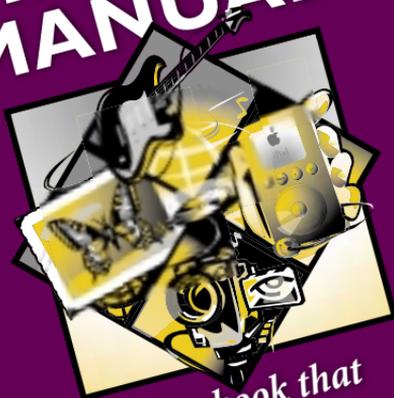


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Preview

# iLife '04

## THE MISSING MANUAL



*The book that  
should have been  
in the box*

NEW SECRETS  
OF THE MAC AS  
DIGITAL HUB

David Pogue



POGUE PRESS™  
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# iLife '04

THE MISSING MANUAL



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## ***iLife '04: The Missing Manual***

by David Pogue

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# Introduction

Steve Jobs unveiled iLife '04 at the Macworld Expo in January. It's a suite of five programs, which you can buy from the Apple store or find preinstalled on new Macs:

- **iTunes 4.2**, the digital jukebox software for Mac (and, if you can believe it, Windows) that “rips” songs from your music CDs onto your hard drive, organizes and plays your music collection, lets you buy songs from the iTunes Music Store, and syncs all your music with your iPod. (No new features debuted in the iLife '04 package, so you won't read much about iTunes in this booklet.)
- **iPhoto 4**, the program that sucks in your photos from a digital camera, helps you organize them, and then presents them to the world—as a slideshow, Desktop picture, screen saver, email attachment, Web page, DVD, print-out, or hardbound photo book.

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**Question:** What ever happened to iPhoto 3? Answer: there never was one. It just seemed too strange to build iLife '04 out of a mishmash of different version numbers, so Apple jumped directly from iPhoto 2 to iPhoto 4. Bear that in mind the next time you're tempted to bid on an “unopened, shrink-wrapped copy of iPhoto 3” on eBay.

---

- **iMovie 4**, the software that forever revolutionized the concept of home movies, turning them from six-hour tedium marathons to short, sweet, tightly edited highlights reels that friends actually *ask* to see.

- **iDVD 4**, which can transform iMovie productions and digital slideshows into Hollywood-style DVDs that play on everyday DVD players.
- **GarageBand**, an all-new program that turns your Mac into a digital music recording studio. For anyone with any musical talent or even musical interest, GarageBand is every bit as revolutionary as iMovie and iPhoto were when they debuted. All three tear down the technical barriers that stand between you and professional-caliber work.

This booklet is a handy cheat sheet to the new features in these programs. It's designed to tide you over until you can get your hands on the full-length books slated for 2004:

- *iPod & iTunes: The Missing Manual* by J.D. Biersdorfer
- *iPhoto 4: The Missing Manual* by David Pogue, Joseph Schorr, & Derrick Story
- *iMovie 4 & iDVD: The Missing Manual* by David Pogue
- *GarageBand: The Missing Manual* by David Pogue
- *iLife '04: The Missing Manual*, which incorporates the essentials of the other four books.

---

**Note:** In this book series, arrow notations simplify folder and menu instructions. For example, "Choose  → Dock → Position on Left" means, "From the  menu, choose Dock; from the submenu, choose Position on Left."

---

### **About the Author**

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# iPhoto 4

Even in version 1, iPhoto pounded a silver spike through the heart of what Steve Jobs calls the “chain of pain”—the hassle of getting your photos out of the camera and onto the computer.

Despite the brilliance of the program, however, one criticism dogged it year after year: it was just too gosh-darned slow. By the time you filled it with 2,000 pictures or so, iPhoto had all the pep of a pet rock. Web sites and books described ugly workarounds, like breaking up your Photo Library into smaller chunks.

iPhoto 4 ends the tyranny of sluggishness. Even on a Mac of average speed, keeping 15,000 or 25,000 photos in a single iPhoto library is no big deal. Switching between modes, changing slideshows, zooming out and back, opening the program to begin with—Apple has goosed the speed of just about everything.

For digital camera fans, that single improvement could justify the price of the iLife '04 suite right there. But there's much more to the package—and much more to iPhoto 4.

## **The Post-Dump Slideshow**

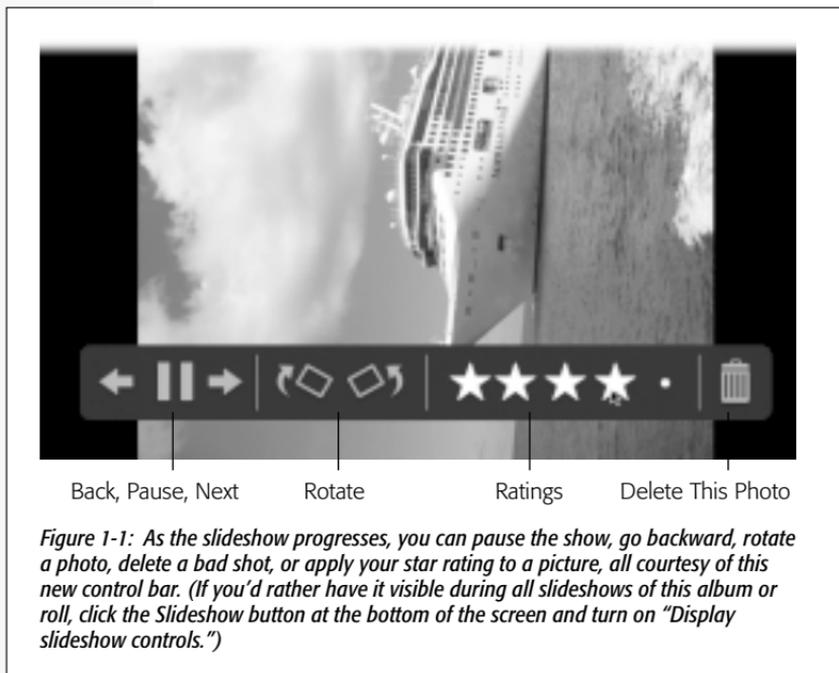
What's the first thing you want to do after dumping fresh photos off the camera into iPhoto?

Look at them, of course. View them at full-size for the first time. Rotate the pictures that you took with the camera turned 90 degrees. Delete the stinkers.

The obvious iPhoto tool for this purpose has always been the slideshow. Unfortunately, every time you spotted a photo that needed help (or needed trashing), you had to cancel the slideshow, make the change, and then start the show again.

In iPhoto 4, everything has changed. Immediately after importing your photos, click the Last Roll icon in the Source list at the left side of the screen, and then click the Play triangle underneath the Source list. Once the slideshow begins, wiggle your mouse to summon the new slideshow control bar shown in Figure 1-1.

As you can see by the figure, this is the perfect opportunity to throw away lousy shots, fix the rotation, and linger on certain photos for more study—all without interrupting the slideshow. You can even apply a rating by clicking the appro-



*Figure 1-1: As the slideshow progresses, you can pause the show, go backward, rotate a photo, delete a bad shot, or apply your star rating to a picture, all courtesy of this new control bar. (If you'd rather have it visible during all slideshows of this album or roll, click the Slideshow button at the bottom of the screen and turn on "Display slideshow controls.")*

prate star in the band of five, exactly as in iTunes. Later, you can exploit your ratings in several ways:

- Choose View→My Rating to see the actual stars, in gray, stamped beneath the thumbnails of the photos you've rated.
- Choose View→Arrange→By Rating to sort all the visible pictures so that the best ones appear at the top.
- Create a *smart album*, described next.

## GEM IN THE ROUGH

### More Slideshow Goodies

The control bar isn't the only newsworthy slideshow enhancement of iPhoto 4. If you click the Slideshow button at the bottom of the window, you'll find a few other treats in the resulting dialog box.

For example, the new **Transition** pop-up menu lets you specify what kind of crossfade you want between the slides in your show. You can now choose several sophisticated transitions that Apple introduced in its Keynote presentation program, like the immortal Cube effect.

**Scale photos to fill the screen** means that vertically oriented photos will no longer have black bars on either side during the slideshow. Instead, iPhoto will blow up each picture so that it fills the entire screen, edge to edge. (The downside, of course, is that some of the picture will get chopped off—which may include your skull.)

The **Display** checkboxes superimpose titles, star ratings, or slideshow controls onto the bottom of the screen during the show.

If you click the Music tab of the dialog box and study it hard, you'll find one of the most eagerly awaited new features of iPhoto: the ability to specify an *entire playlist* of songs to accompany the show. No longer must you listen to the same two-minute pop song looping over and over again throughout your eight-minute slideshow.

The trick is to choose the playlist name you want from the Source pop-up menu (which reflects the playlists that you've built in iTunes). If you click Play or Save Settings now, you'll get the entire playlist as the background music for this album's slideshow. If you click *one* of the songs in a playlist, however, you'll hear only that individual song.

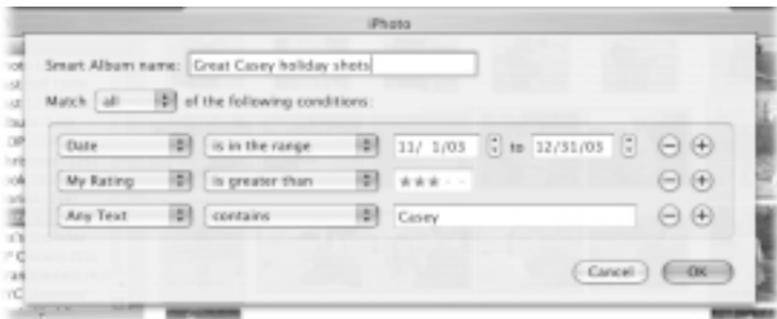
## Smart Albums

*Albums* are the little folder-like icons in the Source list at the left side of the iPhoto window. These subsets of photos are the primary organizational tool in iPhoto. You create one by clicking the + button beneath the list, and add photos by dragging in their thumbnails.

In iPhoto 4, though, you can let the software create albums for you, thanks to *smart albums*. These are self-updating folders that display pictures that match certain criteria that you set up—all pictures that you took in 2003, for example, or all photos that you've rated four stars or higher. (If you've ever used smart playlists in iTunes, you'll recognize the idea.)

To create a smart album, choose File→New Smart Album (Option-⌘-N), or Option-click the + button below the album list. Either way, the Smart Album sheet slides down from the top of the window (Figure 1-2).

The controls here are designed to set up a search of your photo library. Figure 1-2 illustrates how you'd find pictures that you



*Figure 1-2: The Smart Album dialog box is really just a powerful search command, because iPhoto is really just a powerful database. You can set up certain criteria, like this hunt for photos taken during a certain time period. iPhoto will keep this album updated whenever your collection changes (as you change your ratings, as you take new photos, and so on).*

took in the last two months of 2003—but only those that have four- or five-star ratings and mention your friend Casey in the title or comments. You can also limit a smart album's reach by looking for pictures by specified album, by text in their comments or keywords, by dates or file names, by “film roll” (import batch), or by title. (Click the + button to add a new criterion row to specify, for example, photos taken within a certain date range *and* bearing a certain star rating.)

When you click OK, your smart album is ready to show off. When you click its name in the Source list (it has a little gear icon), the main window shows you the thumbnails of the photos that match your criteria. As time goes on and you add new photos to your collection, this collection of thumbnails updates itself accordingly.

---

**Tip:** To change the parameters for a smart album, click its icon in the list and then choose Photos→Show Info (⌘-I). The Smart Album sheet reappears.

---

## Recent Rolls

In previous iPhoto versions, the top of the Source list included one icon called Photo Library (every picture in your collection), and another called Last Import (the most recently imported batch).

That structure wasn't always the most convenient, however. If you dumped your pictures onto the Mac at the end of each day of a three-day Disney World trip, for example, the Last Import feature wasn't much help. What you really wanted to see was the last *three* digital dumps in one group.

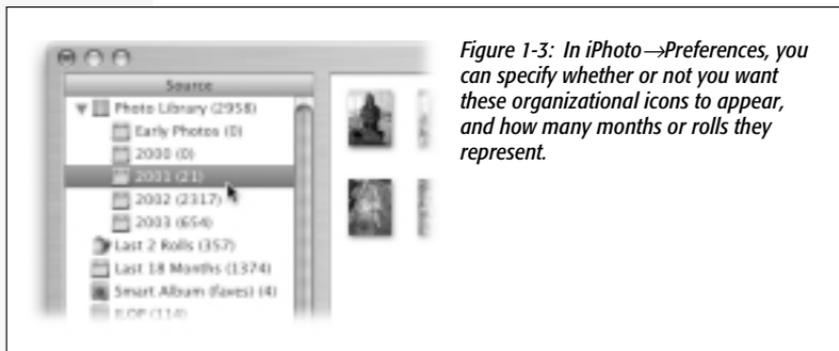
iPhoto 4 makes all of this much easier. At the top of your Source list, you'll find these new or enhanced icons:

- **Photo Library.** If you click Photo Library, you see every single photo in your collection, just as before. But if you

click to expand the flippy triangle, you'll see that iPhoto can also break your photos down by year (Figure 1-3).

- **Last 2 Rolls.** In iPhoto terminology, a *film roll* is one batch of imported photos from your camera (not to be confused with a *film role*, which is one batch of sudden fame in Hollywood).

This icon replaces the old Last Import icon—and it's a lot better, because you can specify how *many* recent import jobs appear in this collective group. You specify how many film rolls you want listed here by choosing iPhoto→Preferences. On the General tab, change the number where it says “Show last \_\_ rolls album.” (In the unlikely event that you don't find this icon useful, you can also hide it entirely by turning off the corresponding checkbox.)



*Figure 1-3: In iPhoto→Preferences, you can specify whether or not you want these organizational icons to appear, and how many months or rolls they represent.*

- **Last 12 Months.** This new icon reveals your most recent photos, clustered by *time* rather than by import job. You can specify how many months' photos appear in this heap—anywhere from one month to a year and a half—on the General tab of iPhoto Preferences.

---

**Tip:** While you're in Preferences, don't miss the “Show photo count for albums” option. As shown in Figure 1-3, it places a number in parentheses after each album name, representing how many pictures are inside.

---

## Batch Processing

iPhoto 4 now offers a batch processing feature. To use it, choose Photos→Batch Change, or Control-click some selected photos and choose Batch Change from the contextual menu.

Now, iPhoto 4 still can't *edit* a batch of photos. You can't, for example, scale them all down to 640 x 480 pixels, or apply the Enhance filter to all of them at once.

Instead, the Batch Change command manipulates *text labels* for a selected group of photos. When the Batch Change sheet drops down from the top of the window, you can use its pop-up menus to change all the selected photos' names (to *Ski Trip 1*, *Ski Trip 2*, and so on); to change the dates they were taken, in effect rewriting history; and to change their Comments boxes to a certain matching blurb.

## Photo Sharing on the Network

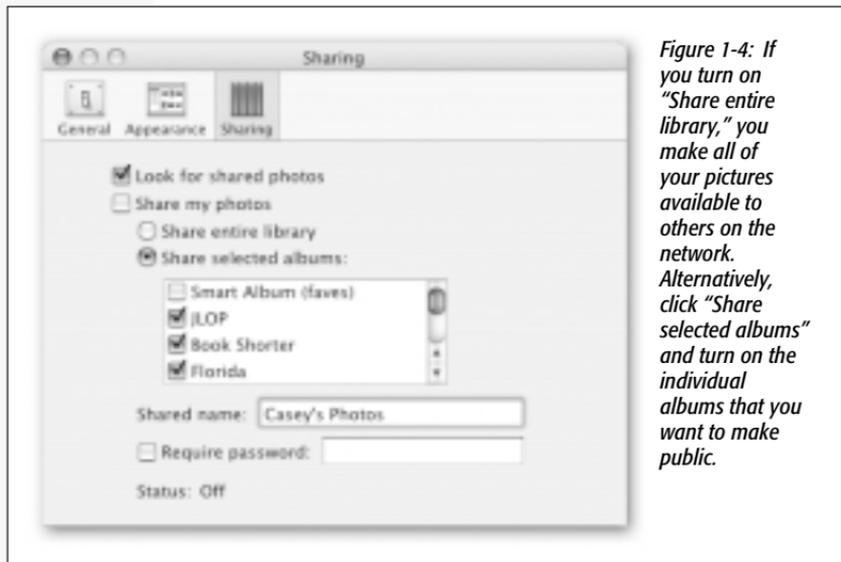
One of the coolest features of iTunes is the way you can “publish” certain playlists on your home or office network, so that other people in the same building can listen to your tunes. Why couldn't iPhoto do the same thing with pictures?

Now it can. On your Mac, choose iPhoto→Preferences and click Sharing. Turn on “Share my photos” (Figure 1-4). Specify a password, if you like, and then close the window.

At this point, other people on your network will see *your* albums show up in *their* Source lists, above the list of their own albums. (Or at least they will if they have “Look for shared photos” turned on in their iPhoto preferences, as shown in Figure 1-4 at top.)

As you may know, when you share iTunes music over a network, other people can only *listen* to your songs—they can't actually *have* them. (The large, well-built lawyers of the American record companies have made sure of that.)

But iPhoto is another story. Nobody is going to issue you a summons for freely distributing your own photos. So once you've jacked into somebody else's iPhoto pictures via the network, feel free to drag them into your own iPhoto albums, thereby copying them onto your own Mac. Now you can edit them, print them, and otherwise treat them like your very own photos.



*Figure 1-4: If you turn on “Share entire library,” you make all of your pictures available to others on the network. Alternatively, click “Share selected albums” and turn on the individual albums that you want to make public.*

## Miscellaneous Goodies

As you explore iPhoto, you'll find all kinds of other nips and tucks that make the program even more pleasant:

- When you publish photos to a .Mac Web page, you have more canned layout designs to choose from—namely, the 17 of them that are available to .Mac members who create Web pages online. There's also a new photo book layout called Collage that lets you specify captions for some

pages but not for others. (Ordering these gorgeous photo books is no longer limited to U.S. photo fans, either.)

- In Edit mode, the Black and White button is now joined by a Sepia button, which makes the selected photo look old and brownish, for that old-time daguerreotype look.
- The new File→New Film Roll from Selection command creates a new film roll from a batch of highlighted photos, thus splitting them from their original roll. (That's a first for iPhoto. In the old days, the only way to create a new film roll was to import a new batch of photos from a camera or the Finder.)

---

**Tip:** You can also drag a photo onto the Film Roll *header* of any other film roll to move it there.

---

- Similarly, the File→New Album from Selection command saves you a few steps when you want to file away a particular clump of pictures into a new album.



# iMovie 4

At first glance, iMovie 4 looks identical to iMovie 3. But under the hood, dozens of annoyances have been eliminated and dozens of polished touches have been added. This is the best possible kind of upgrade: one that's filled with nearly invisible changes designed expressly for people who actually *use* it every day, rather than flashy big-ticket items for showing off at trade shows.

## Editing Enhancements

Editing is really what iMovie is all about, so any assistance is welcome. Here are some things that will make your iMovie life easier.

### Nondestructive Edge Dragging

Nobody starts and stops recording *precisely* when the action begins and ends; life is just too unpredictable. So the first thing most people do in iMovie is to *trim* the shots—chop the boring parts off the beginning and ending of each clip before dragging them onto the timeline.

In iMovie 4, there's a much easier way. Instead of chopping off the ends of your clips, you can just *hide* the ends of your clips, as shown in Figure 2-1. (This kind of nondestructive edge dragging also works with audio clips.)

---

**Tip:** If you -drag a clip in the Timeline Viewer, you can move it *right on top* of an adjacent clip, in effect trimming the part that the dragged clip is now covering up.

---

## Select Nonadjacent Clips

For the first time, you can select several clips that aren't next to each other. Switch into Clip Viewer mode (choose View→Switch to Clip Viewer, if necessary). Now you can use the same techniques you'd use to select nonadjacent icons in a Finder list view: Click the first clip, then ⌘-click each additional clip. You can also ⌘-click a selected clip to deselect it.

What can you do once you've selected multiple discontinuous clips? Let us count the tricks:

- **Delete them all** by pressing the Delete key.
- **Move them all back to the Clips pane** by dragging any one of them. (The remaining clips slide to close the gaps.)
- **Apply the same transition, special effect, or Ken Burns photo setting** to all of them using the Apply button (on the Trans, Effects, and Photo panes)—or update them all using the Update button.

---

**Tip:** Speaking of the Ken Burns zoom-and-pan photo effect: If you Option-drag a set of photos from the Photos pane into the timeline, iMovie applies the Ken Burns effect to all of them, alternating zoom direction on each one.

---

- **Consolidate them.** That is, you can extract the selected clips from their current positions in the movie (Edit→Cut). Click a different clip in the movie to pinpoint a landing site, and then choose Edit→Paste. The clips that you cut, which were once scattered, now appear adjacent to each other and in sequence.

## Bookmark Your Place

Navigating complex movies is a lot easier in iMovie 4, thanks to the new Bookmarks feature.

It works like this: Position the Playhead at an important spot in the movie, and then choose Bookmarks→Add Bookmark (⌘-B). iMovie responds by placing a tiny green diamond at

that spot on the ruler (you can see a couple of them in Figure 2-2). Bookmarks are visible only in Timeline Viewer mode.

You'll see the real value of these markers once you've added a few of them to your movie. Now you can use the Previous Bookmark and Bookmark commands ( $\mathbb{B}$ -[ and  $\mathbb{B}$ -], respectively) to leap instantly from one marker to the next.

---

**Note:** You can remove an individual bookmark by clicking it and then choosing Bookmarks→Delete Bookmark, or all of them at once by choosing Bookmarks→Delete All Bookmarks.

---

## Color Clips

In previous versions of iMovie, you could create a few seconds of pristine blackness by dragging any video clip to the right in the Timeline Viewer. In the resulting gap, iMovie introduced a solid black clip.

In the new version, dragging a clip to the right still introduces blackness in the gap during playback, although you don't actually see a black bar in the Timeline Viewer (you just see a gap).

But if you deselect all clips, position the Playhead anywhere inside of that gap, and then choose Advanced→Create Color Clip, iMovie creates a visible clip that looks like a black slide.

Here comes the fun part. If you double-click this new clip, the Clip Info dialog box appears. It lets you name the clip and, more important, click the Color swatch to bring up the standard Mac OS X color picker dialog box.

In this way, you can create a few seconds of any solid color—not just black—to serve as a transition between scenes, a background for titles and credits, or just a soothing moment of pure, perfect fuchsia.

## Three Audio Improvements

When you examine the new iMovie Preferences dialog box, you're in for a few pleasant surprises. One of them is an option called "Show audio track waveforms." When you turn it on, you see the actual sound waves, as shown in Figure 2-2. Seeing the waveforms makes precise video editing much easier—eliminating a pop or an expletive, for example—or to sync up audio with video.

While you're in Preferences, you might also want to turn on "Enable Timeline snapping." Now, when you drag the Playhead along the ruler in the Timeline Viewer, you see, hear, and feel it "snap" to the beginnings and ends of the sound-wave chunks in the soundtracks below, also as shown in Figure 2-2. (You turn off the little clicking sound in this same dialog box.)



*Figure 2-2: The only downside to turning on waveforms is that doing so could slow down scrolling in very complex projects.*

Like the snapping? Then you'll love these tips:

- When Timeline snapping is turned on, the Playhead also snaps to bookmarks, chapter markers, and the beginning and ends of clips.
- Snapping is extremely useful when you're seeking a good place to split an audio clip—like during a bit of silence.
- This feature can also be useful when you want to align a video clip with a certain moment in the music. Drag the Playhead to the appropriate spot in the soundtrack. Release the mouse. Now, when you drag a video clip, a ghost

version of the Playhead (with a snap line extending down from it) remains where you left it, so that you have an easy target as you position the video clip.

- If you Shift-drag the Playhead, you *override* whatever the Playhead-snapping setting in Preferences is. If snapping is off, Shift-drag to turn it on just for this moment.

The final audio-precision feature is *audio scrubbing*. If you Option-drag the Playhead, you get to hear the actual audio, played forward or backward, at whatever speed you're dragging. This is another excellent tool for hunting down some annoying audio artifact or lining up a particular "hit" in the audio with a specific action in the video.

---

**Tip:** This feature works best if you zoom in first, using the Zoom slider at the lower-left of the screen. It also helps to drag very slowly, to avoid making your soundtrack sound like "Alvin and the Chipmunks Do Helium."

---

## The View Menu

Previous versions of iMovie didn't even have a View menu, which is sort of strange for such a visually oriented program.

In any case, you'll welcome these new commands:

- **Switch to [Clip or Timeline] Viewer.** This command lets you toggle the bottom part of the iMovie screen between the two views.

Actually, it's not the menu command that's so great: it's the keyboard shortcut, **⌘-E**. No matter which view you're in, **⌘-E** switches to the other one.

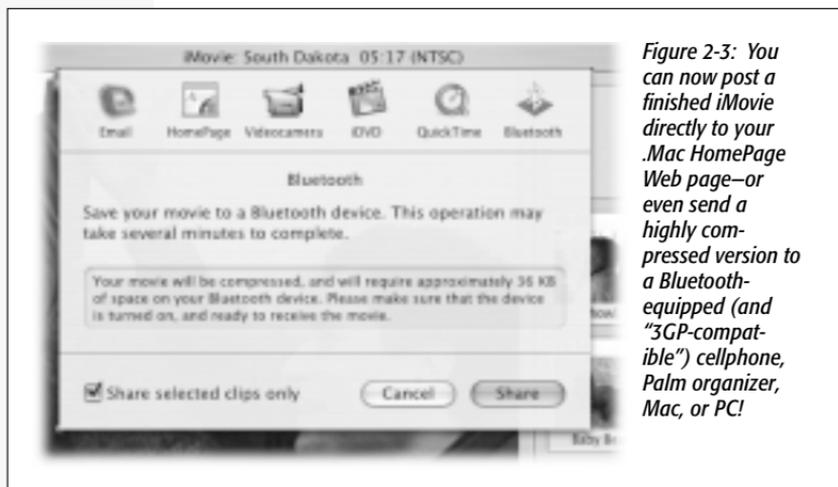
- **Scroll to Playhead.** If you've managed to lose the Playhead while scrolling, this command jumps to its position in the Timeline, pulling the Playhead into view.
- **Scroll to Selection.** This command scrolls the Timeline to reveal whatever clips are highlighted at the moment.

- **Zoom to Selection.** Start by highlighting a clip or two that you want to work with in the Timeline Viewer. Then use this command. iMovie dutifully zooms into the Timeline so that your selection fills the entire width of the screen, making it much easier to fine-tune minute video moments or audio problems.

## Miscellaneous Improvements

Tiny touchups are everywhere in iMovie 4. For example:

- The old File→Export menu command is now called File→Share, and it offers a few new options (Figure 2-3). Among them: “Share selected clips only,” which lets you export only a segment of your movie. (It’s available only if you had selected several consecutive clips before choosing the Share command.)



- You can choose some new title effects, including one called “Far, Far Away.” (Can you guess what it looks like, *Star Wars* fans?) Also, the title styles are now grouped by flippy triangles to make the list easier to navigate.

- iMovie 4 processes just about everything faster: effects, transitions, Ken Burns–style zooming and panning, and so on.
- Attention efficiency freaks! Control-clicking thrives in iMovie 4. You get useful contextual menus when you Control-click all kinds of things in iMovie 4: clips (video, audio, title, transition), the Playhead, the Scrubber bar (under the Monitor window), empty space in the Timeline Viewer, and so on.
- You can use an Apple iSight video camera as though it's a camcorder. As shown in Figure 2-4, a new pop-up menu appears that lets you choose which video source you want to use for capturing new video.

*Figure 2-4: Once an iSight camera is connected, the camcorder icon sprouts a pop-up menu. Use it to choose the iSight as the video source.*





# iDVD 4

If your Mac has a built-in SuperDrive (a drive that can both play and record both CDs and DVDs), then you probably already know about iDVD. It's the software that lets you turn your iMovie movies and iPhoto slideshows into Hollywood-style DVDs that play on most standard DVD players.

As you'll see in the following pages, iDVD 4 is loaded with enhancements that help you make your DVD look even more like a commercial Hollywood DVD.

But before you even get that far, you'll discover one welcome change: iDVD now runs on Macs that don't have SuperDrives. Of course, you still need a SuperDrive to *burn* a DVD—but now you can do the design work on another machine. That's a great feature in, for example, school computer labs that have 12 Macs, but only two that can burn DVDs. (To transfer a DVD project to a different Mac, use the File→Archive Project command. Then copy the resulting “bundle file” to the Mac with a SuperDrive.)

## New Themes

Version 4 comes with 20 new *themes* (ready-to-use menu screen designs complete with attractive backgrounds and coordinating type, music, and graphics). To see them, click the Customize button at the bottom of the main window; the Customize *drawer* slides open at the side. Click the Themes button at the top to see them all.

---

**Tip:** Actually, you have 44 themes available in all. Use the pop-up menu at the top of the panel to see the 24 themes from the previous version of iDVD.

---

Some of the new themes appear twice: “Wedding Theme Bronze One” and “Wedding Theme Bronze Two,” for example. That’s a harbinger of another iDVD new feature: predesigned *submenu* screens, like the Scene Selection screens you’d find on a commercial DVD. The “Two” designs are intended for these second-level screens of buttons.

## Fewer Limits

Overall, the most important change in iDVD is the removal of *limits* that were present in previous versions. You can put 12 buttons on a menu page, up from six. You can now resize and move them freely. You can play 15 minutes of tunes as background music on a menu screen, not just 30 seconds. You can create up to 99 chapter markers per movie—the maximum possible in the DVD format—up from 36.

And you can now create text boxes on your menu screens and fill them with instructions, introductions, a description of the project, and so on. (To do this, choose Project→Add Text. Double-click the placeholder text and type away. Use the Settings panel of the Customize drawer to specify the font, color, and size of the text.)

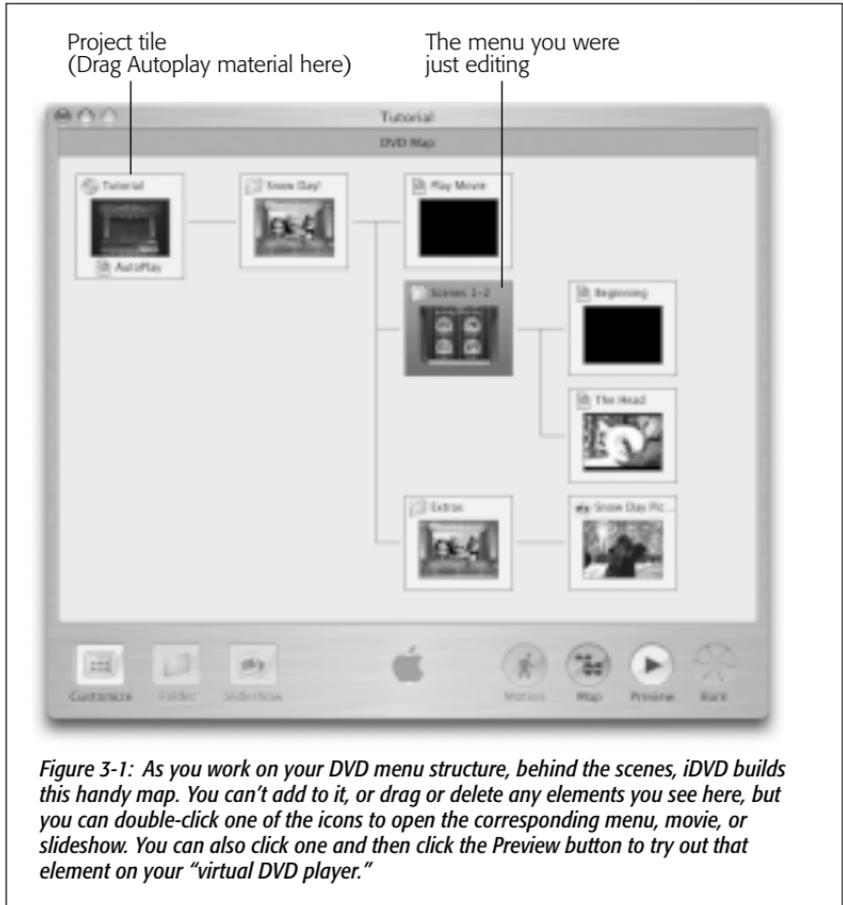
## The DVD Map

In previous versions of iDVD, the main menu (the screen that appears when you first insert the DVD) generally contained at least two buttons: Play Movie and Scene Selection. If you clicked Scene Selection with the remote control, a *submenu* screen appeared, listing up to six buttons, each capable of playing a slideshow or little movie.

But if you had *more* than six movies or slideshows, you had to click onto yet *another* submenu screen that had *another*

six buttons. And if that *still* wasn't enough room for your buttons, you had to create *another* submenu. And...well, pretty soon, you felt like Hansel and Gretel with not enough bread crumbs.

But now, as your menu and button layouts grow more complex, you can use the new Map screen to help you keep track of your menu structure (see Figure 3-1).



To view the map, just click the Map button at the bottom of the main iDVD window. The element you were working on appears with colored highlighting. To scroll, just drag in any blank space. (Click the Map button again to return to the menu screen you were working on.)

But the map is more than just a pretty navigational aid. It also makes possible several additional iDVD 4 features.

## Autoplay

Until now, you could make your homemade iDVD discs behave like commercial Hollywood DVDs in almost every respect—except one. You couldn't designate a video clip to play automatically when the disc is inserted, *before* the menu screen appears. You know—a bright red FBI warning, previews of coming attractions, or maybe just a quick snippet of the movie on the DVD.

iDVD 4 makes creating this kind of “pre-movie” extremely easy. In Map view, the upper-left icon is technically called the Project icon (see Figure 3-1), but you can think of it as the Autoplay icon. Whatever you drag onto this tile will play automatically when the DVD is inserted, before your viewers even touch their remote controls.

These are the kinds of things you can put there:

- **A video clip.** In the Customize drawer, click the Media button at the top, and then choose Movies from the pop-up menu. iDVD displays all the movies in your Home→Movies folder; drag the one you want directly onto the Project tile to install it there.
- **A still image.** In the Customize drawer, click the Media button, but this time choose Photos from the pop-up menu. iDVD shows your complete iPhoto collection, including all of your albums. To use one of these images as a startup screen for your DVD project, just drag it onto the Project tile. (You can add audio to it, too, just as you'd

add audio to a slideshow—by dragging in an audio file from the Audio section of the Media pane.)

---

**Tip:** If you tinker with the graphics tools in a program like Photoshop or AppleWorks, you can come up with a decent replica of the standard FBI warning that appears as the Autoplay of a commercial DVD. You can precisely duplicate the wording and typographical look, or take the opportunity to do a hilarious spoof of the usual warning.

---

- **A slideshow.** Once you've got the Photos list open in the Customize drawer as described above, you can also drag an entire iPhoto album onto the project icon. Alternatively, you can click and -click just the photos you want in the Customize panel, and then drag them en masse onto the project icon. In fact, you can even drag a group or folder of photos right out of the Finder and onto this icon.

To control how long your still image remains on the screen, or how quickly your Autoplay slideshow plays, double-click your Project tile. You arrive at a screen like the one shown in Figure 3-2, where you can adjust the timing, transition, and even the audio that plays behind the picture(s).

If you decide to replace your Autoplay material, just drag new stuff right onto it. Or, to eliminate the Autoplay segment, drag it right off the Project tile. It disappears in a little puff of Mac OS X cartoon smoke.

---

**Tip:** It's possible to create a DVD that never even *gets* to the menu screen—a DVD consisting only of Autoplay material. You could design a project that way for the benefit of, for example, technophobic DVD novices whose pupils dilate just contemplating using a remote control. They can just insert your Autoplay-only DVD and sit back on the couch as the movie plays automatically.

---

## Looping

If you highlight the button for a movie, slideshow, or Autoplay tile—either in Map view or on a menu screen—and then choose Advanced→Loop Movie (or Loop Slide Show), you unleash another raft of possibilities. You can make a DVD that endlessly repeats the highlighted material (a slideshow or movie) and, in fact, *never* gets back to the menu screen.

That would be a great way to create a DVD containing a self-running slideshow that plays on a TV at a party or wedding reception. You could also use it to create a self-looping kiosk display at a trade show.

In any case, the DVD will loop endlessly—or at least until it occurs to someone to press the Menu or Title button on the remote, which displays your main menu at last. (The Menu button redisplay the previous menu screen; the Title button causes a return to the main menu.)

## Slide Shows

The DVD has always been a fantastic delivery mechanism for slideshows. The pictures look great on a TV, music plays, and your grateful viewers can control the pace using the remote control (if you give them that freedom).

### GEM IN THE ROUGH

#### Menu Transitions

Speaking of crossfades and transitions: iDVD can put them between menus, too. Now, when your audience clicks a button on the main menu screen, the screen doesn't just jump cut to the selected movie or slideshow; it crossfades, wipes, rotates on the face of a cube, or whatever.

To specify which transition you'd like, open the Customize drawer, click the Settings button at the top, and then use the Transition pop-up menu to specify the effect you want. (Your choice here affects all transitions into and out of menu screens.)

iDVD 4 makes setting up slideshows even easier. You begin as you always have—by opening the Customize drawer, clicking the Media button, choosing Photos from the pop-up menu, and dragging an album (or a selected group of pictures) onto a menu screen. (You can also drag a folder full of pictures right out of the Finder and onto the menu screen.)

As before, iDVD creates a button that links to those pictures. But in iDVD 4, you can double-click this button to open a new Slide Show editor, shown in Figure 3-2.



*Figure 3-2: You can change from this thumbnail view to a list view by clicking the list icon in the upper-right.*

Here, you can rearrange slides by dragging them (the other slides scoot aside to make room), delete selected slides with the Delete key, or add new photos from the Customize drawer.

Then, of course, there are the controls at the bottom of the window. As in previous iDVD versions, they let you specify how long the slides remain on the screen (or choose Manual to let the viewers advance the slides). But a few new goodies are here:

- **Transition.** Now you can specify any of several graceful transition effects—Dissolve, Cube, and so on—to govern how one slide morphs into the next.

---

**Note:** The transition you specify here affects all slides in the show.

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- **Looping.** If you turn on the “Loop slideshow” checkbox, the slideshow repeats endlessly, as described on page 26.



*Figure 3-3:  
iDVD 4 offers  
two ways to  
compress the  
video on your  
masterpiece.*

- **Longer audio tracks.** The music that accompanies your slideshow must no longer end pathetically three minutes into the presentation.

Open the Media panel of the Customize drawer. From the pop-up menu, choose Audio. Now you see your entire list of iTunes music—in fact, you even see your playlists here. To avoid the music-ending-too-soon syndrome, drag an *entire playlist* into the little Audio well beneath the slide display. Your DVD will play one song after another according to the playlist.

## Two Hours of Video

For some people, this final grace note might be the most important new feature in iDVD 4. You no longer must make

### POWER USERS' CLINIC

#### Best Quality/Best Performance: How It Works

When a DVD-burning program goes to work, it faces an important decision. Given that a blank DVD contains a limited amount of space (4.7 GB or so), how much picture-quality data can it afford to devote to each frame of video?

The Best Performance option in iDVD 4 makes that decision like this: “I’ll allot a fixed, predetermined amount of data to each frame of video—enough to make it look great—no matter how many minutes of video my human master has included. A lot of the DVD might wind up being empty—if, for example, the project contains less than an hour of video. But at least the burning process will go quickly, and the video will look really great.”

The Best Quality option takes a different approach. It says: “I’m going to use every mi-

cron of space on this blank DVD. I’m going to analyze the amount of video my human has included, and divide it into the amount of space available on the DVD. The amount of information used to describe an individual frame of video will vary from project to project, and it will take me a lot longer to burn the DVD because I’m going to have to do so much analysis. But at least my human will get two hours of great-looking video per disc.”

Incidentally, if you’d like some insight into how iDVD is thinking of the project you’re working on at the moment, open the Customize drawer and click the Status button. This new panel shows you how close you are to filling up the DVD with your movies, menus, and other elements.

the Hobson's choice between 60 minutes of video at best quality and 90 minutes at lower quality. Apple has thoughtfully raided its own professional DVD creation software and added one of its best features to iDVD: now any DVD you burn can contain two hours of footage at the best possible quality.

To see the on/off switch for this feature, choose iDVD→Preferences. On the General panel (Figure 3-3), you'll see two options under Encoding Settings. Both produce superior video quality to what you got from iDVD 3:

- **Best Quality.** This option gives you two hours of video. From 60 to 120 minutes, the quality gradually drops as iDVD tries to cram more and more video information onto a finite disc—but even at two hours, the picture looks better than 90-minute mode did in iDVD 3. And if you have only 60 minutes of video, this option produces much better video quality than the Best Performance setting.

This option takes a lot longer to burn your DVD, because the program performs quite a bit of analysis before burning.

- **Best Performance.** Video will look fantastic, and your Mac will burn the disc relatively quickly—but the DVD you burn this way can contain a maximum of one hour of video.

---

**Tip:** If you'd like some insight into how iDVD is thinking of the project you're working on at the moment, open the Customize drawer and click the Status button. This new panel shows you how close you are to filling up the DVD with your movies, menus, and other elements.

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# GarageBand

• iTunes is a music program, but its function is to organize and manipulate music created by *other* people. With GarageBand—some of whose underlying technology Apple bought in 2002 when it acquired a company called Emagic—Apple enters new territory. It has created a program that lets you create music of your own.

If you're already a musician, you'll probably flip over GarageBand; it combines the CD-quality samples of Apple's Soundtrack software with the hard-disk recording features of Digital Performer and the canned rhythm tracks of Band in a Box.

But what's really mind-boggling is the way this program can turn the inspiration of musical *novices* into commercial-sounding demos. Imagine how many thousands of singers and instrumentalists, though blessed with enormous native talent, remain undiscovered because they lack recording studios and backup bands. For them, GarageBand may open a lot of doors—or just offer a lot of fun.

## The GarageBand Concept

GarageBand lets you construct professional digital recordings using three kinds of raw material:

- **Prerecorded loops.** The program comes with thousands of professionally recorded musical snippets—drums, guitar, bass, and dozens of other instruments. Even if you don't know a quarter note from a quarterback, you can drag these musical snippets like building blocks, layering

one track upon another until you have yourself a composition.

- **Professional samples.** If you have a USB keyboard—that is, a USB *musical* keyboard—or a MIDI synthesizer-type keyboard, you can use GarageBand’s built-in *sequencer* as a digital tape recorder. As you play the plastic keys of your USB instrument, your Mac speakers emit the rich sound of a grand piano (it’s a Yamaha C7, for those scoring at home), an orchestra full of strings, the brassy sting of rock-hall trumpets, or any of hundreds of other sounds of your choosing. You can lay down one such track after another—the drum beat, followed by a bass line, then some piano, and so on—until you’ve got a rocking little band right in your Mac.

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**Tip:** Apple intends to sell an expansion pack for GarageBand that includes even more instruments and loops.

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- **Digital recording.** Once you’ve built up an instrumental accompaniment, using either the prerecorded loops or by laying down some tracks with a keyboard, you can add the icing on the cake: live recordings. Most people sing or play into a microphone, using GarageBand as a multi-track tape deck. But you can also plug in a guitar, synthesizer, or any other sound source—and record it directly to your hard drive.

The idea is that you can use GarageBand’s tools—prerecorded loops, sampled sounds, live recordings—in any way you see fit. Then you can apply professional-sounding effects like reverb or chorusing, and then export the finished product to iTunes, where you can download your work to your iPod, export it as an MP3, or burn it onto CDs. Forget the Recording Industry of America; GarageBand turns you into the Recording Industry of Your House.

## Module 1: Prerecorded Loops

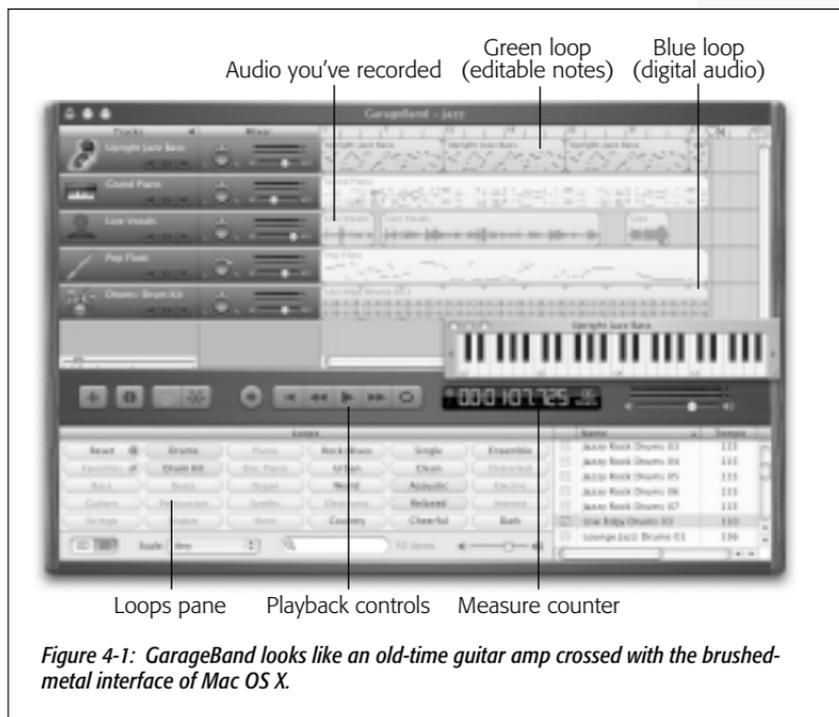
Here's the part of GarageBand that you can use even if you have no musical training—or musical equipment—whatsoever.

Once you've opened up GarageBand, choose File→New. In the New Project dialog box, you can set the name, tempo (speed), time signature, and key for the piece you're about to create (you can change any of these parameters later). Type in name for this song and then click Create.

---

**Note:** GarageBand proposes saving new compositions into your Home→Music→GarageBand folder, although you can file them anywhere.

---



*Figure 4-1: GarageBand looks like an old-time guitar amp crossed with the brushed-metal interface of Mac OS X.*

After a moment, the GarageBand window appears. To view the thousands of prerecorded musical tidbits (called *loops*), choose Control→Show Loop Browser, or press ⌘-L. The buttons shown at the bottom of Figure 4-1 appear.

Now the fun begins. Click the name of the instrument you'd like to hear—Drums, for example. At the right side of the screen, you see a long, scrolling list of drum licks in various styles: Alternative Rock, Classic Rock, Club Dance, and so on. Double-click one to hear it; click again to stop playback.

Of course, it could take you all day to try out every one of these recordings. Fortunately, there are several ways to sift through the loops:

- Click successive rounded buttons in the Loop browser to narrow the choices in the list of recordings. For example, if you click Drums, then Electronic, Dark, and Intense, you winnow down the list to only three different loops.

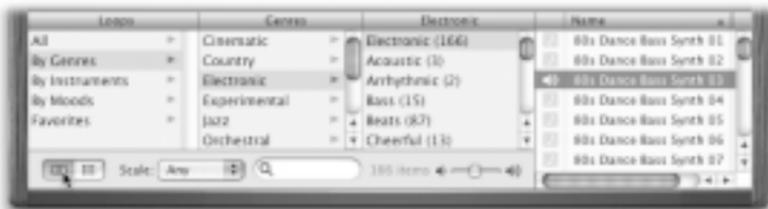
To bark up a different tree—for example, to try out loops recorded by a different instrument—click the Reset button and then begin again, this time with, say, Bass.

- The loops with *green* icons are “software instruments,” triggered live during playback by GarageBand’s built-in sound samples. You can edit or transpose the notes just as you would music that you played yourself (page 42).

The loops with *blue* icons are actual digital recordings of professional studio musicians. You can’t edit the notes. Incredibly enough, though, you can change their tempos and even *transpose* them, thanks to some *very* slick software voodoo.

- Click the Column View button at the lower-left corner of the screen. Now your list of loops resembles the iTunes category browser (Figure 4-2). The leftmost column lets you specify how you want to search (by genres, by instruments, and so on). The second column lists your options in that category (Country, Electronic, and so on). The

third column breaks down that option into finer subcategories (Cheerful, Dry, and so on).



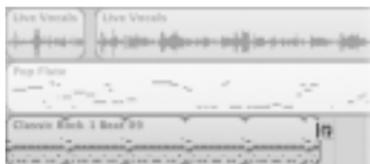
*Figure 4-2: As in button view, the far-right listing shows the matching loops for the subcategory you've now specified.*

- In either button view or column view, you can type the name of the instrument or feeling you're looking for into the Search box at the bottom edge of the browser—*banjo*, *ballad*, *Latin*, or whatever—and then press Return. The rightmost list of loops shows only the matches.

**Tip:** If you know a little bit about music, you can also use the Scale pop-up menu at the bottom of the window. It lets you view only loops recorded in major keys, minor keys, or no particular keys. (The “Good for Both” option refers to loops that don’t clash with major *or* minor chords: moving octaves, open-fifths “power chords,” and so on.)

When you've found a good loop, drag its name upward into the main track window, as shown in Figure 4-3. At that point,

*Figure 4-3: By dragging the upper-right corner of a loop, you make it repeat for the number of measures indicated by the ruler. The most common use of this feature, of course, is to “lay down” the drum track for the entire song.*



it shows up as a green or blue bar, which you can drag by the middle to reposition it.

---

**Tip:** If you drag the *lower* right corner of a loop, you can shorten it. That way, you can, for example, trim down the loop to only its first half—and then, by dragging the upper-right corner of *that*, make that half repeat over and over. Also, once you’ve created several repetitions, you can move the cursor near the indentation of the first loop repetition, and resize the duration of the area that gets repeated.

---

Once you’ve deposited a loop into your composition, you can use the tape-deck-style transport controls beneath the track display.

---

**Tip:** The Space bar also works to start and stop playback, by the way. Don’t forget to drag the Playhead into position before you tap it, so that you don’t have to start from the beginning each time.

---

## UP TO SPEED

### Navigating GarageBand

You can jump around in your composition in either of two ways:

**Click in the ruler.** See the measure ruler at the top of the window? Click it to plant the Playhead where you want playback or recording to begin.

**Type a specific location.** See the measure counter—the blue digital numeric readout to the right of the playback controls? This display can show you the position of the Playhead in either of two ways. First, it can show this format: 25.15.3.100, which refers to measures, beats, sub-beats (that is, quarters of a

beat), and *ticks* (of which there are 240 per sub-beat). Second, it can display pure time code (hours:minutes:seconds:thousandths of a second). To switch between these two displays, click to the left of these digits, where you see the tiny clock or musical note.

This isn’t just a display; it’s also a navigation tool. Double-click the number you want to edit (which now begins to blink), type new numbers, and then press Return. The Playhead jumps immediately to the point you specified.

## Working with Tracks

In recording-studio jargon, a *track* is one of several parallel streams of musical sound (usually one per instrument) that all play back together.

When you drag a loop into an empty area, you create a new track. (You can also drag a loop into an existing track.)

---

**Note:** You can also set up a new empty track by choosing Track→New Track (Option-⌘-N), or by clicking the + button beneath the track list. In that case, a dialog box lets you choose the instrument you want the new track to play.

---

The whole idea of GarageBand is to build a set of tracks that sound good together. (Or, rather, that sound *the way you want them* to sound; these days, *good* is a relative term.)

Here's some of the other fun you can have with tracks:

- To rename a track, click its icon in the Tracks column. Down below, you can edit the Name box in the Editor panel. (If you don't see it, choose Control→Show Editor, or press ⌘-E. Details on the Editor panel in a moment.)
- During playback, it's frequently useful to isolate a certain track—like shouting, “OK, everybody shut up but the bass!” To do that, click the little pair of headphones just beneath the track name. When it's illuminated in blue, all the other tracks fall silent. You've just *soloed* a track.

---

**Tip:** You can solo more than one track, isolating just two out of your five, for example. Also, feel free to solo or un-solo a track *during* playback.

---

- Similarly, you may want to silence one track so that you can hear the others. That's the purpose of the tiny speaker icon—the Mute button—beneath the track name.

---

**Tip:** The Mute button is especially useful when you're trying to decide which of several variations on a track is the one you want to keep.

---

- You can zoom in or out of your piece—stretching or condensing the measure ruler at the top—by pressing Control-left arrow or Control-right arrow. (There’s a slider below the track list that does the same thing.)

You’ll find more on working with tracks at the end of this chapter.

## **Module 2: Virtual Instruments**

Much more fun awaits if you’ve got a cheapo USB piano keyboard (like the M-Audio Keystation 49e that Apple sells at its online store for \$100), a MIDI keyboard with a USB interface connected to your Mac, or a MIDI drum set. You can actually record your live performances—and clean up your mistakes afterwards. The sound you hear as you play is up to you: a piano, string orchestra, guitar, or even a heavenly choir.

---

**Tip:** If you don’t have a USB or MIDI keyboard, you can still fool around with GarageBand’s virtual instruments by choosing Window→Keyboard. A tiny keyboard appears on the screen, with keys that you can “press” by clicking.

You won’t become a virtuoso using this crude tool, and of course you can’t play more than a single note simultaneously—even with a two-button mouse. But at least you’ll get to hear what the sounds sound like until you can get \$100 together to buy a USB musical keyboard.

---

Start by creating a track set to the instrument you want to hear. For example, choose Track→New Track. The dialog box shown in Figure 4-4 appears, where you can specify what instrument you’ll be playing.

To try out these instruments, click an instrument family at left and the individual instrument sound at right. Play a few keys on your musical keyboard to hear the sound. You’ll notice that GarageBand’s samples are *velocity sensitive*: the notes sound louder or have stronger attack as you press harder (if you have a touch-sensitive keyboard).

When you've found the instrument you want, click OK. Rewind to the beginning of your new track, if necessary (although you can start recording anywhere). You might want to choose Control→Count In, which makes GarageBand play one bar's worth of *countoff* clicks before you begin—the software equivalent of, “And-a one! And-a two! And-a three! And-a four!”—to get you time to get your hands on the keyboard.

If you don't already have a few tracks that will help keep you on rhythm, choose Control→Metronome (so that a checkmark appears). GarageBand will click off the beats as you play to help you stay on rhythm.

---

**Tip:** You can cheat just like the pros do! You can record your performance at a slow tempo, so that you'll sound like a musical virtuoso when the piece plays back faster. To specify the tempo, click and hold the word Tempo (just to the right of the measure counter, beneath the tracks). A slider appears, which you can drag up or down to control the playback or recording speed.

---

*Figure 4-4: This dialog box lists the software instruments available in GarageBand—the sounds that you can trigger with a USB or MIDI musical keyboard.*



Finally, click the round, red Record button. GarageBand counts you in and then begins recording your performance, while simultaneously playing back any other tracks that you've laid down, either using canned loops or live performances.

---

**Tip:** If you've told GarageBand to *loop* a certain region as described in the box on the facing page, you can keep "laying down" additional notes on each repetition, building a cumulative, multi-layered instrumental part. This is a particularly useful tactic for recording a drum part—the kick drum on the first pass, the hi-hat on the next, and so on.

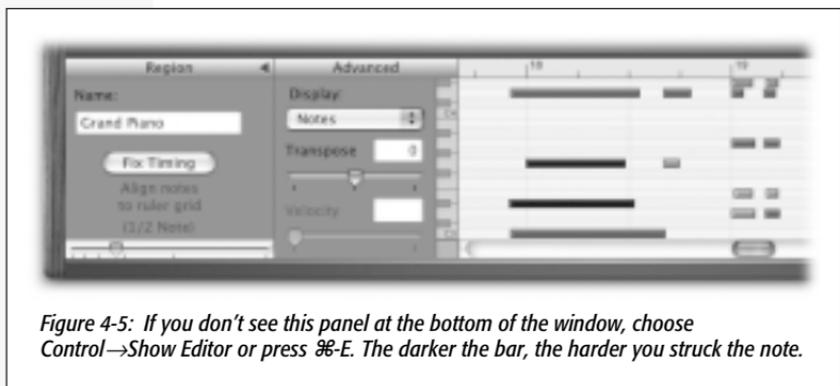
---

Tap the Space bar when you're finished. Rewind, or drag the Playhead, and then press the Space bar to play back your performance.

## Editing Your Performance

Nobody's perfect, but you'd be surprised at just how *imperfect* your favorite pop musicians are. Believe it or not, just about every song you ever hear on the radio or on an album has had wrong notes cleaned up, emphasis added, and multiple takes sliced, diced, and recombined.

You do the same kind of work in the Editor panel, shown in Figure 4-5.



*Figure 4-5: If you don't see this panel at the bottom of the window, choose Control→Show Editor or press ⌘-E. The darker the bar, the harder you struck the note.*

It may take you a moment to find the actual horizontal bars that represent the notes you recorded. Use the scroll bars, or drag the thick horizontal divider between the upper and lower halves of the window to enlarge the editor window.

---

**Tip:** Another great way to get your bearings is to use the Zoom slider at the left corner of the window.

---

Hear some of the ways you can edit your recording:

- **Delete a bad note** by clicking the horizontal bar with the mouse to select it. (The note plays and changes color.) Press the Delete key.
- **Insert a new note.** While pressing the **⌘** key, you can draw a new note right into the Editor window.
- **Drag a note** up or down to change its pitch—a great way to fix a bit of sloppy piano playing, for example—or drag it right or left to change its position in time.

---

**Tip:** As you drag a note, it snaps to the next rhythmic grid line (quarter note, eighth note, or whatever you've selected using the Grid pop-up menu described on the next page). If you'd like to be able to drag freely, choose Control→Snap to Grid, so that the checkmark no longer appears.

---

## GEM IN THE ROUGH

### Looping

GarageBand can loop a specific stretch of music over and over again as you work, so that you can hear the changes without having to mess with the Play, Stop, and Rewind buttons.

Click the Loop button at the right end of the

playback controls. Then drag through the ruler to highlight, in yellow, the section you'd like to record (or drag the edges of the existing yellow bar). When you click the Record button, GarageBand cycles through that passage over and over again, as you work on editing that passage.

### **Transposing notes**

Click the triangle to the right of the Region panel name (Figure 4-5) to reveal the Advanced panel. Here, you can drag the Transpose slider to shift the pitch of selected notes. (To transpose the whole track, choose Select All first.)

---

**Note:** Here's also where you can adjust the *velocity* of the selected notes—how hard they were struck. Velocity isn't quite the same thing as volume, because sometimes hitting a note harder doesn't just make it louder—on most instruments, it actually changes the character of the note produced.

---

### **Clean up your rhythm**

When you *quantize* your performance, you tell the software to nudge all of your notes so that they align with an underlying rhythmic grid—to the nearest eighth notes, sixteenth notes, or whatever.

Certain music benefits immensely from this treatment. In fact, the debut of computerized quantization was largely responsible for the birth of disco and rap, because it gives everything a robotically perfect, mechanized-sounding rhythmic feel.

Other kinds of music are better off unquantized, so that they retain their original human feel; quantizing totally nukes grace notes, glissandos, and subtle syncopations.

---

**Tip:** GarageBand offers 10 levels of Undo—that is, you can successively “take back” your last 10 edits—so you should feel free to experiment with things like quantization without fear that you're ruining your piece.

---

In any case, here's how you quantize something you've played into GarageBand:

1. **Click the name of the track you want to quantize.**

Unfortunately, in GarageBand 1.0, you can't quantize only a certain region of notes—only the entire track.

2. Using the Grid pop-up menu (the tiny, tilted-ruler button just above the Editor panel's vertical scroll bar), specify the degree of quantization you want.

Do you want your notes nudged so that they begin at the nearest eighth note, sixteenth note, or triplet? This pop-up menu even offers four levels of *swing*, meaning that the software will nudge your notes more or less toward dotted-eighth-and-sixteenth or triplet rhythms.

3. In the Region panel at the left side of the Editor panel, click Fix Timing.

This button is dimmed if any notes are selected in the Editor panel, since you can quantize only an entire track. (Click an empty spot on the Editor panel to deselect them.)

After performing the quantization, play back the result to make sure you haven't over- or under-quantized, wiped out grace notes, or suffocated the humanity of your performance. (And if so, choose Edit→Undo.)

### **Copying and pasting**

Most music is, to some degree, repetitive, so the Cut, Copy, and Paste commands are especially useful. Select the notes you want to copy, using the Editor panel (or choose Edit→Select All, if you like). Choose Cut or Copy from the Edit menu, position the Playhead where you want the notes to reappear, and choose Edit→Paste.

The musical material you copied or cut now appears, both in the Editor panel and in the track display above.

## **Module 3: Live Audio**

If you sing, speak, or play an instrument into your Mac, GarageBand can save the results as digital audio files that you can edit, stack up to create harmony, or process with special sound effects.

Start by plugging in your microphone (or use the built-in microphone on your laptop or iMac). Pay a visit to System Preferences→Sound→Input tab, to make sure that the correct microphone is selected. (If you make any changes here, quit and reopen GarageBand to activate them.)

Create a new track (Track→New Track). In the New Track dialog box, click the Real Instrument tab. Click the kind of instrument you're about to play. If you intend to speak or sing, click Vocals.

On the right side, specify what effects you want to apply to your recording from a long list of reverb and other processing effects. With a pair of headphones, you can try them out one at a time by listening as you test your microphone. (Click Unprocessed if you don't want any special effects.)

---

**Tip:** The names in the right-hand column are the labels that Apple gave its prefab sets of settings. You can view the details by opening the Details panel at the bottom of the dialog box. There you'll see that you can create and save your own presets, too.

---

If you're going to sing, you'll probably want to use headphones plugged into your Mac, so that the Mac won't pick up the other tracks as you sing along to them. (At the bottom of the dialog box, the Monitor option controls whether or not you'll hear your own, live singing played through the speakers while recording, as explained in Figure 4-6.)

When you click OK, the new track appears. Set up the Count In and Metronome options described at the top of page 39, click where you want to start recording (or click the Rewind to Beginning button), and then click the round red Record button. As it plays the tracks you've built so far, GarageBand simultaneously records your live sonic performance.

When you're finished recording, rewind (or click in the ruler) and tap the Space bar to hear how you did. You can adjust the relative volume as described on page 46.

Then the fun begins—you can add another track, and another, and layer your performances. If you're musically inclined, you might want to sing harmony with yourself. And even if you're not, try singing exactly the same thing on multiple tracks. That's a trick that the Beatles used to use; it creates a professional, studio-chorus sound.

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**Note:** Your recordings appear as *red* bars, so you can distinguish them from the blue and green GarageBand loops. (A key difference: you can't change the tempo or key of digital audio you record yourself. Sound files that you drag into GarageBand from the Finder, and sound-effect loops like cymbal crashes and crowd applause, also show up in red, to remind you of their similar limitations.)

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*Figure 4-6: If you're using headphones, turn the Monitor option On so you can hear yourself sing. If you're not using headphones, turn it off, so that you don't get the squealing shriek known as feedback as you sing.*



## Getting It Right

It's the rare performance that's perfect on the very first try, so GarageBand is designed to let you take several stabs at it. You can hang on to all of your takes, and when you determine that one of them was indeed perfect, you can toss the bad ones. Here are two ways to go about this process:

- **Create a new track for each attempt.** Use the Mute button described on page 37 to silence previous tracks as you record the new ones.
- **Rerecord over a certain passage.** Even if you've already recorded into a track, you can position the Playhead and record a new take. The new sound will record over what was already there, resulting in a new, distinct “block” in the track display.

## Putting It All Together

When your individual tracks are sounding good, it's time to start thinking of the composition as a whole. After all, your public is waiting.

### Track Volume Levels

To adjust the volume levels of tracks relative to each other, expose the Mixer panel shown in Figure 4-7. (Either click the right-pointing triangle next to the word Tracks, or choose Track→Show Track Mixer.)

Here's what the mixer panel lets you do:

- If you're listening to your piece in stereo, you can specify where a particular instrument is on the imaginary left-to-right soundstage, just by clicking the edges of the “L R” knob.
- You can make the overall volume of a track rise and fall during the course of the piece. Just to the right of the Solo (headphones) button is a down-pointing triangle that makes a new Track Volume strip appear. See Figure 4-7.
- GarageBand also offers an *overall* volume map for the piece; choose Track→Show Master Track to see it.
- You can adjust the reverb and other effects for any track just by double-clicking its name. In the resulting box, expand the Details panel to view Gate, Compressor, Equalizer, and other effects. (You can also double-click the

Master track's name to apply an overall effect to all tracks together.)

- You can adjust the tempo of the piece as described on page 39, and you can transpose the key as described on page 42. Remember, though, that making these changes affects only the GarageBand's loops and whatever you've recorded with a USB or MIDI musical keyboard. You can't change the key or tempo of your live microphone recordings, so your singing should be a last creative step.

When the piece is done, you're ready to bring it to your adoring fans. Choose File→Export to iTunes. After a moment, iTunes opens automatically, and your GarageBand piece appears in its music list.

From here, you can distribute your song anywhere that fine iTunes songs are distributed: transfer it to your iPod, burn it to a CD, export it as an MP3 (or AIFF or AAC) file, or just let it play over and over again, with the iTunes laser-light show filling your vision.



*Figure 4-7: Once you've exposed the Track Volume strip, you can click on the colored line—a graph of the track volume—to insert a handle, which you can drag to make the volume rise and fall over time. (Make sure that the Track Volume checkbox is turned on if you want to hear the effect.)*

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*(that should have been in the box)*

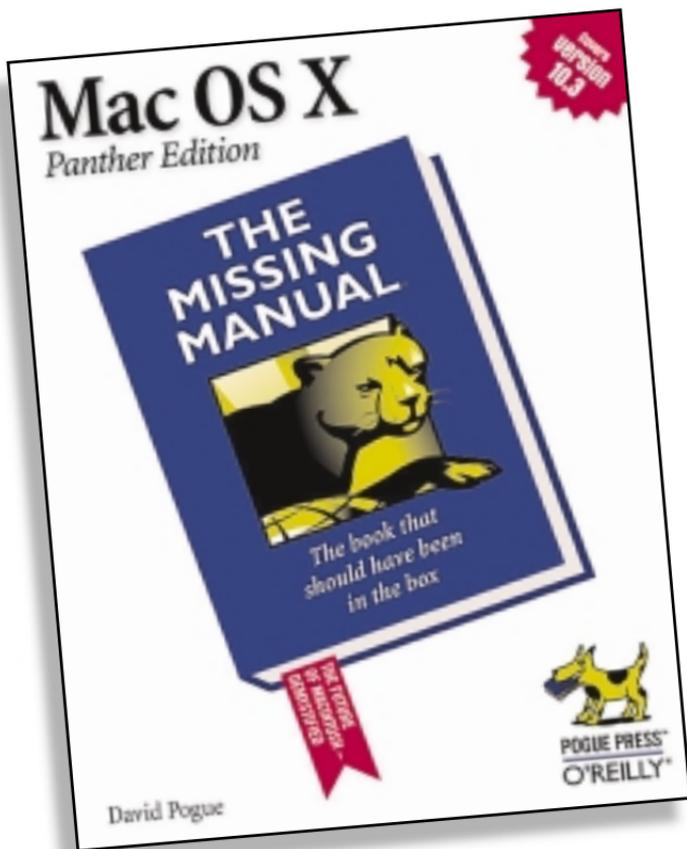


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