Autodesk®
Visual Effects and Finishing
2010 Edition

Using Autodesk® Cleaner® XL with Autodesk Visual Effects and Finishing 2010 Applications

Autodesk®

Trademarks

Disclaimer

Published by: Autodesk, Inc.
111 McInnis Parkway
San Rafael, CA 94903, USA

Title: Autodesk Visual Effects and Finishing 2010 Edition Using Autodesk Cleaner XL with Autodesk Visual Effects and Finishing 2010 Applications User Guide
Document Version: 1
Date: March 19, 2009

Contents

Introduction 1

Topics in this chapter:

About this Guide

This guide explains how to set up and use Autodesk® Cleaner® XL with Autodesk Visual Effects and Finishing applications (Autodesk® Inferno®, Autodesk® Flame®, Autodesk® Flint®, Autodesk® Smoke®, or Autodesk® Backdraft® Conform) in a networked environment. This networked environment, whether a simple connection to a Windows® PC, or a facility-sized Autodesk® Backburner™ Distributed Queueing System, allows you to use Cleaner XL to batch-process multiple encoding jobs in various formats.

This guide also includes troubleshooting information for the most common problems faced by Backburner users, and troubleshooting strategies that can help you diagnose and fix problems with Cleaner XL running on a Backburner Distributed Queueing System.

This guide does not provide information on sending jobs to Cleaner XL from your Autodesk application. Refer to your application User Guide.

If you are installing Cleaner XL in an existing Backburner Distributed Queueing System, this guide assumes that you have completed the installation and configuration of all relevant Backburner components, as described in the *Autodesk Backburner Installation Guide*.

For help using Backburner, refer to the *Autodesk Backburner User Guide*.

NOTE Refer to the Readme file that comes with Autodesk Cleaner XL for late-breaking information.

Intended Audience

This guide is designed for users who are required to set up, manage, and maintain Autodesk Cleaner XL running on an Autodesk Backburner Distributed Queueing System for the purposes of network encoding with Autodesk Visual Effects and Finishing applications.

You should have some basic understanding of the following before using this guide:

- Autodesk Cleaner XL
- Autodesk Backburner
- The Linux® and Windows operating systems
- Any Autodesk Visual Effects and Finishing applications
- Computer hardware and networking, specifically TCP/IP

Contact Autodesk Media and Entertainment Customer Support should you require further assistance.

NOTE Most procedures described in this guide require root or super-user privileges.

About Cleaner XL

Autodesk Cleaner XL is a powerful application for encoding digital media from various source file types to different kinds of output.

Cleaner XL affords control over the different codecs you can use, as well as video and pre-processing options. Cleaner XL works equally well performing simple jobs, for example, encoding a file from one format into another on a stand-alone PC, to being used as the hub in a robust network environment where batch jobs are encoded in high volume and to multiple formats.

Cleaner XL accepts encoding jobs from any Autodesk Visual Effects and Finishing products, including Inferno, Flame, Flint, Smoke, or Backdraft Conform.

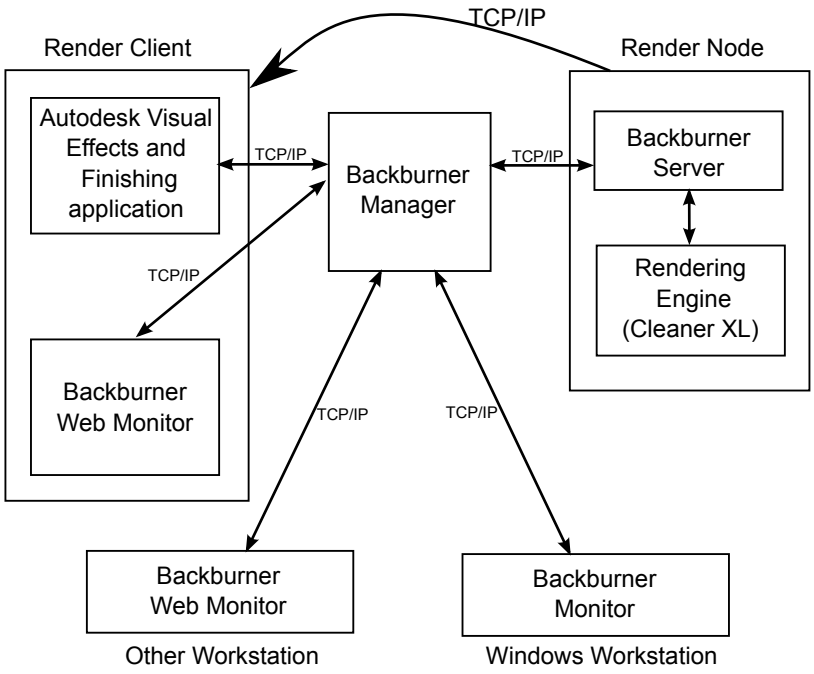
About the Backburner Distributed Queueing System

The Autodesk Backburner Distributed Queueing System is a background rendering network system that allows multiple jobs, such as composites or animation scenes, to be rendered by many computers working collectively on the same network.

Autodesk Backburner is a set of applications used to manage and monitor the Autodesk Backburner Distributed Queueing System.

Use the Backburner Monitor or the Backburner Web Monitor to monitor and manage render jobs and Render Nodes in the Autodesk Backburner Distributed Queueing System.

The following diagram illustrates the components and their relationships in an Autodesk Backburner Distributed Queueing System.



System Components

The Autodesk Backburner Distributed Queueing System consists of the following components.

Render Client This is the Autodesk creative application, such as Inferno, Flame, Flint, Smoke, Backdraft Conform, Autodesk® 3ds Max®, Autodesk® Combustion®, Autodesk® Lustre®, and Autodesk® Toxik™, running on a Linux or Windows workstation. From here, you create and submit rendering jobs (such as Cleaner XL encoding, a Flame Batch setup, or a 3ds Max scene) to be processed by the Distributed Queueing System.

Backburner Manager This is the hub of the Distributed Queueing System, running on a Windows or Linux workstation. Jobs that are submitted from the Render Client to the Backburner Manager are distributed to the Render Nodes on the network. To view the progress of a job, use the Backburner Monitor or the Backburner Web Monitor.

Backburner Manager runs as either a service on Windows or a daemon on Linux. On Linux systems, Backburner Manager starts automatically when the system is booted and runs continuously until either the workstation is shut down or the service/daemon is stopped. On Windows systems, you need to start Backburner Manager manually as an application from the Windows Start menu.

Render Node This is a Windows or Linux workstation on the Distributed Queueing System that hosts one or more Rendering Engines. Jobs received from the Render Client via Backburner Manager are assigned to the Rendering Engine on the Render Node via Backburner Server. Render nodes use common network protocols like TCP/IP and/or Autodesk® Wire® to receive source frames and to return rendered frames back to the Render Client.

Backburner Monitor or Backburner Web Monitor This is the user interface for the Distributed Queueing System. Backburner Monitor runs as an application on a Windows workstation. Backburner Web Monitor runs in a Web browser from any workstation on the network. Either version allows you to view and control jobs currently being processed. Jobs in the Distributed Queueing System can be stopped, restarted, reordered,

archived, or removed. You can also monitor the overall health of the Distributed Queueing System and identify any Render Nodes that are not working.

Backburner Server This is an application that runs on each Render Node in the Distributed Queueing System and allows it to communicate with Backburner Manager. Backburner Server accepts commands from Backburner Manager to start and stop the Rendering Engine for the assigned rendering tasks on the Render Node.

Rendering Engine This is the Windows or Linux process that renders frames from jobs submitted from Render Clients. Some Autodesk applications, such as 3ds Max, have their own Rendering Engine. Inferno, Flame, Flint, Smoke, and Backdraft Conform share a single rendering engine called Burn®. Cleaner is both its own Rendering Engine and a Rendering Engine for jobs from Inferno, Flame, Flint, Smoke, and Backdraft Conform, requiring transcoding between video formats.

The Rendering Engine is installed on each Render Node. By installing multiple Rendering Engines on a Render Node, the Render Node is able to render jobs from different Render Clients.

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`
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*.

Installing Cleaner XL for Network Encoding

2

Topics in this chapter:

About Cleaner XL Network Encoding

This chapter describes how to set up and configure Autodesk Cleaner XL with Autodesk Visual Effects and Finishing applications in a networked environment.

Use Cleaner XL to encode jobs exported to a variety of formats, including QuickTime®, Windows Media®, and Real®. Cleaner XL saves the output files to an output location on an accessible network location.

Autodesk Visual Effects and Finishing applications use Backburner to communicate with the Windows workstation running Cleaner XL. You can use Backburner to start and stop jobs, monitor a job's progress, and perform other control functions.

Workflow for Setting Up Cleaner XL Network Encoding

The following describes how to set up Cleaner XL network encoding. To set up your facility to use Cleaner XL as your encoding solution, you must perform the following tasks on the following systems:

- The Render Node
- All Render Clients that run Autodesk Visual Effects and Finishing applications
- The workstation running Backburner Monitor

To set up Cleaner XL network encoding:

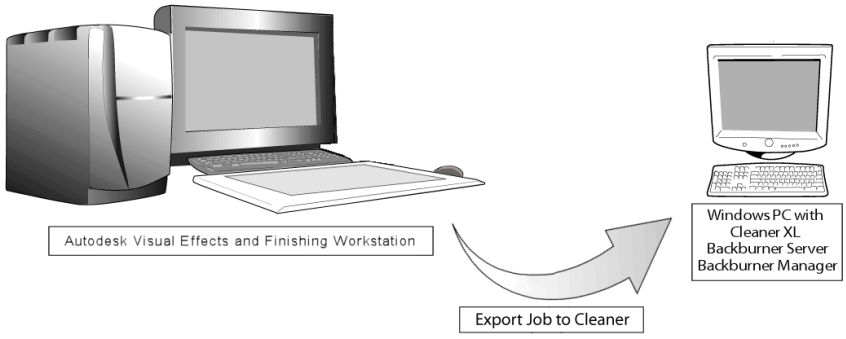
1. Determine what kind of configuration you have. See About Cleaner XL Network Encoding Configurations on page 6.
2. Perform any prerequisite checks or procedures. See Before You Begin on page 7.
3. Install Cleaner XL and Backburner components on the Render Node. See Installing Cleaner XL on the Render Node on page 8.
4. Configure the Backburner components on the Render Node. See Configuring Backburner Components on the Render Node on page 8.
5. Configure every Render Client running an Autodesk Visual Effects and Finishing application. See Configuring the Autodesk Application on the Render Client on page 9.
6. Optional: Edit output profiles in Cleaner XL, and then save these profiles in the *OutputProfile* directory on the Autodesk Visual Effects and Finishing workstation. See Editing and Installing Output Profiles on page 10.
7. If you intend to export clips with soft-imported segments for encoding using Cleaner XL, you must map the locations of soft-imported media so that media can be accessed from every Render Node or workstation on the network.

   See the *Autodesk Stone and Wire Filesystem and Networking Guide*.
8. If you encounter any problems using Cleaner XL for network encoding, see About Cleaner XL Network Encoding on page 5.

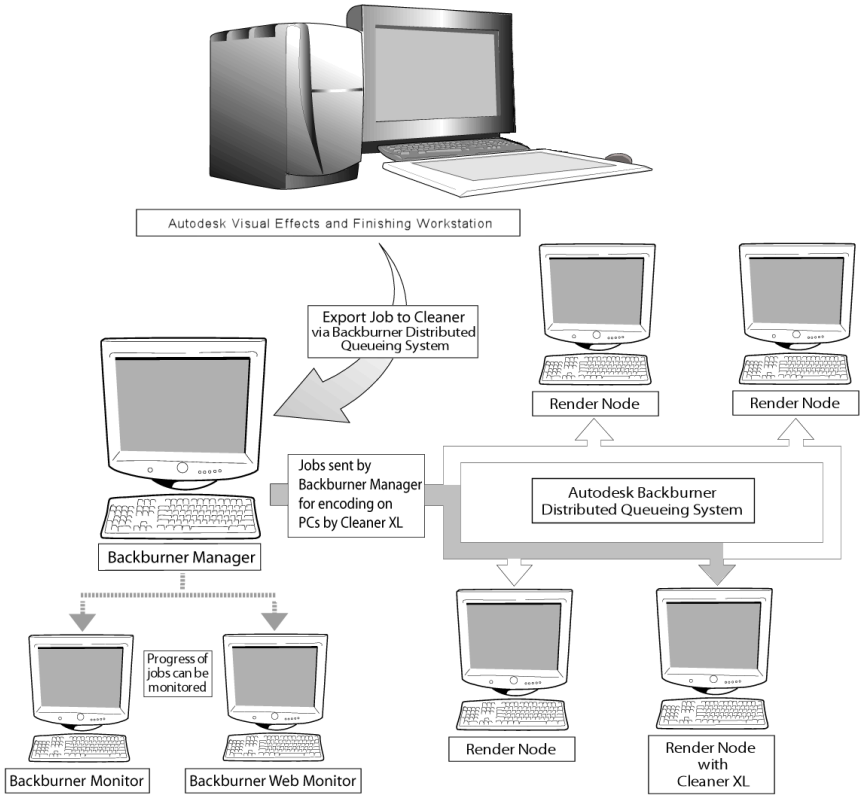
About Cleaner XL Network Encoding Configurations

Depending on your configuration, there are two ways to set up Cleaner XL to run with your Autodesk Visual Effects and Finishing application. This is determined by whether you have a single workstation, or if you are running in a network with other Autodesk Visual Effects and Finishing workstations on an Autodesk Backburner Distributed Queueing System.

The following illustrates Cleaner XL installed in a single workstation configuration.



The following illustrates Cleaner XL installed in a networked Autodesk Backburner Distributed Queueing System configuration.



Before You Begin

Before you install and configure Cleaner XL to run on a Render Node in your Autodesk Backburner Distributed Queueing System, you need to do the following:

- If you have a network situation with multiple Autodesk Visual Effects and Finishing workstations, you need to install and configure an Autodesk Backburner Distributed Queueing System in your facility. See the *Autodesk Backburner Installation Guide*.
- Ensure that the Windows workstation to be used as the Render Node for Cleaner XL and Backburner components meets minimum systems requirements.
- Ensure that you have a licensed copy of Cleaner XL. Cleaner XL is an optional installation that requires its own license code. For help with the Cleaner XL licensing procedure, refer to the documentation

included in the Cleaner XL box. If you cannot locate your original Cleaner XL box, contact Customer Support.

- Install all the necessary media players/codecs on the Render Node. For example, if you want to encode QuickTime movies, install QuickTime. Installing Real software is optional. See Supported Encoding File Formats on page 14. For a complete list of the formats Cleaner XL supports, see the Autodesk Cleaner XL Readme file.

NOTE QuickTime should be installed at least at the recommended level, or image sequence read and write may not function properly. If you install new media players/codecs after you install Cleaner XL, you must rerun the CleanerSetup.exe and check the Media Layers box. This will install the necessary files for the newly installed media players/codec.

Installing Cleaner XL on the Render Node

Cleaner XL must be installed on a Render Node, which is a Windows workstation that is networked to the Autodesk Visual Effects and Finishing application workstation, using the TCP/IP protocol. Cleaner XL installation includes the installation of Backburner. It also includes the installation of Windows Media and .NET, if these are not currently installed on your system.

To install Cleaner XL and Backburner components on a Render Node:

1. Insert the Cleaner XL CD into the drive of the Windows workstation.
2. If AutoPlay is enabled on your system, the installer launches automatically. If AutoPlay is not enabled, open the CD and double-click *CleanerXLSetup.exe*.

   The Cleaner XL installer appears, and guides you through the installation of Cleaner XL and Backburner and, if necessary, Windows Media and .NET.

   Cleaner XL and Backburner are installed by default into *C:\Program Files\Autodesk*.
3. Activate Cleaner XL. From the Start menu, select All Programs | Autodesk | Cleaner XL.
4. In the activation dialog, enter the serial number and activation key available from the Cleaner XL box.
5. If available, download the latest Cleaner XL updater from the Autodesk Web site.

   This updater is available online at *www.autodesk.com/support*. To download the updater, from the Knowledge Base drop-down list, select Autodesk Cleaner XL, click Data & Downloads, and then click Updates & Service Packs.
6. Click Run.

   The install Cleaner XL screen is displayed.

   You are guided through the installation of Cleaner XL and Backburner, and, if necessary, the newest versions of Windows Media and .NET.

   The installation of Cleaner XL and Backburner are now complete. Proceed to configuration.

Configuring Backburner Components on the Render Node

You need to configure the Backburner components on the Render Node so that they can talk to each other. Depending on your encoding configuration, you may not have to configure and run all Backburner components installed on the Render Node. Some Backburner components may reside on other workstations in your network.

To configure Backburner components on the Render Node:

1. If this is a single-workstation installation, start Backburner Manager. From the Start menu, select Programs | Autodesk | Backburner | Manager.
2. Start Backburner Server. From the Start menu, select Programs | Autodesk | Backburner | Server.
3. Configure Backburner Server to point to Backburner Manager. Select Edit | General Settings.
4. In the "Enter Manager Name or IP Address" group, disable Automatic Search, and enter the resolvable name or IP address of the system on which Backburner Manager is running.

   NOTE If this is a single-workstation installation, then Backburner Manager is on the same system as Cleaner XL.

5. Start Backburner Monitor. From the Start menu, select Programs | Autodesk | Backburner | Monitor.

   NOTE If this is a single-workstation installation, then Backburner Manager is on the same system as Cleaner XL.

6. Connect to the system running Backburner Manager. Select Manager | Connect.
7. Choose the name of the manager PC. In the "Enter Manager Name or IP Address" group, disable Automatic Search, and enter the resolvable name or IP address of the system on which Backburner Manager is running.

   The PC name should appear on the All Servers tab. Make sure that the Cleaner plugin appears in the All Servers hierarchy.

   Configuration on the Render Node is now complete.

For additional help in configuring the Backburner components, refer to the *Autodesk Backburner Installation Guide*.

Configuring the Autodesk Application on the Render Client

To configure the Autodesk Visual Effects and Finishing applications for Cleaner XL encoding, you need to set various keywords in the application *init.cfg* file on the Autodesk Visual Effects and Finishing application workstation. This enables the application to communicate with Backburner and sets the default output destination to which Cleaner XL saves encoded jobs. For more information on any of these keywords, refer to the *Configuration File Reference Guide*.

To configure keywords for Cleaner XL network encoding:

1. Log in to your workstation using your Autodesk Visual Effects and Finishing user account.
2. Open a terminal and type **`dlcfg`**.

   The *init.cfg* file opens in a text editor.
3. Scroll down to the bottom of the file and locate the Backburner Manager keywords.
4. Uncomment and edit the BackburnerManagerHostname keyword.

   Enter the hostname or IP address of the workstation on which the Backburner Manager is running. If you configured background Wire transfers or Burn prior to installing Cleaner XL, this keyword should already be set.
5. Uncomment and edit the CleanerDestinationPath keyword.

Set the default path to where the encoded output is saved. Make sure this path is shared and available to other systems and users on the network. It is recommended that all Render Clients are configured to point to the same location, preferably a network storage location.

When entering a path, note the following:

- The destination folder that the path points to must exist and be accessible from the Render Node and all Client Nodes.
- All users have the right permission levels for jobs to be saved to the destination folder.
- There is enough storage space on the device where the destination folder resides to accommodate encoded jobs.

6 Save the file and exit.

Your Client Node configuration is now complete.

7 Repeat this procedure for every Render Client that is running Autodesk Visual Effects and Finishing applications.

About Output Profiles

When exporting a job from the Autodesk Visual Effects and Finishing workstation, the user selects an output profile that indicates the type of media to be encoded.

By default, Cleaner XL output profiles reside in the *CleanerProfile* directory of the Autodesk Visual Effects and Finishing workstation: */usr/discreet/CleanerProfile/OutputProfile*.

Output profiles are identified by their *.opt* file extension. Output profiles on the Client Node use the same file format as output profiles in Cleaner XL. Each output profile contains three sets of properties:

- Encoder settings that describe the file format and accompanying parameters of the output media. For example, you can select to encode to QuickTime at NTSC 4x3 for full-screen download. Parameters for a QuickTime output profile can include the audio and video codecs used, the audio bit rate and video bit depth, and the framerate.
- Filter settings for audio and video. You can apply filters, for example, to restore white or black to images that were not well captured, or to apply EQ settings to sweeten audio. You can use the filter settings available in Cleaner XL to correct for different output formats. Using different filter settings can help streamline your mastering workflow when these corrections need not be applied in the Autodesk Visual Effects and Finishing workstation for individual output media.
- A set of destinations for output media, which can be local paths and FTP addresses. You can enter one ftp destination where the output file will be saved in addition to the output destination entered in the Autodesk Visual Effects and Finishing workstation. All other destinations in the output profile are ignored.

Editing and Installing Output Profiles

You can create and edit new output profiles in Cleaner XL. These output profiles can then be used by the Autodesk Visual Effects and Finishing applications running on the Client Nodes. To do this, they need to be copied to the Client Nodes in the */usr/discreet/CleanerProfile/OutputProfile* directory.

To create an output profile in Cleaner XL:

1 Start Cleaner XL. From the Start menu choose Programs | Autodesk | Cleaner XL.

2 Load an output profile in Cleaner XL. In the Output Profile window, right-click in an empty area, and click Add Saved Output Profiles.

The Add Output Profiles dialog appears.

3 Navigate to the output profile that most closely resembles your intended settings, and click OK.

The Output Profile is added to the Output Profile window.

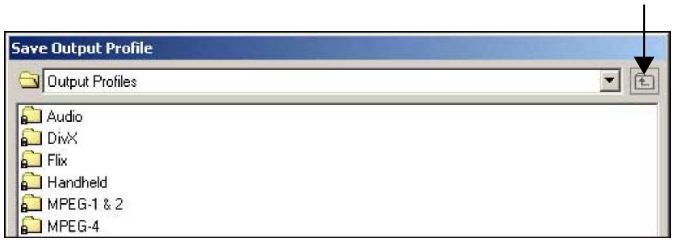
4 Change any encoder settings or filter settings.

5 Optional: Add an FTP destination. Right-click in the Destinations window, and choose Add New. From the Type box, select FTP. Fill in the required parameters.

An FTP path is used as an additional output destination. The output file is saved both to the FTP location in the output profile, as well as to the output destination that appears in the Destination Path field.

6 When you are done, right-click the selected output profile and choose Save Copy As.

7 Click the Up One Level icon in the Save Output Profile window until you are at the top level of the Output Profiles directory.



8 Right-click the window and choose New Folder.

9 Enter a descriptive name for the folder. You can use this folder for all the output profiles that will be used on the Autodesk Visual Effects and Finishing workstation system.

NOTE To avoid any file name compatibility issues between operating systems, ensure that your folder name does not contain any of the following characters: # ~ @ $ % ^ & * ( ) [ ] { } < > \ | / ! ? , ; : ' "

10 Enter a name for the new profile in the File Name field.

NOTE Ensure that your file name does not contain any of the following characters: # ~ @ $ % ^ & * ( ) [ ] { } < > \ | / ! ? , ; : ' "

11 Enter a description for the new profile in the Description field.

The description you enter is displayed in the Autodesk Visual Effects and Finishing workstation when you select the output profile.

TIP The more specific you are in your description, the easier it will be to differentiate between profiles in Autodesk Visual Effects and Finishing applications.

12 Click OK.

All edited output profiles are saved to the following location on the Render Node running Cleaner XL:

C:\Documents and Settings\<current user>*Application Data\Autodesk\Cleaner XL\OutputProfile*\<user created folder>

To install an output profile on an Autodesk Visual Effects and Finishing application:

1 Locate a previously created output profile on the Render Node. Output profiles on the Render Node running Cleaner XL are located in one of two places:

- All default output profiles are located at:

C:\Program Files\Autodesk\Cleaner XL\OutputProfile

Default output profiles are organized according to format, and then further subdivided by resolution, aspect ratio, and media type. The exception is Audio output profiles, which are grouped together. By default, output profiles are organized in the same manner in the Autodesk Visual Effects and Finishing workstation.

- All edited output profiles are saved to the following location:
  C:\Documents and Settings\<current user>*Application Data\Autodesk\Cleaner XL\OutputProfile*\<user created folder>

2 Copy the output profile from the Render Node to the *OutputProfile* directory on each Client Node running an Autodesk Visual Effects and Finishing application:

/usr/discreet/CleanerProfile/OutputProfile

When the user starts the Autodesk Visual Effects and Finishing workstation, all the profiles in the *OutputProfile* directory are available.

Autodesk Visual Effects and Finishing Network Encoding with Cleaner XL

3

Topics in this chapter:

About Network Encoding with Cleaner XL

To encode a job using Cleaner XL, users can export a clip from the Export Image menu or, if they are running Inferno, Flame, or Flint, enable Cleaner output on an Output node in Batch. Users can also export clips with soft-imported segments, including images and audio, for encoding using Cleaner XL. This requires that Wiretap™ path translation is properly configured.

Before any network encoding can occur, you must ensure that all Cleaner XL and Backburner components are set to the correct state.

Considerations for Users Encoding Media Using Cleaner XL

Note the following considerations for users who are encoding with Cleaner XL:

- Users can export clips with or without audio, as well as clips containing audio only, from the Export Image menu. The Cleaner option is not available from the Export Audio menu.
- Users running Inferno, Flame, or Flint can also output video and audio clips from the Output node in Batch.
- Cleaner XL can only encode 8-bit clips. Clips of a greater bit depth are automatically resized to 8 bits upon export.
- Users cannot encode clips with a matte or encode RGBA files when exporting to Cleaner XL.
- Users cannot export a range from a clip to Cleaner XL.

Setting Up for Network Encoding

Before any network encoding can occur, you must ensure that all Cleaner XL and Backburner components are set to the correct state.

To set up for network encoding:

1. Close Cleaner XL on the Render Node.
   Cleaner XL must be closed, otherwise, jobs it receives from Backburner will not be encoded.
2. Ensure that Backburner Server is running on the Render Node.
   See Configuring Backburner Components on the Render Node on page 8.
3. Ensure that Backburner Manager is running either on the Redner Node or somewhere in the Distributed Queueing System.
   See Configuring Backburner Components on the Render Node on page 8.

Supported Encoding File Formats

The following is a list of file formats supported by Cleaner XL.

Video Read	Video Write
DV	DV
QuickTime	QuickTime
Video for Windows	Video for Windows
Windows Media	Windows Media
MPEG-1	MPEG-1
MPEG-2	MPEG-2
MPEG-4	MPEG-4
	Flash Video (FLV) - version 7
	ShockWave (SWF) - version 7

Video Read	Video Write
	RealSystem™

Audio Read	Audio Write
AIFF	AIFF
AU	AU
DV	DV
MP3	MP3
QuickTime	QuickTime
WAV	WAV
M4A (Unprotected)	RealSystem
	Windows Media
	AAC

Handheld Write
Kinoma (Kinoma movie: PDB, MPEG-4 simple profile, MOV with MPEG4 codec)
3GP

Still Image/Sequence Read	Still Image/Sequence Write
BMP	BMP
GIF	JPEG/JFIF
JPEG/JFIF	MacPaint
Photoshop®	Photoshop
PICTs	PICTs
PNG	PNG
Silicon Graphics Image File	Silicon Graphics Image File
Targa® Image File (TGA)	Targa Image File (TGA)
TIFF	TIFF
QuickTime Image File (QTIF)	QuickTime Image File (QTIF)
DPX	
CIN	
OpenEXR	

For the most current information about file formats that you can output using Cleaner XL, refer to the *Readme* for the current version of Cleaner XL.

Encoding Clips with Soft-Imported Segments Using Cleaner XL

Users can export clips with soft-imported segments, including images and audio, for encoding using Cleaner XL.

All soft-imported images and audio in the clip must be of the same file type, for example, all TIFF files and all AIFF files. If there are different types of soft-imported files, the clip will not be encoded by Cleaner XL.

The following soft-import image file types are supported:

- SGI
- JPEG
- TGA
- DPX
- TIFF
- CIN

The following soft-import audio file types are supported at 48 kHz:

- AIFF
- WAV

If the clip contains different types of soft-imported files, the user should use the Stonifise tool before exporting it to Cleaner XL. See your application User Guide.

Before users can export clips with soft imports for Cleaner XL encoding, you may need to perform additional configuration steps for Wiretap path translation. If the Autodesk Visual Effects and Finishing applications and Backburner Distributed Queueing System are already properly set up, then this should already be working.

The Wiretap path translation service converts the syntax of a file path referred by a Wiretap server running on a workstation to a format that the client can understand. This service allows Wiretap clients, who might be running Windows or Mac® OS X, to understand file paths that are referenced by an Autodesk Visual Effects and Finishing application to clips that have been soft-imported from a NAS, SAN, or any remote mounted storage.

For example, Cleaner XL running on a Windows workstation can work with an Autodesk Finishing or Effect product's soft-imported clip from a SAN or NAS.

See the *Autodesk Stone and Wire Filesystem and Networking Guide*.

Importing Unsupported Image Files Using Cleaner XL

Not all image or movie files can be directly imported into Autodesk Visual Effects and Finishing applications. Instead, you can use Autodesk Cleaner XL to convert the source files to a compatible intermediate format, which can then be imported into your Autodesk Visual Effects and Finishing application.

The recommended workflow for converting an incompatible video file to an image sequence/audio file is the following.

To import an unsupported video file into an Autodesk Visual Effects and Finishing application using Cleaner XL:

1. On the Render Node, start Cleaner XL and load the clip that you want to export.
2. Export the clip into a file format that is compatible with the Autodesk Visual Effects and Finishing application that you are using.

   A suggestion is to export the video as a sequence of TARGA® (TGA) files, and the audio as a separate AIFF file.
3. Transfer the exported intermediate files from the Windows PC across the network to a directory accessible from the Autodesk Visual Effects and Finishing workstation.
4. Import the image sequence into the Autodesk Visual Effects and Finishing application.
5. If necessary, import the accompanying audio file, and then combine the image and audio elements.

Troubleshooting 4

Topics in this chapter:

About Troubleshooting Cleaner XL

This chapter covers some of the common problems that you may encounter when encoding with Autodesk Cleaner XL in a Distributed Queueing System. The troubleshooting solutions concentrate on the communication between the different software components involved.

Ensure that you are using the most recent compatible software versions of:

- Autodesk Visual Effects and Finishing applications (Autodesk Inferno, Autodesk Flame, Autodesk Flint, Autodesk Smoke, or Autodesk Backdraft Conform)
- Autodesk Cleaner XL
- Autodesk Backburner
- Autodesk® Wiretap®

Be sure to see the *Readme* included with the latest release of Cleaner XL. This *Readme* includes information for Autodesk Visual Effects and Finishing users.

Refer to the *Autodesk Backburner User Guide* for Backburner-specific troubleshooting information. This information is also applicable to other products that use Backburner.

Troubleshooting Checklist

Because of all the different applications used for encoding with Cleaner XL on a Distributed Queueing System, there are some steps you can take to ensure the efficiency of your rendering network. Verify the following:

- The *BackburnerManagerHostname* keyword in the *init.cfg* file on the Autodesk Visual Effects and Finishing workstation is set to properly point to the Backburner Manager that you are using for Cleaner XL encoding.
- Backburner Manager is running on a Windows or Linux workstation, and this workstation is properly networked to the Autodesk Visual Effects and Finishing workstation.
- Backburner Server is running on the Windows workstation where Cleaner XL will encode jobs, and it is configured to point to Backburner Manager.
- Backburner Monitor or Backburner Web Monitor is running on a workstation that can connect to the Backburner Manager workstation. You can use these, as well as the Backburner Queue Monitor inside Autodesk Visual Effects and Finishing application, to monitor all jobs sent through the Backburner pipeline. See the "Managing a Rendering Network" chapter in the *Autodesk Backburner User Guide*.
- Cleaner XL is *not* running. In normal operation, when the Backburner Server receives a job and passes it to Cleaner XL, Cleaner XL is triggered to run, encode the job, then shut down.
- Cleaner XL is properly licensed. To verify this start the program. If the activation dialog appears, refer to the documentation in the Cleaner XL box for activation and registration information.
- Wiretap is running on the Autodesk Visual Effects and Finishing workstation. To verify this, type the following in a terminal: **`ps -ef | grep wiretap`**. If no line containing the string "ifffs WiretapServer" appears, then Wiretap is off. See Verifying Wiretap Status and Restarting Wiretap on page 21.
- The destination of the encoded files exists, as entered in the Destination Path field when exporting the job from the Autodesk Visual Effects and Finishing application, and is accessible from the Windows workstation where the encoding takes place. The destination location also must have sufficient space for the encoded files.
- If there are soft-imported images in the clips sent for Cleaner XL encoding, that all soft-imported images in the clip are of the same file type. You also need to make sure that you properly set up your configuration for using soft-imported clips for Cleaner XL encoding.

Troubleshooting Network Communication

For Cleaner jobs to reach Cleaner XL, the Windows workstation running Cleaner XL must be able to communicate with the Linux Autodesk Visual Effects and Finishing workstation.

As well, for Cleaner XL to be able to pull frames and audio from the frame storage, Wiretap must be running properly on the Autodesk Visual Effects and Finishing workstation. If jobs are not encoded properly, you can stop and then restart Wiretap to clear up processes and make sure Wiretap is running correctly.

To check communication from the Windows workstation to the application workstation:

1. From the Windows Start menu, click Run.
2. In the Run dialog box, type **`cmd`** in the Open field, and then click OK to access a command line.
3. Type the following:

   `ping` `<name of Linux workstation>`

   The Windows workstation sends data to the Linux workstation and verifies whether it receives all of the data. If the Windows workstation does not receive all the data, a line similar to the following appears:

Packets: Sent = 4, Received = 0, Lost = 4 (100 % loss)

In this case, check with your system administrator to troubleshoot why the Windows and the Linux workstation are not communicating properly.

To check communication from the application workstation to the Windows workstation:

➤ From a terminal of the Autodesk Visual Effects and Finishing workstation, type the following:

ping <name of Windows workstation>

The workstation sends data to the Windows workstation and verifies whether it receives all of the data. If feedback indicates that not all data was received, then there has been a communication problem.

In this case, check with your system administrator to troubleshoot why the Windows and Linux workstation are not communicating properly.

Verifying Wiretap Status and Restarting Wiretap

Wiretap can be stopped for various reasons. This prevents the Windows workstation from retrieving frames from the frame storage, and jobs are not encoded. When this problem occurs, you receive an error message. See Checking Log Files for Errors on page 23.

Use the following procedures to check the status of Wiretap and, if necessary, restart it.

To restart Wiretap:

1 To check the status of Wiretap, type the following in a terminal:

cat /etc/sysconfig/stone+wire

The status of Stone® and Wire, and Wiretap are displayed in the terminal.

NOTE Even if Wiretap is on, stopping and then restarting it can rectify some problems with jobs that did not make it through the rendering pipeline successfully.

---

2 In a terminal, log in as root.

3 Type the following:

kedit /etc/sysconfig/stone+wire

4 In the text editor, edit the following line:

dl_wiretap=off

5 Save and exit.

6 Restart Stone and Wire by typing:

sw_restart

Stone and Wire are restarted, but Wiretap remains off.

7 Type the following:

kedit /etc/sysconfig/stone+wire

8 In the text editor, edit the following line:

dl_wiretap=on

9 Save and exit.

10 Restart Stone and Wire by typing:

sw_restart

Stone and Wire and Wiretap are restarted.

Troubleshooting Other Cleaner XL Encoding Problems

The following are some other problems that can affect jobs sent to Cleaner XL for encoding:

- The Job Queue in Cleaner XL may be stopped, preventing it from encoding jobs. When a Cleaner job fails or when you force the application to close, the job queue is stopped. This is done so the user has to open the application and investigate why a job failed, repair it, and then relaunch it. To rectify this problem, open up Cleaner XL and in the Job Queue, click Run. If there are unprocessed jobs in the queue, it is recommended to remove them by choosing Queue | Remove all Pending Jobs.
- You may have chosen an output profile in the Autodesk Visual Effects and Finishing application that relies on a media player not installed on the Windows workstation running Cleaner XL. For example, if you choose a Real® output profile, Real must be installed on the Windows workstation running Cleaner XL. To rectify this problem, install the required players for the output profiles you will use. You then have to rerun the Cleaner XL installer and choose the Media Layers option.
- When exporting clips to Cleaner XL with soft-imported images, the sources must reside on locations that are accessible to the Autodesk Visual Effects and Finishing application and to Cleaner XL. Wiretap path translation services must be configured accordingly. See the "Configuring Wiretap" section of the "Setting Up the Wire Network" chapter in the *Autodesk Stone and Wire Filesystem and Networking Guide*.
- You may have destination folders that do not exist, do not have write permission, or that are full. Always check these aspects of your output destinations if you run into problems. You can use UNC paths for your destinations to better ensure a static destination in a complex network facility.
- If there is an excessive delay when exporting clips from the Autodesk Visual Effects and Finishing workstation, you may have too many clips stored in the ExportIO library. Whenever you export a clip to Cleaner XL, a copy of the clip's metadata is made to the ExportIO library associated with the project. Clips that are stored in the ExportIO library are referenced from Backburner Monitor if the job is resubmitted. You can also export clips from the ExportIO library. You can delete these clips from the ExportIO library if they are no longer needed. See Re-encoding Jobs on page 24.
- You may be exporting jobs to an older version of Cleaner XL if one has been installed on the destination system. This can cause problems, for example, if you are using an output profile for a file format that had previously not been supported. See the *Readme* for the current version of Cleaner XL for update information for Autodesk Visual Effects and Finishing users.

Missing Job Information on Backburner Standalone Workstation

If you install Backburner on a Windows workstation where Cleaner XL has not been installed, Cleaner XL jobs are displayed, but some detailed job information is missing in Backburner Monitor. You can fix this problem by copying the Cleaner Backburner plug-in from a workstation where Cleaner XL is installed, to one where only Backburner is installed.

To install the Cleaner Backburner plug-in:

1. On a Windows workstation where you installed Cleaner XL 1.1 (or later), navigate to the Cleaner XL install directory. By default, Cleaner XL is installed in one of the following directories:
   - Prior to Cleaner XL version 1.5: *C:\Program Files\discreet*
   - Cleaner XL version 1.5 or later: *C:\Program Files\Autodesk*
2. Copy the file *nrCleaner.task* to an accessible network location.

3 Paste the file *nrCleaner.task* to the following directory on the Windows workstation where you installed Backburner:

C:*Program Files**Autodesk**Backburner*

The next time you run Backburner Monitor, all the relevant information for Cleaner XL jobs passing through the Backburner pipeline will display properly.

Checking Log Files for Errors

When you encode jobs using Cleaner XL, log files are created by Backburner and Cleaner XL to track the status of jobs and to indicate any warnings and errors that occur. If you notice that your jobs have not been encoded properly, you can search through the log files for relevant information.

There are several other places where you can see the status of jobs as they are being passed through the Backburner pipeline from the Autodesk Visual Effects and Finishing workstation for final encoding on the Windows workstation running Cleaner XL. You can:

- Check feedback in real time on the Backburner Server located on the Windows workstation running Cleaner XL.
- Check feedback in real time on the Backburner Manager located on the Windows workstation to which the Autodesk Visual Effects and Finishing workstation is configured to send jobs.
- Use either the Backburner Monitor or Backburner Web Monitor to keep track of all jobs in the pipeline, during and after encoding.

Log files are created by Backburner Server, Backburner Manager, and Cleaner XL. You can open any of these log files in a text editor to track the status of jobs and errors that occur for that particular application.

For configuration and other information about the Backburner log files, see the *Autodesk Backburner User Guide*.

To check the Backburner Server log:

1 On the Windows workstation where the Backburner Server is running, navigate to:

*Programs Files**Autodesk**Backburner**Network*

2 Open the file *backburnerServer.log* in a text editor.

To check the Backburner Manager log:

1 On the Windows workstation where the Backburner Manager is running, navigate to:

*Programs Files**Autodesk**Backburner**Network*

2 Open the file *backburner.log* in a text editor.

To check the Cleaner XL log:

1 On the Windows workstation where Cleaner XL is running, navigate to:

*Program Files**Autodesk**Backburner Network**Jobs*

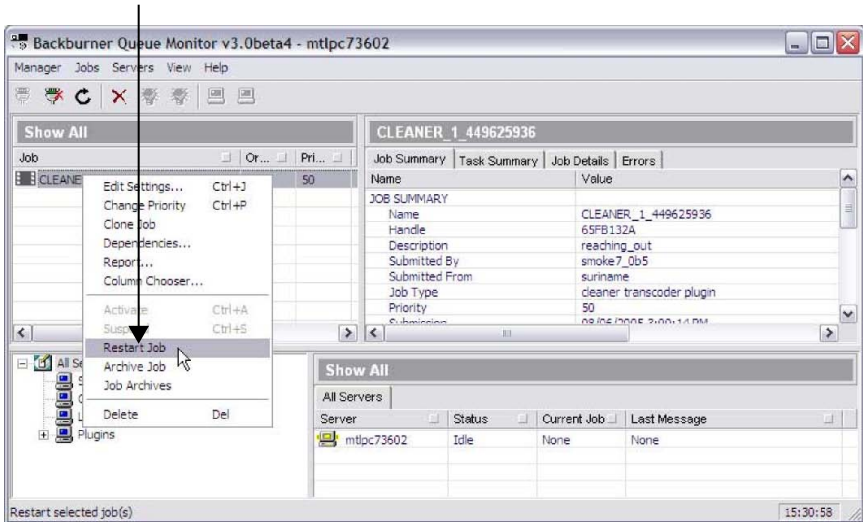
2 Open the log file corresponding to the job you are concerned about in a text editor. If necessary, you can check the name for a particular job in the Backburner Monitor. All jobs appear in the Job list, as well as in the Name field of the Job Summary tab when the job is selected.

NOTE You can also open Cleaner XL to see which errors occurred in your job by checking the log in the application. Click on the diamond-shaped button at the bottom of the job window. The log section is on the right.

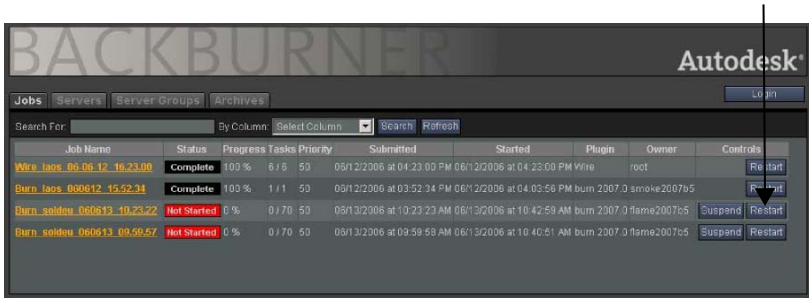
Re-encoding Jobs

There are two methods for re-encoding jobs already processed by Cleaner XL.

You can restart the job from Backburner by right-clicking it in the Backburner Monitor and selecting Restart job.



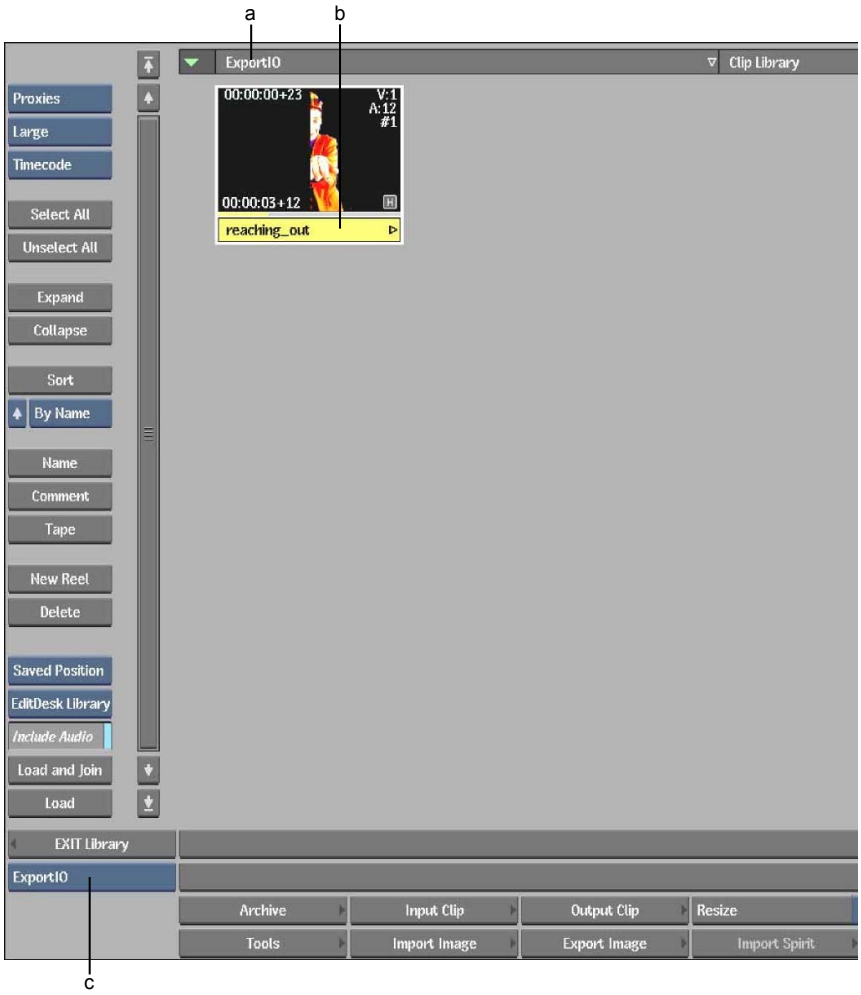
Alternatively, in the Backburner Web Monitor, click the Jobs tab, locate the job to be restarted in the Job list, and click its Restart button.



See the *Autodesk Backburner User Guide*.

When a Cleaner XL job is restarted in Backburner, the clip is retrieved from the ExportIO library on the Autodesk Visual Effects and Finishing workstation where the clip was exported from.

A copy of the metadata of the clip is made to the ExportIO library when you export a clip to Cleaner XL.



(a) Clips in ExportIO library (b) Copy of clip exportedto Cleaner XL (c) ExportIO available fromClip Library box

Image courtesy of Black Hole Sun / CIS Hollywood

The original clip can be deleted from the project library as it is the clip in the ExportIO library that is used to re-encode jobs.

NOTE To delete the clip and its frames, which will free up space, the clip has to be deleted from both the project library and the ExportIO library.

You may want to periodically delete the clips from the ExportIO library after exporting many clips to Cleaner XL. This will free up space and improve the time it takes to export clips, since this library is referenced whenever a clip is exported to Cleaner XL, as well as to other formats. However, if you erase the clip from the Export library, you will not be able to resubmit it from the Backburner Monitor.

You can use a second method to export a clip, using a different output profile, even if you erased the original clip from the project's clip library. Export the clip from the ExportIO library and select the output profile you want to use.