Chapter 1

Introducing Final Cut Pro

In This Chapter

- Introducing the concept of editing
- Seeing how Final Cut makes editing easy
- Seeing what's new in Final Cut Pro 4 and HD
- Understanding the Final Cut workflow
- Getting to know the interface
- Finding help in Final Cut Pro

Imagine for a moment: You're a big-time director on the set of your latest movie. You have just called your last "Cut!," the A-list actors have gone back to their mansions, and the crew is dismantling the million-dollar sets. You lean back in your director's chair, close your eyes, and breathe a deep sigh of relief, knowing that the film is finally finished. You can, at last, relax.

Yeah, right! In fact, this show is *far* from over. Although you may have some amazing footage, the fat lady won't sing until you have edited it all into a polished film. Enter Final Cut Pro.

Understanding the Purpose of Editing

Editing video or film is a bit like writing. When you write (or when *I* write, at least), you start by putting all your ideas on paper — good or bad — so that you can see what you're working with. Then, you arrange the *best* ideas in a logical order so that they say what you mean, as clearly and efficiently as possible.

It works the same way when you're editing digital video. First, you scrutinize all the footage you shot on set (usually, a lot). Slowly, you figure out which shots to keep and which ones to send to the proverbial cutting-room floor. You may remove a shot for any number of reasons: an actor's performance, technical problems, or the fact that you can see a crew member's foot in the

frame. Next, you arrange your "keeper" shots, one by one, so that they begin to tell a story, and you bring in your dialogue, music, and sound effects to make the project complete.

In this book, I call your footage *video,* whether you originally shot it on film or videotape. This term keeps things simple because digital footage is generally treated the same after it's in Final Cut, regardless of its origins. (In a few cases, footage originally shot on film has some distinctions, but I note them when appropriate.)

Exploring the Capabilities of Final Cut Pro

Final Cut lets you do all this editing work on your Mac. To be a little more specific, when you're "behind the wheel" with Final Cut, you can do the following:

- **Capture:** Capture video or audio media from digital videocameras and video decks, CDs, microphones, and existing digital files onto your hard drive. (Let me say it again: Don't let the name Final Cut Pro HD fool you; sure, Final Cut works great with HD, or high-definition, video, but it's still just as adept with standard def video — the kind of video displayed on most televisions today, and captured by nearly all video cameras).
- **Organize:** Organize all your media files so that you can easily find them. (A project may use hundreds of different files.)
- **Edit:** Edit your footage, which is almost as easy as cutting and pasting text in a word processor.
- **Add audio:** Add audio to your movie — whether it's dialogue, voice narration, music, or sound effects — and control the volume for each audio element.
- **Create transitions:** Create transitions, such as fades and wipes, between shots.
- **Add text titles:** Titles can range from the classic white-text-on-black title cards to animations with all sorts of pyrotechnics.
- **Add effects:** Enhance video and audio with tons of effects filters and color-correction tools.
- **Composite:** Create impressive visual montages by *compositing* (combining) multiple shots into one. This process is similar to the one in the popular Adobe After Effects program.
- **Create a final product:** Record your polished masterpiece to videotape or export it to digital files destined for DVD, CD-ROM, or the Web.

Appreciating nondestructive editing

One of the great things about Final Cut Pro is that it's a *nondestructive* editor, which means that no matter what you do to your video and audio inside the program, the original media files on your hard drive are never changed or erased (okay, almost never; see the following Tip paragraph). Suppose that you have a bunch of video files on your hard drive, and you bring them into Final Cut to edit them together. Although it may seem as though you're cutting this media into different pieces, resizing it, and even deleting it, that's not the case. When you're editing, you're really just creating and moving a bunch of digital pointers to the media on your hard drive. The pointers tell Final Cut what parts of the media you want to play in your final movie (in other words, play Clip A for three seconds and then play part of Clip C for two seconds, for example). Thanks to this approach, you can work and experiment, knowing that you aren't hurting your precious media.

With Final Cut Pro HD, you can alter or erase your original media files within the software in only *one* way, but you really have to go out of your way to do it, and safeguards prevent accidental goofs. I explain this feature — just one of the many useful things Media Manager can do for you — in Bonus Chapter 3, on this book's companion Web site. (For more on this Web site, refer to the Introduction.)

Final Cut Pro versus the competition

Plenty of other editing programs are available these days: Adobe Premiere, Avid Media Composer, Avid Xpress Pro, and SpeedRazor all come to mind.

What makes Final Cut Pro so special? Four things:

- **It's brimming with features:** Final Cut Pro not only delivers the big power features that sound great on the back of the box, but also gets tons of details right — the little, thoughtful things that help you work smoothly, in a way that suits your personal style.
- **You don't need a supercomputer or expensive proprietary hardware to run Final Cut Pro:** You can build your editing system around many fairly modern Mac versions (as long as yours has a G4 processor — see Chapter 2 for more info) and everyday peripherals, such as capture cards and FireWire hard drives, for example. Now, with Final Cut Pro HD, you can even edit high-definition video (usually, the realm of the most advanced and pricey editing systems) on everyday Macs (see Chapter 3 for more about Final Cut's HD capabilities).

- **At $1,000, Final Cut Pro is affordable:** Admittedly, many people wouldn't put the terms *affordable* and *$1,000* together, but before Final Cut Pro came along, you had to pay several thousand dollars for software that did the same thing. So, relatively speaking, $1,000 is the equivalent of a blue-light special — with the bonus that you don't have to fight off angry hordes of shoppers, because Apple has plenty of copies to go around.
- **Final Cut Pro is hugely important to Apple Computer:** Final Cut Pro has sold many new Macs in the past few years, and Apple thinks that it can sell many more in the years ahead. (For example, major movie studios and commercial production companies are beginning to switch to Final Cut Pro instead of sticking with the former standard, Avid.) So Apple is very serious about continually and aggressively improving this gem. Here's a case in point: Final Cut has had four major revisions in about three years. Now, that's commitment!

New in Final Cut Pro HD (and the earlier version 4)

Speaking of improvements to Final Cut, lots of great ones are in the new HD update as well as in the earlier version 4. (Officially, Final Cut Pro HD is known as version 4.5.) Some are little tweaks that polish off the editing experience, and others are big-ticket additions to version 4 and the newer HD update that make a big, big difference in the kind of work you can do. Here are some of the program's more exciting features:

- **FireWire HD video editing (new in version HD):** Final Cut has been able to edit HD (high-definition) video since version 3, but only with expensive, highly specialized hardware, such as HD capture cards and huge hard disk RAIDs (basically, big collections of hard drives that work together to quickly read and record the tons of data that HD has, till now, required). Final Cut Pro HD is the first version of the software that can edit DVCPRO HD, a new, exciting form of HD video. I explain this format in detail in Chapter 3. This format delivers, in a nutshell, the supersharp, high-resolution quality of HD but doesn't require the use of expensive equipment (like capture cards and elaborate RAID drives) to edit on your Mac. In fact, you could edit (with some limitations) DVCPRO HD video on mere-mortal systems, like a PowerBook or an iMac, if you want. In other words, Final Cut Pro HD brings HD to the masses.
- **Soundtrack music making (new in version 4):** The new, stand-alone *Soundtrack* program that's included with Final Cut lets you compose custom music for your movies using short, prerecorded musical loops (drumbeats and tons of other instrumental riffs). No musical experience required!

- **Hot text effects with LiveType (new in version 4):** Final Cut ships with a new application named LiveType (see Figure 1-1) that lets you animate text and apply all sorts of special effects: glows, particle effects — you name it, LiveType has it. LiveType ships with tons of predesigned animations and styles so that if you're in a hurry, you can whip up good-looking titles in minutes. If you invest a little more time, you can also customize the animations and effects to an amazing degree, creating type that is truly unique to your project.
- **QuickTime video compression (new in version 4):** Compressor is another stand-alone program that makes it easier to encode (that is, to compress) your Final Cut movies as QuickTime digital files. For starters, Compressor features a long list of predetermined settings that you can apply to movies, depending on the delivery medium they're destined for. (For example, Compressor has settings for encoding movies for DVDs or for downloading by 56K modems or faster DSL modems on the Internet.) These predetermined settings take much of the guesswork out of encoding your video. Also, Compressor has a fantastic batch-processing mode; it can encode your Final Cut project into lots of different formats all at once while you go down the street and get a latté.
- **Real-time rendering (new in version 4):** Final Cut 3 introduced real-time previews of transitions (fades, for example), color corrections, and some other special effects, saving you from having to render those effects before seeing how they looked. (*Rendering* is the process by which your Mac has to calculate how an effect should look before the effect can be played.) But this feature had some limitations:
    - Final Cut 3 could offer these real-time previews for only a handful of effects.
    - You could see those previews only on your Mac's screen, not on a TV monitor, which many editors prefer to watch.
    - When you were finally ready to record your movie to tape, you still had to render all the effects the old-fashioned way.

  But with Final Cut 4, all that changed: It can give you real-time previews of *any* effect imaginable (and combinations of effects, too — even if you're editing high-end HD video, care of Final Cut's HD update). In many cases, you can also view these effects on a TV and output them to tape without rendering — it all hinges on how fast your Mac is.
- **Customizable interface (new in version 4):** Finally, Final Cut now gives you full control over its interface. Have you ever wished that a certain function had a keyboard shortcut or a different keyboard shortcut than the one now assigned to it? Well, that's no problem — you can now assign any Final Cut function to a keyboard shortcut of your choosing. What's more, the Final Cut main interface windows (like the Canvas, Viewer, and Timeline) now let you install custom icons that call up just about any feature in the program, saving you time from hunting for them on menus.

Figure 1-1: The new LiveType application can do amazing things with text titles.

Going with the Final Cut (Work) Flow

Final Cut Pro starts to make sense when you understand how you use it from start to finish. Let me summarize its workflow in four easy steps:

1. **Capture and import all the media — that is, video, audio, and still pictures — that you want to use in your project.**

   This media can come from a camera, video deck, music CD, DVD-ROM disc, or other digital file already on your hard drive. The media shows up in the Final Cut Browser window, where you have easy access to it. Each piece of media you bring into the Browser, by the way, is called a *clip*.

2. **Move your media clips to the all-important Final Cut Timeline window.**

   You use the Timeline to place, move, and otherwise edit clips so that they tell the story you want to tell.

3. **Add pizzazz in the form of titles, transitions (such as fades, dissolves, and wipes), custom music, and more advanced special effects, such as color corrections.**

4. **Record your project to videotape or export it to a QuickTime digital file.**

   You make QuickTime digital files if you're aiming for digital distribution, such as the Internet, CD-ROM, or DVD.

It's true: Final Cut Pro brims with many windows, dialog boxes, menus, and check boxes, but all this *apparent* complexity really boils down to these four easy steps. Keep that in mind, and you can see that this isn't rocket science.

Taking a Grand Tour of the Interface

After you have gotten a grasp of the Final Cut Pro workflow, you can expand your expertise by taking a tour of its interface — namely, its toolbar and its Browser, Viewer, Canvas, and Timeline windows, as shown in Figure 1-2. Keeping track of all these elements can seem daunting, but you soon see that there's not much to them and that they do in fact work together in an intuitive way. *Trust me.*

Figure 1-2: The Final Cut interface.

By the way, you can arrange the Final Cut Pro windows differently on your screen from the way they're arranged in Figure 1-2. To get your screen to look like my screen shot, choose Window➪Arrange➪Standard from the menu bar at the top.

The Browser

The *Browser* is the central storage depot for all the media clips your Final Cut project uses. Just think of the Browser as a big file cabinet. When you want to work with a file (that is, a clip of media), you open the cabinet (or the Browser window) and grab whatever you need.

Although the Browser has lots of features, you really need to know only these basics: When you import a piece of media into your project (either from your hard drive or by capturing it from videotape), the media automatically appears in the Browser as a *clip,* as shown in Figure 1-3. You can also create, within the Browser window, *bins,* which store groups of related media clips and help you keep your media well organized. (Bins work much like folders on your hard drive.)

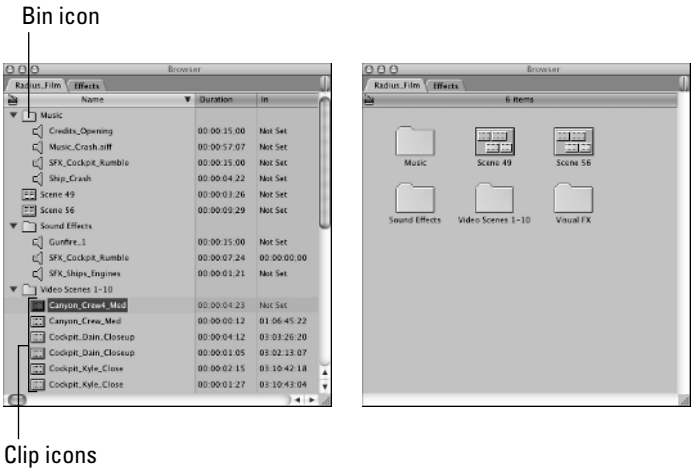

Figure 1-3: You can view items in the Browser in Icon view or in List view (just like in your Mac's Finder).

Besides housing clips and bins, the Browser window is the home of any sequences you create for your movie. A *sequence* is a collection of clips that you have edited together in the Final Cut Timeline window. (I get to the Timeline in a moment.) You can edit your movie into a single sequence or, for longer-running projects, such as a two-hour feature, you can create each major scene in its own sequence because shorter sequences are a bit easier to navigate and work with.

The Viewer

After you have media clips in the Browser, you can use the Viewer window to watch and listen to them before you move them to the Final Cut Timeline. To open a clip in the Viewer, just double-click its name or icon in the Browser window. Notice that the Viewer displays tabs at the top of its window and that clicking a different tab shows you different things in the Viewer. For example, the Video tab shows you a clip's video, and the tab right next to it shows you a clip's audio, as a sound waveform. The two other tabs let you control special effects and motion effects that you can apply to any clip, although this section stays focused on the basics for now.

Playing with play controls

The Viewer sports an assortment of buttons and other gizmos, but focus for now on its play controls, as shown in Figure 1-4. You can click the Play button to play your clip forward (another click pauses your clip) or use the Viewer Jog and Shuttle controls — also shown in Figure 1-4 — to move forward and in reverse at different speeds. As a clip plays, you see the Viewer playhead move across the *scrubber bar,* frame by frame. You can click anywhere in the scrubber bar to move the playhead to that point, or click and drag the playhead anywhere else.

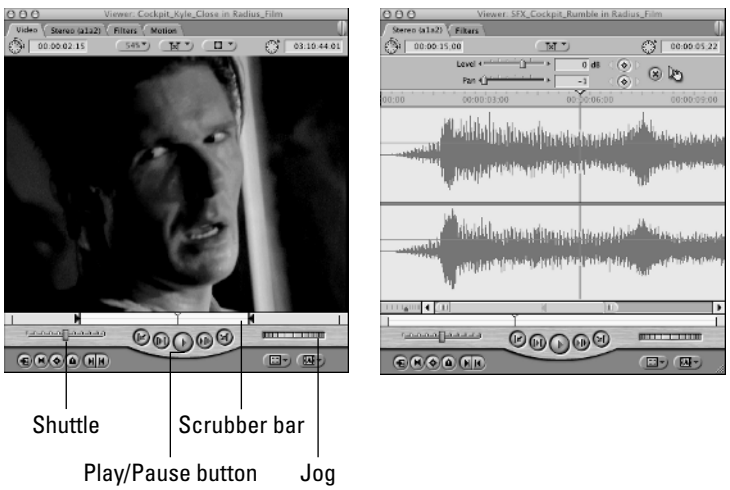

Figure 1-4: The Viewer lets you preview either video or audio clips (shown as waveforms) before bringing them to the Timeline.

The ins and outs of Ins and Outs

Besides playing clips, you use the Viewer to edit clips in a basic way by setting *In* and *Out points.* (In fact, you also use these points in other Final Cut windows, but they're "regulars" in the Viewer.) As shown in Figure 1-5, In and

Out points let you isolate only the part of a clip you're interested in before bringing it to the Timeline. Suppose that you have a great clip, except that the first four seconds suffer from a shaky camera and the last five seconds prominently feature the leg of a crew member. Because you don't want to bring the entire clip to the Timeline, you can use the Viewer to set an In point at the clip's first good frame (right after the camera shake) and an Out point at the last good frame (before the leg shows up). Then, Final Cut knows to use only the frames between those points. (I cover the basics of In and Out points in Chapters 4 and 7.)

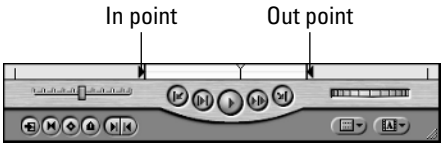

Figure 1-5: In and Out points.

The Timeline

The Final Cut Pro Timeline window lets you arrange *when* your media clips play in time. To better understand the Timeline, think of it as a sheet of music. Rather than place musical notes one after another on the page, you place clips of video and audio, and you tell Final Cut how long to play each one — for example, show a black screen for two seconds, play video clip A for four seconds, and then play clip B for three seconds.

So, how does the Timeline work? I talk about its many nuances throughout this book, but check out Figure 1-6 for the basics. Stretching across the top of the Timeline is a bar with notches and numbers that looks like a ruler. But those numbers aren't measurements of distance — they're measurements of time, increasing from left to right (for example, 5 seconds, 10 seconds, and 15 seconds). As you edit, you move your media clips to the Timeline (solid-colored rectangles represent clips on the Timeline) and position them under a time value. That's exactly where, in time, the clips play in your story.

One other feature to note about the Timeline is that it's divided into rows, which are called tracks. *Tracks* make it possible to stack media clips on top of each other so that they play at the same time. For example, if you want dialogue clips, music clips, and sound effects clips to all play at the same time, you place those clips at the same time value on the Timeline, but on different tracks (you can easily create new tracks yourself).

Anyway, the Timeline features tracks for video clips (the video track is labeled V1 in Figure 1-6) and tracks for audio clips (labeled A1 and A2 in the same figure). Some of your media clips come with video and audio linked together in the same clip, in which case Final Cut Pro shows the

clip in the Timeline video *and* audio tracks. Other clips carry just video or audio; for example, you can see in the figure that the video clip labeled FX14 has no corresponding audio along with it.

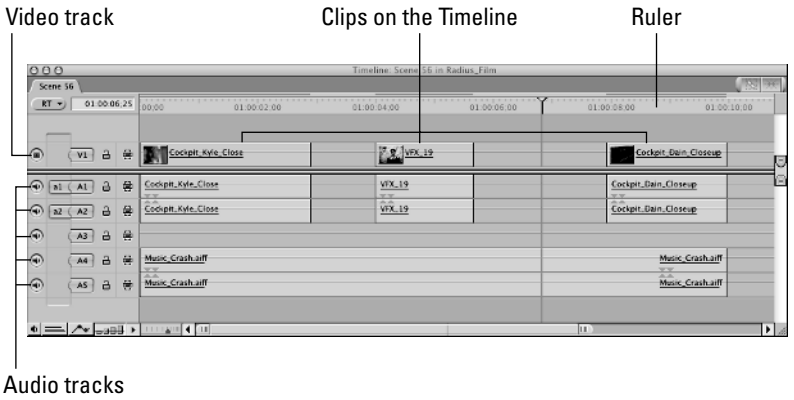

Figure 1-6: Clips on the Timeline, playing at 0 seconds, 4 seconds, and 8 seconds into this movie-in-progress.

The Tool palette

After you move media clips to the Timeline, you can edit them — that is, make them last longer or shorter in time, cut them into smaller pieces, and rearrange them until they tell your story. Enter the Final Cut Pro Tool palette, as shown in Figure 1-7, which offers a host of tools that you can select (just click 'em) and use to edit your clips in all sorts of ways. The tool you find yourself using the most is the standard Selection tool (the plain arrow at the top of the palette), which you use to select and move media clips on the Timeline. To be honest, you can edit an entire movie with this tool alone, but the palette's other tools make that work much easier. Some of the handy ones let you select huge groups of clips at one time, cut clips in two, or quickly magnify your view of the Timeline so that you can better see what you're doing. You get to know all these tools soon enough.

When you see a little black triangle in the upper-right corner of a tool icon, more tool icons are hidden underneath it. These additional tools are all related but do slightly different things. Just click and hold down the mouse button on one of these icons, and the hidden tools pop up for you to choose.

The Canvas

After you have edited your video and audio clips on the Timeline and want to see (and hear) how they all play together, turn your attention to the Final Cut Pro Canvas window. The Canvas is where you watch your movie-in-progress as you have arranged it on the Timeline.

As you can see in Figure 1-8, the Canvas looks much like the Viewer. You *do* have the same play controls, but the Canvas has some differences. (For example, you can perform some basic edits on the Canvas rather than on the Timeline.) For now, all you need to know is that the Canvas lets you play, move forward, pause, and rewind through your Final Cut Pro movie. Sit back and enjoy your show!

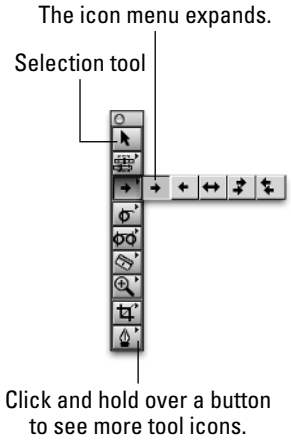

Figure 1-7: The Tool palette.

Figure 1-8: The Canvas window plays the clips you have arranged on the Timeline.