

**Autodesk®**  
Smoke® 2009 Extension 1 SP4

A Discreet® Systems product

**Autodesk®**  
Backdraft® Conform 2009 Extension 1 SP4

# Release Notes

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# Introduction

# 1

## Topics in this chapter:

- [New in these Release Notes](#) on page 1
- [About these Release Notes](#) on page 1
- [Related Documentation](#) on page 2
- [Contacting Autodesk](#) on page 3

## New in these Release Notes

The following sections are new or have been updated since the previous version of these Release Notes:

- [2009 Extension 1 SP4 Applications Cannot Coexist with Older Releases on the Same HP Workstation](#) on page 13
- [New DKU Version 3.5.3 Required](#) on page 14

## About these Release Notes

This document provides requirements and last-minute system information for Autodesk® Smoke® 2009 Extension 1 and Autodesk Backdraft® Conform 2009

Extension 1, as well as any subsequent service packs. They apply to all applications and supported platforms, unless otherwise indicated.

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.

- If you are upgrading from the previous service pack, read [Important Notes for Service Pack 4](#) on page 13 before installing the current service pack.
- If you have skipped one or more service packs of the current release, read the important notes for each of those service packs before upgrading to the current one.
- For the DKU version and AJA OEM 2K firmware version required for this service pack see [Verifying and Upgrading the DKU](#) on page 8 and [Verifying and Upgrading the AJA OEM 2K Firmware](#) on page 9.
- For a quick overview of the steps required to upgrade your application to the current service pack, see [Quick Upgrade Workflow](#) on page 5.
- For information on major and minor issues fixed in this service pack, see the *Autodesk Visual Effects and Finishing 2009 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 an HTML help system and as PDF files.

- To view the Help from anywhere in the application, press **Ctrl+=**.
- To view PDF documentation from the application, go to the Preferences menu and select a document from the PDF Preference box.

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

For a list of all the latest documentation that is available to you, see:

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

# Contacting Autodesk

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Customer support is also available through your Autodesk reseller. To find a reseller near you, consult the reseller look-up database at  
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# Service Pack Requirements and Installation

# 2

## Topics in this chapter:

- [Quick Upgrade Workflow](#) on page 5
- [System Requirements](#) on page 6
- [Verifying and Upgrading the DKU](#) on page 8
- [Verifying and Upgrading the AJA OEM 2K Firmware](#) on page 9
- [Licensing](#) on page 10
- [Compatibility](#) on page 11
- [Additional Software For this Release](#) on page 11

## Quick Upgrade Workflow

If you are upgrading your application from a previous release or service pack, consult the following overview of the main upgrade steps.

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

### To upgrade your application to the current service pack:

- 1 Make sure your workstation and operating system meet the minimum requirements for the current release. See [System Requirements](#) on page 6.
- 2 Download and install the required version of the DKU. See [Verifying and Upgrading the DKU](#) on page 8.
- 3 If your HP workstation is equipped with an AJA OEM 2K board, upgrade the AJA firmware. See [Verifying and Upgrading the AJA OEM 2K Firmware](#) on page 9.
- 4 Download and install the current service pack of your Visual Effects and Finishing application.
  - Download the application *tar* file from the link provided in the release announcement.
  - Go to the directory where the *tar* file was downloaded, and unpack it by typing:  

```
tar -zxvf <application_tar_file>
```

The application *tar* file is unpacked into a new directory.
  - Go to the newly-created installation directory, and type:  

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

The script guides you through the rest of the installation process.
- 5 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.

---

## System Requirements

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

Workstation	BIOS Version	Operating System
HP xw8600	1.24	Red Hat® Enterprise Linux® WS 4, Update 3 (64-bit)

<b>Workstation</b>	<b>BIOS Version</b>	<b>Operating System</b>
HP xw9400	3.05	Red Hat Enterprise Linux WS 4, Update 3 (64-bit)
HP xw8400	2.13 for CPU stepping 6F6 2.26 for CPU stepping 6FB	Red Hat Enterprise Linux WS 4, Update 3 (64-bit)
IBM® 6217 DC	1.32	IBM workstations: Red Hat Enterprise Linux WS 4, Update 2 (64-bit)
IBM 6217 SC	1.32	IBM workstations: Red Hat Enterprise Linux WS 4, Update 2 (64-bit)
IBM 6224	1.46	IBM workstations: Red Hat Enterprise Linux WS 4, Update 2 (64-bit)

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

<b>Render Node</b>	<b>BIOS version</b>	<b>Operating System</b>
HP ProLiant DL160 G5	04/09/2008	Red Hat Enterprise Linux WS4 Update 3 (64-bit) or CentOS 4.6 (64-bit)

If you are upgrading from a previous version of your application, you may need to make some minor changes to video I/O connections, or the BIOS of your workstation. See the latest Hardware Setup Guide for your workstation for details and instructions.

If you are upgrading from a 2007, or newer release of a application, an operating system upgrade is not required.

If you are upgrading from a pre-2007 release of a application, all platforms require a fresh installation of Red Hat Enterprise Linux WS 4 Update 2 (on IBM workstations) or Update 3 (on HP workstations). You cannot upgrade to Red Hat Enterprise Linux WS 4 from a previous version.

Install your operating system from Autodesk's 64-bit custom distribution of Red Hat Enterprise Linux Workstation 4 Update 2 or Update 3. This 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 Red Hat Enterprise Linux Workstation 4 Update 2 Installation and Configuration Guide* or the *Autodesk Visual Effects and Finishing Red Hat Enterprise Linux Workstation 4 Update 3 Installation and Configuration Guide* for information on installing Linux.

## Verifying and Upgrading the DKU

Before installing the current release, perform the following procedure to upgrade the DKU.

Consult the following table to identify the required DKU version for your application release.

Autodesk Smoke and Autodesk Backdraft Conform 2009 Extension 1 Version	DKU
2009 Extension 1 SP4	3.5.3
	<b>WARNING</b> Do NOT download and install DKU version 3.5.2 that was announced in the original SP4 Release Announcement.
2009 Extension 1 SP3	3.5.1
2009 Extension 1 SP2	3.5.1
2009 Extension 1 SP1	3.5.0
2009 Extension 1	3.5.0

### 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 service pack.

Autodesk Smoke and Autodesk Backdraft Conform 2009 Extension 1 Version	AJA OEM 2K Firmware
2009 Extension 1 SP3	0x73
2009 Extension 1 SP2	0x73
2009 Extension 1 SP1	0x73
2009 Extension 1	0x73

To verify and upgrade the AJA PCI-X firmware:

- 1 Open a terminal and type:
 

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

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

---

**NOTE** Before upgrading the AJA firmware, make sure that 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 board 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.

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## Licensing

As an eligible subscription customer, you will receive a new license for the 2009 Extension 1 version of your product. See the Software Installation Guide for instructions on installing your license code.

# Compatibility

Projects and clip libraries created in previous releases are read-only in your Extension application.

To access media in projects created in previous releases, you must first create new projects in the Extension 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 new 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.

## Additional Software For this Release

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

Software	Version
Autodesk® Backburner™	2008.1.1
Autodesk® Lustre® Color Management	2008
Autodesk® WiretapCentral™	2009.1
Autodesk® Cleaner® XL	1.5.2



# Important Notes for Service Pack 4

# 3

## Topics in this chapter:

- [2009 Extension 1 SP4 Applications Cannot Coexist with Older Releases on the Same HP Workstation](#) on page 13
- [New DKU Version 3.5.3 Required](#) on page 14
- [Fixed and Known Bugs List](#) on page 14

## 2009 Extension 1 SP4 Applications Cannot Coexist with Older Releases on the Same HP Workstation

The DKU included with 2009 Extension 1 SP4 installs new drivers on HP workstations that are not compatible with older releases.

Therefore, you cannot use previous releases on the same HP workstation as the 2009 Extension 1 SP4 release.

---

**NOTE** This restriction does not apply to IBM workstations.

---

Projects and clip libraries created in previous 2009 Extension 1 service packs can still be opened and used in SP4, while clips created in older releases can be

transferred to 2009 Extension 1 SP4. See the compatibility topic in your application Help for details.

## New DKU Version 3.5.3 Required

The 2009 Extension 1 SP 4 release requires DKU version 3.5.3. Upgrade the DKU to the required version before installing this service pack.

---

**WARNING** Do NOT download and install DKU version 3.5.2 that was announced in the original SP4 Release Announcement, as a bug has been discovered in that version. Use the new DKU 3.5.3 instead. If you have already installed DKU version 3.5.2 prior to reading this document, installing DKU 3.5.3 on top of it will fix the bug.

---

See [Verifying and Upgrading the DKU](#) on page 8 for instructions on installing the DKU.

## Fixed and Known Bugs List

A number of major and minor issues were fixed in this service pack. For information see the *Autodesk Visual Effects and Finishing 2009 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>.

# Important Notes for Service Pack 3

# 4

## Topics in this chapter:

- [Fixed and Known Bugs List](#) on page 15

## Fixed and Known Bugs List

A number of major and minor issues were fixed in this service pack. For information see the *Autodesk Visual Effects and Finishing 2009 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>.



# Important Notes for Service Pack 2

# 5

## Topics in this chapter:

- [New DKU Version](#) on page 17
- [Storage Configuration Update](#) on page 18
- [New XR\\_Configurator Utility Version 1.3](#) on page 19
- [Change in Configuring Standard Filesystems](#) on page 19
- [Start-up Options](#) on page 20
- [Backburner Web Monitor Default User Name and Password](#) on page 20
- [Sapphire Sparks from GenArts](#) on page 20
- [Using the copyProjects Utility with the Correct Application Version](#) on page 20
- [Updated Command - Smoke/Flame: Preparing Timelines for Autodesk Lustre](#) on page 22

## New DKU Version

The Service Pack 2 release of your Autodesk Visual Effects and Finishing application requires a version 3.5.1 of the *Discreet Kernel Utilities* (DKU). If you are upgrading from a previous release or service pack, you need to perform a DKU upgrade. See [Verifying and Upgrading the DKU](#) on page 8.

# Storage Configuration Update

To address certain performance issues, the storage Writeback Cache value has to be changed for each array. This is a manual operation using the Stone Storage Manager (SSM). This change is non-destructive and does not affect the data contained on the disk arrays.

---

**NOTE** If you are using the XR\_Configurator to configure a new storage installation, this update is not necessary as the Writeback Cache value is updated with the new version of the XR\_Configurator. See [New XR\\_Configurator Utility Version 1.3](#) on page 19 for the latest version information.

---

## To change the Writeback Cache value for the storage:

- 1 Connect to the Stone Storage Manager (SSM).
- 2 In the SSM, click the first array listed in the Arrays section.
- 3 In the Array panel, confirm the following settings in the Cache Parameters:

Setting:	Value:
Read-Ahead Cache	Automatic
Writeback Cache	256 MB
Mirror cache (Disable Writeback cache when partner controller is missing or failed).	Disabled
Disable Writeback cache if a controller battery is low, missing, or failed.	Enabled
Disable Writeback cache if array becomes critical (N/A for RAID O).	Enabled
Disable cache Writethrough operation when write cache is full.	Enabled

- 4 Click Apply.
- 5 Click Close.
- 6 Repeat steps 3 - 5 for the remaining arrays.
- 7 Click Close.

# New XR\_Configurator Utility Version 1.3

The latest version of the XR\_Configurator utility is version 1.3. The XR\_Configurator utility can be found in the latest version of the DKU or can be downloaded from the Autodesk FTP site:

[ftp://ftp.discreet.com/pub1/release/Utilities/XR\\_Configurator\\_v1.3.zip](ftp://ftp.discreet.com/pub1/release/Utilities/XR_Configurator_v1.3.zip) .

For instructions on using the XR\_Configurator, see the *Autodesk Stone Direct Configuration Guide*.

---

**NOTE** The Storage CD is no longer available.

---

## Change in Configuring Standard Filesystems

There has been a change in a value set during the configuration of standard filesystems. The value that is to be changed is in a procedure found in the Appendix: Configuring Standard Filesystems in the *Autodesk Stone and Wire 2009 Filesystem and Networking Guide*. Step 6 in the “Assembling the Disk or LUN Devices Into a LogicalVolume” procedure on page 120 should read as follows:

- Create a new logical volume on “vg00”, using the following command:

```
lvcreate -l <Free_PE_value> -i  
<#_of_physical_volumes> -I 32 -n lvoll vg00
```

where <Free\_PE\_value> is the “Free PE” value you noted in the preceding step and <#\_of\_physical\_volumes> is the number of physical volumes. If we continue with the example used in the previous steps, you would type:

```
lvcreate -l 208252 -i 2 -I 32 -n lvoll vg00
```

The output confirms the creation of the logical volume:

```
Logical volume "lvoll" created
```

---

**NOTE** This is for new storage configurations only. You do not need to modify your existing storage.

---

## Start-up Options

The **-J** start-up parameter for the Autodesk Visual Effects and Finishing applications only works when also using the **-V** <framestore name> parameter to specify the framestore name. For example, you would type:

```
flame -J -V <stonefs>
```

See the application User Guide for details.

## Backburner Web Monitor Default User Name and Password

When accessing the Autodesk Backburner™ Web Monitor you are prompted to enter a user name and password. By default, this is **backburner** and **backburner**.

## Sapphire Sparks from GenArts

Some Sapphire® 4.0.52 Sparks from GenArts® cannot be rendered in Autodesk Burn® 2009. Please upgrade to the latest version (at least 4.0.61). The latest v3.x.x works also. See your GenArts representative for information.

## Using the copyProjects Utility with the Correct Application Version

The new *copyProjects* command-line tool that was introduced in the 2009 Extension 1 version of Visual Effects and Finishing applications uses Autodesk® Wiretap® to copy projects from previous versions of Visual Effects and Finishing applications to the most recently installed version.

This can lead to undesired results if, before running the *copyProjects* tool, you install an older version, such as 2009 SP3, on a workstation that had 2009 Extension 1 already installed. In such cases, since the 2009 Service Pack is the most recently installed version, the *copyProjects* tool would copy project data to that version instead of the 2009 Extension 1 version.

To avoid this issue, Autodesk recommends running the *copyProjects* utility immediately after installing your 2009 Extension 1 application. See the Compatibility chapter of your application User Guide for information on

running the *copyProjects* tool. Avoid installing other versions, such as 2009 Service Packs, after 2009 Extension 1 if you have not already migrated your projects to 2009 Extension 1.

If you have already run *copyProjects* in the context described above, and your projects were copied to the wrong version of the application, use the following procedure to change the default Wiretap server back to version 2009 Extension 1, and to run the *copyProjects* utility again.

---

**NOTE** You do not need to use the *copyProjects* tool to migrate projects from 2009 Extension 1 to 2009 Extension 1 SP2. The 2009 Extension 1 SP 2 version can read projects created in 2009 Extension 1, as clips and projects are compatible between service packs of the same release or extension.

---

### To run *copyProjects* with the correct version of Wiretap:

- 1 Open a terminal and log in as root.
- 2 Run the *copyProjects* script.  
This will return the following message:  
Projects will be copied to version 2009.1  
Do you wish to continue?  
If yes, continue with the copying. If no, follow the next steps to change your default Wiretap server to version 2009.1.
- 3 Stop Stone and Wire by typing:  
**/etc/init.d/stone+wire stop**
- 4 Unlink the Wiretap startup script by typing:  
**unlink /usr/discreet/sw/sw\_wiretapd**
- 5 Link the Wiretap startup script to the 2009 Extension 1 version by typing:  
**ln -s  
/usr/discreet/wiretap/2009.1/iffisWiretapServer  
/usr/discreet/sw/sw\_wiretapd**
- 6 Start Stone and Wire by typing:  
**/etc/init.d/stone+wire start**
- 7 Run the *copyProjects* script again. See your application User Guide for details.

---

**NOTE** Since you are running the *copyProjects* utility for the second time, it also detects the project copies created by the first execution of the script, and will create duplicates of those as well. To avoid having multiple copies of each project, do not answer “all” when prompted to confirm the copy operation. Answer “yes” only for your original projects, and “no” for copies of projects created by the first execution of the *copyProjects* script.

---

## Updated Command - Smoke/Flame: Preparing Timelines for Autodesk Lustre

There is an updated command to turn off timewarp optimization for processing. The updated command is:

```
setenv DL_DISABLE_NOOP_SOFT_FX_OPTIMISATION 1
```

For more information and the complete article, refer to [Smoke/Flame: Preparing Timelines for Autodesk Lustre](#) on page 38.

# Important Notes for Service Pack 1

# 6

## Topics in this chapter:

- [Using the copyProjects Utility with the Correct Application Version](#) on page 23
- [Incorrect Wiring Information in the HP xw8600 Workstation Hardware Setup Guide](#) on page 25

## Using the copyProjects Utility with the Correct Application Version

The new *copyProjects* command-line tool that was introduced in the 2009 Extension 1 version of Visual Effects and Finishing applications uses Autodesk® Wiretap® to copy projects from previous versions of Visual Effects and Finishing applications to the most recently installed version.

This can lead to undesired results if, before running the *copyProjects* tool, you install an older version, such as 2009 SP3, on a workstation that had 2009 Extension 1 already installed. In such cases, since the 2009 Service Pack is the most recently installed version, the *copyProjects* tool would copy project data to that version instead of the 2009 Extension 1 version.

To avoid this issue, Autodesk recommends running the *copyProjects* utility immediately after installing your 2009 Extension 1 application. See the Compatibility chapter of your application User Guide for information on running the *copyProjects* tool. Avoid installing other versions, such as 2009 Service Packs, after 2009 Extension 1 if you have not already migrated your projects to 2009 Extension 1.

If you have already run *copyProjects* in the context described above, and your projects were copied to the wrong version of the application, use the following procedure to change the default Wiretap server back to version 2009 Extension 1, and to run the *copyProjects* utility again.

---

**NOTE** You do not need to use the *copyProjects* tool to migrate projects from 2009 Extension 1 to 2009 Extension 1 SP1. The 2009 Extension 1 SP 1 version can read projects created in 2009 Extension 1, as clips and projects are compatible between service packs of the same release or extension.

---

**To run *copyProjects* with the correct version of Wiretap:**

- 1 Open a terminal and log in as root.
- 2 Determine the current version of Wiretap by typing:  
**ls -als /usr/discreet/sw/sw\_wiretapd**  
This command should return a link to the 2009.1 (2009 Extension 1) version of Wiretap:  

```
/usr/discreet/sw/sw_wiretapd ->  
/usr/discreet/wiretap/2009.1/iffesWiretapServer.start
```

If the link points to a different version (for example 2009.SP3), perform the rest of this procedure.
- 3 Stop Stone and Wire by typing:  
**/etc/init.d/stone+wire stop**
- 4 Unlink the Wiretap startup script by typing:  
**unlink /usr/discreet/sw/sw\_wiretapd**
- 5 Link the Wiretap startup script to the 2009 Extension 1 version by typing:  
**ln -s  
/usr/discreet/wiretap/2009.1/iffesWiretapServer  
/usr/discreet/sw/sw\_wiretapd**
- 6 Start Stone and Wire by typing:  
**/etc/init.d/stone+wire start**

- 7 Run the *copyProjects* script again. See your application User Guide for details.

---

**NOTE** Since you are running the *copyProjects* utility for the second time, it also detects the project copies created by the first execution of the script, and will create duplicates of those as well. To avoid having multiple copies of each project, do not answer “all” when prompted to confirm the copy operation. Answer “yes” only for your original projects, and “no” for copies of projects created by the first execution of the *copyProjects* script.

---

## Incorrect Wiring Information in the HP xw8600 Workstation Hardware Setup Guide

The “Video Hardware Components” and “Wiring Your Video Components” sections in the *Autodesk Visual Effects, Finishing, and Colour Grading HP xw8600 Workstation Hardware Setup Guide* mention an incorrect model number of the AJA distribution amplifier, as well as incorrect VTR output port connections for Real Time Deliverables.

The correct model number of the AJA distribution amplifier is AJA HD5DA, and not AJA HD10DA, as specified in the text of the above-mentioned sections and in the accompanying Video I/O wiring diagram.

For a correct VTR installation for Real-Time Deliverables, the second bullet in the “Wiring Your Video Components” section should read:

For Real-Time Deliverables, input port A of the VTR connects to the AJA HD5DA distribution amplifier (for 4:2:2 signal), and input port B connects to the middle connector on the NVIDIA SDI board (for dual link 4:4:4 signal). The VTR output ports A and B connect to the SDI In A and B ports of the AJA breakout box.

A corrected version of the Hardware Setup Guide is available on the Autodesk Web page, at <http://www.autodesk.com/me-documentation>.



# Important Notes for the 2009 Extension 1 Release

# 7

## Topics in this chapter:

- [About the new vref Tool](#) on page 27
- [Troubleshooting Missing Frames](#) on page 29
- [Removing Invalid Frame References from the Stone and Wire Database](#) on page 31
- [Disabling Local Stone and Wire I/O on Burn Nodes](#) on page 32
- [DKU Installation in Text Mode on GPU Burn Nodes](#) on page 32

## About the new vref Tool

*vref* is a tool that automatically starts with Visual Effects and Finishing applications, and runs in the background. When a frame or audio segment is deleted from the application, *vref* checks that the respective media was not in use by a clip, in order to prevent missing frames.

In the unlikely event that the media was in use, an error message is displayed. Autodesk strongly recommends you to run the *vic* utility, and to contact Customer Support to report this event. See the application User Guide for information on the *vic* utility.

If you are using a Stone® filesystem volume, *vref* attempts to repair the problem and recover the deleted media. Deleted media from standard filesystem volumes cannot be recovered by *vref*.

When *vref* is running in the background, deleting large numbers of frames takes longer, and the application might take longer to exit, as it waits for *vref* to finish checking frames.

You may disable *vref* if the checking takes too long. Be aware that doing so will reduce your protection against lost frames.

#### To disable *vref*:

- 1 Exit the Visual Effects and Finishing application.
- 2 As the application user, open a terminal and type the following command on one line:  
**touch**  
**/usr/discreet/<application\_directory>/bin/.no\_vref**  
For example:  
**touch /usr/discreet/flame\_2009.1/bin/.no\_vref**  
A file named *.no\_vref* is created in the *bin* directory of the application.
- 3 Start the application.  
*vref* no longer starts with the application.

#### To re-enable *vref*:

- 1 Exit the Visual Effects and Finishing application.
- 2 As the application user, open a terminal and type the following command on one line:  
**rm**  
**/usr/discreet/<application\_directory>/bin/.no\_vref**  
For example:  
**rm /usr/discreet/flame\_2009.1/bin/.no\_vref**  
The *.no\_vref* file is removed from the *bin* directory of the application.
- 3 Start the Visual Effects and Finishing application.  
*vref* now starts with the application, and runs in the background.

# 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.
```

---

**NOTE** By default, the message only appears in the terminal. To have it appear also in the start-up screen, you must configure the application. See [Setting the Start-up Screen Message](#) on page 30.

---

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

- Some clips in your libraries or desktops reference missing 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 standardfs.

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 missing, contact your local Autodesk support representative for help on resolving this issue.
- For clips with frames listed as remote, perform the following procedure.

**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.

## Setting the Start-up Screen Message

By default, the message about missing frames only appears in the terminal. To make it appear in the application start-up screen, create an environment variable called `DL_IC_NOTIFY_MISSING`. Open a terminal and type:

```
setenv DL_IC_NOTIFY_MISSING 1
```

---

**NOTE** The environment variable is set for the current session only. To set it permanently, open the `~/.cshrc` file in a text editor and add the following on a new line: `setenv DL_IC_NOTIFY_MISSING 1`

---

# Removing Invalid Frame References from the Stone and Wire Database

The current release of Stone and Wire introduces a new database inconsistency detection mechanism.

If you change the framestore ID of a Stone filesystem or standard filesystem partition in your system without reformatting the Stone and Wire database, when you restart Stone and Wire the inconsistency check mechanism detects invalid frame references in the database, and prevents the Stone and Wire database server (*sw\_dbd*) from starting.

If you receive an error message that *sw\_dbd* could not be started when you start a Visual Effects and Finishing application or Stone and Wire, perform the following steps to determine if the problem is related to invalid frame references, and to remove those references from the Stone and Wire database.

**To remove invalid frame references from the Stone and Wire database:**

- 1 Open a terminal and log in as root.
- 2 Search the `/usr/discreet/sw/log/sw_dbd.log` file for the text “Bad framestore ID”:  

```
cat /usr/discreet/sw/log/sw_dbd.log | grep -i bad/  
framestore/ id
```

  - If the search returns one or more lines, the problem is related to invalid frame references. Perform the remaining steps in this procedure to clean up the Stone and Wire database.
  - If the search returns no results, the problem is not related to invalid frame references. Read the `/usr/discreet/sw/log/sw_dbd.log` file to determine the cause of the problem.
- 3 Stop Stone and Wire by typing:  

```
/etc/init.d/stone+wire stop
```
- 4 Clean up the Stone and Wire database by typing:  

```
/usr/discreet/sw/sw_dbd -C
```

A message is displayed in the terminal asking you to confirm the deletion of invalid entries from the database.
- 5 Type **Y** to confirm the operation.  
Invalid entries are removed from the Stone and Wire database.

- 6 Restart Stone and Wire by typing:  
`/etc/init.d/stone+wire start`

## Disabling Local Stone and Wire I/O on Burn Nodes

In cases where a Burn render node has a slower connection to a shared storage device (such as a SAN) than the Visual Effects and Finishing workstation it is preferable for Stone and Wire I/O operations to be performed on the Visual Effects and Finishing workstation, rather than on the render node.

Perform the following procedure to disable all local Stone and Wire I/O operations on a Burn render node.

### To disable local Stone and Wire I/O operations:

- 1 Open a terminal on the Burn render node, and log in as root.
- 2 Stop Stone and Wire by typing:  
`/etc/init.d/stone+wire stop`
- 3 Open the `/usr/discreet/sw/cfg/stone+wire.cfg` configuration file in a text editor.
- 4 Locate the `DisableLocalIO` keyword in the `[Initialization]` section.
- 5 Uncomment the keyword if necessary, and set its value to true:  
`DisableLocalIO=True`
- 6 Save and close the configuration file.
- 7 Restart Stone and Wire by typing:  
`/etc/init.d/stone+wire start`

## DKU Installation in Text Mode on GPU Burn Nodes

After installing Linux on Burn nodes equipped with the NVIDIA® Quadro® FX 3700 graphics board, you need to boot Linux in text mode and install the latest version of the DKU before being able to use Linux in graphic mode on the Burn node.

The DKU installs and configures the driver for the new graphics card, and makes the appropriate changes in the `/etc/X11/xorg.conf` file.

**To boot Linux in text mode and install the DKU:**

- 1 Once Linux is installed, reboot your Burn node.  
The Linux boot loader appears.
- 2 Press any key to stop the normal boot process and enter the GRUB boot menu.
- 3 Using your keyboard up and down arrows, select your Linux kernel (usually the first one in the list), and press **A** to edit its boot parameters.
- 4 Add a 3 to the end of the kernel line to force Linux to boot into text mode.  
The modified line should be similar to the following:  

```
ro root=LABEL=/ hdc=ide-scsi selinux=0  
bigphysarea=73729 powernow-k8.disable=1 3
```
- 5 Press ENTER to accept changes and boot the kernel.  
Linux boots into text-only mode.
- 6 Log in as root and follow the normal DKU installation procedure. See the *Red Hat Enterprise Linux Workstation 4, Update 3 Installation and Configuration Guide*.
- 7 When the DKU installation completes, reboot your Burn node.  
Linux boots in normal graphic mode.



# Application Feature Changes

# 8

## Topics in this chapter:

- [Introduction](#) on page 35
- [Changes to 1D and 3D LUT Hot Keys](#) on page 36
- [Image Data Type Hot Keys](#) on page 36
- [Colour Decision List Spark](#) on page 36
- [Adjusting Resolution of DVCPro HD MXF Media](#) on page 37
- [Improved RED Relink Workflow for XML](#) on page 38
- [Exporting QuickTime MPEG-4](#) on page 38
- [Smoke/Flame: Preparing Timelines for Autodesk Lustre](#) on page 38
- [New Sapphire Sparks from GenArts](#) on page 39

## Introduction

This chapter describes changes to the application that were not documented in the User Guide or New Features Guide.

## Changes to 1D and 3D LUT Hot Keys

The 1D and 3D LUT hot keys are different from those documented previously.

Press:	To:
<b>Ctrl+Shift+(1-0)</b>	Apply a gamma correction or 1D LUT based on its position in the 1D LUT list.
<b>Ctrl+Shift+' (on the tilde key)</b>	Toggle 1D LUT display mode.
<b>Alt+Shift+(1-0)</b>	Apply a 3D LUT based on its position in the 3D LUT list.
<b>Alt+Shift+' (on the tilde key)</b>	Toggle 3D LUT display mode.

## Image Data Type Hot Keys

The Bypass button, located in the Image Data Type panel of the Player and View menu, has a hot key assigned to it. Use **Ctrl+Shift+B** to toggle the Bypass button.

The Bypass button in the Image Data Type panel of the Preferences now has an empty hot key entry that can be customized by the user.

---

**NOTE** The **Ctrl+Shift+B** hot key was applied to the Ripple command in the Batch timeline, and this entry is now empty.

---

## Colour Decision List Spark

Using a new Spark<sup>®</sup>, you can load and apply files that use the American Society of Cinematographers Color Decision List (ASC CDL) format.

Using SparkCDL, you can load an XML-based file that includes basic colour grading metadata and apply it to a clip.

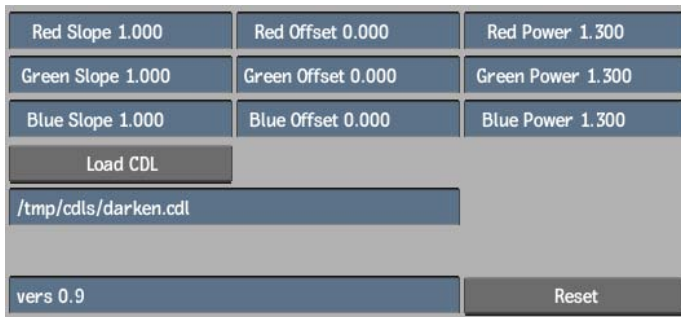
The following is an example of a colour decision list that uses an XML schema:

```

<ColorDecisionList xmlns="urn:ASC:CDL:v1.01">
  <ColorDecision>
    <ColorCorrection>
      <SOPNode>
        <Description>dark blue</Description>
        <Slope>1.0000 1.0000 1.4000</Slope>
        <Offset>0.000 0.0000 0.0000</Offset>
        <Power>1.3 1.3 1.3</Power>
      </SOPNode>
      <SatNode>
        <Saturation>1.000000</Saturation>
      </SatNode>
    </ColorCorrection>
  </ColorDecision>
</ColorDecisionList>

```

For each colour channel, the Sparks menu displays the slope (gain), offset, or power (gamma) values. You can manually adjust or reset these values.



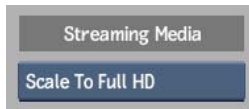
See Using Sparks® as a Plug-in in the Sparks chapter of your application Help or User Guide.

## Adjusting Resolution of DVCPro HD MXF Media

The standard resolution for HD is 1920 x 1080 pixels for 1080p, or 1280 x 720 pixels for 720p. However, some digital cameras that output media to files, may use a different resolution (such as 1280 x 1080 or 1440 x 1080 pixels). This size discrepancy can sometimes lead to problems when conforming. It can often be remedied by applying a Resize operation on the media. However, depending on the media and the offline process, this is not always the solution.

When importing DVCPro HD files by means of MXF, you can now set how best to handle the DVCPro HD media in the Preferences menu.

On the General tab under Streaming Media, use the appropriate option to suit your media and conform workflow.



Use	To
Use Native Resolution	Maintain the original resolution of the media, without making any performance-affecting Resize operations.
Scale to Full HD	Resize the media (of any resolution) to the full HD resolution of 1920 x 1080 pixels. This on-the-fly resize is embedded in the decoding process, and may adversely affect real-time performance.

## Improved RED Relink Workflow for XML

When importing FCP XML pointing to DPX media (originating from RED media), your application now uses a heuristic method to determine the correct reel name. This eliminates the need to change the path manually for every file during the Relink process, when using Normal mode.

## Exporting QuickTime MPEG-4

When exporting QuickTime® MPEG-4 files, ensure that you export the clip in Progressive mode, rather than Interlaced mode. QuickTime MPEG-4 clips exported in Interlace mode are not supported properly on most QuickTime applications.

## Smoke/Flame: Preparing Timelines for Autodesk Lustre

Smoke and Flame optimize timewarps to speed up processing. As a result of the optimization, timewarps appear as multiple shots when the Smoke or Flame timelines are brought into Autodesk Lustre. Multiple shots can be more difficult to grade in Lustre.

To prevent the optimization you can either:

- Use Autodesk Burn™ to process your timeline, or
- Turn off timewarp optimization for processing

To turn off timewarp optimization for processing, enable the following environment variable before you start Smoke or Flame. Open a terminal and type:

```
setenv DL_DISABLE_NOOP_SOFT_FX_OPTIMISATION 1
```

After you enable this environment variable, you must process all timelines you want to share with Lustre to remove the optimization.

When timewarp optimization is off, processing time slows down and more space is consumed on your framestore.

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**NOTE** The environment variable is set for the current session only. To set it permanently, open the `~/.cshrc` file in a text editor and add the following on a new line: `setenv DL_DISABLE_NOOP_SOFT_FX_OPTIMISATION 1`

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## New Sapphire Sparks from GenArts

If you are using Sapphire® Sparks from GenArts®, please upgrade to the latest version (at least 4.061). See your GenArts representative for information.

