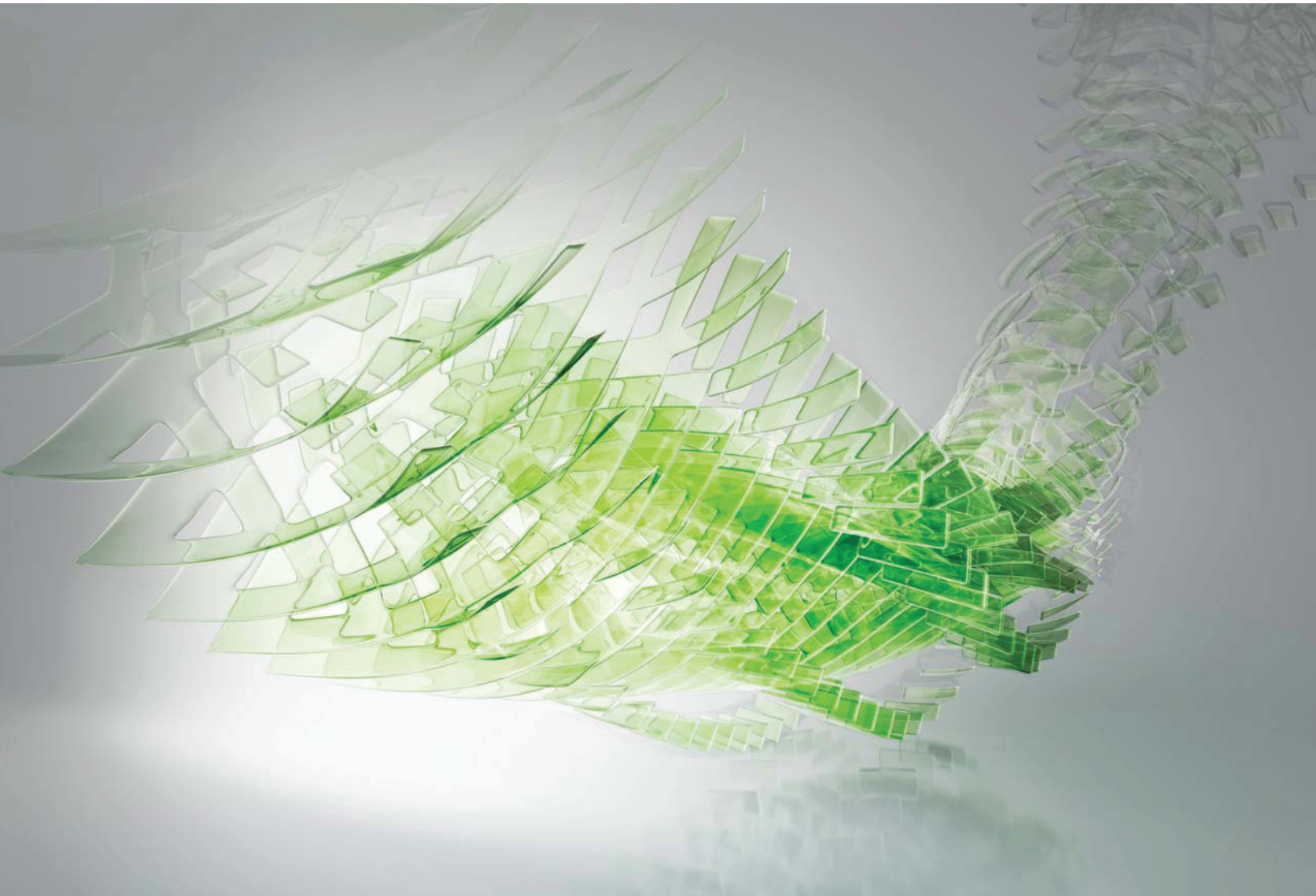




AUTODESK
FLAME® 2017

Training Edition



Installation Guide

2016-05-30

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1

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- A watermark is added to all viewports and to all rendered files (renders, cache, etc.).

More documentation

User guides and release notes are the same as for the licensed versions of their corresponding products and are available [here](#), along with a complete list of all Autodesk Creative Finishing documentation.

System requirements for *Flame*.

Upgrading to a licensed version

A licensed version cannot be installed on a system with a training version. To install a licensed version, you must uninstall the Training Edition.

Before uninstalling, you must first delete every project you created from the installed training edition. When you delete a project, all its associated clips and setups are deleted along with it.

- 1 At start-up, select the project to delete and click Edit.
- 2 In the Edit Project dialog, click Project Edit and select Delete Project.

- 3 Click Delete. Repeat for each project.
- 4 Follow the normal uninstall procedure for the application.

Support and Community

- [Flame Training Edition User Forum on the Area](#)
- me.support@autodesk.com
- [Flame Learning Channel on YouTube](#)

Installing Flame Family Applications on Mac OS X

Installation Overview

To install Flame on a Mac, you will need:

- A Mac that matches the minimum systems requirements of the software to install. The *Flame* system requirements are available online.
- The *training installation package* for the application to install.

Steps to install the application:

- 1 Install the application.
- 2 Configure Mac OS X.
- 3 Configure the application, including the storage for the media cache if this was not done during the installation.
- 4 Start and test the application to ensure everything went according to plan from **Applications** ► **Autodesk** ► **[Product]**

Installing the Application

To install, you'll need the DMG files containing the installer. You'll also need an administrator password for your Mac.

- 1 Open the DMG image file, and double-click `Install <product>`, then click through the installer.
- 2 If your system has multiple drives, you may be prompted to choose a drive for the media cache storage. It is recommended, but not required, to use a drive other than your system drive.
You can skip this step and configure the media cache storage later. See [Configure the Media Cache Storage on Mac OS X](#) (page 6).

NOTE The installer automatically detects any previously configured storage.

- 3 Once you exit the installer, the application is ready to use. A link to the application is in **Applications** ► **Autodesk**.

The following components are also installed:

- Autodesk Wiretap Gateway: a background service used for media import.
- Autodesk Backburner Manager & Server: background operations manager.
- Stone+Wire: storage manager.

To see if services are running properly, after installation go to: **Applications > Autodesk > [Product] > Utilities > Service Monitor.**

Configuring Mac OS X

Set these OS X system preferences for every user account that will use the application:

- Firewall: The OS X firewall must be off (default setting), otherwise it blocks incoming network connections.
- Function Keys: By default the application uses keyboard shortcuts that conflict with the OS X default settings. In **Keyboard > Keyboard Shortcuts >**, disable shortcuts using the function keys (F1, F2), control key, or option meta key. If the Mac has an Apple keyboard, enable Use F1, F2, etc. keys as standard function keys at **Keyboard > Keyboard tab.**
- Spotlight: In the Privacy tab, add the media cache storage volume to the list of locations Spotlight does not search.
- Sound: If you are using an AJA I/O device, ensure it is not selected for sound output.

Configure Flame Family Applications on Mac OS X

The ideal method to configure a Flame family application is to use the Setup utility.

To configure an application using the Setup utility:

- 1 Open the utility. It is located in **Applications > Autodesk > [Product] > Utilities.**
- 2 If more than one version of the Flame family application is installed, you need to select the one to configure from the Application Version drop-down list.
- 3 Discard unsaved changes with Reload.
- 4 Save your changes using Apply.

To edit the parameters directly in the application configuration file, click Manual Edit. Settings are stored in the locations specified in each setting's description.

General

Video Device Leave to `None`. Since the Training edition does not support video device such as AJA or Blackmagic Design, you do not have to configure this section to use the application.

Audio Device Leave to `CoreAudio`. Since the Training edition does not support video device such as AJA or Blackmagic Design, you do not have to configure this section to use the application.

Reserved Application Memory Sets the amount of memory allocated to frame buffers used by modules such as the Player, Action, Input/Output clip. Unless you require specific settings for other applications, set to Automatic; the amount of memory is reserved according to the amount of system RAM:

- 32 GB or more: 33 per cent of RAM is allocated to the application.
- Less than 32 GB: 50 per cent of RAM is allocated, up to 4GB, or up to 3GB if less than 11.5GB RAM.

Default Web Browser Sets the web browser used by the application. To use the Mac's default browser, set to open.

Default Shortcut Profile Sets the keyboard shortcut selected by default when creating new user profiles in the application.

Menu Bar Sets whether the menu bar is displayed in the application.

Table of Contents Location Sets the path where the online HTML and ASCII tables of contents of archives are saved when archiving.

Single Screen

NOTE Displayed only if multiple screens are detected on the system.

Restricts the UI of the application to the main display.

UI Magnification

NOTE Displayed only if a high resolution (HiDPI) monitor is detected on the system.

Sets the UI magnification.

Preview

NOTE Since the Training edition does not support broadcast monitors such as AJA or Blackmagic Design, you do not have to configure this section to use the application.

Vtr

NOTE Since you cannot output to VTR with the Training edition, you do not have to configure this section to use the application.

Media Storage

This is the path to where the Media Cache and rendered frames are stored. It is recommended to use a fast drive, and not to use the system drive. Manual edit must be used to delete a storage volume.

For more details, see [Configure the Media Cache Storage on Mac OS X](#) (page 6).

ID An index uniquely identifying the storage, assigned by the Setup application at creation time. Ranges from 0 to 7, and is not editable directly.

Name A label to identify the media storage. Required.

Location Path to the media files on your storage device. Do not select the root of a drive as your media storage folder. Create a subfolder to hold all your media files in one place. The recommended folder name is `Autodesk Media Storage/`. Required.

8-bit Integer, 10-bit Integer, 12-bit Integer and 12-bit Packed Integer, 16-bit Float The file formats used when writing frames of those bit depths to the storage. Optional.

Jpeg Compression Can be set from 0 (lowest compression, highest quality) to 100 (highest compression, lowest quality). Optional.

Backburner

Configure background processing manager.

Manager Hostname The network name of the workstation running the Backburner Manager. In a standalone setup, use the default setting, `localhost`.

In a Burn environment, enter the name of the workstation running Backburner Manager. Selects the Backburner Manager used by the application.

Configure Wacom pen buttons

- 1 Open the System Preferences / Wacom Tablet panel.
- 2 If Grip Pen does not appear in the Tool section, touch the pen on the tablet.
- 3 Select the Pen tab.
- 4 Ensure the top pen button is assigned to the double-click function, and that the bottom pen button is assigned to the right-click function.

Advanced network configuration

If the system is not using the correct network interface, for example wifi vs. ethernet, the local interfaces which should be used can be specified in `/usr/discreet/cfg/network.cfg`. Documentation about the syntax is in the file itself. A default device and a fallback device for data transfer and for multicasting can be hard coded in the file.

Configure the Media Cache Storage on Mac OS X

It is recommended to store media on a drive other than your system drive, ideally a direct attached storage (DAS) device or a storage area network (SAN). You can store media on the system drive but performance will not be as good, and is not a recommended setup.

NOTE The recommended filesystem on Mac OS X is HFS+, but you can use another filesystem. In addition to implementing POSIX file system semantics, such filesystem must support both hard and symbolic links, 64 bit file sizes and offsets, direct I/O, and timestamps with at least 1 second precision. Finally, directories must support at least 4 billion entries.

Configuring the Media Cache storage:

- 1 Ensure the disk array or SAN storage used for the Media Cache is connected to your workstation and powered up.
- 2 Boot your workstation and log in.
- 3 Open the Service Monitor, **Applications > Autodesk > [Product] > Utilities > Service Monitor**.
- 4 In the Service Monitor, open the Components tab and Stop Stone+Wire. Wait for the Status light to turn red.

NOTE Some other components' status light might change to red: this is normal behavior.

- 5 Launch the Setup application **Applications > Autodesk > [Product] > Utilities > [Product] Setup**.
- 6 In the Media Storage tab, click Add and follow the instructions.
If you need to create mount points for your media cache storage, a procedure below shows you how to do this.
- 7 Once the storage appears in the Media Storage list, click Apply.
The setup application restarts some services.
- 8 Close the Setup application.

- 9 Back in the Service Monitor, open the Components tab and Start Stone+Wire. Wait for the Status light to turn green.

NOTE Other components' status light should change back to green. If not, Start them.

- 10 Verify that the new media cache storage is available. In the terminal, type:

```
/usr/discreet/sw/sw_df
```

Any project created in your application after this point can now use new media cache storage. Any pre-existing projects are unaffected by this setting and remain associated to their respective partitions.

OS X Troubleshooting

Hostname and Computer Name Mismatch

If the application has been installed without first verifying that the Computer Name and the hostname match, and if the application complains that Stone+Wire cannot start, try the following:

- 1 In a terminal, as root, create `/usr/discreet/clip/`.
- 2 In a terminal, get the hostname of the workstation with the `hostname` command.
- 3 In `Systems Preferences > Sharing`, check that Computer Name is the same as the hostname. Change the Computer Name to the hostname if they are different.
- 4 Using the Setup Assistant, under Media Storage, it should now be possible to add a new partition. The Setup Assistant is in `Applications/Autodesk/[Product]/Utilities`.
- 5 Start Stone+Wire using the Service Monitor application, also found in the Utilities folder.

Repair media storage mount points

- If the Mac experiences a hard reboot (for example a power outage), when the Mac restarts the operating system may mount the media storage incorrectly (for example, `/Volumes/Storage1` instead of `/Volumes/Storage`). In this case the media storage will be inaccessible. To delete an incorrect mount point:

- 1 Go to `System Preferences > Sharing`, and disable all the file services.
- 2 In Finder use `command+shift+G` to navigate to `/Volumes`. In `Volumes/`, find the incorrect mount point folder. It should have the name of the original mount point (for example, `Storage`), but its icon depicts a folder instead of a disk drive.
- 3 Delete the folder.
- 4 Restart the Mac. Restore `System Preferences > Sharing` settings.
- 5 If the media storage is still not available after restart, use the Mac application Disk Utility to repair the media storage disk.

Fix VOLUMEMGT and No Volume errors

If a framestore volume cannot be selected, or if `Error: VOLUMEMGT : Failed to initialize Stone+Wire connection` is thrown:

- 1 Exit the application.
- 2 Open `Applications /Autodesk/<Product>/Utilities/Service Monitor`.
- 3 Restart the *Stone+Wire* service. Wait for the green light.
- 4 Start your application.

Uninstalling the Application

- Run `Applications/Autodesk/<Product>/Utilities/Uninstall`. This leaves directories containing configuration files, project data and user preferences. These may be useful if the application is reinstalled.

Installing Flame on Linux

Installation Overview

To install Flame on a Linux workstation, you will need:

- A workstation that matches the minimum systems requirements of the software to install. The [Flame](#) system requirements are available online.
- The [training installation package](#) for the application to install.
- Root access to your system.

To install the application:

- 1 Install CentOS Linux.
- 2 [Install the DKU](#) (page 16).
- 3 [Install](#) (page 17) the Flame application.
- 4 [Configure the application](#) (page 19), including the [storage for the media cache](#) (page 17), if required.
- 5 Start and test the application to ensure everything went according to plan, using the application shortcut on the KDE desktop of the application's account.

Hardware Validation Tool

The Hardware Validation tool is bundled with the Linux version of the Flame family products. The tool runs a series of checks on the workstation's hardware configuration to make sure the application can run properly, and assigns one of three statuses to each check:

- PASSED
- FAILED
- WARNING

The Hardware Validation Tool includes up to eight tabs, depending on the hardware available:

- **Summary:** Displays the general status of all the different hardware checks. Click the relevant tab for details on the different hardware checks.

The remaining tabs contain details on the checks run in that category, which can be helpful for troubleshooting issues.

- **RPMs**
- **Kernel config**
- **Workstation**
- **Graphic and Tablet**
- **Video I/O**
- **Network**
- **Fiber scsi**

There are three ways to access the Hardware Validation Tool:

- 1 When launching the Flame Family application for the first time, the Hardware Validation Tool is automatically run and displayed on the screen. This **only** happens the first time you run the Flame Family application, **unless** your hardware changes.
- 2 When logged in as a Flame Family User, a Hardware Validation tool icon is displayed on the Desktop as well as inside the Program Bar. You can launch the Tool from either of these locations.
- 3 From the Flame Family Menu (at the bottom right of the screen), by selecting **Help ► Hardware Validation**.

Installing and Configuring CentOS 7.2

Before Installing CentOS 7.2

The following considerations should be taken into account prior to installing CentOS 7.2

- If you want to preserve a workstation's installation of a previous version of the operating system, you must install CentOS 7.2 on a separate drive.
- It is recommended to disconnect all other disks - secondary drives, RAID disks, SAN volumes - before running the CentOS installer we provide.
- Some administrative commands have changed between CentOS 6 and CentOS 7. For a list of common administrative commands equivalencies between CentOS 6 and CentOS 7, see: [Common Administrative Commands](#) (page 13).
- There is an NFS incompatibility between CentOS 6/Red Hat and CentOS 7. Workstations on CentOS 6.2/Red Hat are unable to read data from a CentOS 7.2 workstation via NFS.
- If you use removable storage, it is strongly recommended to add the `nofail` argument to `/etc/fstab`. Without the `nofail` argument, the workstation will not boot if the removable storage is not present.
- The default filesystem format on CentOS 7.2 has changed. It is now XFS.
- If you use a Stornext SAN, you must be on filesystem version 5.3.1, to avoid compatibility issues.
- The Gnome Desktop environment does not work on CentOS 7.2. Flame Family products use the KDE environment by default.
- If using Infiniband on CentOS 7.2, make sure you are using it in Connected mode, as Datagram mode has performance issues. Going forward, this will be the default configuration for Flame Family products. In the Infiniband configuration file, make sure to add: `CONNECTED_MODE=yes`.
- If your `/etc/exports` file contains file paths that are no longer valid, the NFS service will be unable to start. Make sure the file only contains valid file paths.

■ Multipath drivers are supported on CentOS 7.2, however the luns IDs must be reconfigured. To do this:

- 1 From a shell, as root, cd to `/usr/discreet/DKU/current/Utils/Storage/DH_Configurator_v1.12`
- 2 Run `./DH_config.sh -d`.
You are prompted for the drive's IP address. The default values are 10.0.0.2 for Controller A, and 10.0.0.3 for Controller B.
- 3 Enter the IP address of the drive you want to configure (Controller A or B).
- 4 Select Option 9 (Update luns ID) from the list of options.
- 5 Reboot the workstation.

Install and Configure CentOS Linux

Installing CentOS

This procedure assumes that you have obtained an Autodesk supplied DVD CentOS Installation ISO. If you would like to manually create your ISO file for a Flame Family product installation, see: [Manually Creating your CentOS ISO for a Flame Family Product Installation](#) (page 12)

NOTE If your workstation is a HP Z840 and you would like to setup a RAID configuration for the 2 SSD system drives, see [HP Z840 Certified Hardware Setup Guide](#).

- 1 Insert the ISO DVD in your workstation's DVD-ROM.
- 2 Set the PC to boot from either the optical (DVD) drive. Typically when a machine boots up there is a prompt to enter the boot menu. On an HP workstation, press F9. On a DELL, press F12.
- 3 Boot the PC from your new kickstart DVD ISO.
- 4 At the CentOS "Welcome" screen, using the arrows keys, select "Autodesk Flame Premium Workstation" and press `Enter`.

The operating system will be installed along with all of the relevant extra packages provided by Autodesk.

- 5 After the installation, you are prompted to reboot the workstation. Once the workstation restarts the boot sequence, remove the installation media to avoid booting from it again.

Basic Configuration

After booting into your new Linux installation:

- 1 By default the PC system time zone is set to EST. If you want to change it, do so before installing the application.
- 2 Change the default root password. Log into your system as root, using the default password `password`, and in a terminal run the `passwd` command.

Network Configuration

By default, your system's network settings will be configured using static IP settings. You must change the IP addresses to those used by your facility. Additionally, you must set a valid Netmask, hostname, and Gateway IP address. Contact your network administrator for your facility's settings. Alternatively, you can use DHCP.

Manually Creating your CentOS ISO for a Flame Family Product Installation

If you choose not to use the Autodesk supplied DVD/USB drive to install CentOS 7.2, you need to include some extra packages provided by Autodesk, collectively called the *kickstart* (KS) file. After downloading CentOS, you must add the kickstart file to the distribution. You do this by running a script which takes the original CentOS ISO, adds the kickstart, and outputs the new ISO you will use to install Linux. For this you need:

- A Linux PC with the contents of `dist/kickstart/` from the Autodesk distribution. Instructions are in a README file there.
- The *CentOS 7.2 64-bit* ISO file. The version of CentOS we currently support is labelled "1511" on the CentOS website. You must download the "1511" version of CentOS 7.2.
- A DVD burner and blank DVDs.

To create the custom CentOS installation DVD:

- 1 Run `build_kickstart_cd`. This adds the kickstart file to the ISO image of your Linux distribution DVD or first CD. For example:

```
build_kickstart_cd Centos72_kickstart.cfg Centos7.2.iso Centos7.2_KS.iso
```

- 2 Burn the updated ISO image to a DVD. You can use the stock DVD2.
- 3 At the CentOS "Welcome" screen, using the arrows keys, select "Install CentOS" and press the Tab key. This presents the command line with the `vmlinuz` command and some parameters used to install the OS, for example:

```
vmlinuz initrd=initrd.img
```

Append to this command the kickstart parameters `linux ks=cdrom` so that the whole command line looks like:

```
vmlinuz initrd=initrd.img linux inst.ks=cdrom net.ifnames=0
```

Press Enter to begin the installation. You'll be prompted to set some system settings like language and time.

NOTE If the installation hangs it may be because the installer doesn't have an appropriate driver for your video card. Try appending `text` to the `vmlinuz` command:

```
vmlinuz initrd=initrd.img linux ks=cdrom text
```

This runs the installer in non-graphical text-only mode.

- 4 When you are prompted for the installation type, choose "Create Custom layout". This lets you manually initialize the hard disc. Delete the default partition scheme and partition your hard drive according to the following example:

Device	Size (MB)	Mount Point	Type
sda1	500	/boot	xf
sda2	For 2GB RAM, 4GB; for 2-8GB RAM, equal to the RAM; greater than 8GB RAM, at least 4 GB swap.		swap
sda3	Set to "use remaining space".	/	xf

Common Administrative Commands

Basic Configuration	CentOS 6	CentOS 7
Configure Network	<code>system-config-network</code>	<code>nmcli</code> <code>nmtui</code> <code>nm-connection-editor</code>
Jobs & Services	CentOS 6	CentOS 7
List All Services	<code>chkconfig --list</code>	<code>systemctl -at service</code> <code>ls /etc/systemd/system/*.service</code> <code>ls /usr/lib/systemd/system/*.service</code>
List of Running Services	<code>service --status-all</code>	<code>systemctl -t service --state=active</code>
Start/Stop Service	<code>service <name> start</code> <code>service <name> stop</code>	<code>systemctl start <name>.service</code> <code>systemctl stop <name>.service</code>
Enable/Disable Service	<code>chkconfig <name> on</code> <code>chkconfig <name> off</code>	<code>systemctl enable <name>.service</code> <code>systemctl disable <name>.service</code>
View Service Status	<code>service <name> status</code>	<code>systemctl status <name>.service</code>
Check if Service is Enabled	<code>chkconfig <name></code>	<code>systemctl is-enabled <name></code>
Create New Service File or Modify Configuration	<code>chkconfig -add</code>	<code>systemctl daemon reload</code>
View Run Level/Target	<code>runlevel</code> <code>who -r</code>	<code>systemctl get-default</code> <code>who -r</code>
Change Run Level/Target	<code>/etc/inittab</code> <code>init run_level</code>	<code>systemctl isolate <name>.target</code> <code>systemctl set-default</code>
View Logs	<code>/var/log</code>	<code>/var/log</code>

Jobs & Services	CentOS 6	CentOS 7
		journalctl
Kernel, Boot & Hardware	CentOS 6	CentOS 7
Single User/Rescue Mode	append 1 or s or init=/bin/bash to kernel cm- dline	append rd.break or init=/bin/bash to kernel cmdline
Shut Down System	shutdown	systemctl shutdown
Halt System	poweroff	systemctl poweroff
Reboot	system reboot	systemctl reboot
Configure Default Run Level/Target	/etc/inittab	systemctl set-default
Configure GRUB Bootloader	/boot/grub/grub.conf	/etc/default/grub grub2-mkconfig grub-set-default
File System, Volumes & Disks	CentOS 6	CentOS 7
Default File System	ext4	xfs
Create/Modify Disk Partitions	fdisk parted	fdisk gdisk parted ssm create
Format Disk Partition	mkfs.filesystem_type (ext4, xfs) mkswap	mkfs.filesystem_type (ext4, xfs) mkswap ssm create
Mount Storage	mount /etc/fstab	mount /etc/fstab ssm mount
Create Physical Volume	pvcreate	pvcreate ssm create (if backend is lvm)
Create Volume Group	vgcreate	vgcreate ssm create (if backend is lvm)
Create Logical Volume	lvcreate	lvcreate ssm create (if backend is lvm)

File System, Volumes & Disks	CentOS 6	CentOS 7
Enlarge Volumes Formatted with Default File System	vgextend lvextend resize2fs	vgextend lvextend xfs_growfs ssm resize
Shrink Volumes Formatted with Default File System	resize2fs lvreduce vgreduce	XFS cannot currently be shrunk; copy desired data to a smaller file system.
Check/Repair File System	fsck	fsck ssm check
Configure NFS Share	/etc/exports service nfs reload	/etc/exports systemctl reload nfs.service
Networking	CentOS 6	CentOS 7
Configure Firewall	iptables and ip6tables /etc/sysconfig/ip*tables system-config-firewall	firewall-cmd firewall-config
Configure Name Resolution	/etc/hosts /etc/resolv.conf	/etc/hosts /etc/resolv.conf nmcli con mod
Configure Hostname	/etc/sysconfig/network	hostnamectl /etc/hostname nmtui
View Network Interface Info	ip addr ifconfig brctl	ip addr nmcli dev show teamdctl brctl bridge
Configure Network Interface	/etc/sysconfig/network-scripts/ifcfg-*	/etc/sysconfig/network-scripts/ifcfg-* nmcli con [add mod edit] teamdctl nmtui nm-connection-editor
View Ports/Sockets	ss	ss

Networking	CentOS 6	CentOS 7
	lsof netstat	lsof
Resource Mangement	CentOS 6	CentOS 7
View System Usage	top ps sar iostat netstat ss vmstat mpstat numstat tuna	top ps sar iostat ss vmstat mpstat numstat tuna

Installing the DKU on the Linux Workstation

The DKU (Driver and Kernel Utility) updates the operating system. Information about the currently-installed DKU, and about the DKU requirements for various workstations can be found in the text file `/etc/DKUversion`.

You can download the latest DKU from [System Requirements page for your product](#):

- [Flame](#)

TIP For usage, type `INSTALL_DKU --help`.

To install the DKU:

- 1 Extract the contents of the downloaded DKU file: `tar -xvf <DKU_file_name>.tar`.
- 2 Go into the directory where the DKU was extracted, and type the following command to install the DKU: `./INSTALL_DKU`.

NOTE If the workstation is connected to a SAN, you might need to install the multipath version of the ATTO driver. In such a case, run the install script with the multipath switch: `INSTALL_DKU --multipath`.
- 3 When the DKU install is complete, reboot your workstation. If a Wacom tablet or storage devices were disconnected or turned off as part of the OS installation, reconnect and power them up, then reboot with `reboot`.
- 4 If necessary, update firmware using the scripts found in the subdirectories of `/usr/discreet/DKU/current/Utils/`. Each subdirectory contains instructions and scripts for checking your firmware and updating it if necessary.
- 5 Power down and back up: shut down with `/sbin/poweroff`, disconnect the power cord, wait 10 seconds, reconnect the power cord and restart.

NOTE If adding an Infiniband card, DKU installation must be rerun to setup the drivers. After changing the configuration, you must reboot for them to take effect.

Installing the Application on a Linux Workstation

IMPORTANT Training and licensed versions of Flame Family applications cannot coexist on a system. You need to uninstall one type to install the other.

To install the application on a Linux workstation:

- 1 If you need to change your system date or time, do so before installing the application.
- 2 Open a terminal as root from the installation package location.

NOTE To mount a USB device: Attach the device. Log in to the terminal as root and change directory to the USB mount point at `/media/AUTODESK/` and then to the application installation directory.

- 3 Start the application installation by running the installer script. Type:

```
./INSTALL_<PRODUCT>
```

Where `PRODUCT` is the name of the software to install; example: `./INSTALL_FLAME`. The installation script verifies the installation packages and checks your system for previously-installed versions of the application.

TIP To use the command line installer, use the switch `--noui`.

- 4 Overwrite or keep the `xorg.conf` configuration file. This file configures your X11 server which is used by Linux to manage the display. Let the installer overwrite this file, unless you have very specific settings.

If you choose to overwrite the current `xorg.conf`, the installer backs up the original `xorg.conf` in `/etc/X11/`.

- 5 In the Select Media Storage Device screen, do one of the following:
 - If this is the first time you install a Flame family application: Select the device where to create the Media Cache if you have already setup such a device. Or select Skip media storage setup; you will need to set up a Media Cache storage using the steps described later. See [Configure the Media Cache Storage on Linux](#) (page 17).
 - If you have an already configured Media Cache Storage device: The installer automatically detects this storage device, and you do not need to configure any new device. If you do need to configure a new storage device, use the steps described later. See [Configure the Media Cache Storage on Linux](#) (page 17)
- 6 Once the install has finished, logout of the root user, and login with the application user, such as Flame. There is no password.

Starting the Application

To start the application, double-click the application icon on the desktop. To start with a command line option, open a terminal and type: `<application_name> - <option>`. Use the help message to see the list of available startup options (in the terminal, type `lustre --help`, for example). Options are case-sensitive and can be combined. Each option has a short form and a long form. The long form takes two hyphens.

Configure the Media Cache Storage on Linux

It is recommended to store media on a drive other than your system drive, ideally a direct attached storage (DAS) device or a storage area network (SAN). You can store media on the system drive but performance will not be as good, and is not a recommended setup.

NOTE XFS is the recommended filesystem for a storage connected to a Linux workstation, but you can use another filesystem. In addition to implementing POSIX file system semantics, such filesystem must support both hard and symbolic links, 64 bit file sizes and offsets, direct I/O, and timestamps with at least 1 second precision. Finally, directories must support at least 4 billion entries.

Configuring the Media Cache storage:

- 1 Ensure the disk array or SAN storage used for the Media Cache is connected to your workstation and powered up.
- 2 Boot your workstation and log in.
- 3 Open a shell and log in as root.
- 4 Open the Service Monitor. Type:

```
/usr/local/bin/ServiceMonitor
```

- 5 In the Service Monitor, open the Components tab and Stop Stone+Wire. Wait for the Status light to turn red.

NOTE Some other components' status light might change to red: this is normal behavior.

- 6 cd to `/usr/discreet/<product>/bin/`

- 7 Launch the Setup application. For example, for Flame, type:

```
./FlameSetup
```

- 8 In the Media Storage tab, click Add and follow the instructions.

If you need to create mount points for your media cache storage, a procedure below shows you how to do this.

- 9 Once the storage appears in the Media Storage list, click Apply.

The setup application restarts some services.

- 10 Close the Setup application.

- 11 In the Service Monitor, open the Components tab and Start Stone+Wire. Wait for the Status light to turn green.

NOTE Other components' status light should change back to green. If not, Start them.

- 12 Verify that the new media cache storage is available. In the terminal, type:

```
/usr/discreet/sw/sw_df
```

Any project created in your application after this point can now use new media cache storage. Any pre-existing projects are unaffected by this setting and remain associated to their respective partitions.

Creating one or more Media Cache storage directories:

- 1 If a mount point for your storage does not exist, create one, for example: `mkdir /mnt/SAN1`. Mount the filesystem to the newly-created directory. To mount it at boot, update `/etc/fstab`.

IMPORTANT Do not use the reserved word `stonefs` as the name for your mount point directory.

- 2 Create the Managed Media Cache directory on the mounted filesystem, in a directory named after the workstation hostname. The Managed Media Cache directory should be named after the partition name (by default, partition 7, or p7). For example, if the filesystem mount point is `/mnt/SAN1`, your workstation hostname is `adsk0`, and the partition name is `p7`, type: `mkdir -p /mnt/SAN1/adsk0/p7`

- 3 Set the ownership for the directory to the root user. For example: `chown -R root:users /mnt/SAN1/adsk0/p7`. Set permissions for the directory to be readable, writable, and searchable by the owner and its group, and readable and searchable by all. For example: `chmod -R 775 /mnt/SAN1/adsk0/p7`

Configure Flame Family Applications on Linux

The ideal method to configure a Flame family application is to use the Setup utility. To configure an application using the Setup utility:

- 1 Log in the workstation using the application account.
- 2 Open the Setup utility using the shortcut on the desktop. You can also access the Setup utility from the command line: `/usr/discreet/<Product>/bin/<Product>Setup`.
- 3 If more than one version of the Flame family application is installed, you need to select the one to configure from the Application Version drop-down list.
- 4 Discard unsaved changes with Reload.
- 5 Save your changes using Apply.

To edit the parameters directly in the application configuration file, click Manual Edit. Settings are stored in the locations specified in each setting's description.

General

Video Device Leave to `None`. Since the Training edition does not support video device, you do not have to configure this section to use the application.

Audio Device Leave to `ALSA`. Since the Training edition does not support video device, you do not have to configure this section to use the application.

Reserved Application Memory Sets the amount of memory allocated to frame buffers used by modules such as the Player, Action, Input/Output clip. Unless you require specific settings for other applications, set to `Automatic`; the amount of memory is reserved according to the amount of system RAM:

- 32 GB or more: 33 per cent of RAM is allocated to the application.
- Less than 32 GB: 50 per cent of RAM is allocated, up to 4GB, or up to 3GB if less than 11.5 GB RAM.

Sets the `MemoryApplication` keyword in `/usr/discreet/[product_name]/cfg/init.cfg`.

Default Web Browser Sets the web browser used by the application to browse the documentation and to view an archive's HTML tables of contents.

Sets the `DefaultWebBrowser` keyword in `/usr/discreet/[product_name]/cfg/init.cfg`.

Default Shortcut Profile Sets the keyboard shortcut selected by default when creating new user profiles in the application.

Table of Contents Location Sets the path where the online HTML and ASCII tables of contents of archives are saved when archiving.

Sets the `ArchiveLibrary` keyword in `/usr/discreet/[product_name]/cfg/init.cfg`.

Single Screen

NOTE Displayed only if multiple screens are detected on the system.

Restricts the UI of the application to the main display.

UI Magnification

NOTE Displayed only if a high resolution (HiDPI) monitor is detected on the system.

Sets the UI magnification.

Preview

NOTE Since the Training edition does not support broadcast monitors, you do not have to configure this section to use the application.

Vtr

Since the Training edition supports neither VTR output or input, you do not have to configure this section to use the application.

Media Storage

This is the path to where the Media Cache and rendered frames are stored. It is recommended to use a fast drive, and not to use the system drive. To define a new media storage volume, click Add. Click Manual Edit to edit the configuration file in a text editor. Manual edit must be used to delete a storage volume. To Add media cache storage, see [Configure Media Cache Storage](#) (page 17).

Sets the `/usr/discreet/sw/cfg/stone+wire.cfg` file.

ID An index uniquely identifying the storage, assigned by the Setup application at creation time. Ranges from 0 to 7, and is not editable directly.

Name Configures `/usr/discreet/sw/cfg/stone+wire.cfg`. A label to identify the media storage. Required.

Location Path to the media files on your storage device. Do not select the root of a drive as your media storage folder. Create a subfolder to hold all your media files in one place. The recommended folder name is `Autodesk Media Storage/`. Required.

8-bit Integer, 10-bit Integer, 12-bit Integer and 12-bit Packed Integer, 16-bit Float The file formats used when writing frames of those bit depths to the storage. Optional.

Jpeg Compression Can be set from 0 (lowest compression, highest quality) to 100 (highest compression, lowest quality). Optional.

Backburner

Configure background processing manager.

Manager Hostname The network name of the workstation running the Backburner Manager. In a standalone setup, use the default setting, `localhost`.

In a Burn environment, enter the name of the workstation running Backburner Manager. Selects the Backburner Manager used by the application.

Xorg.conf

Configures the `/etc/X11/xorg.conf` file. Changes to the `xorg.conf` file require you to restart the X server. Save your work before restarting the X server since it is the same as logging out of your session, but without any warning.

Log out from the account to restart the X server and apply the changes.

NOTE Do not use the NVidia application to manage your displays: this might interfere with the Setup utility and the Wacom tablet setup.

Screen Selection Sets the profile to use with connected screens. If the connected screens do not match, select the Screen Default profiles.

TwinView Activates both screens when enabled.

Primary Monitor Sets which screen displays the splash screen, dialog boxes, and main viewer area (the Primary monitor). The other monitor displays the Media Panel.

Monitor Order Swap when the monitors' positions are inverted: when, for example, the cursor must go through the right-hand edge of the screen on the right to access the screen on the left.

Uninstall

- 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, choose **Autodesk ► Remove Software**.
- 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 the arrow to move them to the RPM uninstall list on the right then click Next.
- 4 In the Choose folders window choose the application directories you want to remove from the `/usr/discreet` directory, and click Next.
- 5 In the confirmation dialog click Uninstall & Remove. The uninstallation starts and displays details on the process.
- 6 Optional: Delete the log files associated with a given application version in `/usr/discreet/log`, or `/var/log/` for Flame.

