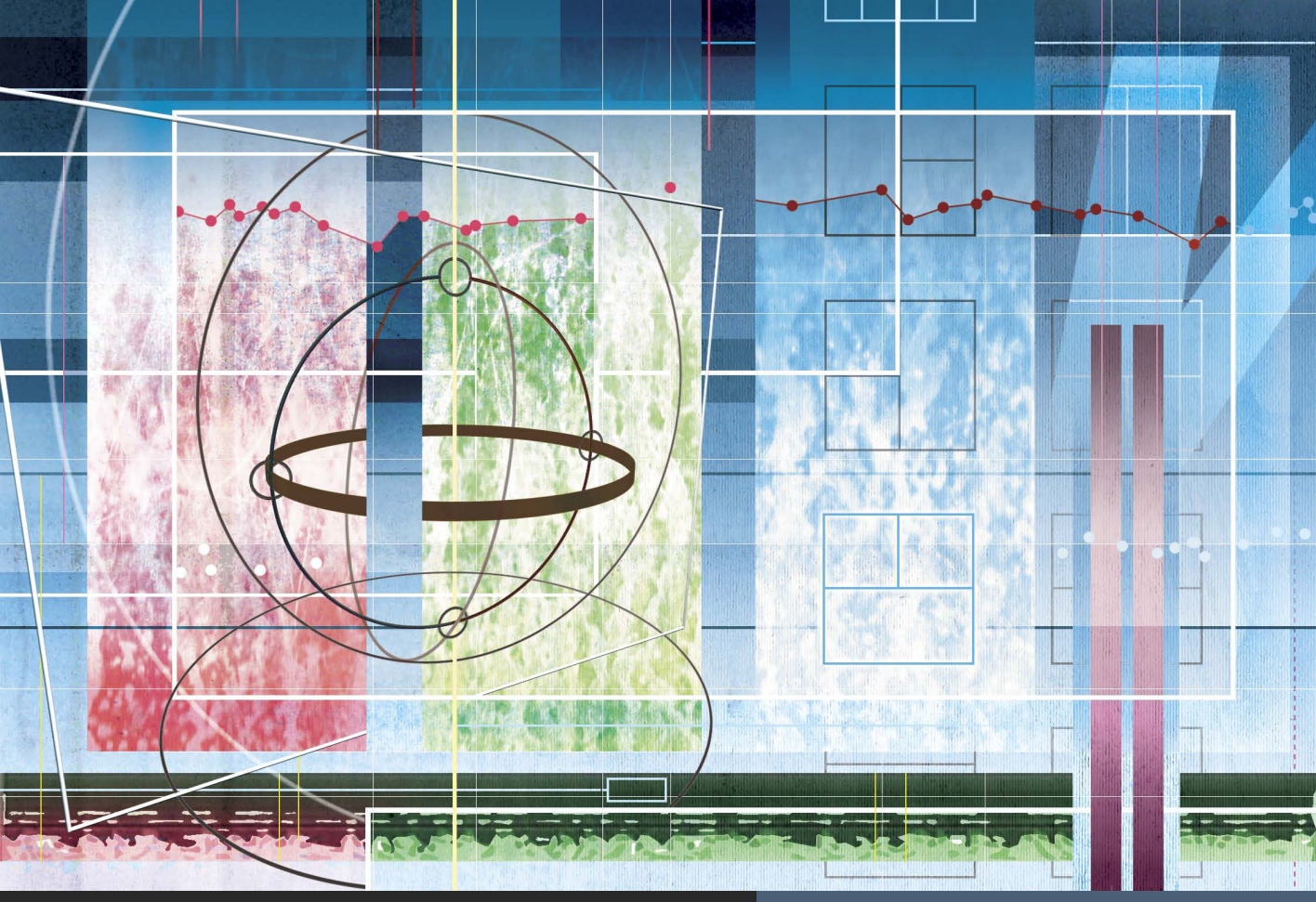

Apple Pro Training Series

Final Cut Pro X 10.2

Professional Post-Production

Brendan Boykin

Apple Certified

Certification exam preparation for:
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Apple Pro Training Series

Final Cut Pro X 10.2

Professional Post-Production

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Apple Pro Training Series: Final Cut Pro X 10.2
Brendan Boykin
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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, roll, and slip 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.

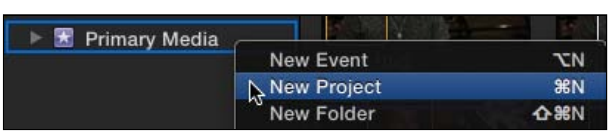
Events may contain as many projects as you need. For example, a news editor may need three projects for the VO (voiceover), the package, and the teaser. A documentary editor could easily use 10 to 30 projects when breaking down an edit by segment, creating a variety of video news releases, posting online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

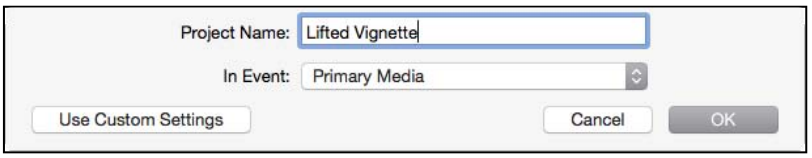
Exercise 4.1.1
Creating a Project

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 (or right-click) the Primary Media event, and from the shortcut menu, choose New Project.



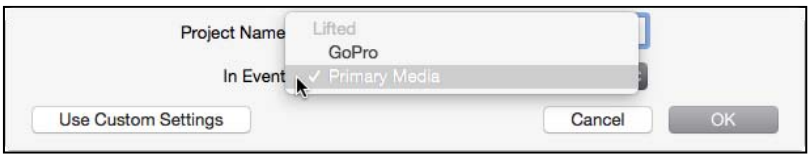
The Project Properties dialog opens to the default automatic settings.



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.

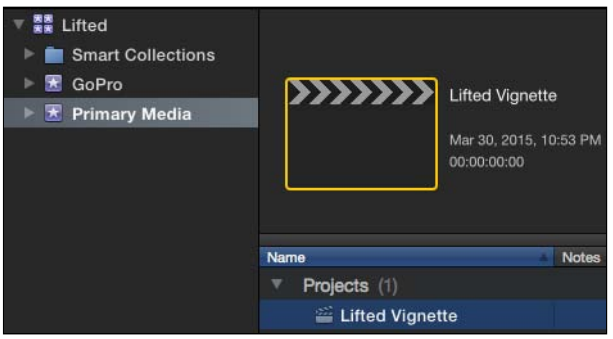


In Event specifies the event in which to save the project you are creating. The pop-up menu displays the events available in the open libraries.

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

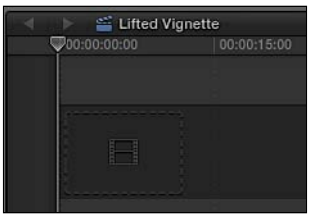
The project is created and saved in the Primary Media event.

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



The project appears at the top of the Browser.

6 If necessary, double-click the project to open it in the Timeline.



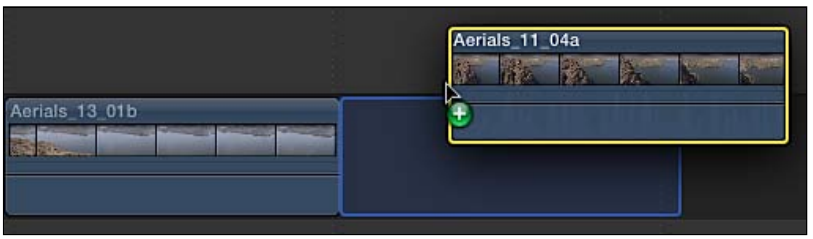
The project open in the Timeline

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.

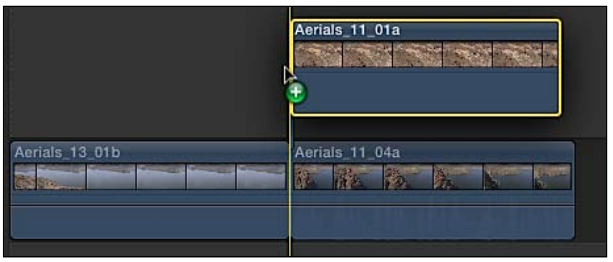
By default, clips in the primary storyline interact with each other and incoming clips. This interaction is similar to that of two magnets: attraction or repulsion.



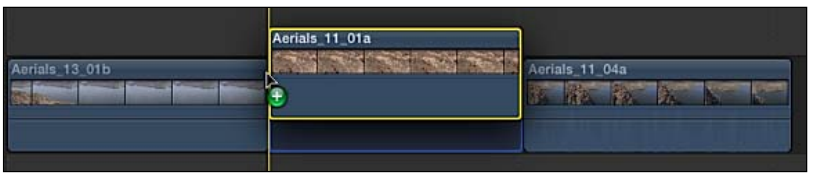
Dragging a clip to the end of a project

The storyline appends the clip to the project.

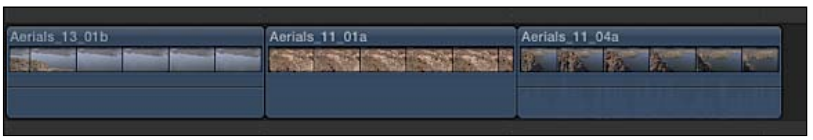
When you drag a new clip from the Browser to the far right of the project, that clip is attracted to the end of the primary storyline, and "magnetically" snaps to the preceding clip.



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 Primary Media event, click the Hide Libraries button.

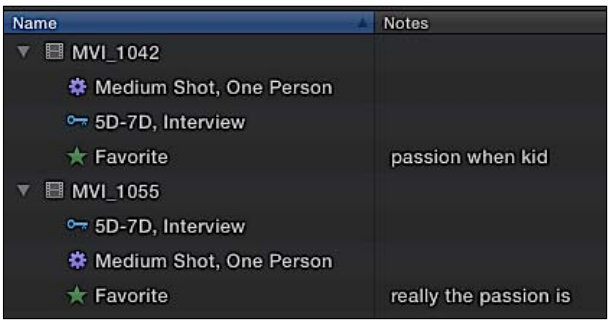
3 Drag the toolbar down to create more vertical room in the Browser.

You can drag the toolbar to vertically expand or contract the panes above and below the toolbar.

Mitch provided a couple of great sound bites to open with during his interview when he talked about his passion for flying. You logged those gems with a favorite rating and included the word "passion" in the notes field. Rather than opening each clip here in list view to visually scan your notes for the word "passion" and an assigned rating of favorite, you'll use the search field.

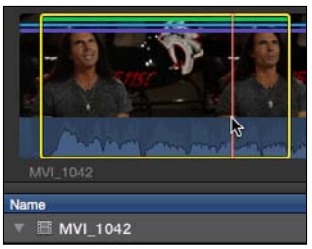
4 In the Browser search field, type *passion*.

As you begin to type, the Browser updates immediately with the matching results: **MVI_1042** and **MVI_1055**.



NOTE ► If you see only the clips' names listed, click the disclosure triangle next to each name to reveal additional metadata.

5 In the Browser select **MVI_1042**, and skim the clip to review the marked favorite.



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.

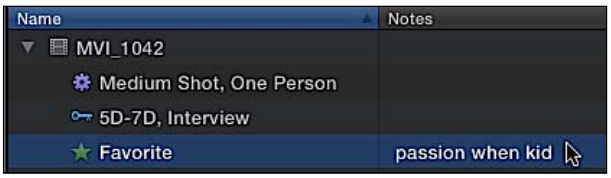
NOTE ► You may also review the clip by pressing the navigation controls: the Spacebar and the J, K, L keys.

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**.

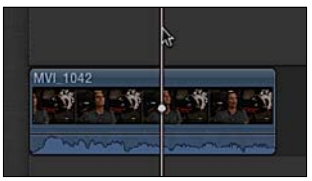


8 Click the Append button, or press E, to add this clip selection to the project.

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**.



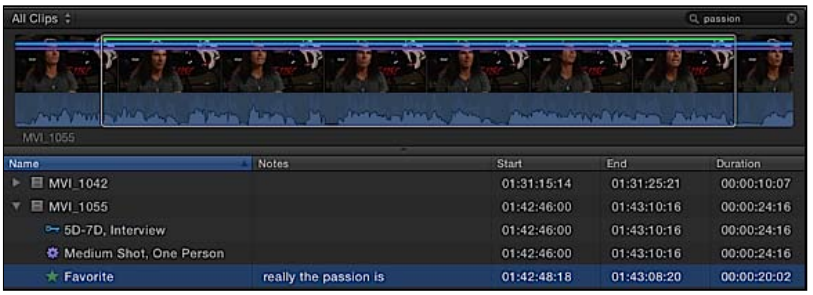
This cues the playhead over **MVI_1042**, which you can see in the Viewer. Now you will append edit with the playhead placed in the middle of **MVI_1042** and observe the results.

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.

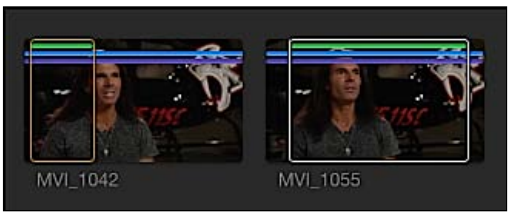
NOTE ► If the previous edit caused the **MVI_1042** clip to not be visible in the Timeline, you need to change the zoom setting. Click once in the Timeline, and press **Shift-Z** or adjust the Zoom control at right.

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.

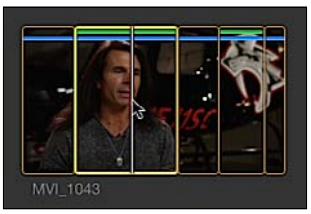


2 In the Browser, click the Reset button (X) in the search field to clear the previous search.

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 With the first favorite in **MVI_1043** selected, Command-click the previously marked favorites of 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 With the Timeline active, press the Home key or Fn-Left Arrow to simulate pressing the Home key.

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

2 Press the Spacebar to start playback.

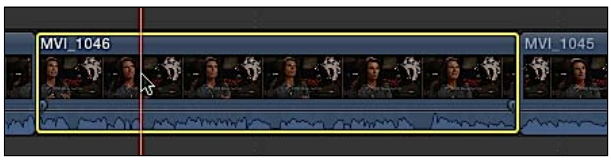
Playback will stop when the playhead reaches the end of the project.

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 Cue the skimmer by moving the mouse toward the beginning of **MVI_1046**. 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.

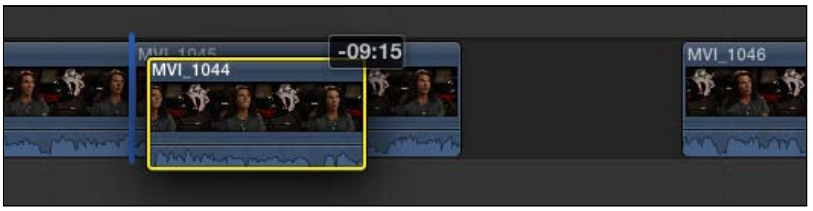
4 Drag **MVI_1046** toward the end of the storyline, but don't release the mouse button just yet.

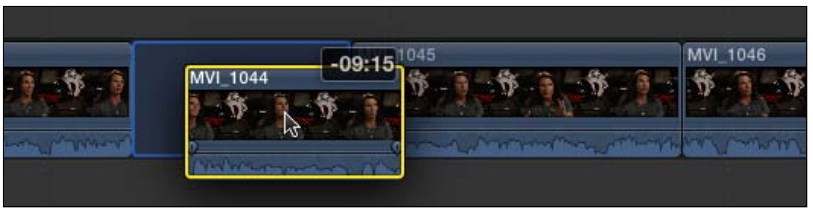
5 Position the clip so that a blue clip box appears in the primary storyline after **MVI_1044**. Release the mouse button.

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.

✔ **Checkpoint 4.2.2**

Refer to **Appendix C** for details on reviewing a Checkpoint.

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 tool 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.

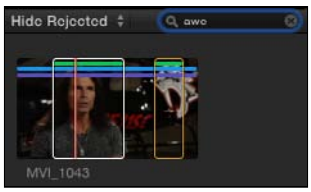
The ripple trim allows you to remove media from a project clip, frame by frame if desired. The ripple trim also allows you to insert media to a project clip.

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 filmstrip 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 the right until the zoom scale reads 5s.

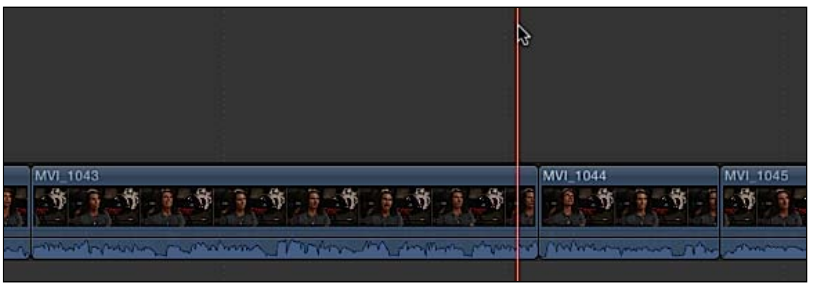
4 Skim the second favorite in **MVI_1043** again.

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.

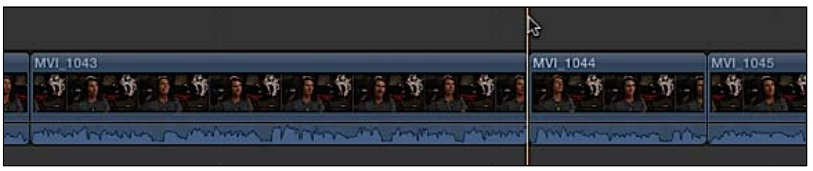
At the upper-right of the Timeline locate the Skimming, Audio Skimming, Audio Soloing, and Snapping buttons.

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 to cue the playhead here.



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 **MVI_1043**'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 skimmer toward the end of **MVI_1055**, the second clip in the project. Play the end of this clip to review what Mitch says.

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. You'll remove those hesitations. In addition, Mitch takes a breath after ending the preceding sentence with the word “look.” Examining the audio waveforms, you can see a drop in the waveforms after he enunciates the “k” in “look.” You’ll cue the playhead after the “k,” and then use the ripple trim function to remove the breath and “uhh, so” material.

3 Identify the new end point by cueing the playhead after Mitch says the “k” in “look” and before Mitch breathes and says, “uhh, so” at the end of **MVI_1055**.

To set the playhead precisely, you can press the J K L keys and the Left Arrow and Right Arrow keys. Locating the playhead at the desired trim point allows you to use snapping to make an exact trim. You’ll perform this ripple 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.

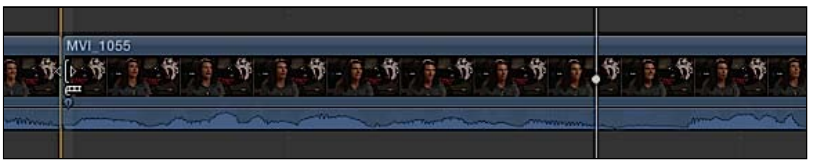
9 To quickly scroll left in the project and jump to the start point of **MVI_1055**, press the Up Arrow key once, or twice if necessary. Also, you may wish to zoom out a little in your Timeline view by pressing Command-– (minus).

Pressing the Up Arrow key cues the playhead to the previous edit point in the project. Conversely, pressing the Down Arrow key cues the playhead to the next edit.

10 Play the start of **MVI_1055** 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 Press Command-– (minus) once or twice to zoom out in the Timeline view, then locate the end point of the second, shorter **MVI_1043**. Cue the playhead before Mitch utters an extraneous "so."

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.

Did you remove the word “so” and not trim off the end of “experiencing”? Depending on your earlier selection of this sound bite, you may have to remove about 10 frames of material. This trim edit will take a few tries to perfect.

More Keyboard, Less Mouse

Using the following keyboard shortcuts will have you reaching for the mouse less often:

- Pressing the Up Arrow or Down Arrow keys jumps the playhead to the edit point for trimming.
- Pressing the Left Bracket key selects the end point of the clip to the left; pressing the Right Bracket key selects the start point of the clip to the right.
- Pressing the , (comma) key nudges the selection left by 1 frame; pressing the . (period) key nudges the selection right by 1 frame.
- Pressing Shift-? (question mark) cues the playhead two seconds back and then plays to the edit and two seconds beyond.

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
MVI_1042	Flying is	a little kid
MVI_1055	And really the	whole new look
MVI_1043	One thing that	what we're shooting
MVI_1043	As I'm technically	what we're experiencing
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

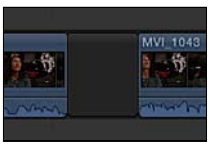
✔ **Checkpoint 4.3.2**

Refer to Appendix C for details on reviewing a Checkpoint.

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.

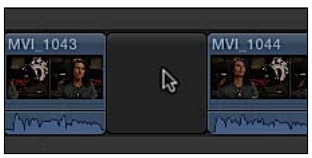
Select segment for removal.

Press Delete to ripple delete.

The second delete method applies a replace with gap edit. 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. This edit is often referred to as a *lift edit.*

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 Press the Up Arrow or Down Arrow keys to 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 breaths that Mitch takes at the start and end of **MVI_1055**. Did you remove those already?

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. You are also listening for places where you may have trimmed too much. Does Mitch get a chance to enunciate the "k" in "look" before you cut him off? You may need to add back a frame or two to avoid an ***upcut***.

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

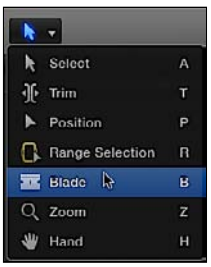
The Blade tool allows you to quickly break a clip into smaller sections to be moved elsewhere or completely removed from your story. In the first instance of **MVI_1043**, some pauses in Mitch's interview can be removed to tighten the edit.

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.

A keyboard shortcut activates the Select tool's built-in blade. The blade cuts through the clip at the skimmer or playhead. For precision, you'll advance the playhead, then activate the Select tool's blade command.

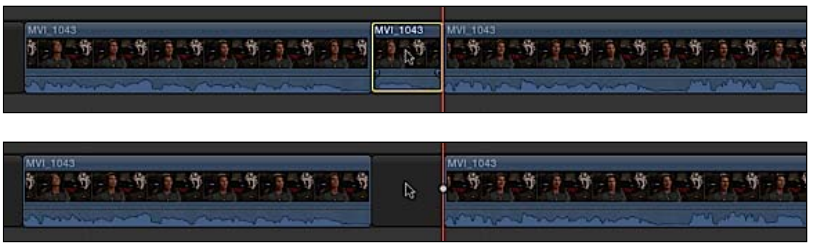
7 Press the Right Arrow key—and the Left Arrow key, if necessary—to advance the playhead to after the "uhhm" and just as Mitch is starting the word "you're."

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. The gap clip locked the storyline clips to the right in place so no clips slide in the Timeline.

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 new, second **MVI_1043** might sound like the first word is cut off a bit or still have a bit of the “uhh” remaining. In addition to that concern, does the breath at the end of the first **MVI_1043** distract and call attention to the edit? Or, does the breath naturally flow into the second **MVI_1043** 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 a few minutes will hide this error.

Checkpoint 4.4.2

Refer to **Appendix C** for details on reviewing a Checkpoint.

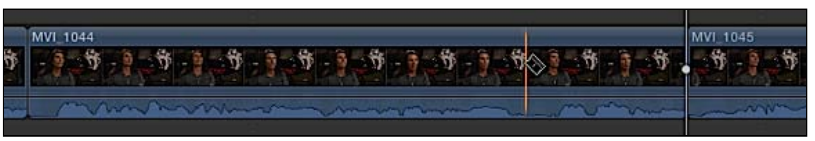
Exercise 4.4.3
Joining a Through Edit

In the previous exercise, you used the Blade and Select tools 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**, and then press Command-= (equals) to zoom in.

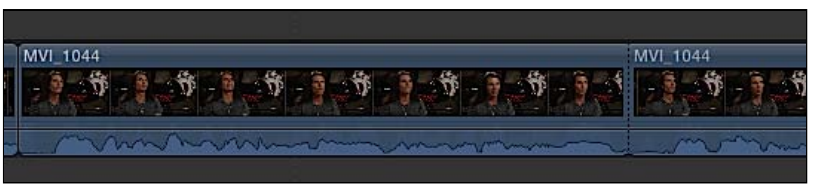
2 In the Tools pop-up menu, choose the Blade tool, or press B.

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.



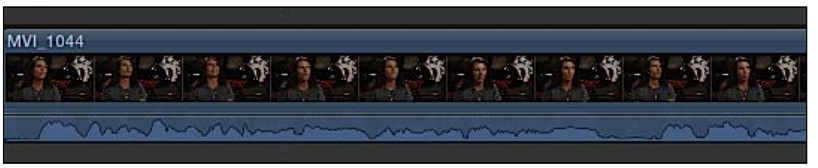
5 The through edit point appears as a dashed line. Because we really did not want to split this clip, you are going to rejoin the through edit.

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.

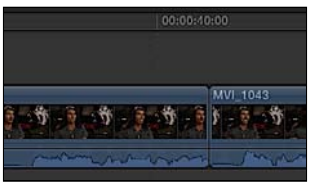


The through edit point is removed and the two segments are rejoined into one clip.

Exercise 4.4.4
Refining Some Sound Bite Edits

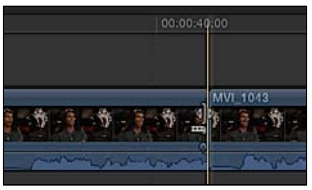
Before progressing to the next layers of B-roll and music, let's polish the "technically flying in awe" section of the project by adjusting the sound bites' contents and pacing.

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—because you are actually cutting off the sound bite in mid-sentence. The clip’s current end point is at “experiencing.” Let’s trim that end point to a little earlier in the sentence to try a different ending.

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 you a few moments to locate the right frame for the end point. That frame is going to be on the "g" of "filming." The repetition you must perform in fine-tuning the edit point is common in the art of editing: making frame-by-frame adjustments to remove only a few words or syllables.

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

Checkpoint 4.4.4

Refer to Appendix C for details on reviewing a Checkpoint.

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 out 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, your workflow could begin by adding B-roll anywhere within your project.

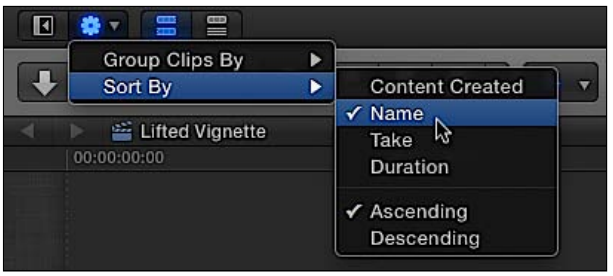
1 In the Browser, click the Show Libraries button.

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.

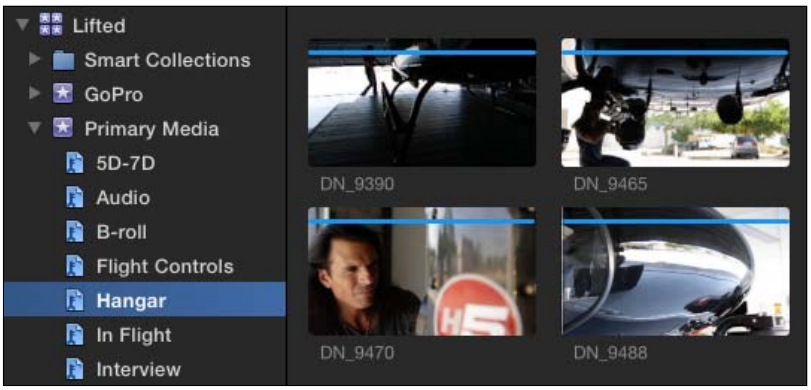


5 If necessary, drag the toolbar up to open more vertical room in the Timeline.

6 In the Browser, adjust the Zoom control to All.

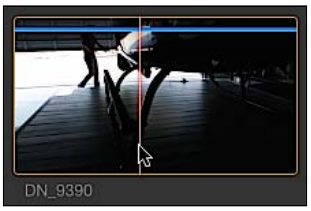
With the environment properly set up, you will search for the first clip of the hangar door opening.

7 In the Lifted library, verify that the four clips are displayed with the Hangar Keyword Collection selected.



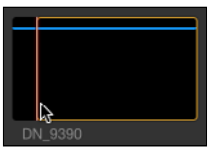
The first clip you want is **DN_9390**.

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 by pressing the I key after the director says, "Action." Your start point should be at 1:50:43:00.



10 Mark an end point by pressing the O key after Mitch has dropped down to inspect the camera. Your end point should be at 1:50:49:06.

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**.

NOTE ► If the Connect button is dimmed, reselect the Browser clip.

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

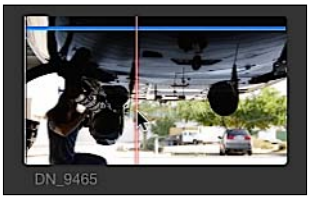
13 Cue the playhead to the beginning of the project, and play the Timeline.

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

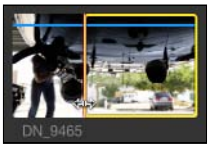
As you can see, the DN_9390 clip extends over the second sound bite. That's OK for now, so let's look at the next B-roll clip to add to the project.

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 at 2:37:33:17 when Mitch has 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 at 5:07.

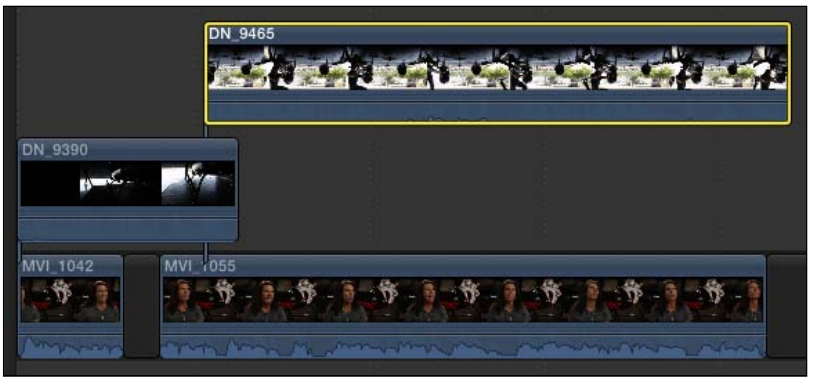
4 Click the Connect button, or press Q, to make a connect edit.

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 In the Timeline, select **DN_9465**. Press the , (comma) or . (period) key to nudge the clip left or right, respectively, until the action of Mitch kneeling appears to be one smooth movement.



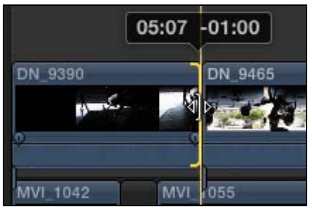
NOTE ► In addition to the comma and period key shortcuts used to nudge the selected clip, you can also try this technique: Cue your playhead to the start of **DN_9465**, nudge the clip, then press Shift-? (question mark) to review the edit using the Play Around command.

Once **DN_9465** is in place, you can ripple trim the end of **DN_9390** to lower **DN_9465** into the same lane. Although the video plays as expected, the overlapping audio may not desirable.

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

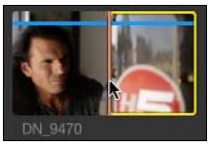
Let's connect one more B-roll clip before analyzing what you've created.

1 In the project, cue the playhead over clip **MVI_1055** when Mitch says "nobody" at 9:03.

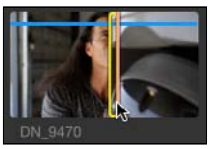
You're telling Final Cut Pro to make a precise start edit based upon the contents of the primary storyline. Now let's find a clip for that edit.

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 at 2:41:27:21 as Mitch turns the camera counterclockwise.



4 Set an end point as Mitch's face moves halfway behind the camera at 2:41:30:06.



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.

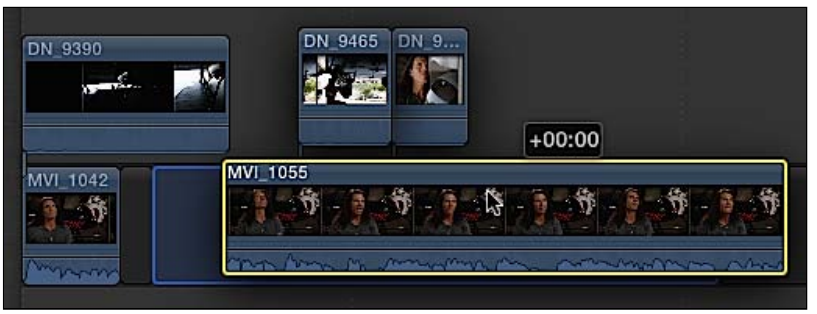
Now **DN_9465** doesn't give an encore performance.

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 accent key, the pointer becomes a crossed-out connection symbol. Dragging a clip while holding down the grave accent 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.

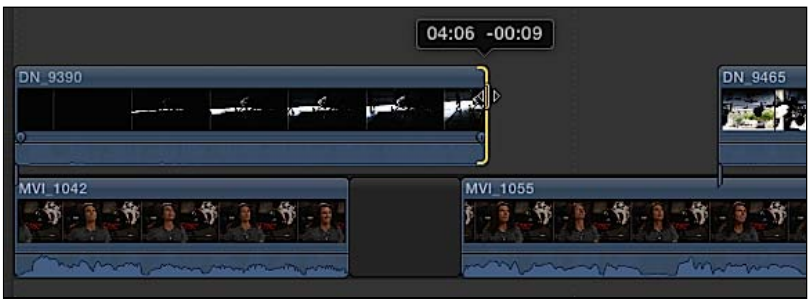
Trimming Connected Clips

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 relationships between connected clips by placing them within a ***connected storyline***. Doing so creates a horizontal relationship between the grouped connected clips, and reduces 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 bar across the top of the grouped clips. This bar 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 gray bar, 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 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_9465** 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.

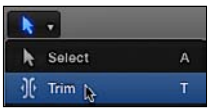
5 Referencing the two-up display, ripple trim the end point of **DN_9390** appearing on the left to match the action appearing on the right in the Viewer's two-up display. You should drag left and right to locate the best match.

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.

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

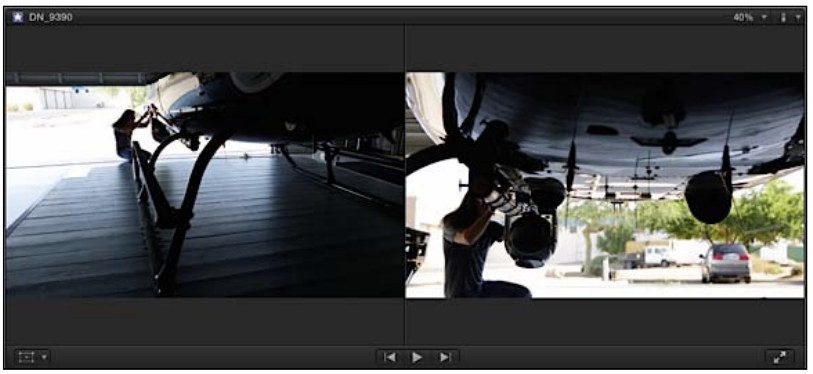


The roll trim function requires that the Trim tool be selected when working with storyline clips.

7 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.

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



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

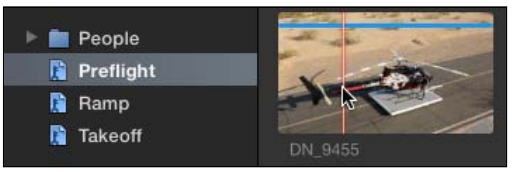
The roll trim allowed you to move the edit to find the best cut point between the two clips. This roll and the earlier ripple trim worked because the clips are enclosed in a storyline. Connected clips do not interact with other connected clips editing-wise. Grouping them together in a connected storyline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

1 In the Libraries pane, select the Preflight Keyword Collection.

2 In the Preflight 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 at 2:27:27:11. Set an end point after Mitch is in the helicopter at 2:27:35:20.

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

4 In the project, cue the playhead to 15:17 after Mitch says, “has been shot on the ground.”

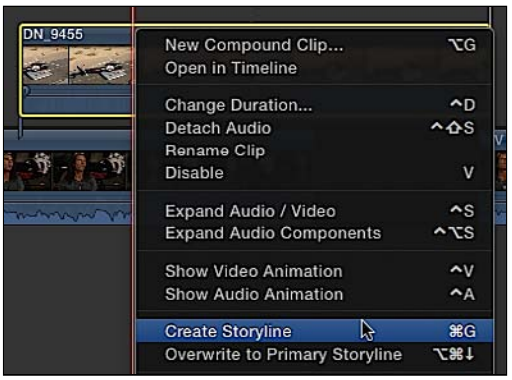
You’ll connect the first clip of this series of B-roll clips at this point.

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.

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.

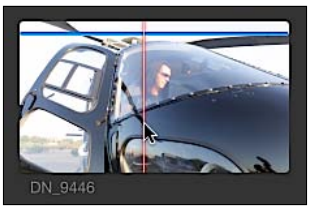


The clip is now contained in a storyline. To make additional edits to this storyline, you must select the storyline's bar rather than the clip inside.

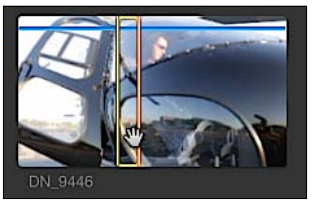
7 Click the storyline's bar to select it.

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

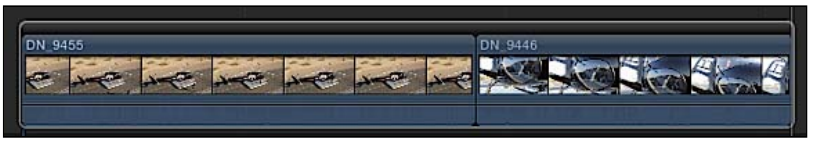
8 In the Browser, locate **DN_9446**.



9 Mark a start point on the jib's first take of Mitch's feet on the pedals at 2:19:23:06. Set an end point after Mitch has reached for the instrument panel at 2:19:30:12, leaving the clip duration at approximately seven seconds.



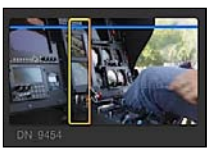
10 Press E to append this clip to the end of the selected storyline.



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
DN_9453	Start of third take tilt/pan on Mitch (2:26:30:00)	End of tilt/pan move to panel (2:26:34:19)	
DN_9454	Two seconds before flips switch and the displays change (2:27:06:18)	Releases switch and hand leaves frame (2:27:10:16)	
DN_9452	Before rotors start turning (2:24:21:00)	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 bar of the preflight storyline is still selected.

Make sure you select the gray bar 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, preflight storyline.

The clips are added to the preflight 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_9453**.

NOTE ► Ensure that you keep **DN_9452** inside the Preflight storyline.

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 the Preflight 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 clips in the project's first storyline, 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 hangar storyline to the beginning of the project.

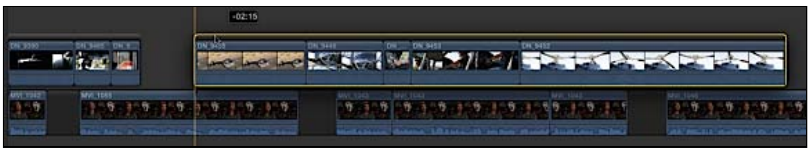
Remember the gap clip you previously added between the two soundbites at the beginning of the primary storyline? You can gain some additional time by lengthening that gap clip. Increasing its duration allows you to shift the start of the preflight storyline earlier in relation to the sound bite MVI_1055.

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, "seen." 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.

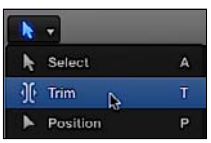


That edit gained you another two seconds, more or less. But more trimming is still needed.

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.

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



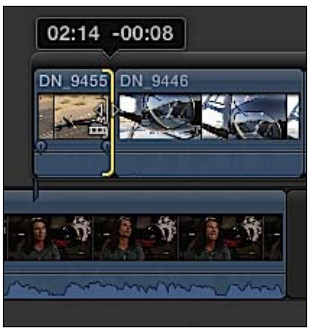
7 Drag the start of **DN_9455** to the right, but don't release the mouse button yet.

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.

8 While watching 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. The delta or change length for the trim should be about +5:10. Release the mouse button.

Now you'll trim the end point of **DN_9455** to further 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.

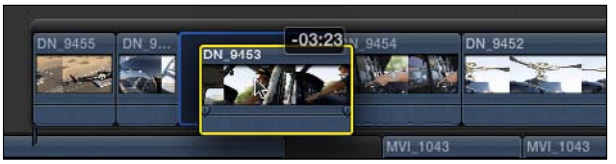
10 Using the Trim tool, drag the start point of **DN_9446** right until the two-up display in the Viewer shows the body of the helicopter at the bottom of the frame blocking the transport cart from view.

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.

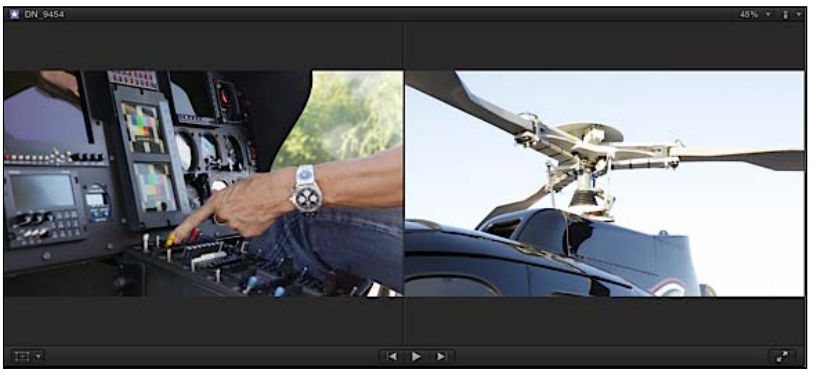
14 Trim the end point to a clip duration of around 1:18, the point at which Mitch's fingers have landed on a switch.

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 1:10 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.

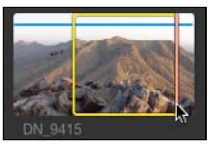
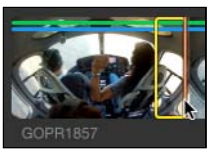
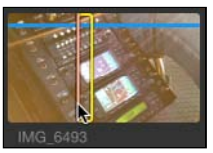
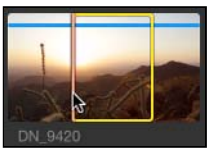
You have just one more B-roll storyline to go!

Creating and Editing the Third Connected Storyline

Use the following table to select and trim clips for the third storyline, takeoff. You will use the rating system to gather the clips.

> **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, and apply the favorite rating to each:

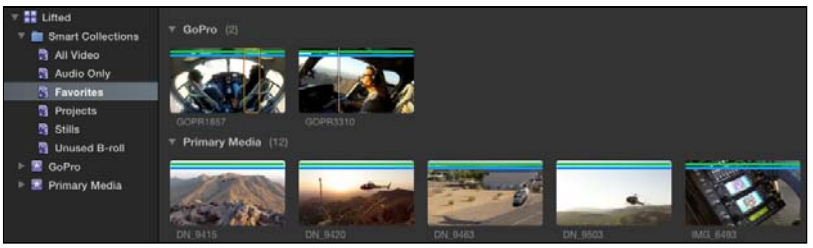
Clip	Keyword	Start	End	Result
DN_9463	Takeoff	As forward movement begins (02:36:05:16)	Exits frame (02:36:08:11)	
DN_9415	In Flight	A second before the mountain is behind the helicopter (01:58:30:17)	Duration of five seconds	
GOPR1857	In Flight	Two seconds before Mitch stretches his arm out behind seat (24:05)	Duration of five seconds	
IMG_6493	Flight Controls	Before 1st long, lens flare ends (20:23)	Before tilt up to follow hand (25:14)	
GOPR3310	In Flight	Last third of clip; before Mitch leans forward into sunlight (32:00)	Duration of five seconds	
DN_9503	In Flight	Helicopter behind tree (03:22:36:18)	Helicopter exits frame (03:22:42:07)	
DN_9420	In Flight	Helicopter is just off screen (02:02:04:00)	Helicopter exits frame (02:02:10:00)	

Now that you've marked the clips, you'll batch connect them to the project; however, when you are in the Primary Media event, the GoPro event clips are not visible. Selecting the Lifted library reveals all clips from all events in the library.

2 In the Libraries pane, select the Lifted library.

Now you see everything, but you still need to cull that down a little bit, which you already did somewhat by favoriting the clips you marked. The library has a prebuilt Smart Collection to help cull the library.

3 Inside the Lifted library's Smart Collections folder, click the Favorites Smart Collection.

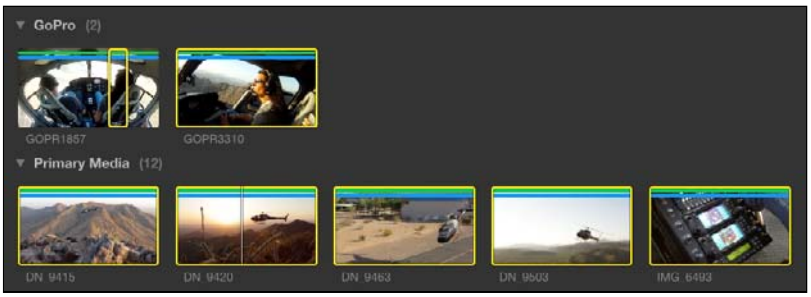


The sound bites you previously marked as favorites are displayed along with the B-roll clips you need. Only the favorited range of each clip is displayed, which includes **GOPR1857** that appears with a rather long favorite and a small marked range. The marked range shown is what you favorited just moments ago. That range lives inside a pre-existing favorite range for the clip. Ratings do not overlap. The favorite you marked for this storyline edit will be absorbed into the existing favorite if you click outside that range.

With the favorites visible, you'll batch edit these to the Lifted Vignette project.

4 Click to select **DN_9463**, the first clip in the previous table.

5 Command-click the additional B-roll clips in the order that they are listed in the table.



6 In the project, press the Up Arrow and Down Arrow keys to 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.

7 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 into a connected storyline.

8 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.

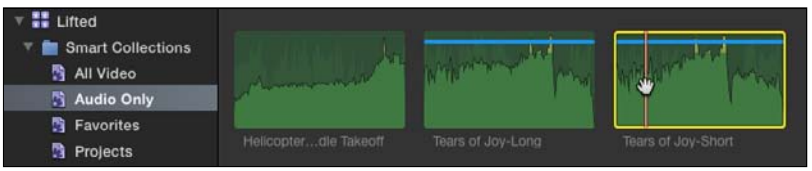
Reference 4.7
Editing Below the Primary Storyline

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 Lifted library's 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.

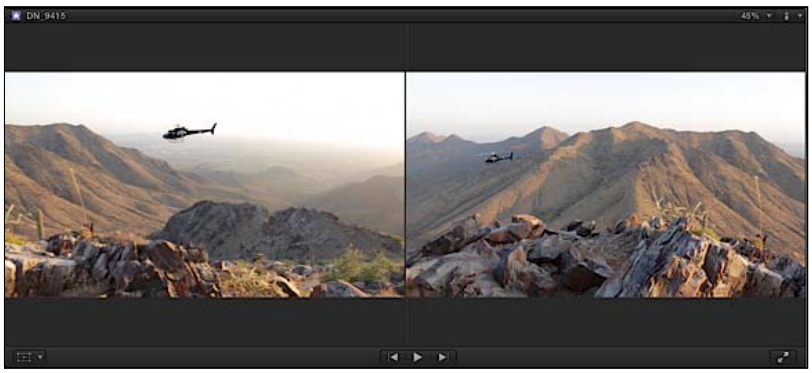
Reference 4.8
Finessing the Rough Cut

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, the 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.



You may also slip trim 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. You can create ramps to soften the audio edits and avoid calling attention to the edit with an abrupt audio change.

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.

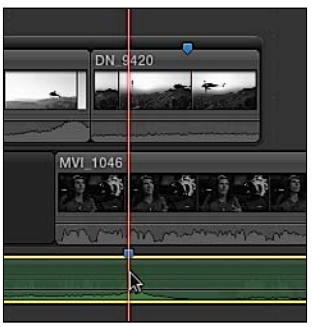
Now you need to set a marker on the music swell. Unfortunately, it's a little hard to hear while the sound bite is playing.

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.

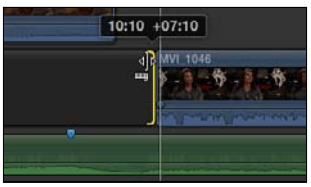
Here are some trim points to consider:

- Start of **DN_9463**: Could the helicopter be farther along the ramp? 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, but you could tighten the shot a bit.
- Start of GOPR1857: Trim to just before Mitch turns his head and stretches his arm out.

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.

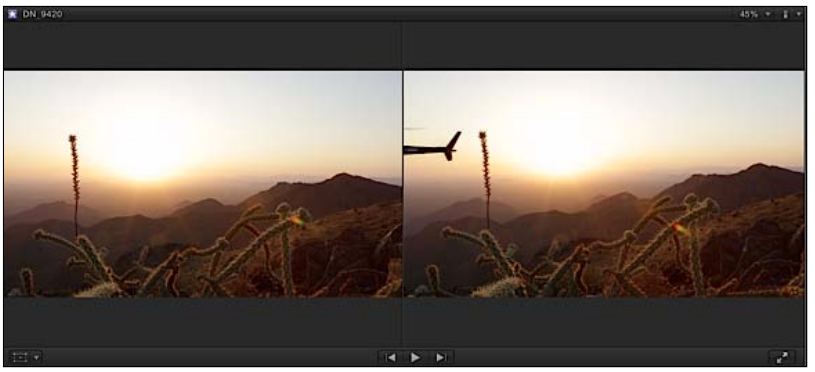
1 From the Tools pop-up menu, choose the Trim tool, or press T.

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 content within their current durations. You may wish to do so with your speaker/headphone volume lowered.

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?

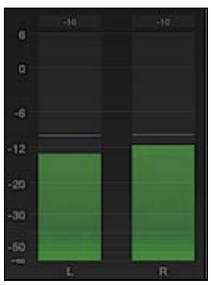
✔ Checkpoint 4.8.1

Refer to **Appendix C** for details on reviewing a Checkpoint.

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 to 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 Audio meters below –6 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

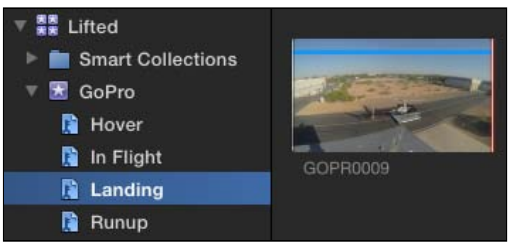
A great practice to establish early on when dealing with audio is to understand that you have access to at least two volume controls. The volume level controls per clip in Final Cut Pro are the only ones that affect your audience. Turning down your Mac computer's volume or separate speaker volume control 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 (7:24).

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 touches down (17:28).

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.

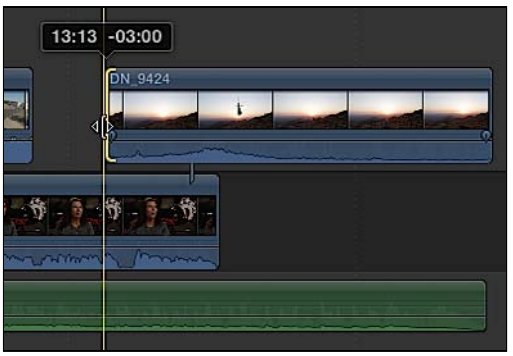
5 In the Browser, search for an In Flight B-roll clip that shows the helicopter flying off into the sunset. You should find **DN_9424**.

6 You will later trim this clip in the Timeline to get it just right; but for now, set a start point before the helicopter enters the frame (02:05:51:06). You want that action to happen just as Mitch is finishing his 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 with 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 **DN_9424**, 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.

Checkpoint 4.8.3

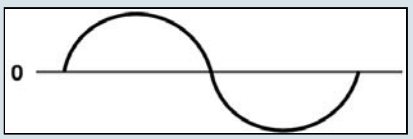
Refer to Appendix C for details on reviewing a Checkpoint.

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 two times 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.

6 Using the Select tool, click the start point of **DN_9420**, 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.

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

7 Select the end point of **DN_9420**, and press Command-T.

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

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

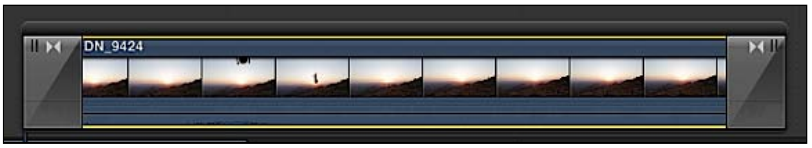
9 Review this transition by playing the project.

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 Lengthen the gap clip to push Mitch's sound bite, **MVI_1046**, to start after the transition is completed.

Now Mitch doesn't make a surprise appearance during the landing. So far, you've applied one transition at a time. 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:

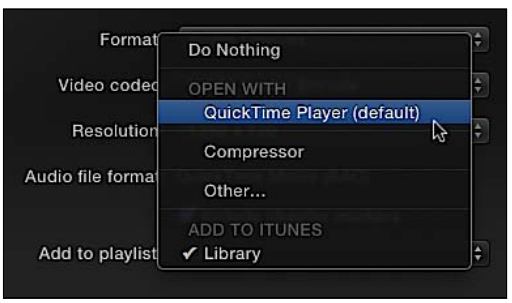
- Title: *Lifted-Rough Cut*
- Description: *A helicopter pilot and cinematographer describes his passion for sharing aerial cinematography*.
- Creator: [insert your name]
- Tags: *aerial cinematography*, *helicopters*, *aviation*

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."

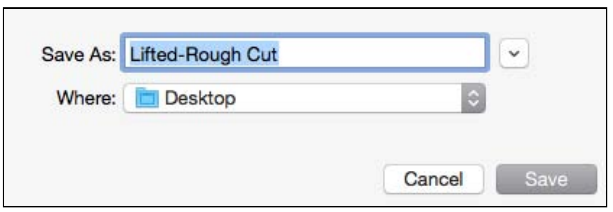


NOTE ► If the Open With option lists another application, choose Other from the Open With list, select QuickTime Player from the Applications folder, and then click Open.

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

8 Click Next.

9 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.

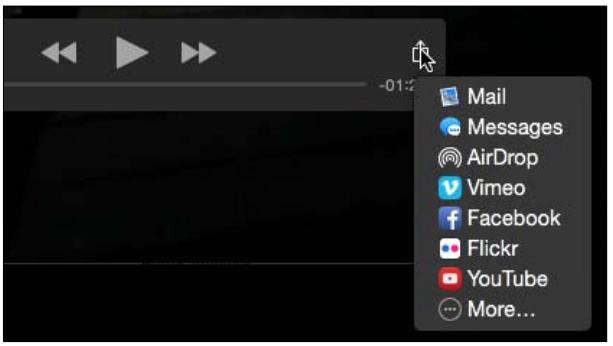
When the file has been shared, the file will automatically open into QuickTime Player and an OS X Notification will appear.

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

10 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.

11 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

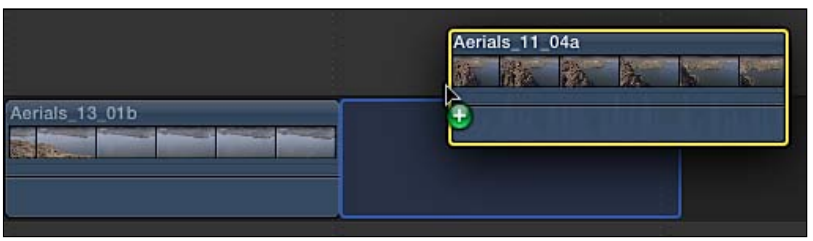
- If you have not set up these Internet accounts, OS X will prompt you to enter your username and password for the selected service.
- If you send the file to an iPad or iPhone using Messages, when the message arrives, simply choose Save Video from the Messages Share button. The movie file will be available 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.

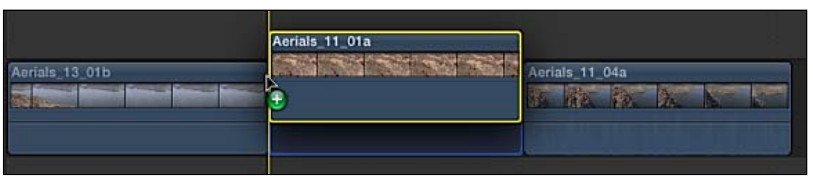
Congratulations on completing the first edit of the Lifted Vignette project. You have gone from nothing to a rough edit in a short period of time. You created a project and learned the various trim commands of append, insert, and connect to get clips into a project. The rearranging of clips in the primary 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?



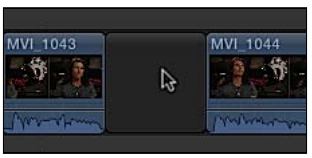
5. Which toolbar button performs an append edit?
6. What do the green, blue, and purple colored stripes overlaying a Browser clip identify?
7. When in filmstrip view, which modifier key do you hold down to edit clips into the project in the order that you select the clips in the Browser?

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 storyline, 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-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 gray bar must be selected, not any clip 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.
17. The Audio Meters button in the Dashboard.

18. The **GOPR0009** 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.
19. The Share pop-up menu

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