Compressor

User Guide

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What’s new

What’s new in Compressor

Compressor 4.11 includes the following features and enhancements:

ProRes RAW inspector and iPhone ProRes RAW denoising

Use the new ProRes RAW inspector for easy access to ProRes RAW settings including ISO, exposure bias, and color temperature. For ProRes RAW video captured on iPhone, use denoising powered by machine learning. See Import and adjust RAW video in Compressor.

Apple Log 2 support

Take advantage of the flexibility and even wider color gamut of Apple Log 2 video. See Job properties.

RAW media extension support

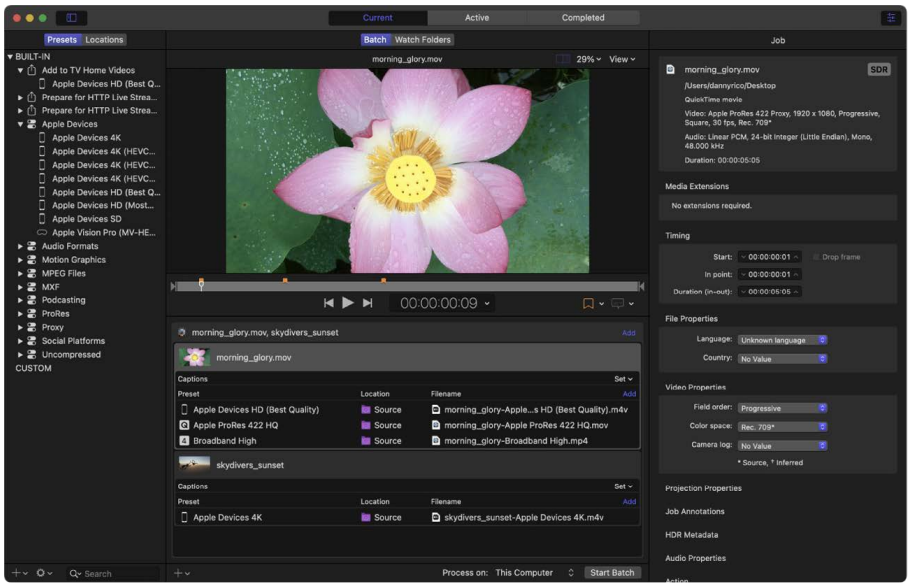
Customize third-party RAW video media extensions with the new RAW Processing inspector. See Import third-party formats with media extensions.

System requirements

The minimum system requirement for Compressor 4.11 is macOS Sequoia 15.6. iPhone ProRes RAW denoising requires a Mac with Apple silicon. 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 360° video viewable on video-sharing websites or in a virtual-reality (VR) headset.
- Export a wide variety of audio and video formats compatible with social platforms and podcasting.
- Export HDR video for viewing on HDR-capable TVs and displays.
- Add audio and video effects like watermarks, text overlays, fade-in and fade-out, and overall gain.
- Prepare iTunes Store packages and IMF packages for distribution.

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.

Customize your output for efficiency

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

- Create custom presets and destinations tailored to your unique transcoding workflows, or create a custom location to configure your own filename formats.
- Create custom transcoding presets for use in Final Cut Pro and Motion projects.
- Create watch folders and Compressor droplets that allow you to initiate custom transcoding jobs by dragging and dropping files right on your desktop.

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 source files to Compressor. You can add media files from your computer or a connected storage device. Each source file 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 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. You can also use *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.

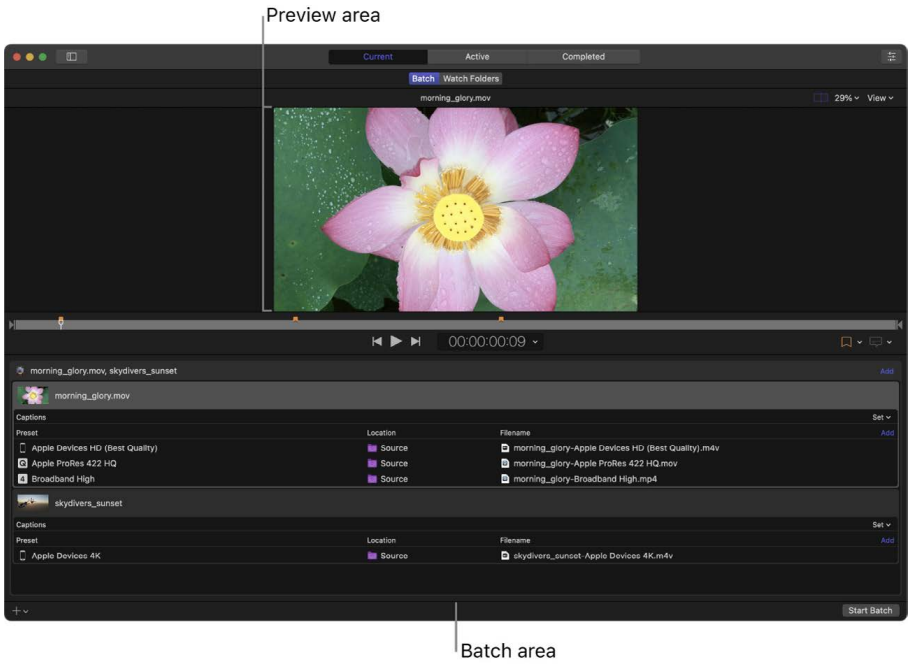
Current view is the default view in Compressor, where you can set up your transcoding jobs, configure Watch Folders, and find and customize presets, destinations, and locations.

Tip: You can return to Current view with all panes closed by choosing Window > Reset to Default Layout.

Set up and preview transcoding jobs in the Batch pane

In the Batch pane of Current view, you can prepare and submit transcoding jobs in batches.

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.



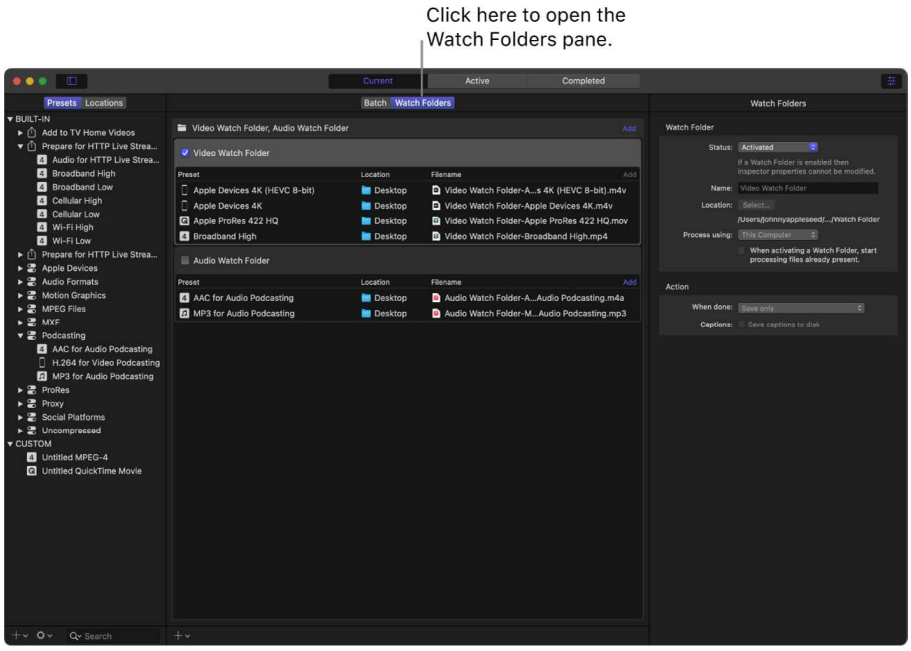
- *Preview area:* A viewer with playback controls that shows how your media file will look and sound after transcoding. In this area you can also add metadata and markers to be included in the transcoded file.
- *Batch area:* A list under the preview area that displays information about the transcoding jobs in your current batch.

  At the bottom of the Batch area is the Start Batch button, which tells Compressor to start transcoding all the jobs in your batch. See Transcode a batch.

Configure watch folders in the Watch Folders pane

In the Watch Folders pane of Current view, you can set up *watch folders* in the macOS Finder and configure Compressor to automatically transcode files when they're added to the folders.

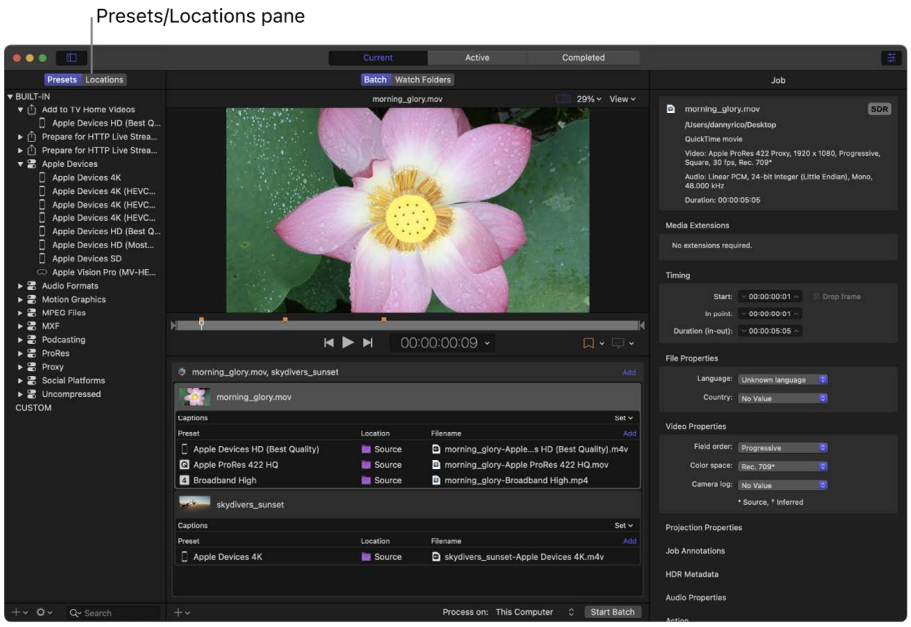
The Watch Folders pane displays the list of watch folders you've added to Compressor, along with the transcoding jobs that each watch folder applies to the files added to them.



For more information on creating watch folders, see Create and use watch folders.

Find presets, destinations, and locations in the Presets/Locations pane

In Current view, you can click the Presets & Locations button at the top-left corner of the Compressor window to expand the Presets/Locations pane.



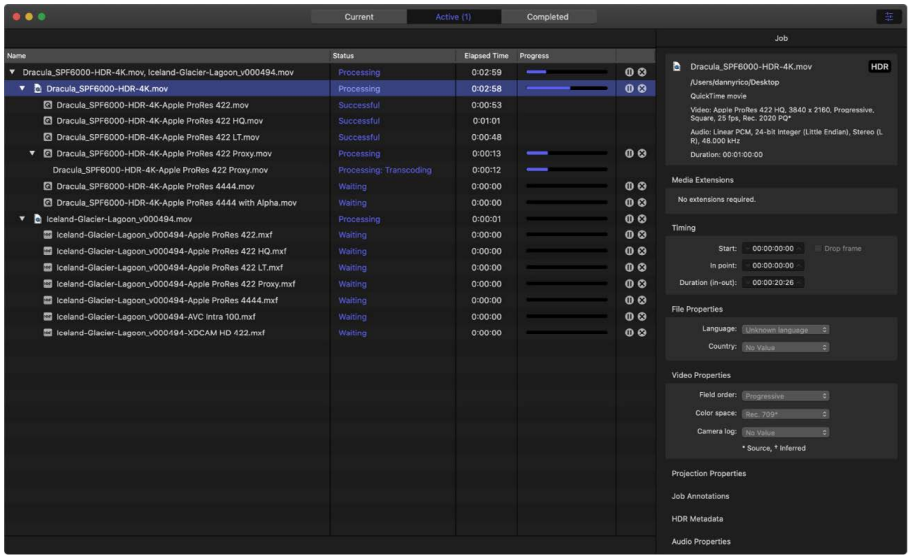
With the Presets/Locations pane expanded, you can click Presets or Locations to display the individual panes.

- *Presets pane:* A list of all the built-in destinations and presets in Compressor, as well as any custom destinations or presets that you created.
- *Locations pane:* A list of all the built-in save locations in Compressor, and any custom save locations that you created.

You can apply presets, destinations, and locations to a job by dragging an item from these lists to the job in the batch area. See Intro to applying transcoding instructions.

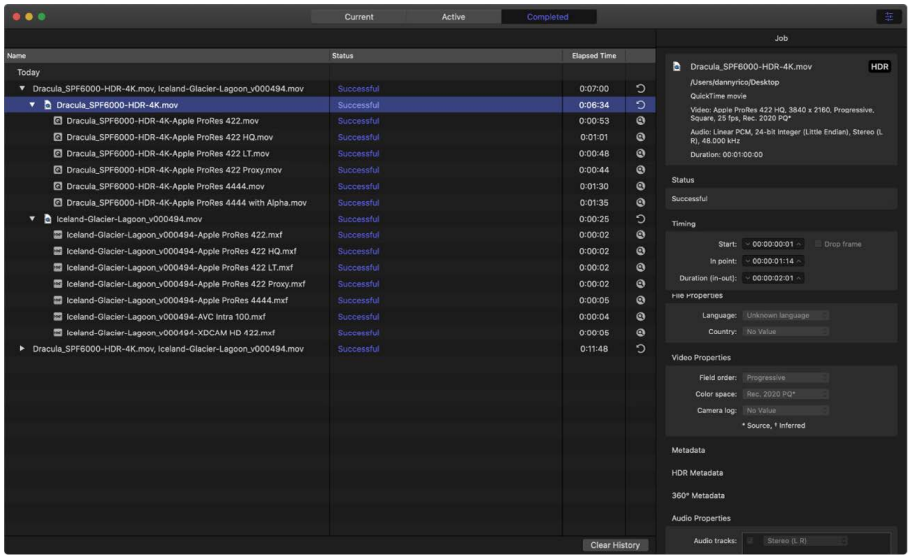
Monitor transcoding progress in Active view

When you begin transcoding a batch, the Active view in Compressor 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.



Review completed transcoding jobs in Completed view

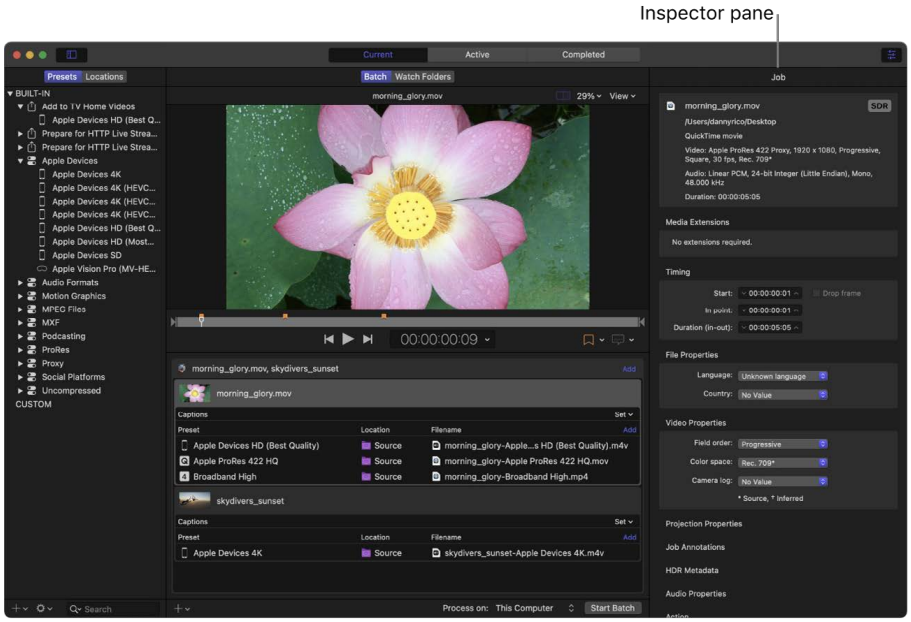
In Completed view, you can view information about batches and jobs that have been successfully transcoded, as well as information about jobs that failed to transcode.



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.

View and modify information about a selected item in the Inspector pane

When you select an item anywhere in Compressor, you can view more information about it or customize its parameters in the Inspector pane. Click the Inspector button in the upper-right corner of the Compressor window to expand this area.



The contents of the inspector pane change depending on what kind of item is selected.

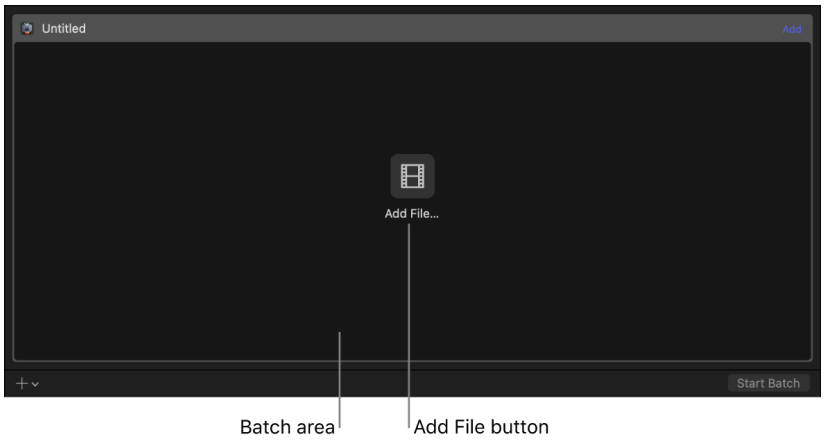
- When you select a batch (by clicking the background of the batch area or selecting a batch in Active or Completed view), the Batch inspector appears, displaying basic information about the current batch.
- When you select a job in the batch area, the Job inspector appears; this area displays a summary 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. See View and modify job properties.

  Note: If you select a job in Active or Completed view, you can view information about the job, but you can't modify any of its properties.
- When you select a preset in the Presets/Locations pane or the batch area, the General, Video, and Audio inspectors appear. These three panes contain adjustable properties that you can use to customize the preset. See View and modify a preset's properties.
- When you select a destination in the Presets/Locations pane or the batch area, the Destination inspector appears, where you can adjust the destination description and its associated job action. See View destination properties and Add and modify job actions.
- When you select a location in the Presets/Locations pane or the batch area, the Location inspector appears, where you can adjust the save location and associated filename format. See Create custom locations and filename formats.
- If you add captions to a job, selecting the captions file in the batch area opens the Closed Captions inspector or Subtitles inspector.

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.

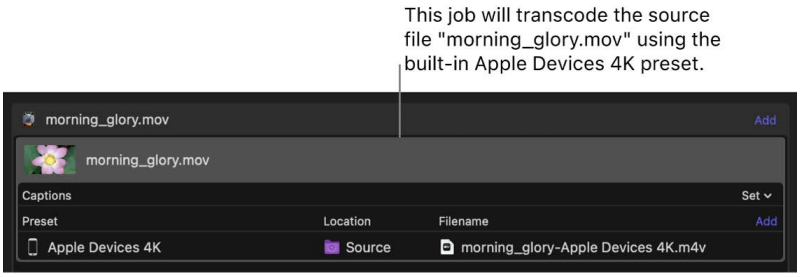
1. In Compressor, click the Add File button in the batch area.



2. In the file window that appears, select a media file, then click Add.

3. 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 with the transcoding instructions and a thumbnail of the source file. If you chose multiple presets or a destination with multiple outputs, each output appears in a separate row.



4. 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.
5. 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, including:

- Standard video and audio
- Image sequences
- Surround sound audio
- ProRes RAW video
- Third-party formats with media extensions
- 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

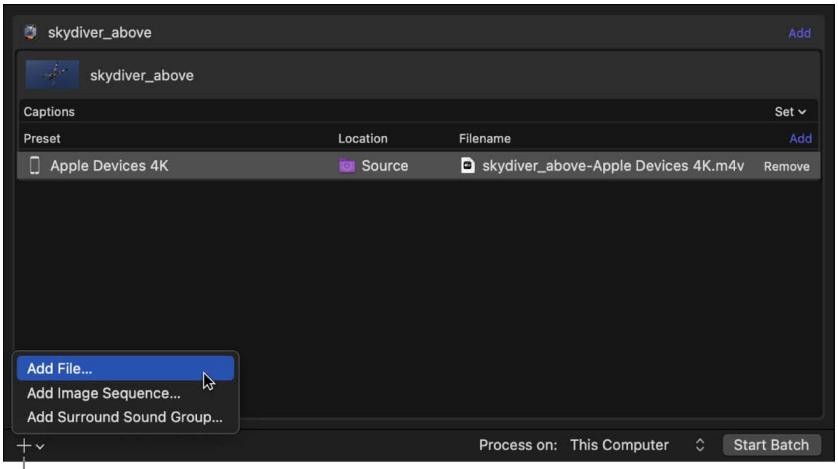
When you import source media to Compressor, you create a transcoding *job* to which you can add multiple presets or destinations that specify how your media will be transcoded.

Add jobs to a batch

In Compressor, do either of the following:

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

- Click ＋ 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

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

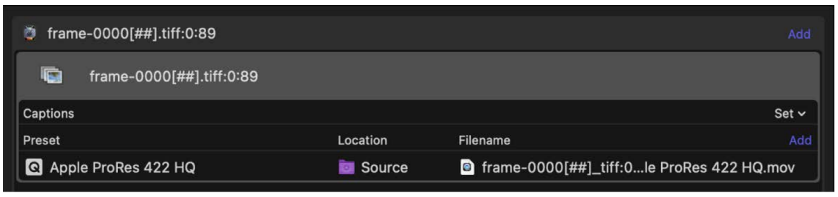
After you import source media, you can view and modify job properties, apply transcoding instructions, and transcode the batch.

Import an image sequence in Compressor

You can create an image sequence job in Compressor by importing a sequence of still images as an image sequence source file. Each image in the image sequence represents a single video frame.

1. In Compressor, do one of the following:
   - Choose File > Add Image Sequence.
   - Click ＋ at the bottom of the batch area, then choose Add Image Sequence.
2. In the file window that appears, select a folder of image sequence files, then click Add.

   A new image sequence job appears in the batch area of the Compressor window.



Tip: You can view a list of the images in your image sequence job in the Image Sequence Files area of the Job inspector.

3. In the Image Sequence Properties area of the Job inspector, do either of the following:
    - *Adjust the frame rate:* Choose a frame rate for the image sequence file from the "Frame rate" pop-up menu, or type a custom value in the text field.
    - *Add audio:* Next to "Audio file," click Choose, select a file, then click Open.

After you import source media, you can view and modify job properties, apply transcoding instructions, and transcode the batch.

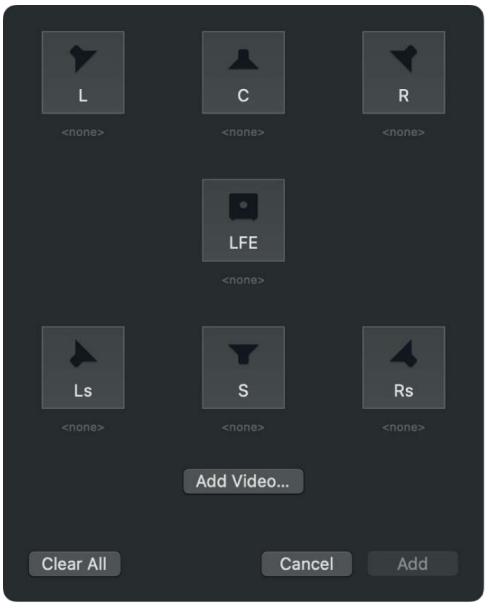
Import surround sound audio in Compressor

You can create a surround sound audio job in Compressor by manually assigning audio files to surround sound channels, or by appending audio filenames with channel identifiers that allow Compressor to automatically map the files to the correct surround sound channels.

Create a surround sound source file by manually assigning channels

1. In Compressor, do one of the following:
    - Choose File > Add Surround Sound Group.
    - At the bottom of the batch area, click +, then choose 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.

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 macOS Finder, then add the files in Compressor.

1. In the macOS 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)

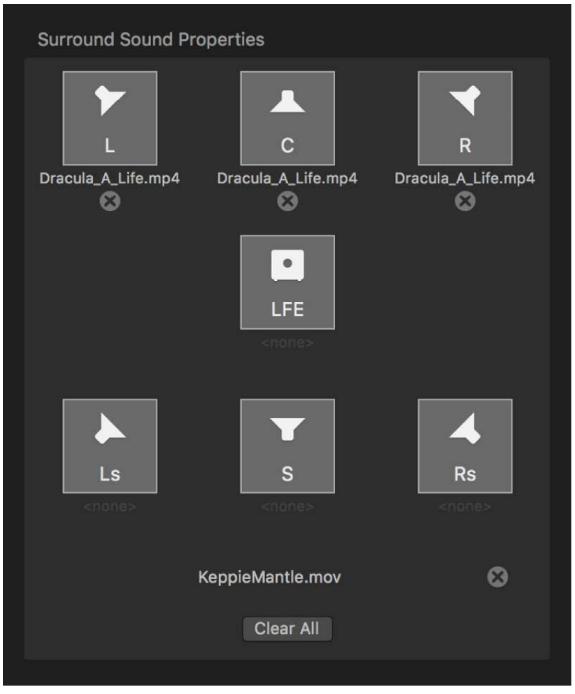
   For example, if the audio file for your left front channel is named “final audio_left.aiff,” name the file “final audio_left-L.aiff.”

   Note: Compressor will recognize source files with or without a file extension (.aiff or .wav, for example).
2. Import all of the renamed source audio files at the same time as one job.

   A new job appears in the batch area.

Reassign or remove audio files in a surround sound job

1. In Compressor, select the surround sound job, then open the Job inspector.
2. In the Surround Sound Properties area of the Job inspector, do any of the following:
   - *Remove a file assigned to a channel:* Click ⊗ next to the file you want to remove.
   - *Assign a different file to a channel:* Click the channel icon (a speaker icon or subwoofer icon), then choose a new audio file from the menu that appears.
   - *Remove all audio files:* Click the Clear All button. This also removes the video file assigned to the surround sound source file.



Add video to a surround sound job

1. In Compressor, select the surround sound job, then open the Job inspector.
2. In the Surround Sound Properties area of the Job inspector, click the Add Video button.
3. In the file window that appears, select a video file, then click Open.

   Once a video file has been added, its filename replaces the Add Video 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.
4. In the Extensions section, click By Category (if available), then click the Info button next to Media Extensions.
5. Turn on any format readers, decoders, or processors for the media extension you installed (you may need to scroll down), then click Done.
6. Quit Compressor (if it's open), then reopen Compressor.

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

Note: After turning on a third-party RAW processing plug-in, you can adjust RAW processing parameters.

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.

   A new job appears in the batch area.
2. Select the job to view its properties in 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.

Import and adjust RAW video in Compressor

You can import a variety of RAW video formats in Compressor, including Apple ProRes RAW and formats supported by third-party RAW processing extensions. After RAW processing is enabled, you can modify available RAW processing parameters.

For ProRes RAW video captured on supported iPhone models, Compressor's RAW processing controls in the Job inspector allow you to apply denoising powered by machine learning (requires a Mac with Apple silicon).

Import ProRes RAW footage and enable RAW processing

The first time you import ProRes RAW footage into Compressor, you must enable the Apple ProRes RAW media extension.

1. In Compressor, import a ProRes RAW video file.
2. Select the job containing ProRes RAW footage in the Compressor batch area.
3. In the RAW processing area of the Job inspector, click Extension Settings.

   The Systems Settings app opens and shows available Media Extensions.
4. Turn on the Apple ProRes RAW Processor extension, then click Done.

   You can now adjust RAW processing parameters in the Compressor Job inspector.

To enable RAW processing for formats other than ProRes RAW, see Import third-party formats with media extensions.

Adjust RAW processing parameters

Once you've enabled the Apple ProRes RAW Processor extension or another applicable third-party RAW processing extension, you can adjust RAW processing parameters in Compressor.

1. In Compressor, select a job containing RAW footage in the batch area.

2. In the job inspector, navigate to the RAW Processing section.

   If you don't see RAW processing parameters, you may need to enable the Apple ProRes RAW Processor extension or another third-party RAW processing extension.

3. View or adjust any of the available RAW processing parameters.

   Note: The available parameters depend on the type of RAW format you're working with. Third-party RAW formats may have different controls than those described below.

4. For ProRes RAW footage, adjust any of the following controls:

   - *ISO:* Use the pop-up menu to override the ISO setting used to capture the RAW video.
   - *Exposure Bias:* Drag the slider to fine-tune the ISO setting up or down by up to one stop.
   - *As-Shot White Balance:* Deselect the checkbox to enable the Color Temperature slider.
   - *Color Temperature:* Drag the slider to adjust the white balance camera setting along the blue-amber axis.
   - *RAW to Log:* Use the pop-up menu to choose the method of encoding brightness and color information when converting the RAW video file.

5. For ProRes RAW footage shot on iPhone, choose iPhone ProRes RAW from the Processing pop-up menu to view and adjust additional controls:

   - *Tint:* Drag the slider to adjust the white balance camera setting along the green-magenta axis. Use to correct color casts that are not addressed by Color Temperature alone. This slider is available when As-Shot White Balance is deselected.
   - *Demosaic:* Use the pop-up menu to choose the method for transforming RAW sensor data into a standard full-color RGB image. Choose Standard to apply the same demosaicing algorithm used in Standard processing, or Custom to enable the following controls:
     - *Color Noise:* Drag the slider to correct color casts.
     - *Edge Contrast:* Drag the slider to increase contrast between objects.
     - *Detail Enhancement:* Drag the slider to increase overall image sharpening.
   - *ML Denoise:* Use the pop-up menu to apply a machine-learning model to reduce the amount of noise in the image (at the expense of preview performance and transcoding speed)—Low, Medium, or High.

     Note: This feature requires a Mac with Apple silicon.

6. To reset RAW processing parameters, do either of the following:

   - *Reset a single parameter:* Click ↩ next to the parameter you want to reset to its initial value.
   - *Reset all RAW processing parameters:* At the bottom of the RAW Processing section, click the "Revert to" pop-up menu and choose an option.

After you import RAW footage and adjust available RAW processing parameters, you can view and modify other job properties, apply transcoding instructions, preview the media in non-RAW formats, 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.

1. Select the job in the Compressor batch area.
2. If necessary, click 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. See Job properties.
3. In the Job inspector, optionally adjust the available controls like timecode and duration, color space, and metadata annotations.

Job properties in Compressor

When you import source media, Compressor detects various properties of the source media and displays them in the Job inspector. If you think the properties identified by Compressor are incorrect, you can modify them in the inspector.

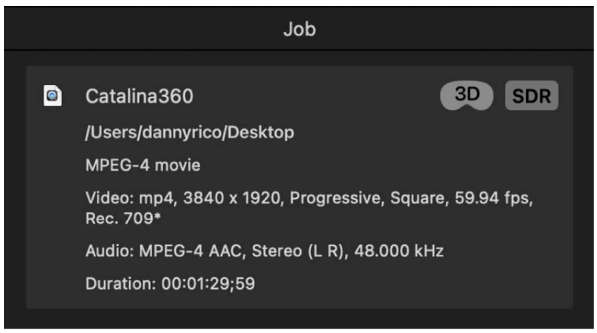
Note: Not all properties are available for all job types.

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.

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.



Note: You can't adjust the job summary directly, but it will automatically update to match any adjustments you make to the job properties below.

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

Controls that adjust the starting timecode, In point, and duration of the output file. See Modify timing and timecode.

File Properties

Controls that adjust the source media's language and geographic information.

- *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.

Image Sequence Properties

Controls that adjust the frame rate and audio file for an image sequence job. See Import an image sequence.

Surround Sound Properties

Controls that adjust the names of the files assigned to surround sound channels. See Import surround sound audio.

Video Properties

Controls that adjust how Compressor interprets various video properties of the source file.

Important: Updating these values in the Job inspector does not convert the field order or color space of your file during transcoding. To apply transcoding instructions that convert the field order or color space of your output, use the corresponding properties in the Video inspector when a preset is selected. See Video properties.

- *Field order:* This property determines what type of interlacing is present in the source file (if any). See Use deinterlacing.
- *Color space:* This property defines how Compressor interprets the color space of the source file. See Modify color space and HDR metadata.

  Note: If you specify a log profile in the "Camera log" pop-up menu (described below), or you're using ProRes RAW source footage with a value specified in the RAW to Log pop-up menu, the "Color space" pop-up menu is unavailable.
- *Camera log:* Use this pop-up menu to choose a log profile that corresponds with the source file, including Apple Log and Apple Log 2. Compressor will try to pick the appropriate camera log based on metadata in the source file, but you can manually override Compressor's selection.

RAW Processing

Controls that display as-shot camera settings of RAW footage and allow you to adjust various RAW camera settings. See Import and adjust RAW video in Compressor.

Projection Properties

Controls that adjust how Compressor interprets stereoscopic or projection properties of the source media when you're working with spatial video or 360° video. See Modify stereoscopic and spatial properties in Compressor and Work with 360-degree video.

Job Annotations

Controls that adjust the annotation metadata in your output file. See Work with metadata.

HDR Metadata

Controls that adjust the HDR metadata that's passed to your export file. See Modify color space and HDR metadata.

Audio Properties

Controls that adjust audio track assignments in the source clip. Each track is displayed with an activation checkbox to include or exclude the audio track from the job, as well as a pop-up menu that determines the audio channel layout of the audio track.

You can also add descriptive audio tracks in this section of the Job inspector.

Image Sequence Files

An ordered list of image files in an image sequence job. See Import an image sequence.

Action

Controls for adding an automated job action to be performed after transcoding. See Add and modify job actions.

You can also use the "Save captions to disk" checkbox to save a separate captions 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 a job action.
- Apply a destination to a job.

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

- Choose a new save location or change an output's filename.
- Modify frame size, frame rate, and color space.
- Add video and audio effects.
- Adjust metadata annotations.

After applying transcoding instructions, you can preview and transcode the batch.

Add presets

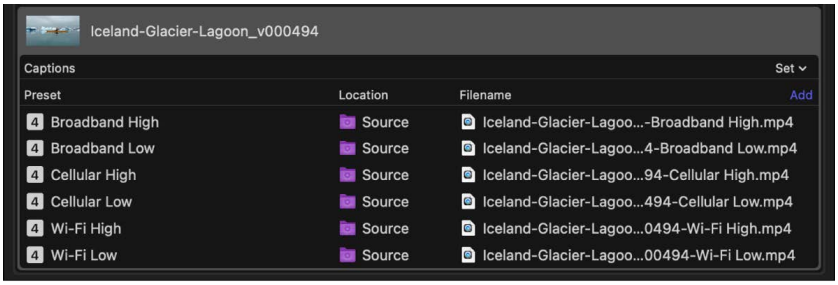
Add and remove transcoding presets in Compressor

A *preset* is a group of preconfigured transcoding instructions that you apply to a job in Compressor. For most transcoding jobs, you can use the built-in presets that come with Compressor.

Add a preset

1. After you add a job to a batch in Compressor, click Add on the right side of the job's Preset/Location/Filename row.
2. In the window that appears, select one or more transcode presets, choose a save location from the pop-up menu, then click OK.

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



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

Remove a preset

To remove a preset in Compressor, do either of the following:

- Select the preset's output row, then press Delete.
- Position the pointer over the preset's output row, then click Remove (on the right side of the row).

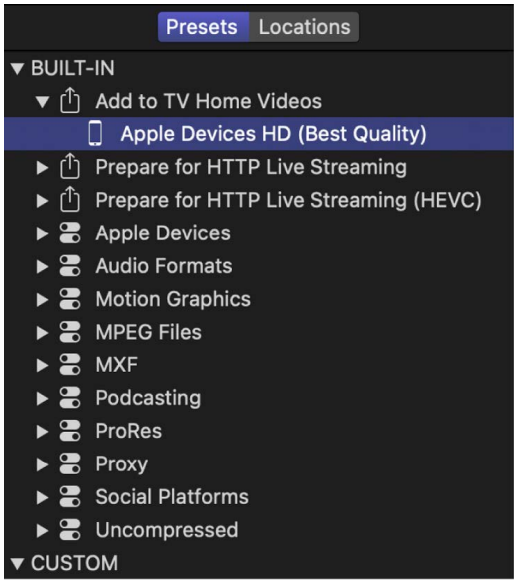
View and modify a preset's properties in Compressor

When you select a preset in Compressor, you can view its general, video, and audio properties and modify those properties as needed.

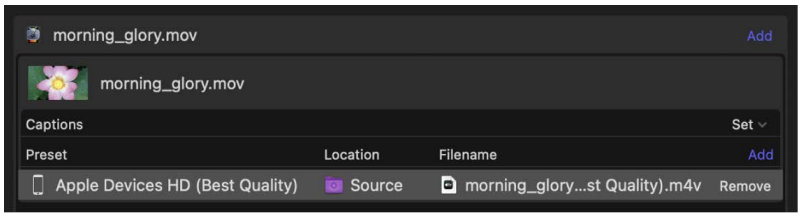
View a preset's general, video, and audio properties

1. In Compressor, do either of the following:

   - Select a built-in or custom preset in the Presets pane.

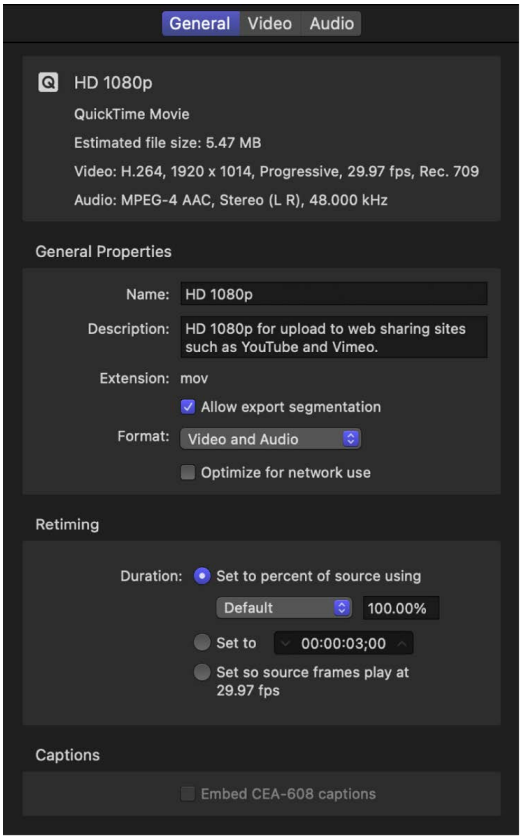


   - Select the output row for an applied preset in the batch area.



   When a preset is selected, its properties are shown in the inspector pane.

2. 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

1. In Compressor, select an applied preset's output row in the batch area.

   The properties of the selected preset are displayed in the inspector pane.

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 pane.

   Note: When you make adjustments to an applied preset, the adjustments are only made for the transcoding job to which the preset is applied. To save a preset with modifications that you use frequently, create a custom preset.

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 social media.

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	• Apple Devices 4K • Apple Devices 4K (HEVC 8-bit) • Apple Devices 4K (HEVC 10-bit) • Apple Devices 4K (HEVC 10-bit, HLG, Dolby Vision 8.4) • Apple Devices HD (Best Quality) • Apple Devices HD (Most Compatible) • Apple Devices SD • Apple Vision Pro (MV-HEVC, Stereoscopic)	Create Apple Device-compatible files for distribution, including HEVC (designed to optimize HDR content for Apple devices) and MV-HEVC (for outputting spatial video files to be viewed on Apple Vision Pro).
Audio Formats	• AAC • AC3 • AIFF • Apple Lossless • CAF • EC3 • FLAC • MP3 • WAV	Create audio files in the most commonly used formats.
Motion Graphics	• Animated Image (Large) • Animated Image (Small) • Open EXR Image Sequence • QuickTime Animation • QuickTime ProRes with Alpha • TIFF Image Sequence	Create files for use with motion graphics applications.
MPEG Files	• MPEG-2 422 Program stream, 15 Mbps • MPEG-2 Program stream, 15 Mbps • MPEG-2 Transport stream, 15 Mbps	Create broadcast-quality, high-resolution, high bit rate video files.

Built-in preset group	Contains	Use to
MXF	• Apple ProRes 422 • Apple ProRes 422 HQ • Apple ProRes 422 LT • Apple ProRes 422 Proxy • Apple ProRes 4444 • Apple ProRes 4444 XQ • AVC Intra 100 • XDCAM HD 422	Create high-quality audio and video files packaged with metadata for use in post-production workflows.
Podcasting	• AAC for Audio Podcasting • H.264 for Video Podcasting • MP3 for Audio Podcasting	Create files for audio and video podcasting.
ProRes	• Apple ProRes 422 • Apple ProRes 422 HQ • Apple ProRes 422 LT • Apple ProRes 422 Proxy • Apple ProRes 4444 • Apple ProRes 4444 with Alpha • Apple ProRes 4444 XQ • Apple ProRes 4444 XQ with Alpha	Create high-quality, high-performance files for use with Final Cut Pro and post-production workflows.
Proxy	• H264 Proxy eighth size • H264 Proxy half size • H264 Proxy quarter size • HEVC Proxy eighth size • HEVC Proxy quarter size • HEVC Proxy half size • ProRes Proxy eighth size • ProRes Proxy half size • ProRes Proxy quarter size	Create proxy files for use with Final Cut Pro and post-production workflows.
Social Platforms	• 4K • HD 720p • HD 1080p • Large 540p • SD 480p • Small • Up to 4K	Create QuickTime movie files for video-sharing websites like Vimeo.
Uncompressed	• Uncompressed 10-bit 4:2:2 • Uncompressed 8-bit 4:2:2	Create uncompressed QuickTime movie files.

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.

Create custom presets in Compressor

You can create your own custom presets based on an existing built-in or custom preset, or 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, you can duplicate that preset, then modify any properties that you need to change.

Create a custom preset by duplicating an existing preset

1. In the Presets pane in Compressor, select the preset you want to duplicate.
2. Click ⚙ at the bottom of the Presets pane, then choose Duplicate.

   A copy of the preset appears in the Custom area of the Presets pane.
3. To name your custom preset, double click the copy of the preset, type a new name, then press Return.
4. To modify the properties of your new custom preset, adjust the controls in the General, Video, or Audio sections of the inspector pane.

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 , click + at the bottom of the pane, 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, or Audio sections of the inspector pane.

Create a custom preset from an existing video file

You can quickly make a custom preset that automatically matches the settings of an existing video file on your computer.

1. From the macOS Finder, drag a video file into the Custom area of the Presets pane in Compressor.

   A new custom preset called *Created from [filename]* appears in the Presets pane.
2. To modify the properties of your new custom preset, adjust the controls in the General, Video, or Audio sections of the inspector pane.

Delete a custom preset

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

Save and share custom presets in Compressor

You can save a custom preset as a file for use on another Mac.

Save a custom preset

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

  Tip: You can also drag the custom preset directly to the body of an email message in Mail. The preset is saved as a file with the filename extension .compressorsetting.

Share a custom preset

- Copy, email, or AirDrop the preset file to another Mac.

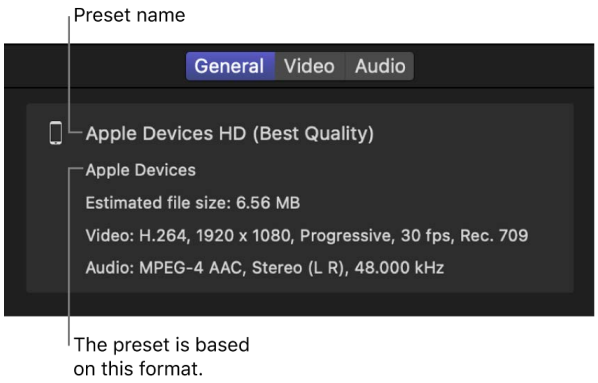
Add a shared preset to Compressor

- Drag the preset file from the macOS finder into the Custom area in the Presets pane of Compressor.

Preset formats in Compressor

Compressor provides a variety of transcoding formats to create files playable in a variety of media platforms. Each of the built-in presets in the Presets pane uses a specific transcoding format compatible with industry standards.

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 .mfv and .mov 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

When you select a preset, its general properties appear in the General inspector.

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.
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 Transcode with multiple computers.
Default location	All preset formats	For custom presets, use the pop-up menu to choose a default save location for transcoded files.

General property	Preset formats	Description
Format	Apple Devices, MPEG-2, MPEG-4, MXF, QuickTime Movie	Use this pop-up menu to specify whether the output includes video and audio, or video only. For MPEG-2 presets, use this pop-up menu to choose an MPEG-2 stream type: • *Program stream:* Contains only one content channel and its associated audio. • *Elementary stream:* Contains only one content channel and no audio. • *Transport stream:* Can contain several MPEG-2 content channels and associated audio. All the channels are multiplexed together, allowing the playback device to choose which to play. Compressor supports creating single-channel transport streams that can also include associated audio.
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.
Stream usage	H.264, MPEG-2	For H.264 presets, use the pop-up menu to set whether the output file is transcoded for Blu-ray Disc or AVCHD. For MPEG-2 presets, use this pop-up menu to choose an MPEG-2 stream usage option: • *Generic:* Allows complete access to all 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. • *DVD:* 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. • *Blu-ray:* 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.
Color palette	Image Sequence	Use this pop-up menu (available when "Image type" is set to GIF or PNG) to choose the number of colors used in the transcoded files (or choose Not Indexed to use all available colors). Select Local to use a new color palette for each frame, or Global to use a shared color palette across all frames.
Color dithering	Image Sequence	Use this pop-up menu (available when "Image type" is set to GIF or PNG and Color palette is set to a limited number of colors) to choose a dithering algorithm, or no dithering.

General property	Preset formats	Description
Animated	Image Sequence	Select this checkbox (available when “Image type” is set to GIF or PNG) to export a single, animated file containing all frames (rather than a collection of individual files for each frame).
Playback	Image Sequence	When Animated is selected, use these controls to set how many times the animated GIF or PNG loops during playback.
Create unique output directory	Image Sequence	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.
Add leading zeros to frame numbers	Image Sequence	When Animated is not selected, select this checkbox to have Compressor add leading zeros to output filenames (“*filename*-000000,” “*filename*-000001,” “*filename*-000002,” and so on).
Add Apple metadata	MPEG-2	Select this checkbox to have Compressor include specific MPEG-2 authoring information 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 Add markers.
Enhanced podcast	MPEG-4	Select this checkbox to have Compressor embed podcasting information (annotations, markers, and artwork) into the output media file. See Work with metadata and Add markers.

The General inspector may also show options for retiming, captions, and metadata.

Video properties of presets in Compressor

When you select a preset, its video properties appear in the Video inspector.

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 to the destination file, without modification. Selecting this checkbox disables all the other presets in the video properties area.
Frame size	All video-enabled preset formats	Use this pop-up menu to set the frame size (resolution) of the output file. See Modify frame size.
Center crop for output ratio	All video-enabled preset formats	Select this checkbox to ensure that when you change the aspect ratio in the Frame size pop-up menu, the video remains centered in the new aspect ratio.
Pixel aspect ratio	All video-enabled preset formats	Use this pop-up menu to set the ratio between the encoded width and the display width.

Video property	Preset formats	Description
Frame rate	All video-enabled preset formats	Use this pop-up menu to set the frame rate for the output file, or enter a custom frame rate in the field next to the pop-up menu (if available). See Modify frame rate and duration.
Field order	All video-enabled preset formats	Use this pop-up menu to set the output scanning method for interlaced footage. See Use deinterlacing.
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, or “Same as Source” to use the color space of the source file. You can also choose a manual preset to override the default. See Modify color space and HDR metadata.
Preserve camera log encoding	All video-enabled preset formats	Select this checkbox to ensure that the output file maintains the log encoding specified by the source file. This option is only available if a camera log is specified in the Job inspector. See Job properties.
Camera LUT	All video-enabled preset formats	Use this pop-up menu to choose the camera lookup table (LUT) applied to the source file. This option is only available if a camera log is specified in the Job inspector and the “Preserve camera log encoding” checkbox is deselected.
Cinematic	All video-enabled preset formats	Use this pop-up menu (available for source video recorded in Cinematic mode with the iPhone Camera app) to specify whether or not to render the Cinematic-mode effect in the transcoded file. *Note:* Cinematic mode rendering requires macOS 12 or later. For details on how to preserve Cinematic mode metadata when transferring video from iPhone to Mac, see the Motion User Guide.
Stereoscopic	All video-enabled preset formats	Use this pop-up menu to choose how Compressor uses the left- and right-eye views in stereoscopic video. See Modify stereoscopic and spatial properties in Compressor.
360° metadata	Apple Devices, MPEG-4, QuickTime Movie	Use this pop-up menu to choose the type of 360° metadata, if any, to be included in the output file. See Work with 360-degree video.
Codec	Apple Devices, MPEG-4, MXF, QuickTime Movie	Choose one of the available transcoding methods. *Note:* HEVC encoding in Compressor requires macOS 10.13 or later.
Spatial Video	Apple Devices	When Codec is set to MV-HEVC, use this pop-up menu to determine whether to output the file as spatial video for playback on Apple Vision Pro. See Modify stereoscopic and spatial properties in Compressor.
Encoder type	Apple Devices, MPEG-4, QuickTime Movie	When Codec is set to HEVC, use this pop-up menu to choose a faster (standard quality) or slower (higher quality) encoder.

Video property	Preset formats	Description
Profile	Apple Devices, MPEG-4, QuickTime Movie	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, choose between high-quality output (which may not be compatible with H.264 playback devices), the Baseline profile (primarily for video conferencing and mobile applications), and the Main profile (similar to Baseline, with additional support for standard-definition video requirements). When Codec is set to HEVC or MV-HEVC, choose the color depth of the output file.
Entropy mode	MPEG-4, QuickTime Movie	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).
Avg. Bit rate	MPEG-4, QuickTime Movie	Choose a bit rate for your video: • *Custom:* Allows you to manually enter an average bit rate in the text field. • *Computer playback:* Creates a larger file with higher quality. • *Social Platforms:* Creates a smaller file suitable for uploading to a website. • *HTTP Live Streaming (HLS):* Creates a file suitable for live streaming over the internet. • *Proxies:* Creates a proxy file suitable for editing in Final Cut Pro (see Create optimized and proxy files in the Final Cut Pro User Guide for Mac). • *Automatic:* Compressor sets an average bit rate.
Key frame interval	MPEG-4, QuickTime Movie	Use this pop-up menu to choose the interval between keyframes in your output file: All creates a keyframe at every frame; Every lets you enter a custom interval in the value field; Automatic lets Compressor set the interval.
Quality	QuickTime Movie	When Codec is set to Animation or Photo-JPEG, use this slider to set the quality level of your output file. When Codec is set to HEVC and the “Preserve alpha” checkbox is selected, use this slider to set the quality level of your output file’s alpha channel.
Anamorphic	MPEG-2	If a standard-definition source file’s storage aspect ratio doesn’t match its display aspect ratio, use this pop-up menu to correct the image so the output doesn’t appear squeezed or stretched.

Video property	Preset formats	Description
Encoding mode	MPEG-2	Choose an MPEG-2 encoding mode from the pop-up menu: • *Single Pass CBR:* This is the fastest MPEG-2 encoding mode. It provides good quality, especially at bit rates between 5 and 9 Mbps. • *Single Pass VBR:* This mode aims to maintain constant quality (at the expense of constant bit rate) for the transcoded video file. For most standard-definition media files at bit rates of 3.5 Mbps and above, this mode provides good to excellent quality and transcodes quickly. • *Single Pass VBR (Best):* This mode provides the best possible quality output for standard-definition video at bit rates of 3 to 3.5 Mbps and above. • *Two Pass VBR:* 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. • *Two Pass VBR (Best):* This mode provides the best possible quality output, and outstanding quality at bit rates of 3 to 3.5 Mbps and above for high-definition and standard-definition video.
Motion estimation	MPEG-2	Use this pop-up menu to set the amount of motion processing performed on the file. Choose Good when there's relatively low motion between frames, Better when there's slightly more complex motion, and Best for the most complex motion and for interlaced source files.
GOP structure	MPEG-2	Use this pop-up menu to choose an MPEG-2 GOP (group of pictures) structure: • *IP:* Use IP only if your media contains fast motion that isn't encoded with sufficient quality using an IBBP or IBP structure. • *IBP:* Use IBP only if your media contains fast motion that isn't encoded with sufficient quality using an IBBP structure. • *IBBP:* Recommended for the majority of MPEG-2 encoding situations.
GOP size	MPEG-2	Use this slider to specify how many frames are contained within a GOP (group of pictures). The values available in the slider are determined by the "GOP structure" property. The maximum GOP size in 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).
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).

Video property	Preset formats	Description
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.
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.
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, set the bit rate by dragging the slider or entering a value in the text field.
Frame sync	Apple Devices	Select the Automatic checkbox to have Compressor calculate the frame rate. *Note:* 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. If the checkbox is not selected, drag the slider or enter a value in the text field to set the key frame interval at which you want keyframes created in your output file.
Allow frame reordering	MPEG-4, QuickTime Movie	Select this checkbox to potentially provide a better-quality output file by allowing Compressor to reorder video frames during transcoding. **Important:** If you select “Allow frame reordering,” your output file may be more efficiently compressed but may not be compatible with decoders on older hardware.
Preserve alpha	QuickTime Movie	Select this checkbox to preserve any alpha channel information from your source file and pass the alpha channel to the output file.
Add clean aperture information	QuickTime Movie	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.
Scale image to preserve aspect ratio	Image Sequence	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).
Compression	Image Sequence	Use this pop-up menu to choose an image compression method.
Color depth	Image Sequence	Use this pop-up menu to set the color depth of the output file.
YUV 422 color encoding	MPEG-2	Select this checkbox to use YUV 422 color encoding for superior chroma quality.

Video property	Preset formats	Description
Start timecode	MXF	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.
Drop frame	MXF	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.

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

When you select a preset, its audio properties appear in the Audio inspector.

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 to the destination file, without modification.
Channel layout	All audio-enabled preset formats	Use this pop-up menu to manually set the type of audio channel layout. See Audio channel layouts.
Sample rate	All audio-enabled preset formats	Use this pop-up menu to set the sample rate of the transcoded audio.
Sample size	All audio-enabled preset formats	Use this pop-up menu to manually set the sample size of the audio signal.
Codec	QuickTime Movie	Use this pop-up menu to choose an audio codec.
Sample format	QuickTime Movie	When the audio Codec property is set to Linear PCM, use this pop-up menu to select whether to output your audio in Big Endian or Little Endian format.
Format	MPEG-4	Use this pop-up menu to choose an MPEG-4 Advanced Audio Coding (AAC) or Apple Lossless format for MPEG-4 audio encoding.
Quality	Apple Devices, MPEG-4, QuickTime Movie	Use this pop-up menu to select the quality of the audio output.
Target system	Dolby Digital	Use this pop-up menu to choose the system on which you’ll play the output file. Compressor limits options in other related properties to those appropriate for the target system.

Audio property	Preset formats	Description
Bit rate	Apple Devices, Dolby Digital, MP3, MPEG-4, QuickTime Movie	Use this pop-up menu to set the bit rate of the audio output. 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.
Use variable bit rate encoding	MP3	Select the checkbox to have Compressor encode the file using a dynamic bit rate that varies according to the complexity of audio. Variable bit rate encoding can reduce the size of the output file.
Bit rate strategy	Apple Devices, MPEG-4, QuickTime Movie	Use this pop-up menu to select the method used to encode the audio: • *Constant Bit Rate:* Uses the value set in “Bit rate” to determine the bit rate for the encoded audio. • *Average Bit Rate:* 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. • *Variable Bit Rate Constrained:* Uses the value set in “Bit rate” to determine the maximum bit rate for the encoded audio. • *Variable Bit Rate:* Encodes the audio using a variable bit rate determined by Compressor. Choosing this option disables the “Bit rate” menu.
Include Dolby 5.1 Audio Track	Apple Devices	Select the checkbox to add surround sound as a Dolby Digital audio track for playback on Apple TV.
Include Lt Rt downmix track	QuickTime Movie	Select this checkbox (available 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.
Compression	Common Audio Formats	For FLAC file types, use this pop-up menu to manually set the amount of compression used to encode the audio signal.
Joint stereo	MP3	Select the checkbox to have one channel carry 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.
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. "Mono tracks” uses a separate track for each audio channel, while “Multitrack” combines all audio channels into a single track.

Audio property	Preset formats	Description
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	For Mono and Stereo (L R) channel layouts, 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: • *Not Indicated:* Does not send the playback device information about whether the bitstream was encoded in Dolby Surround. • *Not Encoded:* Tells the playback device that the bitstream contains information not encoded in Dolby Surround. • *Surround Encoded:* Tells the playback device that the bitstream contains information encoded in Dolby Surround.
Surround EX mode	Dolby Digital	For 5.1 (L R C LFE Ls Rs), 5.0 (L R C Ls Rs), 4.1 (L R LFE Ls Rs), and 4.0 (L R Ls Rs) layouts, 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: • *Not Indicated:* Does not send the playback device information about whether the bitstream was encoded in Dolby Surround EX. • *Not Encoded:* Tells the playback device that the bitstream contains information not encoded in Dolby Surround EX. • *Surround Encoded:* Tells the playback device that the bitstream contains information encoded in Dolby Surround EX.
Stereo downmix	Dolby Digital	Use this pop-up menu to set how to downmix a surround signal to a stereo signal. See Audio channel layouts. **Important:** 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.
DRC line mode	Dolby Digital	Use this pop-up menu to set the dynamic range compression-processing mode.
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.

Audio property	Preset formats	Description
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 unlinks 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's 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.

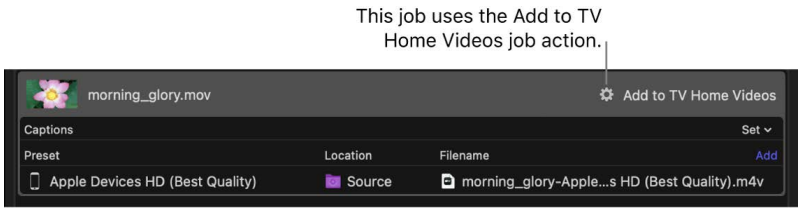
The Audio inspector also shows options for adding audio effects.

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.

When a job contains a job action, a gear icon is shown in the top-right corner of the job.



Note: A job action is automatically included in each of the built-in destinations provided with Compressor. See Add a destination to a job.

Add a job action to a job

1. Select a job in the Compressor batch area.
2. In the Action area 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.

   Note: If you see the alert icon ⚠️ next to the name of the job action in the batch area, there’s an issue with the source file or the action properties. Click the alert icon for more information. See Review errors and warnings.

   For information about the properties of each job action, see Job actions.

Remove a job action

1. Select the job in the Compressor batch area.
2. In the Action area of the Job inspector, click the “When done” pop-up menu and choose “Save only.”

Job actions in Compressor

Compressor comes with a set of job actions that are automatically applied with destinations, or that can be manually applied with presets. A job action performs an automated action after transcoding.

The job actions available in Compressor and their associated properties are described below.

Job action	Description	Properties
Add to Photos	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	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	Opens the transcoded file in another application upon export.	• *Open with:* Choose the application for opening the transcoded file.
Prepare for HTTP Live Streaming	Processes the transcoded files using the instructions you provide 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:* Set the format output for this job action. MPEG-2 TS sets the output format to MPEG-2 transport stream; Fragmented MP4 sets the output format to fragmented MP4 (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. • *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	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.

Job action	Description	Properties
Send Email	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	Saves social media-compatible output to your Mac. You can then upload your media directly on the social platform.	There are no properties for this job action.

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 basic transcoding jobs, you can use the built-in destinations that come with Compressor.

1. After you add a job to a batch, click Add on the right side of the job's Preset/Location/Filename row.
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.

   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.

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

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 built-in or custom destination in Compressor, you can view its properties and associated job action.

- In Compressor, select a destination in the Presets pane, then review its name, description, and associated job action in the inspector pane.

  Note: You can't modify the properties of Compressor's built-in destinations; you can only modify the properties of your custom destinations. 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	*Preset:* Apple Devices HD (Best Quality) *Job action:* 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	*Presets:* • Audio for HTTP Live Streaming • Broadband High • Broadband Low • Cellular High • Cellular Low • Wi-Fi High • Wi-Fi Low *Job action:* 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.
Prepare for HTTP Live Streaming (HEVC)	*Presets:* • Audio (High) • Audio (Low) • Audio (Standard) • HEVC Broadband HD (and 4G LTE and higher) • HEVC Cellular large (3G or lower) • HEVC Cellular medium (3G or lower) • HEVC Cellular small (3G or lower) *Job action:* 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.

Create a custom destination in Compressor

You can create a custom destination from scratch, or by duplicating an existing destination.

Create a custom destination by duplicating an existing destination

1. In the Presets pane in Compressor, select the destination that you want to duplicate.

   Note: Make sure you select the destination name (next to the disclosure triangle), rather than any of the presets that appear under the destination name.

2. Click at the bottom of the pane, then choose Duplicate.

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

3. To modify the properties of your new 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.
   - In the Destination inspector, adjust the job action properties in the Action area.
   - In the Presets pane, click the disclosure triangle next to the custom destination, select a preset under the destination name, then in the inspector adjust any of the preset's properties. See View and modify a preset's properties.

     Because you're modifying a custom destination, the properties that you provide for the job action will be saved for future use.

Create a custom destination from scratch

1. In Compressor, click + 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.
   b. Click the "Job action" pop-up menu, then choose an option.
   c. Optionally, 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.
3. To modify the properties of your new 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.
   - In the Destination inspector, adjust the job action properties in the Action area.
   - In the Presets pane, click the disclosure triangle next to the custom destination, select a preset under the destination name, then in the inspector adjust any of the preset's properties. See View and modify a preset's properties.

     Because you're modifying a custom destination, the properties that you provide for the job action will be saved for future use.

Delete a custom destination

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

Adjust the filename and save location

Change an output's filename in Compressor

When you apply a preset to a job, 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, enter a new name, then press Return.

  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.

Change an output's save location in Compressor

A *location* in Compressor specifies where the transcoded file is saved after transcoding. The default save location is Source—the same folder that contains the source file you're transcoding. However, you can manually change the save location of any job in a batch, or set a new default location for specific custom presets.

Change a single output's save location

1. In the batch area in Compressor, Control-click the output row you want to modify.
2. In the shortcut menu, choose 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.

Set a new default save location for a custom preset

1. In Compressor, select a custom preset in the Presets pane.
2. In the General Properties area of the General inspector, click the "Default location" pop-up menu, then choose a new location for the preset.

   Whenever you use this custom preset, its output file will be saved to the new location.

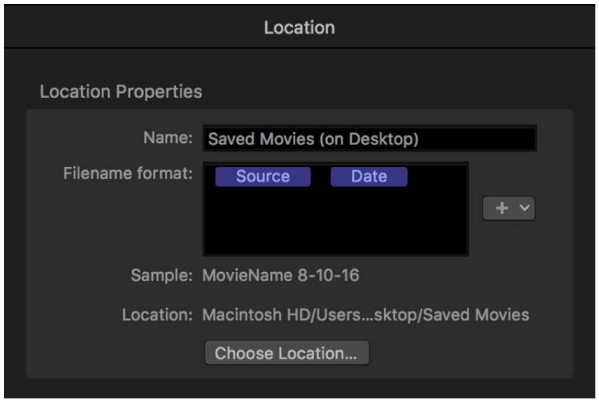
Built-in locations in Compressor

Use the 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.

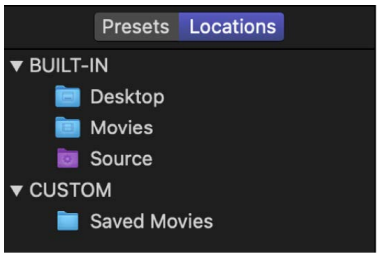
Built-in location	Use to
Desktop	Save the transcoded file to the desktop.
Movies	Save the transcoded file to the Movies folder.
Source	Save the transcoded file to the same location as the source media file.

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 ＋ at the bottom of the Locations pane.
2. In the window that appears, select a location on your computer or on a connected device, then click Choose.

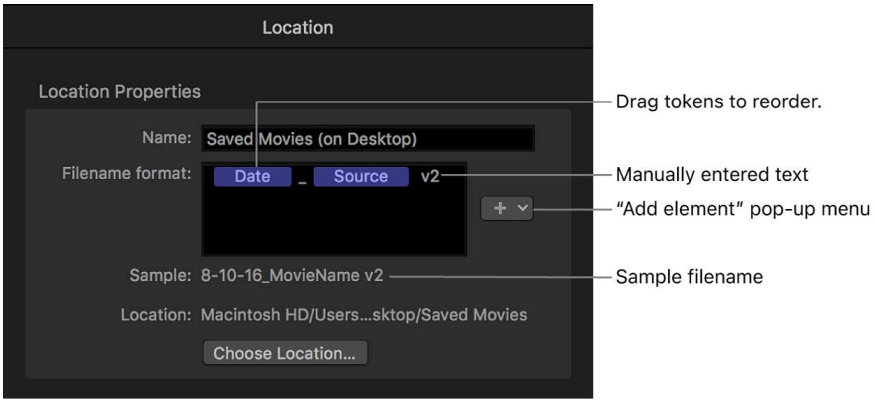
   The new location appears in the Custom area of Locations pane.
3. To modify the properties of the location, do any of the following in the Location inspector:
   - Type a new name in the Name field.
   - Add naming tokens in the “Filename format” field. For instructions on how to modify the filename format, see the next task.
   - 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 shown in the Location inspector. You can change an output’s filename at any time, or you can save a filename format of your choosing by creating a custom location and adjusting its filename format.

1. In Compressor, select a custom location in the Locations pane.

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



2. To modify the filename format, do any the following:
   - *Move existing tokens:* Drag tokens to reorder them, or cut and paste them to a new position in the field.
   - *Add a token:* Click a position in the field to specify where you want to place a new token, then click the “Add element” pop-up menu and choose a token from the list.
   - *Add text:* Click a position 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 is updated.

Delete a custom location

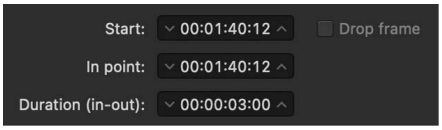
- In the Locations pane in Compressor, select a custom location and then press Delete.

Make adjustments

Modify timing and timecode properties in Compressor

You can adjust the starting timecode of a job in Compressor, as well as which portion of the source media gets transcoded.

1. Select the job in the Compressor batch area.
2. In the Timing area of the Job inspector, modify any of the following properties:



   - *Start:* The starting timecode of the job. Adjusting this value automatically updates the job's In point to the same value.
   - *In point:* The point in the source media where the transcoded output will start. Adjusting this value automatically updates the job's duration.
   - *Duration:* The duration of the transcoded file. Adjusting the duration changes the job's Out point.

   You can change these values by typing directly into their fields, clicking the arrows next to the fields, or dragging over the values themselves.
3. To use drop frame timecode, select the Drop frame checkbox.

Note: Adjusting these properties affects how Compressor interprets the source file itself. To adjust the duration for a specific output row, see Modify frame rate and duration.

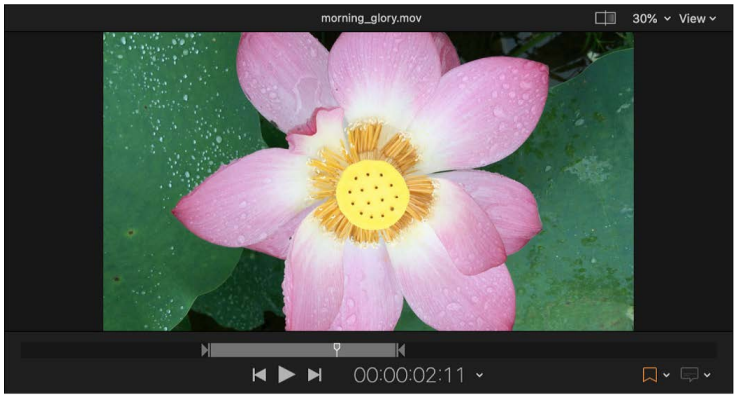
Transcode specific time ranges in Compressor

You can limit transcoding to a specific time range in a job by setting In and Out points.

1. Select a job in the Compressor batch area.

2. In the preview area, do one of the following to mark In and Out points:

    - In the timeline, 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.



    - Click ▶ 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.

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

Note: If you want to transcode multiple portions of the same source media, you need to create a different job for each section you want to transcode.

Modify frame size in Compressor

You can modify the properties of applied or custom presets to set the frame size of your output and to specify how source media fills the frame.

Note: If you modify the properties of an applied preset in the output row of a job, the modifications apply to only that output. If you modify the properties of a custom preset, your modifications are saved for future use.

Set the frame size

1. In Compressor, select an applied or custom preset.
2. In the Video Properties section of the Video inspector, click the “Frame size” pop-up menu and choose a frame size (resolution) from the list (or enter custom values in the text field to the right).

    Frame size options are divided into four categories:

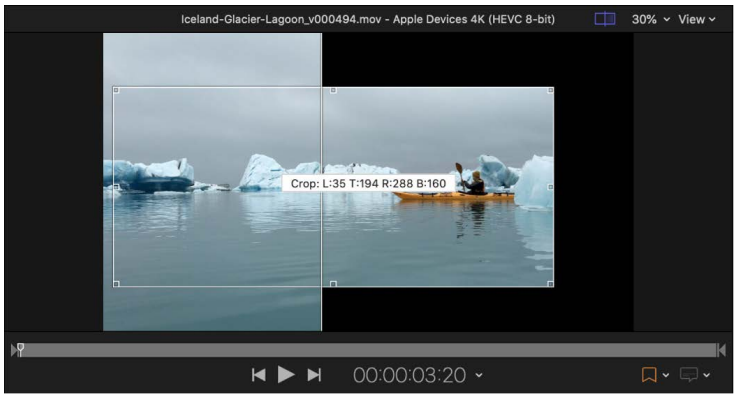
    - *Automatic:* Adjusts the output based on the size of the input, and, in some formats, can be constrained “up to” a maximum resolution (in horizontal, vertical, or square aspect ratios).
    - *Percentage:* Adjusts the output based on a percentage of the input’s size.
    - *Manual:* Forces the output to a specific resolution.
    - *Constrained:* Constrains the output to a specific aspect ratio.

Crop the source image

You can use cropping controls to remove part of the original source image.

1. In Compressor, select an applied or custom preset.
2. In the Cropping, Padding, and Rotation section of the Video inspector, do any of the following:
   - *Manually set cropping dimensions:* In the Cropping property, enter a value in the Top, Bottom, Left, and Right fields to crop the source image by that many pixels.
   - *Choose a cropping preset:* 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, you may see black bars around the edges of your picture after the file is transcoded.
   - *Remove letterbox bars:* 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 remove them.
   - *Drag the frame edges:* In the preview area, click , then drag inward from any frame edge to crop the image.



Pad the source image

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

1. In Compressor, select an applied or custom preset.

2. In the Cropping, Padding, and Rotation section of the Video inspector, do any of the following:

    - *Manually set padding dimensions:* In the Padding property, enter a value in the Top, Bottom, Left, and Right fields to pad the source image by that many pixels.
    - *Choose a padding preset:* Click the Padding pop-up menu, then choose a preset aspect ratio.
    - *Preserve the original frame size:* 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 is set to a different aspect ratio, black borders will be added to the transcoded output file.

Rotate or flip the source image

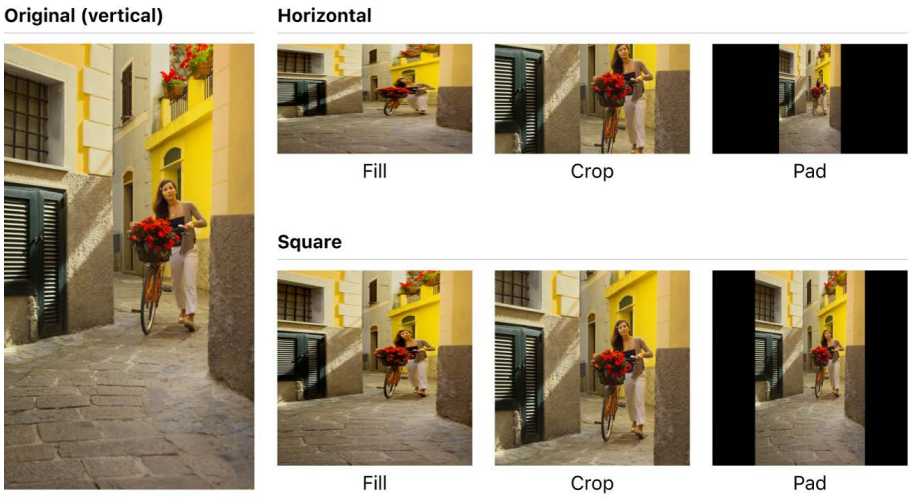
1. In Compressor, select an applied or custom preset.
2. In the Cropping, Padding, and Rotation section of the Video inspector, do one of the following:

    - *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.

Conform the source image to a specific frame size

You can use Compressor to conform video to specific frame sizes for editing or distribution. For example, you may have vertical video from an iPhone that you need to distribute as horizontal video, or you may want to create square video for social media distribution.



1. In Compressor, select an applied or custom preset.
2. In the Video Properties section of the Video inspector, click the “Frame size” pop-up menu, then choose an aspect ratio from the Constrained section.
3. Enter the dimensions of the conforming video frame in the text fields next to the “Frame size” pop-up menu.
4. In the Cropping, Padding, and Rotation section of the Video inspector, do one of the following:
   - *Fill the frame:* Choose None from the Cropping and Padding pop-up menus.
   - *Crop the frame:* Choose a setting from the Cropping pop-up menu that matches the frame size entered in step 3. Compressor crops to the center of your video to fill the frame. To reposition the crop, choose None from the Cropping pop-up menu, then drag the crop box in the Viewer.
   - *Pad the frame:* Click the Padding pop-up menu, then choose Preserve Source Aspect Ratio. Compressor pads your video to fill the frame.

You can also set the method for resizing quality in the Video inspector. See Set retiming and resizing quality.

Modify frame rate and duration in Compressor

You can modify the properties of applied or custom presets to set the frame rate of your output and modify the duration of a transcoded file.

Note: If you modify the properties of an applied preset in the output row of a job, the modifications apply to only that output. If you modify the properties of a custom preset, your modifications are saved for future use.

Set the frame rate

1. In Compressor, select an applied or custom preset.
2. In the Video Properties section of 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 preset formats don’t permit custom frame rates.

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 method for retiming quality. See Set retiming and resizing quality.

Adjust the duration of a transcoded file

1. In Compressor, select an applied or custom preset.
2. 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 duration in the percentage field, or choose a preset value from the pop-up menu.

     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, see the previous task.
   - Click to select the button next to the timecode field and enter a specific duration for the outgoing file. The percentage field above automatically updates.

     Note: This option is available only when you’re modifying an applied preset.
   - Click to select “Set so source frames play at [*frame rate*] fps.” The frame rate used in this option is the value set in the “Frame rate” property in the Video inspector.
3. Adjust the method for retiming quality as needed.

If the source media 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 the timing, frame rate, or frame size of an applied or custom preset, you can choose the methods Compressor uses to retain quality in the transcoded file.

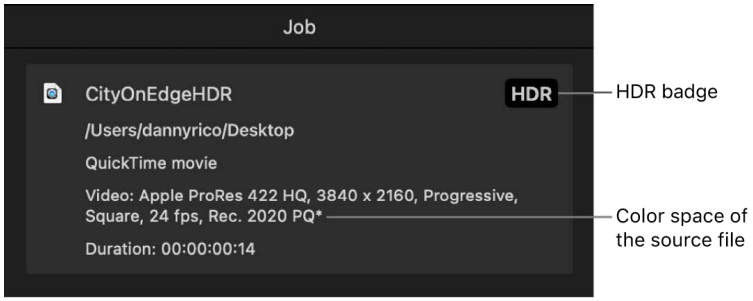
Note: If you modify the properties of an applied preset in the output row of a job, the modifications apply to only that output. If you modify the properties of a custom preset, your modifications are saved for future use.

1. In Compressor, select an applied or custom preset.
2. 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 several 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.

Modify video color space and HDR metadata 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 summary.



Some 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.

Review or override the native color space assigned by Compressor

1. Select a job in the Compressor batch area.
2. In the Video Properties area of the Job inspector, 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.
3. 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, it just changes how Compressor interprets the source media. To transcode to a different color space, see Transcode a video file to a different color space.

View or modify HDR metadata

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. (HDR transcoding in Compressor requires macOS 10.13 or later.)

1. Select a job in the Compressor batch area.
2. In the HDR Metadata area of the Job inspector, view or modify the available properties as needed:
    - *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 enter your own in the value fields.
    - *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).

Transcode a video file to a different color space

Some transcoding presets let you change the color space of the output video.

Note: If you modify the properties of an applied preset in the output row of a job, the modifications apply to only that output. If you modify the properties of a custom preset, your modifications are saved for future use.

1. In Compressor, select an applied or custom preset.
2. In the Video Properties section of the Video inspector, click the “Color space” pop-up menu and choose an option. (The options may vary based on the preset’s format.)
    - *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.

- *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. This standard is used for most digital still images in formats such as JPEG, GIF, PNG, TIFF, BMP, and so on.

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).

Add video and audio effects

Add and remove effects in Compressor

Compressor provides a variety of video and audio effects that you can add to a given preset to improve the quality of the transcoded file or introduce stylistic elements like fades or watermarks. For a full list of available effects, see Video effects and Audio 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.

Note: If you add an effect to an applied preset in the output row of a job, the effect applies to only that output. If you add an effect to a custom preset, the effect is applied whenever you apply the preset.

Add a video or audio effect

1. In Compressor, select an applied or custom preset.
2. Do either of the following:
   - *Add a video effect:* In the Video Effects section at the bottom of the Video inspector, click the Add Video Effect pop-up menu, then choose an option.
   - *Add an audio effect:* In the Audio Effects section at the bottom of the Audio inspector, click the Add Audio Effect pop-up menu, then choose an option.

   After you choose an effect from the pop-up menu, its adjustable properties appear at the bottom of the inspector. You can apply multiple video and audio effects.

3. Preview effects that you've added by clicking ▶ 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.

1. In Compressor, select the relevant preset.
2. Do either of the following:
   - *Turn a video effect on or off:* In the Video Effects section at the bottom of the Video inspector, click the activation checkbox next to the effect name.
   - *Turn an audio effect on or off:* In the Audio Effects section at the bottom of the Audio inspector, click the activation checkbox next to the effect name.

Remove an effect from a preset

1. In Compressor, select an applied or custom preset.
2. Do either of the following:
   - *Remove a video effect:* In the Video Effects section at the bottom of the Video inspector, click the Add Video Effect pop-up menu, then choose a checkmarked item.
   - *Remove an audio effect:* In the Audio Effects section at the bottom of the Audio inspector, click the Add Audio Effect pop-up menu, then choose a checkmarked item.

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

Video effects in Compressor

When you add a video effect to a preset in Compressor, you can choose from the effects listed below.

Video effect	Description
Black/White Restore	Compresses the solid black and white areas in the video. 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. 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 has 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.

Video effect	Description
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 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.
Noise Removal	Reduces random flecks of noise in the video file, including noise introduced by codecs, allowing you to blur areas of low contrast while leaving high-contrast edges sharp. This effect has the following properties: • *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 from this pop-up menu. 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. Drag the slider to set sharpening between 0.0 and 100.0.
Text Overlay	Superimposes text onto the image. This effect has the following properties: • *Position:* Choose a position for the text overlay from the pop-up menu. • *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.

Video effect	Description
Timecode Generator	Superimposes the clip's timecode onto the video. This effect has the following properties: • *Position:* Choose a position for the timecode overlay from the pop-up menu. • *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. This effect has the following properties: • *Position:* Choose a position for the watermark from the pop-up menu. • *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

When you add an audio effect to a preset in Compressor, you can choose from the effects listed below.

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

Audio effect	Description
Apple: AUGraphicEQ	Configures a wide variety of frequencies throughout the audible frequency range. Click Options 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 Flatten EQ 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.

Audio effect	Description
Dynamic Range	Controls audio levels by enhancing the quieter parts and lowering the louder parts. This is also referred to as *audio level compression*. This effect has the following properties: • *Soften above:* Drag the slider to set the level at which audio is reduced to the level set by the “Overall gain” control. • *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, 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. This effect has the following properties: • *Fade in duration/Fade out duration:* Enter a time in the text field to set the duration of the fade-in and fade-out effects. • *Fade in gain/Fade out gain:* Drag the sliders between –100.0 (silence) and 0.0 (the audio’s volume) to set the audio volume at the start and end of the clip.
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.

Add markers in Compressor

A marker flags a specific timing location in a source file. You can use Compressor to append markers to your job with editing notes or other descriptive information.

Markers can be output when using presets based on the Apple Devices (with H.264 codec), MPEG-2, MPEG-4, and QuickTime Movie preset formats. 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.

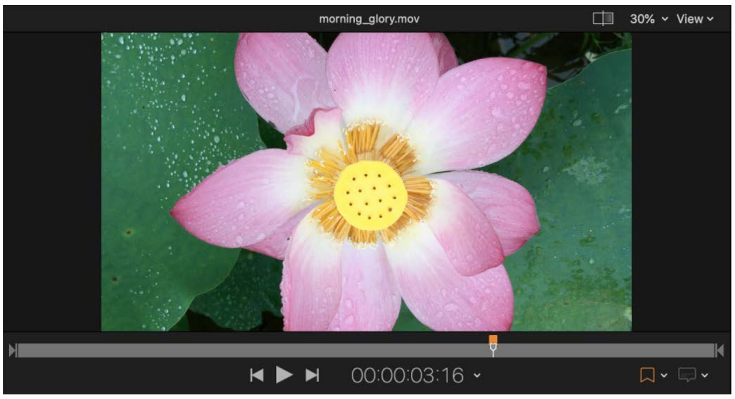
Important: Although you can set and configure markers for all jobs, only jobs that use the output file formats listed above will output a file that includes markers.

Add a marker to a source file

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

   Compression markers and edit markers do not have editable properties. For chapter markers and podcast markers, you can adjust the following properties:

   - *Name:* Enter a name for the marker. 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.
   - *URL:* Enter a web address. When viewing the transcoded file, you can click the URL to open a web browser and view a website.
   - *Image:* Select an image to be displayed at the marker point. You can set no image, use the frame on which the marker is placed, or upload a different image file.

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.

- In the Compressor preview area, click the arrow next to the Marker button , then choose an item in the Default Marker category.

Hide markers

Compressor can show or hide different types of markers.

- In the Compressor preview area, click the the arrow next to the Marker button , then choose 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 ▶| or |◀ 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, then click .

Add markers using a chapter marker list

You can import a list of timecode points into Compressor 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 .chp 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, import it into Compressor:

1. In Compressor, 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 your 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.

Marker types in Compressor

Compressor can create the following types of markers:

Marker type	Description
Chapter markers	Generate named index points for 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.

Marker type	Description
Edit markers	Function identically to compression markers and 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.

Set a poster frame in Compressor

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

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 Compressor, select the job that contains the source file that you want to set a poster frame for.
2. In the preview area, position the timeline playhead at the frame you want to be the poster frame.
3. Click the arrow next to the Marker button, then choose Set Poster Frame.

A poster frame marker appears in the timeline.

After you set a poster frame, you can jump to that frame at any time by clicking the arrow next to the Marker button, then choosing Go to Poster Frame.

Remove the poster frame

- In the Compressor 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.

Add annotations to a media file

1. In Compressor, select the job that contains the source file you want to annotate.
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.

   Note: You can also import metadata annotations from an external QuickTime movie or from an XML dictionary property list by clicking the Fields pop-up menu, then choosing Import. 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`

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 the next task.

Modify pass-through metadata

You can choose how to handle metadata in your transcoding presets.

Note: If you add an effect to an applied preset in the output row of a job, the effect applies to only that output. If you add an effect to a custom preset, the effect is applied whenever you apply the preset.

1. In the Compressor batch area, select an applied or custom 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 transcode.
   - *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.

View annotations after transcoding

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

- In the macOS Finder, select the transcoded media file, choose File > Get Info, then 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. For more information, see the Final Cut Pro for Mac User Guide.

Preview and transcode

Intro to previewing and transcoding in Compressor

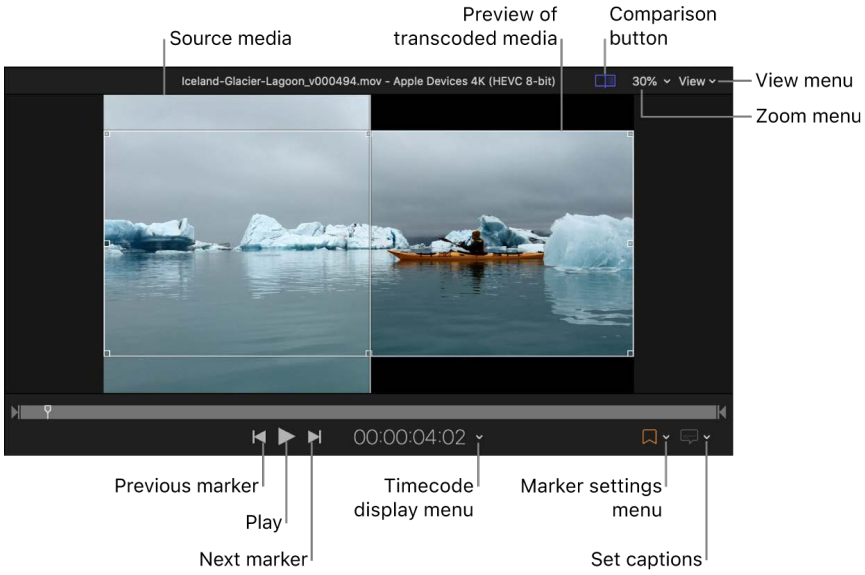
After you import source media and apply transcoding instructions in Compressor, there are only a few steps left in the transcoding process:

- 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.



Preview how a transcoded file will look and sound

1. In Compressor, select an applied preset's output row in the batch area.
2. Do either of the following:
   - Click  in the preview area if it isn't already highlighted.
   - Click View (in the upper-right corner of the preview area), then, under Display options, choose Source and Output.

   A divider appears in the preview area, with the source media on the left side and the transcoded file on the right side.

   Tip: Click and drag the divider in the middle of the preview area to see more or less of the source media.
3. Click ▶.

   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).

Customize the preview area

Use any of the following controls to customize the preview area:

- *Change the timecode display:* Click the disclosure arrow to the right of the timecode in the preview area, then select Timecode, Seconds, or Frames.
- *Choose which aspect ratio to use in the preview:* Click View, then, under Aspect Ratio, choose Source or Output.
- *Zoom in or out of the preview area:* Click the Zoom pop-up menu (in the upper-right corner of the preview area), then choose a zoom level.

  Note: 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 by dragging the inner box of the navigation control (in the upper-right corner of the zoomed-in preview area).
- *Change the background of the preview area:* Click View, then, under Background, choose an option:
  - *Black to Media Edge:* The preview area background is dark gray. (If the source media file has an alpha channel, the transparent area is black.)
  - *Black:* The preview area background is black.
  - *White:* The preview area background is white.
  - *50% Gray:* The preview area background is light gray.
  - *Checkerboard:* The preview area background is a checkerboard pattern.

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 eye" or "Right eye."

   Note: The default eye view is labeled "hero."

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.

View caption text in the preview area

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

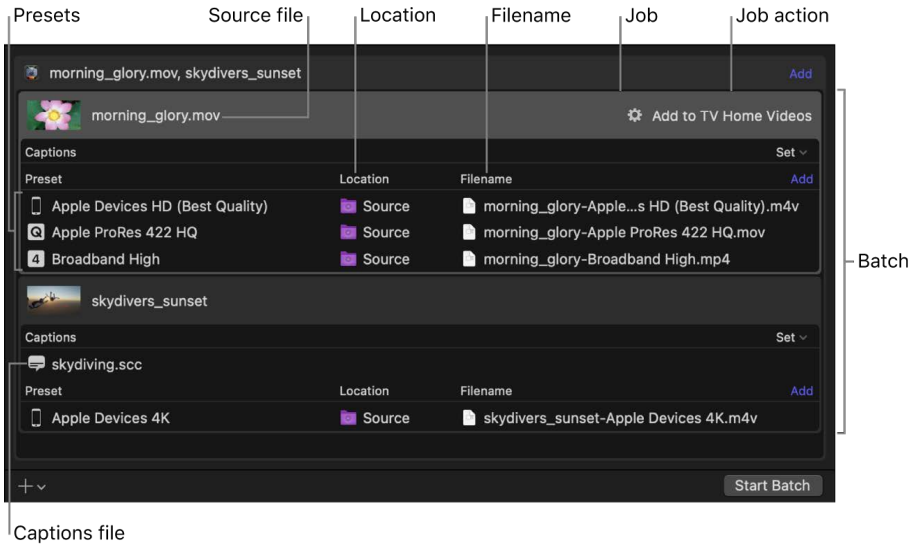
1. In the Compressor batch area, select the output row for the job containing closed-caption data.
2. In the preview area, click .

   When this button is highlighted, captions are shown in the preview area.
3. To stop displaying captions, click again.

For specific information about previewing iTunes Store packages, see Build an iTunes Store package.

Review batch details in Compressor

After applying transcoding instructions in Compressor, you can review all of the relevant details in the batch area.



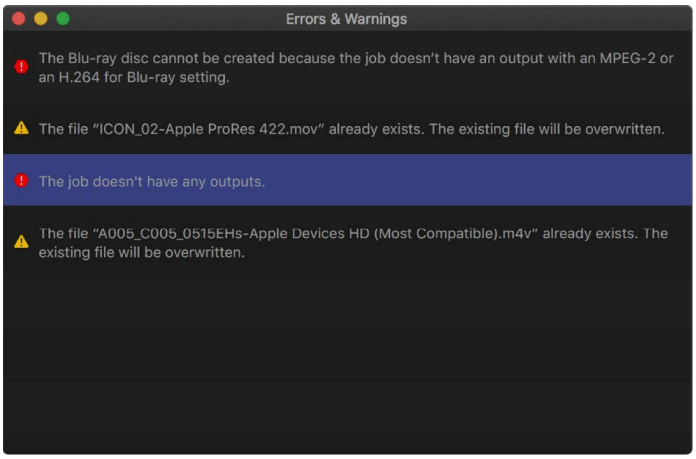
- *Source file:* The media file that you want to transcode.
- *Preset:* The transcoding instructions that specify how the file will be processed. Compressor provides a variety of built-in presets that you can use to output files in common media formats, or you can create a custom preset.
- *Location:* 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 enter a new filename.
- *Job action:* An optional post-transcoding action you can add to a job. Each of the built-in destinations already contains a job action. See Job actions.
- *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 Import 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 in the batch area.

   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 item 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.

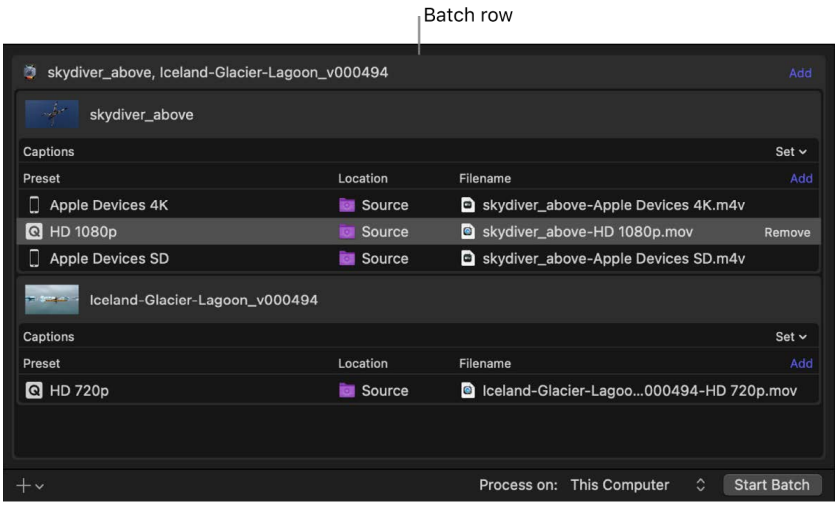
For more information about reviewing errors in captions files, see View caption error warnings.

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.

View batch properties

- In Compressor, click the batch row at the top listing all of the source files in the batch.



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.

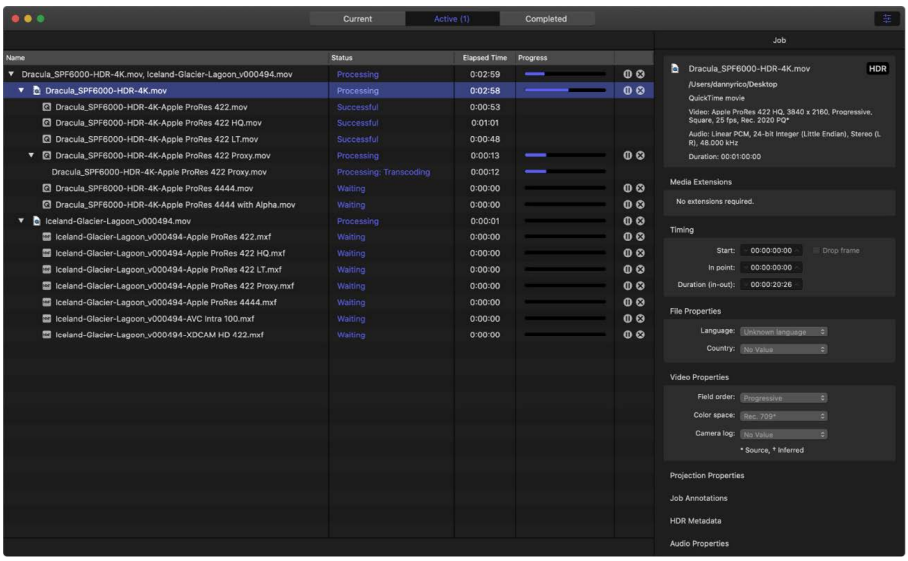
Transcode a batch

- 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.

Monitor transcoding progress

In Active view, you can see the status of transcoding jobs that are in progress.

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

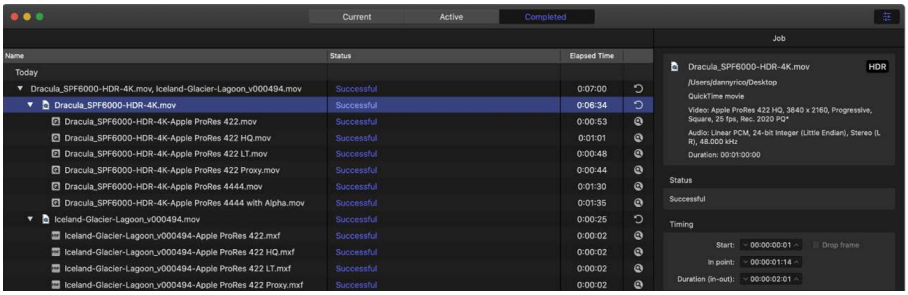


2. Select a batch, job, or output row to view more details in the inspector.
3. On the right side of a batch, job, or output row, click ⏸ to pause transcoding, ▶ to resume transcoding, or ✕ to cancel transcoding.

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 to view more details in the inspector.
3. Optionally, do either of the following:
   - Click 🔍 on the right side of an output file's row to view the file in the macOS Finder.
   - Click ↺ on the right side of a batch or job row to create a new job or batch with the same source media and transcoding instructions.

Transcode Final Cut Pro and Motion projects in Compressor

If you have Final Cut Pro or Motion installed on the same computer as Compressor, you can send sequences or clips from Final Cut Pro or Motion directly to Compressor for transcoding.

Important: You cannot mix projects and clips in a batch share. Your selection must be projects only or clips only. Transcoding across apps requires Final Cut Pro 10.2 or later or Motion 5.2 or later and Compressor 4.2 or later.

For more information, see the Final Cut Pro User Guide and the Motion User Guide.

Tip: You can configure Compressor to use your computer's GPU to process Final Cut Pro content sent to Compressor.

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, click ＋⌄, 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.
3. To add a preset to your group, drag it to the group name in the Presets pane.

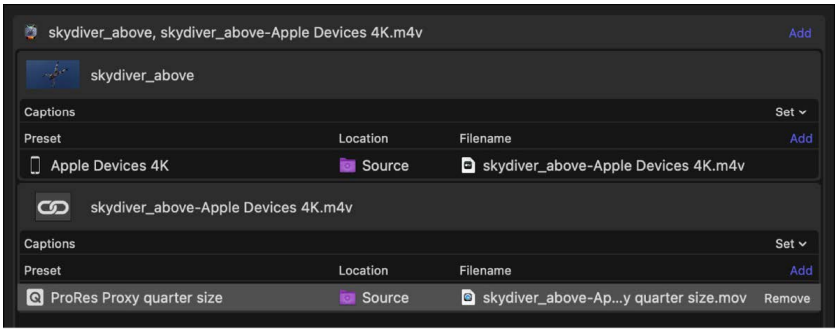
   Note: You can only add custom presets to a preset group. If you want to add one of Compressor's built-in presets to your preset group, you can duplicate it.

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 the Compressor batch area, Control-click the output row that you want to use as a source, then choose New Job With Selected Output from the shortcut menu.

   A new job with a link icon appears at the bottom of the batch area.



2. Add presets or other transcoding instructions to the new linked job as needed.

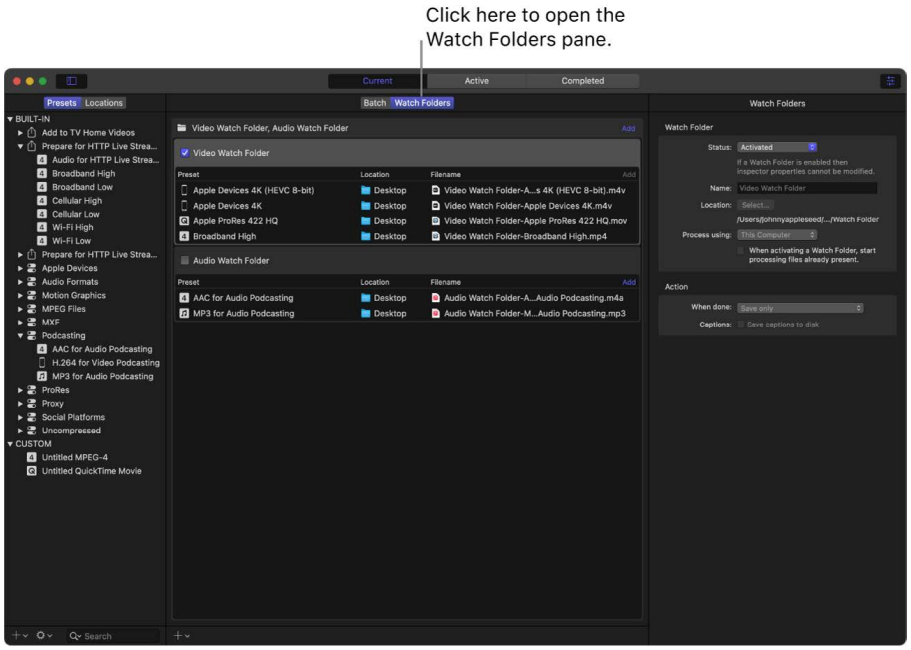
Use a watch folder to automatically transcode files

You can designate any folder on your Mac or on a connected device to be a *watch folder* that automatically transcodes any media files you add to it.

Note: Watch folders can be used to transcode frame-packed stereoscopic source files with accurate metadata; however, they cannot be used to transcode other stereoscopic formats.

Open the Watch Folders pane

- Click Watch Folders at the top of the Current view in the Compressor window.



Note: 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

1. In the Watch Folders pane of Compressor, do one of the following:
   - Click Add in the top right-corner.
   - If you don't have any watch folders yet, click the Add Watch Folder button in the middle of the pane.
2. In the window that appears, select a folder, then click Add.

   This is the folder where you can add the source media that you want to transcode automatically.
3. In the 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.

   These are the transcoding instructions that Compressor will automatically apply to any files you add to the watch folder, and the location where the transcoded files are saved.

Add and remove presets from a watch folder

In the Watch Folders pane, you can add and remove presets the same way you add and remove presets in the batch area.

1. In the Watch Folders pane of Compressor, click Add on the right side of the watch folder's Preset/Location/Filename row.
2. In the window that appears, select one or more presets, choose a save location from the pop-up menu, then click OK.

   Tip: You can also add a preset by dragging it from the Presets pane to a watch folder in the Watch Folders pane.
3. To remove a preset from a watch folder, do either of the following:
   - Select the preset's output row, then press Delete.
   - Position the pointer over the preset's output row, then click Remove (on the right side of the row).

Add a job action to a watch folder

You can add a job action to a watch folder to be performed on the output files after transcoding.

1. In the Watch Folders pane of Compressor, select a watch folder.

   When a watch folder is selected, its properties are shown in the inspector pane.
2. In the Action area of the inspector, click the "When done" pop-up menu, then choose a job action.

   Additional properties may appear, depending on the job action you select. See Job actions.

Activate or deactivate a watch folder

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

Note: A watch folder must have at least one preset applied to it to be activated.

In the Watch Folders pane 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.

To deactivate a watch folder, click the checkbox again, or set the status in the pop-up menu to Deactivated.

View and modify watch folder properties

1. In the Watch Folders pane of Compressor, select a watch folder.

   When a watch folder is selected, its properties are shown in the inspector pane.

2. Adjust any of the following properties:

   - *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 Compressor. This doesn't change the name of the folder in the macOS Finder, but it affects the name of the automatically created output folder if you choose Automatic for the output location.
   - *Location:* Choose a 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.

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 macOS 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.

   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 ⚙, 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. From the macOS 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, optionally do either 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.

Files you transcode using a droplet are visible in Active view and Completed view in the main Compressor window.

Advanced transcoding

Work with stereo 3D video

Encode spatial video for Apple Vision Pro in Compressor

Compressor can transcode stereoscopic 3D source video captured 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 stereoscopic file types 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 spatial video recorded with the Camera app on iPhone 15 Pro, iPhone 16, iPhone 16 Pro, or Apple Vision Pro

1. In Compressor, do one of the following:
   - Choose File > Add File.
   - At the bottom of the batch area, click ＋⌄, then choose Add File.
2. Do one of the following:
   - *Import a frame-packed encoded stereoscopic video:* Select the source file, then click Add. In the Job inspector, click the Stereoscopic pop-up menu, then choose Side by Side or Over/Under, depending on the frame-packing format of the source file.
   - *Import a separate video file for each eye:* Select the left-eye video, then click Add. In the Job inspector, click the Stereoscopic pop-up menu and choose Separate Files. Click Choose next to Right, select the right-eye video, then click Open.
   - *Import an MV-HEVC-encoded spatial video:* Select the source file, then click Add.
3. Set or override stereoscopic job properties of your source media as needed.

Apply Apple Vision Pro MV-HEVC transcoding instructions

1. In the Compressor batch area, click Add on the right side of the Preset/Location/Filename row under the stereoscopic source media, then choose the Apple Vision Pro (MV-HEVC, Stereoscopic) preset.
2. In the Video inspector, make sure the Stereoscopic pop-up menu is set to Both Eyes (Multiview); this automatically sets the Codec pop-up menu to MV-HEVC.

   Note: These settings are required to output spatial video compatible with Apple Vision Pro.
3. Adjust other properties in the General, Video, and Audio inspectors as needed.

   For more information on stereoscopic and spatial properties, see Modify stereoscopic and spatial properties in Compressor.
4. 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 add the Apple Vision Pro (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.

Modify stereoscopic and spatial properties in Compressor

There are two places to adjust the properties of stereoscopic video and spatial video in Compressor:

- *Job inspector:* When you import stereoscopic or spatial source media, Compressor detects any stereoscopic or spatial metadata present in the file and displays that information in the Job inspector. If the source video has no stereoscopic or spatial metadata, or if that metadata is incorrect, you can assign it in the Job inspector.
- *Video inspector:* When you apply a preset to a stereoscopic job, Compressor configures stereoscopic and spatial properties for the transcoded file accordingly. If necessary, you can modify these properties in the Video inspector.

Adjust stereoscopic and spatial properties of source media

When you import stereoscopic source media, Compressor automatically tries to determine the associated stereoscopic properties. You can set or override these properties in the Job inspector.

1. Select a stereoscopic job in the Compressor batch area.
2. In the Projection Properties area of the Job inspector, set or override the following stereoscopic properties:
    - *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 eye options become available (and the job's source file is automatically assigned to the left eye). To assign a source file for the right eye, click Choose next to Right, then select a file.

      Note: The Separate Files option uses audio in the left-eye file and ignores audio in the right-eye file.
    - *Hero Eye:* Choose whether the left or right eye should be used as the hero eye (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.
    - *Projection:* Use this pop-up menu to set the projection mode for 360° video. See Work with 360-degree video.

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 all controls in the Projection Properties area 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.

Modify stereoscopic and spatial properties of custom and applied presets

To configure the stereoscopic or spatial settings of your transcoded output, you can modify the settings of an applied or custom preset in the Video inspector.

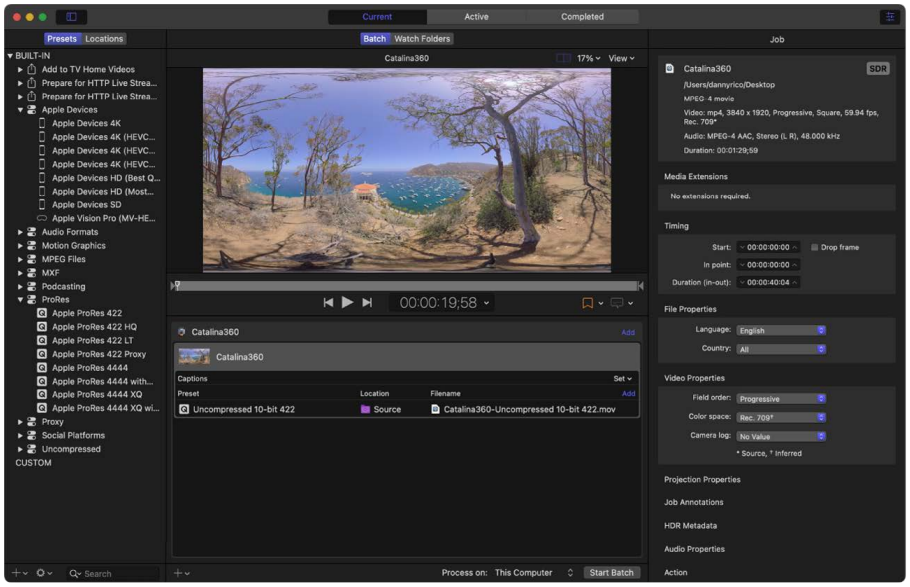
1. In Compressor, select a custom preset in the Presets pane or select an applied preset in the batch area.
2. In the Video Properties section of the Video inspector, click the Stereoscopic pop-up menu, then choose an option to set the left- and right-eye format:
    - *Automatic:* Compressor assigns a stereoscopic 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.
    - *Left Eye Monoscopic:* Uses the left-eye view of the stereoscopic source to output a monoscopic video.
    - *Right Eye Monoscopic:* Uses the right-eye view of the stereoscopic source to output a monoscopic video.
    - *Over/Under:* Sets the transcoded video to a frame-packed stereoscopic output in which the left-eye view is the top of the image and the right-eye view is the bottom of the image.
    - *Side by Side:* Sets the transcoded video to a frame-packed stereoscopic output in which the left- and right-eye views are shown next to each other.
    - *Both Eyes (Multiview):* Uses both eye views of the stereoscopic source to output a stereoscopic video. Choosing this option automatically sets the codec to MV-HEVC.
3. In the Video Properties section of the Video inspector, click the Spatial Video pop-up menu, then choose to include or exclude spatial metadata in the transcoded video:
    - *Automatic:* Automatically applies any spatial metadata contained within the source file.
    - *Off:* Does not include spatial metadata in the transcoded video.
    - *On:* 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.)

View and modify 360° video properties in Compressor

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.

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 360° video in the correct format (including monoscopic or stereoscopic view), and 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.



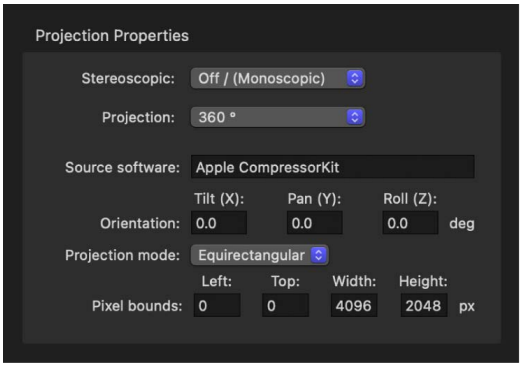
There are two places to adjust the properties of 360° video in Compressor:

- *Job inspector:* When you import a 360° video source file, Compressor 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.
- *Video inspector:* When you apply a preset to a 360° video job, Compressor configures 360° properties for the transcoded file accordingly. If necessary, you can modify these properties in the Video inspector.

Adjust 360° properties of source media

When you import a 360° video source file, Compressor automatically tries to determine the associated 360° properties. You can set or override these properties in the Job inspector.

1. Select a 360° video job in the Compressor batch area.
2. In the Projection Properties area of the Job inspector, make sure Projection is set to 360°.



3. If necessary, add or modify the following 360° 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, equirectangular projection 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, cubic projection 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 if necessary. 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. 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.

    Note: If you modify 360° 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.

Modify 360° properties of custom and applied presets

To configure the 360° properties of your transcoded output, you can modify the settings of an applied or custom preset in the Video inspector.

1. In Compressor, select a custom preset in the Presets pane or select an applied preset in the batch area.
2. In the Video Properties section of the Video inspector, click the "360° metadata" pop-up menu and choose an option:
    - *Automatic:* Compressor chooses the metadata format based on the properties in the Job inspector and the other settings of the preset. 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 video sharing sites.
    - *Spherical Video V2:* A more up-to-date 360° metadata format.

Work with audio

View and modify audio tracks in Compressor

Some jobs in Compressor can contain multiple audio tracks. You can view these tracks, enable or disable them, or reconfigure them into alternative formats, if necessary, to ensure they're correct in your transcoded output files.

Change the channel configuration of a source audio track

1. Select a job in the Compressor batch area.
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 channel configuration.

   Depending on the number of channels 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. Select a job in the Compressor batch area.
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 excluded when you transcode any files in the batch.

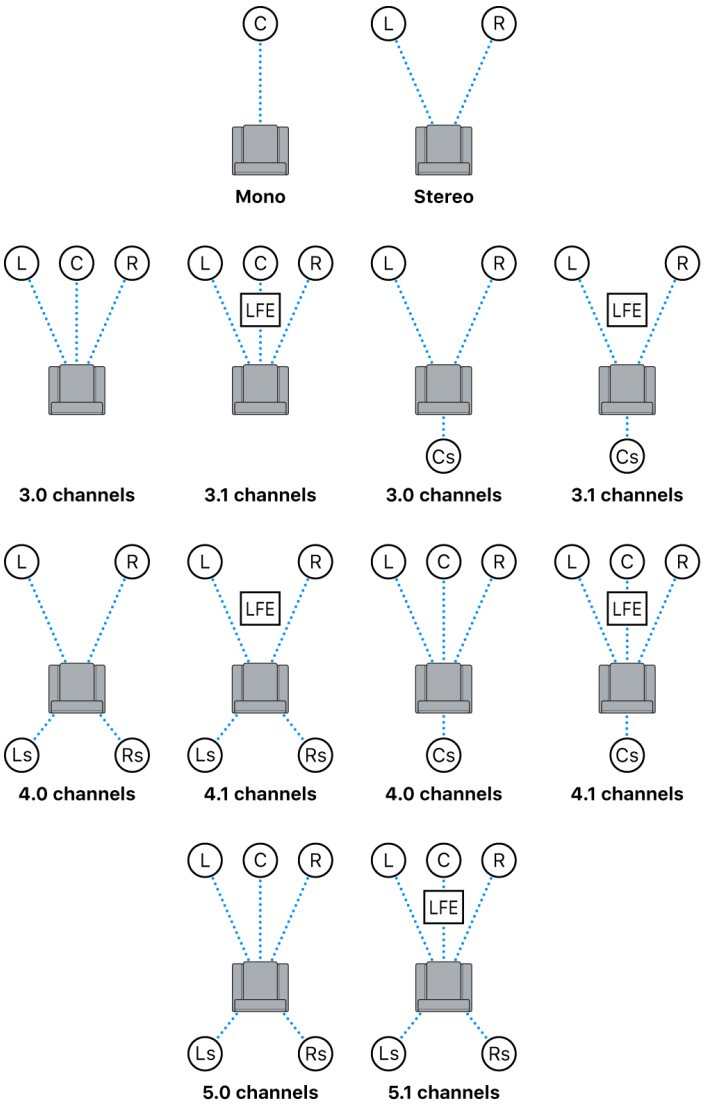
Tip: iTunes Store packages have specific audio requirements. You can use the methods described above to ensure that your audio is properly assigned for a successful submission to the iTunes Store.

Audio channel layouts in Compressor

Most of the audio presets in Compressor provide mono and stereo 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: 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.

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 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 have low vision by adding descriptive audio tracks. Compressor can extract the descriptive audio tracks from audio file types like WAV or AIFF, or from video file types like MOV. In Compressor, you can embed descriptive auto tracks such as 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. Select a job in the Compressor batch area.
2. In the Audio Properties area of the Job inspector, click Choose next to Descriptive Audio, select a file containing descriptive audio tracks, then click Open.

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

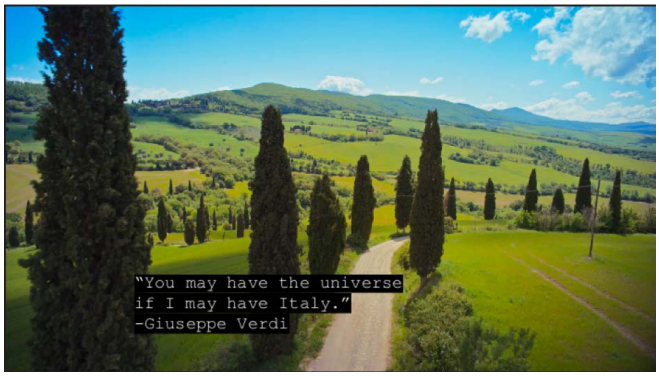
Remove descriptive audio tracks

1. Select a job in the Compressor batch area.
2. In the Audio Properties area of the Job inspector, click ⊗ to remove all descriptive audio tracks.

Work with captions

Import captions in Compressor

Captions are lines of text superimposed over video and synchronized to the video and audio. Compressor lets you import a variety of caption files, as well as edit and export captions.



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 captions for you.

You can also add captions to an iTunes Store package. See Build an iTunes Store package.

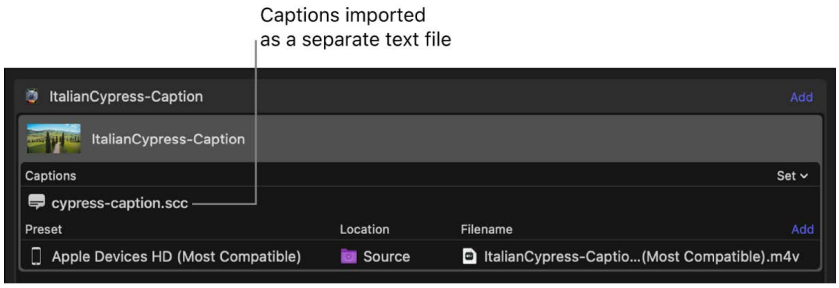
Note: Compressor is not a captions-authoring tool. To create CEA-608 closed captions, iTT subtitles, or SRT subtitles from scratch, use Final Cut Pro or a third-party captions-authoring app to output a .scc text file, a .itt text file, or a .srt text file, then import the captions file into Compressor.

Add a captions text file to a job

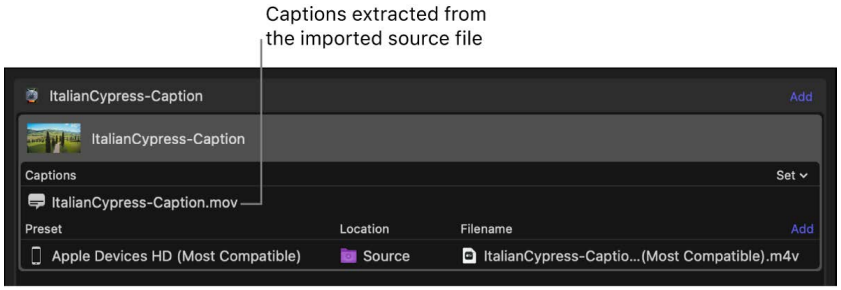
After you add a job to Compressor, you can add a captions text file.

1. In the Compressor batch area, click Set on the right side of the Captions row, then click Choose File.
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.

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



Note: If you import a source file that already contains embedded CEA-608 captions, Compressor automatically adds the caption file to the job with the same name as the source video file.



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, click Choose File, then select a different captions file.

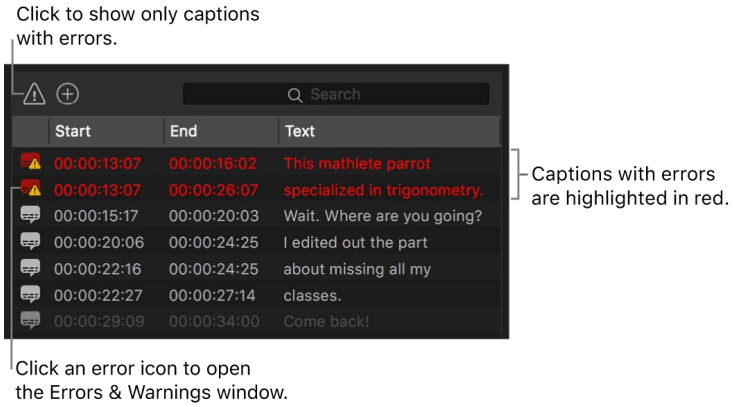
  The new file appears in the row under the Captions heading.

- *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 error warnings

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

1. In the Compressor batch area, select the captions file.
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.

After adding captions to a job in Compressor, you can edit the captions, export captions files, and preview your captions.

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, they each have 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.

1. In the Compressor batch area, select the captions file.
2. In the Captions inspector, 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.
3. *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.

Modify text color and style

The captions formatting controls 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.

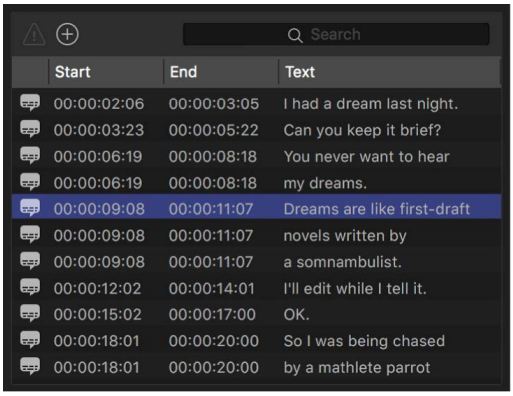
1. In the Compressor batch area, select the captions file.
2. In the Captions inspector, click the caption that you want to modify.
3. In the Caption Text field, select the text you want to modify.
4. In the Formatting area, select a font style (bold, italic, or underscore) from the Format row.
5. In 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).
   - *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.

Edit caption content and placement

1. In the Compressor batch area, select the captions file.
2. In the Captions inspector, click the caption that 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.

   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 . 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, the caption may require several frames to appear onscreen).

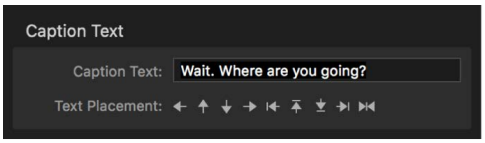
3. Click in the Caption text field, then edit the text.

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

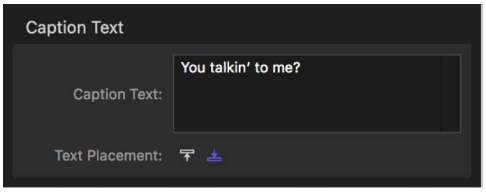
   Each iTT subtitle can span dozens of characters—from the left margin of the frame to the right margin—but each subtitle is limited to two lines.

   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.

4. To modify the position of the caption in the video frame, click a Text Placement arrow.



Text Placement controls for CEA-608 closed captions



Text Placement controls for iTT subtitles

   The caption is repositioned in the video frame.

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

Add or delete a caption

You can also add new captions or delete captions in 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. Select the captions file in the batch area.
3. Click ⊕ above the captions list in the Captions inspector.
4. 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.

   Important: 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.
5. To delete a caption, select it in the captions list, then press Delete.

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

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

1. In the Compressor batch area, select the captions file.
2. In the Captions inspector, select one or more captions from the captions list.

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

Adjust caption timing in Compressor

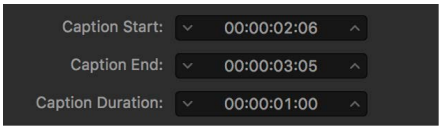
When you add captions to a job in Compressor, the timecode values in the imported captions file are synchronized to the timecode in the video source file.

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 Compressor batch area, select the captions file.
2. In 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 Formatting area of the inspector.



3. To modify the Caption Start and Caption End timecodes, type directly into their fields, click the arrows next to the fields, or click and drag over the timecodes themselves.

   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).

4. To modify the Caption Duration value, type directly into its field, click the arrows next to the field, or click and drag over the value itself.

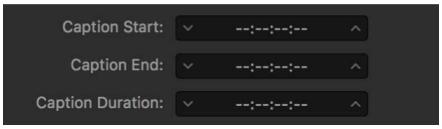
   Changing a caption's duration also modifies its end point.

Modify the timing of multiple captions at the same time

1. In the Compressor batch area, select the captions file.
2. In 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 Formatting area of the inspector display dashes.



3. 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.
4. 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.

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.

1. In the Compressor batch area, select the captions file.
2. In the Captions inspector, 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.

Important: 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.

Export captions in Compressor

In a standard Compressor batch, the transcode preset and captions format you choose determines how Compressor outputs a job with captions. Only CEA-608 closed captions can be embedded in your video output, and only the Apple Devices, MPEG-2, MPEG-4, and QuickTime Movie preset formats support captions exporting.

Embed CEA-608 captions in a transcoded file

1. In the Compressor batch area, select an output row from a job with a CEA-608 captions file.
2. In the General inspector, make sure “Embed CEA-608 closed captions” is selected in the Captions area.
3. Click Start Batch.

   Your transcoded file will have captions data embedded in the video.

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.

Output a separate captions file with your transcoded file

1. Select a job with any type of captions file in the Compressor batch area.
2. In the Job inspector, select “Save captions to disk” in the Action area.

   Note: You can’t export captions if the job already has a job action assigned to it.
3. Click Start Batch.

Work with interlaced footage

Use deinterlacing in Compressor

When working with interlaced video, you can *deinterlace*, or remove the fields from an interlaced video clip, by converting it to a progressive frame rate.

1. In Compressor, select an applied or custom preset.
2. In the Video Properties section of the Video inspector, choose an option from the “Field order” pop-up menu:
   - *Automatic:* Selects the most appropriate field order based on the field order of the source.
   - *Progressive:* The video is displayed in complete frames with all lines sampled at the same instant in time.
   - *Top First:* 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.
   - *Bottom First:* 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.

Use reverse telecine in Compressor

Telecine is the process of converting motion picture film to the NTSC video format used in broadcast television. You can use Compressor to perform a reverse telecine frame rate conversion on telecined footage.

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.

1. In Compressor, select an applied or custom preset.
2. In the Video Properties section of the Video inspector, click the "Frame rate" pop-up menu, then choose 29.97.
3. In the Quality section of the Video inspector, click the "Retiming quality" pop-up menu, then choose Reverse Telecine.

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.

Create iTunes Store packages

Build an iTunes Store package in Compressor

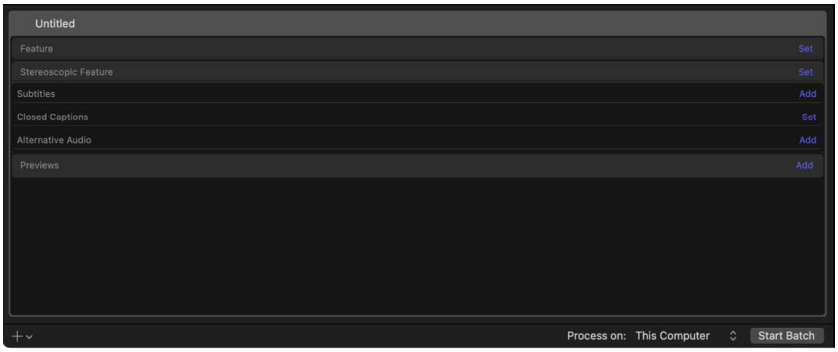
You can use Compressor to assemble your media and supplemental materials into an iTunes Store package. After creating the package, you can work with a delivery partner to submit it to the iTunes Store. During submission, the delivery partner includes additional required metadata and other materials to 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, see iTunes Connect Resources and Help and Apple TV for Partners.

Create an iTunes Store package

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

   An iTunes Store package job appears in the batch area.



2. To add the primary video of your submission, click Set on the right side of the Feature row, select a video file from the dialog that appears, then click Open.

   Tip: You can also add your video by dragging it from the Finder onto the Feature row.

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

3. To configure the job properties of your iTunes Store package, select the feature filename to reveal the Job inspector, then set the file's language and country, and optionally make adjustments to the timecode, color space, and burned-in text.

4. To modify video or audio properties of the primary video, select the feature filename, open the Video or Audio inspector, then adjust the property values.

   Important: The iTunes Store requires specific video and audio presets in your package submission. Unless you know exactly what presets to change and why, it's not advisable to make changes to the video or audio properties of the Feature or Preview items in your iTunes Store Package job.

5. To add supplemental files like subtitles, closed captions, or alternative audio, click Add or Set on the right side of the corresponding row, select a file from the dialog that appears, then click Open.

   Tip: You can also add supplemental files by dragging them from the Finder onto the Subtitles, Closed Captions, or Alternative Audio row.

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

   Important: Subtitle files must be iTT (iTunes Timed Text) subtitles, and closed-caption files must be CEA-608 closed captions.

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

   To reselect the audio track from the main feature as the primary audio, select in the feature row.

7. To add a short preview video, click Add on the right side of the Previews row, select a video file from the dialog that appears, then click Open.

   Tip: You can also add a preview video by dragging it from the Finder onto the Previews row.

   Compressor adds a row containing the selected video file to the job. You can adjust its properties by selecting the preview video filename, then making changes in the inspector.

For more information on creating iTunes Store packages with HDR or stereoscopic footage, see Build an HDR package and Build a stereo-3D package.

Configure subtitles, closed captions, and alternative audio tracks

After you add subtitles, closed captions, or alternative audio tracks to a job, you must configure those elements to ensure that they're labeled with the correct language and other settings.

1. In the Compressor batch area, select a row under the Subtitles heading to reveal the Subtitles inspector.
2. In the Subtitles inspector, choose options from the Language pop-up menu, the Country pop-up menu, and the Purpose pop-up menu.

   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 to reveal the Closed Captions inspector.
4. In the Closed Captions inspector, choose options from the Language pop-up menu and the Country pop-up menu.

   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 to reveal the Alternative Audio inspector.

6. In the Job pane of the Alternative Audio inspector, do the following:
    - Choose options from the Language pop-up menu and Country pop-up menu.
    - 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 in the corresponding row. When an alternative audio track is selected as the primary audio track, it’s locked to the language of the feature video.

      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.
    - 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.

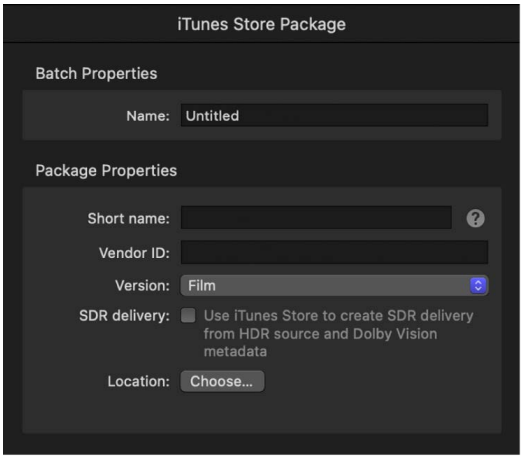
      Important: For a Dolby Atmos track to be the primary audio for the package, “Downmix to Stereo” must be selected. If “Downmix to Stereo” is deselected, the track is also deselected as primary audio.

Tip: You can choose which subtitles or closed captions file to see in the preview area by clicking . You can choose which audio to preview by clicking .

Configure an iTunes Store package

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

1. In the Compressor batch area, click the top of the iTunes Store Package to reveal the iTunes Store Package inspector.



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 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.

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 filename or a preview video filename.
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.
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 Start Batch.

  Compressor transcodes all the files, combining them into a single package file.

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 of the iTunes Store Package to reveal the iTunes Store Package inspector.

3. In the iTunes Store Package inspector, enter a name, then 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 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 Start Batch.

   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.

Compressor can't directly submit a package to the iTunes Store; most content creators use a delivery partner to submit their iTunes Store package. 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).

Build an iTunes Store package with HDR content 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.

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).

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

   An iTunes Store Package job appears in the batch area.

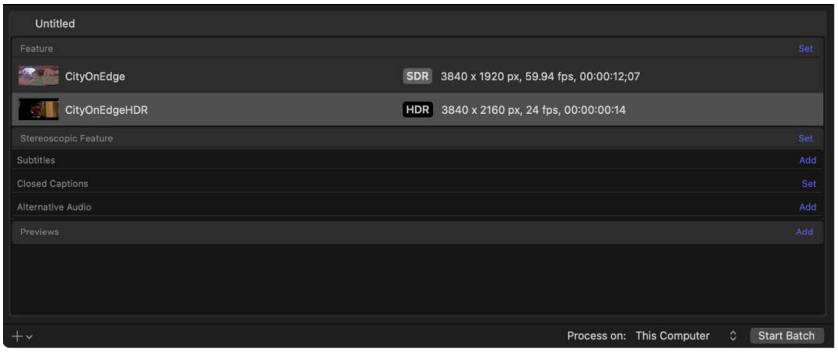
2. To add the SDR feature video to the package, click Set on the right side of the Feature row, select an SDR video file, then click Open.

   An output row containing the selected video file (and an SDR badge) is added to the job.

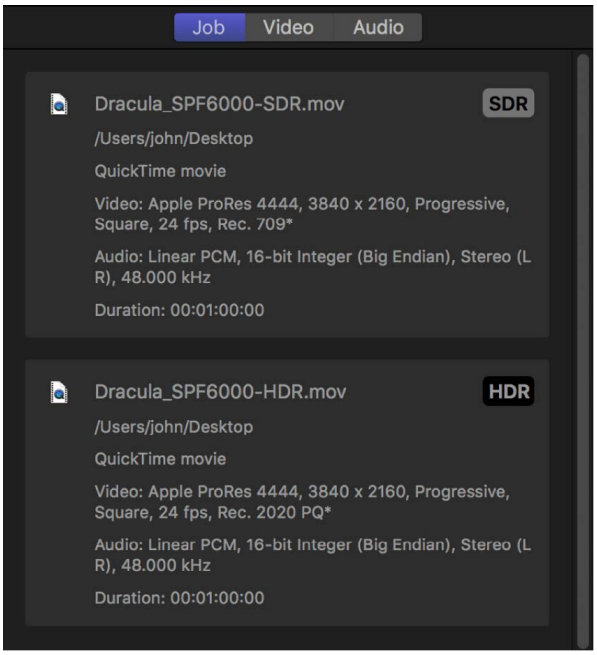
3. To add the HDR feature video to the package, click Set on the right side of the Feature row, select an HDR video file, then click Open.

   An output row containing the selected video file (and an HDR badge) is added to the job.

   Tip: You can also add SDR and HDR videos by dragging them from the Finder onto the Feature row.

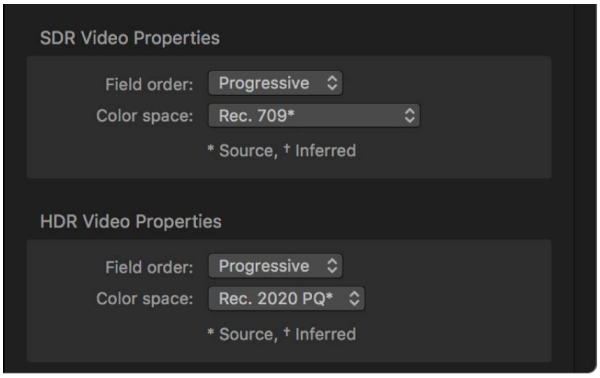


Separate summaries for both the SDR and HDR source files appear in the Job inspector.



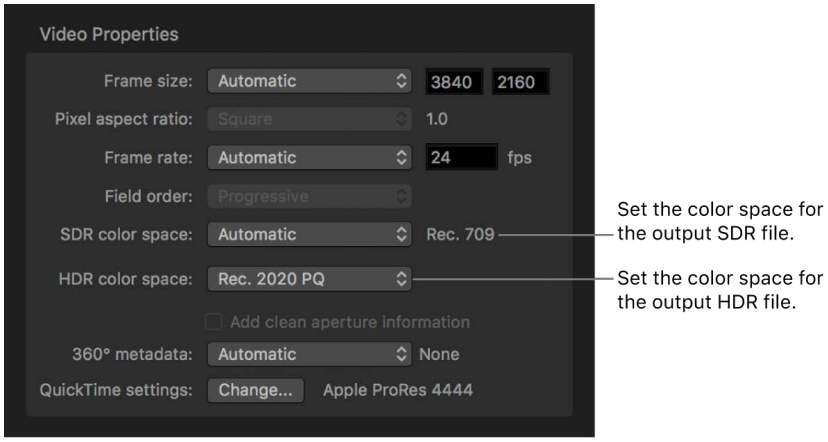
4. In the Job inspector, review the SDR Video Properties and HDR Video Properties areas to ensure that Compressor has correctly detected the native color space of each file.

   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 pane of the 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.

Note: 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.

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. 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.

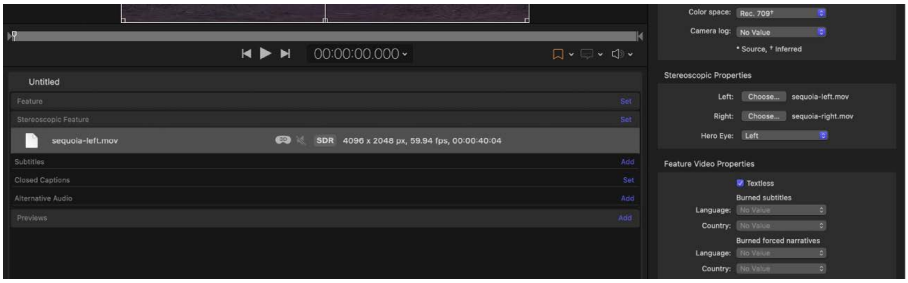
Build an iTunes Store package with stereo-3D content in Compressor

There are several steps required to properly configure stereoscopic video in an iTunes Store package.

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

   An iTunes Store Package job appears in the batch area.

2. 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 pop-up menu in the dialog is set to Left or Right accordingly), then click Open.



3. In the Job inspector, under Stereoscopic Properties, click Choose next to the eye view you didn't upload, select a video file from the dialog that appears, then click Open.
4. In the Job inspector, click the Hero Eye pop-up menu, then choose the eye view (Left or Right) to use as the hero eye.
5. 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: 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.

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.

1. In the Compressor batch area, select the feature filename to reveal the Job inspector
2. In the Job inspector, scroll down to Feature Video Properties, then deselect Textless.
3. Do any of the following:
   - For burned-in subtitles, choose a Language option and then a Country option in the "Burned subtitles" area.
   - For burned-in forced narratives, choose a Language option and then a Country option in the "Burned forced narratives" area.
   - If your project contains health warning text as required by Indian law, select the "India health warning" checkbox.

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*).

Create IMF packages

Build an IMF package in Compressor

An Interoperable Master Format (IMF) package is a container format standard for digital delivery and storage of audio-visual masters, including movies and TV episodes.

You can use Compressor to create an original IMF package, as well as edit an existing IMF package to create a new original IMF package or a supplemental IMF package. Supplemental IMF packages allow you to add additional audio files in different languages.

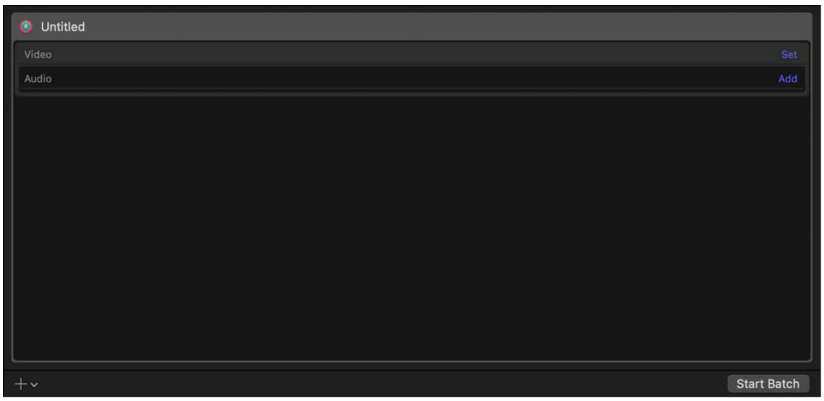
You can create your IMF package using a video that includes audio or video content, or that references separate audio and video files.

You can also import a composition playlist (CPL) which references other media that is part of the package. For more details, see the Apple Support article Create complete IMF packages with Compressor and third-party tools.

Create an IMF package from a video file

1. In Compressor, choose File > New IMF Package.

   An IMF package job appears in the batch area.



2. To add the video to your package, click Set on the right side of the Video row, select a video file from the dialog that appears, then click Open.

   Tip: You can also add your video by dragging it from the Finder onto the Video row.

   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 add the audio to your package, click set on the right side of the Audio row, select an audio file from the dialog that appears, then click Open.

   Tip: You can also add your audio by dragging it from the Finder onto the Video row.

   An output row containing the selected audio file is added to the job. To remove an audio element from a package, click Remove on the right side of the Audio row.

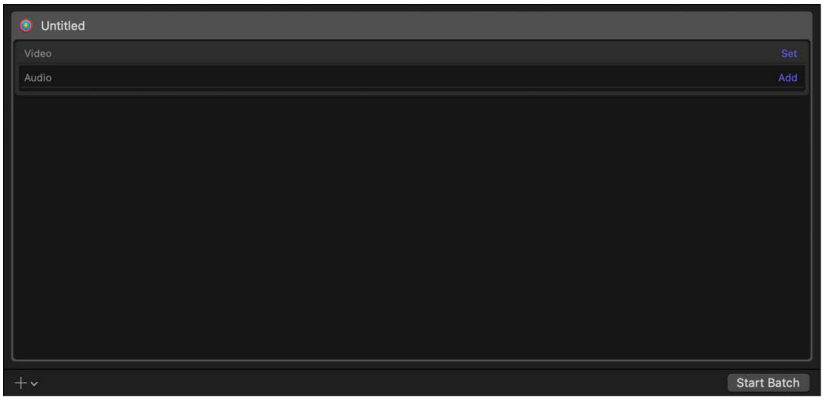
4. To modify video or audio properties, select the video or audio in the batch area, open the Video or Audio inspector, then adjust the property values.

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.

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.

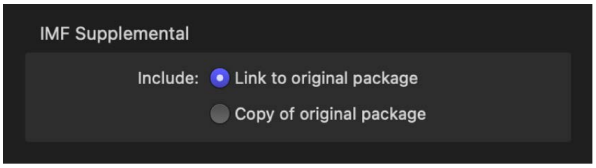


2. To add an original or supplemental IMF package to your new IMF package, click Set on the right side of the Video row, select a CPL file from the dialog that appears, then click Open.

   Tip: You can also add your CPL file by dragging it from the Finder onto the Video row.

   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.

   After importing the CPL, all supplemental audio tracks are set to “Link to original package” in the IMF Supplemental property in the Job inspector by default. 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. If you want to modify any of the audio properties, click “Copy of original package” in the IMF Supplemental property in the Job inspector.



3. To add additional audio files to your package, click Set on the right side of the Audio row, 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.

4. To remove an audio element from a package, click Remove on the right side of the Audio row.

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.

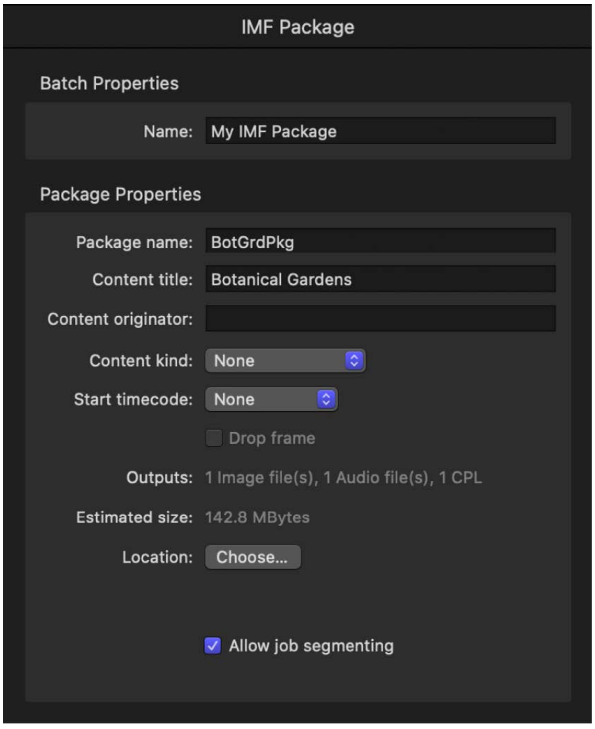
Important: To create a valid IMF package, you must select a language for the audio in the Job inspector, and you must also provide values for all Multichannel Audio Description fields in the Audio inspector.

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.

A valid IMF package must include valid values in the “Package name” and “Content title” fields of the IMF Package inspector. If you don’t know the correct information, you can enter placeholder text.

1. In the Compressor batch area, click the top of the IMF Package item to reveal the IMF Package inspector.



2. In the IMF Package inspector, enter a name for the project in the Name field.

   Note: This name will be used only to represent the job within Compressor.

3. In the Package Properties section of the inspector, enter a name for the package, a content title, and a content originator.

4. Choose a content kind and a timecode preference from the “Content kind” and “Start timecode” pop-up menus.

5. Click Choose, then select the location on your computer where you want to save the package.
6. 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.

Build a package with HDR content

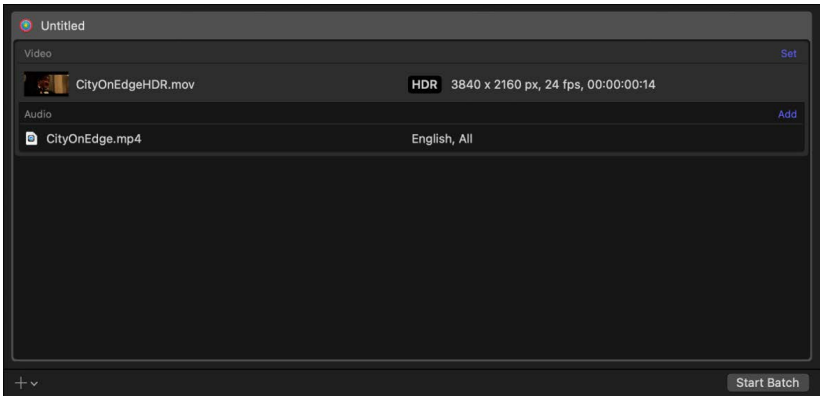
1. In Compressor, choose File > New IMF Package.

   An IMF Package job appears in the batch area.

2. To add the HDR feature video to the package, click Set on the right side of the Video row, select an HDR video file, then click Open.

   Tip: You can also add your HDR video by dragging it from the Finder onto the Video row.

   An output row containing the selected video file (and an HDR badge) is added to the job.



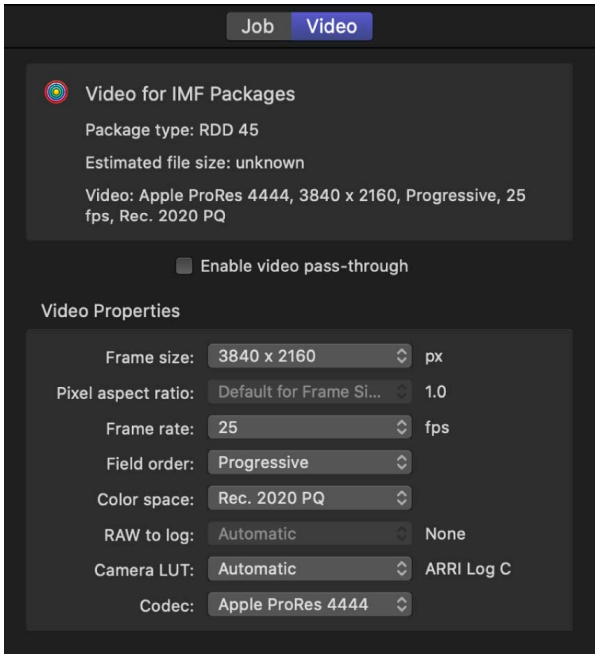
3. In the Job inspector, review the HDR Video Properties area to ensure that Compressor has correctly detected the native color space and the camera LUT used by the source file.

   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 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:

   - *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. Review the properties in the HDR Metadata section of the Job inspector and make adjustments as needed.

   For more information, see View or modify HDR metadata.

6. Complete your IMF package by configuring package presets and then building the package.

Note: 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.

Use distributed processing

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.

1. Choose Compressor > Settings.
2. Click Advanced.
3. Select the “Enable additional Compressor instances” checkbox, then choose a number of instances from the pop-up menu.

   Note: If you don’t have enough cores or memory, the “Enable additional Compressor instances” checkbox in the Advanced settings pane is dimmed.

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.

Transcode batches with multiple computers in 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.

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 the Apple Support article If you can't transcode batches with multiple computers in Compressor.

1. Choose Compressor > Settings.
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 +, 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.
2. Select Shared Computers.
3. At the bottom of the list of shared computers (on the left), click +.

   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 + 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.

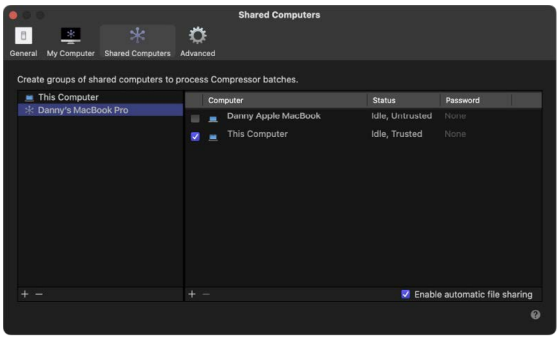
If you need to remove a group of shared computers, select the group and click — in the list of computer groups.

If you need to remove a computer from a group, select the computer and click — 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 credentials to allow the change.

   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.

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

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 in 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.

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 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 ┼ 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

Submit a job to Compressor in Terminal

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.

Below is a synopsis of the Compressor command for submitting a job for transcoding. Angle brackets < > indicate a mandatory argument in a command, and brackets [ ] indicate an optional argument. 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 job:

```
Compressor –jobpath <path> –settingpath <path> –locationpath <path>
```

Important: If you're using an image sequence as a source file, you must use a URL for the path in -jobpath.

Here's an example of code you would use to submit a Compressor job:

```
/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

Common command options used with Compressor

This table shows the most used command options for submitting jobs in Compressor:

Submission command option	Description
`–computergroup <name>`	Specifies the name of the group of shared computers.
`–batchname <name>`	Specifies the name of the batch.
`–priority <value>`	Specifies the priority level for a job.
`–jobpath <url>`	Specifies the location of the source file.
`–settingpath <url>`	Specifies the location of the presets for the job.
`–locationpath <url>`	Specifies the destination file URL for the job.
`–relabelaudiotracks <layout>]`	Relabels audio channel layouts. Supported audio channel layout values: • L (left channel) • R (right channel) • C (center channel) • LFE (low frequency effects channel) • Ls (left surround channel) • Rs (right surround channel) • Lc (left center channel) • Rc (right center channel) • Lt (left total channel) • Rt (right total channel) • Rls (rear surround left channel) • Rrs (rear surround right channel) • mono (mono channel) • stereo (L R stereo channel configuration) • LtRt (Lt Rt Matrix stereo configuration) • SMPTE (L R C LFE Ls Rs Lt Rt 7.1 surround configuration) • 5_0 (L R C Ls Rs 5.0 surround configuration) • 5_1_D (C L R Ls Rs LFE 5.1 surround configuration) • 5_1_A (L R C LFE Ls Rs 5.1 surround configuration) Unless `–locationpath` is specified, the relabeled audio tracks overwrite the ones in the original source file. All other parameters are ignored.

Submission command option	Description
`–relabelcolorspace <primaries> <transfer> <matrix>`	Relabels the color space of a QuickTime movie file. Use `–jobpath <url>` to locate the source file. Unless `–locationpath` is specified, the relabeled file overwrites the original source file. All other parameters are ignored. Supported values for color primaries: • ITU_R_709_2 (1) • EBU_3213 (5) • SMPTE_C (6) • ITU_R_2020 (9) • DCI_P3 (11) • P3_D65 (12) • P22 (22) Supported values for transfer functions: • ITU_R_709_2 (1) • SMPTE_240M_1995 (7) • Linear (8) • IEC_sRGB (13) • SMPTE_ST_2084_PQ (16) • SMPTE_ST_428_1 (17) • ITU_R_2100_HLG (18) Supported matrix values: • ITU_R_709_2 (1) • ITU_R_601_4 (6) • SMPTE_240M_1995 (7) • ITU_R_2020 (9) See ISO/IEC standard 23091-2 for more information.
`–renametrackswithlayouts`	Renames tracks with new audio channel layouts.
`–help`	Displays all Compressor command-line options.

This table shows command options for configuring shared computers to use with Compressor:

Submission command option	Description
`–resetBackgroundProcessing [cancelJobs]`	Resets background processing and optionally cancels queued jobs.
`–requiresPassword [password]`	Requires a password to share this computer.
`–noPassword`	Turns off the password requirement.
`–sharing <on | off>`	Turns sharing of this computer on or off.
`–instances <number>`	Enables additional Compressor instances.
`–networkInterface <bsdname>`	Specifies which network interface is used. If “all” is specified as a <bsdname>, all available network interfaces are used.
`–portRange <startNumber> <count>`	Specifies the starting port range and the number of ports to use.

Settings and shortcuts

Compressor settings

Change settings in Compressor

You can modify Compressor settings to customize your workflow.

- In Compressor, choose Compressor > Settings, then click a button at the top of the window to open a pane.

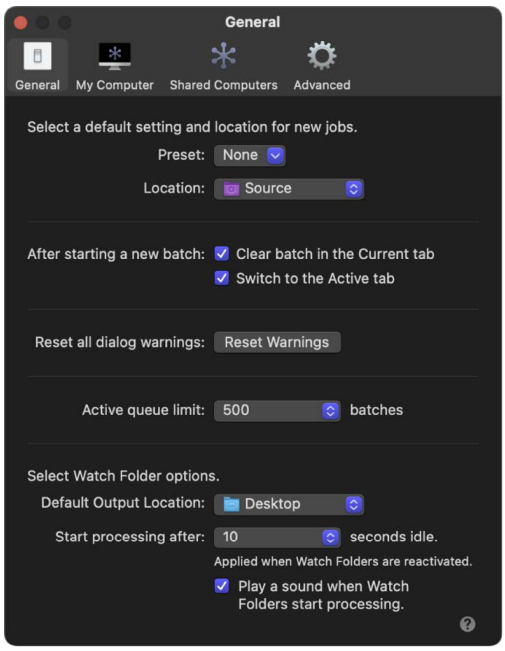
  There are four panes in the Settings window:

  - 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.



Option	Description
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.
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 again.
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.
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.

Option	Description
Start processing after [*numeral*] seconds idle	Use this pop-up menu to set how many seconds Compressor waits after it stops detecting changes before it starts transcoding. When an app (Final Cut Pro, for example) saves or exports a file to a watch folder, Compressor does not begin processing the file until the save or export is complete. However, because some apps begin the save or export, then pause the process before resuming, you can choose a time delay (10, 30, or 60 seconds) from this pop-up menu to ensure that Compressor doesn't start transcoding prematurely. *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 to hear an audio notification when a watch folder begins transcoding.

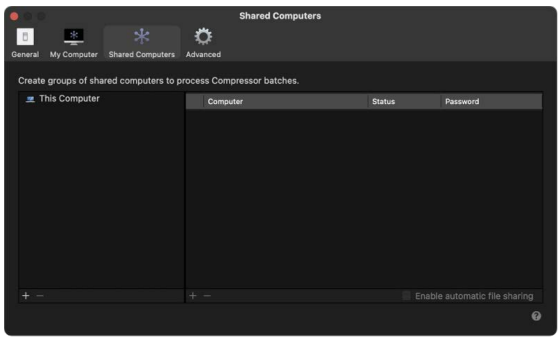
My Computer settings in Compressor

Use the controls in the My Computer pane in Compressor to allow other computers to use your computer to process batches:

Option	Description
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.

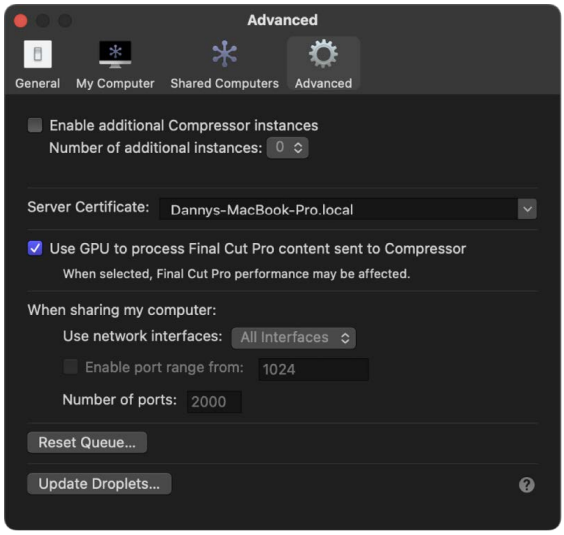
Shared Computers settings in Compressor

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. See Transcode with multiple computers.



Option	Description
Enable additional Compressor instances	Check this box to activate 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. When this box is unchecked, Compressor automatically attempts to process transcoding jobs using all available cores of your computer's graphics processing engine. On Macs with M-series Max or Ultra chips, this may be the fastest transcoding option. *Note:* If your system doesn't have enough memory or processor cores, this option is dimmed and unavailable.

Option	Description
Server Certificate	If you have multiple server certificates on your computer, use this pop-up menu to choose between them, or to rename the certificates. If you have no additional server certificates, the server certificate that Compressor automatically creates is shown.
Use GPU to process Final Cut Pro content sent to Compressor	Select this checkbox to have Compressor 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	Use this pop-up menu to restrict distributed processing activity to a specific network interface (when you've allowed others to share your computer).
Enable port range from	Select this checkbox to set the ports on which distributed processing is run (when you've allowed others to share your computer). 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.
Enable port range from	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. 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

Action	Shortcut
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

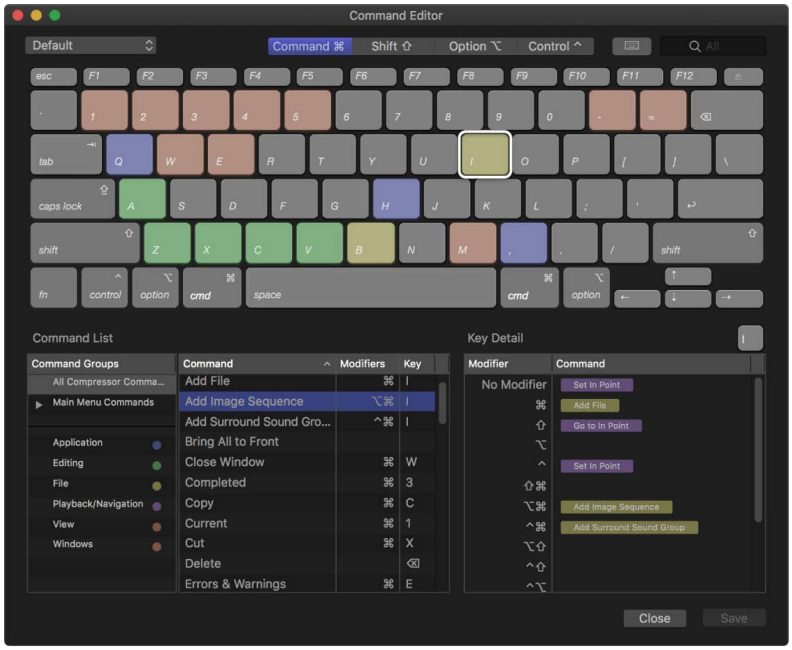
Action	Shortcut
Show the Current view	Command-1
Show the Active view	Command-2
Show the Completed view	Command-3
Show or hide the inspector pane	Command-4
Show or hide the Presets/Locations pane	Command-5
Show Presets	Shift-Command-1
Show Locations	Shift-Command-2
Show the Errors & Warnings window	Command-E
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.



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 Change the language your Mac uses in the Mac User Guide.

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.

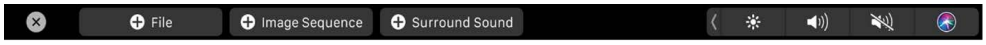
The tables below show the Touch Bar controls in Compressor grouped by different app states.

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	Add Item	Opens controls in the Touch Bar for adding media files to your batch. See Add item.

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.
File	Add File	Opens a dialog to select a file to add as a new job.
Image Sequence	Add Image Sequence	Opens a dialog to select a sequence of images to add as a new job.
Surround Sound	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	Add Item	Opens controls in the Touch Bar for adding media files to your batch. See Add item.
Outputs	Add Outputs	Opens a dialog to add presets to your job.
	Add Poster Frame	Adds a poster frame at the current playhead position. See Set a poster frame.
	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 Add nondefault markers.
	Preview Navigation	Available when the batch contains media, opens preview controls in the Touch Bar. See Preview navigation.

Add nondefault markers

When you touch and hold 〉, additional buttons appear in the Touch Bar; tap one to add a marker different from the default marker type.

Item	Name	Description
Chapter	Chapter Marker	Adds a chapter marker, and sets the default marker type to Chapter. (If a marker is already present at the current frame, that marker is deleted.)
Compression	Compression Marker	Adds a compression marker, and sets the default marker type to Compression. (If a marker is already present at the current frame, that marker is deleted.)
Edit	Edit Marker	Adds an edit marker, and sets the default marker type to Edit. (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. (If a marker is already present at the current frame, that marker is deleted.)

See Add markers.

Preview navigation

When you tap ⟩, 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 Set a poster frame.
	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 Add markers.

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 New preset.
	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 Create and use droplets.

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

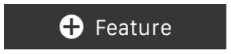
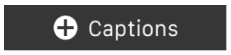
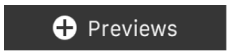
When you add an iTunes Store package to the batch area, the following controls appear in the Touch Bar:

Item	Name	Description
iTMS Files	Add iTMS Files	Opens Touch Bar controls for adding iTMS (iTunes Media Store) files. See iTMS files options.
	Add Poster Frame	Available when your iTunes Store package contains media. Adds a poster frame at the current playhead position. See Set a poster frame.

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 Add nondefault markers.
	Display Preview	Available when your iTunes Store package contains media. Opens preview controls in the Touch Bar. See Preview navigation.

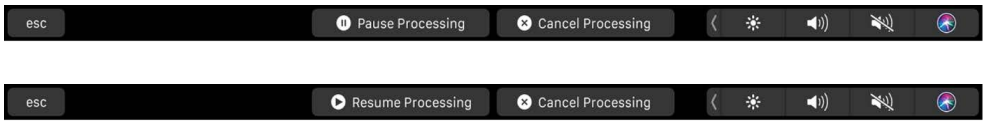
iTMS files options

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 Build an iTunes Store package.

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

360° video 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.

AAC (Advanced Audio Coding) Also called *MPEG-4 Audio*. A standard way of compressing and encoding digital audio. AAC-encoded files 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 codecs Codecs that 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 $Y'C_BC_R$ 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. 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.

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.

baseline In stereoscopic footage, the horizontal distance between the two camera lenses used to capture the images (also known as the *interaxial distance*).

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) 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 Onscreen text superimposed over a video and synchronized to the video and audio. 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 a video. 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 *compressor/decompressor*, or *encode/decode*. 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 depth The number of bits used to represent color in each color channel—red, green, and blue.

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.

Composition playlist (CPL) An XML file that defines the playback order for the media assets of an Interoperable Master Format (IMF) package. It also contains metadata associated with the playback order. The CPL allows IMF packages to combine multiple assets into a single playback of a program.

cubic projection A spatial projection mode that represents spherical data as an unfolded cube with six faces.

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 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).

dithering A deliberately applied form of noise that simulates additional colors in a limited palette by blending color transitions. For example, a pattern of yellow and blue can be applied to give the impression that green appears in the image.

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 macOS Finder to begin transcoding.

Dolby Digital See *AC-3*.

Dolby Digital Enhanced See *E-AC-3*.

Dolby Vision 8.4 A high-dynamic-range video format developed by Dolby Laboratories and optimized for Apple devices.

downmix The process of outputting fewer audio channels than are contained in the source file. For example, you can use a source file containing surround sound (5.1 channel layout) to output a file containing a stereo file with a left and right channel or a mono file with a single channel.

drop frame timecode A timecode format that prioritizes representing time elapsed instead of frames elapsed when a clip is not 30 fps. Drop frame timecode typically displays a semicolon between seconds and frames.

dynamic range The difference, in decibels, between the loudest and softest parts of a recording.

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*.

equirectangular projection A spatial projection mode that squeezes and distorts the spherical data like a flat map of the spherical earth.

field of view In stereoscopic footage, the horizontal field of view of the lenses used to capture the images.

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.

frame-packed A term used to describe stereoscopic video formats that "pack" both eye views into the same frame. Common frame-packed formats are Over/Under, in which one eye view (typically the left eye) is placed on top of the other eye, and Side by Side, in which both eye views are placed next to each other.

group of pictures (GOP) A file compression method that groups frames, or "pictures," in encoded video to remove redundant frames. There are three GOP frame types: *I-frames* (intra-coded frames), *P-frames* (predictive frames), and *B-frames* (bidirectional predictive frames). These are collectively called a *group of pictures (GOP)*. MPEG-2 and H.264 encoding in Compressor combine frames into groups of pictures during the encoding process to output a highly compressed file.

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).

hero eye The default eye view in a stereoscopic pair of video files. An MV-HEVC file contains two layers: the base layer encodes the hero-eye view, and a second layer encodes only the portions of the other eye view that differ from the hero eye. This improves playback and encoding efficiency. The hero eye is typically designated with a tag assigned by the cameras during video capture, but you can reassign the hero eye in Compressor prior to encoding. When stereoscopic footage is used in a 2D project, the hero eye's layer and metadata is used.

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.

horizontal disparity In stereoscopic footage, the amount of horizontal shift in left- and right-eye images to set the perceived depth of a 3D scene (also called *convergence*). When horizontal disparity is negative, content in the footage appears closer; when it's positive, content seems farther away.

HTTP Live Streaming An HTTP-based media streaming communications protocol, commonly used to send audio and video over HTTP from an ordinary web server for playback on a variety of computers and devices. HTTP Live Streaming supports multiple alternate streams at different bit rates, allowing the client software to switch streams intelligently as network bandwidth changes.

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 (bipredicitive coded picture)*.

inspector pane An area on the right side of the window when Compressor is in Current view. When you select a preset, location, batch, job, or other item anywhere in Compressor, you can view more information about it or customize its parameters in the inspector pane. The contents of the inspector pane change depending on the item you select.

interlaced video A technique developed for legacy NTSC or PAL televisions to double the perceived frame rate without increasing bandwidth by combining two half-frames called *fields* into a single frame. 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 (*interlaced*) 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.

Interoperable Master Format (IMF) package A container format standard for digital delivery and storage of audio-visual masters, including movies and TV episodes. Created by the Society of Motion Picture and Television Engineers (SMPTE), IMF specifies a set of individual components, contained within a folder, which together create a complete *IMF package*. Compressor can create these packages, provided you have all the requisite components (video files and audio files).

iTT (iTunes Timed Text) subtitles An industry-standard format for delivering onscreen text synchronized to a video. 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 The prescribed submission format that developers must use when delivering video content to the iTunes Store. 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 media source file and transcoding instructions used to output a file.

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 automatically send the transcoded file in an email.

keyframe interval In video compression, the frequency at which complete frames (*keyframes*) are inserted in a video sequence. A keyframe preserves all the visual information of a single frame, and the frames after it store incremental changes in the image, until the next keyframe occurs in the sequence. Thus, when the image in the video changes dramatically—for example, when switching between images—a new keyframe is created to represent the change.

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.

lookup table (LUT) A mathematical formula that converts a set of encoded values to a different set of values for display. Compressor supports camera and creative LUTs. A camera LUT converts camera-encoded data from a non-linear log curve—which allocates more dynamic range to light values where the human eye is more sensitive—to a color space that allows those values to be displayed properly. Camera raw video is typically stored in a log color space using a proprietary curve specifically optimized to a camera's light sensor, with metadata indicating the name and model of the source camera. A creative LUT is used to give video a specific look.

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 visual indicator in the preview area of Compressor that 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.

monoscopic video 2D video captured using a single camera with one lens. The term is typically used in contrast with *stereoscopic video*, which captures video with two cameras to create a perceived sense of depth.

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 is equal to one candela per square meter.

output row In the Compressor batch area, a row containing all the elements required for one transcoding output, including a *preset* that specifies properties defining how to transcode the source media file, a *location* where the transcoded file will be saved, and a *filename* for the transcoded file. A single job can contain multiple output rows (for example, if you want to transcode one media source into several different video formats).

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 Apple devices such as 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.

Presets/Locations pane An area on the left side of the window when Compressor is in Current view that shows presets, destinations, and locations. The Presets pane shows a list of built-in destinations, built-in presets, custom destinations, and custom presets. The Locations pane shows a list of built-in save locations and custom save locations.

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 Short for *ITU-R Recommendation BT.709*, the standard broadcast format for high-definition (HD) television.

Rec. 2020 Short for *Rec. ITU-R Recommendation BT.2020*, a color space standard with a very large gamut (range of color).

resolution Also referred to as *frame size*, the number of pixels in an image. Resolution is expressed in terms of the width and height of the image in pixels (for example, 640 x 360 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) also have screen resolution. Ideally, you should match the image resolution of your media to the resolution of your playback device. 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.

reverse telecine The process of removing telecine synchronization from video. Telecine is legacy method of transferring film footage shot at 24 frames per second (fps) to interlaced NTSC video (29.9 frames per second) or PAL video (25 frames per second) for broadcast television. However, because computers, HDTVs, 4K TVs, and other modern display devices support progressive frame rates (like 24 fps), it's often desirable to remove the interlacing from telecined clips and restore the video to its original 24 fps rate. This process is known as *reverse telecine*.

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.

spatial video A type of stereoscopic video unique to Apple that's designed to make it easy for users to capture and share 3D video on iPhone 15 Pro, iPhone 16, iPhone 16 Pro, and Apple Vision Pro. Spatial video includes special metadata to render a specific presentation style on Apple Vision Pro that mitigates common causes of stereo discomfort.

SRT (SubRip Text) file format An industry-standard format for delivering onscreen text synchronized to a video. 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.

stereoscopic video Video captured using two closely positioned parallel cameras, resulting in two video views (left and right) that have slightly different perspectives of the same image. These two linked files are then combined to produce a sense of depth and dimension greater than that of a single monoscopic video file.

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*.

telecine 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 pulldown*). 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.

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 $Y'C_BC_R$ 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. Many 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*.

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