Notice to users

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Introduction

Catalyst Edit is your focused, fast cutting tool for 4K, RAW, and HD video.

Catalyst Edit focuses on HD, 4K, and Sony RAW video editing while you focus on creativity. Flexible timeline editing tools make working with 4K XAVC and Sony RAW files as easy as working with HD. At last, take full advantage of all the detail and high dynamic range color you shot. Catalyst Edit ends the multichannel audio nightmare with an innovative workflow that enables you to use your camera audio however you need to even without a degree in audio engineering. Catalyst Edit integrates tightly with Catalyst Prepare to provide continuity from the media prep stage to the editing stage.

The Catalyst Edit window

The Catalyst Edit window is divided into five main sections:

- The toolbars provide quick access to frequently used functions.
- The left side of the window displays the Media Browser (where you can browse your computer for media files to use in your projects) and the Plug-Ins pane (where you can browse the available video effects, generators, and transitions).
- The Video Preview displays the video frame at the cursor position and allows you to play back your project.
- The timeline is where you create projects. You can add tracks to organize your media clips and add clips to the tracks.
- The right side of the window can display the Inspector, which allows you to edit application options, properties for the timeline, selected track, or selected clip.
Chapter 2

Working with projects

A project file (.ceditprj) saves the relevant information about your source media: file locations, edits, insertion points, transitions, and effects.

A project file is not a multimedia file. It contains pointers to the original source files, so you can edit your project nondestructively. You can be creative without worrying about corrupting your source files.

💡 Catalyst Edit saves a backup copy of your project automatically. If Catalyst Edit terminates unexpectedly, the autosaved project will be opened the next time you start.

Creating projects

The first step in creating your masterpiece is to create a Catalyst Edit project file (.ceditprj).

1. Click the Project button ➔ in the main toolbar.
2. Choose New from the menu to create a project.
   - Press Ctrl+N (Windows) or ⌘+N (macOS) to create a new project quickly.

Opening projects

1. Click the Project button ➔ in the main toolbar.
2. Choose Open from the menu.
   - Press Ctrl+O (Windows) or ⌘-O (macOS).

   The Open dialog is displayed.
   - If you have not saved the current project, you are prompted to save your changes.
3. Choose the folder where the project you want to open is stored.
4. Select a Catalyst Edit project file (.ceditprj) in the browse window or type a name in the File name box.
5. Click Open.
   - Choose a project from the Recent Projects list to quickly open a recently edited project.
Relinking project media

When you open a project, Catalyst Edit will prompt you to relink project media if the original clips cannot be found.

You can also use the Relink Project Media dialog to create a proxy-based workflow: create a project using lower-resolution proxy clips for efficient editing and then relink the proxy clips to their full-resolution versions before rendering or exporting your project. For more information, see “Rendering projects” on page 18 or “Exporting projects” on page 19.

1. Open a project. For more information, see “Opening projects” on page 11.
   
   If the clips used in your project are not found in their original locations, the Relink Project Media dialog is displayed.

   If you want to relink media manually, click the Project button in the main toolbar and choose Relink from the menu.

2. For each clip, the Relink Project Media dialog displays the original clip and its linked clip.

   Click a folder path and browse to a new location to choose a new location for your source clips.

   Click Locate Folder or Locate File (if a clip is missing) or a clip’s path and browse to a new file to choose a replacement file.

   📦 Click the button to display the full path.

3. Click Relink. The clips are replaced, and your project is updated.
Saving projects

You can use the Save or Save As commands to save changes to the current Catalyst Edit project.

If your project contains unsaved changes, (edited) is displayed after the project name in the title bar.

1. Click the Project button in the main toolbar.
2. Choose Save to save the current project, or choose Save as if you are saving a new project for the first time or want to create a copy of the current project.

   Press Ctrl+S (Windows) or ⌘ -S (macOS).

   The Save window is displayed.
3. Select the drive and folder where you want to store the project.
4. Type a name for the project in the File name (Windows) or Save As (macOS) box.
5. Click the Save button.

Using the Timeline Inspector

In the Inspector, select the Timeline tab to edit settings for your project timeline.

Click an empty area in the timeline below the last track, and the Timeline tab is displayed automatically if the Inspector is visible.

When you add the first video clip to a project, the timeline settings are automatically adjusted to match the media properties. For more information, see “Adding media and creating clips” on page 40.

Summary

Type a value in the Name box to set the title of the project.

Video

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<tr>
<th>Item</th>
<th>Description</th>
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<tr>
<td>Width</td>
<td>Determines the frame size of your final movie when rendered.</td>
</tr>
<tr>
<td>Height</td>
<td></td>
</tr>
<tr>
<td>Pixel aspect</td>
<td>Type a value in the box to change the pixel aspect ratio of your project.</td>
</tr>
<tr>
<td>aspect ratio</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computers display pixels as squares, or a ratio of 1.0. Televisions display</td>
</tr>
<tr>
<td></td>
<td>pixels as rectangles (ratios other than 1.0).</td>
</tr>
<tr>
<td></td>
<td>Using the incorrect setting can result in distortion or stretching. Consult</td>
</tr>
<tr>
<td></td>
<td>your capture/video output card’s manual for the proper settings.</td>
</tr>
<tr>
<td>Frame</td>
<td>Type a value in the box to change the frame rate of your project. The ruler</td>
</tr>
<tr>
<td></td>
<td>in the timeline is</td>
</tr>
</tbody>
</table>
Item Description

rate displayed using this frame rate.

The television frame rate in the US, North and Central America, parts of South America, and Japan (NTSC) is 29.97 frames per second (fps). In many parts of the world, including Europe and much of Asia, the television standard is PAL at 25 fps. France, Russia, and most of Eastern Europe use SECAM, which is a variation on PAL and also uses 25 fps.

Working color space Choose a setting from the Working color space drop-down list to choose the color space that will be used to display your project. Choosing the correct color space ensures that you see your video in the proper color space as you work.

If you’re using media from a Catalyst Prepare library ( ), ensure you’re using the same Working color space setting in the Catalyst Prepare Options menu and the Catalyst Edit Timeline Inspector.

### Audio

<table>
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| Sample rate   | Choose a sample rate from the drop-down list to indicate the number of samples per second used to store audio. Your project audio is resampled automatically.  
To use a custom sample rate, choose Custom from the drop-down list and type a sample rate in the edit box. |
| Channel setup | Choose Stereo from the drop-down list to create a two-channel (stereo) project.  
Choose Multichannel and type a number in the Channel count box to create a multichannel project.                                      |
| Gain          | Drag the fader to adjust the volume of the main output. Double-click the center of the thumb to reset the fader. You can double-click the numeric value to type a new value.  
💡 When adjusting volume, remember to watch your audio meters. Because you are adding the volumes of all of the tracks together, it is easy to clip the audio output. Make sure that the meters never display the red Clip indication during playback. For more information, see “Monitoring audio levels” on page 128. |
| Mute          | Click to mute/unmute your project’s audio output.                                                                                                |
Channel Output

Click the speaker icon to turn a channel on or off.

Click the Mono or Stereo button to indicate whether a channel is a mono channel or part of a stereo pair. Enabling Stereo will pair the channel with the next channel in the list.

If you want to set all of a clip’s channels at once, click the Channel Tools button and choose Set all to mono, Set all to stereo, or Reset.

Type a name in the edit box to identify the channel. For example, you might type Lav1 to identify audio from a lavalier microphone.

Channels that are named identically in the Timeline Inspector and Clip Inspector will be matched.

When you add a clip from a Catalyst Prepare library to the Catalyst Edit timeline, any channel assignment settings that you made in the Catalyst Prepare library will be applied to the clip.

Video Effects

When the timeline has effects applied to it, you can use the Video Effects controls to control the settings for each effect. For more information, see “Adding effects to the timeline” on page 102.
Click the Overlay button to show or hide a plug-in’s interactive overlay controls in the video preview (when available).

Click the Mute button to bypass a plug-in without removing it from the chain.

Click the Delete button to remove a plug-in from the chain.

Drag a plug-in’s heading to change its position in the plug-in chain.

Click the toggle arrow to show or hide each plug-in’s controls.

When you select a position parameter in the Inspector, a control point is displayed in the video preview. You can adjust the parameter’s position by dragging the control point in the video preview or the Inspector:
Sharing projects

Catalyst Edit allows you to convert and upload your projects to the Web to share them.

Uploading files to YouTube

1. Click the Project button in the main toolbar.
2. Choose Share from the menu. The Share dialog is displayed.
3. From the Upload clip to drop-down list, choose YouTube.
4. Use the Share dialog to log on to your Google account and follow the on-screen instructions to upload the selected file.
   a. In the Title box, type a new title to identify your video.
   b. Type a description of your movie in the Description box.
   c. Type keywords you want to associate with your movie in the Tags box. Use words that relate to your movie and describe its content. These tags will be used when searching YouTube. Use commas to separate multiple keywords.
   d. From the Privacy drop-down list, choose a setting to set broadcast options for your movie. Public videos can be seen by any YouTube user; private videos can be seen only by members you specify; unlisted videos can be seen by anyone who has a link to the video, but they are not included in YouTube searches.
   e. Choose a setting from the Category drop-down list. The category you choose is used to classify videos on the YouTube site.
   f. Choose a setting from the Resolution drop-down list to choose the frame size of the video.
   g. Choose a setting from the Encode mode drop-down list to choose whether you want to optimize image quality or transcoding speed.
5. Select the Render loop region only check box if you want to save only the portion of the project that is contained within the Mark In/Mark Out region. For more information, see “Marking in and out points for playback” on page 50.
   - Loop Playback does not need to be selected for this option to work.
6. Click Upload.

Progress is displayed in the activity pane at the top of the Catalyst Edit window. If you have multiple upload jobs queued, a separate progress indicator is displayed for each job.
Rendering projects

When you’re finished editing your project — or when you want to see it in its final form — rendering converts your project to another format and creates a single file on your hard drive.

When you render your project, the project file is not affected (overwritten, deleted, or altered) during the rendering process. You may return to the original project to make edits or adjustments and render it again.

1. Click the Project button \[\Rightarrow\] in the main toolbar.
2. Choose Render from the menu. The Render Project dialog is displayed.
3. Type a name in the Name box to identify your rendered file.
4. In the Destination folder box, type the path to the folder where you want to save the rendered file, or click Browse to choose a folder.
5. Choose a setting from the Format menu to indicate whether you want to create an AVC/AAC (*.mp4), DNxHD, Apple ProRes (macOS only), SStP, XAVC Intra, XAVC Long, XAVC S, or XDCAM clip.
   - If you want to render an audio-only file, choose MP3 Audio, Sony W64 or WAV.
   - If you want to render an image sequence, choose DPX or OpenEXR.
6. Choose a setting from the Render preset drop-down list to choose the settings that will be used for the new file.
   - Choose the Best match preset if you want Catalyst Edit to choose the most appropriate preset for your project timeline. For more information, see “Using the Timeline Inspector” on page 13.
7. If you’re rendering to a format that supports multichannel audio, use the controls in the Audio channels box to map your project’s audio channels to the channels in the rendered file.
   - The left column represents the audio channels in the destination file. The drop-down lists in the right column represent the number of audio channels that have been configured for your project. For more information, see “Working with multichannel audio” on page 120.
   - For each destination channel, choose an output from the drop-down list, or choose Unused to render silence in that channel.
8. Select the Render loop region only check box if you want to save only the portion of the project that is contained within the Mark In/Mark Out region. For more information, see “Marking in and out points for playback” on page 50.
   - Loop Playback \[\Rightarrow\] does not need to be selected for this option to work.
9. Click OK.
   - Progress is displayed in the activity pane at the top of the Catalyst Edit window.
Exporting projects

Project-interchange tools add flexibility to your workflow, allowing you to exchange projects with other popular editing platforms.

For more information about supported features for exported projects, please see “Exporting projects: supported features” on page 20. Design your Catalyst Edit project with these features in mind to ensure a smooth interchange.

1. Click the Project button in the main toolbar.
2. Choose Export from the menu.
3. The Export project to box displays the path to the folder where the project will be exported. You can type a path in the box or click the Browse button to choose a folder.
4. Type a name in the File name box to set the file name that will be used for your exported project file.
5. Choose an export format from the Project format drop-down list:
   - Apple Final Cut Pro X (*.fcpxml)
   - Adobe Premiere (*.prproj)
   - Avid Media Composer (*.aaf)
   - Vegas Pro EDL (*.txt)
6. Choose transcoding options:
   - If you want to link to the original clips in the original locations, choose Do not transcode from the Media format drop-down list.
   - If you want to transcode the storyboard’s media to another format when exporting, choose a setting from the Media format drop-down list.
7. Click Export.

Progress is displayed in the activity pane at the top of the Catalyst Edit window. If you have multiple export jobs queued, a separate progress indicator is displayed for each job.

An HTML report file is created in the same folder as the exported project with details about the export. Any warnings or errors will be displayed in the report.
Exporting projects: supported features

Catalyst Edit supports the following features when exporting projects.

💡 Design your Catalyst Edit project with these features in mind to ensure a smooth interchange.

Media Composer 6 (.aaf)

- Timeline (including frame rate)
  
  ❗️ Catalyst Edit timelines are always exported as stereo.

- Markers

- Frame rate

- Clips
  
  ❗️ Clips from nested timelines are exported to the main Media Composer timeline.
  
  Crossfades between nested timelines and other events in the parent timeline are ignored.
  
  Track volume, nested timeline track volume, and clip gain are summed and applied as clip gain in Media Composer.

- Audio channel routing (including timeline channel output and clip channel assignment)

- Clip audio fades and gain
  
  💡 Audio clip gain and audio track gain are exported as clip gain.

- Overlapping clips

- Track gain (converted to clip gain)

Premiere Pro CS6 (.prproj)

- Timeline (including width, height, pixel aspect ratio, frame rate, and field order)
  
  ❗️ Catalyst Edit timelines are always exported as stereo.

- Markers

- Clips (including nested timelines)

- Clip fades and gain/opacity

- Overlapping clips

- Title clips (multiline text, text angle, text color, background color, and shadow color are supported)

- Track gain, pan, mute, and solo
Final Cut Pro X (.fcpxml)

- Timeline
  - Catalyst Edit timelines are always exported as stereo.
  - Projects with multichannel audio will play through the left channel only in Final Cut Pro.
- Markers (timeline markers are exported as clip markers, and markers beyond the last clip are omitted)
- Clips (including nested timelines)
- Clip fades and gain/opacity
  - Video clip gain is exported as clip opacity.
  - Audio clip gain and audio track gain are exported as clip gain.
- Audio channel routing (including timeline channel output and clip channel assignment)
- Overlapping clips
- Title clips (title text, font, font size, bold, italics, alignment, color, shadow, outline, and rotation are supported)
  - Please confirm font sizes in Final Cut Pro X after exporting your project.
- Track gain, pan, mute, and solo

Vegas EDL (.txt)

- Timeline
  - Catalyst Edit timelines are always exported as stereo.
- Clips
  - Clips from nested timelines are exported to the main Vegas timeline.
    - Crossfades between nested timelines and other events in the parent timeline are ignored.
    - Track volume, nested timeline track volume, and clip gain are summed and applied as clip gain in Vegas.
- Clip fades and gain/opacity:
  - Video clip gain is exported as clip opacity.
  - Audio clip gain and audio track gain are exported as clip gain.
- Audio channel routing
- Overlapping clips
Finding media

The Media Browser pane allows you to browse the media files on drives and devices connected to your computer.

When you double-click a file in the Media Browser, it is added to the end of the selected track as a clip. If no track is selected, a new track is created. For more information, see “Adding tracks to a project” on page 51 or “Adding media and creating clips” on page 40.

Choosing a folder

- Click the Media Browser button at the top of the Catalyst Edit window to view the Media Browser.

Use the Media Browser to browse your computer for video files.

The top of the Media Browser will display the current folder and its parent folder. You can click the link to the parent folder to navigate up one level.

💡 To navigate quickly, click the Tools button at the bottom of the Media Browser and choose Go to location.
Displaying files in a list or thumbnail mode

Click the Media Browser Settings button 🔄 to display the Media Browser Settings menu, where you can choose to view media in grid or list mode.

In grid mode, the Media Browser displays thumbnail images and file names.

In list mode, the Media Browser displays a simple list of thumbnail images and file names.

- Click a file to select it.
- Hold Shift and click the first and last file you want to select to select a range of files.
- Hold Ctrl (Windows) or Command (macOS) to select multiple files.

💡 Click the Select button ✅ to select multiple files without using keyboard modifiers.

Showing source clips

1. Select a file.

2. Click the Tools button 🛠 at the bottom of the Media Browser and choose Show in Finder (macOS) or Show in Explorer (Windows) to view the source clip in its containing folder.

💡 Select a clip on the timeline, click the Clip button 🌼 below the timeline, and choose Show in Finder (macOS) or Show in Explorer (Windows) to view the source clip in its containing folder.

Displaying media from a Catalyst Prepare library

You can also add media from Sony Catalyst Prepare libraries to your Catalyst Edit projects.

In the Media Browser, double-click a .cpreplib file 📖. When you open a Catalyst Prepare library, the Media Browser displays all the media contained in that library sorted in bins.

💡 The default location for .cpreplib files is C:\Users\<username>\Videos \ on Windows and /Users/<username>/Movies/ on macOS.

If you want to use a storyboard from a Catalyst Prepare library, open a library as described above. A separate bin 🌼 is displayed for each storyboard. Drag a storyboard bin to the timeline to add it.

💡 You can also create clips by dragging clips from the Catalyst Prepare window to the Catalyst Edit timeline. For more information, see “Adding media and creating clips” on page 40.

Previewing media from the Media Browser

Select a file in the Media Browser and click the Preview button 📹 at the bottom of the Media Browser.
to play it.

During playback, the **Preview** button 🎥 changes to a **Pause** button ⏸. You can click the **Pause** button to suspend playback, or playback will stop at the end of the selected clip.

In grid mode, the video will play in the thumbnail. In list mode, a video preview is displayed above the file list.

**Previewing clips in the primary display**

Click the **Media Browser Settings** button 📊 to display the Media Browser Settings menu, and then use the **Primary display** buttons to preview Media Browser files in the primary display above the timeline.

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<th>Item</th>
<th>Description</th>
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<tr>
<td>Off</td>
<td>The primary display is not used for previewing files from the Media Browser.</td>
</tr>
<tr>
<td>On</td>
<td>Files from the Media Browser are played in the Media Browser and in the primary display above the timeline.</td>
</tr>
<tr>
<td>2 Up</td>
<td>Files from the Media Browser are played in the Media Browser and in the left side of the primary display above the timeline. The right side of the primary display shows the frame at the cursor position in the timeline.</td>
</tr>
</tbody>
</table>

**Previewing clips in the secondary window**

If you’re using the secondary window, you can choose to preview Media Browser files in the secondary window. For more information, see “Editing Catalyst Edit options” on page 131.

Click the **Media Browser Settings** button 📊 to display the Media Browser Settings menu, and then use the **Secondary window** buttons.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>The secondary window is not used for previewing files from the Media Browser.</td>
</tr>
<tr>
<td>On</td>
<td>Files from the Media Browser are played in the Media Browser and in the secondary window.</td>
</tr>
<tr>
<td>2 Up</td>
<td>Files from the Media Browser are played in the Media Browser and in the left side of the secondary window. The right side of the secondary window shows the frame at the cursor position in the timeline.</td>
</tr>
</tbody>
</table>

**Using hover scrub**

When **Hover scrub** is selected in the Media Browser Settings menu, you can hover your mouse over the play cursor in the thumbnail (or the video preview in list mode) to change the playback position and scrub the media. When the button is not selected, you can click and drag the cursor to scrub.
You can scrub the selected clip in the Media Browser using the JKL keys: press and hold K while pressing J or L to emulate a shuttle knob mode. Press K+J to scrub left or K+L to scrub right.

In grid mode, the audio waveform is displayed in the video preview to help you navigate the file, and the timecode above the video preview displays the current cursor position. You can click the timecode to type a new value and reposition the cursor.

Setting mark in/out points in the Media Browser

Mark in/out points are displayed in the Media Browser and allow you to add partial clips to the timeline.

- Press I to set the mark in point to the cursor position or press O to set the mark out point.
- You can also drag the mark in/out points to change their positions.

When you add a clip to your project, only the area between the mark in/out points will be added to the timeline. For more information, see “Adding media and creating clips” on page 40.

Managing SxS and Professional Disc volumes

If you need to format an SxS card, please use the Memory Media Utility.

If you need to format or finalize an XDCAM Professional Disc volume, please use the XDCAM Drive Software.
Supported video formats

Catalyst Edit supports reading the following video formats from volumes or as independent clips:

**XDCAM**

**SD format**

<table>
<thead>
<tr>
<th>Format</th>
<th>Frame Size</th>
<th>Frame Rate</th>
<th>Field Order</th>
<th>Video Codec</th>
<th>Bit Rate</th>
<th>Audio Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV</td>
<td>720x480</td>
<td>59.94i</td>
<td>Lower</td>
<td>DV</td>
<td>25 CBR</td>
<td>4x16 bit</td>
</tr>
<tr>
<td>DV</td>
<td>720x576</td>
<td>50i</td>
<td>Lower</td>
<td>DV</td>
<td>25 CBR</td>
<td>4x16 bit</td>
</tr>
<tr>
<td>MPEG IMX</td>
<td>720x512</td>
<td>59.94i</td>
<td>Upper</td>
<td>MPEG-2 Intra</td>
<td>30, 40, 50 CBR</td>
<td>4x24 bit / 8x16 bit</td>
</tr>
<tr>
<td>MPEG IMX</td>
<td>720x608</td>
<td>50i</td>
<td>Upper</td>
<td>MPEG-2 Intra</td>
<td>30, 40, 50 CBR</td>
<td>4x24 bit / 8x16 bit</td>
</tr>
<tr>
<td>Uncompressed</td>
<td>720x486</td>
<td>59.94i</td>
<td>Upper</td>
<td>Uncompressed</td>
<td>90 CBR</td>
<td>4x24 bit / 8x16 bit</td>
</tr>
<tr>
<td>Uncompressed</td>
<td>720x576</td>
<td>50i</td>
<td>Upper</td>
<td>Uncompressed</td>
<td>90 CBR</td>
<td>4x24 bit / 8x16 bit</td>
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</tbody>
</table>

**HD format**

<table>
<thead>
<tr>
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<th>Frame Size</th>
<th>Pixel Aspect Ratio</th>
<th>Frame Rate</th>
<th>Video Codec</th>
<th>Bit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPEG HD</td>
<td>1280x720</td>
<td>1.0</td>
<td>50p, 59.94p</td>
<td>MPEG-2 Long GOP</td>
<td>25 CBR</td>
</tr>
<tr>
<td>MPEG HD</td>
<td>1280x720</td>
<td>1.0</td>
<td>50p, 59.94p</td>
<td>MPEG-2 Long GOP</td>
<td>35 VBR</td>
</tr>
<tr>
<td>MPEG HD</td>
<td>1280x720</td>
<td>1.0</td>
<td>50p, 59.94p</td>
<td>MPEG-2 Long GOP</td>
<td>50 CBR</td>
</tr>
<tr>
<td>MPEG HD</td>
<td>1440x1080</td>
<td>1.333</td>
<td>23.976p, 25p, 29.97p, 50i, 59.94i</td>
<td>MPEG-2 Long GOP</td>
<td>17.5 CBR</td>
</tr>
<tr>
<td>MPEG HD</td>
<td>1440x1080</td>
<td>1.333</td>
<td>23.976p, 25p, 29.97p, 50i, 59.94i</td>
<td>MPEG-2 Long GOP</td>
<td>25 CBR</td>
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<tr>
<td>MPEG HD</td>
<td>1440x1080</td>
<td>1.333</td>
<td>23.976p, 25p, 29.97p, 50i, 59.94i</td>
<td>MPEG-2 Long GOP</td>
<td>35 CBR</td>
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<tr>
<td>MPEG HD</td>
<td>1440x540</td>
<td>0.667</td>
<td>23.976p, 25p, 29.97p, Over Crank</td>
<td>MPEG-2 Long GOP</td>
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<tr>
<td>MPEG HD</td>
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</table>
### MPEG HD

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<th>Video Codec</th>
<th>Bit Rate</th>
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<td>0.667</td>
<td>23.976p, 25p, 29.97p,</td>
<td>MPEG-2 Long</td>
<td>17.5 CBR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Over Crank</td>
<td>GOP</td>
<td></td>
</tr>
<tr>
<td>MPEG HD422</td>
<td>1920x1080</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p,</td>
<td>MPEG-2 Long</td>
<td>35 CBR, 50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50i, 59.94i</td>
<td>GOP</td>
<td>CBR</td>
</tr>
<tr>
<td>MPEG HD422</td>
<td>1920x540</td>
<td>0.5</td>
<td>23.976p, 25p, 29.97p,</td>
<td>MPEG-2 Long</td>
<td>25 CBR</td>
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<tr>
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### XDCAM EX

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<th>Video Codec</th>
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<tbody>
<tr>
<td>DV</td>
<td>720x480</td>
<td>0.9091</td>
<td>59.94p</td>
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<td>DV</td>
<td>PCM, 48 kHz, 16 bit</td>
<td>25 CBR</td>
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<tr>
<td>DV</td>
<td>720x576</td>
<td>1.0926</td>
<td>50i</td>
<td>Lower</td>
<td>DV</td>
<td>PCM, 48 kHz, 16 bit</td>
<td>25 CBR</td>
</tr>
<tr>
<td>MPEG HD (EX-HQ)</td>
<td>1280x720</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-2 Long</td>
<td>35 CBR</td>
<td></td>
<td></td>
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<tr>
<td>MPEG HD (EX-SP)</td>
<td>1440x1080</td>
<td>1.333</td>
<td>50i, 59.94i</td>
<td>MPEG-2 Long</td>
<td>PCM, 48 kHz, 16 bit</td>
<td>25 CBR</td>
<td></td>
</tr>
<tr>
<td>MPEG HD (EX-HQ)</td>
<td>1440x1080</td>
<td>1.333</td>
<td>23.976p, 25p, 29.97p, 50i, 59.94i</td>
<td>MPEG-2 Long</td>
<td>35 VBR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPEG HD422 (EX-HQ)</td>
<td>1920x1080</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50i, 59.94i</td>
<td>MPEG-2 Long</td>
<td>35 VBR</td>
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XAVC Intra

<table>
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<tr>
<th>Format</th>
<th>Frame Size</th>
<th>Pixel Aspect Ratio</th>
<th>Frame Rate</th>
<th>Video Codec</th>
<th>Audio Channels (PCM, 48 kHz, 24 bit)</th>
<th>Bit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>XAVC Intra 1440x1080</td>
<td>1.333</td>
<td>50i, 59.94i, 23.976p, 25p, 29.97p</td>
<td>MPEG-4 AVC Intra</td>
<td>8</td>
<td>CBG 50</td>
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<tr>
<td>XAVC Intra 1920x1080</td>
<td>1.0</td>
<td>50i, 59.94i, 23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8, 16</td>
<td>CBG 100</td>
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</tr>
<tr>
<td>XAVC Intra 1920x1080</td>
<td>1.0</td>
<td>50i, 59.94i, 23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8</td>
<td>CBG 200</td>
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</tr>
<tr>
<td>XAVC Intra 1920x1080 HFR</td>
<td>1.0</td>
<td>50p, 50i, 59.94p, 59.94i</td>
<td>MPEG-4 AVC Intra</td>
<td>0</td>
<td>CBG 100</td>
<td></td>
</tr>
<tr>
<td>XAVC Intra 2048x1080</td>
<td>1.0</td>
<td>23.976p, 24p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8</td>
<td>VBR</td>
<td></td>
</tr>
<tr>
<td>XAVC Intra 2048x1080</td>
<td>1.0</td>
<td>23.976p, 24p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8, 16</td>
<td>CBG 100</td>
<td></td>
</tr>
<tr>
<td>XAVC Intra 3840x2160</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8</td>
<td>VBR</td>
<td></td>
</tr>
<tr>
<td>XAVC Intra 3840x2160</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8, 16</td>
<td>CBG 300</td>
<td></td>
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<tr>
<td>XAVC Intra 4096x2160</td>
<td>1.0</td>
<td>23.976p, 24p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8</td>
<td>VBR</td>
<td></td>
</tr>
<tr>
<td>XAVC Intra 4096x2160</td>
<td>1.0</td>
<td>23.976p, 24p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Intra</td>
<td>8, 16</td>
<td>CBG 300</td>
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</table>
### XAVC Long-GOP

<table>
<thead>
<tr>
<th>Format</th>
<th>Frame Size</th>
<th>Pixel Aspect Ratio</th>
<th>Frame Rate</th>
<th>Video Codec</th>
<th>Audio</th>
<th>Bit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>XAVC Long</td>
<td>1280x720</td>
<td>1.0</td>
<td>50p, 59.94p</td>
<td>MPEG-4 AVC Long, High 422 Profile</td>
<td>4-channel PCM, 48 kHz, 24 bit</td>
<td>80 (Maximum)</td>
</tr>
<tr>
<td>XAVC Long</td>
<td>1920x1080</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 50i, 59.94p, 59.94p</td>
<td>MPEG-4 AVC Long, High 422 Profile</td>
<td>4-channel PCM, 48 kHz, 24 bit</td>
<td>80 (Maximum)</td>
</tr>
<tr>
<td>XAVC Long</td>
<td>3840x2160</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 50i, 59.94p, 59.94p</td>
<td>MPEG-4 AVC Long, High Profile</td>
<td>4-channel PCM, 48 kHz, 24 bit</td>
<td>200 (Maximum)</td>
</tr>
<tr>
<td>XAVC Long Proxy</td>
<td>480x270</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 50i, 59.94p, 59.94p</td>
<td>MPEG-4 AVC Long, High Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
<td>1 or .5 Mbps</td>
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<td>MPEG-4 AVC Long, High Profile</td>
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<td>MPEG-4 AVC Long, High Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
<td>9 Mbps</td>
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<td>Format</td>
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<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Long, High Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
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</tr>
<tr>
<td>XAVC Long Proxy</td>
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<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Long, High Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
<td>10</td>
</tr>
<tr>
<td>XAVC Long</td>
<td>1280x720</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Long, Main Profile or High Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 16 bit</td>
<td>40</td>
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<tr>
<td>XAVC Long Proxy</td>
<td>1280x720</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
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<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
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<tr>
<td>XAVC Long</td>
<td>1280x720</td>
<td>1.0</td>
<td>100p, 119.88p</td>
<td>MPEG-4 AVC Long, Main Profile or High Profile</td>
<td>2-channel PCM or AAC, 48 kHz, 16 bit</td>
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<tr>
<td>XAVC Long</td>
<td>1440x1080</td>
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<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Long, Main Profile or High Profile</td>
<td>2-channel PCM or AAC, 48 kHz, 16 bit</td>
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<td>1920x1080</td>
<td>1.0</td>
<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Long, Main Profile or High Profile</td>
<td>2-channel PCM or AAC, 48 kHz, 16 bit</td>
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<td>XAVC Long</td>
<td>1920x1080</td>
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<td>100p, 119.88p</td>
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### XAVC Proxy

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<th>Audio</th>
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<td>MPEG-4 AVC Long, Main Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
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<td>23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Long, Main Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
<td>10</td>
</tr>
<tr>
<td>XAVC Proxy</td>
<td>720x480</td>
<td>59.94i</td>
<td>MPEG-4 AVC Long, Main Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
<td>10</td>
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<td>50i</td>
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<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
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<td>50i, 59.94i, 23.976p, 25p, 29.97p, 50p, 59.94p</td>
<td>MPEG-4 AVC Long, Main Profile or High Profile</td>
<td>MPEG-4 AAC, 2 channels, 48 kHz, 256 kbps</td>
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### RAW

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## HDCAM SR (SStP)

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<td>Lite (220), SQ (440)</td>
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<td>HQ (880)</td>
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<td>RGB 444</td>
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### NXCAM

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<th>Video Codec</th>
<th>Audio Codec</th>
<th>Bit Rate</th>
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<td>Dolby AC-3 2 channels, 48 kHz, 16 bit</td>
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### AVC H.264/MPEG-4

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<tr>
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<td>1920x1080</td>
<td>16:9</td>
<td>24p, 25p, 30p, 48p, 50p, 60p</td>
<td>AVC</td>
<td>Mono, 48kHz, AAC compression w/ AGC</td>
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<td>24p</td>
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<td>Frame Rate</td>
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<td>AVC</td>
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<td>2 channels, 16 bit, AAC</td>
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36 CHAPTER 3
### H.264/MPEG-4 AVC

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### AS-11 DPP MXF

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<td>XAVC Intra</td>
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<td>MPEG-4 AVC Intra</td>
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Avid DNxHD®

Container: MOV or MXF

Audio Codec: PCM 44.1 kHz or 48 kHz, 16 bit or 24 bit

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<td>Avid DNxHD® 220x</td>
<td>4:2:2 10 bit</td>
<td>60p @ 440 Mbps, 59.94p @ 440 Mbps, 50p @ 365 Mbps, 50.94i @ 220 Mbps, 50i @ 185 Mbps, 29.97p @ 220 Mbps, 25p @ 185 Mbps, 24p @ 175 Mbps, 23.976p @ 175 Mbps</td>
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<tr>
<td>1920x1080</td>
<td>Avid DNxHD® 145</td>
<td>4:2:2 8 bit</td>
<td>59.94i @ 145 Mbps, 50i @ 120 Mbps</td>
</tr>
<tr>
<td>1920x1080</td>
<td>Avid DNxHD® 145 (subsampled to 1440x1080)</td>
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<td>Avid DNxHD® 36</td>
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<td>60p @ 90 Mbps, 59.94p @ 90 Mbps, 50p @ 75 Mbps, 29.97p @ 45 Mbps, 25p @ 36 Mbps, 24p @ 36 Mbps, 23.976p @ 36 Mbps</td>
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<td>Avid DNxHD® 220x</td>
<td>4:2:2 10 bit</td>
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<td>Avid DNxHD® 145</td>
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<tr>
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<td>Avid DNxHD® 100 (subsampled to 960x720)</td>
<td>4:2:2 8 bit</td>
<td>59.94p @ 100 Mbps, 50p @ 85 Mbps, 29.97p @ 50 Mbps, 25p @ 45 Mbps, 23.976p @ 50 Mbps</td>
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## Apple ProRes

**Container:** MOV  
**Audio Codec:** PCM

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<th>Frame Rate</th>
<th>Video Codec</th>
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<td>59.94i, 30p, 29.97p, 24p, 23.976p</td>
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</tr>
<tr>
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<td>720x576</td>
<td>50i, 25p</td>
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<td>60p, 59.94p, 50p, 30p, 29.97p, 24p, 23.976p</td>
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</tr>
<tr>
<td>ProRes</td>
<td>1280x720</td>
<td>60p, 59.94p, 50p, 30p, 29.97p, 24p, 23.976p</td>
<td>422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)</td>
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<td>1440x1080</td>
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</tr>
<tr>
<td>ProRes</td>
<td>1920x1080</td>
<td>60p, 59.94p, 50p, 59.94i, 50i, 30p, 29.97p, 25p, 24p, 23.976p</td>
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<td>2048x1080</td>
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<tr>
<td>ProRes</td>
<td>2048x1556</td>
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<tr>
<td>ProRes</td>
<td>3840x2160</td>
<td>60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p</td>
<td>422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)</td>
</tr>
<tr>
<td>ProRes</td>
<td>4096x2160</td>
<td>60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p</td>
<td>422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)</td>
</tr>
<tr>
<td>ProRes</td>
<td>5120x2160</td>
<td>60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.976p</td>
<td>422 (proxy), 422 (LT), 422, 422 (HQ), 4444, 4444 XQ (Windows only)</td>
</tr>
</tbody>
</table>

## HDV

**Container:** MPEG-2 Transport Stream (Windows), MOV (macOS)  
**Audio Codec:** MPEG-1 Audio Layer-2 (Windows). 2 channels, 48 kHz, 16 bit

<table>
<thead>
<tr>
<th>Format</th>
<th>Frame Size</th>
<th>Pixel Aspect Ratio</th>
<th>Frame Rate</th>
<th>Interface</th>
<th>Video Codec</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDV</td>
<td>1440x1080</td>
<td>1.333</td>
<td>50i, 59.94i</td>
<td>Upper</td>
<td>MPEG-2 MP@H14</td>
</tr>
</tbody>
</table>
Adding media and creating clips

After you’ve previewed files to determine which media files you want to use in your project, you’ll add clips to the timeline to indicate when each media file will be played.

For more information, see “Previewing video” on page 43.

💡 When you add the first video clip to a project, the timeline settings are automatically adjusted to match the media properties. For more information, see “Using the Timeline Inspector” on page 13.

To change the magnification level of the timeline, you can drag the slider above the time ruler or click the Zoom Out or Zoom In buttons.

Snapping can help you align clips as you add them to the timeline. For more information, see “Clip snapping” on page 84.

When a clip with audio and video streams is selected, you can use the Streams control in the Clip Inspector to choose which streams you want to use on the timeline. For more information, see “Using the Clip Inspector” on page 94.

Adding clips to existing tracks

If you’ve already added tracks to your project, you can use the Media Browser to create clips on those tracks.

For more information, see “Adding tracks to a project” on page 51.
1. Click the track header of the track where you want to add a clip.

![Track 1]

2. Select the clips you want to use in the Media Browser.

For more information, see "Finding media" on page 23.

💡 If you want to adjust mark in/out points before adding media, you can log mark in/out points in the Media Browser.

3. Click the **Add to Timeline** button at the bottom of the Media Browser.

The selected files are added as clips to the end of the selected track, and the new clips are selected.

💡 If multiple clips are selected, they will be added to the track in the order they are displayed in the Media Browser.

You can also drag files from the Windows Explorer, Finder, or Media Browser to the timeline:

- If you drop a media file on an existing track, a clip will be created.
- If you drop a media file on a track’s header, the new clip is created at the beginning of the timeline.
- If you drop a media file on a blank area of the timeline, a track will be created.

When you add spanned clips to the timeline, a single clip is created.

To change the magnification level of the timeline, you can drag the slider above the time ruler, roll the mouse wheel, or drag vertically with two fingers on a trackpad.

Any color adjustments that were applied in Catalyst Prepare are preserved when adding media to the Catalyst Edit timeline.

### Adding clips and creating tracks

1. Use the Media Browser to find media files.

2. Select the media files you want to add to your project.

💡 If you want to adjust mark in/out points before adding media, you can log mark in/out points in the Media Browser. For more information, see "Finding media" on page 23.
3. Click the **Tools** button at the bottom of the Media Browser and choose **Add selection as tracks** from the menu.

A separate track is created for each selected clip, and a clip is created on each track for the clip. The clips will begin at the start of the timeline.

💡 If multiple clips are selected, they will be added to the track in the order they are displayed in the Media Browser.

Hold Ctrl (Windows) or ⌘ (macOS) while dragging multiple clips from the Media Browser to the timeline to add the clips across tracks.

You can also drag files from the Windows Explorer, Finder, or Media Browser to the timeline. If you drop a media file on an existing track, a clip will be created. If you drop a media file on a blank area of the timeline, a track will be created.

When you add spanned clips to the timeline, a single clip is created.

To change the magnification level of the timeline, you can drag the slider above the time ruler, roll the mouse wheel, or drag vertically with two fingers on a trackpad.

Any color adjustments that were applied in Catalyst Prepare are preserved when adding media to the Catalyst Edit timeline.

**Adding clips from a Catalyst Prepare library**

Organize mode in Catalyst Prepare allows you to review your imported clips, group related clips in folders, view and edit metadata, and view mark points.

You can browse to a Catalyst Prepare library in the Catalyst Edit Media Browser, or you can drag clips from Catalyst Prepare to the Catalyst Edit timeline:

1. Click the **Organize** button at the top of the Catalyst Prepare window.

2. The **Library** button displays the current library. You can click the button to choose a different library or create a new library.

   The library's media is displayed in the right side of the Catalyst Prepare window.

3. Select the clips you want to use and drag them to the Catalyst Edit timeline. Drop the clips where you want to create clips.
Playing media

The video preview is displayed above the timeline and displays a project’s video output at the current cursor position during editing and playback. This window is also useful when editing frame by frame for synchronizing audio.

You can use the transport toolbar below the video to choose the playback mode, scrub the video, and control playback.

Previewing video

The video preview is displayed above the timeline and displays a project’s video output at the current cursor position during editing and playback. This window is also useful when editing frame by frame for synchronizing audio.

You can also choose to display the video preview in a secondary window that you can position anywhere on your screen or on a secondary display. For more information, see “Editing Catalyst Edit options” on page 131.

If you want to use the primary display and secondary window to preview files from the Media Browser, you can use the Media Browser Settings button to display the Media Browser Settings menu. For more information, see “Finding media” on page 23.
The Video Preview window temporarily enters split-screen preview mode when trimming, roll-trimming, split-trimming, or slip-trimming clips. This temporary split-screen mode allows you to see both sides of the edit at once:

- When trimming the left edge of a clip, the left side of the preview displays the last frame from the previous clip (black if there is no previous clip), and the right side of the preview displays the first frame from the clip being trimmed.

- When trimming the right edge of a clip, the left side of the preview displays the last frame from the clip being trimmed, and the right side of the preview displays the first frame from the next clip (black if there is no next clip).

- When slip trimming the left or right edge of a clip, the left side of the preview displays the first frame from the clip being trimmed, and the right side of the preview displays the last frame from the clip being trimmed.

When splitting or trimming clips that contain audio, an invisible fade is applied at the edit to soften potentially harsh transitions.

Scaling the video preview

Click the magnifying glass to adjust the size of the video preview.
- Click Fit to scale the video to fill the Video pane.
- Click a preset to scale the video to a predefined magnification level.

When the level is below 100%, you can drag the blue rectangle to pan and adjust the visible portion of the frame.

- Drag the slider or click the - and + buttons to choose a custom zoom level.
- Click the thumbnail and roll your mouse wheel to zoom in or out.

**Using the transport controls**

The transport controls below the video preview allow you to control playback:

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>❡ Go to Start</td>
<td>Moves the playback position indicator to the beginning of the timeline.</td>
</tr>
<tr>
<td>❡ Previous Frame</td>
<td>Moves the playback position indicator one frame or field to the left.</td>
</tr>
<tr>
<td>❡ Play</td>
<td>Playback will start from the playback position indicator and continue until the end of the file.</td>
</tr>
<tr>
<td>❡ Stop</td>
<td>Stops playback or recording and returns the cursor to its starting position.</td>
</tr>
<tr>
<td>❡ Next Frame</td>
<td>Moves the playback position indicator one frame or field to the right.</td>
</tr>
<tr>
<td>❡ Go to End</td>
<td>Moves the playback position indicator to the end of the timeline.</td>
</tr>
<tr>
<td>❡ Loop Playback</td>
<td>Plays only the area between the Mark In and Mark Out points in a continuous mode. For more information, see “Marking in and out points for playback” on page 50.</td>
</tr>
</tbody>
</table>

**Using split-screen previews**

You can use split-screen previews to preview your project with and without video effects. For more information, see “Using video effects” on page 99.

Click the Split-Screen Preview button in the top-right corner of the video preview to choose a preview mode. Split-screen previews allow you to split the video preview and waveform/histogram/vectorscope monitor so you can see your original and effected video at the same time.

- After: full-frame video is displayed in its original state.
- After: full-frame video is displayed with effects applied.
- **Split**: A single frame is displayed in a split-screen view with the original video on the left and the effected video on the right.

  If you want to move the split location, hover over the preview frame. When the split point is displayed, you can drag the handles at the top or bottom of the screen to adjust where the preview is split.

  ![Split Screen View](image)

- **2 Up**: Two full frames are displayed in a split-screen view with the original video on the left and the effected video on the right.

**Displaying overlays for safe areas and anamorphic masking**

1. Click the ⚙ button to display the Video Settings menu.

2. Select the **Show safe areas** switch to enable safe area guides and a center point in the video preview.

   When **Show safe areas** is enabled, Catalyst Edit displays rectangles marking 90% (action safe area) and 80% (title safe area) of the frame to serve as guidelines for framing.

3. Select the **Mask to 2.39:1** switch to enable shading in the video preview to indicate how an anamorphic version of your content will appear.

**Displaying waveform, histogram, and vectorscope monitors**

The video preview includes a waveform monitor and histogram that you can use to monitor color values.
1. Click the button to display the Video Settings menu.

2. Turn on the Waveform, Histogram, or Vectorscope switch to enable the monitor.

**Waveform**

The waveform monitor displays the luminance values (brightness or Y component) of your video signal. The monitor plots luminance values on the vertical axis and the width of the current frame on the horizontal axis.

You can use the buttons at the top of the waveform monitor to display overlaid ( ) or separate ( ) RGB waveforms and isolate colors .

**Histogram**

The histogram monitor displays the number of pixels that exist for each color intensity. The vertical axis represents the number of pixels, and the horizontal axis represents the RGB color range from 0,0,0 to 0,0,255.

You can use the buttons at the top of the histogram monitor to display overlaid ( ) or separate ( ) RGB histograms and isolate colors .

**Vectorscope**

The vectorscope monitor allows you to monitor the chroma values (color content) of your video signal. The monitor plots hue and saturation on a color wheel.

The vectorscope displays targets for broadcast-legal saturations of red (R), magenta (Mg), blue (B), cyan (Cy), green (G), and yellow (Yl). Individual colors in your video signal are displayed as dots in the vectorscope. A dot’s distance from the center of the scope represents its saturation, and the angle of the line from the dot to the center of the scope represents its hue.

For example, if an image has a blue cast, the distribution of dots in the vectorscope will be concentrated toward the blue portion of the color wheel. If the image includes out-of-range blue values, the vectorscope display will extend beyond the blue target.

You can use the vectorscope to calibrate color between scenes. Without calibration, you may see noticeable color differences between scenes from multicamera shoots.

Click the Settings button to open the Vectorscope Settings menu.

The Vectorscope Settings menu allows you to toggle a monochrome view of the scope, change the scale of the scope, adjust the brightness of the colors displayed in the scope, and adjust the brightness of the scope’s guide (graticule).

💡 Use the 75% Scale setting when performing color correction for broadcast, or use the 100% setting when performing color correction for film or Web distribution with a wider color gamut.
Editing video effect parameters in the video preview

When you're editing video effects, a control point (☉) is displayed in the video preview when you select a position parameter in the Inspector.

You can adjust the parameter's position by dragging the control point in the video preview or the Inspector:

When a plug-in includes support for interactive overlay controls in the video preview, you can click the Overlay button [�] in the Inspector to show or hide the overlay.

For more information, see “Using video effects” on page 99.
Navigating the timeline

Drag the shuttle control to seek forward or backward from the play position indicator to find an edit point. As you drag toward the ends of the shuttle control, playback speed increases. Release the shuttle control to stop playback:

You can also press the J, K, or L keys to use the keyboard as a shuttle control.

💡 Press and hold K while pressing J or L to emulate a shuttle knob mode. Press K+J to scrub left or K+L to scrub right.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>Scrub reverse mode. Press again to accelerate the playback rate.</td>
</tr>
<tr>
<td>K</td>
<td>Pause.</td>
</tr>
<tr>
<td>L</td>
<td>Scrub forward mode. Press again to accelerate the playback rate.</td>
</tr>
</tbody>
</table>

You can drag the play cursor to scrub the timeline:

You can drag the ruler to scroll the timeline:
Marking in and out points for playback

If you want to play only a portion of the timeline, you can select the portion of the video you want to play.

💡 You can also use the Preview pane in Media Browser mode to adjust mark points.

2. Click the timeline to set the play position indicator:

3. Click the Tools button below the timeline and choose Mark in or press I.

4. Click the timeline to set the play position indicator.

5. Click the Tools button below the timeline and choose Mark out or press O.

When you click the Play button, playback will start from the playback position indicator and continue until the Mark Out position or the end of the file.

If you want to play the Mark In/Mark Out region in a continuous loop, select the Loop Playback button 🔄.

💡 Double-click a clip with the Edit, Slip, or Fade tool to select a clip and set the Mark In/Out region to match its length.

Double-click the fade between two clips with the Edit, Slip, or Fade tool to select a fade area and set the Mark In/Out region to match its length.

You can adjust mark in/out points by dragging the indicators above the timeline.

You can adjust the mark in/out region without changing its length by dragging the area between indicators above the timeline.

To reset mark in/out points, click the Tools button below the timeline and choose Reset mark in/out points.
Chapter 5

Track editing

Tracks are containers along the timeline where you arrange audio and video clips.

Clips sit on tracks to determine when a clip starts and stops, and multiple tracks are mixed together to produce your final output.

Adding tracks to a project

You can create empty tracks in a project to serve as placeholders for media that you will add to your project later, or you can create tracks when you add media to the project.

💡 Video tracks are composited together so that upper tracks obscure lower tracks. If a clip includes transparency, lower clips will be visible through the transparent areas.

Adding an empty track

1. Click the Track button below the timeline and choose New from the menu. A new, empty track is created above the focus track.

💡 Press Ctrl+Shift+N (Windows) or Shift-⌘-N (macOS).

Double-click below the last track header to create a new, empty track.

Adding a media file as a new track

1. Select the clips you want to use in the Media Browser.

   For more information, see “Finding media” on page 23.

2. Click the Media Tools button below the timeline and choose Add selection as tracks from the menu to add the files to new tracks in your project. The new tracks are created at the bottom of the track list.

   A separate track is created for each selected clip, and a clip is created on the timeline for each clip. The clips will begin at the start of the timeline, and the new clips are selected.

  💡 If multiple clips are selected, they will be added to the track in the order they are displayed in the Media Browser.

   Hold Ctrl (Windows) or ⌘ (macOS) while dragging multiple clips from the Media Browser to the timeline to add the clips across tracks.
Deleting tracks

To delete a track, select the track and perform one of the following actions:

- Press Delete.
- Click the Track button below the timeline and choose **Delete** from the menu.

Moving tracks

To move a track, drag its track header to a new location in the track list. An indicator is displayed to show you where the track will be moved.

When you release the mouse, the track and its clips will be moved.
Creating a picture-in-picture effect

The Picture in Picture effect allows you to resize and position clips for picture-in-picture compositing.

Creating the inner picture

1. Create two tracks in your project. For more information, see “Adding tracks to a project” on page 51.
2. Add clips to your tracks:
   - The top track will contain the smaller, inner picture.
   - The bottom track will contain the background clip.

   For more information, see “Adding media and creating clips” on page 40.
3. Click the top track to select it.
4. Click the Track button below the timeline and choose Picture in Picture. The controls for the Picture in Picture plug-in are displayed in the Track Inspector.

Editing picture in picture settings

1. Select the track that contains the top clip.
2. Click the Inspector button to show the Inspector pane.
3. In the Inspector, select the Track tab to view and edit settings for the Picture in Picture plug-in. Use the Picture in Picture plug-in to adjust the size and position of the top clip.

   For more information, see “Using the Track Inspector” on page 60.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>The drop-down list displays the current position of the video in the frame. Click to display an edit control you can use to position your video.</td>
</tr>
</tbody>
</table>

Adjusting box position

Drag the point in the edit control to set the position of your video in the frame. Double-click the point to reset it.

When you type values in the Dimensions tab, you can set an anchor point and specify the position of the box using X/Y coordinates. For example, click the top-right corner of the anchor control and use the coordinates 0.5000, 0.5000 to
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>move the top-right corner of the box to the center of the control.</td>
<td></td>
</tr>
</tbody>
</table>

**Adjusting box dimensions**

You can drag the corners of the rectangle in the edit control or type values in the W and H edit boxes to set the size of the frame.

When you type values in the **Dimensions** tab, you can set the size of the box using W/H dimensions. Click the **Lock** button to preserve the aspect ratio of the box so changing the width or height will automatically update the other value.

**Adjusting box edges**

You can drag the edges of the rectangle in the edit control or type values in the **Edges** tab to specify the position for each edge of the box.

💡 Drag a corner of the rectangle to preserve aspect ratio while resizing.

Hold Shift while dragging the corners of the rectangle to resize and adjust aspect ratio.

Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.

When a corner is selected, you can use the arrow keys to adjust the selected corner, or press Ctrl (Windows) or ⌘ (macOS) + the arrow keys to adjust in fine increments.

Drag the edges of the rectangle to resize the rectangle.

💡 Drag an edge of the rectangle to preserve aspect ratio while resizing.

Hold Shift while dragging an edge to resize and adjust aspect ratio.

Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.

Drag the center of the rectangle to move without resizing, or double-click the point to reset it.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold Shift</td>
<td>Hold Shift while dragging to constrain to horizontal/vertical/45-degree movement.</td>
</tr>
<tr>
<td>Ctrl (Windows) or ⌘ (macOS)</td>
<td>Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.</td>
</tr>
<tr>
<td>When the rectangle is selected, you can copy the position of the rectangle to paste to another clip.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation</td>
<td>Type a value in the box or drag the slider to rotate the video in the frame.</td>
</tr>
<tr>
<td>Flip horizontal</td>
<td>Click to invert the video horizontally.</td>
</tr>
<tr>
<td>Flip vertical</td>
<td>Click to invert the video vertically.</td>
</tr>
<tr>
<td>Opacity</td>
<td>Type a value in the box or drag the slider to adjust the opacity of the top image. As you decrease the opacity, video from lower tracks will show through the foreground.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shadow</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Choose a setting from the drop-down list if you want to display a shadow over or behind the foreground image.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offset</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The drop-down list displays the current position of the shadow relative to the foreground image. Click to display an edit control you can use to position your shadow.</td>
<td></td>
</tr>
</tbody>
</table>

You can drag the point in the edit control or type values in the X and Y boxes to set the position of your shadow in the frame. Double-click the point to reset it.  

| Hold Ctrl (Windows) or ⌘ (macOS) | Hold Ctrl (Windows) or ⌘ (macOS) to adjust the point in fine increments. |

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale</td>
<td>Type a value in the box or drag the slider to adjust the size of the shadow.</td>
</tr>
<tr>
<td>Blur</td>
<td>Type a value in the box or drag the slider to feather the edges of the shadow.</td>
</tr>
<tr>
<td>Opacity</td>
<td>Type a value in the box or drag the slider to adjust the opacity of the shadow. As you decrease the opacity, video from lower tracks will show through the foreground.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glow</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Choose a setting from the drop-down list if you want to display a glow effect over or behind the foreground image.</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Amount</strong></td>
<td>Type a value in the box or drag the slider to adjust the size of the glow effect.</td>
</tr>
<tr>
<td><strong>Color/Second color</strong></td>
<td>Click the color sample to display a color picker, where you can choose a color or type color values to set the shadow color. You can also adjust the transparency (alpha value) of the shadow.</td>
</tr>
</tbody>
</table>
Adjusting track controls

The controls in the track list allow you to adjust a track's volume, adjust track panning, and mute or solo a track.

When a track has multiple channels, separate controls are displayed for each channel. You can use the blue Volume fader to adjust the overall level of the track, and the orange Volume faders adjust each channel's contribution to the level of the track. For more information, see "Working with multichannel audio" on page 120.
Adjusting track volume

Drag the **Volume** fader to adjust the overall volume of the selected track. Double-click the center of the thumb to reset the fader. You can click the numeric value to type a new value:

![Volume Fader](image)

- Dragging the **Volume** fader on the track header also adjusts the **Volume** fader in the Track Inspector. For more information, see "Using the Track Inspector" on page 60.

- Hold Ctrl (Windows) or ⌘ (macOS) to adjust the volume fader in fine increments.

- When adjusting volume, remember to watch your audio meters. Because you are adding the volumes of all of the tracks together, it is easy to clip the audio output. Make sure that the meters never display the red Clip indication during playback. For more information, see "Monitoring audio levels" on page 128.

- The meter in the Track Inspector shows audio levels for the selected track. The meter in the activity pane at the top of the Catalyst Edit window shows the sum of all audio at the cursor position.

Muting a track

Click the **M** button to mute/unmute the selected audio track, or click the **○** button to mute a video track.

When a track is muted, it is excluded from the project output. You can enable the **Mute** button on additional tracks to add them to the mute group.

- Clicking the **Mute** button in the track header also updates the **Mute** button in the Track Inspector.

Soloing a track

Click the **S** button to solo/unsoolo the selected track.

When a track is soloed, all unsoloed tracks are effectively muted. Click the **S** button on additional tracks to add them to the solo group. To remove a track from the solo group, click its **S** button again.

- Clicking the **Solo** button in the track header also updates the **Solo** button in the Track Inspector.
Panning a track

Drag the Pan knob to control the position of the track in the stereo field: dragging to the down or to the left will place the track in the left speaker more than the right, and dragging up or to the right will place the track in the right speaker. Double-click the knob to reset panning to the center.

Dragging the Pan knob on the track header also adjusts the Pan knob in the Track Inspector.

💡 The Track pan knob is not displayed for tracks that are assigned to a mono output or that contain multichannel clips. When a track contains multichannel clips, use the Audio Channel controls to pan each channel.

If you want to change the panning model that is used for the track, click the Pan mode button in the Track Inspector and choose a setting from the menu:

For more information, see “Using the Track Inspector” on page 60.
Using the Track Inspector

In the Inspector, select the Track tab to view and edit settings for the selected track.

💡 Click a track’s header to select it, and the Track tab is displayed automatically if the Inspector is visible:

<table>
<thead>
<tr>
<th>🌐 Track 1</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L/R</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.8 dB</td>
<td></td>
</tr>
</tbody>
</table>

Summary

Type a value in the **Name** box to set the name of the selected track. The name you type here will be displayed in the track header:

<table>
<thead>
<tr>
<th>🌐 Track 1</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L/R</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.8 dB</td>
<td></td>
</tr>
</tbody>
</table>

When **Ripple** is first enabled, ripple edits are enabled for all tracks. If you want to turn ripple editing on or off for a track, use the **Ripple sync** switch.

💡 The **Ripple sync** switch is available only when the **Ripple** button above the timeline is enabled.
Audio Output

Each track in your project supports two audio channels, and each clip in your project supports multichannel audio. For more information, see “Working with multichannel audio” on page 120.

The Audio Output controls in the Track Inspector allow you to adjust the overall level of the track and control each channel's contribution to the stereo track.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track volume</td>
<td>Click the value and type a new value or drag the fader adjust the overall volume of the selected track. Double-click the center of the thumb to reset the fader.</td>
</tr>
</tbody>
</table>

Dragging the Volume fader in the Track Inspector also adjusts the Volume fader on the track header. For more information, see “Adjusting track controls” on page 57.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the volume fader in fine increments.

When adjusting volume, remember to watch your audio meters. Because you are adding the volumes of all of the tracks together, it is easy to clip the audio output. Make sure that the meters never display the red Clip indication during playback. For more information, see “Monitoring audio levels” on page 128.

The meter in the Track Inspector shows audio levels for the selected track. The meter in the activity pane at the top of the Catalyst Edit window shows the sum of all audio at the cursor position.

Track pan

Drag the knob to control the position of the track in the stereo field: dragging to the down or to the left will place the audio in the left speaker more than the right, and dragging up or to the right will place the audio in the right speaker. Double-click the knob to reset panning to the center.

Dragging the Pan knob in the Track Inspector also adjusts the Pan knob on the track header.

The Track pan knob is not displayed for tracks that are assigned to a mono output or that contain multichannel clips. When a track contains multichannel clips, use the Audio Channel controls to pan each channel.

Pan mode

Click the Pan mode button and choose a setting from the menu to choose the panning model that is used for the track:
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td>This mode is most useful for panning stereo files. As you pan across the stereo field, the stereo image appears to move across the speakers. As you pan toward either side, the signal from the opposite channel is added to the channel you are panning toward until at the extreme both channels are sent to a single channel at full volume. This mode uses a linear panning curve.</td>
</tr>
<tr>
<td>Constant power</td>
<td>This mode is most useful for panning monaural source material. In this mode, sound will maintain its volume when you pan across channels.</td>
</tr>
<tr>
<td>Add</td>
<td>If you pan a stereo file 100% R, only the right channel of your media file is played, and this channel is sent to both output channels. If you continue to pan to the left, the left channel is gradually added to the output, and the right channel is gradually faded out until only the left channel will be heard through both output channels when the slider is at 100% L.</td>
</tr>
<tr>
<td>3 dB notch</td>
<td>This mode can help you adjust the relative signal levels of the channels in stereo source material. A -3 dB cut is applied when you’re panned to the center. As you pan from the center to either side, the opposite channel begins at -3 dB and decays to -infinity. The signal in the side you are panning toward progresses from -3 dB to 0 dB. This panning mode uses a linear panning curve.</td>
</tr>
<tr>
<td>6 dB notch</td>
<td>This mode can help you adjust the relative signal levels of the channels in stereo source material. A -6 dB cut is applied when you’re panned to the center. As you pan from the center to either side, the opposite channel begins at -6 dB and decays to -infinity. The signal in the side you are panning toward progresses from -6 dB to 0 dB. This panning mode uses a linear panning curve.</td>
</tr>
</tbody>
</table>

For example, when using the 3 dB notch or 6 dB notch settings, when you pan fully right, the right channel is played at 0 dB and the left channel is not audible. As you pan to the center, each channel is attenuated to the specified center value (-3 dB or -6 dB). As you pan to the left, the left channel is played at 0 dB, and the right channel is not audible.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mute</td>
<td>Click ( M ) to mute/unmute the selected track. When a track is muted, it is excluded from the audio mix. You can enable the ( M ) button on additional tracks to add them to the mute group.</td>
</tr>
</tbody>
</table>

💡 Clicking the **Mute** button in the Track Inspector also updates the **Mute** button on the track header.

| Solo   | Click \( S \) to solo/unsolo the selected track. When a track is soloed, all unsoloed tracks are effectively muted. Click the \( S \) button on additional tracks to add them to the solo group. To remove a track from the solo group, click its \( S \) button again. |

💡 Clicking the **Solo** button in the Track Inspector also updates the **Solo** button on the track header.

The following controls are displayed only when a track contains multichannel clips. For more information, see “Working with multichannel audio” on page 120.

| Channel volume | Drag the fader to adjust the volume of the selected channel. Double-click the center of the thumb to reset the fader. You can double-click the numeric value to type a new value: |

💡 Dragging the **Volume** fader in the Track Inspector also adjusts the **Volume** fader on the track header. For more information, see “Adjusting track controls” on page 57.

Hold Ctrl (Windows) or \( \text{⌘} \) (macOS) to adjust the volume fader in fine increments.

When adjusting volume, remember to watch your audio meters. Because you are adding the volumes of all of the tracks together, it is easy to clip the audio output. Make sure that the meters never display the red Clip indication during playback. For more information, see “Monitoring audio levels” on page 128.

The meter in the Track Inspector shows audio levels for the selected channel. The meter in the activity pane at the top of the Catalyst Edit window shows the sum of all audio at the cursor position.

<p>| Channel pan | Drag the knob to control the position of the channel in the stereo field: dragging to the down or to the left will place the audio in the left speaker more than the right, and dragging up or to the right will place the audio in the right speaker. Double- |</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>click the knob to reset panning to the center.</td>
</tr>
<tr>
<td></td>
<td>Dragging the Pan knob in the Track Inspector also adjusts the Pan knob on the track header.</td>
</tr>
<tr>
<td></td>
<td>The Channel pan knob is not displayed for channels that are assigned to a mono output.</td>
</tr>
<tr>
<td>Pan mode</td>
<td>Click the Pan mode button and choose a setting from the menu to choose the panning model that is used for the channel:</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Pan mode" /></td>
</tr>
<tr>
<td></td>
<td>Please see “Pan mode” on page 61 for descriptions of the available pan modes.</td>
</tr>
<tr>
<td>Mute</td>
<td>Click ( \text{M} ) to mute/unmute the selected channel.</td>
</tr>
<tr>
<td></td>
<td>When a channel is muted, it is excluded from the audio mix. You can enable the ( \text{M} ) button on additional channels to add them to the mute group.</td>
</tr>
<tr>
<td></td>
<td>Clicking the Mute button in the Track Inspector also updates the Mute button on the track header.</td>
</tr>
<tr>
<td>Solo</td>
<td>Click ( \text{S} ) to solo/unsolo the selected channel.</td>
</tr>
<tr>
<td></td>
<td>When a channel is soloed, all unsoloed channels are effectively muted. Click the ( \text{S} ) button on additional channels to add them to the solo group.</td>
</tr>
<tr>
<td></td>
<td>To remove a channel from the solo group, click its ( \text{S} ) button again.</td>
</tr>
<tr>
<td></td>
<td>Clicking the Solo button in the Track Inspector also updates the Solo button on the track header.</td>
</tr>
</tbody>
</table>
Video Effects

When the selected track has effects applied to it, you can use the Video Effects controls to control the settings for each effect. For more information, see “Adding effects to a track” on page 100.

Click the Overlay button to show or hide a plug-in’s interactive overlay controls in the video preview (when available).

Click the Mute button to bypass a plug-in without removing it from the chain.

Click the Delete button to remove a plug-in from the chain.

Drag a plug-in’s heading to change its position in the plug-in chain.

Click the toggle arrow to show or hide each plug-in’s controls.

When you select a position parameter in the Inspector, a control point is displayed in the video preview. You can adjust the parameter’s position by dragging the control point in the video preview or the Inspector.
Adjusting timeline settings

Click the **Timeline settings** button above the timeline to display the Timeline Settings menu, where you can adjust various settings for the project timeline.

💡 When you add the first video clip to a project, the timeline settings are automatically adjusted to match the media properties. For more information, see “Adding media and creating clips” on page 40.

Adjusting track height

Adjusting track height allows you to gain a wider view of your project or focus on a specific track.

1. Click the **Timeline settings** button above the timeline.
2. Drag the **Track height** slider to the left to make all tracks shorter, or drag to the right to make all tracks taller.

💡 If you want to adjust the size of the video preview to increase or decrease the size of the timeline, drag the splitter between the video preview and timeline.

Showing or hiding the marker ruler

1. Click the **Timeline settings** button above the timeline.
2. Click the **Marker ruler** switch to show or hide the marker ruler.

For more information, see “Using markers” on page 86.
Clip editing

Clips are containers that represent an occurrence of a media file on the Catalyst Edit timeline. A clip can represent an entire media file or a portion of it. A single media file can be used repeatedly to create any number of different clips, since each clip can be trimmed independently. A clip's position on the timeline determines when it will be played back in your project.

Editing tools

The Tools button below the timeline allows you to select the active editing tool.

Click the button and choose a tool from the menu.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Edit Tool</strong></td>
<td>Use the Edit Tool to select, trim, and move clips on the timeline.</td>
</tr>
<tr>
<td></td>
<td>For more information, see “Trimming clips” on page 73 and “Moving clips” on page 70.</td>
</tr>
<tr>
<td></td>
<td>Press E when the timeline has focus to switch to the Edit Tool.</td>
</tr>
<tr>
<td></td>
<td>Hold Shift while dragging the end of the audio or video stream with the Edit Tool to enable Edit Streams mode temporarily. For more information, see “Stream editing (L-J cuts and rolls)” on page 76.</td>
</tr>
<tr>
<td></td>
<td>Hold E to switch to the Edit Tool temporarily. When you’re finished editing, release the E key, and the previous editing tool will be restored.</td>
</tr>
<tr>
<td><strong>Roll Trim Tool</strong></td>
<td>Use the Roll Trim Tool to trim the edges of two adjacent clips simultaneously.</td>
</tr>
<tr>
<td></td>
<td>For more information, see “Trimming clips” on page 73.</td>
</tr>
<tr>
<td></td>
<td>Press R when the timeline has focus to switch to the Roll Trim Tool.</td>
</tr>
<tr>
<td></td>
<td>Hold Shift while dragging the end of the audio or video stream with the Roll Trim Tool to enable Edit Streams mode temporarily. For more information, see “Stream editing (L-J cuts and rolls)” on page 76.</td>
</tr>
<tr>
<td></td>
<td>Hold R to switch to the Roll Trim Tool temporarily. When you’re finished editing, release the R key, and the previous editing tool will be restored.</td>
</tr>
<tr>
<td><strong>Select Tool</strong></td>
<td>Use the Select Tool to select clips.</td>
</tr>
<tr>
<td></td>
<td>For more information, see “Selecting clips and positioning the cursor” on page 69.</td>
</tr>
<tr>
<td></td>
<td>Press C when the timeline has focus to switch to the Select Tool.</td>
</tr>
<tr>
<td></td>
<td>Hold C to switch to the Select Tool temporarily. When you’re finished selecting clips, release the C key, and the previous editing tool will be restored.</td>
</tr>
<tr>
<td>Tool</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Slip Tool</td>
<td>Use the Slip Tool to select, slip, and slip trim clips.</td>
</tr>
<tr>
<td></td>
<td>For more information, see “Slipping clips” on page 78.</td>
</tr>
<tr>
<td></td>
<td>Press P when the timeline has focus to switch to the Slip Tool.</td>
</tr>
<tr>
<td></td>
<td>Hold P to switch to the Slip Tool temporarily. When you’re finished editing, release the P key, and the previous editing tool will be restored.</td>
</tr>
<tr>
<td>Split Trim Tool</td>
<td>Use the Split Trim Tool to split and trim clips by clicking where you want to split and dragging to trim the resulting clip. If you click without dragging, the clip is split at the point you click.</td>
</tr>
<tr>
<td></td>
<td>For more information, see “Trimming clips” on page 73.</td>
</tr>
<tr>
<td></td>
<td>Press T when the timeline has focus to switch to the Split Trim Tool.</td>
</tr>
<tr>
<td></td>
<td>Hold T to switch to the Split Trim Tool temporarily. When you’re finished editing, release the T key, and the previous editing tool will be restored.</td>
</tr>
<tr>
<td>Fade Tool</td>
<td>Use the Fade Tool to adjust the level or opacity of a clip and adjust fade in/out curves.</td>
</tr>
<tr>
<td></td>
<td>For more information, see “Clip fades” on page 89.</td>
</tr>
<tr>
<td></td>
<td>Press F when the timeline has focus to switch to the Fade Tool.</td>
</tr>
<tr>
<td></td>
<td>Hold F to switch to the Fade Tool temporarily. When you’re finished editing, release the F key, and the previous editing tool will be restored.</td>
</tr>
<tr>
<td>Envelope Tool</td>
<td>Use the Envelope Tool to automate volume over the length of the clip.</td>
</tr>
<tr>
<td></td>
<td>For more information, see “Clip volume automation” on page 90.</td>
</tr>
<tr>
<td></td>
<td>Press V when the timeline has focus to switch to the Envelope Tool.</td>
</tr>
<tr>
<td></td>
<td>Hold Shift while dragging the end of the audio or video stream with the Envelope Tool to enable Edit Streams mode temporarily. For more information, see “Stream editing (L-J cuts and rolls)” on page 76.</td>
</tr>
<tr>
<td></td>
<td>Hold V to switch to the Envelope Tool temporarily. When you’re finished editing, release the V key, and the previous editing tool will be restored.</td>
</tr>
</tbody>
</table>
Selecting clips and positioning the cursor

Selecting data and positioning the cursor are the first steps in a variety of editing tasks.

💡 You can select clips with any of the editing tools, but using the Select tool helps ensure that clips cannot be moved during selection. For more information, see “Editing tools” on page 67.

Press Ctrl+A (Windows) or ⌘-A (macOS) to select all clips.

Selecting a single clip

Click a clip to select it and deselect other selected clips.

💡 If you want to select a clip without moving the cursor, click the clip header:

If you want to deselect all selected clips, click a blank area of the timeline.

Selecting multiple adjacent clips

Hold the Shift key and click the first and last clip that you want to select. All clips between the first and last clip you clicked are selected.

Selecting multiple nonadjacent clips

1. Click the Tools button below the timeline and select the Select Tool 🔷.

💡 Hold Ctrl (Windows) or ⌘ (macOS) while clicking clips with the Edit Tool 🔱, Roll Trim 💣, Slip Tool 🔮, or Fade Tool 🔉.

2. Click the clips you want to select. The selected clips are highlighted.

To deselect a clip, simply click it again.
Positioning the cursor

To set the cursor position, click in the timeline or time ruler. The cursor moves to the position you click, and the cursor position is displayed below the video preview.

💡 If you want to position the cursor without changing your clip selection, you can drag the cursor or playhead:

Press Up Arrow/Down Arrow to move the cursor to the previous/next clip on the selected track (when timeline has focus).

Moving clips

A clip’s position on the timeline determines where it will be played in your project.

Dragging a clip to a new position

Dragging is the simplest way to move clips in your project. You can drag a clip so it occurs earlier or later in your project, or you can drag a clip to another track.

1. Click the Tools button below the timeline and select the Edit Tool.
2. Select the clips you want to move. For more information, see “Selecting clips and positioning the cursor” on page 69.
3. Drag the clip to the position where you want it to be played.
   - If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.
   - Ripple mode is temporarily suspended when dragging a clip to a different track.
     Drag a clip to a blank area of the timeline to create a new track.
4. Release the mouse button.
Moving multiple clips

1. Click the Tools button below the timeline and select the Edit Tool.

2. Select the clips you want to move. For more information, see “Selecting clips and positioning the cursor” on page 69.

3. Drag the clips to the position where you want them to be played. If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.

4. Release the mouse button.
Creating crossfades

When you overlap two clips, a crossfade is applied to transition between the two clips.

1. Click the Tools button below the timeline and select the Edit Tool.
2. Select the clips you want to move. For more information, see “Selecting clips and positioning the cursor” on page 69.
3. Drag the clip so it overlaps another clip. If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.

Fades are applied in the overlapping area.

Creating contained clips

When a shorter clip is placed in the middle of another clip, the first clip plays, a cut transitions to the second clip, and a cut transitions back to the first clip.

1. Click the Tools button below the timeline and select the Edit Tool.
2. Select a clip. For more information, see “Selecting clips and positioning the cursor” on page 69.
3. If needed, trim the shorter clip that you want to use as a contained clip. For more information, see “Trimming clips” on page 73.
4. Drag the shorter clip on top of the longer clip. If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.

When you play your project, the first clip plays, a cut transitions to the second clip, and a cut transitions back to the first clip. Fades are not applied to contained clips.
Trimming clips

Trimming a clip allows you to control which part of the clip is played on the timeline.

💡 The Video Preview window temporarily enters split-screen preview mode when trimming, roll-trimming, split-trimming, or slip-trimming clips. This temporary split-screen mode allows you to see both sides of the edit at once:

- When trimming the left edge of a clip, the left side of the preview displays the last frame from the previous clip (black if there is no previous clip), and the right side of the preview displays the first frame from the clip being trimmed.

- When trimming the right edge of a clip, the left side of the preview displays the last frame from the clip being trimmed, and the right side of the preview displays the first frame from the next clip (black if there is no next clip).

- When slip trimming the left or right edge of a clip, the left side of the preview displays the first frame from the clip being trimmed, and the right side of the preview displays the last frame from the clip being trimmed.

When splitting or trimming clips that contain audio, an invisible fade is applied at the edit to soften potentially harsh transitions.

Trimming the start of end of a clip

1. Click the Tools button below the timeline and select the Edit Tool.

💡 Hold E to switch to the Edit Tool temporarily. When you’re finished editing, release the E key, and the previous editing tool will be restored.
2. Drag either end of a clip to change its starting or ending point. The media on the timeline does not move, but the start or end point of the clip will change with the clip edge.

If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see "Ripple edits" on page 83.

If snapping is enabled, the clip edge will snap to available snap points as you drag it. For more information, see "Clip snapping" on page 84.

If you drag the end of the clip past the length of the source clip, the clip is bound to the clip length.

If you trim a clip until its length is zero, the clip is deleted from the timeline.

If multiple clips are selected before you start trimming, the clip you trim remains selected, and the other clips are deselected.

To trim small clips, you may need to zoom in to the timeline. To change the magnification level of the timeline, you can drag the slider above the time ruler or click the Zoom Out or Zoom In buttons.

**Split trimming a clip**

1. Click the **Tools** button below the timeline and select the Split Trim Tool.

   Hold T to switch to the Split Trim Tool temporarily. When you’re finished editing, release the T key, and the previous editing tool will be restored.

2. Click a clip and drag to split the clip at the point you click and trim the clip in the direction you drag (eraser mode).

   If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see "Ripple edits" on page 83.

   If snapping is enabled, the clip edge will snap to available snap points as you drag it. For more information, see "Clip snapping" on page 84.

   If you drag the end of the clip past the length of the source clip, the clip is bound to the clip length.

   If you trim a clip until its length is zero, the clip is deleted from the timeline.
Slip-trimming a clip

1. Click the **Tools** button below the timeline and select the Slip Tool.  
   Hold P to switch to the Slip Tool temporarily. When you're finished editing, release the P key, and the previous editing tool will be restored.

2. Drag the right or left edge of a clip.
   As you drag the clip edge, the opposite edge of the clip will remain fixed, trimming the media from the edge you drag.
   If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.
   If snapping is enabled, the clip edge will snap to available snap points as you drag it. For more information, see “Clip snapping” on page 84.

Trimming adjacent clips (roll trim)

1. Click the **Tools** button below the timeline and select the Roll Trim Tool.  
   Hold R to switch to the Roll Trim Tool temporarily. When you're finished editing, release the R key, and the previous editing tool will be restored.

2. Drag the edge between two adjacent clips. The edges of the clips are trimmed simultaneously in the direction you drag.
   If snapping is enabled, the clip edge will snap to available snap points as you drag it. For more information, see “Clip snapping” on page 84.
   If you drag the end of the clip past the length of the source clip, the clip is bound to the clip length.
   If you trim a clip until its length is zero, the clip is deleted from the timeline.

As you drag, the video preview switches to a split-screen preview to allow you to see the frame on either side of the edit:
Stream editing (L-J cuts and rolls)

Stream editing allows you to trim a clip's audio and video separately while still keeping both streams combined in a single timeline clip so that you can quickly and easily create J and L cuts.

- In an L cut or roll, the audio from the first clip continues after the video has been trimmed, allowing the user to see the new scene before hearing its audio:

- In a J cut or roll, the audio from the second clip begins before the video, allowing the user to hear the new scene's audio before seeing the video.

1. Click the **Tools** button below the timeline and select the **Edit Tool**, **Roll Trim Tool**, or **Envelope Tool**.

   Hold E to switch to the Edit Tool temporarily. When you’re finished editing, release the E key, and the previous editing tool will be restored.

2. Select the **Edit Streams** button below the timeline (or press Shift+E).

   Press and hold Shift before dragging the end of the audio or video stream with the Edit Tool, Roll Trim Tool, or Envelope Tool to enable Edit Streams mode temporarily.
3. Drag either end of a clip’s audio or video stream to change its starting or ending point. The media on the timeline does not move, but the start or end point of the stream will change with the clip edge.

If snapping is enabled, the stream edge will snap to available snap points as you drag it. For more information, see “Clip snapping” on page 84.

![Image of clip editing](image)

💡 If you drag the end of the clip past the length of the source clip, the clip is bound to the clip length.

If multiple clips are selected before you start trimming, the clip you trim remains selected, and the other clips are deselected.

To trim small clips, you may need to zoom in to the timeline. To change the magnification level of the timeline, you can drag the slider above the time ruler or click the **Zoom Out** or **Zoom In** buttons.

If you want to move a clip, drag its header. If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.
Splitting clips

Splitting a clip allows you to adjust a small part of a clip or break a single clip into multiple sections that you can edit independently.

1. Click the timeline to position the cursor where you want to split the clip. You can use any of the available editing tools.
   
   For more information, see “Editing tools” on page 67.

2. Select the clips you want to split.

3. Click the Clip button below the timeline and choose Split from the menu (or press S).
   
   The clip is split at the cursor position, and the clip to the right of the split point is selected.
   
   If no clips are selected, the clips located at the current cursor position will be split throughout all of the tracks.
   
   When splitting or trimming clips that contain audio, an invisible fade is applied at the edit to soften potentially harsh transitions.

Slipping clips

To help you picture what happens when you slip clips, think of a clip as a window to a media file. The window can display the entire media file or a small section.

When the window displays only a portion of the media file, you can move either the window or the underlying media to adjust the media that is played by a clip: when you slip a clip, your clip maintains its place on the timeline, but the media file moves in the direction you drag.

💡 The Video Preview window temporarily enters split-screen preview mode when slipping or slip-trimming clips. This temporary split-screen mode allows you to see both sides of the edit at once:

- When slip trimming the left or right edge of a clip, the left side of the preview displays the first frame from the clip being trimmed, and the right side of the preview displays the last frame from the clip being trimmed.

- When slipping a clip, the left side of the preview displays the first frame from the clip being slipped, and the right side of the preview displays the last frame from the clip being slipped.
Slipping a clip

1. Click the Tools button below the timeline and select the Slip Tool.

   Hold P to switch to the Slip Tool temporarily. When you’re finished editing, release the P key, and the previous editing tool will be restored.

2. Drag the clip. The slip cursor is displayed:

   As you drag the clip, the contents of the clip shift, but the clip will not move. You can use this technique when you want to maintain a clip’s length and position, but have the clip play a different section of the source media file.

   Press Esc when dragging to cancel a slip.

   Slipping is available only when a clip is shorter than its source media. If you want to slip a clip that represents a full clip, trim the clip first or use slip-trim. For more information, see “Trimming clips” on page 73.

Slip-trimming a clip

1. Click the Tools button below the timeline and select the Slip Tool.

   Hold P to switch to the Slip Tool temporarily. When you’re finished editing, release the P key, and the previous editing tool will be restored.

2. Drag the right or left edge of a clip.

   As you drag the clip edge, the opposite edge of the clip will remain fixed, trimming the media from the edge you drag.

   If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.

   If snapping is enabled, the clip edge will snap to available snap points as you drag it. For more information, see “Clip snapping” on page 84.
Cropping clips

The Crop effect allows you to reframe the viewable area of a clip.

1. Select the clip you want to edit.

2. Click the Clip button below the timeline and choose Crop from the menu.

3. In the Inspector, use the Clip tab to view and edit crop settings for the selected clip.

For more information, see “Using the Clip Inspector” on page 94.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>The drop-down list displays the current position of the video in the frame. Click to display an edit control you can use to frame your video. Click Match Timeline Aspect to adjust the Position controls to match the output frame aspect from the Timeline Inspector.</td>
</tr>
</tbody>
</table>

Adjusting box position

Drag the point in the edit control to set the position of your video in the frame. Double-click the point to reset it.

When you type values in the Dimensions tab, you can set an anchor point and specify the position of the box using X/Y coordinates. For example, click the top-right corner of the anchor control and use the coordinates 0.5000, 0.5000 to move the top-right corner of the box to the center of the control.

Adjusting box dimensions

You can drag the corners of the rectangle in the edit control or type values in the W and H edit boxes to set the size of the frame.

When you type values in the Dimensions tab, you can set the size of the box using W/H dimensions. Click the Lock button to preserve the aspect ratio of the box so changing the width or height will automatically update the other value.

Adjusting box edges

You can drag the edges of the rectangle in the edit control or type values in the Edges tab to specify the position for each edge of the box.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
</table>
| Drag a corner of the rectangle   | Drag a corner of the rectangle to preserve aspect ratio while resizing.  
|                                  | Hold Shift while dragging the corners of the rectangle to resize and adjust aspect ratio.                                             |
|                                  | Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.                                                               |
|                                  | Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.                                                                    |
|                                  | When a corner is selected, you can use the arrow keys to adjust the selected corner, or press Ctrl (Windows) or ⌘ (macOS) + the arrow keys to adjust in fine increments. |
| Drag the edges of the rectangle  | Drag the edges of the rectangle to resize the rectangle.                                                                                   |
|                                  | Hold Shift while dragging an edge to resize and adjust aspect ratio.                                                                          |
|                                  | Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.                                                                 |
|                                  | Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.                                                                    |
| Drag the center of the rectangle | Drag the center of the rectangle to move without resizing, or double-click the point to reset it.                                          |
|                                  | Hold Shift while dragging to constrain to horizontal/vertical/45-degree movement.                                                            |
|                                  | Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.                                                                |
|                                  | Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.                                                                    |
|                                  | When the rectangle is selected, you can copy the position of the rectangle to paste to another clip.                                            |

<table>
<thead>
<tr>
<th>Angle</th>
<th>Type a value in the box or drag the slider to rotate the crop frame.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flip horizontal</td>
<td>Click to invert the video horizontally.</td>
</tr>
<tr>
<td>Flip vertical</td>
<td>Click to invert the video vertically.</td>
</tr>
<tr>
<td>Zoom</td>
<td>When Zoom is on, the output frame aspect ratio matches the crop rectangle you set using the Position rectangle, allowing the cropped clip to fill the output frame.</td>
</tr>
<tr>
<td></td>
<td>When Zoom is off, the video is cropped using a transparent background.</td>
</tr>
</tbody>
</table>
Cutting, copying, and pasting clips

Catalyst Edit allows you to cut, copy, and paste clips them into new positions on the timeline. You can paste a clip within the same track or to a new track.

Cutting clips

1. Select the clips you want to cut. For more information, see “Selecting clips and positioning the cursor” on page 69.

2. Click the Clip button below the timeline and choose Cut from the menu or press Ctrl+X (Windows) or ⌘+X (macOS).

   The clip and its properties are removed from the timeline and moved to the clipboard. For more information, see “Using the Clip Inspector” on page 94.

Copying clips

1. Select the clips you want to copy. For more information, see “Selecting clips and positioning the cursor” on page 69.

2. Click the Clip button below the timeline and choose Copy from the menu or press Ctrl+C (Windows) or ⌘+C (macOS).

   The clip and its properties are copied to the clipboard. For more information, see “Using the Clip Inspector” on page 94.

   🏆 While dragging a clip on the timeline, press and hold Ctrl (Windows) or ⌘ (macOS) to create a copy of the clip where you drop it.

Pasting clips

1. Stop playback.

2. Select the track where you want to paste.

3. Click the timeline to position the cursor where you want to paste the clips.

4. Click the Clip button below the timeline and choose Paste from the menu or press Ctrl+V (Windows) or ⌘+V (macOS).
5. The clips from the clipboard are pasted starting at the cursor position in the focus track (the last track selected when multiple tracks are selected). If necessary, tracks will be added to accommodate the clipboard tracks.

The pasted clip retains the properties of the clip you copied. For more information, see "Using the Clip Inspector" on page 94.

Pasted clips will sit on top of other clips in the track if they overlap. To make space for pasted clips, you can split the clip at the cursor position and select the Ripple button \[\text{\textsuperscript{16}}\] above the timeline before pasting. For more information, see “Splitting clips” on page 78 and “Ripple edits” on page 83.

Deleting clips

Deleting a clip removes it from the track without modifying the media file on your computer.

1. Select the clips you want to delete. For more information, see "Selecting clips and positioning the cursor" on page 69.

   - Hold Shift while clicking to select a range of clips.
   - Hold Ctrl (Windows) or \[\text{\textsuperscript{3}}\] (macOS) to select multiple, nonadjacent clips.

2. Click the Clip button \[\text{\textsuperscript{16}}\] below the timeline and choose Delete from the menu.

Ripple edits

When the Ripple button \[\text{\textsuperscript{16}}\] above the timeline is enabled, clips and markers that occur later on a track are shifted automatically when any of the following edits are performed:

- Adjusting a clip’s length by trimming or slip-trimming.
- Moving clips.
- Deleting clips.
- Cutting clips.
- Pasting clips.

When Ripple is not enabled, clip edits will not affect other clips and markers on the timeline.

Turning off ripple synchronization for individual tracks

When Ripple is first enabled, ripple edits are enabled for all tracks. Edit operations on a any track ripple downstream clips on all tracks.

If you want to turn ripple editing off for a track, use the Ripple sync switch on the Track Inspector. For more information, see “Using the Track Inspector” on page 60.
The *Ripple sync* switch is available only when the *Ripple* button above the timeline is enabled.

When *Ripple sync* is turned off, an indicator is displayed in the track header, and a striped background is displayed in the timeline to indicate that you can move clips on a track freely even when ripple editing is selected:

---

**Clip snapping**

Click the *Snap* button above the timeline to turn snapping on or off in the main timeline.

Snapping helps you align items along the timeline when you add clips, move clips, trim clips, or position the cursor. As you drag clips or markers, an indicator is displayed across the height of the timeline to show snap points.

- When snapping is enabled, you can hold the Shift key to temporarily override snapping.
- When snapping is not enabled, you can hold the Shift key to temporarily enable snapping.
- If you drag to a snap point that does not occur on a frame boundary when *Quantize to frames* is enabled, the snap indicator is displayed as a dashed line to indicate that the snap point will be quantized to the nearest frame boundary. For more information, see “*Quantize to frames*” on page 85.

---

**Turning snapping on or off**

Click the *Snap* button above the timeline to turn snapping on or off in the main timeline.

When snapping is enabled, clips and markers will snap to the following points on the timeline:
- The cursor (when playback is stopped).
- Markers.
- Clip edges on the same track.
- Clips on different tracks (when Snap to all clips is enabled).

**Snapping to clips on other tracks**

When snapping is enabled, you can also choose to have elements in the timeline snap to the ends of clips on other tracks.

Click the Editing Behaviors button and turn on the Snap to all clips switch: clips, the cursor, and markers will snap to clip edges on any track, and the button is displayed as 

When Snap to all clips is off, clips will snap to clip edges only on their own tracks, and the button is displayed as .

**Quantize to frames**

Edits that do not occur on frame boundaries can produce an undesirable visual result. For example, if you split two clips and move them together to create a cut, splits that are not at frame boundaries can produce a short dissolve in your rendered video.

Click the Editing Behaviors button above the timeline and select Quantize to frames to force edits to occur on project frame boundaries.

This setting is independent of clip snapping. For more information, see “Clip snapping” on page 84.

When Quantize to frames is turned on, the following actions will always occur on frame boundaries:

- Moving video clips

  If Quantize to Frames is on while dragging an audio clip and the selection group contains video, the movement is quantized so the first video clip is quantized (instead of the audio clip).

  Audio-only clips are not quantized.

- Splitting and trimming clips

  If you drag to a snap point that does not occur on a frame boundary when Quantize to Frames is enabled, the snap indicator is displayed as a dashed line to indicate that the snap point will be quantized to the nearest frame boundary. For more information, see “Clip snapping” on page 84.
Using markers
Markers can be used to indicate points of interest in projects or to make notes in the project.

Adding a marker
1. Click to select a track and position the timeline cursor where you want to add the marker.
2. Click the Add button + below the timeline and choose Marker. The marker is created on the marker ruler above the timeline.
   👉 Double-click an empty area of the marker ruler to add a marker quickly.

Selecting a marker
Click a marker tag to select it.

Naming a marker
1. Double-click (or right-click) the marker you want to edit. The Marker popup is displayed.
2. Type a name in the Name box. The name in the marker ruler is updated to use the new name.

Changing a marker’s color
1. Double-click (or right-click) the marker you want to edit. The Marker popup is displayed.
2. Click a color swatch. The marker tag is updated to use the new color.

Deleting a marker
1. Double-click (or right-click) the marker you want to delete. The Marker popup is displayed.
2. Click the Delete button.

Moving a marker
Drag the marker tag to a new location.
👉 When snapping is enabled and Snap to all clips is turned on, markers will snap to clip edges as you drag them. Hold Shift while dragging to temporarily override the current snapping setting. For more information, see “Clip snapping” on page 84.
Showing or hiding the marker ruler

1. Click the Timeline settings button 📊 above the timeline.
2. Drag the Marker ruler slider to the left to show the marker ruler, or drag to hide it.

Nested timelines

Nesting allows you to add a Catalyst Edit subordinate timeline to another project. Nesting can help you organize a timeline or create other effects:

- Create a single element — such as a lower-third graphic or watermark — that you can use in multiple timeline locations or projects.
- Create a complex compositing element that you can use as a single media object in the timeline.
- Create a separate timeline for each scene in a video and nest those timelines in a master video project.
- Add a Catalyst Prepare storyboard to the timeline.
- Add a Catalyst Browse clip list to the timeline.

Clips with nested timelines are displayed in green:

Creating a nested timeline

1. Select the clips you want to include in your nested timeline. The selection must contain a contiguous range of clips (no spaces between clips). For more information, see “Selecting clips and positioning the cursor” on page 69.
2. Click the Clip button below the timeline and choose Create nested timeline from the menu. The selected clip starts at the 00:00:00:00 position in the new nested timeline.

You can edit the new nested timeline as you would any other project, adding tracks and clips as needed.

When you need to return to the parent timeline, use the breadcrumb trail at the top-left corner of the timeline.

If clips contain automation envelopes before you create a nested timeline, the clip automation envelopes are available in the clips in the nested timeline. The parent clip will use the default single-point envelope. For more information, see "Clip volume automation" on page 90.

You can create a nested timeline from a Catalyst Prepare storyboard ( ) or a Catalyst Browse clip list by adding the storyboard/clip list to the Catalyst Edit timeline. For more information about using media from a Catalyst Prepare library ( ), see "Finding media" on page 23.

Opening a nested timeline

1. Select a clip that contains a nested timeline. For more information, see "Selecting clips and positioning the cursor" on page 69.

2. Click the Clip button below the timeline and choose Open nested timeline from the menu or click the clip icon in the clip header.

The selected timeline is opened.

The cursor position is maintained when you navigate into or out of a nested timeline.

You can edit the new nested timeline as you would any other project, adding tracks and clips as needed.

When you need to return to the parent timeline, use the breadcrumb trail at the top-left corner of the timeline.

Clip fades

You can use the Fade Tool to control a clip's fade-in, fade-out, and overall level or opacity.

💡 For more advanced volume control, you can use the Clip Automation Tool. For more information, see "Clip volume automation" on page 90.

Adjusting a clip's volume or opacity

1. Click the Tools button below the timeline and select the Fade Tool 📈.
   
  💡 Hold F to switch to the Fade Tool temporarily. When you're finished editing, release the F key, and the previous editing tool will be restored.

2. Hover over the top of the video or audio portion of a clip until the fade cursor is displayed:

3. Drag the line to the desired level. As you drag the line, the clip's gain or opacity is adjusted.
   
   As you decrease the setting, a clip becomes more transparent, allowing clips on lower tracks to show through the clip.

💡 Adjusting the clip's gain or opacity also adjusts the **Gain** or **Opacity** setting in the Clip Inspector. For more information, see "Using the Clip Inspector" on page 94.
Adjusting a clip’s fade in or fade out

1. Click the **Tools** button below the timeline and select the **Fade Tool**.
   - Hold F to switch to the Fade Tool temporarily. When you’re finished editing, release the F key, and the previous editing tool will be restored.

2. Hover over the left or right edge of a clip until the fade cursor is displayed:

3. Drag the corner of the clip to set the amount of time it takes the clip to fade in or out.
   - If snapping is enabled, the fade edge will snap to available snap points as you drag it. For more information, see “Clip snapping” on page 84.
   - If there are no clips on tracks below the selected clip, it will fade from/to black. If a clip is on a track below the selected clip, the lower clip will be visible during the fade.
   - Adjusting the clip’s fades also adjusts the **Fade in length** and **Fade out length** settings in the Clip Inspector. For more information, see “Using the Clip Inspector” on page 94.
   - Double-click the fade between two clips with the Edit, Slip, or Fade tool to select a fade area and set the Mark In/Out region to match its length.

Clip volume automation

If you want to adjust a clip’s volume over time, you can use an envelope to automate volume over the length of the clip.

- For simple control over a clip’s fade in, fade out, and overall level, you can use the Fade Tool. For more information, see “Clip fades” on page 89.

  Clip automation envelopes are independent of clip fades. Using the Fade Tool to adjust the clip’s gain or opacity also adjusts the **Gain** or **Opacity** setting in the Clip Inspector. For more information, see “Using the Clip Inspector” on page 94.

- If clips contain automation envelopes before you create a nested timeline, the clip automation envelopes are available in the clips in the nested timeline. The parent clip will use the default single-point envelope. For more information, see “Nested timelines” on page 87.
Adjusting a clip’s volume

1. Click the Tools button below the timeline and select the Envelope Tool.
   - Hold V to switch to the Envelope Tool temporarily. When you’re finished editing, release the V key, and the previous editing tool will be restored.

   When the Envelope Tool is selected, each clip will display a volume automation envelope.

2. Drag the line to the desired level. As you drag the line, the clip’s gain is adjusted.

   Drag down to make the clip quieter or drag up to make the clip louder.

   If you want to automate volume, add more points to the envelope.

Adding envelope points

To create more complex envelopes, you will need to add points. To add an envelope point, double-click the envelope with the Envelope Tool. A new envelope point will be added.

To add a point, right-click it with the Envelope Tool and choose Add point.

To delete a point, right-click it with the Envelope Tool and choose Delete.

To reset an envelope to its default state, right-click an envelope segment or point with the Envelope Tool and choose Reset all points.
Adjusting an envelope

By default, a new envelope will contain a single envelope point. If you want to adjust the overall level of an envelope, drag the envelope up or down with the Envelope Tool.

If an envelope has multiple points, you can drag each point, or you can drag envelope segments:

- Dragging up or down decreases or increases volume.
- Dragging left or right changes when the volume adjustment occurs.
  
  You cannot drag an envelope point past another point on the timeline.

As you adjust the envelope, the clip’s waveform is updated to reflect the new volume.

Right-click an envelope point with the Envelope Tool to display a shortcut menu where you can set the selected point to the maximum value (+12 dB), the default (0 dB), or the minimum value (-Inf dB).

To reset an individual point to 0 dB, double-click it with the Envelope Tool.

Setting fade curves

You can adjust the fade curve for each envelope segment individually. To change the fade curve, right-click an envelope segment and choose a command from the shortcut menu.

<table>
<thead>
<tr>
<th>Fade Type</th>
<th>Fade In/Out Curve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold</td>
<td>![Hold Curve Image]</td>
</tr>
<tr>
<td>Linear</td>
<td>![Linear Curve Image]</td>
</tr>
<tr>
<td>Fast</td>
<td>![Fast Curve Image]</td>
</tr>
<tr>
<td>Slow</td>
<td>![Slow Curve Image]</td>
</tr>
</tbody>
</table>
### Flipping an envelope

Right-click an envelope point with the Envelope Tool and choose **Flip** to flip its position around the 0 dB baseline.

Right-click an envelope segment with the Envelope Tool and choose **Flip all** to flip an envelope around the 0 dB baseline.

For example, if an envelope point sets the volume to 3 dB, that point will set the volume to -3 dB after flipping the envelope. Values that are less than -12 dB will be 12 dB after flipping the envelope.

### Replacing a clip’s media

Replacing a clip’s media preserves the length and position of a clip on the timeline, but replaces the media file that is displayed by the clip.

For information about relinking a project’s media clips, please see “Relinking project media” on page 12.

1. In the timeline, select the clip you want to edit. For more information, see “Selecting clips and positioning the cursor” on page 69.

2. In the Media Browser, select the media file that you want to use to replace the selected clip.

3. Click the **Tools** button at the bottom of the Media Browser below the timeline and choose **Replace media with selection** from the menu.

The clip and is updated to use the file from the Media Browser.

> If you replace a clip with a shorter media file, the last frame of the new file will repeat until the end of the clip.

> If you replace a clip with a longer media file, the clip length does not change.

You can trim the clip to match the length of the new media file. For more information, see “Trimming clips” on page 73.
Undoing and redoing edit operations

Undo and Redo give you the freedom to experiment with your project.

Undoing the last action performed

Click the Tools button below the timeline and choose Undo or press Ctrl+Z (Windows) or ⌘+Z (macOS).

Reversing the last Undo performed

Click the Tools button below the timeline and choose Redo or press Ctrl+Shift+Z (Windows) or ⌘+Shift+Z (macOS).

Using the Clip Inspector

In the Inspector, select the Clip tab to view and edit settings for the selected clip.

💡 Click a clip to select it, and the Clip tab is displayed automatically if the Inspector is visible.

Summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Type a value in the Name box to set the name of the selected clip. The name you type here will be displayed in the clip:</td>
</tr>
<tr>
<td>Media</td>
<td>Displays the source file name for the selected clip. When a clip from a Catalyst Prepare library ( ) is selected, you can click the Refresh button to update the clip's properties from the Catalyst Prepare library. You can also click the Clip button below the timeline and choose Refresh from the menu.</td>
</tr>
<tr>
<td>Folder</td>
<td>Displays the name of the folder where the source clip is stored. Click the folder name to open the location in Windows Explorer or Finder.</td>
</tr>
</tbody>
</table>
### Library

When a clip from a Catalyst Prepare library (.cycle) is selected, the Library box displays the name of the clip's source library.

Click the name of the library to open it in Catalyst Prepare and select the clip. If you perform color correction in Catalyst Prepare, click the Refresh button (Refresh) to update the clip.

💡 You can also click the Clip button (Clip) below the timeline and choose Open library.cpreplib from the menu to open it in Catalyst Prepare and select the clip.

### Streams

When a clip with audio and video streams is selected, you can click a button to indicate which streams should be included in the timeline.

- Click Audio to include only the audio stream. The video thumbnails will be hidden in the clip and excluded when you render your project.
- Click Video to include only the video stream. The audio waveform will be hidden in the clip and excluded when you render your project.
- Click Both to include the audio and video streams in the clip.

💡 The Streams controls are not displayed when an audio-only or video-only clip is selected.

When a track contains a single clip, the track header controls will also change to reflect the current Streams setting.

### Editing

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>Click the value and type a new value to trim the beginning of the selected clip to the specified timeline position.</td>
</tr>
<tr>
<td></td>
<td>For example, if the current Start value is 0.00, typing 10.00 will move the beginning of the clip ten seconds later on the timeline.</td>
</tr>
<tr>
<td></td>
<td>If ripple mode is enabled, all subsequent clips will ripple automatically. For more information, see “Ripple edits” on page 83.</td>
</tr>
<tr>
<td>End</td>
<td>Click the value and type a new value to trim the end of the selected clip to the specified timeline position.</td>
</tr>
<tr>
<td></td>
<td>For example, if the current End value is 60.00, typing 50.00 will move the end of the clip ten seconds earlier on the timeline.</td>
</tr>
<tr>
<td></td>
<td>If ripple mode is enabled, all subsequent clips will ripple automatically.</td>
</tr>
<tr>
<td>Length</td>
<td>Click the value and type a new value to set the length of the selected clip. The clip’s start point remains fixed on the timeline, and the clip’s end is modified as needed.</td>
</tr>
<tr>
<td></td>
<td>If ripple mode is enabled, all subsequent clips will ripple automatically.</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Click</td>
<td>If you set a clip’s length to zero, the clip is deleted from the timeline.</td>
</tr>
<tr>
<td>Source offset</td>
<td>Click the value and type a new value to set the start time of the selected clip. Adjusting the clip’s source offset slips the clip’s media within the clip: use a negative offset to slip the media to the left or use a positive offset to slip the media to the right.</td>
</tr>
<tr>
<td>Fade in length</td>
<td>If a clip is not crossfaded with the previous clip, click the value and type a new value to set the amount of time it takes the clip to fade in. If there are no clips on tracks below the selected clip, it will fade in from black. If a clip is on a track below the selected clip, the lower clip will be visible during the fade. For more information, see “Slipping clips” on page 78.</td>
</tr>
<tr>
<td>Fade out length</td>
<td>If a clip is not crossfaded with the previous clip, click the value and type a new value to set the amount of time it takes the clip to fade out. If there are no clips on tracks below the selected clip, it will fade out to black. If a clip is on a track below the selected clip, the lower clip will be visible during the fade. For more information, see “Slipping clips” on page 78.</td>
</tr>
<tr>
<td>Opacity</td>
<td>Click the value and type a new value or drag the slider to set the opacity of a clip. Double-click the center of the thumb to reset the slider. Using a setting of 1.0, a clip is completely opaque; clips on lower tracks are not visible. As you decrease the setting, a clip becomes more transparent, allowing clips on lower tracks to show through the clip. For more information, see “Clip fades” on page 89.</td>
</tr>
<tr>
<td>Rate</td>
<td>Click the value and type a new value or drag the slider to set the playback rate of a clip. Double-click the center of the thumb to reset the slider. A setting of 1 will play at normal speed, while 0.5 will play at half speed. A setting of 0 will create a freeze-frame effect using the first visible frame of the clip. Each video clip in your project has a specific duration that is not changed by adjusting the playback rate. If you decrease the speed of a ten-second video event to .5, only five seconds of video will be shown. On the other hand, if the speed is increased to 2, the ten seconds of video will play in only five seconds. The remaining five seconds of the clip will be filled either with a freeze of the last frame or with ten additional seconds of video content from the media file (if the source media is longer than the clip).</td>
</tr>
<tr>
<td>Audio mode</td>
<td>Choose a setting from the drop-down list to choose how audio is stretched when you adjust the playback rate of a clip.</td>
</tr>
<tr>
<td></td>
<td>- None: to time stretching or pitch shifting is applied.</td>
</tr>
<tr>
<td></td>
<td>- Time stretch: audio is time-stretched to match the clip’s rate, but the playback pitch is preserved.</td>
</tr>
</tbody>
</table>
### Item Description

- **Pitch shift**: audio is time-stretched to match the clip’s rate, and the playback pitch is raised or lowered to match the rate (faster playback raises the pitch; slower playback lowers the pitch).

### Gain

Click the value and type a new value or drag the fader to adjust the volume of each audio channel in the selected clip. Double-click the center of the thumb to reset the fader.

Editing this setting also affects the fade envelope on the clip. For more information, see “Clip fades” on page 89.

💡 When adjusting volume, remember to watch your audio meters. Because you are adding the volumes of all of the tracks together, it is easy to clip the audio output. Make sure that the meters never display the red Clip indication during playback. For more information, see “Monitoring audio levels” on page 128.

### Channel Assignment

Click the speaker icon to turn a channel on 🎧 or off 🎧.  

💡 Turning off a clip’s unused channels allows you to remove those channels from the track list in the timeline.

Click the **Mono** or **Stereo** button to indicate whether a channel is a mono channel or part of a stereo pair. Enabling **Stereo** will pair the channel with the next channel in the list.

💡 If you want to set all of a clip’s channels at once, click the **Channel Tools** button ⚒️ and choose **Set all to mono**, **Set all to stereo**, or **Reset**.

Type a name in the edit box to identify the channel. For example, you might type **Lav1** to identify audio from a lavalier microphone.

💡 Channels that are named identically in the Timeline Inspector and Clip Inspector will be matched.

When you add a clip from a Catalyst Prepare library (🎵) to the Catalyst Edit timeline, any channel assignment settings that you made in the Catalyst Prepare library will be applied to the clip.

### Title

When a title clip is selected, you can use the Title controls to control the appearance of your title text. For more information, see “Adding title clips” on page 104.

### Video Effects

When the selected clip has effects applied to it, you can use the Video Effects controls to control the settings for each effect. For more information, see “Adding effects to a clip” on page 99.
Click the **Overlay** button 📦 to show or hide a plug-in’s interactive overlay controls in the video preview (when available).

Click the **Mute** button 🎤 to bypass a plug-in without removing it from the chain.

Click the **Delete** button 🗑️ to remove a plug-in from the chain.

Drag a plug-in’s heading to change its position in the plug-in chain.

Click the toggle arrow to show or hide each plug-in’s controls.

When you select a position parameter in the Inspector, a control point ( ++) is displayed in the video preview. You can adjust the parameter’s position by dragging the control point in the video preview or the Inspector:
Applying effects

You can use effects to manipulate the video components of your project.

The included video plug-ins include effects, transitions, and text/background generators. Effects can be used to improve video quality or manipulate an image, transitions can change the way video events flow into one another, and generators can create text and backgrounds.

Using video effects

There are several methods available for applying effects to video. Video effects can be applied to clips, tracks, or to the entire video timeline.

💡 You can use split-screen previews to preview your project with and without video effects. For more information, see “Previewing video” on page 43.

Adding effects to a clip

Effects that you apply to a clip are applied only to that clip.

1. Click the Plug-Ins button ‌ at the top of the Catalyst Edit window to display the Plug-Ins pane and select the effect you want to use.

2. On the timeline, select the clip where you want to apply the effect. For more information, see “Selecting clips and positioning the cursor” on page 69.

3. Click the Add to Clip button ‌ at the bottom of the Plug-Ins pane or drag the effect to the clip.

An effects indicator is displayed on a clip when it has effects applied. You can click the indicator to display the effect’s controls in the Clip Inspector.
4. Use the controls in the Clip Inspector to adjust the effect’s settings.

For more information, see “Using the Clip Inspector” on page 94.

Click the **Overlay** button \(\text{ethoven}\) to show or hide a plug-in’s interactive overlay controls in the video preview (when available).

Click the **Mute** button \(\text{eY}\) to bypass a plug-in without removing it from the chain.

Click the **Delete** button \(\text{ mage}\) to remove a plug-in from the chain.

Drag a plug-in’s heading to change its position in the plug-in chain.

Click the toggle arrow to show or hide each plug-in’s controls.

When you select a position parameter in the Inspector, a control point \(\text{eq} \) is displayed in the video preview. You can adjust the parameter’s position by dragging the control point in the video preview or the Inspector:

![](image)

**Adding effects to a track**

Effects that you apply to a track are applied to every clip on that track.

1. Click the **Plug-Ins** button \(\text{L} \) at the top of the Catalyst Edit window to display the Plug-Ins pane and select the effect you want to use.

2. Click a track’s header to select the track where you want to apply the effect.
3. Click the **Add to Track** button at the bottom of the Plug-Ins pane or drag the effect to the track header.

   An effects indicator is displayed on a track when it has effects applied. You can click the indicator to display the effect's controls in the Track Inspector.

![Track 1](image)

4. Use the controls in the Track Inspector to adjust the effect's settings.

   For more information, see “Using the Track Inspector” on page 60.
Click the Overlay button to show or hide a plug-in’s interactive overlay controls in the video preview (when available).

Click the Mute button to bypass a plug-in without removing it from the chain.

Click the Delete button to remove a plug-in from the chain.

Drag a plug-in’s heading to change its position in the plug-in chain.

Click the toggle arrow to show or hide each plug-in’s controls.

When you select a position parameter in the Inspector, a control point is displayed in the video preview. You can adjust the parameter’s position by dragging the control point in the video preview or the Inspector:

Adding effects to the timeline

Effects that you apply to the timeline are a clip are applied only to that clip.

1. Click the Plug-Ins button at the top of the Catalyst Edit window to display the Plug-Ins pane and select the effect you want to use.

2. Click the Add to Timeline button at the bottom of the Plug-Ins pane or drag the effect to the timeline breadcrumb trail above the track list.
3. Use the controls in the Timeline Inspector to adjust the effect’s settings.

For more information, see “Using the Timeline Inspector” on page 13.

💡 Click the Overlay button to show or hide a plug-in’s interactive overlay controls in the video preview (when available).

Click the Mute button to bypass a plug-in without removing it from the chain.

Click the Delete button to remove a plug-in from the chain.

Drag a plug-in’s heading to change its position in the plug-in chain.

Click the toggle arrow to show or hide each plug-in’s controls.

When you select a position parameter in the Inspector, a control point is displayed in the video preview. You can adjust the parameter’s position by dragging the control point in the video preview or the Inspector:
Using video generators
You can use video generators to create backgrounds, text, and textures in your project.

1. Click to select a track.

2. Click the Plug-Ins button at the top of the Catalyst Edit window to display the Plug-Ins pane.

3. Expand the Video Generators heading.

4. Click a video generator to select it.

5. Click the Add Generator button. The selected generator is added as a clip to the end of the selected track, and the new clip is selected.

   📌 You can also drag a generator plug-in from the Plug-Ins pane to the timeline to create a clip. You can also use the Add button below the timeline to quickly add the Title, Solid Color, or Color Gradient plug-in to the selected track. For more information, see “Adding title clips” on page 104, “Adding solid-color clips” on page 108, or “Adding color-gradient clips” on page 109.

6. Use the controls in the Clip Inspector to adjust the generator’s settings.

   For more information, see “Using the Clip Inspector” on page 94.

Adding title clips
You can add title clips to your project to create titles and credits.

Adding a title clip

1. Click to select a track.

2. Click to position the cursor where you want to add the title clip.

3. Click the Add button below the timeline and choose Title. The clip is created at the cursor position on the timeline.

   📌 You can also drag the Title generator from the Plug-Ins pane to the timeline to create a title clip.

4. Use the controls in the Clip Inspector to adjust the generator’s settings.

Editing a title clip

1. Select the clip you want to edit.

2. Click the Inspector button to show the Inspector pane.
3. In the Inspector, select the Clip tab to view and edit settings for the selected title clip.

For more information, see “Using the Clip Inspector” on page 94.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>Type in the edit box to set the text that will be displayed by your clip.</td>
</tr>
<tr>
<td>Position</td>
<td>The drop-down list displays the current position of the text in the frame. Click to display an edit control you can use to position your text.</td>
</tr>
</tbody>
</table>

You can drag the point in the edit control or type values in the X and Y boxes to set the position of your text in the frame. Double-click the point to reset it.

💡 Hold Ctrl (Windows) or ⌘ (macOS) to adjust the point in fine increments.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Type a value in the box or drag the slider to adjust the size of the text.</td>
</tr>
</tbody>
</table>

💡 Hold Ctrl (Windows) or ⌘ (macOS) to adjust the slider in fine increments.

You can drag the slider past the end of the trackbar to unlock the full range of the control. When the value is set outside the range of the slider, the handle will be displayed as 📊 or 📊.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Font</td>
<td>Choose a font from the drop-down list to set the typeface that will be used for your text.</td>
</tr>
<tr>
<td>Bold</td>
<td>Click to toggle boldface text for the selected clip.</td>
</tr>
<tr>
<td>Italic</td>
<td>Click to toggle italicized text for the selected clip.</td>
</tr>
<tr>
<td>Color</td>
<td>Click the color sample to display a color picker, where you can choose a color or type color values to set the text color. You can also adjust the transparency (alpha value) of the text.</td>
</tr>
<tr>
<td>Rotation</td>
<td>Type a value in the box or drag the slider to adjust the angle of the text in the frame.</td>
</tr>
<tr>
<td>Alignment</td>
<td>Choose a setting from the drop-down list to indicate how your text is aligned within the text box and how the text box is aligned with the point specified by the Position value:</td>
</tr>
<tr>
<td></td>
<td>- Select <strong>Left</strong> to left justify the text in the box and align the left edge of the text box with the Position point.</td>
</tr>
<tr>
<td></td>
<td>- Select <strong>Center</strong> to center justify the text in the box and align the center of the text box with the Position point.</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>- Select <strong>Right</strong> to right justify the text in the box and align the right edge of the text box with the <strong>Position</strong> point.</td>
</tr>
<tr>
<td>Vertica I</td>
<td>Choose a setting from the drop-down list to indicate how your text box is aligned with the point specified by the <strong>Position</strong> value:</td>
</tr>
<tr>
<td></td>
<td>- Select <strong>Top</strong> to align the top of the text box with the <strong>Position</strong> point.</td>
</tr>
<tr>
<td></td>
<td>- Select <strong>Center</strong> to align the center of the text box with the <strong>Position</strong> point.</td>
</tr>
<tr>
<td></td>
<td>- Select <strong>Baseline</strong> when you have a single line of text and want to align the text's baseline with the <strong>Position</strong> point.</td>
</tr>
<tr>
<td></td>
<td>- Select <strong>Bottom</strong> to align the bottom of the text box with the <strong>Position</strong> point.</td>
</tr>
<tr>
<td>Background</td>
<td>Click the color sample to display a color picker, where you can choose a color or type color values to adjust the background. You can also adjust the transparency (alpha value) of the background.</td>
</tr>
<tr>
<td></td>
<td>Adding a background color makes it easy to create a lower-third color box.</td>
</tr>
<tr>
<td>Location</td>
<td>The drop-down list displays the current position of the text background in the frame. Click to display an edit control you can use to set the position of each corner of the background in the frame.</td>
</tr>
</tbody>
</table>

**Adjusting box position**

Drag the point in the edit control to set the position of the background in the frame. Double-click the point to reset it.

When you type values in the **Dimensions** tab, you can set an anchor point and specify the position of the box using X/Y coordinates. For example, click the top-right corner of the anchor control and use the coordinates \(0.5000, 0.5000\) to move the top-right corner of the box to the center of the control.

**Adjusting box dimensions**

You can drag the corners of the rectangle in the edit control or type values in the W and H edit boxes to set the size of the frame.

When you type values in the **Dimensions** tab, you can set the size of the box using \(W/H\) dimensions. Click the **Lock** button \(\bigcirc\) to preserve the aspect ratio of the box so changing the width or height will automatically update the other value.

**Adjusting box edges**
You can drag the edges of the rectangle in the edit control or type values in the Edges tab to specify the position for each edge of the box.

Drag a corner of the rectangle to preserve aspect ratio while resizing.

Hold Shift while dragging the corners of the rectangle to resize and adjust aspect ratio.

Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.

When a corner is selected, you can use the arrow keys to adjust the selected corner, or press Ctrl (Windows) or ⌘ (macOS) + the arrow keys to adjust in fine increments.

Drag the edges of the rectangle to resize the rectangle.

Drag an edge of the rectangle to preserve aspect ratio while resizing.

Hold Shift while dragging an edge to resize and adjust aspect ratio.

Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.

Drag the center of the rectangle to move without resizing, or double-click the point to reset it.

Hold Shift while dragging to constrain to horizontal/vertical/45-degree movement.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.

When the rectangle is selected, you can copy the position of the rectangle to paste to another clip.

---

**Shadow**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable</td>
<td>Click to toggle a shadow behind your text.</td>
</tr>
<tr>
<td>Color</td>
<td>Click the color sample to display a color picker, where you can choose a color or type color values to set the shadow color. You can also adjust the transparency (alpha value) of the shadow.</td>
</tr>
<tr>
<td>Feather</td>
<td>Type a value in the box or drag the slider to blend the shadow with the background. Hold Ctrl (Windows) or ⌘ (macOS) to adjust the slider in fine increments.</td>
</tr>
<tr>
<td>Offset X/Y</td>
<td>Type a value in the box or drag the slider to offset the shadow from the center of your text. Hold Ctrl (Windows) or ⌘ (macOS) to adjust the slider in fine increments.</td>
</tr>
</tbody>
</table>

---

**Outline**
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable</td>
<td>Click to toggle an outline around your text.</td>
</tr>
<tr>
<td>Color</td>
<td>Click the color sample to display a color picker, where you can choose a color or type color values to set the outline color. You can also adjust the transparency (alpha value) of the outline.</td>
</tr>
<tr>
<td>Thickness</td>
<td>Type a value in the box or drag the slider to adjust the thickness of the text outline.</td>
</tr>
<tr>
<td></td>
<td>🤔 Hold Ctrl (Windows) or ⌘ (macOS) to adjust the slider in fine increments.</td>
</tr>
</tbody>
</table>

Adding solid-color clips

You can add solid-color clips to your project to provide backgrounds behind overlays or graphics with transparency or for fades.

Adding a solid-color clip

1. Click to select a track.

2. Click the Add button + below the timeline and choose Solid Color. The clip is created on the timeline.
   🤔 You can also drag the Solid Color generator from the Plug-Ins pane to the timeline to create a title clip.

3. Use the controls in the Clip Inspector to adjust the generator’s settings.

Editing a solid-color clip

1. Select the title clip you want to edit.

2. Click the Inspector button to show the Inspector pane.

3. In the Inspector, select the Clip tab to view and click the color sample to display a color picker, where you can choose a color or type color values to set the text color. You can also adjust the transparency (alpha value) of the color.

   For more information, see "Using the Clip Inspector" on page 94.
Adding color-gradient clips
You can add color-gradient clips to your project to provide an interesting variety of backgrounds behind overlays or graphics with transparency or for fades.

Adding a color-gradient clip
1. Click to select a track.
2. Click the Add button + below the timeline and choose Color Gradient. The clip is created on the timeline.
   🌟 You can also drag the Color Gradient generator from the Plug-Ins pane to the timeline to create a title clip.
3. Use the controls in the Clip Inspector to adjust the generator’s settings.

Editing a color-gradient clip
1. Select the title clip you want to edit.
2. Click the Inspector button to show the Inspector pane.
3. In the Inspector, select the Clip tab to view and edit settings for the selected title clip.

For more information, see "Using the Clip Inspector" on page 94.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Choose a setting from the drop-down list to choose the shape of the gradient.</td>
</tr>
<tr>
<td>Center</td>
<td>The drop-down list displays the current position of the gradient in the frame. Click to display an edit control you can use to position the gradient.</td>
</tr>
<tr>
<td></td>
<td><img src="image1.png" alt="Image" /> You can drag the point in the edit control or type values in the X and Y boxes to set the position of your gradient in the frame. Double-click the point to reset it.</td>
</tr>
<tr>
<td></td>
<td>Hold Ctrl (Windows) or ⌘ (macOS) to adjust the point in fine increments.</td>
</tr>
<tr>
<td>Angle</td>
<td>Type a value in the box or drag the slider to adjust the angle of the line formed by the control points in relation to a horizontal plane.</td>
</tr>
<tr>
<td>Control Point</td>
<td>Type a value in the box or drag the slider to adjust the distance of the control point from the center.</td>
</tr>
<tr>
<td>Location</td>
<td>The drop-down list displays the current position of the control point in the frame. Click to display an edit control you can use to position the point.</td>
</tr>
<tr>
<td></td>
<td><img src="image2.png" alt="Image" /> You can drag the point in the edit control or type values in the X and Y boxes to set the position of your control point in the frame. Double-click the point to reset it.</td>
</tr>
<tr>
<td>Color</td>
<td>Click the color sample to display a color picker, where you can choose the color you want to display at the selected control point.</td>
</tr>
<tr>
<td>Remove</td>
<td>Removes the selected control point.</td>
</tr>
<tr>
<td>Add</td>
<td>Adds a new gradient control point.</td>
</tr>
</tbody>
</table>
Using video transitions

You can use video transitions to control how a video event begins or ends, or to change the way one event flows into another.

1. Select the clip where you want to add a transition.

2. Click the Plug-Ins button at the top of the Catalyst Edit window to display the Plug-Ins pane.

3. Expand the Video Transitions heading.

4. Click a transition to select it.

5. Click the Set Transition In button or Set Transition Out button to add the selected transition to the beginning or end of the selected clip.

   When two clips overlap, add the transition to the beginning of the second clip to set the transition for the overlapping area.

   You can also drag a transition from the Plug-Ins pane to the overlapping area between two clips.

6. Use the Fade Tool to adjust the transition length. For more information, see “Clip fades” on page 89.

7. Use the controls in the Clip Inspector to adjust the transition’s settings.

   For more information, see “Using the Clip Inspector” on page 94.

   Click the Mute button to bypass a plug-in.

   Click the Delete button to remove a plug-in.
Creating a picture-in-picture effect

The Picture in Picture effect allows you to resize and position clips for picture-in-picture compositing.

Creating the inner picture

1. Create two tracks in your project. For more information, see “Adding tracks to a project” on page 51.
2. Add clips to your tracks:
   - The top track will contain the smaller, inner picture.
   - The bottom track will contain the background clip.
   For more information, see “Adding media and creating clips” on page 40.
3. Click the top track to select it.
4. Click the Track button below the timeline and choose Picture in Picture. The controls for the Picture in Picture plug-in are displayed in the Track Inspector.

Editing picture in picture settings

1. Select the track that contains the top clip.
2. Click the Inspector button to show the Inspector pane.
3. In the Inspector, select the Track tab to view and edit settings for the Picture in Picture plug-in. Use the Picture in Picture plug-in to adjust the size and position of the top clip.
   For more information, see “Using the Track Inspector” on page 60.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>The drop-down list displays the current position of the video in the frame. Click to display an edit control you can use to position your video.</td>
</tr>
</tbody>
</table>

Adjusting box position

Drag the point in the edit control to set the position of your video in the frame. Double-click the point to reset it.

When you type values in the Dimensions tab, you can set an anchor point and specify the position of the box using X/Y coordinates. For example, click the top-right corner of the anchor control and use the coordinates 0.5000, 0.5000 to
Item | Description
--- | ---
moves the top-right corner of the box to the center of the control.

**Adjusting box dimensions**

You can drag the corners of the rectangle in the edit control or type values in the **W** and **H** edit boxes to set the size of the frame.

When you type values in the **Dimensions** tab, you can set the size of the box using W/H dimensions. Click the **Lock** button to preserve the aspect ratio of the box so changing the width or height will automatically update the other value.

**Adjusting box edges**

You can drag the edges of the rectangle in the edit control or type values in the **Edges** tab to specify the position for each edge of the box.

💡 Drag a corner of the rectangle to preserve aspect ratio while resizing.

Hold Shift while dragging the corners of the rectangle to resize and adjust aspect ratio.

Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.

When a corner is selected, you can use the arrow keys to adjust the selected corner, or press Ctrl (Windows) or ⌘ (macOS) + the arrow keys to adjust in fine increments.

Drag the edges of the rectangle to resize the rectangle.

💡 Drag an edge of the rectangle to preserve aspect ratio while resizing.

Hold Shift while dragging an edge to resize and adjust aspect ratio.

Hold Alt (Windows) or Option (macOS) to resize the rectangle from the center.

Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.

Drag the center of the rectangle to move without resizing, or double-click the point to reset it.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold Shift</td>
<td>Hold Shift while dragging to constrain to horizontal/vertical/45-degree movement.</td>
</tr>
<tr>
<td>Hold Ctrl</td>
<td>Hold Ctrl (Windows) or ⌘ (macOS) to adjust the controls in fine increments.</td>
</tr>
<tr>
<td>When the</td>
<td>When the rectangle is selected, you can copy the position of the rectangle to paste to another clip.</td>
</tr>
<tr>
<td>Rotation</td>
<td>Type a value in the box or drag the slider to rotate the video in the frame.</td>
</tr>
<tr>
<td>Flip horizontal</td>
<td>Click to invert the video horizontally.</td>
</tr>
<tr>
<td>Flip vertical</td>
<td>Click to invert the video vertically.</td>
</tr>
<tr>
<td>Opacity</td>
<td>Type a value in the box or drag the slider to adjust the opacity of the top image. As you decrease the opacity, video from lower tracks will show through the foreground.</td>
</tr>
<tr>
<td>Shadow</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Choose a setting from the drop-down list if you want to display a shadow over or behind the foreground image.</td>
</tr>
<tr>
<td>Offset</td>
<td>The drop-down list displays the current position of the shadow relative to the foreground image. Click to display an edit control you can use to position your shadow.</td>
</tr>
<tr>
<td>Glow</td>
<td>Choose a setting from the drop-down list if you want to display a glow effect over or behind the foreground image.</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Amount</td>
<td>Type a value in the box or drag the slider to adjust the size of the glow effect.</td>
</tr>
<tr>
<td>Color/Second color</td>
<td>Click the color sample to display a color picker, where you can choose a color or type color values to set the shadow color. You can also adjust the transparency (alpha value) of the shadow.</td>
</tr>
</tbody>
</table>
Animating video parameters with keyframes

Keyframes define the state of an effect's parameters for a specified point on the timeline. The settings for intermediate frames are interpolated to create smooth animation.

You can click the Keyframe Editor button at the bottom of the Inspector to switch the timeline to keyframe mode, where you can edit parameters for individual keyframes.

Adding keyframes

In the Inspector window, each parameter that can be automated displays a Keyframes button. Select the button to create a row in the keyframe editor for that parameter.

1. Add an effect to your project. For more information, see "Using video effects" on page 99.
2. Select the track or clip where you added the effect and click the Timeline Inspector, Track Inspector, or Clip Inspector.
3. Select the effect in the Timeline Inspector, Track Inspector, or Clip Inspector.
4. In the Inspector, select the Keyframes button for the parameter you want to animate. An initial keyframe is created, and the timeline switches to keyframe mode.

   Notice that the keyframe editor includes a row for each keyframed parameter

5. In the keyframe editor, click to position the cursor where you want to add a keyframe

   You can also double-click the keyframe editor to add a keyframe or click the Add button in the toolbar below the keyframe editor.

6. In the Inspector, adjust the parameter’s control as needed. A keyframe is added to the keyframe editor.

7. Click the Keyframe Editor button at the bottom of the Inspector to exit keyframe mode when you’re finished editing.

Editing keyframes

1. Click a keyframe to select it. The keyframe’s current value is displayed in the keyframe editor.
Click the Previous or Next button in the toolbar below the keyframe editor.

2. In the Inspector, adjust the parameter’s control as needed. The selected keyframe is updated.

Moving keyframes
You can drag a keyframe in the keyframe editor to change its position on the timeline.

Removing keyframes
Select a keyframe in the keyframe editor and press Delete to remove it from the timeline or click the Remove button in the toolbar below the keyframe editor.
Working with audio

Catalyst Edit provides a flexible audio workflow. You can create mono, stereo, or multichannel projects and use each track’s audio controls to adjust your mix precisely.

Audio volume and panning

Catalyst Edit allows you to adjust the audio mix of your project by controlling the overall volume of the project, adjusting volume and panning for each track, and adjusting volume for each clip.

Adjusting your project volume

The Gain fader in the Timeline Inspector controls the overall volume of your project.

As you drag the fader, the meters in the Timeline Inspector and in the activity pane at the top of the Catalyst Edit window are updated.

For more information, see "Using the Timeline Inspector" on page 13 and "Monitoring audio levels" on page 128.

Adjusting track volume and panning

Each track provides controls to adjust the volume that is sent to the project’s main output.

The Volume fader in the track header controls the volume of the track, and the Pan knob adjusts the position of the track in the stereo field.

The Track Inspector also provides access to the track Volume fader and Pan knob and allows you to change the panning model that is used for the track.

As you drag the fader and knob, the meters in the Track Inspector display the levels for the current track, and the meters in the activity pane at the top of the Catalyst Edit window display the overall project levels.

For more information, see "Adjusting track controls" on page 57, "Using the Track Inspector" on page 60, and "Monitoring audio levels" on page 128.
Adjusting clip volume

Each clip provides controls to adjust the volume that is sent to the track.

You can use the Fade Tool to adjust the clip’s gain:

The Clip Inspector also provides access to the clip level via the Gain fader.

For more information, see “Clip fades” on page 89, “Using the Clip Inspector” on page 94, and “Monitoring audio levels” on page 128.

Working with multichannel audio

Catalyst Edit makes it easy to use your camera audio and incorporate audio from other sources into your project.

- The Audio and Channel Output controls in the Timeline Inspector allow you to specify the number of audio channels for your project.
- The Audio controls in the Track Inspector allow you to adjust levels and panning for each channel.
- The Channel Assignment controls in the Clip Inspector allow you to configure how the clip’s audio channels feed the track’s audio channels.

Setting up the project timeline audio channels

1. Click the Inspector button to show the Inspector window (if it isn’t already visible) and click the Timeline tab.

2. Choose a setting from the Channel setup from the drop-down list to choose whether you’re creating a mono, stereo, or multichannel project.

   If you choose Multichannel, type a number in the Channel count box to set the number of channels to create a multichannel project.
3. Use the Channel Output controls to set up the timeline's channels.

   a. Click the speaker icon to turn a channel on or off.
      
      Turning a channel off mutes it during playback and rendering. For example, if you were preparing an eight-channel project with English dialog on channels 1 & 2, French dialog on channels 3 & 4, Spanish dialog on channels 5 & 6, and music on channels 7 & 8, you could turn off dialog channels to preview your project and then turn the channels on when you render your final eight-channel file for delivery. For more information, see “Rendering projects” on page 18.

   b. Click the Mono/Stereo button to indicate whether a channel is a mono channel or part of a stereo pair. Enabling Stereo will pair the channel with the next channel in the list.

   c. Type a name in the edit box to identify the channel. For example, you might type Lav1 to identify audio from a lavaliier microphone.
      
      Channels that are named identically in the Timeline Inspector and Clip Inspector will be matched.

      When you add a clip from a Catalyst Prepare library to the Catalyst Edit timeline, any channel assignment settings that you made in the Catalyst Prepare library will be applied to the clip.

      For more information, see “Using the Timeline Inspector” on page 13.

Setting up a track's audio channels

1. Click a track header to select the track you want to edit.

2. The track header and the Track Inspector provide controls you can use to mix the track for your project's output.

   For more information, see “Adjusting track controls” on page 57 and “Using the Track Inspector” on page 60.

   - If the Timeline Inspector is set for a mono project, each track will display a blue Volume fader you can use to adjust the overall level of the track and Mute and Solo buttons you can use to mute or solo the track.
Additionally, if the track contains clips that have multiple channels assigned on the Clip Inspector, each channel provides an orange Volume fader you can use to adjust the channel’s contribution to the level of the track and Mute and Solo buttons you can use to mute or solo the channel.
If the Timeline Inspector is set for a stereo project, each track will display a blue **Volume** fader you can use to adjust the overall level of the track and **Mute** and **Solo** buttons you can use to mute or solo the track.

If the timeline outputs are stereo, each track provides a **Pan** control that you can use to pan the track to the timeline outputs. If the timeline outputs are mono, each track provides an **Output** control that you can use to assign the track to the timeline outputs.

Additionally, if the track contains clips that have multiple channels assigned on the Clip Inspector, each channel provides an orange **Volume** fader you can use to adjust the channel’s contribution to the level of the track and **Mute** and **Solo** buttons you can use to mute or solo the channel.

If the timeline outputs are stereo, each channel provides an orange **Pan** control that you can use to pan the channel to the timeline outputs. If the timeline outputs are mono, each channel provides an **Output** control that you can use to assign the channel to the timeline outputs.
If the Timeline Inspector is set for a multichannel project, each track will display a blue Volume fader you can use to adjust the overall level of the track, Mute and Solo buttons you can use to mute or solo the track, and an Output control that you can use to assign the track to the timeline outputs.

If the timeline outputs are stereo, each track provides a Pan control that you can use to pan the track to the timeline outputs.

Additionally, if the track contains clips that have multiple channels assigned on the Clip Inspector, each channel provides an orange Volume fader you can use to adjust the channel’s contribution to the level of the track, Mute and Solo buttons you can use to mute or solo the channel, and an Output control that you can use to assign the channel to the timeline outputs.

If the timeline outputs are stereo, each channel provides an orange Pan control that you can use to pan the channel to the timeline outputs.
When adjusting volume, remember to watch your audio meters. Because you are adding the volumes of all of the tracks together, it is easy to clip the audio output. Make sure that the meters never display the red Clip indication during playback. For more information, see “Monitoring audio levels” on page 128.

The meters in the Track Inspector show audio levels for the selected track and each of the channels that contributes to the track.

The meter in the activity pane at the top of the Catalyst Edit window shows the sum of all audio at the cursor position.

Assigning a clip’s audio channels

1. Select the clip you want to edit. For more information, see “Selecting clips and positioning the cursor” on page 69.

2. Click the Inspector button 🔄 to show the Inspector window (if it isn't already visible) and click the Clip tab.
3. Use the controls in the Channel Assignment section to set up the clip’s audio:

   a. Click the speaker icon to turn a channel on or off. Each channel will be displayed in a separate lane in the timeline.

   ![Image](image1.jpg)
   Click to expand the track’s channels.

   b. Click the Mono/Stereo button to indicate whether a channel is a mono channel or part of a stereo pair. Enabling Stereo will pair the channel with the next channel in the list. Mono channels will not display a Pan control in the track header. For more information, see "Adjusting track controls" on page 57.

   c. Type a name in the edit box to identify the channel. For example, you might type Lav1 to identify audio from a lavaliere microphone.

   When multiple clips on a track use the same channel names, those channels will be matched.

   The channels that you assign on the Clip tab will be available on the Track tab.
Monitoring audio levels

You can use meters to monitor the audio levels in your project and to ensure that the audio signal is not clipped.

Timeline meter

The meters in the activity pane at the top of the Catalyst Edit window and in the Timeline Inspector display instantaneous levels during playback to help you determine the loudest level in your audio signal and whether the signal is clipping. This peak level represents the sum of all audio at the cursor position.

- During playback, the bars represent the peak audio level at the cursor for each channel.
- The peak level is displayed at the end of the meter.
- If the signal exceeds 0.0 dB, the meters display a red clipping indicator. You can click the clipping indicator to reset it.
- The peak level and clipping indicators are reset when you start playback.
Track meter

The meters in the track header and Track Inspector show audio levels for the selected track.

When a track has multiple channels, separate meters are displayed for each channel.

For more information, see “Adjusting track controls” on page 57 and “Using the Track Inspector” on page 60.
Editing Catalyst Edit options

Click the Options button to edit your application options.

Choosing an audio playback device

Choose a setting from the Audio device drop-down list to choose the audio output device that will be used for playback.

Choose Microsoft Mapper (Windows) or System Default (macOS) if you want to use the operating system's default playback device, or choose another compatible audio device from the drop-down list to use a specific device.

If you switch the audio device during playback, playback will pause and resume automatically.

(Windows only) If a device is not available, it will be listed as offline in the Audio Device drop-down list. After you reconnect the device, choose the device again, and its status will be updated.

Choosing a video processing device

Choose a setting from the Video processing device drop-down list to enable or bypass GPU-accelerated video playback and rendering.

Choose CPU if you want to turn off GPU acceleration, or choose a device from the list to enable GPU-accelerated playback.

The optimal GPU device is automatically selected. Changing this value is intended for advanced users and may be useful for troubleshooting technical problems.

Computers equipped with CPUs that utilize Intel's Quick Sync Video (QSV) technology see improved processing performance for decoding H.264/AVC/MPEG-4 video files.

When using a device other than your CPU, high-quality deinterlacing and upscaling are applied to convert SD and HD sources to modern progressive HD and UHD assets. Please note that some systems with limited GPU memory are not supported.

- High-quality deinterlacing is applied to interlaced source media when playback is paused, during transcoding, and during playback when the Playback Settings Speed/Quality setting is set to Quality.
- High-quality upscaling is applied during transcoding when you choose an HD or UHD render preset.

Choosing an external video monitor device and resolution

Choose a setting from the External monitor device drop-down list to display your video preview on an external monitor via a Blackmagic Design device:
- Intensity Shuttle, Pro 4K, and Pro.
- UltraStudio 4K Extreme, 4K, Pro, SDI, Express, and Mini Monitor.

Choose a setting from the Monitor resolution drop-down list to choose the display resolution for your monitor.

**Configuring video displays**

Use the **Primary display** switch to toggle the video preview above the timeline.

Enable the **Secondary window** switch if you want to show the video preview in a secondary window that you can position anywhere on your screen or on a secondary monitor.

💡 If you want to use the primary display and secondary window to preview files from the Media Browser, click the **Media Browser Settings** button to display the Media Browser Settings menu, and then use the **Primary display** and **Secondary window** buttons. For more information, see "Finding media" on page 23.

**Customizing keyboard shortcuts**

Choose a setting from the **Keyboard shortcuts** drop-down if you’d like to replace the standard Catalyst Edit shortcut keys with commonly used shortcuts from another editor.

For a listing of the available keyboard shortcuts, please see "Keyboard shortcuts" on page 133.
# Chapter 10

## Keyboard shortcuts

Shortcut keys can help streamline your work with Catalyst Edit software. The available shortcut keys are arranged in tables according to function.

### Global shortcuts

<table>
<thead>
<tr>
<th>Command</th>
<th>Windows Shortcut</th>
<th>macOS Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show/hide the Media Browser</td>
<td>Ctrl+B</td>
<td>⌘-B</td>
</tr>
<tr>
<td>Show/hide the Media Browser</td>
<td>Ctrl+1</td>
<td>⌘-1 or Control-⌘-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>When using Final Cut Pro shortcuts.</strong></td>
</tr>
<tr>
<td>Show/hide the Inspector</td>
<td>Ctrl+I</td>
<td>⌘-I</td>
</tr>
<tr>
<td>Show/hide the Inspector</td>
<td>Ctrl+4</td>
<td>⌘-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>When using Final Cut Pro shortcuts.</strong></td>
</tr>
<tr>
<td>Show/hide the secondary window</td>
<td>Alt+V</td>
<td>Option-V</td>
</tr>
<tr>
<td>Open application help</td>
<td>F1</td>
<td>Fn-F1 (F1 if the Use all F1, F2, etc. keys as standard function keys setting is selected)</td>
</tr>
</tbody>
</table>

### Project file shortcuts

<table>
<thead>
<tr>
<th>Command</th>
<th>Windows Shortcut</th>
<th>macOS Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create project</td>
<td>Ctrl+N</td>
<td>⌘-N</td>
</tr>
<tr>
<td>Open project</td>
<td>Ctrl+O</td>
<td>⌘-O</td>
</tr>
<tr>
<td>Save project</td>
<td>Ctrl+S</td>
<td>⌘-S</td>
</tr>
<tr>
<td>Save project as</td>
<td>Ctrl+Shift+S</td>
<td>Shift-⌘-S</td>
</tr>
</tbody>
</table>
### General editing

<table>
<thead>
<tr>
<th>Command</th>
<th>Windows Shortcut</th>
<th>macOS Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undo</td>
<td>Ctrl+Z</td>
<td>⌘-Z</td>
</tr>
<tr>
<td>Redo</td>
<td>Ctrl+Shift+Z</td>
<td>Shift-⌘-Z</td>
</tr>
<tr>
<td></td>
<td>Ctrl+Y</td>
<td></td>
</tr>
</tbody>
</table>
# Media Browser

The following keyboard shortcuts are available when the Media Browser pane has focus.

<table>
<thead>
<tr>
<th>Command</th>
<th>Windows Shortcut</th>
<th>macOS Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navigate files/folders</td>
<td>Up, Down, Left, or Right Arrow</td>
<td>Up, Down, Left, or Right Arrow</td>
</tr>
<tr>
<td>Open/close folder in tree view</td>
<td>Right/Left Arrow</td>
<td>Right/Left Arrow</td>
</tr>
<tr>
<td>Load file and start/pause playback</td>
<td>Spacebar</td>
<td>Spacebar</td>
</tr>
<tr>
<td>Open selected folder</td>
<td>Enter or Ctrl+Down Arrow</td>
<td>Return or ⌘- Down Arrow</td>
</tr>
<tr>
<td>Navigate up one level</td>
<td>Backspace</td>
<td>⌘-Up Arrow</td>
</tr>
<tr>
<td>Set mark in point</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Set mark out point</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Go to mark in/out point</td>
<td>Home</td>
<td>Home or Fn- Left Arrow</td>
</tr>
<tr>
<td></td>
<td>End</td>
<td>End or Fn- Right Arrow</td>
</tr>
</tbody>
</table>

- **Go to mark in point**

  - **When using Final Cut Pro shortcuts.**
  - Shift+I
  - Shift-I

- **Go to mark out point**

  - **When using Final Cut Pro shortcuts.**
  - Shift+O
  - Shift-O

- **Go to start/end of clip**

  - **When using Final Cut Pro shortcuts.**
  - Ctrl+Home
  - Home or Fn- Left Arrow
  - Home or Fn- Right Arrow
  - Ctrl+End
  - ⌘-End

- **Go to previous/next point (beginning, mark in/out, end)**

  - Ctrl+Left Arrow
  - ⌘-Left Arrow
  - Ctrl+Right Arrow
  - ⌘-Right Arrow

- **Move selection up/down one page**

  - Page Up
  - Page Up
  - Page Down
  - Page Down
## Playback and preview

The following keyboard shortcuts are available when the Video pane has focus.

<table>
<thead>
<tr>
<th>Command</th>
<th>Windows Shortcut</th>
<th>macOS Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go to start</td>
<td>Home</td>
<td>Home</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fn- Left Arrow</td>
</tr>
<tr>
<td>Go to mark out time (if set) or end of last clip</td>
<td>End</td>
<td>End</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fn- Right Arrow</td>
</tr>
<tr>
<td>Move one pixel left</td>
<td>Left Arrow</td>
<td>Left Arrow</td>
</tr>
<tr>
<td>Move one pixel left</td>
<td>Alt+Left Arrow</td>
<td>Option-Left Arrow</td>
</tr>
<tr>
<td><img src="image" alt="When using Final Cut Pro shortcuts." /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go to previous frame</td>
<td>Alt+Left Arrow</td>
<td>Option-Left Arrow</td>
</tr>
<tr>
<td>Go to previous frame</td>
<td>Left Arrow</td>
<td>Left Arrow</td>
</tr>
<tr>
<td><img src="image" alt="When using Final Cut Pro shortcuts." /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Move one pixel right</td>
<td>Right Arrow</td>
<td>Right Arrow</td>
</tr>
<tr>
<td>Move one pixel right</td>
<td>Alt+Right Arrow</td>
<td>Option-Right Arrow</td>
</tr>
<tr>
<td><img src="image" alt="When using Final Cut Pro shortcuts." /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go to next frame</td>
<td>Alt+Right Arrow</td>
<td>Option-Right Arrow</td>
</tr>
<tr>
<td>Go to next frame</td>
<td>Right Arrow</td>
<td>Right Arrow</td>
</tr>
<tr>
<td><img src="image" alt="When using Final Cut Pro shortcuts." /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Move to previous/next ruler division</td>
<td>Page Up</td>
<td>Page Up</td>
</tr>
<tr>
<td></td>
<td>Page Down</td>
<td>Page Down</td>
</tr>
<tr>
<td>Start/pause playback (when any window has focus)</td>
<td>Ctrl+ Spacebar</td>
<td>Option-Spacebar</td>
</tr>
<tr>
<td></td>
<td>F12</td>
<td></td>
</tr>
<tr>
<td>Start/pause playback (when the timeline has focus)</td>
<td>Spacebar</td>
<td>Spacebar</td>
</tr>
<tr>
<td>Start/stop playback (when any window has focus)</td>
<td>Ctrl+ Enter</td>
<td>Option-Return</td>
</tr>
<tr>
<td>Start/stop playback</td>
<td>Enter</td>
<td>Return</td>
</tr>
<tr>
<td>Shuttle playback</td>
<td>J/K/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Press J or L once for 1x playback.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Press J or L twice for 1.5x playback.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Press J or L three times for 2x playback.</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Windows Shortcut</td>
<td>macOS Shortcut</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Press J or L four times for 4x playback.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Press K to pause playback.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Press and hold K while pressing J or L to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>emulate a shuttle knob mode: press K+J to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>turn the knob to the left or K+L to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>turn the knob to the right.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toggle looped playback</td>
<td>Q</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td>Ctrl+L</td>
<td>⌘-L</td>
</tr>
<tr>
<td>Set Mark In point</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Set Mark Out point</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Switch between Before/After/Split/2 Up</td>
<td>1/2/3/4</td>
<td>1/2/3/4</td>
</tr>
<tr>
<td>video preview.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Show/hide the secondary window</td>
<td>Alt+V</td>
<td>Option-V</td>
</tr>
</tbody>
</table>
## Timeline editing

The following keyboard shortcuts are available when editing clips on the timeline.

<table>
<thead>
<tr>
<th>Command</th>
<th>Windows Shortcut</th>
<th>macOS Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move selected clips left/right</td>
<td>Numeric Keypad 4/6</td>
<td>Numeric Keypad 4/6</td>
</tr>
<tr>
<td>Slip trim selected clips one pixel left/right</td>
<td>Alt+Numeric Keypad 4/6</td>
<td>Option-Numeric Keypad 4/6</td>
</tr>
<tr>
<td>Switch to the Edit Tool (when timeline or video preview has focus)</td>
<td>E</td>
<td>E</td>
</tr>
</tbody>
</table>

💡 Hold E to switch to the Edit Tool temporarily. When you're finished editing, release the E key, and the previous editing tool will be restored.

For more information, see “Editing tools” on page 67.

| Switch to the Roll Trim Tool (when timeline or video preview has focus) | R | R |

💡 Hold R to switch to the Roll Trim Tool temporarily. When you're finished editing, release the R key, and the previous editing tool will be restored.

| Switch to the Select Tool (when timeline or video preview has focus) | C | C |

💡 Hold C to switch to the Select Tool temporarily. When you're finished selecting clips, release the C key, and the previous editing tool will be restored.

| Switch to the Select Tool (when timeline or video preview has focus) | A | A |

💡 Hold C to switch to the Select Tool temporarily. When you're finished selecting clips, release the C key, and the previous editing tool will be restored.

💡 When using Final Cut Pro shortcuts.

| Switch to the Slip Tool (when timeline or video preview has focus) | P | P |

💡 Hold P to switch to the Slip Tool temporarily. When you're finished editing, release the P key, and the previous editing tool will be restored.

<p>| Switch to the Split Trim Tool (when timeline or video preview has focus) | T | T |</p>
<table>
<thead>
<tr>
<th>Command</th>
<th>Windows Shortcut</th>
<th>macOS Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold T to switch to the Split Trim Tool temporarily. When you’re</td>
<td></td>
<td></td>
</tr>
<tr>
<td>you’re finished editing, release the T key, and the previous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>editing tool will be restored.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch to the Fade Tool (when timeline or video preview has focus)</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Hold F to switch to the Fade Tool temporarily. When you’re</td>
<td></td>
<td></td>
</tr>
<tr>
<td>you’re finished editing, release the F key, and the previous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>editing tool will be restored.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch to the Envelope Tool (when timeline or video preview has</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>focus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold V to switch to the Envelope Tool temporarily. When you’re</td>
<td></td>
<td></td>
</tr>
<tr>
<td>you’re finished editing, release the V key, and the previous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>editing tool will be restored.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch to the Edit Streams mode</td>
<td>Shift+E</td>
<td>Shift-E</td>
</tr>
<tr>
<td>Press and hold Shift before dragging the end of the audio or video</td>
<td></td>
<td></td>
</tr>
<tr>
<td>stream with the Edit Tool, Roll Trim Tool, or Envelope Tool to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>enable Edit Streams mode temporarily.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add a track above the selected track</td>
<td>Ctrl+Shift+N</td>
<td>⌘ -N</td>
</tr>
<tr>
<td>Add a title clip</td>
<td>Ctrl+T</td>
<td>⌘ -T</td>
</tr>
<tr>
<td>Add a title clip</td>
<td>Ctrl+T</td>
<td>Control-T</td>
</tr>
<tr>
<td>Add a marker</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Select all clips</td>
<td>Ctrl+A</td>
<td>⌘ -A</td>
</tr>
<tr>
<td>Copy selected clips</td>
<td>Ctrl+C</td>
<td>⌘ -C</td>
</tr>
<tr>
<td>Cut selected clips</td>
<td>Ctrl+X</td>
<td>⌘ -X</td>
</tr>
<tr>
<td>Paste at cursor</td>
<td>Ctrl+V</td>
<td>⌘ -V</td>
</tr>
<tr>
<td>Delete selected clips</td>
<td>Delete</td>
<td>Delete</td>
</tr>
<tr>
<td>Split the selected clip at the cursor</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Split the selected clip at the cursor</td>
<td>Ctrl+B</td>
<td>⌘ -B</td>
</tr>
<tr>
<td>Move the cursor to the previous/next clip (when timeline has focus)</td>
<td>[</td>
<td>]</td>
</tr>
<tr>
<td>Zoom out fully (when timeline has focus)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Command</td>
<td>Windows Shortcut</td>
<td>macOS Shortcut</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Zoom in time until each video thumbnail represents one frame</td>
<td>Alt+0</td>
<td>Option-0</td>
</tr>
<tr>
<td>Zoom in/out (when timeline has focus)</td>
<td>Up Arrow</td>
<td>Up Arrow</td>
</tr>
<tr>
<td></td>
<td>Down Arrow</td>
<td>Down Arrow</td>
</tr>
<tr>
<td>Zoom in/out (when timeline has focus)</td>
<td>Ctrl+=</td>
<td>⌘+=</td>
</tr>
<tr>
<td></td>
<td>Ctrl-=</td>
<td>⌘=</td>
</tr>
<tr>
<td></td>
<td>⚫ When using Final Cut Pro shortcuts.</td>
<td></td>
</tr>
<tr>
<td>Zoom in/out (when timeline has focus)</td>
<td>Ctrl+Mouse Wheel Up/Down</td>
<td>⌘-Mouse Wheel Up/Down</td>
</tr>
<tr>
<td></td>
<td>Alt+Mouse Wheel Left/Right</td>
<td>Option-Mouse Wheel Left/Right</td>
</tr>
<tr>
<td>Increase/decrease track height (when timeline has focus)</td>
<td>Ctrl+Shift+Up Arrow</td>
<td>⌘-Shift-Up Arrow</td>
</tr>
<tr>
<td></td>
<td>Ctrl+Shift+Down Arrow</td>
<td>⌘-Shift-Down Arrow</td>
</tr>
<tr>
<td>Increase/decrease track height (when timeline has focus)</td>
<td>Ctrl+Shift+=</td>
<td>⌘-Shift+=</td>
</tr>
<tr>
<td></td>
<td>Ctrl+Shift-</td>
<td>⌘-Shift-</td>
</tr>
<tr>
<td></td>
<td>⚫ When using Final Cut Pro shortcuts.</td>
<td></td>
</tr>
<tr>
<td>Scroll vertically</td>
<td>Mouse Wheel Up/Down</td>
<td>Mouse Wheel Up/Down</td>
</tr>
<tr>
<td>Scroll horizontally</td>
<td>Shift+Mouse Wheel Up/Down</td>
<td>Shift+Mouse Wheel Up/Down</td>
</tr>
<tr>
<td></td>
<td>Mouse Wheel Left/Right</td>
<td>Mouse Wheel Left/Right</td>
</tr>
<tr>
<td>Toggle snapping</td>
<td>F8</td>
<td>F8</td>
</tr>
<tr>
<td>Toggle snapping</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>⚫ When using Final Cut Pro shortcuts.</td>
<td></td>
</tr>
<tr>
<td>Toggle snapping to all clips</td>
<td>Ctrl+Shift+F8</td>
<td>Shift-⌘-F8</td>
</tr>
</tbody>
</table>
## Gestures

### Media Browser pane

<table>
<thead>
<tr>
<th>Gesture</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tap</td>
<td>Selects and loads a file.</td>
</tr>
<tr>
<td>Double-tap</td>
<td>Opens a file in the Video pane.</td>
</tr>
<tr>
<td>One-finger drag (touchscreen)</td>
<td>Scrolls the list vertically.</td>
</tr>
<tr>
<td>Two-finger drag (trackpad)</td>
<td></td>
</tr>
<tr>
<td>One-finger flick (touchscreen)</td>
<td>Scrolls the list with inertia.</td>
</tr>
<tr>
<td>Two-finger flick (trackpad)</td>
<td></td>
</tr>
</tbody>
</table>

### Timeline

<table>
<thead>
<tr>
<th>Gesture</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tap</td>
<td>Selects clips or sets the cursor position.</td>
</tr>
<tr>
<td>⌘-One-finger vertical drag (Magic Mouse - macOS only)</td>
<td>Zooms the timeline horizontally.</td>
</tr>
<tr>
<td>⌘-Two-finger vertical drag (Magic Trackpad - macOS only)</td>
<td></td>
</tr>
<tr>
<td>Two-finger vertical drag (trackpad)</td>
<td>Scrolls the timeline vertically.</td>
</tr>
<tr>
<td>Single-finger left/right swipe (Magic Mouse - macOS only)</td>
<td>Scrolls the timeline horizontally.</td>
</tr>
<tr>
<td>Two-finger left/right swipe (Magic Trackpad - macOS only)</td>
<td></td>
</tr>
<tr>
<td>Three-finger clip drag on trackpad (macOS only)</td>
<td></td>
</tr>
<tr>
<td>Single-finger timeline or cursor drag on trackpad (Windows 8)</td>
<td>Scrub timeline.</td>
</tr>
<tr>
<td>Three-finger cursor drag (Magic Trackpad - macOS only)</td>
<td></td>
</tr>
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