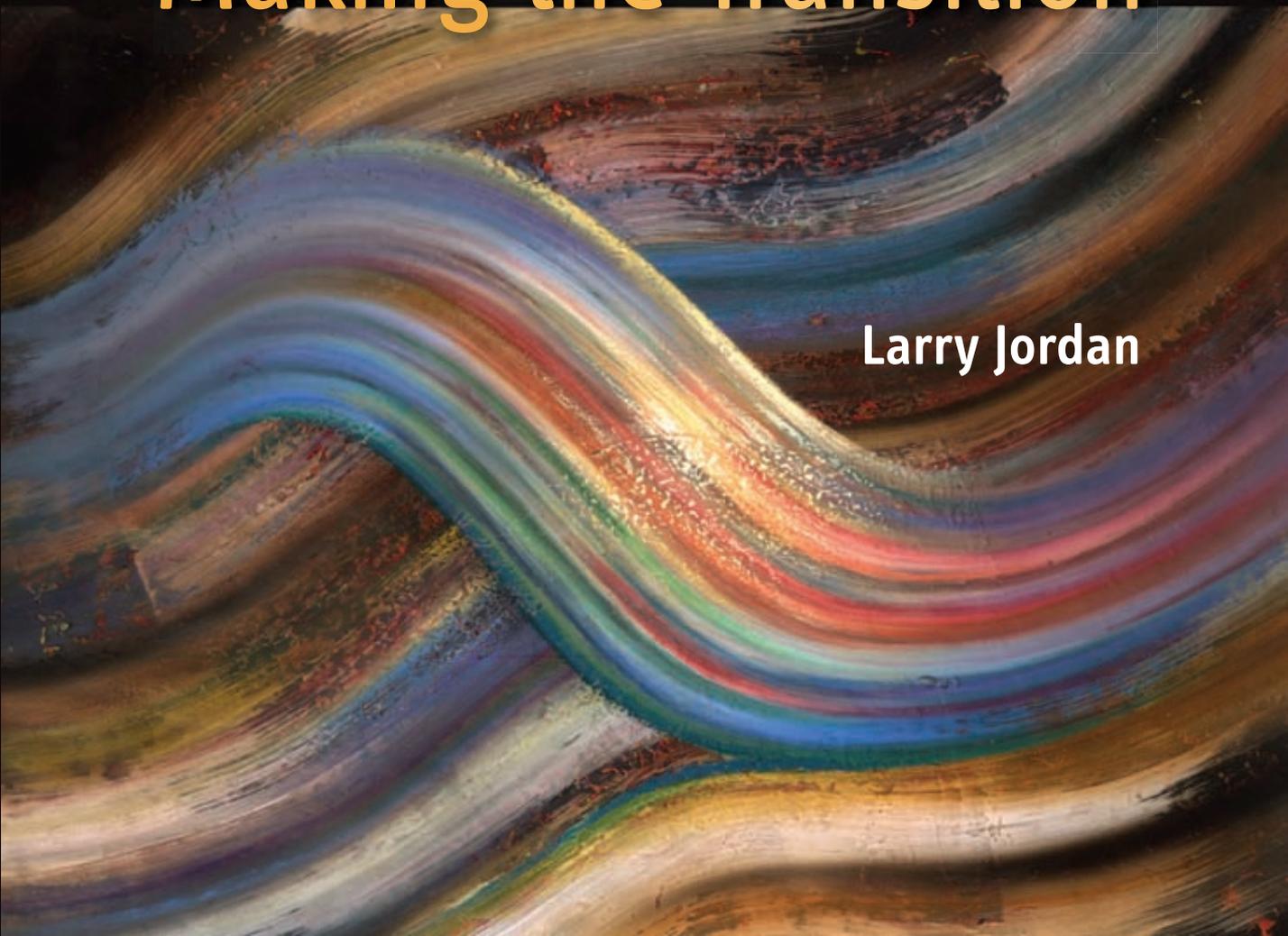
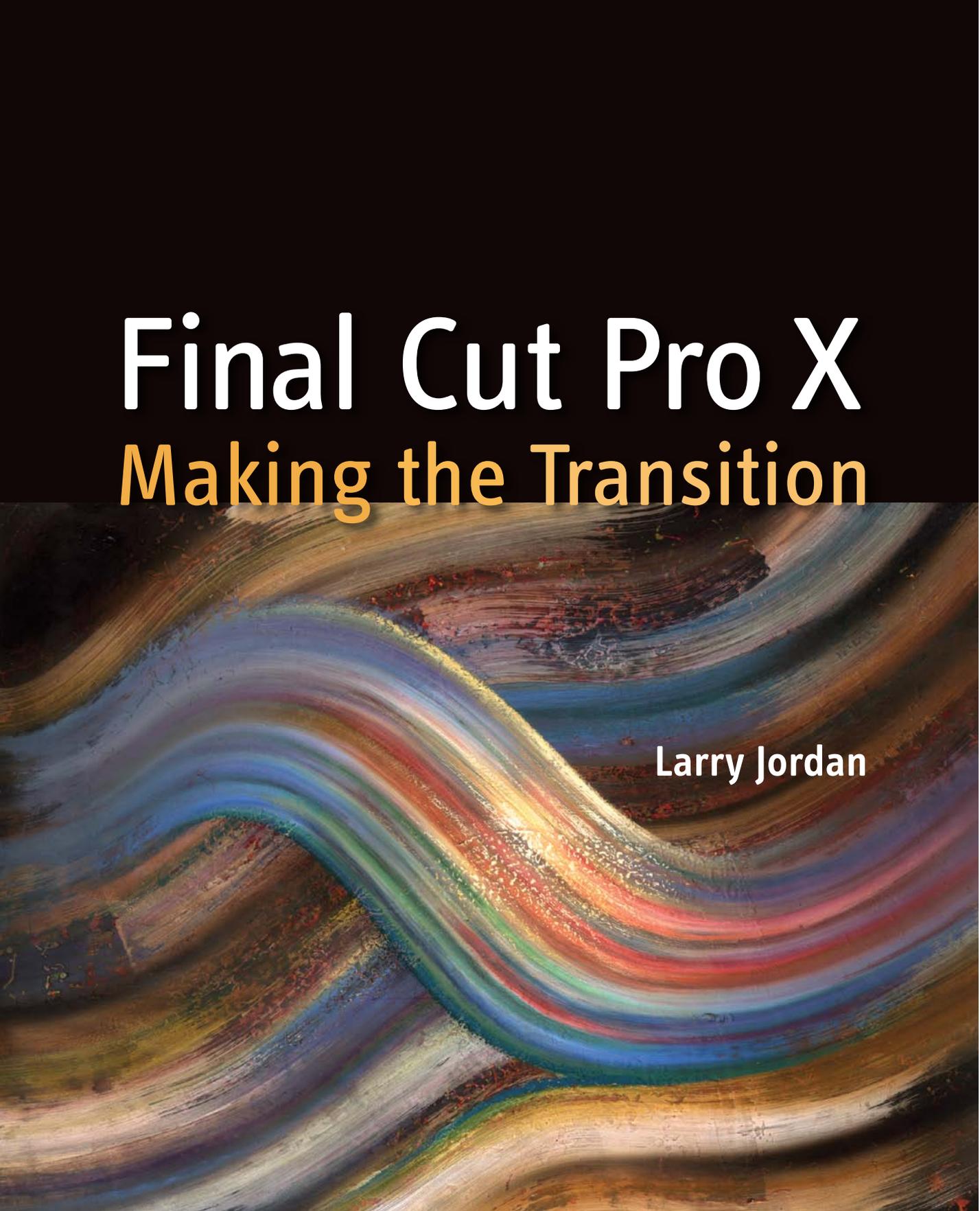


Final Cut Pro X

Making the Transition

Larry Jordan





Final Cut Pro X

Making the Transition

Larry Jordan

To Jane,
who makes everything I do possible.

Final Cut Pro X: Making the Transition

Larry Jordan

Peachpit Press

1249 Eighth Street
Berkeley, CA 94710
(510) 524-2178
Fax: (510) 524-2221

Find us on the Web at www.peachpit.com
To report errors, please send a note to errata@peachpit.com
Peachpit is a division of Pearson Education

Copyright © 2012 Larry Jordan

Senior Editor: Karyn Johnson
Copy Editors: Kimberly Wimpsett and Jacqueline Aaron
Production Editor: Danielle Foster
Proofreader: Elizabeth Welch
Composition: Danielle Foster
Indexer: Valerie Perry
Interior Design: Danielle Foster
Cover Design: Aren Straiger

Notice of Rights

All rights reserved. No part of this book may be reproduced or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. For information on getting permission for reprints and excerpts, contact permissions@peachpit.com.

Notice of Liability

The information in this book is distributed on an “As Is” basis, without warranty. While every precaution has been taken in the preparation of the book, neither the author nor Peachpit shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the instructions contained in this book or by the computer software and hardware products described in it.

Trademarks

Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and Peachpit was aware of a trademark claim, the designations appear as requested by the owner of the trademark. All other product names and services identified throughout this book are used in editorial fashion only and for the benefit of such companies with no intention of infringement of the trademark. No such use, or the use of any trade name, is intended to convey endorsement or other affiliation with this book.

ISBN-13: 978-0-321-81126-4

ISBN-10: 0-321-81126-7

9 8 7 6 5 4 3 2 1

Printed and bound in the United States of America



CONTENTS

	Welcome	viii
1	Preparing for Final Cut Pro X	1
	Getting Your System Ready to Edit	2
	Why Use an Editing Workflow?	8
	Summary	14
2	Get Started Editing	15
	Learning About Events and Projects	16
	Starting Final Cut Pro X	18
	Touring the Interface	19
	Creating a New Event	25
	Importing Media	27
	Creating a New Project	30
	Creating a Simple Edit	32
	Summary	37
	Keyboard Shortcuts	38
3	Managing Events, Projects, and Shortcuts	39
	All About Events	40
	All About Projects	48
	Creating Keyboard Shortcuts	60
	Summary	63
	Keyboard Shortcuts	64

4	Managing Media	65
	Overview	66
	Naming Media Folders	68
	Importing Media	71
	Special Cases	89
	Summary	96
	Keyboard Shortcuts	96
5	Organizing Clips: Ratings, Keywords, and Extended Metadata	97
	Displaying Events and Clips	98
	Working the Ratings	103
	Keying in on Keywords	106
	Managing Metadata	113
	Summary	115
	Keyboard Shortcuts	116
6	Editing	117
	The Editing Process	118
	The Editing and Playback Preferences	119
	Editing Techniques	122
	Summary	138
	Keyboard Shortcuts	139
7	Organizing Your Edit	141
	Making Selections	142
	Using Markers and To-Dos	142
	Copy and Paste Options	146
	The Magnetic Timeline	147
	The Magic of Compound Clips	148
	A Grab Bag of Tools	152
	Roles	156
	The Timeline Index	159
	Summary	163
	Keyboard Shortcuts	163

8	Trimming Your Edit	165
	Getting Ready to Trim	166
	Setting the Scene	169
	The Precision Editor	170
	Twelve Trimming Techniques	174
	Introducing the Trim Tool	175
	Summary	182
	Keyboard Shortcuts	183
9	Audio	185
	Audio Basics	186
	Audio in Final Cut Pro X	187
	Introducing the Inspector	191
	Audio Techniques	192
	Special Situations for Audio	200
	Mixing	204
	Explaining Keyframes	207
	Summary	209
	Keyboard Shortcuts	210
10	Transitions	211
	Transitions Overview	212
	Transition Basics	217
	Advanced Transitions	220
	Transition Inspector	223
	Transition Browser	224
	Summary	228
	Keyboard Shortcuts	228
11	Titles and Text	229
	Title Basics	230
	Modifying Titles	232
	Displaying Action and Title Safe	235
	Finding and Replacing Text	236

	Specific Title Examples	237
	Summary	240
	Keyboard Shortcuts	240
12	Built-in Effects	241
	Effects Basics	242
	Transform Effects	243
	Animate Using Keyframes	247
	Trim, Crop, and Ken Burns	251
	Distort, or Corner Pinning	257
	Image Stabilization	258
	Rolling Shutter	259
	Spatial Conform	260
	Compositing	262
	Special Case: Use Compound Clips for Effects	266
	Summary	268
	Keyboard Shortcuts	268
13	Themes and Generators	269
	Themes	270
	Generators	271
	Adjusting a Generator in Motion	275
	Summary	276
14	Keying	277
	Planning a Key	278
	Creating a Luma Key	279
	Creating a Chroma Key	281
	Adding a Mask	288
	Summary	290
	Keyboard Shortcuts	290

15	Retiming	291
	The Basics of Retiming	292
	Hold Frames	292
	Constant Speed Changes	296
	Variable Speed Changes	298
	Other Speed Effects	300
	Summary	301
	Keyboard Shortcuts	301
16	Color Correction	303
	Color Correction Basics	304
	Color Looks	304
	Color Correction with the Enhancement Menu	305
	How to Read the Video Scopes	307
	Adjusting Grayscale and Color	310
	Using Masks for Color Correction	318
	Summary	320
	Keyboard Shortcuts	320
17	Sharing and Exporting	321
	Overview of the Output Process	322
	Exporting a High-Quality Master File	323
	Exporting Roles	324
	Other Options in the Share Menu	329
	Summary	332
	Keyboard Shortcuts	332
	Index	333

● **NOTE**

Please register your book at <http://www.peachpit.com/register> for two bonus chapters: The Visual Effects Cookbook and the Audio Effects Cookbook.



WELCOME

Final Cut Pro X was born amid controversy.

And that is a shame, because if you ignore the trauma surrounding its birth, there's a lot of exciting new technology, power, and ease of use hiding under the hood.

That got me thinking about writing this book.

When you decide to move to Final Cut Pro X, you are also deciding to make a transition—a transition from the system you were using to this new system. For some, that transition is easy. For others, it's difficult. In all cases, it helps to have a guide to show you the way.

That's the purpose of this book—to ease your transition into Final Cut Pro X.

Who This Book Is For

Knowledge is knowing “how” to do something. Wisdom is knowing “why.” It is my hope that this book contains both. This book is for anyone interested in editing video using Final Cut Pro X.

This book is designed to help you learn the new software from beginning to end; I'll start with getting you and your system ready and wrap up with exporting.

Best of all, you don't need to be an editing genius or technical geek to understand this book. Some editing experience is expected (this is a “transition” book, after all) but the first two chapters help you get organized and explain the basics so you can get started immediately. Then, once you're up and running with the new software, I'll spend the rest of the book walking you through the whole application in detail so you can make it fly.

In fact, if you browse around the book, you'll discover lots of little tips and tricks scattered throughout. I love these—there's nothing like a good shortcut to brighten my day!



What This Book Covers

When I first saw Final Cut Pro X, my initial thought was, “This is way too different for me to learn.” This was chiefly because I knew earlier versions of Final Cut so well, and this version appeared to be so different. However, after spending time studying it and writing this book, I realized that there is a lot of power under the hood, and learning this version of Final Cut is a lot easier if you get started the right way. That’s my goal: I want to save you hours of figuring it out on your own so you can become productive immediately.

I’ve been writing about Final Cut Studio for ten years in books, magazines, newsletters, and the Web. My free monthly newsletter—now in its seventh year—is the oldest and most widely read publication on Final Cut Pro in the world (www.larryjordan.biz/newsletter). It reaches tens of thousands of readers worldwide each month.

I got my start in this industry more than 35 years ago as a producer and director. I’ve worked in local television and the networks, principally doing live broadcasts, drama, and special events. I’m a member of the Directors Guild of America and the Producers Guild of America. This is the sixth book I’ve written on editing software (five on Final Cut Pro and one on Adobe Production Premium). I’m an Apple Certified trainer in digital media and travel the world doing seminars and training, helping editors become better at their craft.

I was one of the few people outside of Apple to see a preview of this new version of Final Cut several months before it was released. I realized then that this software would revolutionize the way we think about video editing.

In talking with hundreds of editors after FCP X was launched, I realized that a lot of them are looking for guidance in how to make the transition to the new software. Gone were many of the terms and functions they had become used to; they’ve been replaced with a new interface and a new way of thinking about editing.

This transition to Final Cut Pro X is difficult for many Final Cut Pro 7 editors because there is a lot to “unlearn.” On the other hand, after working with this awhile, much of the new interface becomes intuitive, though it’s different from what they’ve used before.

Video editing is part of the process of visual storytelling. Editing a film starts with planning, as you'll learn in Chapter 1. This process flows from planning to production to editing and final delivery. Final Cut Pro X is one stop along that continuum. It is at the core of the editing/postproduction process.

I'm a firm believer that, as a teacher, I need to do more than simply tell you which buttons to push. I need to explain the "why" as well as the "how." I need to do more than tell you that a hammer is used to pound nails. I need to illustrate how you use that hammer to build a house, when to use other tools, and show how that hammer fits into the whole process of house building.

In other words, one of my goals is to put Final Cut Pro X in the context of the larger world of visual storytelling and not simply say, "Click here and, poof, magic happens!" Knowing where to click is good. Knowing *why* to click is even better.

Late-Breaking News

Just as this book was going to press, Apple updated Final Cut Pro X to version 10.0.1. So, I went back and rewrote most of these chapters to reflect the new features. Where possible, I've also flagged which features are part of this new release. For anyone considering the 10.0.1 upgrade, I strongly recommend you get it, especially because it is free.

Effects Cookbooks Available for Download

One of the challenges in writing a book is that it is easy to run out of pages before I run out of ideas. That's the case here.

I have created two additional chapters—the Visual Effects Cookbook and the Audio Effects Cookbook—which are available in PDF form as a free download, once you register your book at <http://www.peachpit.com/register>.

These two chapters provide step-by-step instructions on how to create almost two dozen clip effects—from simple picture-in-picture techniques to sophisticated audio filters and processing.

This is just a partial list of what's available in these two chapters:

- Adding, adjusting, disabling, resetting, and removing clip effects
- Animating a blur and adding title text
- Creating a vignette
- Adding lighting effects
- Creating a color mask

- Using Audio Enhancements
- Matching audio between clips
- Creating an audio effect
- Warming up a voice
- Using the Limiter effect to boost and smooth out audio levels

There are a lot of cool techniques and insider tips you can use in your own effects. Register your book and download your copies of these useful bonus chapters today.

Where the Images Came From

One of the hardest challenges in creating a book is finding the right media to use to illustrate the concepts I am trying to teach. This makes me especially grateful to the following people for allowing me to use their images:

For the interview footage of Dr. Vint Cerf, I want to thank both Dr. Cerf and Alcatel/Lucent. This interview was recorded in 2004 for Alcatel/Lucent as Dr. Cerf was getting ready to deliver a speech at Van Nuys High School, in Van Nuys, California, about the importance of education and staying in school. Visit the Alcatel/Lucent website at www.alcatel-lucent.com.

I'm grateful to Pond5 for sharing some of their vast collection of royalty-free images. This is but a small sampling of what is available at www.pond5.com.

The dramatic footage in Chapter 6 comes from John Putch and his movie *Route 30, Too!* John has graciously shared a number of scenes from his film to help me illustrate the challenges of editing dramatic work. Learn more at www.route30trilogy.com.

Since I am a huge train fan, I want to thank Fran and Miles Hale of Model Railroad Builders for the stunning model train layout video. Frankly, I was having so much fun watching the trains roll past, I almost didn't get this book written. Visit their website at www.franandmilesale.com.

I've been using snowboarding footage from the great folks at Standard Films for all of my books. In fact, it's the same footage. Don't mess with success! I'm grateful to Mike Hatchett for allowing me to continue to use this footage. Visit their website at www.standardfilms.com.

I am also grateful for clips from Michael Shaw, Resmine Atis, and Tom Centeno.

Finally, I want to thank SmartSound Software, Inc., for access to their music library. I've been a fan and user of SmartSound since 1997 and happily recommend them to anyone looking to build a library of great production music. Learn more at www.smartsound.com.

● NOTE How I Do My Screen Captures

While the Mac has a built-in screen capture utility (Shift+Command+3 captures the entire screen and Shift+Command+4 displays a cursor so you can capture a portion of the screen), I prefer the flexibility and options of Ambrosia Software's SnapZ Pro X. All the screenshots in this book were captured with SnapZ Pro X.

Special People to Thank

Writing a book is the effort of one person. Publishing a book takes a team.

I'd like to thank Karyn Johnson and the folks at Peachpit Press for inviting me to write this book. This is the fifth book I've done for Peachpit, and they make the process easy (well, as easy as writing a book can be, which is rarely easy).

An incredible team of very talented folks here at my company, Larry Jordan & Associates, Inc., including Debbie Price, Laura Peters, Mina Qubaisi, and Cirina Catania for keeping things running when I was busy writing. I count on them more than I can possibly express. Patrick Saxon for his help with some of the initial drafts and Noë Gold for his in-depth review of all the chapters.

Jacqueline Aaron and Kim Wimpsett, two copy editors who strove mightily to make sure my grammar, syntax, and punctuation were coherent. To an amazing compositor, Danielle Foster, who continually delighted me with her ability to balance great design with squeezing as many words on the page as would beautifully fit.

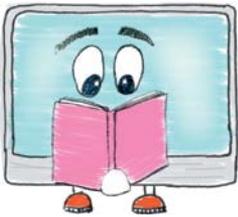
Katie Fredeen for the illustrations (below and in Chapter 1). I only wish there was room to print more of them.

A team of experts to help me better understand the technology, including Philip Hodgetts, Greg Clark, and hundreds of editors who took the time to e-mail me their questions and thoughts about the new software.

Finally, special thanks go to members of the Apple Final Cut Pro team: Richard Townhill, Steve Bayes, Luke Tristam, and Jud Coplan for answering innumerable questions and helping me better understand this new application.

Still, I hasten to add that though I've had a lot of help, the responsibility of writing this book is mine, as are any (ideally few) mistakes that might still be lurking inside.

One Last Thought



Producing good-quality, interesting video is not for the faint of heart. The reason we got into this bizarre, competitive, deadline-driven business was that we like to tell stories. Visual stories. Stories with passion, movement, and characters people want to care about.

Final Cut Pro X is a tool that helps us tell those stories—faster, better, and more easily than any other editing software. It has been a fascinating process learning this software and sharing it with you.

Whether you edit video as a hobby or as a profession, powerful stories create profound results. Video can change the world—for good or bad. It can increase understanding or build barriers. Final Cut Pro X gives us the power, but how we use it is up to us.

Thanks, and edit well.



4

MANAGING MEDIA

All editing software tries to make working with media as easy as possible. Final Cut Pro X is no different in this respect. But, what *is* different is *how* it manages media. Unlike any other editing system, FCP X is designed from the ground up to work with *tapeless* media, which is media recorded to cards and hard disks, not videotape. Working tapeless requires changing how you think about media and changing how your editing system works with media.

Managing this media is what this chapter is all about.

Overview

Apple's goal with Final Cut Pro X was to create a rock-solid, single-user media workflow that helps editors avoid losing media. To do this, Apple consolidated the Import, Log and Capture, and Log and Transfer screens used in Final Cut Pro 7 into a single interface. Apple also provided three media options:

- You can edit media natively in its original camera format.
- You can optimize media by converting it into ProRes 422 for faster performance and potentially better image quality.
- You can create small *proxy* files to reduce the file size of media, while still retaining optimum performance with good image quality.

Final Cut Pro X supports importing from a file-based camera via a card, from a hard disk, or from a folder on your hard disk. It supports importing either stills or video from a DSLR or (H)DSLR camera, a tape-based camera or deck connected via FireWire, an iMovie project, an iMovie Event Library, files stored on your hard drives, and a camera archive created from tape or tapeless media.

This chapter explains how to organize your files before you even import them, how to set import preferences, how and why to optimize and analyze media, the different ways you can import media, how to import iMovie projects and media, how to size and import still images, and how to create a camera archive for both tape and tapeless media.

● **NOTE** A Really Important Website

Before you start shooting, be sure your camera and video format work with Final Cut Pro X.

To do this, visit Apple's FCP X website at <http://help.apple.com/finalcutpro/cameras/>.

This site lists all supported cameras and devices. It is always better to discover problems with your gear before you shoot, rather than afterward.

Keep in mind that many video formats require driver updates from camera vendors before they can be used in Final Cut Pro X. So, be sure to confirm compatibility before beginning any project. Final Cut Pro X does not currently support direct capture from videotape using timecode or RS-422 to control playback, and it doesn't "hide" media; all Event folders are always available.

Organize and Name Media

New users often make two common errors when working with tapeless media:

- They import directly from the memory card to Final Cut.
- They copy only some of the files from the card to their hard disk and then try to import them.

Both of these choices lead to catastrophe. Here's the one rule you need to remember: Always either create a disk image of your camera card or copy the *entire* contents of your camera card to a folder on your hard disk. My recommendation is to create a folder and copy your card into that folder.

It is impossible to overstress the importance of this rule. Follow it, and everything works great. Try to get fancy and outthink the system, and you'll always end up with problems.

Copy Your Media

When you edit video, you're working with two sets of files:

- **Source media:** This is the media you shoot in your camera. These are your master files.
- **Edit media:** This is the media you edit with. Sometimes these are the same files. Sometimes they aren't.

This section illustrates a system you can use to copy, organize, and name the source files you shoot. **Figure 4.1** shows the contents of a typical memory card opened in the Finder after media has been recorded to it—lots of weirdly named files and folders.

Here's the problem. In production, you record images from your camera to a card. You copy the card to a hard disk and then you *erase the card(!)* so you can use it again in production. (That word—*erase*—just sends chills down my back!)

For production, you need a fast, reliable, and easy-to-implement system that guarantees all data is transferred from the card to a hard disk. For postproduction, you need a system that assures that you can easily find all the media from that production.

Well, there are three parts to the solution. First, you want to be sure you are copying the correct files. Second, you want to copy the files safely and accurately to folders on at least one hard disk. And third, you want to organize and name the folders properly so you can associate them with the correct Project and find them when you need them.

You have two options here: Create a disk image of the card that you can store and access later, or copy the entire card to a folder on your hard drive. Both options support backups. Both options work. My preference, though, is copying the card to a folder. The key is to do it right.

Always select the *entire* contents of the card and copy the *entire* contents of the card to a single folder on your hard disk. You copy one entire card to one folder. Never, ever copy just a portion of the card. It will always lead to disaster. Always copy everything on the card—files, folders, locked files, everything. Final Cut knows what to do with all these files, even if they don't make sense to you.

And—even though you can—never import files directly from the card. Always copy the files to a folder on your hard disk first and then import them from that folder.

Why? If you import from the card and then erase the card, you don't have any backups. If, for some reason, the file you imported gets corrupted or lost or



FIGURE 4.1
This shows a typical memory card mounted on the Desktop, along with its folder structure.

● NOTE Why All the Weird Files?

The reason there are so many weird files is that the contents of this card are far from a QuickTime movie. When FCP imports a file from a card, it takes all the different elements from all those different folders and builds it into a single QuickTime file. However, constructing that QuickTime movie does not mean it is changing the video format, just the structure of the files.

● NOTE Is This Really That Important?

Yes! I can't tell you how many e-mails I get from editors trying to figure out how to salvage a shoot because they thought they needed to copy only a few files. Make your life simple and sleep well at night—copy the entire card to a single folder on your hard drive. One folder per card.

● **NOTE** But, What If You Need to Save Hard Disk Space?

Look, let's get real for a second. How much time, effort, money, pain, and aggravation did it take to get your video shot? Which costs more—re-shooting or buying a new hard disk?

Storage is dirt cheap compared to the costs of even a simple production. Don't be penny-wise and pound-foolish. If you need it, buy more storage.

erased, you've lost that particular shot permanently. There's no way to get it back. You *always* want to make a backup because these folders become your camera masters. In fact, I recommend always making at least one backup of all media shot during production before you leave the set that day. That way, you know you have multiple copies of all the media of that day's shoot.

A Great Backup Utility

When on set, speed and file safety are paramount. I recommend copying files on set to a RAID. Either a RAID 1 or a RAID 5 system automatically creates what's called *data redundancy*. It duplicates your data so that if one of the hard drives inside that RAID dies, your data is still safe.

The speed of your hard disk or your RAID is much less important than data redundancy, because you're simply copying from the camera or the card, most generally from a very, very slow USB device. And it's not unusual to copy files to more than one hard disk at a time. If you're going to be doing a lot of tapeless work, there's a good utility that makes working with tapeless media a lot easier. It's published by Imagine Products, and it's called Shotput Pro (www.imagineproducts.com).

Naming Media Folders

The next step is to name your folders. With tapeless media, you don't name files; you name folders. Final Cut Pro X can use this folder name as a keyword to help you find that media in the future. Naming is critical because files that you can't find, or can't associate with a Project, are useless.

One Method

Whenever I start a new Project, I create a project code so I can easily track elements related to this Project. For example, let's say I have Just a Moment Productions as a client. They give me a new Project, the second one I've done for them. Before I do anything else, I create a project code (Figure 4.2).

FIGURE 4.2

Here's the naming convention I use for tapeless media folders. The project code is the first four characters: two letters for the client followed by two numbers for the job.



This code consists of two letters and two numbers: JM is the two-letter client code for Just a Moment Productions, and 02 indicates this is the second job I've done for that client. Then I use that project code at the beginning of all filenames for materials created for that Project.

All my Photoshop files start with that project code; so do graphics files, Final Cut Pro Project names, Motion projects, After Effects comps, voice-over recordings, everything. That way, if I ever need to find a file, I simply search for the project code, and every filename that starts with that project code shows up.

Folder naming for tapeless media builds on this project code. Remember, use one card per folder and a folder for every card you shoot. These folders become your camera master files from here on out. Organizing them now makes all the difference. Here's how I name the folders.

I start with the project code, then the date I shot the card, the camera (i.e., A, B, or C), and the card number. In Figure 4.2, JM02 is the project code, 110928 is the date I shot the card, A is the camera, and it's the third card I shot that day from that camera.

(Note that the date format is year, month, date. This allows the folder to sort alphabetically and chronologically at the same time.)

These source files are the original camera masters before Final Cut Pro copies them into the Events folder. I store all my source media folders on a separate hard drive from my editing files. Source files are not stored in the Events folder.

Figure 4.3 shows how I organize my source media folders on the hard disk. On the second drive, I created a folder called Source Media. Inside Source Media is a folder for each client. Inside each client folder is a folder for every Project. Inside the project folder is a folder for every card. (I've color-coded the levels to make them easier to see, but these colors are totally optional on your part.)

There are several good things about this system:

- It is easy to implement and understand.
- You can see at a glance what client, date, and camera is inside each folder.
- When it comes time to import, Final Cut Pro X can easily extract the shots you need for edit.
- Final Cut Pro will track the folder name as part of the metadata associated with every clip from that folder, so finding the original media again in the future is trivial.

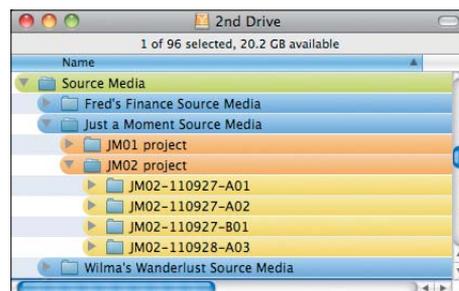


FIGURE 4.3 This is how I organize my folders for tapeless media—by client, project, and card.

● **NOTE** What If You Want to Archive Your Cards?

One way to do this is to make a disk image of the card by choosing Utilities > Disk Utility. A disk image copies the entire contents of the card into a single file on your hard disk, which is easy to archive. Even better, because all the different files are stored in a single file, nothing gets lost.

● **NOTE** Are Camera Archives Only for Tape-Based Media?

No. Camera archives can be used for tape, or tapeless, media. It is also a great way to gather all the media from a project and store it in one spot. You will learn more later in this chapter or by reading the FCP X Help files.

When working with tapeless media, copy one card into one folder. Final Cut Pro will then take the contents of that folder and import the shots you need from it. Spend a little time thinking about how you want your files organized and named before you start shooting, because what you're creating with those folders are your camera master files. Make sure you have enough storage on set. Make backups during production. Create and name your folders in an organized fashion. And keep your source files separate from your editing files just in case.

Once that's done, you are ready to import your files and start editing.

FCP X Has a Simpler Way

The benefit to making disk images or copying memory cards the way I just outlined is that you can do it on set, without using FCP X. This way, you are making an exact copy of the files as they exist on the memory card.

However, Final Cut Pro X has another way to do this, called a *camera archive*. As you would expect, an archive is a collection of data. Creating a camera archive makes it easy to make a copy of your memory cards. You'll see how this works later in this chapter.

The point I want to make now is that the difference between copying the card manually and using FCP X to make a copy is in the end result. Manually copying files from the card to a folder makes a complete copy of exactly the same files that are on the card. This new folder can be read by any application that knows how to read the contents of a memory card: FCP X, FCP 7, Adobe, Avid...you get the idea.

The limitation of this method is that you no longer have a single file to watch—you need to keep track of the entire folder. And if any of the contents of the folder get lost, there is a very good chance you won't be able to access the media inside the folder.

What FCP X does is create a single file, which you name, stored in a single folder called Final Cut Camera Archives on whatever hard disk you want. The important point here is that Final Cut Pro transfers all of the media from the card into a single file on your hard disk that is *readable only by FCP X*.

The advantages are that, because all the contents are sealed into this one file, it is easy to manage and there is no risk of individual files getting lost. The disadvantage is that the only application that can read this file is FCP X. Note that FCP is not applying any data or video compression to the file. The file you create on your hard disk is the same size as the data stored on the card.

I am always leery of storing media in a format that can be read by only one application—even from large companies like Apple. My recommendation is to copy your files manually, from the card to a folder on your hard disk as discussed earlier. This can be done easily on set, without requiring the use of Final Cut Pro X. Additionally, other applications are able to read the contents of this folder.

Finally, you can use utility software, such as Shotput Pro, to copy the files to multiple hard disks at the same time. However, if you prefer simplicity and security to flexibility, a camera archive is hard to beat.

Importing Media

Importing is the process of making Final Cut Pro X aware that media files exist. Sometimes, this process involves converting the files from a camera format into something that FCP X can read. Other times, you just need to point to a file to let Final Cut Pro know that it is there. Additionally, FCP X can optimize (convert) files into a format that renders and exports faster, or it can create proxy files to allow you to reduce the file size of your media so you can edit it on smaller systems.

In all cases, FCP X is not actually importing anything. It is just creating a *pointer*, a path, that tells it where the media file it should use for editing is located. No media files are actually copied into your Project.

One of the good things about FCP X is that when Apple created it, it made much of the import process run in the background. “Background” means that you can be doing one thing while Final Cut Pro is importing, analyzing, and processing all your files. This means you don’t have to wait for FCP to finish importing before you can start editing. In fact, you can start viewing and editing files almost immediately, even though they are still importing.

What’s even cooler is you can monitor all this background activity—I’m a big fan of blinking lights and charts and graphs. I’ll show you how to monitor your background tasks shortly, when you actually have some imported media to monitor.

Even better, Apple has added a bunch of options that are handled during import that can save you time later. Those options are controlled from Final Cut Pro’s preferences. Let me start the discussion of importing by looking at these preference settings. Then, I’ll show you how to import a wide variety of media.

Set Import Preferences in the Import Window

My goals for this section are to explain how Final Cut Pro decides where to store media, to describe the settings in the Import Preferences window, and to provide recommended settings for your importing. Final Cut Pro X also makes it easy to change, or verify, import preferences before importing media.

There are three preference windows in Final Cut Pro: Editing, Playback, and Import. For this chapter, you’ll look at the Import preferences. I’ll discuss the other two in Chapter 6.

There are two ways to open Final Cut Pro’s preference window:

- Press Command+[comma].
- Choose Final Cut Pro > Preferences.

● **NOTE** Final Cut Pro X Is Nondestructive

In spite of what it seems as you are editing, Final Cut Pro is not making any changes to the media files you have stored on your hard disk. No matter what you do inside FCP X, the media files on your hard disk are safe. This is a very reassuring thing to know—nothing you do inside Final Cut Pro will harm your media. Even when you ask Final Cut Pro to delete media, it only moves it to the Trash. You still have the opportunity to recover it from the Trash, if you moved it there by mistake.

● **NOTE** Where Does Media Get Stored?

Good question, and from the previous chapter, you already know the answer. Media used for editing is copied into the Events folder or FCP points to its current location on your hard disk. You control which of these options FCP follows, based upon how you set preferences inside FCP X.

The preference window opens (**Figure 4.4**). Click the Import icon. (In this example, the checkboxes also indicate my recommended import preferences.)

FIGURE 4.4
This screen sets preferences for importing media.



The Import window has four sections: Organizing, Transcoding, Video, and Audio. (*Transcoding* is a technical term that simply means converting. Transcoding a file means converting a file from one format to another.) Let's take a look at what each of these settings means.

Organizing

The Organizing section of the Import window contains the following:

- **Copy files.** If “Copy files to Final Cut Events folder” is checked, FCP will copy your media file from wherever it is into the Events folder. This is the best way to consolidate all your media files into one location. The downside is that, because you are duplicating files, your storage needs will increase. Checking this option does not move the original file.

If you are someone who is very organized and knows where all your files are, you can *uncheck* this box. If, on the other hand, you have better things to do than organize and track all your files, then *check* this box. There is no impact on performance regardless of how you check this box. All file copying happens in the background. (More on that later.)

- **Import folders.** Keywords are one of the powerful tools that Final Cut uses to help you find files. Depending upon how you select your files, when this option is checked, FCP will assign the name of the folder that contains the source media as a keyword for each of the imported clips.

In my case, I generally have both of these checked.

How Does Importing Folders Really Work?

It's a bit confusing, so here's an example. **Figure 4.5** shows a folder (Larry01) that contains a file and another folder (Larry02), which also contains a file and another folder (Larry03). This third folder also contains a file.

When I choose File > Import > Files and select the folder (Larry01) that contains all these different files and folders, FCP X will import the files and assign keywords, which are the folder names, to the file. Notice that Import folders as Keyword Collections is checked (**Figure 4.6**).



FIGURE 4.5
Note the organization of files and folders.



FIGURE 4.6
Folder names as keywords are imported only if a folder, not a specific file, is selected for import.

In this example, the Larry01 keyword was assigned to all the files. The Larry02 keyword was assigned to the two files contained inside the Larry 02 folder (one was in the Larry02 folder, and the other file was in the Larry03 folder). The Larry03 keyword was assigned to the single file contained inside the Larry03 folder (**Figure 4.7**).

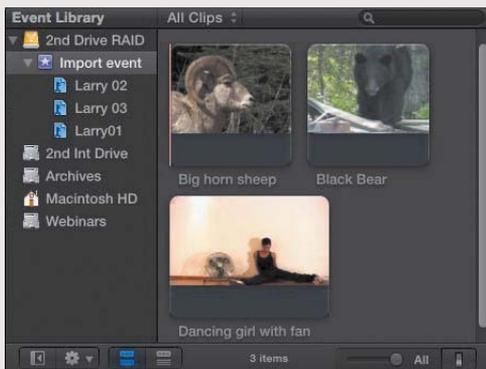


FIGURE 4.7
When the containing folder is selected, all folder names are imported as keywords.

continues on next page

How Does Importing Folders Really Work? (continued)

However, if I don't select the folder, but instead select the file(s) inside the folder, no keywords are assigned. In this example, I'm selecting the file contained in the Larry03 folder itself, without selecting any folders (**Figure 4.8**).

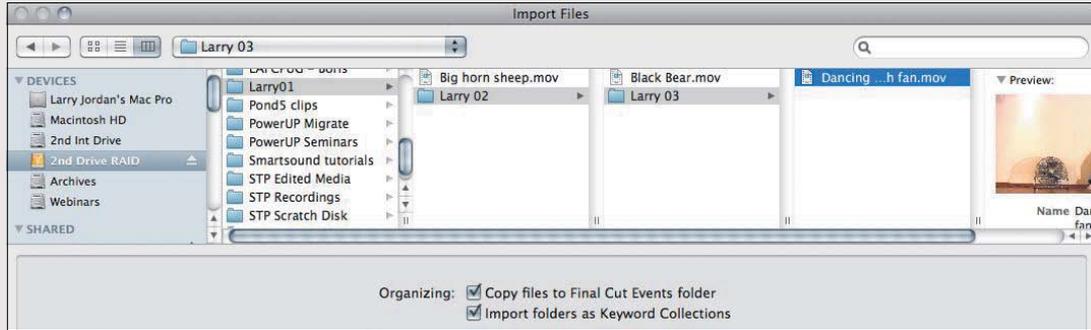


FIGURE 4.8

However, when a file, not a folder, is selected, no keywords are created.

Now, notice that no keywords were imported, even though the same import option was checked, because you selected the files, not the folder that contained the files (**Figure 4.9**).



FIGURE 4.9

No keywords are applied to the clips.

Transcoding

Apple makes a big deal out of the fact that FCP X edits files in the camera's native format. This is, in general, a good thing. However, some video formats, because of their complexity, take longer to calculate effects and export than others. Also, some video formats are better for color correction than others.

To solve this problem, Apple provides the option of transcoding (converting) media from one format into another; specifically, ProRes 422. While this is an excellent codec, if you wanted to change to a different format, you can't.

You can transcode files in two ways:

- **Optimize media:** Some files are compressed using long-GOP formats such as MPEG-2 and MPEG-4 files. While FCP can edit these formats natively, it works better when they are "optimized." Optimizing converts these files into ProRes 422. Optimized files provide faster renders, potentially higher image quality for effects, and faster exports. The downside is larger file sizes—generally about four times bigger than the native camera files. Optimizing simply means that FCP is creating a high-quality ProRes 422 file from your source camera media.
- **Proxy media:** Creating proxy media creates another copy of your media using ProRes Proxy. This version of ProRes is optimized for small file sizes. Proxy files are about the same file size as the camera native files.

Codecs and Formats

To be stored on a computer, video needs to be converted from the light our eyes see into the 1s and 0s of binary storage used by the computer. This conversion is done mathematically, using instructions found in a codec (COmpressor/DECompressor). Different codecs are optimized for different tasks. For instance, HDV and AVCHD are optimized to create small files but sacrifice some image quality. HDCAM and ProRes are optimized for high image quality but don't create small files.

(*File size* refers to the storage requirements of media on your hard disk. Changing file size has *no* impact on the size of your image, though changing the size of your image will often affect file size.)

There is no perfect codec that creates impossibly small files with incredibly high quality. There are always trade-offs. That's why Apple provided the option of optimizing your files. This converts them into a format known for high image quality (ProRes 422), fast render times, and the ability to handle effects well, but with the downside of requiring more storage space because ProRes requires larger file sizes. The term video *codec* and video *format* are often used interchangeably, even though they aren't the same, really.

If both Optimize and Proxy are checked, then you'll end up with three versions of your files: the camera master, the optimized file, and the proxy file. If Copy Files is also checked, you'll end up with a fourth version, which is a copy of your camera source file stored in the Events folder. (Like I said earlier, storage is cheap; be sure you have lots.)

What happens if you don't create either optimized or proxy media during import? No problem; FCP will edit the video in its native format; plus, you can transcode it later, if you so choose.

Select the Event you want to optimize or create proxies for. Then, choose File > Transcode media. Check the appropriate checkboxes, and click OK. Final Cut Pro will create all necessary files in the background and store them in the Event folder.

Accessing Proxy Media

The reason proxy media exists is to allow you to edit without having to tote massive hard disks around with you. For example, you can use a laptop and a small attached FireWire drive. Here's how you get the proxy media from your main edit system.

In the Finder, locate the Final Cut Events folder that contains your Event. The proxy files will be inside it (**Figure 4.10**).

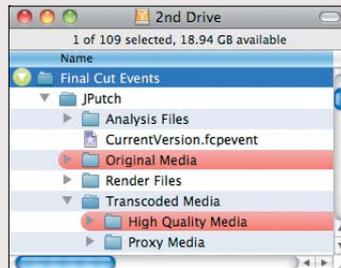


FIGURE 4.10
Proxy media is stored in the Transcoded Media folder inside the Event folder.

Copy the entire Event folder to the smaller hard disk you want to travel with. If the folder is too big to copy, copy everything in the folder, *except* original media and, inside the Transcoded folder, high-quality media. In some cases, one, or both, of those folders may not exist. Don't worry if they are not there.

The only issue will be if you add new media on the laptop. If so, you'll need to copy the original media and the proxy media from the laptop to the Event folder on the main system when you move your files back.

Video

The Video section analyzes your video for problems and suggests possible repairs. The nice thing about this feature is that while it suggests ways to repair your media, you can accept, reject, or modify the suggestions. The only downside to this analysis is that it can take a *looonngg* time. Yes, it runs in the background, but background processing means you need to leave both your computer and FCP running while FCP processes your files.

Here are your choices:

- **Analyze for stabilization and rolling shutter:** This option looks at handheld footage for shaky camera moves or DSLR footage for rolling shutter problems (see Chapter 12). This process can take a long time and generate *very* large render files. My suggestion is to leave this off and manually analyze the clips you need to correct later.
- **Analyze for balance color:** This looks at your images to see whether there is a color cast (the shot is blue or orange). If there is, FCP can automatically fix it. The automatic correction actually does a pretty good job. Again, however, the analysis takes a long time. I recommend manually analyzing clips that need color correction to save time. Chapter 16 explains how color correction works.
- **Find people:** This analyzes your shot to see how many people are in the frame. This is *not* facial recognition, at least not yet. Instead, the program determines whether there are one, two, three, or more people in the frame. And, it determines whether the shot is a close-up, medium shot, or wide shot.

In theory, this is a neat trick. In practice, I've found it to be inaccurate and time-consuming. For now, I don't use it. If you experience problems using this feature, Apple is interested. Upload samples of footage that return inaccurate results and report them to www.apple.com/feedback/finalcutpro.html.

Audio

Audio analysis, unlike video analysis, is very fast. I generally like what FCP is suggesting for audio repairs, and when I don't, I can override its suggestions. For this reason, I recommend leaving all three of these settings on.

- **Analyze and fix audio problems:** This examines a clip for hum, distortion, and noise. If it finds any, it applies filters to remove it. I'll show you how this works in the Chapter 9.
- **Separate mono and group stereo audio:** Many people mistakenly think that because they want their ultimate mix to be stereo they need to record everything in stereo. For music and sound effects, this is a good idea. For interviews, it is not. Interviews should be recorded where each voice is on its own channel and the audio is imported as dual-channel mono. This option is here to make sure audio imports properly. Again, I recommend you check this.

● **NOTE** Changing Preference Settings

Changing import preferences has no effect on any media that has already been imported.

- **Remove silent channels:** Sometimes, audio gets exported with too many channels, for example when a stereo pair is exported as a six-channel surround clip. This option prevents importing audio channels that are silent.

Again, I suggest checking all three of these options. When you are done setting your preferences, simply close the window, and FCP saves them automatically.

Importing 101

There are two types of files you need to import:

- Files from a camera that need to be converted into something Final Cut Pro can play
- Files already playable that are stored somewhere on a hard disk

There's a third option, which is importing files from an iMovie project, but that is simply a special case of the second option.

So, how do you decide whether you need to import from a camera or a file? Easy. Try it. If it works, you guessed right. If not, try the other option. If that's a bit too *laissez-faire* for you, think of it this way. If you can open the file in QuickTime, you import the *file*. If you can't, you import the *camera*.

You import from camera when you are importing directly from a camera card, from a camera card transferred to your hard disk, or from videotape. The rest of the time, you import from a file. Here are some specific examples.

What About R3D Files?

Until RED updates its import plug-in, you can use its free REDCINE-X software to wrap R3D files in QuickTime to edit in Final Cut Pro X. (Wrapping R3D files in QuickTime is the same process that FCP 7 used with the RED Log and Transfer plug-in.) Most editors prefer working with ProRes HQ and ProRes 4444 for R3D files, and those files are accepted by most broadcasters and studios. In addition, you can use the RED ROCKET card or render farms to accelerate the transcoding of RED RAW to ProRes—a process that follows the traditional dailies workflow of Hollywood and has been widely adopted on professional productions.

Importing from a File-Based Camera

There are two main types of cameras: those that record to videotape and those that record tapeless. However, videotape is no longer the wave of the future; tapeless media is. So, we will start by looking at importing tapeless media.

Tapeless media has two main categories: cameras that record to memory cards (of which there is a large variety) and those that record to hard disks. However, hard disks generally record video files that don't need conversion; they can be played straight from the hard disk. This section talks about media recorded to memory cards.

The Basic Steps

1. If this is the first time you've started Final Cut Pro X, you'll see the screen in **Figure 4.11**. However, after you create your first event, you'll never see this screen again.
2. As you have come to expect, there are multiple ways to import from a camera:
 - ◆ Choose File > Import from Camera.
 - ◆ Press Command+I.
 - ◆ Click the Camera icon on the extreme left edge of the toolbar (**Figure 4.12**).Whichever you select, the Camera Import window opens (**Figure 4.13**). In the top-left corner is a list of all the drives attached to your system. If you have connected your camera or plugged in your memory card to the computer, it will show up here.
3. If, on the other hand, you copied your media to your hard disk before importing it, as I recommend, then you'll need to do one extra step. To import files from a card you've copied to your hard drive, you will need to open an archive.



FIGURE 4.11

There are a variety of ways to create a new Event—however, these three icons show up only the very first time you run FCP X.

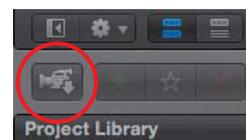


FIGURE 4.12

To import files from a camera or a memory card, click this Import from Camera icon.

FIGURE 4.13

This is the Camera Import window—with no files loaded.



FIGURE 4.14
If a memory card is plugged into your computer, it will show up in this list—for example, the card NO NAME.

FIGURE 4.15
This is what an opened camera archive looks like.

NOTE Your Source Media Is Safe

Regardless of what you decide, all your source images will remain on your hard disk. Nothing you do in this window will affect your source media.

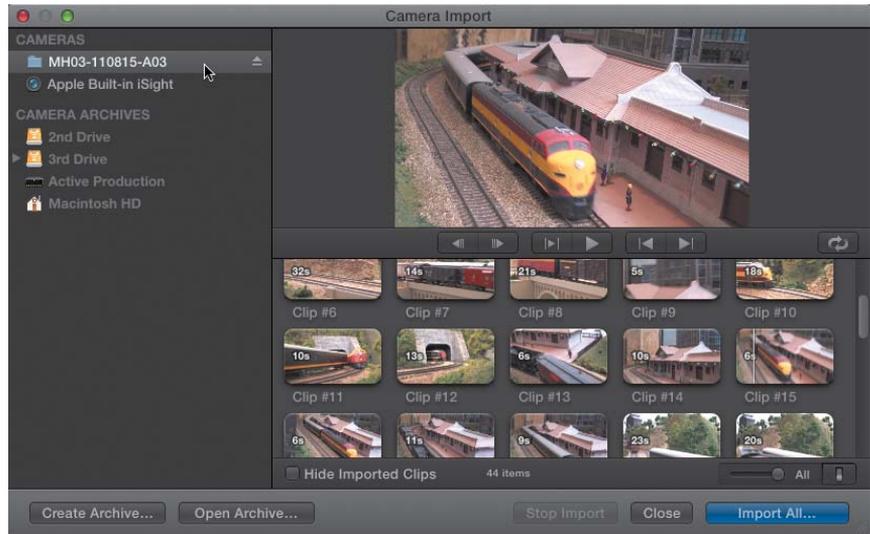
Opening an Archive

Remember that camera archive we talked about earlier? Well, to Apple, an archive is a collection of media still in its camera-native format (as opposed to a folder of QuickTime files). If you copied your media files into a folder on your hard disk, you open that folder by opening an archive. You can also create archives from either a memory card or a tape-based camera, which I'll talk about in a few pages.

If the memory card is plugged into your computer, it will show up at the top of your list of drives in the top-left corner. In **Figure 4.14**, the memory card NO NAME is displayed, and the files it contains are displayed in the large window to the right.

If you copied the files to your hard disk first, click Open Archive in the lower-left corner. A standard file picker window shows up. Navigate to where you stored the media you copied from the camera and select the folder. You don't need to select the files in it. Once you select the folder and click OK, the images from this archive are displayed in the large window to the right.

Whichever option you choose, all the files in the selected device or folder are now displayed on the right side of the window (**Figure 4.15**).



The purpose of this window is to allow you to review all your clips and to decide which ones you want to import into FCP so you can edit them. The large image at the top right allows you to preview a clip. The small images at the lower right allow you to quickly scroll through all the clips in that archive or device.

As you would expect, this portion of the Camera Import window allows you to play a clip. The buttons across the bottom, from left to right, allow you to do the following:

- Move left one frame at a time
- Move right one frame at a time
- Play from the beginning to the end of a clip (or from the start to the finish; more on that in a minute)
- Play, or stop, a clip
- Jump to the beginning, or start, of a clip (these are not the same thing)
- Jump to the end of a clip (and *end* has two different meanings)

Oh, and that small twisty thing on the far right? Click it, and when you play something, it will repeat, over and over and over...until you stop playback.

The small pictures, also called *thumbnails*, show all the clips stored in that archive. Click the Switch in the lower-right corner to adjust the size of these thumbnails and to turn the display of audio waveforms (a picture of the sound of your audio) on or off (**Figure 4.16**). I generally tend to work with small thumbnails, but this is absolutely a matter of personal preference, because Final Cut doesn't care what the thumbnail size is.

Selecting and Marking Clips

To select a single clip to import, click it. The yellow box around the clip indicates the portion of the clip that is selected (**Figure 4.17**).

To select a group of clips, select the first clip you want to import; then, while holding down the Shift key, select the last one. All the clips in between are selected as well.

To select any arbitrary group of clips, hold the Command key down while clicking. Whatever you click will be selected, but the clips around it will not (**Figure 4.18**).

While you might think that being able to select just the clips you want is pretty darn neat, the real magic happens when you realize you can select just a portion of a clip. This is called *marking a clip* or *setting a clip range*. This is a real power tool, because you don't want to clutter up your Event Browser with clips you'll never use or waste time skipping over portions of clips you don't need.



FIGURE 4.16 The Switch allows adjusting the height of the thumbnails and whether the audio waveforms will be displayed.



FIGURE 4.17 Click a clip to select it—notice the yellow border indicating the portion of the clip that's selected.



FIGURE 4.18 You can select a portion of one clip or multiple clips using either the Shift or Command key. One clip with a range and three other whole clips are selected here.

● **NOTE** How Accurate Should This Marking Be?

Not really very accurate. I've been editing for more than 30 years, and I've learned that bringing in a little more media than you think you need is always a good idea. So, I try to be close but never precise—not on importing. Precision is reserved for the editing process, which, I promise, I am going to cover. But you need to import the media first.

● **NOTE** You Can Always Change Your Mind

There is no limit to the number of clips you import or how many times you can go back to the same archive to grab more clips. If you are not sure you need a clip, you can leave it alone until you are ready to use it. This is why I like copying all my cards to folders on the hard disk. Once that card is erased, I can't go back to it to recapture more media. This is also a good reason why backups are so important.

There are several ways to mark the Start and End (or In and Out) of a clip:

- Click with the skimmer where you want the shot to start and *drag* until you reach the end of the portion you want. The yellow box indicates the Start and End of your clip.
- Click the skimmer before the portion you want and press the spacebar to play the playhead in the clip. When you reach the spot you want to start, press I. Continue playing until you reach the spot where you want the clip to end and press O.
- Hover the skimmer over the frame (that is what an individual image within a clip is called) that you want to mark as the Start and press I. Hover over the end of the portion you want to import and press O.
- Click the playhead where you want the shot to start and choose Mark > Set Selection Start. Go to the end of the shot and choose Mark > Set Selection End.
- To select an entire clip, click it; or, if you've already set marks (the Start or End), press X.

In other words, there are lots of options. And, for the power user, all these marks can be set in real time, during playback, or by precisely positioning the skimmer or playhead. Your choice. They all work.

There is one problem with all of this, and it is so obvious that I'm expecting it to get fixed in the next update to the software. If you set an In and an Out for a clip and then click another clip to select it, when you go back to the first clip, it's forgotten the In and the Out.

In every other editing system on the planet, clips remember their In and Out until you change them. I expect that will happen with clips in Final Cut Pro X as well. It just hasn't happened yet. A corollary to this "not remembering the In and Out" problem is that you can import only one clip with a range at a time, though you can easily import as many whole clips as you want.

Importing a Clip

Let's try a specific example. **Figure 4.19** shows two clips—one with a selected range and one where the entire clip is selected. I've decided I want to import these two clips so I can use them for my edit.

1. When all the clips you want to import are selected, click Import Selected in the lower-right corner. You can import as many times and as many clips as you want. You can even return later and import more. No rush.
Final Cut instantly displays the import dialog (**Figure 4.20**). The settings in this dialog are based upon the preference settings you created at the beginning of this chapter. Displaying this window now allows you to change your settings, should you want to.



FIGURE 4.19 Both an entire clip and a range within a single clip are selected.

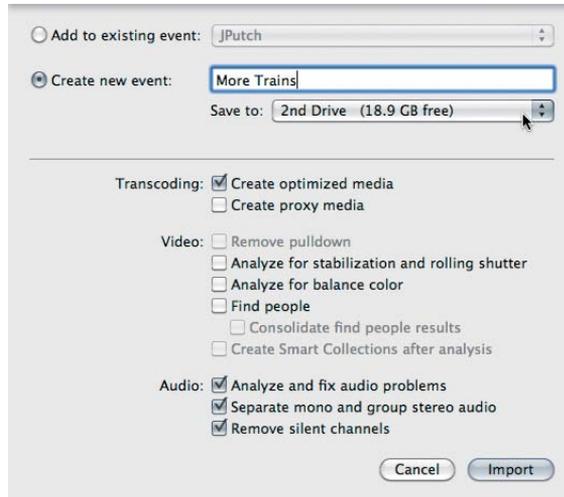


FIGURE 4.20 Every time you import, you are able to change your import settings. The Import preferences determine the default settings, but you can change these at any time.

- Look at the top of the dialog. For the purpose of this example, I created an existing Event called JPutch. I could import this train footage into that Event—except John has given me some excellent dramatic footage that you’ll see in the editing section, so these train clips should be put somewhere else. Instead, I created a new Event, in this window, during import. This just goes to show, again, that there are multiple ways to do the same thing. In the previous chapter, I talked about creating new Events first. Now, you discover that you can create a new Event during import. However, to do it, you *must* create an Event to store media. My new Event is called More Trains and is stored on the second drive. (Remember, try really, really hard not to store media on your boot drive, especially if you are going to optimize it.) I discussed these import settings earlier in this chapter, except for “Remove pulldown.” This feature is used for 24-frames-per-second film transferred to videotape.
- Once you are happy with your import settings, click Import, and FCP leaps into action and imports your clips. The Camera Import window stays open, but notice at the bottom of each clip, or portion of a clip, that you imported, a pale salmon-colored line (some would call this orange) appears (Figure 4.21). That indicates the portion of the clip that was imported. This is a great visual aid to remind you which shots were imported and which weren’t.
- When you are done importing, click Close (it’s next to Import Selected), and you’ll discover your clips are already loaded into the Event Browser for that Event, ready for editing.

NOTE
Hide Imported Clips

Also, in the future, when you return to this archive, click the Hide Imported Clips checkbox at the bottom, and all those marked portions will be made invisible so only those clips you haven’t imported yet are displayed.

NOTE New Feature:
The Camera SDK

With version 10.0.1, Apple released a camera software development kit (SDK) so that camera manufacturers can add support for FCP X at the same time they release a new camera.

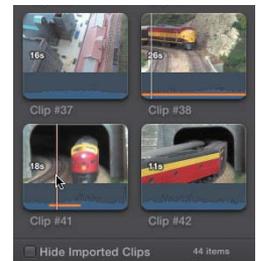


FIGURE 4.21 The orange bar, at the bottom, indicates the portion of the clip that was imported.

Monitoring and Changing Background Tasks

However, while the process of importing clips is both fast and easy, behind the scenes there's still a lot of work being done. And this shows the power of Final Cut Pro X, because in the past, you would need to wait until all the finding, transcoding, and importing tasks were complete. Not so today. Today, Final Cut Pro X processes all that in the background.

Definition: Background

Something running in the background means that your computer is busy doing something without needing any input, or assistance, from you. Printing happens in the background; you don't need to wait for the printer to finish before you do other work. Video compression also runs in the background. Many of Final Cut Pro's heavy-duty calculations such as importing, rendering, or exporting happen in the background.

FCP is very busy with all this processing, but you can still review clips, make edits, and play projects without worrying about all the background work that's going on.

As a note, however, tasks that run in the background tend to run slower because if the foreground application needs the computer to do something, the background application is momentarily paused while the computer devotes itself to meeting that need. Those delays are generally not excessive. I'm just letting you know.

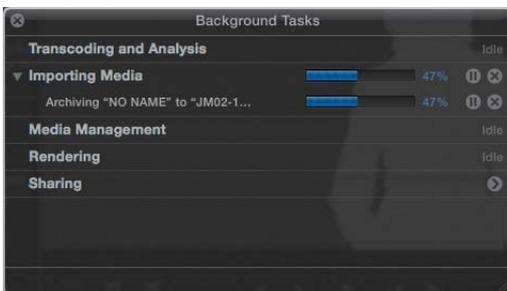


FIGURE 4.22

The Background Tasks window displays all the activities FCP is running behind the scenes.

One of the neat features in FCP X—mainly because I'm a fan of blinking lights and charts and graphs—is the Background Tasks window. To open the Background Tasks window, click inside the “clock face” on the left side of the Dashboard in the middle toolbar of Final Cut Pro X. (You can also display this task window by pressing Command+9 or choosing Window > Background Tasks.) This opens the Background Tasks window, which displays the status of all actively running tasks (**Figure 4.22**). In this case, it shows that FCP is 47 percent done importing the media clips selected earlier.

This Background Tasks window can be very useful when running Final Cut Pro. You can reference it to check the status of importing, analyzing clips, transcoding from one format to another, rendering transitions and effects, and exporting.

Importing from a Tape-Based Camera

Wow! That included a lot of steps. The good news is that once you understand how importing works—and you spent a lot of time going over all the steps in the previous section—these other options are just slight variations on the same theme.

Let's turn our attention to capturing from videotape. Here, Final Cut Pro X has some significant limitations. It can capture only from videotape cameras or decks that are attached via FireWire. Companies such as AJA, Blackmagic Design, and Matrox are working on ways to capture using other videotape protocols. New products are expected about the same time this book is published, so visit these companies to see what their latest gear can do.

However, assuming you *do* have a FireWire deck or camera, here's what you need to know to capture clips from it.

1. Connect your FireWire camera or deck to the computer. Turn it on and load a tape. (You can also use this process for capturing from a live camera, but this example assumes you are using tape.)
2. Open Final Cut Pro, select an Event you want to use to store the media, and click the Import from Camera icon (or press Command+I) (**Figure 4.23**).

In the top-left corner of the Camera Import window, the name of the camera or deck will be listed.

3. In the Camera Import window, you'll see an image from your tape, along with the word *Pause*, indicating the tape is not running (**Figure 4.24**). Unlike earlier versions of Final Cut Pro, you cannot set Ins or Outs when capturing from tape. (In FCP 7 terms, FCP X uses Capture Now when importing from tape.) So, to capture a shot or an entire tape, rewind the tape using either the controls on the camera or deck or the controls at the bottom of the Preview window to rewind the tape until it is a few seconds before the start of the shot you want.



FIGURE 4.23
Here's an example of a DV videotape deck (Sony DSR-11) attached to the computer via FireWire.



FIGURE 4.24
This is the Camera Import window. Notice the text displays at the top.

4. Click the Import button at the bottom.

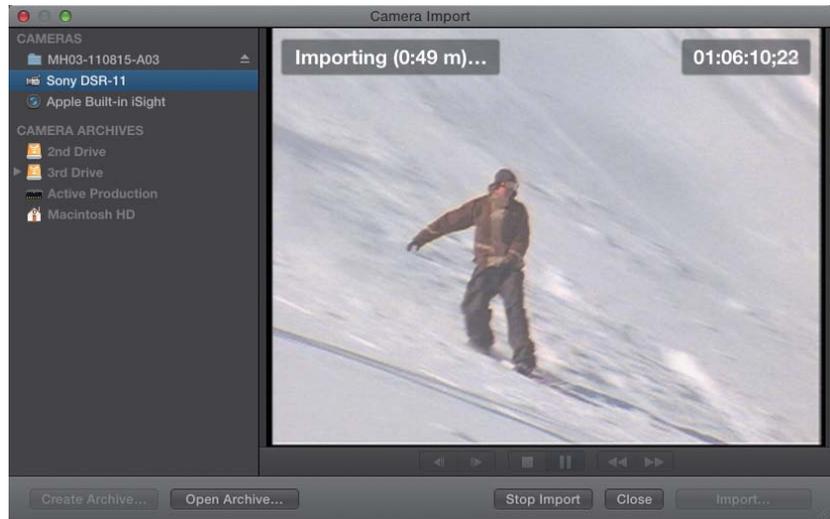
Just as you saw in Figure 4.20, when importing tapeless media, the Import dialog appears, allowing you to configure how you want the clips imported. “Create optimized media” is grayed out because this video format (DV) is already optimized and does not need conversion to ProRes.

5. When you are happy with the settings, click Import.

If the tape does not start playing, push the Play button on your camera or deck. Final Cut Pro will start capturing the images directly to your hard disk, storing them in the Event you selected before opening this window (**Figure 4.25**).

FIGURE 4.25

Notice the monitoring display at the top of the screen during tape playback.



● **NOTE** What About Timecode Breaks?

When capturing from videotape, it is essential that timecode remain continuous. If there are timecode breaks on the tape, FCP X will capture each section on the tape, between breaks, as a separate clip. You will probably lose about three seconds of media before and after each break.

6. The import status at the top displays the shot being captured, the amount of time currently captured to disk (top left), and the timecode on the tape at that moment during playback (top right). When you want to stop the capture, either click the Stop Import button at the bottom or simply stop the camera or deck.

Although the Camera Import window remains open, the captured clip is instantly displayed in the Event Browser for the selected Event.

7. Repeat this process until all the shots you need are captured from tape.

Creating a Camera Archive

Camera archives, which were mentioned earlier in this chapter, are also a way to easily digitize entire videotapes so you can store them on your hard disk until you are ready to use them. The benefit of this process is that videotape only has a shelf life of 20 to 25 years. FCP X makes it easy to digitize your historical tapes before they get too old to capture.

What Final Cut Pro does is transfer all the clips from your tape into a single master file stored on your hard disk. This is basically a straight-through transfer. Final Cut Pro is not recompressing these files; it is simply bundling them into a single package to make them easier to label, store, and move around.

Archiving is not importing. Archiving copies the media from a videotape to a file on your computer. The images are not imported into Final Cut Pro. All files are stored on the hard disk you specify, in a Final Cut Camera Archives folder.

Here's how this works:

1. As you did in the previous section, connect your camera or deck and turn it on. Load a tape and start Final Cut Pro X.
2. Click the Import from Camera icon, or press Command+I.
3. In the Camera Import window, select your camera or deck from the list at the top left (refer back to Figure 4.24).
4. Click the Create Archive button in the lower-left corner of the Camera import window (**Figure 4.26**).
5. Name the archive. Since this is a collection of all the shots on the tape, you are not naming individual shots; rather, you are naming the entire collection. Since I number all my tapes, I make a point to include the tape number as part of the filename.
6. Choose the hard drive where you want the archive stored, and click OK.
FCP automatically rewinds the tape to the beginning and shifts into capture mode. As the tape plays from beginning to end, FCP stores all the media from the tape into the archive and displays the status of this transfer process at the top of the image (**Figure 4.27**).
7. Just like importing from tapeless media, Final Cut Pro captures your media from tape in the background as well. If you need to stop the transfer at any time, click the Stop button in the lower right or simply stop the tape. FCP asks whether you want to keep what has already been captured or discard everything. When the end of the tape is reached, FCP closes the transfer and saves the file.
8. You can see this archive by opening the hard disk that you specified as the location and opening the Final Cut Camera Archives folder. Additional archives can also be stored in this folder; there's no limit—aside from storage space—to the number of archives you can create and store.



FIGURE 4.26
Click Create Archive to create a new camera archive.



FIGURE 4.27
During the archive process, Final Cut Pro displays a constantly updated status.

● **NOTE** What Can I Archive?

You can archive media stored on videotape and accessed through a FireWire connection. You can archive media stored on memory cards or other tapeless formats. You can also archive media stored on a memory card. However, you can't archive video from a live camera, such as the iSight; a live video stream; or media stored in an Event.

● **NOTE** How Much Space Do You Need for an Archive?

In general, an hour of DV media takes 13 GB to store. This storage size is true for both NTSC and PAL DV video. (By the way, an hour of HDV media also requires 13 GB to store.) In other words, the archive takes the same amount of space to store your media as it would if you captured it directly to your hard disk as a media file.

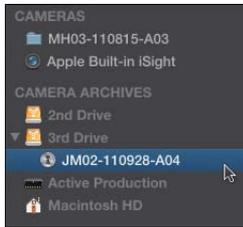


FIGURE 4.28
Archives can be mounted at any time, providing “near-line” access to your media.

You can now handle this archive as another other file. Move it, back it up, copy it, or archive to disc or tape—all using the Finder (**Figure 4.28**).

9. Once an archive is created, you can review it at any time and import clips from it. Simply highlight the archive from the list of drives in the top-left window. All the shots from the archive are displayed on the right, the same as for a memory card.
10. Select what you want to import: a portion of a shot, an entire shot, or a collection of shots; this is identical to what you did in the section on importing tapeless media.
11. To close an archive, click the eject icon on the right side of the archive name. This does *not* affect the file on your hard disk; it just closes the images so they are not displayed in the Camera Import window.

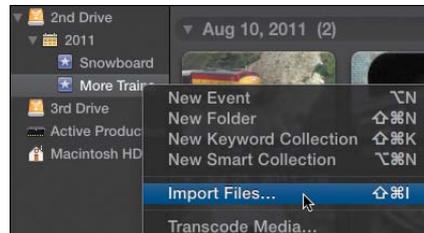
Camera archives are a great way to preserve video assets on tape before time runs out and the tape dies.

Importing Files

After the complexity of importing tapeless files from memory cards or importing from videotape, the process of importing QuickTime movies, or other computer-based media files, is very easy. Importing files is the way you generally import audio files and still images, as well as existing QuickTime movies.

1. Select the Event where you want the imported media stored. (Or, create a new Event. The key is you need to select the Event before importing the media.)
2. Then, do one of the following:
 - ◆ Right-click the Event and select Import Files (**Figure 4.29**).
 - ◆ Press Shift+Command+I.
 - ◆ Choose File > Import > Files.
 - ◆ Click the Import Files icon, if this is your first time running FCP X.

FIGURE 4.29
A fast way to import files is to right-click the Event you want to import into.



3. The standard Import Files dialog appears. By now, you should know to select the files you want to import, set the preference settings the way you want, and click Import. Even when you select an Event as the destination of an import, you can change the Event in the Import Files dialog or even create a new Event for the files. Changing your mind at the last minute is absolutely OK.

As usual, Final Cut Pro charges into action, importing your files and doing any necessary file management in the background. What is especially cool about this process is that, even though FCP is importing the media, you can start viewing and editing that same media into your Timeline!

Apple has done a great job of making the file import process fast and efficient.

Special Cases

Here are some special cases of importing media that require a different approach.

Importing iMovie Projects and Events

Final Cut Pro X finally fulfills a long-held dream of iMovie users that there be some way to get their iMovie Projects and Events into Final Cut Pro. And, in fact, it is very easy.

If all you need is access to your iMovie media, import the iMovie Event Library. This brings in all your iMovie media, allowing you to reedit it using the full power of Final Cut Pro X. Or, if you want to bring in your iMovie Project, you can do that as well.

Here's how these both work:

1. To import an iMovie Project, choose File > Import > iMovie Project.
2. Navigate to where your project is stored; typically, this is in the Movies folder in the Home directory of your hard disk. Then click Import.
3. By now, you are an old hand at navigating the Import Files dialog. Once you import your files, the project will open and all associated iMovie Events and media are loaded into the Event Library.

To import all your iMovie media, choose File > Import > iMovie Event Library. This loads all the media that you captured in iMovie into Final Cut Pro.

Using Photos Browser or Music and Sound Browser

Built into Final Cut Pro X is access to your iPhoto, Aperture, and iTunes libraries. This means you can easily access any image, or sound they contain, without even going to the process of importing.

Here's how.

The Browsers—for images and effects—are all located on the right side of the bar running across the middle of the FCP X interface (**Figure 4.30**).

● **NOTE** Does Final Cut Pro X Import Earlier Final Cut Pro Projects?

No. At the launch of FCP X, Apple said it is not possible for FCP X to import FCP 7 or 6 projects. However, I expect that problem will get solved, at least to some degree, before this book gets published, probably by a third-party developer.

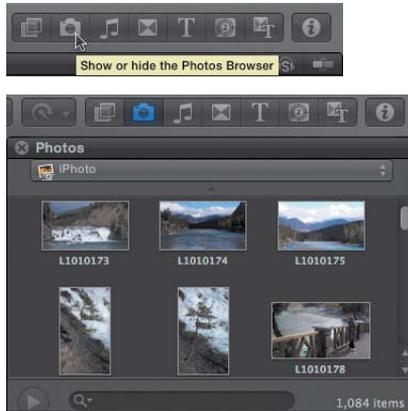


FIGURE 4.30
Click this icon to display the contents of your iPhoto or Aperture library.



FIGURE 4.31
Click this icon to display the contents of the Music and Sound Browser, including your iTunes library.

Click the icon for the Photos Browser, and it opens to display images from your iPhoto or Aperture library. These images are always available to you for every Project. You don't need to import them. Whenever you want to use one of these images, simply drag it from the Browser onto the Timeline. You don't need to move it to the Event Browser first.

To open the Music and Sound Browser, click the icon with the musical note on it (**Figure 4.31**). This opens your iTunes library. In addition to iTunes, if you downloaded the extra material from Apple after you purchased FCP X, you also have access to thousands of sound effects and music cues—all royalty free and stored in this Browser.

Again, like the Photos Browser, you don't need to import these files. If you find one you like, simply drag it from the Browser into the Timeline. (I'll show you how to do that when I cover editing, in a couple of chapters.)

● **NOTE** Why Do You Call It an (H)DSLR Camera?

The term (H)DSLR is used to denote DSLR cameras that also shoot HD video. Since not all DSLR cameras shoot video, this makes it convenient to just talk about the cameras that do. You can find out whether your camera is supported by FCP X by visiting <http://help.apple.com/finalcutpro/cameras/>.

Importing from an (H)DSLR Camera

(H)DSLR cameras shoot a video format called H.264. This is a very compressed, and mathematically challenging, video format. H.264 is a good format for shooting, it is an excellent format for distribution on the Web, but it is not a good format for editing.

Still images can be directly imported into Final Cut Pro—see the “Dealing with Still Images” section to come—or you can import them into Aperture or iPhoto. Then use the Photos Browser to import them into Final Cut Pro.

Video files are imported directly from the DCIM folder created by the camera, which you need to copy from the camera card into a folder on your hard disk or from a disk image of the card. Don't use Import from Camera; use Import > Files.

DSLR audio and video files, which are often separate, can be synchronized using Clip > Synchronize Clips. And syncing does not affect source files, only the clips in the Event Browser.

Since audio files are imported using File > Import > Files, you don't need to cover that process again.

To import (H)DSLR footage, choose File > Import > Files. Navigate to where you stored the contents of the (H)DSLR card on your hard disk. In this example, I'm about to import some files shot by Chuck Spaulding. Notice that the DCIM folder is selected but not the contents of the folder (**Figure 4.32**). If you select a folder, FCP understands that you want to bring in the contents of the folder.

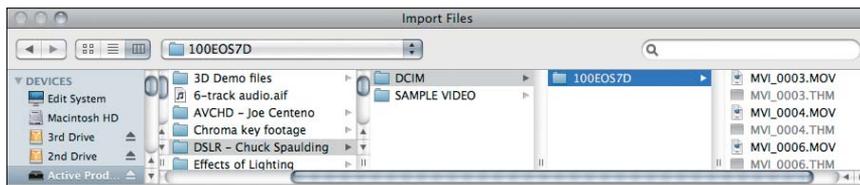


FIGURE 4.32
Importing media from an (H)DSLR camera involves navigating to where the actual media is stored, ideally in a folder on your hard disk.

When importing (H)DSLR footage, be sure to check “Create Optimized media” as part of the Import dialog. While FCP can, and will, edit H.264 video natively, you'll get faster renders, higher-quality effects, and faster exports by optimizing. The only downside is that the optimized files take more space to store.

Once you have your preference settings to your satisfaction, click Import. An error dialog may pop up saying that FCP can't import all the files in this folder, specifically, those ending with .THM (**Figure 4.33**). This is OK. When you import files directly from the DCIM folder, you may notice that there are both .MOV and .THM files. Just select everything in the folder.

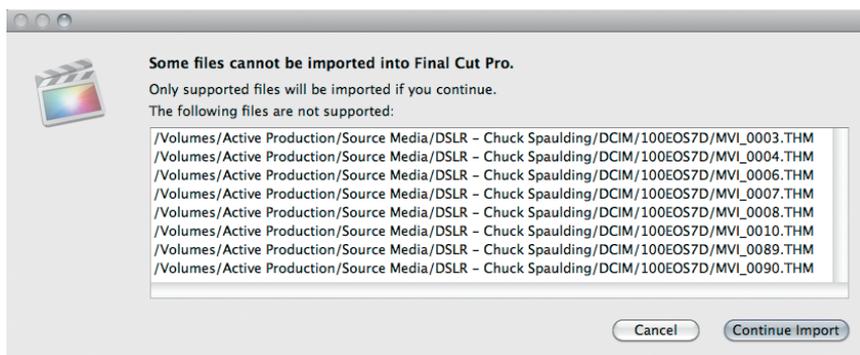


FIGURE 4.33
Don't panic. This message simply means that FCP could not import all the files it found in that folder.

Click OK, and Final Cut Pro will import just the .MOV files and ignore the .THMs. This is much faster than just selecting each movie file individually. You are taking a shortcut so that only the .MOV files are imported.

Sync Double-System Audio

Because the audio recording capability on almost all (H)DSLR cameras is really poor, you often record audio using a “double-system”: The camera records video and a digital audio recorder records audio.

Now, you need to get them in sync. This means during production you need to create a sync point. A *sync point* is a common point of reference between multiple cameras or between audio and video. Professional movies always use clapper slates. However, you can use a pair of clapping hands, dropping brick, or anything else that has a rapid movement coming to a quick stop and making a sharp noise.

You find the point in the video where the movement stops and the same point in the audio where the noise is made. That point is your *sync point*, the point that is the same for both audio and video.

Clips are always synced well before the start of action in a shot. So, once you have the sync point set, you still need to set a Start and End (In and Out) for your shot before you edit it to the Timeline. Final Cut provides built-in syncing capability, based upon the following:

- Matching markers
- Matching timecode
- File creation date
- Audio content



FIGURE 4.34

Notice how both audio (green) and video (picture) clips are selected and both have a blue marker set at the top of the clip, which marks the sync point.



FIGURE 4.35

This is the symbol in the top left corner of the synced clip.

Most of the time, the production team will use a clapper slate to mark the start of a shot for both audio and video. So, I'll show how to sync two clips using markers that you set to match the position where the clapper slaps down.

To create a marker, put the skimmer or playhead on the frame of the video clip that marks the sync point of a shot, and press M. That blue shape at the top of the clip is a marker. (I'll talk more about markers in Chapter 7.)

Do the same for the audio clip. Put a marker at the sync point by positioning the skimmer or playhead at the exact point where the audio matches the video, and press M.

Select the video clip you want to sync; then, while holding the Command key, select the audio clip. With both clips selected, choose Clip > Synchronize Clips or press Option+Command+G (**Figure 4.34**).

This creates a new, synchronized clip in the Event Browser with a little sync icon in the top-left corner (**Figure 4.35**).

Remember to use this clip, not the two source clips, when the time comes to edit.

Dragging Files in from the Desktop

You can even import files by dragging them in from the Desktop. There are only two places you can drag clips from the Desktop: onto the *name* of an Event in the Event Library or into the Timeline.

To import a file by dragging, grab the title bar of Final Cut Pro and drag it to the side so you can see the image, or images, you want to import on the Desktop. Notice when you drag a clip from the Desktop to an Event, a white ring appears around the name of the Event. This tells you where your media will be stored. You can also drag directly into the Timeline. I discuss the Timeline in detail starting in Chapter 5 and continuing for the rest of the book.

Dealing with Still Images

I've saved this section for last because it causes more confusion than any other. Apple has simplified the process of importing, sizing, saving, and exporting still images. Final Cut Pro works best with bitmapped images, like those taken with a digital still camera or created inside Photoshop, and it supports a wide variety of image formats, though some formats provide higher quality than others.

With the latest version of Final Cut Pro, there does not seem to be a practical limit on image dimensions within Final Cut Pro. If you choose the Import preference to optimize media, images without transparency (called an *alpha channel*), are converted to JPEG, while those that do contain an alpha channel are converted to PNG. If you don't choose to optimize media, still images are imported in their native format. PSDs (Photoshop documents) import with all layers flattened but with transparency information retained.

Images are measured in total pixels across by total pixels down, not by dots per inch (DPI). DPI is a printer reference and doesn't apply to video. Also, you always want to create your images using square pixel dimensions.

Moving on Stills

If you want to do moves on an image while retaining the highest image quality, create the image to be larger than the frame size. Image quality is degraded if you scale an image larger than 100 percent. And for images, PNG or TIFF formats will yield better image quality than JPEG or JPG formats.

In the past, Final Cut Pro would choke if you imported an image greater than 4,000 pixels on a side. In my testing for this book, I imported an image that was 10,000 pixels on a side and FCP had no problem with it.

● NOTE

FAQ: Dragging Clips

When you drag files from the Desktop, you don't get the Import dialog you saw earlier. Instead, the clips are immediately imported using the current Import preference settings.

● NOTE Can You Import a Layered Photoshop File?

Yes and no. Yes, it will import. However, Final Cut Pro will convert it to a PNG file and collapse all the layers into a single layer. Any alpha channel data (transparency) in the file will be retained. So, yes to Photoshop; no to layers. However, Motion 5 can import Photoshop files and retain their layers, and Motion projects can be saved or exported to work with Final Cut Pro X.

If your still image is larger or smaller than the video frame, then the image will import correctly. However, if your still image is exactly the size of the video frame, then you need to size it using specific dimensions in order for the image geometry to be correct after import. The problem of image sizing is caused by the fact that video uses rectangles to describe image pixels, while computers use square pixels. And this difference has caused ulcers in the industry for years.

By default, stills import with a duration of four seconds. Here's how to modify the default duration for an imported still image:

1. Choose Final Cut Pro > Preferences (or type Command+[comma]) and click the Editing preference icon at the top.
2. Toward the lower portion of this screen is the default duration assigned to imported still images. It's four seconds by default, but you can change it to anything. The decimal point after the four is not frames but hundredths of a second. So, if you wanted your stills to import at three-and-a-half seconds, enter **00:00:03.50**.
3. Close the preference window to accept your changes.
4. Import the files you need using File > Import > Files and select the files you want to bring in.

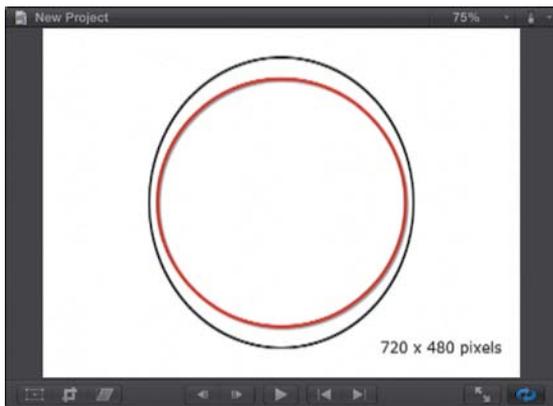


FIGURE 4.36

Importing still images drives all of us nuts. Here's the problem you often have with trying to get imported still images to look correct.

You remember I mentioned earlier that when images were the same size as the frame, you have problems? Well, **Figure 4.36** illustrates that.

As you may know, NTSC DV video is 720 pixels across by 480 pixels high. These pixel dimensions are the same, surprisingly, for both 4:3 and 16:9 video. (While the pixel *count* does not change, the pixel *shape* does!) These *aspect ratio* issues exist in NTSC, PAL, and many HD video formats, but the numbers are different.

In **Figure 4.36**, the black circle was created in Photoshop using square pixel dimensions and imported into FCP, where it got squished. The red circle is generated in FCP and is a perfect circle.

The reason for this is the differences in aspect ratio between the computer and video. Video uses

rectangles for its default pixel shape, while the computer uses squares. You'll see a solution for this in **Table 4.1**.

However, when you properly size graphics in Photoshop before importing into FCP, circles come in as circles and squares look like squares (**Figure 4.37**).

Table 4.1 provides dimensions you can use to determine how to size your graphics. The left column indicates the video format. The middle column indicates the size you should create if you want the entire image to completely fill the frame, without doing any moves on the image. The right column indicates the size you should create if you want the image to completely fill the frame *and* you want to do moves on the image, which is also called the “Ken Burns Effect” (see Chapter 12).

You’ll be working with stills throughout this book. Chapter 6 shows how to edit and size them to fit the frame, while Chapter 12 illustrates how to do moves on stills. Chapter 15 explains how to export stills for use in other applications.

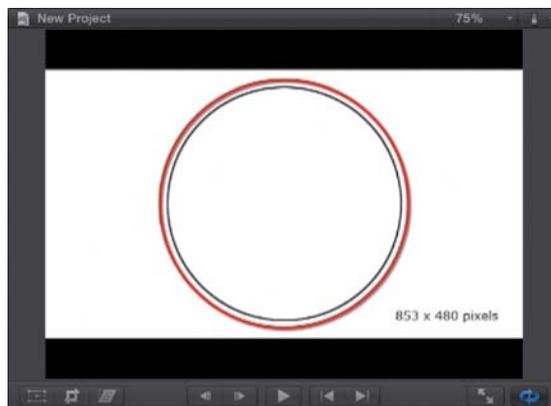


FIGURE 4.37 This is what your images look like when you do it right! Whew!

TABLE 4.1 Creating the Right Sizes for Still Images*

Video Format	Fill the Frame	Fill the Frame and Move Around
NTSC DV 4:3	720 x 540	1800 x 1350
NTSC DV 16:9	852 x 480	2130 x 1200
PAL 4:3	768 x 576	1920 x 1440
PAL 16:9	1024 x 576	2560 x 1440
720 HD	1280 x 720	3200 x 1800
1080 HD	1920 x 1080	4800 x 2700
2K	2048 x 1024	5120 x 2560
4K	4096 x 2048	8192 x 4096

* All images should be created at 72 dpi, because video just pays attention to the total pixels across and down. Only printers use DPI. Also, save files as PNG or TIFF to retain the highest quality.

New Feature! XML Import

New with version 10.0.1 is the ability to import XML, an interchange language that lets applications share data. The process is simple. Once another application has created an XML file, choose File > Import > XML and find the file you want to import. Pick a hard disk to store the data from the Storage Location pop-up menu and click Import. That’s it. What you do with that data depends upon where it comes from, and that varies by application.

Summary

This is the longest chapter in the book, because getting media into FCP is essential if you are going to edit it. You must understand the process well so your clips look as good as they can. Fortunately, once you grasp the process, FCP makes it truly efficient, and you'll be importing clips in no time.

There's one more chapter to go before you start editing: working with ratings and keywords. You can't edit your projects if you can't find the clips you need.

The good news is that after the next chapter, all the prep work is done, and you get to spend time with the fun stuff—editing your projects and making them look great!

Keyboard Shortcuts

Shortcut	What It Does
Command+[comma]	Open FCP Preferences window
Option+N	Create new Event
Command+N	Create new Project
Command+I	Import from camera
Shift+Command+I	Import from file
Option+Command+G	Sync audio and video clips
Command+9	Display Background Tasks window
Command+click	Select any combination of clips
I	Set the Start (In) of a clip
Shift+I	Jump playhead to the Start (In) of clip
Option+I	Delete the Start (In)
O	Set the End (Out) of a clip
Shift+O	Jump playhead to the End (Out) of clip
Option+O	Delete the End (Out)
X	Mark the entire duration of a clip
Option+X	Delete the Start and End of a clip
Command+D	Select Desktop in any file picker dialog



INDEX

A

- Action safe, displaying, 235–236
- alpha channels, 262, 281–282
- animating using keyframes, 249–251, 268. *See also* keyframes
- Aperture library, accessing, 89–90
- append edit, performing, 34, 38, 122–125, 139
- archiving. *See also* camera archives versus importing, 87
 - long-term, 8
 - memory cards, 70
 - Projects and media, 13, 56–58
 - space requirements, 87
- aspect ratios, 295
- audio. *See also* volume; waveforms
 - adjusting, 34–35
 - analysis on import, 190–191
 - basics, 186–187
 - creating music videos, 194
 - detaching from video, 210, 228
 - dual-channel mono, 200
 - expanding from video, 189, 218
 - human hearing, 186
 - importing, 77–78
 - keyboard shortcuts, 206
 - letters F and S, 187
 - loudness of, 188
 - measuring, 188
 - mixing, 52, 203–206
 - mono, 190
 - moving to picks, 140
 - muting clips, 200–201
 - pitch-shifted, 20
 - polishing, 12
 - recording for video, 187
 - recording voice-overs, 201–202
 - rules for, 204
 - sample rates versus frequency, 187
 - separating from video, 189
 - skimming, 189
 - soloing clips, 200–201
 - sonic field, 190
 - stereo, 190
 - syncing double-system, 202–203
 - toggling from video, 183
 - toggling subframe display on/off, 210
 - using Inspector with, 191–192
 - viewing in clips, 189
 - volume and gain, 188
 - vowels versus consonants, 187
- audio and video clips, syncing, 96
- audio animation, displaying in Timeline, 268
- audio clips
 - auto-enhancing, 210
 - collapsing, 210
 - expanding, 210
 - soloing and unsoloing, 163
- audio edit points, selecting, 183
- audio editing
 - enabling, 139
 - precision of, 203
- audio enhancements, toggling display of, 210
- audio levels
 - adjusting, 35
 - adjusting with mouse, 205–206
 - displaying, 35
 - drop by 6dB, 187
 - maximum, 35
 - relative and absolute, 35
- audio meters
 - displaying, 206
 - resizing, 35
 - toggling display on/off, 38, 210
 - using, 188
- audio Roles, exporting, 328
- audio skimming, toggling on/off, 210
- audio techniques, 192–198
- audio transitions, applying, 228
- audio volume, adjusting, 35
- audio waveforms, displaying, 101, 103
- audio-only
 - editing, 210
 - transitions, 219–221
- auditions
 - creating, 136–139
 - finalizing, 140
 - opening, 139
 - previewing, 140
- AVCHD (Native), storage and data transfer rate, 3
- AVD-Intra 100, storage and data transfer rate, 3

B

- background colors, making
 - transparent, 281–288
- background tasks, 29–30
 - displaying, 22, 64, 96, 228, 268
 - monitoring, 54
- backgrounds
 - colors, 283
 - removing with Luma keys, 281–282
- backtime edit, performing, 129–130, 139
- Blade tool, using, 153, 164
- Blend Modes, using, 264–265
- Broadcast Safe effect, applying, 317–318
- B-roll, creating, 36–37
- Browsers
 - locating, 89–90, 224
 - selecting everything in, 320
- Burns, Ken, 251, 255–257

C

camera archives. *See also* archiving
creating, 58, 86–88
using, 70
Camera Import window, displaying, 79
cameras. *See also* file-based camera;
tape-based camera
(H)DSLR, 90–92
importing from, 96
types of, 78
cards. *See* memory cards
Chroma keys, 281–288
clip audibility, toggling, 210
clip duration, changing, 140
clip effects. *See also* effects
deleting and resetting, 284
processing, 318
clip names
hiding, 100
toggling display in Event Browser,
116
clip skimmer, selecting, 301
clip speed, setting to normal, 297, 301
clip visibility, toggling, 110
clip volume, raising and lowering, 210
clips. *See also* compound clips;
connected clips
adding dissolve between, 36
adding searchable notes to, 101
arranging, 99
converting into connected
storylines, 183
creating compound, 228
deleting, 142–143
deselecting, 142–143
detaching, 189
determining height of, 101
disabling, 152, 163
displaying, 98–103, 100, 116
dragging, 93, 135
enabling, 152, 163
finding, 109, 111
grouping, 99–100
marking, 33, 96
modifying duration of, 183
moving, 140, 155–156, 210
pasting effects into, 210
pasting options, 147
placement in editing process, 133
playing, 124, 140
previewing, 32–33
removing ranges of, 154
selecting, 96, 127, 139, 142–143, 301
setting vertical height of, 23
slowing down, 297

soloing, 152, 210
stacking, 262, 279, 283
synchronizing, 210
using ratings with, 104
zooming into, 103
clock icon, purpose of, 30
codecs and formats, 75
color balance, turning on/off, 320
Color Board, 313–314, 320
color cast, fixing, 305–306
color correction, 12–13
applying Looks, 304–305
Balance Color, 305
basic map, 311
borrowing Looks, 307
Broadcast Safe effect, 317–318
Enhancement menu, 305–307
hues, 314
in Inspector, 313
masks, 318–320
Match Color, 306–307
rules in, 311
video scopes, 307–310
color grade and Look, creating, 13
colors
adjusting, 316–317
of icons, 19
matching between clips, 306–307,
320
removing, 311
Command Editor, displaying, 60, 64
Command key. *See* keyboard shortcuts
command set, listing, 63
compositing, 262–265
compound clips. *See also* clips
breaking apart, 163
creating, 148–150, 163, 228, 320
deconstructing, 151
fixed durations, 151
navigating Timeline History, 151–152
using for effects, 266–267
Compressor droplets, fixing, 18
computer monitors, using two, 26–27
connected clips. *See also* clips
adding transitions to, 220
editing into Timeline, 37
trimming, 180
connected edit, performing, 38,
132–135, 139
connected storylines
adding transitions to, 220
converting clips to, 183
creating, 228
trimming, 181
using, 135

connection display, toggling
on/off, 23
connections, moving, 133, 140
consolidating Projects, 57–58
contextual menus, displaying, 30–31
Copy and Paste options, 146–147
copying
Events, 42–43
versus linking, 16
media, 45, 67–68
memory cards, 70–71
Projects, 54
Crop controls, displaying, 268
Crop effect, using, 251, 253
Ctrl key. *See* keyboard shortcuts
cutaways, creating, 36–37
cuts, defined, 212, 166. *See also*
trimming

D

date display, using with videotape, 99
Delete keys, using, 55
deleting
clip effects, 284
clips, 142–143
End (Out) of clips, 96, 139
Event render files, 46
Events, 48
folders, 55
keyframes, 207
keywords, 106–107, 116
markers, 145, 163
Project render files, 58–59
Roles, 158–159
Smart Collections, 109–112
Start (In) of clips, 96
Dialogue Role, applying, 164
disk image, making for cards, 70
dissolve
adding between clips, 36
defined, 166, 212
distort effects, using, 257–258, 268
Dock, showing and hiding, 38
DPI (dots per inch) versus pixels, 83
drives
backup, 4
bit flux, 8
boot, 4, 17
connecting, 5, 7–8
external, 5
FireWire connection protocol, 5
internal, 5
media, 4
requirements, 4
storing, 8

drop shadows, 233, 242
duplicating Projects, 53–54

E

edit media, described, 67

edit points, using, 183

editing

- append edit, 122–125
- audio, 192–195
- backtime edit, 129–130
- connected edit, 132–135
- creating auditions, 136–137
- dragging clips from Finder, 135
- insert edit, 125–127
- overwrite edit, 128–129
- preferences, 119–121
- process, 32–36, 118
- replace edit, 130–132
- speeding up, 162
- titles, 230
- and trimming, 175
- workflow, 8–13

edits

- previewing, 36
- replacing, 140

effects. *See also* clip effects

- adding, 12
- adjusting in Motion 5, 275–276
- alpha channels, 262
- animating using keyframes, 247–251
- Blend Modes, 264–265
- Broadcast Safe, 317–318
- compositing, 262–265
- corner pinning, 257–258
- Crop, 251, 253
- customization in Motion 5, 276
- disabling, 284
- distort, 257–258
- drop shadows, 242
- finding customized, 276
- image degradation, 254
- image stabilization, 258–259
- Ken Burns, 251, 255–257
- Luma keys, 262, 279–281
- Opacity, 263
- overview, 242–243
- pan, 251
- pastings, 243, 268
- resetting for clips, 284
- Rolling Shutter, 259–260
- slo-mo, 299
- Spatial Conform, 260–262
- tilt, 251
- Transform, 243–247
- Trim, 251–253

using compound clips for, 266–267
zoom, 251

Effects Browsers, 23, 320

Effects Role, applying, 164

End (Out) of clips, 34, 105

deleting, 96, 139

jumping playhead to, 96

setting, 96, 123–124, 139

trimming to skimmer, 183

Event Browser

creating compound clips in, 149–150

defined, 40

displaying clips as filmstrips, 100

displaying, 21, 64

function of, 42

hiding clip names, 116

line colors, 113

showing clip names, 116

Switch, 101

using Roles in, 159

Event folders

defined, 40

managing, 18

moving, 17

moving files into, 44

using, 17

Event Library

contents of, 42

defined, 40

displaying and hiding, 21, 38

toggling display of, 64, 116

Event Manager X utility, 41–42

Event reference, changing to share
Projects, 55–56

Event render files, deleting, 46

Events

accessing, 41

copying, 42–43

copying versus moving, 43

creating, 25–27, 38, 42, 96

defined, 17, 25, 40

deleting, 48

displaying, 98–103

grouping, 98

hiding, 48

linking Projects to, 31, 50

merging, 45

moving, 43, 46–47, 64

organizing media for, 43–44

placing in folders, 41

storing, 17, 40–41, 44

toggling display of, 21

tracking, 41

Events folder

accessing, 16

contents of, 25

exporting. *See also* Share menu

audio Roles, 328

high-quality master files, 323–324

hold frames, 294–295

QuickTime movies, 331

Roles, 324–329

XML files, 99, 329

Exposure panel, using pucks in, 314–315

F

fade handles, using to create

transitions, 220

fading to black, 218

Favorites

displaying, 116

filtering, 104

finding in Events, 105

marking selected areas as, 116

file-based camera, using, 81–84.

See also cameras

files

consolidating via merging, 46

importing, 88–89

importing from, 96

moving, 44

selecting, 28

Filter window, opening, 116

Final Cut Events folder, 40

Final Cut Pro 7, round-tripping, 18

Final Cut Pro X

hidden areas, 19

hiding, 38

interface, 19–25

starting, 18

system requirement, 2

website, 66

Final Cut Studio folder, contents of, 18

Find window, opening in Timeline, 164

Finder, dragging clips from, 135.

See also Timeline Index

FireWire connection protocol, 5, 7

folders. *See also* media folders; Project
folders; Projects folder

creating, 116

deleting, 55

hiding Projects in, 55

importing, 72–74

limitations of, 112

moving, 41

moving Projects to, 55

organizing Projects with, 54–55

revealing Projects in, 55

storing projects in, 24

font settings, 233–234

frame rate, deciding, 52

frames
converting to seconds, 214
moving between, 23
navigating, 183

G

gaps
creating, 155–156
inserting, 164
generators, using, 271–275. *See also*
video clips
grayscale, adjusting, 313–315
green-screen keys, creating, 281–288
green-shoot, planning, 279

H

H.264, storage and data transfer rate, 3
Hand tool, using, 154, 164
handles, using, 53, 168, 212–213
hard drives. *See* drives
(H)DSLR cameras, 90–92, 259
hiding Projects, 55, 59
Histogram, using, 309, 320
hold frames, using 292–295, 301
Home Directory keyboard shortcut,
276

I

icons, colors of, 19
image degradation, 254
image stabilization, 258–259
images
compositing, 262–265
fitting into frames, 20
pixels versus DPI (dots per inch), 93
rotating, 246
scaling, 246
sizing and positioning, 243–247
iMovie Projects and Events,
importing, 89
importing
versus archiving, 87
dragging files from Desktop, 93
files, 38, 78, 88–89
from (H)DSLR camera, 90–92
iMovie Projects and Events, 89
layered Photoshop files, 93
process of, 71
still images, 93–95
XML, 95, 99
importing media, 27–30. *See also*
media
audio, 77–78
changing preferences, 78
copying files, 72

creating camera archive, 86–88
from file-based camera, 78–84
folders, 72–74
keywords, 72–73
optimizing media, 75
organizing, 72
setting preferences, 71–78
from tape-based camera, 85–86
transcoding, 75–76
video, 77

In point. *See* Start (In) of clips
Info Inspector, using, 113–115
insert edit, performing, 125–127, 139
inserts, creating, 36–37

Inspector

audio levels, 206
icon, 113
modifying keyframes in, 208–209
opening, 23
panning audio, 206
setting keyframes in, 208–209
Stabilization controls, 258
toggling display on/off, 210, 320
toggling open/closed, 116, 240,
268, 290
Transition, 223–224
using, 191–192
interlaced versus progressive, 51, 288,
294–295
iPhoto library, accessing, 89–90
iTunes library, accessing, 89–90

K

Ken Burns effect, using, 251, 255–257
Keyboard Highlight button, 61
keyboard shortcuts
get started editing, 38
managing events, projects, and
shortcuts, 64
managing media, 96
organizing clips: ratings,
keywords, and extended
metadata, 116
editing, 139–140
organizing edit, 163–164
trimming edit, 183
audio, 210
transitions, 228
titles and text, 240
built-in effects, 268
keying, 290
retiming, 301
color correction, 320
sharing and export, 332

keyframes. *See also* animating using
keyframes
adding to animations, 268
adding to transitions, 227
adjusting in Timeline, 207–208
creating in Inspector, 249
defined, 106, 247
deleting, 207
jumping to, 250, 268
modifying in Inspector, 208–209
overview, 207
setting, 207–210
using to remove noises, 208

keys

adding masks, 288–290
Chroma, 281–288
interlaced footage, 288
Luma, 279–281
planning, 278–279
stacking clips, 279
keywords. *See also* Roles; Smart
Collections
adding, 106–107
adding to keyboard shortcut, 116
applying to Events, 107
automatic, 106
changing, 107
deleting, 106–107, 116
displaying, 116
features, 106
finding in Timeline, 109
importing, 72
listing, 160
manual, 106
renaming, 108
storage of, 106
using to find clips, 109
viewing, 108–109

L

layouts, changing and returning to, 26
loop playback, toggling, 20
Luma keys, using, 262, 279–281

M

Magnetic Timeline, features, 147–148.
See also Timeline

markers

accessing options for, 146
adding, 144, 163
converting to To-Dos, 145
deleting, 145, 163
described, 142
in FCP X versus FCP 7, 146

- listing, 160
- moving, 145
- masks
 - adding, 288–289
 - versus mattes, 288
 - using for color correction, 318–320
- master files, exporting, 323–324
- match frame, explained, 193, 210
- matching audio transition, applying, 217–218
- media. *See also* importing media; proxy media
 - archiving, 56–58
 - copying, 67–68
 - defined, 40
 - file size, 45
 - management tips, 42
 - multiformat, 52
 - naming, 66
 - optimizing, 75
 - organizing, 43–44, 66
 - storing, 41, 44, 71
- media folders, naming, 68–71. *See also* folders; Project folders; Projects folder
- memory cards
 - archiving, 70
 - copying, 70–71
 - displaying contents of, 67
 - importing files from, 79
- merging Events, 45–46
- metadata, managing, 113–115
- mixing, overview, 204–206, 209
- monitors
 - calibrating, 27
 - using two, 26–27
- mono clip, appearance of, 190
- Motion 5
 - adjusting effects in, 275–276
 - adjusting generators in, 275–276
 - adjusting titles in, 275–276
- Move controls, displaying, 268
- movies
 - exporting QuickTime, 331
 - sizing still images for, 256
- Music Browser, using, 89–90, 194–195
- Music Role, applying, 164
- music videos, creating, 194

N

- network speed, requirement, 6
- networks, using, 6
- noises, removing with keyframes, 208

O

- Opacity setting, using, 263
- Option key. *See* keyboard shortcuts
- Out point. *See* End (Out) of clips
- output process, 322
- overwrite edit, performing, 128–129, 139

P

- panning audio, 197–198, 206
- Paste and Copy options, 146–147
- Photos Browser, using, 89–90
- pixel aspect ratios, 295
- pixels versus DPI (dots per inch), 93
- Placeholder utility clip, using, 272–274
- placeholders
 - inserting, 164
 - using with gaps, 155–156
- playback preferences, 121–122
- playhead
 - jumping to End of clip, 139
 - jumping to markers, 163
 - jumping to Start of clip, 139
 - locking in place, 140
 - position, 139
 - preventing from moving, 128
 - previewing around, 38
 - versus skimmer, 166
- Position tool, using, 153, 163
- Precision Editor
 - displaying and hiding, 183
 - jumping to frames, 172
 - keyboard shortcuts, 175
 - moving to edit points in, 173
 - opening, 222, 228
 - using, 170–174
- Preferences window, opening, 64, 140, 228
- progressive versus interlaced, 51
- Project database, 48
- Project folders, creating, 64. *See also* folders; Projects folder; media folders
- Project Library, 23–24
 - contents of, 49
 - keyboard shortcut, 49
 - showing and hiding, 38
 - toggling between Timeline, 64
- Project Properties, opening, 228
- Projects
 - accessing, 41
 - archiving, 13, 56–58
 - consolidating, 57–58

- copying, 54
- creating, 30–31, 38, 49–52, 64, 96, 139
- duplicates, 53–54
- finding items in, 160
- fitting into Timeline, 38, 163
- hiding, 55, 59
- linking to Events, 31, 50
- making changes to, 275
- moving, 54–55, 64
- naming, 31
- organizing with folders, 54–55
- rendering, 228
- revealing in folders, 55
- sharing, 13, 55–56
- storing, 17, 24, 44
- tracking, 41
- trashing, 59
- Projects folder. *See also* folders; media folders
 - contents of, 17, 25
 - managing, 18
- proxy media, accessing and creating, 75–76. *See also* media

Q

- QuickTime movies, exporting, 331
- quitting Final Cut Pro X, 38

R

- radio script, creating, 32–33
- RAID, using, 6–7, 68
- Range tool, using, 127, 164
- ranges, selecting, 140, 142–143, 153, 183
- ratings, using, 103–106, 108, 111
- Rejected clips and ratings, managing, 104, 116
- render files, deleting, 46
- rendering, 121
 - defined, 215
 - options, 216
 - Projects, 228
 - selections, 228, 268
 - Timeline, 268
 - tip, 216
- replace edit, performing, 130–132
- Reset button, using, 109
- Retime Editor, toggling display of, 301
- retiming
 - basics, 292
 - hold frames, 292–295
 - interlacing, 294–295
 - pixel aspect ratios, 295
 - speed changes, 296–298

- retiming (*continued*)
 - speed effects, 300
 - speed ramps, 299
 - speeds, 292
 - variable speed changes, 298–299
 - video quality settings, 297
 - RGB Parade, using, 310
 - ripple, defined, 166
 - ripple trim, performing, 171–172
 - Roles. *See also* keywords
 - applying, 164
 - applying and changing, 157–158
 - creating custom, 158
 - deleting, 158–159
 - exporting, 324–329
 - features of, 156
 - modifying, 158–159
 - using, 157, 159, 161–162
 - roll, defined, 166
 - roll edit, performing, 173
 - roll trim, performing, 175–176
 - Rolling Shutter, 259–260
 - round-tripping, getting to work, 18
- S**
- saving changes, 32, 38
 - searches
 - clearing, 109
 - text versus keywords, 112
 - Select tool, using, 153, 163
 - Selection tool, selecting, 140
 - selections
 - making, 142
 - rendering, 228, 268
 - selects sequence, building, 150
 - sequences, number per Project, 31
 - Shapes utility clip, using, 272, 274
 - Share menu, options on, 329–331.
 - See also* exporting
 - sharing, 13, 55–56
 - defined, 322
 - monitoring, 331
 - Shift key. *See* keyboard shortcuts
 - shortcuts. *See* keyboard shortcuts
 - skimmer
 - described, 19
 - impact on edits, 128
 - pitch-shifted audio, 20
 - versus playhead, 166
 - toggling on/off, 22, 38, 116, 139
 - using with clips, 101
 - skin tones, color values for, 312
 - slide, defined, 166
 - slide edit, performing, 177–178
 - slip, defined, 166
 - slip edit, performing, 177
 - slo-mo effect, adding, 299
 - Smart Collections, using, 109–112, 116. *See also* keywords
 - snapping, toggling on/off, 139
 - soloing clips, 210
 - sonic field, defined, 190
 - sound bites, editing, 34–35
 - source media, using, 67, 69
 - split edits, using, 178–180
 - Start (In) of clips, 34, 105
 - deleting, 96
 - jumping playhead to, 96
 - setting, 96, 123, 139
 - trimming to skimmer, 183
 - stereo, explained, 190
 - still images, using, 93–95, 181–182, 256
 - storage, considering, 2–5
 - stories, overview, 10–11
 - storylines
 - applying append edits to, 125
 - applying insert edits to, 127
 - applying overwrite edits to, 129
 - benefits, 135
 - breaking apart, 140
 - types of, 118
 - surround mixes
 - creating, 31, 209
 - mixing audio to, 52
 - Switch, function of, 23
- T**
- tape-based camera, importing media
 - from, 85–86. *See also* cameras
 - tapeless media, 68
 - text
 - adding, 12
 - adding to titles, 238
 - finding and replacing, 236–237
 - font settings, 233–234
 - manipulating, 232–233
 - styles, 234
 - themes, creating, 270
 - thumbnails
 - controlling contents of, 23
 - displaying for clips, 103
 - timecode
 - breaks, 86
 - calculation of values, 156
 - changing, 50
 - displaying in Dashboard, 22
 - explained, 22
 - overview, 102–103
 - preferences, 102
 - setting starting, 31
 - using to move clips, 156
 - utility clip, 272, 274
 - Timeline. *See also* Magnetic Timeline
 - audio animation, 268
 - controls, 23
 - creating Compound Clips in, 148–149
 - described, 19
 - elements, 49
 - finding keywords in, 109
 - fitting projects into, 38
 - keyboard shortcut, 49
 - modifying keyframes in, 207–208
 - moving vertically in, 36
 - navigating, 119
 - opening Find window in, 164
 - organizing with Roles, 161–162
 - rendering, 268
 - scaling, 23
 - selecting everything in, 320
 - setting keyframes in, 207–208
 - toggling between Project Library, 64
 - video animation, 268
 - zooming into and out of, 163
 - Timeline History, navigating, 151–152, 163
 - Timeline Index, 23–24. *See also* Finder
 - displaying, 116, 160
 - features of, 159
 - keyboard shortcut, 49, 109
 - toggling display of, 64, 164
 - using to find items, 160, 162
 - Title Role, applying, 164
 - Title safe, displaying, 235–236
 - titles
 - adding corner locator to, 238
 - adding lower-third name to, 238–239
 - adding text to, 238
 - adjusting in Motion 5, 275–276
 - animating, 232
 - Assembler, 232
 - editing, 230
 - font settings, 233–234
 - length of display, 231
 - number available, 232
 - Push In, 237
 - selecting, 232
 - Titles Browser, using, 230–231
 - To-Dos
 - converting markers to, 145
 - described, 142
 - listing, 160
 - using, 144–145
 - Tool palette, options in, 153–154

- toolbar, described, 19
- tools, switching, 153
- trackless editor, explained, 118, 156–157
- transcoding files, 3, 75–76
- Transform controls, displaying, 268
- Transform effects, 243–247
- Transition Browser, 224–228
- Transition Inspector, 223–224
- Transitions
 - adding, 11–12, 36
 - adding keyframes to, 227
 - adding multiple, 217
 - animating, 226–227
 - applying default, 38
 - applying match audio, 217–218
 - audio-only, 219–221
 - background tasks, 214–217
 - changing duration of, 218
 - connected storylines, 220
 - converting frames to seconds, 214
 - creation of, 225
 - cuts, 166, 212
 - detaching clips, 222
 - dissolves, 166, 212
 - duplicating, 223
 - expanding audio from video, 218
 - fade handles, 220
 - fading to black, 218
 - handles, 212–213
 - lack of out of sync indicator, 222
 - multi-image, 227–228
 - overview, 212
 - Precision Editor, 222
 - Project Properties, 215–217
 - rendering, 214–217
 - setting preferences, 213–214
 - trimming clips under, 222–223
 - video, 217–218
 - video-only, 218–219
 - wipes, 166, 212
- Trash
 - moving Events to, 46–47
 - moving items into, 64
- trashing projects, 59
- Trim controls, displaying, 268
- Trim effect, using, 251–253
- Trim tool
 - roll trim, 175–176
 - selecting, 163, 183
 - slide edit, 177–178
 - slip edit, 177
 - using, 153
- trimming. *See also* cuts
 - beginning of clips, 174
 - clips under transitions, 222–223

- colors of clip edges, 171
- connected clips, 180
- connected storylines, 181
- dragging, 175
- and editing, 175
- endings of clips, 174
- error, 170
- handles, 168
- keyboard shortcuts, 178
- Precision Editor, 170–174
- purpose of, 167–168
- to range selection, 183
- ripple trim, 171–172
- roll edit, 173
- scene and problem, 169–170
- setting edit points, 172
- setting preferences, 168
- split edits, 178–180
- stills, 181–182
- stories, 11
- techniques, 174–175
- terminology, 166
- transitions, 166
- two-up display, 168, 172
- two-up display, switching to, 168

U

- Undo feature, using, 46–47
- Utilities folder, opening, 38

V

- Vectorscope
 - toggling display of, 320
 - using, 309–310
- video
 - detaching audio from, 228
 - handles, 212–213
 - importing, 77
 - playing full-screen, 20
 - separating audio from, 189
 - video and audio clips, syncing, 96
 - video animation, displaying in Timeline, 268
 - video clips, collapsing and expanding, 210. *See also* generators
 - video editing
 - enabling, 139
 - requirements, 2
 - video formats, 3
 - video properties, customizing, 50–51
 - video quality settings, 297
 - Video Role, applying, 164
 - video scopes, 307–310
 - video skimming, toggling on/off, 210

- video transitions, applying, 217–218, 228
- video-only transition, applying, 218–219
- videotape, using date display with, 99
- Viewer
 - Background Tasks window, 22
 - Dashboard, 22
 - described, 19
 - displaying full-screen, 36, 38
 - displaying on two monitors, 27
 - Effects Browsers, 23
 - Event Browser, 21
 - Event Library, 21
 - features, 20–25
 - Fit button, 20
 - full-screen images, 21
 - Inspector, 23
 - moving between frames, 23
 - playback buttons, 20–21
 - Project Library, 23–24
 - Project Timeline, 23
 - Scale pop-up menu, 20
 - scaling images, 20
 - Switch, 23
 - Timeline controls, 23
 - Timeline Index, 23–24
 - toggling loop playback, 20
 - toolbar, 23
 - zooming images, 20
 - zooming in/out of, 268
- voice-overs, recording, 201–202
- volume, adjusting with menu, 206. *See also* audio

W

- Waveform monitor, using, 308, 320
- waveforms, viewing, 178–179, 187, 205. *See also* audio
- white levels, managing, 312
- wipes, defined, 166, 212

X

- XML files
 - exporting, 99, 329
 - importing, 95, 99

Y

- YouTube example, 330–331

Z

- Zoom tool, using, 153, 164
- zooming, 38, 268