

**Autodesk®**

Smoke® 2010 Extension 1

A Discreet® Systems product

**Autodesk®**

Backdraft® Conform 2010 Extension 1

# Release Notes

## Autodesk® Visual Effects and Finishing 2010 Extension 1

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Published by: Autodesk, Inc.  
111 McInnis Parkway  
San Rafael, CA 94903, USA

Title: Autodesk Smoke and Autodesk Backdraft Conform 2010 Extension 1 Release Notes  
Document Version: 1  
Date: September 10, 2009

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# Introduction

# 1

## Topics in this chapter:

- [About these Release Notes](#) on page 1
- [Related Documentation](#) on page 2
- [Contacting Autodesk](#) on page 2

## About these Release Notes

This document provides system requirements, installation instructions, and last-minute important information for the following Autodesk® applications:

- Autodesk Smoke® 2010 Extension 1
- Autodesk Backdraft® Conform 2010 Extension 1
- Autodesk Burn® 2010 Extension 1

Before upgrading your application, read this document thoroughly, as it contains important notes about the current release, including the required *Discreet Kernel Utilities* (DKU) version and AJA OEM 2K firmware version.

- For important notes about this version, see [Important Notes for Version 2010 Extension 1](#) on page 11.
- For the DKU version and AJA OEM 2K firmware version required for this version see [Verifying and Upgrading the DKU](#) on page 6 and [Verifying and Upgrading the AJA OEM 2K Firmware](#) on page 6.
- For a quick overview of the steps required to upgrade your application to the current version, see [Quick Upgrade Workflow](#) on page 3.
- For information on known issues, as well as issues fixed in this release, see the *Autodesk Visual Effects and Finishing 2010 Extension 1 Fixed and Known Bugs* document. You can get the latest version of this document from the Autodesk Web site at <http://www.autodesk.com/me-documentation>.

## Related Documentation

This release has documentation that helps you install, configure, and use your product. It is available from your product as a Web-based help system, and online as PDF files.

- To view the Help from anywhere in the application, press **Ctrl+=**.

For complete information on viewing PDF documentation and Help, see the “Introduction” chapter of your application User Guide.

Access the latest documentation at:

- [www.autodesk.com/smoke-documentation](http://www.autodesk.com/smoke-documentation)
- [www.autodesk.com/backdraftconform-documentation](http://www.autodesk.com/backdraftconform-documentation)
- [www.autodesk.com/burn-documentation](http://www.autodesk.com/burn-documentation)

## Contacting Autodesk

For Autodesk 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>.

# Application Requirements and Installation

# 2

## Topics in this chapter:

- [Quick Upgrade Workflow](#) on page 3
- [System Requirements](#) on page 4
- [Verifying and Upgrading the DKU](#) on page 6
- [Verifying and Upgrading the AJA OEM 2K Firmware](#) on page 6
- [Licensing](#) on page 7
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- [Uninstalling Visual Effects and Finishing Applications](#) on page 8
- [Additional Software For this Release](#) on page 9

## Quick Upgrade Workflow

This section provides system requirements for the current version of Autodesk Visual Effects and Finishing applications, as well as an overview of the application upgrade workflow.

If this is the first time you are installing an Autodesk Visual Effects and Finishing application, we recommend reading the latest *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for detailed information on each step in the installation procedure.

---

**NOTE** To ensure optimal performance, it is recommended that only Autodesk Visual Effects, Finishing, and Colour Grading applications, and required Red Hat Enterprise Linux Workstation packages be installed on the workstations.

---

### To upgrade your application to the current version:

- 1 Before beginning the upgrade procedure, read the information in [Important Notes for Version 2010 Extension 1](#) on page 11.

- 2 Make sure your workstation and operating system meet the minimum requirements for the current version. See [System Requirements](#) on page 4.
- 3 Open a terminal and log in as root.
- 4 If you are installing from the Autodesk Visual Effects and Finishing DVD, insert and mount the DVD.

---

**NOTE** Major releases are distributed on DVD. Extensions and service packs are available only for download, as compressed *tar* files. The download links are provided in the Release Announcement you received from Autodesk.

---

- 5 If you are not installing from a DVD, download the DKU and application *tar* files from the links provided in the release announcement. Then unpack each *tar* file by typing:

```
tar -zxvf <tar_file>
```

Each *tar* file is unpacked into a new directory.

- 6 Install the required version of the DKU. See [Verifying and Upgrading the DKU](#) on page 6.
- 7 If your HP workstation is equipped with an AJA OEM 2K card, verify and upgrade the AJA firmware if necessary. See [Verifying and Upgrading the AJA OEM 2K Firmware](#) on page 6.
- 8 If you need to change your system date or time, do it **before** installing the new release.
- 9 If you are upgrading from a previous release, make sure there are no missing frames in your previous release clip libraries before performing the upgrade. See [Cleaning up Missing Frames Before Upgrading to the 2010 Release](#) on page 17.
- 10 Go to the application installation directory, for example *Flame\_2010.1\_LINUX64*, and start the installation script by typing:

```
./INSTALL_<APPLICATION_NAME>
```

The script starts and guides you through the installation process. See the latest *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for detailed information on each step.

- 11 If you are upgrading from a previous release, run the *copyProjects* utility to copy projects from previous versions of the application to the most recently installed version. See the “Compatibility” topic in the application Help or User Guide for details.

---

**NOTE** This step is not necessary if you are upgrading from a service pack of the same application release or extension.

---

- 12 Clear your browser cache to make sure the latest version of WiretapCentral loads properly.

## System Requirements

The following table lists the workstations and operating systems supported in this release, as well as the supported BIOS versions for each workstation.

| Workstation | Supported BIOS Versions | Operating System  |
|-------------|-------------------------|---|
| HP Z800     | 1.06                    | Red Hat® Enterprise Linux® Desktop 5.3 with Workstation Option (64-bit) |
| HP xw8600   | 1.32                    | Red Hat Enterprise Linux WS 4, Update 3 (64-bit)                        |
| HP xw9400   | 3.05                    | Red Hat Enterprise Linux WS 4, Update 3 (64-bit)                        |

| Workstation | Supported BIOS Versions | Operating System                                 |
|-------------|-------------------------|--|
| HP xw8400   | 2.26                    | Red Hat Enterprise Linux WS 4, Update 3 (64-bit) |

The following table lists the supported BIOS versions and operating system distributions for HP ProLiant DL160 Burn Render Nodes.

| Render Node            | BIOS version | Operating System  |
|------------------------|--------------|---|
| HP ProLiant DL160se G6 | 07/05/2009   | Red Hat Enterprise Linux Desktop 5.3 with Workstation Option (64-bit) |
| HP ProLiant DL160 G5   | 04/09/2008   | Red Hat Enterprise Linux WS4 Update 3 (64-bit)                        |

See the latest *Hardware Setup Guide* for your workstation for wiring diagrams, BIOS settings, and BIOS update instructions.

If you need to reinstall your operating system (for example if you replaced your system drive), use the custom Autodesk 64-bit distribution of Red Hat Enterprise Linux, and not the commercial distribution. The custom Autodesk DVD is distributed with your release shipment, and installs the Linux software packages required by Autodesk applications. These applications do not run under the commercial distribution of Red Hat Enterprise Linux.

**WARNING** A fresh install of Linux erases the contents of the system disk. Before performing the upgrade, archive user settings, project settings, and any media that you want to preserve.

See the *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for information on installing Linux.

## Memory Requirements

Use the following table to determine the minimum memory requirement for your Visual Effects and Finishing system. This requirement depends on the resolution of your projects, the type of work you perform and, in some cases, the platform on which you are running the application. Large projects, in particular, may benefit from increased memory.

The table also includes the recommended amount of memory where appropriate. The recommended amount of memory ensures optimal interactivity and stability when using complex setups.

| Project Resolution  | Minimum RAM                                       | Recommended RAM   |
|---|---|---|
| NTSC, PAL, HD   | 12.0 GB for HP Z800<br>4.0 GB for other platforms | 12.0 GB for HP Z800<br>16.0 GB for other platforms                      |
| Long-form editing (Smoke)   | 12.0 GB for HP Z800<br>8.0 GB for other platforms | 12.0 GB for HP Z800<br>16.0 GB for other platforms (highly recommended) |
| Long-form editing with 2K or 4K film (Flame, Inferno, Smoke, Backdraft Conform) | 12.0 GB for HP Z800<br>8.0 GB for other platforms | 12.0 GB for HP Z800<br>16.0 GB for other platforms (highly recommended) |
| 2K film (Smoke, Backdraft Conform)  | 12.0 GB for HP Z800<br>8.0 GB for other platforms | 12.0 GB for HP Z800<br>16.0 GB for other platforms (highly recommended) |
| 2K film (Flame, Inferno)  | 12.0 GB for HP Z800                               | 12.0 GB for HP Z800   |

| Project Resolution                                 | Minimum RAM                                       | Recommended RAM   |
|--|---|---|
|  | 8.0 GB for other platforms                        | 16.0 GB for other platforms (highly recommended)                        |
| 4K film (Flame, Inferno, Smoke, Backdraft Conform) | 12.0 GB for HP Z800<br>8.0 GB for other platforms | 12.0 GB for HP Z800<br>16.0 GB for other platforms (highly recommended) |

For projects based on long form 2K or 4K film on workstations other than the HP Z800, 16 GB of system memory are highly recommended for optimal interactivity and stability while using complex setups.

You can adjust the `MemoryApplication` keyword in the software initialization file (*init.cfg*). For example, a system running at 8GB with a 2K project could benefit from having the `MemoryApplication` keyword set to 5500. For more information about this keyword, consult the latest *Autodesk Visual Effects and Finishing Installation and Configuration Guide*.

## Verifying and Upgrading the DKU

The Discreet Kernel Utilities (DKU) version required for version 2010 Extension 1 is **4.5.0**. Make sure you upgrade the DKU to this version before installing the new version of your Visual Effects and Finishing application.

The DKU is available as a download from Autodesk. The download link is provided in the Release Announcement you received from Autodesk.

### To upgrade the DKU:

- 1 Check the currently installed DKU version. As root, open a terminal and type:  
**head -n1 /etc/DKUversion**  
If the DKU version output by the command does not match the version required for the current release, perform the remaining steps in this procedure.
- 2 Download the latest DKU *tar* file from the download link provided in the release announcement.
- 3 Go to the directory where the *tar* file was downloaded, and unpack it by typing:  
**tar -zxvf DKU\_<version\_number>.tar.gz**  
The DKU *tar* file is unpacked into a new directory.
- 4 Go to the newly-created DKU installation directory, and launch the DKU installation script:  
**./INSTALL\_DKU**
- 5 When the DKU installation completes, reboot the system. Type:  
**reboot**

## Verifying and Upgrading the AJA OEM 2K Firmware

If your HP workstation is equipped with an AJA OEM 2K board, the firmware of the board must be upgraded to use it with the current release of your Visual Effects and Finishing application.

Consult the following table to identify the required AJA firmware version for your application version.

| Workstation Model | AJA OEM 2K Firmware |
|-------------------|---------------------|
| HP Z800           | 0x75                |

---

| Workstation Model | AJA OEM 2K Firmware |
|-------------------|---------------------|
| HP xw8600         | 0x73                |
| HP xw9400         |                     |
| HP xw8400         |                     |

---

**To verify and upgrade the AJA OEM-2K firmware:**

- 1 Open a terminal and type:

```
cat /proc/driver/aja
```

If the `PCI version` line in the output lists a different version than the required one, perform the following steps to upgrade the firmware.

---

**NOTE** Before upgrading the AJA firmware, make sure you have upgraded the DKU, and that you have restarted the system.

---

- 2 Go to the `/usr/discreet/DKU/current/Utils/AJA_firmwareUpdate` directory.
- 3 Run the `AJAfw_update` utility to scan the AJA current firmware and, if required, update to the latest firmware version. Type:  

```
./AJAfw_update
```

If the utility detects that the firmware and drivers need to be updated, it prompts you to start the update.
- 4 Start the firmware update by typing **Y** and then pressing **Enter**.  
While the AJA firmware and drivers are being updated, your workstation appears to be frozen and your mouse and keyboard do not work. This is normal and indicates that the firmware is being updated. Once the firmware update is complete, you are returned to the terminal.
- 5 Shut down your workstation by typing:  

```
shutdown -g0
```

If your workstation does not prompt you to power down, press the power button for 10 seconds to force a power down.
- 6 Disconnect the power cord.
- 7 Wait 10 seconds, reconnect the power cord, then restart your workstation.

---

**NOTE** For more details about the AJA firmware procedures, consult the `README` file located in the current directory.

---

## Licensing

As an eligible subscription customer, you will receive a new license for the current version of your product. See the *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for instructions on installing your license code.

---

**NOTE** You do not need a new license if you are upgrading to a service pack of the same release or to a service pack of the same extension.

---

## Compatibility

Projects and clip libraries created in previous releases are read-only in the new version of the application.

To access media in projects created in previous releases, you must first create new projects in the current release. Then, you must transfer the media from your old projects to the new ones using the Network panel in the Clip Library (Autodesk® Wire®).

There is a tool that copies your old projects to new projects, which can ease the process of migrating many projects to the new version. For details, see the “Compatibility” topic of your application Help or User Guide.

Previous releases cannot read clip libraries from this release.

Autodesk recommends archiving your media and project data before you upgrade.

## Autodesk Flare Compatibility

Note that, when using Autodesk Flare in a remote workflow, the Autodesk Flame or Autodesk Inferno application to which the Autodesk Flare workstation connects must be the same version as the Flare software.

See the *Autodesk Flare Installation and Configuration Guide* for information on upgrading Autodesk Flare software to the latest version.

## Uninstalling Visual Effects and Finishing Applications

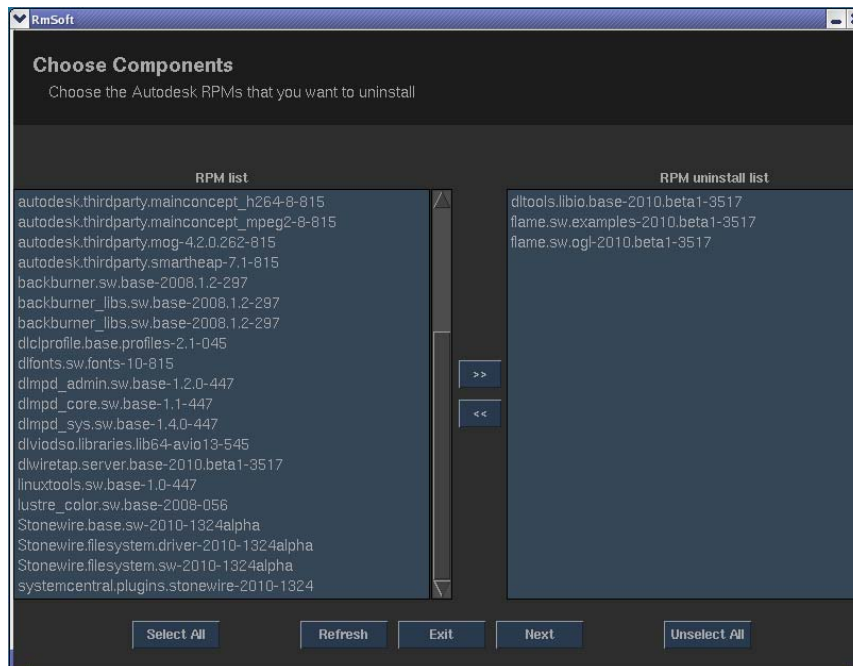
The *rmsoft* utility enables you to easily uninstall Visual Effects and Finishing applications from your workstation.


To uninstall your application using *rmsoft*:

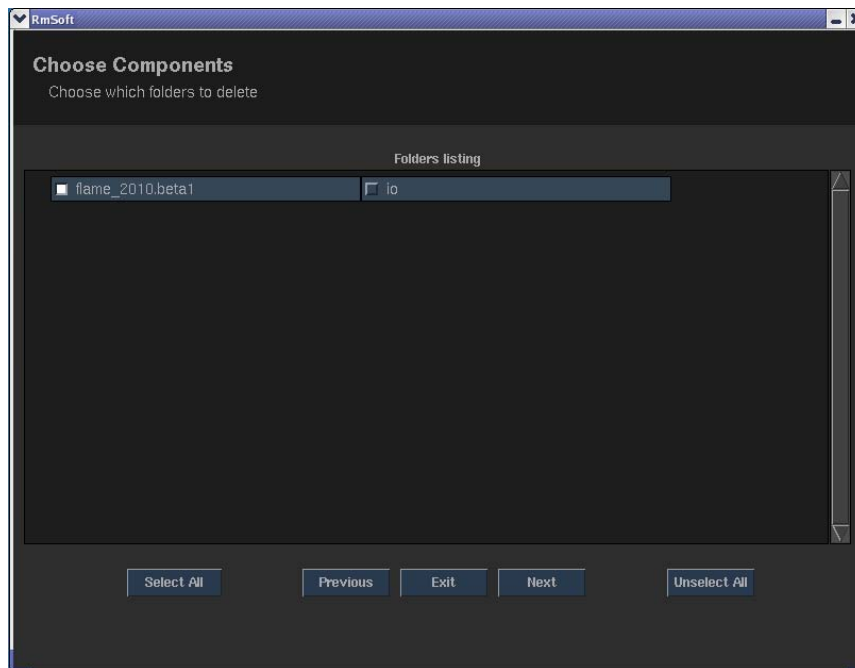
- 1 If you are logged in as the application user in KDE, log out and log back into KDE as root.
- 2 As root, open a terminal, and type:

```
rmsoft
```

The *rmsoft* user interface appears.



- 3 Select the RPM packages you want to uninstall in the RPM list on the left (click Select All to select all the packages), then click  to move them to the RPM uninstall list on the right.
- 4 Click Next.  
The Choose folders window appears.



- 5 Select the application directories you want to remove from the */usr/discreet/usr/autodesk/* directory, and click Next.  
A confirmation dialog appears.
- 6 Click Uninstall & Remove to confirm the removal of the selected packages and directories.  
The uninstallation starts and *rmsoft* displays details on the process.
- 7 When the operation completes, click Exit to close *rmsoft*.
- 8 Optional: You can also delete the log files associated with a given application version in the */usr/discreet/log/var/log/* directory.

## Additional Software For this Release

The following table lists the version numbers for supporting software for this release.

| Software                                | Version        |
|---|----------------|
| Autodesk® Backburner™                   | 2010.1-1384    |
| Autodesk® Lustre® Color Management      | 2008 build 056 |
| Autodesk® WiretapCentral™               | 2010.1-367     |
| Autodesk® Wiretap Gateway™              | 2010.1-367     |
| Autodesk® Backburner™ Media I/O Adapter | 2010.1-367     |



# Important Notes for Version 2010 Extension 1

# 3

## Topics in this chapter:

- [Introducing the New HP ProLiant DL160se G6 Burn Nodes](#) on page 11
- [New DKU Version 4.5.0 Required](#) on page 11
- [StoneFS not Supported in Red Hat Enterprise Linux 5](#) on page 12
- [The 2010 Extension 1 Release Cannot Coexist with Older Releases on the Same Workstation](#) on page 12
- [Standard Filesystem Bandwidth Reservation Improvements](#) on page 12
- [Removing Corrupt Records from the Stone and Wire Database](#) on page 15
- [Changing the Interpolation Type for Variable Speed Timewarps](#) on page 16
- [Avid MXF Limitations](#) on page 16
- [Cleaning up Missing Frames Before Upgrading to the 2010 Release](#) on page 17
- [Restoring a Pre-2010 Project](#) on page 17
- [Troubleshooting Missing Frames](#) on page 17

## Introducing the New HP ProLiant DL160se G6 Burn Nodes

Version 2010 Extension 1 introduces the new HP ProLiant® DL160se G6 Burn nodes, running the custom Autodesk distribution of Red Hat Enterprise Linux Desktop 5.3.

For information about setting up the hardware, installing Linux and the Burn software on the new nodes, consult the *Autodesk Burn 2010 Extension 1 Installation and User Guide*.

## New DKU Version 4.5.0 Required

2010 Extension 1 applications require DKU version 4.5.0.

Download this version of the DKU from the link provided in your release announcement, and install it before installing your 2010 Extension 1 application.

See [Verifying and Upgrading the DKU](#) on page 6 for installation instructions.

## StoneFS not Supported in Red Hat Enterprise Linux 5

Note that the StoneFS filesystem is not supported in Red Hat Enterprise Linux 5.

If you plan to upgrade to the new HP Z800 workstation running Red Hat Enterprise Linux Desktop 5.3, you can only use a standard filesystem (on a Stone Direct array or SAN device) for media storage. Autodesk recommends the XFS filesystem. See the *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for information on setting up a standard filesystem as media storage for your application.

## The 2010 Extension 1 Release Cannot Coexist with Older Releases on the Same Workstation

The DKU required by the 2010 extension 1 release installs new drivers that are not compatible with older releases.

If you plan to use 2010 applications on the same workstation as the 2010 Extension 1 release, upgrade your 2010 applications to Service Pack 4 after installing the 2010 Extension 1 release.

Older releases, such as 2009 and 2008 cannot be used on the same workstation as the 2010 Extension 1 release.

---

**NOTE** Projects and clip libraries created in these older releases can still be transferred and used in the 2010 extension 1 release. See the compatibility topic in your application Help for details.

---

See the *Autodesk Inferno*, *Autodesk Flame*, and *Autodesk Flint 2010 SP 4 Release Notes*, or the *Autodesk Smoke and Autodesk Backdraft Conform 2009 2010 SP 4 Release Notes* for information on upgrading your 2010 applications to Service Pack 4.

---

**NOTE** You do not need to install DKU 4.0.6 that comes with version 2010 SP4 if you have already upgraded your workstation to DKU 4.5.0.

---

## Standard Filesystem Bandwidth Reservation Improvements

The bandwidth reservation mechanism for standard filesystems has been improved to provide better bandwidth distribution to local and remote Visual Effects and Finishing applications connecting to a workstation's storage.

Previously, most applications remotely connecting to a workstation's storage shared a single reservation, using the "S+W Server" token. Remote applications are now identified by application-specific tokens, workstation host name, as well as the user name under which the application is executed. You can use any or all of these parameters to create more precise bandwidth reservation rules in the Bandwidth Manager configuration file, */usr/discreet/sw/cfg/sw\_bwmgr.cfg* file.

The new syntax for bandwidth reservation is:

```
Reservation<number>=<application_name> [<user_name>] [@<workstation_hostname>]
<reading_bandwidth> [( <low_bandwidth> )] [<writing_bandwidth>]
[ ( <low_writing_bandwidth> )]
```

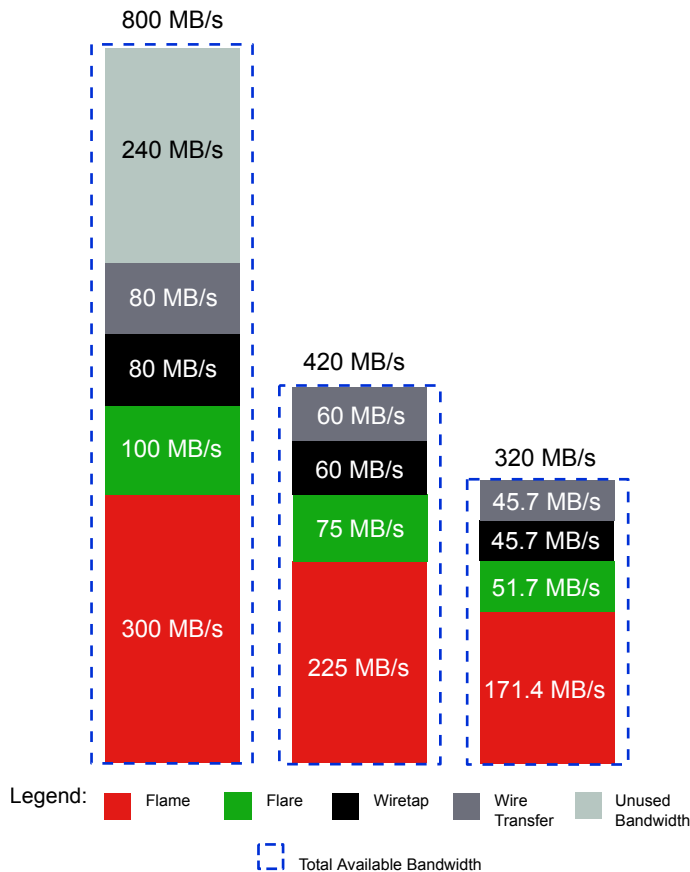
For example:

```
Reservation1=smoke user1@workstation1 150 (120) 100 (50)
```

You can also customize the way bandwidth is redistributed in low bandwidth situations, by using the `<low_bandwidth>` parameter for all reservations of a device. In low bandwidth situations, instead of reducing all reservations proportionally towards zero, the bandwidth manager first reduces the bandwidth of each process towards the low-bandwidth value specified for that process, and attempts to maintain that minimum for as long as possible. If the device bandwidth keeps degrading, then the bandwidth manager starts reducing bandwidth proportionally from the low-bandwidth values towards zero.

In the following example, the `<low_bandwidth>` parameter is not used. The diagram illustrates the way the Bandwidth Manger redistributes device bandwidth in such a case, as the total available bandwidth decreases from 800 MB/s to 420 MB/s and then to 320 MB/s. Note how bandwidth is proportionally reduced for all processes.

```
Reservation1= flame 300
Reservation2= flare 100
Reservation3= "IFFFS Wiretap Server" 80
Reservation4= "S+W Server" 80
```



In the following example, the `<low_bandwidth>` parameter is used. The diagram illustrates the way the Bandwidth Manger redistributes device bandwidth as the total available bandwidth decreases from 800 MB/s to 420 MB/s and then to 320 MB/s.

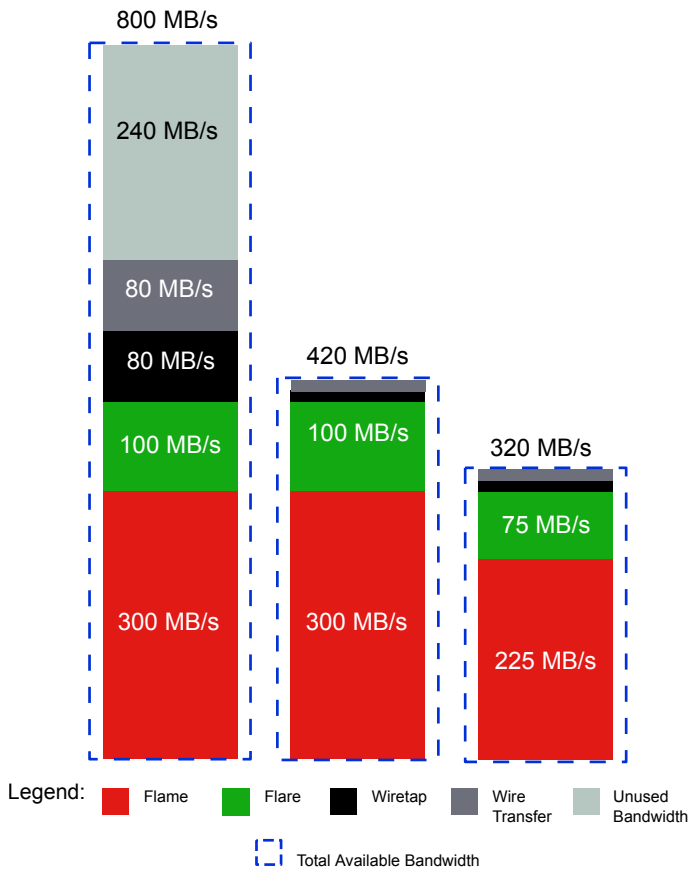
Note how the Bandwidth Manager keeps the bandwidth for each application at the low bandwidth watermark. When total available device bandwidth falls under the sum of the low bandwidth watermarks, the Bandwidth Manager decreases bandwidth for all processes proportionally towards zero.

```
Reservation1= flame 300 (300)
```

```

Reservation2= flare 100 (100)
Reservation3= "IFFFS Wiretap Server" 80 (10)
Reservation4= "S+W Server" 80 (10)

```



**NOTE** Remember that all processes that do not have a bandwidth reservation setting in the *sw\_bwmgr.cfg* file fall under the default combined reservation of 10 MB/s.

For detailed descriptions of all the parameters, and for a list of application names you can use when defining reservations, see the comments inside the new Bandwidth Manager sample configuration file, */usr/discreet/sw/cfg/sw\_bwmgr.cfg.sample* that installs with Beta3 applications. Note that your actual configuration file */usr/discreet/sw/cfg/sw\_bwmgr.cfg* is not updated when you upgrade your application.

Remember to take into account several factors, such as the type of work you will perform on the workstations, and the type of media you plan to work with when defining the bandwidth reservation values for local and remote Visual Effects and Finishing applications connecting to a workstation's storage.

For example, if a storage device has a total bandwidth of 725MB/s and there is one Flame workstation playing back a 2k 10bit clip, and one Flare workstation playing back a 1k 10 bit proxy from the storage, the reservations would be defined as follows to ensure real-time playback on the two workstations:

```

Reservation1= flame 500 (300)
Reservation2= flare 200 (100)

```

# Removing Corrupt Records from the Stone and Wire Database

A new script is available to help eliminate corruption issues in the Stone and Wire database.

The script opens an existing corrupt database file, extracts the records that are not corrupted, and rebuilds a new database file from these records. Corrupt records and empty records are not carried over to the new database file. Note that the script does not attempt to repair corrupt records.

---

**WARNING** Use this script only if you are sure the Stone and Wire database is corrupt, otherwise serious data loss can occur.

---

## To remove corrupt records from a Stone and Wire database file:

- 1 Open a terminal and log in as root.
- 2 Make sure the database is actually corrupt by searching for corruption errors in the Stone and Wire database log file `/usr/discreet/sw/log/sw_dbd.log`.

If you do not find any corruption errors in the log file **DO NOT** continue this procedure.

- 3 Stop Stone and Wire by typing:

```
/etc/init.d/stone+wire stop
```

- 4 List the contents of the `/usr/discreet/sw/swdb/` directory, including hidden files:

```
ls -al /usr/discreet/sw/swdb/
```

The output is similar to the following:

```
drw-r--r-- 2 root users 4096 Jun 19 12:41 .
drwxr-xr-x 8 root root 4096 Jul 20 11:31 ..
-rw-r--r-- 1 root users 16384 Jul 20 11:32 part0.db
-rw-r--r-- 1 root users 16384 Jul 20 11:32 part1.db
-rw-r--r-- 1 root users 16384 Jul 20 11:32 part2.db
-rw-r--r-- 1 root users 16384 Jul 20 11:32 part3.db
-rw-r--r-- 1 root users 16384 Jul 20 11:32 part4.db
-rw-r--r-- 1 root users 16384 Jul 20 11:32 part5.db
-rw-r--r-- 1 root users 16384 Jul 20 11:32 part6.db
-rw-r--r-- 1 root users 1126400 Jul 20 11:32 part7.db
```

The directory contains a `.db` file for each Stone and Wire partition. The number and the end of the filename corresponds to the partition number.

- 5 Identify the corrupt file based on the errors you found in the log file.
- 6 Go to the `/usr/discreet/sw/tools/` directory.
- 7 Run the `swdb_recover` script on the database file you identified in step 5. For example:

```
./swdb_recover /usr/discreet/sw/swdb/part0.db
```

The script asks you for confirmation, then removes corrupt entries from the specified database file.

A backup of the original file is created in the `/tmp/sw_dbd_backups/` directory.

---

**NOTE** The `swdb_recover` tool also removes empty records from the database and optimizes the database structure. Therefore it is normal for the size of the recovered database files to be much smaller than the original file size.

---

- 8 Restart Stone and Wire by typing:  
`/etc/init.d/stone+wire restart`
- 9 Start the Visual Effects and Finishing application. If no error message is displayed and the application starts properly, the database recovery was successful.
- 10 Optional: delete the backup file if you no longer need it.

## Changing the Interpolation Type for Variable Speed Timewarps

Apple® Final Cut Pro® uses Bezier interpolation when creating variable time remaps. Since Visual Effects and Finishing applications do not use Bezier interpolation, variable time remaps from imported Final Cut Pro XML files might not be correctly translated into variable timewarps.

A new environment variable has been introduced that allows you to easily change the interpolation type of variable speed timewarps to one of the four interpolation types used by Visual Effects and Finishing applications.

The environment variable `DL_XML_VSTW_INTERPOLATION` can take one of the following four values:

- **0** for CONSTANT interpolation
- **1** for LINEAR interpolation
- **2** for HERMITE interpolation
- **3** for NATURAL interpolation

Try each of these four interpolation types to determine which one of them produces the closest results to the original Final Cut Pro variable time remaps.

To set the variable to one of these four values, perform the following procedure before importing the XML.

- 1 Close the Visual Effects and Finishing application, if it is running.
- 2 Open a terminal and set the environment variable to the interpolation type you want to use by typing:

```
setenv DL_XML_VSTW_INTERPOLATION <value>
```

Where <value> is one of the four possible values listed above.

---

**NOTE** If no value is specified, or if an incorrect value is used, the variable defaults to LINEAR.

---

- 3 Restart your Visual Effects and Finishing application, and import the XML.  
If variable timewarps do not look satisfactory, close the application and try setting the environment variable to one of the other possible values.

## Avid MXF Limitations

Keep in mind the following limitations when working with Avid MXF files.

- Support for Avid MXF files is currently limited to DNxHD encoded files. IMX, DV and uncompressed formats are not supported at this time.
- Conforming of Avid AAF -> Avid MXF files is limited to material generated from an Avid system that does not reference P2 Spanned clips.

- Conforming of Avid audio MXF files imported from stereo source material and split into single channel MXF files will only relink to one channel.
- Problems may occur when MXF files greater than 2GB are accessed through NFS, due to a limitation of the NFS protocol. This may cause the application to crash

## Cleaning up Missing Frames Before Upgrading to the 2010 Release

If you are upgrading to the 2010 release on a workstation where a previous release was installed, it is recommended to make sure there are no missing frames in your previous release clip libraries before performing the upgrade.

See [Troubleshooting Missing Frames](#) on page 17 for instructions on how to detect and troubleshoot missing frames.

## Restoring a Pre-2010 Project

When restoring a project created in version of an Autodesk Visual Effects and Finishing application prior to 2010, you must convert the permissions of the project so they are compatible with the 2010 Extension 1 version of the application. Use the procedure below for such a conversion.

**To make the permissions of a pre-2010 project compatible with the 2010 Extension 1 release:**

- 1 In the 2010 Extension 1 application, restore the pre-2010 project.
- 2 Close the application.
- 3 In a command line, execute the changePermissions script. Type:

```
/usr/discreet/APPLICATION_NAME/bin/changePermissions -p PROJECT_NAME
```

Where APPLICATION\_NAME is the directory of the 2010 Extension 1 application, and PROJECT\_NAME is the name of the project just restored.

## Troubleshooting Missing Frames

If the application cannot find some of the frames referenced by your clips, the following error message is displayed when the application starts:

- In the terminal:  
WARNING: <nnnn> <volume\_type> frames are missing on this volume; see Release Notes for corrective measures.  
Where <nnnn> represents the number of missing frames, and <volume\_type> can be *stonefs* or *standardfs*.
- In the application start-up screen:  
VOLUMEMGT: WARNING: Some frames not found; see Release Notes for corrective measures.

The error message appears in one or both of the following situations:

- Some clips in your libraries or desktops reference frames on a remote volume.
- Some clips in your libraries or desktops reference local frames that no longer exist.

### To identify the type of issue:

- Open a terminal and type:

```
vic -v <volume_name> -s remote -s lost
```

where `<volume_name>` is the name of the affected volume, for example `stonefs` or `stonefs7`.

---

**NOTE** The `-s` parameter of `vic` is only available as of the 2008 SP6 release.

---

The output of this command should be similar to the following:

```
Checking libraries for remote and lost frames...
```

```
/usr/discreet/clip/stonefs/My_Project1/editing.000.desk has none
```

```
/usr/discreet/clip/stonefs/My_Project1/Default.000.clib references 30  
missing frames.
```

```
/usr/discreet/clip/stonefs/My_Project2/editing.000.desk has none
```

```
/usr/discreet/clip/stonefs/My_Project2/from_caplan.000.clib references  
70 remote frames
```

Depending on the result of the previous command, do one of the following:

- For clips with frames listed as remote, see [To recover remote frames](#) on page 18.
- For clips with frames listed as missing, see [To remove unrecoverable frames](#) on page 18.

### To recover remote frames:

- 1 Archive all clip libraries that are reported as containing remote frames. In the previous example, the fourth library (*from\_caplan*) contains remote frames.
- 2 Rename the libraries you just archived, such as by adding the remote suffix to the library name.
- 3 Restore the clip libraries from the archive. All the frames referenced by the clips should now be stored locally.
- 4 Delete the original libraries.

### To remove unrecoverable frames:

- 1 In the terminal, type:  

```
vic -v <volume_name> -r
```

Each unrecoverable frame in the clip is replaced with a generic black frame containing the text “LOST”.
- 2 Open the Visual Effects and Finishing application.  
The names of clips that contained unrecoverable frames are displayed in red in the Clip Library.
- 3 Load each affected clip on the Desktop.
- 4 Scrub through the clip, identify the black frames containing the text “LOST”, and delete them from the clip.

# Application Feature Changes

# 4

## Topics in this chapter:

- [Introduction](#) on page 19
- [Auto-Consolidation of Clips with Handles in Recapture](#) on page 19
- [Disabling Graphics Tablet Buttons](#) on page 19
- [WiretapCentral Updates](#) on page 20

## Introduction

This chapter describes changes to the application that were not documented in the user guide or new features guide.

## Auto-Consolidation of Clips with Handles in Recapture

In the Recapture menu, the application now tries to match the available clips to the timeline with minimal handles. If excess handles are detected, it proposes to consolidate the timeline using the lowest common amount of handles shared by the clips.

Accepting the consolidation makes the clips relinkable. Refusing the consolidation renders the same clips unlinkable.

## Disabling Graphics Tablet Buttons

You can enable and disable the tablet buttons by enabling or disabling the Tablet Buttons option located in the Pointer section of the Preferences menu.

## WiretapCentral Updates

This section contains additional information about WiretapCentral.

### Negative Speed and Non-Constant Timewarps

Clips with negative speed or non-constant timewarps are imported in full, without consideration for in and out points.

### RED RSX Settings Support

Use REDAlert! Version 3.6 and lower to create RSX settings. Changes in the RED Color Science introduced with RedAlert! Versions 20.0.1 are not supported in WiretapCentral.