**Autodesk**<sup>•</sup> Backdraft<sup>•</sup> Conform 2010

New Features Guide



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# Introduction

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- Using the New Features Guide on page 2
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# **About the Documentation**

Autodesk<sup>®</sup> Backdraft Conform<sup>®</sup> 2010 includes documentation that helps you install, configure, and use your product.

For a list of all the documentation available to you, visit *http://www.autodesk.com/backdraftconform-documentation*.

Refer to the Release Notes for all late-breaking release information.

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# **Using the New Features Guide**

This New Features Guide describes the new and updated features for this release of Backdraft Conform. For a quick look at the New Features, see What's New on page 5. Some of the major features also have more information in this guide — just follow the links from the What's New chapter.

# **Viewing Tooltips**

Your application includes tooltips that describe objects on the user interface (such as buttons and fields). The tooltips also display the hotkey for the object, if one is configured.

#### To view tooltips:

► Move the cursor over the object.

After a few seconds, the tooltip displays.

In the Preferences menu, you can turn on and off the display of tooltips. You can also change the amount of time your cursor must rest on an object before the tooltip displays.

# **Viewing the Help**

Included with your application is a Help system that you can view in a Web browser. The Help is installed automatically and is accessible from anywhere within your application.

The Help is best viewed using Firefox<sup>®</sup> 2 or Internet Explorer 7.

#### To view the Help:

- 1 Start your application.
- **2** Click Preferences to open the Preferences menu and click Help.

You can also access the Help by clicking the Help button, which appears on the bottom-right of the EditDesk.

**TIP** Press **Ctrl+=** to open the Help from anywhere in your application.

A browser launches displaying the Help.

**TIP** To view the Help without interrupting a client session, copy the *documentation/help* folder from the product DVD to another system, such as your laptop. To view the Help, open the *help/index.html* file.

# **Viewing PDF Documentation**

The documentation set is available in PDF for online viewing or printing. They are installed in the *documentation* directory of your application. You can view any of the PDF files in that directory from your application.

We recommend Adobe<sup>®</sup> Reader<sup>®</sup> or Xpdf for best results when viewing PDF files.

#### To view the PDF files from your application:

- 1 Click Preferences to display the Preferences menu.
- **2** Select a document from the PDF Documentation box.

The document opens automatically in Xpdf on Linux<sup>®</sup> workstations.

**TIP** You can access other PDF documents from your application by copying them to the directory.

#### **Autodesk Media and Entertainment Training**

There are a number of training options available to you to help you be more creative and productive with your application, including free self-paced training, and instructor-led training.

For all your training options, see: http://www.autodesk.com/me\_training

#### **Notation Conventions**

A number of style conventions are used throughout your documentation. These conventions and examples of their use are shown as follows.

Convention	Example
Text that you enter in a command line or shell appears in Courier bold. Press the Enter key after each command.	install rpm -qa

Convention	Example
Variable names appear in Courier, enclosed in angle brackets.	<filename></filename>
Feedback from the command line or shell appears in Courier.	limit coredumpsize
Directory names, filenames, URLs, and command line utilities appear in ital-ics.	/usr/discreet

# **Contacting Customer Support**

For Autodesk<sup>®</sup> Media and Entertainment Customer Support, visit *http://www.autodesk.com/support*.

Customer support is also available through your Autodesk reseller. To find a reseller near you, consult the reseller look-up database at *http://www.autodesk.com/resellers*.

# What's New

# 2

#### Topics in this chapter:

- About This Release on page 5
- Floating Point Workflow on page 5
- Technical Tools on page 6
- Application-centric Improvements on page 7
- Interoperability Workflow Improvements on page 9
- Editorial and Timeline Improvements on page 12
- Input/Output Improvements on page 13

# **About This Release**

This release of Backdraft Conform introduces many new and updated creative tools, as well as workflow improvements. See the themes below for a quick overview, and then follow the links for more detailed information.

# **Floating Point Workflow**

With this release, the floating-point workflow is enhanced with better multichannel OpenEXR support.

#### Support for Multichannel OpenEXR Import

Input, transcoding, and output of single OpenEXR files are now mostly handled using WiretapCentral. WiretapCentral gives you the option of saving RGB, RGBA, or all channels. Note that separate RGB clips will be generated for every EXR channel detected.

You can also access Wiretap Central directly form the Autodesk Visual Effects and Finishing application, by selecting OpenEXR from the Import Image menu.

#### **Colour Picker Supports Floating Point**

The colour picker now supports 16-bit floating point colours.

See Colour Picker on page 15.

# **Technical Tools**

Like creative tools, technical tools are also necessary to help you get better results. This release introduces the following new and improved technical tools.

#### **Pulldown Tool Improvements**

Advanced and PAL pulldown are now supported in EditDesk Tools.

The tools can also automatically detect the type of pulldown to remove.

#### **Resize Improvements**

The following features that were available only in the Real-Time Deliverables resize are now available from the EditDesk and Timeline (soft-resize):

- GPU acceleration. Your application can now use the GPU to accelerate resize processing, which results in noticeable performance increases for the more complex filtering algorithms.
- Adaptive de-interlacing. This filter, which minimizes artefacts associated when resizing interlaced material, is now available.

Sub-pixel crop box. The crop box can now be resized on a sub-pixel level, which results in smoother animations.

#### **Limitations of GPU-Accelerated Resizing**

If your clip exceeds the maximum resolution listed in the following table, your application cannot use the GPU to accelerate resizing. When the GPU cannot accelerate resizing, adaptive de-interlacing is also not available.

NVIDIA Graphics Card	Maximum Resolution for: 8 and 16-bit Images	Maximum Resolution for: 10-bit and 12-bit (packed and unpacked) Images		
Quadro FX 4500/5500	4096 x 4096	2048 x 4096		
Quadro FX 5600	8192 x 8192	4096 x 8192		

# **Application-centric Improvements**

Sometimes a small improvement to an existing feature can save you time and create a better workflow. The ultimate goal is to allow the application to help you by offering these enhancements.

#### Add Module Name as Prefix or Suffix on Rendered Clips

A new preference allows you to add a module acronym as a prefix or suffix to the name of a rendered clip.

See Rendered Clip Name on page 25.

### Colour Management: Image Display Viewer Improvements

You can now gesturally bypass image data type presets in the image window. In addition to viewing the image in RGB mode, you can view it in a Matte mode with independent image display presets. See Controlling Image Display using Exposure and Image Data Type on page 26.

#### Broadcast Monitor: Display Grid/Guides Overlay

When the Show Selected Item option is enabled, any overlays are also displayed in the broadcast monitor. This applies to clips in the Player, modules, and clip libraries (letterbox only).

#### Broadcast Monitor: Support for 4:4:4 for GVO via NVidia SDI2

A new preference allows you to set 4:4:4 broadcast monitor output for extended monitor capabilities. This setting requires a broadcast monitor that supports the 4:4:4 colourspace and is connected by dual-link to the SDI card.

#### **Running the Application from User Accounts**

Users can now run the application from their own Linux user account, or use the default Backdraft Conform account. Projects now reflect correct ownership and are created with permissions set to 666.

The application no longer runs as root by default, but only when specific tasks require it.

#### **Expected and Detected Sync**

A new preference displays the detected and expected sync for the work session.

#### **User Profiles**

When connected to a remote framestore, you can now select a local or remote user. You can select a local or remote user from the start-up screen or from the Project Management section of the Preferences menu.

See Selecting a Project and User on Start-up on page 28.

When creating a user, you can copy a user profile as follows:

- You can copy a user profile from a local or remote system.
- You can copy all preferences from a user profile in the current version of the application

You can copy only hot key preferences from a user profile in an older version of the application.

See Creating User Profiles on page 30.

The default user has been removed as an option from the User box.

#### **Clip Library Improvements**

The clip library has been improved with the following additions:

- An R/W button that gives you read-write access to Flare libraries.
- A Hidden Libs button that displays libraries such as \_cache and .\_Backup, which are by default not visible.
- A Show Libraries box that gives you the option of displaying libraries belonging to the current project (Current Project Libraries option) or all libraries belonging to projects to which you are connected through the network (All Libraries option).
- A newly improved Clip Library box that makes it is easier to distinguish between library types.

See Available Libraries on page 32.

# Interoperability Workflow Improvements

As many new formats and codecs are introduced in the industry, it is important to create workflows that support them.

#### **RED Workflow**

High-quality transcoding of RED R3D media as a background task is now available via WiretapCentral, allowing for:

- import of R3D files
- batch import of R3D files referenced in an FCP XML or an EDL

You can also access WiretapCentral directly from the Autodesk Visual Effects and Finishing application, by selecting RED from the Import Image menu.

#### Import/Export DNxHD in QT Wrapper

DNxHD files in a QuickTime wrapper are supported for import and export. As well, for export, there are a number of new easy-to-use presets.

#### **Recapture/Relink Improvements**

The following recapture/relink improvements are introduced:

- The Recapture screen now contains updated options for media file search, import, and relink options.
- To facilitate file-based conform from EDL, XML, and AAF, the new search feature is able to intelligently and automatically find and read image sequences (DPX) or streaming media (MXF, QT), based on preset search rules and criteria.
- Relink problems are reduced with the new Copy from Selected Clip button. This button copies the formatting information of the selected clip into the Resolution parameters; in effect, providing the parameters (resolution, frame rate, bit depth, etc.) by which to "resize" a target clip, such as an FCP XML clip.
- A new Skip Recapture button appears in the Import XML and Import AAF menus. This is useful when importing timelines that point to media of a different format (such as when trying to relink to original sources).

For XML files, see Importing Final Cut Pro XML on page 35 and Relinking to File-based Media on page 38.

For AAF files, see Importing AAF Files on page 45 and Relinking to File-based Media on page 48.

#### **P2 Support Improvements**

You are now able to import P2 material shot in 24P or 24PA mode. You can also remove pulldown (regular and advanced) after import of P2 files.

#### **Compressed Media: IMX in QT**

IMX (MPEG-2) files are supported in QuickTime.

#### More Support for Avid AAF Transitions and Effects

There is now more support for Avid AAF transitions and effects. See Supported and Unsupported Transitions and Effects on page 55.

#### WiretapCentral Improvements

The following improvement have been made to WiretapCentral.

- You can now access WiretapCentral from Autodesk Visual Effects and Finishing applications. This is available in the Import Image menu when selecting OpenEXR or RED images for import.
- You can modify, re-order, add, or remove codecs listed in the export panel by editing a simple XML preset file on the server. You can also adjust the meaning of the quality settings (1-10) to suit your needs. The file resides in:

/var/www/html/WiretapCentral/presets/export presets.xml

- You can now download and install the latest version of ffmpeg alongside the Autodesk Visual Effects and Finishing version of ffmpeg (ffmpeg\_flv), allowing you to leverage all the latest codecs and fixes added to ffmpeg as new builds become available.
- You can now export from WiretapCentral using the following codecs:
  - MPEG-2 in a QT wrapper
  - QT Animation
  - AVI (WMV and MPEG-4)
  - H264 (Main and High). Main is comparable to the quality and size of files generated in QT Pro. High is comparable to the default high quality settings shipped previously.
- The following changes have been made to performance in WiretapCentral:
  - Improved H264 quality, size, and performance.
  - Improved general encoding speed through various techniques, including multi-threading.
  - Upgraded ffmpeg support to the most current version.

- The following changes have been made to the interface in WiretapCentral:
  - The font size has been reduced to fit more on the screen.
  - The size of the clip thumbnails has been reduced by 60% to further maximize screen real-estate.
  - The playlist has been removed. Exporting will now work with clips selected from the main/centre view.
  - The Project and Clip details views have been merged.
  - There are now details on Server, Volume, and Library nodes.
  - When in fullscreen mode, you now have access to the main menu bar.
  - The choice to toggle the application of aspect ratio in the Player has been removed.

See your WiretapCentral User Guide for more information (now also included as part of the Help system installed automatically with Backdraft Conform).

#### **Editorial and Timeline Improvements**

Time-saving improvements when working in a timeline are invaluable, as they free you up to be more creative editorially.

#### Partial Invalidation of Segments in a Timeline

The amount of re-rendering necessary is now reduced when you modify frames that are part of a vertical composition in a timeline. When you modify frames, only the modified frames, including those overlapping in the vertical composition, are invalidated.

#### Navigate Through Tracks/Layers

You can now navigate multi-layer and multi-track video clips directly on the EditDesk without having to go into the timeline. You can also change the focus layer directly on the EditDesk.

See Navigating Edit Sequences on page 65

#### Multilayer/Multitrack Gestural Editing

When editing on the EditDesk, you can gesturally edit multilayer or multitrack clips except those containing dissolves in views other than a Timeline view.

#### **Default Value of Editing Parameters**

To conform to a typical editing workflow, the default status of the Sync, Trim, and Focus timeline options has changed to Enabled.

#### More EQ Bands in Audio

There are now a total of six EQ bands, or nodes, available for more precise manipulation of the audio frequencies: one Low node, four Mid nodes, and one High node. See EQ on page 69.

#### Muting in the Timeline

When you mute video or audio tracks, layers or soft effects, their indicators now turn black instead of yellow.

#### Selecting in the Timeline

A yellow bounding box around a timeline segment now indicates there is an implicit selection by the positioner. Any editing operations you perform, for example, cuts or soft effects, will occur at the positioner location. If there is no bounding box at the positioner location and you have not explicitly selected the segment, this means there is an explicit selection elsewhere on the timeline. Any editing operations will occur at the explicit selection, not at the positioner location.

Having the visual cue of a bounding box around a segment can help you confirm that you are editing the correct segment. This is especially useful in long- form timelines where you might not see all the segment selections.

#### Input/Output Improvements

Getting your clips in and out of the application continues to improve with support for new formats, and further enhancements to Real-Time Deliverables.

#### New Formats Supported Through the AJA Video Card

Embedded audio through the AJA video card now supports 16 audio tracks in the Input Clip, Output Clip, and AudioDesk menus. See Adjusting Audio Gain on Output Clip on page 71 and Using Output Strips on page 73.

#### Start Timecode per Real-Time Deliverable

Real-Time Deliverable can have a start timecode used when outputting the Deliverable to tape. The Player also displays the timecode of a Deliverable.

# **Floating Point Workflow**

# 3

#### Topics in this chapter:

■ Colour Picker on page 15

# **Colour Picker**

New for this release: The colour picker now supports 16-bit floating point colours.

Use the colour picker to pick and mix colours from the image, and to display or change the colour values of any colour. It is available in many modules.

The colour picker takes LUTs and the exposure and contrast settings into account. Disable LUTs and reset exposure and contrast to display actual colour values.

**NOTE** The colour picker used with overlays (grids, letterboxes...) does not take LUTs or the exposure and contrast settings into account.

To display the colour picker, click a colour pot in any module.

Colour	100%				2 Tracks	1 kHz		Res	—a
29.97 fps NDI	-	Start	: 00:00:	00:00	Dur 00:00	):00:01	Re	set All	

(a) Colour Source tool

You can then set the colour pot to use the colour you need. Using the colour picker, you can pick colours by:

- Setting colour model channel values
- Sampling pixels in a clip
- Selecting a colour pot
- Mixing colours on a palette



(a) Current Colour pot (b) Reference Colour pot

By default, the colour picker appears over the colour pot you clicked to open it. Once it is open, you can move it to another location by dragging the grey bar along its upper edge. You can also set colour picker preferences to open the colour picker at other locations (the colour picker inherits the same preferences as those you set for the calculator).

To cancel colour picking at any time, click anywhere outside the colour picker.

# Using the Colour Picker with 16-bit Floating Point Colours

The colour picker allows you to pick colours from a 16-bit floating point media. And to accomodate the wide range of possible values in 16-bit floating point, the colour picker displays additional information.



(c) Bit Depth box

Whenever you set the Bit Depth box to 16fp:

- Each colour slider contains a pair of brackets. The brackets define the 0-1 colour range. Only values inside this 0-1 range are valid once converted to a 8-, 10-, and 12-bit colours.
- You can set values below 0 or over 1. Such values are only possible in the 16-bit floating point colourspace and are not valid in 8-, 10-, and 12-bit colours.
- The numeric fields can use negative values.

#### **Picking Colours by Setting Colour Model Channel Values**

You can pick colours by adjusting colour model channel sliders. You can also enter channel values directly into the fields below each slider.

The Mode box, Colour Model box, and Bit Depth box settings, and channel value units (percentages or bit-values) are saved on a per-user basis, at the end of each session.

#### To pick colours by setting colour model channel values:

1 Click a colour pot to open the colour picker.

The Current Colour pot and Reference Colour pot both display the incoming colour.

2 (Optional) To pick a colour at a bit depth different from the one of the displayed image or clip, select a an option from the Bit Depth box.

			Pick	
			Average	
			Colour	—а
			RGB	—b
128	392	839	10-bit -	— c

(a) Mode box (b) Colour Model box (c) Bit Depth box

**NOTE** The option selected in the Bit Depth box only affects the representation of colours in the picker: it does not affect the bit depth of the displayed image or clip.

**3** From the the Mode box, select how the numeric values represent each channel.

Select:	То:
Colour	Use a range based on bit depth (0-255 for 8-bit, 0-1023 for 10-bit, 0-4095 for 12-bit).
	Only available with Bit Depth set at 8-bit, 10-bit, or 12-bit.
Colour %	Use a percentage value, relative to the entire range of the selected bit depth, ranging from 0-100%.
	Only available with Bit Depth set at 8-bit, 10-bit, or 12-bit.
Range	Use the full range of colours in a 16-bit floating point colourspace, entered as a floating-point number. The brackets enclose the 0-1 range. Only available with Bit Depth set at 16fp.
[0-1]	Display the 0-1 range inside the full 16-bit floating point range, where 0 and 1 are enclosed by brackets. You can still use values outside the 0-1 range. Only available with Bit Depth set at 16fp.
From th with.	e Colour Model box, select the colour model you want to work
Select:	To set colours using the:
RGB	Red, green, and blue channels.

4

Select:	To set colours using the:
HLS	Hue, luma, and saturation channels.
YUV	Luma (Y) and chroma (U, V) channels.

**5** Adjust the sliders, drag the numeric fields, or enter the values in the fields for each slider.

As you adjust the sliders, the colour in the Current Colour pot changes to reflect the current colour. You can compare the current colour to the incoming colour in the Reference Colour pot.

**6** To apply the selected colour, click the Current Colour pot.

#### **Sampling Colours in a Clip**

Sampling pixels in a clip is often the best way of setting the colour you need. For example, to suppress colour spill when keying a clip, the best way to set the colour suppression target is to zoom in on the result clip and then sample the colour spill directly.

You can sample single pixels, take an average along a path, or take an average from inside a selection box.

**NOTE** Applying a LUT or changing exposure/contrast affects the display, but colour picking is done using the original values of the media. Disabling LUTs and resetting exposure/contrast values will show the actual pixel values.

#### To sample a pixel:

1 Click a colour pot to open the colour picker.

The Current Colour pot and Reference Colour pot both display the incoming colour.

2 Click Pick.



- **3** Click in the Player or image window to sample a pixel in the clip. The sampled colour appears in the Current Colour pot.
- **4** To apply the selected colour, click the Current Colour pot.

**TIP** From any colour pot, **Shift**-click to enter Pick mode. Clicking while dragging the Pick icon over an image will display its RGB values. Click again to transfer the colour to the colour pot.

#### To sample an average colour along a path:

1 Click a colour pot to open the colour picker.

The Current Colour pot and Reference Colour pot both display the incoming colour.

2 Click Average.



**3** Drag a path in the Player or image window to take an average from the clip.

The sampled colour appears in the Current Colour pot.

**4** To apply the selected colour, click the Current Colour pot.

**TIP** To sample from paths in different parts of the clip, press **Alt** when finishing the first path-sample and then begin another path elsewhere. Repeat if necessary. Release the cursor without pressing **Alt** to apply the cumulative average to the Current Colour pot.

#### To sample an average inside a selection box:

1 Click a colour pot to open the colour picker.

The Current Colour pot and Reference Colour pot both display the incoming colour.

- 2 Click Avg.
- **3 Ctrl**-drag a path in the Player or image window to take an average from the clip.

The sampled colour appears in the Current Colour pot.

**4** To apply the selected colour, click the Current Colour pot.

#### Selecting a Colour from the Colour Pots

Select from 1 of 18 preset colours in the colour pots. You can also store custom colours in the colour pots.

#### To select a colour from the colour pots:

1 Click a colour pot to open the colour picker.

The Current Colour pot and Reference Colour pot both display the incoming colour.

**2** From the Mode box, select Pot.



- **3** Click one of the colour pots to apply the colour to the Current Colour pot.
- **4** To apply the selected colour, click the Current Colour pot.

#### To customize the colour pots:

- Click a colour pot to open the colour picker.
  The Current Colour pot and Reference Colour pot both display the incoming colour.
- **2** Use the colour picker to apply the colour that you want to store to the Current Colour pot.
- **3** From the Mode box, select Pot.
- 4 Click and hold on the pot in which to store the selected colour.

When you select Pot from the Mode box, Save and Load buttons appear at the bottom of the colour picker to save custom sets of colour pots.

#### **Mixing Colours Using the Colour Palette**

You can use the colour picker to mix colours on a palette.

#### To mix colours:

- Click a colour pot to open the colour picker.
  The Current Colour pot and Reference Colour pot both display the incoming colour.
- **2** From the Mode box, select Paint.



(a) Mode box (b) Clear button

- **3** Use the colour picker to apply the colour that you want to store to the Current Colour pot.
- **4** Drag over the mixing palette to add a swatch of the current colour.
- 5 Repeat the steps 3 and 4 to add other colours to the palette.Colour mixing occurs as more colours are added and they blend.
- **6** To clear the mixing area at any time, click Clear.
- 7 To select a colour from the mixing palette, click Pick and then click in the mixing area.

The mixed colour appears in the Current Colour pot.

**8** To apply the selected colour, click the Current Colour pot.

# Application-centric Improvements

# 4

#### Topics in this chapter:

- Rendered Clip Name on page 25
- Controlling Image Display using Exposure and Image Data Type on page 26
- Selecting a Project and User on Start-up on page 28
- Creating User Profiles on page 30
- Available Libraries on page 32

# **Rendered Clip Name**

New for this release: In the General section of the Preferences menu, a new preference allows you to add a prefix of suffix to rendered clip names.

Set how rendered clip names are displayed in Backdraft Conform.



**Rendered Clip Name box** Select whether to add an acronym of the module as a prefix or suffix to a rendered clip name, if a setup name does not already exist for the clip. If a setup name does not exist, the rendered name of the clip

is the background clip name (or front clip name, if there is no background clip), with the module suffix or prefix. You can also choose Do Not Add.

# Controlling Image Display using Exposure and Image Data Type

New for this release: In the View menu and the Player, you can change toggle the image preset to display the clip in RGB mode or Matte Mode. You can also gesturally change the image preset and apply or bypass the image data type directly in the image window.

When you are working in the Player or a module that supports multiple viewports, you can change the display of an image based on the type of image data you are working with. By default, an image is displayed in RGB mode with a transformation for a video image. You can apply transformations to the image to display an optimal view of logarithmic and linear images.

The Matte mode is a preset that allows you to preview the matte with exposure and contrast settings that are independent of those in RGB mode. In Matte mode, a linear transformation is applied to the image by default and 3D LUTs are not processed.

#### To access the exposure and image data type settings:

- ► Do one of the following:
  - In the Player, click the Player Options tab.
  - In a module with multiple viewports, display the View menu.
  - To access settings for the broadcast monitor, open the Preferences menu.

Exposure & Contrast			
Exposure	0.00		
Contrast	1.00		
Image Data Type			
Video			
Apply All	Bypass		
Preset	RGB Mode		

(a) Image Data Type box (b) Preset box

**Exposure field** Displays the exposure that is used to transform image display in the current image window.

**Contrast field** Displays the contrast that is used to transform image display in the current image window.

**Image Data Type box** Select the type of image data you are displaying in the current image window. Your selection determines the type of transformation that that is applied to the clip to modify the contrast.

Select:	То:
Logarithmic	Apply a transformation to a logarithmic film scan.
Video	Apply a transformation to a video clip.
Linear	Apply a transformation to a 16-bit floating-point image, with a high dynamic range.

**Apply All button** In modules with multiple viewports, enable to apply the transformation for the current viewport to all viewports using the same Preset mode.

**Bypass button** Enable to deactivate display settings in the current image window.

**Preset box** Select an option to preview the image in either RGB or Matte mode.

#### **Controlling Image Display Gesturally**

You can adjust exposure and black level settings directly in the image window of the Player or a module viewport. You can adjust the image data type in a module viewport. The lower left corner of the image in the Player and each viewport display these settings. The Player only displays these settings as you make changes.



(a) Preset Mode (b) Bypass/Active Mode (c) Image Data Type d) Exposure (e) Contrast

#### To adjust exposure and image display settings directly in an image window:

- 1 If you are working in a module, select the viewport.
- **2** Do one of the following:
  - Press **Shift+E** and drag left or right in the viewport to decrease or increase the exposure.
  - Press **Shift+C** and drag left or right in the viewport to decrease or increase the contrast.
- **3** If you are in a module, you can also do one of the following:
  - Click the Preset mode to alternate between RGB mode and Matte mode.
  - Click the Bypass/Active mode to alternate between Bypass mode (colour management is deactivated in the current display window), and Active Mode (settings are enabled).
  - Click the image data type to cycle through video, logarithmic, and linear settings.

**NOTE** If you are in a module, click Reset to restore default exposure and contrast settings. **Ctrl**-click either the exposure or contrast setting to reset it exclusively.

#### Selecting a Project and User on Start-up

New for this release: When connected to a remote framestore, you can now select a local or remote user.

When you start Backdraft Conform, the Project Management menu appears. Use the Project Management menu to select a project and user for the current session, to create projects and users, or to manage existing projects and users.

You can work with projects on the current framestore or on a remote framestore. If multiple volumes are available, you can select which one to use. For information on creating volumes, see the *Autodesk Stone and Wire Filesystem and Networking Guide*.

#### To select a project and user on start-up:

1 Start the Backdraft Conform application.

The Project Management menu appears, displaying the framestore, project, and user from the previous session.

	a b I I			c			
Framestore	detroit		Volume	stonefs		Open	Î
Project	mylene_project_DET	(720x486)	Sort	By Name	+	Edit	
User	user_guide_background		List From	Local Host		Edit	•
	 d			l l e f			

(a) Framestore box (b) Project box (c) Volume box (d) User box (e) Sort Order box (f) Host box

**NOTE** If this is the first time you are starting Backdraft Conform, there are no existing projects or users.

- **2** Do one of the following:
  - To open a project on the current framestore, select a project from the Project box.
  - To open a project on a remote framestore, select the framestore from the Framestore box. If the framestore has more than one volume, select a volume from the Volume box. Click Open, and then select a project from the Project box.

**NOTE** If you have a long list of projects, you can use the Sort Order box and arrow to sort the projects by frame resolution, name, or creation date, in descending or ascending order.

**3** Select a user from the User box. If you opened a project on a remote framestore, you can use the Host box to select a user on the remote framestore or on your local framestore.

4 Click Start.

The project's EditDesk appears. If you try to access a Smoke project that is already open on a remote framestore, an error message appears and you are asked to confirm whether you want to go into that project's clip library.

#### **Creating User Profiles**

New for this release: You now have options for copying existing user profiles when creating new user profiles.

Create a user profile to manage your preferences. When you create a user, you have the option of copying preferences from an existing user. If the user whose preferences you want to copy was created on the same version of the application, you can copy all preferences. If the user was created on an older version of the application, you can only copy hotkey preferences.

Users do not persist when upgrading from one version of Backdraft Conform to another. You need to create new users for the new version. Also, users are not shared between Autodesk Visual Effects and Finishing products.

You can create a user on start-up from the Project Management menu, or during a session from the Preferences menu. By default, a user's preferences are created in the directory */usr/discreet/user/editing/<user name>*.

#### To create a user profile:

**1** Do one of the following:

.

■ If you are creating a user on start-up, select <create new user> from the User box in the Project Management menu.

Framestore	detroit			Volume	stonefs		Open	J
Project	mylene_	project_DET	(720x486)	Sort	By Name	•	Edit	j
User	<create< td=""><td>new user &gt;</td><td></td><td>List From</td><td>Local Host</td><td></td><td>Edit</td><td>ł</td></create<>	new user >		List From	Local Host		Edit	ł

■ If you are creating a user in the middle of a session, select <create new user> from the User box in the Preferences menu.
		Project Manage	ement				
Host	prague (lo	:alhost)	Volume	stonefs			
Project	GS_proj	(720x486)	Sort	By Name	*	Load	Edit 🕨
User	<create ne<="" td=""><td>w user &gt;</td><td>List From</td><td>Local Host</td><td></td><td>Load</td><td>Edit 🕨</td></create>	w user >	List From	Local Host		Load	Edit 🕨

The Create User menu appears.



(a) Name field (b) Preferences Directory Host box (c) Preferences Directory field (d) Creation Mode box (e) User Profile Copy From options

**TIP** To reset all user settings to their default values, click Reset at any time.

- **2** Enter a name for the user in the Name field.
- **3** The user's default home directory appears in the Preferences Directory field. If you logged in to a remote system, select whether to save the preferences in the default home directory of the remote or local user by selecting an option from the Preferences Directory Host box.
- **4** Do one of the following:
  - To create a user without copying existing preferences, select New Prefs in the Creation Mode box and then click Create User.
  - To copy the preferences of an existing user, select Copy From in the Creation Mode box, and then select the options for the user profile that you want to copy. Click Create User.

**NOTE** If you are copying a user profile from a different version of the application, you can only copy hotkey preferences.

The user is created, and you are returned to the Project Management or Preferences menu.

**5** To load the user into the current work session, click Load from the Preferences menu. From the Project Management menu, click Start.

# **Available Libraries**

New for this release: Additions to the clip library give you direct access to Flare libraries and hidden libraries. You can also control whether you want network-accessed libraries to appear in the Clip Library box. It is also now easier to distinguish between library types in the Clip Library box.

You can open libraries that are read-write as well as those that are read-only. You can load clips from either type of library. However, you can save clips only to a read-write library.

To do any type of clip library management, you must have read-write access to the library.

The list of available libraries appear in the Clip Library box. This list may become very long, especially if you accessed libraries belonging to other projects (through the network panel). You can select whether you want network-accessed libraries to appear in the Clip Library box.

You can also make hidden libraries available (for example, **\_cache** and **.\_Backup)**, which are by default not visible.

If you have a Flare system that is connected remotely to your Backdraft Conform system, you can enable read-write access to Flare libraries with the R/W button.

#### To control the libraries displayed in the Clip Library box:

► From the clip library, select an option from the Show Library box.

Current Project Libraries Clip Display								
Select:	To display:							
All Libraries	All libraries belonging to all projects, including those accessed through the network panel.							
Current Project Libraries	All libraries belonging to the current project. Note that if the current library is accessed through the network panel, this option is greyed out.							

ı.

**NOTE** If you are in Dual View, each view has its own Show Library box. You can select any option for either view.

#### To display hidden libraries in the Clip Library box:

► Enable Hidden Libs.



# **Order of Available Libraries**

To make it easier to identify where libraries are located and whether they belong to the current project, libraries appear in the following order in the Clip Library box:

- First, libraries that you own and that belong to the current project appear.
- Secondly, libraries that you do not own and that belong to the current project appear.
- Thirdly, libraries belonging to other projects on the system to which you are connected appear.
- Lastly, libraries belonging to other projects on other systems appear.

All read-only libraries provide more information about their status in the Clip Library box and in the Library status bar.



(a) Current project libraries owned by Backdraft Conform (b) Current project libraries not owned by Backdraft Conform (c) Network library of another project on the system to which Backdraft Conform is connected (d) Network library of another project on another system

# Interoperability Workflow Improvements

# 5

#### Topics in this chapter:

- Importing Final Cut Pro XML on page 35
- Relinking to File-based Media on page 38
- Importing AAF Files on page 45
- Relinking to File-based Media on page 48
- Supported and Unsupported Transitions and Effects on page 55

# **Importing Final Cut Pro XML**

New for this release: A new Skip Recapture button appears in the Import XML menu. This is useful when importing timelines that point to media of a different format (such as when trying to relink to original sources).

Each XML file corresponds to an FCP sequence, including video, audio, and select transitions and effects, that can be opened in the timeline. Some unsupported effects are marked with comments indicating what you have to rebuild in Backdraft Conform based on the original offline edit.

FCP XML supports 720/24p, 720/30p, and 720/60p output from Varicam to create XML files. The timecode of the source is always 59.94, but the timelines can be 24p, 30p, or 60p.

Backdraft Conform can conform XML (23.976/29.97/59.94) from Varicam material (23.976/29.97/30/59.94/60). Backdraft Conform can also remove flagged (non-active) frames when capturing Varicam media. The source material must be at the same framerate as the sequence (for example 23.97 in a 23.97 sequence).

Before importing XML that contains any MXF P2 content, ensure that the P2 recording devices that are used are set to record clip metadata in Type 2. This allows important metadata, such as the User Clip Name, to be assigned properly in the XML file.

When importing FCP XML files that were created in SD resolution and that need to be conformed in HD, you need to reformat the clips.

After importing an XML file, you recapture the footage from the original tapes using the Recapture tool. You can also reload file-based media. Once all the media is captured, imported, or soft-imported, you can relink it to the sequence.

#### To import or soft-import an FCP XML file:

1 In the clip library, from the Interchange Format box, select XML.



- 2 Click Import.
- 3 In the file browser, navigate to an XML file exported from FCP.
- 4 If you are importing FCP XML that contains media files, and your files are stored on other computers, you can use Wiretap to access them. Enter the host or group name, as configured in the *sw\_wiretap\_path\_translation\_db.xml* file.



The Wiretap Server must be configured properly to recognise the different hosts that you want to retrieve media from. See the *Autodesk Stone and Wire Filesystem and Networking Guide* or contact your system administrator.

If you do not enter a value in the Source Host Name / Group field, any paths contained in the FCP XML file will be interpreted as pointing to your Backdraft Conform workstation. You can change the path in the Recapture dialog box when relinking.

**5** If you are importing FCP XML that contains media files of the format and resolution that you want to use, enable Link with video files and/or Link with audio files.

EXIT Import XML							
Source Host Name / Group							
Link with video files							
Link with audio files							

**6** If you are importing FCP XML that contains media files of a different file type or resolution than what you want to use (for example, when trying to relink to source media after working with proxies), then enable the Skip Recapture button.

EXIT Import XML						
Source Host Name / Group						
Link with video files						
Link with audio files						
Skip Recapture						

Upon clicking Load, you are taken to the Library menu, where you can apply a Reformat action (through the Tools menu) to your timeline, and then use Recapture to load your source media.

7 Click Load.

If you did not enable Skip Recapture, the Recapture menu appears.



(a) Clip List: List of Clips on Tape (b) Tape List: Recapture From File (c) List of Segments Referencing Files For Recapture

- **8** If you are importing FCP XML that references media clips on tapes, a list of clips appears in the Clip List. A list of source tapes also appears in the Tape List. This is the same tape list as logged in FCP.
- **9** If you are importing FCP XML that contains media files, a list of files appears in the List of Segments. This is the list that you need to relink. See Relinking to File-based Media on page 38.

# **Relinking to File-based Media**

New for this release: The Recapture screen now contains updated options for media file search, import, and relink options.

To facilitate file-based conform from FCP XML, the new search feature is able to intelligently and automatically find and read image sequences (DPX) or streaming media (MXF, QT), based on preset search rules and criteria.

Relink problems are reduced with the new Copy from Selected Clip button. This button copies the formatting information of the selected clip into the Resolution parameters; in effect, providing the parameters (resolution, frame rate, bit depth, etc.) by which to "resize" a target FCP XML clip.

After having edited sequences in Final Cut Pro using file-based media, such as QuickTime movies, you can relink the exported XML to these files in Backdraft Conform.

If the media originated on tape, you can opt to relink to the captured QuickTime files instead of recapturing the media from tape, if you choose to use the captured resolution from Final Cut Pro.

You can relink imported FCP XML files to file-based video or audio media.

Verify that the files you are relinking to are supported in Backdraft Conform.

If you are importing FCP XML with Varicam support, it will be identified as such in the Source Type box.

#### To relink FCP XML to file-based media:

**1** Swipe to the right to display the List of Segments Referencing Files For Recapture table across the full screen.

									List Of S	egmonts Referencie	ng Files fa	r Recepture			Select All	Unselect NI
lip Name '	Full Res	Proxy	Type	Tape	Track	Start 5	Duration	Roms	LUT Type LUT	Import	Imported	Relinkable	File Name	Path	•	
0013W.MXF				MPORT						HARD			00013W.MXF	/Volumes/DarwinRAD/P2 Footage/60/16-9/1080_60(_Clips/CONTENTS/VIDEO		
OD SOK, MIXE				INFORT		00:00:00:00	00-04 55:00		None \$	HARD			00010K.MXF	/Volumes/DarwinRAID/P2 Feetage/60i/16-1//1080_60i_Long_Clip_Part2/CONTENTS/VE	60	
OD ZNY.MIF				IMPORT		00:00:00:00	00:03 44:02		None ‡	CRAH	NO		0002NY.HKF	/Volumes/DarwirRAID/P2 Feetage/60i/16-9/1080_60i_Long_Clip_Part2/CONTENTS/VID	60	
OZ4ON MIT				IMPORT		00:00:00:00	00:00:49:12		None \$	HARD			OO 24ONL MOLF	/Volumes/DarwinRAID/P2 Footage/60//16-9/1080_60L_Ctips/CONTENTS/VIDEO		
02984 MOOF				IMPORT		00.00 00.00	00:00:14:19		None \$	HARD			002914 MIT	/Volumes/DarwinRAID/P2 Footage/60//16-9/1080_60L_Clips/CONTENTS/VIDEO		
05154.MXF				IMPORT		00:00:00:00	00:00 11:12			HARD			005154.M0F	/Volumes/DarwinRAID/P2 Footage/60/16-9/1080_60LClips/CONTENTS/VIDED		
54AN MIF				IMPORT		00:00:00:00	00:00:02:27			HARD			00 SAANL MKF	/Volumes/DarwinRAID/P2 Footage/60//16-5/1080_60i_Clips/CONTENTS/VIDED		
580G.MKF				IMPORT		00:00:00:00	00 00 07 04						00 590G M0F	/Volumes/DarwinRAID/P2 Foctage/60//16-9/1080_60i_Clips/CONTENTS/VIDEO		
0240N00 MIUF				00000884		10;25;42;27	00.00.49.13			HARD			00240N00.MKF	/Volumes/DarwirRAID/P2 Foctage/60//16-9/1080_60i_Ctips/CONTENTS/AUDIO		
240N01 MKF				0000088									00240N01 MOF	/Volumes/Darwir/RAD/P2 Footage/60/16-9/1080_60L_Clips/CONTENTS/AUDIO		
0294400.M00				10000046		10:27,10:01	00.00 14 20			HARD			00291400 M07	/Volumes/DarwirRAID/P2 Foctage/60i/16-5/1080_60i_Clips/CONTENTS/AUDIO		
029W01 MOF				0000046			00.00.14.20						0029H01MXF	/Volumes/Darwir/RAID/P2 Footage/60//16-9/1080_60L_Clips/CONTENTS/AUDIO		
0515400 MKF				100000009		10,36,24,08	00.00 11:13			HARD		NO	00515400 MKF	/Volumes/DarwirRAID/P2 Footage/00i/10-9/1080_00i_Clips/CONTENTS/AUDIO		
0515401.MKF				1000000059		10:35 24:08	00.00 11 13			HARD			00515401.MKF	/Volumes/DarwinRAID/P2 Foctage/G0/16-5/1080_G0LClips/CONTENTS/AUDIO		
054ANDO MIKE				x00000E88		10:36:49:05	00.00.02.28			HARD			00 SAANDO HKT	/Volumes/DarwinRAD/P2 Footage/60i/16-9/1080_60i_Clips/CONTENTS/AUDIO		
054AND1.MUF				1000008.88		10:36:49:05	00.00.02.28			HARD			0054AND1.HKF	/Volumes/DarwinRAID/P2 Footage/60/ 16-9/ 1080_60LClips/CONTENTS/AUDIO		
0580600 MKF				000000004		10:37:27:23	00.00.07.05			HARD			00 SBOGOD MXF	/Volumes/DarwirRAD/P2 Foctage/60i/16-9/1080_60i_Clips/CONTENTS/AUDIO		
0580601.MKF				000000004		10:37:27:23	00.00.07.05			HMAD			00580G01.MKF	/Volumes/DarwinRAID/P2 Footage/00//16-9/1080_00LClips/CONTENTS/AUDIO		
	_															
EXIT NECK	kare													Sure	Import	Relink
							Sear	th File Ty	100	Search File (	Options			Search Criteria	Search	Options
Save E	X.						Dpx			Set Root I	Path	Clear	Use Filenas	me Use Timacode Use Tape	Search	Selected
Save Tap	List													File Name Timecode Tape From File Header	Sear	ch All
														Up Z levels		

**2** Use the Search Criteria to find the source media files.

When importing sequences (DPX) or streaming media (MXF, QT) that are referenced by XML files, you can use the advanced Search feature to find and read these image sequences or streaming media, based on preset search rules and criteria. These media files are mostly arranged in hierarchical structures that can be identified and traversed through all the subdirectories from a given root destination. Providing additional criteria, such as file type, tape name, and timecode can help to narrow and pinpoint the search.

**3** From the Search File Type box, select the file type to search for.



- 4 Click Set Root Path to select the root directory where the search will start.
- **5** Select the criteria that you want to match on.

	Search Criteria			
Use Filename	Use Timecode	Use Tape		
	File Name Timecode	Tape From File Header		
		Up 2 levels		

Select	То				
Use Filename	Search for the exact file name referenced in the XML.				
Use Timecode	Read the metadata from found items to make sure that the starting timecode matches the one in the edit list. Select whether to read the timecode from the file header (MXF and QuickTime) or from the file name (DPX).				
Use Tape	Read the metadata from found items to make sure that the tape name matches the one in the edit list. Select whether to read the tape name from the file header (MXF and QuickTime) or from the directory (DPX).				

If DPX is selected as a format, Use Timecode and Use Tape are on, but Use Filename is turned off. If MXF or QuickTime is selected, Use Filename and Use Timecode are turned on, but Use Tape is off. **6** Once all settings are made for the selected file type, click Search Selected or Search All.

A progress bar appears.

The results update the List of Segments Referencing Files For Recapture table. A checkmark appears in the Full Res column for each clip when the full-resolution version of a file is found. The Type column lists the file type/extension. The Tape and Path columns are also updated.

Clin Name	V	Full Res	Provv	Type	Tane
00013W.MXF		Tur nea	TTONY	MXF	IMPORT
0001QK.MXF		4		MXF	IMPORT

- **7** If files are not found, you can redo the search by deselecting match criteria. You can also run the search for a different file type. Data for all the previously found files is kept.
- 8 If the file search still does not find your media, you will have to enter the correct path names manually for each clip. To change the path, select the unfound media segments in the list, and then click the Path field.

File Name	Path
00013W.MXF	/Volumes/DarwinRAID/P2 Footage/
0001QK.MXF	/Volumes/DarwinRAID/P2 Footage/

This opens the library browser where you can choose a different path.

**9** Optional: To soft-import the media files, click Select All or drag to select the segments in the list and then, in the Import column, drag left or right to toggle between SOFT and HARD.

LUT Type	LUT	Import
None 🛊	÷	HARD
None 🛊		HARD

**NOTE** Not all files can be soft-imported (for example, audio files at 44.1 kHz).

**10** Optional: If you want to apply a LUT or gamma correction to your media files, click Select All or drag to select the segments in the list and then, from the LUT Type column, select an option.

LUT Type	LUT	Import
None 🛱		HARD
None 🛊	~	HARD

If you selected 1D LUT or 3D LUT for LUT Type, click in the LUT column to choose a specific LUT name.

LUT Type		LUT	_
3D	Å T	LC 3DL_	.Kodak2
None	ł		

The LUT file name appears in the LUT column.

**11** Click the Import tab.

The Import File options appear.

File Type	Clip Media		Clip Metadata			
Dpx	RGB	Tape From Directory	File Name Timecode	No Keycode		
			Start 00:00:00:00	No KC		
		Up 2 levels	29.97 NDF	16/S16 mm / 1perf		
				Scan First File		

**12** Set any options, as needed.

**WARNING** These options are provided here in case you are having trouble relinking certain media files. If the files are already found, changing any of these options may prevent them from relinking.

- **13** Optional: Change the name of the reel in the Library Reel Name field.
- 14 Click Import All Files.

All the files should now be imported or soft-imported.

Import	Imported	Relinkable	File Name
SOFT	YES	YES	00013W.MXF
SOFT	YES	YES	0001QK.MXF

The Imported column indicates whether a file was imported or not. The Relinkable column displays whether the file is relinkable. A file can be imported and non-relinkable if a discrepancy exists between the resolution of the XML and the found media. Also, the media may have already been

imported previously, in which case this column would already be checked accordingly.

**15** Click the Relink tab.

The Timeline Reformat and Consolidate options appear.

	a I	þ	c	;	(	e d	)	f
			Timeline	Reformat	and Consolida	te Options		
	Consolidate		Refo	rmat	Copy from S	elected Event	Custom Reso	lution
Vic	leo		23.976 fp	s	Letterbox		W 720	H 480
На	ndles 60				Lanczos		Set to 4:3	Ratio 1.333
					Keep Aspect		8-bit	Field 2
							g h	

(a) Consolidate option box (b) Handles field (c) Frame Code Mode box (d) Fit Method box (e) Width and Height fields (f) Resolution Presets box (g) Bit Depth box (h) Aspect Ratio Presets box (i) Scan Mode box (j) Aspect Ratio field

		i	a b		
	Timeline Reforma	nt and Co	nsolidate Options		
Consolidate	Reformat	Copy	from Selected Event	Custom Res	olution
Video	23.976 fps	Pan		W 720	H 480
Handles 60		X 0		Set to 4:3	Ratio 1.333
		Y 0		8-bit	Field 2

(a) Pan Start X field (b) Pan Start Y field

- **16** If you need to reformat the timeline to match the resolution of a given clip, specify the destination resolution by doing one of the following:
  - Click the Copy from Selected Clip button to copy the formatting information of a selected clip into the Resolution parameters.
  - Select a preset from the Resolution Presets box.
  - Specify the dimensions using the Width and Height fields.
- 17 From the Frame Code Mode box, set the frame rate and drop frame mode as needed.

If you have a clip that contains some linked media and some unlinked metadata, when you change the frame code mode such that the duration of the clip is affected, the unlinked metadata and linked media are treated

differently. The linked media is timewarped to accommodate the new duration. For unlinked metadata, if more material is needed to accommodate the change in duration, it is input when the clip is recaptured. Effects will look identical, although the timing of the clip will be adjusted.

- **18** Set the aspect ratio, bit depth, and scan mode as needed.
- **19** If your clip contains video tracks or segments that still contain media (for example, module-processed shots), select a resize fit method from the Fit Method box.
- **20** Click Reformat and confirm the action. If there are multiple clips to confirm, you can click Confirm All to confirm them all or click Confirm for each clip.

The clip metadata for the timeline clips is updated to the specified values. Any existing media is also converted and resized using the specified fit method. You can now recapture the media associated with these clips in the appropriate format.

- **21** If consolidation was not performed in FCP, do it now.
  - 1 From the Consolidate box, select Audio, Video, or All Tracks. This determines which tracks are affected by the consolidate operation.
  - **2** In the Handles field, set the maximum number of head and tail frames that you want to retain after consolidating the clip.
  - **3** Click Consolidate and confirm the operation.
- **22** Ensure that all media files are relinkable. Click the Relinkable header to sort the list and group any NOs at the top.

Some files that are not relinkable may only need to be resized to be compatible. For example, the Soft Resize feature allows you to import Quicktime files, included with the FCP XML, at 720x480 instead of the usual NTSC 720x486.

**23** For files that are not relinkable, enable Soft Resize, and then click Import Selected Files.

Clip Media R	elink Options
Re	ink
Auto Render	
Soft Resize	

Soft resize is applied to all clips that need it.

If the files are still not relinkable then they cannot be soft-imported. Try to import the files normally, or check with your system administrator.

24 Click Relink.

A new reel with the XML filename is created in the clip library for each imported XML file. The assembled clip in the new reel has the same name as the original FCP sequence, and is placed in the same reel as the media.

**25** Click Exit Recapture to end the session.

# **Importing AAF Files**

New for this release: A new Skip Recapture button appears in the Import AAF menu. This is useful when importing timelines that point to media of a different format (such as when trying to relink to original sources).

Import AAF sequences from Avid in the same way that you import an EDL. Each AAF file corresponds to a sequence that can be opened in the timeline, including video and audio layers, and select transitions and effects. Some unsupported effects are marked with comments indicating what you have to rebuild in Backdraft Conform based on the original offline edit.

Avid can support 720/24p, 720/30p, and 720/60p output from Varicam to create AAF files. The timecode of the source is always 59.94 but the timelines can be 24p, 30p, or 60p.

Backdraft Conform has the ability to conform AAF (23.976/29.97/59.94) from Varicam material (23.976/29.97/30/59.94/60). Backdraft Conform can also remove non-active frames when capturing Varicam media. The source material must be at the same framerate as the sequence (for example, 23.97 in a 23.97 sequence).

After importing an AAF file, you recapture the footage from the original tapes using the Recapture tool. You can also reload file-based media. Once all the media is captured or reloaded, it is relinked to the sequence.

When importing AAF files that were created in SD resolution and that need to be conformed in HD, you will need to reformat the clips.

A new reel with the AAF filename is created in the clip library for each imported AAF file. The assembled clip in the new reel has the same name as the original AAF sequence.

#### To import an AAF file:

1 In the Clip Library menu, from the Interchange Format box, select AAF.



- 2 Click Import.
- **3** In the file browser, navigate to an AAF file exported from an Avid application.
- **4** If you are importing AAF that contains media files, and your files are stored on other computers, you can use Wiretap to access them. Enter the host or group name, as configured in the *sw\_wiretap\_path\_translation\_db.xml* file.



The Wiretap Server must be configured properly to recognise the different hosts that you want to retrieve media from. See the *Autodesk Stone and Wire Filesystem and Networking Guide* or contact your system administrator.

If you do not enter a value in the Source Host Name / Group field, any paths contained in the AAF file will be interpreted as pointing to your

Backdraft Conform workstation. You can change the path in the Recapture dialog box when relinking.

**5** If you are importing AAF that contains media files of the format and resolution that you want to use, enable Link with video files and/or Link with audio files.

EXIT Import AAF				
Source Host Name / Group				
Link with video files				
Link with audio files				
Skip Recapture				

**6** If you are importing AAF that contains media files of a different file type or resolution than what you want to use (for example, when trying to relink to source media after working with proxies), then enable the Skip Recapture button.



Upon clicking Load, you will be taken to the Library menu, where you can then apply a Reformat action (through the Tools menu) to your timeline, and then use Recapture to load your source media.

7 Click Load.

If you did not enable Skip Recapture, the Recapture menu appears.



(a) Clip List: List of Clips on Tape (b) Tape List: Recapture From File (c) List of Segments Referencing Files For Recapture

- 8 If you are importing AAF that references media clips on tapes, a list of clips appears in the Clip List. A list of source tapes also appears in the Tape List. This is the same tape list as logged in your Avid application.
- **9** If you are importing AAF that contains media files, a list of files appears in the List of Segments. This is the list that you need to relink. See Relinking to File-based Media on page 48.

# **Relinking to File-based Media**

New for this release: The Recapture screen now contains updated options for media file search, import, and relink options.

To facilitate file-based conform from AAF, the new search feature is able to intelligently and automatically find and read image sequences (DPX) or streaming media (MXF, QT), based on preset search rules and criteria.

Relink problems are reduced with the new Copy from Selected Clip button. This button copies the formatting information of the selected clip into the Resolution parameters; in effect, providing the parameters (resolution, frame rate, bit depth, etc.) by which to "resize" a target AAF clip. After having edited sequences in your Avid application using file-based media, such as MXF files or QuickTime movies, you can relink the exported AAF to these files in Backdraft Conform.

Verify that the media files you are relinking to are supported in Backdraft Conform.

You can relink imported AAF files to file-based video or audio media.

If you are importing an AAF file with Varicam support, it will be identified as such in the Source Type box.

#### To relink AAF to file-based media:

**1** Swipe to the right to display the List of Segments Referencing Files For Recapture table across the full screen.



**2** Use the Search Criteria to find the source media files.

When importing sequences (DPX) or streaming media (MXF, QT) that are referenced by AAF files, you can use the advanced Search feature to find and read these image sequences or streaming media, based on preset search rules and criteria. These media files are mostly arranged in hierarchical structures that can be identified and traversed through all the subdirectories from a given root destination. Providing additional criteria, such as file type, tape name, and timecode can help to narrow and pinpoint the search.

**3** From the Search File Type box, select the file type to search for.

Search File Type	Search File Options	5
Dpx	Set Root Path	Clear

- 4 Click Set Root Path to select the root directory where the search will start.
- **5** Select the criteria that you want to match on.

	Search Criteria	
Use Filename	Use Timecode	Use Tape
	File Name Timecode	Tape From File Header
		Up 2 levels

Select	То
Use Filename	Search for the exact file name referenced in the AAF.
Use Timecode	Read the metadata from found items to make sure that the starting timecode matches the one in the edit list. Select whether to read the timecode from the file header (MXF and QuickTime) or from the file name (DPX).
Use Tape	Read the metadata from found items to make sure that the tape name matches the one in the edit list. Select whether to read the tape name from the file header (MXF and QuickTime) or from the directory (DPX).

If DPX is selected as a format, Use Timecode and Use Tape are on, but Use Filename is turned off. If MXF or QuickTime is selected, Use Filename and Use Timecode are turned on, but Use Tape is off.

**6** Once all settings are made for the selected file type, click Search Selected or Search All.

A progress bar appears.

The results update the List of Segments Referencing Files For Recapture table. A checkmark appears in the Full Res column for each clip when the full-resolution version of a file is found. The Type column lists the file type/extension. The Tape and Path columns are also updated.

Clip Name	∀	Full Res	Proxy	Туре	Таре
00013W.MXF		1		MXF	IMPORT
0001QK.MXF		4		MXF	IMPORT

- 7 If files are not found, you can redo the search by deselecting match criteria. You can also run the search for a different file type. Data for all the previously found files is kept.
- **8** If the file search still does not find your media, you will have to enter the correct path names manually for each clip. To change the path, select the unfound media segments in the list, and then click the Path field.

File Name	Path
00013W.MXF	/Volumes/DarwinRAID/P2 Footage/
0001QK.MXF	/Volumes/DarwinRAID/P2 Footage/

This opens the library browser where you can choose a different path.

**9** If you want to soft-import the media files, click Select All or drag to select the segments in the list, and then, in the Import column, drag left or right to toggle between SOFT and HARD.

LUT Type	LUT	Import
None 🛊	£	SOFT
None 🗧	ł.	SOFT

**NOTE** Not all files can be soft-imported (for example, audio files at 44.1 kHz).

**10** Optional: If you want to apply a LUT or gamma correction to your media files, click Select All or drag to select the segments in the list, and then, from the LUT Type column, select an option.

	шт	Import
None ‡	LUT	HARD
None ŧ		HARD

.

If you selected 1D LUT or 3D LUT for LUT Type, click in the LUT column to choose a specific LUT name.



The LUT file name appears in the LUT column.

**11** Click the Import tab.

The Import File options appear.

File Type	Clip Media			Clip Metadata		
Dpx	RGB		Tape From Directory File Name Timecode N		No Keycode	
				Start 00:00:00:00	No KC	
			Up 2 levels	29.97 NDF	16/S16 mm / 1perf	
					Scan First File	

**12** Set any options, as needed.

**WARNING** These options are provided here in case you are having trouble relinking certain media files. If the files are already found, changing any of these options may prevent them from relinking.

- **13** Optional: Change the name of the reel in the Library Reel Name field.
- **14** Click Import All Files.

All the files should now be imported or soft-imported.

Import	Imported	Relinkable	File Name
SOFT	YES	YES	00013W.MXF
SOFT	YES	YES	0001QK.MXF

The Imported column indicates whether a file was imported or not. The Relinkable column displays whether the file is relinkable. A file can be imported and non-relinkable if a discrepancy exists between the resolution of the AAF and the found media. Also, the media may have already been imported previously, in which case this column would already be checked accordingly.

**15** Click the Relink tab.

The Timeline Reformat and Consolidate options appear.

a	b	c	(	d e		f
		Timeline Reforma	at and Consolida	te Options		
Consol	lidate	Reformat	Copy from S	elected Event	Custom Res	olution
Video		23.976 fps	Letterbox		W 720	H 480
Handles G	0		Lanczos		Set to 4:3	Ratio 1.333
			Keep Aspect		8-bit	Field 2
					a h	

(a) Consolidate option box (b) Handles field (c) Frame Code Mode box (d) Fit Method box (e) Width and Height fields (f) Resolution Presets box (g) Bit Depth box (h) Aspect Ratio Presets box (i) Scan Mode box (j) Aspect Ratio field

		a	a b		
	Timeline Reforma	at and Co	nsolidate Options		
Consolidate	Reformat	Сору	from Selected Event	Custom Res	olution
Video	23.976 fps	Pan		W 720	H 480
Handles 60		X 0		Set to 4:3	Ratio 1.333
		Y 0		8-bit	Field 2

(a) Pan Start X field (b) Pan Start Y field

- **16** Optional: To reformat the timeline to match the resolution of a given clip, specify the destination resolution by doing one of the following:
  - Click the Copy from Selected Clip button to copy the formatting information of a selected clip into the Resolution parameters.
  - Select a preset from the Resolution Presets box.
  - Specify the dimensions using the Width and Height fields.
- 17 From the Frame Code Mode box, set the frame rate and drop frame mode as needed.

If you have a clip that contains some linked media and some unlinked metadata, when you change the frame code mode such that the duration of the clip is affected, the unlinked metadata and linked media are treated differently. The linked media is timewarped to accommodate the new duration. For unlinked metadata, if more material is needed to accommodate the change in duration, it is input when the clip is recaptured. Effects will look identical, although the timing of the clip will be adjusted.

- **18** Optional: Set the aspect ratio, bit depth, and scan mode.
- **19** Optional: If your clip contains video tracks or segments that still contain media (for example, module-processed shots), select a resize fit method from the Fit Method box.
- **20** Click Reformat and confirm the action. If there are multiple clips to confirm, you can click Confirm All to confirm them all or click Confirm for each clip.

The clip metadata for the timeline clips is updated to the specified values. Any existing media is also converted and resized using the specified fit method. You can now recapture the media associated with these clips in the appropriate format.

- **21** If consolidation was not performed in your Avid application, do it now.
  - From the Consolidate box, select Audio, Video, or All Tracks. This determines which tracks will be affected by the consolidate operation.
  - **2** In the Handles field, set the maximum number of head and tail frames that you want to retain after consolidating the clip.
  - **3** Click Consolidate and confirm the operation.
- **22** Ensure that all media files are relinkable. Click the Relinkable header to sort the list and group any NOs at the top.

Some files that are not relinkable may only need to be resized to be compatible. For example, the Soft Resize feature allows you to import Quicktime files, included with the AAF, at 720x480 instead of the usual NTSC 720x486.

**23** For files that are not relinkable, enable Soft Resize, and then click Import Selected Files.

Clip Media R	elink Options
Re	link
Auto Render	
Soft Resize	

Т

Soft resize is applied to all clips that need it.

If the files are still not relinkable then they cannot be soft-imported. Try to import the files normally, or check with your system administrator.

24 Click Relink.

A new reel with the AAF filename is created in the clip library for each imported AAF file. The assembled clip in the new reel has the same name as the original Avid sequence, and is placed in the same reel as the media.

**25** Click Exit Recapture to end the session.

# Supported and Unsupported Transitions and Effects

New for this release: There is now more support for Avid AAF transitions and effects.

The information in this section indicates how AAF data, transitions, and effects map to Backdraft Conform data, transitions, and effects. There are three levels of support that can be indicated for each:

- **Translated** Parameters from the AAF file are read and translated as Backdraft Conform Soft Effect Parameters.
- **Converted** The effect type is converted without parameters from the AAF file to a Backdraft Conform Soft Effect or Transition. Some effects are recreated with a similar effect. Some are only recreated as an empty effect.
- **Not supported** The effect is not supported and replaced by a comment or by a default transition or effect.

In addition, the following restrictions must also be taken into account:

- Only flattened Photoshop (.psd) files are supported (layered files will be imported as flattened in Backdraft Conform).
- Only RGB material is supported, not RGBA.
- Graphics files of resolutions bigger or smaller than the timeline are imported as Center/Crop mode only.
- AAF files that contain MP3 media files cannot be relinked on Backdraft Conform for Linux, since the MP3 file format is not supported on Linux.
- Nested effects are not supported.

■ All video and audio tracks for each sequence must be imported.

### General

The following tables describe how metadata and media are supported in Backdraft Conform.

Avid	Backdraft Conform
All Video / Audio tracks	All Video / Audio tracks
Tape name	Tape name data
Source / Record Timecode	Source / Record Timecode
Drop / Non-Drop Timecode	Drop-Frame / Non-Drop-Frame
Mark In / Out	Not supported
Keycode	Supported
video locator	Cue mark with locator text (no text data is translated)
23.976 / 29.97 timecode	23.976 / 29.97 timecode data provided (24p sequences are 23.976 for REC and 29.97 for SRC)

#### Metadata

#### Media Import

Backdraft Conform
Paths and filenames translated
Paths and filenames translated
Not supported
Not supported

Media Export		
Avid	Backdraft Conform	
Video media (OMF, MXF)	Not supported	
Audio media (WAV, AIFF) Not supported		
Sequence		
Avid	Backdraft Conform	
Video only	Video-only sequence	
Audio only	Audio-only sequence	
Video and audio	Video and Audio sequence	

### **Video and Audio Transitions**

The following tables describe how transitions are supported in Backdraft Conform.

Transitions marked with an \* are also supported with the "Inverse" option set.

biella	
Avid	Backdraft Conform
Dip to colour	Translated to Dissolve with colour data value
Dissolve	Converted to Dissolve (linear animation)
Fade from colour	Supported; background is black only, reset manually
Fade to colour	Supported; background is black only, reset manually
Picture-in-picture	Not supported; replaced by Dissolve + cue mark
Film	
Avid	Backdraft Conform
Film dissolve	Converted to Dissolve (hermite animation)

#### Blend

#### Avid

Film fade

Converted to Dissolve (linear animation)

Backdraft Conform

#### Box wipe

Avid	Backdraft Conform
Bottom box*	Converted to SMPTE 025; softness not supported
Bottom left to top right*	Converted to SMPTE 006; softness not supported
Bottom right to top left*	Converted to SMPTE 005; softness not supported
Left box*	Converted to SMPTE 026; softness not supported
Right box*	Converted to SMPTE 024; softness not supported
Top box*	Converted to SMPTE 023; softness not supported
Top left to bottom right*	Converted to SMPTE 003; softness not supported
Top right to bottom left*	Converted to SMPTE 004; softness not supported

#### Edge Wipe

-	
Avid	Backdraft Conform
Horizontal*	Converted to SMPTE 001; softness not supported
Horz open*	Converted to SMPTE 021; softness not supported
Bottom left diagonal*	Converted to SMPTE 042; animation is inverted, softness not supported
Bottom right diagonal*	Converted to SMPTE 041; animation is inverted, softness not supported
Upper left diagonal*	Converted to SMPTE 041; softness not supported
Upper right diagonal*	Converted to SMPTE 042; softness not supported
Vert open*	Converted to SMPTE 022; softness not supported
Vertical*	Converted to SMPTE 002; softness not supported

#### Shape Wipe

Avid	Backdraft Conform
4 corners*	Converted to SMPTE 007; softness not supported
Horizontal bands	Not supported; replaced by Dissolve + cue mark
Horizontal blinds	Not supported; replaced by Dissolve + cue mark
Vertical blinds	Not supported; replaced by Dissolve + cue mark
Center box*	Converted to SMPTE 101; softness not supported
Circle*	Converted to SMPTE 119; softness not supported
Ellipse*	Converted to SMPTE 120; softness not supported
Clock*	Converted to SMPTE 201; softness not supported
Diamond*	Converted to SMPTE 102; softness not supported

#### Sawtooth Wipe

Avid	Backdraft Conform
Horizontal sawtooth*	Converted to SMPTE 071; softness not supported
Horz open sawtooth*	Converted to SMPTE 073; softness not supported
Vert open sawtooth*	Converted to SMPTE 074; softness not supported
Vertical sawtooth*	Converted to SMPTE 072; softness not supported

#### Matrix Wipe

Avid	Backdraft Conform
Grid*	Not supported; replaced by SMPTE 008
One-way row	Not supported; replaced by SMPTE 001 + comment
Speckle	Not supported; replaced by SMPTE 001 + comment
Spiral	Not supported; replaced by SMPTE 001 + comment
Zig-zag	Not supported; replaced by Cue mark

#### **Xpress 3D Effect**

Avid	Backdraft Conform
3D ball	Not supported; replaced by Cue mark
3D page fold	Not supported; replaced by Cue mark
3D slats	Not supported; replaced by Cue mark
3D PIP	Translated to Soft Axis (Position / Scaling (ISO, Softness / Crop)
Miscellaneous	
Avid	Backdraft Conform
Conceal	Converted to Soft Axis (Conceal effect); softness not supported
L-Conceal	Converted to Soft Axis (L-Conceal effect); softness not supported
Squeeze	Converted to Soft Axis (Squeeze effect); softness not supported
Peel	Not supported; replaced by Dissolve + cue mark
Push	Not supported; replaced by Dissolve + cue mark
Spin	Not supported; replaced by Dissolve + cue mark
Video gap	Video gap
Video filler	Video gap
Video match frame edit	Match frame

## **Video and Audio Effects**

The following tables describe how effects are supported in Backdraft Conform.

Blend	
Avid	Backdraft Conform
Picture-in-picture	Supported
Superimpose	Translated to Soft Blend (transparency value is translated)

**NOTE** Scaling in AAF can be X and Y. Backdraft Conform only supports one value (X or Y) for both.

#### Film

Avid	Backdraft Conform
1.66 mask	Supported; bkg is black, no mask, horizontal position off
1.85 mask	Supported; bkg is black, no mask, horizontal position off
16:9 mask	Supported; bkg is black, no mask, horizontal position off
Anamorphic mask	Supported; bkg is black, no mask, horizontal position off
Mask	Supported; bkg is black, no mask, horizontal position off
Blowup	Supported

#### **AVX Plugin**

Avid	Backdraft Conform
Illusion FX	Not supported; replaced by Cue mark
AVX Plugins	Not supported; replaced by Cue mark

#### Image

Avid	Backdraft Conform	
Avid Pan and Zoom	Not supported; replaced by Cue mark	
Blur effect	Not supported; replaced by Cue mark	
colour Correction	Converted to Soft CC (empty) + cue mark	
colour Effect	Converted to Soft CC (empty) + cue mark	
		-

Avid	Backdraft Conform
Flip	Converted to Soft Axis (Flip effect)
Flip-flop	Converted to Soft Axis (Flip-flop effect)
Flop	Converted to Soft Axis (Flop effect)
Mask	Supported; bkg is black, no mask, horizontal position off
Resize	Supported; background is black, no left and right cropping
Scratch removal	Not supported; replaced by Cue mark
Submaster	Converted to Container

#### Reformat

Avid	Backdraft Conform
14:9 Letterbox	Not supported; replaced by Soft Axis + Cue mark
16:9 Letterbox	Not supported; replaced by Soft Axis + Cue mark
4:3 Sidebar	Not supported; replaced by Soft Axis + Cue mark
Pan and Scan	Not supported; replaced by Soft Axis + Cue mark

#### Titles

Avid	Backdraft Conform
Title	Not supported; only text string is available
Marquee Text	Not supported; only text string is available

#### Key

,		
Avid	Backdraft Conform	
Animate	Not supported; replaced by Cue mark	
Chroma key	Converted to Soft Axis (empty)	
Luma key	Converted to Soft Axis (empty)	
Matte key	Converted to Soft Axis (empty)	

Avid	Backdraft Conform
RGB keyer	Not supported; replaced by Cue mark

#### Miscellaneous

Avid	Backdraft Conform
Timewarp	Converted to Soft TW; recreate the curve type
Motion Effect	Translated to Soft TW (Constant speed, no strobe effect)
3D PIP	Supported
Peel	Not supported; replaced by Dissolve + cue mark
Push	Not supported; replaced by Dissolve + cue mark
Spin	Not supported; replaced by Dissolve + cue mark
Squeeze	Not supported; replaced by Dissolve + cue mark
Video gap	Video gap
Video filler	Video gap
Video match frame edit	Match frame

#### **General Audio**

Avid	Backdraft Conform
Audio level	Audio gain
Audio dissolve	Audio dissolve
Audio fade in	Audio dissolve
Audio fade out	Audio dissolve
Audio gap	Audio gap
Audio filler	Audio gap
Audio match frame edit	Match frame splice

#### Audio Suite Plugin

Avid	Backdraft Conform
Chorus	Not supported; replaced by Cue mark
D-verb	Not supported; replaced by Cue mark
Compressor	Not supported; replaced by Cue mark
Limiter	Not supported; replaced by Cue mark
Expander-gate	Not supported; replaced by Cue mark
Gate	Not supported; replaced by Cue mark
DeEsser	Not supported; replaced by Cue mark
1-band EQII	Not supported; replaced by Cue mark
4-band EQII	Not supported; replaced by Cue mark
Flanger	Not supported; replaced by Cue mark
Invert	Not supported; replaced by Cue mark
Duplicate	Not supported; replaced by Cue mark
Delay	Not supported; replaced by Cue mark
Multi-tap delay	Not supported; replaced by Cue mark
Normalize	Not supported; replaced by Cue mark
Gain	Not supported; replaced by Cue mark
Ping-pong delay	Not supported; replaced by Cue mark
Reverse	Not supported; replaced by Cue mark
DC offset removal	Not supported; replaced by Cue mark
Signal generator	Not supported; replaced by Cue mark
Time compression exp	Not supported; replaced by Cue mark
Pitch shift	Not supported; replaced by Cue mark

# Editorial and Timeline Improvements

# 6

#### Topics in this chapter:

- Navigating Edit Sequences on page 65
- **EQ** on page 69

# **Navigating Edit Sequences**

New for this release: You can easily navigate through a clip's edit sequence directly on the EditDesk and have the Player or EditDesk proxy automatically update as you change location. You can navigate between cuts and transitions on all layers and tracks. You can also navigate between tracks and layers and change the clip's focus.

When you navigate between tracks in any view except Timeline view, the track you navigate to becomes the Primary video track. You do not have to manually change the Primary track of the clip's timeline to see the results of the new track.

When navigating to a new track, you go to the topmost layer of the track.

When you navigate between layers and tracks, only the video tracks and video layers cycle unless you are in a Timeline view. In a Timeline view, navigating between layers and tracks also cycles the audio tracks.

When you have navigated to the topmost or bottommost layer or track, the tracks and layers keep cycling in the same order.

To retain the same video clip length regardless of focus as you navigate, black frames are added to make each layer the same length as the video clip duration. Video on the next layer down is always seen through a gap.

Clips appear in realtime. If soft effects cannot be displayed, the words "Unrendered Frame" appear on the applicable frames.

You can navigate the layers of a source clip, a record clip, or a container as long as you set the correct focus.

#### To navigate clips:

1 Select a focus area from the Focus box for the clip you want to navigate.



**2** Do any of the following.

**NOTE** If you want to see visual markers in the Record Area as you navigate from cut to cut, display Frames view.

To go to:	Press:
The next cut or transition on the current layer	х
The previous cut or transition on the current layer	Z
The next cut or transition on any layer or track	Shift+X
The previous cut or transition on any layer or track	Shift+Z
The start of the current element	Ctrl+Alt+A
The end of the current element	Ctrl+Alt+S
The next layer or track down in the vertical edit	down arrow
To go to:	Press:
---	------------------------
The next layer or track up in the vertical edit	up arrow
The next video track down	Ctrl+Alt+down arrow
The next video track up	Ctrl+Alt+up ar- row

As you navigate between layers and tracks, information on the EditDesk proxy and the frame in the Record Area update to reflect which track and layer you are on. In the following example, there are two video tracks. The focus is on the topmost layer—L2— of track V2.



(a) Total number of video tracks (b) Focus is on track V2 (c) Focus of track V2 is on topmost layer, L2  $\,$ 

In the next example, the focus is on the next layer down, L1, of the same track. When the focus is not on the topmost layer, the clip information reflects the total number of layers in addition to the focus layer.



(a) Focus layer (b) Total number of layers on track V2

### **Identifying Cuts and Transitions**

As you navigate an edit sequence, new visual markers can help you identify the location where one element ends and another begins.

In Head/Tail, Frames, and Storyboard views, cuts and transitions appear as follows:

- Cuts between clips on the focus layer in an edit sequence appear as yellow lines.
- Transition focus points on the focus layer appear as dotted green lines.

In Frames view, additional colours appear for cuts and transitions on non-focus layers as long as they are visible from the focus layer:

- Cuts between clips on non-focus layers appear as grey lines.
- Transition focus points on non-focus layers appear as dotted grey lines.

The following examples show the cuts and transitions of a two-layer clip. The first illustration is of the clip displayed in Timeline view.



(a) Focus layer (L2) (b) Cut on L1 seen through gap of focus layer (c) Cut on L1 not seen through focus layer (d) Transition on L1 seen through gap of focus layer

The next illustration shows the same clip displayed in Frames view. The focus is still on the topmost layer, L2. Notice how the cuts and transitions on the timeline in the previous example are colour coded depending on which layer they are on. The only cut not displayed is the one not visible from the focus layer: (c) in previous example.



(a) Cut on focus layer (b) Cut on non-focus layer (L1) (c) Transition focus point on focus layer (d) Transition focus point on non-focus layer (L1) (e) Start and end of transition on focus layer (f) Start and end of transition on non-focus layer (L1)

In addition to the video and layer information on the clip updating as you navigate, the frame count of the clip displayed in Frames view also changes colour. The colour of the frame count on layers lower down from the result layer change to a dimmed version of its original colour. For example, a blue frame count for a mixed resolution layer appears a dimmer blue if the focus is on a layer lower down from the result layer.

# EQ

New for this release: There are now a total of six EQ bands, or nodes, available for more precise manipulation of the audio frequencies: one Low node, four Mid nodes, and one High node.

EQ is a soft effect that allows you to perform precise manipulation of the audio frequency content using the EQ Editor, which is based on a graphical display of EQ settings. For example, you can improve noisy audio tracks or enhance vocal tracks.

You can use any of six available filter or nodes: one Low node, four Mid nodes, and one High node. The Low node can be set to use either a Low Shelf filter or a Low Cut filter. The four Mid nodes can each be set to either a Mid Notch filter or a Mid Presence filter. The High node can use a High Shelf filter or a High Cut Filter.

These filters can have a dramatic effect on the audio so they should be used sparingly.

#### To apply EQ effects on a segment:

1 From the Record T/L, select the audio segment that you want to adjust.

- **2** From the Audio Soft-Effects menu, enable EQ.
- 3 Click E.

The EQ Editor appears.



(a) Low Shelf/Cut filter node (b) Mid Notch/Presence filter nodes (c) High Cut/Shelf filter node

4 Enable filters and make adjustments as necessary.

# Input/Output Improvements

# 7

#### Topics in this chapter:

- Adjusting Audio Gain on Output Clip on page 71
- Using Output Strips on page 73

# **Adjusting Audio Gain on Output Clip**

New for this release: Embedded audio through the AJA video card now supports 16 audio tracks.

Audio gain adjustment is a part of the clip output process only. The clips you are outputting are unaffected by audio gain adjustments made using the Output Clip menu.

On output, you can adjust the audio gain, for example, to restore the levels you had monitored on capture.



(a) Audio Tracks Toggle button (b) Channel Selection buttons and indicators (c) Audio Level fields (d) Fader Lock buttons

**All Audio button** When enabled, outputs to the audio monitor every audio channels. When disabled, outputs only the enabled audio channels to the audio monitor. The All Audio button has no impact on the audio tracks recorded by the VTR.

**Audio Tracks Toggle button** Toggles the Channel Selection buttons and indicators between audio tracks 1-8 and 9-16.

**Channel Selection buttons and indicators** Controls and displays which audio channels are recorded by the VTR. The black boxes with the green LEDs indicate video tracks and audio channels that are part of the clip that you want to output. The red buttons indicate the tracks and channels the VTR records on output.

**Audio Level fields** Displays the audio gain, in decibels. Adjust using the faders. In the small Output Clip menu, increase or decrease the gain by dragging left or right on the fields. By default, audio gain is 0 db.

**Fader Lock buttons** When enabled, locks the faders for the corresponding pair of audio channels together.

#### To adjust the audio gain on output clip:

- 1 Enable the Fader Lock buttons (so that they are light grey) if you want to apply the identical value to pairs of audio channels.
- **2** Slide the faders to adjust the audio gain before you start processing. Use the All Audio button to monitor all the audio tracks that are output, regardless of what audio tracks the VTR records.
- **3** In the Output Clip menu, enable Output All Audio.
- **4** Select or deselect channels for output by clicking the Channel Selection button for each channel as needed.

**NOTE** In a multiple clip selection, channel selection is independent for each clip but the gain levels set with the faders are the same for all clips.

5 Process the clip.

Selected channels are output.

## **Using Output Strips**

New for this release: Embedded audio through the AJA video card now supports 16 audio tracks in the output strips of the AudioDesk menu.

You can use the output strips to control the gain or limit the peaks of the audio output signals.



(a) Limiter meter (b) Output meter (c) Gain Level fader (d) Limiter Level box (e) Limiter button (f) Output Strip Display selection box

## **Adjusting Output Strip Gain**

Use the output strip faders to control the audio output levels. You can adjust the faders while playback is stopped, or during playback to get a dynamic update of audio levels.

#### To adjust the audio output strip gain:

- 1 In the AudioDesk, ensure that each audio input strip that you want to work with is assigned to an output strip.
- 2 Toggle the meters to Desk Outputs.
- **3** Play the clip.

The audio output levels are displayed on the meters.

**4** Click the fader for the output strip that you want to adjust and drag it to the new level.

You can also adjust the levels with the playback stopped.

## **Using the Limiter**

The Limiter provides a form of signal compression. It allows audio signals below a set value to pass unaffected, and clips off the peaks of stronger audio signals that exceed the set value. The audio remains untouched unless the limiter is working, in which case only gain is affected. The built-in auto-release mechanism allows for fast recovery, minimizing distortion and pumping. The Limiter is a stereo effect that applies to a pair of output strips.

#### To set the limiter:

- 1 In the AudioDesk, ensure that each audio input strip that you want to work with is assigned to an output strip.
- 2 Toggle the meters to Desk Outputs.
- 3 Play the clip.
- 4 Note the audio output levels displayed on the meters.
- **5** Enable the Limiter button.

The Limiter meter appears.

**6** Adjust the Limiter level to remove any overloads, or to limit the peaks to a desired output level.