



New Features in Compressor 3

There are a number of new features, enhancements, and changes in this version of Compressor, the most significant of which are introduced below. See the *Compressor 3 User Manual*, the *Distributed Processing Setup* guide, and the *Batch Monitor User Manual* for details on these features.

An All-New Interface

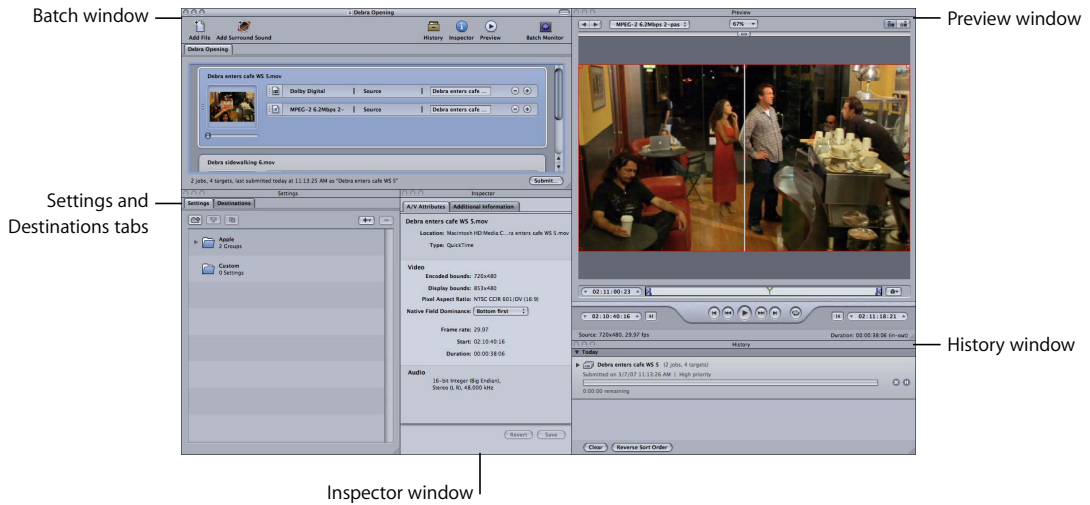
Compressor 3 includes a new streamlined user interface that makes it easier to quickly create, submit, and monitor your transcoding jobs and batches.

New Interface Layout Capability

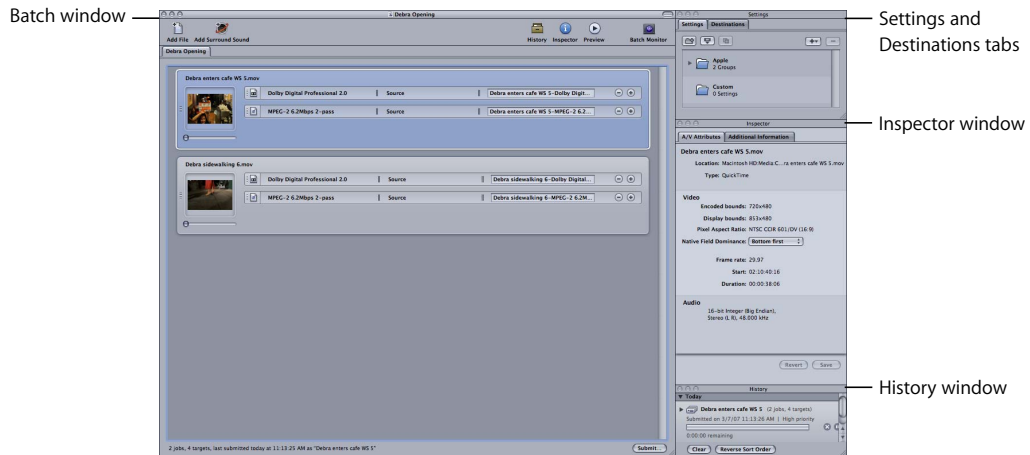
As you use Compressor you will find that, depending on the particular encoding task you are configuring, how the various Compressor windows are laid out can affect how easy it is to use. To help with this, Compressor now includes the ability to configure and save layouts. Layouts define which windows are visible, their sizes and positions, and define which icons appear in the Batch window's toolbar.

Compressor includes two layouts that you can use to get a starting point for creating your own custom layouts.

The standard layout shows all the Compressor windows, with the Settings and Destinations tabs sharing a window. This layout is optimized for those times when you are transcoding a single source media file.



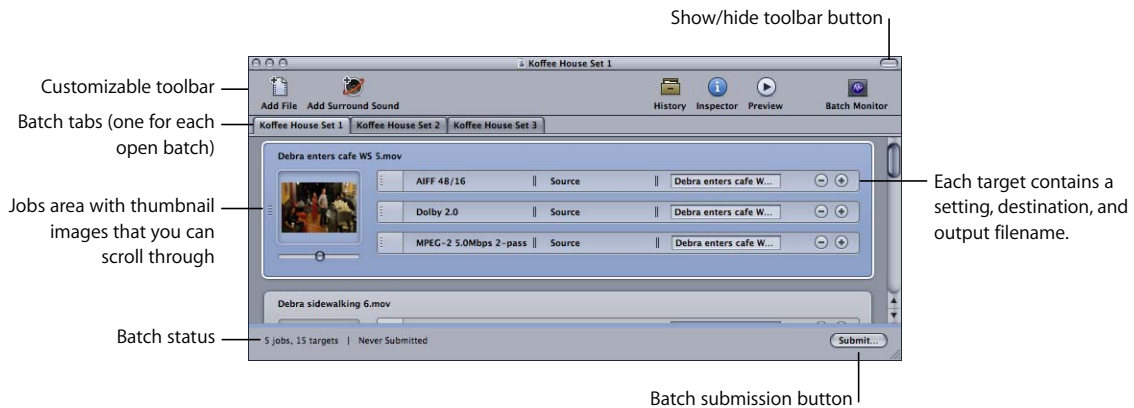
The batch layout places the emphasis on the Batch window. This layout is optimized for those times when you are transcoding a number of similar source media files.



You can change the positions and sizes of the windows and save their configuration as a custom layout, making it easy to return to that interface configuration later.

Batch Window Improvements

The Batch window has been changed significantly, with several new features that add flexibility and power that you can use while creating your batches.

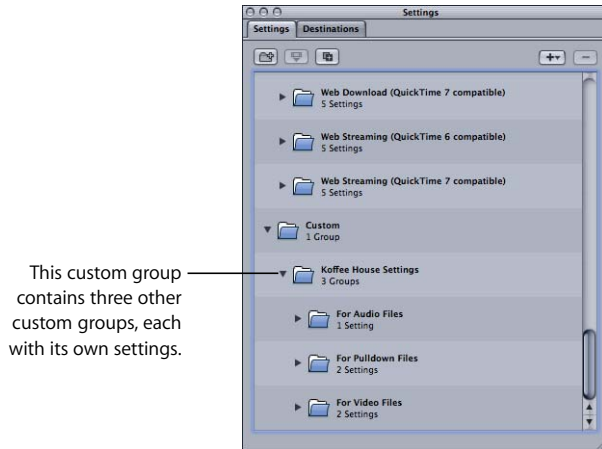


- *Customizable toolbar*: You can choose from a variety of items to customize the toolbar of your Batch window. For example, you can add New Batch and Close Batch items and remove any of the existing items. The Toolbar configuration is saved as part of a layout.
- *Multiple batches open at one time*: You can now have multiple batches open at the same time. By default each batch that you open appears as an additional tab in the Batch window. You can drag a tab from the Batch window to have it open in its own Batch window. This makes it easy to copy jobs or targets from one window to the other.
- *Scrollable thumbnail image*: Each job in a batch with a source video file has a thumbnail image of the video. You can scroll through the clip by dragging the scroller located below the image.
- *Chaining jobs*: You can now use the Job > New Job From Target Output command to chain the output of a target to another job. This makes it possible to perform multiple transforms to a source media file while controlling the order in which the transforms occur, or to perform a transformation multiple times on the source media file.

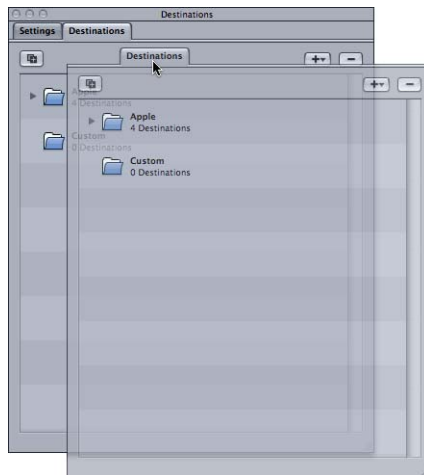
Improvements to Settings and Destinations Windows

There are several significant improvements to the Settings and Destinations windows.

- *Settings can have subgroups:* You can now create groups within groups, making it much easier to organize your custom settings by client, project, distribution stage, or any other item that fits with your workflow.



- *Destinations can include iDisks:* You can now set your iDisk as a destination for your transcoded batches.
- *Each tab can have its own window:* The Settings tab and Destinations tab can now be separated into their own windows. Just as you can drag a batch's tab out of the Batch window to have the tab appear in its own window, you can drag the Settings or Destinations tab to its own window.



History Window Improvements

The History drawer has been upgraded to its own window. Additionally, it now contains the most commonly needed information about previously submitted batches, making that information handy and accessible directly in the Compressor interface.

Similar to the Batch Monitor, the History window now includes a progress bar as well as buttons you can use to cancel or pause a transcode that is currently in progress.

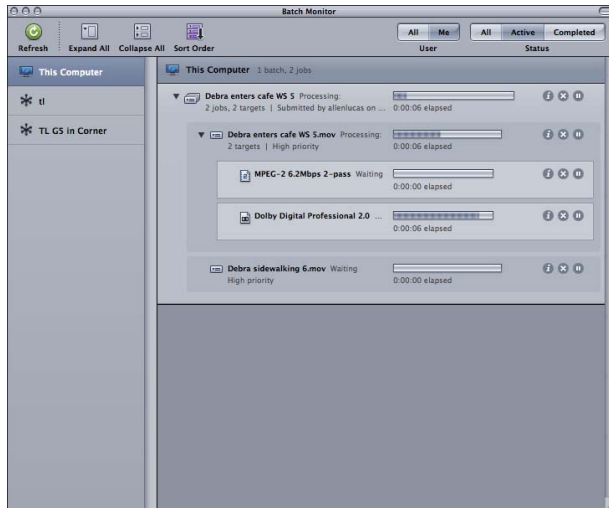


Once the transcode finishes, the History window adds a button to make finding the encoded files easy.



Batch Monitor Improvements

The Batch Monitor is now much easier to use with individual Information, Pause, and Cancel buttons on each target. Additionally, the column on the left lists the available distributed processing nodes, which you can select to monitor their activity.

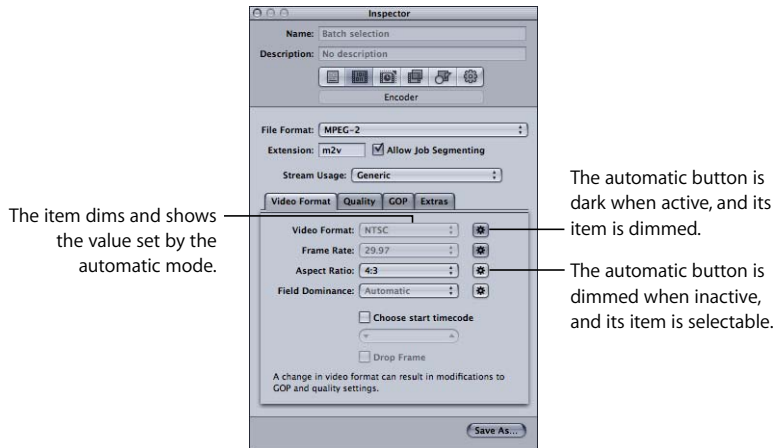


For more details on the Batch Monitor see the *Batch Monitor User Manual*, available from the Compressor Help menu.

Note: The Pause/Resume feature has also been improved and now allows you to pause a transcode and resume it from where it left off.

Automatic Mode Enhancements

Many of the values in a setting's Inspector panes can be set to automatically choose a value based on the source media file. These values now have a separate button to activate the automatic mode, allowing you to see the value the automatic mode chooses.



Easier Distributed Processing Using Unmanaged Services

Compressor now includes a new AutoCluster feature that makes it easy to take advantage of the distributed processing capabilities offered by Apple Qmaster, without requiring a lot of knowledge about how clusters are configured, setting up file sharing, and so on.

Using AutoCluster is a two-step process:

- Automatically creating Apple Qmaster service nodes as you install Final Cut Studio or Apple Qmaster.
- Selecting the "Include unmanaged services on other computers" checkbox when you submit a Compressor batch for processing.

These two steps let you harness the processing power of any number of computers on your network without any additional effort or knowledge on your part.

Additionally, you can now have multiple Compressor services on a single computer with multiple CPUs, creating virtual clusters.

See the *Distributed Processing Setup Guide*, available from the Compressor Help menu, for additional information.

Enhancements for Creating iPod and Apple TV Media

Compressor now includes several enhancements that make it possible to create full-featured podcasts and other media for iPods and Apple TV.

New H.264 for Apple Devices Output Format

A new H.264 for Apple Devices output format has been added. You can choose to create video optimized for the following common formats:

- *iPod 320*: The video is 320 pixels wide.
- *iPod 640*: The video is 640 pixels wide.
- *Apple TV SD*: The video is 640 pixels wide.
- *Apple TV HD*: The video is 1280 pixels wide.

In addition to formatting the video to match the intended playback device, each format configures the bit-rate settings to suitable ranges, ensuring the output media files will play correctly.

Metadata and Marker Support

The H.264 for Apple Devices output format and the MPEG-4 output format (when configured as audio only) now support adding a variety of metadata and markers to the output media files:

- *Annotations*: You can add annotations, such as artist and comments, to your output media files. Additionally, any annotations previously added to your source media files are preserved and passed on to the output media files.
- *Chapter and podcasting markers*: You can add chapter and podcast markers to the output media files. You can also assign URLs and artwork to these markers.

The only difference between chapter and podcast markers is that a viewer can use chapter markers to navigate to specific places while playing a program; podcasting markers cannot be used for navigation, and instead are used to change the artwork or URL at specific places.

Dolby Digital (AC-3) Audio Files as Sources

You can now import Dolby Digital (AC-3) audio files as sources for jobs. This makes it possible to hear either a mixed-down stereo version of the source audio files on your system's speakers, or to hear full surround sound on an external set of surround sound speakers connected to your computer by USB or FireWire.

This capability has two uses:

- You can now import Dolby Digital audio files and transcode them to other formats.
- You can now listen to Dolby Digital files after you transcode them with Compressor to verify their settings.

MP3 and DV Output Formats

New output formats were added for the MP3 audio format and DV video format. These new output formats make it much easier to create output files in these popular formats.

TARGA Format Image Sequences Now Supported

In addition to the TIFF image sequence output format previously supported, Compressor now supports creating TARGA image sequences. The TIFF output format setting choice is renamed to Image Sequence, and includes a pop-up menu for choosing the TIFF or TARGA output format.

Image sequences, which are folders with sequentially numbered still image files representing video frames, are used by some compositing and processing applications.

Enhanced QuickTime Movie Outputs

You can now add a variety of metadata to QuickTime movie output files. Additionally, any closed captions, annotations, and chapter markers previously added to your source media files are preserved and passed on to the output media files.

- *Closed captions:* Compressor adds the closed caption file as a closed caption track to the QuickTime output file. You can view the closed captions using QuickTime Player (version 7.2 or later).
- *Annotations:* You can add annotations, such as artist and comments, to your output media files.
- *Chapter markers:* You can add chapter markers to the output media files. You can also assign URLs and artwork to these markers.

Enhanced MPEG-2 Outputs

There have been several enhancements to the MPEG-2 output format.

Stream Usage Setting

To make it easier to create MPEG-2 outputs targeted at specific devices, the MPEG-2 output format now includes a Stream Usage pop-up menu that you can use to choose one of the following MPEG-2 formats:

- *Generic*: The Generic option allows you complete access to all the MPEG-2 settings. This is the only option that supports the MPEG-2 640 x 480 video format in addition to the SD and HD video formats. It is 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.
- *SD DVD*: The SD DVD option restricts the encoding options 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*: The Blu-ray option restricts the encoding options 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.
- *HD DVD*: The HD DVD option restricts the encoding options to those allowed by the HD DVD specification. These include the SD and HD video formats and a bit-rate range that changes depending on the selected video format.
 - *For HD video formats* the bit-rate range is from 10.0 Mbps to 29.4 Mbps.
 - *For SD video formats* the bit-rate range is from 2.0 Mbps to 15.0 Mbps.

Support for Program Streams

In addition to creating elementary and transport streams, Compressor now supports creating program streams.

- *Elementary streams*: These streams contain only one MPEG-2 content channel and no audio. Elementary streams are required if you intend to use your MPEG-2 encoded video as a DVD Studio Pro asset.
- *Transport streams*: These streams can contain several MPEG-2 content channels and associated audio. All the channels are multiplexed together, allowing the receiver to choose which to play back. Compressor supports creating single-channel transport streams that can optionally include associated audio.

Transport streams can also recover from interruptions during playback, making them ideally suited for broadcast and streaming applications where noise or network congestion can lead to interruptions.
- *Program streams*: These streams contain only one MPEG-2 content channel and its associated audio. Program streams require an error-free delivery method and are primarily used for storage or processing within a computer.

By default, the Compressor MPEG-2 encoder creates elementary MPEG-2 streams. You can configure the MPEG-2 encoder to create transport or program streams and choose whether they should include audio in the Extras tab.

Embedded Closed Caption Files

You can now use the Additional Information tab of the source media file's Inspector window to assign a closed caption file to MPEG-2 output files.

- *For MPEG-2 elementary stream outputs:* Compressor embeds the closed caption data in an elementary MPEG-2 video stream so that it can be used for DVD authoring. DVD Studio Pro will retain this closed caption data when the video stream is used in a track in a standard definition NTSC DVD project. You can use Apple DVD Player to play the DVD Studio Pro build files and verify that the closed caption data is present.
- *For MPEG-2 program and transport stream outputs:* Compressor embeds the closed caption data in program and transport MPEG-2 streams using the EIA-708 ATSC protocol.

New Filter Pane Features

The Filter pane has had several new filters added, including a set of audio filters that you can use to make commonly required adjustments that previously required you to use a second application.

Video Filters

The new video filters all are dynamic, with their effects changing over time.

- *Fade in/out:* Adds a dissolve from and to a matte color at the beginning and end of the clip. You set the duration and opacity of the dissolve for the in and out independently of each other.
- *Timecode generator:* Superimposes the clip's timecode text onto the image. You can also add a label to the timecode text. You control the position, opacity, color, size, and font of the timecode.
- *Animated watermarks:* In addition to the still images previously supported, you can now use movies as superimposed watermarks. There is also a repeat feature that you can use if the watermark movie is shorter than the output video file.

Audio Filters

The new audio filters provide commonly needed audio adjustments.

- *Dynamic range*: Allows you to dynamically control a clip's audio levels by enhancing the quieter parts and lowering the louder parts. This is also referred to as *audio level compression*.
- *Peak limiter*: Sets the level of the loudest audio allowed in the clip.
- *Graphic equalizer*: Allows you to use the Apple AUGraphicEQ to shape a wide variety of frequencies throughout the audible frequency range. You have the choice of a 31-band or a 10-band version.

New Geometry Pane Features

The Geometry pane has two new features.

- *Automatic cropping feature*: Compressor detects whether the source media file has been letterboxed or pillarboxed, and if it has, it enters crop values to remove the letterbox or pillarbox.
- *Output padding feature*: Padding provides a method to scale the image to a smaller size while retaining the output image's frame size by filling the padded areas with black. Unlike cropping, padding does not remove any of the source image—the image is reduced by scaling by the padding amounts.

Padding is useful when the source image frame size is smaller than the output image frame size and you want to prevent the source image from being scaled to the output image size. By adding the correct amount of padding, the source image will remain the same size in the output image, with black filling the rest of the image frame.

New Frame Controls Pane Features

The Frame Controls pane has added two significant new features that you can use when your source media needs to have its speed or frame rate altered.

Reverse Telecine

Compressor now includes a Reverse Telecine option in the Deinterlace pop-up menu.

The most common approach to distributing film's 24 fps among NTSC video's 29.97 fps is to perform a 3:2 pull-down (also known as a 2:3:2:3 pull-down). If you alternate recording two fields of one film frame and then three fields of the next, the 24 frames in 1 second of film end up filling the 30 frames in 1 second of video.

For editing and effects purposes, it is often desirable to remove the extra fields and restore the video to its original 23.98 fps rate. An additional benefit of restoring the original 23.98 fps rate is that it is easier to convert this to the PAL 25 fps rate.

Retiming Controls

The retiming controls in the Frame Controls pane have been expanded, making it possible to configure the output video duration. This feature makes it possible to create high-quality slow motion effects. You can choose to use one of three methods to set the duration:

- *Percent of source:* Use this to enter a percentage value to modify the clip's speed or choose a specific situation, such as 24 @ 25, from the pop-up menu.
- *Total duration:* Use this to choose a duration for the clip. This option is most useful when you have a source media file whose duration is a bit longer or shorter than it needs to be, and you'd rather change its playback speed than add or remove video frames.
- *So source frames play at [frame rate] fps:* Use this when the source media file's frame rate does not match the Encoder pane frame rate (shown as the frame rate for this item).

In all cases, if the source media file contains audio, the audio also has its speed changed, with the audio pitch corrected so that it sounds the same as the original, just at a different speed. This ensures that you will maintain sync between the video and audio.