Starting the lesson

In this lesson, you'll learn how to quickly edit multiple angles of footage that were shot simultaneously. Because the clips were shot at the same time, Adobe Premiere Pro CC makes it possible to cut seamlessly from one angle to another.

The multicamera production and post-production processes are more advanced than setting up and managing the media from a single camera. You may not use the techniques explored in this chapter. Still, it's useful to understand the way Premiere Pro approaches multicamera source material and automated synchronization.

Even if you don't work with lots of cameras capturing an event from multiple angles, you might find it useful to use two cameras: one set close and the other set wide.

The workflow described in this chapter applies just as well to two cameras as it does to six or more.

The Premiere Pro multicamera editing feature is a tremendous time-saver when you're editing footage from a shoot or event captured with multiple cameras.

1 Open the project Lesson 10.prproj.

2 Save the project as Lesson 10 Working.prproj.

3 In the Workspaces panel, select Editing. Then open the menu adjacent to Editing and choose Reset To Saved Layout.
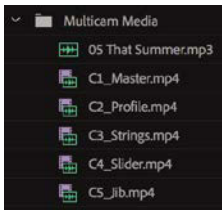
This project has five camera angles of a musical performance and a synchronized audio track.

You'll use an automated workflow to create a synchronized multicamera sequence that can be edited "on the fly" during playback.

Following the multicamera process

While the workflow can seem complex the first time you perform a multicamera edit, once you know how to do it, it's really straightforward.

There are six stages.

- **Import your footage**: Ideally, the cameras will be closely matched in frame rate and frame size, but you can mix and match if needed.

- **Determine your sync points**: The goal is to keep the multiple angles running in sync with each other so you can seamlessly switch between them. You'll need to identify a point in time that exists in all angles to synchronize or use matching timecode. Alternatively, you can automatically sync if all the clips have the same audio.

Tip: When recording multicamera content, avoid pausing and restarting recording when possible, as you are likely to have to synchronize your shots in post-production every time you restart the recording.

- **Create a multicamera source sequence**: The clips are added to a specialized sequence type called a *multicamera source sequence.* This is essentially a sequence that contains multiple video angles stacked on different video tracks.

- **Add the multicamera sequence to another sequence for editing**: Editing one sequence into another is called *nesting.* This new sequence is the multicamera master sequence in which you will perform edits. Your original multicamera sequence is now effectively a multilayered source clip.

- **Record multicamera edits**: A special Multi-Camera view in the Program Monitor lets you switch between camera angles during playback, adding an edit each time you switch.

- **Adjust and refine edits**: Once the edit is roughed out, you can refine the sequence with standard Timeline editing and trimming commands.

Who uses multicamera editing?

The popularity of multicamera editing has grown immensely as prices for high-quality cameras have fallen. There are many potential uses for a multicamera shoot and edit, ranging from simple fiction dialogue to large-scale reality TV series.

- **Visual and special effects:** Because of the expense associated with many special-effects shots, it's common practice to cover the shot with multiple angles. This means less cost associated with the staging of the shot and allows for greater flexibility during editing.

- **Action scenes:** For scenes that involve a lot of action, producers often use multiple cameras. Doing so can reduce the number of times that stunts or dangerous action needs to be performed.

- **Once-in-a-lifetime events:** Events such as weddings and sporting competitions rely heavily on multiple angles of coverage to ensure that the shooters capture all the critical elements of the event.

- **Musical and theatrical performances:** If you've watched a concert film, you're used to multiple camera angles being used to show the performance. Multi-camera editing can improve the pacing of theatrical performances as well.

- **Talk-show formats:** Interview-driven segments often cut between the interviewer and subject, as well as to a wide shot to show both subjects at the same time. Not only does this maintain visual interest, but it makes it easier to edit an interview to a shorter run time.

- **Presentations to camera:** If you present to camera, recording on two cameras gives you another angle to cut to when covering up a repeat take or when removing content. It also adds visual interest.

Creating a multicamera sequence

You can play multiple camera angles at the same time; the only limiting factor is the computing power required to play back your clips. If your computer and storage drives are fast enough, you should be able to play back several streams in real time.

Determining the sync points

Decide how you want to synchronize the multiple angles of footage when creating the multicamera sequence. You can select from five options for the sync references. The method you choose will be partly a matter of personal choice and partly how the footage was shot.

- **In points:** If you have a common starting point, you can set an In mark (generally referred to as an "In point" in this workflow) on all clips you want to use. This method is effective as long as all cameras are rolling before the critical action starts.

- **Out points:** This method is similar to syncing with an In mark but instead uses a common Out mark (generally referred to as an "Out point" in this workflow). Out-point syncing is ideal when all cameras capture the ending of critical action (such as crossing the finish line) but were started at different times.

- **Timecode:** Many professional cameras allow timecode to be synchronized across multiple cameras. You can sync cameras by connecting them to a common sync source. In some cases, the Hours number is offset to identify the camera number. For example, camera 1 would start at 1:00:00:00, and camera 2 would start at 2:00:00:00. For this reason, you can choose to ignore the Hours number when syncing with timecode.

  This will always be the fastest way to sync. It requires more preparation, and potentially different hardware for production, but can save a considerable amount of work in post-production.

- **Clip marker:** In and Out points can be accidentally removed from a clip. If you'd like to mark a clip in a more robust fashion, you can use a marker to identify a common sync point. Markers are more difficult to accidentally remove from a clip. They can also be based on any part of the action, perhaps an event partway through the recording that all cameras captured. If you don't have sync timecode or audio, a marker is probably the most efficient way to work.

- **Audio:** If every camera recorded audio (even if it's just poor-quality reference audio from a camera-mounted shotgun or even an integrated microphone), Premiere Pro may be able to synchronize the clips automatically. The results with this method depend on your audio being reasonably clean.

▶ **Tip:** If you don't have a good visual clue in the video to sync multiple clips to, look for a clap or loud noise in the audio track. It's often easier to sync clips by looking for a common spike in the audio waveform. Add a marker at each point and then use the markers to sync.

Adding clips to a multicamera source sequence

Once you've identified the clips you want to use (as well as a common sync point), you can create a multicamera source sequence, the specialized type of sequence for multicamera editing.

The order in which you select the clips is the order in which they will be added to the sequence—and by extension, this sets the camera angle number.

By holding Ctrl (Windows) or Command (macOS), you can select one clip after another to define them as specific camera angles. For example, if you click to select clips 1, then 2, then 3, they'll become Camera Angle 1, then 2, then 3.

If you select clips 1, then 3, then 2, they'll become Camera Angle 1, then 2, then 3. You can easily change this later, of course.

Let's try this.

1 Select all the clips in the Multicam Media bin.

For this example, Ctrl-click (Windows) or Command-click (macOS) the clips in their numerical order. It doesn't matter when you select the audio-only clip. When an audio-only clip is present, Premiere Pro automatically uses it as the audio for the multicamera sequence.

2 Right-click one of the selected clips and choose Create Multi-Camera Source Sequence. You can also choose Clip > Create Multi-Camera Source Sequence.
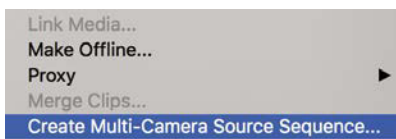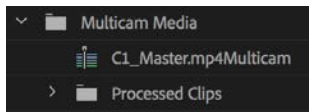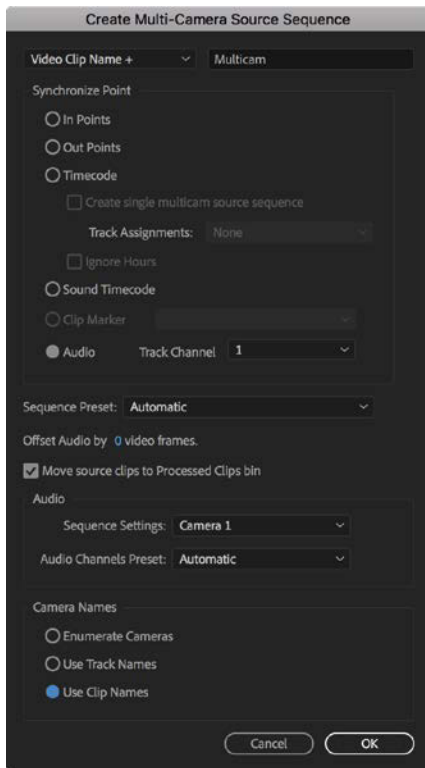
A new dialog box opens, asking how you want to create the multicamera source sequence.

3 Under Synchronize Point, select Audio, and leave Track Channel set to 1.

> ▶ **Tip:** If you're not sure which clip audio is clear for syncing purposes, choose Mix Down in the Track Channel menu. This will use all audio channels to sync.

4 Leave the Sequence Preset menu set to Automatic. The newly created sequence will match the media files you are using. All available sequence presets are listed here, so you can choose a particular option if you prefer.

5 Leave the Audio > Sequence Settings menu set to Camera 1. In fact, because one of the clips is audio-only, it will automatically be used as the audio for the newly created multicamera sequence. If you didn't have that audio-only clip, Premiere Pro would use the first selected shot.

Another approach is to place a dedicated audio recording on another track and sync it. Alternatively, choose Switch Audio from the Audio > Sequence Settings menu to sync the audio changes to the video angle that's chosen as you edit.

6 The clips have useful names that you can use as Camera Angle names. Under Camera Names, select Use Clip Names, and click OK.

Premiere Pro analyzes the clips and creates a new multicamera source sequence.

7 Double-click the new multicamera source sequence to view it in the Source Monitor.
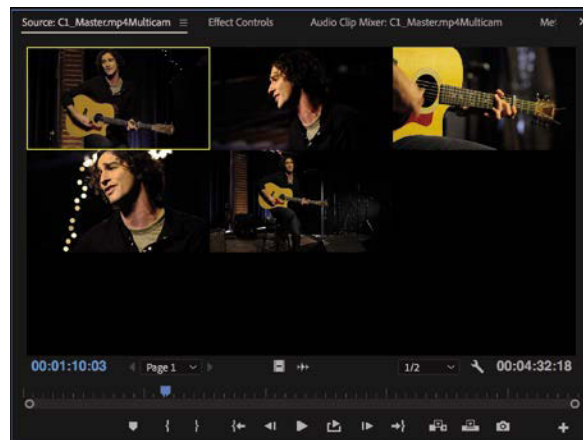
8 Drag the Source Monitor playhead through the clip to view the multiple angles.

The clips are displayed in a grid to show you all the angles at once. Some angles start in black because the cameras began recording at different times.

In this workflow, you're using an automated option in the Project panel to create a multicamera sequence. You could also manually create a multicamera sequence, giving you more control but taking more time. Explore the Adobe Premiere Pro Learn and Support website for more information about multicamera editing (choose Help > Adobe Premiere Pro Help)

Creating the multicamera target sequence

Once you've made the multicamera source sequence, you need to place it in another sequence, nesting it. The nested sequence will behave like any other clip in your master sequence. However, this clip has multiple angles of footage to choose from as you edit.

1 Locate the multicamera source sequence you just created. It should be named something like C1_Master.mp4Multicam.

2 Right-click the multicamera source sequence and choose New Sequence From Clip, or drag the clip onto the New Item menu at the bottom of the Project panel.

● **Note:** Creating a new sequence from a multicamera source sequence in this way will result in a multichannel audio mastering setting, which may not result in ideal panning (depending on your source audio). You can also manually create a new stereo sequence and drag the new multicamera sequence into it, producing mono audio panning, equally balanced between the left and right audio output.

You now have a ready-to-use multicamera target sequence.
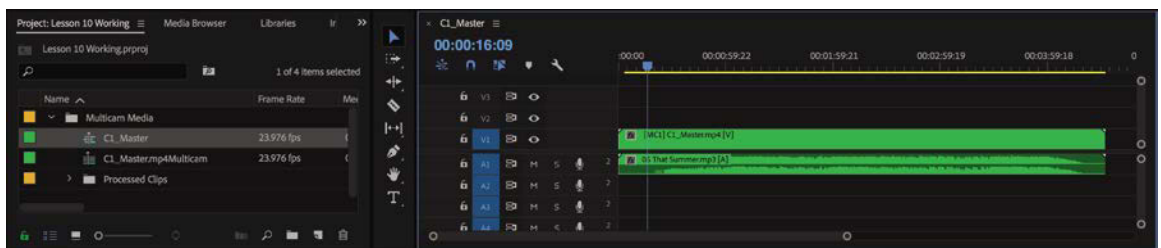
3 Right-click the nested multicamera sequence on the Timeline, and look at the Multi-Camera options.
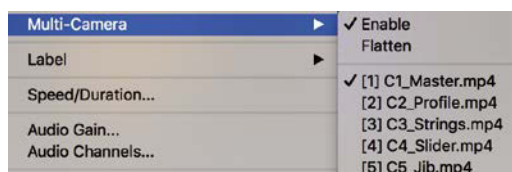
For a multicamera sequence clip to work, the Multi-Camera option must be enabled.

Multi-Camera mode is automatically enabled for this clip because of the way you created it. You can turn this option off or on at any time.

4 A camera angle is already selected. Try choosing another angle in this menu, and see the Program Monitor update. The clip name updates in the sequence too.
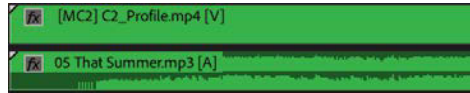
▶ **Tip:** To view the contents of a multicamera sequence, hold Ctrl (Windows) or Command (macOS) and double-click it. You can edit the contents of the sequence as you would any other. Changes you make will update in the target sequence, which you can return to by clicking its name in the Timeline panel.

Switching multiple cameras

Once you've built the multicamera source sequence and added it to a multicamera target sequence, you're ready to edit. You can do this in real time using the Multi-Camera view in the Program Monitor. You can switch between the different angles by clicking in the Program Monitor or using a keyboard shortcut.

Performing a multicamera edit

Multicamera editing works by selecting camera angles for the current clip on the Timeline using a special Multi-Camera mode in the Program Monitor.

If playback is stopped, you can click an angle on the left of the Program Monitor, and the current clip in the sequence will update to match.

During playback, when you click an angle in the Program Monitor, the sequence clip updates, and an edit is applied to the clip, separating the previous camera angle from the newly selected angle. The edits are not displayed until after playback stops.

Let's try it now.

1 Open the Settings menu on the Program Monitor, and choose Multi-Camera.

2 Play the sequence to get familiar with it.

3 Hover your mouse over the Program Monitor and press the ` (grave) key to maximize the panel. If your keyboard doesn't have a ` (grave) key, double-click the panel name.

4 Set the playhead at the start of the sequence, and press the spacebar to start playback.

The first few seconds are silent until the click track begins. You will hear a series of short beeps followed by the professionally recorded track.

5 Click the images on the left to switch between the multiple camera angles during playback. You can also use the keyboard shortcuts, 1–5, that correspond to the camera angle you want to select.

When the sequence finishes playback or you stop playback, it will have multiple edits. Each separated clip's label starts with a number that represents the camera angle used for that clip.

● **Note:** The first nine camera angles are assigned to keys 1–9 along the top of your keyboard (not the numerical keypad) by default. For example, press the 1 key to select Camera 1, press the 2 key to select Camera 2, and so on.

6 Press the ` (grave) key, or double-click the panel name, to restore the Program Monitor panel to normal size.

7 Play the sequence and review your edit.

Imagine the director on this production decides the audio is too loud for the planned distribution medium.

8 Right-click the audio track and choose Audio Gain.

A new dialog box opens.

9 In the Adjust Gain By field, enter **−8** and click OK to lower the audio.

● **Note:** If you have effects applied to your clips, these are displayed as usual in the Program Monitor. This is helpful if you have applied color adjustments to match different angles.

Re-recording multicamera edits

● **Note:** After making your edits, you can always change them in the Multi-Camera view of the Program Monitor or on the Timeline. You can even trim parts of the multicamera sequence as you would any other clip.

The first time you record a multicamera edit, it's possible you will miss a few edits. Perhaps you cut too late (or too early) to an angle. You also may decide that you like one angle better than another. This is easy to correct.

1   Move the playhead to the start of the Timeline panel.

2   Click the Play button in the Multi-Camera view to start playback.

   The angles in the Multi-Camera view switch to match the existing edits in your Timeline.

3   When the playhead reaches the spot you want to change, switch the active camera.

   If your keyboard has the keys, you can press one of the shortcuts (in this case, 1–5), or you can click your preferred angle in the Multi-Camera view of the Program Monitor.
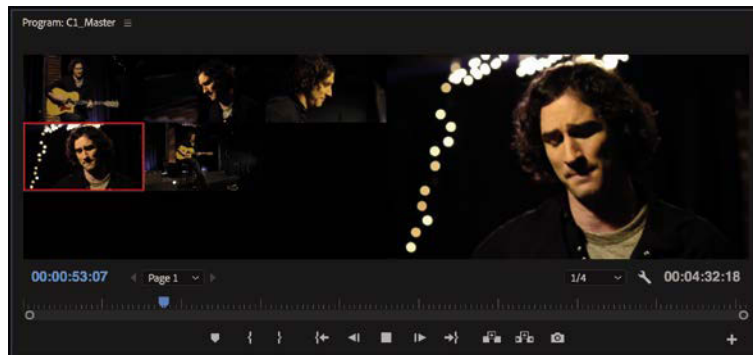
4   When you finish editing, stop playback by pressing the spacebar.

5   Open the Program Monitor Settings menu and choose Composite Video to return to a regular viewing mode.