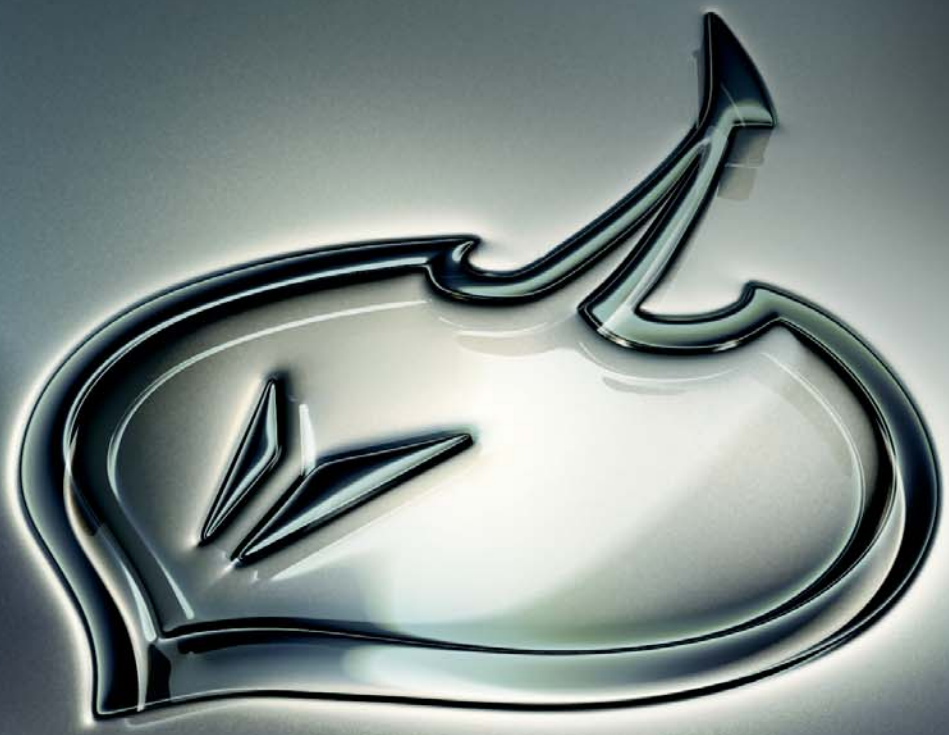
Autodesk®
Flare™ 2011

Creative companion to Autodesk® Flame® and Autodesk® Inferno® software

Installation and Configuration Guide



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Autodesk® Visual Effects and Finishing 2011

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Contents

Introduction 1

Topics in this chapter:

About This Guide

Welcome to the Autodesk® Flare™ 2011 Installation and Configuration Guide.

This guide provides information about installing and configuring the current release of Autodesk Flare.

Notation Conventions

A number of style conventions are used throughout your documentation. 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. Press the Enter key after each command.	**`install rpm -qa`**
Variable names appear in Courier, enclosed in angle brackets.	`<filename>`
Feedback from the command line or shell appears in Courier.	`limit coredumpsize`

Convention	Example
Directory names, filenames, URLs, and command line utilities appear in italics.	*/usr/discreet*

Related Documentation

Documentation for this release is installed with the product as PDF files and as an HTML help system, and is also available on the Autodesk web site at *http://www.autodesk.com/me-documentation*. From this page you can access the complete documentation library.

You should also refer to the product release notes for all late-breaking release information.

Contacting Customer Support

For Autodesk Media and Entertainment Customer Support, visit *http://www.autodesk.com/support*.

Customer support is also available through your Autodesk reseller. To find a reseller near you, consult the reseller look-up database at *http://www.autodesk.com/resellers*.

NOTE Before calling Autodesk Customer Support, run the *platforminfo* utility to gather important information on your system.

To obtain system information:

1. Open a terminal and log in as root.
2. Type:
   `platforminfo`
   The output looks similar to the following:
   ```
   Workstation: -[622433U]- wildhorse Rev1
   CPU: AMD Opteron(tm) Processor 248, 1 active CPU(s)
   RAM: 1002 Meg of RAM
   Graphics: Quadro FX 3000 Driver: 169.12
   OS: CentOS release 5.2 (Final) - 64bit OS
   Kernel: 2.6.18-92.el5
   Config:
   ```
3. Send this information to Autodesk Customer Support.

Installation Workflows 2

Topics in this chapter:

Upgrading an Existing Flare Workstation

Follow this workflow to upgrade Flare to a new version, service pack, or extension without reinstalling or reconfiguring your Linux® operating system.

To upgrade the Flare software:

1. Consult the Autodesk Flare System Requirements Web page at *www.autodesk.com/flare-systemrequirements* and make sure your hardware, Linux operating system version and device driver versions meet the requirements for the current release of Autodesk Flare.

   We also strongly recommend reading the Release Notes and Fixed and Known Bugs List for the version you are about to install. Download links for these documents are provided in the Release Announcement you received from Autodesk.

2. If you did not obtain your copy of Autodesk Flare on DVD, download the Flare installation package from Autodesk. Major releases are distributed on DVD. For extensions and service packs, the installation package is available only for download as a compressed *tar* file.

   You can retrieve the download link from the Release Announcement you received from Autodesk.

   TIP After downloading the *tar* file, verify its integrity using the Linux md5 checksum provided. In the directory where you saved the *tar* file and the checksum file, type **`md5sum`** `<filename.tar.gz>`, and make sure the checksum displayed matches the Linux md5sum listed in the checksum file.

3 Consult the Flare System Requirements Web page to download updated versions of the NVIDIA® display driver, ALSA audio driver, and Wacom® Intuos® pen tablet driver, if required for your version of Flare. For any other drivers your hardware might require, contact your Linux or hardware vendors.

4 Verify your system configuration before installing Flare. See Verifying your Operating System Environment on page 15.

5 Install the Flare software. See Installing the Application on page 16.

NOTE If you plan to use Flare in a remote connection workflow with Autodesk® Flame® or Autodesk® Inferno®, make sure to upgrade the Flame or Inferno workstation to the same software version as Flare. See the *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for details about upgrading Flame or Inferno software.

6 If you have local projects on your Flare workstation, run the *copyProjects* utility to copy projects from previous versions of the application to the most recently installed version. See Upgrading Projects to the Current Version on page 27. If you do not have any local projects on your Flare workstation, and are opening projects remotely from an Autodesk Inferno or Autodesk Flame workstation, run the *copyProjects* script on the Flame or Inferno workstation after updating the Flame or Inferno application to the same version as Flare.

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

7 License your software, and start it for the first time. See Licensing and Starting Flare on page 29.

NOTE Re-licensing is not necessary if you are upgrading to a service pack of the same software version or to a service pack of the same extension.

8 Optional: Uninstall previous versions of Flare from the workstation, if you no longer need them. See Uninstalling the Application on page 35.

9 Read the Help to get familiar with your application. To open the Help, press **Ctrl+=** or click the Help button.

Installing Flare from Scratch

Follow this workflow to install Flare from scratch on a new workstation. This includes installing one of the required distributions of Linux, configuring operating system settings, installing drivers, and installing and configuring the Flare software.

NOTE Some of the preliminary steps in this workflow must be performed from a computer connected to the Internet.

To install Flare from scratch:

1 Consult the Autodesk Flare System Requirements Web page at *www.autodesk.com/flare-systemrequirements* for information on the required hardware, Linux distributions, as well as essential device driver versions for the current release of Autodesk Flare.

2 Decide which of the two supported Linux distributions to use for your Flare workstation:

- **Red Hat Enterprise Linux** is a commercial Linux® distribution, which requires a subscription fee. Red Hat® offers several types of enterprise-class support, along with training, documentation and consulting. This distribution is recommended for most users, especially if you need assistance with Linux system administration and configuration. For more information, visit *www.redhat.com*.

- **CentOS** is a free enterprise-class Linux distribution derived from the Red Hat Enterprise Linux sources. It is built and maintained by the online community. Unofficial support and documentation is freely available online, through mailing lists and discussion groups. Use this distribution if you are an experienced Linux user and do not need support with Linux system administration and configuration. For more information on CentOS visit *www.centos.org*.

NOTE Autodesk Customer Support does not provide Linux system administration and configuration support.

3 Obtain the required version of Red Hat Enterprise Linux or CentOS through one of the following methods:

- Register at *www.redhat.com*, and purchase a Subscription for Red Hat Enterprise Linux Desktop (Select one of the "Workstation" subscription options). See the Red Hat Web site for details.
- Download CentOS for free from *www.centos.org*.

4 Consult the Autodesk Flare System Requirements Web page to download the required version of the NVIDIA display driver, ALSA audio driver, and Wacom® Intuos® pen tablet driver.

5 If necessary, download any other 64-bit Linux hardware drivers for your workstation. Refer to your third party hardware documentation for details.

NOTE Make sure any drivers you download are compatible with the Linux distribution you are using on the Flare workstation.

6 If you did not obtain your copy of Autodesk Flare on DVD, download the Flare installation package from Autodesk. Major releases are distributed on DVD. For extensions and service packs, the installation package is available only for download as a compressed *tar* file.

You can retrieve the download link from the Release Announcement you received from Autodesk.

TIP After downloading the *tar* file, verify its integrity using the Linux md5 checksum provided. In the directory where you saved the *tar* file and the checksum file, type **`md5sum`** `<filename.tar.gz>`, and make sure the checksum displayed matches the Linux md5sum listed in the checksum file.

7 Copy all the drivers you downloaded, and the downloaded Flare installation *tar* file if applicable, to a removable medium such as a USB thumb drive or a CD.

8 Add the Autodesk kickstart file to the DVD or the first CD of your Linux distribution. This file is necessary for the Linux installer to install some packages required by Flare. See Preparing your Linux Installation Disc on page 7.

9 Power on your workstation and install Linux. See Linux Installation Workflow on page 8.

10 Configure your operating system and install any necessary drivers. See Linux Post-Installation Tasks on page 9.

11 Verify your system configuration before installing Flare. See Verifying your Operating System Environment on page 15.

12 Install the Flare software. See Installing the Application on page 16.

NOTE If you plan to use Flare in a remote connection workflow with Autodesk® Flame® or Autodesk® Inferno®, make sure the version of the Flare you are installing is the same as the version of the Flame or Inferno application you plan to use Flare with. See the *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for details about upgrading Flame or Inferno software.

13 After the software has installed, configure it to access the media storage. See Configuring Media Storage on page 19.

14 License your software, and start it for the first time. See Licensing and Starting Flare on page 29.

15 Read the Help to get familiar with your application. To open the Help, press **Ctrl+=** or click the Help button.

Installing Red Hat Enterprise Linux or CentOS

3

Topics in this chapter:

Do I Need to Reinstall Linux?

Consult the Autodesk Flare System Requirements Web page at *www.autodesk.com/flare-systemrequirements* for information on the Linux operating system version required for your hardware platform for Flare 2011.

To determine the version of Red Hat Enterprise Linux or CentOS your system is currently running, open a terminal and type:

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

The Linux version appears. For example:

```
Red Hat Enterprise Linux Client release 5.3 (Tikanga)
```

If your system is not currently running the correct version of Red Hat Enterprise Linux or CentOS, obtain and install the required version of the operating system.

Preparing your Linux Installation Disc

Before installing Linux, you must add the Autodesk kickstart file to the DVD or first CD of your Linux distribution. This file is necessary for the Linux installer to install some packages required by Flare.

This section describes how to create a new DVD or first CD for your Red Hat Enterprise Linux or CentOS distribution so that it contains the required Autodesk kickstart file.

To copy the Autodesk kickstart file to the DVD or first CD of your Linux distribution:

1. On a computer running Linux and with a CD or DVD burner, log in as root.
2. Insert the DVD or first CD of your Linux distribution into the drive. You do not need to mount it at this time.

   NOTE If you downloaded your Linux distribution as an *iso* image, skip to step 5.

3. In a terminal, extract an ISO image of the disc by typing:

   dd if=/dev/<CD/DVD device> **of=/**<destination path for the extracted ISO image>

   For example:

   dd if=/dev/cdrom of=/tmp/Redhat5.iso

4. Eject the disc.
5. Access the *dist/kickstart* subdirectory of your Flare installation package.

   The directory contains a kickstart file, *ks_centos5_rh5.cfg*, as well as a script that adds the kickstart file to an ISO image.

6. Run the *build_kickstart_cd* script to add the kickstart file to the ISO image of your Linux distribution DVD or first CD:

   ./build_kickstart_cd ks_centos5_rh5.cfg <original ISO image name> <new ISO image name>

   For example:

   ./build_kickstart_cd ks_centos5_rh5.cfg /tmp/Redhat5.iso /tmp/Redhat5_KS.iso

7. Burn the new ISO image to a blank disc using a tool such as **cdrecord**. For example:

   cdrecord -v speed=2 dev=0,4,0 /tmp/Redhat5_KS.iso

   NOTE The dev value depends on your hardware configuration. Type **cdrecord -scanbus** to determine the address of your CD or DVD writer.

8. Use the new disc as the DVD or first CD of the Red Hat Linux or CentOS distribution you plan to install on the workstation.

Linux Installation Workflow

Perform the following procedure to prepare your system and perform a fresh install of Red Hat Enterprise Linux or of CentOS.

To install Linux:

1. Make sure your system is in the following state:
   - Mouse, keyboard and graphics monitor are connected, and the graphics monitor is powered on.
   - The DVD or CDROM drive is set as the primary boot device in the workstation BIOS.
     For information on configuring your workstation BIOS, refer to the documentation for your hardware.

2 Insert the disc of the Red Hat Enterprise Linux distribution, or of the CentOS distribution. This is the disc you added the Autodesk kickstart file to in the previous procedure.

3 Restart the system.

The system should boot to the Linux installation disc. If it does not, review your BIOS settings to make sure the DVD / CDROM drive is set as the primary boot device.

4 At the boot prompt in the Red Hat Linux or CentOS installation menu, type **`linux ks=cdrom`** and then press **Enter** to launch the Linux installation.

WARNING You must use this exact command to start the Linux installation. If you use the default options presented by the Linux installation prompt, the installation proceeds, but the Autodesk kickstart file is not read by the installer, and some important packages required by Autodesk software are not installed.

The command launches the Linux installation. The system spends several minutes loading drivers. The installer guides you through the rest of the process.

NOTE If you experience problems with the graphical Linux installer, reboot your computer and run the installer in low resolution VESA mode by typing **`linux ks=cdrom xdriver=vesa`**. If you still experience problems, reboot again and start the installer in text-only mode by typing **`linux ks=cdrom text`** at the Linux installation prompt.

5 If you are installing Red Hat Linux, enter your installation number when the Linux installer prompts you to. The number should be included in the package you received from Red Hat, or in your account profile on the Red Hat Web site.

WARNING Do not skip entering the installation number at this point. If you do not enter the installation number, the installation proceeds, but some important packages required by Flare are not installed by the Red Hat installer.

6 The installation process may ask you to initialize the system disk. Follow the prompts to initialize the disk, if necessary.

NOTE Autodesk recommends the following approach when partitioning your system disk: remove all existing partitions, then manually create a */boot* partition of at least 100MB, a Linux swap partition of 2048MB, and use the rest of the drive for the root partition /. Set the root partition to be a primary partition.

7 Insert the remaining Linux distribution discs if prompted.

8 The remainder of the installation process is automated.

When the installation completes, you are prompted with “Congratulations, the installation is complete”.

9 Eject the disc and click Reboot to reboot the system. After the system reboots, perform the post-installation tasks in the following section.

Linux Post-Installation Tasks

After booting into your new Linux installation, perform the following post-installation tasks:

1 If you installed Red Hat Enterprise Linux, perform the following steps in the Setup Agent to register with Red Hat:

- Create a Red Hat login (or sign in with your existing one).
- Connect your workstation to the Red Hat Network.

NOTE If you do not yet have a network connection, you can complete the registration process later by going to *http://www.redhat.com/register/*.

For more information on activating your Red Hat subscription, refer to the *Red Hat Enterprise Linux 5 Installation Guide* available at *http://www.redhat.com*.

2 Change the default root password to secure the system.

- Log into your system as *root*, using the default password *password*.
- Open a terminal and type:
  passwd
- Enter your current password when prompted, and then enter the new password.

3 Disable Operating System updates. See Disabling Operating System Updates on page 10.

4 Install any necessary hardware drivers for your workstation. See Installing Required Hardware Drivers on page 11.

5 Configure the time zone for your geographic location. The automated Autodesk installation sets the time zone to North American Eastern Standard Time (EST) by default.

- Log into the Linux Desktop as root.
- Right-click the clock, and select Configure Clock from the context menu.
- Click the Timezones tab, and select the city closest to you from the list of locations.
- Click Apply to save the new settings, and then click OK to close the window.

6 Configure the network settings for your system to match the ones used in your facility. The automated Linux installation sets a default IP address and hostname for your system, which may not be suitable for your facility network. Consult the Red Hat or CentOS documentation to configure these settings.

7 Optional: Install the 32-bit Java™ Runtime Environment (JRE). Java is required for Autodesk Customer Support to be able to connect to your workstation when necessary. See Installing the Java Runtime Environment on page 12.

8 Optional: If you plan to install Autodesk® Maya® on the Flare workstation, install the *mesa-libGLw* package, that is not installed by default with your operating system. In a terminal, as root, type:

```
yum install mesa-libGLw
```

Disabling Operating System Updates

Operating system updates on Flare workstations may interfere with the correct functionality of the application. It is therefore strongly recommended to disable automatic updates, and to refuse any package upgrades offered by the operating system.

To disable automatic updates on Red Hat Linux and CentOS:

1 Open a terminal and log in as root.

2 On Red Hat Linux workstations, turn off the automatic updates services by typing:

```
chkconfig rhnsd off
chkconfig yum-updatesd off
/etc/init.d/rhnsd stop
/etc/init.d/yum-updatesd stop
```

Automatic updates are now off.

3 On CentOS workstations, turn off the automatic updates service by typing:

```
chkconfig yum-updatesd off
/etc/init.d/yum-updatesd stop
```

Automatic updates are now off.

Installing Required Hardware Drivers

After the Linux operating system is installed, perform the following procedure to install the required device drivers for your hardware.

NOTE Always consult the Autodesk Flare System Requirements Web page at *www.autodesk.com/flare-systemrequirements* for details about the essential hardware drivers for Flare. Download links for these drivers are gathered on the Flare System Requirements Web for convenience purposes and have been qualified as operating correctly with Flare.

To install hardware drivers:

1 If you downloaded the required drivers to a removable medium as suggested in the previous chapter, insert and mount this medium onto the workstation now.

Refer to your Linux documentation for information on mounting a DVD/CD or a USB thumb drive.

If you did not download the required drivers yet, do so now by consulting the Autodesk Flare System Requirements Web page at *www.autodesk.com/flare-systemrequirements*.

2 Switch to text mode to install the drivers. Open a terminal and type:

```
init 3
```

The graphical environment shuts down, and Linux runs in text-only mode.

3 Install the NVIDIA graphics driver:

- Back up your X server configuration file */etc/X11/xorg.conf*. Type:
  cp /etc/X11/xorg.conf /etc/X11/xorg.conf.backup
- Access the medium or directory where the driver installer was downloaded, and run the installer by typing:
  sh <installer_file>
  Where <installer_file> is the *.run* driver installer file you downloaded from NVIDIA.
- Read and accept the license agreement.
- Accept the default answers to ALL the other questions asked by the installation script.

WARNING Be careful to answer **NO** (the default answer) at the end of the install process when you are asked if you wish to update the *xorg.conf* file. Answering *Yes* by mistake results in undesirable changes to the *xorg.conf* file. These changes will prevent Flare from running properly. If you answered Yes by mistake, restore the original *xorg.conf* file from the backup you created before installing the driver. Type:
cp /etc/X11/xorg.conf.backup /etc/X11/xorg.conf

4 Optional: If your Flare workstation is running Red Hat Enterprise Linux 5.2, or CentOS 5.2 and you require audio, perform the following tasks to update the ALSA sound driver. You do not need to perform thse tasks if your workstation is running version 5.3 of the Linux operating system.

- Access the medium or directory where the driver installer was downloaded.

- Uninstall the existing version of the driver. Type:
  rpm -e --allmatches --nodeps alsa-lib-1.0.14-1.rc4.el5
- Install the new driver version. Type:

rpm -ivh alsa-lib-1.0.17-1.el5.x86_64.rpm

NOTE Refer to the README file included in the ALSA driver *tar* file for additional details.

5 Optional: If you plan to use a Wacom pen tablet with Flare, update the Wacom tablet driver.

Refer to the documentation on the Linux Wacom project Web site for instructions on compiling and installing the pen tablet driver on Red Hat Enterprise Linux 5 or CentOS 5: *http://linuxwacom.sourceforge.net/index.php/howto/debwacomnosrc*.

6 Install any other third party drivers required by your hardware. Consult your third party hardware documentation for details.

7 Restart your workstation by typing:

reboot

Installing the Java Runtime Environment

Perform the following procedure to download and install the 32-bit version of the Java Runtime Environment on your workstation, including the Java plug-in for Mozilla® Firefox®. The Java plug-in is required for Autodesk Customer Support to be able to remotely log into your workstation if necessary.

To install the Java Runtime Environment:

1 Open a terminal and log in as root.

2 Download the Java Runtime Environment package to a temporary directory. Type:

wget http://javadl.sun.com/webapps/download/AutoDL?BundleId=29210 -O jre-6u13-linux-i586-rpm.bin

3 Install the Java Runtime Environment:

sh jre-6u13-linux-i586-rpm.bin

4 Install the Java plug-in for the Firefox browser:

ln -s /usr/java/jre1.6.0_13/lib/i386/libnpjp2.so /usr/lib/mozilla/plugins/

5 Back up the Firefox start script:

cp /usr/bin/firefox /usr/bin/firefox.x86_64

6 Rename the Firefox start script as follows:

mv /usr/bin/firefox /usr/bin/firefox.i386

7 Open the Firefox start script */usr/bin/firefox /usr/bin/firefox.i386* in a text editor and change the line `MOZ_ARCH=$(uname -m)` to `MOZ_ARCH="i686"`.

8 Save the edited Firefox start script.

9 Set the 32-bit and 64-bit Firefox start scripts as alternatives. This operation will make it easy to choose which version of Firefox to start. Type:

alternatives --install /usr/bin/firefox firefox /usr/bin/firefox.i386 1

alternatives --install /usr/bin/firefox firefox /usr/bin/firefox.x86_64 2

10 Configure the default version of Firefox. Type:

```
alternatives --config firefox
```

11 Type **1**, then press **Enter**.

12 Change permissions on the Firefox symbolic link. Type:

```
chmod 777 /usr/bin/firefox
```

13 Test the Java plug-in by pointing Firefox to *http://java.com/en/download/help/testvm.xml*. The Web page informs you that JRE is installed and running correctly on your system.

Installing the Application 4

Topics in this chapter:

Verifying your Operating System Environment

Before installing Flare, perform the following tests to verify that important drivers and devices work properly in your Linux installation.

To verify your Linux system before installing Flare:

1. Confirm that you can use Linux in graphical mode at a resolution of 1900 by 1200 pixels.
2. Open a terminal and log in as root.
3. Confirm that the proper version of Linux is installed. Type:
   `cat /etc/redhat-release`
   The Linux version output by the command must match one of the required operating system versions listed on the Autodesk Flare System Requirements Web page, at *www.autodesk.com/flare-systemrequirements*.
4. Test that the workstation has network access by pinging another machine in your network, for example:
   `ping 192.168.0.1`
   If the network works properly, the command should output multiple lines similar to the following:
   ```
   64 bytes from 192.186.0.1: icmp_seq=0 ttl=64 time=0.100 ms
   64 bytes from 192.186.0.1: icmp_seq=1 ttl=64 time=0.080 ms
   ```
5. If you are using a Wacom pen tablet, test that the tablet driver works properly, by typing:
   `wacdump /dev/input/wacom`

The command should display a number of parameters for the Wacom tablet. As you move the stylus on the tablet, various parameters, such as `POS_X` and `POS_Y` should change.

6 If you plan to use audio in Flare, test that the ALSA sound driver works properly:

- Connect a pair of speakers or headphones to the audio output connector of your sound card.
- Type **`alsamixer`**, unmute all sound channels, and set their volume to maximum.
- Press **Esc** to quit **`alsamixer`**.
- Type the following command to list the available sound devices:
  `aplay -l`
  The command should output the sound cards and devices it detects on your system. For example:

```
**** List of PLAYBACK Hardware Devices ****
card 1: Intel [HDA Intel], device 0: AD198x Analog [AD198x Analog]
Subdevices: 1/1
Subdevice #0: subdevice #0
card 1: Intel [HDA Intel], device 1: AD198x Digital [AD198x Digital]
Subdevices: 1/1
Subdevice #0: subdevice #0
```

- Type the following command to test the sound on one of the sound cards listed by the previous command:
  `speaker-test -D"plughw:``<card>,<device>`**`" -c2 -twav`**
  Where `<card>` represents the card number, and `<device>` represents the device number, as listed in the output of the previous command. For example:
  `speaker-test -D"plughw:1,0" -c2 -twav`

  NOTE If your workstation has several sound cards, make sure you test the one you have plugged your speakers into.

  If the sound system works properly, you hear a voice in the speakers or headphones, and the command output contains several lines similar to the following:

```
0 - Front Left
1 - Front Right
Time per period = 2.730375
0 - Front Left
1 - Front Right
Time per period = 2.986758
```

7 If any of the above tests fail, contact your hardware vendor, or your Linux vendor for assistance.

NOTE Autodesk Customer Support does not provide support with Linux administration and configuration.

8 If all tests are successful, you are ready to install Autodesk Flare.

Installing the Application

Use the following procedure to install or upgrade your application.

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

To install the application:

1. Log in to your workstation as root and open a terminal.
2. If you need to change your system date or time, do it **before** installing the application.
3. Unpack the downloaded application *tar* file to a temporary directory:

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

   The file is uncompressed and an installation directory is created on your system.
4. Go to the application installation directory.
5. Run the Flare pre-installation script by typing:

   `./INSTALL_FIRST`

   This script configures some required system settings for the application.
6. Start the application installation script by typing:

   `./INSTALL_FLARE`

   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.
7. If you are upgrading from a previous version of the application, earlier versions are detected and the installer asks you to select one of those versions. Do one of the following:
   - Click None if you would like a clean installation of the application.
   - Click one of the previous versions if you want to copy its custom resource and setup directories to the new version.
8. The installation script asks you if you want to create an application user:
   - Answer Yes if you want to create a Linux user account for the application, or No if you want to run the application with an existing user account.
   - If you answered No, a list of all the existing users in the system is displayed. Select the users accounts you plan to use the application with.

     TIP You can use **CTRL+click** to select multiple entries.

     The application icon is placed on the Linux Desktop of the selected users.
9. When prompted to configure the software initialisation file (*init.cfg*), click OK.

   The software initialisation file contains general settings the application reads on startup.
   - 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, the old (previous) and new *init.cfg* files appear beside each other in an *xxdiff* window. The left panel displays the old *init.cfg* file. The right panel displays the new *init.cfg* that is installed with your application. The vertical bar on the right side indicates where differences exist between the two panels.

   The default keyword values in this file are appropriate in most cases. If you need to change some of the settings, scroll through the file and modify keyword values as necessary.
10. To modify the *init.cfg* file, do one of the following:
    - If the file opened in a text editor, edit the values as needed, then save and exit the *init.cfg* file.

- If you are in *xxdiff*, each difference between the old and the new *init.cfg* files is highlighted. Click the correct value for each keyword, regardless of whether it is in the left or right panel. Make sure you select a value for each highlighted difference. Then open the File menu and choose Save as Right. After the file is saved, close *xxdiff*.

11 If any changes are detected in the */etc/X11/xorg.conf* file, you are prompted to configure this file:

- To keep the old configuration settings, when the file appears in the *xxdiff* editor, in the Global menu, choose Select Left, and then, in the File menu, choose Save as Right. If prompted to overwrite, click OK.
- To use the new configuration file without adding the settings from the old configuration file, just close the program.

12 If you modified the *xorg.conf* file, you receive a message to restart the X server. When the installation script completes, log out of the Linux desktop and then log in again to restart the X server.

NOTE By default, Backburner™ Server and Backburner Manager are set to automatically run on the workstation. The manager for the local Backburner Server is set to *localhost*. You can reconfigure these services after the application is installed. See Configuring Backburner Services for instructions.

---

13 When the installer asks which documentation set to install, select either Flame or Inferno.

The application, as well as additional components (WiretapCentral™, Wiretap® Gateway, Backburner Server, Backburner Manager, Backburner Media I/O Adapter) are installed on your workstation.

14 Prior to licensing and starting the application for the first time, perform the post-installation procedures necessary for your system. See Post Installation Tasks on page 19.

NOTE If you plan to use Flare in a remote connection workflow with Autodesk® Flame® or Autodesk® Inferno®, make sure to upgrade the Flame or Inferno workstation to the same software version as Flare, before starting the application. See the *Autodesk Visual Effects and Finishing Installation and Configuration Guide* for details about upgrading Flame or Inferno software.

Post Installation Tasks 5

Topics in this chapter:

Do I Need to Perform These Tasks?

If you installed your application from scratch, perform the procedures in this chapter to configure your application to access the media storage.

If you are upgrading an existing application, you have already performed most of the procedures in this chapter during the original installation. You do not need to repeat these procedures, unless you are adding new media storage devices to your workstation.

The only task you might need to perform when upgrading from a previous version is to transfer your local projects and clip libraries (if any) to the new version. See Upgrading Projects to the Current Version on page 27.

NOTE If you do not have any local projects on your Flare workstation, and are opening projects remotely from an Inferno or Flame workstation, run the *copyProjects* script on the Flame or Inferno workstation after updating the Flame or Inferno application to the same version as Flare.

Configuring Media Storage

You can use your application with the following storage configurations:

- Remote connection to the existing storage of an Autodesk Inferno or Autodesk Flame workstation in your facility. See Connecting Remotely to the Storage of a Flame or Inferno Workstation on page 20 for important guidelines on preparing your Flame or Inferno storage for remote connections.

- A standard UNIX-compatible filesystem on a centralised SAN in your facility. See Configuring a Direct Attached Storage or SAN as Media Storage on page 24.
- A standard UNIX-compatible filesystem on a direct attached storage (DAS) device. See Configuring a Direct Attached Storage or SAN as Media Storage on page 24.

Connecting Remotely to the Storage of a Flame or Inferno Workstation

The XR-series Stone® Direct storage arrays of Flame and Inferno workstations are tuned for the high performance I/O needs of a local creative application. Stone Direct storage can also provide a basic level of interactivity for remote Flare workstations when performing light to medium I/O tasks, such as working with Batch setups to perform operations like tracking and retouching.

When correctly configured, remote Flare workstations can effectively leverage any unused bandwidth without impairing the Flame or Inferno creative workflow.

Stone FS and standard filesystems connected to a Flame or Inferno workstation perform differently in shared workflows. Both will perform adequately for remote Flare activity with light I/O requirements.

The Stone FS filesystem incorporates a bandwidth reservation service that protects the Flame and Inferno Player and Input/Output clip module from losing bandwidth, but is not capable of providing protection for general interactivity when the storage is stressed by high-bandwidth remote operations, such as playback, Wire® transfers, or import/export.

It is therefore recommended to use a standard filesystem for the Flame or Inferno workstation to which Flare remotely connects. The advanced standard filesystem Bandwidth Manager (automatically installed with Visual Effects and Finishing applications) manages I/O requests to your storage, and provides greater protection in all Flame or Inferno workflows.

Note that even when the standard filesystem Bandwidth Manager is managing I/O requests, factors such as I/O operations from third-party applications, filesystem fragmentation, partition fill rate, concurrent reading/writing, and mixed I/O sizes can still decrease the performance of your storage. Periodic filesystem maintenance and workflow changes may be required to achieve optimal performance.

Moreover, if you expect to use Flare for very I/O-intensive tasks, it is recommended to design a storage and networking solution accordingly. Regardless of the effectiveness of the Bandwidth Manager, the direct attached storage of Visual Effects and Finishing applications (running either Stone FS or a standard filesystem) was not designed to provide the functionality and performance of a high-end SAN storage device.

Configuring Bandwidth Reservation

This section provides guidelines for configuring the standard filesystem Bandwidth Manager on the Flame or Inferno workstation to have storage bandwidth adequately distributed between the local application and the remote Flare workstations.

Stone and Wire provides a mechanism to reserve storage bandwidth for Visual Effects and Finishing applications and tools that use a local mount point to a standard filesystem (DAS or SAN) as their media storage. This ensures that the local application gets the bandwidth it requires and that real-time playback on the local system is not jeopardized by requests from concurrent processes, including access from remote hosts, such as Flare workstations.

NOTE Bandwidth reservation policies apply only to I/O requests from Visual Effects and Finishing applications and tools. They cannot protect your storage bandwidth from I/O requests coming from third-party processes or user interactions. It is your responsibility to avoid using third-party tools with the frame storage..

Bandwidth requests are managed by the Stone and Wire Bandwidth Manager, based on the parameters in the */usr/discreet/sw/cfg/sw_bwmgr.cfg* configuration file.

When Stone and Wire starts up, the Bandwidth Manager automatically creates a `[Device]` section in the configuration file for each partition declared in */usr/discreet/sw/cfg/stone+wire.cfg*. The Manager sets total theoretical read and write bandwidth values for each device, as well as the default reservation values.

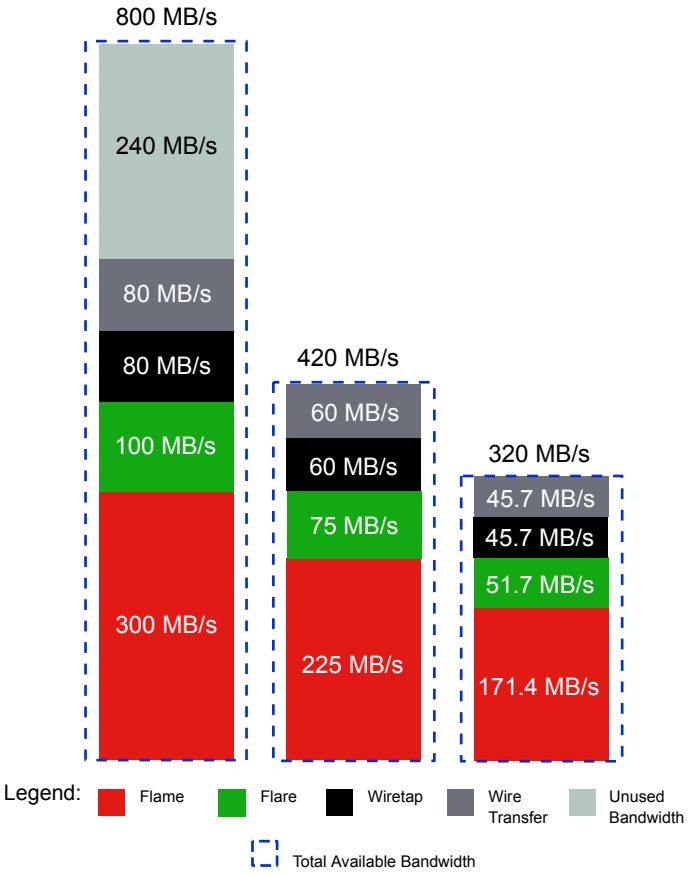
Reserving Bandwidth for an Application

You may define a bandwidth reservation for each Visual Effects and Finishing application or tool that uses a certain partition. By default, a group reservation for the major Visual Effects and Finishing applications (Inferno®, Flame®, Flint®, Smoke®, and Backdraft® Conform) running locally is already defined.

When Flare connects remotely to an Inferno or Flame storage, it is identified by the application name, the workstation host name, as well as the user name under which the application is executed. You can use any or all of these parameters to create detailed bandwidth reservation rules in the Bandwidth Manager configuration file on the Flame or Inferno workstation.

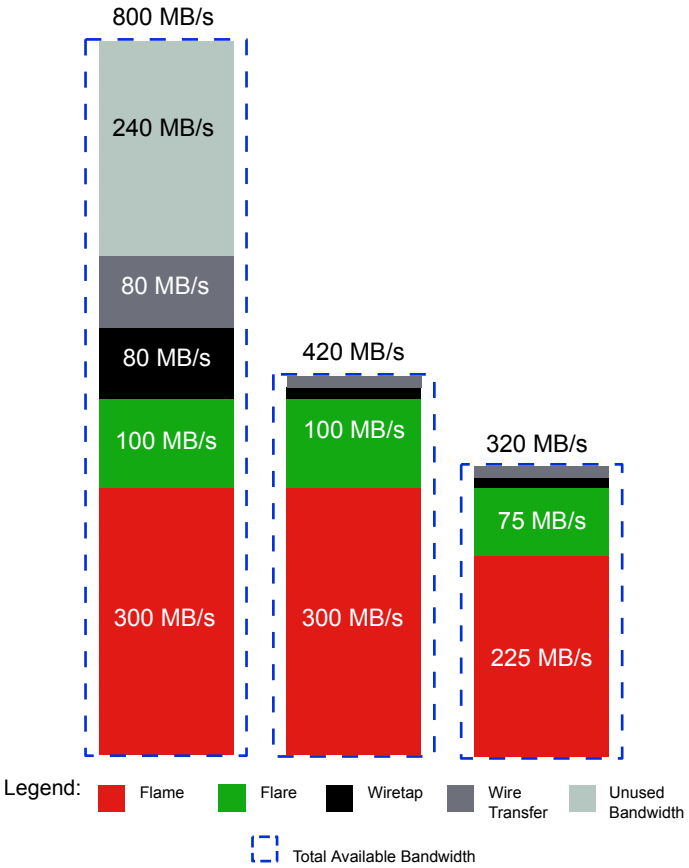
You can also customize the way bandwidth is redistributed in low bandwidth situations. In low bandwidth situations, instead of reducing all reservations proportionally towards zero, the bandwidth manager first reduces the bandwidth of each process towards the low-bandwidth value specified for that process,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

In the following example, low-bandwidth values are not specified in the Bandwidth Manager configuration file. The diagram illustrates the way the Bandwidth Manger redistributes device bandwidth in such a case, as the total available bandwidth decreases from 800 MB/s to 420 MB/s and then to 320 MB/s. Note how bandwidth is proportionally reduced for all processes.



In the following example, low-bandwidth values are configured for each process (300 MB/s for Flame, 100 MB/s for Flare, 10 MB/s for Wiretap and 10 MB/s for Wire). The diagram illustrates the way the Bandwidth Manger redistributes device bandwidth as the total available bandwidth decreases from 800 MB/s to 420 MB/s and then to 320 MB/s.

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



Perform the steps in the procedure below to set up an optimal bandwidth reservation for the local application, as well as for remote Flare workstations, based on your system configuration.

To set up bandwidth reservation:

1. Open a terminal on the Flame or Inferno workstation and log in as root.
2. Open the */usr/discreet/sw/cfg/sw_bwmgr.cfg* file in a text editor.
3. Locate the `[Device]` section that corresponds to the standard filesystem partition (by default `[Device0]`), and uncomment it if it is commented out.
4. Uncomment the `Path0` line, and set the path to the mount point of your standard filesystem.
5. Uncomment the `TotalAvailableReadBandwidth` line, and set its value to the total estimated reading bandwidth of your storage device, in megabytes per second. For example:

   ```
   TotalAvailableReadBandwidth= 500
   ```

6. Add a `Reservation` line for each local or remote application, using the following syntax:

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

   where:

   - `<n>` is the ID of the reservation, starting at 1 for each device.
   - `<application_name>` represents the name of the application that needs the reserved bandwidth. This parameter can take one of the following predefined values: “inferno”, “flame”, “flint”, “flare”, “smoke”, “imcopy”, “stonifiseTool”, “publishTool”, “S+W Server”, “IFFFS Wiretap Server”, or

"IFFFSTool" for other Visual Effects and Finishing command-line tools. The "smoke" token also includes Backdraft Conform.

NOTE Application names must use quotes if they contain spaces.

- <user_name> is the Linux user account under which the remote application is running. This parameter is optional.
- <workstation_hostname> is the hostname of the remote workstation that is accesing the storage. This parameter is optional.
- <reading_bandwidth> represents the minimum reading bandwidth required by the application, expressed in megabytes per second. If more bandwidth is available on the device, the Bandwidth Manager gives the application as much bandwidth as possible.
- <low_reading_bandwidth> represents the minimum value towards which reading bandwidth for this application is reduced in low-bandwidth situations. The Bandwidth Manager will attempt to maintain this minimum bandwidth allocation for as long as possible. If the device bandwidth keeps degrading, then the bandwidth manager starts reducing bandwidth proportionally from the low-bandwidth values towards zero for all applications.
- <writing_bandwidth> represents the minimum writing bandwidth required by the application, expressed in megabytes per second. If more bandwidth is available on the device, the Bandwidth Manager gives the application as much bandwidth as possible. If this parameter is not specified, the Bandwidth Manager automatically calculates a default value, based on <reading_bandwidth> and on the total configured read and write bandwidth values of the device.
- <low_writing_bandwidth> represents the minimum value towards which writing bandwidth for this application is reduced in low-bandwidth situations. The Bandwidth Manager will attempt to give the application this minimum amount of bandwidth for as long as possible. If the device bandwidth keeps degrading, then the bandwidth manager starts reducing bandwidth proportionally from the low-bandwidth values towards zero for all applications.

For example:

```
Reservation1=flame 500 (300)
Reservation2=flare artist@flare1 200 (100)
```

NOTE The values in the examples above have been found to provide optimal performance when the storage device has a total bandwidth of 725MB/s and there is one Flame workstation working with a 2k, 10-bit clip, and one Flare workstation connected to the Flame workstation through a high-speed InfiniBand network, and working with a 1k, 10-bit proxy from the storage device.

7 Save and close the configuration file, and restart Stone and Wire by typing:

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

NOTE Bandwidth for an application is actually reserved only when that application is running. Processes that do not have a bandwidth reservation setting in the *sw_bwmgr.cfg* file fall under the default combined reservation of 10 MB/s.

Configuring a Direct Attached Storage or SAN as Media Storage

This section provides an overview of the steps involved in defining a standard UNIX®-compatible filesystem to be used as media storage by your application.

Media can be stored on any of the following hardware, *as long as it is not the system drive*:

- A direct attached storage (DAS) device
- A storage area network (SAN)

Concepts and Terminology

If this is the first time you are configuring an Autodesk Visual Effects and Finishing filesystem, familiarize yourself with the following key concepts.

If you are already familiar with these concepts, continue with Configuring your Application to Use the Media Storage Filesystem on page 25.

Stone and Wire The software package that encompasses local management of media and the transferring of media between Visual Effects and Finishing workstations. This package is installed automatically with the application.

Partition In Stone and Wire, a partition (also referred to as "volume") is defined as a volume of media storage. When creating a project, the Visual Effects and Finishing applications permanently associate it to one of the available partitions. This association means that the project inherits the rules and media preferences of the partition. You can define up to eight partitions.

Managed Media Media is said to be managed when the media assets, typically DPX files, are managed or "owned" by the Visual Effects and Finishing application. The application deletes managed media it no longer needs. All managed media is stored in a Managed Media Cache.

Unmanaged Media Unmanaged media refers to media assets that are used by, but not exclusively owned by, the Visual Effects and Finishing application. Soft-imported clips are an example of unmanaged media. This is relevant in shared access workflows, where numerous applications are using the same media. Unmanaged media is used in projects and clip libraries in the same way as managed media. However, the application does not delete it when it is no longer needed.

Managed Media Cache A directory residing on a standard FS volume, to which all managed media is written. This includes intermediates, imported media, captured video, audio, and proxies. Although the Managed Media Cache can be accessed by standard operating system tools such as defragmentation and backup tools, it is not meant to be accessed by any other application or user than the Visual Effects and Finishing and Wiretap applications.

Media Database The standard filesystem media database plays a central role in the management of media residing on standard filesystems. It is responsible for mapping frame IDs to the location of the media on disk. Database entries are created for all managed media and soft-imported media. There is one standard filesystem media database file per volume.

Clip library A clip library is a catalog maintained locally by its Visual Effects and Finishing application. It is used, internally by the application, to store clip metadata, including frame IDs. The artist acts upon portions of it indirectly, via the application User Interface.

Configuring your Application to Use the Media Storage Filesystem

To set up a standard filesystem as media storage:

1. Make sure the disk array or SAN storage is connected to your workstation and powered up, and that a UNIX-compatible filesystem exists on the storage. Refer to your vendor-supplied documentation.

   NOTE For best performance, it is recommended to use a filesystem known for high-performance media playback, such as XFS™ or SNFS. Consult your Linux or filesystem vendor for driver and configuration information.

2. Open a terminal and log in as root.
3. Stop Stone and Wire with the command:

/etc/init.d/stone+wire stop

Messages appear in the terminal indicating that Stone and Wire is stopped.

4 Perform the following steps to create the Managed Media Cache directory:

- If a mount point for your storage does not exist, create a directory that will serve as the mount point. For example:
  mkdir -p /mnt/SAN1

  WARNING Do not use the word "stonefs" as the name for your mount point directory. "Stonefs" is a reserved word, and can create issues if used as the mount point directory name.

- Mount the filesystem to the newly created directory. See your Linux documentation for details.

  NOTE To set the filesystem to automatically mount at boot, create an entry for it in the */etc/fstab* file. Type **man fstab** in a terminal for details.

- 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 *flare1*, and the partition name is *p7*, type:
  mkdir -p /mnt/SAN1/flare1/p7

- Set the ownership for the directory created in the previous step to the root user. For example:
  chown -R root:users /mnt/SAN1/flare1/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/flare1/p7

5 Optional: If you want to use several media storage volumes (for example, additional direct-attached storage arrays, or SAN volumes), repeat step 3 to create separate mount points and Managed Media Cache directories for each additional volume.

6 To make your application aware of the standard filesystem volumes, define the Managed Media Cache of each volume as a partition in the Stone and Wire configuration file, and set its preferences:

- Open the file */usr/discreet/sw/cfg/stone+wire.cfg* in a text editor.
  The settings for each partition are defined in a `[Partition<partition_number>]` section of the file. For example `[Partition7]`.

  NOTE By default, the *stone+wire.cfg* file contains only one `[Partition]` section. If you are using multiple volumes, create copies of the `[Partition]` section for each volume, and configure them accordingly.

- Uncomment the `Name` keyword and enter a meaningful name for the volume. For example:
  `Name=SAN1`

  This name identifies your storage volume in the application.

- Uncomment the `Path` keyword and specify the path to the Managed Media Cache directory on the mounted volume. For example:
  `Path=/mnt/SAN1/flare1/p7`

- Optional: Flag the partition as shared by uncommenting the `Shared` keyword and setting it to `True`.

  NOTE Always set the `Shared` keyword to `True` for a SAN volume.

- Optional: In the `[DefaultFileFormats]` section, specify the preferred file format for each bit depth. Uncomment the desired bit depth and set the file format to one of the supported formats. The frames for each bit depth will be saved to the media storage using the file formats specified here (for example *DPX* or *JPG*).

  NOTE The settings in the `[DefaultFileFormats]` section apply to all volumes. If you want to customize file format settings for certain volumes, copy the file format lines to the `[Partition]` section for the respective volumes. Settings defined in a `[Partition]` section overwrite the settings in the `[DefaultFileFormats]` section.

- Optional: If using the *JPG* file format, uncomment the `JpegCompressionFactor` keyword and set JPEG compression to a value between `0` and `100`.
- Optional: To prevent the use of symbolic links across filesystems, uncomment the `SymlinkAcrossFilesystems=False` keyword.
- Save and close the *stone+wire.cfg* file.

7 If this is the first filesystem you are configuring for this workstation, perform the following additional steps:

- Type the following command to display the contents of the */usr/discreet/sw/cfg/sw_framestore_map* file:
  `cat /usr/discreet/sw/cfg/sw_framestore_map`
- Locate the ID value in the `FRAMESTORE` line of the command output. For example:
  `FRAMESTORE=flare1 HADDR=192.168.1.152 ID=152`
- Write down the ID number.
- Open */usr/discreet/sw/cfg/sw_storage.cfg* in a text editor (create it if it does not exist) and enter the ID value you wrote down in the previous step. For example, if the ID value is 152, the *sw_storage.cfg* file should now look like this:
  ```
  [Framestore]
  ID=152
  ```
- Save and close *sw_storage.cfg*.

8 Restart Stone and Wire by typing:

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

A message appears indicating Stone and Wire has restarted.

9 Make sure the filesystem is mounted. Type:

`/usr/discreet/sw/sw_df`

A report appears providing information about the total, free, and used disk space in the partition.

Any project created in your application after this point has the new standard filesystem partition as its primary partition. Any pre-existing projects are unaffected by this setting and remain associated to their respective partitions.

Upgrading Projects to the Current Version

You can automatically upgrade your projects from a previous version of your application to version 2011 using the *copyProjects* command-line tool.

NOTE You do not need to perform this task if you are upgrading to a service pack of the same version or to a service pack of the same extension.

Using this tool instead of manually re-creating your projects is the recommended approach, as it reduces the time needed to migrate multiple projects, and prevents human error.

NOTE The *copyProjects* tool does not copy any media. It only re-creates projects and copies their settings and setups to the current version. You still have to transfer your media using the network library.

To copy projects using the *copyProjects* tool:

1. Open a terminal and log in as root.
2. Run the *copyProjects* script:

   /usr/discreet/flare<version>**/bin/copyProjects**

   NOTE The *copyProjects* tool requires no command-line arguments.

   The tool detects all projects from previous versions, and returns the following message:

   ```
   Projects will be copied to version 2011
   Do you wish to continue?
   ```

   If the version returned by the script is the newly installed version, answer Yes and continue this procedure. Otherwise, perform the steps in the next procedure to change the application version to which projects are copied.
3. Confirm each project you want to copy to the new version, or type "**a**" to copy all projects.

   The tool creates a copy of each project for the current version. The string *_copy* is appended to the end of the new project name.
4. Use the network library to transfer media into the copied projects.

To change the application version projects are copied to:

1. Stop Stone and Wire by typing:

   /etc/init.d/stone+wire stop
2. Unlink the Wiretap startup script by typing:

   unlink /usr/discreet/sw/sw_wiretapd
3. Link the Wiretap startup script to the latest version by typing:

   ln -s /usr/discreet/wiretap/<version>**/ifffsWiretapServer /usr/discreet/sw/sw_wiretapd**
4. Start Stone and Wire by typing:

   /etc/init.d/stone+wire start
5. Run the *copyProjects* script again.

Licensing and Starting Flare

6

Topics in this chapter:

Licensing Workflow Overview

Although you can install Flare without a license, you must license it before you can use it.

Flare uses a "floating" license system, made up of the following components.

License Server A Linux daemon that provides concurrent licenses to Flare workstations on your network as needed.

Licensing clients Each Flare workstation on the network that requests a license from the License Server.

You must use a license server even if you only have one Flare workstation in your facility. The license server can be set up on the Flare workstation itself.

The following workflow outlines how to set up Flare floating licenses on your network.

To license a Flare network:

1. Obtain a license code for the license server. See Obtaining License Codes on page 30.
2. Install the license server. See Installing the License Server on page 31.

NOTE If you already have an Autodesk Burn™ license server in your network, skip this step and use the existing Burn license server to distribute licenses to Flare workstations as well.

3 Add the Flare license code to the license server, and configure the server to distribute licenses to Flare workstations. See Creating the License File for the License Server on page 31.

4 Configure each Flare workstation to retrieve a license from the license server. See Configuring Flare Workstations to Retrieve Licenses on page 32.

5 Optional: To avoid conflicts with other applications or license servers in your facility, you may need to change the default port setting used by the Flare license server. See Changing the Default Port Used by the License Server on page 33.

Obtaining License Codes

You can obtain license codes for Flare by registering the application with the Autodesk Media and Entertainment Licensing Department by e-mail or telephone.

All license codes obtained by e-mail or telephone are temporary 30-day licenses that you use until your permanent license is confirmed and delivered.

To obtain license codes for Flare, you must obtain the unique host ID of the license server. This ID is used to confirm your Flare license and issue license codes.

To obtain license codes for Flare:

1 Log in as root on the license server system.

2 Obtain the unique Discreet host ID for the system. Open a terminal and type:

```
/usr/local/bin/dlhostid
```

A message appears indicating the *dlhostid* of the machine. For example (your value will differ):

```
The Discreet host ID of this machine is
"DLHOST01=25231AEF83AD9D5E9B2FA270DF4F20B1"
```

3 Send the Discreet host ID (including the *DLHOST01*= part) to the Autodesk Media and Entertainment Licensing Department using one of the following methods to register Flare and obtain license codes:

- **By E-mail** To acquire a license code by e-mail, submit a request with the host ID of the system to *me.licensing@autodesk.com*.
- **By Telephone** You can speak to a licensing representative by calling the Licensing Department toll-free in North America at 1-800-925-6442 between 8 AM and 8 PM EST. Outside of North America, call 1-514-954-7199.

  NOTE For emergencies, you can acquire an immediate temporary emergency license using the emergency license generator at *http://melicensing.autodesk.com/templicensing/*. A 4-day license code is e-mailed to the address you provide.

4 Once you receive your license codes from the Licensing Department, add the licenses to the license server.

WARNING The license string is locked to the hardware of the system you use as a license server. If you replace a major hardware component of the license server system, or if you decide to use another system as a license server, repeat this entire procedure to obtain the new *dlhostid* for the license server, and a new license from the Autodesk Media and Entertainment Licensing Department.

Installing the License Server

The license server is a Linux daemon that provides concurrent licenses to Flare workstations on the network, as needed.

You can install the license server on a Flare workstation in your network, or on any 64-bit system running one of the required versions of Red Hat Enterprise Linux or CentOS.

NOTE Do not install the license server on an Autodesk Flame, Autodesk Inferno, Autodesk® Flint,® Autodesk® Smoke®, Autodesk® Backdraft® Conform, or Autodesk® Lustre® workstation, as this might prevent the application running on that workstation from obtaining its license.

Perform the following procedure to install the license server on a system designated as the license server on your network.

To install the license server:

1. Log in as root to the system designated as the license server.
2. Access your Flare software installation directory.
3. Launch the license server installation script by typing:
   `./INSTALL_LICSERV`
   The license server is installed.

Creating the License File for the License Server

After you receive your license codes, edit the */usr/discreet/licserv/licenses/DL_license.dat* license file on the license server, and enter the license information received from the Autodesk Licensing Department into it.

The license information contains keywords that identify the license server, as well as the license string for the Flare feature.

Keyword	Description
SERVER	Specifies the hostname of the license server from which to obtain the license, followed by its *dlhostid*.
DAEMON	Specifies the daemon that is serving the license.
USE_SERVER	Indicates whether the system should obtain its license from a license server.

To create the license server file on the license server:

1. Log in as root to the license server.
2. Navigate to the licenses directory by typing:
   `cd /usr/discreet/licserv/licenses`
3. If the file *DL_license.dat* does not exist in the directory, create it by typing:
   `touch DL_license.dat`
4. Open the file *DL_license.dat* in a text editor.
5. Enter the information provided by the Licensing Department in this file. It should be similar to the following shortened example:
   `SERVER server DLHOST01=886C2B75E8E57E4B03D784C3A2100AC0`

```
DAEMON discreet_l discreet_l
USE_SERVER
FEATURE flare_x86_64_2011_discreet_l 2011.999 18-nov-2009 8 \
               6D7AE3402ECB46174B70 ck=47
```

NOTE If you are working in an existing *DL_license.dat* file, make sure you do not accidentally alter any of the existing text in the file when entering the Flare license information.

6 Save and close the file.

This file sets up the floating licenses available for distribution by the license server to the Flare workstations on your network.

7 Start the license server by typing:

/etc/init.d/license_server start

WARNING The license server cannot start unless the license is entered correctly in *DL_license.dat*. Check the *boot.log* file to make sure the license server is started and working properly.

NOTE The license server starts/stops automatically when the machine is booted/shut down. You can stop and restart the server manually by running one of the following commands:

/etc/init.d/license_server stop

/etc/init.d/license_server restart

Configuring Flare Workstations to Retrieve Licenses

You must configure each Flare workstation to contact the license server to obtain its license. You do this by creating a license file on each Flare workstation to identify the license server. The workstation contacts the license server to obtain its license.

NOTE If the license server for your network is running on a Flare workstation, make sure you perform the following procedure on this workstation as well. Otherwise, this workstation is able to distribute Flare licenses to other workstations, but is unable to retrieve a license for itself.

To configure the Flare Workstation license:

1 Log in as root to the workstation.

2 Navigate to the licenses directory by typing:

cd /usr/local/flexlm/licenses

NOTE If the directory does not exist, create it by typing:

mkdir -p /usr/local/flexlm/licenses

3 Create a file called *DL_license.dat* in the directory by typing:

touch DL_license.dat

4 Open the *DL_license.dat* file in a text editor and copy the SERVER, DAEMON, and USE_SERVER lines into the license file. The strings for these keywords are provided by the Autodesk Licensing Department.

The resulting license file should look similar to the following example:

```
SERVER server DLHOST01=25231AEF83AD9D5E9B2FA270DF4F20B1
DAEMON discreet_l discreet_l
USE_SERVER
```

5 Repeat the preceding steps for each workstation.

Changing the Default Port Used by the License Server

In order to avoid conflicts with other applications or license servers in your facility, you may need to change the default port setting used by the Flare license server. This requires a minor change to the *DL_license.dat* file on the license server machine, as well as on every Flare workstation on the network.

To change the default port used by the license server:

1 Log in as root to the system where the license server is installed.

2 Open the */usr/discreet/licserv/licenses/DL_license.dat* file in a text editor.

3 Find the `SERVER` line.

The line should look similar to the following example:

```
SERVER server DLHOST01=886C2B75E8E57E4B03D784C3A2100AC0
```

By dafault, no port number is specified at the end of the `SERVER` line, and the license server uses a default port number in the range of 27000-27009.

4 Enter a different port at the end of the `SERVER` line.

For example, to use port 62222, add 62222 to the end of the line:

```
SERVER server DLHOST01=886C2B75E8E57E4B03D784C3A2100AC0 62222
```

5 Save and close the file.

6 Verify that the new port settings are correct. Type the following commands:

```
/etc/init.d/license_server stop
/etc/init.d/license_server start
cat /usr/discreet/licserv/log/license_server.log
```

7 Look for messages similar to the following examples in the output, and verify that the port numbers are what you requested:

```
15:08:49 (lmgrd) lmgrd tcp-port 62222 15:08:49 (lmgrd) Starting vendor
daemons ... 15:08:49 (lmgrd) Using vendor daemon port 12344 specified in
license file 15:08:49 (lmgrd) Started discreet_l (internet tcp_port 12344
pid 5013)
```

8 Log in as root to each workstation on the network, open the file */usr/local/flexlm/licenses/DL_license.dat* in a text editor, and repeat steps 3 and 4 in this procedure, using the same port as the one you set for the license server.

Starting Flare

To start the application for the first time:

1 Double-click the Flare icon on your Linux desktop.

2 The Autodesk Master Systems Software License Agreement appears.

3 Read the text of the License Agreement carefully, and click I Accept if you agree to all the terms in the License Agreement.

The Project Management menu appears.

4 Use the Project Management menu to open a remote project from the storage of a Flame or Inferno workstation, or to create a project and a user on the local storage.

Refer to the *Flare Workflow* chapter in the application help for information on how to remotely open or create a project on the storage of an Inferno or Flame workstation.

NOTE If you cannot see the framestores of other workstations when starting Flare, make sure that self-discovery is enabled in the */usr/discreet/sw/cfg/sw_probed.cfg* file, and that the value of the `Port` keyword in that file matches the value used by other workstations in your network.

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.

Uninstalling the Application

A

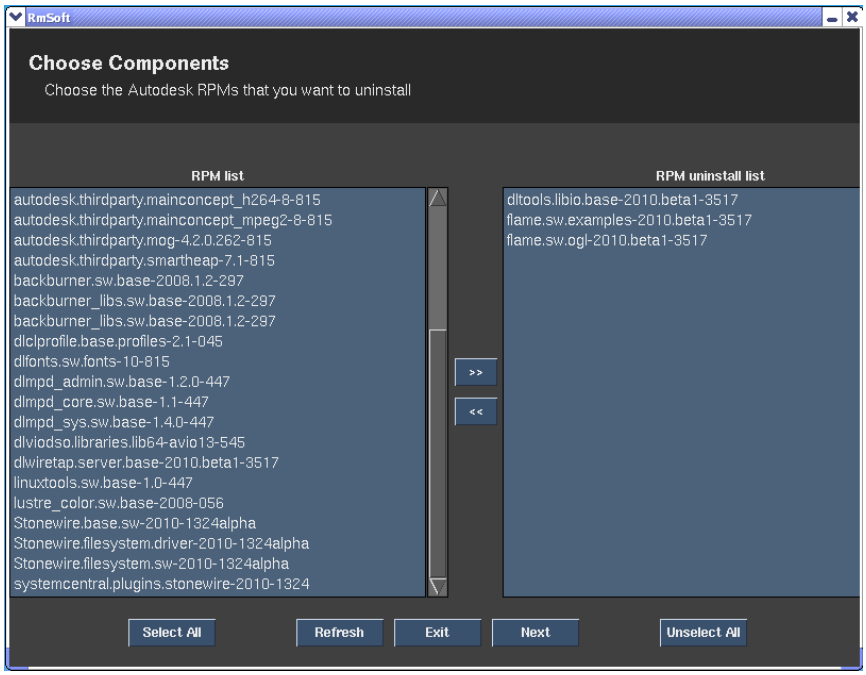
Topics in this chapter:

Uninstalling your Application

The *Autodesk Software Remover* utility enables you to easily uninstall Autodesk Visual Effects, Finishing and Grading applications 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.
   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.

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