



Apple Pro Training Series

# Final Cut Pro X 10.1

Professional Post-Production

Brendan Boykin

Lesson and media files available for download



Certification exam preparation for:  
Apple Certified Professional – Final Cut Pro X

Apple Pro Training Series

# Final Cut Pro X 10.1

Brendan Boykin



Apple Pro Training Series: Final Cut Pro X 10.1  
Brendan Boykin  
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# Contents At a Glance

<b>Lesson 1</b>	Getting Started . . . . .	1
<b>Lesson 2</b>	Importing Media . . . . .	13
<b>Lesson 3</b>	Organizing Clips. . . . .	45
<b>Lesson 4</b>	Making the First Edit. . . . .	105
<b>Lesson 5</b>	Revising the Edit. . . . .	211
<b>Lesson 6</b>	Enhancing the Edit. . . . .	271
<b>Lesson 7</b>	Finishing the Edit. . . . .	333
<b>Lesson 8</b>	Sharing a Project. . . . .	389
<b>Lesson 9</b>	Managing Libraries . . . . .	409
<b>Lesson 10</b>	Advancing Your Workflow. . . . .	429
<b>Appendix A</b>	Keyboard Shortcuts . . . . .	465
<b>Appendix B</b>	Editing Native Formats . . . . .	477
	Glossary . . . . .	481
	Index . . . . .	483

# Table of Contents

<b>Lesson 1</b>	<b>Getting Started</b> . . . . .	<b>1</b>
	Learned from a Legacy . . . . .	2
	Upgrading Existing Events and Projects . . . . .	3
Reference 1.1	Using This Book . . . . .	4
Exercise 1.1.1	Downloading the Source Media Files . . . . .	5
Exercise 1.1.2	Preparing the Source Media Files . . . . .	5
Reference 1.2	Introducing the Job and the Workflow . . . . .	9
	Lesson Review . . . . .	11
<b>Lesson 2</b>	<b>Importing Media</b> . . . . .	<b>13</b>
Reference 2.1	Understanding Clips, Events, and Libraries . . . . .	14
Exercise 2.1.1	Creating a Library . . . . .	16
Exercise 2.1.2	Preparing to Import Camera Source Files . . . . .	18
Reference 2.2	Using the Media Import Window . . . . .	19
Exercise 2.2.1	Creating a Camera Archive . . . . .	22
Reference 2.3	Importing Source Media from a Camera . . . . .	24
Exercise 2.3.1	Navigating Within a Filmstrip Preview . . . . .	26
Exercise 2.3.2	Importing Clips from a Camera Card . . . . .	28
Reference 2.4	Choosing Media Import Options . . . . .	31
Exercise 2.4.1	Applying Media Import Options . . . . .	34
Reference 2.5	Import Files from a Volume . . . . .	36
Exercise 2.5.1	Importing Existing Files from a Volume . . . . .	38
Exercise 2.5.2	Dragging from the Finder or Other Apps . . . . .	40
	Lesson Review . . . . .	42

<b>Lesson 3</b>	<b>Organizing Clips</b> . . . . .	<b>45</b>
Reference 3.1	Introducing the Libraries, Browser, and Viewer Panes . . . . .	46
Reference 3.2	Using Keywords. . . . .	48
Exercise 3.2.1	Keywording a Clip . . . . .	50
Exercise 3.2.2	Keywording a Range. . . . .	61
Exercise 3.2.3	Adding Notes to a Clip. . . . .	65
Reference 3.3	Assigning Ratings . . . . .	69
Exercise 3.3.1	Applying Ratings. . . . .	70
Exercise 3.3.2	Customizing a Favorite. . . . .	80
Reference 3.4	Search, Sort, and Filter . . . . .	81
Exercise 3.4.1	Filtering an Event . . . . .	86
Exercise 3.4.2	Working with Smart Collections . . . . .	91
Exercise 3.4.3	Detecting People and Shot Composition. . . . .	93
Reference 3.5	Roles . . . . .	96
Exercise 3.5.1	Assigning Roles . . . . .	97
	Lesson Review . . . . .	103
<b>Lesson 4</b>	<b>Making the First Edit</b> . . . . .	<b>105</b>
Reference 4.1	Understanding a Project . . . . .	106
Exercise 4.1.1	Creating a Project . . . . .	106
Reference 4.2	Defining the Primary Storyline. . . . .	109
Exercise 4.2.1	Appending the Primary Storyline. . . . .	111
Exercise 4.2.2	Rearranging Clips in the Primary Storyline . . . . .	119
Reference 4.3	Modifying Clips in the Primary Storyline. . . . .	121
Exercise 4.3.1	Performing Insert Edits . . . . .	122
Exercise 4.3.2	Rippling the Primary Storyline. . . . .	126
Reference 4.4	Timing the Primary Storyline. . . . .	131
Exercise 4.4.1	Inserting a Gap Clip . . . . .	133
Exercise 4.4.2	Blading and Deleting . . . . .	136
Exercise 4.4.3	Joining a Through Edit. . . . .	139
Exercise 4.4.4	Refining Some Sound Bite Edits. . . . .	140
Reference 4.5	Editing Above the Primary Storyline. . . . .	143
Exercise 4.5.1	Adding and Trimming Connected B-roll . . . . .	144
Exercise 4.5.2	Understanding Connected Clip Sync and Trimming Behaviors. . . . .	152
Reference 4.6	Creating a Connected Storyline . . . . .	156
Exercise 4.6.1	Converting Connected Clips into a Connected Storyline . . .	157
Exercise 4.6.2	Appending Clips to a New Connected Storyline. . . . .	161

Reference 4.7	Editing Below the Primary Storyline . . . . .	179
Exercise 4.7.1	Connecting a Music Clip . . . . .	180
Reference 4.8	Finessing the Rough Cut . . . . .	181
Exercise 4.8.1	Adjusting the Edits . . . . .	183
Exercise 4.8.2	Adjusting Clip Volume Levels . . . . .	187
Exercise 4.8.3	Connecting Two Additional B-Roll Clips . . . . .	189
Exercise 4.8.4	Refining Edits Using Cross Dissolves and Fade Handles . . . . .	192
Reference 4.9	Sharing Your Progress . . . . .	197
Exercise 4.9.1	Sharing an iOS-Compatible File . . . . .	198
	Lesson Review . . . . .	206
<b>Lesson 5</b>	<b>Revising the Edit . . . . .</b>	<b>211</b>
Reference 5.1	Versioning a Project . . . . .	212
Exercise 5.1.1	Snapshotting a Project . . . . .	213
Reference 5.2	Lifting from a Storyline . . . . .	216
Exercise 5.2.1	Lifting Clips Out of a Storyline . . . . .	217
Reference 5.3	Replacing a Clip . . . . .	217
Exercise 5.3.1	Replacing the Primary Storyline . . . . .	219
Exercise 5.3.2	Creating Time at 0:00 . . . . .	221
Reference 5.4	Working with Markers . . . . .	228
Exercise 5.4.1	Creating Markers . . . . .	230
Reference 5.5	Using the Position Tool . . . . .	235
Exercise 5.5.1	Realigning Sound Bites and B-roll to Music . . . . .	235
Reference 5.6	Working with Auditions . . . . .	243
Exercise 5.6.1	Repositioning Storylines and Deleting Within . . . . .	244
Exercise 5.6.2	Importing the Aerials . . . . .	246
Exercise 5.6.3	Working with an Audition Clip . . . . .	247
Reference 5.7	Trimming the Tops and Tails . . . . .	251
Exercise 5.7.1	Trimming the Aerials . . . . .	253
	Lesson Review . . . . .	267
<b>Lesson 6</b>	<b>Enhancing the Edit . . . . .</b>	<b>271</b>
Reference 6.1	Retiming Clips . . . . .	272
Exercise 6.1.1	Setting a Constant Speed Change . . . . .	273
Exercise 6.1.2	Editing with Blade Speed . . . . .	278
Reference 6.2	Working with Video Effects . . . . .	285
Exercise 6.2.1	Experimenting with Video Effects . . . . .	287
Exercise 6.2.2	Creating a Depth of Field Effect . . . . .	293

Reference 6.3	Working with Video Transitions . . . . .	300
Exercise 6.3.1	Experimenting with Transitions . . . . .	300
Reference 6.4	Compositing Using Spatial Parameters . . . . .	312
Exercise 6.4.1	Creating a Two-Up Split Screen . . . . .	314
Exercise 6.4.2	Exploring the Video Animation Editor . . . . .	321
Reference 6.5	Compounding Clips . . . . .	325
Exercise 6.5.1	Collapsing a Composite into a Compound. . . . .	326
	Lesson Review . . . . .	328
<b>Lesson 7</b>	<b>Finishing the Edit . . . . .</b>	<b>333</b>
Reference 7.1	Using Titles . . . . .	334
Exercise 7.1.1	Adding and Modifying a Lower Third . . . . .	335
Reference 7.2	Working with Audio . . . . .	342
Exercise 7.2.1	Adding Sound to a Clip . . . . .	343
Exercise 7.2.2	Adjusting Volume Levels over Time . . . . .	358
Reference 7.3	Understanding Audio Enhancements . . . . .	372
Reference 7.4	Correcting the Image . . . . .	373
Exercise 7.4.1	Neutralizing a Clip . . . . .	374
Exercise 7.4.2	Matching Color . . . . .	384
	Lesson Review . . . . .	386
<b>Lesson 8</b>	<b>Sharing a Project . . . . .</b>	<b>389</b>
Reference 8.1	Creating a Viewable File . . . . .	390
Exercise 8.1.1	Sharing to an Online Host . . . . .	391
Exercise 8.1.2	Sharing to a Bundle . . . . .	397
Exercise 8.1.3	Sharing a Master File . . . . .	399
Reference 8.2	Creating an Exchangeable File . . . . .	404
Reference 8.3	Utilizing Compressor . . . . .	404
	Lesson Review . . . . .	407
<b>Lesson 9</b>	<b>Managing Libraries . . . . .</b>	<b>409</b>
Reference 9.1	Storing the Imported Media . . . . .	410
Exercise 9.1.1	Importing as "Leave Files in Place". . . . .	412
Exercise 9.1.2	Importing as Managed Clips . . . . .	415
Exercise 9.1.3	Moving and Copying Clips Within a Library . . . . .	419
Exercise 9.1.4	Making a Library Portable . . . . .	421
	Lesson Review . . . . .	426

<b>Lesson 10</b>	<b>Advancing Your Workflow</b> . . . . .	429
Sub-workflow 10.1	Using Manual Settings for a New Project. . . . .	430
Sub-workflow 10.2	Synchronizing Dual System Recordings. . . . .	435
Sub-workflow 10.3	Using Chroma Key. . . . .	439
Sub-workflow 10.4	Working with Multicam . . . . .	449
	Lesson Review . . . . .	464
<b>Appendix A</b>	<b>Keyboard Shortcuts</b> . . . . .	465
	Assigning Keyboard Shortcuts. . . . .	466
	Reviewing the Default Command Set. . . . .	468
<b>Appendix B</b>	<b>Editing Native Formats</b>	
	Native Video Formats . . . . .	478
	Native Still-Image Formats . . . . .	478
	Native Audio Formats . . . . .	479
	Glossary. . . . .	481
	Index . . . . .	483

*See last page of this eBook for instructions on downloading your lesson files.*

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## Lesson 4

# Making the First Edit

After importing and organizing, the story elements sit as clips in the library, ready for editing. The editing phase of the post-production workflow involves crafting a story from the library clips into a project or timeline.

The first edit, or *rough cut*, of a project involves some or most of the major tasks from the remainder of the post-workflow. An edit of the project is created; it's trimmed down for timing, pacing, and conciseness; additional elements such as music may be added; and then the project is shared out of Final Cut Pro for client or producer approval.

You are ready to embark on the post-workflow with the Lifted project. In this lesson, you will assemble the interview sound bites and the helicopter B-roll to form the story. You'll trim the edits to remove any extraneous content, and then add a music clip. Lastly, you will export this first edit of the project as a file that is playable on a Mac, PC, smartphone, or tablet.

### GOALS

- ▶ Create a project
- ▶ Add and rearrange clips within a primary storyline
- ▶ Ripple and Roll trim clips
- ▶ Blade, replace with gap, ripple delete, and join through edit
- ▶ Perform connect edits
- ▶ Create and edit in a connected storyline
- ▶ Adjust audio levels
- ▶ Share the project to a media file

## Reference 4.1

### Understanding a Project

The editing phase occurs in a *project*—a timeline-based container of sequentially arranged clips that tell a story. Projects are simple or complex timelines depending on the technical depth of the story.



Finished project for Lesson 4

Projects are stored within individual events in a library: the super-container of your Final Cut Pro editing project that makes loading/unloading and transporting all your clips, events, and projects for a show, client, or movie much more convenient.

Events may contain as many projects as you need. For example, a news editor may need three projects for the VO (voiceover), the package, and the teaser. A documentary editor could easily use 10 to 30 projects when breaking down an edit by segment, creating a variety of video news releases, posting online teasers, and developing various versions of the documentary based on running time and/or content.

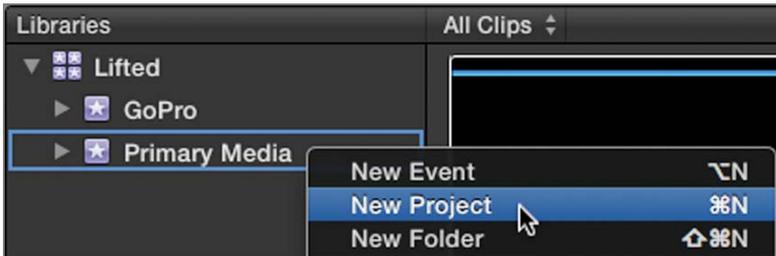
You already have the Lifted library with two events of clips. Let's edit.

### Exercise 4.1.1

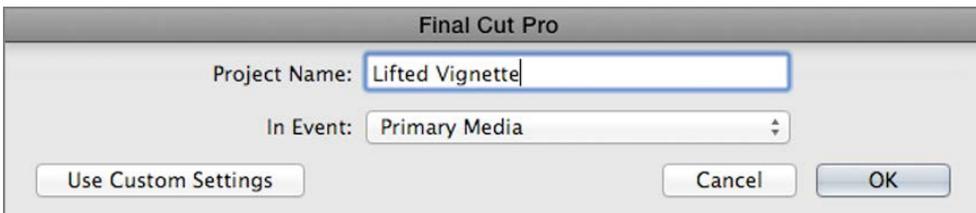
#### Creating a Project

To start the first edit, you must create the project. A couple of clicks and you've got yourself a starting project.

- 1 In the Lifted library, Control-click the Primary Media event, and from the shortcut menu, choose New Project.



The Project Properties dialog opens to the default automatic settings.



**NOTE** ▶ If your dialog opens to the custom settings, click the Use Automatic Settings button.

- 2 For the Project Name, enter *Lifted Vignette*.
- 3 Click the In Event pop-up menu.

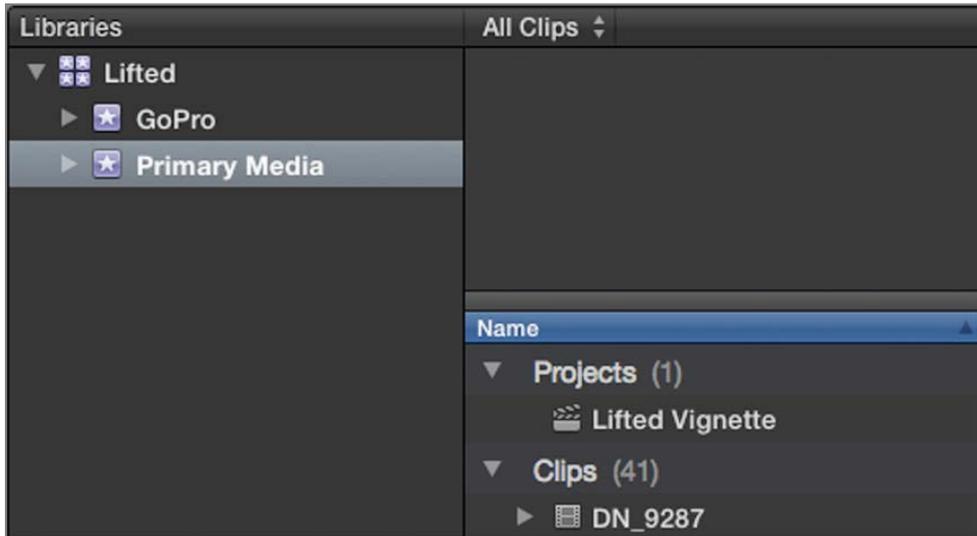


In Event specifies the event in which to save the project you are creating. The pop-up menu displays the events available in the open libraries.

- 4 Ensure that the In Event pop-up menu is set to Primary Media, and click OK.

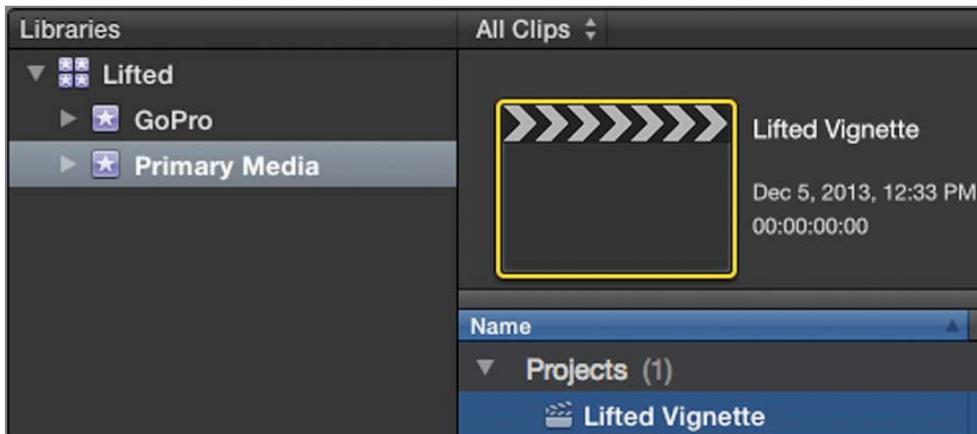
The project is created and saved in the Primary Media event.

- 5 If necessary, in the Lifted library, select the Primary Media event.

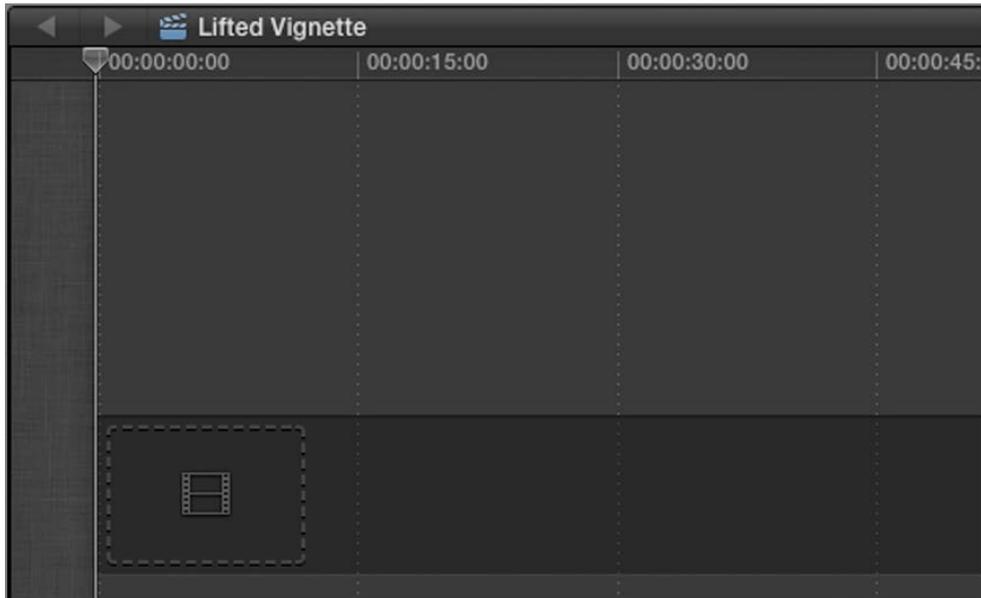


The project appears at the top of the Browser.

- 6 Double-click the project to open it in the Timeline.



The project displayed in the Browser



The project open in the Timeline

**NOTE** ▶ See Lesson 10 for more information about the automatic vs. manual project settings.

## Reference 4.2

### Defining the Primary Storyline

Every project in Final Cut Pro is based around the primary storyline, identified by the dark stripe across the Timeline. The primary storyline contains the clips that drive your project. For a documentary, a combination of sound bites and a narrator's VO could constitute the primary storyline. For a project that starts with a montage, you could consider placing the music intro in the storyline followed by the on-camera host. The primary storyline is flexible content-wise.

By default, clips in the primary storyline interact with each other and incoming clips. This interaction is similar to that of two magnets: attraction or repulsion.

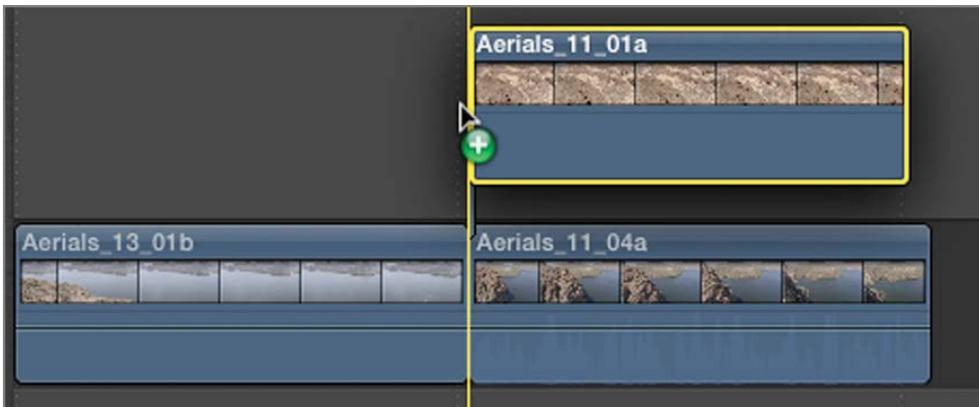


Dragging a clip to the end of a project



The storyline appends the clip to the project

When you drag a new clip from the Browser to the far right of the project, that clip is attracted to the end of the primary storyline, and "magnetically" snaps to the preceding clip.



Dragging a clip to a project for insertion between two storyline clips



Positioning the clip on the storyline clips reveals an insert bar, and a gap for the clip is created.



The clip is wedged between the storyline clips.

Dragging a clip between two existing clips creates a repulsion that pushes the existing clips far enough apart to insert the new clip.

These two behaviors form the basic concepts of the magnetic storyline: As you add clips, shift clips around to change their order, or remove clips, the magnetic storyline keeps the clips snapped together, ensuring that the clips play back-to-back in a continuous stream.

Knowing the basic concepts of a primary storyline as the magnetic backbone of a project, you can start assembling your first edit.

## Exercise 4.2.1 Appending the Primary Storyline

You are ready to edit your first clips into the Lifted Vignette project. Because this project is sound bite–driven, you will edit the sound bites into the primary storyline. Let's first alter the interface so you can see as many clips and notes as possible in the Browser.

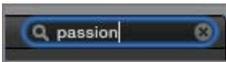
- 1 If necessary, in the Browser, select the list view.
- 2 With the Interview collection selected in the Libraries pane, click the Hide Libraries button.



- 3 Drag the toolbar down to create more vertical room in the Browser.

Expanding each clip listing reveals the favorites you marked previously, along with the notes you applied to each clip. You'll use these to create the rough cut of the sound bites. Remember that "great passion" sound bite that Mitch started with when you were marking favorites? Let's search for it.

- 4 In the Browser search field, type *passion*.



As you begin to type, the Browser updates immediately with the matching results: **MVI\_1042** and **MVI\_1055**.

Name	Notes
▶ MVI_1042	
▶ MVI_1055	really the passion is

- 5 In the Browser select **MVI\_1042**, and skim the clip to review the marked favorite.

Name	Notes
▶ MVI_1042	
▶ MVI_1055	really the passion is

As you skim the clip, notice that its audio is pitch corrected, which allows you to quickly review the clip's contents at variable speeds while maintaining the aural clarity of its contents.

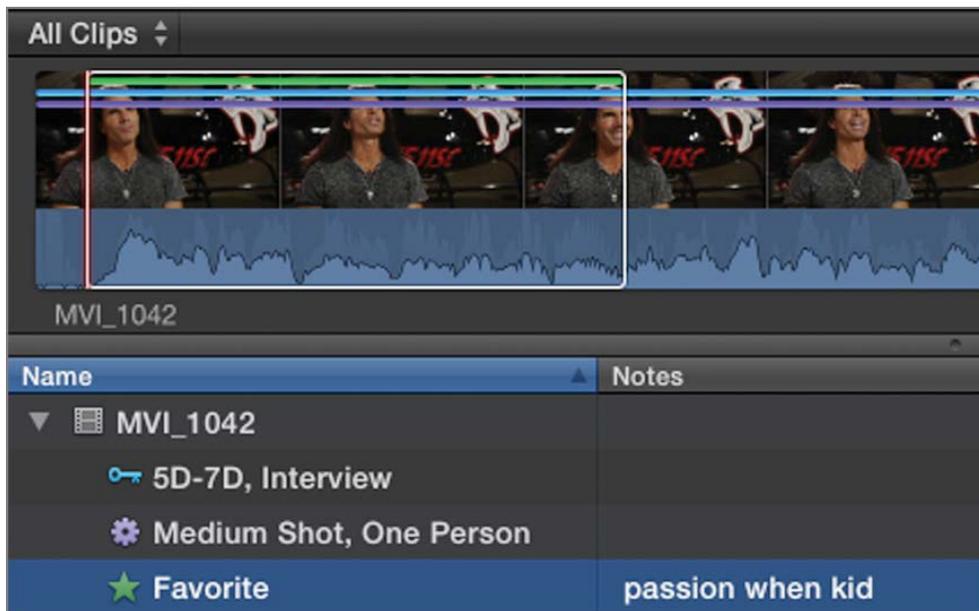
**NOTE** ▶ You may also review the clip by pressing the navigation controls: the Spacebar and the J, K, L keys.

Your search results include a second clip tagged with the word *passion*.

- 6 In the Browser, play **MVI\_1055**, and review its contents.

With a little *trimming* later in the edit, both sound bites could fit back to back into your storyline. Let's edit these into the project as the first two sound bites.

- 7 In the Browser, select the favorite with the "passion when kid" note listed under **MVI\_1042**.



- 8 Click the Append button, or press E, to add this clip selection to the project.



The clip's selection is edited into the primary storyline. The E stands for "End." No matter where the skimmer or playhead is currently located in the project, you can press E to quickly edit the active Browser selection to the end of the storyline.



Currently, the playhead is at the end of **MVI\_1042**. The playhead always jumps to the end of the clip you append edited to the project. This default playhead behavior in Final Cut Pro anticipates your next edit. But what happens if you move the playhead before the next append edit? Let's find out.

- 9 Move the playhead to the left by clicking the empty gray area above **MVI\_1042**.



This cues the playhead over **MVI\_1042**, which you can see in the Viewer. Now you will append edit with the playhead placed in the middle of **MVI\_1042** and observe the results.

**NOTE** ▶ Depending on your display's resolution, your clip may appear short and shoved to the left of the interface. After clicking to move the playhead in the previous step, press Shift-Z to fit the project within the Timeline. Alternatively, you could drag the Zoom slider at right to change the zoom setting.

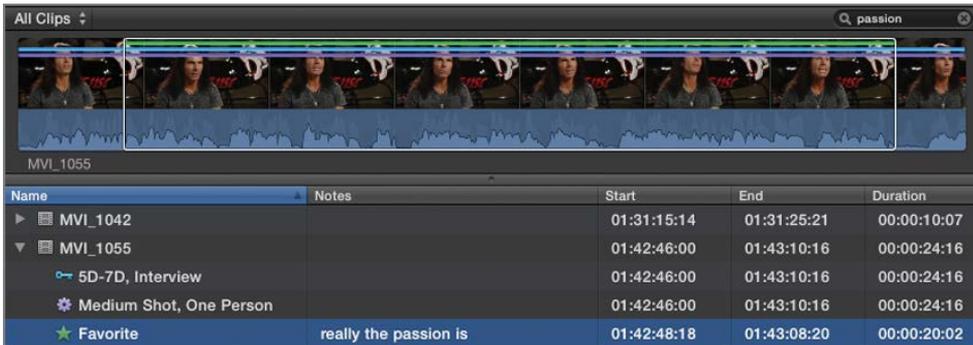


- 10 Returning to the Browser, notice the Used entry under **MVI\_1042**.



The Used listing identifies the clip's selection used in the open project. As that was the only favorite for that clip, you will go to the next clip for the next edit.

- 11 In the Browser, select the "really the passion is" favorite in the **MVI\_1055** clip, and then press E to append this clip to the end of the storyline.



Clip selected in the Browser



Clip append edited into the primary storyline

That was quick. The clip was edited to the end of the storyline immediately following **MVI\_1042**. The playhead's position had no impact on the append edit. You are two sound bites into the edit with several more to go. You could continue with this one-at-a-time approach to editing, but Final Cut Pro offers a slightly faster edit method.

**NOTE** ▶ If the previous edit caused the **MVI\_1042** clip to not be visible in the Timeline, you need to change the zoom setting. Click once in the Timeline, and press Shift-Z or adjust the Zoom control at right.

### Appending a Batch Edit to the Primary Storyline

You can use the append function to edit more than one clip at a time into the primary storyline. As you are building your first edit, you will be looking for your next clip in the Browser. Append allows you to remain in the Browser and storyboard the next few clips with one edit. This batch editing technique is a fast and simple way to edit several clips into your project at once.

- 1 In the Browser, switch to filmstrip view.



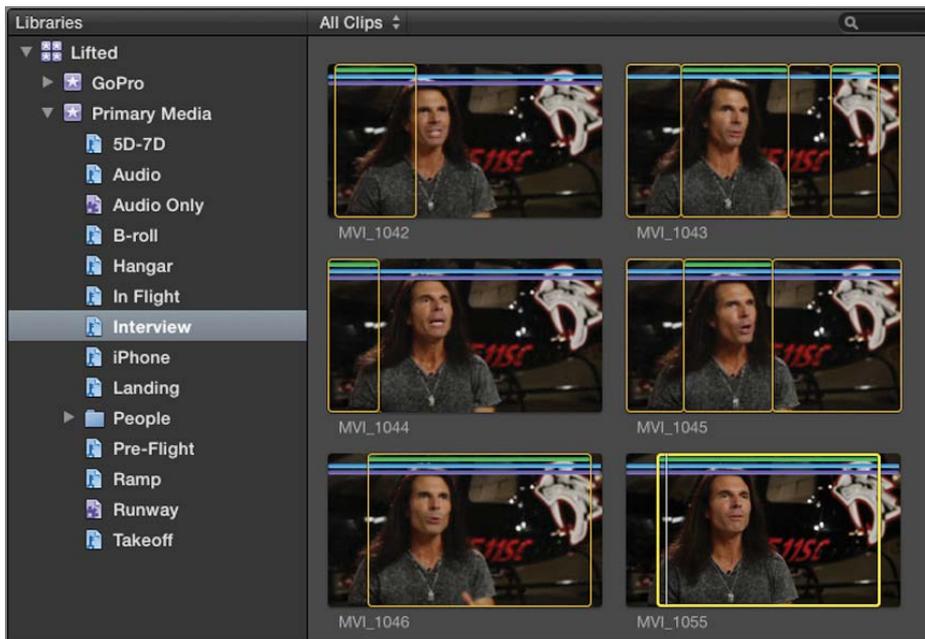
Currently, you are looking at two clips that were identified in your earlier search. You'll need to clear the search field to reveal the rest of the sound bites.



- 2 In the Browser, click the Reset button (X) in the search field to clear the previous search.



The remaining clips in the Interview collection appear. You may select multiple sound bites to append at one time, and the order in which you select the clips is the order they will be edited into the project.



- 3 If desired, you may increase the size of the filmstrips by changing the Clip Appearance's Clip Height slider.

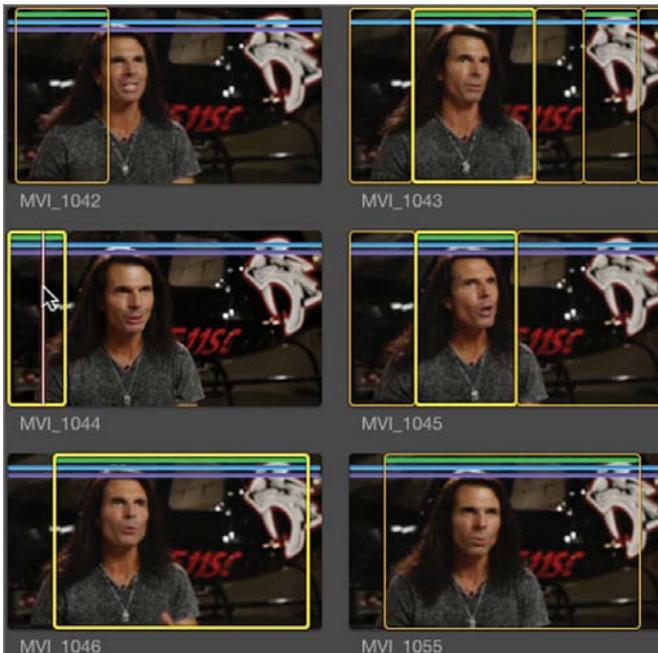


- 4 In the Browser's filmstrip view, click within the first green range in **MVI\_1043**.

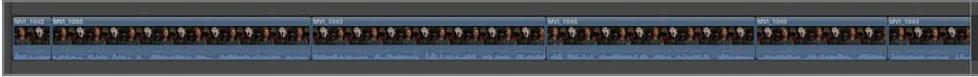


The favorites you marked earlier appear as green stripes that you may use to quickly select the favorited ranges.

- 5 Command-click the following clips in this order to add them to the selection: **MVI\_1046**, **MVI\_1045**, and **MVI\_1044**.



- 6 Press E to perform an append edit.



The clips appear at the end of the project in the same order you selected them in the Browser.

- 7 To see the entire project within the Timeline, click once in the Timeline gray area, and press Shift-Z.

### ▶ How Did Final Cut Pro Know Where to Put the Clips?

If you have prior editing experience, you may have noticed that you didn't need to assign tracks, position the playhead, or set a start point to make this edit. The append edit function efficiently takes legacy overwrite editing to the next level.

### Playing the Project

To play the project, you may press the Home key to cue the playhead to the beginning of the Timeline; but on Apple Wireless Keyboards and laptops, the Home key is not labeled.

- 1 Hold down the fn (function) key at the lower left of keyboard, and then press the Left Arrow key to simulate pressing the Home key on your keyboard.



The playhead is now cued to the beginning of the project.

- 2 Press the Spacebar to start playback.

Playback will stop when the playhead reaches the end of the project.

**NOTE** ► When loop playback is enabled (by choosing View > Playback > Loop Playback), your project will not stop automatically but will repeat over and over until you manually stop playback.

## Exercise 4.2.2

### Rearranging Clips in the Primary Storyline

The sound bites don't quite flow yet. It's time to rearrange them into an order that more fully supports your storyline. Working in a storyline makes such changes incredibly easy. Just drag a clip to a new location in the Timeline, wait for the interface to preview the results, and then release the mouse button.

- 1 In the project, select the fourth clip, **MVI\_1046**.



The playhead must be located over this clip to preview it. Your playhead is currently located at the end of the project. You do not need to move the playhead because the skimmer relocates the playhead if the skimmer is visible when you start playback.

- 2 Move the mouse pointer slightly to verify that the skimmer is active.

The skimmer extends vertically up to the timestrip across the Timeline pane, the same as the playhead; however, the skimmer does not have an arrowhead on top as does the playhead.



Skimmer (left) compared to playhead (right)

- 3 Press the Spacebar to play the clip.

The playhead relocates to the skimmer's position and the clip plays. **MVI\_1046** starts with Mitch saying, "At the end of the day." It sounds as if that phrase should be placed nearer the end of the storyline.

- 4 Drag **MVI\_1046** toward the end of the storyline, but don't release the mouse button just yet.
- 5 Position the clip so that a blue clip box appears in the primary storyline after **MVI\_1044**. Release the mouse button.

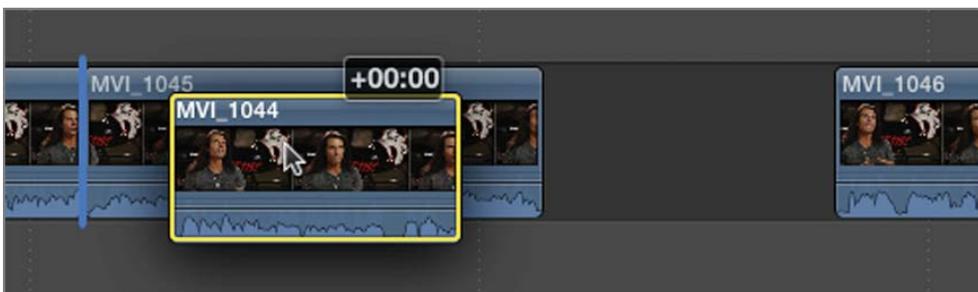


**MVI\_1046** is edited in as the last clip in your storyline.



Some extra words, phrases, and syllables remain in your clips. One clip may cut Mitch off too early. That's OK. We'll trim those troubled frames later in this lesson. For now, let's try moving another clip in the storyline.

- 6 Locate **MVI\_1044**, which is now the second clip from the end of the project. Drag the clip between **MVI\_1043** and **MVI\_1045**.





As you drag **MVI\_1044** between the two clips, an insert bar appears. If you continue to hold the clip in that position, **MVI\_1045** will slide to the right to allow **MVI\_1044** to drop into place. The magnetic storyline enables these quick, reorganizing edits as you explore your story flow.



**NOTE** ► While dragging a clip, the delta, or timing change, of the clip's position within the Timeline appears above the clip.

## Reference 4.3 Modifying Clips in the Primary Storyline

When reviewing the storyline's flow, an additional clip or two may fill in story gaps. The flow may be disrupted by extra words or sounds at the start or end of a sound bite. Thanks to the magnetic properties of the storyline, the solutions to these problems are painless.

The append edit added the selected clip or clips to the end of the storyline. Sometimes a clip needs to be placed between those appended storyline clips; an insert edit will wedge a browser clip between two storyline clips.



The trimming tools allows you to remove, or add, an extra breath, sound, word, or movement from or to a clip. Final Cut Pro includes several trimming tools. The basic trim tool you'll learn in this lesson is called ripple trim.



The ripple trim allows you to remove media from a project clip, frame by frame if desired. The ripple trim also allows you to insert media to a project clip.

Whether you're performing an insert edit or a ripple trim in the storyline, the adjoining clips in the storyline stick together. Remove a clip and the subsequent clips move forward and hook up to the previous clip. Insert a clip between others and the subsequent clips move right to make room.

### Exercise 4.3.1 Performing Insert Edits

When you dragged **MVI\_1044** to its new location, you performed an insert edit. Clips to the right of the new clip slid right to make room, while clips to the left retained their positions. Previously, you marked another sound bite as a select that needs to be added to the project. In this exercise, you will insert this clip into the project, but without dragging it.

- 1 In the Browser, switch to thumbnail view, then perform a search for *awe*.



The search identifies one clip, **MVI\_1043**. The filmstrip displays two favorite ranges within the clip.

- 2 In the Browser, skim the second favorite of **MVI\_1043**.



Depending on your display's resolution, you may have difficulty skimming the clip at a speed that makes the audio intelligible. Expanding the filmstrip by zooming in will help you skim the clip.

- 3 Drag the Zoom slider to right until the zoom scale reads 5s.



- 4 Skim the second favorite in **MVI\_1043** again.



At this scale setting, each thumbnail in the filmstrip represents five seconds of source media. This time you can identify the sound bites by listening to the pitch-corrected audio. Notice the torn edge on the left end of the row. That indicates the clip continues from the previous line of thumbnails. The start and end of the clip are represented by a solid edge as shown on the right side of the filmstrip.

- 5 In the clip's filmstrip, ensure that the second favorite range is selected.

Next, you need to choose where this clip belongs in the storyline by cueing the playhead to the desired location.

- 6 In the Timeline, skim between **MVI\_1043** and **MVI\_1044**.



**MVI\_1043** must be edited between those two clips with frame accuracy. To help you precisely place the playhead on the edit point between the two clips, you can turn on snapping.

At the upper-right of the Timeline locate the Skimming, Audio Skimming, Audio Soloing, and Snapping buttons.



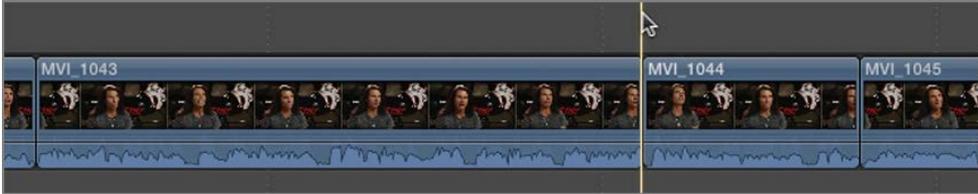
- 7 If necessary, click the Snapping button to turn on snapping, or press N.



- 8 Skim over several clips and edit points within the project.

Notice that the skimmer jumps to the edit points. To prepare for the insert edit, you need to cue the playhead to the desired edit point.

- 9 Snap the skimmer to the edit point between **MVI\_1043** and **MVI\_1044**, then click here to cue the playhead.



**NOTE** ▶ The edit point between is the start frame of the right clip (the starting clip), and not the end frame of the left clip (the ending clip). A "start bracket" is overlaid on the clip to visually identify that the playhead is on the start frame.



The "L" bracket indicates this frame is the start point.

- 10 In the Browser, verify that the clip's second range is still selected.

- 11 In the toolbar, click the Insert edit button, or press W.



The second select of **MVI\_1043** is placed into the project between the two storyline clips, and a missing sound bite becomes part of the storyline.



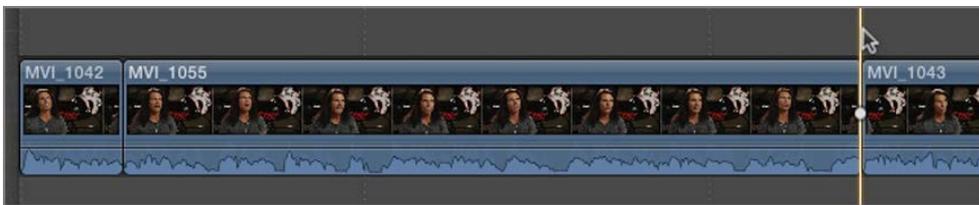
## Exercise 4.3.2

### Rippling the Primary Storyline

When you pulled your select sound bites in Lesson 3, you included some extraneous material. (The reason you left some extra material in your favorites will become apparent during this exercise.) However, everyday editing is all about trimming down to create a more concise story, or padding the story to extend its length. You will now learn how to use ripple trimming to remove that extra content, and also how to reinsert content when you trim off too much.

**NOTE** ▶ Because Final Cut Pro is context sensitive, you may not have to activate the Trim tool. The Select tool automatically switches to the Trim tool's ripple function when necessary.

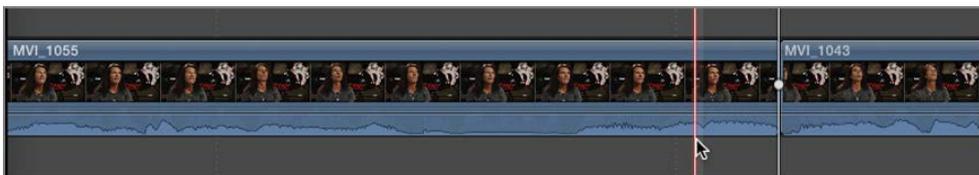
- 1 Locate the playhead at the end point of **MVI\_1055**, the second clip in the project.



Some extra content, where Mitch says, "Uh, so," needs to be trimmed, leaving a new end point after Mitch says, "Whole new look."

Before you perform this bit of clip trimming, zoom in on the edit so that you may operate the tools with greater precision.

- 2 With your skimmer or playhead cued around the end of **MVI\_1055**, press Command-= (equals sign) to zoom into the Timeline.



As you zoom, the thumbnails and waveforms expand to reveal where the trim should occur. The "uhh, so" phrase is displayed as the peaks of waveforms at the end of the

clip. Those need to be removed. You can approach this edit in several ways. In this exercise, you will use the ripple trim function without getting the Trim tool.

- 3 Identify the new end point by cueing the playhead before Mitch says, "uhh, so" at the end of **MVI\_1055**.



Locating the playhead at the desired trim point allows you to use snapping to make an exact trim with the default Select tool. This tool automatically changes function based on its location in the Timeline.

- 4 In the Tools pop-up menu in the toolbar, verify that the Select tool is chosen, or press A.



- 5 In the Timeline, place the mouse pointer over the end point of the clip.



- 6 Without clicking, slowly move the mouse pointer back and forth across the edit point between the two clips' edit points.



Notice how the pointer icon changes as the mouse pointer moves from one side of the edit to the other. The changing icon indicates that the Select tool automatically becomes the ripple trim tool.

The ripple trim icon has a small filmstrip that always points toward the clip you will trim. Because you want to change the end point of **MVI\_1055**, the filmstrip must point left toward the clip.

- 7 With the ripple trim's filmstrip pointing toward the left, drag the end of the clip until it snaps to the playhead.



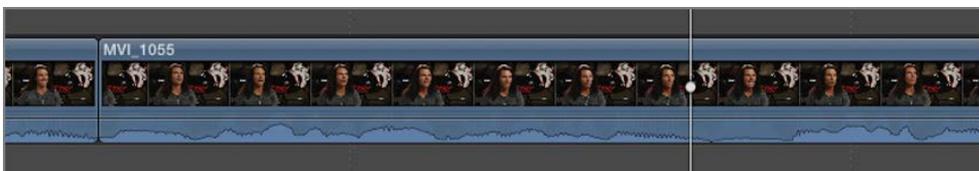
- 8 Review the edit you completed by playing this portion of the Timeline.

You easily changed the end point of the clip, thereby removing the extraneous content. The ripple trim also moved all the following clips earlier in the Timeline to fill in for the removed content. Now you'll trim off the start of the same clip.

- 9 Scroll left in the project and adjust the zoom level of the Timeline to see the start point of **MVI\_1055**.



- 10 Play the start of the clip to identify the new start point before Mitch says, "And really the passion."



You will cue the playhead here between Mitch saying, "of film" and "And really." Ideally, you will find a frame for an edit that has the interview subject appearing with eyes open and mouth closed. In this clip, you'll find such a frame just as Mitch finishes the word "film."

- 11 With the playhead parked at the new start point's location, place the Select tool over the current start point of the clip.



This time, the filmstrip of the ripple trim pointer will point to the right toward **MVI\_1055**.

- 12 Drag the start point of **MVI\_1055** and snap it to the playhead.



When ripple trimming a start point, you may notice that the clip to the left appears to move. However, the clip did not move because it still starts at 0:00. As you trimmed content from the beginning of **MVI\_1055**, the clip's duration shortened, the following clips rippled left in time, and the Timeline timecode shifted accordingly.

### Using the Keyboard to Ripple Trim an End Point

Sometimes the mouse or trackpad does not offer sufficiently fine control to perform a trim without setting an extreme view or altering your System Preferences. Fortunately, you can use keyboard shortcuts for greater precision.

- 1 Locate the end point of the second, shorter **MVI\_1043**; and cue the playhead before Mitch utters an extraneous "so." Ordinarily, you might press Command-= (equals sign) a few times to zoom your view into the edit.



Because you have heard this interview already, you know that Mitch runs words and sentences together, thereby making this edit more difficult. Let's turn to keyboard shortcuts to help trim this clip.

- 2 Select the end point of the second **MVI\_1043**.



With the end point selected, you can use keyboard shortcuts to trim the clip one frame at a time.

- 3 Press the , (comma) key multiple times to ripple trim, removing content frame by frame.
- 4 If necessary, press the . (period) key multiple times to insert content frame by frame.
- 5 Skim to just before the edit point, and then play back the project to check your results.  
This trim edit will take a few tries to perfect, but let's leave it for now and move on.
- 6 Proceed through the project removing extraneous clip content. When you're finished, the project should resemble the following table:

### Lifted Vignette Edit in Progress

Clip	Start dialogue	End dialogue
<b>MVI_1042</b>	Flying is	a little kid
<b>MVI_1055</b>	And really the	whole new look
<b>MVI_1043</b>	One thing that	what we're shooting
<b>MVI_1043</b>	As I'm technically	what we're experiencing

### Lifted Vignette Edit in Progress

Clip	Start dialogue	End dialogue
MVI_1044	You know it's	opener for me
MVI_1045	Every time we may be	see or capture
MVI_1046	At the end of the day	adventure I went on

**NOTE** ▶ You may hear a slight click or pop on some of your edits. You'll learn to resolve those errors later in this lesson.



Lifted Vignette in progress

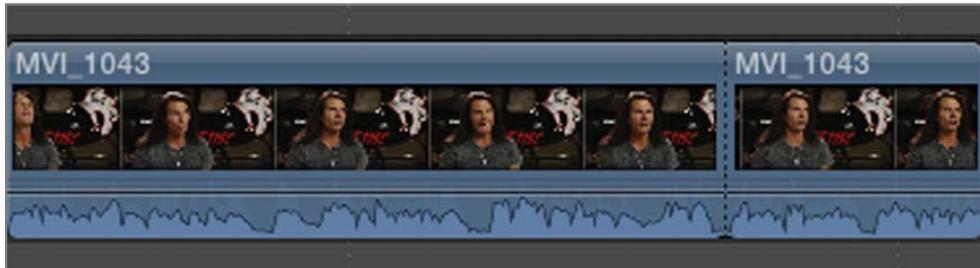
## Reference 4.4 Timing the Primary Storyline

Every edit in a project is based upon the primary storyline. Up to this point, the concern has been to place the select sound bites into the project and organize them to reflect the story structure. Now that the structure has been established, the task switches to adjusting the timing and pacing. The sound bites should not be a hailstorm of thoughts spewed at the viewer, but should flow like everyday conversation.

The first technique to pacing the sound bites involves a gap clip, which is an empty clip container in the Timeline. Gap clips may be applied as placeholders until additional material arrives, such as more B-roll content, clips from a hard-to-schedule interview, or a late shipment of second unit content. Gap clips are also used as the spaces, pauses, and breaths that enhance your story flow.



The second technique to pacing the sound bites involves removing segments of a clip or entire clips. The Blade tool segments a clip to remove one or more clip ranges from the project. Each time you blade a clip, you create a *through edit*.



A through edit marks the clip into segments without breaking the clip into two physical clips. If you blade that clip a second time, you mark it into three segments with two through edits. You can rejoin these segments if you inadvertently blade the wrong frame. The repair is called a *join through edit*.

When you are ready to delete a segment, you can do so in one of two ways. Simply pressing the Delete key performs a ripple delete. The selected clip segment is removed, and the subsequent clips slide left to occupy the Timeline position of the deleted segment.



Blade to segment unwanted content



Select segment for removal



Press Delete to ripple delete.

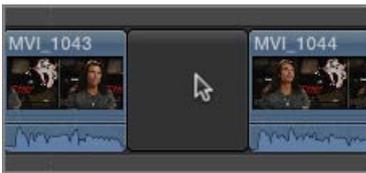
The second delete method is a replace with gap. This deletion, performed by pressing Shift-Delete, removes the selected segment and leaves a gap that occupies its former position in the Timeline. As a result, the following clips do not ripple, but remain in place.



Blade to segment unwanted content.



Select segment for removal.



Press Shift-Delete to replace segment with a gap clip.

## Exercise 4.4.1 Inserting a Gap Clip

Currently, your project sound bites are sequenced very tightly. This breathless stream of consciousness does not lend itself to clear storytelling. Let's separate some of these clips so the storytelling relaxes a bit.

- 1 Park the playhead between **MVI\_1042** and **MVI\_1055**.



Placing a gap clip here allows Mitch to take a breath. Don't worry about the visual break. The B-roll clips you will add later can fill in those pauses.

- 2 To insert a gap clip, choose Edit > Insert Generator > Gap, or press Option-W.



A three-second clip is inserted between the two clips at the playhead location. Those three seconds may be a little too long for this edit. As with any other clip, you may ripple trim a gap clip to adjust its duration.

- 3 Place the mouse pointer over the end point of the gap clip. Ensure that the ripple trim's filmstrip is pointing left, and then drag the end point to the left.



As you drag, the clip's new duration and the delta (the amount you have changed the clip's duration while dragging) appears above the edit.

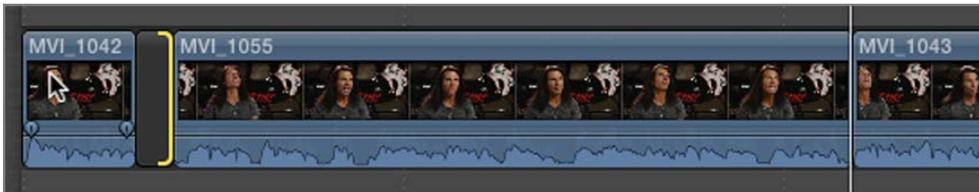
- 4 Trim the gap clip to a new duration of one second, thereby removing two seconds from its length.



- 5 Skim to just before the gap clip, and play back to review the edit.

That's not bad. It allows just a moment for your audience to understand the who, what, and where of Mitch's comments. Let's repeat that for the next edit.

- 6 Advance the playhead to the next edit by pressing the Down Arrow key.



The playhead jumps to the edit between **MVI\_1055** and **MVI\_1043**.

Mitch is offering more details in **MVI\_1043**, so placing a longer gap before this clip may help transition the audience into this sound bite.

- 7 With the playhead cued, press Option-W to insert a three-second gap clip.



- 8 Review the edit.

Now that you have silence between the two sound bites, you may discover the "breath" at the end of **MVI\_1055**. As you proceed with your edit, you will probably notice more of these fine details.

- 9 If necessary, adjust the end or start points surrounding the gap clips to tidy up the trimmed clips.

You are listening for extra syllables or breaths to remove. For example, you would trim the end point of **MVI\_1055** to the left a few frames to remove the breath.

These gap clips won't necessarily remain at the durations you just set. They may flex as you continue to build the story...or tear out parts of it.

## Exercise 4.4.2

### Blading and Deleting

The Blade tool allows you to quickly break a clip into smaller sections to be moved elsewhere or completely removed from your story. In the first instance of **MVI\_1043**, some pauses in Mitch's interview can be removed to tighten the edit.

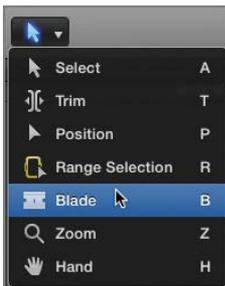
- 1 Play the project, and locate the point at which Mitch says, "And film at the same time, (breath) uhhm," in the first **MVI\_1043**. This occurs about four seconds into the clip.



- 2 Cue the playhead after the breath and before the "uhhm."

You will blade the clip here to divide it into two segments. You will then blade the clip again after the "uhhm" to separate this sound from the good content that occurs before and after it.

- 3 From the Tools pop-up menu, choose the Blade tool, or press B.



- 4 With snapping turned on, move the Blade tool over the **MVI\_1043** clip and toward the playhead until it snaps to the playhead.



- 5 With the Blade tool snapped to the playhead, click to segment the clip at this edit point.



You can choose the Blade tool while still using the Select tool. Let's switch to the Select tool to blade on the other side of the "uhhm."

- 6 Press A to choose the Select tool.

Remember, A stands for arrow. Because the Select tool is already located next to the edit you just made, the ripple trim icon may appear.



- 7 Press the Right Arrow key—and the Left Arrow key, if necessary—to advance the playhead to after the "uhhm" and just as Mitch is starting the word "you're." Instead of choosing the Blade tool, let's use its keyboard shortcut.



- 8 Without moving the mouse, press Command-B to blade the clip at the playhead.



The single clip is now three segments. You need to remove the middle segment. Remember, there are two types of clip deletion. Let's use both to see the difference between them.

- 9 Select the middle clip segment, and press Shift-Delete.



The clip segment is replaced with a gap clip. Called a "replace with gap" edit, this edit type is also known as a lift.

- 10 Press Command-Z to undo the previous edit.



- 11 Reselect the "uhhm" clip segment, if necessary, and press Delete.



The segment is removed, and the following clips slide to the left to replace it.

- 12 Play the edit and listen to the results.

The current second clip might sound like the first word is cut off a bit, what is commonly referred to as an *upcut*. In addition to that concern, does the breath at the end of the first clip distract and call attention to the edit? Or, does the breath naturally flow into the next clip?

- 13** Using the ripple trim techniques you've learned, clean up the edit to smooth the audio transitions between these two new neighbors.

You may first want to remove the breath at the end of the first, or ending clip. You may also need to insert or remove frames to the start point of the second clip, the starting clip. Refer to Using the Keyboard to Ripple Trim an End Point in this lesson to review ripple trimming.

Visually, this edit is a *jump cut*. A jump cut occurs when similar but nonsynchronized content appears to jump in space and time at an edit point. The B-roll you will add in the next section will hide this error.

### Exercise 4.4.3 Joining a Through Edit

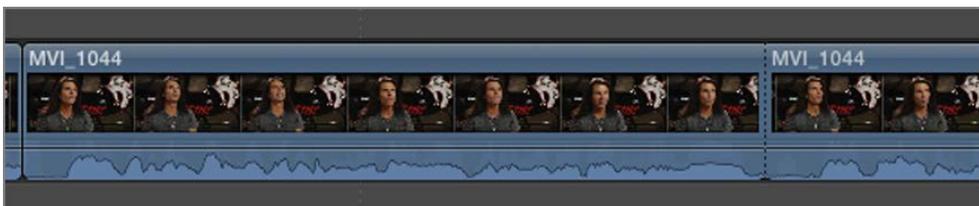
In the previous exercise, you used the Blade tool to divide a clip into segments. The resulting through edits may be easily repaired if you made them in error or change your mind about splitting up a clip.

- 1** In your project, locate **MVI\_1044**.
- 2** In the Tools pop-up menu, choose the Blade tool, or press B.
- 3** Skim toward the end of the clip just after Mitch says, "New," and then pauses.



The audio waveform displays a definite pause, represented as a "valley" in the waveform.

- 4** Click in this waveform valley to blade the clip and create a through edit.



- 5 The through edit point appears as a dashed line. Because we really did not want to split this clip, you are going to rejoin the through edit.
- 6 Press A to choose the Select tool.
- 7 With the Select tool, click the through edit point (dashed line) to select it.



Only one side of the through edit will be selected with the Select tool active. That's OK.

- 8 Press Delete.



The through edit point is removed and the two segments are rejoined into one clip.

### Exercise 4.4.4

## Refining Some Sound Bite Edits

Before progressing to the next layers of B-roll and music, let's polish the "technically flying in awe" section of the project by adjusting the sound bites' contents and pacing.

Currently, the second instance of **MVI\_1043** ends with the word "shooting," which does not flow smoothly into the next clip. This occurs at roughly the 40-second mark in the Timeline.



Earlier, you trimmed off Mitch saying, "so." You could use that here to blend into the next sound bite.

- 1 Place the skimmer so that the ripple trim appears with the filmstrip pointing left at the end of the second instance of **MVI\_1043**.



- 2 Ripple trim the end point of the second instance of **MVI\_1043** to the right to insert roughly 11 frames of content.



- 3 Review the edit.

That created a nice story flow.

The end of the third instance of **MVI\_1043** will be a little tougher to get a "clean" ending; that is, a natural-sounding ending when you are actually cutting the sound bite off mid-sentence. The clip's current end point is at "experiencing," which doesn't sound right. Let's trim that end point to a little earlier in the sentence.

- 4 Ripple trim the end point to the left roughly one second.

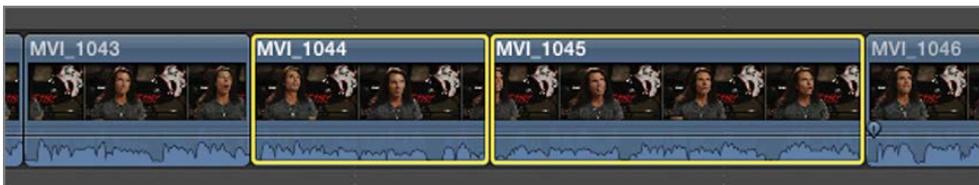


The clip should now end after Mitch says, "filming," and most likely has an extra syllable or two that need to be removed.

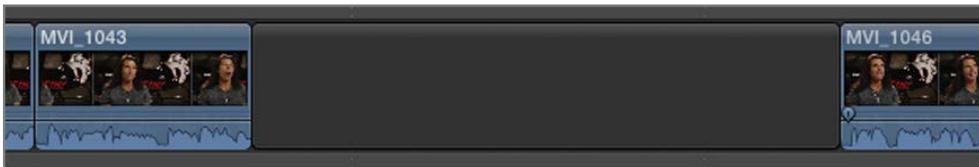
- 5 With the end point still selected, press the comma (,) and period (.) keys to nudge trim frame by frame, refining the edit point.

This trim edit may take a few moments to get the right frame for the end point. That frame is going to be right on the "g" of "filming."

As for **MVI\_1044** and **MVI\_1045**, these two get the axe. For timing purposes, let's leave these out of the story for now.



- 6 Select both clips, and press Shift-Delete to replace both clips with a gap clip.



- 7 Trim the gap clip to a duration of three seconds.



Trimming creates room for a natural sound break and music swell before Mitch segues into the next sound bite.

With these edits in place, you have built the sound bite foundation for your project. Take a moment to review your story.



Lifted Vignette's sound bite-driven primary storyline

## Reference 4.5

### Editing Above the Primary Storyline

The primary storyline has established the content foundation, timing, and pacing for the project. It's time to see what those sound bites are discussing. At this stage, you'll edit B-roll clips into the project by placing them above the primary storyline, and connected to it.



With these B-roll edits, your editing approach changes to a "lane" above the primary storyline. Clips in a lane outside the primary storyline are vertically connected back to the primary storyline, thereby establishing a synchronized relationship in this project between the sound bite and the B-roll. When Mitch says "helicopter," your audience sees a helicopter.

These connections keep clips synchronized even when a ripple edit occurs in the primary storyline. An upstream ripple that shifts a sound bite's timing in the project will also shift the B-roll clips connected to that sound bite. The connection ensures that the sync is maintained by shifting the connected clips the same amount. You first establish the connection and then Final Cut Pro maintains it so your focus may be on the rest of the story edit.



In the following exercises, you will connect B-roll clips to the sound bite-driven primary storyline you've already edited. Then, you will trim these connected clips and observe their unique trimming behaviors.

## Exercise 4.5.1

### Adding and Trimming Connected B-roll

B-roll is the editor's friend. Sometimes referred to as *cutaways*, B-roll clips allow you to smooth discontinuity in your primary storyline, and in this project they will help you hide the jump cuts and soften the audio edits made to the sound bites. Furthermore, good B-roll content may also include great natural sound audio, or *nats*. An editor can use the nats to cover a tight audio edit, such as the one you now have with the word "filming."

Let's start by resetting the interface and searching those keywords you applied earlier to quickly locate B-roll of a hangar door opening.

**NOTE ►** For the purpose of training, we'll start at the beginning of the project and continue forward by adding B-roll content. However, an actual workflow could begin by adding B-roll anywhere within your project.

- 1 In the Browser, click the Show Libraries button.



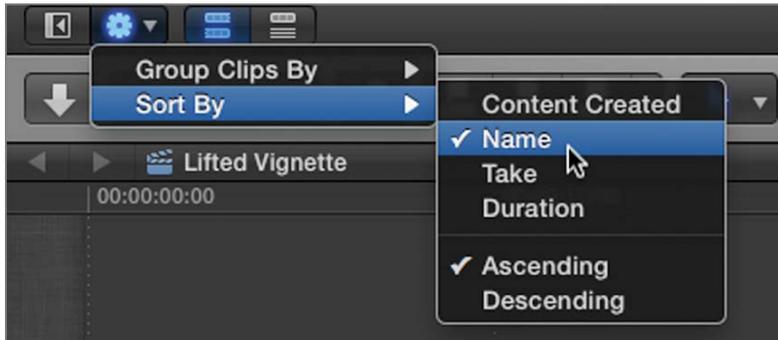
- 2 In the Lifted library, select the Hangar Keyword Collection.

To ensure that you are seeing all the hangar clips, double-check the Browser's sorting and filtering options.

- 3 In the Browser, from the pop-up menu, choose Hide Rejected; and then ensure that the search field is clear of any criteria.



- 4 From the Action pop-up menu in the Browser, set Group Clips By to None and Sort By to Name.

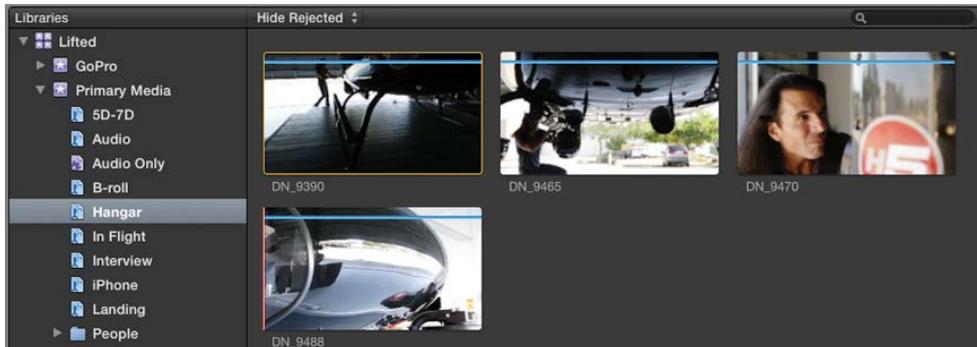


- 5 If necessary, drag the toolbar up to open more vertical room in the Timeline.
- 6 In the Browser, adjust the Zoom control to All.



With the environment properly set up, you will search for the first clip of the hangar door opening.

- 7 In the Lifted library, verify that the Hangar Keyword Collection is selected.



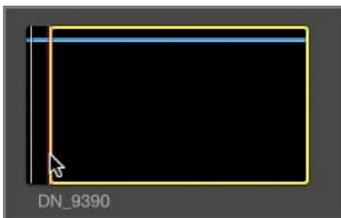
The Browser displays the clips you previously tagged with the Hangar keyword. The first clip you want is **DN\_9390**.

- 8 Skim the clip to refamiliarize yourself with its contents.

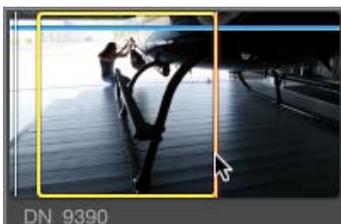


This clip starts in the dark before the hangar door opens. Mitch walks in from the left, crossing to center to preflight the helicopter. The clip is currently 13 seconds long. Let's trim the clip down before connecting it to the primary storyline.

- 9 In **DN\_9390**, mark a start point when you first hear the hangar door motor.



- 10 Mark an end point when Mitch drops down to inspect the camera.



The clip is ready to edit into the project.

- 11 In the Lifted Vignette project, cue the playhead to the beginning of the Timeline.



Cueing the playhead tells Final Cut Pro where the hangar clip belongs time-wise in the Timeline. In this case, locating that point is easy because it will be the first shot in the project.

You will edit this clip into the project so that we hear Mitch speaking while watching the hangar clip. You can do this by connecting the video clip in a higher lane.

- 12** In the toolbar, click the Connect button, or press Q.



The hangar clip is stacked into a lane above the first sound bite. Let's review the edit to see the results.



- 13** Cue the playhead to the beginning of the project, and play the Timeline.

You see the hangar and hear the hangar motor while also hearing Mitch's sound bite. The video hierarchy rule makes the video in a higher lane visible, while mixing and playing all the audio content in the clips.

### Connecting the Second B-roll Clip

As you can see, the **DN\_9390** clip extends over the second sound bite. That's OK for now, so let's look at the next B-roll clip to add to the project.

- 1 In the Browser, skim **DN\_9465**.



In this clip, Mitch enters the hangar from the right side, approaches the helicopter, and then kneels to inspect the camera. Although Mitch enters from the opposite side of the hangar, you can set a start point as he's kneeling to inspect the camera. With finessing, this clip can be made to match the previous shot of Mitch approaching the helicopter.

- 2 In the Browser, mark a start point when Mitch has already started to kneel to inspect the camera.



Now you need to locate the Timeline point at which this clip can be matched to the previous edit.

- 3 Cue the project playhead over **DN\_9390** where Mitch has started to kneel at the helicopter's camera.



- 4 Click the Connect button, or press Q, to make a connect edit.



The second B-roll clip stacks into a higher lane above the previous edit. When two connected clips will impact one another, Final Cut Pro automatically avoids a "clip collision" by moving one of the clips to a different lane. The edit still cuts to the second B-roll clip at the connection point.

- 5 Review the edit to see the results.

Does the action of Mitch kneeling flow from one clip to the other? If not, this situation is easily corrected.

- 6 Place the mouse pointer over the center of the **DN\_9465** clip and drag it to the left or right until the action of Mitch kneeling appears to be one smooth movement.



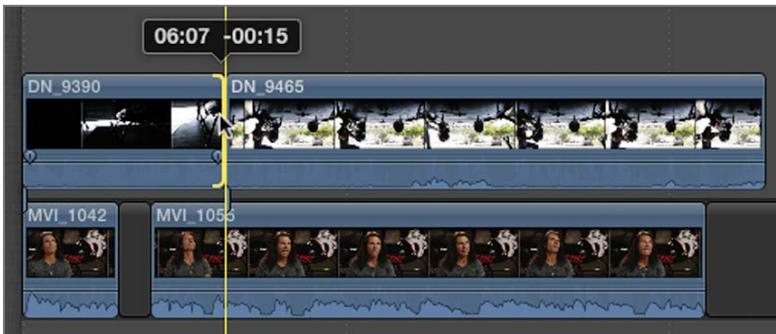
Once **DN\_9465** is in place, you can ripple trim the end of **DN\_9390** to lower **DN\_9465** into the same lane.

- 7 Ensure that snapping is turned on (the Snapping button in the Timeline is blue).



**NOTE** ▶ Press N to turn snapping on and off.

- 8 Drag the end point of **DN\_9390** to the left until **DN\_9465** drops into the same lane.



With snapping turned on, the end point of **DN\_9390** will snap to the start point of **DN\_9465**.

Notice that **DN\_9465** extends down the Timeline. We'll trim that clip after connecting a third B-roll clip.

### Connecting the Third B-roll Clip

Let's connect one more B-roll clip before analyzing what you've created.

- 1 In the project, cue the playhead over clip **MVI\_1055** when Mitch says "nobody."



You're telling Final Cut Pro to make a precise start edit based upon the contents of the primary storyline. Now let's find a clip for that edit.

- 2 In the Browser, locate clip **DN\_9470**, a close-up of Mitch inspecting the camera.
- 3 Mark a start point about halfway through the clip as Mitch turns the camera counter-clockwise.



- 4 Set an end point as Mitch's face moves halfway behind the camera.



- 5 Press Q to connect this clip to the primary storyline at the playhead.



Although the edit cuts nicely to the close-up, in your Timeline, **DN\_9465** resumes playing after the close-up ends.

- 6 Trim the end point of **DN\_9465** to the start of **DN\_9470** so that the two B-roll clips are sequential.



Now **DN\_9465** doesn't give an encore performance.

## Exercise 4.5.2

### Understanding Connected Clip Sync and Trimming Behaviors

Each of the three B-roll clips has a vertical connection point that synchronizes it to the primary storyline. These vertical relationships remain intact even when you alter the primary storyline. Let's see how this works.

In the project, notice the vertical spikes that extend from the B-roll clips to the sound bites in the primary storyline. Those are the connections you established by making a connect edit.



If a sound bite moves within the Timeline, that movement will also be applied to any connected clips.



- 1 Drag the middle of **MVI\_1042** to the right until the clip is located after **MVI\_1055**.



Notice that **DN\_9390** was relocated with the sound bite, and the other two B-roll clips also slid to the left to remain synchronized with their connected sound bite.

- 2 Press Command-Z to undo the previous edit.

Connected clips are still independent clips that can be moved away from their synchronized, primary storyline clip.

- 3 Drag the middle of **DN\_9465** to the right until it connects after **DN\_9470**.



**DN\_9465** establishes a new connection with the primary storyline.

**NOTE** ▶ Every clip outside the primary storyline must connect to the primary storyline.

- 4 Press Command-Z to undo the edit.

Final Cut Pro will maintain the synchronization of connected clips until you change the connection point or tell Final Cut Pro to ignore the connection.

### Overriding the Connection

After connecting your B-roll clips, you may realize that you need to move a sound bite elsewhere in the primary storyline, but also need to leave the connected B-roll clips in place. The B-roll story you've created works great, but you've discovered your project is running too long. Or, you may want to experiment with a different arrangement of the sound bites without disturbing the B-roll order. You can temporarily suspend a connected clip's sync point while adjusting the primary storyline clip.

- 1 In the project, position the mouse pointer over **MVI\_1042**.



- 2 Hold down the ` (grave accent) key, and drag **MVI\_1042** after **MVI\_1055**.



When you press the grave key, the pointer becomes a crossed-out connection symbol. Dragging a clip while holding down the grave key tells Final Cut Pro to ignore any connected clips during that edit.

The **DN\_9390** B-roll clip remains in place while the sound bite is moved later in the primary storyline. When the move is completed, the **MVI\_1055** sound bite slides to the left along with its two connected B-roll clips. Final Cut Pro automatically bumps **DN\_9390** to a higher lane to avoid a collision with the two oncoming B-roll clips. Rather than canceling the edit due to a potential clip collision, Final Cut Pro maintains sync and shifts the clips vertically out of the way of one another.

- 3 Press Command-Z to undo the edit.

Connected clips help your editing by maintaining the sync between clips you established when initially making the edit. Final Cut Pro lets you change your mind while maintaining that sync, or will sync to a different clip if you desire.

### Trimming Connected Clips

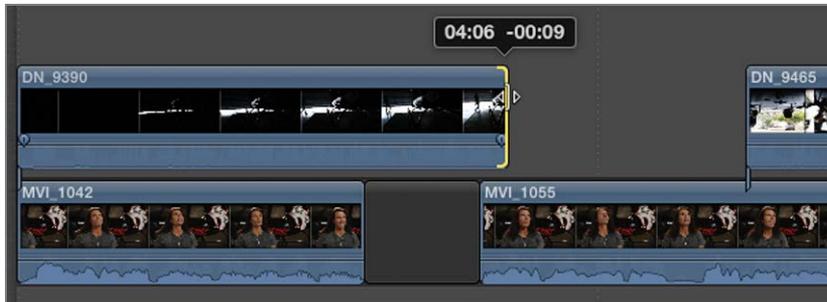
Unlike the sound bites in the primary storyline, connected clips are independent of other connected clips and do not have a horizontal relationship with them. As a result, performing a trim edit on a connected clip produces results different from applying a trim edit to a clip in the primary storyline.

- 1 Place the Select tool over the end point of **DN\_9390**.



Notice that a filmstrip does not appear on the trim icon as it would when trimming a clip in the primary storyline. You cannot ripple trim connected clips because no horizontal relationship exists between them.

- 2 Drag the end point to the left to trim the clip.



Only **DN\_9390** was affected by this trim edit.

- 3 Press Command-Z to undo the edit.

This default behavior of Final Cut Pro is not necessarily a bad thing because you may want connected clips to remain independent of other connected clips. However, when it is desirable, you can establish a horizontal relationship between connected clips.

## Reference 4.6 Creating a Connected Storyline

When B-roll clips are connected to the primary storyline, the B-roll takes over the video storytelling of the project. When reviewing the project, you may want to shift the B-roll timing to better align the visuals with the audio-driven storyline. Because each connected clip is independent, trimming one B-roll clip does not ripple trim to affect the others. The vertical relationships of each connected clip isolates it from adjacent clips.

However, an editor may establish horizontal relationships between connected clips by placing them within a *connected storyline*. Doing so creates a horizontal relationship between the grouped connected clips, reducing their individual vertical relationships to a single connection between the connected and primary storylines. Furthermore, by creating a connected storyline, you gain access to several trimming options such as ripple trim.



A connected storyline is a container identified by a gray handle across the top of the grouped clips. This handle is the selection point when you want to apply an edit to the connected storyline. To insert edit a clip into a connected storyline, you must select the storyline's handle, and not the clips within the storyline.

Creating a connected storyline is as simple as selecting connected clips and instructing Final Cut Pro to group them as a storyline. However, not all connected clips may be added to a group. Only connected clips that can exist in the same lane without overlapping may be converted into a connected storyline.

### Exercise 4.6.1

## Converting Connected Clips into a Connected Storyline

You can create a connected storyline comprising the first three B-roll clips in two easy steps.

- 1 Select the three connected B-roll clips at the start of the project.



- 2 Control-click any one of the three, and from the shortcut menu, choose Create Storyline, or press Command-G.



Notice the gray bar or handle above the clips that becomes the outline of a container surrounding the clips. Now that the clips are contained in a storyline, you can ripple trim them.



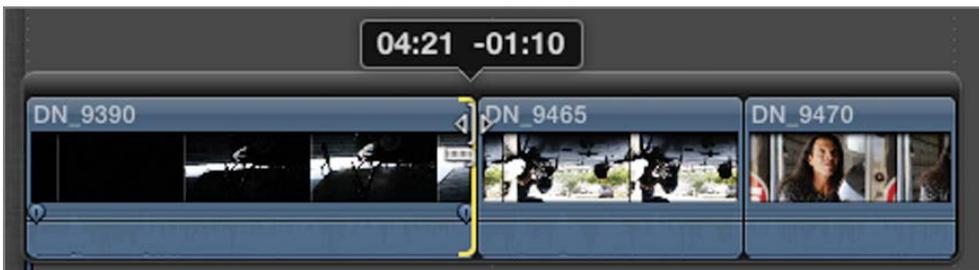
- 3 Place the Select tool over the end point of **DN\_9390**.



The ripple trim icon appears with the filmstrip.

- 4 Drag the end point to the left to shorten the clip, but do not release the mouse button yet.

A few things for you to notice. First, the two following B-roll clips ripple along with the trim. The storyline established a horizontal, magnetic relationship similar to the primary storyline clips.



Second, as you ripple trim the edit point, a *two-up display* appears in the Viewer. The area to the left shows the new end point of the hangar door opening clip while the right shows the existing start point of **DN\_9455** recorded from under the helicopter. The two-up display allows you to see both sides of the edit so you may match the action between the two clips.



- 5 Referencing the two-up display, ripple trim the end point of **DN\_9390** appearing on the left to match the action appearing on the right in the Viewer's two-up display.

Enclosing connected clips in a storyline gives you the advantages of a storyline's magnetic properties when trimming and rearranging the B-roll clips.

Another trim tool similar to ripple trim is roll trim. Whereas ripple trim modifies the duration of one clip (and potentially the project's duration), the roll trim modifies the adjoining points of two clips, not affecting other clips or the total project duration. The roll trim achieves this net-zero duration change by trimming the opposing edit points in opposite directions: inserting frames at one edit point while removing the same number of frames from the adjoining edit point.

In the edit you just completed, the roll trim is handy for fine-tuning the cut's trigger. With the ripple trim, your focus was on continuity of action at the edit. Now that the continuity is in place, you may need to adjust when the cut happens. Should the cut to the shot underneath the helicopter occur as Mitch reaches for the camera, while Mitch is dropping down, or even after Mitch has stopped moving? The roll trim allows you to explore all of those options.

- From the Tools pop-up menu, choose the Trim tool.



The roll trim function requires that the Trim tool be selected when working with storyline clips.

- Place the Trim tool over the edit point between **DN\_9390** and **DN\_9465**.



With the Trim tool on the edit point, the tool becomes the Roll trim with filmstrips pointing at both clips to indicate that the end point of **DN\_9390** and the start of **DN\_9465** are about to be changed.

- Drag to the right until Mitch has squatted down, which you can see in the Viewer two-up.



- Drag back to the left and decide where within the action to cut between the two clips.

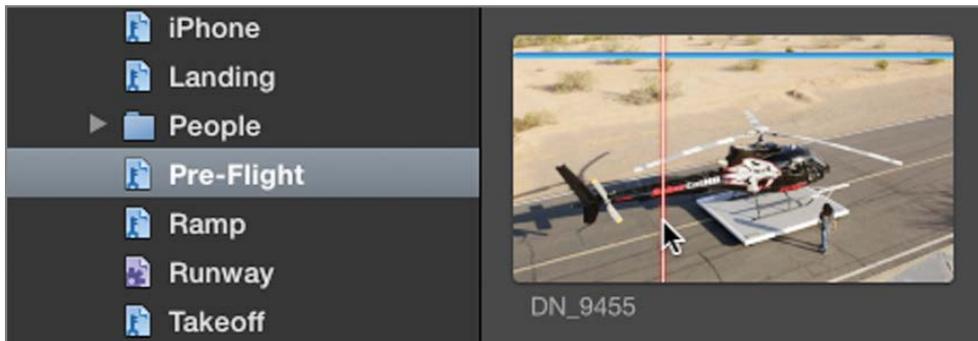
The roll trim allowed you to move the edit to find the best cut point between the two clips. This roll and the earlier ripple trim worked because the clips are enclosed in a storyline. Connected clips do not interact with other connected clips editing-wise. Grouping them together in a connected storyline brings the trimming and magnetic properties of the primary storyline to these clips.

## Exercise 4.6.2

### Appending Clips to a New Connected Storyline

In this exercise, you will create a connected storyline, and append additional B-roll clips to it. This editing method offers the speed and convenience of the batch and ripple trim techniques that you previously performed on the primary storyline.

- 1 In the Libraries pane, select the Pre-Flight Keyword Collection.
- 2 In the Pre-Flight collection, find **DN\_9455**.



This clip shows Mitch getting into his helicopter, and is the first of a series of clips depicting the preflight and startup.

- 3 In **DN\_9455**, mark a start point just before Mitch appears in the frame. Set an end point after Mitch is in the helicopter.



Next you need to define where this clip goes timing-wise within the Timeline.

- 4 In the project, cue the playhead after Mitch says, "has been shot on the ground."



You'll connect the first clip of this series of B-roll clips at this point.

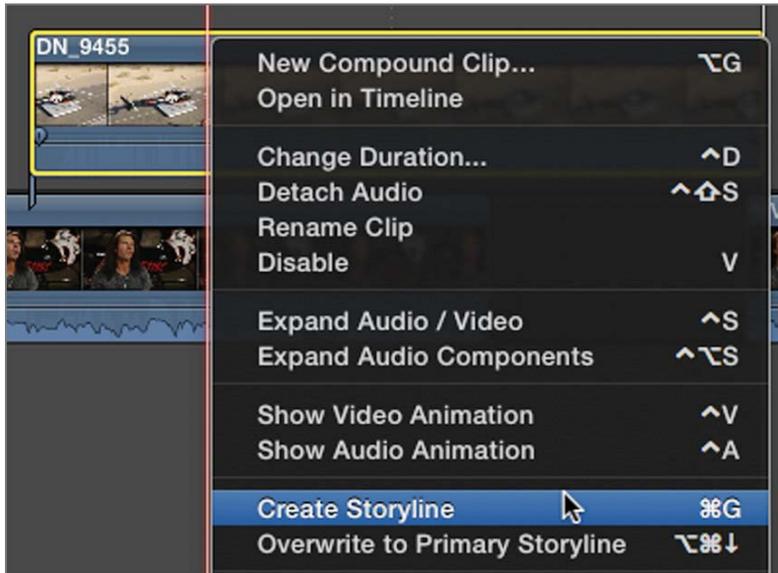
- 5 Click the Connect button, or press Q to make the edit.



**NOTE ►** To enable the Connect button when it is dimmed, move the mouse pointer back into the Browser to activate the Browser pane. The Q keyboard shortcut works with the button dimmed.

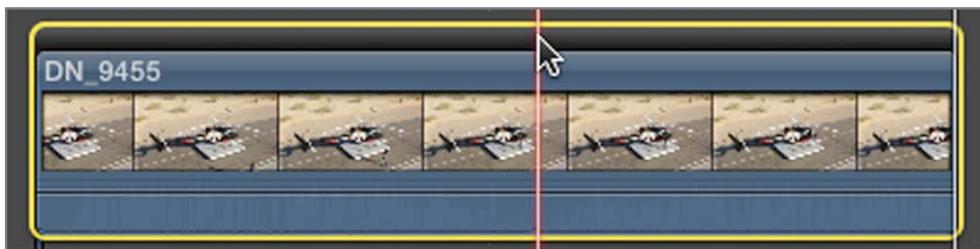
To quickly set up an append edit for the following B-roll clips, you will convert this one clip into a storyline.

- 6 Control-click **DN\_9455**, and from the shortcut menu, choose Create Storyline, or press Command-G.



The clip is now contained in a storyline. To make additional edits to this storyline, you must select the storyline's handle rather than the clip inside.

- 7 Click the storyline's handle to select it.



When you select its handle, the storyline is outlined in yellow. The goal is to efficiently add the subsequent B-roll clips to the selected storyline.

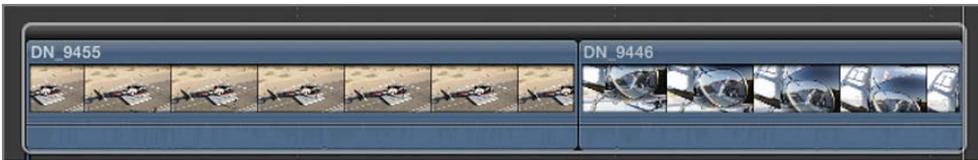
- 8 In the Browser, locate **DN\_9446**.



- 9 Mark a start point on the jib's first take of Mitch's feet on the pedals. Set an end point after the jib movement ends for that take, leaving the clip duration at approximately six seconds.



- 10 Press E to append this clip to the end of the selected storyline.



**NOTE** ► The highlighted storyline is dimmed because the Browser is the active pane if you are skimming the Browser before pressing E.

You also can batch edit clips into this storyline.

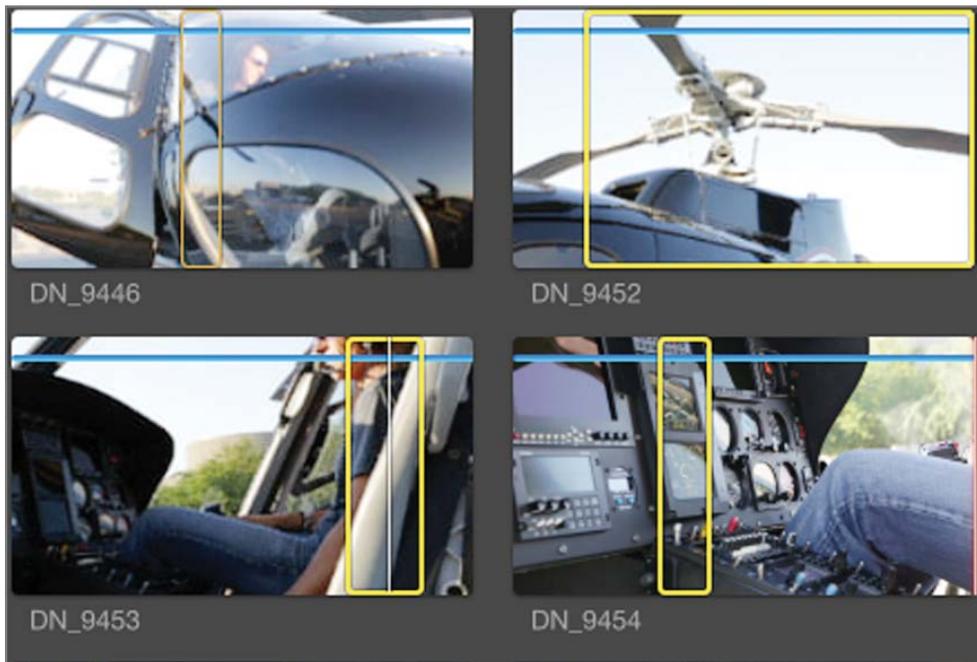
- 11 Mark the following ranges for each listed clip:

Clip	Start	End	Result
<b>DN_9453</b>	Start of third take tilt/pan on Mitch	End of tilt/pan move to panel	
<b>DN_9454</b>	Flips switch and the displays change	Releases switch and displays change again	

Clip	Start	End	Result
DN_9452	Before rotors start turning	End of clip	

After marking these three clips, you can select all three for the append edit into the **DN\_9455** and **DN\_9446** storyline, which we'll call the Preflight storyline.

- 12** With **DN\_9452** still selected, Command-click the ranges you marked for **DN\_9454** and **DN\_9453** to select the three clip ranges.



- 13** In the project, ensure the gray handle of the Preflight storyline is still selected.

Make sure you select the gray handle and not **DN\_9455** or **DN\_9446**. The outline will be yellow if the Timeline pane is active, or dimmed if the Browser is active.



A selected storyline in the active Timeline pane



Storyline selected but Timeline pane is not active.

- 14 Click the Append button, or press E, to append the three clips to the selected storyline.



The clips are added to the selected storyline in the order you selected them.

**NOTE** ► With the Timeline pane active (move the skimmer into the Timeline to make it active), press Command-- (minus sign) to zoom out the Timeline view.

### Editing Within a Connected Storyline

Because these clips are now inside a storyline, rearranging and ripple trimming them is a breeze.

- 1 Drag **DN\_9452** to the end of the Preflight storyline after **DN\_9454**.



Next you'll ripple trim each of these storyline clips to reduce their durations. The goal is to finish playing the first four clips in this storyline by the end of the **MVI\_1055** sound bite. There's a lot of content to remove!



No joke. The selected clip, **DN\_9453**, should end a few moments before the end of **MVI\_1055**, where the playhead is located in the previous image. This is a common editing scenario and the reason why you batch edited the clips into the storyline. The durations you marked earlier in the Browser were set to narrow down the clips to the needed content. But the timing of these clips with the sound bite and to each other is what determines their final durations and positions.

The art of editing is the art of compromise. You need to present just enough information for the viewers to understand the actions they are seeing and tell the story. You want to present these four preflight actions while Mitch is talking about the whole new look of shooting something from the air. When he finishes that statement, the rotors start turning and the helicopter takes off. The compromise to make that edit happen is to adjust the timing of not only these preflight clips to Mitch's sound bites, but also adjust the earlier hangar storyline clips' timing to the sound bites. Don't be afraid to look at previous edits when trying to make up time in a project.

Let's first gain a few seconds by trimming the hangar storyline.

- 2 In the hangar storyline, ripple trim the start point of **DN\_9390** so the clip begins with just a sliver of light visible through the hangar door.



Reference the start frame of **DN\_9390** in the Viewer's two-up display.

After trimming the start of **DN\_9390**, the start of **MVI\_1042** is now visible. You can drag the hangar storyline to realign it with the beginning of the project.

- 3 Drag the storyline to the beginning of the project.



Remember the gap clip you previously added to the beginning of the primary storyline? You can gain some additional time by lengthening that gap clip. Increasing its duration allows you to shift the start of the Preflight storyline earlier in relation to the sound bite **MVI\_1055**.

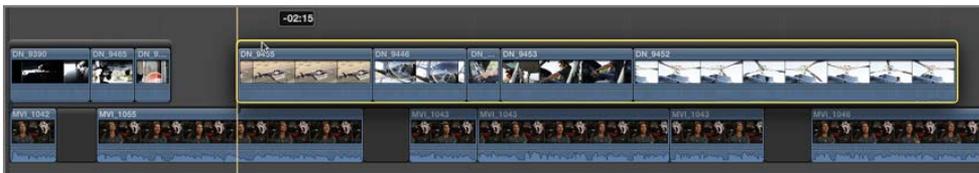
- 4 In the primary storyline, drag the end point of the first gap clip to the right to a duration of about 2:15.



**NOTE** ▶ You may need to disable snapping to get the desired duration. Press N while dragging the edit point to disable snapping without releasing the mouse button, and then enable snapping for the next step.

The hangar storyline now ends and Mitch's interview video becomes visible as he says, "Nobody." Mitch needs to be on camera for a short time to accommodate a graphic you will add in a later lesson, so you will leave a few seconds of him visible. The Preflight storyline can now start a little earlier.

- 5 Drag the Preflight storyline so that its first clip starts at the "standpoint" audio cue.

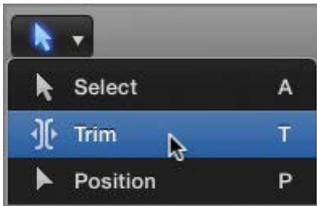


That edit gained you another two seconds, more or less. But more trimming is still needed.

**DN\_9455** is much too long. When you review the clip's content, you see that the real action occurs at the end of the clip when Mitch gets in the helicopter. Cutting the clip duration to that last action will make the shot more interesting and gain you time.

When you trimmed the start of **DN\_9390**, you did so using the Select tool and moving the entire storyline to the beginning of the project after the trim. This time, you'll save a step by performing a ripple trim using the Trim tool.

- From the Tools pop-up menu, choose the Trim tool, or press T.



- Drag the start of **DN\_9455** to the right, but don't release the mouse button yet.



As you drag with the Trim tool, the two-up display appears in the Viewer. The area on the right shows the new start point you are setting for **DN\_9455** with the Trim tool.

- Referencing the right frame of the Viewer's two-up, drag the start point until you see Mitch stepping on the skid to get in the helicopter. Release the mouse button.



Now you'll trim the end point of **DN\_9455** to tighten the shot.

- 9 Drag the end point of **DN\_9455** to the left until the two-up display shows that Mitch just got into the helicopter.



The end result is a clip just over two seconds long. That's quite a bit of tightening for that clip. Let's shorten **DN\_9446**, too.

- 10 Using the Trim tool, drag the start point of **DN\_9446** right until the two-up display in the Viewer shows the body of the helicopter at the bottom of the frame blocking the transport cart from view.





**11** Now trim the end point of **DN\_9446** to realize an overall clip duration of two seconds.



**NOTE** ▶ Don't forget to disable snapping using the N key, when necessary.

The next clip should be **DN\_9453** followed by **DN\_9454**. Because these two clips are inside a storyline, this involves only a simple rearrangement of the two clips.

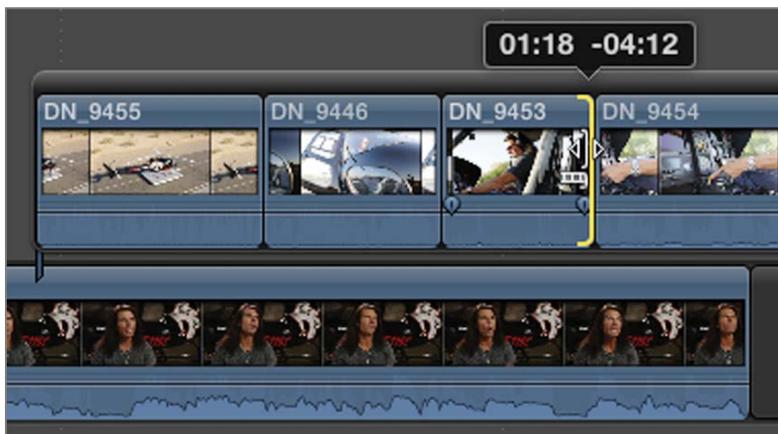
**12** Switch to the Select tool, and then drag **DN\_9453** left to insert the clip before **DN\_9454**.



- 13** Staying on **DN\_9453**, trim the start point to where Mitch is centered in the image and starts to reach forward.



- 14** Trim the end point to a clip duration of around 1:20, the point at which Mitch has his fingers on a switch and drops his hand to a "wrist low" position.





To create the pacing and the feel that Mitch is starting the engine, you will cut from this movement to a closer "throwing the switch" shot.

- 15 In **DN\_9454**, trim the start point to where Mitch's hand is still open before pointing and throwing the switch.





**NOTE** ▶ This may require dragging to the left to add frames.

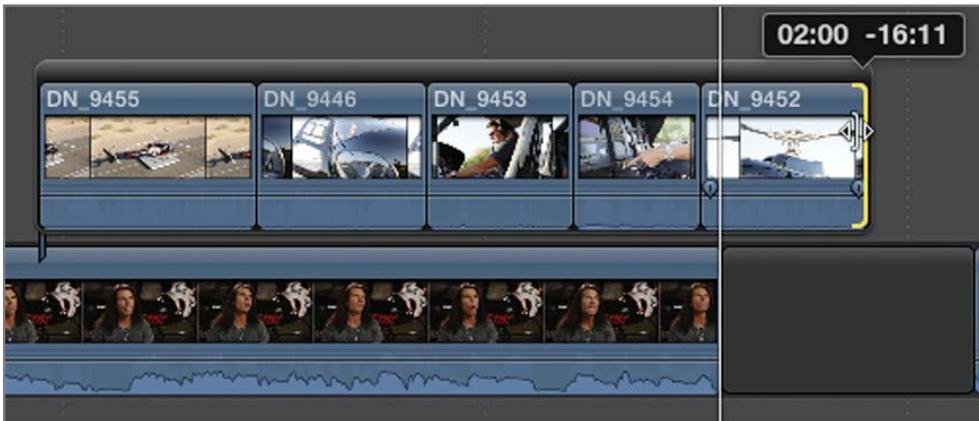
- 16 Trim the end point to realize about a 1:15 clip duration ending while Mitch is holding the switch.





Finally, you'll trim the clip of the helicopter rotors starting to move.

- 17 Trim **DN\_9452**'s start point so the rotors have already started to turn. Trim the end point to a clip duration of about two seconds. Review the edit.



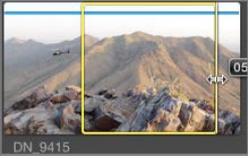
You have just one more B-roll storyline to go!

### Creating and Editing the Third Connected Storyline

Use the following tables to create and trim the third Takeoff storyline.

**NOTE** ▶ Don't forget that you have two events in the Lifted library that contain clips for this project. Also remember that dragging a range point displays the range's duration.

1 Mark each clip as detailed in this table:

Clip	Keyword Collection	Start	End	Result
<b>DN_9463</b>	Takeoff	Before forward movement	Exits frame	
<b>DN_9415</b>	In Flight	A couple of seconds before the mountain is behind the helicopter	Duration of five seconds	
<b>GOPR1857</b>	In Flight	Two seconds before Mitch stretches his arm out behind seat	Duration of five seconds	
<b>IMG_6493</b>	Flight Controls	Just before hand leaves shot and lens flare ends	Duration of four seconds	
<b>GOPR3310</b>	In Flight	Last third of clip; before Mitch leans forward into sunlight	Duration of five seconds	

Clip	Keyword Collection	Start	End	Result
<b>DN_9503</b>	In Flight	Halfway point; helicopter behind tree	Helicopter exits frame	
<b>DN_9420</b>	In Flight	Helicopter is just off screen	Helicopter exits frame	

- 2 With the clips' start and end points marked, Command-click them in the order they are listed in the table.

**NOTE** ▶ Selecting the Lifted library in the Libraries pane and selecting a smaller Clip Height in Clip Appearance may ease this process.

- 3 In the project, cue the playhead immediately after **DN\_9452**, if necessary.



You will perform a connect edit first to place these clips in the project, and then group these clips into a connected storyline.

- 4 Click the Connect button, or press Q, to connect edit the selected clips into the project.



Now that the clips are part of the project, you can group them.

- 5 In the project, select the connected clips you just added. Control-click any one of the selected clips, and from the shortcut menu, choose Create Storyline, or press Command-G.



The clips are grouped into a connected storyline, the third such storyline in your project, which we'll refer to as the Takeoff storyline.

You have two more B-roll clips to add, you also have some very loud nats on a couple of B-roll clips, but let's take a break from B-roll to add a music clip, and align some edits to it.

## Reference 4.7

### Editing Below the Primary Storyline

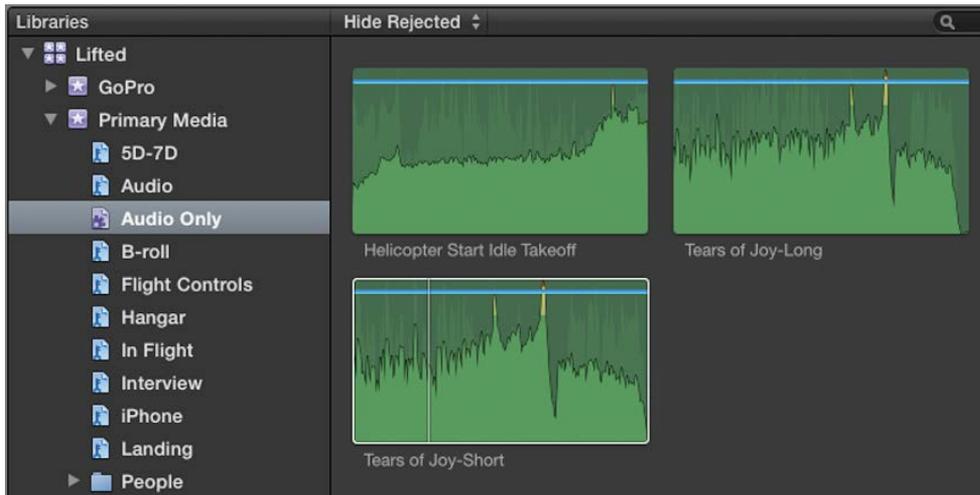
Audio clips are typically edited "below the line" meaning physically beneath the video clips. In Final Cut Pro, you may place audio clips below or above the primary storyline. The vertical positioning of audio clips is not as critical as when prioritizing video clips because Final Cut Pro mixes together all audio clips—such as sound effects and music—and plays them simultaneously.

## Exercise 4.7.1

### Connecting a Music Clip

For this first rough cut, you will include a music clip that plays in the background during the entire edit. The music contains an apex moment towards the end that you will synchronize with a specific clip.

- 1 In the Audio Only Smart Collection, select the **Tears of Joy-Short** clip.



- 2 With the playhead cued to the beginning of the project, click the Connect button, or press Q.



The music clip is added to the beginning of the project.

The music will be a little too loud, or *hot*. You can adjust its volume level in the Timeline. Every audio clip has a volume control: a black, horizontal line that overlays the clip's audio waveforms.

- 3 Move the Select tool over the volume control in the **Tears of Joy-Short** music clip.



The current volume level setting appears as 0 dB (decibels), which means that Final Cut Pro currently plays the clip at its original volume level.

- 4 Drag the Volume control down to around -15 dB to play the music clip at 15 dB below its original recorded level.



As with all the other clips, this is not the final volume setting for the music. This was simply a "sanity" adjustment so the rest of the audio clips are audible while editing. There is more audio work to be done.

## Reference 4.8 Finessing the Rough Cut

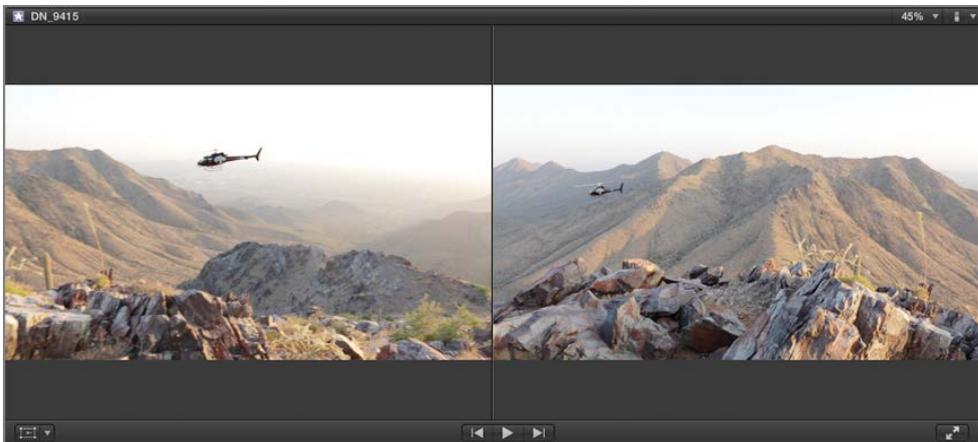
Your project is racing to the end of this phase of the workflow. The details and adjustments you need to perform become more granular as you finish addressing the major editorial issues. You may still perform some major changes, but you should now see the light shining at the end of this editorial tunnel. At this stage, a project generally needs audio adjustments and a bit more trimming. By now, your project is definitely ready for a run-through with the slip trim.

The slip trim changes the content within the clip container. You change the start and end points of the content simultaneously revealing earlier or later source materials without changing the clip's duration or position in the project. Think of the clip as your iPhone and the clip content as the photos on your iPhone. When you want to see earlier photos, you swipe with your finger from left to right to pull the earlier photos into view. The reverse to see later content is to swipe right to left to pull that content into view.

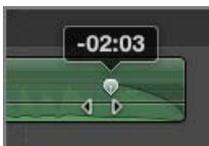


Dragging right to slip earlier content into view.

While performing a slip trim, two-up display of the new start and end points appears in the Viewer. The two-up display shows your changes in real time as you drag the slip trim across the clip. When you release the mouse button, the clip is already updated in the project.



Slip trimming may also be used on audio-only clips. However, for smoothing out audio edits at this stage of the workflow, adding some transitions and audio fade handles will do the job. Every clip that contains audio content has fade handles to create audio envelopes for ramping.



Your project has a basic music bed, the B-roll edits, and even the sound bites positioned and trimmed to align them to visual or audio cues in other clips. For this first rough cut, you will adjust some clip positions and timings to coincide with the music clip's major moments.

## Exercise 4.8.1 Adjusting the Edits

In **DN\_9420**, the sunset shines dramatically through the helicopter's windows; and during the clip, the music swells to a climax. But we can do better. In this exercise, you will align those audiovisual moments for maximum effect.

- 1 In the project, select **DN\_9420**, and skim to the first frame of the sun coming through the helicopter windows.



- 2 Press M to set a marker at that dramatic visual moment.



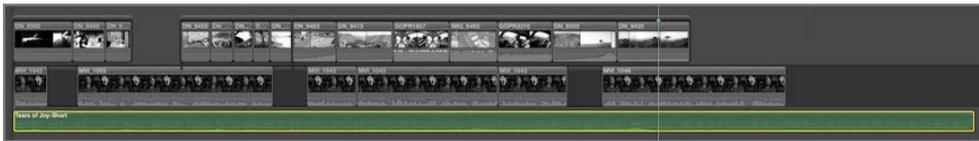
Marker appears under the skimmer along the clip's top edge.

Now you need to set a marker on the music swell. Unfortunately, it's a little hard to hear while the previous sound bite is playing.

- 3 Select the music clip, and then click the Solo button, or press Option-S.

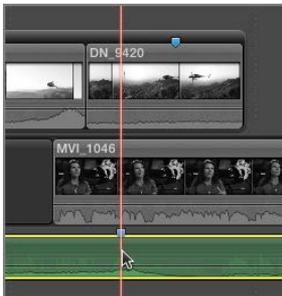


Only the selected audio clip is audible and in color while the nonselected clips' audio is muted and desaturated in the interface.



Now that you can hear the music clearly, let's place a marker on the music swell.

- 4 Using the Select tool, click the music clip, skim to the music swell, and then press M to set a marker.



- 5 With the marker set, click the Solo button again, or press Option-S, to disable the Solo function.

Now the task is to align those two markers. You'll perform two edits with the ripple trim: shortening the B-roll and extending the last gap clip to align the music swell with the sunset.

- 6 Ripple trim to remove a few frames from each clip of the Takeoff storyline. Your goal is to move the sunset marker closer to the music swell.

Here are some trim points to consider:

- ▶ Start of **DN\_9463**: Could the helicopter already be in forward movement? You'll need to reposition the storyline after any adjustment to this point.
- ▶ **DN\_9415**: Don't trim too much here. This is a "landscape" shot that needs time for the viewer to gain perspective.
- ▶ Start of **GOPR1857**: Trim to just before Mitch turns his head.

These edits should get you very close to aligning the markers.

- 7 Also using the ripple trim, push the last sound bite farther out by lengthening the gap clip. Insert enough frames so that the last sound bite starts when the music starts again.



You can finish aligning these markers using one or both of these methods: ripple trim more of the earlier B-roll clips, or slip edit the content of **DN\_9420**.

### Using the Slip Edit

The slip edit is a safe edit for setting the B-roll clips to their best content without disturbing other edits.

- 1 From the Tools pop-up menu, choose the Trim tool, or press T.
- 2 Move the Trim tool over the middle of **DN\_9420**.



The Slip tool appears.

- 3 Drag **DN\_9420** until the marker aligns to the music marker.



While dragging with the slip trim, a two-up display of **DN\_9420** appears in the Viewer.



The image on the left shows the start point of the clip, while the right image shows the end point. The start and end points are updating in real time as you drag the slip trim. Although not particularly needed for this edit, the two-up display is great for ensuring that the best content is included between the displayed start and end points.

- 4 With the two markers aligned, play the entire project, slip trim at the ready, evaluating whether the B-roll clips are displaying their best contents within their current durations.

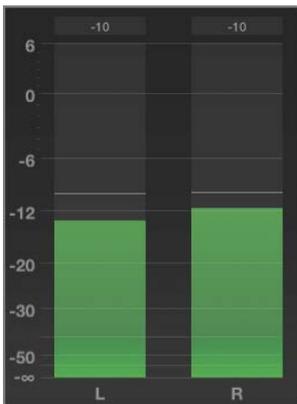
While you review the project, ask questions about the effectiveness of your results. Can you avoid the lens flare in the instrument/GPS panel shot? Should there be more lens flare content? Should the project show less of Mitch leaning back and pointing out the side window, or should you slip the clip to include Mitch pointing out the front?

## Exercise 4.8.2

### Adjusting Clip Volume Levels

The two basic rules of mixing audio are: Don't peak the meters; and if it doesn't sound good, change it. That change should not be a knee-jerk reaction. Don't get in the trap of continuing to boost the volume of a clip to make it louder than the other clips. If the sound bites are too quiet, you don't necessarily crank up the sound bites. Maybe you need to turn down the volume of the music or B-roll nats.

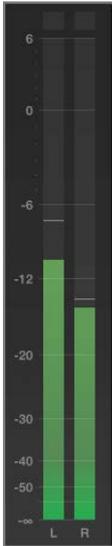
In this exercise, you will perform some simple volume level adjustments to ensure that the sound bites are clearly audible, and that the overall audio mix does not reach up to 0 dB on the Audio meters. A safe target is to not allow any of your loudest audio go above  $-6$  dB on the meters.



- 1 In the Dashboard, click the Audio Meter button.



The larger Audio meters open to the right of the Timeline. Although you'll delve deeper into audio mixing in Lesson 6, at the present you just want to ensure that your audio levels don't peak at or beyond the 0 dB mark.



You experienced changing the volume of one clip, the music clip, a few minutes ago. When you want to change the volume levels of multiple clips at once, you can use a keyboard shortcut to do so.

- 2 In the Takeoff storyline, select all the B-roll clips.



- 3 While watching the clips' volume controls, press Control-- (minus sign) and Control= (equals sign) to lower and raise the volumes of the selected clips.



- 4 Continue playing through the rest of the project listening to the mix while watching the Audio meters. Select a clip or multiple clips, and use the volume control or the shortcut keys to keep the meters below 0 dB, and more importantly, so you can clearly hear Mitch talking.

The peak indicators, the thin lines left over from the highest meter reading should not go much over  $-6$  dB.

### ► Know Your Volume Controls

A great practice to establish early on when dealing with audio is to understand that you have access to at least two volume controls. The volume level controls per clip in Final Cut Pro are the only ones that affect your audience. Turning down your Mac computer's volume or separate speaker volume control will not affect the volume in Final Cut Pro.

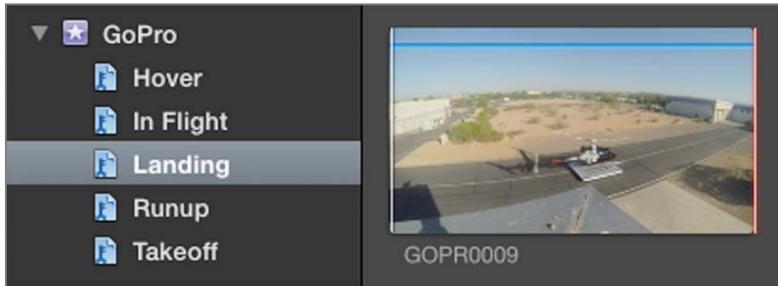
The built-in Mac speakers are good quality for a computer, but they won't do the job for professional editing. At the very least, you'll want to have good over-the-ear studio headphones, and at best, powered near-field loudspeakers. Audio monitoring equipment is a key investment that will add immeasurably to your final output's quality. Just because you're not listening on good equipment doesn't mean others won't either; viewers with high-quality equipment will probably notice audio issues you couldn't even hear.

## Exercise 4.8.3

### Connecting Two Additional B-Roll Clips

To complete this rough cut's B-roll edits, you've got two concluding B-roll clips to add. Currently, the sunset shines through the helicopter's windows at the music swell and grand pause. Then the music starts again, and Mitch begins his last sound bite. Time to land the helicopter "at the end of the day," and to fly off into the sunset when remembering the day's adventures.

- 1 In the GoPro event, locate a clip assigned the Landing keyword.



Looking in the Landing Keyword Collection of the GoPro event, you find **GOPR0009**.

- 2 In the Browser, skim to where the helicopter is completely visible in the frame, and mark a start point.



Although you just trimmed this clip, its duration is still almost 30 seconds. You might need only 10 of those seconds.

- 3 Skim **GOPR0009** and set an end point as the helicopter lands.



The duration should now be roughly 10 seconds.

- 4 Using the connect edit method of your choice, connect edit the landing clip to the primary storyline about where the music restarts. This will also be just as or slightly before Mitch starts talking. Play the results.



This edit feels choppy because the sunset clip cuts to black followed by another clip cutting in from black. Before fixing that, you have one more clip to edit into the project.

- 5 In the Browser, search for an In Flight B-roll clip that shows the helicopter flying off into the sunset. You should find [DN\\_9424](#).
- 6 You will be trimming this clip to get it just right, but for now, set a start point before the helicopter enters the frame. You want that action to happen just as Mitch is finishing the last sound bite.

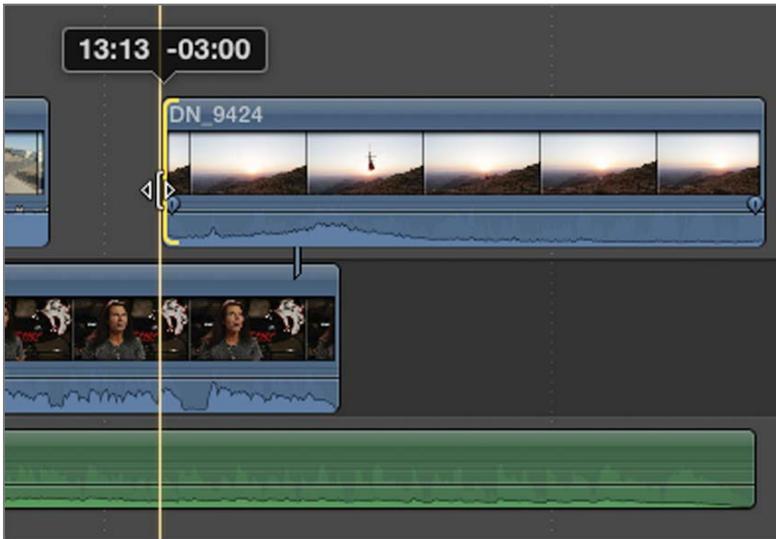


- 7 Connect edit [DN\\_9424](#), "flying into the sunset," just as Mitch is saying, "Adventure I went on." Trim the clip to end after the music.



That works. To finish with this clip, give its content some breathing room by adding several seconds to the clip's start.

- 8 Drag the start point of the "flying into the sunset" clip, and extend the start point to the left to when Mitch says, "Wow."



- 9 Since you just added these two clips, take a moment to adjust their audio levels to more closely match the previous adjustments you made to the other clips.

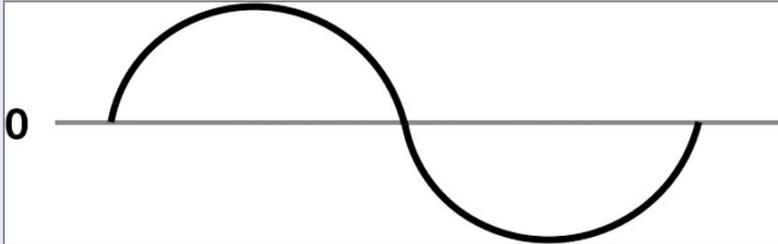
Great! All the clips for your first edit are in your project. A final refinement pass will soften some not-so-clean edits.

### Exercise 4.8.4 Refining Edits Using Cross Dissolves and Fade Handles

Some of your audio edits may contain a click or pop at their start or end points. Every clip that has audio has the potential to "catch a click." A quick solution is to rapidly fade the audio in or out using a technique called *ramping*.

### Catch a Click

Pleasant sounding audio travels in a sine wave with a peak and a trough per cycle.



Each cycle of the waveform traverses the zero crossing point 2x as the soundwave peaks and then goes down to the trough and then repeats. When an audio clip has a start point that catches the audio soundwave anywhere other than at zero, you may hear a click as the playhead grabs on to the soundwave in progress.

- 1 At the end of the first sound bite, move your pointer over the audio waveform of **MVI\_1042**.



Two fade handles, or "birds-eyes," appear at the ends of the clip. These envelope handles allow you to quickly or gradually ramp the audio into or out of the edit.

- 2 Move your pointer over the ending fade handle.



When positioned over the handle, the pointer changes to a pair of arrowheads pointing left and right.

**NOTE** ► If you have difficulty seeing the fade handles, use the Clip Appearance button at the lower-right to increase the clip height. Also, you may select a larger waveform presentation.

- 3 Drag the fade handle to the left about five frames.



The number of frames to move is dependent upon how tight the edit is against "kid." You do not want to cut off the last word Mitch says.

- 4 Position the pointer over the beginning of the next sound bite.



- 5 Drag the fade handle right from the start point to add a small ramp into the clip's audio.



The clicks and pops are fading away. These audio ramps also soften the clip's entry and exit. When an audio clip was recorded in a noisy environment, a cut into or out of the clip will make the edit undesirably obvious as the noise pops into or out of the mix. In addition to audio edits, let's soften some video edits. A fade-in is not necessarily required if your edit starts with black. But the sunset clip definitely needs an easy, blending transition in and out.

For now, you will use a keyboard shortcut to apply the default transition: cross dissolve. When placed between two clips, a cross dissolve transition blends two images together by varying their levels of transparency. One appears to fade away while the other appears to fade into view. When applied to a single edge of a clip that does not

adjoin another clip, the Command-T cross dissolve will either fade the clip in from black or fade out to black. A few cross dissolves placed into your project will smooth the clips' entries and exits.

- Using the Select tool, click the start point of the sunset through the windows clip, and press Command-T to add a cross dissolve.



A cross dissolve with a one-second duration blends the previous shot into the sunset shot. This sets up the shot and begins to slow down the pacing for the ending segment.

**NOTE** ► Connected clips are automatically placed within a connected storyline when a transition is applied.

While you may apply many transition types and customizations here, let's add a few more cross dissolves to your project.

- Select the end point of the sunset through windows clip, and press Command-T.



- Select the start point of the **GOPR0009** clip, and press Command-T.



- Review this transition by playing the project.

Notice that while the video is fading in from black, a momentary cut to Mitch on-camera appears as the helicopter landing clip continues to fade in. This occurs because the Mitch clip starts while the transition from black is still in progress.

- 10 You will need to either drag the **GOPR0009** storyline left until the transition does not overlap the Mitch clip, shorten the transition duration, or lengthen the gap clip to push Mitch's sound bite to start after the transition completes.



As easy as it is, selecting single points is tedious. Fortunately, you can apply a transition to both points of the same clip at once.

- 11 In the project, select the **DN\_9424** clip, and press Command-T.



A cross dissolve is applied to both edit points, but the ending dissolve should be a little longer than the default duration of one second.

- 12 Place your pointer over the left edge of the transition in the project.



The pointer becomes a resize icon without a filmstrip. This allows you to set the transition's duration.

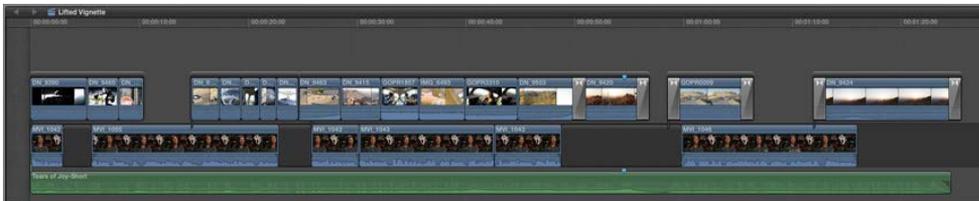
- 13 Drag the transition's start edge to the left away from the transition's center until the duration info indicates two seconds.



Now you have a slower fade to black at the end of the project.

- 14 Review your project, looking and listening for edits that could be softened with a cross dissolve or audio ramp. A quick tip while you are reviewing: When it comes to video transitions, less is more.

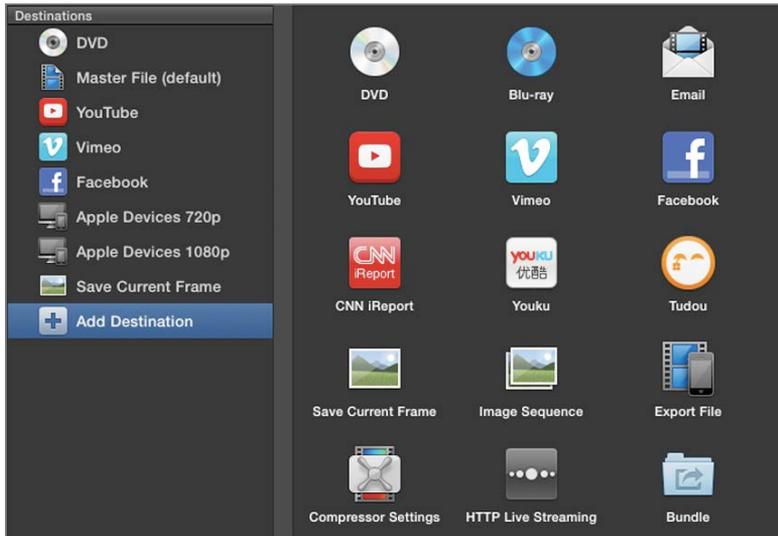
With a few audio ramps and a couple of video cross dissolves, your rough cut is ready to show to the client.



## Reference 4.9

### Sharing Your Progress

When a project is ready to be shared, the project is exported from Final Cut Pro. The Share pop-up menu includes several preset *destinations* for many popular delivery platforms.



The preset destinations include desktop formats such as Apple ProRes and H.264 as well as iOS devices; DVD/Blu-ray; and online services such as YouTube, Vimeo, and Facebook. These presets may be customized and additional presets added to this list within preferences. The destinations are even more customizable through the use of Compressor, the Apple batch transcoding application available in the App Store.

**NOTE** ▶ Due to copyright restrictions, you cannot use the supplied media materials for any purpose other than performing the exercises in this book.

## Exercise 4.9.1

### Sharing an iOS-Compatible File

You've done a lot in this first edit of Lifted Vignette. In this and the previous lessons, you've gone through a typical post-production workflow using Final Cut Pro. Although it's not perfect, this rough cut must be shown to the client, the producer, or your colleagues attending an upcoming lunch meeting. The following exercise briefly describes exporting your project to a media file that is playable on a Mac, PC, smartphone, or tablet. Such media files are also acceptable for upload to most popular online, video-hosting services.

- 1 With the Lifted Vignette project open, ensure that no clip or range is selected in the project by pressing Command-Shift-A.

This keyboard shortcut deselects any selected items and clears any marked ranges, which is important because Final Cut Pro will share a range if one is selected instead of the entire Timeline.

- 2 In the toolbar, click the Share button.



The Share Project pop-up menu appears with a list of preset destinations. Most of these presets focus on delivering high-definition content to online hosting sites or to desktop, portable, and handheld devices. For this exercise, let's create a file that we can AirPlay to the conference room's projector by way of an Apple TV.

- 3 From the list of destinations, choose Apple Devices 720p.



The Share dialog that appears contains four main elements: a skimmable Preview area to verify the content for export, Info and Settings panes, and a File inspector that summarizes the exporting file's settings.

The Info pane displays the metadata that will be embedded into the file. This metadata will be visible in the exported media file's Info inspector when it is opened in QuickTime Player.

**4** Set the following metadata information:

- ▶ Title: *Lifted-Rough Cut*
- ▶ Description: *A helicopter pilot and cinematographer describes his passion for sharing aerial cinematography.*
- ▶ Creator: [insert your name]
- ▶ Tags: *aerial cinematography, helicopters, aviation*

**NOTE** ▶ To enter the tag "tokens," type the tag's text followed by a comma, or press Return to close each tag.

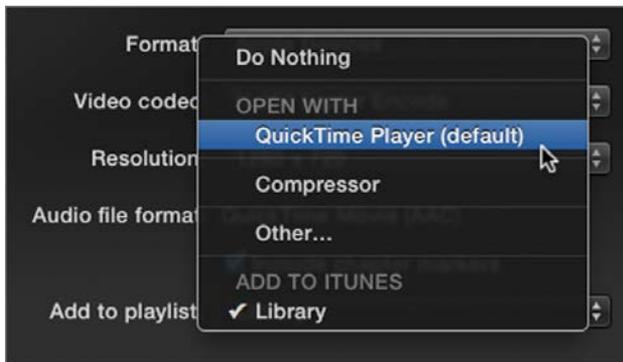


**5** After entering the metadata, click the Settings tab to modify the file's delivery options.



By default, the selected destination preset automatically saves the file to your iTunes Library. You may alter this behavior in the "Add to playlist" pop-up menu.

- 6 From the "Add to playlist" pop-up menu, choose "Open with QuickTime Player."

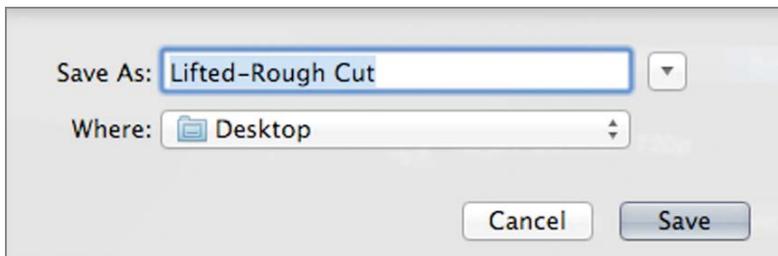


**NOTE** ► If the Open With option lists another application, choose Other from the Open With list, select QuickTime Player from the Application folder, and then click Open.

In the Settings pane, the "Add to Playlist" line has converted to "Open with QuickTime Player."



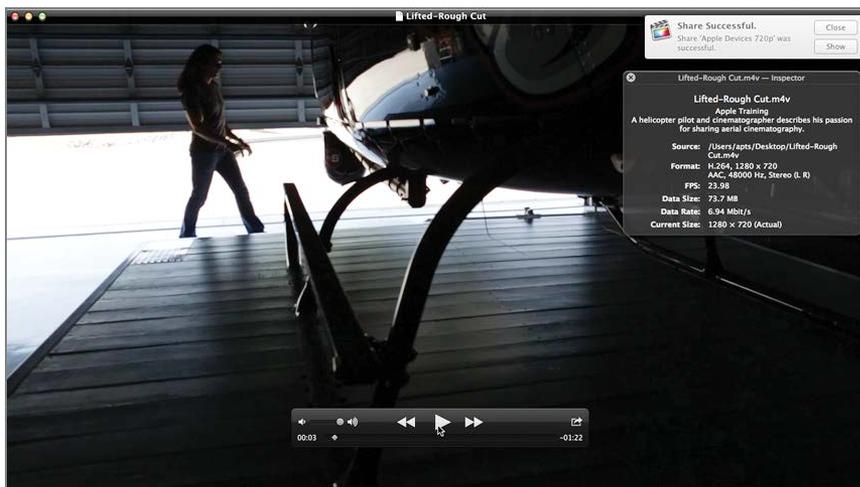
- 7 Click Next.
- 8 In the Save As dialog, enter *Lifted-Rough Cut*, if necessary, and from the Where pop-up menu, choose Desktop. Click Save.



The Background Tasks button displays the progress of the share.



When the file has been shared, the file will automatically open into QuickTime Player and an OS X Notification will appear.

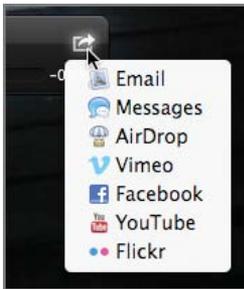


**NOTE** ▶ The QuickTime Inspector window is available by pressing Command-I in the QuickTime Player application.

**9** Play the movie file in QuickTime Player.

If the file looks and sounds as expected, you have several options for delivering the file to Apple TV. Several of the options are available within QuickTime Player using OS X Share services.

**10** To the right of the QuickTime Player transport controls, click the Share pop-up menu.



To Send the File to a	Use This Option
Mac	AirDrop
iPad, iPhone	Messages
Hosting service	Vimeo, Facebook, YouTube, Flickr

- ▶ If you have not set up these Internet accounts, OS X will prompt you to enter your username and password for the selected service.
- ▶ If you send the file to an iPad or iPhone using Messages, when the message arrives, simply choose to Save Video from the Messages Share button. The movie file will be available to share to AirPlay in the iOS Photos app.
- ▶ If you choose to use a hosting service such as Vimeo, you may access the file directly using the Apple TV Vimeo application.

Alternatively, you could use a file-sharing service such as Dropbox to transfer the file to your iPad or iPhone.

### Using AirPlay with QuickTime Player

You may also stream the file from your OS X Mac to an Apple TV. However, you must use the correct video resolution. When you send your OS X desktop to the Apple TV, you may choose to send the full desktop resolution over AirPlay or restrict the desktop to the Apple TV resolution, which may be 1920 × 1080 pixels, compared to your video file, which is 1280 × 720 pixels in QuickTime Player. Forcing QuickTime Player to the desktop resolution will degrade the video playback quality. Here's how to maintain QuickTime Player at the movie file's resolution.

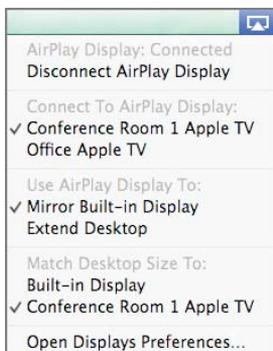
- 1 With the shared file still in QuickTime Player, click the AirPlay menu button.



- 2 From the "Connect to" options, choose the desired Apple TV.

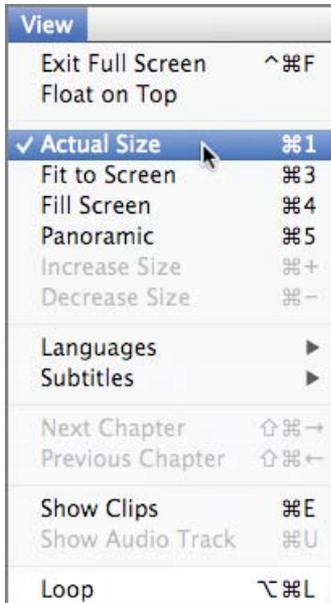
The AirPlay menu button turns blue when connected to the AppleTV.

- 3 Once connected, click the AirPlay button again.
- 4 Under Match Desktop Size To, select the Apple TV.



- 5 Return to QuickTime Player by clicking the displayed video.

- 6 In QuickTime Player, choose View > Enter Full Screen, and then choose View > Actual Size.



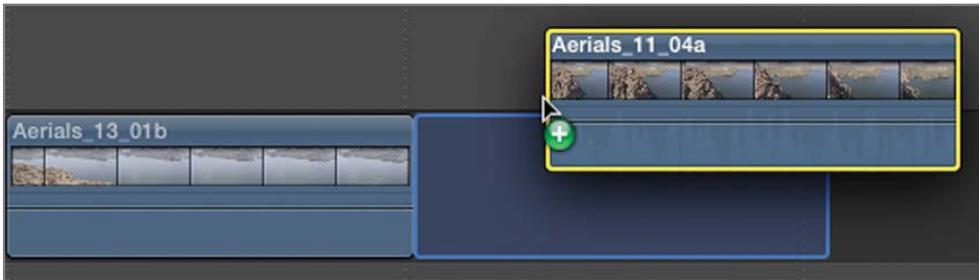
Your video now appears on the Apple TV at its native 1280 x 720 resolution surrounded by a black background.

**NOTE** ▶ If you have a 2nd Generation Apple TV, the video will fill the screen.

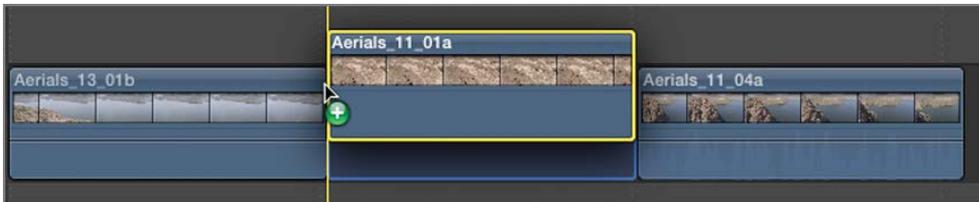
Congratulations on completing the first edit of the Lifted Vignette project. You have gone from nothing to a rough edit in a short period of time. You created a project and learned the various trim commands of append, insert, and connect to get clips into a project. The rearranging of clips in the primary storyline introduced you to the magnetic properties of a storyline. For the B-roll, you learned how to create connected storylines. A variety of tools for trimming clips and for softening the edits and adjusting the audio levels rounded out the finishing tools. And finally, you learned some ways to share the project out of Final Cut Pro. No matter which projects you will edit in the future, every project will be edited using this same import, edit, and share workflow.

## Lesson Review

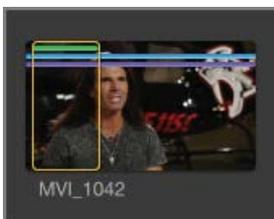
1. What do the Automatic Settings do when creating a new project?
2. Where are projects stored?
3. Which edit command is depicted in the following figure?



4. Which edit command is depicted in the following figure?



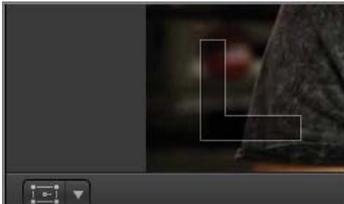
5. Which toolbar button performs an append edit?
6. What do the green, blue, and purple colored stripes overlaying the clip identify?



7. When in filmstrip view, which modifier key do you hold down to edit clips into the project in the order that you select the clips in the Browser?
8. When performing an insert edit, what marks the Timeline location for the edit: the playhead or the skimmer?
9. Identify the trim type used in the following figure.



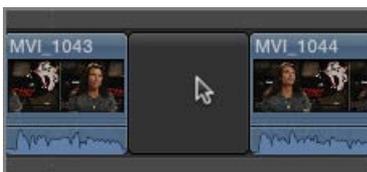
10. Which two interface items provide additional skimming precision in the Browser?
11. What does the Viewer overlay in the following figure indicate?



12. With the primary storyline determining the project's timing, what generic clip can be inserted to "create" time between storyline clips?
13. In the scenario shown below, what type of edit was performed in one command?



Before



After

14. Identify the edit functions indicated by the mouse pointer in the following figures.



A



B



C

15. To append edit a clip into a connected story, what must be selected and what must not be selected before pressing E?
16. What does the  $-15$  dB indicate in the following image?



17. Identify the interface element that displays the Audio meters.
18. Describe what will occur during playback of this transition.



19. Which interface element lets you export an iOS- and AppleTV-compatible file of your project?

### Answers

1. They conform the project's resolution and frame rate to the first video clip added to the project.
2. Projects are stored within a designated event.
3. Append
4. Insert
- 5.



The Append edit button

6. Favorite, user-applied keyword, and analysis keyword
7. Command
8. The skimmer, if active; otherwise, the playhead
9. Ripple trim
10. The Zoom slider allows you to see more clip content horizontally, and Clip Appearance permits you to increase clip height and hide and view waveforms.



11. The playhead or skimmer is cued to the start frame of a clip.
12. A gap clip
13. Replace with Gap or Lift edit (keyboard shortcut: Shift-Delete)
14. A: Ripple; B: Roll; and C: Slip

15. The connected storyline's handle must be selected, but not the clip's handle inside the connected storyline.
16. The audio volume control has been lowered to play the audio clip -15 dB quieter than the audio clip's recorded level.



Show/hide the meters in the Timeline pane

18. The **GOPR009** clip will fade in from black; but halfway through the transition, Mitch's interview will suddenly cut in and be visible until the GoPro clip becomes fully opaque.



The Share pop-up menu

# Index

## Numbers

12-dB dynamic-range mix, 362, 366  
36-dB dynamic-range mix, 362

## A

Add Default Transition

(Command-T)  
cross dissolve, 195–196, 302,  
304, 307–309  
defined, 474  
montage or collage edits, 301  
Page Curl, 312

Add Role (+) pop-up menu, 98–99

Add Rule (+) button

applying filters, 83–85, 87–90  
creating Smart Collections,  
91–93, 215

Add Subrole (+) button, 102

Aerials

editing with blade speed,  
278–282  
revised edit on, 246–247  
speed transitions applied to,  
284–285

Aerials, trimming

adding B-roll, 257–258  
aligning bites and bits,  
260–267  
overview of, 253–257  
removing transition and  
moving clips, 258–260

AirPlay, 199–205

All Clips command, 78, 82, 87

Analysis keyword, 49

Analysis options, Media Import, 33

Analyze and Fix command, 94, 375

Analyzed state, Balance, 374, 376

Angle Editor, multicam clip, 453

Angle Viewer, 456–460, 462

Append button (E key), 113–114

Append edit

batch clips to primary  
storyline, 115–118  
chroma key workflow, 440  
clips to connected storyline,  
161–166  
clips to primary storyline,  
111–115  
defined, 121

Apple ProRes 422 format, 401,  
433–434

Apple TV, 203–205

Archives

creating, 22–24  
creating library, 425–426  
master file of final project for,  
399–403  
recovering original source  
media files, 426  
setting up multicam clip, 450  
storage locations, 24

Aspect, defined, 21

Attributes

copying and pasting, 323–325  
editing Info pane, in Share  
inspector, 396–397  
nesting compound clips, 325

Audio

adding sound to clip, 343–349  
adjusting volume levels over  
time, 358–372  
analyzing and fixing, 34  
clip-by-clip focus on, 342–343

editing clips below primary  
storyline, 179–181

effects in Event Browser, 286  
enhancement features,

372–373

investing in monitoring  
equipment for, 189

keyboard shortcuts/command  
set, 471–472

native formats for, 479

retiming borrowed, 349–352

slip trimming only, 182

source channel configuration  
and, 34

splitting with another clip,  
352–357

synchronizing dual system  
recordings, 435–439

trimming at subframe  
level, 337

volume levels. *see* volume  
levels

Audio and Render properties, New  
Project, 431–432

Audio channels

configuring, 34, 438–439,  
462–464

manually setting number of,  
432–433

switching from stereo to  
mono, 364

Audio Enhancements, 372–373

Audio inspector, 363–364, 372–373,  
438–439

Audio meters

adjusting clip volume levels,  
187–189

- dynamic range and, 362
  - reading, 361
  - setting volume levels by
    - role, 366
  - Audio Only Smart Collection
    - connecting music clips, 180
    - overview of, 91–93
    - replacing primary storyline, 220
    - roles, 99–100
  - Audio role, 97, 101–102
  - Audio Skimming button (Shift-S), 269, 470
  - Audio waveforms, 352–353, 366–369. *see also* volume levels, adjusting over time
  - Audition window, 248–250
  - Auditions
    - aligning bites and bits, 261–267
    - avoiding ripple induced by, 250
    - building audition clip, 247–248
    - importing aerials, 246–247
    - overview of, 243–244
    - repositioning storylines/
      - deleting within, 244–246
    - spotlight badge identifying, 248–249
    - using Audition window, 248–250
  - Automatic setting, New Project
    - frame size/rate, 430
- B**
- Background clip, chroma key
    - workflow, 440–443
  - Background Noise Removal
    - command, 373
  - Background Tasks, Dashboard, 95–96, 202, 395
  - Backspace key, as Delete key, 77
  - Backtimed connect (Shift-Q), 317, 472
  - Backup
    - automatic library, 426
    - camera archive, 22–24
    - master file of final project, 399–403
  - Balance feature, image color, 374–376
  - Batch edit, clips into storyline, 115–118, 164, 167
  - Batch renaming, of camera clips, 60–61
  - Blade command (Command-B), 137, 240, 474
  - Blade Speed (Shift-B), 280–282
  - Blade tool (B)
    - editing multicam clip, 458, 462
    - joining through edit, 139–140
    - splitting clip into two
      - segments, 132, 136–139, 474
  - Blend, previewing audio, 353–355
  - Brightness (luma), Waveform scope, 377, 379
  - B-roll clips
    - aligning bites and bits, 261–267
    - appending to connected
      - storyline, 163–166
    - clip volume levels, 187–189
    - connected clip sync, 152–155
    - connecting two additional, 189–192
    - converting into connected
      - storyline, 157–161
    - defined, 144
    - editing within connected
      - storyline, 178
    - realigning to music, 235–238
    - ripple trim, 183–185
    - in second edit pass, 257–258
    - slip trim, 185–186
    - trimming aerials, 253–257
    - trimming connected clips, 155–156
  - Browser
    - adding keyword to clips in, 52–53
    - assigning role to batches of clips, 99
    - batch renaming camera clips, 60–61
    - creating compounds in, 327
    - displaying all ratings in, 78
    - dragging new clip to project
      - from, 110
    - new project displayed in, 108
    - sorting and organizing clips
      - in, 47
    - text searches in, 82–83
    - three-point edit for split
      - screen in, 317
    - viewing keywords in list
      - view, 64
  - Browser pane
    - defined, 20
    - enabling Connect button
      - when dimmed, 162
    - hiding, 456
    - how source files are displayed, 26
    - volume vs. camera import
      - in, 36
  - Bundle destination preset, 397–399
- C**
- Camera
    - angle, editing multicam clip, 454–460
    - creating archive, 22–24
    - date and time settings, 454
    - disabling audio, 437
    - importing source media from, 24–25
    - navigating within filmstrip
      - preview, 26–28
    - preparing to import source
      - files, 18–19
    - SD card. *see* cloned (simulated) SD card
    - synchronizing dual system
      - recordings, 435–439
    - "Catch a click," audio clips, 192–193
    - Centered Title, 336–340, 341–342
    - Channel Configuration
      - changing audio, 362–364
      - disabling camera audio, 437
      - multicam edit, 462–464
      - synchronizing dual system
        - recordings, 438–439
    - Chapter markers, 228

- Chroma key
  - manually selecting color key samples, 445–449
  - masking objects, 443–444
  - workflow for, 439–443
- Chroma Key Keyword Collection, 440–443
- Circle Mask effect, 296
- Clip Appearance
  - Control-Option-1, 366, 469
  - Control-Option-Down Arrow, 367, 469
  - Control-Option-Up Arrow, 367, 469
  - creating markers, 233–234
  - duck/swell sound effects and music, 366
  - keywording clip, 51
  - viewing fade handles, 194
- Clip container, 14
- Clip skimming, 252, 263–264, 356, 371
- Clips
  - deleting with Delete, 138
  - deleting with gap clips. *see* gap edit (Option-W)
- Clips, organizing
  - adding notes, 65–69
  - applying ratings. *see* ratings
  - assigning roles, 96–103
  - in Browser, 47–48
  - customizing favorites, 80–81
  - filtering event, 86–90
  - Find People analysis, 93–96
  - keywording. *see* keywords
  - keywording ranges, 61–65
  - in Libraries pane, 46–48
  - overview of, 45
  - review Q & A, 103–104
  - search and filter, 83–85
  - searching metadata, 82
  - in Smart Collections, 85–86, 91–93
  - sorting, 82
  - in Viewer, 47–48
- Clips Index, 228–230, 363
- Cloned (simulated) SD card
  - creating camera archive, 22–24
  - importing camera source files, 18–21
  - importing clips from, 28–30
  - leaving files in place, 36–37
  - navigating within filmstrip preview, 26–28
  - recovering original source media files, 426
- Close Library command, 17
- Codec (Compressor/Decompressor), 21, 481
- Collage edit, placing transitions, 301
- Color
  - balance, 33
  - indicating active angle, 457, 459
  - manually selecting chroma key, 445–449
  - matching clip, 384–386
  - text font, 339–340
- Color Adjustment pane, 376, 384
- Color Board, 379–380, 382–384
- Color Correction tools, 373–374
- Command Editor window, 25, 466–468
- Command key, selecting multiple items, 28
- Command list, Command Editor, 466
- Command set, default, 468–475
- Compatibility checker, Share window, 390
- Completed markers, 228
- Components, defined, 481
- Composite of multiple clips, collapsing into compound clip, 326–327
- Compositing Opacity parameter, Video Animation Editor, 322
- Compositing using spatial parameters
  - creating two-up split screen, 314–321
  - overview of, 312–314
  - using Video Animation Editor, 321–325
- Compounding clips, 325–327
- Compressor
  - adding setting to shared destinations, 404–405
  - creating master file of final project, 399–403
  - when to use, 406
- Connect clip (Q)
  - adding/trimming connected B-roll, 147, 149, 151
  - appending clips to connected storyline, 162
  - backtimed connect (Shift-Q), 317, 472
  - chroma key workflow, 441
  - connect edits, 223
  - editing within connected storyline, 178
  - enabling when dimmed, 162
  - music clips, 180
  - retiming borrowed audio, 350
- Connect edits
  - connecting two B-roll clips, 190–192
  - creating time at 0:00, 222–223
  - editing within connected storyline, 178–179
  - performing, 144–152
- Connected clips
  - creating connected storyline, 156–161
  - overriding connection, 154–155
  - synchronization, 152–154
  - trimming, 155–156
  - when transition is applied, 195
- Connected storyline
  - appending clips to, 161–167
  - converting connected clips into, 157–161
  - creating, 156–157
  - creating and editing third, 176–179
  - defined, 156
  - editing within, 167–176
  - relocating connection point, 251
- Connection point, relocating, 251

- Consolidate Find People results, 94–96
- Consolidate Library Files command, 424–425
- Context sensitivity, Final Cut Pro, 126
- Continuous selection (Shift-click), 363, 475
- Contrast
  - Balance maximizing image, 374
  - with color correction, 377
  - defined, 481
- Copy Events to Library
  - command, 426
- "Copy files into"
  - importing media as external, 32, 35–36, 41–42
  - multicam clip setup, 450
  - redirecting imported media to external location, 416
- Copying
  - attributes, 323–325
  - clips within library, 419–421
  - depth of field effect, 294
  - events between libraries, 426
  - events into library for
    - portability, 421–425
    - inter-library, 90
- Corrective effects, 291–293
- Create Archive command, 22–24, 481
- Create Smart Collections after analysis, Find People, 94–95
- Create Storyline (Command-G), 157, 162, 179, 473
- Create Transition button, 304
- Credentials, sharing to online host, 394
- Crop tool, 313, 320–321, 443–444
- Cross dissolve transition
  - collapsing composite into compound clip, 327
  - customizing, 311–312
  - as default transition, 301–302
  - media handles for, 304, 307
  - refining edits, 194–197
- Custom Speed window, 276–277, 351
- Customizing
  - destinations for sharing
    - project, 390, 398
  - favorites, 80–81
  - resolution/frame rate for new project, 430–434
  - transitions, 309–312
- Cutaways. *see* B-roll clips
- D**
- Dashboard, 233, 242, 311
- Decorative effects, 291–293
- Default command set, 468–475
- Delete (Command-Delete), 54
- Delete key
  - deleting clips, 138
  - deleting effect from clip, 293
  - fine-tuning within multicam clip, 461–462
  - rejecting clip, 77–80
  - removing transitions, 258
- Delete Keyword Collection, 54
- Deleted segments, 132–133
- Delta (timing change), dragging clip to Timeline, 121
- Depth of field effect, 293–299
- Deselect All (Command-Shift-A), 391, 400, 475
- Destinations (preset)
  - creating master file of final project, 400
  - creating viewable file for sharing media, 390
  - defined, 481
  - sharing to bundle, 397–398
  - sharing to online host, 391–397
- Digital signage video, with non-native resolutions, 430
- Distort tool, 313
- Documents folder, 6, 23
- Doppler effect, 360, 481
- Downloading, source media files, 5
- Downloads folder, 5, 7
- Dragging
  - clips within library, 419–421
  - delta or timing change within Timeline when, 121
  - from Finder, 40–42, 418
  - sound from Sound Effects folder, 343–344
  - transitions, 258–260
- Dual mono, switching clip from stereo to, 364
- Dual system recording, 435–439, 481
- Duck, 366–369, 481
- Duplicate command, 466–467
- Duplicate Project, 213
- Duplicate Project as Snapshot, 213–214, 273
- Duration (Control-D)
  - avoiding audition-induced ripple, 250
  - creating time at 0:00, 221–228
  - customizing transition, 310–311
  - defined, 473
  - editing blade speed, 280
  - inserting gap clip, 134–135
  - of lower third on screen, 340
  - roll trim vs. ripple trim and, 159
  - setting playback speed
    - manually, 275–278
  - three-point edit for split screen, 314–321
- Dynamic range, evaluating width, 362
- E**
- Edit phase, workflow, 10
- Edit points
  - applying transitions to, 301
  - defined, 125
  - media handles for transitions, 303–306
  - three-point edit for split screen, 316–317
  - using Transitions Browser, 308–309
- Editing
  - default keyboard shortcuts for, 472–474
  - first. *see* first edit (rough cut)
  - multicam clips, 454–460
  - native formats, 477–479

- Effects Browser, 286–288, 296, 440–444
  - End point
    - aligning bites and bits, 263–264
    - extend edits on title, 341–342
    - refining, 142
    - removing transitions, 258–260
    - retiming borrowed audio, 349
    - ripple trimming with
      - keyboard, 129–131
    - trimming aerials, 253–257
    - video transitions. *see* edit points
  - Enhancement pass
    - compositing. *see* compositing using spatial parameters
    - compound clips, 325–327
    - overview of, 271
    - retiming clips, 272–285
    - review Q & A, 328–331
    - video effects. *see* video effects
    - video transitions. *see* video transitions
  - Escape key, 337
  - Event container, 14–15
  - Event Manager, 4
  - Events
    - combining library, 426
    - copying to portable library, 422–425
    - creating, 107–109
    - defined, 106
    - deleting extraneous, 426
    - dragging items to, 41
    - filtering, 86–90
    - importing as managed clips, 415–417
    - metadata command set
      - for, 471
    - moving or copying between libraries, 419–421, 426
    - naming, 17
    - upgrading existing, 3–4
    - virtual storage and, 31
  - Exchangeable file, creating, 404
  - Expand Audio/Video (Control S), 355–357, 473
  - Exporting, 404–406. *see also* sharing project
  - Exposure, manually correcting clip, 376–381
  - Exposure pane, 378–379
  - Extend edits (Shift-X), 341–342, 345, 474
  - Extended view, Info inspector, 451
  - EXtensible Markup Language (XML), outputting to third-party apps, 404
  - External media
    - as best practice for storage, 411
    - copying source media files
      - into, 37
    - creating portable library, 421–425
    - defined, 481
    - importing as "Leave files in place" to, 412–414
    - moving and copying clips
      - within library, 419–421
    - overview of, 32
    - setting in Media Import options, 39
    - symlinks created when using, 37, 411
  - Extras folder, 435
- F**
- Face parameters, text font face, 338–339
  - Fade handles, 192–194, 322–323, 360, 368
  - Falloff parameter, Vignette effect, 289–290, 292
  - Favorite (F)
    - adding camera archive to, 23
    - appending batch edit to storyline, 117–118
    - appending clips to storyline, 112–115
    - customizing, 80–81
    - as not always favorite, 76
    - overview of, 69
    - performing insert edits, 122–125
    - rating clips as, 76
    - setting marked ranges as, 73–75, 471
    - unrating (U key), 76–77
  - FCPX Media folder, 7–8, 18–19
  - Filmstrip preview, 26–28
  - Filmstrip view
    - appending batch edit to storyline, 115–118
    - in Browser pane, 20
    - expanding, 27–28
    - keywording clip in, 50–51
    - manually applied keywords
      - in, 49
    - navigating within, 26–28
  - Filter pop-up menu
    - applying rules for searches, 83–85
    - creating Smart Collections, 91–93
    - filtering event, 86–90
    - sorting clips, 82
  - Filters, 215
  - Final Cut Pro command set, keyboard shortcuts, 475
  - Find and Replace Title Text, 342
  - Find People, 33, 93–96
  - Finder
    - dragging from, 40–42, 418
    - harnessing metadata using keywords, 39
    - locating camera archives
      - in, 426
    - managing external source media files, 32
    - preparing source media files, 6, 8
  - Finishing, of first edit
    - adjusting edits, 183–186
    - clip volume levels, 187–189
    - connecting additional B-roll clips, 189–192
    - cross dissolves and fade handles, 192–197
    - overview of, 181–182
  - Finishing edit
    - adding and modifying lower third, 335–342

- adding sound to clip, 343–349
- audio, 342–343
- audio enhancements, 372–374
- neutralizing clips. *see* neutralizing clips
- overview of, 333
- retiming borrowed audio, 349–352
- review Q & A, 386–388
- splitting audio with another clip, 352–357
- titles, 334–335
- volume levels. *see* volume levels, adjusting over time
- First edit (rough cut)
  - appending batch edit, 115–118
  - appending primary storyline, 111–115
  - in connected storyline. *see* connected storyline
  - creating project, 106–109
  - defining primary storyline, 109–111
  - editing above primary storyline, 143
  - editing below primary storyline, 179–181
  - finessing. *see* finessing, of first edit
  - modifying clips in primary storyline, 121–122
  - overview of, 105
  - performing connect edits, 144–156
  - performing insert edits, 122–125
  - playing project, 118–119
  - rearranging clips in primary storyline, 119–121
  - review Q & A, 206–210
  - rippling primary storyline, 126–131
  - share project to media file, 197–205
  - timing. *see* timing primary storyline
  - understanding project, 106
- Folders
  - creating for downloaded media, 6
  - importing as Keyword Collections, 33
- Foreground clip
  - chroma key workflow, 440–443
  - manually selecting color key samples, 445–449
  - masking chroma key clips, 443–444
- Formats
  - available for this book, 4–5
  - custom settings for new project, 430–434
  - custom settings for non-native resolutions, 430
  - editing native, 477–479
  - master file of final project, 400–401
- Frame rate, 21, 430–434
- G**
  - Gap edit (Option-W)
    - deleting clips with, 138
    - first edit, 133–135
    - lengthening connected storyline, 169
    - Position tool replacing existing content, 235–238
    - refining sound bite edits, 142
    - replacing deleted clip, 246
    - replacing deleted segments, 133
    - replacing in primary storyline, 219–221
    - revising edit, 225–227
    - Shift-Delete to replace selection with, 133
    - timing primary storyline, 131
  - Gaussian Blur effect, 298–299
  - Generators Browser, 441, 443
  - Getting started
    - downloading source media files, 5
    - introducing job and workflow, 9–11
    - learned from a legacy, 2–3
    - overview of, 1
    - preparing source media files, 5–8
    - review Q & A, 11
    - upgrading existing events and projects, 3–4
    - using this book, 4–5
- Glossary, 4, 481–482
- Graphics, 335
- Grave key, overriding connected clips, 154–155
- Grouping, 96, 481
- H**
  - H.264 format
    - as native video format, 478
    - preset destinations and, 198
    - sharing master file, 399
    - sharing to hosting service, 397
  - Hand tool, 462
  - Hardware, 3, 17
  - Help tag, adding notes to clip, 67
  - Hide application (Command-H), 18, 475
  - Hide Rejected, Filter pop-up menu, 82
  - Hum Removal, Audio Enhancements, 373
- I**
  - iLife sound effects and musical clips, 343
  - Image Capture, 18
  - Image correction
    - balancing color automatically, 375–376
    - Color Board, 381
    - correcting clip color manually, 382–384
    - correcting clip exposure manually, 376–381
    - finishing edit, 373–374
    - matching color, 384–386
  - Image Mask effect, 296

- Images
    - native still-image formats, 478
    - synchronizing dual system recordings, 435–439
  - Import All, clips from camera card, 28
  - Import Folders as Keyword Collections, 50
  - Import options
    - creating Smart Collections, 93
    - expanding filmstrip view, 27–28
    - importing camera source files, 19, 24–25
    - importing existing files from volume, 38
    - importing files from volume, 36
    - media management, 31
    - using, 19–21
  - Importing
    - camera source files, 18–19, 24–25
    - clip container, 14
    - clips from camera card, 28–30
    - creating camera archive, 22–24
    - creating library, 16–17
    - by dragging from Finder, 40–42, 418
    - event container, 14–15
    - existing files from volume, 38–40
    - files from volume, 36–37
    - as "Leave files in place," 412–414
    - library container, 15
    - as managed clips, 415–417
    - Media Import Options dialog, 31–34
    - Media Import window, 19–21
    - navigating within filmstrip preview, 26–28
    - options, 34–35
    - recovering original source media files, 426
    - review Q & A, 42–43
    - for revised edit, 246–247
    - setting up multicam clip, 450–454
    - synchronizing dual system recordings, 435
  - Info inspector
    - reassigning audio and video to correct roles, 365
    - setting up multicam clip, 451
    - verifying additional roles are added, 103
    - verifying clip received assigned role, 99
    - verifying events copied to portable library, 423
    - viewing, 67–68
    - viewing managed vs. external media in, 416–417
  - Info pane, Share window, 200, 392–393
  - Insert edits (W), 122–125, 157, 249, 257
  - Inspector button (Command-4), 99, 288, 469
  - Inspector pane
    - Exposure pane in, 377–381
    - Info and Share inspectors in, 396–397
    - Text inspector in, 337
    - Transition inspector in, 309
  - Intelligent Assistance, 4
  - Interface command set, keyboard shortcuts, 468–469
  - Inter-library copying, 90
  - Interviews, pre-editing process, 70
  - IOS-compatible file, sharing, 198–203
- J**
- J-cut, 353, 481
  - Job, workflow and, 9–11
  - Join through edit, 139–140, 462, 481
  - Jump cut, 139, 481
- K**
- Keyboard, ripple trimming with, 129–131
  - Keyboard shortcuts
    - assigning, 466–467
    - audio commands, 471–472
    - Command-Z, 11
    - customizable in Command Editor, 25
    - editing commands, 472–474
    - enhanced content for, 4
    - event metadata commands, 471
    - Final Cut Pro commands, 475
    - interface commands, 468–469
    - navigation commands, 470
    - for playback, 27
    - tool palette commands, 470
    - using command list, 468
    - using keyboard to assign, 467
    - using search field, 467–468
  - Keyer effect
    - chroma key workflow, 440–443
    - controlling with Strength slider, 446
    - manually selecting chroma key color, 445–449
    - masking chroma key clips, 443–444
  - Keyframes
    - adjusting volume levels over time, 358–361
    - defined, 482
    - ducking/swelling sound effects and music, 367–369
    - Option key with Select tool creating, 358
    - Range Selection for, 369–372
  - Keyword Collections
    - adding keyword to, 52–53, 54–56
    - assigning keyword to clip range, 62
    - import folders as, 33, 39
    - keyword shortcuts and, 58–60
    - organizing clips with keywords into, 49
    - removing keyword, 54
    - Smart Collections vs., 85–86

- Keyword Editor (Command-K), 52–53, 56–60, 62
- Keyword shortcuts, 56–60, 63
- Keywords
  - adding clips to Keyword Collection, 54–56
  - adding to one or more clips, 52–53
  - analysis, 49
  - applying to ranges, 61–65
  - batch renaming of camera clips, 60–61
  - filtering event, 87–90
  - harnessing metadata in Finder, 39
  - organizing clips using, 48–49
  - overview of, 50–51
  - ratings with, 69
  - removing, 54
  - search, sort and filter metadata, 81
  - searching and filtering using, 83–85
  - using shortcuts, 56–60
- L**
- Layering order, stacking effects, 291–293
- Layout, viewing in Viewer, 47
- L-cuts, 353, 356–357, 482
- "Leave files in place," Media Import, 32–33, 37, 39, 412–414
- Leave in place, Media Storage option, 41–42
- Libraries
  - applying Media Import options, 35, 412–414
  - archiving, 425–426
  - closing existing, 17
  - creating, 16–17
  - importing as managed clips, 415–417
  - importing by dragging from Finder, 418
  - media empty vs. media full, 411
  - moving and copying clips, 419–421
  - no duplicate source media files in, 418
  - other features of, 426
  - overview of, 409
  - portable, 421–425
  - relinking offline clips to source media, 414–415
  - reverting, 426
  - review Q & A, 426–427
  - storing camera archives, 24
  - storing imported media, 410–411
  - upgrading existing events/projects, 3–4
  - using clips between, 421
  - using inter-library copying, 90
- Libraries pane
  - adding keyword to one or more clips, 52–53
  - assigning role to batches of clips, 99
  - editing multicam clip, 454–460
  - Keyword Collections stored in, 49
  - keywording clip, 50–51
  - keywording range, 61–63
  - organizing clips, 46–48
  - toggling Hide/Show, 51
  - viewing keywords, 64
- Library container, 15–16
- Lift from storyline, 216–217, 221, 279
- List view
  - in Browser pane, 20
  - customizing favorites, 80–81
  - manually applied keywords in, 49
  - removing Rejected rating in, 78–79
  - viewing clip range keywords in, 63–65
- Locate option, upgrading existing events/projects, 3–4
- Login, sharing to online host, 394
- Loop playback, 119
- Loudness, Audio Enhancements, 372
- Lower third
  - adding title, 335–336
  - defined, 482
  - identifying who's who in project, 334
  - modifying title text, 336–340
  - performing extend edits on title, 341–342
- Luminance, 378–379, 482
- M**
- Magnetic storyline, behaviors of, 109–111
- Managed media
  - archiving library as, 426
  - copying source media files into, 37
  - creating portable library, 421–425
  - defined, 482
  - importing media as, 415–417
  - moving and copying clips within library, 419–421
  - overview of, 32
- Marked clip, selected clip vs., 315
- Markers (M)
  - adjusting edits with, 183–184
  - aligning bites and bits, 262–265
  - breaking up/adding new sound bites with, 243
  - creating, 230–234
  - overview of, 228
  - previewing audio blend, 354–355
  - repositioning storylines/ deleting within, 245
  - using Timeline Index, 228–230
- Marquee selection, manual chroma key color, 447–449
- Mask
  - compositing clip with, 298–299
  - creating depth of field, 295–298
  - defined, 482
- Mask effect, 443–444

- Master files, sharing, 399–403
  - Match color feature, 384–386
  - Maximize button, Video Animation Editor, 322
  - Media empty libraries, 411, 482
  - Media full libraries, 411, 482
  - Media handles, 302–307
  - Media Import (Command-I)
    - applying Media Import options, 34–35
    - choosing Media Import options, 31–34
    - creating camera archives, 24
    - creating Smart Collections, 92–93
    - defined, 469
    - expanding filmstrip view, 27–28
    - importing aerials, 246–247
    - importing as "Leave files in place," 413–414
    - importing as managed clips, 415–417
    - importing existing files from volume, 38–40
    - importing files from volume, 36–37
    - importing source media from camera, 24–25
    - setting up multicam clip, 450
    - using, 19–21
  - Media management. *see also* libraries
    - beginning editorial process with, 13
    - clip container, 14
    - defined, 482
    - event container, 14–15
    - library container, 15
    - using inter-library copying, 90
  - Media volume. *see* volume, media
  - Merge Events command, 426
  - Metadata
    - adding keywords. *see* keywords
    - adding notes, 66–68
    - applying ratings, 71–75
    - automatic backups of library, 426
    - camera archives, 24
    - customizing, 81
    - exchangeable file, 404
    - Final Cut Pro creating, 46
    - master file of final project, 400
    - multicam clip, 451–452
    - roles. *see* roles
    - searching, 82–83
    - sharing iOS-compatible file, 200
    - sharing to online host, 392–393
    - viewing shared project in Inspector pane, 396–397
  - Motion, 335
  - Move Connection (Command-Option-click), 251, 474
  - Move Events to Library command, 426
  - Move tool, titles, 338
  - Moving
    - clips within library, 419–421
    - events between libraries, 426
  - Multicam
    - configuring audio channels/components, 462–463
    - editing clip, 454–460
    - fine tuning within clip, 460–462
    - opening Angle Editor, 446
    - overview of, 449
    - setting camera date and time, 454
    - setting up clip, 450–454
    - switching angles, 462
  - Music and Sound Browser, 343–344, 349, 356
  - Music clips
    - adjusting clip volume levels, 187–189
    - adjusting edits, 183–186
    - connecting, 180–181
    - creating markers, 232–234
    - ducking and swelling, 366–369
    - finessing. *see* finessing, of first edit
    - lifting sound bites from storyline, 216–217
    - replacing in primary storyline, 219–221
    - repositioning storylines/deleting within, 244–246
    - using Range Selection for keyframing, 369–372
  - Music role, 100
- ## N
- Naming
    - batch of camera clips, 60–61
    - destinations (presets) for sharing media, 398
    - markers, 228, 232, 262
    - new role, 99
    - preparing source media files, 7 project, 107
    - subroles, 102
  - Native formats, editing, 477–479
  - Nats
    - adjusting volume levels over time, 358
    - in B-roll content, 144
    - defined, 482
    - as natural sound audio, 98
    - turning down volume of, 187
  - Navigation
    - controls, 27–30, 113
    - within filmstrip preview, 26–28
    - keyboard shortcuts, 470
  - Near-field loudspeakers, 189
  - Nesting compound clips, 325
  - Neutralizing clips
    - balancing color automatically, 375–376
    - Color Board, 381
    - correcting clip color manually, 382–384
    - correcting clip exposure manually, 376–381
  - New Compound Clip (Option-G), 326–327
  - New Folder button, camera archive, 23
  - New Keyword Collection, 55

- New Multicam Clip command, 451–454
  - New Project
    - creating, 106–109
    - editing multicam clip, 454–460
    - using manual settings for
      - frame size/rate, 430–434
  - New Smart Collection, 91–93, 214–215
  - Non-native resolutions, custom settings for, 430
  - Nonvideo clips, custom settings for, 430
  - Not Analyzed state, Balance feature, 374, 376
  - Notes, 65–69, 81
  - Notification alert, sharing to online host, 395
  - Nudge Left ( , [comma] ), 454, 473
- O**
- "On the Go" library, 421–425
  - Online host, sharing project to, 391–397
  - Opacity controls, Video Animation Editor, 322
  - Opacity tool, compositing, 313
  - Open in Timeline, 437
  - Optimized media, 33, 426
  - Option key
    - combining operation with, 462
    - with Select tool, 358
  - Overwrite edits, 235, 241
- P**
- Page Curl transition, 308–312
  - Parameters, modifying video effect, 288–290
  - Paste Attributes, 323–325
  - Pasting (Command-V), 294, 323–325
  - Pause (K key), 27, 47–48, 470
  - Period (.) key, 130, 142
  - Physical storage, Media Import, 32–33
  - Play (L key), 27, 47–48, 470
  - Playback
    - keyboard shortcuts, 27
    - previewing video effect, 288
    - reverse, 223–224, 272
    - setting speed manually, 275–278
  - Playhead
    - applying ratings to clips, 71–75
    - editing multicam clip, 455
    - importing ranges from within camera file, 29–30
    - moving with Control-P, 222
    - playing project, 118–119
    - rearranging clips in primary storyline, 119–121
    - trimming start point to, 456
  - Portable library, creating, 421–425
  - Position playhead (Control-P), 222, 242, 470
  - Position tool
    - breaking up/adding new sound bites, 239–243
    - overwrite editing, 235
    - realigning sound bites/B-roll to music, 235–238
    - Select tool vs., 235–238
  - Preferences (Command-), 40, 397–398
  - Preview (Spacebar), 26–27
  - Previewing audio blend, 353–355
  - Primary storyline
    - append batch edit to, 115–118
    - appending clips to, 111–115
    - connected. *see* connected storyline
    - editing above, 143–156
    - editing below, 179–181
    - lifting clips out of, 216–217
    - modifying clips in, 121–122
    - performing insert edits, 122–125
    - rearranging clips in, 119–121
    - replacing clip in, 219–221
    - rippling, 126–131
    - timing, 244–246
    - working with behaviors of, 109–111
  - Projects
    - creating, 106–109
    - understanding, 106
    - upgrading existing, 3–4
  - Properties, customizing for new project, 431
  - Proxy media, 33, 426
  - Puck values, clip exposure, 379
- Q**
- QuickTime, sharing master files, 401–403
  - QuickTime Inspector window, 203
  - QuickTime Player
    - sharing iOS-compatible file, 201–203
    - using AirPlay with, 203–205
- R**
- RAID (redundant array of independent disks), camera archives, 24
  - Ramps
    - adjusting volume levels over time, 358, 360
    - defined, 482
    - dragging fade handles for, 182
    - fading audio in or out with, 192–194, 197
    - previewing audio blend, 354
    - retiming borrowed audio, 352–353
  - Range End, additional (Command-Shift-O), 30, 471
  - Range End (O key), 29, 471
  - Range Selection tool (R), 252, 366, 369–372
  - Range Start, additional (Command-Shift-I), 30, 471
  - Range Start (I key), 29, 76–77, 222–223, 471
  - Ranges
    - adding notes to, 66, 69
    - applying keywords to, 61–63
    - deselecting when sharing, 198–199, 391
    - importing from within camera file, 29–30

- performing insert edits, 122–125
- performing three-point edit for split screen, 315–317
- setting as favorite, 71–75
- viewing keywords in list view, 63–65
- Rate percentage field, Custom Speed window, 276–278
- Ratings
  - applying, 70–75
  - customizing favorites, 80–81
  - favorites as not always favorites, 76
  - rejecting clips, 77–80
  - search, sort and filter metadata, 81
  - system of, 69
  - unrating favorites, 76–77
- Reading Audio meters, 361–362
- Record button, pre-editing interviews in field, 70
- Redundant array of independent disks (RAID), storing camera archives, 24
- Refine Key's Sample Color button, 447
- Reimport from Camera/Archive command, 426
- Rejected rating, 69, 77–80
- Relink Files, 414–415
- Remove pulldown, transcode and analysis, 33
- Render Format pop-up menu, 433–434
- Replace command, 218
- Replace edits
  - creating time at 0:00, 221–228
  - performed by audition clip, 249
  - replacing primary storyline, 219–221
  - using ripple trim to shorten clip for, 219
  - versions of, 217–219
- Replace from End command, 218–219
- Replace from Start command, 218–219
- Replace with gap edit (Shift-Delete), 133, 138, 142, 209, 246
- Reset button (X), 116, 290
- Reset Speed, 275
- Resolution, custom settings, 430–434
- Retime Editor (Command-R)
  - associated with every clip, 274
  - creating time at 0:00 and, 224
  - defined, 474
  - editing blade speed, 278–282
  - setting constant speed change, 274
  - setting playback speed manually, 275–278
  - with speed transitions, 282–285
- Retime pop-up menu, 223–224
- Retiming clips
  - for borrowed audio, 349–352
  - editing with blade speed, 278–282
  - overview of, 272–273
  - setting constant speed change, 273–274
  - setting playback speed manually, 275–278
  - with speed transitions, 282–285
- Reveal Project in Browser (Option-Shift-F), 395
- Reverse playback (J key), 27, 47–48, 223–224, 272, 470
- Review Q & A
  - advancing workflow, 464
  - enhancement pass, 325–327
  - finishing edit, 386–388
  - first edit, 206–210
  - getting started, 11
  - importing media, 42–43
  - libraries, 426–427
  - organizing clips, 103–104
  - revising edit, 267–269
  - sharing project, 407–408
- Revising edit (second pass)
  - aligning bites and bits, 260–267
  - Auditions. *see* Auditions
  - continuing to add B-roll, 257–258
  - creating time at 0:00, 221–228
  - importing aerials, 246–247
  - lifting from storyline, 216–217
  - overview of, 211–212
  - removing transition and moving clips, 258–260
  - replacing clip, 217–221
  - review Q & A, 267–269
  - snapshotting project, 213–215
  - trimming aerials, 253–257
  - trimming tops and tails, 251–252
  - using Position tool, 235–243
  - versioning project, 212–213
  - working with markers, 228–234
- RGB Parade, 377–379
- Ripple deletes, 132
- Ripple field, Custom Speed window, 277–278
- Ripple trim
  - added B-roll clips, 257–258
  - adding sound to clip, 347
  - adjusting music edits, 184–185
  - aligning bites and bits, 260–261, 266–267
  - avoiding Audition-induced, 250
  - breaking up/adding new sound bites, 240–241
  - within connected storyline, 167–168
  - converting connected clips into connected storyline, 158–161
  - customizing transition, 310–311
  - defined, 122
  - editing multicam clip, 455
  - editing within connected storyline, 170–176
  - in primary storyline, 126–131
  - refining sound bite edits, 141–142
  - shortening clip for replace edit, 219
  - tightening edit, 139

- Roles
    - assigning, 98–103, 269
    - creating, 97–100
    - delivering master file of final project, 401–403
    - overview of, 96–97
    - setting volume levels with, 364–366
  - Roles as: Multitrack QuickTime Movie, 401–402
  - Roles Editor, 98–103
  - Roles Index, 229–230, 239, 242, 364–366
  - Roll edit
    - converting connected clips into connected storyline, 160–161
    - customizing transitions, 310
    - ripple trim vs., 159
  - Roll edit tool, 461
  - Rolling shutter, 94, 482
  - Rules, searching using filter, 83–85
- S**
- Sample Color button, chroma key, 447–449
  - Sample rate, 348, 432–433
  - Saving
    - libraries, 16
    - master file of final project, 403
    - portable library as On the Go, 422
    - search collections as Smart Collections, 91–93
  - Search field, Command Editor, 467–468
  - Searching
    - marker names in Timeline Index, 228–230
    - metadata, 82
    - Sound Effects folder, 343–344
  - Second pass. *see* revising edit (second pass)
  - Select tool (A)
    - adjusting volume levels over time, 358–359
    - blading, 137–138
    - breaking up/adding new sound bites, 240
    - fine-tuning within multicam clip, 461
    - joining through edits, 140
    - Position tool vs., 235–238
    - removing transitions around start/end points, 258
    - rippling primary storyline, 127–129
    - trimming audio clip, 345–347
    - using Range Selection for keyframing, 371
  - Selected clip, marked clip vs., 315
  - Selection commands
    - continuous selection (Shift-click), 363, 475
    - selecting multiple items (Shift key), 28
    - Trim to Selection (Option-), 252–257, 473
  - Send to Compressor command, 405–406
  - Settings tab, Share window
    - creating master file of final project, 400–401
    - sharing iOS-compatible file, 201
    - sharing to online host, 393
  - Share button, 199–203, 392, 400
  - Share inspector, 396
  - Share phase, workflow, 10–11
  - Sharing project
    - to bundle, 397–399
    - creating exchangeable file, 404
    - creating viewable file, 390–391
    - master file, 399–403
    - with media empty library files, 411
    - to online host, 391–397
    - overview of, 389
    - review Q & A, 407–408
    - utilizing Compressor, 404–406
  - Sharing project to media file
    - overview of, 197–198
    - sharing iOS-compatible file, 198–203
    - using AirPlay with QuickTime Player, 203–205
  - Shortcuts, keyword, 56–60
  - Show Angles, Angle Viewer, 456
  - Show Video Animation, 321
  - Show Video Scopes (Command-7), 377
  - Sidebar, Media Import window, 20
  - Size parameter, Vignette effect, 289–290
  - Skimming (S)
    - aligning bites and bits, 263–264
    - breaking up/adding new sound bites, 240
    - creating markers, 230–234
    - filling project duration, 221–222
    - identifying/defining, 267, 269
    - performing extend edits on title, 341–342
    - performing insert edits, 125
    - positioning for zooming in on edits, 260
    - rearranging clips in primary storyline, 119–121
  - Slip edits, 181–182, 185–186, 306–307
  - Smart Collections
    - creating, 85–86
    - creating after analysis, 34
    - creating for compound clips, 327
    - creating projects, 214–215
    - saving search collections as, 91–93
    - working with, 91–93
  - Snapping (N)
    - adding/trimming connected B-roll, 150
    - disabling to lengthen gap clip, 169
    - identifying/defining, 267, 269
    - placing playhead between two clips with, 124
    - tightening edit with Blade tool, 136–137
    - toggle, 244
  - Snapshots, 213–215, 273

- "Social Sites for Lifted bundle," 398–399
  - Software, not upgrading in midst of job, 3
  - Solo command (Option-S)
    - adjusting edits, 184
    - creating markers, 232, 234
    - example of, 268–269
    - identifying/defining, 267, 269
  - Sorting clips, 82
  - Sound, adding to clip, 343–349
  - Sound bites
    - aligning, 260–267
    - breaking up/adding new, 239–243
    - changing Channel Configuration, 362–364
    - lifting from storyline, 216–217
    - realigning to music, 235–238
    - refining edits, 140–142
    - selecting just, 363
  - Sound effects
    - adding, borrowing, splitting audio, 355–357
    - adding to clip, 343–349
    - adjusting volume levels over time, 358–361
    - changing Channel Configuration, 362–364
    - ducking and swelling, 366–369
    - previewing audio blend, 353–355
    - Range Selection for keyframing, 369–372
    - reading Audio meters, 361–362
    - retiming borrowed audio, 349–352
    - setting volume level by role, 364–366
    - splitting audio with another clip, 352–353
    - understanding audio enhancements, 372–374
    - using range selection for keyframing, 369–372
  - Sound Effects folder, 343–344
  - Source frame editor, speed transitions, 283
  - Source media files
    - clip container, 14
    - copying to portable library, 422–425
    - creating camera archive, 22–24
    - downloading, 5
    - event container, 14–15
    - importing from camera, 24–25
    - importing from volume, 36–37
    - importing to library by
      - dragging from Finder, 418
    - ingesting with Media Import window, 19–21
    - no duplicate entries created in libraries, 418
    - preparing, 5–8
    - preparing to import camera source files, 18–19
    - processed as clips during import phase, 10
    - recovering, 426
    - relinking offline clips to, 414–415
    - storage. *see* libraries
    - using Media Import window to ingest, 19–21
  - Source Media pop-up menu, 350
  - Spacebar (preview), 26–27
  - Speed
    - effects, 351. *see also* retiming clips
    - transitions, 282–285
  - Speed pop-up menu, 276
  - Spell check, title text, 338
  - Split audio edits, 352–357
  - Spotlight badge, 248–249
  - Stabilization, 84, 94, 482
  - Stacking, video effects, 291–293
  - Stand-alone audio, 348
  - Standard markers, 228, 230–234
  - Stems, 401, 482
  - Stereo, 364, 403
  - Still images, native formats, 478
  - Stock footage, 421
  - Storage. *see also* libraries
    - dragging items from Finder or other apps, 40–42
    - external media, 32
    - managed media, 32
    - physical, 32–33
    - preparing location for source media files, 6
    - virtual, 31
  - Storyline
    - primary. *see* primary storyline
    - repositioning/deleting within, 244–246
  - Strength slider, Keyer effect, 446
  - Studio headphones, 189
  - Subclips, 65, 482
  - Subframe level, trimming audio at, 337
  - Subroles, 97, 402–403
  - Swell, 366–369, 482
  - Symlinks, 37, 411–414
  - Sync keyword collection, 436
  - Synchronization
    - of connected clips, 152–154
    - dual system recording workflow, 435–439
    - setting camera date and time, 454
    - setting up multicam clip, 452
  - Synchronize Clips command, 436
- ## T
- Tags
    - sharing iOS-compatible file, 200
    - sharing to online host, 393
  - Tags Index
    - creating markers, 232–234
    - listing all markers in project, 229
    - overview of, 229–230
    - selecting just sound bites in, 363
    - setting constant speed change, 273–274
  - Takeoff storyline, 244–246
  - Templates, Motion, 335

- Terms of Service, sharing to online host, 394
  - Text
    - adding notes to clip, 66–67
    - exiting entry with Escape key, 337
    - extending edit for title clip, 341–342
    - modifying title, 336–340
    - replacing title, 342
    - searches, 82–83
    - using titles, 334–335
  - Text inspector, 338–339
  - Third-party applications, outputting project in XML for, 404
  - Three-point edits, 314–321
  - Through edits, 132, 139–140, 482
  - Thumbnails, displaying in Timeline, 437
  - Timeline
    - adjusting audio in, 180–181
    - dragging video effect to, 288
    - fitting entire project within, 114, 220
    - opening project in, 108–109
    - retiming borrowed audio, 350
    - selecting just sound bites in, 363
    - synchronizing dual system recordings, 437
    - three-point edit in, 314–321
    - zoom into, 126
  - Timeline Index (Command-Shift-2)
    - editing blade speed, 279
    - setting constant speed change, 273–274
    - setting volume level by role, 364–366
    - using, 228–230
    - working with audio clips, 348
  - Timeline Navigator, 325
  - Timing
    - creating at 0:00, 221–228
    - retiming clips. *see* retiming clips
  - Timing primary storyline
    - blading and deleting, 136–139
    - inserting gap clip, 133–135
    - joining through edit, 139–140
    - overview of, 131–133
    - refining sound bite edits, 140–142
  - Titles
    - adding, 335–336
    - modifying, 336–342
    - performing extend edit, 341–342
    - replacing text, 342
    - using, 333–335
  - Titles Browser, 335–342
  - To-do markers
    - creating, 230–234
    - defined, 228
    - previewing audio blend, 354
    - retiming borrowed audio, 352
    - setting constant speed change, 273–274
    - working with audio clips, 348
  - Tool palette, keyboard shortcuts, 470
  - Traces, defined, 482
  - Transcode and analysis, Media Import options, 33–35
  - Transform tool, 313, 318–319, 444
  - Transition inspector, 309–312
  - Transitions
    - aligning bites and bits, 260–267
    - deleting for depth of field, 294
    - removing around start/end points, 258–260
    - speed, 282–285
    - video. *see* video transitions
  - Transitions Browser, 307–309
  - Trash can, emptying, 426
  - Trim edits, 130, 142, 155–156
  - Trim End (Option-]), 251–257, 283, 345, 473
  - Trim Start (Option-[), 251–257, 456, 473
  - Trim to Selection (Option-\), 252–257, 473
  - Trim tool (T)
    - ripple trims with, 170–176
    - roll trims with, 160
    - slip edits with, 185–186
    - slipping to create media handles, 306–307
    - three-point edits for split screen with, 316
    - trimming audio clips with, 347
    - between two clips, 225
  - Trimming
    - audio clips, 345
    - defined, 122, 482
  - Trimming tops and tails
    - continuing to add B-roll, 257–258
    - removing transition/moving clips, 258–260
    - revising edit, 251–252
    - trimming aerials, 253–257
  - Two-up display
    - converting connected clips into connected storyline, 159
    - editing within connected storyline, 170
    - slip edit for, 182, 186
    - three-point edit for, 314–321
- ## U
- Undo (Command-Z), 11, 236–237, 474
  - Unrated status, 69, 76
  - Unrating clip as (U key), 76
  - Update All option, events and projects, 3–4
  - Update Later, events and projects, 3–4
  - Upgrading, events and projects, 3–4
  - "Use audio for synchronization" checkbox, multicam clip, 452
  - Use Custom Settings button, new project, 430–434
- ## V
- Variable speed change, 278–282
  - Vectorscope, 379–380, 382–384
  - Versioning, 212–217
  - Video
    - adding cross dissolve, 194–197
    - angles. *see* multicam

- customizing properties for project, 431
    - native formats, 478
  - Video Animation Editor, 313–314, 321–325
  - Video effects
    - deleting, 293
    - depth of field, 293–299
    - locating in Event Browser, 286
    - modifying, 288–290
    - overview of, 285
    - previewing and applying, 287–288
    - stacking, 291–293
  - Video inspector, 288–293, 313, 375–377, 384–386
  - Video role, 97, 101–102
  - Video scopes, 377–381, 482
  - Video transitions
    - adding more cross dissolves, 312
    - customizing, 309–312
    - experimenting with, 301–302
    - media handles, 302–307
    - overview of, 300–301
    - using Transitions Browser, 307–309
  - Viewer
    - defined, 20
    - Display options, 377
    - positioning images, 318–321
    - Transform, Crop and Distort in, 313
    - working with clips, 47–48
  - Vignette effect, 288–293
  - Vignette Mask effect, 288, 296
  - Virtual storage, Media Import option, 31
  - Visit button, sharing to online host, 395
  - Volume, disabling camera's, 437
  - Volume, media
    - importing existing files from, 38–40
    - importing files from, 36–37
    - importing source media files from, 32–33
    - storing camera archives on separate, 24
  - Volume levels
    - adjusting, 187–189
    - adjusting in Timeline, 180–181
    - knowing controls, 189
    - previewing audio blend, 353–355
    - replacing music clip in storyline, 220
  - Volume levels, adjusting over time
    - Channel Configuration, 362–364
    - ducking/swelling sound effects and music, 366–369
    - keyframing using Range Selection, 369–372
    - overview of, 358–361
    - reading Audio meters, 361–362
    - setting by role, 364–366
- ## W
- Waveform scope, 377–379
  - Wireframe, positioning images in Viewer, 319–320
  - Workflow
    - manual settings for new project, 430–434
    - overview of, 429
    - phases of, 10
    - review Q & A, 464
    - synchronizing dual system recordings, 435–439
    - using chroma key, 439–449
    - working with multicam. *see* multicam
- ## X
- XML (eXtensible Markup Language), outputting to third-party apps, 404
  - XSAN, 3–4
- ## Z
- Zoom In (Command=), 126, 129, 244, 468
  - Zoom Out (Command-), 114, 166, 469
  - Zoom slider, 27–28, 51, 244
  - Zoom to Fit (Shift-Z), 114, 118, 220, 468