

# Autodesk Lustre 2011 Extension 1 Release Notes

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## Introduction

### About these Release Notes

Before installing Lustre, read this document thoroughly; it contains important notes about the current version, including the required *Discreet Kernel Utilities* (DKU) version and AJA OEM 2K firmware version for Linux workstations.

- For a quick overview of the system requirements for version 2011 Extension 1, including the DKU version and AJA OEM 2K firmware version, see [System Requirements](#).
- For an overview of the steps required to install Lustre 2011 Extension 1, see [Quick Install Workflow](#).
- For important notes and limitations, see [Features Limitations and Notes](#).

### Related Documentation

The User Guide is contained in the Help installed with the application. To view the Help from anywhere in the application, press **Shift+F1**.

The latest release version of the installation and configuration guide is available on the Autodesk web site at <http://www.autodesk.com/lustre-documentation>.

The documents for Wiretap SDK and WiretapCentral are bundled within their respective application. When you install these applications, the documentation is installed automatically.

### Contacting Autodesk

For support for your product, see: [www.autodesk.com/lustre-support](http://www.autodesk.com/lustre-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

### System Requirements

This release of Lustre is available for the Windows XP SP2 platform (only on HP xw8600 and HP xw8400 workstations), Red Hat Enterprise Linux Desktop 5.3 with Workstation Option (only on HP Z800 workstations), and Red Hat Enterprise Linux Workstation 4 Update 3 (on HP xw8600 and HP xw8400 workstations).

The following table lists the hardware platforms supported in this release as Lustre Linux stand-alone workstations, Incinerator workstations and Lustre Media Servers. The table also lists the certified BIOS version, AJA firmware version, Linux operating system version, and Discreet Kernel Utilities (DKU) version.

Workstation	Bios Version	AJA Firmware	Operating System	DKU
HP Z800	3.07	0x75	Red Hat® Enterprise Linux® Desktop 5.3 with Workstation Option (64-bit)	5.5.0
HP xw8600	1.35	0x73	Red Hat Enterprise Linux WS 4, Update 3 (64-bit)	5.5.0
HP xw8400	2.26	0x73	Red Hat Enterprise Linux WS 4, Update 3 (64-bit)	5.5.0
HP xw 9400	3.05	0x73	Red Hat Enterprise Linux WS 4 Update 3 (64-bit)	5.5.0

The following table lists the Lustre Windows workstations supported in this release, as well as the certified BIOS version, NVIDIA graphics card driver version and operating system version for each platform.

Workstation	Bios Version	Graphics Driver	Operating System
HP xw8600	1.35	186.18	Microsoft Windows XP SP2
HP xw8400	2.26	186.18	Microsoft Windows XP SP2

The following table lists the supported hardware platforms for Incinerator Render Nodes, with the certified BIOS versions and operating system distributions for HP ProLiant Burn Render Nodes.

Render Node	Bios Version	Operating System	DKU
HP ProLiant DL160se G6	07/05/2009	Red Hat Enterprise Linux Desktop 5.3 with Workstation (64-bit)	5.5.0
HP ProLiant DL160 G5	04/09/2008	Red Hat Enterprise Linux WS 4 Update 3 (64-bit)	5.5.0
HP ProLiant DL140 G3	1.09	Red Hat Enterprise Linux WS 4 Update 3 (64-bit)	5.5.0

See the following sections to compare your system to the requirements:

- [Checking and Upgrading the DKU](#)
- [Checking and Upgrading the AJA OEM 2K Firmware](#)

- [Updating the NVIDIA Graphics Card Driver](#)

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

If you need to reinstall your workstation's Linux 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 software. The software does 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 application installation and configuration guide for information on installing Linux.

## Quick Install Workflow

This section provides a quick overview of the application install steps, for users familiar with the Lustre installation process.

If this is the first time you are installing Autodesk Visual Effects and Finishing software, we recommend reading the latest versions of the *Autodesk Lustre Installation and Configuration Guide for Linux Workstations*, or the *Autodesk Lustre Installation and Configuration Guide for Windows Workstations* for detailed information on each step in the installation procedure.

### To install Lustre on Linux systems:

1. Make sure your workstation and operating system meet the requirements for Autodesk Lustre 2011 Extension 1. See [System Requirements](#).
2. Open a terminal and log in as root.
3. Download the DKU *tar* file and application *tar* file from the Autodesk Customer Feedback Program. Then unpack each *tar* file by typing:  

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

Each *tar* file is unpacked into a new directory.
4. 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.
5. Install the required version of the DKU. See [Checking and Upgrading the DKU](#).
6. If your HP workstation is equipped with an AJA OEM 2K card, verify and upgrade the AJA firmware if necessary. See [Checking and Upgrading the AJA OEM 2K Firmware](#).
7. Go to the application installation directory, and start the installation script by typing:  

```
./INSTALL_LUSTRE
```

The script starts and guides you through the installation process. See the application installation and configuration guide for details on each step.
8. Upgrade any additional packages, such as BrowseD, Slave Renderer, or Burn for Lustre on dedicated machines. See the latest application installation guide for details.

- License your new software version. See [Licensing Your Software](#).

**To install Lustre on Windows systems:**

- Make sure your workstation and operating system meet the requirements for Autodesk Lustre 2011 Extension 1. See [System Requirements](#).
- Download the installation .zip file from the Autodesk Customer Feedback Program Web page into a temporary folder.
- Extract the contents of the .zip file into a new folder.
- Open the new folder and double-click the *lustre2011.1.beta1Setup.exe* file to start the Lustre installation wizard.
- Follow the on-screen instructions.
- When prompted to select a Lustre component refer to the following table.

Select	To Install:
Lustre	The software required for the Lustre Master Station or Lustre Station. The type of station is determined by the license.
Slave Renderer	The software necessary to perform rendering on the Slave Renderer. WARNING Do not install the Slave Renderer on the Master Station or Lustre Station. NOTE If you are installing a Slave Renderer on a machine that has a previous Renderer version already installed, the previous version must be disabled before running the new one. See the Lustre Installation and Configuration Guide for Windows Workstations for instructions.
Plugins	Lustre plug-ins
Online Help	The browser-based online help files only. You can also use this option to install the online help independently of the software. This option is enabled by default when installing the Master or Lustre Station options.
BrowseD Server	The Lustre network file server that provides fast file transfers between workstations and centralized storage. For more information on BrowseD, see the Lustre Installation and Configuration Guide for Windows Workstations.

- Click Install.  
The selected software is installed.
- Restart the workstation.

**Checking and Upgrading the DKU**

**NOTE** This section only applies to Linux systems.

Perform the following tasks to verify and upgrade the DKU before installing the new version of your software.

The DKU is available on the application DVD, or as a download from the Autodesk Customer Feedback Program Web site. The download link is provided in the Release Announcement you received from Autodesk.

**To upgrade the DKU:**

- Check the currently installed DKU version. As root, open a terminal and type:  
`head -n1 /etc/DKUversion`

Compare the results to the DKU version in the [System Requirements](#).

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
```

## Checking and Upgrading the AJA OEM 2K Firmware

**NOTE** This section only applies to Linux systems.

If your HP workstation is equipped with an AJA OEM 2K card, perform the following tasks to check and upgrade the firmware of the card.

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

1. Open a terminal, log in as root, and type:  

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

Compare the results to the AJA OEM 2K firmware version in the [System Requirements](#). 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, and then restart your workstation.  
**NOTE** For more details about the AJA firmware procedures, consult the `README` file located in the current directory.

## Updating the NVIDIA Graphics Card Driver

**NOTE** This procedure only applies to Windows systems. On Linux systems, the correct version of the NVIDIA Graphics Card driver is installed automatically by the DKU.

### **To upgrade your NVIDIA graphics card driver:**

1. Compare the driver version installed on your system to the [System Requirements](#).  
If you have a unsupported version of the driver, continue with these procedures.
2. Download the driver upgrade package to a temporary folder on your system.
3. Use a compression utility, like *Winzip*® to extract the driver update package from the zip file.
4. Open the folder where the driver update package was extracted and double-click setup.exe to start the driver update.  
The NVIDIA Install Shield Wizard opens.
5. Click Next to continue the upgrade procedure.  
A Hardware Installation warning message appears.
6. Click Continue Anyway.  
The driver installs.
7. Select Yes, I want to restart my computer now, and click Finish.  
After you reboot, the NVIDIA graphics card driver is installed.

### **Licensing Your Software**

Before using your application, you need to obtain and install a license code for it.

Use the License Wizard to license your application. The Wizard starts automatically when you launch an unlicensed application.

**Note** that Lustre Master Station Linux subscription customers can choose between node-locked and network licensing.

See the Installation and Configuration Guide for detailed instructions on getting and configuring your license.

For information about licensing Autodesk Burn and Autodesk Wiretap Gateway, see the Autodesk Burn Installation and User Guide, and Autodesk WiretapCentral and Wiretap Gateway Installation and Configuration Guide.

### **Uninstalling Your Software**

To uninstall Lustre on Windows workstations, click Start > Control Panel > Add or Remove Programs, and follow the on-screen instructions.

For Linux workstations, the *Autodesk Software Remover (rmssoft)* utility enables you to easily uninstall Autodesk software components from your workstation.

### **To uninstall your application:**

1. If you are logged in as the application user in KDE, log out and log back into KDE as root.

2. From the KDE menu, select Autodesk > Remove Software. Or, open a terminal, and type:  
**rmsoft**  
The user interface appears.
3. Select the 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* 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 displays details on the process.
7. When the operation completes, click Exit to close the Autodesk Software Remover utility.
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® Wiretap Gateway™	2011.1.1
Autodesk® Backburner™ Media I/O Adapter	2011.1.1
Autodesk® Backburner™	2011.1
Autodesk® SystemCentral™	2011.1
Autodesk® Wiretap®	2011.1
Autodesk® Lustre® Color Management	2008

## Limitations

### Wiretap Gateway Limitations

Keep in mind the following limitations when importing media through the Autodesk Wiretap Gateway.

- Certain import options, such as naming or TC options, are not available for P2 and XDCAM files.
- Entering keycode manually is not supported.
- Importing Apple® ProRes® media is only possible through a Wiretap Gateway installed on a Mac OS X system.
- Unsupported files appear as black clips.
- Exporting through Wiretap Gateway is not supported. All Gateways are always read-only.
- Files that are longer than 65535 frames and are located on StoneFS partitions cannot be seen through Wiretap Gateway.
- Some H.264 files exported by WiretapCentral cannot be imported.
- You may experience playback performance issues with some H.264 Quicktime files.

- If you have multiple creative applications on a Mac equipped with a RED ROCKET™ card, only one application will be able to use the card at a time.
- You cannot decode R3D media using WiretapCentral on a system equipped with a RED ROCKET card. You will need to use a WiretapCentral installed on another system, or use your Visual Effects and Finishing application.
- Wiretap Gateway Slaves are locked to the first process that uses them.

### **Incinerator Limitations**

The following features are not supported when the Incinerator Cluster is connected.

- Stereo
- Accessing media located on a Stone FS / Standard FS through Wiretap. Soft Imported / Published Media is supported.
- Real-time playback of media accessed through Wiretap Gateway.
- Using the high-quality Shrink with the Keyer (the feature is very slow if used with Incinerator). Contact Autodesk Media and Entertainment Customer Support for assistance.
- Performing dust analysis.

Real-time playback is not reachable for the following features when the Incinerator Cluster is connected:

- Using external mattes with 2k material.
- Degrained media or cache.

### **Other Limitations**

- Wiretap clients older than version 2009 cannot connect to Wiretap 2011 Extension 1, as they do not use the authentication method that was introduced in recent versions of Wiretap.
- User rights are not respected when a Wiretap client running on a Microsoft Windows system connects to Wiretap Gateway, if no user name mapping has been defined.

## **Important Notes**

### **About BrowseD License**

The *BrowseD* service no longer requires a license.

### **Compatibility**

Due to GPU acceleration modifications, HLS Keyer, Diamond Keyer, and Blur operations from previous versions will not render the same way in Lustre 2011 Extension 1. It is possible to set a keyword in the `init.config` configuration file to temporarily use the rendering algorithm from previous version of Lustre. This limitation only applies to non-Incinerator systems. Incinerator only uses CPU for keyers and Blur.

### **About Degrain cache**

You must define the Degrain cache location from within Lustre Project Management menu. Degrain cache should be located on the main storage. Note that this media (and any media imported / rendered in Lustre) will not be part of an archive created by Smoke/Flame.

### **RED SDK 3.1 Support**

Wiretap Gateway leverages the version 3.1 of the RED SDK, enabling the following new transcoding options:

- sRGB Colour Space options
- sRGB Gamma Curve

In addition, the ranges of the parameters have been updated to reflect the 3.1 SDK values.

Wiretap Gateway for Mac OS X can now use the 64-bit version of SDK; you no longer have to run the 32-bit version of Mac OS X to read R3D files through the Red Rocket card.

### **ARRIRAW footage Playback Performance**

The processing overhead required to provide high quality results with ARRI footage will result in less than real-time playback of the footage, even on the most recent hardware configurations. This will cause the playback in Lustre to stutter. Using Draft debayering options should result in smooth playback.

### **ARRIRAW and RGB Gain Values Resulting in Missing Media**

When setting the white balance of ARRIRAW footage using the RGB controls, it is possible to set values that will provide invalid color results for the footage. In these situations, the application will present the ARRIRAW media as missing footage. In order to avoid this result, adjust the controls to a valid combination for the footage.