



# Compressor

## User Guide



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# What's new

## What's new in Compressor

Compressor 4.10 includes the following enhancement:

### High-quality frame retiming

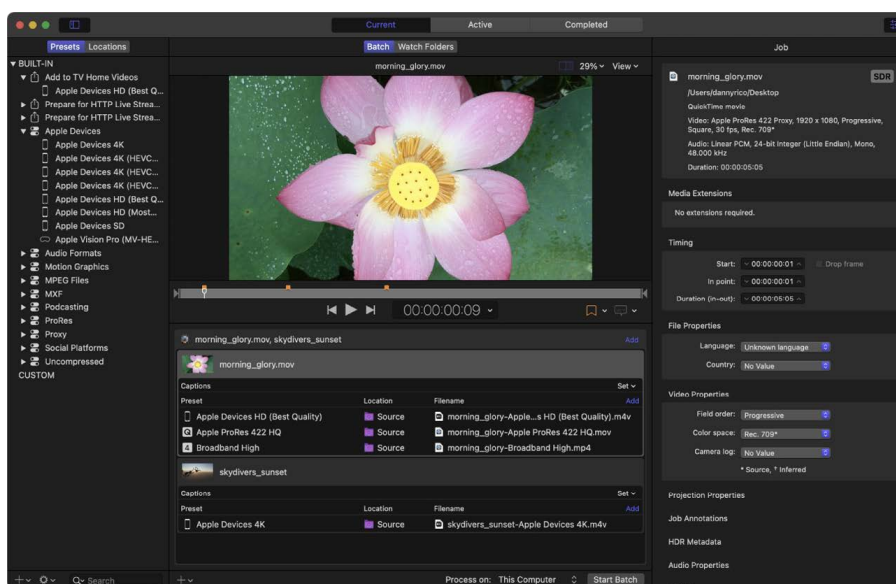
Create extremely high-quality slow-motion visuals with a machine learning algorithm on Mac computers with Apple silicon. Convert to high frame rates such as 60, 90, and 120 fps. See [Set retiming and resizing quality](#).

### System requirements

The minimum system requirement for Compressor 4.10 is macOS Sonoma 14.6. Machine learning frame rate retiming requires macOS Sequoia or later. For more information, go to the [Final Cut Pro Specs webpage](#), then click Compressor at the top of the page.

# Compressor basics

## What is Compressor?



Compressor is an application that transcodes media files into a variety of formats.

## Export and display anything

- Export video for viewing on Apple devices in standard-definition (SD), high-definition (HD), and 4K formats (including H.264, HEVC, and MV-HEVC).
- Export [spatial video](#) for viewing on Apple Vision Pro.
- [Export and upload 360° video](#) viewable on video-sharing websites or in a virtual-reality (VR) headset.
- [Export audio and video podcasts](#) in H.264, AAC, and MP3 formats.
- [Export content for social platforms](#) like Vimeo and YouTube.
- [Submit video content to the iTunes Store](#) in standard- and high-quality formats—including 4K HDR.
- [View high-dynamic-range video](#) in the preview window on a supported display.
- [Export HDR video](#) for viewing on HDR-capable TVs and displays.

## Leverage built-in presets and destinations

[Compressor comes with built-in presets](#) that you can use to transcode files into the most common media formats.

[Compressor also provides preconfigured destinations](#) that transcode files and then perform actions on the transcoded files. For example, if you transcode a source file using the built-in Add to TV Home Videos destination, the destination outputs a high-quality QuickTime movie file and then automatically adds the file to your Home Videos library on Apple TV.

## Customize your output for efficiency

In addition to transcoding source files, you can use Compressor to:

- [Create custom presets and destinations](#). You can use a variety of formats to build custom presets and destinations tailored to your unique transcoding workflows. For example, you can create a custom preset with specific frame dimensions or with video and audio filters applied. And when you create a destination, you can apply a job action that is performed after the file is transcoded—such as sending an email message or running an Automator workflow.
- [Create presets to transcode Final Cut Pro and Motion projects](#). You can create a custom preset in Compressor and then use it to transcode Final Cut Pro or Motion projects. For example, you can create a preset that outputs a file with the bit rate of your choice.
- [Transcode files using a network of shared computers](#). If you need more processing power and shorter transcoding times, you can create a group of shared computers to distribute and speed the transcoding process.
- [Create Compressor droplets](#). You can create a *droplet* to simplify your workflow. A droplet is a standalone application that lets you transcode media files in the Finder by simply dragging and dropping.
- [Create Watch Folders](#). You can configure a watch folder in Compressor to transcode media files as soon as they are saved, exported, or moved to that folder.

## Compressor workflow

The basic process of transcoding files in Compressor is described below.

### Import your media into Compressor

The first step in the transcoding process is to add one or more media source files to Compressor. You can add media files from your computer or a connected storage device. Each media source file in Compressor is called a *job*. Each transcoding session, containing one or more jobs, is called a *batch*. See [Intro to importing media](#).

### Apply transcoding instructions

After you add source media, apply one or more transcoding instructions to it. Compressor provides a variety of preconfigured transcoding instructions called *presets*, which you can use to convert files to the most common media formats, as well as *destinations*, which combine presets and a post-transcoding action. See [Intro to applying transcoding instructions](#).

## Preview and transcode your media

After you apply transcoding instructions, you can preview the output, then click the Start Batch button to begin the transcoding process. You can monitor the progress of the transcoding in Active view. After transcoding is complete, you can see information about the presets or destinations you used in Completed view. See [Intro to previewing and transcoding](#).

You can also automate your workflow with [droplets](#) and [watch folders](#), or work with more complex file types like [stereoscopic media](#), [360° video](#), [captions](#), and more.

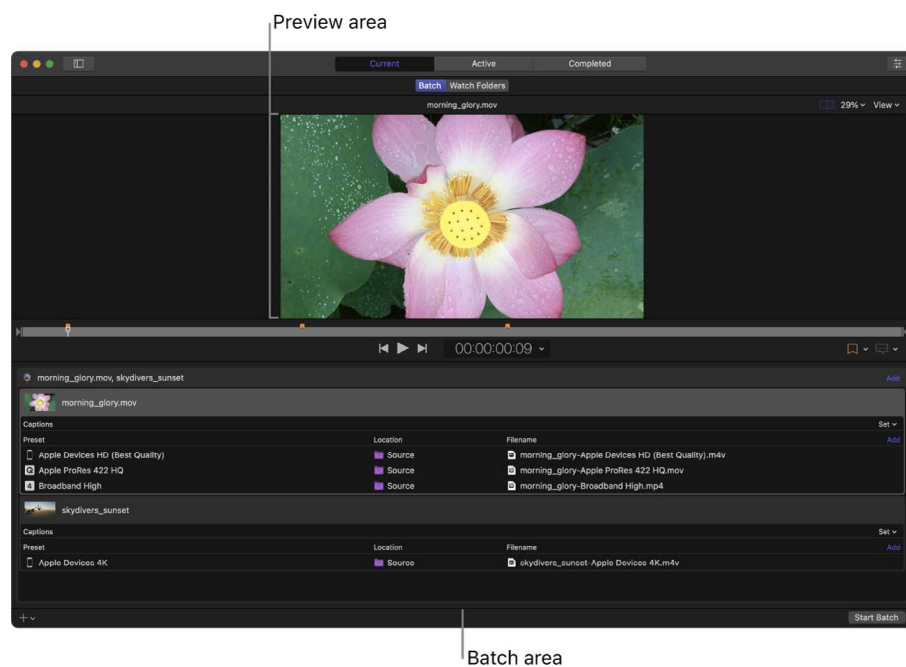
## Compressor interface

The Compressor window has three views: Current, Active, and Completed. You can switch between these views by clicking a view button at the top of the window.

### Current view

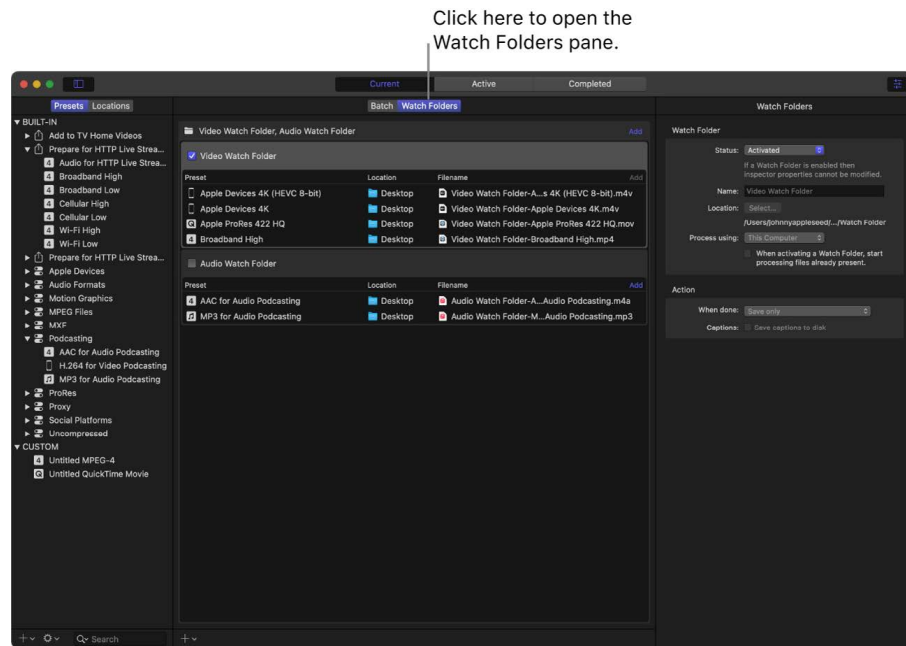
Current view is the default view in Compressor. It contains two panes: the Batch pane, where you can prepare and submit transcoding jobs in batches; and the Watch Folders pane, where you can set up watch folders and configure Compressor to automatically transcode files when they're added to the folders.

- *Batch pane:* The Batch pane has two basic areas, one for previewing your media files and the other for displaying the transcoding batches to be processed in a given session.



- *Preview area:* A viewer with playback controls that shows how your media file will look and sound after transcoding. In this area you can also add metadata and markers to be included in the transcoded file.

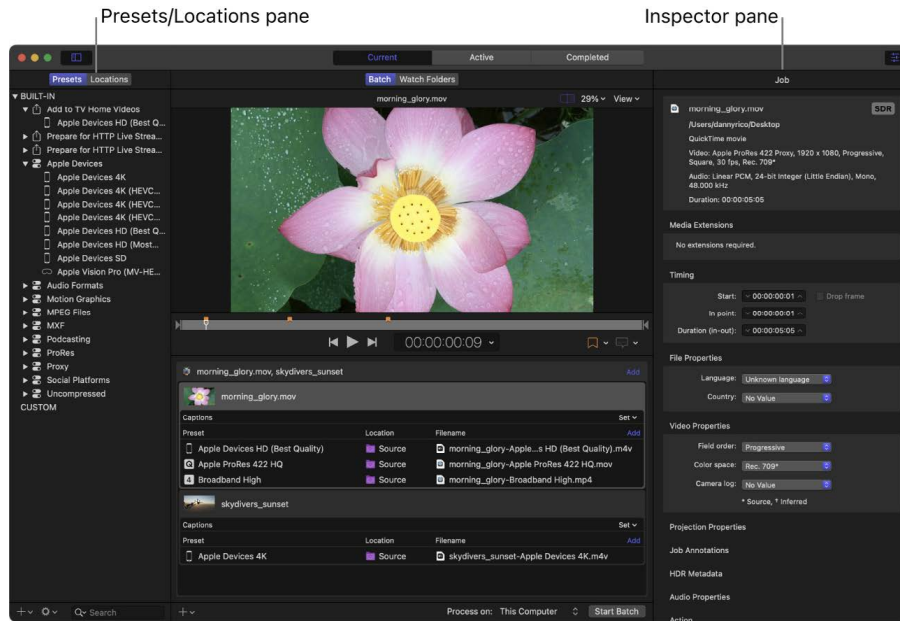
- **Batch area:** A list under the preview area that displays the transcoding *batches* you add to Compressor. A batch is one or more transcoding *jobs*. A job is a source file to which you apply transcoding instructions. Each job in the batch area displays information about the source file, the job's transcoding instructions (preset, output location, output filename, and any caption data that you've added), and post-transcoding actions (such as adding your media to the Apple TV app or the Photos app).
- **Watch Folders pane:** The Watch Folders pane displays the list of watch folders you've added to Compressor, along with the transcoding jobs that each watch folder applies to the files added to them.



**Important:** If you use Compressor 4.5.4 or earlier, then open Compressor 4.6 or later, the preview area may not appear in the Batch pane. This is because earlier versions of Compressor don't support the watch folders feature. To display the preview area again, choose Window > Reset to Default Layout.



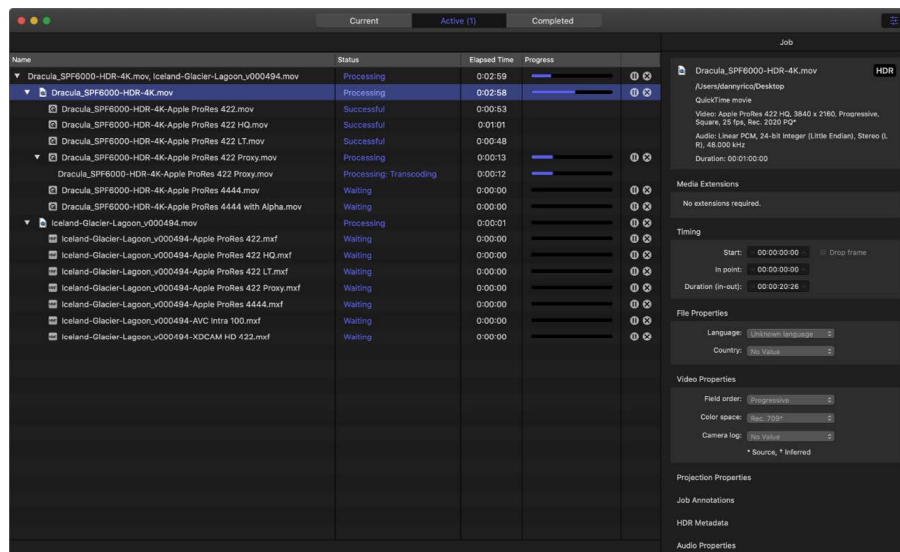
You can expand the Current view to display additional areas:



- **Presets and Locations pane:** Click the Presets & Locations button  at the top-left corner of the Compressor window to expand this area, then click Presets or Locations to display the individual panes. The Presets pane provides quick access to all the built-in destinations and presets, as well as to any custom destinations or presets that you created. Likewise, the Locations pane provides quick access to all the built-in save locations, and to any custom save locations that you created. You apply presets, destinations, and locations to a job by dragging an item from these panes to the job in the batch area.
- **Inspector pane:** Click the Inspector button  in the upper-right corner of the Compressor window to expand this area. The inspector pane has several views that change, depending on the item you've selected. When you select a batch (by clicking the background of the batch area), the Batch inspector appears, displaying basic information about the current batch. When you select a job in the batch area, the Job inspector appears; this area displays a summary of the source file's transcoding format, an SDR or HDR badge that specifies whether the source file is a [standard-dynamic-range or high-dynamic-range video](#), and controls for adding metadata and modifying job actions. When you select a specific transcoding instruction in the batch area (one of the rows under the job), the General, Video, and Audio inspectors appear. These three panes contain adjustable properties that you can use to customize the preset or destination. And if you [add captions](#) to a job, selecting the captions file in the batch area opens the Closed Captions inspector or Subtitles inspector.

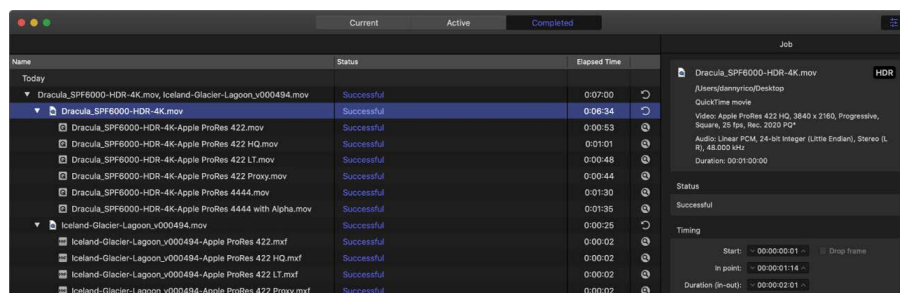
## Active view

In Active view, the Compressor window displays status information about batches (and their constituent jobs) currently being transcoded. In this view, you can monitor progress bars as well as pause or cancel the transcoding process.



## Completed view

In Completed view in Compressor, you can view information about batches and jobs that have been successfully transcoded, as well as information about items that failed to transcode.

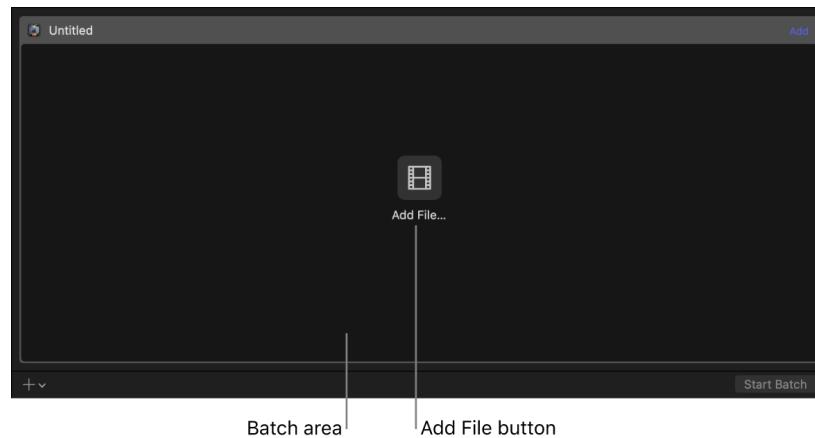


A list of batches is shown on the left side of the window. Click a disclosure triangle beside a batch to see its constituent jobs and output files. Select a batch, job, or output file in the list to see additional information in the inspector pane (on the right).

## Set up a simple transcoding job in Compressor

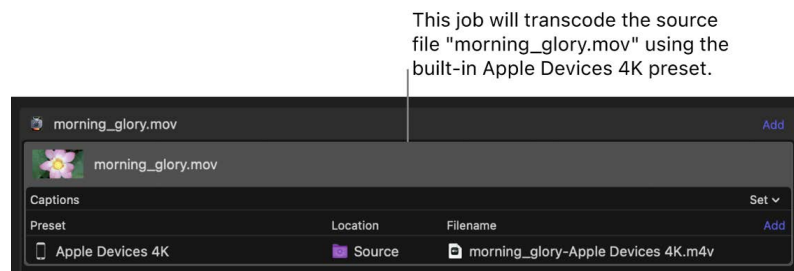
When you add a source file to Compressor and apply output instructions, you create a transcoding *job*. You can submit a single job for transcoding, or add more source files and output instructions, then submit a *batch* of jobs for transcoding.

1. In Compressor, click the Add File button in the batch area, and in the file window that appears, select a media file, then click Add.



2. In the Presets window that appears, select one or more presets  or destinations  from the list, choose a save location from the pop-up menu, then click OK.

The new job is displayed in the batch area. The job includes a thumbnail of the source file and the transcoding output instructions (preset, location, and filename). If you chose multiple presets, or a destination with multiple outputs, each output appears in a separate row.



3. Optionally, do any of the following:
  - [Modify preset properties](#) or [add more presets](#).
  - [Add a job action](#) to be performed after transcoding.
  - [Change the output's save location](#).
  - [Adjust the output's filename](#).
  - Add additional jobs by [importing more source media](#) and [applying transcoding instructions](#).
  - [Preview your media](#) to see how output will look and sound after transcoding.
4. Click the Start Batch button in the lower-right corner of the batch area and, if necessary, follow the instructions to complete the transcoding process.

The Compressor window switches to Active view, where you can monitor the transcoding process. After transcoding is complete, you can see information about the presets or destinations you used in Completed view.

# Import media

## Intro to importing media in Compressor

The first step in transcoding media in Compressor is to import the files you want to transcode.

You can import a variety of different media formats:

- [Import video and audio.](#)
- [Import an image sequence.](#)
- [Import surround sound audio.](#)
- [Import third-party formats with media extensions.](#)
- [Import Canon Cinema RAW Light video.](#)

Once you've added source media, you can [view or modify the job properties](#) associated with specific source files in the Job inspector, then [apply transcoding instructions](#) and [preview and transcode](#) your media.

## Import video and audio in Compressor

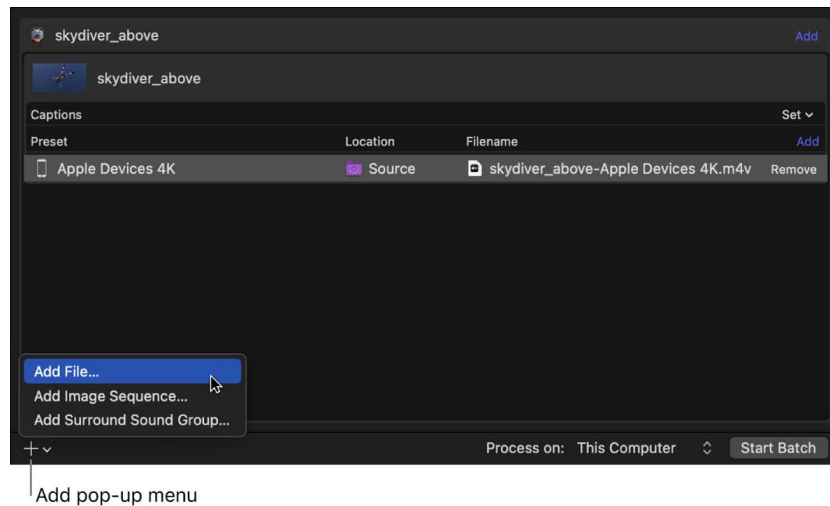
When you import source media to Compressor, you create a transcoding *job* to which you can add multiple presets or destinations that specify how your media will be transcoded.

### Add jobs to a batch

In Compressor, do either of the following:

- Drag and drop source media directly into the batch area.

- Click the Add pop-up menu  $\pm$  under the batch area, choose Add File, select one or more media files, then click Add.



The batch area displays a new job for each source file you add.

### Remove a job from a batch

After you add source media to create a job, you can delete the job (and its source media).

- In Compressor, select the the source filename at the top of the job, then press the Delete key.

After you import source media, you can [view and modify job properties](#), [apply transcoding instructions](#), and [transcode the batch](#).

## Import an image sequence in Compressor

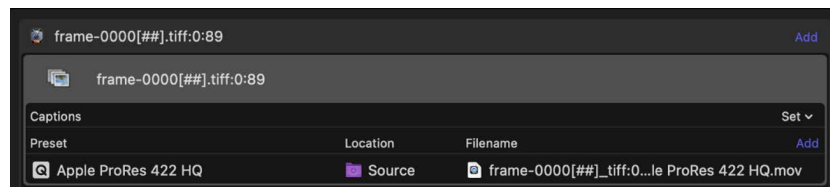
You can import a sequence of still images into Compressor as an image sequence source file. Each image in the image sequence represents a single video frame.

- In Compressor, click the Add pop-up menu  $\pm$  at the bottom of the batch area, choose Add Image Sequence, select a folder of image sequence files, then click Add.

A new source media file appears in a job in the batch area of the Compressor window.

- Click Add on the right side of the Preset/Location/Filename row, then select a preset or a destination and click OK.

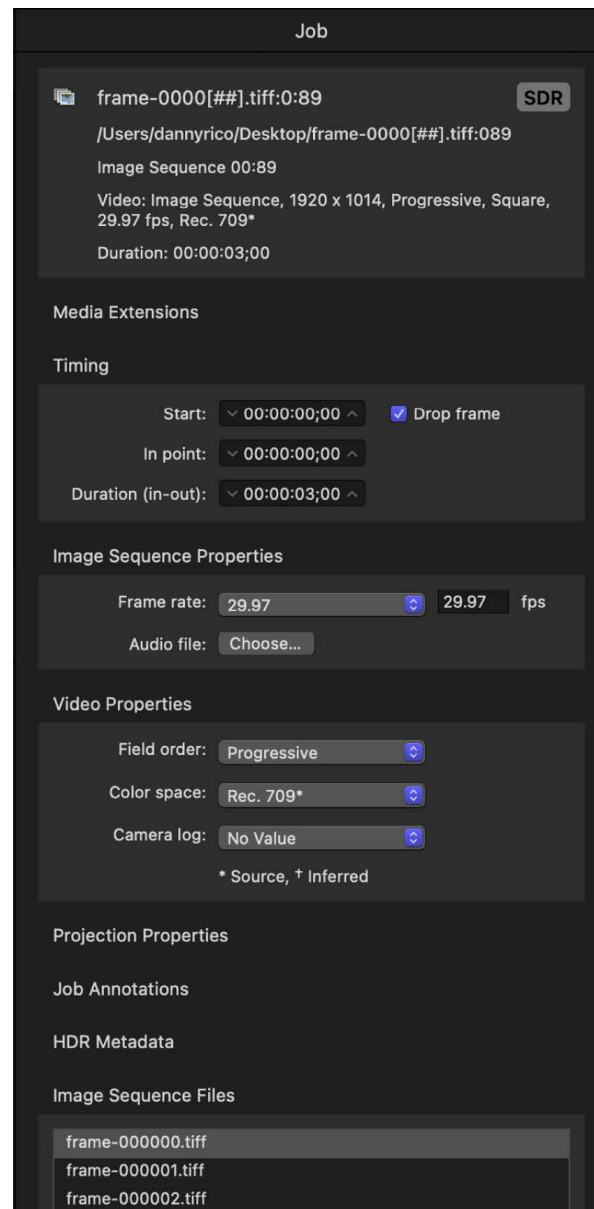
The job now contains a source file made of sequential images and output instructions (a preset, a save location, and an output filename).



3. To view additional information about the job in the Job inspector, select the source file in the batch area.

The Job inspector appears on the right side of the Compressor window. (If the inspector pane is hidden, click the Inspector button  in the upper-right corner of the Compressor window.)

The Job inspector displays information about the image sequence source file, including the location of the files, file information, and the duration of the sequence. Further down in the Job inspector is a list of the individual image files that make up the sequence.



4. If necessary, you can specify field order, frame rate, and color space for the source file, or click the Choose button to add an audio file to the image sequence source file.

After you import source media, you can [view and modify job properties](#), [apply transcoding instructions](#), and [transcode the batch](#).

# Import surround sound audio in Compressor

There are two methods you can use in Compressor to add audio files to a batch to create a surround sound job:

- Manually assign audio files to surround sound channels.
- Append audio filenames with channel identifier codes and have Compressor automatically map the filenames to the correct surround sound channels.

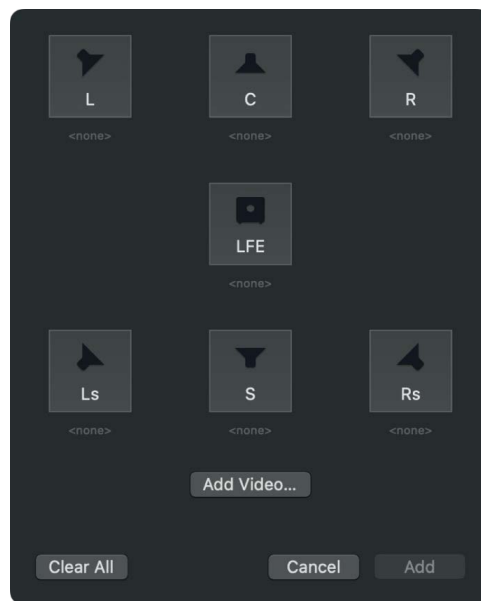
After creating the surround sound source file, you assign output information to the job (one or more presets or a destination and a location and name for the transcoded file), then transcode the batch containing the job.

## Create a surround sound source file by manually assigning channels

1. In Compressor, do one of the following:

- At the bottom of the batch area, click the Add pop-up menu  $\pm$ , then choose Add Surround Sound Group.
- Choose File > Add Surround Sound Group.

The channel assignment dialog opens.

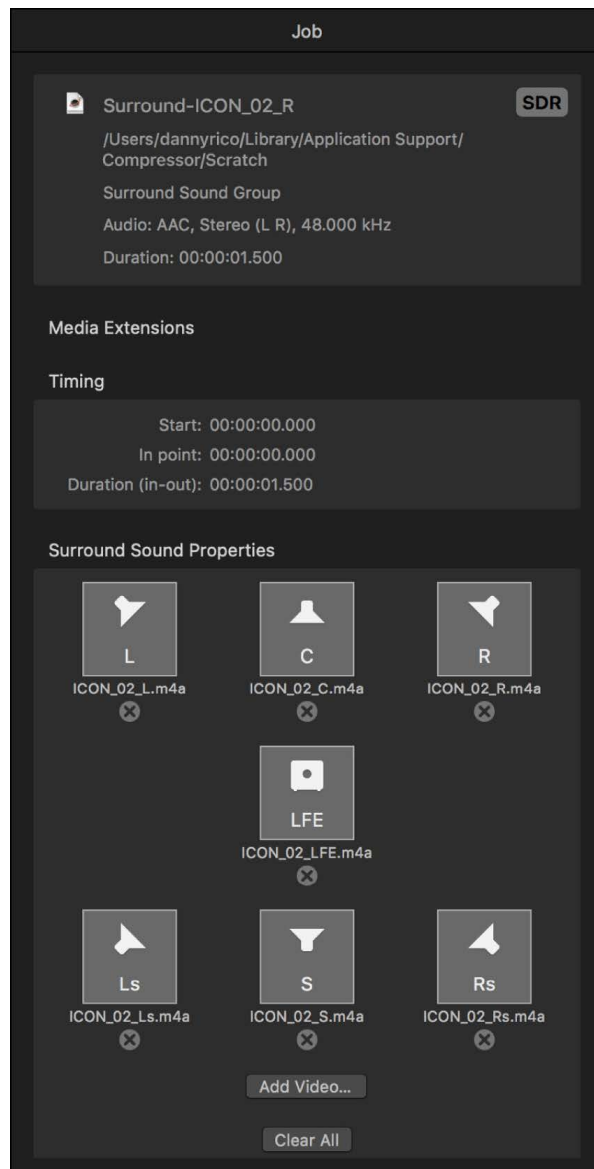


2. To assign a source audio file to each channel, click the icon for a specific channel, select a source audio file intended for that channel, then click Open.
3. To include a video file, click the Add Video button, select a video file, then click Open.
4. When you're done setting up the surround sound group, click Add.

A new surround sound source media file appears in a job in the batch area.

5. To view additional information about the surround sound source file in the Job inspector, select the job in the batch area.

The Job inspector appears on the right side of the Compressor window. (If the inspector pane is hidden, click the Inspector button  in the upper-right corner of the Compressor window.)





## Create a surround sound source file using channel identifier codes

You can add channel identifier codes to the filenames of surround sound files in the Finder, then add the files in Compressor.

1. In the Finder, append the filename of each audio file with the appropriate channel identifier code:

- **-L:** Left front channel
- **-R:** Right front channel
- **-C:** Center front channel
- **-Ls:** Left surround channel
- **-Rs:** Right surround channel
- **-S:** Center surround channel
- **-LFE:** Low-frequency effects channel (subwoofer, LFE)

For example, if the audio file for your left front channel is named "final audio\_left.aiff," name the file "final audio\_left-L.aiff."

*Note:* Compressor will recognize source files with or without a file extension (.aiff or .wav, for example).

2. Drag all of the renamed source audio files (not the folder of files) to the batch area in Compressor.

A new job appears in the batch area, and the Job inspector displays the audio channels that have been assigned based on their channel codes. (If the Job inspector is not visible, make sure the job is selected in batch area and the Inspector button  is highlighted.) If you need to reassign a channel, you can do so by clicking the channel's icon in the Job inspector.

You can optionally include a video file in the surround sound source file by clicking the Add Video button in the Job inspector, selecting a video file, and clicking Open.

## Modify a surround sound source file

1. In the Compressor batch area, select a job that contains a surround sound source file.
2. In the Surround Sound Properties area of the Job inspector, do either of the following:
  - *Assign a different file to a channel:* Click the channel's icon, select a different file, then click Open.
  - *Remove a file from a channel:* Click the Remove button .

After you import source media, you can [view and modify job properties](#), [apply transcoding instructions](#), and [transcode the batch](#).

# Import other video files

## Import third-party formats with media extensions in Compressor

The Media Extensions feature built into macOS lets you use third-party media formats that aren't natively supported in Compressor.

*Note:* The Media Extensions feature requires macOS Sequoia or later.

### Install and turn on media extensions for third-party media formats

1. Download and install the media extension for the third-party media format you want to use.
2. Choose Apple menu  > System Settings.
3. Click General in the sidebar, then click Login Items & Extensions (you may need to scroll down).
4. In the Extensions section, click the Info button next to Media Extensions, turn on any format readers, decoders, or processors for the media extension you installed (you may need to scroll down), then click Done.
5. Quit Compressor (if it's open), then reopen Compressor.

You can now work with video encoded in that third-party media format.

### View the status of media extensions in the Job inspector

1. [Import a video source file](#) that's encoded in a third-party media format.
2. Select the imported source file in the batch area.

 **Tip:** Make sure you click the source filename at the top of the job rather than an output row.

3. If necessary, click the Inspector button  to reveal the Job inspector.

The Media Extensions section of the Job inspector displays any media extensions that are required to decode media in the selected job.

A green dot indicates that the media extension is being used to decode the selected source media. If a red triangle appears next to the media extension, there's an issue.

Click the Extension Settings button to open the Extensions section in System Settings and resolve the issue.

After you import source media, you can [view and modify job properties](#), [apply transcoding instructions](#), and [transcode the batch](#).

## Import Canon Cinema RAW Light video in Compressor

Compressor can import camera RAW video files in Canon format; however some additional steps may be required before import. The format requires installation of a vendor-specific plug-in. To learn which cameras work with Final Cut Pro, see the Apple Support article [Cameras supported by Final Cut Pro](#).

1. From the Canon website, download the appropriate Canon plug-in for Final Cut Pro, then install the software on your Mac.
2. [Import the media](#) into Compressor.

*Note:* Canon Cinema RAW Light files have the filename extension .crm.

After you import source media, you can [view and modify job properties](#), [apply transcoding instructions](#), and [transcode the batch](#).

## View and modify job properties in Compressor

When you add a source file to Compressor and [apply transcoding instructions](#), you create a transcoding *job*. Jobs are displayed in the batch area of the Compressor window. When you select a job in the batch area, its properties are shown in the Job inspector.

### View a job's properties

1. Select the job in the Compressor batch area.

 **Tip:** To select a job, rather than one of its output rows, click the source filename at the top of the job.

2. If necessary, click the Inspector button  to reveal the inspector pane.

The selected job's properties are displayed in the Job inspector. The properties that appear in the Job inspector vary depending on the type of source file in the job.

### Modify a job's properties

- In the Job inspector in Compressor, adjust any of the available controls, including language, color space, and metadata annotations.

Additional job properties vary depending on the type of source file in the job. See [Job properties](#), [Image sequence job properties](#), and [Surround sound job properties](#).

### Add metadata to a job

- In Compressor, you can add metadata to a standard, image sequence, or surround sound job in the form of job annotations and closed-caption files. For instructions, see [Work with metadata](#).

### Delete a job

- Click a job in the Compressor batch area to select it, then press Delete.

# Job properties in Compressor

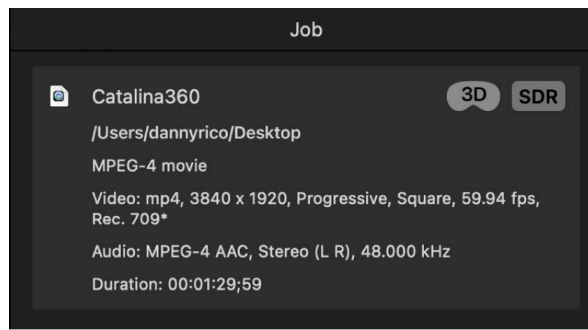
The properties of a job in Compressor containing a standard media file are described below. The job's properties are displayed in the Job inspector.

## Job summary

The top section of the Job inspector displays the source file's name, location, video and audio encoding information, and duration.

If the source is a standard-dynamic-range video file, an SDR badge appears in the upper-right corner of the summary area; if the source is a high-dynamic-range video file, an HDR badge appears in the upper-right corner. For more information about HDR and SDR files, see [Intro to wide color gamut and HDR](#).

When the Stereoscopic pop-up menu in the Job inspector is set to anything other than Off/Monoscopic, a 3D badge appears next to the SDR or HDR badge.



## Media Extensions

Displays any media extensions that are being used to decode media in the selected job. See [Import third-party formats with media extensions](#).

## Timing

Provides the timecode for the Start point, In point, and duration of the output file. See [Modify starting timecode](#).

## File Properties

The following properties are available in the File Properties area of the Job inspector:

- *Language*: Use the pop-up menu to set the default language for the selected job.
- *Country*: After you've set a language, use the pop-up menu to set the country for the selected job.

*Note:* Language and country presets are used only for certain types of jobs.

## Video Properties

When you add a source file, Compressor detects its video properties and displays them in this area. If you think the source video properties are incorrect, you can modify them here. However, in most cases you should not change these values.

The following properties are available in the Video Properties area of the Job inspector:

- *Field order*: If you think Compressor incorrectly interpreted the order of video fields in the source file, use this pop-up menu to choose a different field order. This property defines how Compressor interprets the field order of the source file; it does not convert the field order to another option upon output. To convert from one field order to another, use the "Field order" pop-up menu in the Video pane for a selected preset in a batch. There are three field order options:
  - *Progressive*: All lines are sampled at the same instant in time.
  - *Top First*: The field containing the top line (even lines) is sampled at an earlier instant in time than the field containing the bottom line (odd lines). Top-first field order is commonly used for high-definition video and standard-definition PAL video.
  - *Bottom First*: The field containing the bottom line (odd lines) is sampled at an earlier instant in time than the field containing the top line (even lines). Bottom-first field order is commonly used for standard-definition NTSC video.
- *Color space*: Use this pop-up menu to choose a color space to apply to the source clip in the job. This property defines how Compressor interprets the color data in the source clip; it doesn't convert the clip you output to another color space. To convert from one color space to another upon output, use the "Color space" pop-up menu in the Video pane for each specific preset in the batch.

*Note*: If the source file is tagged with a color space (such as Rec. 709), Compressor adds an asterisk (\*) to the item in the pop-up menu. If the source file is untagged or tagged with an unrecognized color space, Compressor chooses the most likely color space and adds a dagger (†) to the item in the pop-up menu.

- *Camera log*: Use this pop-up menu to choose a log profile that corresponds with the source file. Compressor will try to pick the appropriate camera log based on metadata in the source file if possible, but you can manually override Compressor's selection.

*Note*: If the source file is in ProRes RAW format, this menu is set to No Value and disabled.

## Projection Properties

You can set or override stereoscopic or projection properties of the source media.

*Note*: If the source media is MV-HEVC stereoscopic video (recorded on an iPhone 15 Pro, iPhone 16, iPhone 16 Pro, or Apple Vision Pro), the Projection Properties are determined from the file's metadata, and these controls are dimmed. Working with MV-HEVC encoded video requires a Mac with Apple silicon and macOS 14 or later. Other systems treat MV-HEVC stereoscopic video as monoscopic HEVC files, using only the hero eye.

- *Stereoscopic*: Specifies the format of the stereoscopic media. Choose an option:
  - *Off (Monoscopic)*: The source media is not formatted for stereoscopic viewing.
  - *Side by Side*: The source media is a single frame-packed stereoscopic file in which left- and right-eye images are displayed side by side.

- *Over/Under*: The source media is a single frame-packed stereoscopic file in which the left-eye layer is the top of the image and the right-eye layer is the bottom of the image.
- *Separate Files*: The source media is a pair of separate files—one for the left eye, and one for the right eye.

When Stereoscopic is set to Separate Files, Left and Right options appear (and the source media in the Job list is automatically assigned to the left eye). Click Choose to designate media for each eye.

*Note*: Audio is pulled from the source media in the job list (the left-eye file). Audio in the file assigned to the right eye is ignored.

- *Hero Eye*: Choose whether the left or right eye should be used as the default eye when transcoding to a stereoscopic format.
- *Spatial Metadata*: Select this checkbox to set or override the spatial metadata included in the source file. When this checkbox is selected, three spatial metadata options appear:
  - *Field of View*: The horizontal field of view of the lenses used to capture the images.
  - *Baseline*: The horizontal distance between the two camera lenses used to capture the images (also known as the *interaxial distance*).
  - *Horizontal Disparity*: The amount of horizontal shift in left- and right-eye images to set the perceived depth of a 3D scene. When horizontal disparity is negative, content in the footage appears closer; when it's positive, content seems farther away.

*Note*: Adjusting these values changes the viewing experience on Apple Vision Pro in a way that may cause stereo discomfort.

- *Projection*: Select to indicate whether the source media is encoded for rectangular or 360° projection. When Projection is set to 360°, additional options for 360° metadata appear:
  - *Source software*: This field identifies the software tool used to add metadata to the source file. If the source file has no metadata and you use Compressor to add it, this field displays "Apple CompressorKit."
  - *Orientation*: Displays the orientation in degrees of the source video's view origin (the initial angle that viewers will see in a VR headset before they turn their heads). Tilt specifies vertical rotation around the X axis, Pan specifies horizontal rotation around the Y axis, and Roll specifies clockwise or counterclockwise rotation around the Z axis. Enter new coordinates to change the initial orientation.
  - *Projection mode*: Sets the type of spatial mapping used to store the 360° video. There are two options:
    - *Equirectangular*: The most common form of spatial mapping for 360° video, this mode squeezes and distorts the spherical data like a flat map of the spherical earth.
    - *Cubic*: A less common form of spatial mapping (used in the [Spherical Video V2](#) metadata standard), this mode represents the spherical data as an unfolded cube with six faces.

- *Pixel bounds:* When “Projection mode” is set to Equirectangular, this property becomes available, allowing you to modify the boundaries of the equirectangular frame. Enter values in the Left and Top fields to crop a specific number of pixels from the left edge and top edge of the image. Enter new values in the Width and Height fields to change the dimensions of the equirectangular frame.
- *Layout and Padding:* When “Projection mode” is set to Cubic, these fields become available, allowing you to adjust the six faces of the unfolded cube. Most of the time, there’s no need to change these values. The integer value in the Layout field specifies the order of the six unfolded cube faces (the default value of 0 specifies the face order used in the [Spherical Video V2](#) metadata standard: right, left, up, down, front, back). The value in the Padding field specifies the width (in pixels) of borders around the edges of each cube face.

For information about working with 360° metadata, see [View 360-degree video metadata](#).

## Job Annotations

The Job Annotations area of the Job inspector in Compressor contains the Fields pop-up menu, which lets you include annotation metadata in your output file. See [Work with metadata](#).

## HDR Metadata

If a high-dynamic-range source file has HDR metadata, the values are shown in the HDR Metadata area of the Job inspector. After you apply a transcode preset to the source file, Compressor passes this metadata to the export file. When a user plays the exported video on a TV or display that supports HDR, the device detects the metadata and automatically adjusts its color levels. You can modify those values in the following fields (if these fields are not visible, move the pointer to the right of the HDR Metadata heading in the Job inspector, then click Show):

- *Include HDR metadata:* To include HDR metadata in your output file, select this checkbox. (If Compressor detects HDR metadata in the source file, it automatically checks this box.)
- *Primaries:* Use this pop-up menu to select a standard preset color space, or choose Custom to set your own chromaticity coordinate values.
- *Red, Green, Blue, White point:* Displays chromaticity coordinates (an x value and a y value) for each of the three primary colors and for the white point of the targeted display (an HDR-capable device).
- *White Point:* Use this pop-up menu to select a standard preset white point, or choose Custom to set your own.
- *Luminance:* Displays the minimum and maximum luminance of the targeted display in nits (candelas per square meter).
- *MaxCLL:* Displays the value, in nits, of the brightest pixel in the video file (Maximum Content Light Level).
- *MaxFALL:* Displays the value, in nits, of the maximum average light level for any single frame in the video file (Maximum Frame Average Light Level).

For more information about working in HDR color space, see [Change video color space](#). (HDR transcoding in Compressor requires macOS 10.13 or later.)

## Audio Properties

The Audio Properties area in the Job inspector lists each of the audio tracks in the source clip. Each track is displayed with an activation checkbox to include or exclude the audio track from the job.

- *Descriptive Audio:* Click Choose and select a file that contains descriptive audio tracks. The audio tracks from the file are extracted and listed in the “Audio tracks” field. Audio tracks with descriptive audio are indicated with . Descriptive audio tracks are embedded in QuickTime movies, Apple Devices, and MPEG-4 formats.

For more information about descriptive audio tracks, see [Add descriptive audio](#).

- *Audio tracks:* Use the pop-up menu for each audio track to define how Compressor interprets the individual audio channels in each track.

The contents of the pop-up menu are dependent on the number of channels in the track. For example, if there are two channels, the pop-up menu includes two-channel options such as Stereo (L R), 2 Discrete Channels, Binaural, and so on. If there are six channels in the audio track, the pop-up menu includes six-channel options such as 5.1 (L, R, C, LFE, Ls, Rs), and so on.

## Action

The following properties are available in the Action area of the Job inspector in Compressor:

- *When done:* Use this pop-up menu to assign an automated job action to be performed after transcoding. See [Job action properties](#).
- *Save captions to disk:* A checkbox available for transcode presets that support captions. Select the checkbox to save a separate captions text file to your computer when you transcode a job that has captions. See [Export captions](#).

## Image sequence job properties in Compressor

The properties of a Compressor job containing an image sequence media file are described below. The job’s properties are displayed in the Job inspector.

*Note:* To learn how to import a set of image sequence files, see [Import an image sequence](#).

## Job summary

The top section of the Job inspector displays the name, location, file information, and duration of the source file.

## Media Extensions

Displays any media extensions that are required to decode media in the selected job. See [Import third-party formats with media extensions](#).



## Timing

Provides the timecode for the Start point, In point, and duration of the image sequence output file. See [Modify starting timecode](#).

## Image Sequence Properties

The following properties are available in the Image Sequence Properties area of the Job inspector:

- *Frame rate*: Choose a frame rate for the image sequence file from the pop-up menu, or type a custom value in the text field.
- *Audio file*: Add an audio file to the image sequence job file by clicking the Choose button, selecting a file, and clicking Open.

## Video Properties

The following properties are available in the Video Properties area of the Job inspector:

- *Field order*: Use the pop-up menu to set the order in which video fields are transcoded. There are three options:
  - *Progressive*: All lines sampled at the same instant in time.
  - *Top First*: The field containing the top line (even lines) is sampled at an earlier instant in time than the field containing the bottom line (odd lines). Top-first field order is commonly used for high-definition video and standard-definition PAL video.
  - *Bottom First*: The field containing the bottom line (odd lines) is sampled at an earlier instant in time than the field containing the top line (even lines). Bottom-first field order is commonly used for standard-definition NTSC video.

- *Color space*: Use the pop-up menu to select a color space to apply to the source clip in the job. This defines how Compressor interprets the color data in the clip. It doesn't convert the clip to another color space. To convert from one color space to another, change the "Color space" pop-up menu in the Video pane for each specific preset in the batch.

*Note*: If the source file is tagged with a color space (such as Rec. 709), Compressor adds an asterisk (\*) to the item in the pop-up menu. If the source file is untagged or tagged with an unrecognized color space, Compressor chooses the most likely color space and adds a dagger (†) to the item in the pop-up menu.

- *Camera log*: Use this pop-up menu to choose a log profile that corresponds with the source file. Compressor will try to pick the appropriate camera log based on metadata in the source file if possible, but you can manually override Compressor's selection.

*Note*: If the source file is in ProRes RAW format, this menu is set to No Value and disabled.

## Projection Properties

You can set or override stereoscopic and projection properties of the source media.

- **Stereoscopic:** Specifies the format of the stereoscopic media. Choose an option:
    - *Off (Monoscopic):* The source media is not formatted for stereoscopic viewing.
    - *Side by Side:* The source media is a single frame-packed stereoscopic file in which left- and right-eye images are displayed side by side.
    - *Over/Under:* The source media is a single frame-packed stereoscopic file in which the left-eye layer is the top of the image and the right-eye layer is the bottom of the image.
  - **Hero Eye:** Choose whether the left or right eye should be used as the default eye when transcoding to a stereoscopic format.
  - **Spatial Metadata:** Select this checkbox to set or override the spatial metadata included in the source file. When this checkbox is selected, three spatial metadata options appear:
    - *Field of View:* The horizontal field of view of the lenses used to capture the images.
    - *Baseline:* The horizontal distance between the two camera lenses used to capture the images (also known as the *interaxial distance*).
    - *Horizontal Disparity:* The amount of horizontal shift in left- and right-eye images to set the perceived depth of a 3D scene. When horizontal disparity is negative, content in the footage appears closer; when it's positive, content seems farther away.
- Note:* Adjusting these values changes the viewing experience on Apple Vision Pro in a way that may cause stereo discomfort.
- **Projection:** Image sequence source files are always set to Rectangular projection.

## Job Annotations

The Job Annotations area of the Job inspector in Compressor contains the Fields pop-up menu, which lets you include annotation metadata in your output file. See [Work with metadata](#).

## HDR Metadata

If a high-dynamic-range source file has HDR metadata, the values are shown in the HDR Metadata area of the Job inspector. After you apply a transcode preset to the source file, Compressor passes this metadata to the export file. When a user plays the exported video on a TV or display that supports HDR, the device detects the metadata and automatically adjusts its color levels. You can modify those values in the following fields (if these fields are not visible, move the pointer to the right of the HDR Metadata heading in the Job inspector, then click Show):

- **Include HDR metadata:** To include HDR metadata in your output file, select this checkbox. (If Compressor detects HDR metadata in the source file, it automatically checks this box.)
- **Primaries:** Use this pop-up menu to select a standard preset color space, or choose Custom to set your own chromaticity coordinate values.

- *Red, Green, Blue, White point*: Displays chromaticity coordinates (an x value and a y value) for each of the three primary colors and for the white point of the targeted display (an HDR-capable device).
- *White Point*: Use this pop-up menu to select a standard preset white point, or choose Custom to set your own.
- *Luminance*: Displays the minimum and maximum luminance of the targeted display in nits (candelas per square meter).
- *MaxCLL*: Displays the value, in nits, of the brightest pixel in the video file (Maximum Content Light Level).
- *MaxFALL*: Displays the value, in nits, of the maximum average light level for any single frame in the video file (Maximum Frame Average Light Level).

For more information about working in HDR color space, see [Change video color space](#). (HDR transcoding in Compressor requires macOS 10.13 or later.)

## Image Sequence Files

Displays the image sequence files, in order.

## Action

The following properties are available in the Action area of the Job inspector:

- *When done*: Use this pop-up menu to assign an automated job action to be performed after transcoding. See [Job action properties](#).
- *Save captions to disk*: Available for transcode presets that support captions. Select this checkbox to save a separate captions text file to your computer when you transcode a job that has captions. See [Export captions](#).

## Surround sound job properties in Compressor

The properties of a Compressor job containing surround sound files are described below. The job's properties are displayed in the Job inspector.

*Note*: To learn how to import a set of surround sound files, see [Import surround sound audio](#).

## Job summary

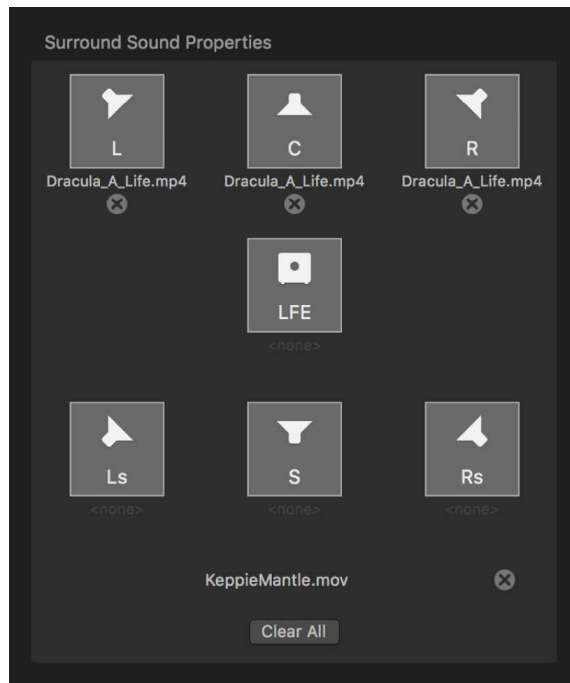
The top section of the Job inspector displays the name, location, file information, and duration of the source file.

## Timing

Provides the timecode for the Start point, In point, and duration of the source file.

## Surround Sound Properties

Displays the names of the files assigned to surround sound channels.



You can modify these file assignments using the following controls in the Surround Sound Properties area:

- *Remove button:* Click a Remove button  to remove a file assigned to a channel.
- *Channel icon:* Click the channel icon (a speaker icon or subwoofer icon) to assign a different file to a channel.
- *Add Video:* Click the Add Video button to assign a video file to the surround sound source audio file. (If a video file has already been assigned, its filename replaces the Add Video button, as shown in the image above.)
- *Clear All:* Click the Clear All button to clear all the audio files assigned to the audio channels and to remove the video file assigned to the surround sound source file.

## Job Annotations

The Job Annotations area of the Job inspector in Compressor contains the Fields pop-up menu, which lets you include annotation metadata in your output file. See [Work with metadata](#).

## Action

The following properties are available in the Action area of the Job inspector in Compressor:

- *When done*: Use this pop-up menu to assign an automated job action to be performed after transcoding. See [Job action properties](#).
- *Save captions to disk*: Available for transcode presets that support captions. Select this checkbox to save a separate captions text file to your computer when you transcode a job that has captions. See [Export captions](#).

# Apply transcoding instructions

## Intro to applying transcoding instructions in Compressor

After you [import source media](#) in Compressor, apply transcoding instructions by doing any of the following:

- [Add transcoding presets.](#)
- [Add and modify job actions.](#)
- [Apply a destination to a job.](#)

You can also make a variety of adjustments to your transcoding instructions:

- [Choose a new save location.](#)
- [Change an output's filename.](#)
- Modify [frame size](#) and [frame rate](#).
- [Transcode a specific time range](#) or [modify the starting timecode](#).
- [Adjust metadata annotations.](#)

After applying transcoding instructions, you can [preview and transcode](#) the batch.

## Add presets

### Add and remove transcoding presets in Compressor

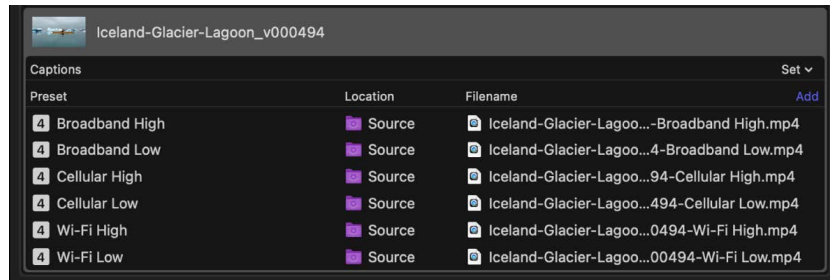
A *preset* is a group of preconfigured transcoding instructions that you apply to a source media file. For basic transcoding jobs, you can use the [built-in presets](#) that come with Compressor.

Adding a preset to a job creates an output row, which also shows the output's save location and filename.

## Add a preset

1. [After you import media in Compressor](#), click Add on the right side of the Preset/Location/Filename row of the job area.
2. In the window that appears, select one or more transcode presets , choose a [save location](#) from the pop-up menu, then click OK.

The output instructions that you specified appear in the job. If you chose multiple presets, each output appears in a separate row.



 **Tip:** You can also apply a preset by dragging it from the Presets pane onto a job in the batch area.

## Remove a preset

- Position the pointer over the output row that you want to remove, then click Remove (at the right end of the row).

If you have complex or custom transcoding specifications, you can make adjustments to built-in presets by [modifying a preset's properties](#) or [creating a custom preset](#).

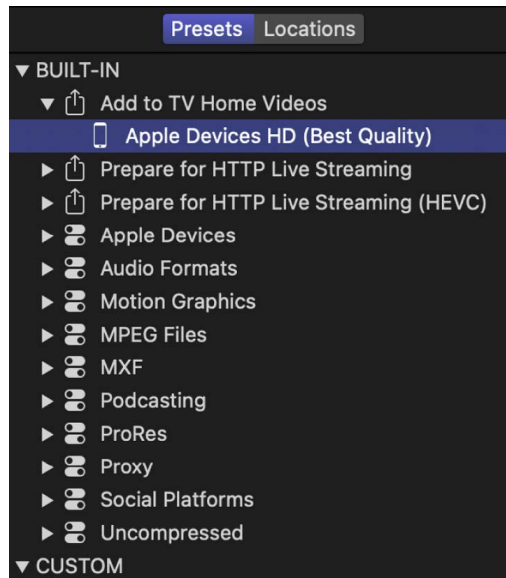
## View and modify a preset's properties in Compressor

When you select a built-in preset in the Presets pane in Compressor, or an applied preset in the batch area, its properties are shown in the inspector. General properties are displayed in the General inspector, and video and audio properties are displayed in the Video inspector and the Audio inspector.

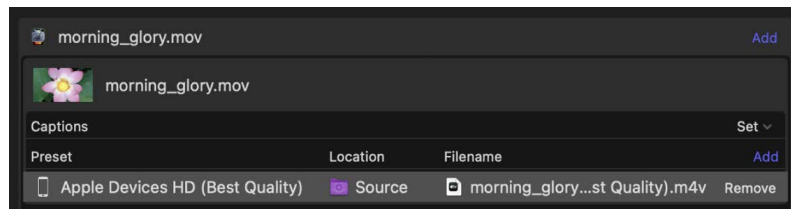
## View a preset's general, video, and audio properties

1. In Compressor, select a preset by doing one of the following:

- For a preset that has not been applied, click a built-in preset in the Presets pane. (If the Presets pane is hidden, click the Presets & Locations button  in the upper-left corner of the Compressor window, then click Presets at the top of the pane.)



- For a preset that has already been applied to a source file, select the output row of a job in the batch area.



2. If necessary, click the Inspector button  in the upper-right corner of the Compressor window to reveal the inspector pane.

When a preset is selected, the inspector pane is divided into three subpanes: General, Video, and Audio. At the top of each subpane is a summary of the transcoding instructions of the selected preset, including the name of the preset, the transcoding format, and the estimated size of the output file.

3. To view [general](#), [video](#), or [audio](#) properties of the selected preset, click General, Video, or Audio at the top of the inspector pane.

Every preset has a General inspector that displays basic properties, including preset name, description, output extension, and so on. Video presets have a Video inspector and, if the transcoding format encodes audio, an Audio inspector. Audio presets have an Audio inspector but no Video inspector.



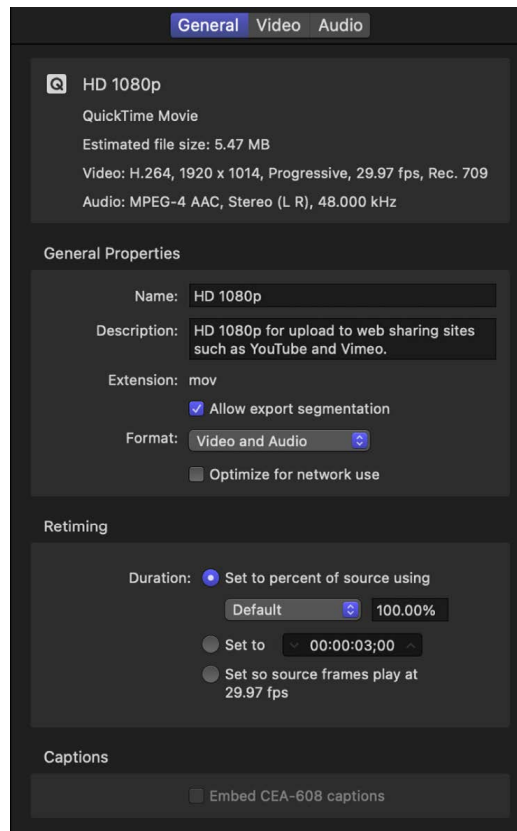
## Modify an applied preset's properties

After you apply a preset to a source file, you can modify its properties in the inspector.

1. In Compressor, select the output row of a job in the batch area.

The properties of the selected preset are displayed in the inspector. If the inspector isn't visible, click the Inspector button  in the upper-right corner of the Compressor window.

2. To view [general](#), [video](#), or [audio](#) properties, click General, Video, or Audio at the top of the inspector pane.



3. To modify a property, adjust its control in the inspector.

The type of preset you modify determines whether or not the preset will be saved:

- If you modify the properties of a custom preset, the changes are saved automatically.
- If you modify the properties of a built-in preset, the changes aren't saved.

In this case, if you want to save your changes, you can create a custom preset. See [Create custom presets](#).

## Built-in presets in Compressor

Use the built-in presets in Compressor, grouped by category in the Presets pane, to convert any file from its source format to other commonly used formats. For instance, you can use presets in the Podcasting category when exporting audio and video podcasts, or presets in the Social Platforms category when exporting content for video-sharing websites.

*Note:* Some of Compressor's built-in presets are grouped into destinations at the top of the Presets pane. See [Built-in destinations](#).

| Built-in preset group | Contains                                                                                                                                                                                                                                                                                                                                                                                 | Use to                                                                                                                                                                                                                                                                                                                         |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Apple Devices         | <ul style="list-style-type: none"><li>• Apple Devices 4K</li><li>• Apple Devices 4K (HEVC 8-bit)</li><li>• Apple Devices 4K (HEVC 10-bit)</li><li>• Apple Devices 4K (HEVC 10-bit, HLG, Dolby Vision 8.4)</li><li>• Apple Devices HD (Best Quality)</li><li>• Apple Devices HD (Most Compatible)</li><li>• Apple Devices SD</li><li>• Apple Vision Pro (MV-HEVC, Stereoscopic)</li></ul> | Create Apple Device-compatible files for distribution, including high-dynamic-range HEVC HDR10 and Dolby Vision 8.4 video (designed to optimize HDR content for Apple devices), high-definition (HD) video, standard-definition (SD) video, and MV-HEVC (for outputting spatial video files to be viewed on Apple Vision Pro). |
| Audio Formats         | <ul style="list-style-type: none"><li>• AAC</li><li>• AC3</li><li>• AIFF</li><li>• Apple Lossless</li><li>• CAF</li><li>• EC3</li><li>• FLAC</li><li>• MP3</li><li>• WAV</li></ul>                                                                                                                                                                                                       | Create audio files in the most commonly used formats.                                                                                                                                                                                                                                                                          |
| Motion Graphics       | <ul style="list-style-type: none"><li>• Animated Image (Large)</li><li>• Animated Image (Small)</li><li>• Open EXR Image Sequence</li><li>• QuickTime Animation</li><li>• QuickTime ProRes with Alpha</li><li>• TIFF Image Sequence</li></ul>                                                                                                                                            | Create files for use with motion graphics applications.                                                                                                                                                                                                                                                                        |
| MPEG Files            | <ul style="list-style-type: none"><li>• MPEG-2 422 Program stream, 15 Mbps</li><li>• MPEG-2 Program stream, 15 Mbps</li><li>• MPEG-2 Transport stream, 15 Mbps</li></ul>                                                                                                                                                                                                                 | Create broadcast-quality, high-resolution, high bit rate video files.                                                                                                                                                                                                                                                          |

| Built-in preset group | Contains                                                                                                                                                                                                                                                                                                                                                      | Use to                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| MXF                   | <ul style="list-style-type: none"> <li>• Apple ProRes 422</li> <li>• Apple ProRes 422 HQ</li> <li>• Apple ProRes 422 LT</li> <li>• Apple ProRes 422 Proxy</li> <li>• Apple ProRes 4444</li> <li>• Apple ProRes 4444 XQ</li> <li>• AVC Intra 100</li> <li>• XDCAM HD 422</li> </ul>                                                                            | Create high-quality audio and video files packaged with metadata for use in post-production workflows. |
| Podcasting            | <ul style="list-style-type: none"> <li>• AAC for Audio Podcasting</li> <li>• H.264 for Video Podcasting</li> <li>• MP3 for Audio Podcasting</li> </ul>                                                                                                                                                                                                        | Create files for audio and video podcasting.                                                           |
| ProRes                | <ul style="list-style-type: none"> <li>• Apple ProRes 422</li> <li>• Apple ProRes 422 HQ</li> <li>• Apple ProRes 422 LT</li> <li>• Apple ProRes 422 Proxy</li> <li>• Apple ProRes 4444</li> <li>• Apple ProRes 4444 with Alpha</li> <li>• Apple ProRes 4444 XQ</li> <li>• Apple ProRes 4444 XQ with Alpha</li> </ul>                                          | Create high-quality, high-performance files for use with Final Cut Pro and post-production workflows.  |
| Proxy                 | <ul style="list-style-type: none"> <li>• H264 Proxy eighth size</li> <li>• H264 Proxy half size</li> <li>• H264 Proxy quarter size</li> <li>• HEVC Proxy eighth size</li> <li>• HEVC Proxy quarter size</li> <li>• HEVC Proxy half size</li> <li>• ProRes Proxy eighth size</li> <li>• ProRes Proxy half size</li> <li>• ProRes Proxy quarter size</li> </ul> | Create proxy files for use with Final Cut Pro and post-production workflows.                           |
| Social Platforms      | <ul style="list-style-type: none"> <li>• 4K</li> <li>• HD 720p</li> <li>• HD 1080p</li> <li>• Large 540p</li> <li>• SD 480p</li> <li>• Small</li> <li>• Up to 4K</li> </ul>                                                                                                                                                                                   | Create QuickTime files for video-sharing websites like Vimeo. Includes 4K, HD, SD, and other presets.  |
| Uncompressed          | <ul style="list-style-type: none"> <li>• Uncompressed 10-bit 4:2:2</li> <li>• Uncompressed 8-bit 4:2:2</li> </ul>                                                                                                                                                                                                                                             | Create uncompressed 10-bit and 8-bit 4:2:2 QuickTime movies.                                           |

You can also modify a built-in preset in Compressor or create your own custom preset from scratch. Before you create a custom preset, view the related built-in presets to see if any of those meet your needs. If one does, or if it comes close, duplicate that preset, then modify any properties that you need to change. The advantage of duplicating a preset, rather than creating a new preset from scratch, is that many of the properties are already configured, and so you'll need to make fewer adjustments to the preset. See [Create custom presets](#).

## Create custom presets in Compressor

You can create your own custom presets, based on either an existing built-in or a custom preset, or from scratch. You can also create groups of presets, rename a custom preset, or delete a custom preset.

### Create a custom preset by duplicating an existing preset

To save a modified preset for future use, you must create a custom preset. The easiest way to do this is to duplicate a built-in preset and then modify its properties in the inspector.

1. In the Presets pane in Compressor (press Shift-Command-1 if it's hidden), select the preset you want to duplicate.

To reveal individual presets in a preset category, click the disclosure triangle next to the category name.

2. Choose Duplicate from the Action pop-up menu  at the bottom of the pane.

A copy of the preset (appended with the word “copy”) appears in the Custom area of the Presets pane.

3. To modify the properties of your new custom preset, adjust the controls in the General, Video, and Audio inspectors.

If the inspector is hidden, click the Inspector button  in the upper-right corner of the Compressor window.

For example, you can [change a preset's frame controls](#) or [add a video or audio effect](#) to the output file.

### Create a custom preset from scratch

You can also create a custom preset without duplicating a built-in preset. Because it's easy to accidentally introduce transcoding errors, this method is recommended for advanced users only.

1. In the Presets pane in Compressor (press Shift-Command-1 if it's hidden), click the Add pop-up menu , then choose New Preset.
2. In the dialog that appears, choose a transcoding format from the pop-up menu, enter a name and description for the preset, then click OK.

The new preset appears in the Custom area of the Presets pane.

3. To modify the properties of your new custom preset, adjust the controls in the General, Video, and Audio inspectors.

If the inspector is hidden, click the Inspector button  in the upper-right corner of the Compressor window.

For example, you can [change a preset's frame controls](#) or [add a video or audio effect](#) to the output file.

## Save and share custom presets

You can save a custom preset as a file and share it with colleagues or move it from one system to another.

- Drag a preset from the Presets pane in Compressor to the desktop.

The preset will be saved as a file, which can then be moved, copied, emailed, or otherwise transferred to another user's Mac. The recipient just needs to drag the file into the Custom folder of the Presets pane in Compressor.

 **Tip:** You can even drag the custom preset directly to (and from) the body of an email message in Mail.

## Rename a custom preset

Do one of the following:

- In the Presets pane in Compressor, double-click a custom preset, type a new name, then press Return.
- Select a custom preset in the Presets pane, then, in the General inspector, type a new name in the Name field. (If the inspector is hidden, press Command-4.)

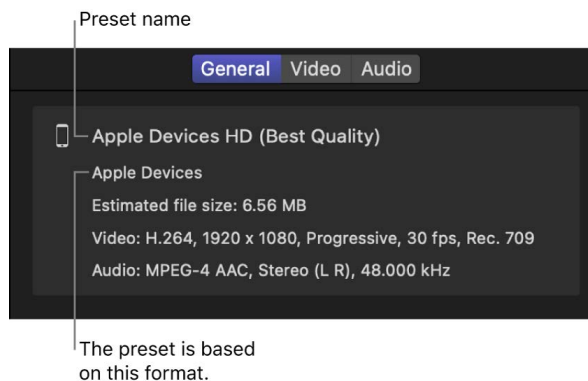
## Delete a custom preset

- In the Presets pane in Compressor, select a custom preset, then press Delete.

## Preset formats in Compressor

Compressor provides a variety of transcoding formats to create files playable on a variety of media platforms—Apple devices, Blu-ray discs, websites, and so on. Each of the built-in presets in the Presets pane uses a specific transcoding format compatible with industry-standard platforms.

You can see which format a preset is based on by looking at the summary information at the top of the inspector.



All of the built-in presets in Compressor, as well as any custom presets you create, are based on one of the following formats:

- *Apple Devices*: Encodes .mov and .mp4 files designed to optimize output for playback on various Apple devices.
- *Common Audio Formats*: Encodes .aiff, .caf, .flac, and .wav audio files.
- *Dolby Digital*: Encodes .ac3 or .ec3 files that contain multiple audio channels, including 5.1 surround sound.
- *H.264 for Blu-ray/AVCHD*: Encodes H.264 files for Blu-ray and Advanced Video Codec HD (AVCHD) for DVD authoring.

*Note*: Compressor does not directly support burning to disc, but third-party disc-burning apps can use output files transcoded by Compressor.

- *Image Sequence*: Encodes a variety of image sequence file types used in motion graphics, including TIFF, OpenEXR, JPEG, PNG, animated PNG (APNG), and animated GIF.
- *MP3*: Encodes a .mp3 audio file.
- *MPEG-2*: Encodes MPEG-2 stream files for DVD and Blu-ray authoring in a third-party authoring application.
- *MPEG-4*: Encodes .mp4 or .m4a files that are widely compatible with many different platforms and are often used for distribution on the internet.
- *MXF*: Encodes a .mxf file that holds video or audio media along with metadata that describes the enclosed media's attributes.
- *QuickTime Movie*: Encodes a .mov file appropriate for many uses, including a [proxy workflow in Final Cut Pro](#).

The format of a preset determines which [general](#), [video](#), or [audio](#) properties are shown in the inspector pane.

## Properties of presets

### General properties of presets in Compressor

The general properties of a preset can be found in the General inspector (when the preset is selected).

**Important:** Not all properties or options are available for all transcoding jobs. The options shown depend on the type of source media you're transcoding, the [preset's format](#), the configuration of other properties, and the hardware and software you're using.

| General property | Preset formats     | Description                                |
|------------------|--------------------|--------------------------------------------|
| Name             | All preset formats | Displays the name of the preset.           |
| Description      | All preset formats | Displays the description of the preset.    |
| Extension        | All preset formats | Displays the extension of the output file. |

| General property          | Preset formats                                                      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Allow export segmentation | Apple Devices, Image Sequence, MPEG-2, MPEG-4, MXF, QuickTime Movie | Select this checkbox to have Compressor process the output file using a shared computer group. See <a href="#">Transcode with multiple computers</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Default location          | All preset formats                                                  | Choose an item from the pop-up menu to set the default save location for transcoded files.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Format                    | Apple Devices, MPEG-2, MPEG-4, MXF, QuickTime Movie                 | <p>Use this pop-up menu to specify whether the output includes video and audio, or video only.</p> <p>For MPEG-2 presets, use this pop-up menu to set the stream type for the output file:</p> <ul style="list-style-type: none"> <li>• <i>Program Stream</i>: This stream type contains only one MPEG-2 content channel and its associated audio. Program streams require an error-free delivery method and are primarily used for storage or processing within a computer.</li> <li>• <i>Elementary Stream</i>: This stream type contains only one MPEG-2 content channel and no audio. When you select this option, you should also set the "Stream usage" property.</li> <li>• <i>Transport Stream</i>: This stream type can contain several MPEG-2 content channels and associated audio. All the channels are multiplexed together, allowing the receiver to choose which to play back. Compressor supports creating single-channel transport streams that can also include associated audio. Transport streams can also recover from interruptions during playback, making them ideally suited for broadcast and streaming applications where noise or network congestion can lead to interruptions.</li> </ul> |
| Optimize for network use  | Apple Devices, MPEG-4, QuickTime Movie                              | Select this checkbox to create a file that will start playing after only a small portion of the file has been downloaded from the network.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| File type/Image type      | Common Audio Formats, Dolby Digital, Image Sequence                 | Choose a file type or image type from the pop-up menu.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| General property               | Preset formats | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stream usage                   | H.264, MPEG-2  | <p>For H.264 presets, use the pop-up menu to set whether the output file is transcoded for Blu-ray Disc or AVCHD.</p> <p>For MPEG-2 presets, use this pop-up menu to choose one of three output options:</p> <ul style="list-style-type: none"> <li>• <i>Generic</i>: This option allows you complete access to all the MPEG-2 properties. This is the only option that supports the MPEG-2 640 x 480 video format in addition to the standard-definition (SD) and high-definition (HD) video formats. It's also the only option that supports creating transport and program streams. It supports the complete bit rate range of 2.0 Mbps to 40.0 Mbps.</li> <li>• <i>DVD</i>: This option restricts the encoding properties to those allowed by the SD DVD specification. These include the NTSC and PAL video formats and a bit rate range of 2.0 Mbps to 9.0 Mbps.</li> <li>• <i>Blu-ray</i>: This option restricts the encoding properties to those allowed by Blu-ray video discs. These include the SD and HD video formats and a bit rate range of 10.0 Mbps to 40.0 Mbps.</li> </ul> |
| Color palette                  | Image Sequence | <p>Available when Image type is set to GIF or PNG. The color palette limits the colors used in the transcoded files. Select Not Indexed to use all available colors.</p> <ul style="list-style-type: none"> <li>• <i>Local</i>: Uses a new color palette for each frame.</li> <li>• <i>Global</i>: Uses a shared color palette across all frames. This method involves two passes. The first pass analyzes each of the frames, generating a common palette. The second pass encodes each frame using that common palette.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Color dithering                | Image Sequence | <p>Available when Image type is set to GIF or PNG and Color palette is set to a limited number of colors. Dithering simulates additional colors in a limited palette by blending color transitions. For example, a pattern of yellow and blue can be used to give the impression that green appears in the image.</p> <ul style="list-style-type: none"> <li>• <i>None</i>: No dithering is applied.</li> <li>• <i>Floyd-Steinberg</i>: Uses the industry-standard Floyd-Steinberg dithering algorithm.</li> <li>• <i>Sierra2</i>: Uses the Sierra two-line dithering algorithm. Depending on the source, Sierra2 may produce a smoother image.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Animated                       | Image Sequence | Available when Image type is set to GIF or PNG, exports a single, animated file containing all frames (rather than a collection of individual files for each frame).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Playback                       | Image Sequence | Available when Animated is selected. Playback specifies how many times the animated GIF or PNG loops during playback. Select Continuously, or enter the number of times you want the animated image to play. (Not all web browsers will recognize this option.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Create unique output directory | Image Sequence | Available when Animated is not selected. Select this checkbox to create a folder to hold the output files; the files saved will be named "frame-0," "frame-1," "frame-2," and so on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



| General property                   | Preset formats | Description                                                                                                                                                                                                              |
|------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Add leading zeros to frame numbers | Image Sequence | Available when Animated is not selected. Select this checkbox to have Compressor add leading zeros to output filenames (" <i>filename-000000</i> ," " <i>filename-000001</i> ," " <i>filename-000002</i> ," and so on).  |
| Add Apple metadata                 | MPEG-2         | Select this checkbox to have Compressor parse specific MPEG-2 authoring information during the transcoding process and provide it in the output file. The resulting file will be read faster by other applications.      |
| Include chapter markers only       | MPEG-2         | Select this checkbox to include chapter markers, but not unnamed compression markers, in MPEG-2 output. When this checkbox is deselected, all markers are included in the output file. See <a href="#">Add markers</a> . |
| Enhanced podcast                   | MPEG-4         | Select this checkbox to have Compressor embed podcasting information (annotations, markers, and artwork) into the output media file. See <a href="#">Work with metadata</a> and <a href="#">Add markers</a> .            |

The General inspector may also show options for [retiming](#), [captions](#), and [metadata](#).

## Video properties of presets in Compressor

The video properties of a preset can be found in the Video inspector (when the preset is selected).

**Important:** Not all properties or options are available for all transcoding jobs. The options shown depend on the type of source media you're transcoding, the [preset's format](#), the configuration of other properties, and the hardware and software you're using.

| Video property               | Preset formats                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable video pass-through    | MXF, QuickTime Movie             | Select this checkbox to copy the source video unmodified to the destination file. When this checkbox is selected, all the other presets in the video properties area are disabled.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Frame size                   | All video-enabled preset formats | Use this pop-up menu to set the frame size (resolution) for the output file. You can enter custom values in the field next to the pop-up menu (if available), or choose one of the items in the pop-up menu. There are four types of options: <ul style="list-style-type: none"> <li><i>Automatic:</i> Adjusts the output based on the size of the input, and, in some formats, can be constrained "up to" a maximum resolution (Horizontal, Vertical, or Square).</li> <li><i>Percentage:</i> Adjusts the output based on a percentage of the input's size.</li> <li><i>Manual:</i> Forces the output to a specific resolution.</li> <li><i>Constrained:</i> Constrains the output to a specific aspect ratio.</li> </ul> |
| Center crop for output ratio | All video-enabled preset formats | Select this checkbox to ensure that when changing the aspect ratio in the Frame size pop-up menu, the video remains centered in the new aspect ratio.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Video property     | Preset formats                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pixel aspect ratio | All video-enabled preset formats | Use this pop-up menu to set the pixel aspect ratio (the ratio between the encoded width and the display width).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Frame rate         | All video-enabled preset formats | Use this pop-up menu to set the playback rate (the number of frames displayed per second) for the output file, or enter a custom frame rate in the field next to the pop-up menu (if available). See <a href="#">Modify timing and frame rate</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Field order        | All video-enabled preset formats | <p>Use the pop-up menu to set the output scanning method (either the field dominance or a conversion to progressive scanning). There are four options:</p> <ul style="list-style-type: none"> <li>• <i>Automatic</i>: Selects the most appropriate field order based on the field order of the source.</li> <li>• <i>Progressive</i>: The video is displayed in complete frames with all lines sampled at the same instant in time.</li> <li>• <i>Top First</i>: The video is interlaced and displayed as two separate interleaved fields. The field containing the top line (even lines) is sampled at an earlier instant in time than the field containing the bottom line (odd lines). This field order is commonly used for high-definition video and standard-definition PAL video.</li> <li>• <i>Bottom First</i>: The video is interlaced and displayed as two separate interleaved fields. The field containing the bottom line (odd lines) is sampled at an earlier instant in time than the field containing the top line (even lines). This field order is commonly used for standard-definition NTSC video.</li> </ul> <p>For presets that use H.264, HEVC, or MV-HEVC codecs, the field order is automatically set to Progressive.</p> |
| Color space        | All video-enabled preset formats | Use this pop-up menu to convert the source media to a new color space. Choose Automatic to allow Compressor to choose the best color space based on the selected preset. Choose "Same as Source" to use the color space of the source file (if available). You can also choose a manual preset to override the default. See <a href="#">Change video color space</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| RAW to log         | All video-enabled preset formats | Use this pop-up menu to select how ProRes RAW conversion is done. Choose Automatic to allow Compressor to choose the conversion method. You can also choose a manual preset to override the default. This option is available only if the source is ProRes RAW.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Camera LUT         | All video-enabled preset formats | Use this pop-up menu to select the camera lookup table (LUT) applied to the source. Select a custom LUT to transform your video from one color space to another. This preset is enabled if the source is ProRes RAW and if "RAW to log" is set to a value other than None. This preset is also enabled if "Camera log" in video properties in the Job inspector is set to a value other than None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Video property | Preset formats                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cinematic      | All video-enabled preset formats            | <p>Use this pop-up menu—available for video recorded in Cinematic mode with the iPhone Camera app—to specify how to handle Cinematic metadata (requires macOS 12 or later). There are two options:</p> <ul style="list-style-type: none"> <li>• <i>Ignore</i>: The Cinematic mode effect is not rendered in the output.</li> <li>• <i>Render</i>: The Cinematic mode effect is rendered in the output.</li> </ul> <p><i>Note</i>: This menu is only visible if the video file you imported has Cinematic mode metadata. You may need to adjust certain settings to ensure the metadata is retained when you import the file. For more information, see the <a href="#">Motion User Guide</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Stereoscopic   | All video-enabled preset formats            | <p>Use this pop-up menu—available for stereoscopic files or when you create a new stereoscopic preset—to choose how Compressor uses the left and right eye views in stereoscopic video:</p> <ul style="list-style-type: none"> <li>• <i>Automatic</i>: Automatically chooses a frame-packed or monoscopic output setting based on the source media. For monoscopic output, Compressor uses the hero eye if it can be determined from the file's metadata; otherwise, the left eye is chosen.</li> <li>• <i>Left Eye Monoscopic</i>: Uses the left eye of the stereoscopic source to output a monoscopic video.</li> <li>• <i>Right Eye Monoscopic</i>: Uses the right eye of the stereoscopic source to output a monoscopic video.</li> <li>• <i>Over/Under</i>: Sets the transcoded video to a frame-packed stereoscopic output in which the left-eye layer is the top of the image and the right-eye layer is the bottom of the image.</li> <li>• <i>Side by Side</i>: Sets the transcoded video to a frame-packed stereoscopic output in which the left- and right-eye layers are shown next to each other.</li> <li>• <i>Both Eyes (Multiview)</i>: Uses both eyes of the stereoscopic source to output a stereoscopic video. Choosing this option automatically sets the codec to MV-HEVC.</li> </ul> |
| 360° metadata  | Apple Devices, MPEG-4, QuickTime Movie      | <p>Use this pop-up menu to choose the type of 360° metadata, if any, included in the output file:</p> <ul style="list-style-type: none"> <li>• <i>Automatic</i>: Compressor chooses the metadata format based on the properties in the Job inspector and the transcode preset you applied. The format chosen is listed to the right of the pop-up menu.</li> <li>• <i>None</i>: No 360° metadata is attached to your output file.</li> <li>• <i>Spherical Video V1</i>: The 360° metadata format most commonly used by sharing sites, including YouTube and Vimeo.</li> <li>• <i>Spherical Video V2</i>: A less common, but more up-to-date, 360° metadata format used by YouTube and Vimeo.</li> </ul> <p>For more information, see <a href="#">View 360-degree video metadata</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Codec          | Apple Devices, MPEG-4, MXF, QuickTime Movie | <p>Choose one of the available transcoding methods.</p> <p><i>Note</i>: HEVC encoding in Compressor requires macOS 10.13 or later.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Video property | Preset formats                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spatial Video  | Apple Devices                          | <p>Use this pop-up menu—available when Codec is set to MV-HEVC—to determine whether to output the file as a spatial video for playback on Apple Vision Pro:</p> <ul style="list-style-type: none"> <li>• <i>Automatic</i>: Automatically applies any spatial metadata contained within the source file.</li> <li>• <i>Off</i>: Does not include spatial metadata in the transcoded video.</li> <li>• <i>On</i>: Includes custom spatial metadata in the transcoded video. When Spatial Video is set to On, you can modify the source file's default field of view, baseline, and horizontal disparity. (Adjusting these values changes the viewing experience on Apple Vision Pro in a way that may cause stereo discomfort.)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Encoder type   | Apple Devices, MPEG-4, QuickTime Movie | <p>Use this pop-up menu to set the type of encoder. This pop-up menu is enabled when Codec is set to HEVC. Choose from two options:</p> <ul style="list-style-type: none"> <li>• <i>Faster (standard quality)</i>: Encodes the output file using a faster codec, with standard quality.</li> <li>• <i>Slower (higher quality)</i>: Encodes the output file using a slower codec, with higher quality.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Profile        | Apple Devices, MPEG-4, QuickTime Movie | <p>Use this pop-up menu to set the level of complexity included in the transcode. When Codec is set to H.264 for MPEG-4 and QuickTime Movie presets, this pop-up menu offers three options:</p> <ul style="list-style-type: none"> <li>• <i>High</i>: Provides high-quality output, which may not be compatible with older H.264 playback devices.</li> <li>• <i>Main</i>: Similar to the Baseline profile, with additional support for standard-definition (SD) video requirements. (This is the default when Codec is set to H.264 on Apple Devices presets.)</li> <li>• <i>Baseline</i>: Primarily for video conferencing and mobile applications.</li> </ul> <p>When Codec is set to HEVC or MV-HEVC, the Profile pop-up menu sets the color depth of the output file (the number of bits used to represent color in each color channel—red, green, and blue). There are two options:</p> <ul style="list-style-type: none"> <li>• <i>8-Bit Color</i>: Provides a good balance between picture quality and file size. (This option is available only on recent Mac computers that support hardware encoding of HEVC.)</li> <li>• <i>10-Bit Color</i>: Provides better picture quality but with larger file sizes. (Because this option uses software encoding, performance may be significantly slower than 8-bit hardware encoding.)</li> </ul> |
| Entropy mode   | MPEG-4, QuickTime Movie                | <p>When Codec is set to H.264, use this pop-up menu to set the entropy mode to CABAC (which provides higher-quality output) or CAVLC (which is faster and more compatible for playback on older devices).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Video property     | Preset formats          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avg. Bit rate      | MPEG-4, QuickTime Movie | <p>Use this pop-up menu to choose a bit rate for your video:</p> <ul style="list-style-type: none"> <li>• <i>Custom</i>: Setting bit rate to Custom enables a value field that limits your video signal to a set number of kilobits per second (kbps). Higher rates allow higher-quality video but generate larger files that are slower to download or transmit.</li> <li>• <i>Computer playback</i>: Creates a larger file with higher quality.</li> <li>• <i>Social Platforms</i>: Creates a smaller file (of lower quality) suitable for hosting on a website.</li> <li>• <i>Proxies</i>: Creates a smaller file (of lower quality) suitable for editing in Final Cut Pro. See <a href="#">Create optimized and proxy files</a> in the Final Cut Pro User Guide for Mac.</li> <li>• <i>HTTP Live Streaming</i>: Creates a smaller file suitable for live streaming over the internet. Available only for H.264 and HEVC encoding.</li> <li>• <i>Automatic</i>: Compressor chooses a bit rate based on the source media to obtain a default level of quality.</li> </ul> |
| Key frame interval | MPEG-4, QuickTime Movie | <p>When Every is selected, enter a value in the text field to set the key frame interval (number of frames) at which you want keyframes created in your output file. Alternatively, you can select Automatic to have Compressor choose the frame rate, or All to create a keyframe for all frames.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Quality            | QuickTime Movie         | <p>When Codec is set to Animation, Photo-JPEG, or HEVC (with the Preserve alpha checkbox selected), this slider controls one of the following options:</p> <ul style="list-style-type: none"> <li>• <i>Animation or Photo-JPEG</i>: Use the slider to set the quality level of your output.</li> <li>• <i>HEVC</i>: Use the slider to set the quality level of the alpha channel of your output.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Anamorphic         | MPEG-2                  | <p>This property applies only to standard-definition video. If the source video's storage aspect ratio doesn't match its display aspect ratio, you can correct the image so the output doesn't appear squeezed or stretched. Choose Automatic from the pop-up menu to have Compressor scale the image based on the frame size, or choose 16:9 or 4:3 to scale the image to a specific aspect ratio.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Video property    | Preset formats | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Encoding mode     | MPEG-2         | <p>Choose an option from the pop-up menu to set how Compressor encodes the output file: either faster and lower quality, or slower and better quality. Options include:</p> <ul style="list-style-type: none"> <li>• <i>Single Pass CBR</i>: This is the fastest MPEG-2 encoding mode. It provides good quality, especially at bit rates between 5 and 9 Mbps.</li> <li>• <i>Single Pass VBR</i>: This mode aims to maintain constant quality (at the expense of constant bit rate) for the transcoded video file. For most standard-definition (SD) media files at bit rates of 3.5 Mbps and above, this mode provides good to excellent quality and transcodes quickly.</li> <li>• <i>Single Pass VBR (Best)</i>: This mode provides the best possible quality output for SD video at bit rates of 3 to 3.5 Mbps and above.</li> <li>• <i>Two Pass VBR</i>: This mode uses two passes—one pass to analyze the entire source video stream, and a second pass to compress the file. This mode takes longer and provides a better-quality file than the one-pass modes, and is recommended for source media files with a substantial difference between the most and the least complex scenes.</li> <li>• <i>Two Pass VBR (Best)</i>: This mode provides the best possible quality output, and outstanding quality at bit rates of 3 to 3.5 Mbps and above for HD and SD video.</li> </ul> |
| Motion estimation | MPEG-2         | <p>This pop-up menu sets the amount of motion processing that will be performed on the file. There are three options:</p> <ul style="list-style-type: none"> <li>• <i>Good</i>: The fastest processing preset. Use this preset when there is relatively low motion between frames. In general, use Good with the one-pass encoding modes.</li> <li>• <i>Better</i>: Provides very good results even in the presence of complex interlaced motion. In general, use Better with Single Pass VBR (Best) and Two Pass VBR (Best).</li> <li>• <i>Best</i>: The slowest processing preset. Use for the most complex motion and for interlaced source files. In general, use the Best mode to maximize quality when using Single Pass VBR (Best) or Two Pass VBR (Best).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Video property                    | Preset formats                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GOP structure                     | MPEG-2                                        | <p>This property is available only when the “Frame rate” property is set manually (does not use Automatic).</p> <p>Compressor provides three methods of grouping frames, or “pictures,” in encoded video: as I-frames (intra-frames), P-frames (predictive frames), and B-frames (bidirectional predictive frames). These are collectively called a <i>group of pictures (GOP)</i>. The “GOP structure” pop-up menu includes several methods of arranging frames:</p> <ul style="list-style-type: none"> <li>• <i>IP</i>: Use IP only if your media contains fast motion that isn’t encoded with sufficient quality using an IBBP or IBP structure.</li> <li>• <i>IBP</i>: Use IBP only if your media contains fast motion that isn’t encoded with sufficient quality using an IBBP structure.</li> <li>• <i>IBBP</i>: Recommended for the majority of MPEG-2 encoding situations.</li> </ul> <p><i>Note:</i> For most MPEG-2 encoding situations intended for use on a DVD, choose IBBP as the GOP structure preset, and a GOP size of 15 for NTSC, or 12 for PAL.</p> |
| GOP size                          | MPEG-2                                        | <p>This property is available when the “Frame rate” property is set manually (does not use Automatic).</p> <p>This slider specifies how many frames are contained within a GOP (group of pictures). The values available in the slider are determined by the GOP structure property (described above). The maximum GOP size you can choose within Compressor is 15 frames (NTSC) or 12 frames (PAL and 720p). The minimum GOP size for all video formats is 6 frames (closed GOP) or 7 frames (open GOP).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Automatically select bit rate     | H.264, MPEG-2                                 | Select this checkbox to have Compressor automatically compute the best bit rate for the output file, based on the duration of the source file. To manually adjust the bit rate, deselect the checkbox and drag the “Average bit rate” and “Maximum bit rate” sliders (or enter values in the adjacent fields).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Multi-pass                        | Apple Devices, H.264, MPEG-4, QuickTime Movie | Select this checkbox to turn on multi-pass encoding, which applies an additional analysis of video frames to produce a high-quality output file. For faster (single-pass) transcoding, deselect the checkbox.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Include Dolby Vision 8.4 Metadata | Apple Devices, MPEG-4, QuickTime Movie        | Select this checkbox to have Compressor include Dolby Vision 8.4 metadata in the output file. Dolby Vision 8.4 is a format designed to optimize HDR content for Apple devices. If this checkbox is selected, “Color space” is set to Rec. 2020 HLG and Profile is set to 10-Bit Color. This option is only available when Codec is set to HEVC or MV-HEVC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Bit rate                          | Apple Devices                                 | Select the Automatic checkbox to have Compressor calculate the appropriate bit rate for the output file, based on the frame size of the source file and device compatibility. If the checkbox is not selected, you can set the bit rate by dragging the slider or entering a value in the text field.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Video property                       | Preset formats          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frame sync                           | Apple Devices           | <p>Select the Automatic checkbox to have Compressor calculate the frame rate.</p> <p><i>Note:</i> When Frame sync is enabled, the value in the seconds field defaults to zero (.0), but the actual value is determined during the encoding process.</p> <p>If the checkbox is not selected, you can drag the slider or enter a value in the text field to set the key frame interval (number of frames) at which you want keyframes created in your output file.</p>                                              |
| Allow frame reordering               | MPEG-4, QuickTime Movie | <p>Select this checkbox to potentially provide a better-quality output file by allowing Compressor to reorder video frames during transcoding. This option is only available when Codec is set to H.264 or HEVC.</p> <p><b>Important:</b> If you select "Allow frame reordering," your output file may be more efficiently compressed but may not be compatible with decoders on older hardware.</p>                                                                                                              |
| Preserve alpha                       | QuickTime Movie         | <p>Select this checkbox to preserve any alpha channel information in your source and pass the alpha to the output. This checkbox is enabled when Codec is set to ProRes 4444 or Animation. If you have macOS 10.15 or later installed, this checkbox is also enabled when Codec is set to HEVC. When Preserve Alpha is turned on, the Quality slider is enabled.</p>                                                                                                                                              |
| Add clean aperture information       | QuickTime Movie         | <p>Select this checkbox to define clean picture edges in the output file. This property adds information to the output file to define how many pixels to hide, ensuring that no artifacts appear along the edges. When you play the output file in QuickTime Player, the pixel aspect ratio is slightly altered. This process doesn't affect the actual number of pixels in the output file—it only controls whether information is added to the file that a player can use to hide the edges of the picture.</p> |
| Scale image to preserve aspect ratio | Image Sequence          | <p>Select this checkbox to scale the output files to use square pixels and maintain the original aspect ratio (which results in an increase or decrease in the number of horizontal and vertical pixels).</p>                                                                                                                                                                                                                                                                                                     |
| Compression                          | Image Sequence          | <p>Use this pop-up menu to choose an image compression method.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Color depth                          | Image Sequence          | <p>Use this pop-up menu to set the number of bits used to represent color in each color channel (red, green, and blue). Choose Automatic, 8, or 16 (for better quality).</p>                                                                                                                                                                                                                                                                                                                                      |
| YUV 422 color encoding               | MPEG-2                  | <p>Select this checkbox to use YUV 422 color encoding for superior chroma quality.</p>                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Start timecode                       | MXF                     | <p>Use this pop-up menu to set a forced timecode start point for the output file. The Automatic option uses the default timecode of the source file (typically, 00:00:00:00). Other options set the timecode start to 1 hour or 10 hours.</p>                                                                                                                                                                                                                                                                     |
| Drop frame                           | MXF                     | <p>Available when "Frame rate" is set to 29.97 fps or 59.94 fps and "Start timecode" is set to 00:00:00:00, 01:00:00:00 or 10:00:00:00. Select this checkbox to force the timecode to stay in sync with real-time duration during playback.</p>                                                                                                                                                                                                                                                                   |



The Video inspector also shows options for [cropping, padding, and rotating](#), setting parameters for [retiming and resizing quality](#), and adding [video effects](#).

## Audio properties of presets in Compressor

The audio properties of a preset can be found in the Audio inspector (when the preset is selected).

**Important:** Not all properties or options are available for all transcoding jobs. The options shown depend on the type of source media you're transcoding, the [preset's format](#), the configuration of other properties, and the hardware and software you're using.

| Audio property            | Preset formats                         | Description                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable audio pass-through | QuickTime Movie                        | Select this checkbox to copy the source audio unmodified to the destination file. When this checkbox is selected, all the other presets in the Audio Properties area are disabled.                                                                                                                                                                                                                      |
| Channel layout            | All audio-enabled preset formats       | Use this pop-up menu to manually set the type of audio channel layout. For more information about audio channel layouts, including the surround sound channel layout, see <a href="#">Audio channel layouts</a> .                                                                                                                                                                                       |
| Sample rate               | All audio-enabled preset formats       | Use this pop-up menu to set the number of times per second that music waveforms (samples) are captured digitally. The higher the sample rate, the higher the audio quality and the larger the file size. For MXF presets, this value is locked at 48 kHz.<br><br><i>Note:</i> All files intended for video and audio DVD authoring must have a 48 kHz sample rate as required by the DVD specification. |
| Sample size               | All audio-enabled preset formats       | Use this pop-up menu to manually set the sample size of the audio signal.<br><br>For Apple Devices presets, this is always set to Automatic.                                                                                                                                                                                                                                                            |
| Codec                     | QuickTime Movie                        | Use this pop-up menu to choose an audio codec.                                                                                                                                                                                                                                                                                                                                                          |
| Sample format             | QuickTime Movie                        | If you have selected Linear PCM as an audio codec, use this pop-up menu to select whether to output your audio in Big Endian or Little Endian format.                                                                                                                                                                                                                                                   |
| Format                    | MPEG-4                                 | If you have selected FLAC, MPEG-4 AAC, MPEG-4 HE AAC, MPEG-4 HE AAC V2, or Opus as an audio codec, use this pop-up menu to select the quality of the audio output.                                                                                                                                                                                                                                      |
| Quality                   | Apple Devices, MPEG-4, QuickTime Movie | Use this pop-up menu to select the quality of the audio output.                                                                                                                                                                                                                                                                                                                                         |

| Audio property                 | Preset formats                                             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Target system                  | Dolby Digital                                              | <p>Use this pop-up menu to identify the system on which you are going to play the output file. Compressor limits options in other related properties to those appropriate for the target system.</p> <ul style="list-style-type: none"> <li>• <i>DVD Video</i>: Choose this option if you're encoding for use in a DVD video authoring application.</li> <li>• <i>DVD Audio</i>: Choose this option if you're encoding for use in a DVD audio authoring application.</li> <li>• <i>Generic AC-3</i>: Choose this option to remove the target system preset limit (the most generic choice).</li> </ul>                                                                                                                                                                                     |
| Bit rate                       | Apple Devices, Dolby Digital, MP3, MPEG-4, QuickTime Movie | <p>Use this pop-up menu to set the number of kilobits per second (kbps) required to deliver your audio file. Using a higher rate produces a higher-quality audio file.</p> <p>For stereo encoding, rates of 192 kbps and 224 kbps are typical and will produce good results. For Dolby Digital 5.1 encoding, a rate of 384 kbps is recommended. For Dolby Digital Plus encoding, a rate of 192 kbps is recommended.</p>                                                                                                                                                                                                                                                                                                                                                                    |
| Use variable bit rate encoding | MP3                                                        | <p>Select the checkbox to vary the number of bits used to store the music depending on the complexity of the music. Variable bit rate encoding can reduce the size of the output file.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Bit rate strategy              | Apple Devices, MPEG-4, QuickTime Movie                     | <p>Use this pop-up menu to select the strategy used to encode the audio. There are four options:</p> <ul style="list-style-type: none"> <li>• <i>Constant Bit Rate</i>: Uses the value set in "Bit rate" to determine the bit rate for the encoded audio.</li> <li>• <i>Average Bit Rate</i>: Uses the value set in "Bit rate" to determine the target average bit rate for the encoded audio. This option provides a more consistent bit rate than variable bit rate.</li> <li>• <i>Variable Bit Rate Constrained</i>: Uses the value set in "Bit rate" to determine the maximum bit rate for the encoded audio.</li> <li>• <i>Variable Bit Rate</i>: Encodes the audio using a variable bit rate determined by Compressor. Choosing this option disables the "Bit rate" menu.</li> </ul> |
| Include Dolby 5.1 Audio Track  | Apple Devices                                              | <p>Select the checkbox to add surround sound as a Dolby Digital audio track for playback on Apple TV.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Include Lt Rt downmix track    | QuickTime Movie                                            | <p>Select this checkbox (available only when "Channel layout" is set to more than two tracks) to add an additional stereo track to the transcoded file that includes a stereo-mix version of the audio with the encoded surround information included.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Compression                    | Common Audio Formats                                       | <p>Use this pop-up menu to manually set the amount of compression the FLAC encoder uses to encode the audio signal. This preset is only available for FLAC file types.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Joint stereo                   | MP3                                                        | <p>Select the checkbox to have one channel carry the information that's identical on both channels, and another channel carry unique information. At bit rates of 160 kbps and below, this preset can improve the sound quality of your converted audio.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Audio property                                                                         | Preset formats | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Smart encoding adjustments                                                             | MP3            | Select the checkbox to have Compressor analyze the source file and the preset's encoding properties to maximize the quality of the output file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Filter frequencies below 10 Hz                                                         | MP3            | Select the checkbox to have Compressor remove inaudible frequencies from the source file and output a smaller and more efficient file without perceptible loss of quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Channels as                                                                            | MXF            | Use this pop-up menu to set the distribution of audio channels. There are two options: <ul style="list-style-type: none"> <li>• <i>Mono tracks</i>: The exported file uses a separate track for each audio channel.</li> <li>• <i>Multitrack</i>: The exported file combines all audio channels into a single track.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  |
| Bit stream mode                                                                        | Dolby Digital  | Use this pop-up menu to define the audio service contained within the Dolby Digital or Dolby Digital Plus bitstream.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Surround mode                                                                          | Dolby Digital  | When using a Mono or Stereo (L R) channel layout, this property tells the playback device whether the two-channel encoded bitstream contains a Dolby Surround (Lt/Rt) program that requires Dolby Pro Logic decoding. Choose an option from the pop-up menu: <ul style="list-style-type: none"> <li>• <i>Not Indicated</i>: Does not send the playback device information about whether the bitstream was encoded in Dolby Surround.</li> <li>• <i>Not Encoded</i>: Tells the playback device that the bitstream contains information not encoded in Dolby Surround.</li> <li>• <i>Surround Encoded</i>: Tells the playback device that the bitstream contains information encoded in Dolby Surround.</li> </ul> |
| Surround EX mode                                                                       | Dolby Digital  | When using a 5.1 (L R C LFE Ls Rs), 5.0 (L R C Ls Rs), 4.1 (L R LFE Ls Rs), or 4.0 (L R Ls Rs) layout, this property tells the playback device whether the audio has been encoded in Dolby Digital Surround EX. Choose an option from the pop-up menu: <ul style="list-style-type: none"> <li>• <i>Not Indicated</i>: Does not send the playback device information about whether the bitstream was encoded in Dolby Digital Surround EX.</li> <li>• <i>Not Encoded</i>: Tells the playback device that the bitstream was not encoded in Dolby Digital Surround EX.</li> <li>• <i>Surround Encoded</i>: Tells the playback device that the bitstream was encoded in Dolby Digital Surround EX.</li> </ul>        |
| Stereo downmix                                                                         | Dolby Digital  | Use this pop-up menu to set how to downmix a surround signal to a stereo signal. See <a href="#">Audio channel layouts</a> .<br><br><b>Important:</b> The LFE signal may be discarded by the Dolby Digital downmix process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Lo/Ro center, Lo/Ro surround, Lt/Rt center, Lt/Rt surround (for surround sound output) | Dolby Digital  | Use these pop-up menus to set the decibel level at which the surround and center channels are downmixed. Properties are enabled or disabled based on the channel layout you choose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Audio property                     | Preset formats | Description                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DRC line mode                      | Dolby Digital  | Use this pop-up menu to set the dynamic range compression-processing mode. The default preset, Film Standard, is recommended for all use cases.                                                                                                                                                                                                     |
| DRC RF mode                        | Dolby Digital  | Use this pop-up menu to set the dynamic range compression-processing mode for RF devices (TV sets, cable set top boxes, or other devices that have RF connections).                                                                                                                                                                                 |
| LFE low-pass filter                | Dolby Digital  | Select this checkbox to apply a 120 Hz low-pass filter to the low-frequency effects (LFE) channel during output.                                                                                                                                                                                                                                    |
| DC filter                          | Dolby Digital  | Select this checkbox to apply a DC (direct current) high-pass filter to all input channels. Although this filter provides a simple way to remove DC offsets, note that most mixed audio material is already free of DC offsets.                                                                                                                     |
| Surround channels: 90 phase-shift  | Dolby Digital  | This checkbox, which applies a 90-degree phase shift to the surround channels, is selected by default. The shift in phase decorrelates the front and back channels and prevents the L and Ls signals from canceling each other out if a surround-compatible downmix is later applied to the decoded signal.                                         |
| Surround channels: 3dB attenuation | Dolby Digital  | Select this checkbox to apply a 3 dB cut to the surround channels during output. This option is intended for multichannel output (like a film soundtrack) that is being transferred to a consumer home theater format. Cinema surround channels are mixed 3 dB “hot” (higher) relative to the front channels to account for cinema amplifier gains. |
| Dialog normalization               | Dolby Digital  | Enter a value in the field to set the loudness of the program in your sound files relative to full modulation. The playback device uses this information to maintain similar loudness among different AC-3 streams. The goal is to give all AC-3-encoded audio files the same listening level, regardless of the source file.                       |

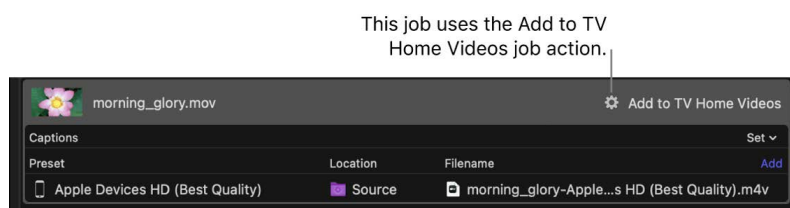
The Audio inspector also shows options for adding [audio effects](#).

## Add job actions

### Add and modify job actions in Compressor

A *job action* is an automated action performed on a media file after it's transcoded, usually for the purpose of sending your video out into the world. For example, Compressor can add the finished file to an email message and send it to a recipient of your choosing, including yourself.

If a job contains a job action, a gear icon is shown in the top-right corner of the job (in the batch area).



You can add a job action to a job, as well as modify a job action's properties, in the Job inspector.

*Note:* A job action is included in each of the built-in destinations provided with Compressor. For more information, see [Add a destination to a job](#).

### Add a job action to a job

1. Select a job in the Compressor batch area.
2. If necessary, click the Inspector button  to reveal the inspector pane.
3. In the Action area (at the bottom of the Job inspector), click the "When done" pop-up menu, then choose a job action.

Additional properties may appear, depending on the job action you select. Add the appropriate information to any additional fields.

For information about the properties of each job action, see [Job action properties](#).

### Fix a job action that has an alert icon

If a job action displays an alert icon , there's an issue with the source file or the action properties. For example, you may need to specify an output location for HTTP Live streaming files.

1. In Compressor, click the alert icon.  
The Errors & Warnings window opens, displaying alert messages.  
Alert messages are highlighted based on the selection in the batch area.
2. Select the job in the batch area, then, if necessary, click the Inspector button  to reveal the inspector pane.
3. Scroll down to the Action area of the Job inspector, then modify the properties relevant to the alert message.

When the icon disappears or when the alert message disappears from the Errors & Warnings window, the issue is fixed.

### Remove a job action

1. Select the job in the Compressor batch area.
2. If necessary, click the Inspector button  to reveal the inspector pane.
3. In the Action area of the Job inspector, click the "When done" pop-up menu and choose Save Only.

## Job action properties in Compressor

Compressor comes with a set of job actions that are used in destinations as well as in jobs. The job action assigned to a destination or job performs an automated action after transcoding—usually copying the transcoded file to a new location.

The properties of job actions available in Compressor are described below.

### Add to Photos

The Add to Photos job action adds a copy of the exported file to the Photos app.

- *Title*: Enter a title for the copy of the file in the Photos app.

### Add to TV Home Videos

The Add to TV Home Videos job action adds a copy of the exported file to the Home Videos library in the Apple TV app.

- *Title*: Enter a title for the copy of the file in the Home Videos library.

### Open with Application

The Open with Application job action opens the transcoded file in another application upon export.

- *Open with*: Choose the application for opening the transcoded file (for example, Music or QuickTime Player).

### Prepare for HTTP Live Streaming

The Prepare for HTTP Live Streaming job action processes the transcoded files using the instructions you provide via the properties below and then uploads the processed files to the server you specify. To learn more about HTTP Live Streaming, see the [HTTP Live Streaming Overview](#) and other related documents, available in the [Apple Developer Documentation](#).

- *Output type*: This pop-up menu sets the format output for this job action. There are two options:
  - *MPEG-2 TS*: Sets the output format to MPEG-2 transport stream.
  - *Fragmented MP4*: Sets the output format to fragmented MP4 (fMP4). This option is only available if you have macOS 10.14 or later installed.
- *Destination for Live Stream assets*: Click the Choose button to assign a save location for the live streaming assets.
- *Segment duration*: Enter a minimum number of seconds per segment for the segment duration.

Because the segment's length determines when the web server can switch between the various video formats while streaming to a device with varying network connection speeds, a shorter segment duration allows the server to respond more quickly to changing connection speeds. In most situations, it's recommended that you leave the segment duration at 10 seconds.

- *Create Read Me file with sample HTML*: Select this checkbox to create a sample HTML file for hosting the HTTP live-streaming content.

## Run Automator Workflow

The Automator Workflow job action applies an Automator workflow to an output file after transcoding.

- *Workflow:* Click the Choose button to set the Automator workflow that the job action triggers.

## Send Email

The Send Email job action sends an email with an attachment of the transcoded file from the Mail app.

- *To:* Enter recipient email addresses in this field.
- *Subject and Message:* Enter relevant text in these fields.

## Social Platforms

The Social Platforms job action saves social media-compatible output to your Mac. You can then upload your media directly on the social platform.

For information about adding or modifying a job action in a job, see [Add and modify job actions](#).

# Apply a destination

## Add a destination to a job in Compressor

A *destination* in Compressor consists of one or more presets combined with an automated job action that's performed after transcoding. For example, if you apply the built-in Add to TV Home Videos destination to a source file, Compressor uses the preset to create a .m4v file and then runs a job action that copies the file to your Home Videos library in the Apple TV app.

For basic transcoding jobs, you can use the [built-in destinations](#) that come with Compressor.

1. [After you import media in Compressor](#), click Add on the right side of the Preset/Location/Filename row of the job area.
2. In the window that appears, select the destination  you want to apply, choose a [save location](#) from the pop-up menu, then click OK.

 **Tip:** You can also apply a destination by dragging it from the Presets pane onto a job in the batch area.

The presets contained in the destination appear as output rows in the batch area, and the job action is displayed in the top-right corner of the job.

After applying a destination to a transcoding job, you can [modify](#) or [remove](#) individual presets, or [modify](#) the job action.

## View destination properties in Compressor

When you select a destination in the Presets pane, its properties are shown in the Destination inspector.

### View a destination's properties

1. In Compressor, if the Presets pane or inspector pane is hidden, do the following:
  - To reveal the Presets pane, press Shift-Command-1.
  - To reveal the inspector pane, click the Inspector button  in the upper-right corner of the Compressor window.
2. Select a destination in the Presets pane.

The Destination inspector appears (in the inspector pane on the right side of the Compressor window), displaying the destination name and description, the job action, and associated job action settings.

### Modify a destination's properties

- In Compressor, in the Destination inspector, adjust any of the available controls.

Certain properties of built-in destinations can't be adjusted. See [Create a custom destination](#).

## Built-in destinations in Compressor

Built-in destinations, available in the Presets pane in Compressor, combine one or more presets and a post-encode job action, which automates tasks such as emailing, copying, and moving transcoded files.

| Built-in destination            | Contains                                                                                                                                                                                                                                                                                    | Use to                                                                                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Add to TV Home Videos           | <i>Presets:</i> Apple Devices HD (Best Quality)<br><i>Job action:</i> Add to TV Home Videos                                                                                                                                                                                                 | Create an Apple device-compatible H.264 file, then automatically add the file to your Home Videos library on Apple TV.                                                                                 |
| Prepare for HTTP Live Streaming | <i>Presets:</i> <ul style="list-style-type: none"><li>• Audio for HTTP Live Streaming</li><li>• Broadband High</li><li>• Broadband Low</li><li>• Cellular High</li><li>• Cellular Low</li><li>• Wi-Fi High</li><li>• Wi-Fi Low</li></ul> <i>Job action:</i> Prepare for HTTP Live Streaming | Create a set of MPEG-4 files, then process your transcoded files and upload them to the server you specify. The files are compatible with a variety of devices, such as smartphones and media players. |



| Built-in destination                   | Contains                                                                                                                                                                                                                                                                                                                                                                            | Use to                                                                                                                                                                                                                            |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prepare for HTTP Live Streaming (HEVC) | <i>Presets:</i> <ul style="list-style-type: none"> <li>• Audio (High)</li> <li>• Audio (Low)</li> <li>• Audio (Standard)</li> <li>• HEVC Broadband HD (and 4G LTE and higher)</li> <li>• HEVC Cellular large (3G or lower)</li> <li>• HEVC Cellular medium (3G or lower)</li> <li>• HEVC Cellular small (3G or lower)</li> </ul> <i>Job action:</i> Prepare for HTTP Live Streaming | Create a set of HEVC video files and MPEG-4 audio files, then process your transcoded files and upload them to the server you specify. The files are compatible with a variety of devices, such as smartphones and media players. |

You can also create a custom destination in Compressor either by duplicating an existing destination or by creating a new destination. For more information, see [Create a custom destination](#).

## Create a custom destination in Compressor

You can create a custom destination from scratch, or by duplicating an existing destination. Later, if you no longer need a custom destination, you can delete it.

### Create a custom destination

1. In Compressor, click the Add pop-up menu  at the bottom of the Presets pane, then choose New Destination.
2. In the dialog that appears, do the following:
  - a. Select one or more transcode presets or a destination from the list.  
To quickly locate an item, type a few letters of the item's name in the search field.
  - b. Click the "Job action" pop-up menu, then choose an option.
  - c. Optionally, you can enter a name and a description in the relevant fields.
  - d. Click OK.

The new destination appears in the Custom area of the Presets pane and is selected by default. The Destination inspector is displayed in the inspector pane.

3. Fill in the job action properties in the Action area.

For example, if you choose the Add to Apple TV Home Videos job action, you can enter a title for the movie. Because you're modifying a custom destination, the properties that you provide for the job action will be saved for future use.

You can also modify the properties of the preset that the destination uses. See [View and modify a preset's properties](#).

## Create a custom destination by duplicating an existing destination

You can also duplicate an existing destination and then modify its preset properties or its job action properties.

1. In the Presets pane in Compressor, select the destination that you want to duplicate, then click the Action pop-up menu  at the bottom of the pane and choose Duplicate.

The new destination appears in the Custom area of the Presets pane and is selected by default. The Destination inspector is displayed in the inspector pane.

2. To modify the properties of the destination, do any of the following in the Destination inspector:
  - Select text in the Name field or Description field, then type a new name or description.
  - Fill in the job action properties in the Action area. Because you're modifying a custom destination, the properties that you provide for the job action will be saved for future use.

For information about job action properties, see [Job action properties](#).

## Delete a custom destination

- In Compressor, select a custom destination in the Presets pane, then press Delete.

# Set a save location

## Change an output's save location in Compressor

A *location* in Compressor specifies where the transcoded file is saved after transcoding. When you apply a preset to a job, Compressor will automatically set it to output to the default location denoted in [General settings](#), but you can change the location of a specific output row.

 **Tip:** You can set a different default location for custom presets by adjusting the "Default location" option in the preset's [General properties](#). When you apply this custom preset, its default location will override the default listed in your General settings.

1. In the batch area in Compressor, Control-click the output row with the location you want to change.
2. In the shortcut menu, select Location, then do either of the following:
  - *Choose a built-in or custom location:* Click a location in the list.
  - *Choose a different location:* Click Other, navigate to a new location on your system, then click Choose.

 **Tip:** If you often save to a location that's not one of the built-in locations in Compressor, you can [create a custom location](#).

The new save location is displayed in the Location column of the batch area.

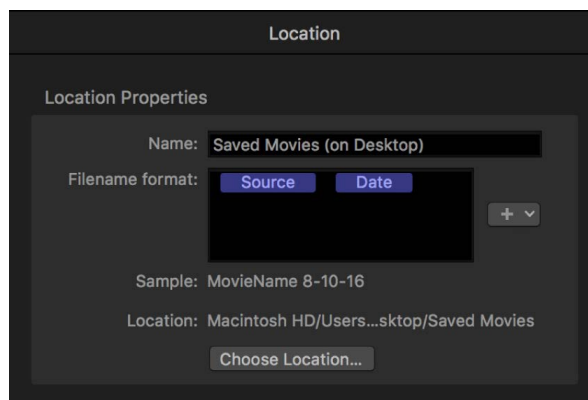
## Built-in locations in Compressor

Use the following built-in locations in Compressor, available in the Locations pane, to specify the save location of a transcoded file.

*Note:* By default, Compressor saves transcoded files to Source. You can change this in [General settings](#).

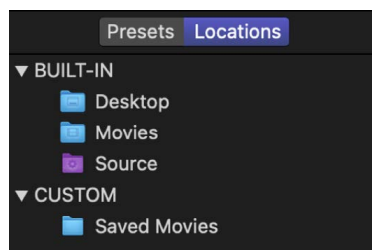
| Built-in location | Use to                                                                  |
|-------------------|-------------------------------------------------------------------------|
| Desktop           | Save the transcoded file to the user's desktop.                         |
| Movies            | Save the transcoded file to the user's Movies folder.                   |
| Source            | Save the transcoded file to the same location as the source media file. |

When you select a built-in location in the Locations pane, its properties are displayed in the Location inspector.



## Create custom save locations and filename formats in Compressor

If you frequently save files somewhere other than Compressor's [built-in locations](#), or you want to automate the naming of output files, you can create a custom location. Built-in and custom locations are shown in the Locations pane.



## Create a custom location

1. In Compressor, click the Add button  at the bottom of the Locations pane.

If the Locations pane is hidden, press Shift-Command-2.

2. In the window that appears, select a location on your computer or on a connected device, then click Choose.

The new location appears in the Custom area of Locations pane and is selected by default. The Location inspector is displayed in the inspector pane.

3. To modify the properties of the location, do any of the following in the Location inspector:

- Type a new name in the Name field.
- Add naming tokens in the "Filename format" field. For instructions on how to modify the filename format, see the next task.
- If you decide to change the save location, click the Choose Location button, specify a new location, then click Choose.

## Set a custom location's filename format

When you add a preset to a job, Compressor automatically assigns an output filename based on the filename format provided in the Location inspector. You can change the filename that Compressor assigns at any time. You can also modify the filename format that's used for locations you've created. Then, each time you use the custom location, your custom filename format will be used for the output file's name.

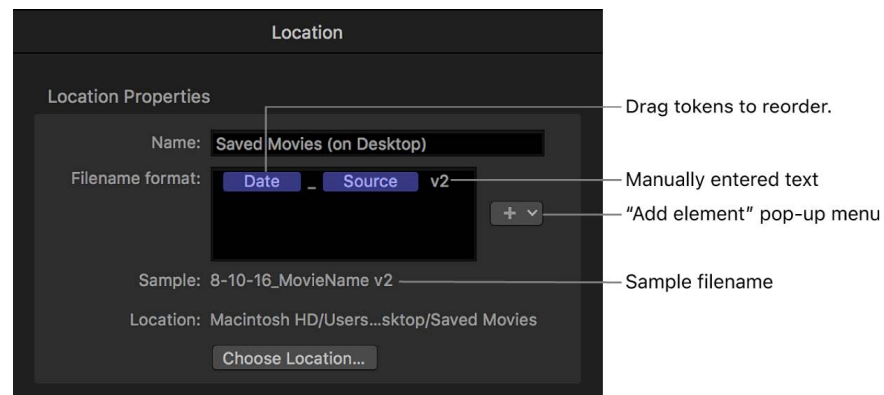
*Note:* You can't modify any part of a built-in location; however, you can duplicate a built-in location and set its filename format as you choose. See the previous task for instructions on creating a custom location.

1. In the Locations pane on the left side of the Compressor window, select a location.

If the Locations pane is hidden, press Shift-Command-2.

2. If necessary, click the Inspector button  to reveal the Location inspector.

The "Filename format" field in the Location inspector displays naming tokens that determine the output filename.



3. To modify the filename format, do any the following:

- *Move existing tokens:* Drag tokens to reorder them. Or click a token to select it, press Command-X to cut the token, click to select a new location in the field, then press Command-V to paste the token in the new location.
- *Add a token:* Click a location in the field to specify where you want to place a new token, then choose a token from the pop-up menu.
- *Add text:* Click a location in the field to specify where you want the additional text, then type the text.

As you change the output filename instructions, the sample filename (shown below the "Filename format" field) is updated.

To change the filename of a single output, see [Change an output's filename](#).

### Delete a custom location

- In the Locations pane in Compressor, select a custom location and then press Delete.  
If the Locations pane is hidden, press Shift-Command-2.

*Note:* You can't delete a built-in location.

## Make adjustments

### Modify frame size in Compressor

There are multiple ways you can customize the frame size of a source clip during transcoding.

#### Crop the source image

To remove part of the original source image, use the cropping controls in the Video inspector. Depending on the "Frame size" preset (in the Video Properties section of the Video inspector), cropping may or may not reveal black borders around the edges of your clips.

1. In Compressor, do one of the following:

- In the batch area, click an output row to select a preset that's been applied to a job. With this method, the modifications you make will be used for outputting only that job.
- In the Presets pane, select a custom preset from the Custom group. (If the Presets pane is hidden, press Shift-Command-1.) With this method, the modifications you make will be saved to the custom preset for future use.

2. In the inspector pane, click Video to open the Video inspector.

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.

3. In the Cropping, Padding, and Rotation section of the Video inspector, do one of the following:
  - In the Cropping property, manually type a number in the Top, Bottom, Left, and Right fields to crop the source image by that many pixels.
  - Click the Cropping pop-up menu, then choose a preset aspect ratio.
 

*Note:* If the aspect ratio you choose doesn't match the aspect ratio selected in the "Frame size" pop-up menu (in the Video Properties section), you may see black bars around the edges of your picture after the file is transcoded.
  - Click the Cropping pop-up menu, then choose Letterbox Area of Source. This instructs Compressor to detect the black edges around the image in your source file and automatically enter crop values to match them. This option is useful if you want to remove the letterbox area (the black bars above and below a widescreen image) of a source media file.
  - In the preview area, click the Comparison button  and position the pointer over the edges of the frame until the pointer changes to a Crop pointer, then drag inward from the edge to crop the image.



*Note:* Cropped edges are visible only on the output side of the preview area (the right side); the source media side of the preview area (the left side) doesn't display the crop effect.

### Pad the source image

Padding adds black to the image to fit it into a different-size frame.

1. In Compressor, do one of the following:
  - In the batch area, click an output row to select a preset that's been applied to a job. With this method, the modifications you make will be used for outputting only that job.
  - In the Presets pane, select a custom preset from the Custom group. (If the Presets pane is hidden, press Shift-Command-1.) With this method, the modifications you make will be saved to the custom preset for future use.
2. In the inspector pane, click Video to open the Video inspector.

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.

3. In the Cropping, Padding, and Rotation section of the Video inspector, do one of the following:
  - In the Padding property, manually type a number in the Top, Bottom, Left, and Right fields to pad the source image by that many pixels.
  - Click the Padding pop-up menu, then choose a preset aspect ratio.
 

*Note:* If the aspect ratio you choose doesn't match the aspect ratio selected in the "Frame size" pop-up menu (in the Video Properties section), the image may appear squished or squeezed after the file is transcoded.
  - Click the Padding pop-up menu, then choose Preserve Source Aspect Ratio. This ensures that the source clip remains at its native aspect ratio. If the "Frame size" pop-up menu (in the Video Properties section) is set to a different aspect ratio, black borders will be added to the transcoded output file.



### Rotate or flip the source image

1. In Compressor, do one of the following:
  - In the batch area, click an output row to select a preset that's been applied to a job. With this method, the modifications you make will be used for outputting only that job.
  - In the Presets pane, select a custom preset from the Custom group. (If the Presets pane is hidden, press Shift-Command-1.) With this method, the modifications you make will be saved to the custom preset for future use.
2. In the inspector pane, click Video to open the Video inspector.
 

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.
3. In the Cropping, Padding, and Rotation section of the Video inspector, do one of the following:
  - *Rotate the source image:* Click the Rotation pop-up menu, then choose whether you want to rotate the image 90 degrees, 180 degrees, or 270 degrees.
  - *Flip the source image:* Click the Flip pop-up menu, then choose whether you want to flip the image horizontally, vertically, or both.

*Note:* The Rotation property is always applied before the Flip property.

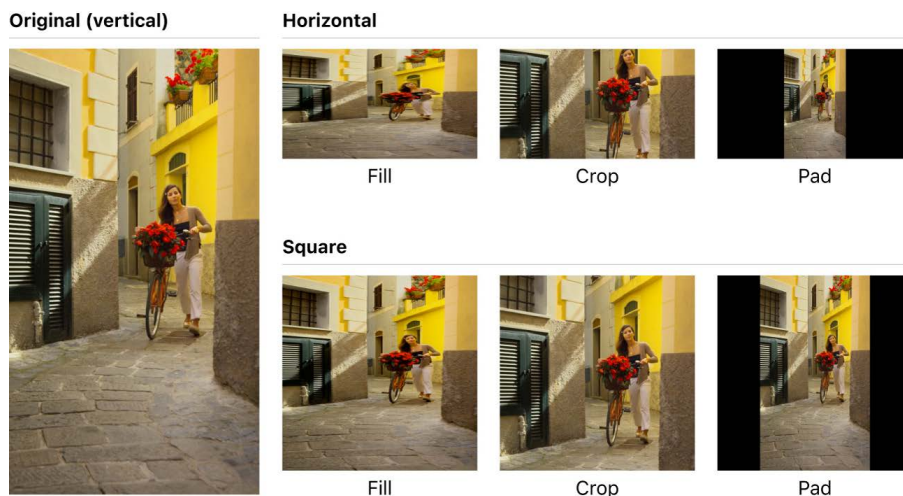
You can determine the method for resizing quality in the Video inspector. See [Set retiming and resizing quality](#).

## Conform to a frame size in Compressor

You can use Compressor to conform your source video to frame sizes for editing or distribution. For example, you may have video from an iPhone that was shot in vertical format and you're creating horizontal video, or you want to create square video for social media distribution.

### Conform video to a frame size

When you set a frame size in the Video inspector, the frame fills until it reaches the lowest bound of the frame size you specified. For example, if you set a source video that's a 720 x 1280 vertical frame to transcode to a horizontal frame that's 1280 x 720 (with no additional cropping or padding), the result is a video that's 480 x 720. To create a video with an exact frame size, constrain the frame size and crop or pad the video. By default, Compressor keeps the source video centered in the frame, but you can change this in the Video inspector.



1. In Compressor, do one of the following:
  - In the batch area, click an output row to select a preset that's been applied to a job. With this method, the modifications you make will be used for outputting only that job.
  - In the Presets pane, select a custom preset from the Custom group. (If the Presets pane is hidden, press Shift-Command-1.) With this method, the modifications you make are saved to the custom preset for future use.
2. In the inspector pane, click Video to open the Video inspector.

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.
3. In the Video Properties section of the Video inspector, choose an aspect ratio from the Constrained section of the Frame size pop-up menu.
4. Type the dimensions of the conforming video frame.



5. In the Cropping, Padding, and Rotation section of the Video inspector do one of the following:
  - *Fill the frame*: Choose Custom from the Cropping and Padding pop-up menus, then type "0" in all the fields. Compressor will stretch your source video to fill the frame.
  - *Crop the frame*: Choose a preset that matches the frame size from the Cropping pop-up menu. Compressor crops to the center of your video to fill the frame. To reposition the crop, choose Custom from the Cropping pop-up menu, then drag the crop box in the Viewer.
  - *Pad the frame*: Choose Preserve Source Aspect Ratio from the Padding pop-up menu. Compressor will pad your source video to fill the frame.
6. Adjust the method for resizing quality as needed. See [Set retiming and resizing quality](#).

 **Tip:** Set duration points to export a single frame until you find the presets for your destination.

## Modify timing and frame rate in Compressor

In Compressor, you can modify the duration of a transcoded file by adjusting controls in the General inspector. You can modify the frame rate of a transcoded file by adjusting controls in the Video inspector.

*Note:* The properties in the Retiming section of the General inspector are always affected by the "Frame rate" property, as well as the "Retiming quality" property in the Video inspector.

### Choose a new duration for a transcoded file

1. In Compressor, do one of the following:
  - In the batch area, click an output row to select a preset in a job. With this method, the modifications you make will be used for outputting only that job.
  - In the Presets pane, select a custom preset from the Custom group. (If the Presets pane is hidden, press Shift-Command-1.) With this method, the modifications you make will be saved to the custom preset for future use.
2. In the inspector pane, click General to open the General inspector.

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.

3. In the Retiming section of the General inspector, modify the Duration property in one of the following ways:
  - Enter a specific percentage of the source footage in the percentage field, or choose a preset value from the pop-up menu (with a down arrow).

*Note:* Choosing a preset from this pop-up menu doesn't change the frame rate of the output file. If you want to create a file at a frame rate other than the source's original rate, you must change the preset in the Video inspector.
  - Click to select the button next to the timecode field and enter a specific duration for the outgoing file. (The percentage field above will automatically update.)

*Note:* This option is available only when you're modifying a preset that's part of a job.
  - Click to select "Set so source frames play at [frame rate] fps."

*Note:* The frame rate used in this option is the value set in the "Frame rate" property in the Video inspector.
4. Adjust the method for retiming quality as needed. See [Set retiming and resizing quality](#).

### Change the frame rate for a transcoded file

1. Select an output row in a job in the Compressor batch area, or select a custom preset in the Presets pane.
2. In the Video inspector, do one of the following:
  - Click the "Frame rate" pop-up menu, then choose an option.

Automatic, the default value, matches the frame rate of the transcoded file to that of the source file if possible. If the source file's frame rate isn't supported within the limitations of the transcode presets, Compressor picks the best match.

You can also choose any of several commonly used frame rates, including 23.976 fps, 24 fps, and so on. Presets that use the Apple Devices, Image Sequence, MPEG-4, or Quicktime Movie formats support frame rates up to 120 fps.
  - Type a custom frame rate in the field to the right of the "Frame rate" pop-up menu.

*Note:* Some formats (such as Apple Devices presets) don't permit custom frame rates.

*Note:* Frame rate conversion can have a subtle or dramatic effect depending on how big a difference there is between the original and new frame rates, and also depending on the specific nature of the footage being converted. Footage with a lot of movement yields a much more visible change than footage with little movement in the frame. Frame rate conversion may also add visible artifacts in the transcoded file; from stuttering (sometimes called "juddery") playback, to repeated frames, ghost images, or other unnatural-looking elements. These effects can be somewhat mitigated by adjusting the "Retiming quality" property in the Quality section of the Video inspector.
3. Click the "Field order" pop-up menu, then choose a progressive or interlaced frame rate.

If the current preset doesn't allow field order modification, this control remains dimmed. If you want to convert a file with an interlaced format into a progressive format, see [Use deinterlacing](#).
4. Adjust the method for retiming quality as needed. See [Set retiming and resizing quality](#).

If the source media file contains audio, retiming modifies the audio speed as well, thereby keeping audio and video in sync. Compressor also automatically corrects the pitch so the audio doesn't sound artificially high or low.

**Important:** If you modify retiming properties in a preset that uses the QuickTime Movie format and choose "Enable audio pass-through" in the Audio inspector, the audio speed is not changed. Consequently, audio in the output file will not maintain sync with the video.

## Set retiming and resizing quality in Compressor

When you modify a file's timing, frame rate, or frame size, you can choose the methods Compressor uses to retain quality in the transcoded file.

1. In Compressor, do one of the following:
  - In the batch area, click an output row to select a preset in a job. With this method, the selections you make will be used for outputting only that job.
  - In the Presets pane, select a custom preset from the Custom group. (If the Presets pane is hidden, press Shift-Command-1.) With this method, the selections you make will be saved to the custom preset for future use.
2. In the inspector pane, click Video to open the Video inspector.

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.
3. In the Quality section of the Video inspector, change any of the following properties:
  - *Resize filter:* This pop-up menu sets the resizing method. There are several options:
    - *Nearest Pixel (Fastest):* Samples the nearest neighboring pixel when resizing an image. This option provides the fastest processing time, but it's more likely to show aliasing artifacts and jagged edges.
    - *Linear:* Adjacent pixel values are averaged using a linear distribution of weights. Produces fewer aliasing artifacts than Nearest Pixel, with a small increase in processing time.
    - *Gaussian:* Adjacent pixel values are averaged using a Gaussian distribution of weights. This provides a medium trade-off between processing time and output quality.
    - *Lanczos 2:* Adjacent pixel values are averaged using a truncated sinc function. This option is slower than Gaussian but provides sharper results.
    - *Lanczos 3:* Similar to Lanczos 2 but averages more pixel values. This option is slower than Lanczos 2 but may produce better results.
    - *Bicubic:* Adjacent pixel values are averaged using a bicubic function. The processing time and output are most similar to Lanczos 2 and Lanczos 3.
    - *Anti-aliased (Best):* Provides the highest output quality, but can take substantially longer to process.

- *Retiming quality*: This pop-up menu sets the retiming method. There are four options:
  - *Fast (Nearest Frame)*: Linearly interpolates frames using nearest neighbor frames.
  - *Good (Frame Blending)*: Blends neighboring frames using a filter to produce good-quality interpolation.
  - *Better (Optical Flow)*: Uses optical flow to interpolate using areas of movement between neighboring frames to produce high-quality output.
  - *Best (Machine Learning)*: Uses a bidirectional optical flow algorithm based on machine learning, resulting in reduced artifacts and better occlusion handling. This option requires a Mac with Apple silicon.
  - *Reverse Telecine*: Removes the extra fields added during the telecine process to convert the film's 24 fps to NTSC's 29.97 fps. See [Use reverse telecine](#).
- *Adaptive details*: Select this checkbox to use advanced image analysis to distinguish between noise and edge areas during output.
- *Anti-aliasing level*: Sets the softness level in the output image. Double-click the value and then manually enter a new value or drag the slider to the right to increase softness. This property improves the quality of conversions when you're scaling media up. For example, when transcoding SD video to HD, anti-aliasing smooths jagged edges that might appear in the image.
- *Details level*: Sets the amount of detail in the output image. Double-click the value and then manually enter a new value or drag the slider to set the value. This sharpening control lets you add detail back to an image being enlarged. Unlike other sharpening operations, the "Details level" property distinguishes between noise and feature details, and generally doesn't increase unwanted grain. Increasing this value may introduce jagged edges, however, which can be eliminated by increasing the "Anti-aliasing level" slider.
- *Dithering*: When selected, adds a certain type of noise to images to prevent large-scale distracting patterns such as color banding. If your image has excessive noise after rendering, deselect this checkbox.

## Wide color gamut and HDR

### Intro to wide color gamut and HDR in Compressor

No image device is capable of capturing and reproducing the full spectrum of colors and levels of brightness visible to the human eye. Consequently, image devices record, edit, display, or output a subset of those colors and luminances. This range of reproducible color is known as the device's *color space* or *color gamut*. See [HDR and Wide Color Gamut in Final Cut Pro](#).

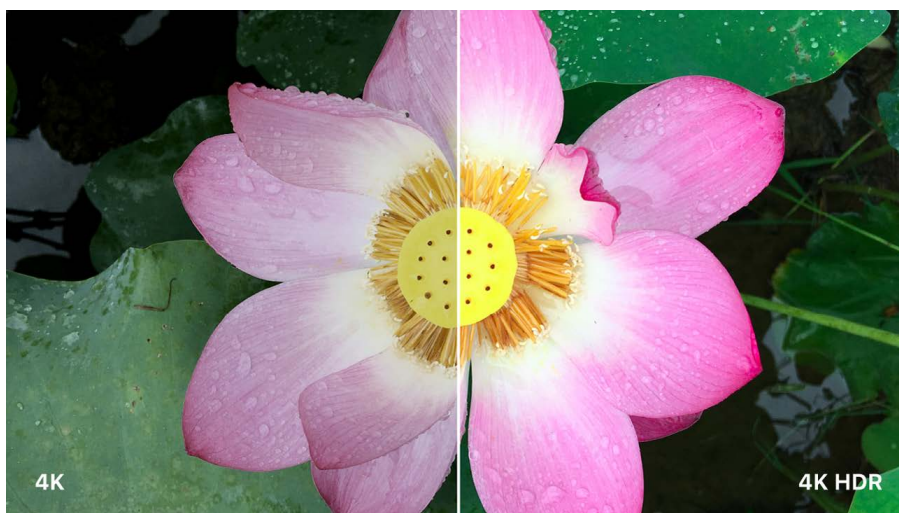
### Standard-gamut versus wide-gamut color

Traditional computer monitors and HDTVs support a limited color space that's based on a decades-old industry standard called *Rec. 709*. *Rec. 709* devices (and the video content created for display on them) have *standard-gamut color*, the constrained color palette you see whenever you view a broadcast HDTV show, DVD, or Blu-ray disc.

A more recent generation of displays—including 4K televisions and computer displays, newer Mac, iOS, and iPadOS devices, and Apple TV 4K—can render a much wider palette of colors. These *wide-gamut color* devices display hues that are more vivid and lifelike (in addition to all the hues that standard-gamut devices can display). Accordingly, the video industry has adopted a wide-gamut color standard called *Rec. 2020*. Although most currently available wide-gamut devices support only a subset of the colors contained in the full *Rec. 2020* specification, future imaging devices should be able to render more and more of those hues.

### High dynamic range (HDR)

Additionally, some newer imaging devices can display extra levels of brightness in each color component (red, green, and blue) in a way that more closely reproduces how the human eye perceives contrast. These *high-dynamic-range* (HDR) displays have a much larger luminance range and typically process video at 10 bits per color component rather than at 8 bits. The larger luminance range and additional color data let HDR displays render more discrete steps from the minimum to maximum brightness value in each color, creating more realistic color transitions and revealing more detail in both shadows and highlights. Compressor lets you view HDR video in the preview window on a supported display.



Devices that combine wide-gamut color with 10-bit HDR capability can produce vibrant hues with nuanced shading, lending more realism and immediacy to an image, revealing more detail, and reducing artifacts like gradient “banding” (often seen in images of the sky as it transitions from lighter to darker areas.)

Several streaming content providers offer wide-color HDR video, including the iTunes Store, Netflix, and Amazon Video. The Ultra HD Blu-ray disc format also supports wide-color HDR video.

### Wide-gamut color and HDR in Compressor

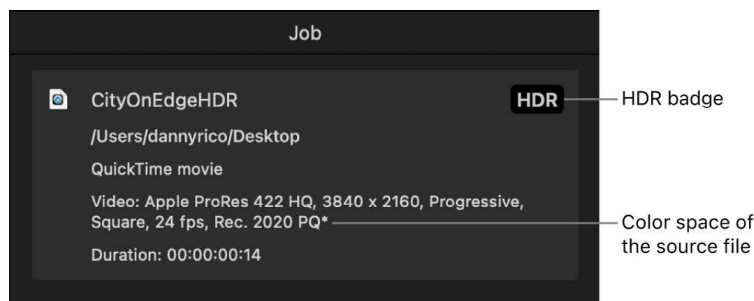
When you add a video file to Compressor for transcoding, the app identifies the source video’s native color space (and displays an SDR or HDR badge in the Job inspector). After you apply a transcode preset to the source file, you can modify that color space in the file you output. Depending on the transcode preset you apply, Compressor offers several common color space options—from standard gamut, to wide gamut, to wide-gamut HDR. For details, see [Change video color space](#).

Transcoding a standard-gamut video to a wide-gamut color space won't improve the video's appearance; the output video will look identical to the original because the wide-gamut color space is a superset of the standard-gamut color space, and the colors won't be changed. Likewise, transcoding an 8-bit video to 10-bit HDR won't change the video's appearance because Compressor can't create additional resolution that wasn't there to begin with.

However, transcoding a wide-gamut video to a standard-gamut color space may result in a more faded-looking, drab image (because the wide-gamut colors will be discarded). And transcoding a 10-bit video to 8-bit color will result in reduced resolution and potential banding in areas of the image with color gradients.

## Change video color space in Compressor

When you add a source video to Compressor, the app identifies the file's native color space and displays a badge (either SDR or HDR) in the Job inspector's summary area.



Some transcode presets let you change that color space in the output video. Presets with 10-bit color allow you to choose a wide-gamut HDR color space for the output file.

**Note:** Although Compressor doesn't display HDR or wide-gamut color in the preview area, files are encoded correctly upon export.

## Review or override the native color space assigned by Compressor

1. After you [add a source file to a batch](#) in Compressor, open the Job inspector and review the option shown in the "Color space" pop-up menu.

If the source file has metadata identifying its native color space, Compressor adds an asterisk next to the color space shown in the pop-up menu. If the source file is untagged or tagged with an unrecognized color space, Compressor assigns a color space based on its assessment of the media and then adds a dagger (†) next to the item the pop-up menu.

2. If you think Compressor inaccurately interpreted the color data in the source file, change the assigned color space by choosing a different option from the pop-up menu.

**Note:** Changing this property to another option doesn't convert the exported file to a different color space. To transcode to a different color space, see "Transcode a video file to a different color space," next.

## Transcode a video file to a different color space

Some transcode presets let you change the color space in the output video.

*Note:* If you transcode a standard-gamut source file to a wide-gamut color space, you won't improve the video's appearance. Similarly, if you transcode an 8-bit, standard-dynamic-range file using a 10-bit HDR option, you won't change the video's appearance (because Compressor can't create additional resolution that wasn't there to begin with).

1. After you [add a source file to a batch](#) and [assign a transcode preset](#) in Compressor, open the Video inspector.

If you assigned a transcode preset that allows you to modify the output file's color space, a "Color space" pop-up menu appears in the Video inspector. (This pop-up menu is different from the "Color space" pop-up menu in the Job inspector, described in the previous task.)

2. To change the color space of the output file, click the "Color space" pop-up menu and choose a different option.

Depending on the transcode preset you applied, there are several choices; if you applied a transcode preset that supports 10-bit color (an Apple ProRes preset or the HEVC preset with 10-bit color), HDR options appear in the pop-up menu:

- *Automatic:* The color space assigned by Compressor (in the "Color space" pop-up menu in the Job inspector).
- *Rec. 601 (NTSC):* An older, standard-gamut color space designed for interlaced analog video signals in North America and Japan.
- *Rec. 601 (PAL):* An older, standard-gamut color space designed for interlaced analog video signals in Europe.
- *Rec. 709:* The standard-gamut, 8-bit color space used by high-definition TV displays, the Blu-ray Disc format, and most TV broadcasters.
- *Rec. 2020:* A wide-gamut color space developed for future consumer display devices but useful today for mastering (to future-proof your projects) and for 4K and 8K TV projects. Even though no currently available consumer TVs can display the entire Rec. 2020 palette, wide-color-gamut displays can display a subset of those colors.
- *Rec. 2020 PQ:* The Rec. 2020 color space using the *perceptual quantizer* (PQ), a mathematical transfer function that converts image signal values in a video file to absolute light levels on an HDR-capable display. Designed to approximate the sensitivity of human eyes, PQ allows for better levels of contrast at all light levels. Use this option to output files in the HDR10 format.
- *Rec. 2020 HLG:* The Rec. 2020 color space using *hybrid log-gamma*, a mathematical transfer function that converts image signal values in a video file to scene-relative light levels. HLG, which was developed by the BBC and the NHK (Japan Broadcasting Corporation), requires no metadata and is also compatible with SDR displays.
- *P3 D65 PQ:* Combines the Display P3 color space (the wide color gamut used by newer Apple devices and by wide-gamut 4K TVs) with the perceptual quantizer (PQ) function to convert color and luminosity values to high-dynamic-range levels of contrast.
- *sRGB (IEC 61966-2-1):* The industry-standard color space for computer displays, similar to Rec. 709 and used in nearly all standard-gamut displays currently on the market. This standard is also used for most digital still images in formats such as JPEG, GIF, PNG, TIFF, BMP, and so on.



3. After you set the output color space and adjust any other desired presets, [transcode the batch](#).

## Add video and audio effects

### Add and remove effects in Compressor

Compressor provides a variety of video and audio effects that you can use to improve the quality of the video and audio in the transcoded file. Video effects modify specific visual aspects of your source media, such as brightness and contrast, color, noise levels, and interlacing. Audio effects modify sound aspects in your source media, such as dynamic range, peaking, and equalizer effects.

Because effects are processed one by one by Compressor during transcoding—starting with the first item in the list—it's important that you add the effects in the order you want them applied. For example, it's sensible to add a text overlay effect last in your list of effects so that its text color isn't modified by other effects.

To add an effect to an output file, you add the effect to a preset and then use that preset to output your source file. You can view both the source file and a preview of the transcoded file in the preview area.

You can also assign a custom or creative lookup table (LUT) to give your video a specific look.

**Important:** As with other properties you add to a preset, effects you add to a built-in preset are not saved for future use. If you want to save the effects you apply to a preset, you must create a custom preset by duplicating the built-in preset that contains the effects. See [Create custom presets](#).

### Add a video or audio effect

1. In Compressor, do one of the following:
  - In the batch area, click an output row to select a preset that is part of a job.
  - In the Presets pane, select a custom preset from the Custom area. (If the Presets pane is hidden, press Shift-Command-1.)
2. In the Video inspector or Audio inspector, click the Add Video Effect pop-up menu or the Add Audio Effect pop-up menu, then choose an option.

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.

After you choose an effect from the pop-up menu, its adjustable properties appear at the bottom of the inspector. For detailed information about these properties, see [Video effects](#) and [Audio effects](#). You can apply multiple video and audio effects. When you add an effect, a checkmark appears beside the effect name in the pop-up menu.

3. Preview effects that you've added to a preset by clicking the Play button  in the preview area.

Because effects may interact in unexpected ways, be sure to preview the transcoded file each time you add an effect.

**Note:** Depending on your system, the source media file type and the number of effects in the job, the preview area showing the filter presets may update at a lower frame rate than the source frame rate.



## Turn an effect off or on

After adding an effect to a preset, you can turn its properties off or on. This can be useful when previewing an effect.

- In Compressor, click the activation checkbox next to the effect properties.

## Remove an effect from a preset

- In Compressor, click the Add Video Effect pop-up menu (at the bottom of the Video inspector) or the Add Audio Effect pop-up menu (at the bottom of the Audio inspector), then choose a checkmarked item.

The effect's properties are removed from the list below the pop-up menu.

## Video effects in Compressor

The Add Video Effect pop-up menu in the Video inspector contains the following effects:

- *Black/White Restore*: Compresses the solid black and white areas (luminance) in the video, such as backgrounds. This effect can restore nearly black colors to pure black and restore nearly white colors to pure white without affecting colors in the rest of the image. Drag the sliders to set the black and white values between 0 and 100.
- *Brightness and Contrast*: Brightens or darkens the overall color and luminance of the video. For example, use this effect to counteract the darkening to video that some QuickTime codecs can cause. It's recommended that you avoid extreme presets, because they can make colors look washed-out. Drag the sliders to set brightness and contrast values between -100 and 100.
- *Color Correct Highlights*, *Color Correct Midtones*, *Color Correct Shadows*: Corrects white balance inaccuracies and creates color effects on the bright, midtone, or dark areas of the video. Drag the sliders to set red, green, and blue values between -100 and 100.
- *Custom LUT*: Applies a custom lookup table (LUT) to the video. This effect can be used to give your video a specific look. This effect contains the following properties:
  - *LUT file*: Click the Select button to specify a LUT file to use for the effect.
  - *Color space*: Use this pop-up menu to select the target color space for the video.
- *Fade In/Out*: Adds a dissolve and a matte color at the beginning and end of the clip. This effect has the following properties:
  - *Fade in duration/Fade out duration*: Enter a time (use a decimal to specify tenths of seconds) in the text field to set the duration of the fade-in and fade-out effects.
  - *Fade in opacity/Fade out opacity*: Drag the sliders to set the opacity of the clip's video at the first and last frames. A value of 0.0 sets the clip video to be completely covered by the matte color; a value of 0.5 sets the clip to be 50 percent covered by the matte color; and so on.
  - *Fade color*: Click the color well to set the fade-in and fade-out color.

- *Gamma Correction*: Controls the range of brightness in an image. This effect can be used to remove detail from an underexposed clip or to reduce the saturation of an overexposed clip. Drag the slider to set gamma values between 0.1 and 4.0.

*Note*: Computers using different operating systems have different monitor settings. For cross-platform viewing, correcting the gamma will improve the image for all platforms.

- *Noise Removal*: Reduces random flecks of noise in the video file, including noise introduced by codecs. This effect allows you to blur areas of low contrast while leaving high-contrast edges sharp, creating results that are imperceptible to the human eye but that improve the final compression of the transcoded file. The effect's properties include:
  - *Apply to*: Use this pop-up menu to set the channels from which noise is filtered. Choose "All channels" to filter noise from all channels including the alpha channel. Choose "Chroma channels" to filter noise from the two chroma channels (U and V) in YUV.
  - *Iterations*: Choose the number of noise-smoothing passes (between 1 and 4) from this pop-up menu. For instance, if you choose 2 passes, the noise-removal algorithm is applied to the media file twice. The file resulting from the first pass is used for the second pass, and so on, so that the more times a pass is performed, the fuzzier the image becomes.
  - *Algorithm*: Choose a noise-smoothing algorithm from this pop-up menu. Choose Average to modify each pixel's color by taking an average of pixels around it, including its own color value. Choose Replace to modify each pixel's color by taking an average of pixels around it, while ignoring its own color value. Choose Merge to modify each pixel's color by taking a weighted average of surrounding pixels and itself (with the pixel's own color value given greater weight).
- *Sharpen Edge*: Sets the contrast around object edges. This effect can counteract the softening caused by noise removal or blurred source material and increase the perception of sharpness in the video. However, note that too much of this effect can make video look grainy. Drag the slider to set sharpening between 0.0 and 100.0.
- *Text Overlay*: Superimposes text onto the image. The Text Overlay effect contains the following properties:
  - *Position*: Choose a position for the text overlay from the pop-up menu, such as Center, Lower Left, Lower Left–Title Safe, and so on.
  - *Alpha*: Drag the slider to set the text opacity between 0 (completely transparent) and 1 (completely opaque).
  - *Overlay text*: Type text in this field.
  - *Text color*: Click the color well to set the text color.
  - *Font*: Click the Select button to set the font, style, and size.
  - *Automatic font size*: Select this checkbox to have Compressor automatically choose the size of the font based on the frame size of the source material.

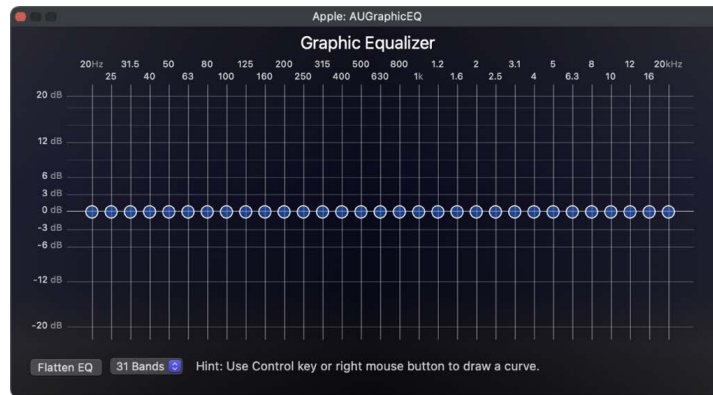
- *Timecode Generator*: Superimposes the clip's timecode onto the video. The Timecode Generator effect contains the following properties:
  - *Position*: Choose a position for the timecode overlay from the pop-up menu, such as Center, Lower Left, Lower Left–Title Safe, and so on.
  - *Alpha*: Drag the slider to set the text opacity between 0 (completely transparent) and 1 (completely opaque).
  - *Label*: Optionally, type text that you want to appear to the left of the timecode number.
  - *Start timecode at 00:00:00:00*: Select this checkbox to have the timecode start at zero. When the checkbox is not selected, the timecode starts at the video's timecode.
  - *Text color*: Click the color well to set the text color.
  - *Font*: Click the Select button to set the font, style, and size.
  - *Automatic font size*: Select this checkbox to have Compressor automatically choose the size of the font based on the frame size of the source material.
- *Watermark*: Superimposes a still image or a movie file onto the video. Compressor automatically resizes the watermark based on the frame size of the source material. You can make changes to the scale in the settings below. This effect contains the following properties:
  - *Position*: Choose a position for the watermark from the pop-up menu, such as Center, Lower Left, Lower Left–Title Safe, and so on.
  - *Scale by*: Drag the slider to set the watermark image's scaling between 1 (actual size) and 10 (10 times the actual size).
  - *Alpha*: Drag the slider between 0 (completely transparent) and 1 (completely opaque) to adjust the watermark's opacity.
  - *Repeat*: If you are using a video clip for the watermark image, select this checkbox to loop the playback of the watermark clip throughout the duration of the source file.
  - *Watermark*: Click the Select button to specify a still image or video file to use for the watermark.

## Audio effects in Compressor

The Add Audio Effect pop-up menu in the Audio inspector contains the following effects:

*Note:* Audio effects are not available in some presets when the “Enable audio pass-through” checkbox is selected in the Audio inspector.

- *Apple: AUGraphicEQ:* Configures a wide variety of frequencies throughout the audible frequency range. Click the Options button to open the graphic equalizer window, then choose either a 31-band version or a 10-band version from the pop-up menu at the bottom.



Adjust frequencies by doing any of the following:

- Drag a slider to adjust the level of a frequency band.
- Select a frequency slider and then type a number in the dB field (in the lower-right corner of the graphic equalizer window).
- Click the Flatten EQ button to set all bands to a 0.0 dB value.
- Drag to select multiple bands and then adjust the group.
- Hold down the Control key while dragging across the bands to “draw” an equalization curve.
- *Dynamic Range:* Controls a clip’s audio levels by enhancing the quieter parts and lowering the louder parts. This is also referred to as *audio level compression*. The Dynamic Range effect contains the following properties:
  - *Soften above:* Drag the slider to set the level at which audio is reduced (softened) to the level set by the “Overall gain” control (described below).
  - *Noise threshold:* Drag the slider to set the level at which the effect is applied. Audio at and above the noise threshold is dynamically boosted to the level set by the “Overall gain” control (described below), and audio below the noise threshold is not modified.
  - *Overall gain:* Drag the slider to set the average level of the dynamically compressed audio.

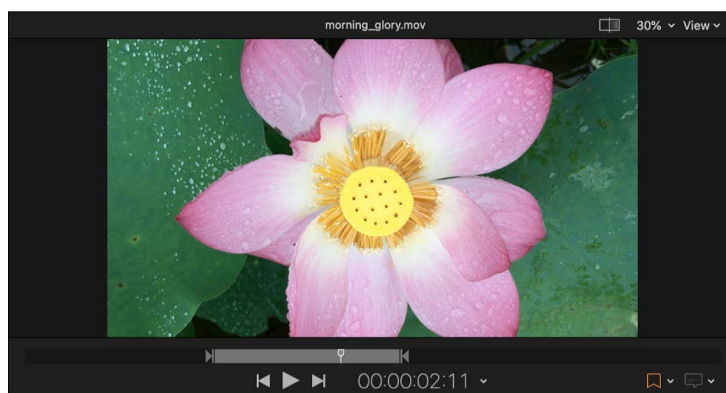
- *Fade In/Out*: Adds an audio fade-in effect at the beginning of the clip and a fade-out at the end of the clip. The Fade In/Fade Out filter contains the following properties:
  - *Fade in duration*: Enter a value in the text field or move the slider to set the length of the fade in seconds.
  - *Fade out duration*: Enter a value in the text field or move the slider to set the length of the fade out in seconds.
  - *Fade in gain*: Drag the slider to set the value between –100.0 (silence) and 0.0 (the audio's volume) to define the audio volume at which to start the fade in.
  - *Fade out gain*: Drag the slider to set the value between –100.0 (silence) and 0.0 (the audio's volume) to define the audio volume at which to end the fade out.
- *Peak Limiter*: Sets the level of the loudest audio allowed in the clip. Drag the Gain slider to set the level above which louder peaks are reduced.

## Transcode time ranges in Compressor

You can limit transcoding to specific time ranges in a media file by preset In and Out points.

### Transcode a portion of a source file

1. In the Compressor batch area, select the job that contains the source file that you want to transcode.
2. In the preview area, do one of the following to mark In and Out points:
  - Drag the In point  to where you want the transcoding to begin, then drag the Out point  to where you want the transcoding to end.



- Press the Play button  (or press the Space bar) to preview the media file. When the playhead reaches the location where you want to place an In point, press I. When the playhead reaches the location where you want to place an Out point, press O.

*Note:* You can view the duration of the portion of the source file in the Job inspector.

Only the portion of the source file that you identified will be transcoded when you submit the batch.

## Transcode multiple portions of a source file

To transcode multiple portions of the same clip, you create a job for each portion of the source file you want to transcode.

1. In the Compressor batch area, select the job that contains the source file you want to transcode.
2. In the preview area, set a portion of the source file to be transcoded by doing the following:
  - Drag the In point  to where you want the transcoding to begin, then drag the Out point  to where you want the transcoding to end.
  - Press the Play button  (or press the Space bar) to play the source file. When the playhead reaches the location where you want to place an In point, press I. When the playhead reaches the location where you want to place an Out point, press O.
3. Duplicate the job by doing the following:
  - a. Control-click the job you used in step 1, then choose Copy from the shortcut menu.
  - b. Select an empty part of the batch area to deselect the job you just copied, then Control-click the batch area and choose Paste from the shortcut menu.The duplicate job is pasted into the batch area.
4. Designate a different portion of the source file to be transcoded by following the instructions in steps 1 and 2.

## Modify starting timecode in Compressor

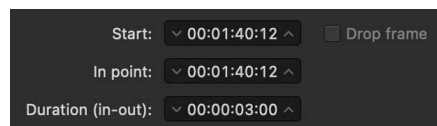
You can modify a job's starting timecode in the timing area of the Job inspector. Modifying the starting timecode automatically adjusts the job's In point to match the new start time.

1. Select the job in the Compressor batch area.

 **Tip:** To select a job, rather than one of its output rows, click the source filename at the top of the job.
2. If necessary, click the Inspector button  to reveal the inspector pane.

The selected job's properties are displayed in the Job inspector.
3. Enter the timecode's starting value in the Start field.

You can drag up or down on a timecode unit, or click on a unit and press the up or down arrow keys to change only that unit.



4. To use drop-frame timecode, select Drop frame.

## Change an output's filename in Compressor

When you apply a preset to a source file, Compressor assigns a default name to the output file: the source filename appended with the extension of the format used during transcoding (.mov or .mp4, for example). If you want, you can change that name.

- In the Filename column of an output row, double-click the name of a file, then enter a new name.

*Note:* If you see an alert icon  to the left of the filename, the filename assigned to that output row has already been used. Click the alert icon to view a description of the error. See [Review errors and warnings](#).

If you want to change Compressor's default filename format, you can [create a custom location](#) with your preferred filename format, then set it as your default location in [General settings](#).

## Add markers using Compressor

A marker flags a specific timing location in a source file. You can use Compressor to append a marker with editing notes or other descriptive information. Additionally, when you output the source file to an H.264, MPEG-2, or MPEG-4 video format, each marker forces the creation of an I-frame. Added I-frames improve compression quality, but can increase overall file size. Compressor can create the following types of markers:

- *Chapter markers:* Generate named index points for DVDs, QuickTime movies, or video podcasts, and thumbnail images for QuickTime movies. You can also assign a URL to a chapter marker to have that URL appear during playback of a podcast. Chapter markers are also included in submissions to the iTunes Store as part of an iTunes Store package. Chapter markers appear orange in the Compressor preview area.
- *Compression markers:* Generate an I-frame, but do not generate thumbnails, chapter-track entries, or other metadata. Add them to a video if a section appears to have lower image quality than the surrounding frames. Compression markers appear blue in the Compressor preview area.
- *Edit markers:* Function identically to compression markers. They are commonly used by compression artists to force an I-frame at an edit point to ensure higher image quality at that moment in the video. Edit markers appear red in the Compressor preview area.
- *Podcast markers:* Like chapter markers, podcast markers can have artwork and a URL assigned to them. Podcast markers are usually used to provide a slideshow (with URLs) for users to view when playing audio podcasts. However, podcast marker names do not appear in the slideshow, and users can't navigate to a podcast marker in the transcoded file. Podcast markers appear purple in the Compressor preview area.

Markers can be output when using presets based on the following formats:

- H.264 for Apple Devices
- MPEG-2
- MPEG-4, when configured for audio podcasting
- QuickTime Movie

**Important:** Although you can set and configure markers for all jobs, only jobs that use the output file formats listed above will output a file that includes markers.

## Add a marker to a media file

1. In the Compressor batch area, select the job that contains the source file to which you want to add markers.

 **Tip:** To select the job, rather than an output row under the job, click the source filename at the top of the job area.

2. In the preview area, identify where to place the marker by doing one of the following:
  - Drag the playhead  to where you want to add a marker.
  - Enter a timecode value in the playhead timecode field.
3. To add a marker, click the Add Marker button  (or press M).

An orange chapter marker appears in the source file's timeline in the preview area.



4. To change the marker type, click the Type pop-up menu in the Marker inspector, then choose a different marker type.

*Note:* If the Marker inspector is not visible, make sure the marker is selected in the preview area and the Inspector button  in the upper-right corner of the Compressor window is highlighted.

## Change the default marker type

When you add a new marker, it's automatically set as a chapter marker. You can change this default so new markers are always added as one of the other types of markers.

- Click the arrow next to the Marker button  in the Compressor preview area, then choose an item in the Default Marker submenu.

## Specify properties for chapter and podcast markers

You can specify the properties of a chapter or podcast marker in the Marker inspector.

*Note:* A podcast can have both chapter markers and podcast markers. The only difference is that a viewer can navigate directly to a chapter marker but can't navigate to a podcast marker.

1. Select a job in the Compressor batch area, then select a marker in the preview area.
2. In the Marker inspector, click the Type pop-up menu, then choose either Chapter or Podcast.



3. Enter a name for the marker in the Name field.

During playback of a transcoded file, chapter marker names are displayed on Apple playback devices, in QuickTime Player, and in DVD menus. Podcast marker names are not displayed.

4. Enter a web address in the URL field.

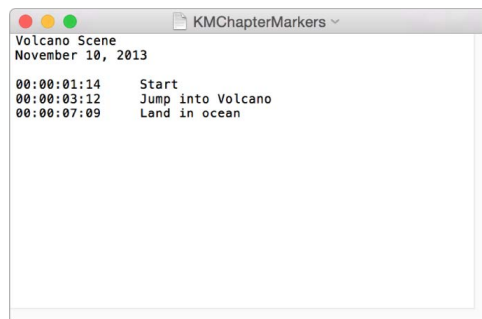
When viewing the transcoded file, you can click the URL to open a web browser and view a website.

5. Select an image to be displayed at the marker point by choosing an option from the Image pop-up menu:

- *Frame*: Uses the frame on which the marker is placed as the display image. To use a different frame in the source file, enter a different timecode value in the viewer that appears at the bottom of the Marker inspector.
- *File*: Uses an image file that you select via the window that appears. To change the image file after you've already added it to the Marker inspector, click Choose, then select a different image file.

### Add markers using a chapter marker list

You can use Compressor to create a list of timecode points (using values that match the timecode on the track's video clip) and then import that list to create chapter markers.



The file containing the list of timecode points must follow these rules:

- The list of timecode values must be a plain text file. For best results, create the list with TextEdit and save the files using the .chnp or .txt extension.
- Each marker must be on a new line that starts with a timecode value in the format 00:00:00:00.
- After the timecode value, you can include a name for the marker. You can use a space or tab character to separate the timecode value from the marker name.
- Any lines that do not begin with a timecode value are ignored. This makes it easy for you to add comments to the list.
- The timecode values do not have to be listed in chronological order.

After creating the list, you import it into Compressor:

1. In the Compressor batch area, select the job that you want to add markers to.
2. In the preview area, click the arrow next to the Marker button , then choose Import Chapter List.

3. In the window that appears, select the chapter marker file and click Open.

The markers are added to the source file as chapter markers. You can view them in the preview area.

You can manually change the markers to podcast or compression markers. You can also add URLs and artwork to them as needed. For more information, see the previous tasks.

### Hide markers

You can set Compressor to show or hide the different types of markers.

- Click the arrow next to the Marker button , then select Chapter/Podcast Markers, Compression Markers, or Edit Markers in the Show category to remove the checkmark.

To reveal a type of markers, select the same item in the pop-up menu so that the checkmark reappears.

### Remove markers

1. Select a job in the Compressor batch area, and then select a marker in the preview area.

You can also select markers by clicking the Next button  or Previous button  in the preview area.

2. Do one of the following:

- *Remove all markers in the source file:* Click the arrow next to the Marker button , then choose Remove All Markers.
- *Remove one marker:* Select a marker by clicking it or clicking the Next button  or Previous button  in the preview area. Then click the Marker button .

## Set a poster frame in Compressor

The *poster frame* is a still image that represents a video or audio media file or a podcast chapter.

*Note:* When viewing the output file in Apple TV Home Videos, if no poster frame is set, Apple TV Home Videos automatically uses the frame 10 seconds from the movie's first frame as the poster frame.

### Set the poster frame for a job

1. In the Compressor batch area, select the job that contains the source file that you want to set a poster frame in.

 **Tip:** To select the job, rather than an output row under the job, click the source filename at the top of the job area.

2. In the preview area, position the timeline playhead  at the frame you want to be the poster frame.
3. In the preview area, click the arrow next to the Marker button , then choose Set Poster Frame.

A poster frame marker  appears in the timeline.

### Go to the poster frame

- In the Compressor preview area, click the arrow next to the Marker button , then choose Go to Poster Frame.

### Remove the poster frame

- In the preview area, click the arrow next to the Marker button , then choose Clear Poster Frame.

## Work with metadata annotations in Compressor

You can embed metadata into files transcoded using the Apple Devices, Apple ProRes, MP3, MPEG-4, and QuickTime presets. Use metadata to annotate a media file with information that's important for your workflow or for the person viewing your output file. You can add any of the annotation fields provided in Compressor, import metadata that's used in another media file (like a QuickTime movie), or pass through existing metadata.

### Manually add annotations to a media file

1. In the Compressor batch area, select the job that contains the media file you want to annotate.  
 **Tip:** To select the job, rather than an output row under the job, click the source filename at the top of the job area.
2. In the Job Annotations area of the Job inspector, click the Fields pop-up menu, choose an annotation type, then enter text in the field that appears.
3. Repeat step 2 for each annotation type you want to add.

The annotations you added are shown in fields below the pop-up menu.

*Note:* If you see the message "Some source file annotations cannot be displayed," your job contains metadata—lyrics, for example—that Compressor cannot display. See [Modify pass-through metadata](#).

### Import annotations from an external file

You can import metadata annotations into Compressor from an external QuickTime movie or from an *XML dictionary property list*, a text file used in macOS, iOS, and iPadOS programming frameworks to store metadata categories and values (*keys* and *strings*). For detailed information about XML property lists, see the Apple Developer document [What Is a Property List?](#)

1. In the Compressor batch area, select the job that contains the media file you want to annotate.  
 **Tip:** To select the job, rather than an output row under the job, click the source filename at the top of the job area.
2. In the Job Annotations area of the Job inspector, click the Fields pop-up menu, choose Import, select a QuickTime movie or XML property list file that contains annotations, then click Open.

Metadata values in the QuickTime movie or XML file that correspond to the metadata categories in Compressor are added to the fields below the pop-up menu, overwriting any existing metadata values.

Compressor recognizes the following metadata categories in QuickTime movie files and XML property list files:

```
com.apple.quicktime.album
com.apple.quicktime.artist
com.apple.quicktime.author
com.apple.quicktime.comment
com.apple.quicktime.copyright
com.apple.quicktime.creationdate
com.apple.quicktime.description
com.apple.quicktime.director
com.apple.quicktime.displayname
com.apple.quicktime.genre
com.apple.quicktime.information
com.apple.quicktime.keywords
com.apple.quicktime.location.ISO6709
com.apple.quicktime.producer
com.apple.quicktime.publisher
com.apple.proapps.reel
com.apple.quicktime.software
com.apple.quicktime.title
com.apple.quicktime.collection.user
com.apple.quicktime.rating.user
com.apple.quicktime.year
```

*Note:* If you see the message “Some source file annotations cannot be displayed,” your job contains metadata—lyrics, for example—that Compressor cannot display. See [Modify pass-through metadata](#).

### Modify pass-through metadata

You can choose how to handle metadata in your transcodes.

1. In the Compressor batch area, select an applied preset.
2. In the Metadata section of the General inspector, choose an option:
  - *Use Job Annotations:* Includes the metadata from the Job Annotations listed in the Job Inspector. This is the default preset.
  - *Pass through source file metadata:* Passes the existing metadata from the source file to the transcode. Ignores Job Annotations listed in the Job Inspector.
  - *Remove all metadata and annotations:* Passes no metadata to the source file.
  - *Include metadata from the source file that cannot be displayed as a job annotation:* Available when Use Job Annotations is selected. Includes the metadata from the Job Annotations listed in the Job Inspector and passes the existing metadata from the source file to the transcode.
3. Click Start Batch to export your file.

## **View annotations after transcoding**

After Compressor transcodes a media file that has metadata, there are several ways to see the annotations:

- In the Finder, select the transcoded media file, choose File > Get Info, then in the info window click the disclosure triangle next to More Info.
- Open the media file in QuickTime Player, then choose Window > Show Movie Inspector. QuickTime Player displays several (but not all) categories of Compressor metadata at the top of the inspector.
- After importing the media file into Final Cut Pro, select the clip and open the Info inspector.
- In third-party apps and utilities, see the product documentation for details about viewing metadata.

# Preview and transcode

## Intro to previewing and transcoding in Compressor

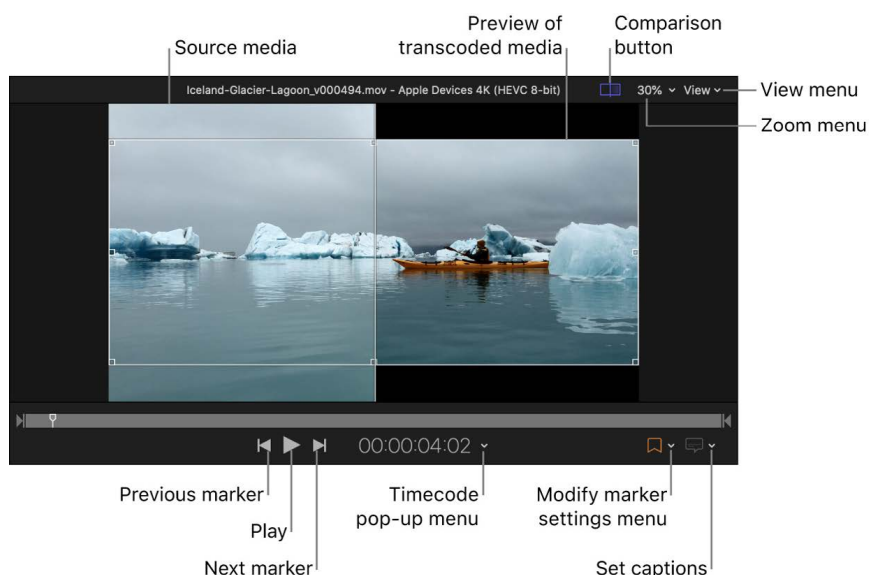
After you [import source media](#) and [apply transcoding instructions](#) in Compressor, there are only a few steps left in the transcoding process:

- [Preview transcoding jobs.](#)
- Review [batch details](#) and any [errors or warnings](#).
- [Transcode the batch.](#)

You can also send content from Final Cut Pro or Motion directly to Compressor for transcoding. See [Transcode Final Cut Pro and Motion projects](#).

## Preview jobs in Compressor

Before you process a job, you can preview what your transcoded files will look like. The preview area has a number of tools to help you visualize how your final output will appear.



## Change how the timecode is displayed

You can change how the timecode is displayed in the preview area.

1. In Compressor, click the disclosure arrow to the right of the timecode in the preview area.
2. In the pop-up menu that appears, select Timecode, Seconds, or Frames.

## Change the aspect ratio of the previewed file

You can choose to preview media at the aspect ratio of either the source file or the transcoded output file.

1. In a job in the Compressor batch area, select the output row that includes the preset you want to preview.
2. Click the View menu (in the upper-right corner of the preview area) and under Aspect Ratio choose Source to preview at the aspect ratio of the source media file, or Output to preview at the aspect ratio of the transcoded output file.

## Change which eye to assign a stereoscopic video preview

When you preview stereoscopic video, you can specify which eye's view you want to see in the preview area.

1. In a stereoscopic job in the Compressor batch area, do one of the following:
  - Select the source media.
  - Select the output row that includes the preset you want to preview.

*Note:* If you're previewing stereoscopic video that uses separate files for each eye, make sure the Comparison button  in the preview area is turned off.
2. Click the View menu (in the upper-right corner of the preview area) and choose Left to preview the media as the left eye asset, or Right to preview the media as the right eye asset. Note that Compressor labels the source media's intended eye as the hero eye.

If the stereoscopic source media uses separate left- and right-eye files, changing the View option switches between the two files. For frame-packed stereoscopic source media, changing the View option shows you the portion of the image designated for the left or right eye.

*Note:* Working with MV-HEVC encoded video requires a Mac with Apple silicon and macOS 14 or later. Other systems treat MV-HEVC stereoscopic video as monoscopic HEVC files, using only the hero eye.

### Preview how a transcoded file will look and sound

1. In a job in the Compressor batch area, select the output row that includes the preset you want to preview.
2. Turn on comparison previewing by doing one of the following:
  - Click the Comparison button  in the preview area if it isn't already selected (highlighted).
  - Click the View menu (in the upper-right corner of the preview area), and choose Source and Output under the Display options.
3. Click the Play button .

The source file video plays on the left side of the preview area, and a preview of the transcoded file plays on the right side. The transcoded audio plays through your computer speakers (or through connected speakers or headphones).

### Preview the source file only

1. In a job in the Compressor batch area, select the output row that includes the preset you want to preview.
2. Turn off comparison previewing by doing one of the following:
  - Click the Comparison button  in the preview area if it's selected (highlighted).
  - Click the View menu (in the upper-right corner of the preview area), and choose Source Only under the Display options.
3. Click the Play button .

### Zoom in or out in the preview area

In Compressor, do one of the following:

- Pinch open or closed on a trackpad.
- Double-tap with two fingers on a trackpad to toggle the zoom level between 100% and Zoom to Fit.
- Click the Zoom pop-up menu (in the upper-right corner of the preview area), then choose a zoom level.
- Press Shift-Z to resize the preview area to fit the current available window space.

 **Tip:** To increase the available preview area space, resize the Compressor window, or drag the divider bar between the preview area and the batch area down.

### View different areas of a zoomed-in preview area

When the preview area is zoomed to a level greater than 100%, you can't view the entire image at once. However, you can scroll the preview area to see compression or scaling artifacts in detail.

In Compressor, do one of the following:

- Swipe the trackpad using two fingers.
- Drag the inner box of the navigation control (in the upper-right corner of the zoomed-in preview area).



## Change the preview area background

You can choose between five different options for preview area background. This is especially helpful when you have source media with a transparent background. The background option you choose determines how you view the preview area background behind the visible media.

1. In a job in the Compressor batch area, select the output row that includes the preset you want to preview.
2. In Compressor, click the View menu (in the upper-right corner of the preview area) and choose one of the following Background options:

*Black to Media Edge:* The preview area background is dark gray (the default preview area background color) until the borders of the source media file. Inside the source media file, the transparent area is black.

*Black:* The preview area background is black, including inside the transparent background area of the source media file.

*White:* The preview area background is white, including inside the transparent background area of the source media file.

*50% Gray:* The preview area background has a gray gradient (50% gray), including inside the transparent background area of the source media file.

*Checkerboard:* The preview area background has a gray and white checkerboard pattern, including inside the transparent background area of the source media file.

## View caption text in the preview area

If you've added captions to your job, you can view that text in the preview area.

1. In the Compressor batch area, select the output row for the job containing closed-caption data.
2. In the preview area, click the Captions button .

When this button is highlighted, captions are shown in the preview area.

3. To stop displaying captions, click the Captions button  again.

## For iTunes Store packages, choose audio tracks, view closed-caption text, or view subtitle text

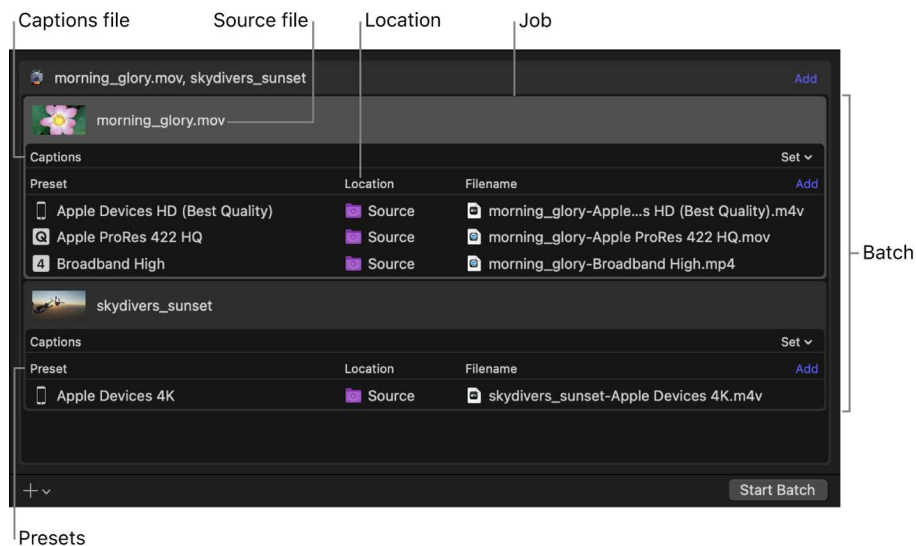
iTunes Store packages are special types of batches that can include closed-caption data, subtitles (in multiple languages), and alternative audio tracks. In the preview area, you can view any of that text and choose which audio track to hear.

1. In the Compressor batch area, select the Feature video.
2. In the preview area, do either of the following:
  - Click the arrow next to the Captions button , then choose the captions or subtitle text you want to display.
  - Click the arrow next to the Audio button , then choose the audio track you want to hear.

See [Intro to iTunes Store packages](#).

# Review batch details in Compressor

After [applying transcoding instructions](#) in Compressor, you can review all of the relevant details in the batch area.



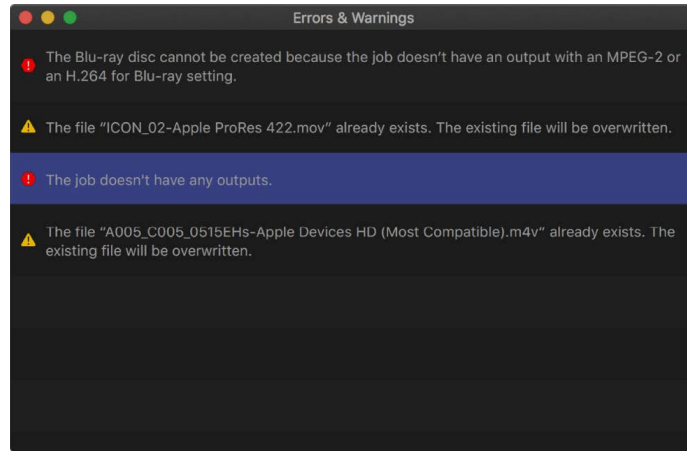
- **Source file:** The media file that you want to transcode.
- **Preset:** The transcoding instructions that specify how the file will be processed. Compressor provides a variety of built-in presets that you can use to output files in common media formats. Additionally, Compressor provides a number of preconfigured *destinations*—one or more presets combined with an automated *job action* that's performed after transcoding.
- **Location:** The place on your computer or a connected device where the transcoded file will be saved. You can use one of the built-in locations, or specify a new location.
- **Filename:** The title of the transcoded file. You can use the default filename (the name of the source file) or type a custom filename.
- **Job action:** A post-transcoding action you can add to a job—such as copying a file to your Home Videos library on Apple TV. Each of the built-in destinations already contains a job action.
- **Captions file:** A supplemental text file in the CEA-608, iTT, or SRT format that you can optionally add to a job to create synchronized closed captions or subtitles. See [Intro to captions](#).

## Review errors and warnings in Compressor

The Errors & Warnings window in Compressor lists any errors or warnings that may prevent a batch from being properly processed. If you see an alert icon (⚠️ or 🛑) in the batch area, there are one or more problems with the batch.

1. In Compressor, click an alert icon (or press Command-E) to open the Errors & Warnings window.

Alerts showing a yellow yield sign ⚠️ are warnings that won't prevent a batch from being started but may result in errors or unexpected results. Alerts showing a red stop sign 🛑 are errors that must be fixed before a batch can be started.



2. In the Errors & Warnings window, click an alert message to highlight the affected job in the batch area.

*Note:* Some errors visible in the Errors & Warnings window don't have a corresponding alert icon in the batch area.

3. Fix errors and address alerts as needed.

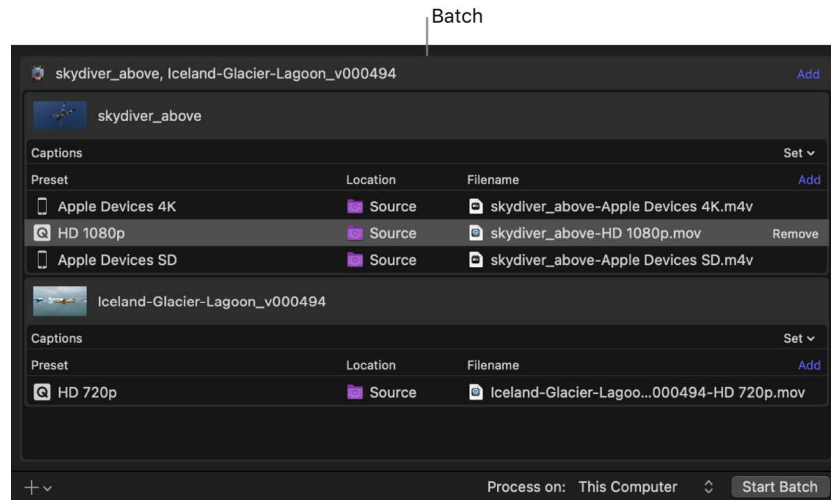
## Transcode a batch in Compressor

After you've configured jobs in your batch with the [presets](#), [job actions](#), [locations](#), and [filenames](#) that you want, you can transcode the batch. A *batch* contains one or more jobs to be submitted to Compressor for transcoding.

## View batch properties

When you select a batch, its properties are shown in the Batch inspector.

- In Compressor, click the source file name(s) at the top of the batch area.



If necessary, click the Inspector button  to reveal the inspector pane.

The batch properties are displayed in the Batch inspector:

- **Name:** Identifies how the batch will appear in Active and Completed views once you start the batch. To change the batch name, type a new name in this field.
- **Jobs:** Displays the number of jobs in the batch.
- **Outputs:** Displays the number of files that will be output when transcoding the batch.

## Transcode a batch

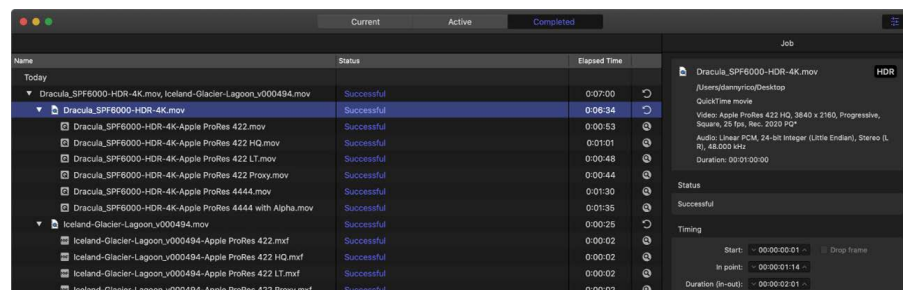
- In Compressor, click the Start Batch button in the lower-right corner of the batch area and, if necessary, follow the instructions to complete the transcoding process.

The Compressor window switches to Active view, where you can monitor the transcoding process.

## View information about completed jobs

In Completed view, you can see how a file was transcoded.

1. In Compressor, click the Completed button at the top of the Compressor window.



2. Select a batch, job, or transcoded file and, if necessary, click the Inspector button .  
In the inspector (on the right), you can view information about the batch or job, or view the general, video, or audio properties for the preset used to transcode the file.
3. To view the output file, click the Show in Finder button .  
If the Show in Finder button is not visible, click the disclosure triangles on the left side of the Completed view window.

### Create a new job from a completed job

- In Completed view in Compressor, click a job's Reuse button .  
All of the job's information is copied to Current view, where you can modify the job's preset properties and other information as necessary, then transcode the new job.

## Transcode Final Cut Pro and Motion projects in Compressor

If you have Final Cut Pro 10.2 or later, or Motion 5.2 or later, installed on the same computer as Compressor 4.2 or later, you can send sequences or clips from Final Cut Pro or Motion directly to Compressor for transcoding. To export using Compressor or Motion, you must have a compatible version of Compressor or Motion installed. Compressor and Motion must be purchased separately.

If you send multiple projects or clips from Final Cut Pro 10.2 or later using the Send to Compressor command, multiple jobs appear in a batch in Compressor.

**Important:** You cannot mix projects and clips in a batch share. Your selection must be projects only or clips only.

Do one of the following:

- *Send a project from Final Cut Pro to Compressor:* Select the project and choose File > Send to Compressor.  
*Note:* You can configure Compressor to use the GPU of your computer to process Final Cut Pro content sent to Compressor in the [Advanced settings](#) pane of Compressor settings.
- *Send a project from Motion to Compressor:* Open the project and choose File > Send to Compressor.

You can also drag a Motion project file to the batch area in Compressor.

*Note:* Distributed processing can't be used for jobs sent to Compressor from Final Cut Pro or Motion.

See the [Final Cut Pro User Guide](#) and the [Motion User Guide](#).

After the Final Cut Pro or Motion file appears in Compressor as a source file in a job, you can add a preset and other information to the job's output rows and then transcode the batch.

# Automate your workflow

## Create a preset group in Compressor

If you regularly need to add specific set of presets at once, you can create a preset group.

1. In the Presets pane in Compressor (press Shift-Command-1 if it's hidden), click the Add pop-up menu , then choose New Group.
2. In the dialog that appears, type a name for the group and click OK.

The group appears in the Custom area of the Presets pane and is selected by default.

3. Drag custom presets from the Custom area of the Presets pane into your new group.

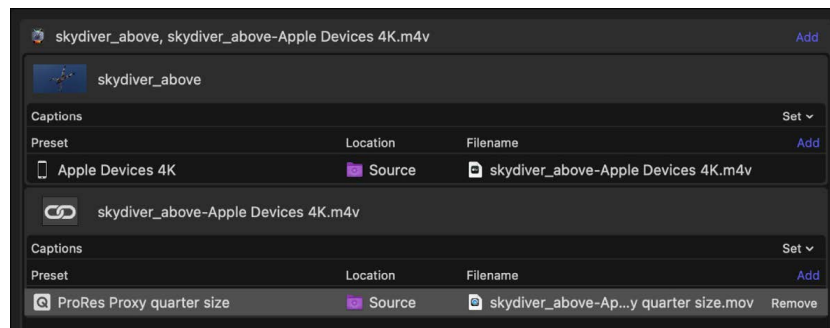
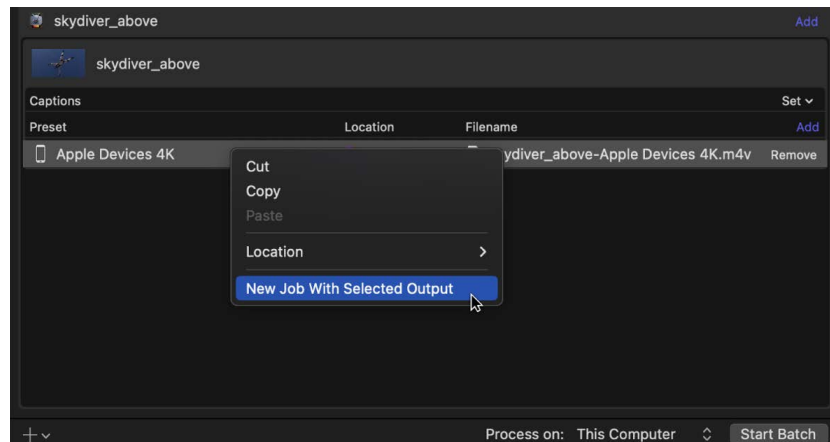
*Note:* You can only add custom presets to a preset group. If you want to add one of Compressor's built-in presets to your preset group, you can [duplicate an existing preset](#).

Your preset group appears in the Custom section of the Preset pane and dialog window for future use.

## Chain jobs in a batch in Compressor

You can chain jobs together, using the *output* of a job as the source for subsequent jobs in a batch.

1. In Compressor, Control-click the preset in your batch that you want to use as a source, then select New Job With Selected Output.



2. To add transcode presets to a job, click Add on the right side of the Preset/Location/Filename row in the batch area.
3. To continue chaining jobs, repeat step 1 above.

## Use watch folders

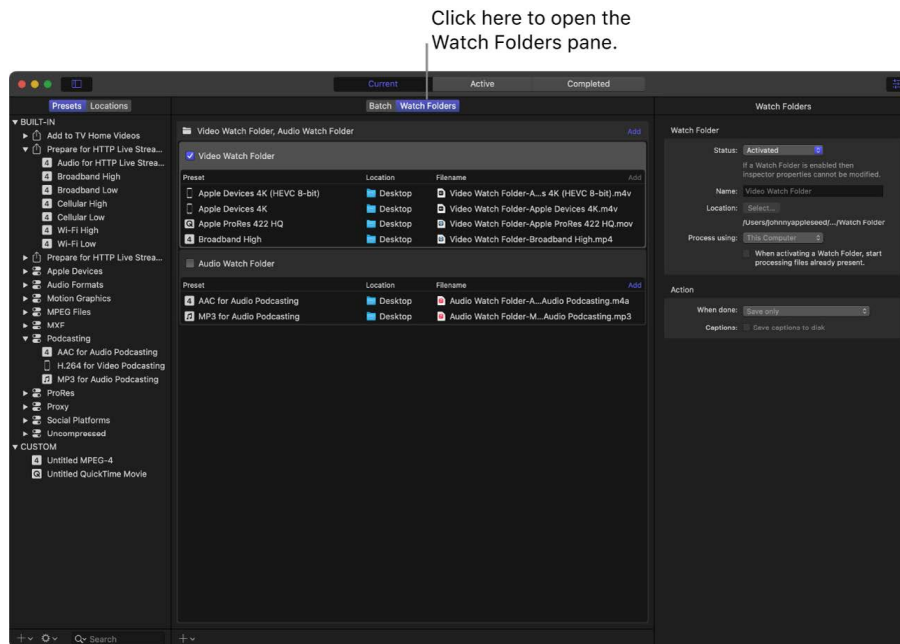
### Work with watch folders in Compressor

Compressor can automatically transcode media files added to a *watch folder*. You set up a watch folder with the presets you want. Then, when media files or folders of image sequences are added to the watch folder, Compressor automatically applies the configured properties to the media in the folder, and saves the processed files to the location you choose.

Configuring a watch folder on a connected volume allows you to save or export files directly from an application into the watch folder, where they're automatically transcoded by Compressor. This saves you time by not requiring you to manually transcode files. Watch folders are compatible with Compressor computer groups, which can be extremely useful if you're transcoding large files and want to preserve your computer's processing power.

*Note:* You can't use watch folders to transcode stereoscopic video (with the exception of frame-packed stereoscopic source files with reliable metadata).

You configure watch folders in the Watch Folders workspace:



After Compressor has transcoded the files in a watch folder, the resulting completed processing can be seen in Completed view.

### View the Watch Folders workspace

- Click Watch Folders at the top of the Current view in the Compressor window (or press Control-Shift-1).

When you switch to the Watch Folders workspace, the inspector shows you how many watch folders you have, and any transcode jobs (outputs) that you've assigned to each folder.

*Note:* You don't need to be viewing the Watch Folders workspace for Compressor to transcode files in watch folders. Watch folders continue to process files even if Compressor is running in the background or you're viewing another part of the Compressor window. If you're viewing the batch area, a spinning folder icon indicates when a watch folder is currently processing files.

## Add a watch folder in Compressor

1. In the Watch Folders area of Compressor, do one of the following:
  - Click Add in the top right-corner.
  - Click the Add Watch Folder button in the middle of the pane.

*Note:* This button appears only if there are no watch folders.
2. Select a folder in the dialog, and click Add.
3. In the Built-in Presets window, choose one or more transcode presets.



4. Click the Location pop-up menu, then choose a location for your watch folder's output folder (where the processed files will be saved). You can choose one of the following:
  - *Automatic*: Processed files are saved to a specially created folder named "[*Watch folder name*]-Output" on the same directory level as the watch folder.
  - *Desktop*: Processed files are saved to the Desktop folder.
  - *Movies*: Processed files are saved to the Movies folder.
  - *Other*: You can choose another location.

**WARNING:** A watch folder's output folder cannot be inside, or the same folder as, a watch folder. If you choose a location inside a watch folder, or a watch folder itself, a red warning icon appears to the right of the watch folder name, and you can't activate the watch folder.

## Activate a watch folder in Compressor

Watch folders need to be activated to monitor and process files.

In the Watch Folders workspace of Compressor, do one of the following:

- Click the checkbox to the left of the watch folder name.
- Select the watch folder, then click the Status pop-up menu in the Inspector and choose Activated.

**Important:** A watch folder must have at least one preset applied to it to be activated. A watch folder can't be activated if its output folder is the same as the watch folder itself. If the watch folder and output folder are the same, or the output folder is inside a watch folder, a red warning icon appears to the right of the watch folder name, the Status pop-up menu in the inspector is dimmed, and an error appears in the Errors & Warnings window.

## Access watch folder settings and properties in Compressor

You can access watch folder settings and properties in the inspector pane.

### Watch folder settings

- *Status*: Activate or deactivate the watch folder. When a watch folder is active, you can no longer modify any of its properties.
- *Name*: Change the name of the watch folder in the Compressor UI. This doesn't change the name of the folder in the Finder, but it affects the name of the automatically created output folder if you choose Automatic for the output location for your watch folder.
- *Location*: Click Select to choose a new location for your watch folder. The current location of the watch folder is displayed below the Select button.
- *Process using*: If you've configured computer groups in Shared Computers settings, you can select one of your groups here. The default is This Computer. For information on setting up computer groups, see [Transcode with multiple computers](#).
- *When activating a Watch Folder, start processing files already present*: By default, Compressor ignores files that are already in a watch folder before it's activated. This way, you can leave files in the watch folder without the files being transcoded multiple times. However, if you dragged or saved files into a watch folder and want them to be processed when you activate the folder, select this checkbox.

## Action settings

- *When done:* Choose what job action Compressor applies to the processed files. The default is Save only, which saves the transcoded files to the watch folder's output folder. When you select Save only, a checkbox lets you choose to save captions to disk along with the transcoded files.

In addition to Save only, the pop-up menu offers all the standard job actions available in Compressor. For a complete list of job actions and their properties, see [Job action properties](#).

## Show watch folder properties

- In the Watch Folders area of Compressor, select a watch folder.  
The inspector shows the properties for the selected watch folder.

## Add and remove transcode presets from watch folders in Compressor

When adding a watch folder, you chose one or more transcode presets. In the Watch Folders area, you can add and remove transcode presets manually the same way you add and remove transcode presets in the batch area.

### Add transcode presets

In Compressor, do one of the following:

- In the Watch Folders area, click Add on the right side of the Preset/Location/Filename row for the watch folder you want to change. In the window that appears, select one or more transcode presets, choose a location, then click OK.
- In the Presets pane, select one or more transcode presets, then drag them to a watch folder.

### Remove transcode presets

In Compressor, do one of the following:

- Select the preset you want to remove, then click Remove (at the right end of the row).
- Select the preset you want to remove, then press Delete.

## Create and use droplets in Compressor

You can save one or more presets or a destination as a standalone application called a *droplet*. Using the droplet, you can easily transcode files by dragging them to the droplet icon in the Finder.

## Create a droplet

1. In the Presets pane in Compressor, select one or more presets, preset groups, or a destination that you want to save as a droplet.

*Note:* You can Shift-click or Command-click to add multiple presets or preset groups.

If you selected more than one preset, a destination that contains two or more presets, or a group of presets, every preset in your selection will be included in the droplet. For example, if you submit two source media files to a Droplet containing three presets, Compressor creates six different output media files.

2. Click the Action pop-up menu  , then choose Save as Droplet.
3. In the window that appears, do the following:
  - Enter a name for the droplet in the Save As field.
  - Click the Where pop-up menu, then choose a location for the droplet.
  - Click the Location pop-up menu, then choose a save location for the droplet.
4. Click Save.

Your newly created droplet appears as an icon in the location you chose in the Where menu.

## Transcode files using a droplet

1. In the Finder, drag one or more media files onto the droplet you created in Compressor.  
When you release the mouse button, the Droplet window opens.
2. In the Droplet window, do either or both of the following:
  - Click the Location pop-up menu, then choose a new save location.
  - Click the Process On pop-up menu, then choose a computer or group of computers.
3. Click Start Batch.

The transcoded file appears in the location you specified.

If you want to view the processing status of your source media files, open Compressor and click Active at the top of the Compressor window (or press Command-2). To view completed jobs, click Completed at the top of the Compressor window (or press Command-3).

# Advanced transcoding

## Encode spatial video for Apple Vision Pro in Compressor

Compressor can transcode stereoscopic source media in a variety of formats to produce a spatial video for editing in Final Cut Pro or playback on Apple Vision Pro.

*Note:* Working with MV-HEVC spatial video requires a Mac with Apple silicon and macOS 14 or later.

### Import stereoscopic source media

There are three types of stereoscopic formats that you can use to create spatial video in Compressor:

- A pair of separate video files corresponding to left- and right-eye views
  - A frame-packed stereoscopic video file, in which the left- and right-eye views are displayed next to each other or one on top of the other
  - An MV-HEVC encoded stereoscopic video (recorded on iPhone 15 Pro, iPhone 16, iPhone 16 Pro, or Apple Vision Pro)
1. In Compressor, do one of the following:
    - At the bottom of the batch area, click the Add pop-up menu , then choose Add File.
    - Choose File > Add File.
  2. Do one of the following:
    - *Import a frame-packed or MV-HEVC encoded stereoscopic video:* Select the source file, then click Add.
    - *Import separate files for each eye:* Select the left-eye video, then click Add. In the batch area, select the source file, then in the Job inspector, make sure Stereoscopic is set to Separate Files, click Choose next to Right, select the right-eye video, then click Open.
  3. In the batch area, select the source file, then review the Projection Properties area of the Job inspector and set or override stereoscopic properties as needed.

See [Job properties](#) for more information on the Projection properties available in the Job inspector.

## Apply MV-HEVC transcoding instructions

1. [Add the Apple Vision Pro \(MV-HEVC, Stereoscopic\) preset](#) to a job containing stereoscopic source media.
2. Adjust properties in the General, Video, and Audio inspectors as needed.  
  
To output spatial video compatible with Apple Vision Pro, Stereoscopic must be set to Both Eyes (Multiview) and Codec must be set to MV-HEVC.  
  
See [Video properties](#) for more information on the properties of the Apple Vision Pro (MV-HEVC, Stereoscopic) preset.
3. When you're satisfied with your transcoding settings, click Start Batch.  
  
Compressor exports the transcoded file to the location shown in the batch area. You can also send the file to the Photos app for easy sharing and viewing on Apple Vision Pro (described below).

## Send spatial video output to the Photos app

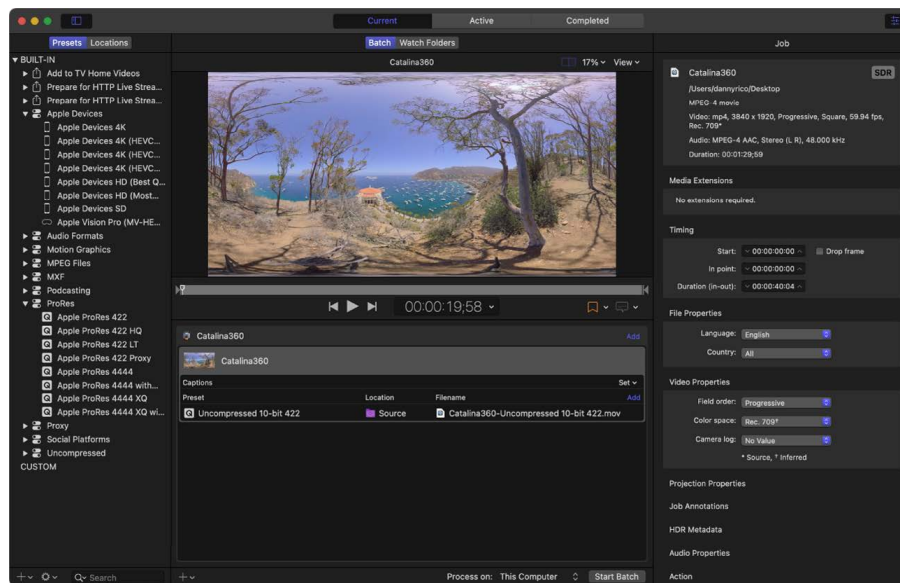
1. [Set up a transcoding job with stereoscopic source media](#) and the MV-HEVC encoding preset.
2. Select the source file in the batch area, then scroll down to the Action section of the Job inspector.
3. Click the "When done" pop-up menu, then choose Add to Photos.
4. In the title field, enter a name for the video.
5. Click Start Batch.

Your spatial video file is exported to the location shown in the batch area, and also to the Photos app.

On Apple Vision Pro, make sure you're signed in to your Apple Account, then open the Photos app to view your spatial video.

# Work with 360-degree video

## Intro to Compressor 360° video



Compressor offers tools that let you prepare existing 360° video content (such as content edited in Final Cut Pro) for export and distribution to sharing sites like YouTube and Vimeo.

360° video (sometimes called *spherical video*) is footage captured by special cameras that point lenses in all directions to create a panoramic sphere of video. A viewer can watch 360° video in any of several ways:

- *Through a virtual-reality (VR) headset:* This hardware device displays video on a face-mounted screen that's updated dynamically to show different parts of a scene as the viewer turns their head. Some VR headsets can also display stereoscopic (3D) 360° video, enhancing the immersive experience.
- *In a rectangular window:* This viewing method is used on a smart phone, tablet, or computer. The viewer scrolls the window to see different parts of the scene.
- *On a standard display:* This viewing method, with the audience unable to control viewing angles, is similar to watching conventional video, with the added benefit of giving the filmmaker more options for angle choices during editing.

For 360° video content, Compressor acts as a finishing tool that lets you:

- Add or modify the 360° video metadata used by VR headsets and other presentation devices to display the video in the correct format (including monoscopic or stereoscopic mode)
- Export the finished video as a media file ready for distribution

**Note:** Compressor is not an editing tool for 360° video. To "stitch" the separate camera views together, you must use the 360° camera manufacturer's software. To assemble a sequence, you must use a 360° video-capable application like Final Cut Pro. See [Intro to 360° video in Final Cut Pro for Mac](#).

360° image © 2015 Jaunt, Inc.

## View 360° video metadata using Compressor

For 360° video to display correctly on viewing devices and on sharing websites, the movie file must contain special display instructions called *360° metadata*. Compressor handles that metadata in two ways:

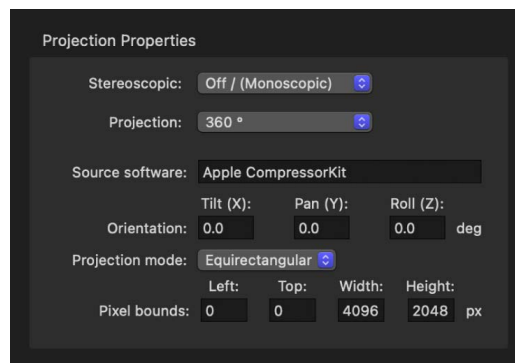
- *On import:* When you add a 360° video source file to Compressor, the app detects any 360° metadata present in the file and displays that information in the Job inspector. If the source video has no 360° metadata or if that metadata is incorrect, you can assign it in the Job inspector.
- *On export:* After you apply a transcode preset to the source file, Compressor assigns the correct metadata format for the export file. If necessary, you can modify this assignment in the Video inspector.

### View or modify the source clip's 360° metadata

After you add a 360° video source file to Compressor, make sure its metadata is correct.

1. In the Compressor batch area, select the source file.
2. In the Job inspector, review the properties shown in the Projection Properties area.

If 360° metadata options are not shown, make sure Projection is set to 360°.



3. If necessary, add or modify 360° metadata properties.

*Note:* If you modify 360° metadata properties, the image in the Compressor preview area stays the same. The preview area displays the 360° source file's video with its native properties.

- *Source software:* Identifies the software tool used to add metadata to the source file. If the source file had no metadata and you used Compressor to add it, this field displays "Apple CompressorKit."
- *Orientation:* Displays the coordinates—Tilt (X), Pan (Y), and Roll (Z), in degrees—of the source video's view origin (the initial angle that viewers will see in a VR headset before they turn their heads). Enter new coordinates to change the initial orientation.



- *Projection mode*: Sets the type of spatial mapping used to store the 360° video. There are two options:
  - *Equirectangular*: The most common form of spatial mapping for 360° video, this option squeezes and distorts the spherical data like a flat map of the world represents the surface of the spherical earth.
  - *Cubic*: A less common form of spatial mapping, this option represents the spherical data as an unfolded cube with six faces.



**Equirectangular projection**

- *Pixel bounds*: When "Projection mode" is set to Equirectangular, this property becomes available, allowing you to modify the boundaries of the equirectangular frame. Most of the time, there's no need to change these values. However, if you need to alter the dimensions of 360° video from its 2:1 aspect ratio to a more conventional aspect ratio (16:9, for example), you can do so using these controls. Enter values in the Left and Top fields to crop a specific number of pixels from the left edge and top edge of the image. Enter new values in the Width and Height fields to change the dimensions of the equirectangular frame.
- *Layout and Padding*: When "Projection mode" is set to Cubic, these fields become available, allowing you to adjust the six faces of the unfolded cube. Most of the time, there's no need to change these values. The integer value in the Layout field specifies the order of the six unfolded cube faces (the default value of 0 specifies the face order used in the [Spherical Video V2](#) metadata standard: right, left, up, down, front, back). The value in the Padding field specifies the width (in pixels) of borders around the edges of each cube face.

### **Include 360° metadata in the output file**

After you [apply a transcode preset](#) to the 360° video source file, make sure the preset uses the correct metadata format for the output destination you've chosen. In most cases, Compressor automatically chooses the correct metadata format for the job, based on the values entered in the Job inspector and the transcode preset you applied. However, you can modify that choice, if necessary.

1. In the Compressor batch area, select an applied preset.



2. In the Video inspector, click the "360° metadata" pop-up menu (in the Video Properties area) and choose an option:
  - *Automatic*: Compressor chooses the metadata format based on the properties in the Job inspector and the transcode preset you applied. The format chosen is listed to the right of the pop-up menu.
  - *None*: No 360° metadata is attached to your output file.
  - *Spherical Video V1*: The 360° metadata format most commonly used by sharing sites, including YouTube and Vimeo.
  - *Spherical Video V2*: A less common but more up-to-date 360° metadata format used by YouTube and Vimeo.
3. Click Start Batch to export your file and its 360° metadata.

360° image © 2015 Jaunt, Inc.

## Work with audio

### View and modify audio tracks in Compressor

QuickTime movies can contain multiple audio tracks, and those tracks can be configured in multiple ways. In Compressor you can view these tracks, enable or disable them, and reconfigure them into alternative formats, if necessary, to ensure they are correct in your transcoded output files.

For example, a QuickTime movie might have an audio track with two channels erroneously configured as a stereo pair. In Compressor, you can modify the track so the channels are treated as two discrete mono channels, or as a specialized format such as 1.1 (center and low-frequency effects).

#### Change the format of a source audio track

1. In the Compressor batch area, click the job containing the source file you want to modify.
2. In the Audio Properties section of the Job inspector, click the pop-up menu corresponding to the audio track you want to modify, then choose a configuration style.

Depending on how many channels are in the audio track, different options appear in the pop-up menu. For example, a track with two channels can be configured as Stereo, Dual mono, 1.1, and so on. A track with one channel can be configured as Left, Right, Center, Left Surround, Right Surround, and so on.
3. Repeat step 2 as necessary for any other tracks.

#### Disable a source audio track

1. In the Compressor batch area, click the job containing the source file you want to modify.
2. In the Audio Properties section of the Job inspector, deselect the checkbox to the left of the audio track you want to disable.

The track is turned off and will not be included in any transcoded files created by that batch.

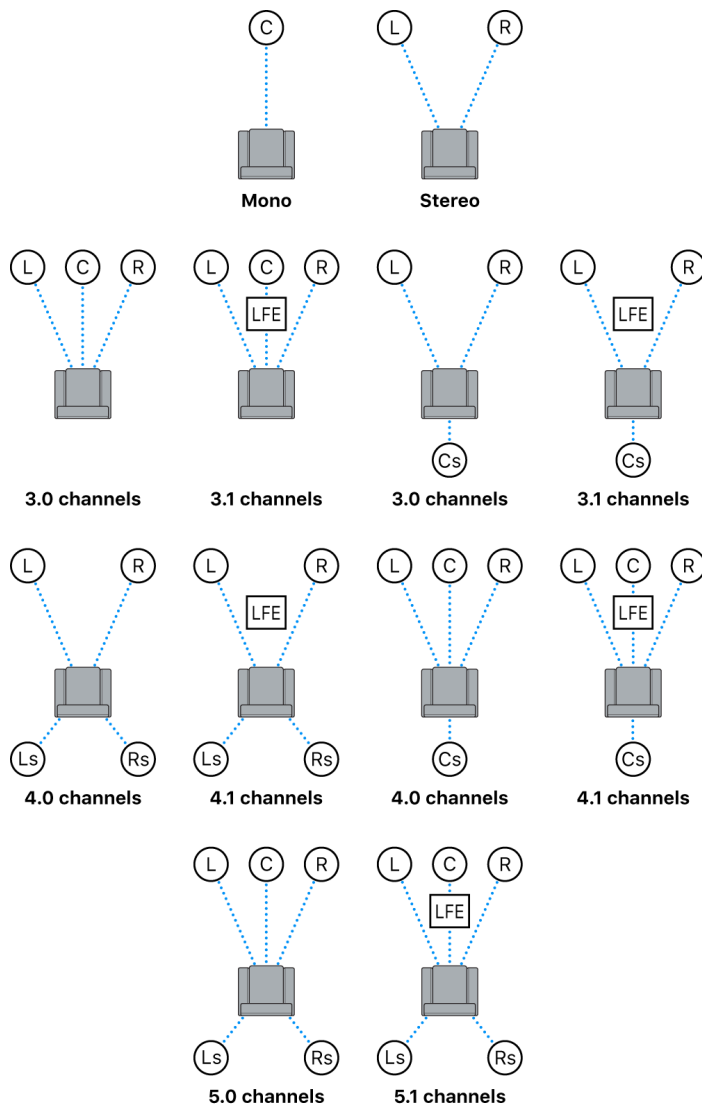
 **Tip:** iTunes Store packages have specific audio requirements. You can use the methods described above to ensure that your audio is properly assigned for a successful submission to the iTunes Store.

## Audio channel layouts in Compressor

Most of the audio presets in Compressor provide mono and stereo (left and right) channel configuration; some provide additional channel output options, including surround (5.1) channel configuration. Several of Compressor's presets offer multiple audio channel configurations:

- *QuickTime Movie presets:* QuickTime Movie presets include additional audio channel layouts, including 3.0, 4.0, and 5.1.
- *Dolby Digital audio presets:* Dolby Digital (AC-3) presets include even more audio channel layouts, including 3.0, 3.1, 4.0, 4.1, and 5.1.

The illustration below shows the available audio channel layouts.



The channel codes describe the location of the channel:

- *L*: Left front channel
- *R*: Right front channel
- *C*: Center front channel
- *Ls*: Left surround channel
- *Rs*: Right surround channel
- *Cs*: Center surround channel
- *LFE*: Low-frequency effects channel (subwoofer, LFE)

*Note:* It's important to understand that Compressor can't convert stereo audio files into 5.1 surround sound channels. If you want to output a 5.1 surround sound audio file, you must first create the six channels of audio required and then import those surround sound files into Compressor. Then you can use Compressor to output the surround sound source media file. See [Import surround sound audio](#).

After you import a surround sound source file, you can transcode that file into any of the channel layouts above.

Compressor analyzes audio files during import to determine the source file's channels. When you apply a transcode preset to the source file, Compressor automatically adjusts the channel layout of the preset to provide logical results. For many presets, you can choose Automatic from the "Channel layout" pop-up menu (in the Audio inspector) to have Compressor determine the logical channel layout based on the source file.

Compressor also maps channels intelligently during output. For example:

- *If you assign a mono channel layout to a stereo source file:* The output file will be automatically downmixed.
- *If you assign a surround channel layout to a stereo source file:* The output file will have only left and right channels—mapped to the left front (L) and right front (R) channels of the source file—while the other channels are unassigned.
- *If you assign a left front or left rear surround channel to a stereo source file:* Compressor maps the source file to the left channel (and ignores the right channel).

## Add descriptive audio tracks in Compressor

You can create video content for people who are blind or low vision by adding descriptive audio tracks. Descriptive audio tracks narrate important visual details that can't be understood from the main soundtrack alone. Compressor can extract the descriptive audio tracks from audio files like WAVs or AIFFs, or from video files like MOVs. You can embed descriptive audio tracks, like language tracks, in the QuickTime Movies, Apple Devices, and MPEG-4 formats. For more information about descriptive audio, see [the American Council of the Blind's Audio Description Project website](#).

## Add descriptive audio tracks

1. In the Compressor batch area, select the job that contains the source file that you want to add descriptive audio tracks to.
2. In the Audio Properties area of the Job inspector, click Choose, and select a file containing descriptive audio tracks, then click Open.

The audio tracks from the file are extracted and listed in with the other audio tracks. Audio tracks with descriptive audio are indicated with **AD**.

## Remove descriptive audio tracks

1. In the Compressor batch area, select the job that contains the source file that you want to add descriptive audio tracks to.
2. In the Audio Properties area of the Job inspector, click the clear button **✕** to remove all descriptive audio tracks.

# Work with captions

## Intro to supporting captions in Compressor



*Captions* are lines of text superimposed over a video program and synchronized to the program's video and audio. Compressor lets you combine captions with video (and optionally edit them) in one of three industry-standard caption formats:

- *CEA-608 closed captions*: Originally developed for people who are deaf or hard of hearing, CEA-608 closed captions (also known as *Line 21 text*) are frequently used on televisions in loud environments (such as bars and airports). CEA-608 closed captions, which use the .scc filename extension, offer numerous formatting options. Viewers can turn closed captions on or off while watching television shows, movies, web videos, and other programs. In Compressor, CEA-608 captions are compatible with iTunes Store packages and many transcode presets.

- *iTT (iTunes Timed Text) subtitles*: The caption format for subtitles in iTunes Store content, iTT subtitles can be used to deliver foreign-language translations or a transcript of dialog, narration, or audio descriptions to people who are deaf or hard of hearing. iTT subtitles, which use the .itt filename extension, offer more limited formatting options than CEA-608 captions. In Compressor, you can specify whether to let viewers turn iTT subtitles on or off (for example, for full foreign-language translations) or force subtitles to appear onscreen (for example, for specific characters in a movie who speak a different language). In Compressor, iTT subtitles are compatible with iTunes Store packages, but are of limited use in other transcode presets because iTT subtitles can't be directly embedded into a video file.
- *SRT (SubRip Text) subtitles*: SRT subtitles can be used to deliver foreign-language translations or a transcript of dialog, narration, or audio descriptions to people who are deaf or hard of hearing. SRT subtitles, which use the .srt filename extension, offer more limited formatting options than CEA-608 captions. In Compressor, you can specify whether to let viewers turn SRT subtitles on or off (for example, for full foreign-language translations) or force subtitles to appear onscreen (for example, for specific characters in a movie who speak a different language).

In Compressor, many built-in presets and destinations support captions, including Apple Devices (in both the H.264 and HEVC codecs), ProRes, and other presets that use the QuickTime Movie, MPEG-2, and MPEG-4 formats.

This section covers working with captions in a standard batch in Compressor, including how to [import](#), [edit](#), and [export](#) captions.

You can also add captions to an iTunes Store package. See [Intro to iTunes Store packages](#).

*Note:* Compressor is not a captions-authoring tool. To create CEA-608 closed captions, iTT subtitles, or SRT subtitles from scratch, use Final Cut Pro or a third-party captions-authoring app to output a .scc text file, a .itt text file, or a .srt text file, then [import the captions file](#) into Compressor.

## Import and preview captions in Compressor

In a standard transcoding job in Compressor, you can add a single set of CEA-608 closed captions, iTT subtitles, or SRT subtitles by adding a .scc file, a .itt file, or a .srt file to the job. If a source video file already has embedded CEA-608 closed captions, when you add the source file to a batch, Compressor extracts the .scc data for you.

*Note:* In an iTunes Store package, you can add multiple CEA-608 closed caption sets and multiple iTT subtitle sets (in several different languages, for example). For information about adding closed captions and subtitles to iTunes Store packages, see [Build iTunes Store packages](#).

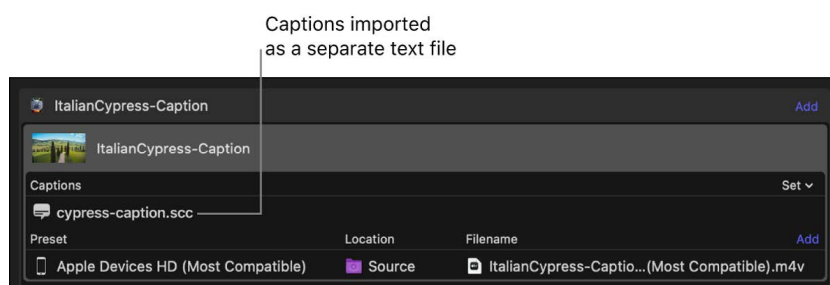
## Add a captions text file to a job

After you add a job to Compressor, you can add a captions text file created by a third-party app.

1. In the Compressor batch area, click Set on the right side of the Captions row.
2. In the window that appears, select a CEA-608 closed-caption file (with a .scc filename extension), an ITT subtitle file (with a .itt filename extension), or an SRT subtitle file (with a .srt filename extension), then click Open.

*Note:* In a standard Compressor job, you can import only a single captions file.

The row under the Captions heading in the batch area displays the filename of the imported captions file.



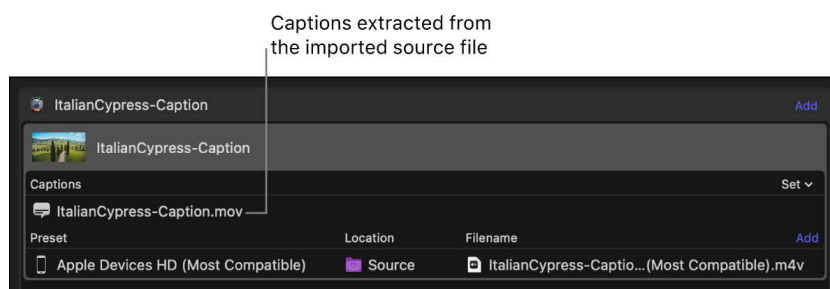
For information about formatting and modifying captions in Compressor, see [Edit caption properties](#) and [Adjust caption timing](#).

## Add a source video file with embedded CEA-608 captions

If a source video file already contains embedded CEA-608 closed captions, importing the video into Compressor automatically adds the caption data to the job.

1. In Compressor, click the Add pop-up menu  $\pm$  under the batch area, then choose Add File.
2. In the file window that appears, select a media file that contains embedded CEA-608 closed captions, then click Add.

The batch area displays a new job, with the source video file shown above an identically named captions file.



For information about formatting and modifying captions in Compressor, see [Edit caption properties](#) and [Adjust caption timing](#).

## Replace or delete the captions text file in a job

In the Compressor batch area, do one of the following:

- *Replace a captions text file:* Click Set on the right side of the Captions heading row, then select a different captions file.

The new file appears in the row under the Captions heading.

- *Delete a captions text file:* Move the pointer over the row containing the captions filename, then click Remove on the right side of the row.

## View caption properties in the Captions inspector

- In the Compressor batch area, select the captions filename (in the row under the Captions heading).

*Note:* If the inspector pane still isn't visible, click the Inspector button  in the upper-right corner of the Compressor window.

The Captions inspector contains controls for preset language properties, editing and formatting caption text, adjusting caption timing, and more. See [Edit caption properties](#) and [Adjust caption timing](#).

## View captions in the preview area

You can preview the appearance and timing of captions in Compressor in the preview area. And you can navigate from caption to caption in the Captions inspector.

1. In the Compressor batch area, select the captions filename (in the row under the Captions heading).

2. In the preview area, click the Captions button  to toggle captions on.

Captions will now be visible in the preview area. The Captions button turns blue when captions are on.

3. To view captions in the preview area, do any of the following:

- Click the Play button  to watch the captions appear in real time.
- Drag the playhead  to move from caption to caption in the video.
- At the bottom of the Captions inspector (if the inspector isn't visible, click the Inspector button  in the upper-right corner of the Compressor window), click a caption row in the list.

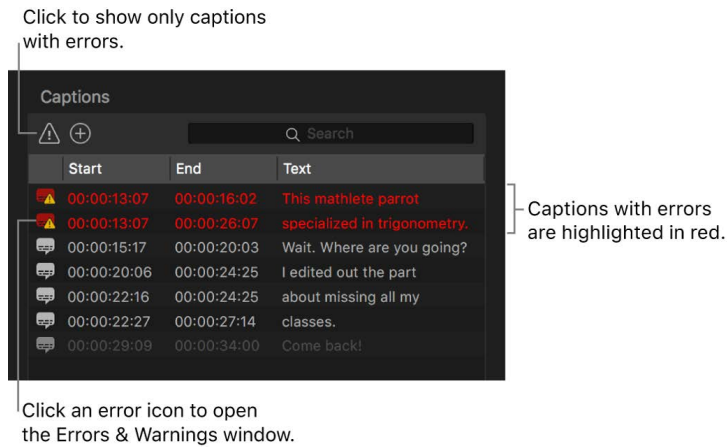
The playhead moves to the timecode start point of the caption you selected.

To stop displaying captions in the preview option, click the Captions button  again. The Captions button turns white when captions are off.

## View caption error warnings

When a set of captions has timing conflicts or other formatting errors, Compressor highlights the problem captions in red in the Closed Captions inspector or Subtitles inspector.

1. In the Compressor batch area, select the captions filename (in the row under the Captions heading).
2. In the Captions inspector, click the warning button at the top of the Captions list.



The warning button is highlighted, and captions without errors are temporarily removed from the list.

3. Click the error icon to the left of a red caption in the list.

The Errors & Warnings window appears, showing all errors in the job.

## Edit caption properties in Compressor

You can edit caption content, placement, formatting, and timing in the Captions inspector. Because CEA-608, iTT, and SRT captions have different specs, each Compressor inspector contains slightly different controls.

### Specify the caption language properties

Before transcoding, you need to specify the language and country of the captions. For iTT subtitles, you must also choose a subtitle type (or "purpose").

1. In the **Captions inspector** in Compressor, choose options from the Language pop-up menu and Country pop-up menu.

 **Tip:** You must choose a language before you can choose a country. If you don't choose a language and country, your transcoding job won't process.



2. *For iTT subtitles only:* In the Captions inspector, click the Purpose pop-up menu and choose a subtitle type:
  - *Translation (Full):* Use for a full translation of all words spoken in the video (in the language you chose in step 1). During playback, viewers can turn these subtitles on or off.
  - *Forced:* Use when a person in the video speaks a language different from the main language of the video—for example, for a French speaker in an otherwise English-language film. Forced subtitles can't be turned off because they're necessary to understand the content of the video.
  - *Deaf and Hard of Hearing (SDH):* Use for a full translation of all the words spoken in the video, as well as for song lyrics and sound effects (*owl hooting, scream in distance*, and so on). During playback, viewers can turn subtitles for the deaf or hard of hearing (SDH) on or off.

### **Choose an animation style (CEA-608 closed captions only)**

The CEA-608 format allows for several different styles of caption animation.

1. In the Captions list at the bottom of the [Captions inspector](#) in Compressor, select one or more captions.

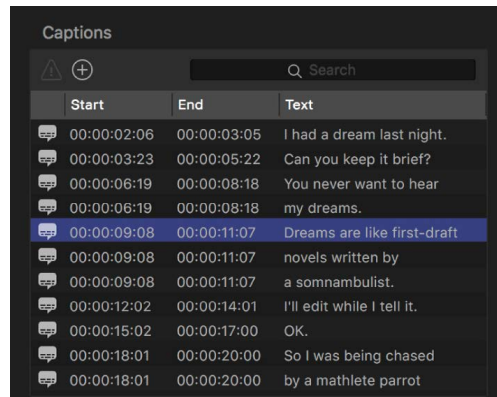
Each line in the list, which represents a single caption, displays the caption's timecode start point, end point, and text.

2. In the Formatting area of the Closed Captions inspector, click the Caption Style pop-up menu, then choose an option:
  - *Pop-On:* The caption appears suddenly on the screen at the caption's timecode start point. If multiple captions overlap in time, they're stacked vertically onscreen, with each new caption appearing beneath the previous caption.
  - *Paint-On:* The caption appears letter by letter from left to right, beginning at at the caption's timecode start point. If multiple captions overlap in time, they're stacked vertically onscreen, with each new caption "painting on" beneath the previous caption.
  - *Roll-Up:* The caption appears letter by letter from left to right (like Paint-On). Additionally, if multiple captions overlap in time, newly appearing captions push older captions up line by line. When you choose Roll-up, an additional pop-up menu appears, letting you choose how many caption lines can appear onscreen at a time: 2, 3, or 4 lines.

*Note:* Modifying the caption animation style may introduce position or timing errors. Captions with timing errors are highlighted in red in the Captions list. For more information about caption timing, see [Adjust caption timing](#).

## Edit caption content and placement

1. In Compressor, in the Captions list (at the bottom of the [Captions inspector](#)), click the caption you want to modify.



The playhead in the preview area jumps to the timecode start position of the caption you selected, and the caption text appears in the Caption Text field in the inspector, ready to edit.

*Note:* The caption should also appear superimposed over the video in the preview area. If the caption isn't visible in the preview area, click the Captions button . If the caption still isn't visible in the preview area, try dragging the playhead a few frames to the right (if the caption style is animated—Paint-On, for example—the caption may require several frames to appear onscreen).

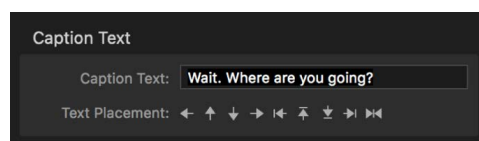
2. Click in the Caption Text field, then edit the text.

Onscreen, each CEA-608 closed caption appears on a single line, and each line is limited to 32 characters.

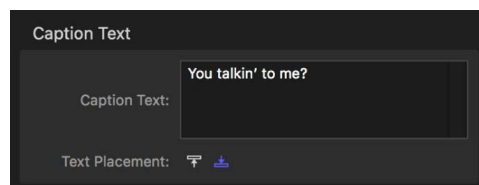
Each iTT subtitle can span dozens of characters—from the left margin of the frame to the right margin—but each subtitle is limited to two lines.

*Note:* There are no text placement controls for SRT subtitles. SRT subtitles are always centered horizontally, and additional lines of text beyond the first are stacked vertically.

3. To modify the position of the caption in the video frame, click a Text Placement arrow (under the Caption Text field).



Text Placement controls for CEA-608 closed captions



Text Placement controls for iTT subtitles

The caption is repositioned in the video frame.

**WARNING:** CEA-608 captions that overlap spatially and temporally may create position and timing errors.

### Modify text color and style

The formatting controls in the [Captions inspector](#) let you change the color and font style of caption text. CEA-608 closed captions have additional formatting controls that let you choose text background colors.

1. In the Captions list in Compressor (at the bottom of the Captions inspector), click the caption you want to modify.
2. In the Caption Text field, select the text characters you want to modify.
3. In the Formatting area, select a font style (bold, italic, or underscore) from the Format row.
4. In the Formatting area, do any of the following:
  - *For CEA-608 closed captions:* Select a color swatch from the Text Color row, select a color swatch from the Text Background row, then select an opacity swatch from Background Opacity row.
  -  **Tip:** If you don't want a text background color, select the leftmost opacity swatch (0 percent opacity). However, if you opt for a background color, make sure there's ample contrast between the text color and the background color.
  - *For iTT and SRT subtitles:* Click the Text Color well, then select a new color in the Colors window.

The modified caption is updated in the preview area.

### Add a new caption

You can also add new captions to an existing captions file.

1. In the Compressor preview area, drag the playhead  to a point in your video where you want to insert a new caption.
2. Click the "Add a caption" button  near the bottom of the Captions inspector.
3. Enter the new caption in the Caption Text field.

The new caption with a default duration of two seconds appears in the preview window at the timecode start point.

**WARNING:** Adding a new caption with too many characters may introduce position errors. And adding a caption that overlaps spatially or temporally with an existing caption may introduce position or timing errors. Captions with errors are highlighted in red in the Captions list. For more information about caption timing, see [Adjust caption timing](#).

### Delete a caption

- In the Captions list in Compressor (at the bottom of the [Captions inspector](#)), click a caption, then press Delete.

## Adjust caption timing in Compressor

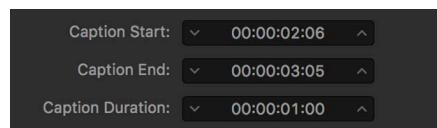
When you add captions to a job in Compressor, the timecode values in the imported captions file are synchronized to the timecode in the video source file. (If you want to see the timecode values in a captions file, try opening the file in the macOS TextEdit app.)

In Compressor you can modify the timing of captions and fix timing errors by adjusting a caption's timecode start point, end point, or duration.

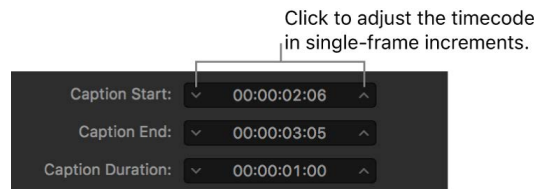
### Change a caption's start point, end point, or duration

1. In the Captions list in Compressor (at the bottom of the [Captions inspector](#)), click the caption you want to modify.

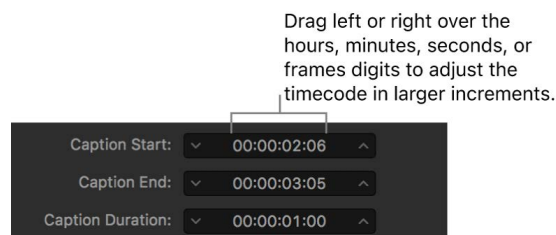
The playhead  in the preview area jumps to the timecode start position of the caption you selected, and the caption's timing information appears in the Caption Start, Caption End, and Caption Duration fields in the inspector.



2. To modify the caption's start point or end point, do any of the following:
  - *Adjust the start point or end point in single-frame increments:* Click the down arrow or up arrow on either side of the Caption Start or Caption End field.



- *Change the start point or end point in larger increments:* Position the pointer over the hours, minutes, seconds, or frames area of timecode in the Caption Start or Caption End field, then drag left or right.



- *Change the start point or end point to a precise value:* Select the hours, minutes, seconds, or frames area of timecode in the Caption Start or Caption End field, enter a new two-digit number, then press Return.

Changing the start point also modifies the end point (the caption moves to an earlier or later position in time, but its duration remains the same).

Changing the end point also modifies the duration of the caption (the start point remains the same, but the end point changes, which shortens or lengthens the caption's duration).

3. To modify the duration of a caption, do any of the following:
  - *Modify the caption duration in single-frame increments:* Click the down arrow or up arrow on either side of the Caption Duration field.
  - *Modify the caption duration in larger increments:* Position the pointer over the hours, minutes, seconds, or frames area of timecode in the Caption Duration field, then drag left or right.
  - *Modify the caption duration by a precise value:* Select the hours, minutes, seconds, or frames area of timecode in the Caption Duration field, enter a new two-digit number, then press return.

Changing a caption's duration also modifies its end point.

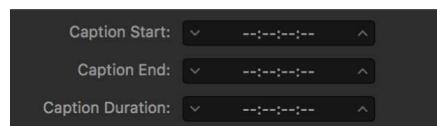
**WARNING:** Modifying start points and end points may introduce timing errors (such as captions that overlap in time or captions that extend beyond the duration of video). Captions with errors are highlighted in red in the Captions list at the bottom of the inspector. Captions that extend beyond the duration of video in a job are dimmed in the list. If you don't fix timing errors, your transcoding job will fail.

### Modify the timing of multiple captions at the same time

1. In the Captions list in Compressor (at the bottom of the [Captions inspector](#)), select multiple captions.

 **Tip:** Shift-click or Command-click to select multiple captions.

If the selected captions have different timecode values, the Caption Start, Caption End, and Caption Duration fields in the inspector display dashes.



2. To modify the caption start points or end points of the selected captions proportionally, do any of the following:
  - *Adjust the start points or end points in single-frame increments:* Click the down arrow or up arrow on either side of the Caption Start or Caption End field.
  - *Change the start points or end points in larger increments:* Position the pointer over the hours, minutes, seconds, or frames area of timecode in the Caption Start or Caption End field, then drag left or right.

The affected timecodes of all selected captions are modified by equal amounts.

3. To modify the caption durations proportionally, do any of the following:
  - *Modify the caption durations in single-frame increments:* Click the down arrow or up arrow on either side of the Caption Duration field.
  - *Modify the caption durations in larger increments:* Position the pointer over the hours, minutes, seconds, or frames area of timecode in the Caption Duration field, then drag left or right.

The affected timecodes of all selected captions are modified by equal amounts.

**WARNING:** Modifying caption durations may introduce timing errors (such as captions that overlap in time or captions that extend beyond the duration of video). Captions with errors are highlighted in red in the Captions list at the bottom of the inspector. Captions that extend beyond the duration of video in a job are dimmed in the list. If you don't fix timing errors, your transcoding job will fail.

### Adjust the global timing of captions (CEA-608 closed captions only)

Occasionally, an imported set of closed captions may be out of sync with the source video by a few seconds throughout the program. The CEA-608 format lets you offset all captions forward or backward in time to manually restore sync.

- In the Captions inspector in Compressor, do any of the following in the Offset field:
  - *Adjust the offset in single-frame increments:* Click the down arrow or up arrow.
  - *Modify the offset in larger increments:* Drag left or right over the hours, minutes, seconds, or frames area of timecode.
  - *Modify the offset by a precise value:* Select the hours, minutes, seconds, or frames area of timecode, enter a new two-digit number, then press Return.

 **Tip:** To check the new sync, play back the video in the preview area.

## Export captions in Compressor

After you [import captions](#) into a job (optionally [editing text properties](#) and [adjusting timing](#)), you're ready to export the video and captions. In a standard Compressor batch, the transcode preset and captions format you choose determines how Compressor outputs the job:

- When you use a standard transcode preset (Apple Devices or MPEG Files, for example) to combine a video with CEA-608 closed captions, Compressor can embed the captions directly into the output video file. Optionally, you can have Compressor save a separate captions text file (in the .scc filename format) to your computer.
- When you use a standard transcode preset to combine video with iTT subtitles or SRT subtitles, Compressor saves the video file (without embedded captions) and a separate captions text file (in the .itt or .srt filename format) to your computer when you select "Save captions to disk" at the bottom of the Job inspector.

**Note:** iTT subtitles and SRT subtitles can't be embedded in a video file, so it's not recommended that you use this format unless you're [creating an iTunes Store package](#).

## Transcode video and captions using standard transcode presets

To export video and captions using any of the Apple Devices presets, or presets based on the QuickTime Movie, MPEG-2, or MPEG-4 formats, do the following:

1. If you want to embed CEA-608 captions in the output video, click the output row in the Compressor batch area (under the Preset heading), then in the General inspector, make sure “Embed CEA-608 closed captions” is selected.

*Note:* You can’t embed iTT subtitles or SRT subtitles into output video.

2. If you want to output a separate captions file (in the CEA-608, iTT, or SRT format), click the video source filename in the batch inspector, then select “Save captions to disk” at the bottom of the Job inspector.
3. Click the Start Batch button in the lower-right corner of the batch area.

If the job contains errors, a warning dialog appears. Click the Review button to see the errors. After you fix the errors, click the Start Batch button again.

# Create iTunes Store packages

## Intro to iTunes Store packages in Compressor

To submit video content to the iTunes Store for sale, use Compressor to assemble your media and supplemental materials, including closed-caption and subtitle tracks, alternative audio tracks (including descriptive audio tracks), a preview movie, and HDR (high dynamic range) video. You can also submit stereoscopic video.

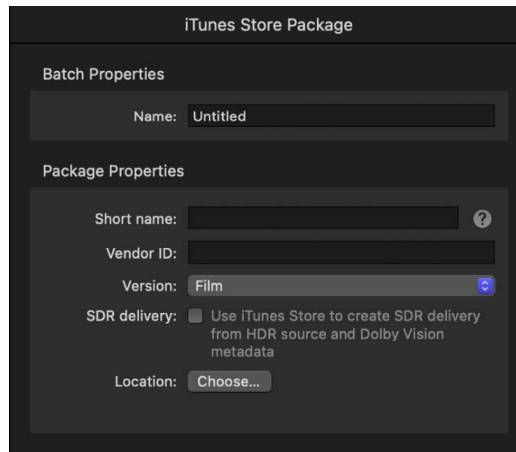
To assemble, configure, and build an iTunes Store package, see [Build iTunes Store packages](#). To assemble an HDR package, see [Submit HDR content](#).

After creating the package, you can work with a delivery partner to submit it to the iTunes Store. During submission, the delivery partner includes additional required metadata and other materials to ensure your package is complete. The delivery partner can also provide billing and support services after your video becomes available for sale.

For more details about the entire creation and submission process, including information for customers with direct submission privileges, see the [iTunes Store Package Quick Start Guide](#).

## iTunes Store package required fields

To submit a package to the iTunes Store using Compressor, you must have a valid *short name* and *vendor ID*. The short name is provided by the iTunes Store to approved content providers. The vendor ID is a unique identifier for your movie supplied by the iTunes Store. These fields can be found in the iTunes Store Package inspector.



**Important:** You must enter some data into the short name and vendor ID fields in order for Compressor to properly process your package. If you do not know the correct information, you can enter placeholder text.

If you use a delivery partner to submit the package to the iTunes Store, your delivery partner can edit your Compressor-generated package to add a valid vendor ID and short name. If you deliver the package to the iTunes Store yourself (acting as your own content provider), you must obtain a vendor ID and short name from the iTunes Store and include that data in your package.

## Build iTunes Store packages using Compressor

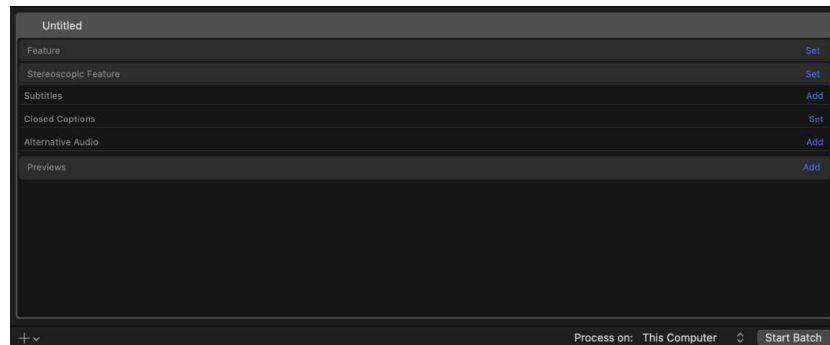
There are a number of steps required to successfully create, configure, and build an iTunes Store package. Before you begin, make sure you have all the components you need, including video files, audio files, subtitles, preview video clips, and so on, and that each component is in the correct format for inclusion in the package.



## Create an iTunes Store package

1. In Compressor, choose File > New iTunes Store Package.

An iTunes Store package job appears in the batch area. (The batch area can contain only one iTunes Store package job at a time.)

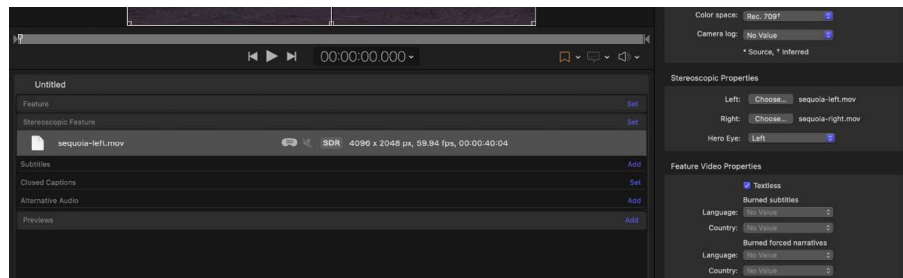


2. To add the primary video of your submission, do one of the following:
  - Drag a video file from the Finder onto the Feature row.
  - Click Set on the right side of the Feature row and select a video file from the dialog that appears, then click Open.

An output row containing the selected video file is added to the job.

**Note:** You can add both an HDR and an SDR video of a feature, and both will be linked.

3. To add stereoscopic video to your submission, do one of the following:
  - Drag the left video file of the stereoscopic pair from the Finder onto the Stereoscopic Feature row. In the Job inspector, under Stereoscopic Properties click Choose, select a video file from the dialog that appears, then click Open.
  - Click Set on the right side of the Stereoscopic Feature row, select either the right or left video file of the stereoscopic pair from the dialog that appears (ensuring that Video Track is set to Left or Right accordingly), then click Open. In the Job inspector, under Stereoscopic Properties, click Choose next to the eye you didn't upload a file for yet, select a video file from the dialog that appears, then click Open.



**Important:** As soon as you add one video file of a stereoscopic pair, you must add the second video file in order for Compressor to create the iTunes Store package.

Use the Hero Eye pop-up menu to set whether the left or right eye is the hero eye.

4. To modify video or audio properties of the primary video, select the video in the batch area, open the Video or Audio inspector, then adjust the property values. You can pick a frame size up to 4K (4096 x 2304 pixels).

5. To add supplemental files, do one of the following:
  - Drag a file from the Finder into the Subtitles, Closed Captions, or Alternative Audio row.
  - Click Add or Set on the right side of the corresponding row, select a file from the dialog that appears, then click Open.

You can add multiple files in each category (for example, to include subtitles or closed captions for multiple languages). Shift-click or Command-click to select multiple files. A supplemental file row is created for each file you add.

**Important:** Subtitle files must have the .itt filename extension, and closed-caption files must have the .scc filename extension.

6. By default, the primary audio track of an iTunes Store package is audio included with the main HDR or SDR feature. To choose different a primary audio track for your package, select the speaker button  in the center of the corresponding row. The speaker button of the primary audio track turns blue and adds a checkmark: .

To reselect the audio track from the main HDR or SDR feature as the primary audio, select the speaker button  in the feature row.

When an alternative audio track is selected as the primary audio track, it's locked to the language of the feature video.

**Important:** The iTunes Store ignores audio from stereoscopic files. If you want audio in a package with a stereoscopic feature, either add a traditional HDR or SDR feature video that includes audio and leave it as the primary audio, or choose an alternative audio file and make it the primary audio for the package.

7. To add a short preview video, do one of the following:
  - Drag a video file from the Finder onto the Previews row.
  - Click Add on the right side of the Previews row, select a video file from the dialog that appears, then click Open.

Compressor adds a row containing the selected video file to the job.

## Configure an iTunes Store package

After you create an iTunes Store package and add media, you need to add identifying production data in the inspector.

1. In the Compressor batch area, click the top bar of the iTunes Store Package item.

The iTunes Store Package inspector appears. (If the inspector is not visible, click the Inspector button  in the upper-right corner of the Compressor window.)
2. In the iTunes Store Package inspector, enter a name for the project in the Name field.

*Note:* This name will be used only to represent the job in the Active or Completed views within Compressor.
3. In the Package Properties section of the inspector, enter a short name that corresponds to the party who will ultimately submit the package to the iTunes Store.

The short name is generated and supplied by the iTunes Store and is used for internal identification. If you do not have an account with an assigned short name, enter placeholder text here, and your delivery partner will add the correct information to the package before submitting it to the iTunes Store.

4. Enter a Vendor ID.

The Vendor ID is a unique identifier for the movie you are submitting to the iTunes Store. This ID is used for tracking your assets and sales reporting.

If you don't know your vendor ID, you can enter any placeholder text here and your delivery partner will add a valid vendor ID to the package before submission to the iTunes Store.

**Important:** The vendor ID can contain only alphanumeric characters and underscore marks; it can't contain spaces, dashes, ampersands, other punctuation, or symbols. The vendor identifier is case-sensitive and must not start with an underscore. If a vendor ID is numeric, it's treated as a string, not numbers (for example, a vendor identifier of 000000000123456 is not the same as 123456). Vendor IDs must be at least six ASCII characters in length but not longer than 100 ASCII characters.

5. In the Version pop-up menu, if the package media is for a standalone video, choose "Film." If the package is part of a subscription, choose "Subscription video."
6. Select the "SDR delivery" checkbox if you want the iTunes Store to create an SDR version of the video from an HDR source and Dolby Vision metadata.
7. Click Choose, then select the location on your computer where you want to save the package.

**Important:** The iTunes Store requires specific video and audio presets in your package submission. Therefore, unless you know exactly what presets to change and why, it's not advisable to make changes to the Video and Audio inspectors for the Feature or Preview items in your iTunes Store Package job.

### Configure subtitles, closed captions, and alternative audio tracks

After you add subtitle files, closed-caption files, or alternative audio tracks to a job, you must configure those elements to ensure that they're labeled with the correct language and other presets.

1. In the Compressor batch area, select a row under the Subtitles heading.

The Subtitles inspector appears. (If the inspector is not visible, click the Inspector button  in the upper-right corner of the Compressor window.)

2. In the Subtitles inspector, choose options from the Language pop-up menu, the Country pop-up menu, and the Purpose pop-up menu.

 **Tip:** You must choose a language before you can choose a country.

There are three available options in the Purpose pop-up menu:

- *Translation (Full):* Outputs a full translation of all words spoken in the film using the language of the intended territory. During playback, viewers can turn these subtitles on or off (unlike [burned-in subtitles](#)).
- *Forced:* Use when a person in the video speaks a language different from the main language of the video—for example, for a French speaker in an otherwise English-language film. Forced subtitles can't be turned off because they're necessary to understand the content of the video.
- *Deaf and Hard of Hearing (SDH):* Use for a full translation of all the words spoken in the video, as well as song lyrics and sound effects (owl hooting, scream in distance, and so on). During playback, viewers can turn subtitles for the deaf or hard of hearing (SDH) on or off.

 **Tip:** In the Subtitles inspector, you can also [edit subtitle text, color, and placement](#) and [adjust subtitle timing](#).

3. In the batch area, select a row under the Closed Captions heading.
4. In the Closed Captions inspector, choose options from the Language pop-up menu and the Country pop-up menu.

You must choose a language before you can choose a country.

 **Tip:** In the Closed Captions inspector, you can also [edit subtitle text, color, animation, and placement](#) and [adjust subtitle timing](#).

5. In the batch area, select a row under the Alternative Audio heading.
6. In the Job inspector, do the following:

- Choose options from the Language pop-up menu and Country pop-up menu matching the language of the alternative audio track.

You must choose a language before you can choose a country.

When an alternative audio track is selected as the primary audio track, it's locked to the language of the feature video.

- If the alternative audio track is descriptive audio, select the "Descriptive audio" checkbox (in the Alternative Audio Properties area).

You can add multiple descriptive audio tracks (for example, in multiple languages).

- If you want the alternative audio track to be the primary audio for the package, select the speaker button  in the corresponding row.

*Note:* An alternative audio track can't be selected as both descriptive audio and the primary audio track. Selecting the "Descriptive audio" checkbox will automatically deselect the track as primary audio.

**Important:** The iTunes Store ignores audio from stereoscopic files. If you want audio in a package with a stereoscopic feature, either add a traditional HDR or SDR feature video that includes audio and leave it as the primary audio, or choose an alternative audio file and make it the primary audio for the package.

- If your alternative audio track is a Dolby Atmos track, you can select downmixing options. The "Downmix to Stereo" checkbox is selected by default, but you can select the "Downmix to 7.1" or "Downmix to 5.1" checkboxes if you want the iTunes Store to downmix in those formats as well.

**Important:** For a Dolby Atmos track to be the primary audio for the package, "Downmix to Stereo" must be selected. If "Downmix to Stereo" is deselected, the track is also deselected as primary audio.

 **Tip:** You can view subtitles and closed captions or monitor one of the alternative audio tracks in the preview area by clicking the "Choose closed captions, subtitles, and audio language" button  and then choosing an option. See [Preview jobs](#).

## Add chapter markers to the feature video

iTunes Store videos must include chapters so that viewers can jump directly to specific sections of the movie. If your source video file already has chapter markers, those will be used. If your source video file doesn't have chapter markers, you can add them in Compressor.

1. In the Compressor batch area, select the Feature row item or Preview row item.
2. In the preview area, navigate to the frame where you want to begin the chapter.
3. Click the arrow next to the Marker button , then choose Add Marker (or press M).

The inspector is updated to show the Marker inspector.

4. In the Marker inspector, enter a name for the marker.
5. Click the Image pop-up menu, then choose Frame or File to assign a preview image associated with the chapter marker.

**Important:** Chapter markers must have an image associated with them (and not a black frame) to be compliant with iTunes Store submission requirements.

6. Repeat steps 2–5 to add additional chapter markers as required.

For more information about chapter markers, see [Add markers](#).

## Build an iTunes Store package

After your package is properly loaded and configured, you can build the package.

- In the Compressor batch area, click the Start Batch button.

Compressor transcodes all the files, combining them into a single package file (saved in the location specified in the iTunes Store Package inspector).

**Important:** Compressor can't directly submit the package to the iTunes Store. See [Submitting to the iTunes Store](#).

## Correct or augment an iTunes Store package

You can add or update components in a completed iTunes Store package using Compressor. For example, if you want to add another subtitle file to a completed package, you can append the new file to the package. As long as the data in the package properties matches that in the original package, Compressor automatically combines the items and ensures that the package is correctly configured and ready for uploading.

1. In Compressor, choose File > New iTunes Store Package.  
An iTunes Store package is added to the batch area.
2. In the batch area, click the top bar of the iTunes Store Package item.
3. In the iTunes Store Package inspector (if the inspector is not visible, click the Inspector button ) , enter a name and set the package properties to precisely match the values in the package you want to augment or change.
4. In the batch area, add the new or modified subtitle files, closed-caption files, or alternate audio files.

**Note:** If you create a package with no feature video, the preview area displays a missing media warning. Because you're deliberately generating a package without video, this is not an error, so you can safely ignore this warning.

5. In the iTunes Store Package inspector, click Choose, then select the same location where the original package was saved.
6. At the bottom of the batch area, click the Start Batch button.

The existing package is updated to include the new or changed elements from the new batch.

*Note:* You can't remove elements from a package after it has been created. If you want to remove an element from an existing package, you must create a new package from scratch. For example, if you created a package with French, German, and Italian subtitles but want to modify the package to include only French and Italian subtitles, you must delete the old package from your disk, then build a new package with all desired elements included.

## Work with video with burned-in text in Compressor

If your feature video contains text already rendered into the video (sometimes called *burned-in* or *baked-in* titles), it's important to identify the language and intent of those titles before submitting your package to the iTunes Store.

In general, you should avoid using burned-in text, which can confuse viewers when the text doesn't match the language they're expecting (other than opening titles or ending credits).

Furthermore, burned-in titles can conflict with subtitles or closed-caption text added to the video during playback. If both text elements appear at the same time and in the same place on the screen, the titles may overlap, and neither will be legible.

However, burned-in text is sometimes unavoidable. For example, traditional subtitles might already be burned into your video. Or you might need to include *forced narratives*, onscreen text that identifies a scene's location or time ("Brooklyn, 1959" or "Later that night..."). Or you might require translation dialog that doesn't match the primary language used in a film (known as *foreign dialog translation*).

In these cases, you must identify the text as subtitles or forced narratives and then specify the language and country.

### Set the language and country of burned-in text

1. In the Compressor batch area, select the Feature row item.
2. In the Job inspector, scroll down to Feature Video Properties, then deselect Textless.
3. For burned-in subtitles, choose a Language option and then a Country option in the "Burned subtitles" area.
4. For burned-in forced narratives, choose a Language option and then a Country option in the "Burned forced narratives" area.

### Set the India Health Warning

If your project contains health warning text as required by Indian law, you must indicate that the warning is present in your iTunes Store package.

1. In the Compressor batch area, select the Feature row item.
2. In the Job inspector, scroll down to Feature Video Properties, then deselect Textless.
3. Select the "India health warning" checkbox.

## Designate the feature video as textless

If your Feature video doesn't contain any titles, it should be marked as Textless. This preset is selected by default.

1. In the Compressor batch area, select the Feature row item.
2. In the Job inspector, scroll down to Feature Video Properties, then select Textless (if it's not already selected).

## Submit HDR content to the iTunes Store in Compressor

You can use Compressor to prepare HDR (high dynamic range) content packages for submission to the iTunes Store. Users with HDR-capable devices—Apple TV 4K connected to an HDR-compatible television, recent iOS and iPadOS devices, or recent Mac computers—can purchase or rent HDR content in high-definition or 4K resolution. The iTunes Store plays the highest-quality version compatible with a user's device.

You submit an HDR package in either of two standard HDR formats: HDR10 or Dolby Vision. Both formats combine wide color gamut with the *perceptual quantizer*, a mathematical transfer function that converts stored color values in the video file to high-dynamic-range levels of contrast onscreen, approximating the sensitivity of human eyes. (For more information, see [Intro to wide color gamut and HDR](#).)

When you submit an HDR video to the iTunes Store, you must also include a standard-dynamic-range version of the video, unless the SDR version is already available in the iTunes Store and you're submitting a supplemental HDR upgrade package, or you're using iTunes to create the SDR delivery from the HDR source and Dolby Vision metadata. Your HDR video must include HDR metadata.

For complete information about HDR delivery requirements, see the [iTunes Video and Audio Asset Guide](#).

## Build a combined SDR/HDR package

If you're submitting new video content, you must include both an SDR version *and* an HDR version in the iTunes Store package. The SDR version is considered the "master," defining the video duration, frame rate, and frame size; the SDR master also provides the audio track. The HDR version provides only the higher-resolution video (and doesn't require an audio track).

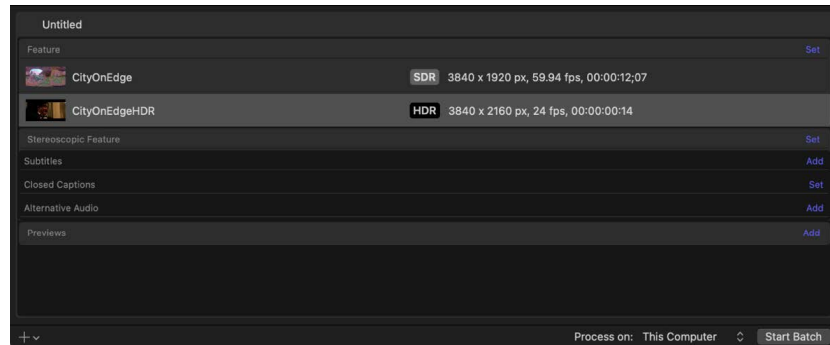
**Note:** If you're submitting a supplemental HDR upgrade to SDR video already available in the iTunes Store, or you're using iTunes to create the SDR delivery using an HDR source and Dolby Vision metadata, go to the next task, [Build a combined SDR/HDR package from an HDR-only source](#).

1. In Compressor, choose File > New iTunes Store Package.  
An iTunes Store Package job appears in the batch area.
2. To add the SDR feature video to the package, do one of the following:
  - Drag an SDR video file from the Finder onto the Feature row.
  - Click Set on the right side of the Feature row, select an SDR video file, then click Open.

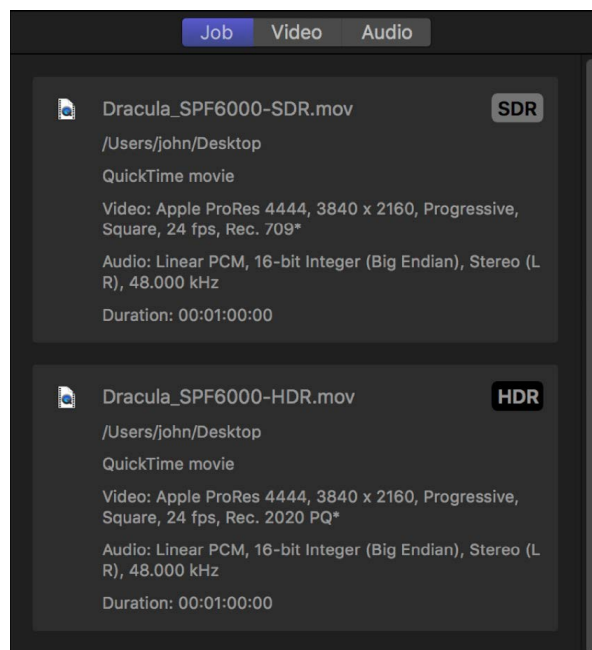
An output row containing the selected video file (and an SDR badge) is added to the job.

3. To add the HDR feature video to the package, do one of the following:
  - Drag an HDR video file from the Finder onto the Feature row.
  - Click Set on the right side of the Feature row, select an HDR video file, then click Open.

An output row containing the selected video file (and an HDR badge) is added to the job.



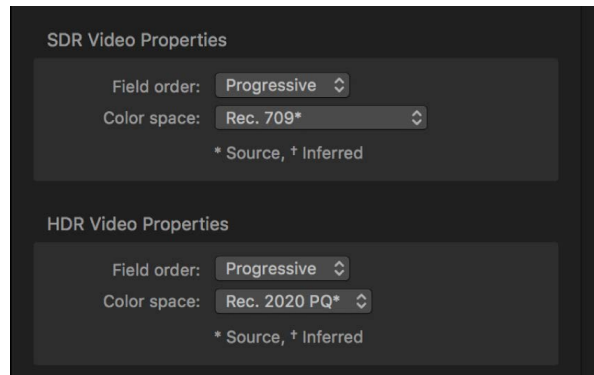
Separate summaries for both the SDR and HDR source files appear in the Job inspector.





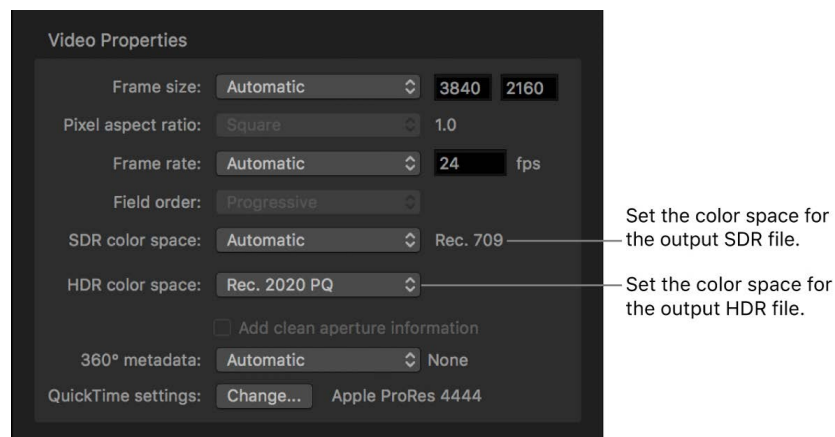
4. In the Job inspector, review the SDR Video Properties and HDR Video Properties areas to ensure that Compressor has correctly detected the native color space of each file.

If a source file has metadata identifying its native color space, Compressor adds an asterisk next to the option shown in the SDR or HDR “Color space” pop-up menu. If a source file is untagged or tagged with an unrecognized color space, Compressor assigns a color space based on its assessment of the media and then adds a dagger (†) next to the item the pop-up menu. You can override Compressor’s choices by choosing a different option from either pop-up menu.



*Note:* Changing these properties doesn’t convert the exported files to a different color space. To transcode to a different color space, see the next step.

5. If you want to modify the color space of either video for the iTunes Store package, open the Video inspector and choose new options from the following pop-up menus:
  - *SDR color space:* Choose a different SDR color space.
  - *HDR color space:* Choose either Rec. 2020 PQ or P3 D65 PQ. Either option is compatible with the two HDR formats supported by the iTunes Store—Dolby Vision and HDR10.



6. Set the HDR format:

- *HDR10*: By default, iTunes Store packages transcode HDR video to the HDR10 format, so no further modifications are required.
- *Dolby Vision*: Open the Job inspector, then in the Dolby Vision Metadata area, click Choose, navigate to an XML file formatted using the Dolby Vision metadata specifications, and click Open. When you attach a Dolby Vision metadata file, Compressor transcodes your iTunes Store package to a format compatible with both HDR10 and Dolby Vision. When a user rents or purchases HDR content, the iTunes Store plays the highest-quality version compatible with the user's display device.

*Note:* Dolby Vision submissions must be mastered at a Dolby Vision-certified facility. See the [Dolby Vision website](#).

7. In the Video inspector, click Choose in the "QuickTime presets" area, then choose either Apple ProRes 4444 or Apple ProRes 4444 XQ from the pop-up menu.

HDR package submissions to the iTunes Store must use the Apple ProRes 4444 or Apple ProRes 4444 XQ codec. If you choose a different codec, your package submission will fail.

8. [Complete your iTunes Store package](#) by configuring package presets; adding subtitles, closed captions, alternative audio tracks, and chapter markers; and then building the package.

**Important:** Compressor can't directly submit the package to the iTunes Store. See [Submitting to the iTunes Store](#).

### Build a supplemental HDR upgrade to an already available SDR video

If the SDR version of your feature video is already available in the iTunes Store, you can submit the HDR version by itself as a supplemental upgrade package.

1. In Compressor, choose File > New iTunes Store Package.

An iTunes Store Package job appears in the batch area.

2. Do one of the following:

- Drag an HDR video file from the Finder onto the Feature row.
- Click Set on the right side of the Feature row, select an HDR video file, then click Open.

An output row containing the selected video file (and an HDR badge) is added to the job.

3. If you want to modify the color space of the video for the iTunes Store package, open the Video inspector, click the "HDR color space" pop-up menu, then choose either Rec. 2020 PQ or P3 D65 PQ.

Either option is compatible with the two HDR formats supported by the iTunes Store—Dolby Vision and HDR10.

4. Set the HDR format:

- *HDR10*: By default, iTunes Store packages transcode HDR video to the HDR10 format, so no further modifications are required.
- *Dolby Vision*: Open the Job inspector, then in the Dolby Vision Metadata area, click Choose, navigate to an XML file formatted using the Dolby Vision metadata specifications, and click Open. When you attach a Dolby Vision metadata file, Compressor transcodes your iTunes Store package to a format compatible with both HDR10 and Dolby Vision. When a user rents or purchases HDR content, the iTunes Store plays the highest-quality version compatible with the user's display device.

*Note:* Dolby Vision submissions must be mastered at a Dolby Vision-certified facility. See the [Dolby Vision website](#).

5. In the Video inspector, click Choose in the "QuickTime presets" area, then choose either Apple ProRes 4444 or Apple ProRes 4444 XQ from the pop-up menu.

HDR package submissions to the iTunes Store must use the Apple ProRes 4444 or Apple ProRes 4444 XQ codec. If you choose a different codec, your package submission may fail.

6. [Complete your iTunes Store package](#) by configuring package presets; adding subtitles, closed captions, alternative audio tracks, and chapter markers; and then building the package.

**Important:** Compressor can't directly submit the package to the iTunes Store. See [Submitting to the iTunes Store](#).

### Build a combined SDR/HDR package from an HDR-only source

If the you have an HDR video file and Dolby Vision metadata, you can build a combined SDR/HDR package.

1. In Compressor, choose File > New iTunes Store Package.

An iTunes Store Package job appears in the batch area.

2. Do one of the following:

- Drag an HDR video file from the Finder onto the Feature row.
- Click Set on the right side of the Feature row, select an HDR video file, then click Open.

An output row containing the selected video file (and an HDR badge) is added to the job.

3. If you want to modify the color space of the video for the iTunes Store package, open the Video inspector, click the "HDR color space" pop-up menu, then choose either Rec. 2020 PQ or P3 D65 PQ.

4. Open the Job inspector, then in the Dolby Vision Metadata area, click Choose, navigate to an XML file formatted using the Dolby Vision metadata specifications, then click Open.

When you attach a Dolby Vision metadata file, your iTunes Store package transcodes to SDR, and a format compatible with both HDR10 and Dolby Vision. When a user rents or purchases HDR content, the iTunes Store plays the highest-quality version compatible with the user's display device.

*Note:* Dolby Vision submissions must be mastered at a Dolby Vision-certified facility. See the [Dolby Vision website](#).

5. Select the “Use iTunes to create SDR delivery from HDR source and Dolby Vision metadata” checkbox.
6. In the Video inspector, click Choose in the “QuickTime presets” area, then choose either Apple ProRes 4444 or Apple ProRes 4444 XQ from the pop-up menu.

HDR package submissions to the iTunes Store must use the Apple ProRes 4444 or Apple ProRes 4444 XQ codec. If you choose a different codec, your package submission may fail.

7. [Complete your iTunes Store package](#) by configuring package presets; adding subtitles, closed captions, alternative audio tracks, and chapter markers; and then building the package.

**Important:** Compressor can’t directly submit the package to the iTunes Store. See [Submitting to the iTunes Store](#).

## About submitting to the iTunes Store in Compressor

Compressor can’t directly submit a package to the iTunes Store. Therefore most content creators work with an Apple-approved delivery partner to submit their work there. For a list of approved delivery partners, see [iTunes Store delivery partners](#).

Additionally, a complete iTunes Store package consists of both assets and metadata. Compressor generates a package without some essential metadata such as the title, synopsis, cast and crew lists, and so on. That data must be submitted via iTunes Connect by an authorized user (usually the delivery partner).

For details about the submission process, see [Create an iTunes Store Package with Compressor: Quick Start Guide](#).

## Create IMF packages

### Intro to IMF packages in Compressor

Compressor can create an original Interoperable Master Format (IMF) package as well as edit an existing IMF package in order to create a new original IMF package or a supplemental IMF package. To create an original IMF package, use Compressor to assemble your audio and video. You can then export the main IMF package, or you can export individual files in the IMF package as supplemental IMF packages.

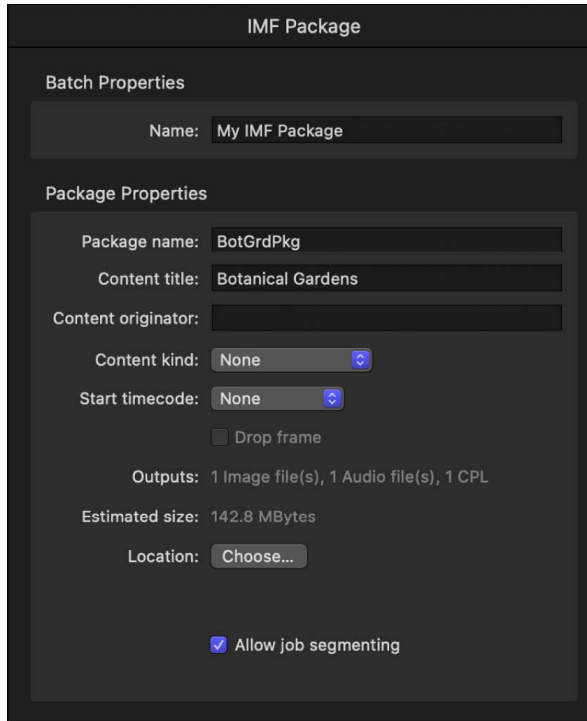
Supplemental IMF packages allow you to add additional audio files in different languages to complete IMF packages. The advantage of creating supplemental IMF packages for these additional audio files is that only the new files are included in the package; all the other elements in the package are references to the files in the original IMF package.

You can also use composition playlists (CPL) from original or supplemental IMF packages as a source for IMF export. Finally, you can use a CPL from an IMF export as a source for a regular batch export from Compressor.

For more details, see the Apple Support article [Create complete IMF packages with Compressor and third-party tools](#).

## IMF package required fields

A valid IMF package must include valid values for *package name* and *content title*, an audio language must be selected, and Multichannel Audio Description fields are required. You must also select a location for the output. These and additional fields can be found in the IMF Package inspector. If you don't know the correct information, you can enter placeholder text.



The screenshot shows the 'IMF Package' inspector window. It has two main sections: 'Batch Properties' and 'Package Properties'. In 'Batch Properties', the 'Name' field is set to 'My IMF Package'. In 'Package Properties', the 'Package name' is 'BotGrdPkg', 'Content title' is 'Botanical Gardens', 'Content originator' is empty, 'Content kind' is 'None', 'Start timecode' is 'None', and 'Drop frame' is unchecked. The 'Outputs' section shows '1 Image file(s), 1 Audio file(s), 1 CPL'. The 'Estimated size' is '142.8 MBytes'. The 'Location' field has a 'Choose...' button. At the bottom, the 'Allow job segmenting' checkbox is checked.

| Section            | Field              | Value                                                    |
|--------------------|--------------------|----------------------------------------------------------|
| Batch Properties   | Name               | My IMF Package                                           |
|                    |                    |                                                          |
| Package Properties | Package name       | BotGrdPkg                                                |
|                    | Content title      | Botanical Gardens                                        |
|                    | Content originator |                                                          |
|                    | Content kind       | None                                                     |
|                    | Start timecode     | None                                                     |
|                    | Drop frame         | <input type="checkbox"/>                                 |
|                    | Outputs            | 1 Image file(s), 1 Audio file(s), 1 CPL                  |
|                    | Estimated size     | 142.8 MBytes                                             |
|                    | Location           | Choose...                                                |
|                    |                    | <input checked="" type="checkbox"/> Allow job segmenting |

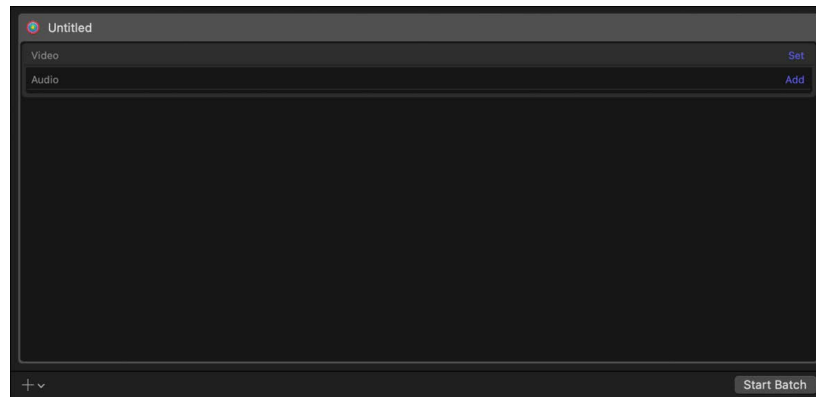
## Build IMF packages and supplemental IMF packages using Compressor

There are a number of steps required to successfully create, configure, and build a simple Interoperable Master Format (IMF) package or supplemental IMF package using Compressor. Before you begin, make sure you have all the components you need, including video files and audio files, and make sure each component is in the correct format for inclusion in the package. You can create your IMF package using a video that includes audio or video content, or that references separate audio and video files. You can also import a composition playlist (CPL) which references other media that is part of the package.

## Create an IMF package from video files

1. In Compressor, choose File > New IMF Package.

An IMF package job appears in the batch area. (The batch area can contain only one IMF package job at a time.)



2. To add the video to your package, do one of the following:
  - Drag a video file from the Finder onto the Video row.
  - Click Set on the right side of the Video row and select a video file from the dialog that appears, then click Open.

An output row containing the selected video file is added to the job.

*Note:* You can't remove video elements from a package after it has been created. If you want to remove a video element from an existing package, you must create a new package from scratch.

3. To modify video or audio properties, select the video or audio in the batch area, open the Video or Audio inspector, then adjust the property values. You can pick a frame size up to 4K (4096 x 2160 pixels).
4. To add the audio to your package, do one of the following:
  - Drag an audio file from the Finder onto the Audio row.
  - Click Set on the right side of the Audio row and select an audio file from the dialog that appears, then click Open.

An output row containing the selected audio file is added to the job.

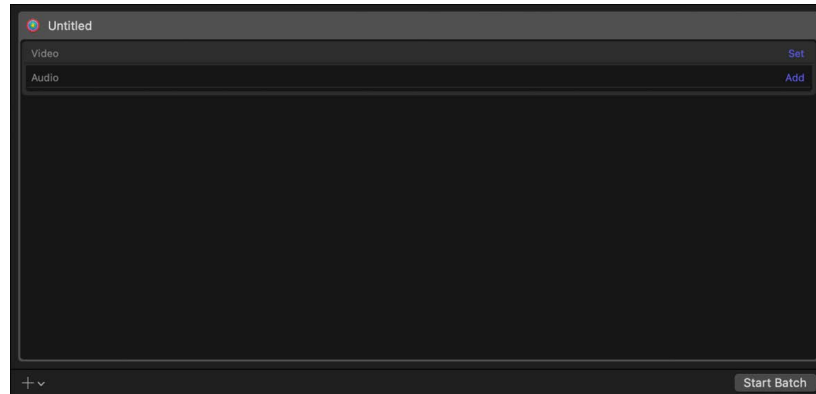
5. To remove an audio element from a package, click Remove on the right side of the Audio row.
6. To modify audio properties, select the audio in the batch area, open the Job or Audio inspector, then adjust the property values.

**Important:** To create a valid IMF package, you must select a language for the audio in the Job inspector.

## Create a new IMF package using a CPL from an original or supplemental IMF package

1. In Compressor, choose File > New IMF Package.

An IMF package job appears in the batch area. (The batch area can contain only one IMF package job at a time.)

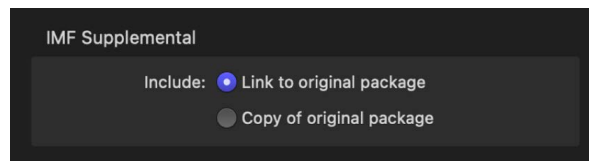


2. To add an original or supplemental IMF package to your new IMF package, do one of the following:
  - Drag the supplemental CPL file from the Finder onto the Video row.
  - Click Set on the right side of the Video row and select a CPL file from the dialog that appears, then click Open.
3. When importing the CPL from a supplemental IMF package, a dialog appears explaining that the link to the original IMF package is missing, and that you need to choose the original package. Dismiss that dialog, then choose the original IMF package from the Open dialog that appears and click Open.

An output row containing the selected files is added to the job. If the CPL contains multiple audio files, Compressor creates a separate track for each audio file.

*Note:* You can't remove video elements from a package after it has been created. Also, you must choose the original IMF package for the supplemental IMF package you have added, or the dialog directing you to choose the original package reappears. If you can't find the original IMF package, you must create a new one from scratch.

4. After importing the CPL, by default all supplemental audio tracks are set to "Link to original package" in the IMF Supplemental property in the Job inspector. This means that a reference to the original audio file is exported into the IMF package. This results in a smaller IMF package; however you can't adjust any of the audio file properties for the exported files. To modify any of the audio properties, click "Copy of original package" in the IMF Supplemental property in the Job inspector.



5. To modify video or audio properties, select the video or audio in the batch area, open the Video or Audio inspector, then adjust the property values. You can pick a frame size up to 4K (4096 x 2160 pixels).

6. To add additional audio files to your package, do one of the following:
  - Drag an audio file from the Finder onto the Audio row.
  - Click Set on the right side of the Audio row and select an audio file from the dialog that appears, then click Open.

An output row containing the selected audio file is added to the job.

7. To remove an audio element from a package, click Remove on the right side of the Audio row.
8. To modify audio properties, select the audio in the batch area, open the Job or Audio inspector, then adjust the property values.

**Important:** To create a valid IMF package, you must select a language for the audio in the Job inspector.

### Configure an IMF package or a supplemental IMF package

After you create an IMF package and add media, you must add identifying production data in the inspector.

1. In the Compressor batch area, click the top bar of the IMF Package item.

The IMF Package inspector appears. (If the inspector is not visible, click the Inspector button  in the upper-right corner of the Compressor window.)
2. In the IMF Package inspector, enter a name for the batch in the Name field.

*Note:* This name will be used only to represent the job in the Active or Completed views within Compressor.
3. In the Package Properties section of the inspector, enter a name for the package.
4. Enter a title and the content originator for the package.
5. Choose a content kind and a timecode preference from the Content kind and Start timecode pop-up menus.
6. Click Choose, then select the location on your computer where you want to save the package.

You must select a location in order to proceed with the job.
7. To turn on job segmenting, select the "Allow job segmenting" checkbox.

### Build an IMF package or a supplemental IMF package

After your package is properly loaded and configured, you can build the package.

- In the Compressor batch area, click the Start Batch button.

When you're transcoding an IMF package containing supplemental files and you've selected the "Link to the original package" property, Compressor creates a supplemental IMF package that includes both references and copies of the supplemental files as determined by their IMF Supplemental property. Only those supplemental files with "Copy of original package" are included in the supplemental IMF package. However, the CPL file created for the supplemental IMF package lists all the referenced and supplemental files.



## Prepare an IMF package containing HDR content

You can use Compressor to prepare IMF packages that include HDR (high dynamic range) video.

You can create an HDR package in either of two standard HDR formats: HDR10 or Dolby Vision. Both formats combine wide color gamut with the *perceptual quantizer*, a mathematical transfer function that converts stored color values in the video file to high-dynamic-range levels of contrast onscreen, approximating the sensitivity of human eyes. (For more information, see [Intro to wide color gamut and HDR.](#))

### Build a package with HDR content

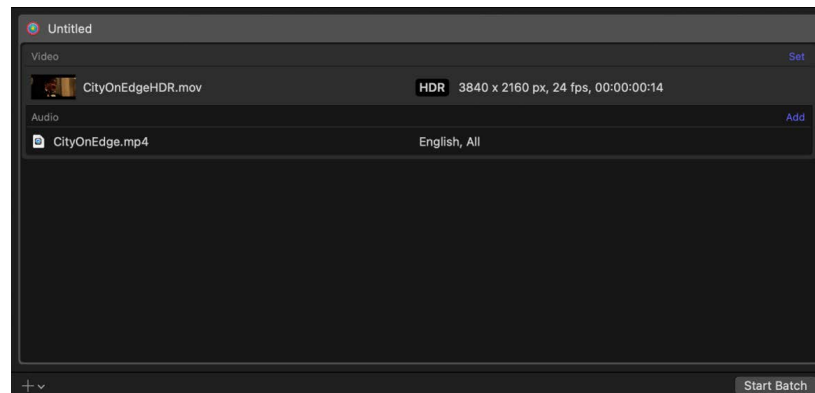
1. In Compressor, choose File > New IMF Package.

An IMF Package job appears in the batch area.

2. To add the HDR feature video to the package, do one of the following:

- Drag an HDR video file from the Finder onto the row.
- Click Set on the right side of the Video row, select an HDR video file, then click Open.

An output row containing the selected video file (and an HDR badge) is added to the job.

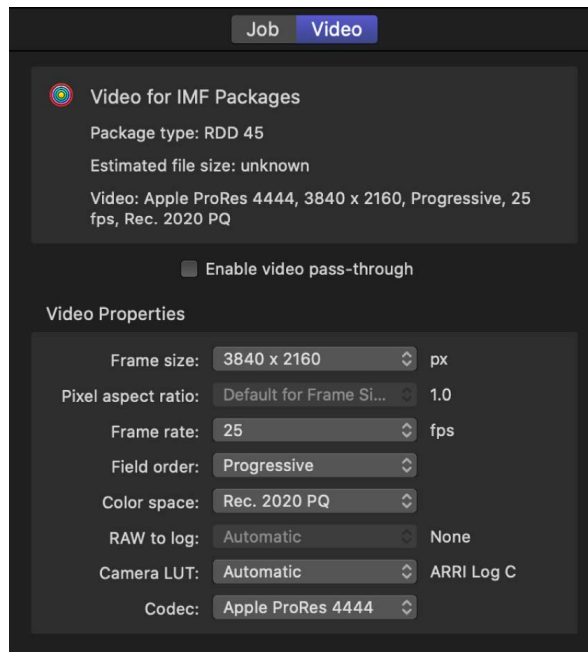


3. In the Job inspector, review the HDR Video Properties area to ensure that Compressor has correctly detected the native color space and the camera LUT used by the source file.

If a source file has metadata identifying its native color space, Compressor adds an asterisk next to the option shown in the HDR “Color space” pop-up menu. If a source file is untagged or tagged with an unrecognized color space, Compressor assigns a color space based on its assessment of the media and then adds a dagger (†) next to the item in the pop-up menu. To override the Compressor selection, choose a different option from either pop-up menu. You can also choose a camera log format.

**Note:** Changing these properties doesn’t convert the exported files to a different color space. To transcode to a different color space, see the next step.

4. If you want to modify the color space of the video for the IMF package, open the Video inspector and choose new options from the following pop-up menu:
  - *HDR color space*: Choose either Rec. 2020 PQ, Rec. 2020 HLG or P3 D65 PQ. Either option is compatible with both Dolby Vision and HDR10.



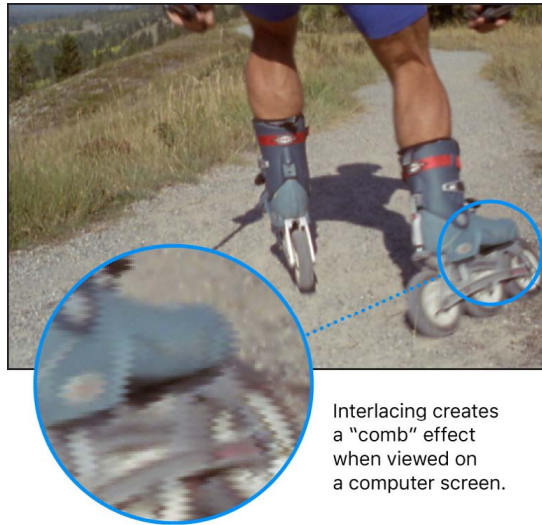
5. [Complete your IMF package](#) by configuring package presets and then building the package.

**Important:** To create a valid IMF package, you must select a language for the audio in the Job inspector, and you must also provide values for all Multichannel Audio Description fields in the Audio inspector.

# Work with interlaced footage

## Use deinterlacing in Compressor

Video to be played on traditional NTSC or PAL televisions is encoded using an interlaced frame rate. Each frame is actually made up of two half-frames called *fields*. Each field contains half the frame lines; the odd (or upper) field contains lines 1, 3, 5, 7, 9 and so on, and the even (or lower) field contains lines 2, 4, 6, 8, 10, and so on. When the video is played back, the TV displays the fields in an alternating pattern, which creates an effective illusion of smooth movement. Viewing interlaced video on a computer screen that displays both fields simultaneously may reveal a combing effect.

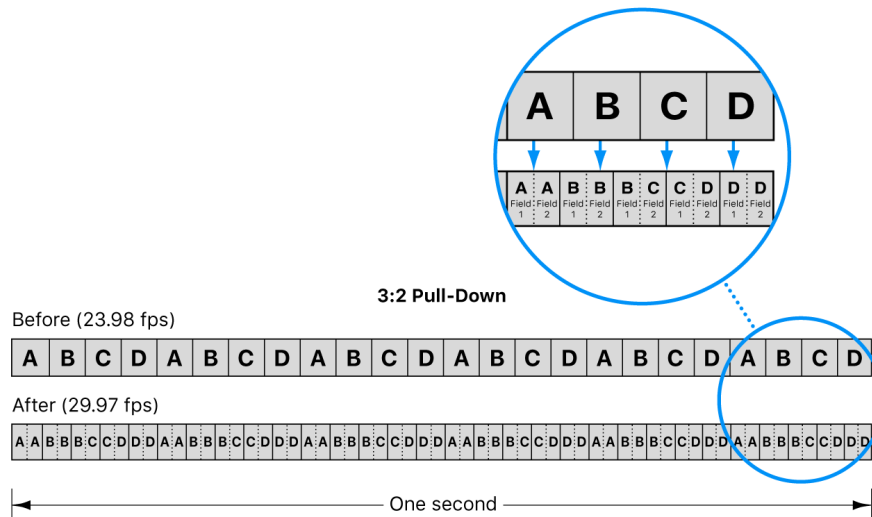


Interlacing creates a "comb" effect when viewed on a computer screen.

You can *deinterlace*, or remove the fields from an interlaced video clip, by converting it to a progressive frame rate. The video presets provided in Compressor contain a "Field order" pop-up menu in the Video inspector that you can use to turn interlacing on or off for the transcoded file. For more information, see [Video properties](#).

## Use reverse telecine in Compressor

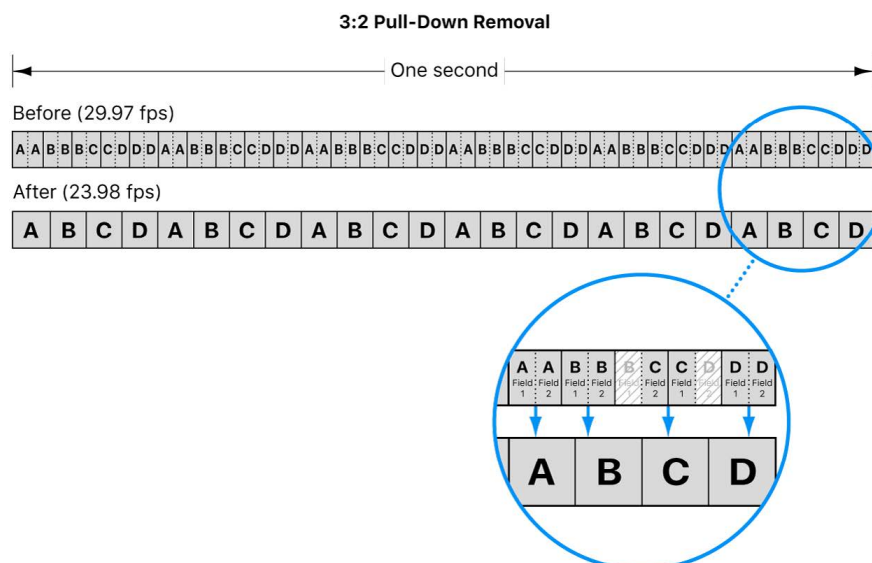
Telecine is the process of converting motion picture film to the NTSC video format used in broadcast television. The most common telecine approach to converting film's standard 24 fps frame rate to NTSC video's 29.97 fps frame rate is to perform a 3:2 pulldown (also known as a 2:3:2:3 *pull-down*). If you alternate recording two fields of one film frame and then three fields of the next, the 24 frames in 1 second of film end up filling the 30 frames in 1 second of video.



As shown above, the 3:2 pattern repeats after four film frames.

For editing and effects purposes, it's often desirable to remove the extra fields and restore the video to its original 24 fps rate. This process is known as *reverse telecine*. An additional benefit of restoring the original is that it's easier to convert this to PAL, the European broadcast standard, which uses a 25 fps frame rate.

The lower frame rate also has the advantage of requiring fewer frames per second of video, leading to smaller file sizes. The reverse telecine feature in Compressor makes it easy to do this conversion.



When using the reverse telecine feature in Compressor, consider these issues:

- Because of the unpredictable nature of the processing when reversing the telecine, segmented encoding doesn't work as efficiently as it does when reverse telecine is not being used.
- If you pause the transcoding process, the transcode must start from the beginning when you restart it.

When film is telecined to NTSC video, it has a constant cadence. This means that the 3:2 pattern is consistent and uninterrupted. It's relatively easy to remove the telecine from a constant-cadence clip because you need only determine the pattern once.

If you take these telecined clips and edit them as NTSC video, the result is a final video file that has a broken cadence with an inconsistent 3:2 pattern. It's much more difficult to remove the telecine from such a clip because you have to constantly verify the cadence to make sure you don't inadvertently choose incorrect fields when creating the 23.98 fps video.

The reverse telecine feature in Compressor automatically detects broken cadences and adjusts processing as needed.

### **Perform a reverse telecine frame rate conversion**

1. In Compressor, do one of the following:
  - In the batch area, click an output row to select a preset in a job. With this method, the modifications you make will be used for outputting only that job.
  - In the Presets pane, select a custom preset from the Custom area. (If the Presets pane is hidden, press Shift-Command-1.) With this method, the modifications you make will be saved to the custom preset for future use.
2. In the inspector pane, click Video to open the Video inspector.

If the inspector pane is not visible, click the Inspector button  in the upper-right corner of the Compressor window.
3. In the Video Properties section of the Video inspector, click the "Frame rate" pop-up menu, then choose 29.97.
4. In the Quality section of the Video inspector, click the "Retiming quality" pop-up menu, then choose Reverse Telecine.
5. If you're modifying the preset of a specific job, click Start Batch to begin transcoding.

If you're modifying a custom preset, there are no additional steps to take.

## **Create additional instances of Compressor**

By default, when "Enable additional Compressor instances" is unchecked, Compressor attempts to optimize performance by segmenting transcoding jobs between all available media engines. Under certain circumstances, you can achieve better performance by manually enabling additional instances of the Compressor app. Enabling additional instances of Compressor doesn't install multiple copies; instead, it creates additional services that can be accessed by Compressor.

The number of available Compressor instances is determined by your computer's cores and memory. After meeting the minimum system requirement (four cores and 2 GB of memory), you can add one additional instance for every additional four cores and 2 GB of memory.

**Important:** If you don't have enough cores or memory, the "Enable additional Compressor instances" checkbox in the Advanced settings pane is dimmed.

### Enable instances of Compressor

1. Choose Compressor > Settings (or press Command-Comma).
2. Click Advanced.
3. Select the "Enable additional Compressor instances" checkbox, then choose a number of instances from the pop-up menu.

**Important:** Creating additional instances of Compressor may increase processing power, *or it may, in fact, reduce processing power*, depending on the specific batches Compressor is processing, and the specifications of your computer. It's recommended that you first disable all the additional instances and transcode several test batches. Then, if performance is slow, increase the number of instances to use more of your computer's resources.

## Use distributed processing

### Transcode batches with multiple computers using Compressor

Transcoding a series of large files on one desktop computer can be processor-intensive and time-consuming. *Distributed processing* decreases the time it takes to transcode a batch by distributing the work between multiple computers in a shared computer group. After you set up a distributed processing system, Compressor sends portions of your batch to each of the available computers in your group of shared computers. When the transcoding is complete, the output files appear in the location you specified when you set up the batch.

**Note:** Distributed processing can't be used for jobs sent to Compressor from Final Cut Pro or Motion.

The simplest shared computer group in Compressor uses two computers: two physical computer systems each running Compressor. A more complex system can include many computers.

To set up distributed processing, you turn on access to each computer and then create a set of shared computers. If you can't find a computer on your network, you can manually add one to the computer list.

**Important:** Before you begin, verify that all the computers to be used for distributed processing have the same version of Compressor installed.

## Make a computer available to other computers on your network

If you want to use a Mac on your network for distributed processing, Compressor must be open and batch processing must be enabled. To have Compressor open automatically when you log in to your Mac, add Compressor to your list of login items. On macOS 10.15 or later, using distributed processing may require you to grant network access. See this [Apple Support article](#).

1. Choose Compressor > Settings (or press Command-Comma).
2. Select My Computer.
3. If necessary, turn on “Allow other computers to process batches on my computer.”
4. To control access to your computer, select the Require Password checkbox and enter a password in the text field.

The password is required by other computers to use your computer for transcoding.

5. To add Compressor to your list of login items, do the following:
  - a. Choose Apple menu  > System Settings.
  - b. Click General, then click Login Items.
  - c. At the bottom of the list of login items, click the Add button , navigate to Compressor, then click Open.

## Create a group of shared computers

You can create a group of shared computers to use to transcode your batches.

1. Choose Compressor > Settings (or press Command-Comma).
2. Select Shared Computers.
3. At the bottom of the list of shared computers (on the left), click the Add button .  
A new “Untitled” group is added to the list.
4. Double-click the “Untitled” group to select it, type a new name for the group, then press Return.
5. In the list of available computers (on the right), select the checkbox next to each computer that you want to add to the set.
6. If you want to add a computer that doesn’t appear in your list of computers, click the Add button  at the bottom of the list of networked computers (on the right), then in the window that appears, enter the computer’s host name or IP address, and click Add.

**Important:** When you first add a new computer to a computer group, you need to trust its security certificate before you can use it (see the next task).

To temporarily disable the computer that you manually added to the group, deselect the computer’s checkbox.

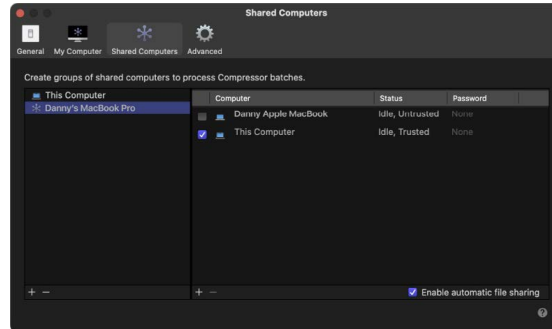
If you need to remove a group of shared computers, select the group and click the Remove button  in the list of computer groups.

If you need to remove a computer from a group, select the computer and click the Remove button  in the list of computers.

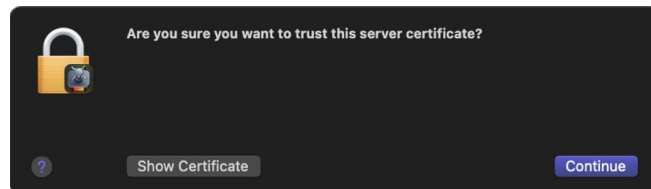
## Trust a computer that you add to a shared group

When a computer is first added to a shared computer group, it's untrusted. For Compressor to use it, you need to trust its security certificate.

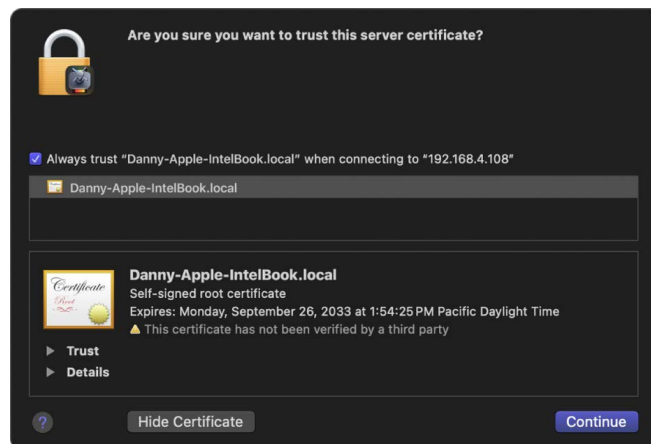
1. In the Shared Computers settings in Compressor, select the checkbox of a newly added computer in the list of computers.



2. A window appears asking if you're sure you want to trust the server certificate. Click Show Certificate.

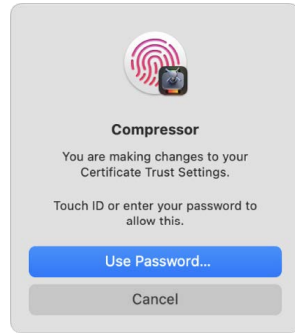


3. Click Always trust, then Continue.





4. Enter your password to allow the change, then press Return.



You can now use the newly added computer in a shared computer group.

### Transcode a batch using a group of shared computers

After you've created a shared computer group and added computers to the group, you can configure and submit a batch of jobs for transcoding as you normally would.

1. In Compressor, before clicking the Start Batch button, click the "Process on" pop-up menu and choose the group of computers that you want to use to process your batch.
2. Click Start Batch.

If this is the first time you've started a job using distributed processing or you've recently updated Compressor, you may receive a prompt to install a helper tool. If so, enter your password and click Install Helper.

### View the progress or history of a batch that was transcoded by a group of shared computers

After submitting a batch to be transcoded by a group of shared computers, you can find information about the transcoding status.

- In Compressor, open any of the following views:
  - *Active view:* After you submit a batch, the Compressor window automatically switches to Active view to show the progress of the transcode.
  - *Completed view:* Click the Completed button at the top of the Compressor window. After a batch is transcoded, information about the job, including the presets and job action used to transcode the source file, is displayed here.
  - *Network Encoding Monitor:* Choose Window > Network Encoding Monitor. The Network Encoding Monitor displays information about how your computer is being shared, including processor usage, batch processing information, disk space usage, and data activity.
  - *Logs window:* Click the Open All Logs button in the Network Encoding Monitor to display the Logs window. You can use the log information displayed here for troubleshooting distributed processing issues. You can save this information to a file and process it with XML tools and UNIX scripts.

**Important:** The log file is deleted when you close the Logs window.

## Configure file sharing using Compressor

Compressor supports file sharing on network-attached storage (NAS) devices, storage area networks (SANs) such as Apple's Xsan, and multiple computers. For example, if you have a file server or SAN, you can use it to hold your source files and any files transcoded from those source files. This allows you to provide a file-sharing strategy that best suits your environment.

By default, Compressor automatically manages the file sharing required for distributed processing. For automatic file sharing to work, you must have file sharing and "Allow guest users" turned on in macOS System Settings. For more information, see [Set up file sharing on Mac](#) in the macOS User Guide.

File sharing requires that your computer and the other machines be in the same shared computer group using the same file-sharing protocol. The SMB file-sharing protocol is built into macOS. However, you are not limited to SMB, so if you have NAS, SAN, or computers that offer maximized throughput using a different protocol, you can use that one. See the documentation for your devices for information on how to configure them for networking and mount the shared volumes.

**Important:** You must use the common shared volume (or volumes) on all of the computers for the location of the source files and for the location of the transcoded files. If you don't do this, computers in your shared computer group won't be able to read or write the files needed for your batch.

### Manually configure SMB file sharing

**Important:** If you've already set up your own file-sharing system, you can skip this task and go to the next one.

1. Choose Apple menu  > System Settings.
2. Go to General > Sharing.
3. In the Sharing settings pane, select the File Sharing button to turn on file sharing.

You can confirm that SMB sharing is on by clicking the Info icon next to File Sharing, then clicking Options and verifying that "Share files and folders using SMB" is turned on.

4. Click the Info icon to see File Sharing options, then click the Add button  under Shared Folders to add folders that you want to share.

For more information on turning on SMB file sharing, see [Set up file sharing on Mac](#) in the macOS User Guide.

### Manually mount the SMB volume you enabled

For each computer in your shared computer group, or for any computer you wish to have access to the shared volume, do the following:

1. In the macOS Finder, choose Go > Connect to Server.
2. In the window that appears, enter the server address for the SMB volume that you want to mount, then click Connect.

For example, you could enter "smb://MySuperServer."

3. In the window that appears, select an authentication method, enter appropriate credentials to access the shared volume, and click Connect.
4. In the window that appears, select the volume that you want to mount and click OK.

If you are using one computer for submitting Compressor batches and another computer for file sharing, be sure to mount the shared volume on the computer you're using to submit Compressor batches.

## Use the command line to submit Compressor jobs

### Intro to shell commands in Compressor

If you're accustomed to doing your work from Terminal shells, you can run the Compressor application from the command line using the Compressor command. There are a number of command-line options for submitting jobs.

In the command-line descriptions in this section, angle brackets < > indicate a mandatory argument in a command, and brackets [ ] indicate an optional argument.

### Job command syntax in Compressor

Below is a synopsis of the Compressor command for submitting a job to a cluster. The Compressor command is located in <PATH>/Compressor.app/Contents/MacOS.

**Important:** The command below must be executed on one line.

```
Compressor [-computergroup <name>] [-batchname <name>]
    [-priority <value>] -jobpath <file>[?frameRate=<frame rate>
    |?audio=<file>|?frameRate=<frame rate>\&audio=<file>]
    -settingpath <path> -locationpath <file>
    [-info <xml>] [-scc <file>] [-startoffset <hh:mm:ss:ff>]
    [-in <hh:mm:ss:ff> [-out <hh:mm:ss:ff> [-annotations <file>]
    [-chapters <file>]
Compressor -checkstream <file>
Compressor -findletterbox <file>
Compressor -help
Compressor [-resetBackgroundProcessing [cancelJobs]]
    [-sharing <on|off>] [[-requiresPassword <password>]
    | [-noPassword]] [-instances <value>]
    [-networkInterface <bsd name>] [-portRange <starting port>
    <count>]
```

These three arguments are the minimum required to submit a batch:

```
Compressor -jobpath <path> -settingpath <path> -locationpath <path>
```

## Common command options used with Compressor

This table shows the most used command options for submitting jobs in Compressor:

| Submission command option                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-computergroup &lt;name&gt;</code>         | Specifies the name of the group of shared computers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <code>-batchname &lt;name&gt;</code>             | Specifies the name of the batch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <code>-priority &lt;value&gt;</code>             | Specifies the priority level for a job.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <code>-jobpath &lt;url&gt;</code>                | Specifies the location of the source file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <code>-settingpath &lt;url&gt;</code>            | Specifies the location of the presets for the job.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>-locationpath &lt;url&gt;</code>           | Specifies the destination file URL for the job.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <code>-relabelaudiotracks &lt;layout&gt;]</code> | <p>Relabels audio channel layouts. Supported audio channel layout values:</p> <ul style="list-style-type: none"><li>• L (left channel)</li><li>• R (right channel)</li><li>• C (center channel)</li><li>• LFE (low frequency effects channel)</li><li>• Ls (left surround channel)</li><li>• Rs (right surround channel)</li><li>• Lc (left center channel)</li><li>• Rc (right center channel)</li><li>• Lt (left total channel)</li><li>• Rt (right total channel)</li><li>• Rls (rear surround left channel)</li><li>• Rrs (rear surround right channel)</li><li>• mono (mono channel)</li><li>• stereo (L R stereo channel configuration)</li><li>• LtRt (Lt Rt Matrix stereo configuration)</li><li>• SMPTE (L R C LFE Ls Rs Lt Rt 7.1 surround configuration)</li><li>• 5_0 (L R C Ls Rs 5.0 surround configuration)</li><li>• 5_1_D (C L R Ls Rs LFE 5.1 surround configuration)</li><li>• 5_1_A (L R C LFE Ls Rs 5.1 surround configuration)</li></ul> <p>Unless <code>-locationpath</code> is specified, the relabeled audio tracks overwrite the ones in the original source file. All other parameters are ignored.</p> |

| Submission command option                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-relabelcolorspace &lt;primaries&gt; &lt;transfer&gt; &lt;matrix&gt;</code> | <p>Relabels the color space of a QuickTime movie file. Use <code>-jobpath &lt;url&gt;</code> to locate the source file. Unless <code>-locationpath</code> is specified, the relabeled file overwrites the original source file. All other parameters are ignored.</p> <p>Supported values for color primaries:</p> <ul style="list-style-type: none"> <li>• ITU_R_709_2 (1)</li> <li>• EBU_3213 (5)</li> <li>• SMPTE_C (6)</li> <li>• ITU_R_2020 (9)</li> <li>• DCI_P3 (11)</li> <li>• P3_D65 (12)</li> <li>• P22 (22)</li> </ul> <p>Supported values for transfer functions:</p> <ul style="list-style-type: none"> <li>• ITU_R_709_2 (1)</li> <li>• SMPTE_240M_1995 (7)</li> <li>• Linear (8)</li> <li>• IEC_sRGB (13)</li> <li>• SMPTE_ST_2084_PQ (16)</li> <li>• SMPTE_ST_428_1 (17)</li> <li>• ITU_R_2100_HLG (18)</li> </ul> <p>Supported matrix values:</p> <ul style="list-style-type: none"> <li>• ITU_R_709_2 (1)</li> <li>• ITU_R_601_4 (6)</li> <li>• SMPTE_240M_1995 (7)</li> <li>• ITU_R_2020 (9)</li> </ul> <p>See ISO/IEC standard 23091-2 for more information.</p> |
| <code>-renametrackswithlayouts</code>                                             | Renames tracks with new audio channel layouts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>-help</code>                                                                | Displays all Compressor command-line options.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

This table shows command options for configuring shared computers to use with Compressor:

| Submission command option                                 | Description                                                                                                                 |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <code>-resetBackgroundProcessing [cancelJobs]</code>      | Resets background processing and optionally cancels queued jobs.                                                            |
| <code>-requiresPassword [password]</code>                 | Requires a password to share this computer.                                                                                 |
| <code>-noPassword</code>                                  | Turns off the password requirement.                                                                                         |
| <code>-sharing &lt;on   off&gt;</code>                    | Turns sharing of this computer on or off.                                                                                   |
| <code>-instances &lt;number&gt;</code>                    | Enables additional Compressor instances.                                                                                    |
| <code>-networkInterface &lt;bsdname&gt;</code>            | Specifies which network interface is used. If "all" is specified as a <bsdname>, all available network interfaces are used. |
| <code>-portRange &lt;startNumber&gt; &lt;count&gt;</code> | Specifies the starting port range and the number of ports to use.                                                           |

## Compressor command code examples

The following are examples of code used for submitting common Compressor commands.

**Important:** If you're using an image sequence as a source file, you must use a URL for the path in `-jobpath`.

### Submit a job

The following command submits a Compressor job.

**Important:** The command below must be executed on one line.

```
/Applications/Compressor.app/Contents/MacOS/Compressor
    -batchname "My First Batch" -jobpath ~/Movies/
    MySource.mov -settingpath ~/Library/Application\
    Support/Compressor/Settings/Apple\ Devices\ HD\ \
    (Custom\).cmprstng -locationpath ~/Movies/MyOutput.m4v
```

What this command does:

- Identifies where Compressor is located
- Assigns the batch name "My First Batch" (The quotation marks are used because of the spaces.)
- Finds the file "MySource.mov" for the job at ~/Movies
- Uses the "Apple Devices HD (Custom)" preset at ~/Library/Application\ Support/Compressor/Presets (The "\" character is used to retain the space in "Application Support.")
- Writes the output file, "MyOutput.m4v," to the ~/Movies folder

### Submit a batch to a group of shared computers

The following command submits a batch to a group of computers already configured for sharing in Compressor.

**Important:** The command below must be executed on one line.

```
/Applications/Compressor.app/Contents/MacOS/Compressor
    -computergroup "Superfast Computers"
    -batchname "My First Batch" -jobpath ~/Movies/
    MySource.mov -settingpath ~/Library/Application\
    Support/Compressor/Settings/Apple\ Devices\ HD\ \
    (Custom\).cmprstng -locationpath ~/Movies/MyOutput.m4v
```

What this command does:

- Identifies where Compressor is located
- Sends the job to the group of shared computers named "Superfast Computers"
- Assigns the batch name, "My First Batch"
- Finds the file "MySource.mov" for the job at ~/Movies

- Uses the "Apple Devices HD (Custom)" setting at ~/Library/Application\ Support/Compressor/Presets (The "\" character is used in this case to retain the space in "Application Support.")
- Writes the output file, named "MyOutput.m4v," to the ~/Movies folder

## Configure a shared computer

The following command configures a computer to allow other computers to process Compressor batches on it.

**Important:** The command below must be executed on one line.

```
/Applications/Compressor.app/Contents/MacOS/Compressor
```

```
-sharing on -instances 1 -networkInterface en0  
-portRange 30000 1000
```

What this command does:

- Identifies where Compressor is located
- Turns on sharing
- Enables one extra Compressor instance
- Sets processing to occur on a specific network interface
- Sets network communication to a predefined port range

# Settings and shortcuts

## Compressor settings

### Change settings in Compressor

You can modify Compressor settings to customize your workflow.

#### Open Compressor settings

- Choose Compressor > Settings (or press Command-Comma), then click a button at the top of the window to open a pane.

There are four panes in the Settings window:

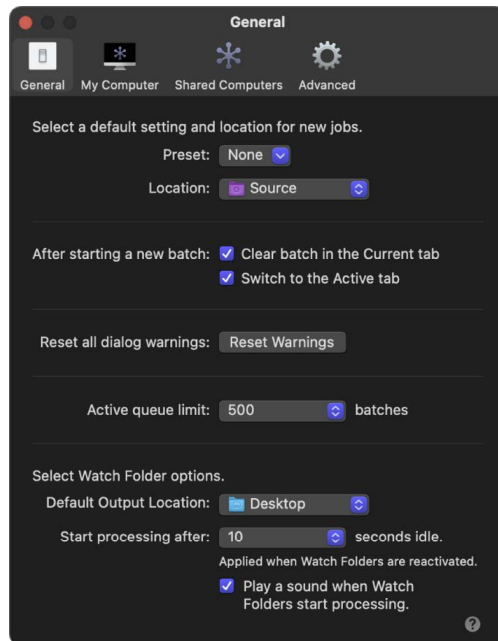
- Use the [General](#) pane to set basic application settings.
- Use the [My Computer](#) pane to allow other computers to use your computer to process batches.
- Use the [Shared Computers](#) pane to set up groups of shared computers for distributed processing.
- Use the [Advanced](#) pane to adjust additional distributed processing settings.

Compressor shares analytics information with Apple if your system settings allow it. To view or change these settings, see [Share analytics information with Apple](#) in the Mac User Guide.



## General settings in Compressor

Use the controls in the General settings pane in Compressor to specify job or watch folder locations, to reset warning dialogs, and more.



- *Preset:* Use this pop-up menu to specify a default preset for new jobs.
- *Location:* Use this pop-up menu to specify a default location for new jobs.
- *After starting a new batch:* This section of the General pane has two controls:
  - *Clear batch in the Current tab:* Select this checkbox to automatically remove batch information from the Current view after a batch is transcoded.
  - *Switch to the Active tab:* Select this checkbox to have Compressor switch to Active view when a batch is transcoding.
- *Reset all dialog warnings:* Some warnings contain a checkbox for suppressing future instances of the same error. Use this pop-up menu to reset any suppressed warnings so they will appear (when triggered by applicable conditions).
- *Active queue limit:* Use this pop-up menu to specify how many batches can be in the active queue. You can select 100, 500, 1000, or an unlimited number of batches.

### Watch Folder options

- *Default Output Location:* Use this pop-up menu to specify the default location for the watch folder output folder. You can choose one of the following options:
  - *Automatic:* The output folder is created at the same directory level as the watch folder.
  - *Desktop:* The output folder is created on the desktop.
  - *Movies:* The output folder is created in the Movies folder.

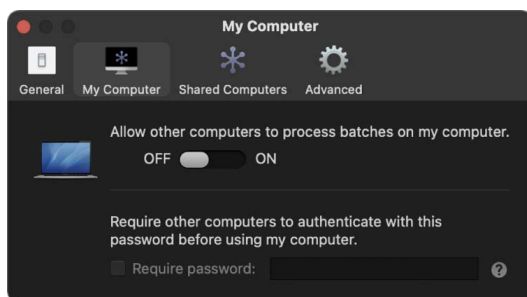
- *Start processing after \_\_\_ seconds idle:* When a file is added to a watch folder, Compressor waits to begin transcoding until no further changes are detected in the file. Some applications, however, begin saving or exporting, pause the process, then resume. Transcoding requires that the files be completely saved or exported; the process fails if it begins before the files are completely saved or exported. Use this pop-up menu to set how many seconds Compressor waits after it stops detecting changes before it starts transcoding.

*Note:* It's possible an application may pause longer than 60 seconds when saving or exporting files. If that happens, save or export the files to another folder before manually dragging them to the watch folder.

- *Play a sound when Watch Folders start processing:* Select this checkbox if you want an audio notification when a watch folder begins transcoding.

## My Computer settings in Compressor

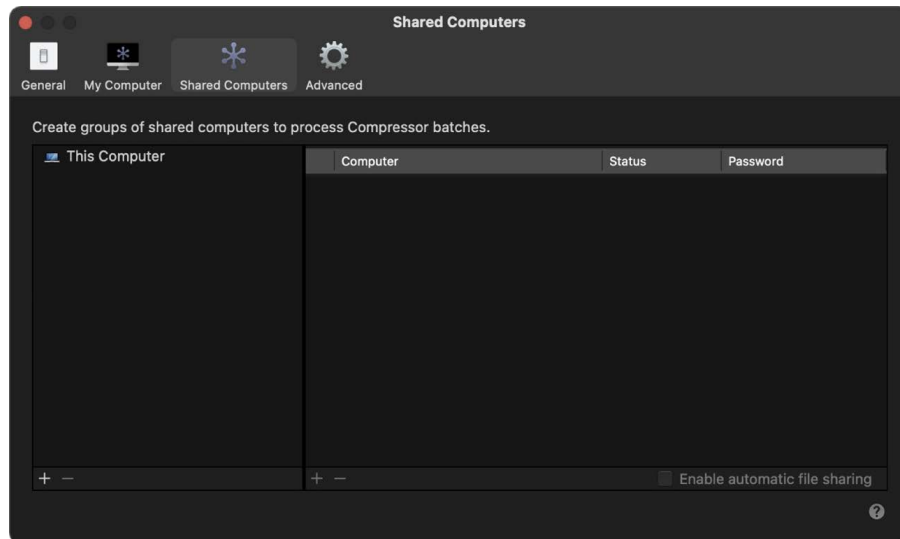
Use the controls in the My Computer pane in Compressor to allow other computers to use your computer to process batches:



- *Allow other computers to process batches on my computer:* Click the switch to On to make your computer available to other computers for distributed processing. Switching this on automatically enables the “When sharing my computer” controls in the Advanced pane. See [Advanced settings](#).
- *Require Password:* Select this checkbox and then type a password in the text field to make other people enter a password before using your computer for encoding.

## Shared Computers settings in Compressor

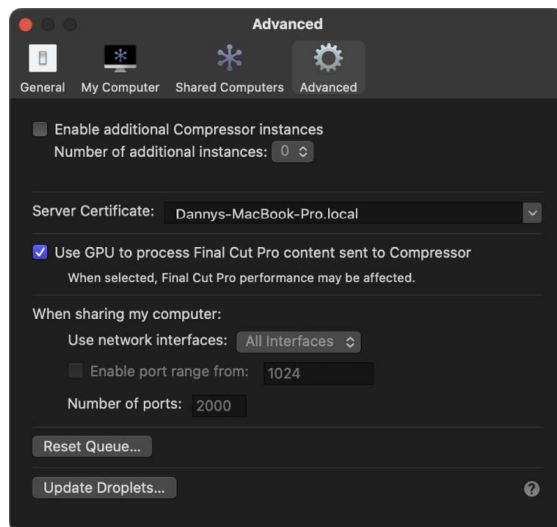
Use the controls in the Shared Computers pane in Compressor to create groups of shared computers for distributed processing. See [Transcode with multiple computers](#).



## Advanced settings in Compressor

Use Advanced settings in Compressor to adjust additional settings for distributed processing. These advanced controls are intended for network administrators and other users with networking experience.

See [Transcode with multiple computers](#).



- *Enable additional Compressor instances:* When unchecked, Compressor automatically attempts to process transcoding jobs using all available cores of your computer's graphics processing engine. On Macs with Max or Ultra Apple Silicon processors, this may be the fastest transcoding option. Checking this box activates additional instances of the Compressor application, which can also potentially speed transcoding. After selecting the checkbox, you can choose the number of additional instances from the pop-up menu. See [Create Compressor instances](#).

*Note:* If your system doesn't have enough memory or processor cores, this option is dimmed and not available.

- *Server Certificate:* Usually, the server certificate that Compressor automatically creates is shown. However, if you have multiple server certificates on your computer, you can use this pop-up menu to choose between them, or to rename the certificates.
- *Use GPU to process Final Cut Pro content sent to Compressor:* This checkbox instructs Compressor to use the computer's graphics processing engine to display or transcode a Final Cut Pro project sent to Compressor for processing. If you're running both Compressor and Final Cut Pro at the same time, enabling this setting may degrade Final Cut Pro performance. See [Transcode Final Cut Pro and Motion projects](#).
- *Use network interfaces:* When you've [allowed others to share your computer](#), you can restrict distributed processing activity to the network interface that you specify in the pop-up menu.
- *Enable port range from:* When you've [allowed others to share your computer](#), you can select this checkbox to set the ports on which distributed processing is run. After selecting the checkbox, enter the number at which you want to start the port range and the number of ports you want the range to contain.
- *Reset Queue:* Click to reset the queue of Compressor jobs. After you click this button, you can choose to reset the queue and cancel all pending jobs, or reset the queue and then restart any pending jobs.
- *Update Droplets:* Click to update all droplets on the local computer to be compatible with the current version of Compressor. Outdated droplets that are not updated may not function properly. After droplets are updated, they'll no longer work on computers using older versions of Compressor. See [Create and use droplets](#).

# Keyboard shortcuts

## Built-in keyboard shortcuts in Compressor

You can use keyboard shortcuts to quickly accomplish many tasks in Compressor. To use a keyboard shortcut, press all the keys in the shortcut at the same time.

Keyboard shortcuts for common commands are listed in the table below.

### Compressor general keyboard shortcuts

| Action                                             | Shortcut               |
|----------------------------------------------------|------------------------|
| Add a file                                         | Command-I              |
| Add a set of image sequence files                  | Option-Command-I       |
| Add a set of surround sound files                  | Control-Command-I      |
| Navigate up the list of jobs (in the batch area)   | Up Arrow               |
| Navigate down the list of jobs (in the batch area) | Down Arrow             |
| Play/Pause the video                               | Space Bar              |
| Play the video in reverse                          | J                      |
| Stop playback                                      | K                      |
| Play the video                                     | L                      |
| Set the In point                                   | I                      |
| Set the Out point                                  | O                      |
| Add a marker                                       | M                      |
| Go to the previous marker or In/Out point          | Control-Semicolon (;)  |
| Go to the next marker or In/Out point              | Control-Apostrophe (') |
| Start transcoding the batch                        | Command-B              |

### Compressor window keyboard shortcuts

| Action                                      | Shortcut        |
|---------------------------------------------|-----------------|
| Show the Current view                       | Command-1       |
| Show the Active view                        | Command-2       |
| Show the Completed view                     | Command-3       |
| Show or hide the inspector pane             | Command-4       |
| Show or hide the Presets and Locations pane | Command-5       |
| Show Presets                                | Shift-Command-1 |

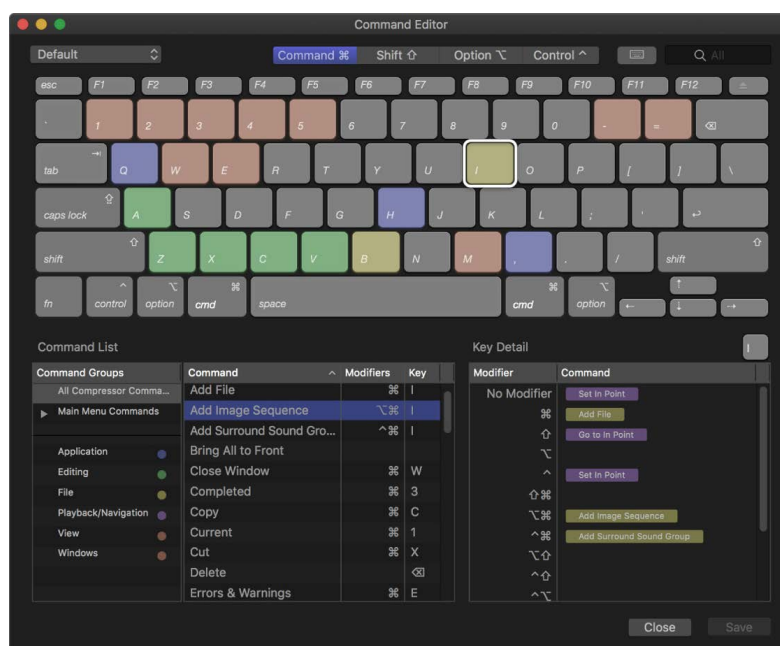
| Action                              | Shortcut          |
|-------------------------------------|-------------------|
| Show Locations                      | Shift-Command-2   |
| Show the Errors & Warnings window   | Command-E         |
| Show the Compressor Settings window | Command-Comma (,) |
| Minimize the Compressor window      | Command-M         |
| Close the Compressor window         | Command-W         |
| Quit Compressor                     | Command-Q         |

**Note:** You can set the window layout back to its default state by choosing Window > Reset to Default Layout.

## Customize keyboard shortcuts

### View keyboard shortcuts in the Compressor Command Editor

Compressor provides a wide variety of menu commands and keyboard shortcuts that let you control almost every aspect of your transcoding workflow. You can use the Command Editor to modify existing shortcuts, create new shortcuts, and save multiple sets of keyboard shortcuts that you can export for others to use. You can also import a set of shortcuts that someone else created. And if you're more familiar with keyboard shortcuts from other applications, you can use the Command Editor to substitute those shortcuts in place of the default set for Compressor.



The Command Editor provides a set of keyboard shortcuts for Compressor in English, Japanese, French, and German. The language shown is determined by your computer's operating system. To learn how to change the language used by Compressor, see Mac Help, available from the Help menu when the Finder is active.

## View keyboard shortcuts

1. Choose Compressor > Command Sets > Customize.

The Command Editor appears.

2. Do any of the following:

- *View keyboard shortcuts by command group:* Select one of the command groups in the lower-left corner of the Command Editor.

The commands in the selected group (and their keyboard shortcuts) appear in the center list. When you select a command in the center list, a description appears in the Command Detail list in the lower-right corner of the Command Editor.

- *View commands associated with a specific key:* Click a key on the virtual keyboard.

The commands mapped to that key appear (along with the necessary modifier keys, if any—Control, Option, Shift, and Command) in the Key Detail list in the lower-right corner of the Command Editor.

When you hold down any modifier buttons on the keyboard, the key colors update in the Command Editor. Key colors correspond with command classifications; for example, playback commands, such as Play/Pause (Space bar), are purple. The Command Groups window on the left side of the Command List contains a clickable color key for reference.

- *Search for a keyboard shortcut:* Enter a command name, key name, or descriptive keywords in the search field in the upper-right corner of the Command Editor.

As you type, commands that match the search term appear in Command List at the bottom of the Command Editor.

 **Tip:** To show the keys that correspond with the items in the Command List, click the Keyboard Highlight button to the left of the search field.

## Modify keyboard shortcuts in the Compressor Command Editor

You can customize keyboard shortcuts for Compressor in the Command Editor. If you want to add a few custom commands to the default set in Compressor, you can duplicate the default set and assign keyboard shortcuts to some of the unassigned commands. You can also create a new set that contains only your commands.

### Duplicate a command set

1. Choose Compressor > Command Sets > Customize.

The Command Editor appears.

2. Click the pop-up menu in the top-left corner of the Command Editor, then choose a command set to duplicate.

The command set you selected should have a checkmark to the left of its name in the pop-up menu.

3. In the same pop-up menu, choose Duplicate.
4. In the dialog that appears, type a name for the command set, then click OK.

The duplicate set is added to the Commands submenu of the Compressor menu and to the pop-up menu in the Command Editor.

### **Delete a command set**

1. Choose Compressor > Command Sets > Customize.

The Command Editor appears.

2. Click the pop-up menu in the top-left corner of the Command Editor, then choose a command set to delete.

The command set you selected should have a checkmark to the left of its name in the pop-up menu.

3. In the same pop-up menu, choose Delete.
4. In the dialog that appears, click Delete.

The command set is removed.

### **Export and import command sets in Compressor**

You can export a command set to create a backup or to share the set with another user. Exported command sets are saved in a file that can be imported back into Compressor at a later time. You can also import a command set.

#### **Export a command set**

1. Choose Compressor > Command Sets > Customize.

The Command Editor appears.

2. Click the pop-up menu in the top-left corner of the Command Editor, then choose a command set to export.

The command set you selected should have a checkmark to the left of its name in the pop-up menu.

3. In the same pop-up menu, choose Export.
4. Type a name for the command set in the Save As field, navigate to the location where you want to save the exported set, then click Save.

The file is saved in the location you chose, with the filename extension .commandset.

#### **Import a command set**

1. Choose Compressor > Command Sets > Import.
2. In the window that appears, navigate to the location where you've stored a command set file, select it, and click Open.

If you're already using a command set with the same name, a window appears and asks you to rename the command set.

The new command set is added to the Command Sets submenu of the Compressor menu and to the pop-up menu in the Command Editor.



## View shortcuts for a different command set

In Compressor, if your system has multiple command sets, you can easily switch between them.

Do one of the following:

- Choose Compressor > Command Sets, then choose a command set from the submenu.  
The Command Editor window appears, showing the command set you chose.
- If you've already opened the Command Editor, click the pop-up menu at the top-left corner of the window, then choose a command set.

## Touch Bar shortcuts in Compressor

If your MacBook Pro has a Touch Bar, you can use familiar gestures like swipe and tap to perform common tasks in Compressor. The controls visible in the Touch Bar change depending on which windows, views, or states are active in the app. See [Use the Touch Bar on Mac](#).

The tables below show the Touch Bar controls in Compressor grouped by different app states.

### Empty batch



When you first launch Compressor, or when you have no items in the batch area, the Touch Bar shows the Add Item button:

| Item                                                                                | Name     | Description                                                                                          |
|-------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------|
|  | Add Item | Opens controls in the Touch Bar for adding media files to your batch. See <a href="#">Add item</a> . |

### Add item



After you tap the Add Item button, the following buttons appear in the Touch Bar:

| Item                                                                                | Name                     | Description                                                               |
|-------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------|
|  | Close                    | Returns you to the previous Touch Bar screen.                             |
|  | Add File                 | Opens a dialog to select a file to add as a new job.                      |
|  | Add Image Sequence       | Opens a dialog to select a sequence of images to add as a new job.        |
|  | Add Surround Sound Group | Opens a dialog to select the files needed for a new surround sound group. |

## Item selected in a job



When you have an item selected in a job in the batch area in Compressor, the following controls appear in the Touch Bar:

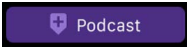
| Item                                                                               | Name               | Description                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | Add Item           | Opens controls in the Touch Bar for adding media files to your batch. See <a href="#">Add item</a> .                                                                                                                                                                        |
|   | Add Outputs        | Opens a dialog to add presets to your job.                                                                                                                                                                                                                                  |
|   | Add Poster Frame   | Adds a poster frame at the current playhead position. See <a href="#">Set a poster frame</a> .                                                                                                                                                                              |
|   | Add Marker         | Adds a default marker at the current playhead position. (If a marker is already present at the current frame, that marker is deleted.) Touch and hold to display controls for adding a marker different from the default type. See <a href="#">Add nondefault markers</a> . |
|  | Preview Navigation | Available when the batch contains media, opens preview controls in the Touch Bar. See <a href="#">Preview navigation</a> .                                                                                                                                                  |

## Add nondefault markers



When you touch and hold the Add Marker button , additional buttons appear in the Touch Bar; tap one to add a marker different from the default marker type.

| Item                                                                                | Name               | Description                                                                                                                                                         |
|-------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Chapter Marker     | Adds a chapter marker, and sets the default marker type to Chapter. (However, if a marker is already present at the current frame, that marker is deleted.)         |
|  | Compression Marker | Adds a compression marker, and sets the default marker type to Compression. (However, if a marker is already present at the current frame, that marker is deleted.) |
|  | Edit Marker        | Adds an edit marker, and sets the default marker type to Edit. (However, if a marker is already present at the current frame, that marker is deleted.)              |

| Item                                                                              | Name           | Description                                                                                                                                                 |
|-----------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Podcast Marker | Adds a podcast marker, and sets the default marker type to Podcast. (However, if a marker is already present at the current frame, that marker is deleted.) |

See [Add markers](#).

## Preview navigation



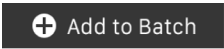
When you tap the Preview Navigation button , the following controls appear in the Touch Bar:

| Item                                                                                | Name                   | Description                                                                                                                                                              |
|-------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Close                  | Returns you to the previous Touch Bar screen.                                                                                                                            |
|    | Preview Navigation bar | Displays a timeline for the selected media. Poster frames, markers, and the current playhead position are indicated with icons.                                          |
|   | Add Poster Frame       | Adds a poster frame at the current playhead position. See <a href="#">Set a poster frame</a> .                                                                           |
|  | Add Marker             | Adds a default marker at the current playhead position. (If a marker is already present at the current frame, that marker is deleted.) See <a href="#">Add markers</a> . |

## Item selected in the Presets pane

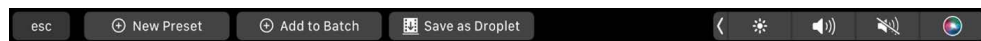


When you select a preset or destination in the Presets pane, the following buttons appear in the Touch Bar:

| Item                                                                                | Name         | Description                                                                                                                             |
|-------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------|
|  | New Preset   | Opens controls in the Touch Bar for adding custom presets, destinations, or groups to the Preset pane. See <a href="#">New preset</a> . |
|  | Add to Batch | Adds the currently selected preset or destination to all jobs in the batch area.                                                        |

| Item                                                                                              | Name            | Description                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Add to Selected | Add to Selected | Adds the currently selected preset or destination to selected jobs in the batch area. (This button appears in the Touch Bar only when one or more jobs are selected in the batch area.) |
|  Save as Droplet | Save as Droplet | Saves the currently selected preset or destination to a droplet. See <a href="#">Create and use droplets</a> .                                                                          |

## New preset



When you tap the New Preset button, the following controls appear in the Touch Bar:

| Item                                                                                           | Name            | Description                                                         |
|------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------|
|               | Close           | Returns you to the previous Touch Bar screen.                       |
|  Preset       | Add Preset      | Opens a dialog to add a new custom preset to the Presets pane.      |
|  Destination | Add Destination | Opens a dialog to add a new custom destination to the Presets pane. |
|  Group      | Add Group       | Opens a dialog to add a new folder in the Presets pane.             |

## iTunes Store Package



When you add an iTunes Store package to the batch area, the following controls appear in the Touch Bar:

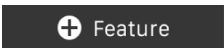
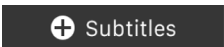
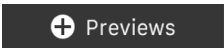
| Item                                                                                           | Name             | Description                                                                                                                                             |
|------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|  iTMS Files | Add iTMS Files   | Opens Touch Bar controls for adding iTMS (iTunes Media Store) files. See <a href="#">iTMS files options</a> .                                           |
|             | Add Poster Frame | Available when your iTunes Store package contains media. Adds a poster frame at the current playhead position. See <a href="#">Set a poster frame</a> . |

| Item                                                                              | Name            | Description                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Add Marker      | Available when your iTunes Store package contains media. Adds a default marker at the current playhead position. (If a marker is already present at the current frame, that marker is deleted.) Touch and hold to display controls for adding a marker different from the default type. See <a href="#">Add nondefault markers</a> . |
|  | Display Preview | Available when your iTunes Store package contains media. Opens preview controls in the Touch Bar. See <a href="#">Preview navigation</a> .                                                                                                                                                                                           |

## iTMS files options

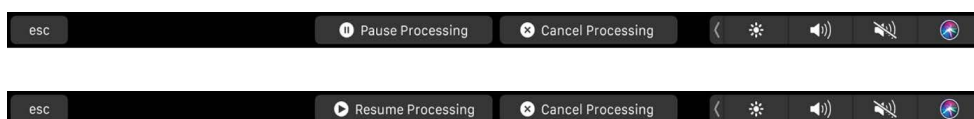


When you tap the Add iTMS Files button, the following controls appear in the Touch Bar:

| Item                                                                                | Name                  | Description                                                                  |
|-------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------|
|    | Close                 | Returns you to the previous Touch Bar screen.                                |
|  | Add Feature           | Opens a dialog to select a video file to use as the feature in your package. |
|  | Add Subtitles         | Opens a dialog to select an .itt file for your package.                      |
|  | Add Closed Caption    | Opens a dialog to select a closed-caption file for your package.             |
|  | Add Alternative Audio | Opens a dialog to select an alternative audio file for your package.         |
|  | Add Preview           | Opens a dialog to select a video file to use as a preview in your package.   |

See [Intro to iTunes Store packages](#).

## Active view



When you select an item in Active view while Compressor is transcoding a batch, the following controls appear in the Touch Bar:

| Item                                                                                                | Name              | Description                                                                  |
|-----------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------|
|  Pause Processing  | Pause Processing  | Appears only when the selected batch is processing. Tap to pause processing. |
|  Resume Processing | Resume Processing | Appears only when the selected batch is paused. Tap to resume processing.    |
|  Cancel Processing | Cancel Processing | Tap to stop processing.                                                      |

## Completed view



When you select an item in Completed view in Compressor, the following controls appear in the Touch Bar:

| Item                                                                                             | Name           | Description                                                                                         |
|--------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------|
|  Reuse          | Reuse          | Adds the currently selected item (in Completed view) to the batch area as a new, unprocessed batch. |
|  Show in Finder | Show in Finder | Displays a Finder window with all exported files highlighted.                                       |

# Glossary

**AAC (Advanced Audio Coding)** Also called *MPEG-4 Audio*. A standard way of compressing and encoding digital audio. AAC-encoded files rival the quality of audio CDs and generally sound as good as or better than MP3 files encoded at the same or even a higher bit rate.

**AC-3 (Audio Codec 3, Advanced Codec 3, Acoustic Coder 3)** A Dolby Digital compressed audio format often used for encoding surround sound.

**AIFF (Audio Interchange File Format)** A cross-platform audio file format developed by Apple. Like WAV files, AIFF files contain “chunks” of information such as the Sound Data Chunk, which contains the actual sample data, and the Common Chunk, which contains sample rate and bit depth information.

**ALAC (Apple Lossless Audio Codec)** A lossless audio codec developed by Apple. ALAC supports up to eight channels of audio, with a maximum sample depth of 32 bits and a maximum sample rate of 384 kHz.

**alternative audio** Translated dialog tracks, commentary, or audio descriptions (for the visually impaired) included in an iTunes Store package.

**Apple ProRes** Apple ProRes codecs provide an unparalleled combination of multistream, real-time editing performance, impressive image quality, and reduced storage rates. Apple ProRes codecs take full advantage of multicore processing and feature fast, reduced-resolution decoding modes. All Apple ProRes codecs support any frame size (including SD, HD, 2K, and 4K) at full resolution. The data rates vary based on codec type, image content, frame size, and frame rate.

Apple ProRes includes the following formats:

- *Apple ProRes 4444 XQ*: The highest-quality version of Apple ProRes for 4:4:4:4 image sources (including alpha channels), with a very high data rate to preserve the detail in high-dynamic-range imagery generated by today's highest-quality digital image sensors. Apple ProRes 4444 XQ preserves dynamic ranges several times greater than the dynamic range of Rec 709 imagery—even against the rigors of extreme visual effects processing, in which tone-scale blacks or highlights are stretched significantly. Like standard Apple ProRes 4444, this codec supports up to 12 bits per image channel and up to 16 bits for the alpha channel. Apple ProRes 4444 XQ features a target data rate of approximately 500 Mbps for 4:4:4 sources at 1920 x 1080 and 29.97 fps.

- *Apple ProRes 4444*: An extremely high-quality version of Apple ProRes for 4:4:4:4 image sources (including alpha channels). This codec features full-resolution, mastering-quality 4:4:4:4 RGBA color and visual fidelity that is perceptually indistinguishable from the original material. Apple ProRes 4444 is a high-quality solution for storing and exchanging motion graphics and composites, with excellent multigeneration performance and a mathematically lossless alpha channel up to 16 bits. This codec features a remarkably low data rate compared to uncompressed 4:4:4 HD, with a target data rate of approximately 330 Mbps for 4:4:4 sources at 1920 x 1080 and 29.97 fps. It also offers direct encoding of, and decoding to, both RGB and Y'C<sub>B</sub>C<sub>R</sub> pixel formats.
- *Apple ProRes 422 HQ*: A higher-data-rate version of Apple ProRes 422 that preserves visual quality at the same high level as Apple ProRes 4444, but for 4:2:2 image sources. With widespread adoption across the video post-production industry, Apple ProRes 422 HQ offers visually lossless preservation of the highest-quality professional HD video that a single-link HD-SDI signal can carry. This codec supports full-width, 4:2:2 video sources at 10-bit pixel depths, while remaining visually lossless through many generations of decoding and reencoding. The target data rate of Apple ProRes 422 HQ is approximately 220 Mbps at 1920 x 1080 and 29.97 fps.
- *Apple ProRes 422*: A high-quality compressed codec offering nearly all the benefits of Apple ProRes 422 HQ, but at 66 percent of the data rate for even better multistream, real-time editing performance. The target data rate of Apple ProRes 422 is approximately 147 Mbps at 1920 x 1080 and 29.97 fps.
- *Apple ProRes 422 LT*: A more highly compressed codec than Apple ProRes 422, with roughly 70 percent of the data rate and 30 percent smaller file sizes. This codec is perfect for environments where storage capacity and data rate are at a premium. The target data rate of Apple ProRes 422 LT is approximately 102 Mbps at 1920 x 1080 and 29.97 fps.
- *Apple ProRes 422 Proxy*: An even more highly compressed codec than Apple ProRes 422 LT, intended for use in offline workflows that require low data rates but full-resolution video. The target data rate of Apple ProRes 422 Proxy is approximately 45 Mbps at 1920 x 1080 and 29.97 fps.
- *Apple ProRes RAW*: The Apple ProRes RAW and Apple ProRes RAW HQ codecs preserve all of the camera sensor's pristine raw data to deliver extraordinarily high-quality images. ProRes RAW brings to raw video the same great performance, quality, and ease of use that ProRes has brought to conventional video, in a format ideal for HDR content creation. Being able to use the raw image sensor data directly in Final Cut Pro during post-production gives you more control over the processing of the image, including demosaicing, linear-to-log conversions, and custom LUTs.

*Note:* Apple ProRes 4444 and Apple ProRes 4444 XQ are ideal for the exchange of motion graphics media because they are virtually lossless, and are the only Apple ProRes codecs that support alpha channels.

**AVCHD** A high-definition (HD) video format that uses Advanced Video Coding (AVC) compression (also known as *MPEG-4 part 10* or *H.264*). Many Blu-ray players can play red laser discs with AVCHD format content, making this a common way to distribute short HD video projects using a standard red laser disc.

**batch** In Compressor, one or more jobs to be processed. All jobs contained within the batch (shown in the batch area of the Compressor window) are submitted collectively when you begin the transcoding process.



**bit rate** The number of bits per second in the transmission of a digital video or audio signal. The higher you set the bit rate, the better the quality of the output file. However, higher bit rates require larger file sizes.

**CAF (Core Audio Format)** Apple's Core Audio Format is a flexible file format for storing and manipulating digital audio data. CAF provides high performance and flexibility, and is scalable to future ultra high-resolution audio recording, editing, and playback.

**captions** In Compressor, onscreen text synchronized to the audio or video of a video program. Compressor supports three industry-standard caption formats: CEA-608 closed captions, iTT (iTunes Timed Text) subtitles, and SRT (SubRip Text) subtitles.

**CEA-608 closed captions** An industry-standard format for delivering onscreen text synchronized to the audio or video of a video program. Originally developed for people who are deaf or hard of hearing, CEA-608 closed captions (also known as *Line 21 text*) are frequently used on televisions in loud environments (such as bars and airports). CEA-608 closed captions, which use the .scc filename extension, offer numerous formatting options. Viewers can turn closed captions on or off while watching television shows, movies, web videos, and other programs. In Compressor, CEA-608 closed captions are compatible with iTunes Store packages and many transcode presets.

**codec** Short for *COmpression/DECompression*. A software component used to translate video or audio from its current form to a different, digitally compressed form. A codec encodes a data stream or signal for transmission, storage or encryption, or decodes it for playback or editing. A similar term, *encoder*, is used to describe hardware that performs the same activity.

**color space** The range of colors available for an image, sometimes called *gamut*. A wider gamut allows for more possible color values and permits more accurate representation of color.

**delivery partner** A content aggregator or encoding house certified by the iTunes Store and authorized to submit iTunes Store packages to the store for sale. These partners ensure your content is properly configured and formatted to meet the stringent submission requirements of the iTunes Store. They can also provide billing and support services after your video becomes available for sale.

**descriptive audio** An alternative audio track in an iTunes Store package that includes voice narration to help visually impaired consumers understand what's happening onscreen. Descriptive audio narration is usually delivered during the natural pauses in dialog or between critical sound elements. An iTunes Store package can contain multiple descriptive audio tracks (in multiple languages, for example).

**destination** In Compressor, a group of one or more transcode presets plus a post-transcoding action. If you use a destination to transcode a file, one or more new files are created to the preset's specifications and then an action is automatically performed on the transcoded file. For example, the Add to TV Home Videos destination creates a file optimized for viewing on Apple TV. After the file is processed, the Add to TV Home Videos action automatically copies the output file to your Home Videos library on Apple TV.

**display aspect ratio** The ratio between an image's width and height. For example, standard-definition (SD) video typically has an aspect ratio of 4:3. High-definition (HD) video typically has an aspect ratio of 16:9. If SD video is played on an HD display, the image is either stretched, or is appended with black borders on left and right sides (pillarboxing). If HD video is played on an SD display, the image will be squeezed or black borders will appear at the top and bottom (letterboxing).

**distributed processing** A method of transcoding that accelerates processing of Compressor batches by distributing the work among multiple computer processors. A system can distribute parts of a batch to multiple instances of the Compressor application on a single computer, or to two or more networked computers (each running one or more instances of Compressor).

**droplet** A lightweight, standalone app created by Compressor to apply specific presets or destinations to media files. You can drag and drop media files onto the droplet icon in the Finder to begin transcoding.

**Dolby Digital** See *AC-3*.

**Dolby Digital Enhanced** See *E-AC-3*.

**E-AC-3** A Dolby Digital compressed audio format often used for encoding surround sound. E-AC-3 supports up to fifteen channels of audio.

**encoder** See *codec*.

**file format** The output format used to transcode your source media file. Also called a *transcoding format*.

**FLAC (Free Lossless Audio Codec)** A lossless audio format that supports up to 8 channels of audio and up to 32 bit sample depth.

**H.264** A video compression standard in widespread use for recording, distribution, and internet streaming of high-definition (HD) video. Also known as *MPEG-4 Part 10* or *AVC (Advanced Video Coding)*.

**HDR (high dynamic range)** Video stored in a format that processes higher levels of luminance (brightness) per color component to provide significant improvements in contrast, detail, and light levels over standard-dynamic-range (SDR) video. HDR can represent luminances as high as 10,000 nits (candelas per square meter) with a dynamic range of 14 stops or more, creating more realistic color transitions and revealing more detail in both shadows and highlights. HDR video is typically combined with wide-gamut color spaces such as Rec. 2020 or P3 D65 to deliver video any of several formats, including HDR10, Dolby Vision, and HLG (hybrid log-gamma).

**HEVC** High-Efficiency Video Coding (also known as *H.265*), a video compression standard designed to reduce file size while retaining a high-quality image. HEVC also supports larger frame sizes (including 8K) and HDR10 metadata for high-dynamic-range video. The Apple Devices transcode preset in Compressor includes three built-in options for HEVC output. You can also customize the MPEG-4 and QuickTime Movie presets to use the HEVC encoder. HEVC encoding in Compressor requires macOS 10.13 or later. HEVC playback requires an Apple device with macOS 10.13, iOS 11, iPadOS 13, tvOS 11, or later.

**HLG (hybrid log-gamma)** A mathematical HDR transfer function that converts image signal values in a video file to scene-relative light levels. HLG, which was developed by the BBC and the NHK (Japan Broadcasting Corporation), requires no metadata and is also compatible with SDR displays. In Compressor, HLG is used with the Rec. 2020 color space to create video files in the hybrid log-gamma HDR standard.

**i-frame (intra-coded picture)** One type of frame used to define the GOP (Group of Pictures) pattern used during MPEG-2 or H.264 encoding. A GOP pattern can also include *P-frames (predictive coded picture)* and *B-frames (bipredictive coded picture)*

**interlaced video** Video to be played on traditional NTSC or PAL televisions is stored using an interlaced frame rate. Each frame is actually made up of two half-frames called *fields*. Each field contains half the frame lines; the odd (or upper) field contains lines 1, 3, 5, 7, 9 and so on, and the even (or lower) field contains lines 2, 4, 6, 8, 10, and so on. When the video is played back, the TV displays the fields in an alternating pattern, which creates an effective illusion of smooth movement. Viewing interlaced video on a computer screen that displays both fields simultaneously may reveal a combing effect. Progressive video frame rates store the video in a series of whole frames instead these two-fields. You can remove the fields from an interlaced video clip by converting it to a progressive frame rate.

**iTT (iTunes Timed Text) subtitles** An industry-standard format for delivering onscreen text synchronized to the audio or video of a video program. iTT subtitles can be used to deliver foreign-language translations or a transcript of dialogue, narration, or audio descriptions to people who are deaf or hard of hearing. iTT subtitles, which use the .itt filename extension, offer more limited formatting options than CEA-608 captions. In Compressor, you can specify whether to let viewers turn iTT subtitles on or off (for example, for full foreign-language translations) or force subtitles to appear onscreen (for example, for specific characters in a movie who speak a different language). In Compressor, iTT subtitles are compatible with iTunes Store packages and many transcode presets.

**iTunes Store package** Publishers who submit videos to the iTunes Store must deliver their content in a carefully prescribed format called an *iTunes Store package*. Compressor can create these packages, provided you have all the requisite components (video files, audio files, subtitle files, closed-caption files, and so on).

**job** In Compressor, the source media file and output instructions (one or more output rows, each containing a preset, location, and file name), ready to be transcoded.

**job action** In Compressor, an action that is performed on a media file after it's transcoded. For example, a job action can add a transcoded file to your Home Videos library on Apple TV or run an Automator workflow.

**keyframe interval** A keyframe is a frame that stores a complete image. Keyframes provide the entire image in the video stream; after that image is provided, incremental changes between related frames are stored (not the entire image). Thus, when the image in the video changes dramatically, for example, when switching between images, a keyframe must be created to mark the location of change. It's recommended that you allow Compressor to determine the keyframe interval for your output file; however, you can also set the keyframe interval manually.

**location** In Compressor, the location where your transcoded media file is saved. You can either use the default location (the same folder the source media file is in) or choose a custom location.

**lower third** A television industry term for a graphic placed in the lower area of the screen, usually to convey details about subjects or products. A common use of lower thirds is to identify individuals on the screen with their names and job titles.

**marker** A marker flags a specific timing location in a source file. You can append a marker with editing notes or other descriptive information. Additionally, when you output the source file to an H.264, MPEG-2, or MPEG-4 video format, each marker forces the creation of an [I-frame](#). Added I-frames improve compression quality, but can increase overall file size. Compressor can create the following types of markers:

- *Chapter markers:* Generate named index points and thumbnail images for DVDs, QuickTime movies, or video podcasts. You can also assign a URL to a chapter marker to have that URL appear during playback of a podcast. Chapter markers are also included in submissions to the iTunes Store as part of an [iTunes Store package](#). Chapter markers appear orange in the Compressor preview area.
- *Compression markers:* Generate an I-frame, but do not generate thumbnails, chapter-track entries, or other metadata. Add them to a video if a section appears to have lower image quality than the surrounding frames. Compression markers appear blue in the Compressor preview area.
- *Edit markers:* Function identically to compression markers. They are commonly used by compression artists to force an I-frame at an edit point to ensure higher image quality at that moment in the video. Edit markers appear red in the Compressor preview area.
- *Podcast markers:* Like chapter markers, podcast markers can have artwork and a URL assigned to them. Podcast markers are usually used to provide a slideshow (with URLs) for users to view when playing audio podcasts. However, podcast marker names do not appear in the slideshow, and users cannot navigate to a podcast marker in the transcoded file. Podcast markers appear purple in the Compressor preview area.

**matrix stereo** A stereo downmix of a surround track for playback on a device with only two speakers; matrix stereo can also be decoded to play the full surround mix on a surround-capable playback device.

**MP3** Refers to the MPEG-1 or MPEG-2 Audio Layer 3 compression standard and file format. Like AAC, MP3 uses perceptual audio coding and psychoacoustic compression to remove superfluous information that the human ear doesn't hear.

**MV-HEVC** *Multiview High Efficiency Video Coding*, a video compression standard based on HEVC (H.265), but with additional support for stereoscopic video. MV-HEVC encodes two different views (one for each eye) in separate layers of the same file, allowing for efficient storage and playback of stereo 3D video files, including spatial video on Apple Vision Pro. Working with MV-HEVC encoded video in Compressor requires a Mac with Apple silicon and macOS 14 or later.

**nit** A unit of measure describing the luminance (light intensity) of a video display. One nit's equal to one candela per square meter.

**output row** In Compressor, an output row in a job contains the instructions used for transcoding a source media file. An output row includes a *preset* (shown on the left) that specifies properties defining how to transcode the source media file, a *location* (shown in the middle) where the transcoded file will be saved, and a *filename* (shown on the right) for the transcoded file.

**P3 D65** Also known as *Display P3*, a wide-gamut color space based on the DCI-P3 color standard developed for digital movie projection. P3 D65 is the display color space of recent Apple devices, including the iMac (with Retina 4K or 5K display), MacBook Pro, and iPad Pro.

**PQ (perceptual quantizer)** A mathematical transfer function that converts image signal values in a video file to absolute light levels on an HDR-capable display. Designed to approximate the sensitivity of human eyes, PQ allows for better levels of contrast at all light levels. In Compressor, PQ is used with the Rec. 2020 and P3 D65 wide-gamut color spaces to create video files in the industry-standard HDR formats, HDR10 and Dolby Vision.

**preset** In Compressor, a group of preconfigured properties that you can apply to a source media file. Presets are used to transcode files into commonly used audio and video formats for Apple devices, podcasting, internet streaming, post-production, and so on. Each preset includes adjustable properties like output file format, retiming instructions, and optional effects.

**preview area** In Compressor, the area where you can play your source file and preview your output file. After you apply effects or change the properties of the preset that will transcode your source file, you can compare the “before” and “after” versions by clicking the Comparison button (under the timeline). The screen is divided by a vertical white line, with the source file shown on the left and the preview of the transcoded file shown on the right.

**QuickTime** The cross-platform multimedia technology that allows macOS and Windows applications to capture and play back video, audio, and still-image files.

**Rec. 709** The standard-gamut 8-bit color space used by high-definition TV displays, the Blu-ray Disc format, and most TV broadcasters. Also known as *ITU-R Recommendation BT.709*.

**Rec. 2020** A wide-gamut color space developed for future consumer display devices but useful today for mastering (to future-proof your projects) and for 4K and 8K TV projects. Even though no currently available consumer TVs or computer monitors can display the entire Rec. 2020 palette, wide-color-gamut displays can show a subset of those colors. Also known as *ITU-R Recommendation BT.2020*.

**resolution** The frame size of the video expressed in terms of width and height (in pixels). Higher-resolution images contain more detail but also create larger files that take longer to download. Your electronic devices (computer, iPhone, iPad, and so on) have screen resolution, also expressed in terms of width and height (for example, 640 x 360 pixels).

When you add a preset to a source media file, Compressor determines appropriate resolution sizes you can use, based on the image sizes used in the movie and on the preset that you’re using to output the file.

**sample rate** The number of times per second that music waveforms (samples) are captured digitally. The higher the sample rate, the higher the quality and the larger the file size.

**sample size** The number of bits in each audio sample; determines the potential dynamic range of the sound.

**SDR (standard dynamic range)** The conventional technique for processing luminance (levels of brightness) and color values in images, developed in the mid-1900s, with an upper luminance limit of 100 nits (candelas per square meter) and a dynamic range of 6–10 stops.

**source media file** In Compressor, the original media file to be converted to a new file format. One source file is required for each job.

**SRT (SubRip Text) file format** An industry-standard format for delivering onscreen text synchronized to the audio or video of a video program. SRT subtitles can be used to deliver foreign-language translations or a transcript of dialogue, narration, or audio descriptions to people who are deaf or hard of hearing. SRT subtitles, which use the .srt filename extension, offer more limited formatting options than CEA-608 captions. In Compressor, you can specify whether to let viewers turn SRT subtitles on or off (for example, for full foreign-language translations) or force subtitles to appear onscreen (for example, for specific characters in a movie who speak a different language). In Compressor, many built-in presets and destinations support SRT subtitles, including Apple Devices (in both the H.264 and HEVC codecs), ProRes, and other presets that use the QuickTime Movie, MPEG-2, and MPEG-4 formats.

**storage aspect ratio (SAR)** The ratio between an image's width and height when it's stored. Storage aspect ratio can differ from display aspect ratio (DAR) resulting in a file that must be stretched or squeezed during playback to appear correct. This disparity can allow a camera format limited to 4:3 recording to successfully record a widescreen image by "squeezing" the image during recording. If the image is unsqueezed during playback it will display correctly in its widescreen aspect ratio. This is called an *anamorphic image*.

**transcoding** The process of converting files from their original format to a different format. Closely related terms include *compression*, which specifically refers to data reduction, and *encoding*, a term that is essentially synonymous with transcoding, but doesn't emphasize the conversion aspect.

**uncompressed 8-bit and 10-bit 4:2:2** Video formats used to store 8-bit or 10-bit 4:2:2 Y'C<sub>B</sub>C<sub>R</sub> video without employing data compression. Bypassing compression reduces the computer's processing load but increases the data rate considerably. A large-capacity RAID storage system is typically required to work effectively with uncompressed video. In many cases, Apple ProRes is a better choice.

The data rate of uncompressed 4:2:2 video varies according to frame size and frame rate. For example, at a frame size of 1920 x 1080 and a frame rate of 29.97 fps, the data rate is 1.0 Gbps for uncompressed 8-bit 4:2:2 video and 1.3 Gbps for uncompressed 10-bit 4:2:2 video.

**WAVE (or WAV)** An audio file format most commonly used for storing uncompressed linear pulse code modulation (LPCM) audio data.

**wide color gamut** A video color space capable of reproducing a broader palette of colors than traditional *standard-gamut* color spaces. Recent display devices—including 4K televisions and computer monitors, newer Mac, iOS, and iPadOS devices, and Apple TV 4K (when connected to a wide-gamut television)—can render more vivid and lifelike hues (in addition to all the hues that standard-gamut devices can display). Accordingly, the video industry has adopted a wide-gamut color standard called *Rec. 2020*. Although most currently available wide-gamut devices support only a subset of the colors contained in the full Rec. 2020 specification, future imaging devices should be able to render more and more of those hues.

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028-00808