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FIRE®
2008
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What's New

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1 What's New

Summary

Animation

The Animation menu has been standardized across all Editing and Effects products, allowing you to more easily orient yourself between applications. See the "Animation" chapter.

You can also now use Expressions in the Channel Editor in Fire. Use expressions to apply animation dynamically to one or more channels. For example, use expressions to easily simulate real-world forces such as gravity, momentum, and centrifugal force. Expressions are available through all modules that use the Channel Editor. See the "Expressions" chapter.

Audio Features

Fire now supports a variety of new and expanded audio features:

- Soft effects that can be applied to audio segments in the timeline. These include: Modulation, Delay, Reverb, Gain, EQ, Compression, Noise Gate, and Audio Timewarp. You can apply these effects on the fly.
- The EQ, Compression, and Noise Gate soft effects can be adjusted through graphical displays.
- Audio soft effects are real-time effects so you can, for example, edit, create, and mute them while playing them in real time. For more information, see "Working with Audio in the Timeline" in the "Audio" chapter.
- In the AudioDesk, you can adjust Gain, Pan, Mute, Phase Shift, and Solo settings for up to 32 individual input strips, and you can adjust the output Gain and Limiting for up to 8 output strips.
- In the new Auxiliary Effects Desk, you can adjust global settings for the Modulation, Delay, and Reverb auxiliary effects.
- Dolby E encoded tracks are now supported.

See the "Audio" chapter.

Timeline Editing

The following features are now supported when editing with the EditDesk record timeline.

Copying Soft Effects between Clips

Previously when you copied soft effects between clips, you could only copy from a source clip to an entire record timeline, thereby copying all soft effects from matching sources. Now you can also limit which soft effects from matching sources you copy by selecting specific timeline elements instead of the entire record timeline.

See "Copying Soft Effects between Clips" in the "Soft Effects" chapter.

Timeline: Partial Rendering

You can now render selected frames of a video segment on the timeline instead of the entire segment. When you later render the timeline, any frames already rendered are not rendered again. Frames viewed while in Preview Fx mode are now cached.

See "Partial Rendering of the Timeline" in the "Managing Timeline Media" chapter.

Snapping to Timeline Elements

When you insert edits on the timeline gesturally, you now have more control of where your edits will go. New Snap options allow you to snap to in or out points or to the closest element.

You can also display a phantom of the segment as a preview of where your edit will be placed. The phantom segment appears in all Snap modes including when Snap is off.

See “Setting Snap Options” and “Previewing the Placement of Shots on the Timeline” in the “Editing to the Timeline” chapter.

Searching for Mixed Resolution Sources

You can now search the record timeline for segments that are not of the same resolution as that of the master clip. You can search for mixed resolution sources and mixed resolution history sources.

See “Searching for Timeline Elements” in the “Navigating the Timeline” chapter.

Swapping Timeline Elements

You can now swap elements on the timeline using hot keys instead of moving them gesturally. If the elements contain soft effects, they are swapped as well.

See “Swapping Timeline Elements” in the “Navigating the Timeline” chapter.

Clip History

The following changes in clip history now apply to Fire .

- The Clip List View displays an “H” symbol if a clip has history.
- In Fire and Smoke, you can now replace the source clip on clips with history that are in the Record Area. The sources you swap must be of the same resolution and bit depth.
- Fire® and Smoke® support clips created with the desktop Action module in Inferno®, Flint®, and Flame®.
- Inferno, Flint, and Flame support clips created with the DVE module in Fire and Smoke.
- In Fire and Smoke, you can view the icons of modules downstream of an ineditable module for a clip created Inferno, Flint and Flame.

See “About Clip History” and “Compatibility between Autodesk Products” in the “Clip History” chapter.

Clip Input and Output

The 2007 release of Fire included important improvements to multi-format input/output. These included sync detection and the ability to change preview timing and switch VTRs during a work session. The 2008 release extends these enhancements. See "Working with Multi-Format Input and Output" in the "Clip Input/Output Using a VTR" chapter.

The controls for adjusting audio gain during input have been removed. This is because you can now manipulate audio after capture using the many new audio features in this release. See the "Audio" chapter.

The documentation has been modifed to better explain the principles behind capturing with headroom and conserving super black and super white values. See "Inputting and Outputting with Headroom" in the "Clip Input/Output Using a VTR" chapter.

Clip Library: Processing Segment Effects

When you process clips from the clip library, unprocessed segment effects will also be processed. When you are in the clip library, you can process clips from the Rendering Tools menu, which you access from the Tools menu.

DVE

The DVE module has been redesigned to help your workflow and improve the interoperability between Editing and Effects products.

The following list some of the highlights of the updated DVE module.

- The new Object Node bin allows you to easily add objects to the scene.
- Object menus are tabbed to give you more control over changing settings of the elements in your scene.
- The DVE Layer Object is a new object providing similar functionality to the DVE layer from earlier versions of Editing products.
- You can now change Z-buffer settings per source node. You can also choose to process certain effects before or after a source node.
- A new mode allows you to duplicate objects in your scene so that any settings that you apply to one object are applied automatically to the other.

For complete details, see the DVE chapters, starting with the "DVE: Basics" chapter.

EditDesk

A number of improvements have been made to the EditDesk:

- In the EditDesk Library, you can now move entries by clicking and dragging them. You can also double-click a row to select a new Source Area, Record Area or Record Focus.
- The List View is now customizable through the Preferences menu; certain clip attributes can be edited directly in List View.
- Both the EditDesk Library and List View now include proxy thumbnail images of clips. These can be double-clicked to display the Player.
- The Clip List view now displays the history of a source clip. The history of a clip is collapsed by default.

See “EditDesk Library” and “Using List View” in the “The EditDesk” chapter.

Import/Export Media Features

Fire now supports a number of new import and export features for media files:

- Import and export of floating-point OpenEXR images is now supported.
- The import options for DPX files have been improved.
- There are now reorganized chapters for Importing Media Files and Exporting Media Files, which makes it easier to find the information you need.

See the “Importing Media Files” chapter and the “Exporting Media Files” chapter.

Managing Hot Keys

In the Hot Key Editor you can now select what type of keyboard you are using to take advantage of extra keys on certain keyboards. See “Selecting Your Keyboard Type” in the “Managing Hot Keys” chapter.

Managing Projects and Users

You can now access projects on remote framestore from all Editing and Effects applications. Previously, you could only do this with Backdraft® Conform. See “Working with Remote Framestores” in the “Managing Projects and Users” chapter.

Clips are now compatible between Editing and Effects applications. You can open and render clips created in any Editing or Effects application. You can see the result of all effects and edits in the clips as they were created in the source application.

However, to edit a clip, the effect or edit used to create the clip must be available in the application you are working in. Otherwise, you can only edit the clip in the Editing or Effects application that created it.

If you bring a clip with a segment effect from an Effect product to the timeline, an FX indicator will appear on the segment indicating the segment contains a segment effect.

Online Help and Documentation

Online help and documentation is now available right from the EditDesk. See "Accessing Online Help and Documentation" in the "Getting Started" chapter.

OpenEXR Image Files

Fire supports the OpenEXR file format. This file format can store 16 or 32-bit floating-point image data; all OpenEXR files are converted to 16 bits when stored on the framestore. Advantages of the OpenEXR format include a high dynamic range, high-quality colour resolution and portability.

From the EditDesk, you can convert OpenEXR files using the LUT Editor. You can alter image channel values; however, you cannot alter the original file.

You can convert the output of an OpenEXR image to an integer image with a bit depth of 8, 10, or 12 bits. You still have the option of exporting to a new 16-bit floating point image.

See "Converting an OpenEXR Image in the LUT Editor" in the "Colour Management with LUTs" chapter.

Operations Supporting OpenEXR

The following modules and operations support OpenEXR images:

- Add Pulldown
- Archive
- Change KC
- Change TC
- Convert Rate
- Deal
- Deinterlace
- Dominance
- Export Image

- Field Merge
- Import Image
- Interlace
- Interleave
- LUT
- Output
- Proxy Extraction
- Proxy Regeneration
- Remove Pulldown
- Resize
- Sparks® (if the selected spark allows support of OpenEXR images)

Editing Operations Supporting OpenEXR

OpenEXR-formatted clips can be edited on the timeline. Three types of soft effects are supported when using OpenEXR-formatted clips: Resize, Blend and Timewarp.

Preferences

The Preferences menu has been redesigned to group common preferences in tabbed sections. You can access the Preferences menu by clicking Preferences on the EditDesk or by using the new hot key **Ctrl+Alt+F6** from anywhere in the application. See the "Setting Preferences" chapter.

Starting Fire

The start-up process across all Editing and Effects applications is now the same. See the "Command Line Start-up and Exit Options" chapter.

Tooltips

Tooltips display the keyboard shortcut and a brief description for objects (like buttons) on the user interface. They are now available in the following modules:

- Audio
- Clip Library
- Clip History

- DVE
- EditDesk
- EDLs
- Export Media Files
- Import Media Files
- Player
- Timeline

You can set tooltip display options in the Preferences menu. See "Tooltips Preferences" in the "Setting Preferences"chapter .

Widescreen Menus

Many of the menus in the application have been redesigned to take advantage of 16:9 monitors. As a result, buttons have been repositioned to make better use of the screen size and improve the access to commands.

Infrastructure

This section contains a list of new infrastructure features for this release.

Standard Filesystem Support

Standard filesystem support provides the option to store the media created and managed by any Effects and Editing application on a standard UNIX-compatible filesystem. This capability is transparent to the artist, as the clip libraries workflow and procedures remain unchanged. Clip libraries and the clips they contain can be manipulated in exactly the same manner, whether they are referencing media stored on a Stone® FS or a standard FS.

As opposed to the Stone FS proprietary filesystem, which provides guaranteed performance for real-time operations such as Video I/O, a standard FS is by definition open and therefore ideal to enable shared media access to several creative applications without needing to transfer and replicate media files. Standard FS support also allows Effects and Editing applications to access third-party storage infrastructure, such as SAN, NAS, or Direct attached RAID arrays, as their main media storage volume.

Highlights

- Supported UNIX-compatible filesystems can be used for media storage in the same capacity as a Stone FS.
- There are no operational changes to the Effects and Editing applications. From the artist's perspective, standard FS support is transparent and identical to the existing Stone FS based workflow.
- When stored on a standard FS volume, all clip material in a project, such as managed sources, intermediates, and proxies, can be stored in any one of the supported standard file formats, including DPX and RAW. The preferred file format is user defineable for each standard FS volume.
- Stone FS and standard FS partitions can co-exist on a workstation and can be mounted simultaneously.
- Multiple workstations and applications can connect to a shared storage volume (usually a SAN) and share media.
- Shared volume configurations obtain significant workflow improvements, saving time on publish and soft-import operations and avoiding needless media replication.

Volume Integrity Check (VIC) Performance Improvements

Major VIC performance improvements can be seen on a Stone FS volume. Even more dramatic is the performance improvement of the VIC over-soft imported media. This is due to a complete redesign of the soft-import links mechanism.

NOTE: The redesign or the soft-import link mechanism breaks backward compatibility for soft-imported media created on previous versions of Effects and Editing applications. Such soft-imported media will have to be reimported or restored from archives before being available to the 2008 version of the applications. Consult the Release Notes for your product for details and guidelines on preparing soft-imported media for the upgrade to 2008.

Wiretap SDK Version 2008.1

This release also includes an update to the Wiretap™ SDK version 2008.1, which introduces the following new features:

Support for Floating Point Images

Now that Effects and Editing applications work natively with floating point images, the Wiretap server serves up and accepts raw float and half-float media. New format tags (available through WiretapClipFormat) have been added.

Ability to Access All Project and User Metadata

New samples (copyProject.cpp and copyUser.cpp) have been created to show how to access all ASCII and binary user preferences and project setup files, along with existing project and user metadata. Wiretap clients can now copy or move projects and users between stations using the new Wiretap Stream API.

Wiretap Web Now Part of the SDK

The Wiretap Web Server will be bundled with the SDK as of the 2008 release. It will also still exist as a separate RPM package.

NOTE: The Wiretap SDK is available at no cost for in-house development and under a special license for third-party development organization. Contact your sales representative for information.

New Wiretap SDK 2008 Documentation

The Wiretap SDK documentation has been updated and now features the following improvements:

- Complete structure change of the guide making it easier for new developers to get started and for advanced developers to find what they want. The guide has much more content than the previous version.
- Improved diagrams
- Full XML metadata tag descriptions, especially for project and user metadata
- Full description of the Stone video frame formats including 12-bit packed/compressed frames
- Improved documentation in the sample code, aligned with terminology in the guide
- Fully functional Microsoft® Visual Studio sample project
- C++ Command-line build parameters for all platforms
- Complete and up-to-date Doxygen-generated HTML reference guide