iTunes Store Packages in Compressor

White Paper
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Overview

To sell a movie in the iTunes Store, you must deliver the movie file plus a set of related files and information. Compressor makes it easy to assemble these items into a single *iTunes Store package*, which is the format accepted by the iTunes Store.

The iTunes Store supports up to 4K high-dynamic-range (HDR) video, which can display over one billion colors, compared to 16 million in standard dynamic range (SDR). If you have an HDR video source file and Dolby Vision metadata, Compressor can instruct the iTunes Store to use the two assets to automatically create a combined SDR/HDR package.

After creating an iTunes Store package in Compressor, you can work with an Apple-certified delivery partner to submit your movie to the iTunes Store. These partners ensure that your submission is complete and that it meets all iTunes Store specifications. Delivery partners also provide billing and support services after your movie becomes available for sale.

See iTunes Delivery Partners below for more information.

Note: Select customers may be able to submit their movies directly to the iTunes Store without using an iTunes delivery partner. To learn more about how to apply for permission to submit directly to the iTunes Store, see Movie Provider: Frequently Asked Questions.

Create an iTunes Store Package

What Is an iTunes Store Package?

An iTunes Store package contains your movie and related assets. These include subtitles, closed captions, alternative audio, and a preview (sometimes called a *trailer*). The package also includes an XML file with essential information about your movie, including:

- The name of an Apple-certified delivery partner (*short name*)
- A unique identifier for your movie supplied by the iTunes Store (*vendor ID*)

It's a good idea to choose an Apple-certified iTunes delivery partner prior to creating a package. This company will provide you with a vendor ID and short name, both of which you can enter into the Package Properties fields in the iTunes Store Package inspector when you create your package in Compressor.

You can also simply enter temporary text in the Package Properties fields and instruct your delivery partner to update the vendor ID and short name before submitting the package to the iTunes Store.

Create a New Package Using Compressor

The information below is a summary of how to create an iTunes Store package. For detailed steps on creating an iTunes Store package, see the Compressor User Guide.

1. From the File menu, choose New iTunes Store Package.

    An iTunes Store package job appears in the batch area.

2. To add a movie file, click Set, select a video file from the dialog that appears, then click Open.

    Click to select a video file.
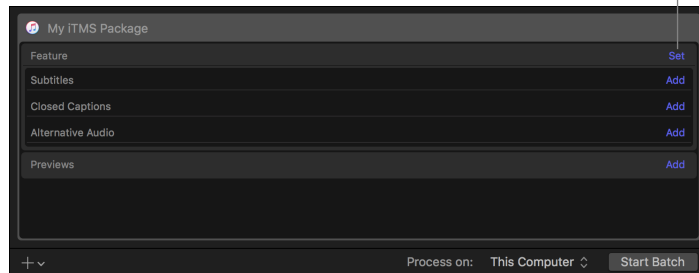
    An output row containing the selected movie file is added to the job.

3. Continue to add assets by clicking the Add buttons on the right side of the Subtitles row, Closed Captions row, and Alternative Audio row, then selecting files from the dialog that appears.

    To add multiple files in each category, Shift-click or Command-click files in the dialog that appears. An output row is created for each supplemental file you add.

    Tip: Alternatively, you can drag and drop assets from the Finder directly to each row in the batch area.

    Important: CEA-608 closed caption files must use the .scc extension, iTunes Timed Text subtitles must use the .itt extension, and SubRip Text subtitles must use the .srt extension.

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

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

Configure Assets in the iTunes Store Package

After you add files, you need to assign additional information (also called metadata) for each item. You must also include a chapter marker at frame 00.00.00.00 in your Compressor movie, or the job will fail to complete.

Important: To be accepted to the iTunes Store, videos must include a full complement of chapter markers, including a chapter marker at the last frame. Your iTunes Store delivery partner can also help you create chapter markers.

Set package properties

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

2. Click the Inspector button 🎚 in the upper-right corner of the Compressor window.

    The iTunes Store Package inspector appears.

3. In the Batch Properties section, enter a name for the batch.
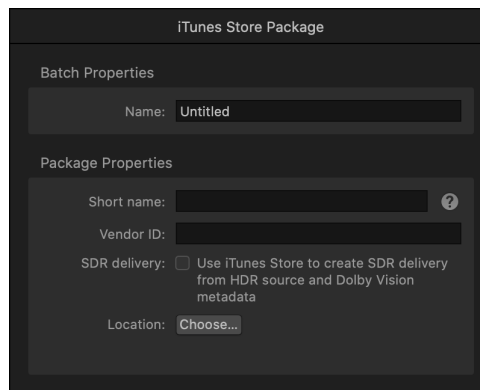
    Note: This name is used to identify the job within Compressor.

4. In the Package Properties section, enter the Apple-certified delivery partner short name and vendor ID.

    Note: Contact your Apple-approved delivery partner to obtain a valid vendor ID and short name.

5. If your package contains HDR video and Dolby Vision metadata, select the "SDR delivery" checkbox to have Compressor instruct the iTunes Store to create a combined SDR/HDR package.

6. Click Choose, select the location where you want to save the package, then click Choose.

Modify feature and preview settings

You must assign a language and country to both the feature video and preview video.

1. In the batch area of Compressor, select the Feature output row.

    The Job inspector appears.

2. In the File Properties section of the Job inspector, choose a language, then choose a single country or choose All.
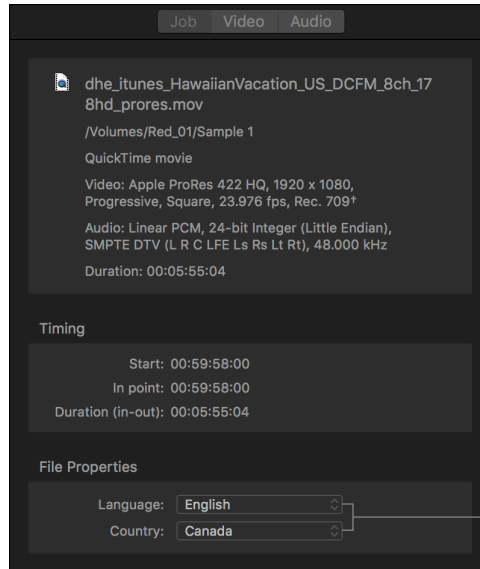

Assign a language first, then choose a single country or choose All.

3. If necessary, reassign or deactivate audio tracks in the Audio inspector.

4. If your feature video includes titles, credits, or other text, deselect the "Textless master" checkbox in the Feature Video Properties section and then identify the language and country of the subtitles in each category.
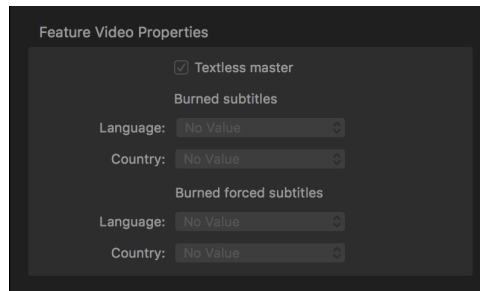
5. If your video is already encoded in Apple ProRes 422 HQ, open the Video inspector and select "Enable video pass-though" to bypass video compression.
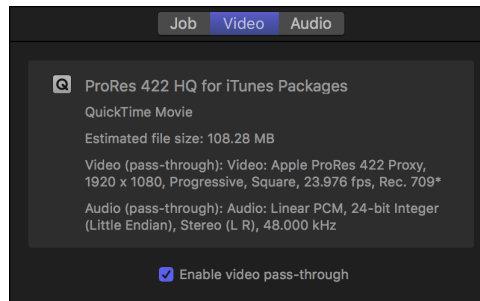

6. In the batch area, select the Previews output row, then repeat steps 2–5 to assign a language, country, and other metadata for the preview video.

Note: When you create an iTunes Store package in Compressor, assets are automatically configured to ensure that your files comply with iTunes Store requirements. However, if necessary, you can reassign audio channels or cropping for your feature and preview videos. To learn more about the iTunes Store technical requirements, consult an Apple-certified iTunes delivery partner.

## Add subtitles, closed captions, and alternative audio

If your movie contains subtitles, closed captions, or alternative audio tracks, you must assign the correct language and other settings for each of these items. If possible, Compressor will automatically assign a language based on the file metadata. Follow the steps below to reassign a language or country and assign a purpose.

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

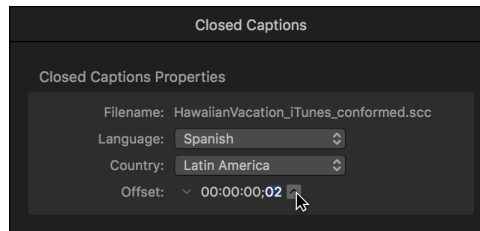2. In the Subtitles inspector, choose options from the Language pop-up menu and the Country pop-up menu.
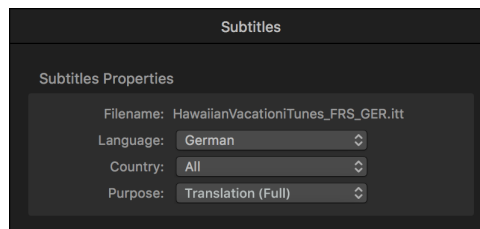
Note: You must choose a language before you can choose a country.

3. Choose an option from 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. The subtitle text can be turned on or off by the viewer (as opposed to burned-in subtitles).

- *Forced:* Outputs text that appears on the screen when an actor in a film is speaking in a language other than the language heard on the audio. Forced subtitles are delivered as a separate .itt file. Forced subtitles cannot be turned off—they're necessary to understand the content of the film.

- *Hearing Impaired (SDH):* Subtitles for deaf and hard of hearing outputs a full translation of all the words spoken in the film, as well as song lyrics and sound effects (for example, an owl hooting or a car horn). The viewer can turn SDH on or off.
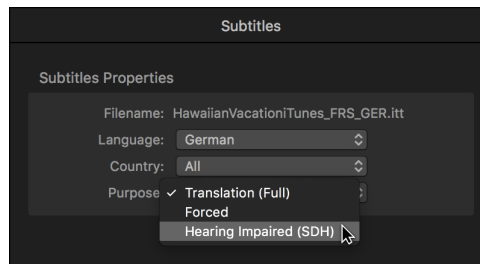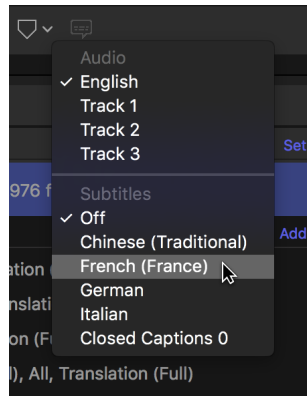

4. In the batch area, select a closed captions output row.

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

6. If the closed-caption text doesn't accurately match the timing in your movie, adjust the display timing by assigning an offset timecode in the Offset field.

Tip: Click the Show Closed Captions button 🗨 in the preview area to view subtitles or closed captions, or to choose audio tracks.


7. In the batch area, select an alternative audio output row.

8. In the Job inspector, choose options from the Language pop-up menu and the Country pop-up menu.

For more information about adding and editing asset information, see Build iTunes Store packages in the Compressor User Guide.

Add chapter markers

You must include a chapter marker at frame 00.00.00.00 in your movie, or the job will fail to complete. If your movie file already has chapter markers, Compressor will include them in your iTunes Store package. If your movie file does not have chapter markers, you can import a chapter list or add them manually in Compressor.

1. In the batch area, select the Feature output row.

2. In the preview area, navigate to the frame where you want a chapter to begin.

3. Click the Add Marker pop-up menu ♡⌄, then choose Add Marker.

4. In the Marker inspector, enter a name for the marker, and verify that the marker type is set to Chapter.
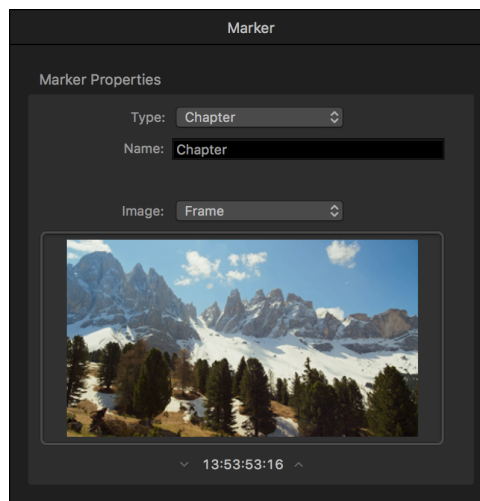
5. To assign a preview image associated with the chapter marker, click the Image pop-up menu, then choose Frame or File.

   Important: For a successful iTunes Store submission, all chapter markers must have an associated image. Black frames are not permitted.

6. Repeat steps 2–5 to add additional chapter markers.

Create Your iTunes Store Package File

After you add and configure your iTunes Store assets, create the iTunes Store package file.

1. Click Start Batch.

   Note: Compressor displays the Errors and Warnings window if any required items or fields are missing. Double click an error in the window to jump to the error location in the batch area. As you correct errors they're removed from the list.
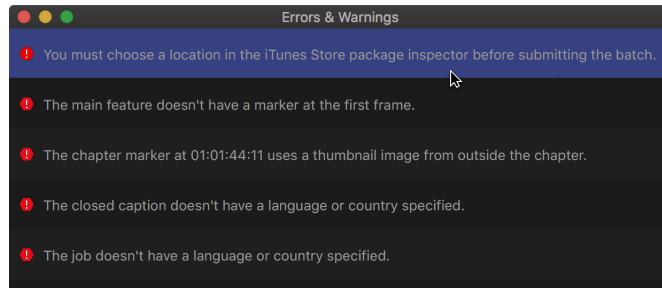
2. Click the Active button to view the batch progress.

   Active button
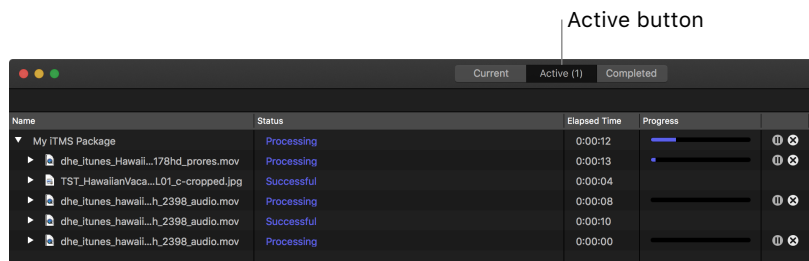
3. When the transcode finishes, click the Completed button, click the disclosure triangle next to the name of the batch, then click the magnifying glass icon 🔍 to view the package file in the Finder.

   Compressor transcodes all the files, combining them into a single package file that's saved in the location you specified in the iTunes Store Package inspector.

Correct or Augment an iTunes Store Package

You can modify a package or add assets to it even after you've completed the batch.

There are two ways to modify a package:

- By reloading a recently completed package from the Completed view in Compressor, making changes to the batch, then resubmitting the batch.

- By rebuilding a package from scratch using the same settings, making changes to the batch, then resubmitting the batch.

When you modify and resubmit a batch, a new XML file is generated and the package assets are updated.

Important: Ensure that the information in the Package Properties section of the inspector precisely matches the information in the original package. If the short name, vendor ID, and package location are identical, Compressor will correctly configure the changes.

Modify a completed package by reloading it from Completed view

1. Click the Completed button at the top of the Compressor window.

    Completed view opens.

2. Click the curved arrow ↻ to the right of the completed batch you want to modify.

Click to reload the completed batch.
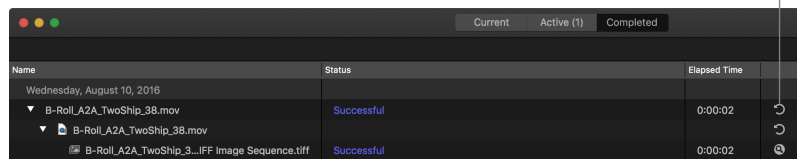
The batch opens in Current view, with all of the media items shown in the batch area.

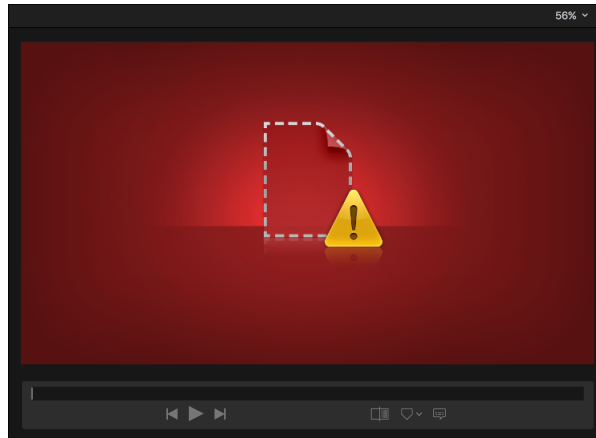3. In the batch area, add new or modified subtitle files, closed-caption files, or alternative audio files.

4. Click Start Batch.

   Note: If your package has no feature video, when you select other assets, the preview area will display a missing media warning. Because you're modifying your package, you can safely ignore this warning.

Modify a package by rebuilding it from scratch

1. From the File menu, choose New iTunes Store Package.

2. In the Batch area, click the top bar of the iTunes Store package item.

Click the top bar to activate the
iTunes Store Package inspector.

3. In the iTunes Store Package inspector, enter a name in the Batch Properties area.

   Note: This name is used to identify the job within Compressor.

4. Set the package properties to precisely match the values in the package you want to augment or change.
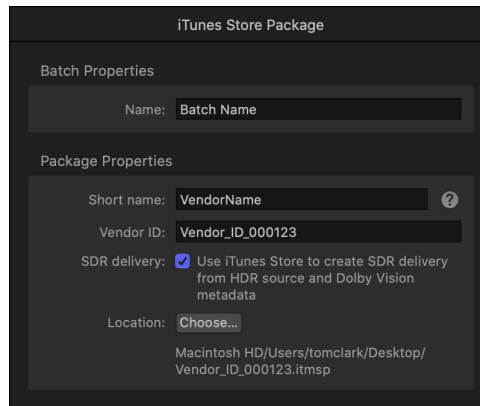
5. In the batch area, add new or modified subtitle files, closed-caption files, or alternative audio files.
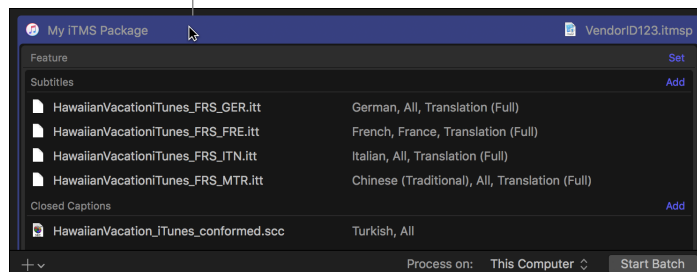
6. Click Start Batch.

   Important: You cannot remove assets from a package after it has been created. To remove assets from a finished package, you need to create a new iTunes Store package.

iTunes Delivery Partners

What Is an iTunes Delivery Partner?

An Apple-certified iTunes delivery partner is qualified by the iTunes Store and is authorized to submit iTunes Store packages to the store for sale.

In addition to validating the technical requirements of your iTunes Store package, a delivery partner will work with you to add other required metadata such as sale date, IMDB URL, distribution information, synopsis, key art, and cast and crew lists. Your delivery partner will help you submit additional metadata and files along with your package.

A delivery partner will also provide billing and support services after your film becomes available for sale.

List of delivery partners

JUICE WORLDWIDE	https://www.juiceworldwide.com/contact-us
Quiver	https://www.quiverdigital.com/get-your-film-itunes
Walla	https://walla.la/itunes/using-compressor
ZOO	http://www.zoodigital.com/services/distribution/itunes-distribution

iTunes Store
Technical Requirements

Before you prepare your assets for delivery, it's a good idea to familiarize yourself with the iTunes Store technical requirements.

An overview of requirements appears below. Contact an Apple-certified iTunes delivery partner, or see the iTunes Video and Audio Asset Guide for more detailed information.

iTunes Store Package Requirements

Compressor guides you through the process of creating your iTunes Store package. Each package represents a single film product within the iTunes Store.

Required assets include:

- Feature video with embedded stereo audio and chapter markers

- Preview video (also known as a *trailer*)

Optional assets include:

- Closed captions delivered in .scc format (required for US distribution)

- Alternative audio tracks

- Subtitles delivered in .itt format

- 5.1 surround audio

iTunes Store Delivery Specifications

The following table lists the most common delivery specifications for iTunes Store packages. To learn more about the iTunes Store delivery specifications, consult an Apple-certified iTunes delivery partner.

Compressor Assets	Specification
Feature Movie	• Uncompressed digital source transcoded to Apple ProRes 422 (HQ) • ITU-R BT.709 color space • *UHD:* 3840 x 2160 • *DCI 4k:* 4096 x 2160 • *HD:* 1920 x 1080 • *SD:* 720 x 480 or 720 x 486 • Embedded Stereo Audio LPCM Big or Little Endian, 16-bit or 24-bit, at least 48kHz • 5.1 surround audio (optional)
Chapter Markers	• First chapter must be at 00:00:00:00. • Last chapter must be before last frame. • Chapter frames must contain pictures; dark or black frames will be rejected. • Chapter titles must not contain special characters. • PNG and JPEG images are accepted.
Subtitles	• Subtitle files must be in .itt or .srt format. • Multiple subtitle files can be added to the package to provide full translations, SDH, or forced subtitles.
Closed Captions	• Closed-caption files must be in .scc format. • English text must be in EIA 608 format (required for US distribution). • Captions should display and synchronize to within one second of the initial, audible dialogue.
Alternate Audio	• Audio must be in stereo. • 5.1 surround audio (optional) • LPCM Big or Little Endian, 16-bit or 24-bit, at least 48kHz
Preview	• 1–5 minute duration • Video must begin with one black frame and end with one black frame. • Stereo LPCM Big or Little Endian, 16-bit or 24-bit, at least 48kHz • 5.1 surround audio (optional)

Additional Required Assets	Specification
Poster Art	• 2 x 3 aspect ratio
	• 1400 x 2100
	• PNG
	• No credit block or festival laurels
	• No actor names
	• Localized for foreign territories
	• High resolution
	• No theatrical release date

Common Issues

The assets in an iTunes Store package can be rejected for a number of reasons. Here's a list of common issues to avoid:

Assets must not include:

- FBI notices, MPAA notices, legal notices, release date cards, PSAs (public service announcements), or tagging. (Exceptions will be made when used in parody.)

- Promotional bumpers

- Visible watermarks

- Bonus content (unless explicit permission has been granted by the iTunes Store)

- URLs (acceptable in video assets only if they're in credits or on a card with a company logo)

Video assets should not have any of the following defects:

- Blended frames

- Dropped or duplicated frames

- Interlacing artifacts

- Scaling artifacts

Subtitle assets should not have any of the following defects:

- iTT or SRT subtitle files that are out of sync

- Captions that are out of sync or that have caption drifting issues

- Incorrect CC/Subtitles (text that doesn't match dialogue in the movie)

Audio assets should not have any of the following defects:

- Audio files that are out of sync

- Distorted audio

- Audio channels that are improperly assigned

- Audio language that is improperly assigned

Other Issues to avoid:

- Feature or Preview mismatch

- Cropping errors (incorrect or insufficient cropping dimensions)

- Incorrect language tagging on assets (video, subtitles, closed captions, or alternative audio)

Glossary

Alternative audio Translated dialog tracks or commentary included in an iTunes Store package.

Batch area The lower half of the main Compressor window, which displays batches to be transcoded. An iTunes Store package contains one batch at a time.

Closed captions (CC) Viewer-activated text that appears superimposed over the video. The text is a transcription of the dialog, plus descriptions of nonspeech elements.

Dolby Vision A high-dynamic-range 4K video format. Dolby Vision metadata contains display information per scene, allowing more precise control over color, brightness, and contrast.

Feature The principal video element in an iTunes Store package— typically a movie with a running time longer than 60 minutes.

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).

Inspector The pane in Compressor that displays the properties of a selected asset or batch.

iTunes Store package A container for your movie and all related assets to be submitted to the iTunes Store. The assets in a package include subtitles, closed captions, alternative audio, and a film preview (also known as a *trailer*). The package also includes an XML file with essential information about your movie.

iTunes delivery partner A professional video service authorized by Apple to submit iTunes Store packages to the iTunes Store for sale.

Preview area The area at the top of the Compressor window that displays a visual preview of assets selected in the batch area. You can also add metadata and markers directly in the preview area.

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.

Subtitles Dialogue displayed as text over the video, often a foreign-language translation of movie dialogue.

Texted master Your movie as you intend the audience to see it, with all titles, subtitles, lower thirds, segment and interstitial titles, and end credits intact.

Textless master Your movie with all titles, subtitles, lower thirds, segment and interstitial titles, and end credits removed, to facilitate easy title replacement for international distribution. (Text appearing within video clips in the movie is usually left intact.)

XML Extensible Markup Language. A text-based format used to exchange data. When you create an iTunes Store package with Compressor, an XML file is generated that includes additional essential information about your movie.