Starting the lesson

In this lesson, you'll use several short sequences to explore advanced editing concepts in Adobe Premiere Pro CC. The goal is to get hands-on with the techniques you'll need for advanced editing.

1. Open the project Lesson 08.prproj in the Lesson 08 folder.
2. Save the project as Lesson 08 Working.prproj in the Lesson 08 folder.
3. Choose Editing in the Workspaces panel, or choose Window > Workspaces > Editing.
4. Reset the workspace to the saved version by clicking the Editing menu in the Workspaces panel or by choosing Window > Workspaces > Reset To Saved Layout.

Performing four-point editing

▶ **Tip:** Professional editors often use different language to describe the same thing—the use of *marks* and *points* is a good example. This book uses the most common names used by editors so you'll recognize tools, techniques, and other items more easily.

In and Out marks are also referred to as *points*. In previous lessons, you used the standard technique of three-point editing. You used three In and Out marks (split between the Source Monitor as well as the Program Monitor or Timeline) to set the source, duration, and location of an edit.

But what happens if you have four marks defined?

The short answer is that you have to make a choice. It's likely that the duration you've marked in the Source Monitor differs from the duration you've marked in the Program Monitor or on the Timeline.

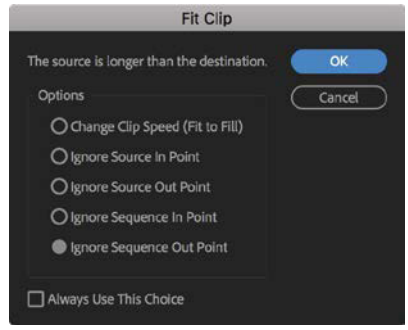
In this case, when you attempt to perform the edit using a keyboard shortcut or on-screen button, a dialog box warns you the durations don't match and asks you to make a decision about what to change. Most often, you'll discard one of the marks.

▶ **Tip:** You can choose to set a default behavior when a four-point edit occurs by making a selection and selecting Always Use This Choice. If you change your mind, open the Premiere Pro Timeline Preferences, and select Fit Clip dialog opens for edit range mismatches. The Fit Clip dialog box opens for edit range mismatches.

Setting editing options for four-point edits

If you perform a four-point edit, Premiere Pro opens the Fit Clip dialog to alert you to the problem. You'll need to choose from five options to resolve the conflict. You can ignore one of the four points or change the speed of the clip.

- **Change Clip Speed (Fit to Fill):** The first choice assumes that you set four points with different durations deliberately. Premiere Pro preserves the source clip's In and Out marks but adjusts its playback speed to match the duration you set on the Timeline or in the Program Monitor. This is an excellent choice if you want to precisely adjust clip playback speed to fill a gap.



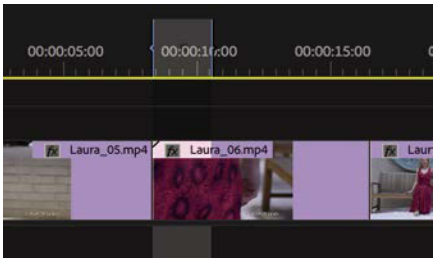
- **Ignore Source In Point:** If you choose this option, Premiere Pro ignores the source clip's In point, converting your edit back to a three-point edit. When you have an Out point and no In point in the Source Monitor, the In point is worked out automatically based on the duration set in the Timeline or Program Monitor (or the end of the clip). This option is available only if the source clip is longer than the duration set in the sequence.
- **Ignore Source Out Point:** When you select this option, the source clip's Out point is ignored, converting your edit back to a three-point edit. When you have an In point and no Out point in the Source Monitor, the In point is worked out based on the duration set in the Timeline or Program Monitor (or the end of the clip). This option is available only if the source clip is longer than the targeted duration.
- **Ignore Sequence In Point:** When you select this option, the In point you've set in the sequence is ignored, making this a three-point edit using only the sequence Out point. The duration is taken from the Source Monitor.
- **Ignore Sequence Out Point:** This option is similar to the previous one. It tells Premiere Pro to ignore the Out point in the sequence you set and perform a three-point edit. Again, the duration is taken from the Source Monitor.

Making a four-point edit

Let's perform a four-point edit. You'll change the playback speed of a clip to fit a duration set in the sequence.

1 Open the sequence 01 Four Point.

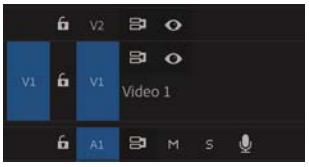
2 Scroll through the sequence and locate the section with In and Out points already set. You should see a highlighted range in the Timeline.



3 Locate the bin called Clips to Load, and open the clip called Laura_04 in the Source Monitor.

Clip In and Out points should already be set on this clip.

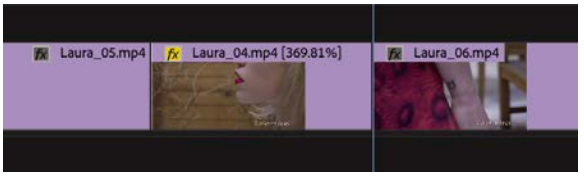
4 In the Timeline, check that the source track indicator buttons are patched correctly, with Source V1 positioned next to Timeline Video 1.



5 In the Source Monitor, click the Overwrite button to make the edit.

6 In the Fit Clip dialog box, choose the Change Clip Speed (Fit to Fill) option, and click OK.

7 The edit is applied. Zoom in to the Timeline panel using the Navigator controls at the bottom of the panel until you can see the name and speed information on the Laura_04 clip you just edited into the sequence.



The percentage shows the new playback speed. The speed has been adjusted perfectly to fit the new duration.

8 Watch the sequence now to see the effects of your edit and the speed change.

Note: Changing the playback speed of a clip counts as a visual effect. Notice the small "fx" badge on the clip changes color to indicate an effect has been applied.

Changing playback speed

Slow motion is one of the most commonly used effects in video post-production. You might change the speed of a clip for technical reasons or for artistic impact. It can be an effective way to add drama or to give the audience more time to experience a moment.

Note: When changing the speed of a clip, you will usually achieve smoother playback if the new speed is an even multiple, or fraction of the original clip playback speed. For example, changing a 24fps clip to play back at 25% speed will result in 6fps, and this will usually look smoother than if the clip is set to a non-equally divided playback speed, like 27.45%. Sometimes, you'll get the best results by manually changing clip playback speed and then trimming to get the desired duration .

The Fit to Fill edit you just learned about is one way to change clip playback speed. However, usually the best way to achieve high-quality slow motion is to record at a higher frame rate than your sequence playback frame rate. If you play the video at a slower frame rate than it was recorded at, you'll see slow motion.

For example, imagine a 10-second video clip was recorded at 48 frames per second but your sequence is set to 24 frames per second. You can set your footage to play at 24 frames per second, matching the sequence. Playback will be smooth, with no frame-rate conversion when the clip is added to the sequence. However, the clip will be playing at half its original frame rate, resulting in 50% slow motion. It will take twice as long to play back, so the clip will now have a 20-second duration.

Overcranking

This technique is often called *overcranking* because early film cameras were driven by turning a crank handle.

The faster the handle was turned, the more frames per second were captured. Slower turning would capture fewer frames per second. This way, when the film was played back at a regular speed, filmmakers would achieve fast motion or slow motion.

Modern cameras often allow recording at faster frame rates to provide excellent quality slow motion in post-production. The camera assigns a frame rate to the clip metadata that might differ from the recorded rate (the system frame rate is used).

This means clips may play in slow motion automatically when you import them into Premiere Pro. Use the Interpret Footage dialog box to tell Premiere Pro how to play clips.

Let's try this.

1 Open the sequence 02 Laura In The Snow. Play the clip in the sequence.

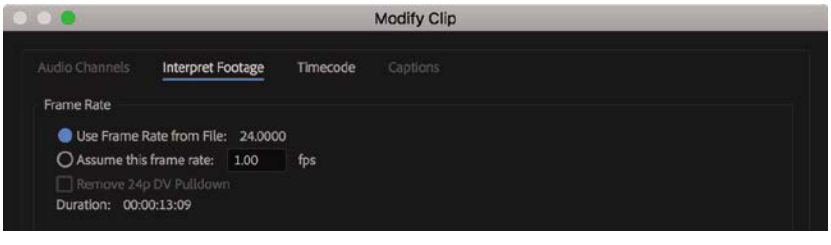
The clip plays in slow motion for the following reasons:

- The clip was recorded at 96 frames per second.
- The clip is set to play back at 24 frames per second (this was set by the camera).
- The sequence is configured for 24 frames per second playback.

2 In the Timeline panel, right-click the clip and choose Reveal In Project.

This highlights the clip in the Project panel.

3 Right-click the clip in the Project panel and choose Modify > Interpret Footage.



Use the Interpret Footage dialog box to tell Premiere Pro how to play back clips.

4 Select the Assume This Frame Rate option, and enter **96** in the box. This tells Premiere Pro to play the clip at 96 frames per second. Click OK.

Look back at the Timeline panel. The clip has changed appearance.

Diagonal lines indicate absent media.

You have given the clip a faster frame rate, so the original clip duration is no longer used. Because the clip plays faster, its duration is shorter, and diagonal lines indicate the portion of the clip that has no media.

Premiere Pro does not change the duration of the Timeline clip segment because doing so might change the timing of your edit. Instead, the part of the sequence clip that has no media is empty.

Note: If you're using a system with slow storage, you may need to lower the playback resolution in the Program Monitor to play the clip at a fast frame rate without dropping frames.

5 Play the sequence again.

The clip plays at regular speed because it was originally recorded at 96 frames per second. It's much less smooth—not because there's anything wrong with the clip but because the original camera work was bumpy.

6 Drag the Laura_01.mp4 clip onto the Timeline next to the first instance.

The new clip instance is shorter and matches the total playback time at the new frame rate. If you slow down the playback speed of the clip now, it will restore the original frames, giving better-quality slow motion.

Changing clip speed/duration of a clip

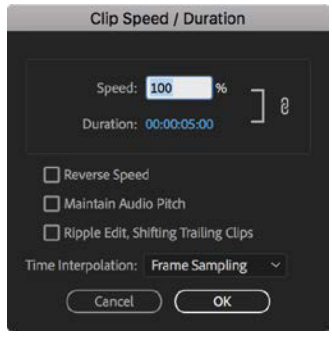
Although it's more common to slow clips down, speeding up clips is a useful effect as well. The Speed/Duration command in the Timeline panel can change the playback speed for a clip in two different ways. You can set the duration of a clip to match a certain time, or you can set the playback speed as a percentage.

For example, if you set a clip to play at 50% speed, it will play back at half-speed; 25% would be one-quarter speed. Premiere Pro allows you to set playback speeds up to two decimal places, so you could have 27.13% if you wanted.

Let's explore this technique.

1 Open the sequence 03 Speed and Duration. Play the sequence to get a sense of the normal playback speed.

2 Right-click the Eagle_Walk clip and choose Speed/Duration. You can also select the clip in the Timeline and choose Clip > Speed/Duration.



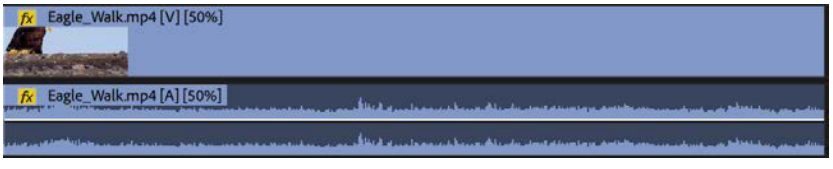
The Clip Speed/Duration dialog box gives you several options for controlling the clip playback speed.

If you click the chain icon, you can toggle on and off keeping the clip duration and speed ganged together. If this is on, changing one updates the other.

- Click the chain icon now so that it shows a broken link; the duration and speed are unganged. Now, if you enter a new speed, the duration won't update.
- Once the settings are unganged, you can also change the duration without changing the speed. If there's another clip immediately after this one on the Timeline, shortening a clip will leave a gap. By default, if you make the clip longer than the space available, the speed change will have no effect. That's because the clip can't move the next clip to make room for the new duration when you change these settings. If you select the Ripple Edit, Shifting Trailing Clips option, you'll enable the clip to make space for itself.
- To play a clip backward, select the Reverse Speed option. You'll see a negative symbol next to the new speed displayed in the sequence.
- If you're changing the speed of a clip that has audio, consider selecting the Maintain Audio Pitch check box. This will keep the clip's original pitch at the new speed. With this option disabled, the pitch will naturally go up or down. This option is more effective for small speed changes; dramatic resampling can produce unnatural results—consider adjusting the audio in Adobe Audition if you need to make a more significant speed change.

Note: There's one exception to the way the chain icon works in the Clip Speed/Duration dialog box: If a new, higher speed reduces the duration so much that all the original clip media is used and the result has a shorter duration than the Timeline clip segment, then the Timeline clip will still shorten to fit. This way, you won't have blank video frames in your sequence.

3 Make sure Speed and Duration are linked with the chain icon on, then change the speed to 50%, and finally click OK.

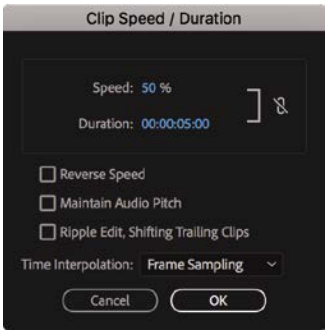


Play the clip in the Timeline. You may need to render the clip by pressing Enter (Windows) or Return (macOS) to see smooth playback. Notice that the clip is now 10 seconds long. That's because you slowed it to 50%: Half the playback speed means twice the original length.

4 Choose Edit > Undo or press Ctrl+Z (Windows) or Command+Z (macOS).

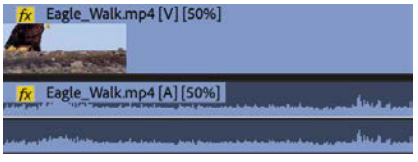
5 Select the clip on the Timeline and press Ctrl+R (Windows) or Command+R (macOS) to open the Clip Speed/Duration dialog box.

6 Click the chain icon to make sure the Speed and Duration settings are unlinked. Then change Speed to 50%.



The clip plays back slower, with linked duration, so it's longer on the Timeline.

7 Click OK; then play the clip.



The clip plays back slower, with unlinked duration, so it's the same length on the Timeline.

The clip is now playing at 50% speed, so it should play for twice as long. But because you've turned off the link between playback speed and duration, the second half has been trimmed to maintain the 5-second duration in the sequence.

Now try reversing playback.

8 Open the Clip Speed/Duration dialog box again.

9 Leave Speed at 50%, but this time select Reverse Speed; then click OK.

10 Play the clip. Now it plays in reverse at 50% slow motion.

Tip: You can change the speed of multiple clips at the same time. To do so, select multiple clips and choose Clip > Speed/Duration. When you change the speed of multiple clips, be sure to pay attention to the Ripple Edit, Shifting Trailing Clips option. This will automatically close or expand gaps for all the selected clips after the speed change.

Changing clip speed/duration with the Rate Stretch tool

Sometimes you'll have a clip that has perfect content to fill a gap in your sequence, but it is just a little too short or a little too long. This is where the Rate Stretch tool helps.

1 Open the sequence 04 Rate Stretch.

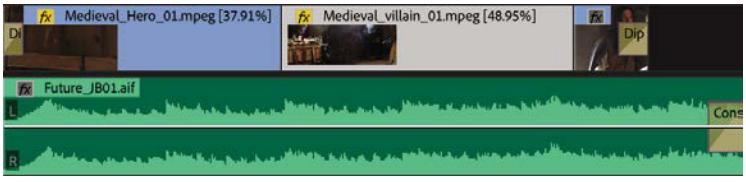
This sequence is synchronized to music, and the clips contain the desired content, but the first clip is too short. You can make a guess and try to make an exact Speed/Duration adjustment, but it's easier and faster to use the Rate Stretch tool to drag the end of the clip to fill the gap.

2 Select the Rate Stretch tool in the Tools panel by clicking and holding on the Ripple Edit Tool icon.

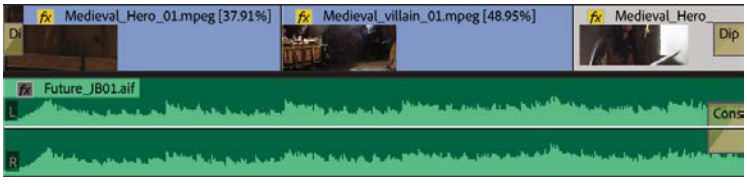
3 Using this tool, drag the right edge of the first video clip until it meets the second video clip.

The speed of the clip changes to fill the gap. The contents haven't changed; the clip is playing more slowly.

4 Using the same tool, drag the right edge of the second clip until it meets the third clip.



5 Drag the right edge of the third clip until it matches the end of the audio. Notice that you must drag somewhere other than the transition effect icon to be able to change the duration this way.



Tip: If you change your mind about a change made with the Rate Stretch tool, you can always use it to stretch a clip back. Alternatively, you can use the Speed/Duration command and enter a Speed value of 100% to restore the clip to its default speed.

6 Play the Timeline to view the result.

7 Press the V key or click the Selection tool to select it.

8 Right-click the third clip and choose Time Interpolation > Optical Flow. This smooths playback when changing clip speed. This is a more advanced system for rendering motion changes and takes longer to render and preview.

Note: Using Optical Flow to render a new playback speed can produce visual artifacts, particularly footage that has motion blur as a result of a slow camera shutter speed.

9 Render and play the sequence to see the result.

Recognizing the downstream effects of changing time

If you change the speed of a clip at the beginning of the Timeline after assembling many clips in your sequence, it's important to understand the way this will affect the rest of the sequence "downstream." You might cause the following:

- Unwanted gaps caused by clips growing shorter because they are playing faster than they did originally.
- Unwanted duration changes to the overall sequence because of the Ripple Edit option.
- Potential audio problems created by changes in speed—including changing pitch.

When you're making speed or duration changes, be careful to view the overall impact on the sequence. You may want to change the zoom level of the Timeline to view the entire sequence or segment at once.

Replacing clips and footage

During the editing process, it's common to swap one clip in a sequence for another as you try different versions of an edit.

This might mean making a global replacement, such as replacing one version of an animated logo with a newer file. You might also want to swap out one clip in your sequence for another that you have in a bin. Depending on the task at hand, you'll use different methods.

Dragging in a replacement clip

You can drag a new shot onto the existing sequence clip you'd like to replace.

Let's try it.

1 Open the 05 Replace Clip sequence.

2 Play back the Timeline.

Clips 2 and 3 in the sequence are actually the same SHOT4 clip repeated. The clip has motion keyframes applied to make it spin onto the screen and spin off again. You'll learn how to create these kinds of animation effects in the next lesson.

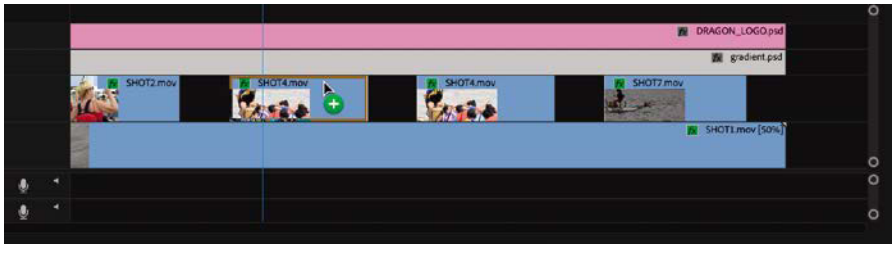
Let's replace the first instance of the clip (SHOT4) in the V2 track with a new clip called Boat Replacement. You don't want to have to re-create the effects and animation, as these are already set perfectly. This is an ideal scenario for replacing a sequence clip.

3 From the Clips to Load bin, drag the Boat Replacement clip straight from the Project panel over the first instance of the SHOT4 clip on the Timeline, but don't release the mouse button yet.

For this technique, it's not necessary to position the cursor precisely; just make sure the pointer is over the clip you want to replace.

The clip is longer than the existing clip that you intend to replace.

4 Hold the Alt (Windows) or Option (macOS) key.



Notice the mouse cursor changes to indicate you're about to perform a replace edit.

While you're holding this modifier key, the replacement clip snaps to fit the exact length of the clip it's replacing. Release the mouse button to replace the clip.

5 Play the Timeline. All the picture-in-picture clips have the same effect applied to different footage. The new clip inherits the settings and effects from the clip it replaced. This is a quick and easy way to try different shots in a sequence.

Performing a synchronized replace edit

When you drag and drop to replace a sequence clip, Premiere Pro synchronizes the first frame (or In point) of the replacement clip with the first visible frame of the existing clip in the sequence. This is often fine, but what if you need to synchronize a particular moment in the action, such as hands clapping or a door closing?

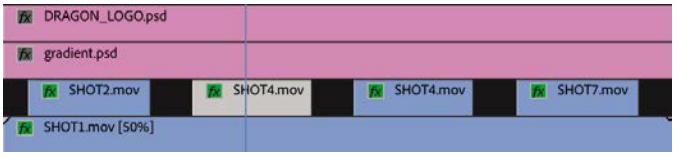
If you'd like to have more control over a replace edit, you can use the Replace Edit command. This allows you to synchronize a particular frame of the replacement clip with a particular frame of the clip it's replacing.

1 Open the sequence 06 Replace Edit.

This is the same sequence you previously fixed, but this time you'll position the replacement clip precisely.

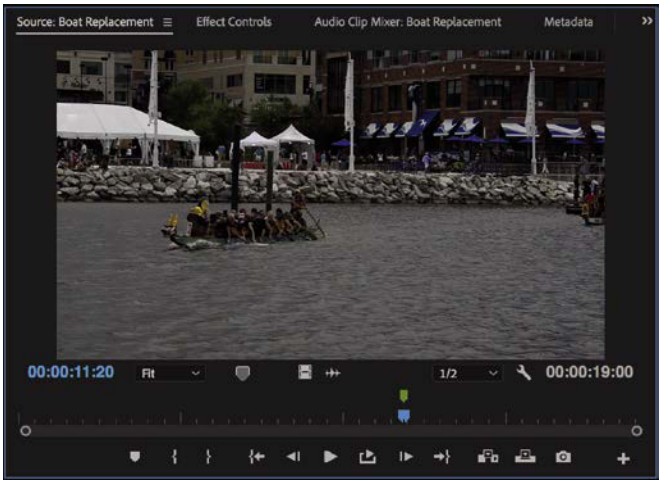
2 Position the playhead in the sequence at approximately 00:00:06:00. The playhead will be the sync point for the edit you are about to perform.

3 Click the first instance of the SHOT4 clip in the sequence to select it.



4 From the Clips to Load bin, open the clip Boat Replacement in the Source Monitor.

5 In the Source Monitor, position the playhead to choose a good piece of action for the replacement. There's a marker on the clip for guidance.



6 Make sure the Timeline is active, with the first instance of SHOT4.mov selected, and choose Clip > Replace With Clip > From Source Monitor, Match Frame.

The clip is replaced.

7 Play the newly edited sequence to check the edit.

The playhead position in the Source Monitor and Program Monitor was synchronized. The sequence clip duration, effects, and settings are all applied to the replacement clip. This technique can be a huge time-saver!

Using the Replace Footage feature

While a replace edit replaces a clip in a sequence, the Replace Footage feature replaces footage in the Project panel so that the clip links to a different media file. This can be of great benefit when you need to replace a clip that occurs several times in a sequence or in multiple sequences. You might use this to update an animated logo or a piece of music.

When you replace footage in the Project panel, all instances of the clip you replace are changed anywhere the clip was used.

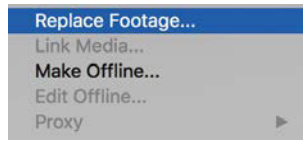
1 Load the sequence 07 Replace Footage.

2 Play the sequence.

Let's replace the graphic on the fourth video track with something more interesting.

3 In the Clips to Load bin, click to select the clip DRAGON_LOGO.psd in the Project panel.

4 Choose Clip > Replace Footage, or right-click the clip and choose Replace Footage.



5 Navigate to the Lessons/Assets/Graphics folder, and choose the DRAGON_LOGO_FIX.psd file. Double-click to select it.

The Replace Footage command updates the clip name to match the new media file.

Note: The Replace Footage command cannot be undone. To switch back to the original clip, choose Clip > Replace Footage again to navigate to and relink the original file.

6 Play the Timeline. The graphic has been updated throughout the sequence and project. Even the clip name in the Project panel has updated to match the new file.

Nesting sequences

A *nested* sequence is a sequence contained within another sequence. You can break up a long project into more manageable parts by creating separate sequences for each section. Then, you can drag each sequence—with all its clips, graphics, layers, multiple audio/video tracks, and effects—into another, "master" sequence. Nested sequences look and behave like single audio/video clips, but you can edit their contents and see the changes update inside the master sequence.

Nested sequences have many potential uses.

- They simplify editing by allowing you to create complex sequences in separate parts. This can help you avoid running into conflicts or accidentally moving clips and ruining your edit.
- They allow you to apply an effect to a group of clips in a single step.
- They let you use sequences as a source in multiple other sequences. You can create one intro sequence for a multipart series and add it to each episode. If you need to change the intro sequence, you can do so once and see the results update everywhere it's nested.
- They allow you to organize your work in the same way you might create subfolders in the Project panel.
- They allow you to apply transitions to a group of clips as a single item.