What's New for Avid® Media Composer® v8.4

Revision History

Date	Description
July 13, 2015	Updated "Additionally Supported Formats for Capture" on page 9.

New Features

The following table describes What's New for the current editor release.

Feature	Description	For More Info
Custom Projects	You can set a custom frame size for your project.	See "Custom Projects" on page 3.
XAVC-I Native Support	The editing application includes native support for Sony XAVC-I format.	See "XAVC-I Support" on page 4.
Apple® ProRes Native Support	Media Composer now includes native support for Apple ProRes 2K/4K/UHD media	See "Apple ProRes Support" on page 4.
Remove Color Adapters from a Sequence	You can now remove color adapters from a sequence before you send it for color correction on another system.	See "Remove Color Adapters from Sequence" on page 7.
Reformatting Media	You can now manage your default setting for linked media.	See "Reformatting Media" on page 21.
Viewer Mask Options	An option for Mix to Black has been added to the Target Mask submenu in the Source and Record viewers.	See "Viewing Sequences with Mask Regions" in the Help.
Previewing Closed Captioning	The editing application supports previewing Closed Captioning in the monitors and Timeline.	See "Previewing Closed Captioning" on page 4.
Timeline Quick Find	You can quickly search for text in the Timeline.	See "Searching for Text in the Timeline" on page 8.

Feature	Description	For More Info
Lists Tool Improvements	A number of improvements have been made to the Lists Tool.	See “List Tool Improvements” on page 13.
Background Render, Background Transcode and Dynamic Media Folders supported with Media Composer | Cloud	Dynamic Media Folders, Background render and Background transcode are compatible with Media Composer | Cloud systems.	See “Dynamic Media Folders and Background Render Support with Media Composer | Cloud” on page 15.
Composer Monitor Change	You can resize a single monitor to a larger size than in previous releases.	See “Composer Window Sizing Changes” on page 9.
Terminology Changes	AMA is now referenced as Link in the editing application.	See “Terminology Changes” on page 10.
	All import and export settings for scaling of color levels from full range (RGB) to legal range (video) have been updated with more intuitive terminology.	See “Mapping of Color Levels” on page 10.
Adapter Display in Timeline	The source side adapters icons are now represented individually so that you can quickly see which adapter has been applied to the clip. The display of these icons can be turned on/off individually.	See “Adapters Displayed in Timeline” on page 12.
Refresh Sequence All	The More tab of the Command Palette now has a *Refresh Sequence ALL* button that can be added to your Timeline toolbar and mapped to your keyboard.	See “Refreshing Sequences to Use Current Clip Attributes” in the Help.
AAX Factory Presets	The editing application supports Pro Tools presets for audio track effects.	See “Support for Pro Tools Presets” on page 16.
Alpha support for QuickTime wrapped DNxHR	This release includes Alpha support for QuickTime-wrapped DNxHR media.	See “Alpha Support for QuickTime-Wrapped DNxHR” on page 16.
Inactive Audio Tracks	You can choose to include inactive audio tracks in the export process.	See “Export Including Inactive Audio Tracks” on page 17.
Transcoding Media	In previous releases, you could transcode with the media’s original frame rate only when working with greater than HD projects. With this release, it now also applies to SD and HD projects.	See “Transcoding Media Updates” on page 17.

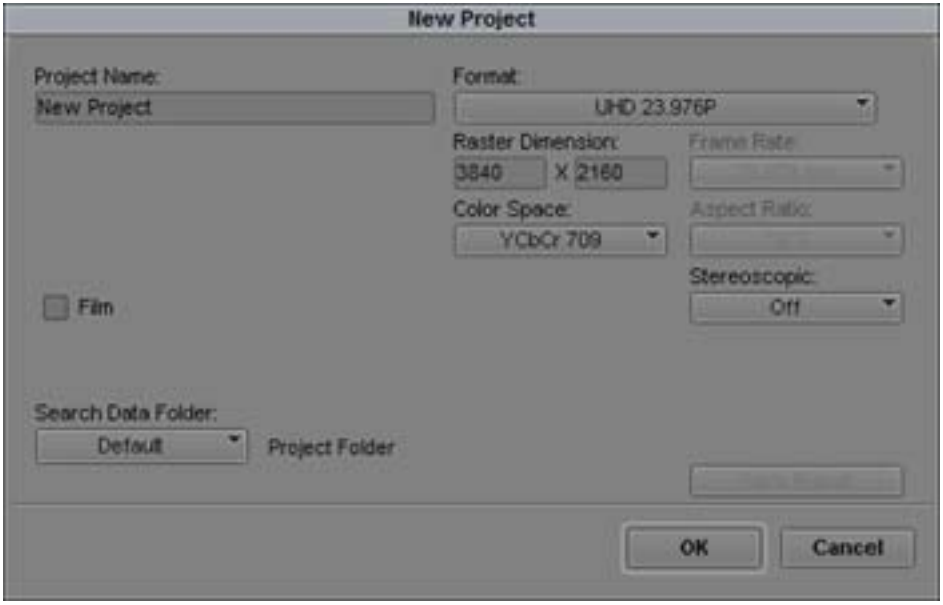
Feature	Description	For More Info
Deleting AMA metadata files associated with linked master clips.	You can now delete metadata files associated with linked master clips.	See "Deleting Metadata Files Associated with Linked Media" on page 21.
Four Channel Audio Monitoring options	Additional options have been added to the Audio Mixer tool that tell the editing application the number and position of speakers connected to your workstation. The output of the sequence set in the Sequence Mix Mode is mixed into the speakers available according to one of these modes.	See "Four Channel Audio Monitoring" on page 22.

Custom Projects

There is a new Custom option in the drop-down Format menu of the New Project dialog that allows you to set a custom frame size for your project. You must enter even values in the Raster Dimension boxes (height x width). The minimum size is 256 pixels in width by 120 pixels in height, and the maximum size is 8192 by 8192 pixels. The minimum dimensions are maintained even when using 1/4 and 1/16 proxy mode.

For stereoscopic projects, the height must be divisible by 4 and the width divisible by 8. For example: 1600 x 6000.

You can also save all your custom raster dimensions by clicking the Save Preset button. Enter a name for your preset and click OK. The next time that you open a new project, this preset will be available under the Format drop-down menu as My Presets. Currently, these Presets cannot be deleted.



All the current frame rates are supported for custom projects (23.98fps to 60fps). Also, custom projects will use DNxHR for media creation and render settings.

XAVC-I Support

Media Composer now includes native support for the Sony XAVC-I format using the latest Sony AMA plug-in. Link to XAVC-I UHD or 4K media and playback the clips in realtime.

Apple ProRes Support

Media Composer now includes native support for Apple ProRes 2K/4K/UHD media. Link to Apple ProRes media and playback the clips in realtime.

Previewing Closed Captioning

You can now preview Closed Captions in the Record monitor, Source monitor, pop-up monitors, and in the Timeline D-Track. With this release, EIA-608 compatibility bytes in EIA-708 Closed Caption data from the 436M ANC stream of the D-Track is supported. Pop-on, Roll-up and Paint-on captions are supported.

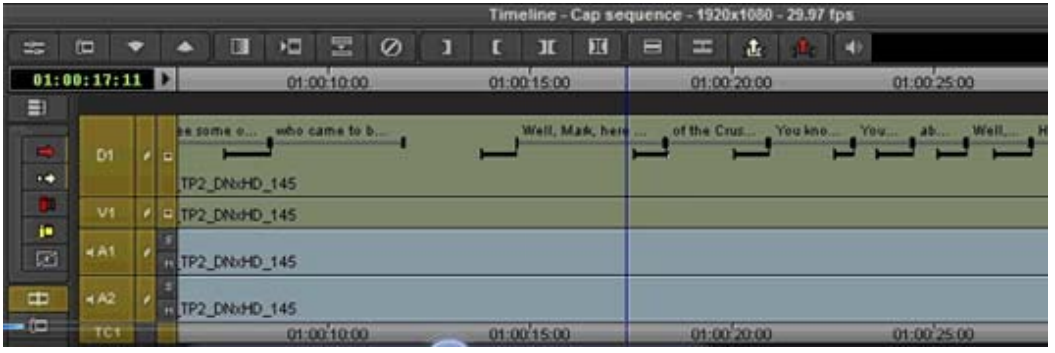
To preview Closed Captions:

1. Load the clip or sequence.
2. Right-click the monitor where you want to preview the Closed Captions.

3. Select Show Captions.

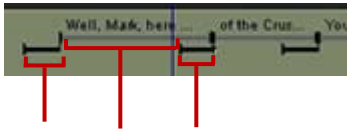
   The captions appear in the monitor.

The Closed Captions appear in the D-Track of the Timeline.



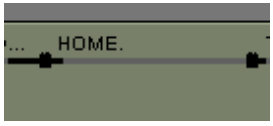
Example of Pop-On Closed Captions in D-track

The D-track provides visual information on when the caption is loading, displaying and switching to the next caption.



From left to right: Caption loading, Caption playing, Next caption loading

The caption loading phase (black solid line) contains information to properly display the caption. The caption playing phase (gray line) contains mostly filler. If you are editing the D-track, it is safe to edit in the gray area. Note that Roll-on and Paint-on captions do not display the same as Pop-On captions in the Timeline

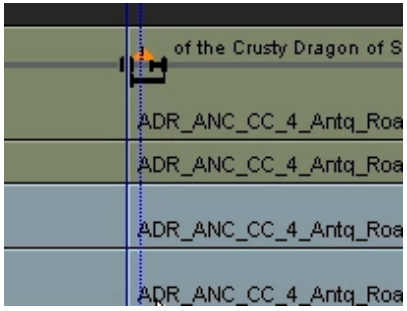


Example of Roll-on caption in Timeline

It is safe to insert filler in the D-track.

If you make edits to the data track, you should check your work with a decoder because what appears on the desktop video does not take the edits into account.

If you edit in the solid black area of the D-track, you could break the caption. If you do make an edit through a caption, an orange triangle icon appears in the Timeline to indicate the caption could be broken.



Searching for Closed Captions Text in the Timeline

You can use the Timeline Quick Find text box to search for Closed Caption text.

To search for Closed Caption Text in the Timeline:

1. Load the sequence containing the Closed Caption data track.
2. Follow the procedures in "Searching for Text in the Timeline" on page 8. Make sure that Visible Timeline Text is selected in the search criteria.

Exporting Closed Captions Text

You can export the Closed Caption text as either TTML (Timed Text Markup Language), or SCC (Scenarist Closed Caption) format.

To export Closed Caption Text

1. Select the sequence containing the Closed Caption text.
2. Select File > Export.
3. Click Options.

   The Export Settings dialog opens.
4. Select TTML or SCC from the Export As pulldown menu.
5. Select the location for the .ttml or .scc file.

Remove Color Adapters from Sequence

You can remove color adapters from a sequence before you send it for color correction on another system. Duplicate your sequence so that you save a version with the color adapters. Then select, Refresh Sequence > Remove Color Adapters.

Color adapters are removed at the sequence level so that you can export the sequence as an AAF for color correction on another system. This function does not affect adapters on the master clips (as source settings); only the sequence is modified.

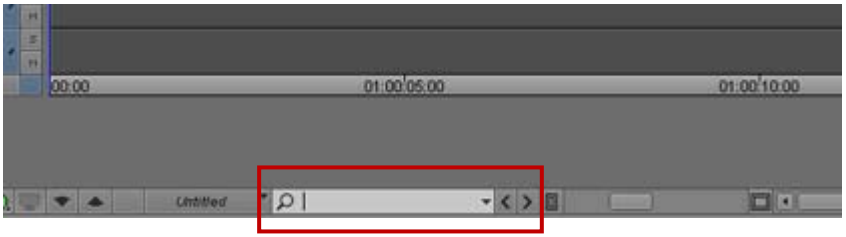
If you want to transcode clips associated with the sequence without their color adapters, then you need to deselect the "Apply source transformations > Color encoding" option in the Transcode dialog.

Searching for Text in the Timeline

The Timeline Quick Find field allows you to enter text that you can search for in the sequence in the Timeline.

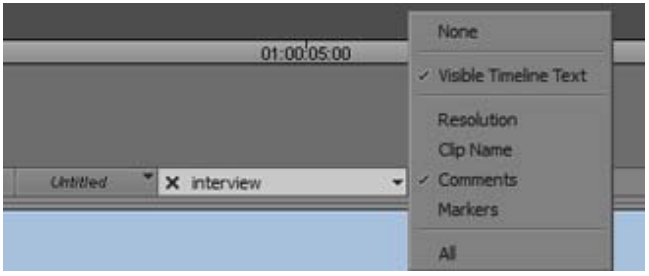
To search for text in the Timeline:

1. Load the sequence in the Timeline.
2. Click the Timeline Quick Find field.



Timeline Quick Find field, Find to the left button, Find to the right button

3. Enter the text you want to search for in the text field.
4. To customize the search, use the text field drop down menu and select which text options you want to search. You can search for Visible Timeline Text, Resolution, Clip Name, Comments, Markers, All, or any combination of these search options.



5. Click the Find to the right or Find to the left button.

   The Timeline blue bar moves to the start of the next Timeline segment whose metadata contains a match for the search string, based on the search menu's filter options.
6. If necessary, click the Find left or right buttons to continue searching for the text in the Timeline sequence.

Additionally Supported Formats for Capture

With this release, the following additional formats are supported for capture.

Project Format	Frame Size	Frames/Sec
1080p	1920 x 1080	50p, 59.94p, 60p
2K	2048 x 1152	23.976p, 24p, 25p
2K Full Aperture	2048 x 1556	23.976p, 24p, 25p
Ultra HD	3840 x 2160	23.976p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
4K DCI Full	4096 x 2160	23.976p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p

Composer Window Sizing Changes

When the Composer window is displayed as a single monitor, it is now possible to resize the monitor to a much larger size. A menu option has been added to the Special menu that allows you to easily switch between single and dual monitor.

Dragging the Source/Record monitor no longer snaps between dual and single monitors.

To resize a Single Monitor:

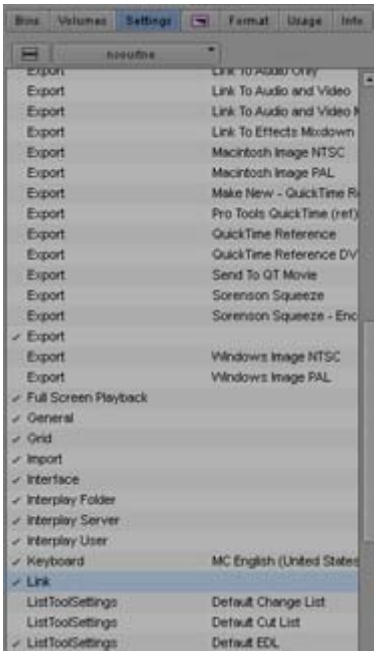
1. Select Special > Show Single/Dual Monitor or right-click in the Composer monitor and select Show Single/Dual Monitor to display a single monitor.

   The Source/Record monitor changes to a single Record monitor.

2. Drag the lower right corner of the monitor to the desired size.
3. (Optional) You can map the Show Single/Dual Monitor menu command to your keyboard to easily switch between dual and single monitors. See “Mapping Menu Commands” in the Help.

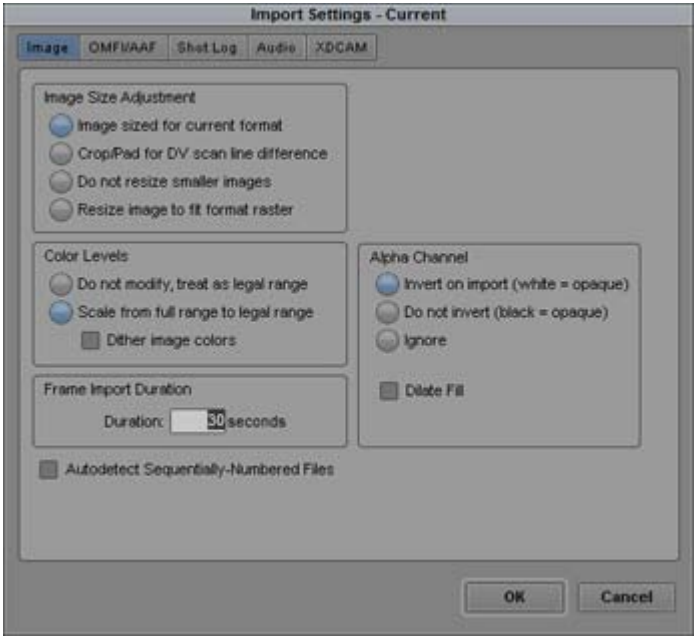
Terminology Changes

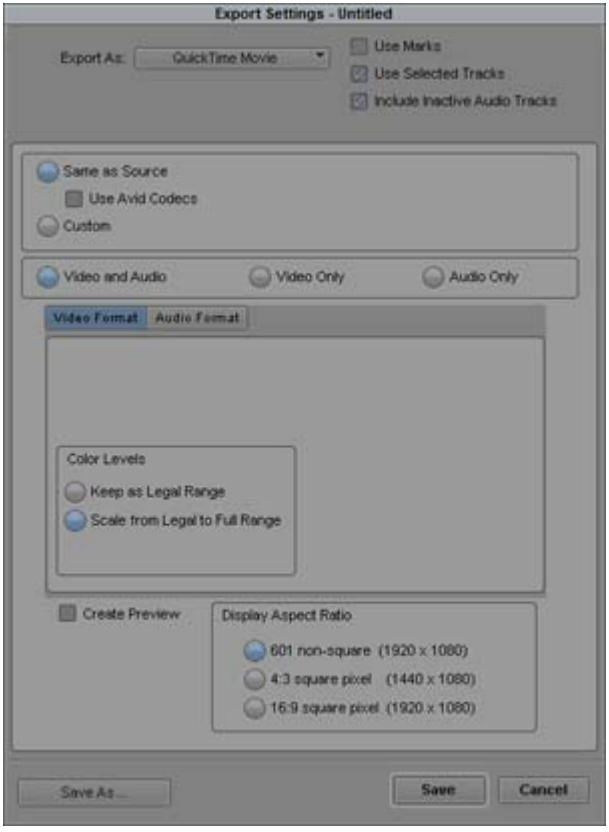
In an effort to simplify terminology in the editing application, references for AMA are now referred to as Link. This will be most notable when you are looking for the AMA Settings in the Project Settings window. AMA settings now appear in the Link settings option.



Mapping of Color Levels

All import and export settings for scaling color levels from full range (RGB) to legal range (video) have been updated with more intuitive and consistent terminology. In the Import and Export Settings, the sections are titled Color Levels.

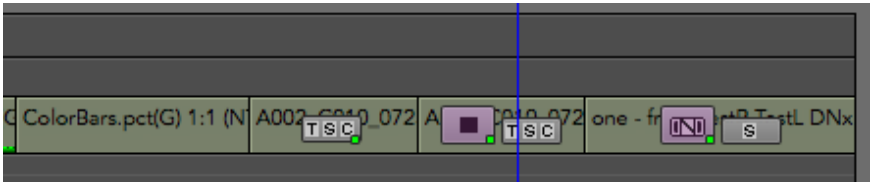

Import Settings - Current
Image
OMF/AAF
Shot Log
Audio
XDCAM
Image Size Adjustment
Image sized for current format
Crop/Pad for DV scan line difference
Do not resize smaller images
Resize image to fit format raster
Color Levels
Do not modify, treat as legal range
Scale from full range to legal range
Dither image colors
Alpha Channel
Invert on import (white = opaque)
Do not invert (black = opaque)
Ignore
Dilate Fill
Frame Import Duration
Duration: 30 seconds
Autodetect Sequentially-Numbered Files
OK
Cancel



In all areas, the reference to RGB and 601/709, has been refreshed with more task-directed options for scaling of full range and legal range.

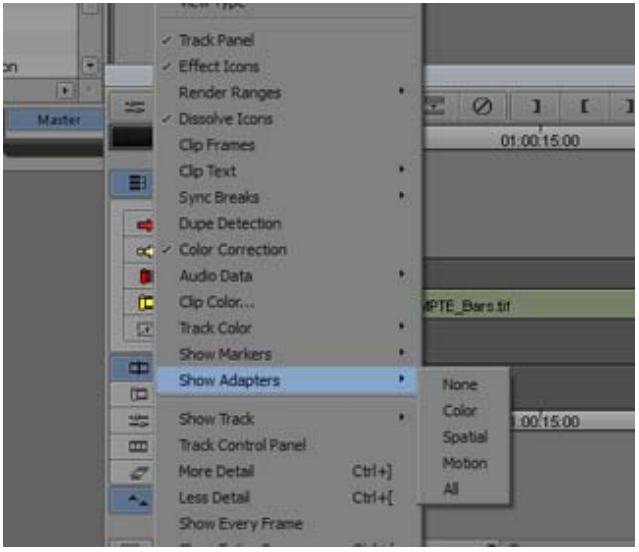
Adapters Displayed in Timeline

Clips that have source-side color, spatial and motion adapters, now have these effects indicated by separate icons instead of the green dot.



Temporal (motion) adapters appear with a T, spatial (FrameFlex) adapters appear with an S, and Color adapters appear with a C. If there is a render dot on the clip it will appear on the effect icon. If there is no effect icon, the render dot will appear on the adapters.

You can change your timeline display to selectively turn the icon display on or off. Select the Timeline fast menu (hamburger menu) and choose which adapters you want to appear in the Timeline.



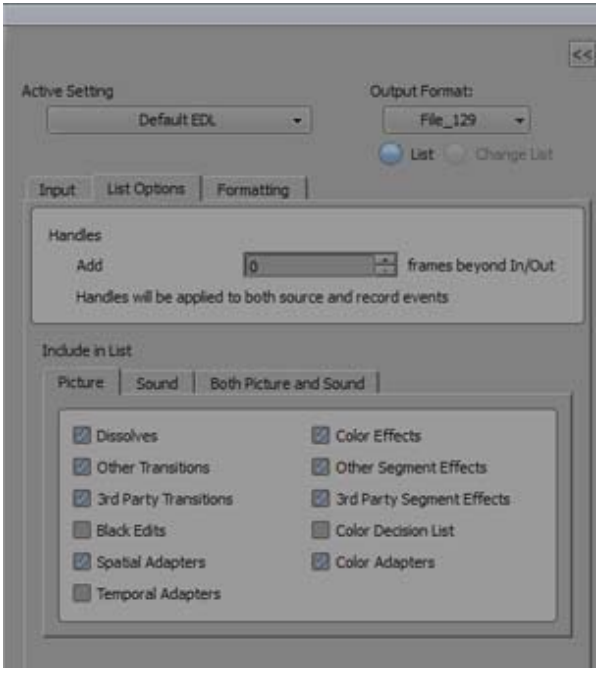
List Tool Improvements

This release incorporates the following improvements for the Lists Tool.

- Added handles to EDL events
- Easy access to the Preview Pane tools
- Timeline blue bar interaction with EDL events
- Background color to the Preview Pane when in Edit Mode
- Print List
- Clear List

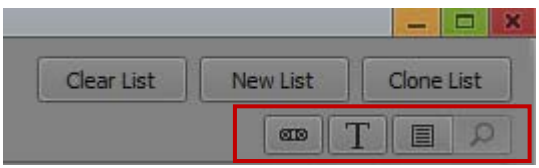
Adding Handles to an EDL

You can now add handles to an EDL. You can load a sequence into the List Tool and add handles to the start and end of the sources. This saves time from manually trimming each source in the new Timeline. See the List Tool List Options.



Preview Window Tool Bar

Easy access tools appear above the Preview Pane. This gives you quick access to enabling Timeline tool bar interaction with EDL events, setting the Font size, accessing Edit Mode, and accessing the Find and Replace text fields.



Timeline bluebar interaction button, Set Font Size button, Edit Mode button, Show Find Tools button

Timeline Blue Bar Interaction with EDL Events

When you generate an EDL from a sequence loaded in the Timeline, you can click the Timeline Blue Bar Interaction button. Then when you select an event in the EDL list, the blue bar in the Timeline will move to that event in the sequence. And when you select the blue bar in the Timeline, the applicable event in the EDL list is highlighted.

Set Font Size Button

Click the Set font size button to change the font size of the EDL, Cut List, or Change list text in the Preview pane.

Background Color for Edit Mode

Click the Edit Mode button to enter edit mode. Once you click the Edit Mode button, the background of the Preview pane changes to purple. This helps you easily see that you are in Edit Mode. To exit Edit Mode, simply click the Edit Mode button again.

Show Find Tools Button

When in Edit Mode, click the Show Find Tools button to open the Find and Replace text fields at the bottom of the Preview pane.

In previous releases, searching was available for EDLs. Searching is now available for Change Lists and Cut Lists.

Print List

You can print the list that appears in the Preview pane. Click Print List from the File menu.

Clear List

You can Clear the list that appears in the Preview pane. Click the Clear List button at the top of the Preview pane.

Dynamic Media Folders and Background Render Support with Media Composer | Cloud

In previous releases, separate transcode services were installed with the editing application and Media Composer | Cloud. These transcode services were not compatible, therefore you could not use Dynamic Media Folders, background render, and background transcode with Media Composer | Cloud. With this release, the transcode services have been merged and Dynamic Media Folders, background render and background transcode work with Media Composer | Cloud. For details on using Media Composer | Cloud, see “Using Your Avid Editing Application with Media Composer | Cloud” in the Help.

You cannot stop and start the services if you are logging into Media Composer | Cloud.

Support for Pro Tools Presets

You now have the same AAX factory-provided presets used in ProTools. When you access an Audio Track Effect, you can choose the factory default Plug-in settings as shown below.

You can also select a preset setting, make adjustments and select Save Setting As to save the adjusted setting. The saved setting appears as a selectable preset when you choose that plug-in.

Alpha Support for QuickTime-Wrapped DNxHR

The alpha channel is now supported with DNxHR media. Using third-party applications, such as AfterEffects, you can now create QuickTime wrapped DNxHR movies that contain an alpha channel. The DNxHR QuickTime components must first be installed on these systems.

To export your media from a third-party system and import into Media Composer:

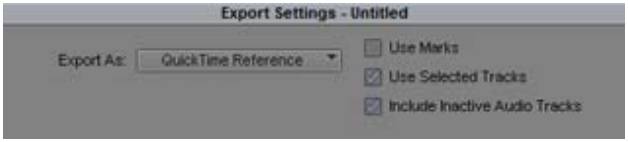
Create the necessary effects and export your file as DNxHR 444 that includes Alpha.

Fast Import or link those QuickTime files into Media Composer.

Note - You cannot export sequences with alpha from Media Composer. Only Titles and Matte Keys can be exported.

Export Including Inactive Audio Tracks

The Export Settings dialog now displays the option to include inactive audio tracks. When this option is selected, inactive audio tracks will be included with the exported sequence. This option is on by default.

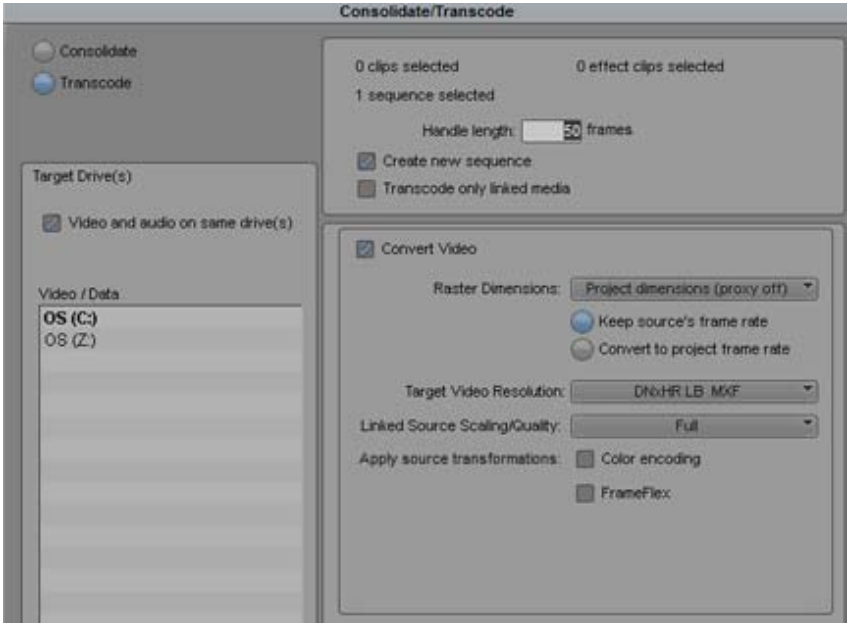


Note also the terminology for Use Enabled Tracks has changed to Use Selected Tracks.

Transcoding Media Updates

A few options have been added to the Transcode dialog.

- Keep source's frame rate
- Convert to project frame rate
- Apply source transformations



Transcoding Media at Original FPS

In the previous release, you could transcode with the media's original frame rate only when working with greater than HD projects. With this release, it now also applies to SD and HD projects.

When "Keep Source's Frame Rate" is selected, the list of available codecs changes to the DNxHR family. If you need to use older codecs in HD/SD, select "Convert to project frame rate." See "Transcode Options" on page 19.

Applying Source Transformations when Transcoding

When you select a sequence for transcoding, any source transformation adjustments done on the Timeline are not applied. The transcode operation only applies source transformations that were made on the clip (from the bin). This keeps your proxy media intact.

If you have applied further transformation adjustments on the Timeline, these are processed on the fly, so you might see a slowdown in performance when playing your sequence.

If you want to get real-time playback when previewing your sequence, you can choose to apply the source transformations when transcoding. However, when you are doing the final render for output, make sure that you link back to the source clips.

See “Transcode Options” on page 19.

Transcode Options

See the following description of the options in the Transcode dialog.

Option	Description
Video and audio on same drive(s)	Select to store the transcoded media files on the same target drive. Deselecting this option lets you select separate drives for the audio and video media files.
Handle length n frames	If you are transcoding subclips or sequences, type a handle length for the new clips, or accept the default: leave it at 60 frames (NTSC) or 50 frames (PAL). The handle length is the number of frames outside the IN and OUT points that you can use for dissolves and trims with the new, shorter master clips.
Create new sequence(s)	Select this option to create a new sequence from the transcoded clips.
Transcode only linked media	Select this option if you want only linked media transcoded.
Create new clips	In an Interplay environment, with Dynamic Relink enabled, select this option to create new master clips for the transcoded media. If you do not select this option, the existing master clip is associated with both the original media file and the transcoded media file. For more information, see “Understanding How Clips are Associated with Multiple Resolutions” on page 54.
Convert Video	Select this option to convert the video to the target video resolution.
Raster Dimensions	This option allows you to select the transcode raster dimensions. Project dimensions (proxy off) - Transcodes the clip at the resolution set for the project. Source dimension - Transcodes the clip at its original resolution. Source 1/4 - Transcodes the clip at a quarter of its original resolution. Source 1/16 - Transcodes the clip at 1/16 of its original resolution. *When transcoding multiple clips at source dimensions, each clip will be transcoded at its original size or relative 1/4, 1/16 selected setting.* *The minimum dimensions are 256 pixels in width by 120 pixels in height. So for example, in a 960x540 project, only 1/4-proxy (480x270) will be available and not 1/16-proxy (240x135).*

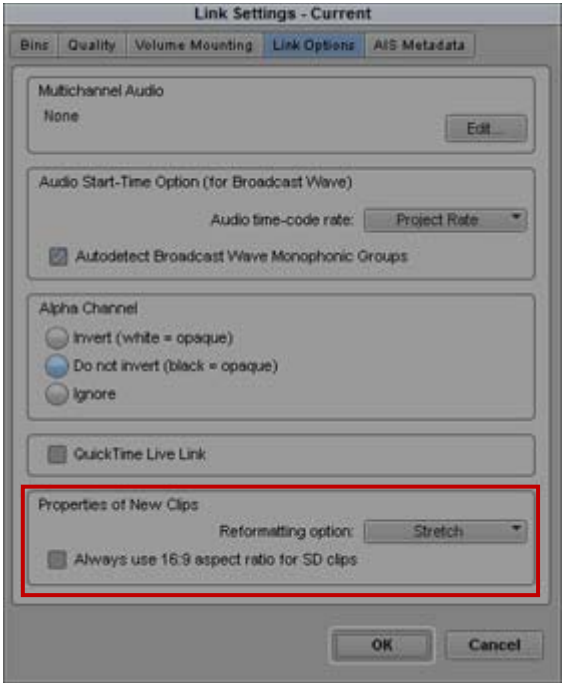
Option	Description (Continued)
Keep Source's Frame Rate	When this option is selected, the list of available codecs changes to the DNxHR family.
Convert to Project Frame Rate	Converts the media to the project's frame rate. Select this option if you need to use older codecs in HD or SD.
Target Video Resolution	Select a video resolution for the sequence.
Linked Source Scaling/Quality	Sets the playback quality for linked media. You can choose Full, Half (Best Quality), Half (Good Quality), Quarter, Eighth, Sixteenth. The default setting is Full.
Apply source transformations	Color encoding - Select this option if you want to transcode clips with their applied color adapters. Frame Flex - Select this option if you want to transcode clips with FrameFlex formatting. *If you intend to send your sequence for effects or finishing on a third-party system, Avid recommends that you use the original source dimensions and frame rate, and not apply source transformations when transcoding.* *If you do not select these options, the adapters are bypassed during the sequence transcode only. The source transformations still remain on the clips in the bin*
Convert Audio Sample Rate	Select this option to convert any sample rates not set in the Sample Rate menu in the Main tab in the Audio Project Settings window. For information on setting the sample rate, see "Changing the Audio Sample Rate for Sequences and Audio Clips" on page 944.
Target Audio Sample Rate	Select a sample rate for the sequence.
Convert Audio Bit Depth Conversion	Select this option to convert the audio to the target bit depth.
Target Audio Bit Depth	Select either 16 bit or 24 bit.
Convert Audio Format	Select this option to convert the audio to the target audio format.
Target Audio Format	Select either OMF (WAVE), OMF (AIFF-C), or MXF (PCM) audio format. See "Audio Projects Settings: Main Tab" on page 48.
Run in Background	Select this option to have the transcode operation run in the background.

Reformatting Media

You can now manage your default setting for linked media (choices are Letterbox/Pillarbox, Center Crop, Center Keep Size or Stretch).

This setting is available from Settings > Link > Link Options. There is a Reformatting option at the bottom of the dialog that lets you set the default for new clips.

There is also an option to set SD clips as 16:9 by default. This setting forces all this SD media to be tagged as 16:9.



Deleting Metadata Files Associated with Linked Media

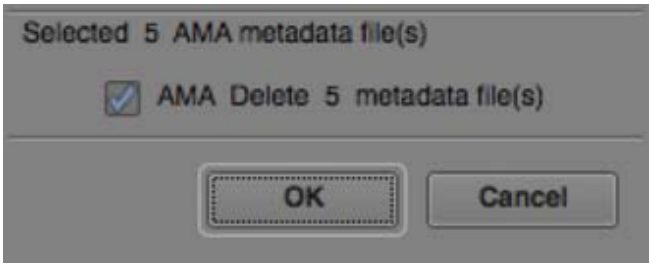
You now have the option to delete the metadata files associated with linked media.

To delete the metadata associated with linked media:

1. Select Tools > Media Tool.
2. Choose the drive and project that contain the linked media. Make sure Linked Master Clips is selected.
3. Click OK.

The Media Tool opens.

4. Select the files whose metadata you want to delete.
5. Press the Delete key.



6. In the Delete dialog box, select the AMA Delete metadata files(s) option.
7. Click OK.

   The associated metadata files are deleted. Selecting this option does not delete the media files. Only associated metadata files are deleted.

Four Channel Audio Monitoring

The monitoring options in the Audio Mixer Tool and the Output tab of the Audio Project Settings have been updated to provide new Four Channel Audio monitoring options.

- Stereo: Stereo sequences are output in stereo as expected. Surround sequences are folded down to stereo, rear and side channels are mixed at -3dB into the corresponding front left and right, center and LFE channels are panned to center. If you have four or more physical outputs, you can choose the output channel pair in Audio Project Settings.
- Mono: Pans all the currently monitored tracks to center and ignores pan effects.
- **4-channel LRCLfe** - The four channels are Left, Right, Center, and Lfe (Low Frequency Effects) in that order. L, R, C, and Lfe are sent directly to their corresponding channels. Rear and side channels are mixed at -3dB into front left and right. Four-channel modes cannot be reassigned. Even if you have eight outputs, the four channel modes are always the first four.
- **4-channel LRCS** - The four channels are Lef,t, Right, Center, and Surround, which is a single rear loudspeaker L, R, and C are sent directly to their corresponding channels. Lfe is mixed at -3dB into front left and right Rear channels panned into the single rear center. Side channels (side centers in a 7.1 mix) are panned between the single rear channel and the corresponding front channel.
- **4-channel Quadraphonic** - The four channels are in four corners of the listening space, L, R, Ls Rs. Left, Right, Left Rear, and Right Rear are sent directly to their corresponding channels. Center, Left Center, and Right Center are panned to the centers of their corresponding speaker pairs. Lfe is mixed at -3dB into front left and right.

- 6-channel 5.1 Pro Tools, (L C R Ls Rs Lfe), and 5.1 SMPTE (L R C Lfe Lr Rr) “Film” channel order has been renamed “Pro Tools” channel order, consistent with contemporary usage and with the naming of the 7.1 channel orders. Stereo sequences are output only to L and R, in the selected channel order. Surround 5.1 sequences have channels re-ordered to match the selected channel order. Surround 7.1 sequences, have their center side channels are panned to the center of their corresponding speaker pairs. If you have more than eight or more audio outputs, you can choose to start the 5.1 mix at position 1 or position 3 of any 8-channel group..
- 8-channel 7.1 Pro Tools, (L C R Lss Rss Lsr Rsr Lfe), and 7.1 SMPTE (L R C Lfe Lsr Rsr Lss Rss) Note Lsr and Rsr and left and right “surround rear”, Lss and Rss are left and right “surround side”. Stereo sequences are output only to L and R, in the selected channel order. Surround 5.1 and 7.1 sequences have channels re-ordered to match the selected channel order. Lss and Rss remain silent when playing 5.1 sequences. If you have 16 outputs, you can choose to start the 7.1 mix at position 1 or position 8.
- Direct out, Panning and master fader effects are ignored. Each track is mixed into one or more outputs according to the output assignments in the Audio Project Settings output pane. Stereo and surround tracks will be sent to multiple adjacent outputs, and the channels within surround tracks are re-ordered according to SMPTE or Pro Tools channel order conventions as selected.

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