

Autodesk®
Visual Effects and Finishing
2009 Edition

Software Installation Guide

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Introduction

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About This Guide

This guide provides basic information about installing the following Autodesk® Visual Effects and Finishing 2009 products on the Linux® workstations that support them.

Product	Linux Platform
Autodesk Smoke® 2009	IBM® 6224, IBM 6217 SC, IBM 6217 DC, HP 8400, HP 9400, HP 8600
Autodesk Backdraft® Conform 2009	IBM 6217 DC, HP 8400, HP 9400, HP 8600
Autodesk Flint® 2009	IBM 6224, IBM 6217 SC, HP 8400, HP 9400, HP 8600
Autodesk Flame® 2009	IBM 6217 DC, HP 8400, HP 9400, HP 8600
Autodesk Inferno® 2009	IBM 6217 DC, HP 8400, HP 9400, HP 8600

NOTE: The IBM 6224 is available in both 32-bit and 64-bit models. The 2009 version of the Visual Effects and Finishing products only supports the 64-bit model.

Use this guide in conjunction with the *Hardware Setup Guide* for your platform and the *Configuration File Reference Guide* to install and configure the hardware and software components of your Autodesk Visual Effects and Finishing workstation.

NOTE: In most cases, both hardware setup and application installation is done on delivery by an authorized technician, so you may not need to perform all of the procedures in these guides.

Related Documentation

This release has documentation that helps you install, configure, and use the software, available from your product DVD, on the Autodesk web site, and installed with the product (as PDF files and as an HTML help system).

For a list of all the documentation available to you, visit <http://www.autodesk.com/me-documentation>. From this page you can access the complete documentation library.

You should also refer to your product's release notes for all late-breaking release information.

Notation Conventions

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

Convention	Example
Text that you enter in a command line or shell appears in Courier bold. You must press the Enter key after each command.	rpm -qa
Variable names appear in Courier, enclosed in angle brackets.	<filename>
Feedback from the command line or shell appears in Courier.	limit coredumpsize
Directory names, filenames, URLs, and command line utilities appear in italics.	<i>/usr/discreet</i>

Contacting Customer Support

For a list of contact information for Autodesk Media and Entertainment Customer Support, consult your release notes, or 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>.



Preparing to Install the Application

Summary

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Workflow for Hardware Setup and Application Installation

The following procedure provides the general workflow for installing a Visual Effects and Finishing product on a Linux workstation.

To install a Visual Effects and Finishing product on a Linux workstation:

1. Follow the procedures in the *Hardware Setup Guide* for your platform to connect your workstation to peripherals, a VTR and a broadcast monitor, and audio hardware. You will find details about the Autodesk Stone® Direct storage in the *Stone Direct Configuration Guide*. Setting up the filesystem and the Autodesk Wire® network is described in the *Stone and Wire Filesystem and Networking Guide*.
2. Verify the workstation meets all requirements for installing the application. These include having the correct version of Linux and the correct version of the Discreet® Kernel Utility installed. See [“Installation Requirements Checklist”](#) on page 4.

NOTE: If you received a new system directly from Autodesk for this release, you do not need to verify workstation requirements.

3. Install the application. See [Chapter 3, “Installing the Application.”](#) on page 11.
NOTE: If you received a new system directly from Autodesk for this release, your Visual Effects and Finishing application is already installed on the workstation.
4. Perform any necessary post-installation procedures. See [“Post-Installation Procedures”](#) on page 15.
5. License the application. See [Chapter 4, “Licensing and Starting the Application.”](#) on page 19.

Installation Requirements Checklist

Before you install your Visual Effects and Finishing application, you must ensure your system meets the following installation requirements.

Hardware requirements — The workstation is a fully integrated system with all the appropriate hardware properly installed, as described in the *Hardware Setup Guide* for your platform.

The workstation has at least the minimum amount of RAM installed for the project resolution you use, the type of work you perform, and the platform on which your application is installed. See [“Memory Requirements”](#) on page 5.

Operating system requirements — The workstation is running the correct version of Red Hat® Enterprise Linux Workstation, and the correct version of the Discreet Kernel Utility (DKU). See [“Red Hat Enterprise Linux Workstation Version”](#) on page 6 and [“Discreet Kernel Utility \(DKU\) Version”](#) on page 7.

System date — The correct system date must be set *before* installing the software. See [“Setting the System Date”](#) on page 8

Backburner™ Manager IP Addresses — If you intend to use the background Wire transfer feature, you need the hostname and IP address of the Backburner™ Manager host. The installation script for your Visual Effects and Finishing application will prompt you to provide this information. You do not need to install Backburner Manager prior to installing your Visual Effects and Finishing application; only the hostname and IP address of the host on which it will run is required.

Installation materials — You have the Visual Effects and Finishing application DVD in hand. If you do not have the DVD, you can download the application. For information, contact Customer Support.

DVD-ROM drive — Your workstation has a mounted DVD-ROM drive. See [“Mounting a CD-ROM or DVD-ROM Drive”](#) on page 10.

Permissions — You have root access to your system. If you do not have root access, contact your system administrator. The default root account password on a Linux workstation with an Autodesk application installed is *password*. Note that after the application is installed, you can configure and launch it by logging in to the system using its account.

Compatibility — All Visual Effects and Finishing applications for all systems on the Wire network at your facility must be upgraded to the current version to prevent degraded system performance. If you access a library created in one of the applications in the current release from an earlier version of a Visual Effects and Finishing application, the volume integrity check (*vic*) will not be aware of the existence of the later release and will execute. This action may cause invalid frames to occur in the library. Invalid frames are unrecoverable frames that degrade system performance. For information about media and resource compatibility between versions, see the “Compatibility” chapter in the application user guide.

NOTE: To guarantee optimal performance, it is recommended that only Visual Effects and Finishing applications and required Red Hat Enterprise Linux Workstation packages be installed on Linux workstations.

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. In general, more memory is better. 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
NTSC, PAL, HD	4.0 GB 3.0 GB (IBM 6224)
Long-form editing (Smoke)	8.0 GB
Long-form editing with 2K or 4K film (Flame, Inferno, Smoke, Backdraft Conform)	8.0 GB (minimum) or 16.0 GB (recommended)
2K film (Smoke, Backdraft Conform)	8.0 GB
2K film (Flame, Inferno)	8.0 GB (minimum) or 16.0 GB (recommended)
4K film (Flame, Inferno, Smoke, Backdraft Conform)	8.0 GB (minimum) or 16.0 GB (recommended)

NOTE: The IBM 6224 can contain a maximum of 4.0 GB of RAM and is thus not equipped to handle 4K film projects.

For projects based on long form 2K or 4K film, while the minimum physical memory requirement is 8 GB, it is highly recommended that your system be fitted with 16 GB for optimal interactivity and stability while using complex setups.

NOTE: The HP9400 and HP8600 support up to 16 GB of memory.

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

Red Hat Enterprise Linux Workstation Version

Use the following table to determine the correct version of Red Hat Enterprise Linux Workstation (WS) for your release and platform.

Release	Platform	Linux Version
Visual Effects and Finishing 2009	IBM 6224, IBM 6217 SC, IBM 6217 DC	Red Hat Enterprise Linux WS 4, Update 2
	HP 8400, HP 9400, HP 8600	Red Hat Enterprise Linux WS 4, Update 3

If your workstation is not currently running the correct version of Red Hat Enterprise Linux WS, to install your Visual Effects and Finishing 2009 product you must use the procedure described in [“Upgrading from a Pre-2007 Version of the Application”](#) on page 11.

Use the following procedure to determine the version of Red Hat Enterprise Linux WS your workstation is currently running.

To determine the version of Red Hat Enterprise Linux WS currently installed:

1. As root, open a terminal.
2. Type:

```
cat /etc/redhat-release
```

The Red Hat Enterprise Linux WS version appears. For example, if the correct version for your release is Red Hat Enterprise Linux WS 4 Update 2, your terminal should display the following:

Red Hat Enterprise Linux WS release 4 (Nahant Update 2)

Discreet Kernel Utility (DKU) Version

Use the following table to determine the correct version of the Discreet Kernel Utility (DKU) for your release and platform.

Release	Platform	DKU Version
Visual Effects and Finishing 2009	IBM 6224, IBM 6217 SC, IBM 6217 DC, HP 8400, HP 9400, HP 8600	3.0.0

If you are not sure which version of the DKU your workstation is currently running, you can determine the version by either running the *dlConfigCheck* utility (if a previous version of the application was installed on the system) or examining the */etc/DKUversion* file (if no previous version of the application was installed on the system). The procedures below describe each of these methods.

If you do not have the correct version of the DKU installed, you can install it from the application DVD, or download it from the Autodesk FTP. For help installing the DKU, refer to the *Linux Installation and Configuration Guide*.

NOTE: You must have the correct version of Red Hat Enterprise Linux WS installed prior to upgrading the DKU.

To use the *dlConfigCheck* utility:

1. As root, open a terminal.
2. Run the *dlConfigCheck* utility to check if the workstation is running the latest DKU. Type:

```
dlConfigCheck
```

The *dlConfigCheck* utility starts. If you have multiple Visual Effects and Finishing applications installed, you may be prompted to choose the application the utility should check the kernel against. Otherwise, the utility checks the workstation configuration and the DKU to ensure it is up-to-date.

3. If prompted, choose the application for which you want to check the DKU version.
4. Scroll to the Kernel Config section and check that the kernel release and the DKU version items are marked [PASSED]. For example, if your release requires Red Hat Enterprise Linux

WS 4 Update 3, and version 3.0 of the DKU, the following items should be marked [PASSED]:

```
Checking if kernel release is 2.6.9-34.0.1.EL.ADSKsmp :
```

```
DKU disk installed version DKUversion 3.0.0 :
```

If these two items are marked [PASSED], you are using the correct version of the Discreet-customized kernel.

HINT: You can also use the *dlConfigCheck* utility to troubleshoot problems with your Linux workstation.

To examine the *DKUversion* file:

1. As root, open a terminal.
2. Type the following to display the content of the *DKUversion* file:

```
cat /etc/DKUversion
```

The first line of the output of the command should be:


```
DKUversion <version_number>
```

where <version_number> is the correct DKU version number for your release. For example, if the workstation is running version 3.0.0 of the DKU, the first line of the command output is:

```
DKUversion 3.0.0
```

Setting the System Date

The procedure in this section describes how to check whether the system date matches the current calendar date and, if necessary, set the system date. If your workstation is not on a network, before you can perform this procedure you must disable network-defined date and time information, as described below.

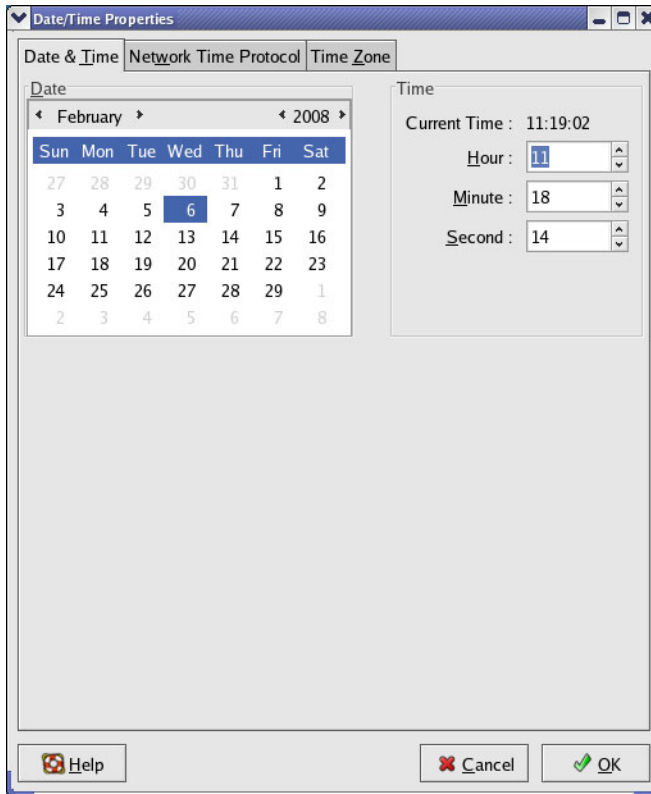
 **WARNING:** You must set the correct date *before* installing your Visual Effects and Finishing application. Changing the system date after installation can lead to data corruption and failure of your Visual Effects and Finishing application.

To check and set the system date:

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

```
system-config-date
```

The following window appears, displaying the current date and time.



2. Click the Network Time Protocol tab, and uncheck the Enable Network Time Protocol check box. This disables network-defined date and time adjusting, and allows you to manually set the date and time.
3. Click the Date & Time tab, and use the calendar and time fields to set the correct date and time.
NOTE: If the calendar and time fields are grayed out, go back to the Network Time Protocol tab, and make sure that Enable Network Time Protocol is unchecked.
4. To set the time zone, click the Time Zone tab, and select the city closest to your location from the list.
5. Click OK to apply the new settings and close the window.

Mounting a CD-ROM or DVD-ROM Drive

To access content from a CD or DVD, the CD-ROM or DVD-ROM drive must be mounted.

To verify the CD-ROM or DVD-ROM drive is mounted:

1. Log in as root.
2. Type:

```
df -k | grep cdrom
```

You should see `/dev/cdrom` appear in the system response.

If `/dev/cdrom` does not appear, mount the drive.

To mount a CD-ROM or DVD-ROM drive:

1. Insert a CD or DVD into the drive.
2. Open a terminal and log in as root.
3. Mount the drive by typing:

```
mount /mnt/cdrom
```

Installing the Application



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Upgrading from a Pre-2007 Version of the Application

The 2009 release of Visual Effects and Finishing products runs under Red Hat Enterprise Linux WS 4, Update2 or Update 3. Since you cannot upgrade to either of these Linux versions from an earlier Linux version, you must perform a fresh install of the operating system before you can install the Visual Effects and Finishing application. A fresh install of Linux erases the contents of the system disk, so you must archive all of your project's clip libraries and setups.

To upgrade from a pre-2007 version of a Visual Effects and Finishing application:

1. Ensure your system meets all installation requirements. See "[Installation Requirements Checklist](#)" on page 4.
2. Perform a complete archive by archiving the clip libraries and setups of every project. Use the Archive module in your Visual Effects and Finishing application. Refer to the "Archiving" chapter of the application User Guide.

NOTE: You can also back up configuration files such as *init.cfg*. Use these files as a reference when setting up the new configuration files.



WARNING: Do not back up anything to the system disk of your workstation. The upgrade procedure destroys all data on that system disk.

3. Install the correct version of Red Hat Enterprise Linux WS and the Discreet Kernel Utility (DKU), as specified in "[Red Hat Enterprise Linux Workstation Version](#)" on page 6 and

[“Discreet Kernel Utility \(DKU\) Version”](#) on page 7. Refer to the *Installation and Configuration Guide* for Red Hat Enterprise Linux Workstation 4 Update 2 or Update 3 for help installing both of these.

4. Install your Visual Effects and Finishing application. See [“Installing or Upgrading the Application”](#) on page 12.
5. Restore your projects using the archives created in step 2.

Installing or Upgrading the Application

Use the following procedure to perform a fresh install of the application and supporting software (Stone and Wire, DL fonts, and so on.), or to upgrade your 2009 application to a service pack (SP) or extension release. If you are upgrading from a pre-2007 release, use the procedure in [“Upgrading from a Pre-2007 Version of the Application”](#) on page 11.

NOTE: Autodesk recommends archiving the media on the framestore before upgrading the application. Refer to the “Archiving” chapter of the application User Guide.

To install the application:

1. Ensure your system meets all installation requirements. See [“Installation Requirements Checklist”](#) on page 4.
2. Log in to your Linux workstation as root.
3. If you are installing from an application DVD, and if you have not already done so, mount the DVD-ROM drive, then go to the root directory of the mounted DVD:

```
cd /mnt/cdrom
```

See [“Mounting a CD-ROM or DVD-ROM Drive”](#) on page 10.

If you are installing from a downloaded *tar* file, verify the file’s integrity (see the note below), then uncompress and *untar* the file :

```
tar -zxvf <filename.tar.gz>
```

The file is uncompressed and an installation directory is created on your system.

NOTE: To verify the file’s integrity using the Linux md5 checksum provided with the downloaded *tar* file, type **md5sum <filename.tar.gz>** in a terminal. If the displayed number matches the Linux md5sum listed in the *cksum* file, you can use the downloaded file. If the numbers do not match, try downloading the file again, or call Customer Support.

4. Go to the installation directory for your application, for example:

```
cd Smoke2009_LINUX64_RHEL4
```

5. Start the installation script by typing:

```
./INSTALL_<application_name>
```

where <application_name> is in upper case. For example, if you are installing Smoke, type:

```
./INSTALL_SMOKE
```

The installation script verifies the installation packages and checks your system for previously installed versions of the application. This process may take a few minutes.

6. If you are upgrading from a previous version of the application, earlier versions are detected. Do one of the following:
- Click None if you would like a clean installation of the application.
 - Click one of the versions to copy its custom resource and setup directories to the new version.
7. If you are prompted "Do you want to install Backburner Manager?", indicate whether you want to install it. Backburner Manager is an optional installation.
8. If you do not have Backburner Server already set up on your system, you are prompted to confirm that you want to set it up. If you want to perform background Wire transfers, you must set up Backburner Server. A background Wire transfer allows a clip to be transferred from a remote clip library as a background task. The user can initiate a transfer and continue working on other tasks; they do not need to wait for the transfer to complete. Background transfers may have an impact on system performance (for example, resizing the file during transfer may slow system performance).

Click:	To:
No	Prevent the set up of Backburner Server. If you choose this option, you can install Backburner Server as part of the post-installation procedures.
Yes	Launch the Backburner Server setup script. When the script prompts you to "Get ready to enter the manager for this server.", click OK. In the file <i>/usr/discreet/backburner/cfg/manager.host</i> that appears in the <i>nedit</i> text editor, replace the default value "Manager" with the IP address or hostname of the Backburner Manager host. If you use the hostname, be sure it can be resolved. You can verify that it can be resolved by typing the following in a shell: <pre>ping <backburner manager hostname></pre> If the hostname cannot be resolved, use the IP address of the Backburner Manager host instead. Save the file and exit <i>nedit</i> to continue with the application installation script.

9. When prompted, specify the preferred frame resolution (Film or Video).
10. When prompted to configure the software initialisation file (*init.cfg*), click OK.

If you are installing the application for the first time, the *init.cfg* file appears in a text editor. If you are upgrading the application, old (previous) and new *init.cfg* files appear beside each other in an *xxdiff* window. The left panel displays the old *init.cfg* file settings. The right panel displays the default *init.cfg* that is installed with your application. The vertical bar on the right side indicates where differences exist between the two panels.

11. Scroll through the *init.cfg* file and verify the keyword settings described in [“Keyword Settings”](#) on page 14. Modify the settings by doing one of the following:
 - If you are in a text editor, edit the settings, then save and exit the *init.cfg* file.
 - If you are in *xxdiff*, each difference between the two *init.cfg* files appears highlighted. Select the appropriate keyword values for your configuration, regardless of whether they are in the left or right panel. Make sure you select a value for each highlighted difference. Then save and exit as follows: in the File menu, choose Save as Right. If you are prompted to save, click OK. When prompted that the file already exists, click OK to overwrite it. In the File menu, choose Exit.

If any changes are detected in the */etc/X11/xorg.conf* file, you are prompted to configure this file. When the file appears in the *xxdiff* editor, in the Global menu, choose Select Right, and then, in the File menu, choose Save as Right. If prompted to overwrite, click OK.

NOTE: The */etc/X11/xorg.conf* file contains specific parameters for the graphics display, tablet, and other external devices for running the application. It is customized prior to shipping to reflect your configuration. It is strongly recommended that you never manually edit this file, as incorrect entries may result in peripherals that do not function properly, or an inability to launch the user interface. Use *xxdiff* to move entries from one version of the file to another.

12. If you modified the *xorg.conf* file, you receive a message to restart the X server. When the installation scripts completes, log out and then log in again as root to restart the X server.
13. Prior to starting the application do the following:
 - Perform all post-installation procedures necessary for your system. See [“Post-Installation Procedures”](#) on page 15.
 - Obtain and enter license codes. See [Chapter 4, “Licensing and Starting the Application.”](#) on page 19.

Keyword Settings

The software initialisation file (*init.cfg*) contains settings the application reads on startup. This section lists the system-dependent keyword settings you should verify during application installation. For help understanding keywords in the *init.cfg* file, see the *Configuration File Reference Guide*.

A pound sign (#) preceding a keyword in the *init.cfg* file indicates that the keyword option is disabled or *commented out*. Keyword options that are commented out are ignored when the application is started.

Keyword	Setting
Video	Refer to the description of this keyword in the <i>Configuration File Reference Guide</i> to determine the correct setting for your system.
DVIRamp	Refer to the description of this keyword in the <i>Configuration File Reference Guide</i> to determine the correct setting for your DVI Ramp. The DVIRamp keyword is applicable only if your workstation is equipped with a Miranda DVI-Ramp.
VideoPreviewDevice	Refer to the description of this keyword in the <i>Configuration File Reference Guide</i> to determine the correct setting for your system. The VideoPreviewDevice keyword is applicable only if your workstation is equipped with a Miranda DVI-Ramp or an NVIDIA® SDI card. You can use the VideoPreviewDevice keyword to enable alternate SD or HD broadcast monitors.
TabletDriver	wacom
VTR	Enable the VTR keywords that have settings corresponding to the VTRs you intend to use.
Audiodevice	DVS (on IBM systems) AJA (on HP systems)

Post-Installation Procedures

Review the following list of post-installation procedures and perform the ones required for your system.

NOTE: If you are upgrading your Visual Effects and Finishing application, you have already performed the steps listed below during the original installation. You do not need to repeat these procedures.

Set up the Stone filesystem or standard filesystem on the storage. When you configure your storage, you should ensure that each partition does not exceed 8 terabytes and that inodes are correctly configured. Refer to the *Autodesk Stone and Wire Filesystem and Networking Guide*. For help determining an appropriate inode ratio for the Stone filesystem, refer to the *Autodesk Stone Direct Configuration Guide*.

- Set up the Wire network for the workstation, if you are using Wire in your facility. Refer to the *Autodesk Stone and Wire Filesystem and Networking Guide*.
- Export directories to permit file sharing with other systems on the Wire network. Refer to the *Autodesk Stone and Wire Filesystem and Networking Guide*.

- If you are planning to share setups and projects between Visual Effects and Finishing applications running on a Linux workstation, enable multicasting for Stone and Wire as well as the connected Linux network. Refer to the *Autodesk Stone and Wire Filesystem and Networking Guide*.
- If you intend to use Autodesk Wiretap™, configure the Wiretap Server and set up pathname translation. Refer to the *Autodesk Stone and Wire Filesystem and Networking Guide*.
- If you intend to use the background Wire transfer feature, you need to ensure the Backburner Server is installed and Backburner keywords are set correctly in the software initialisation file (*init.cfg*). See [“Setting Up Background Wire Transfers and Proxy Generation”](#) on page 16.
- If you intend to use Cleaner® XL to encode video over the network, install and configure the necessary components. Refer to *Using Cleaner XL with Autodesk Visual Effects and Finishing Applications*.
- If you intend to use the generic 3D lookup tables (LUTs) or the monitor calibration utility provided by Lustre® Color Management, install the necessary components. Refer to the *Lustre Color Management User Guide*.

NOTE: Lustre Color Management cannot be used with Autodesk Flint.

Setting Up Background Wire Transfers and Proxy Generation

Background Wire transfers and proxy generation rely on Backburner. The Backburner Server you install on the Visual Effects and Finishing workstation communicates with a Backburner Manager on the Wire network to accomplish the transfers or generate the proxies. Use the following procedure to set up background Wire transfers and proxy generation.

To set up background Wire transfers and Proxy generation:

1. If you have not already done so, install Backburner Manager on the same network as your Visual Effects and Finishing workstation. Refer to the *Autodesk Backburner Installation Guide*.
2. If you did not set up Backburner Server during application installation, do so now. See [“Setting Up Backburner Server After Application Installation”](#) on page 17.
3. Set the Backburner keywords in the software initialisation file (*init.cfg*) for your Visual Effects and Finishing application. See [“Setting Backburner Keywords”](#) on page 17.
4. Verify Backburner Server is running on the Visual Effects and Finishing workstation. See [“Verifying Backburner Server is Running”](#) on page 17.

Setting Up Backburner Server After Application Installation

Set up Backburner Server by specifying the hostname or IP address of the Backburner Manager host. This permits the Backburner Server on the Visual Effects and Finishing workstation to communicate with the Backburner Manager.

To enable Backburner Server after installing the application:

1. As root, open the `/usr/discreet/backburner/cfg/manager.host` file in a text editor.
2. Replace the default value “manager” with the IP address or hostname of the Backburner Manager host.

NOTE: If you use the hostname of the Backburner Manager host, be sure this hostname can be resolved. You can verify hostname resolution by typing the following in a shell: `ping <Backburner Manager hostname>`. If the hostname does not resolve, use the IP address of the Backburner Manager host instead.

Setting Backburner Keywords

Background Wire transfers and proxy generation rely on the following Backburner keywords in the software initialisation file (`init.cfg`):

Keyword	Setting
BackburnerManagerHostname <hostname>	Set <hostname> to the hostname or IP address of the workstation running Backburner Manager. This hostname or IP address must match the one in the <code>/usr/discreet/backburner/cfg/manager.host</code> file. If it does not, background Wire transfers will fail.
BackburnerManagerPort <port number>	Set <port number> to 9000, the default port on which Backburner Manager accepts jobs from workstations on the network. Do not change this value unless you are certain the Backburner Manager on your network is using a different port number.
BackburnerManagerPriority <priority>	Set <priority> to a value from 0 to 100. The default is 50.
BackburnerManagerGroup <groupname>	Set <groupname> to the name of a group of computers on a Burn™ rendering network. For example, if the name of the group is “renderfarm1”, you would set this keyword to <code>BackburnerManagerGroup renderfarm1</code> .

For help understanding these keywords, or to learn how to modify the file, refer to the *Configuration File Reference Guide*.

Verifying Backburner Server is Running

Use the procedure to determine whether Backburner Server is running on the Visual Effects and Finishing workstation and, if necessary, start it.

To verify Backburner Server is running:

1. As root, type:

```
chkconfig --list | grep -i backburner
```

The command should return the following:

```
backburner 0:off 1:off 2:on 3:on 4:on 5:on 6:off  
backburner_server 0:off 1:off 2:on 3:on 4:on 5:on  
6:off
```

2. If backburner_server is not set to “on” for run levels 2, 3, 4, and 5, type the following commands to enable it and restart the Stone and Wire service:

```
chkconfig backburner_server on  
/etc/init.d/stone+wire restart
```

Licensing and Starting the Application



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Licensing Workflow

The following describes the workflow for obtaining and installing license codes.

To obtain and install license codes for the application:

1. Determine which license codes you require. See [“Determining the Licenses You Require”](#) on page 20.
2. Obtain the host ID of the workstation. See [“Obtaining the Host ID”](#) on page 20.
3. Request temporary license codes. See [“Requesting License Codes”](#) on page 21.
4. Start the application and install the temporary license codes. See [“Entering License Codes”](#) on page 22.
5. When you receive permanent license codes, install those codes. See [“Entering License Codes”](#) on page 22.

NOTE: Permanent license codes for Visual Effects and Finishing applications pre-2007 were shipped with a dongle. As of version 2007, the dongle is no longer required. Should you ever need to roll back to an earlier version of the application that had a permanent license installed, you will need to re-install the dongle.

Determining the Licenses You Require

You may need more than one license code. Refer to the following table to determine which license codes you require.

License Code	Required/ Optional	Description
Application	Required	Runs the application.
Cleaner XL	Optional	Makes it possible to perform remote encoding of video or audio using Cleaner XL. For help licensing Cleaner XL, refer to the documentation included in the Cleaner XL box. If you cannot locate the box, contact Customer Support.
di	Optional	Enables support for Keycode, 3D LUTs, and Batch FX.

NOTE: As of the 2008 release of your Visual Effects and Finishing application, the application license includes the licenses for Wire and hdiio. You no longer need specific license codes for these features.

Obtaining the Host ID

To request a license code, you must provide the unique host ID of your workstation. This host ID is used to authenticate your registration. On a Linux workstation, you generate the host ID using a utility installed with your application.

To obtain the host ID:

1. On your Linux workstation, log in using the account for your application, and open a terminal.
2. Navigate to the directory that contains the Discreet host ID utility. Type:
cd /usr/local/bin
3. Type:

dlhostid

NOTE: The `dlhostid` command replaces the `lmhostid` command previously used.

A message similar to the following one appears, containing the host ID:

```
dlhostid - Copyright © 2005 by Autodesk, Inc./Autodesk Canada
Co. All rights reserved.
```

```
The host ID of this machine is "00110910DA2E"
```

```
The Discreet host ID of this machine is
```

```
"DLHOST01=25231AEF83AD9D5E9B2FA270DF4F20B1"
```

- Send the Discreet host ID to the Licensing Department to receive your application license code. When you record the Discreet host ID, make sure you include the DLHOST01= string as well as the number; for example,

DLHOST01=25231AEF83AD9D5E9B2FA270DF4F20B1

NOTE: Make sure you obtain a host ID for each workstation on which you install the application.

Requesting License Codes

You can obtain application license codes by registering the application with the Autodesk Media and Entertainment Licensing Department by e-mail, telephone, or fax. All license codes obtained by e-mail, fax, or telephone are temporary 30-day licenses that you use until your permanent license is confirmed and delivered.

NOTE: For emergencies, you can acquire an immediate temporary license code by going to the Autodesk Registration web page (www.autodesk.com), clicking the Services & Support link, selecting your product, then clicking Register Your Product and following the step-by-step instructions. A 4-day license code is emailed to the address you provide.

To obtain license codes by e-mail or fax:

- Start the application to open the License Wizard. See [“Entering License Codes”](#) on page 22.
- When the License Wizard appears, click the Form for E-Mail or Fax button.
- Provide the required information, and then send the completed form by e-mail or fax to submit the request.

To submit the form by:	Use:
E-mail	me.support@autodesk.com
Fax	1-514-954-7199

You will receive your temporary license code within 8 business hours.

To obtain license codes by telephone:

Speak to a licensing representative by calling the Licensing Department toll-free in North America at 1-800-925-6442 between 9 AM and 5:30 PM eastern standard time (EST). Outside of North America, call 1-514-954-7199 between 7 AM and 3 PM EST.

Entering License Codes

You cannot use the application until you enter the required license code. There are three ways to enter license codes:

- Launch an unlicensed application, and use the License Wizard that appears to enter the license codes. See [“Launching an Unlicensed Application to Enter License Codes”](#) on page 22.
- Launch the standalone License Wizard and enter the codes through the wizard. See [“Launching the Standalone License Wizard to Enter License Codes”](#) on page 24.
- Manually edit the license file. See [“Manually Editing the License File”](#) on page 24.

Launching an Unlicensed Application to Enter License Codes

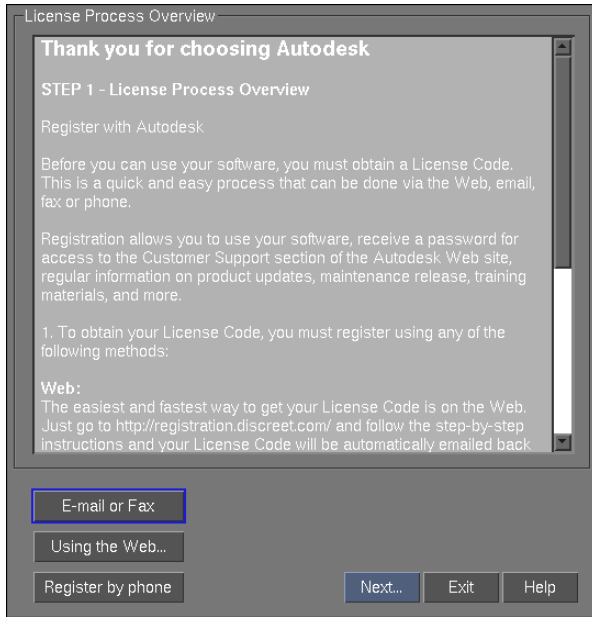
The following procedure describes how to enter temporary license codes using the License Wizard. This wizard automatically appears when you start an unlicensed application. The procedure assumes you have your license codes in hand and are ready to enter them.

To launch an unlicensed application and enter license codes:

1. Log in to the application account on your workstation. For example, if you installed Smoke, log in to the Smoke account.
2. Open a terminal.
3. Type the name of the application, all in lower case, in the terminal to start the application. For example, if you want to start Smoke, type:

```
smoke
```

After a few moments, the License Wizard appears.



4. Read the License Process Overview and click Next to continue.
5. Enter values for the Feature Name, Expiry Date, License Code, and Checksum fields in the Wizard, and verify the automatically generated value in the System ID field. All of these values appear in the codes you received from the Licensing Department.

The example below illustrates how to complete the fields in the Wizard using the values in the license code.

Permanent license for Smoke (similar to Flint, Flame, Inferno, and Backdraft Conform)

```
FEATURE smoke_x86_64_r_2009 discreet_1 2009.999 1-jan-0 0 \
0D506C1F4F6B12728DA9 \
HOSTID=DLHOST01=886C2B75E8E57E4B03D784C3A2100AC0 ck=74
```

For field:	Enter:
Feature Name	smoke_x86_64_r_2009
License Code	0D506C1F4F6B12728DA9
System ID (automatically generated)	HOSTID=DLHOST01=886C2B75E8E57E4B03D784C3A2100AC0
Expiry Date	1-jan-0 (never expires)
Checksum	74

6. Click Install.

The License Wizard installs the license and displays a message indicating the install was successful, and telling you to restart the application to use the new license.

7. Click Finish to exit the License Wizard and return to the command prompt in the terminal.

Launching the Standalone License Wizard to Enter License Codes

Use the following procedure to install license codes using the Standalone License Wizard.

To install license codes using the standalone License Wizard:

1. Log in to the application account.

2. Go to the directory containing the License Wizard by typing:

```
cd /usr/discreet/<product_home>/bin
```

Where <product_home> is your application directory, for example *smoke_2009*.

3. Launch the License Wizard by typing:

```
./dinstall_license
```

4. Enter your license code in the wizard and then click Install.

5. Click finish to exit the License Wizard.

Manually Editing the License File

License codes for the application are stored in the text file *DL_license.dat* in the folder */usr/local/flexlm/licenses*. You can edit this file manually to add or change licenses. Edit this file with care; an incorrect character or missing space may prevent the application from recognizing the license.

Starting the Application for the First Time

After you enter the temporary license code for the application, you are ready to start the application for the first time.

NOTE: If you receive the error message “VOLUMEMGT: Error initialising volume stonefs” during startup, there is a problem communicating with the framestore. This error message may appear if you launch the application immediately following a reboot, before the Volume Integrity Check on the framestore has had time to complete. In this case, wait a few minutes and start the application again. This error message may also be due to a mismatch between the framestore ID in the *sw_framestore_map* file and the one defined in the *sw_config* file. This can occur when you install on a workstation with previously configured storage. You can solve this by launching */usr/discreet/*

`sw/sw_config` to determine the framestore ID, then updating the `/usr/discreet/sw/cfg/sw_framestore_map` file to match that ID, and finally, rebooting the workstation.

To start the application the first time:

1. Log in to the application account on your workstation. For example, if you installed Smoke, log in to the Smoke account.
2. Type the name of the application, all in lower case, in the terminal to start the application. If this is the first time you are starting the application on a new system, you should also specify the `-v` option to initialise the framestore.



WARNING: The `-v` option deletes all material on the framestore. Use this option only if you have no material that you want to preserve on the framestore .

For example, if you want to start Smoke:

Type:	To:
<code>smoke</code>	Start Smoke.
<code>smoke -v</code>	Start Smoke and initialise the framestore.

NOTE: You can also start the application by double-clicking its icon on the desktop. This does not initialize the framestore.

3. When prompted to confirm the framestore initialisation, answer “yes” to the questions. After a few moments, the Project Management menu appears.
4. Using the Project Management menu:
 - Create a project.
 - Create a user (or you may prefer to use the default user).

For information on creating projects and users, see the chapter “Managing Projects and Users” in the application user guide.

5. Click Start or press **ENTER**

After a few moments, the following message appears:

```
Startup complete.
```

You are ready to start working in the application. If you see a splash screen rather than the application interface, click anywhere on the screen to display the EditDesk (Finishing applications) or desktop (Visual Effects applications).

The KDE Desktop Environment

The KDE desktop environment is the desktop environment installed with the Autodesk-customized installation of Red Hat Enterprise Linux WS 4, Update 2 and Red Hat Enterprise Linux WS 4, Update 3. You should not modify KDE desktop settings for the application account. Modifying the settings may disable hot keys and other functionality. You should also always run the application from the application account. If, for example, you run the application from your own account and the KDE settings do not match those of the application account, hot keys and other functionality may be disabled.

In the KDE desktop environment you can press **ALT+TAB** to switch between applications. For information on using the KDE graphical desktop environment, refer to *www.kde.org*.

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