

AUTODESK®
BACKBURNER™
2008

User's Guide



Autodesk®

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contents

Contents

1	Introduction	1
	Summary	1
	About This Guide	1
	Backburner Distributed Queueing System Overview	2
	Backburner and Wiretap	4
	Notation Conventions	4
	Related Documentation	5
	Contacting Customer Support	6
2	Understanding the Backburner Monitor	9
	Summary	9
	Overview of the Backburner Monitor	9
	Functionality and Access Restrictions	10
	Launching the Backburner Web Monitor	11
	Launching the Backburner Monitor	13
	Accessing System Management Tools	15
3	Monitoring and Managing Jobs	17
	Summary	17
	Finding and Monitoring Jobs	17
	Suspending and Reactivating Jobs	25
	Modifying Job Settings	27
	Restarting Jobs	31
	Cloning Jobs	32

Archiving Jobs	34
Deleting Jobs	41
Submitting Jobs from a Command Line or Script	42
 4 Monitoring and Managing Render Nodes	47
Summary	47
Monitoring Rendering Nodes	47
Shifting Nodes Between Jobs in the Queue	53
Deleting Offline Rendering Nodes	56
Setting the Availability for Rendering Nodes	59
Grouping Rendering Nodes in Server Groups	62
Configuring Server Groups	70
 5 Troubleshooting Backburner	73
Summary	73
Basic Troubleshooting Techniques	73
Common Problems	74
Verifying Communication Between Two Hosts	77
Verifying the Packet Size	78
Configuring Backburner Log Files	78
Editing the backburner.xml File	82
Resolving a Host Access Error	83
Resolving Invalid DNS Addresses	84
Resolving a Problem Connecting to the Backburner Manager	84
Adding the Backburner Path to the Windows Path Environment Variable	86
Resolving Network Card Priority	87
Resolving an Unavailable Render Node Problem	87
Restarting Suspended Render Nodes	89
Resolving a Render Node Failure	89
Adjusting the Maximum Number of Render Nodes Per Job	90
 Index	93

Introduction

Summary

About This Guide	1
Backburner Distributed Queueing System Overview	2
Backburner and Wiretap	4
Notation Conventions	4
Related Documentation	5
Contacting Customer Support	6

About This Guide

This guide explains how to use the Backburner Monitor or the Backburner Web Monitor to monitor and manage render jobs and Render Nodes in the the Autodesk® Backburner™ Distributed Queueing System. It 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 a Backburner Distributed Queueing System.

This guide assumes you have completed the installation and configuration of all Backburner components (Backburner Manager, Backburner Server, and either the Backburner Monitor or the Backburner Web Monitor), as described in the *Autodesk Backburner 2008 Installation Guide*.

This guide does not provide information on sending jobs to the rendering network from your Autodesk application. For this information, refer to the application's *User's Guide*.

Intended Audience

This guide is designed for users required to use and/or maintain an Autodesk Backburner Distributed Queueing System. This guide assumes knowledge of:

- Autodesk applications such as Autodesk Smoke®, Autodesk Flame®, Autodesk 3ds Max®, Autodesk Cleaner®, or Autodesk Combustion®
- The Linux®/Windows® operating systems

- Computer networking, specifically TCP/IP

Do not attempt to carry out the procedures if you are unfamiliar in these areas. Contact Autodesk Media and Entertainment Customer Support should you require further assistance. See [“Contacting Customer Support”](#) on page 6.

NOTE: Some procedures in this guide require administrative privileges.

Backburner Distributed Queueing System Overview

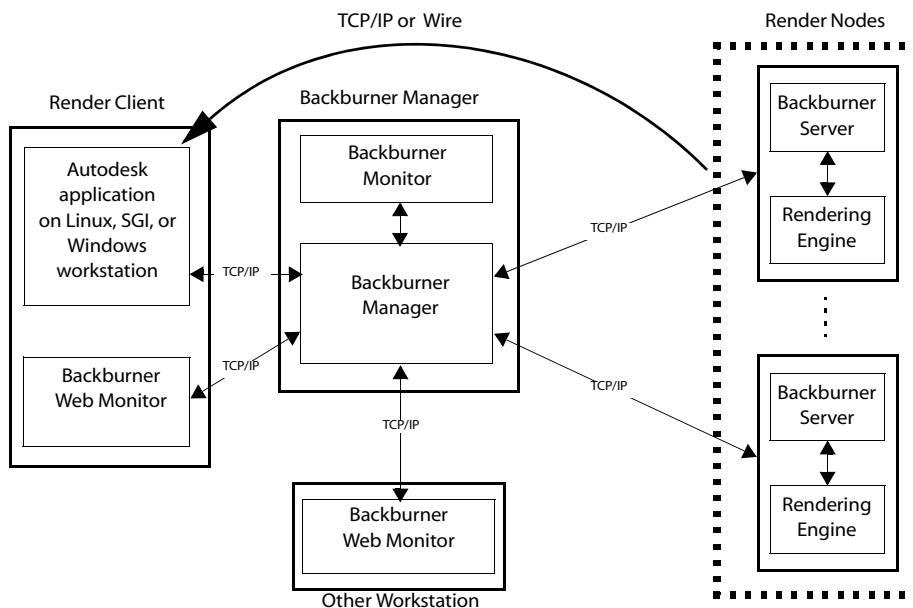
The Autodesk Backburner Distributed Queueing System is a background rendering network system that allows multiple jobs, such as composites or animation scenes, to be rendered by many computers working collectively on the same network. Background rendering provides the following benefits for a facility:

- More time for an artist to work instead of waiting for renders to complete locally
- Less time for completing projects, since a rendering network can render large or complex scenes faster than any workstation
- Better use of the computer infrastructure, as Linux, IRIX®, and Windows workstations can be used to render jobs after-hours

Autodesk applications that can use Backburner to manage jobs sent for processing by the rendering network include Autodesk Flint®, Autodesk Flame, Autodesk Inferno®, Autodesk Smoke, Autodesk Fire®, Autodesk 3ds Max, Autodesk Toxik™, Autodesk Combustion, Autodesk Cleaner, and Autodesk Lustre®.

System Components

The following diagram illustrates the components and the workflow among components in an Autodesk Backburner Distributed Queueing Systems. A description of each component follows the diagram.



NOTE: Distributed Queueing Systems for Inferno, Flame, Flint, Fire, Smoke, Backdraft® Conform, and Lustre require additional components in addition to these shown. See the latest *Autodesk Burn User's Guide* and/or the latest *Autodesk Lustre Software Installation Guide*.

Render Client — This is the Autodesk application, such as Inferno, Flame, Flint, Fire, Smoke, Backdraft Conform, 3ds Max, Combustion, Cleaner, Lustre, and Toxik, running on an SGI®, Linux, or Windows workstation. From here, you create and submit rendering jobs (such as a Flame Batch setup or a 3ds Max scene) to be processed by the Distributed Queueing System. Each setup or clip submitted for processing is called a *job*.

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 Rendering Nodes on the network. To view the progress of a job, use the Backburner Monitor or the Backburner Monitor

Backburner Manager runs as either a service on Windows or a daemon on Linux. 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. You can also 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 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, Fire, 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, Fire, 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.

Backburner Monitor or Backburner Web Monitor — This is the user interface for the Distributed Queueing System. The Backburner Monitor runs as an application on a Windows workstation. The 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.

Wire — This is the networking mechanism that is part of the Autodesk Stone® and Autodesk Wire package. Render Nodes use Wire to transfer source frames from the Render Client, and to return the rendered frames back again. Wire is only required for applications that use Burn.

Backburner and Wiretap

Backburner Manager is also a Wiretap™ server. Wiretap Server is installed when you install Backburner Manager and runs as part of Backburner Manager. The configuration file for this Wiretap Server is */usr/discreet/backburner/cfg/wiretap.cfg*. In most cases you do not need to modify the default values in the configuration file. Should you need to modify the values, consult the comments in that file for help.

Notation Conventions

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

Convention	Example
Text that you enter in a command line or shell appears in Courier bold. You must press the Enter key after each command.	rpm -qa
Variable names appear in Courier, enclosed in angle brackets. No spaces are allowed in variable names.	<variable_name>
Variables that appear enclosed in square brackets are optional.	[<filename>]
Feedback from the command line or shell appears in Courier.	limit coredumpsize
Directory names, filenames, URLs, and command line utilities appear in <i>italics</i> .	<i>/usr/discreet</i>

Related Documentation

The following table describes the documentation associated with your application. For a detailed list of the latest documentation, see your application's release notes.

User and Reference Guides	Description
<i>User's Guide</i>	Detailed instructions on using the application
<i>What's New</i>	A complete list of the new features for this release
<i>Online Help</i>	All of the information in the User's Guide along with powerful search functionality
<i>Hot Keys Reference Guide</i>	A complete list of hot keys for commonly used functions
<i>Hot Keys Card</i>	A list of the most frequently used hot keys
<i>Release Notes</i>	A complete list of documentation and information on late-breaking features
<i>Fixed and Known Bug List</i>	A complete list of fixed and known bugs for this release

Installation and Configuration Guides	Description
<i>Hardware Setup Guide</i> (for your workstation)	Information on how to set up your workstation's video I/O components and other peripherals
<i>Installation and Configuration Guide</i> (for your operating system)	Information on how to install and configure the Linux® or IRIX® operating system on your workstation should you be required to do so
<i>Stone and Wire Filesystem and Networking Guide</i> (for this release)	Procedures for configuring your Autodesk Stone® filesystem, Autodesk Wire® networking, and Autodesk Wiretap™ services
<i>Stone Direct Configuration Guide</i> (for this release)	Detailed connectivity diagrams and configuration procedures for your Stone storage arrays

Installation and Configuration Guides	Description
<i>Software Installation Guide</i> (for your operating system)	Information about installing and licensing your Autodesk Editing or Effects software
<i>Configuration File Reference Guide</i> (for your operating system)	Information on how to modify the initialization and project configuration files associated with your Autodesk application

Other Product Reference Guides	Description
<i>Using Autodesk Cleaner XL with Effects and Editing Applications</i>	Installation and troubleshooting information for Cleaner® XL
<i>Autodesk Burn Installation and User's Guide</i>	Information on how to install, set up, and use Autodesk Burn™
<i>Autodesk Backburner Installation Guide</i>	Information on how to install and set up Autodesk Backburner™
<i>Autodesk Backburner User's Guide</i>	Information on how to use Autodesk Backburner™
<i>Autodesk Wiretap Web Installation and User's Guide</i>	Information on how to install, set up, and use Autodesk Wiretap™ Web

Consult the Autodesk Web site at www.autodesk.com/discreet-documentation for the latest version of guides, release notes, and fixed and known bugs documents.

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Location:	Contact Information:
Within the Americas:	Hotline (North America): 1-800-925-6442 Direct dial: 415-507-5256 (Country code = 1) Within Montreal: 514-954-7199 8 AM to 8 PM EST Monday to Friday, excluding holidays me.support@autodesk.com
Within Europe, Middle-East and Africa:	Hotline (from London, UK): +44 207 851 8080 9 AM to 5:30 PM (local time) Monday to Friday, excluding holidays me.emea.support@autodesk.com
Within Asia Pacific: (Excluding India, China, Australia, New Zealand and Japan)	Hotline (from Singapore): +65 6555 0399 9 AM to 6 PM (local time) Monday to Friday, excluding holidays me.support.singapore@autodesk.com

Location:	Contact Information:
Within India:	Hotline (from Mumbai): +91 22 66952244 9:30 AM to 6:30 PM (local time) Monday to Friday, excluding holidays <i>me.support.india@autodesk.com</i>
Within Japan:	Hotline (from Tokyo): 0120 107 290 Direct dial: +81 3 62211810 10 AM to 6 PM (local time) Monday to Friday, excluding holidays <i>med-sys-support-jp@autodesk.com</i>
Within China:	Direct dial: +86 10 65056848 9 AM to 6 PM (local time) Monday to Friday, excluding holidays <i>me.support.china@autodesk.com</i>
Within Australia and New Zealand:	Hotline (within Australia to Melbourne): +1 300 368 355 Hotline (within New Zealand to Melbourne): 0800 555301 Direct dial: +61 3 9876 8355 8 AM to 6 PM AEST Monday to Friday, excluding certain holidays <i>me.support.anz@autodesk.com</i>

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

Understanding the Backburner Monitor



Summary

Overview of the Backburner Monitor	9
Functionality and Access Restrictions	10
Launching the Backburner Web Monitor	11
Launching the Backburner Monitor	13
Accessing System Management Tools	15

Overview of the Backburner Monitor

The Backburner Monitor is the user interface to the Backburner Distributed Queueing System. The Backburner Web Monitor is the Web-based version of the Backburner Monitor. Although the interfaces are not identical, both provide the same functionality.

The Backburner Monitor is automatically installed when you install Backburner Manager on a Windows workstation. It runs only on Windows. The Backburner Web Monitor runs in a Web browser, and can run from any workstation on the network to which the Backburner Distributed Queueing System is connected.

It is recommended that you use only one of these applications (either the Backburner Web Monitor or the Backburner Monitor) to manage the Distributed Queueing System in your facility. Otherwise, the Backburner Monitor will block task requests from a Backburner Web Monitor when both applications have access to system management tools.

NOTE: If you process Cleaner jobs, make sure that Cleaner is installed on the same workstation as a Windows-based Backburner Manager and a Backburner Monitor. Otherwise, only partial information appears for Cleaner jobs in the Backburner Monitor. For more information, see the latest *Autodesk Cleaner XL Network Encoding Troubleshooting Guide*.

Functionality and Access Restrictions

Some of the operations you can perform in the Backburner Monitor or the Backburner Web Monitor require access to the system management tools in those applications. Since access to these tools is restricted to provide security for the Distributed Queueing System, you cannot perform a restricted operation until you have access to these tools.

The way you access these tools depends on whether you are using the Backburner Monitor or the Backburner Web Monitor. For help accessing the tools, see [“Accessing System Management Tools”](#) on page 15.

NOTE: The system management tools available in the Backburner Web Monitor and the Backburner Monitor are identical.

The following is a list of the operations you can perform in the Backburner Monitor or the Backburner Web Monitor. Operations marked with an asterisk require access to the system management tools.

- Connect to a Distributed Queueing System and view general system activity
- Check the current status of the jobs on the system
- Suspend or reactivate a job in the Backburner Web Monitor
- Suspend or reactivate a job in the Backburner Monitor*
- Modify the settings for a job*
- Restart a job in the Backburner Web Monitor
- Restart a job in the Backburner Monitor*
- Duplicate (clone) a job*
- Archive a completed job or restore an archived job*
- Delete a job*
- Render a job from the DOS prompt or batch script
- Check the current status of rendering nodes on the system
- Shift a job in the queue between rendering nodes*
- Remove an offline node from the list of rendering nodes*
- Restrict the availability of rendering nodes*
- Create and manage groups of rendering nodes*

Launching the Backburner Web Monitor

Use the following procedure to connect to and view activity on the Backburner Distributed Queueing System using the Backburner Web Monitor.

To launch the Backburner Web Monitor:

1. Ensure you have a user name and password for the Backburner Web Monitor. See your system administrator if necessary to obtain these.

HINT: If your facility is using the Microsoft® IIS web server for the Backburner Web Monitor, use your Windows username and password.

NOTE: Not all user accounts have administrator privileges. These privileges are required to use the system management tools on any job in the system. If you do not have these privileges you can use the system management tools only on your own jobs. If you are unsure if the tasks you intend to perform in Backburner Web Monitor require the system management tools, consult the list in [“Functionality and Access Restrictions”](#) on page 10. Ensure you obtain a user name and password with the appropriate privileges for the tasks you intend to perform.

2. Launch a Web browser.

The Backburner Web Monitor can be launched from any Web browser that has access to the Backburner Manager for the Distributed Queueing System.

3. In the Web browser's Address field, enter `http://<machinename>/backburner`, where `<machinename>` is the name of the workstation running the Apache server. For example, if the name of the Apache workstation is `douala`, the address is `http://douala/backburner`.

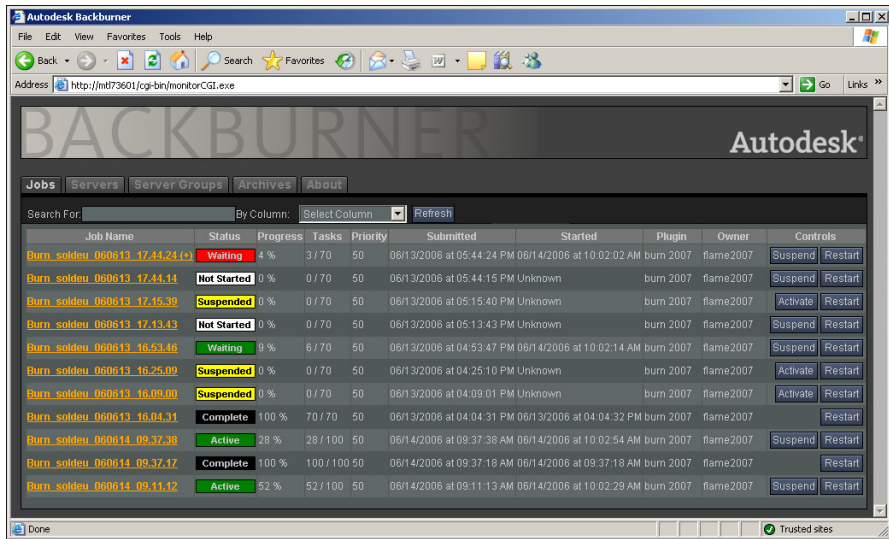
You are prompted to enter a user name and password.



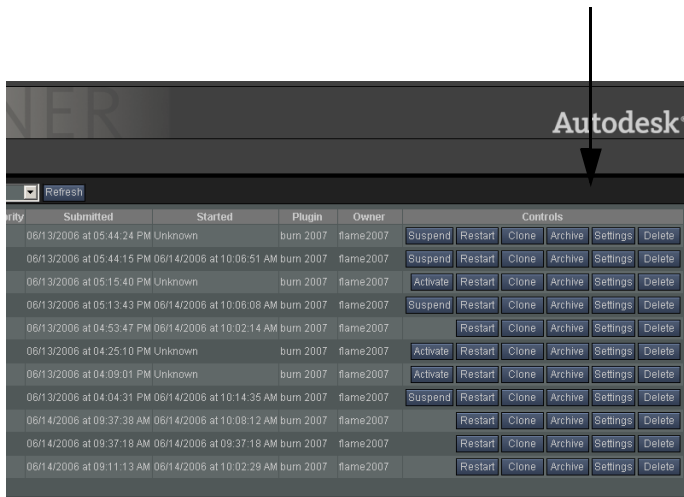
4. Enter a user name and password and then click OK.

2 Understanding the Backburner Monitor

The Backburner Web Monitor appears in the browser.



If you logged in with a user that has administrator privileges, the system management tools appear on the right of the Backburner Web Monitor. You may have to scroll to the right to see these tools.



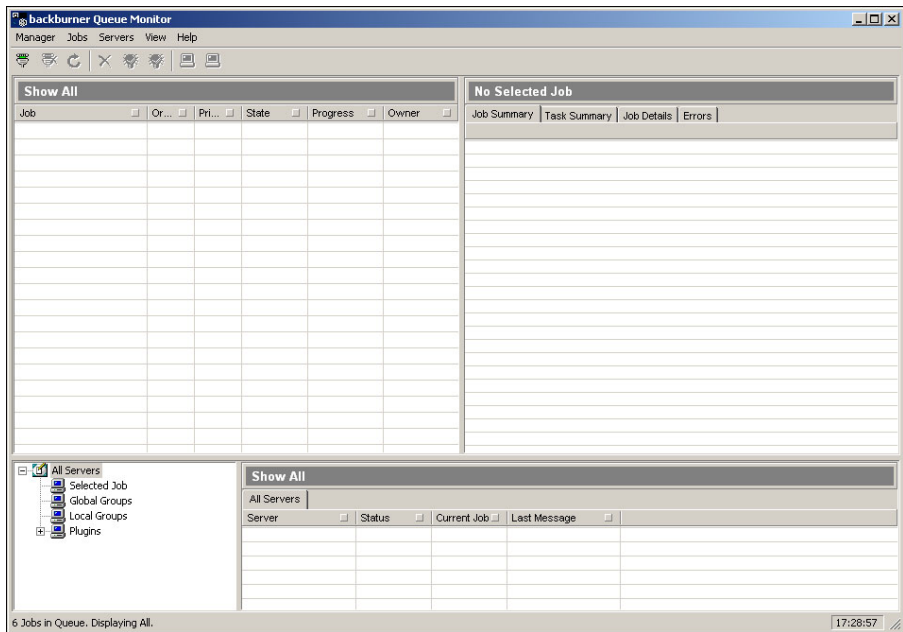
Launching the Backburner Monitor


Use the following procedure to connect to and view activity on the Backburner Distributed Queueing System using the Backburner Monitor.

To view system activity using the Backburner Monitor:

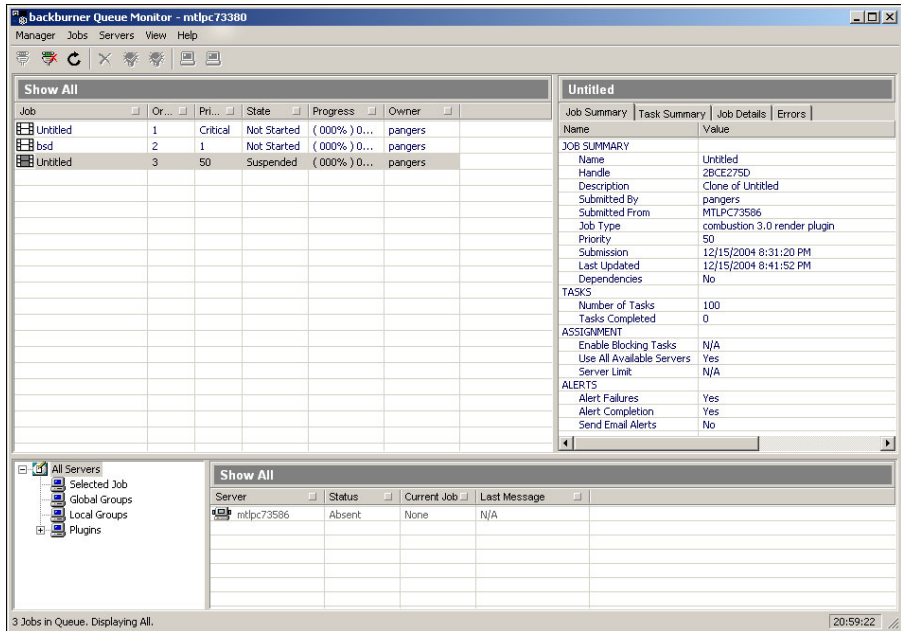
1. Choose Start | Programs | Autodesk | Backburner | monitor.

The Backburner Monitor appears. The Monitor displays no information because it is not currently connected to a Distributed Queueing System.



2. Connect the Monitor to a Backburner Manager to view the jobs and status of the Manager's Distributed Queueing System. In the toolbar, click the Connect button  .
The Connect to Manager dialog appears.
3. If the Automatic Search option is enabled, disable it unless the following applies:
 - You are unsure of the Backburner Manager to which you should be connecting.
 - The Backburner Manager that you want to connect to is on the same subnet.
4. When prompted, enter the name or IP address of the Backburner Manager for the Distributed Queueing System you wish to view and click OK.

The Monitor connects to the Backburner Manager and shows the activity on the Manager's system.



5. Repeat the previous steps to start the Backburner Monitor from other Windows workstations.

You can launch the Backburner Monitor from any Windows workstation on your system to view system status and perform management tasks such as deleting jobs. The first Backburner Monitor that connects to the Manager has access to system management tools for the Distributed Queueing System. Subsequent Backburner Monitors that connect to the Manager are in “read-only” mode. A Backburner Monitor in read-only mode shows all system activity but is subject to the following restrictions:

- The Monitor does not have access to system management tools and cannot perform management tasks such as archiving, cloning, or deleting jobs. The Monitor can request control of the system to access these tools; see [“Functionality and Access Restrictions”](#) on page 10.
- The Monitor’s Title bar displays “Read Only” to indicate it is in read-only mode.
- Certain buttons and menu options related to system management tasks are unavailable.

NOTE: Avoid running the Backburner Monitor on every workstation and Render Node on the Distributed Queueing System to decrease traffic and improve network performance.

Accessing System Management Tools

The way you access the system management tools depends on whether you are using the Backburner Monitor or the Backburner Web Monitor.

Accessing System Management Tools from the Backburner Web Monitor

In the Backburner Web Monitor, the user account you use to log in to the the Backburner Web Monitor determines whether you have access to the system management tools for only your jobs or for any jobs in the Distributed Queueing System. Only user accounts that have administrator privileges can access these tools for all jobs. See your system administrator to obtain a username and password for a user account with administrator privileges. Once you have these, launch the Backburner Web Monitor as described in [“Launching the Backburner Web Monitor”](#) on page 11.

NOTE: If you are already logged in to Backburner Web Monitor, you may have to exit and then relaunch the Web browser to log in as a user with administrator privileges. Otherwise the login screen may not appear and the connection may be re-established using the user account that does not have administrator privileges.

Accessing System Management Tools from the Backburner Monitor

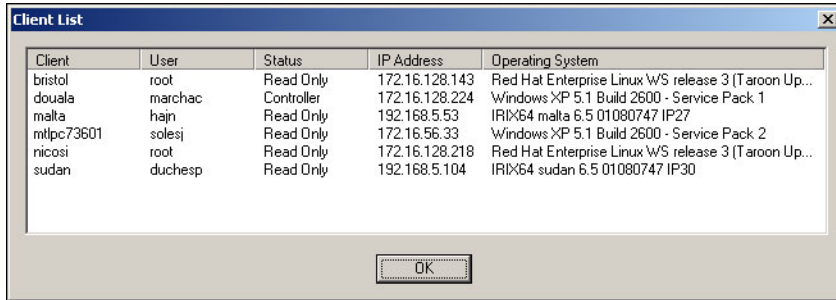
Although you can run the Backburner Monitor from any Windows workstation on your Distributed Queueing System, only the first Monitor that connects to a Backburner Manager has access to system management tools for tasks such as stopping, restarting, or deleting jobs. Subsequent Monitors that connect to the Backburner Manager are in “read-only” mode, which only allow them to view the activity on the Distributed Queueing System and stop/restart jobs.

You cannot access system management tools from a Windows-based Backburner Monitor in read-only mode. Use the following procedure to access system management tools from a Monitor in read-only mode by requesting control of the Distributed Queueing System.

To access system management tools:

1. (Optional) Choose Manager | Request Client List (or press **ALT + L**).

A list of users who are using the Backburner Monitor to view the status of the Distributed Queueing System appears. The Status column shows who is the Controller, the user who currently has control of the Distributed Queueing System.



Client	User	Status	IP Address	Operating System
bristol	root	Read Only	172.16.128.143	Red Hat Enterprise Linux WS release 3 (Taroon Up...
douala	marchac	Controller	172.16.128.224	Windows XP 5.1 Build 2600 - Service Pack 1
malta	hajn	Read Only	192.168.5.53	IRIX64 malta 6.5 01080747 IP27
mtlpc73601	solesj	Read Only	172.16.56.33	Windows XP 5.1 Build 2600 - Service Pack 2
nicosi	root	Read Only	172.16.128.218	Red Hat Enterprise Linux WS release 3 (Taroon Up...
sudan	duchesp	Read Only	192.168.5.104	IRIX64 sudan 6.5 01080747 IP30

2. From a Backburner Monitor currently in read-only mode, choose Manager | Request Queue Control (or press **CTRL+Q**).

The Backburner Monitor prompts the current Controller that another user is requesting control of the system. The Controller has 10 seconds to refuse this request and retain control. A request may be denied if the Controller is performing a management task, such as deleting jobs from the queue.

If this request is not refused after 10 seconds, the following occurs:

- The Monitor that requested control is given control of the Distributed Queueing System and its user becomes the Controller. The “Read-Only” label disappears from the requesting Monitor’s title bar to show it has control of the Distributed Queueing System and system management tools become available.
 - The Monitor that previously had control of the Distributed Queueing System is put in read-only mode and its user loses Controller status. The “Read-Only” label appears in the Monitor’s title bar to show it does not have control of the Distributed Queueing System anymore and system management tools become unavailable.
3. Perform the operation requiring access to the system management tools.

Monitoring and Managing Jobs

Summary

Finding and Monitoring Jobs	17
Suspending and Reactivating Jobs	25
Modifying Job Settings	27
Restarting Jobs	31
Cloning Jobs	32
Archiving Jobs	34
Deleting Jobs	41
Submitting Jobs from a Command Line or Script	42

Finding and Monitoring Jobs

It is a good idea to regularly check the status of jobs currently on the system to:

- Gauge the general performance of the system to ensure it is working properly.
- Identify jobs that may be using excessive amounts of system resources.
- Locate 'orphan' jobs that were submitted by accident or have been forgotten.

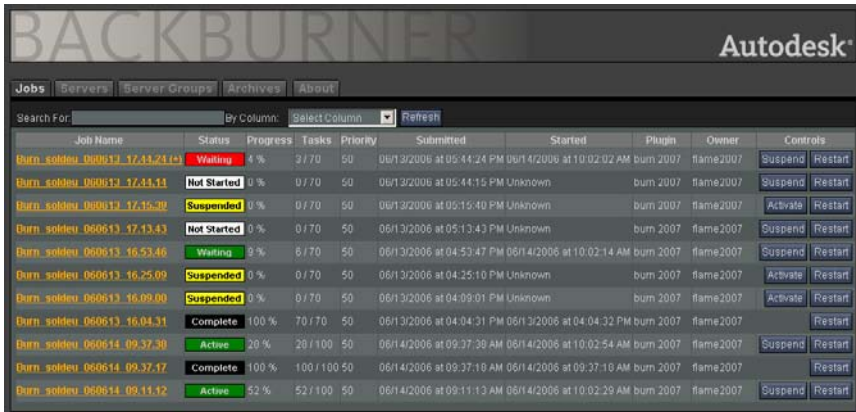
Finding and Monitoring Jobs Using the Backburner Web Monitor

Find jobs on the system and view their status in the Backburner Web Monitor using the following procedure. This procedure does not require access to system management tools.

To find jobs and view their status:

1. Start the Backburner Web Monitor through a Web browser. See [“Launching the Backburner Web Monitor”](#) on page 11.
2. Click Jobs.

The Job list appears, showing all jobs on the system with a summary of their current progress and status.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldier_060613_17.33.24.14	Waiting	4 %	2 / 70	50	06/13/2006 at 05:44:24 PM	06/14/2006 at 10:02:02 AM	burn 2007	flame2007	Suspend Restart
Burn_soldier_060613_17.33.13	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM	Unknown	burn 2007	flame2007	Suspend Restart
Burn_soldier_060613_17.35.20	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldier_060613_17.13.43	Not Started	0 %	0 / 70	50	06/13/2006 at 05:13:43 PM	Unknown	burn 2007	flame2007	Suspend Restart
Burn_soldier_060613_16.51.46	Waiting	9 %	6 / 70	50	06/13/2006 at 04:53:47 PM	06/14/2006 at 10:02:14 AM	burn 2007	flame2007	Suspend Restart
Burn_soldier_060613_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldier_060613_16.09.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldier_060613_16.04.31	Complete	100 %	70 / 70	50	06/13/2006 at 04:04:31 PM	06/13/2006 at 04:04:32 PM	burn 2007	flame2007	Restart
Burn_soldier_060614_09.37.30	Active	20 %	20 / 100	50	06/14/2006 at 09:37:30 AM	06/14/2006 at 10:02:54 AM	burn 2007	flame2007	Suspend Restart
Burn_soldier_060614_09.37.17	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:10 AM	06/14/2006 at 09:37:10 AM	burn 2007	flame2007	Restart
Burn_soldier_060614_09.11.12	Active	52 %	52 / 100	50	06/14/2006 at 09:11:13 AM	06/14/2006 at 10:02:29 AM	burn 2007	flame2007	Suspend Restart

NOTE: The Backburner Web Monitor displays a maximum of 20 jobs at a time. If there are more than 20 jobs in the Distributed Queueing System, page numbers appear at the bottom of the Backburner Web Monitor, below the list of jobs. Click a page number to display another 20 of the jobs in the system.

The status icon beside each job name also provides a graphical indication of its state. The following list shows the icon color used for each job state.

State	Icon Color
Active	Green
Active (error)	Red
Suspended	Yellow
Completed	Black
Not Started	White
Not Started (error)	Red
Waiting	Green
Waiting (error)	Red

You can find a particular job using the Search function in the Backburner Web Monitor. Continue to the next step to use the Search function or go to step 4 to view the properties of a job on the system.

3. To locate a job on the system, do the following to set search criteria and perform the search:

- From the By Column list, select a filter to be used for the search, such as a job's name, owner, or current status.
- In the Search For field, enter a keyword for the search. You can enter partial or complete alphanumeric keywords in this field.
- Press **ENTER** or click Refresh.



a) Search For field

b) By Column list

The list of jobs matching your search criteria appears in the Job list.

The screenshot shows the Backburner interface with the 'Jobs' tab selected. The 'Search For' field is empty, and the 'By Column' dropdown is set to 'Status-Pending'. The job list shows four jobs:

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldow_060613_17.44.24 (+)	Waiting	4 %	3 / 70	50	06/13/2006 at 05:44:24 PM	06/14/2006 at 10:02:02 AM	burn 2007	flame2007	Suspend Restart
Burn_soldow_060613_17.44.14	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM	Unknown	burn 2007	flame2007	Suspend Restart
Burn_soldow_060613_17.15.39	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldow_060614_09.37.30	Active	28 %	28 / 100	50	06/14/2006 at 09:37:38 AM	06/14/2006 at 10:02:54 AM	burn 2007	flame2007	Suspend Restart
Burn_soldow_060614_09.11.12	Active	52 %	52 / 100	50	06/14/2006 at 09:11:12 AM	06/14/2006 at 10:02:28 AM	burn 2007	flame2007	Suspend Restart

NOTE: Searches are performed on all jobs in the system, not just the 20 jobs the Backburner Web Monitor is currently displaying. Also note that search criteria remains effective until you explicitly change it. If the monitor is not displaying jobs you expect to see, verify that the search criteria is accurate.

4. Click a job's name in the list to view its properties.

A summary of the properties and details for the selected job appear in the Web Monitor.

The screenshot shows the Autodesk Backburner Web Monitor interface. At the top, there's a navigation bar with tabs: Jobs, Servers, Server Groups, Archives, and About. Below this is a search bar and a 'By Column' dropdown menu. The main content area displays details for a selected job: 'Burn_soldeu_060613_17.44.14'. The job status is 'Complete' with 100% progress. A table below the job details shows the job's properties, including Handle, Description, Job Type, Start/End times, and Last updated time. At the bottom, a 'Summary' table lists 15 tasks, all of which are 'Complete' and were processed by 'burn8'.

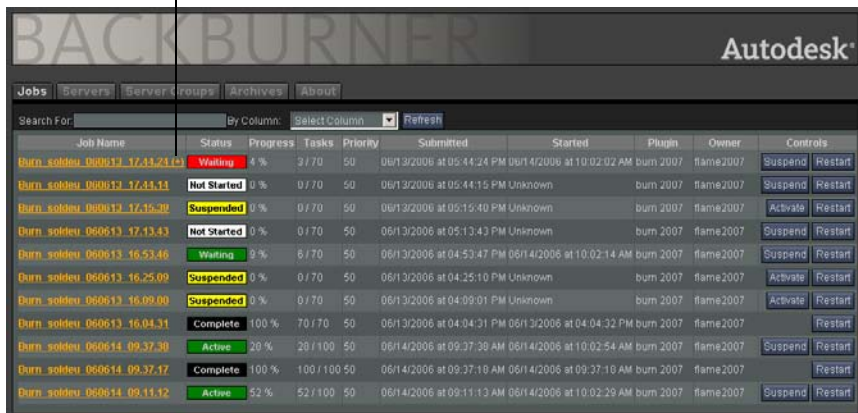
State	Progress (%)	Servers	Priority	Tasks	Average Task Time	Estimated Time Left	Plugin
Complete	100	7	50	70 / 70	00:00:02	-	burn 2007.0

Task ID	Status	Time elapsed	Server	Last errors
1	Complete	00:00:24	burn8	
2	Complete	00:00:22	burn4	
3	Complete	00:00:16	burn5	
4	Complete	00:00:03	burn8	
5	Complete	00:00:02	burn8	
6	Complete	00:00:02	burn8	
7	Complete	00:00:02	burn8	
8	Complete	00:00:02	burn8	
9	Complete	00:00:02	burn8	
10	Complete	00:00:02	burn8	
11	Complete	00:00:02	burn8	
12	Complete	00:00:02	burn8	
13	Complete	00:00:02	burn8	
14	Complete	00:00:02	burn8	
15	Complete	00:00:02	burn8	

This area also shows the following information for the job:

- The (optional) description of the job provided by the processing client.
 - The plug-in required to process the job, such as the Burn 2008 plug-in.
 - The individual tasks needed to process the job and the nodes that performed each task.
 - The time the job was started, completed, and last updated.
 - Any dependencies (other jobs that must be completed before the selected job can be processed).
5. Click Jobs to return to the Job list.

Dependencies are also indicated in the job list by an asterisk following the job name.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldou_060613_17.43.21.0*	Waiting	4 %	3 / 70	50	06/13/2006 at 05:44:24 PM	06/14/2006 at 10:02:02 AM	burn 2007	flame2007	Suspend Restart
Burn_soldou_060613_17.43.13	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM	Unknown	burn 2007	flame2007	Suspend Restart
Burn_soldou_060613_17.35.30	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldou_060613_17.13.43	Not Started	0 %	0 / 70	50	06/13/2006 at 05:13:43 PM	Unknown	burn 2007	flame2007	Suspend Restart
Burn_soldou_060613_16.53.46	Waiting	9 %	6 / 70	50	06/13/2006 at 04:53:47 PM	06/14/2006 at 10:02:14 AM	burn 2007	flame2007	Suspend Restart
Burn_soldou_060613_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldou_060613_16.09.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldou_060613_16.04.31	Complete	100 %	70 / 70	50	06/13/2006 at 04:04:31 PM	06/13/2006 at 04:04:32 PM	burn 2007	flame2007	Restart
Burn_soldou_060614_09.37.30	Active	20 %	20 / 100	50	06/14/2006 at 09:37:30 AM	06/14/2006 at 10:02:54 AM	burn 2007	flame2007	Suspend Restart
Burn_soldou_060614_09.37.17	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:18 AM	06/14/2006 at 09:37:18 AM	burn 2007	flame2007	Restart
Burn_soldou_060614_09.11.12	Active	52 %	52 / 100	50	06/14/2006 at 09:11:13 AM	06/14/2006 at 10:02:29 AM	burn 2007	flame2007	Suspend Restart

Finding and Monitoring Jobs Using the Backburner Monitor

Use the procedures in this section to find jobs on the system and view their status in the Backburner Monitor. You can also use these procedures to customize the content and layout of the Monitor.

These procedures do not require access to system management tools.

You can find a particular job using search functionality available in the Job list. Continue to the next step to use this functionality or go to step 4 to view the properties of a job on the system.

3. To find a job in the Job list, do any of the following:
 - Scroll through the entries in the Job list using the provided scroll bars. The scroll bars appear when the number of entries in the Job list exceeds its display area.
 - Rearrange the list alphanumerically by clicking the name of a column to reorder the list in ascending or descending order.
 - Filter the list by first clicking the square filter icon on the right side of each column in the Job list, then using the dialog that appears to filter the list based on your criteria.
4. Select a job in the Job list to view its properties and details.

Properties and details for the selected job appear in the Job Information area to the right of the Job list.

Untitled	
Job Summary	Task Summary
Job Details	Errors
Name	Value
JOB SUMMARY	
Name	Untitled
Handle	2BCE275D
Description	Clone of Untitled
Submitted By	pangers
Submitted From	MTLPC73586
Job Type	combustion 3.0 render plugin
Priority	50
Submission	12/15/2004 8:31:20 PM
Last Updated	12/15/2004 8:41:52 PM
Dependencies	No
TASKS	
Number of Tasks	100
Tasks Completed	0
ASSIGNMENT	
Enable Blocking Tasks	N/A
Use All Available Servers	Yes
Server Limit	N/A
ALERTS	
Alert Failures	Yes
Alert Completion	Yes
Send Email Alerts	No

The amount of information appearing in this area depends on the application plug-in used to process a job. The Job Information area contains the following panels showing different aspects of the selected job.

Job Summary — Lists important job-related information, including Job Options settings and Output settings.

Task Summary — Lists tasks in the job (under “Task ID”) along with each task’s status, processing time, Render Node, and date and time of assignment. Right-click the task you

wish to view under “Task ID” to view its output file. This is available only for completed tasks.

Job Details — Lists the job's rendering parameters, statistics, and settings.

Errors — Lists each frame for which an error occurred, which server registered the error, and a description of the error, such as missing maps, missing texture coordinates, or invalid output directories.

If no job is selected or multiple jobs are selected, this window is blank. You can sort and filter columns in the Job Information window.

HINT: You can also create a new rendering job in the Backburner Monitor by pressing **ALT+N**, if an application plug-in supports this functionality.

Customizing the Job List in the Backburner Monitor

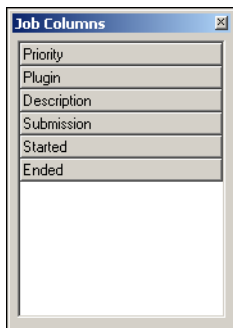
Add, remove, and rearrange information shown in the Job list using the following procedures. You do this to customize the Backburner Monitor to suit your preferences and needs.

NOTE: You cannot customize the Job list in the Backburner Web Monitor.

To add columns to the Job list:

1. Do one of the following to see what information is not currently appearing in the Job list:
 - Choose Jobs | Column Chooser.
 - Right-click any job in the list and choose Column Chooser.

The Job Columns dialog appears, showing information that is not currently displayed in the Job list area.



2. Drag the title for the additional information from the dialog to the column title bar of the Job list.

When you drag the title to this bar, a pair of arrows show where the information can be placed.

Show All						
Job	Order	Priority			owner	
Burn_soldeu_06011...	1	50	Complete	(100%) 0...	flame9_7b1	
Burn_newcastle_06...	2	50	Complete	(100%) 0...	flame9_7b1	
Burn_newcastle_06...	3	50	Complete	(100%) 0...	flame9_7b1	
Burn_newcastle_06...	4	50	Complete	(100%) 0...	flame9_7b1	
Burn_newcastle_06...	5	50	Complete	(100%) 0...	flame9_7b1	

In general, you can place a column anywhere except at the extreme left.

- 3. Once you are satisfied with the placement of the new column, drop the column to add it to the Job list.

The column is added and is filled in with information for each job.

To rearrange information in the Job list:

- Click and drag the column title slightly to the left of the position where you want the column to appear in the Job list.

The information appears in its new position in the Job list.

To remove information from the Job list:

- Right-click the column title of the information to be removed, and then choose Remove Column.

NOTE: You cannot remove the Job or Order columns from the Job list area.

Suspending and Reactivating Jobs

Suspending and reactivating jobs is the most common system management task. You suspend and reactivate jobs to better manage overall system resources. For example, you may suspend one job temporarily to transfer its Render Nodes to a higher priority job. Once the higher priority job is complete, you reactivate the suspended job to allow it to complete rendering.

When you suspend a job, the Render Nodes assigned to it either drop the task they are processing or finish the task, depending on where they are. The next pending job becomes active and is processed by the system.

Suspending and Reactivating Jobs in the Backburner Web Monitor

Use the following procedures to suspend and reactivate jobs using the Backburner Web Monitor. These procedures do not require access to system management tools.

To suspend a rendering job using the Backburner Web Monitor:

1. In a Backburner Web Monitor, click Jobs.
2. Locate the job to be stopped and then click Suspend.
3. When prompted, click OK to stop the job.

The job is suspended. The icon for the job turns yellow to indicate its new status.

To reactivate a suspended rendering job using the Backburner Web Monitor:


1. In the Backburner Web Monitor, click Jobs.
2. Locate the suspended job and then click Activate.
3. When prompted, click OK to reactivate the job.

The job is reactivated or becomes pending in the queue if another job is currently being processed. The icon for the job also changes colour to indicate its new status. Reactivated jobs are indicated by a green icon while pending jobs are indicated by a white icon.

Suspending and Reactivating Jobs in the Backburner Monitor

Use the following procedures to suspend and reactivate jobs using the Backburner Monitor. These procedure require access to system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.


To suspend a rendering job using the Backburner Monitor:

1. From the Backburner Monitor with access to system management tools, select one or more active or pending jobs in the Job list.
2. Do one of the following:
 - In the toolbar, click the Suspend button  (or press **CTRL+S**).
 - Choose Jobs | Suspend.
 - Right-click a job in the Job list and choose Suspend.

The selected job is suspended. The icon for the job turns yellow to indicate the job's new status.

NOTE: If one of the selected jobs is completed, the Suspend button is disabled.

To reactivate a suspended rendering job using the Backburner Monitor:

1. From the Backburner Monitor with access to system management tools, select a suspended job as shown by a yellow icon.
2. Do one of the following:
 - In the toolbar, click the Activate button  (or press **CTRL+A**).
 - Right-click the job and choose Activate.
Choose Jobs | Activate.

The selected job is either reactivated or becomes pending in the queue if another job is currently being processed. The icon for the job also changes colour to indicate its new status. Reactivated jobs are indicated by a green icon while pending jobs are indicated by a white icon.

Modifying Job Settings

You modify a job's settings to customize how it is handled by the Distributed Queueing System. For example, you can specify a server group to process a pending job in the system to ensure it is processed quickly by a group of faster nodes.

You also modify job settings to stay informed about the progress of a job on the system. For example, you can enable email notification to have Backburner send you regular email updates about the progress of an important job or to alert you when this job is complete.

The settings that you can modify for a given job depend on the rendering engine process used with your application. These rendering engine processes differ in the job settings that you are allowed to modify in the Backburner Monitor or the Backburner Web Monitor; some processes may prevent you from modifying any job settings. Job settings that may be modified are the same between the Backburner Monitor and the Backburner Web Monitor.

Modifying Job Settings in the Backburner Web Monitor

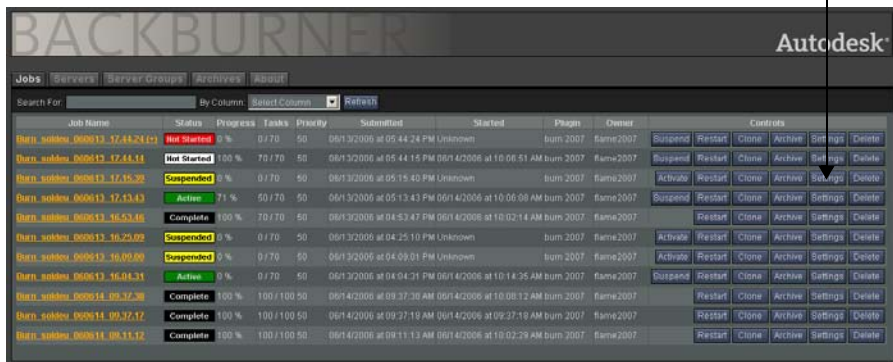
Use the following procedure to modify job settings in the Backburner Web Monitor. This procedure requires access to the system management tools. See [“Accessing System Management Tools”](#) on page 15.

To modify job settings in the Backburner Web Monitor:

1. In a Backburner Web Monitor with access to system management tools, click Jobs.
The Job list appears, showing management tasks available for each job.

3 Monitoring and Managing Jobs

2. Locate the job whose settings are to be modified and click its Settings button.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Phases	Owner	Controls
Burn_sobhu_060613_17.44.24.13	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:24 PM Unknown		burn 2007	same2007	Suspend Restart Clone Archive Settings Delete
Burn_sobhu_060613_17.44.14	Not Started	100 %	70 / 70	50	06/13/2006 at 05:44:15 PM 06/14/2006 at 10:06:51 AM burn 2007		same2007		Suspend Restart Clone Archive Settings Delete
Burn_sobhu_060613_17.55.39	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM Unknown		burn 2007	same2007	Activate Restart Clone Archive Settings Delete
Burn_sobhu_060613_17.53.43	Active	71 %	50 / 70	50	06/13/2006 at 05:13:43 PM 06/14/2006 at 10:06:08 AM burn 2007		same2007		Suspend Restart Clone Archive Settings Delete
Burn_sobhu_060613_16.53.16	Complete	100 %	70 / 70	50	06/13/2006 at 04:53:47 PM 06/14/2006 at 10:02:14 AM burn 2007		same2007		Restart Clone Archive Settings Delete
Burn_sobhu_060613_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM Unknown		burn 2007	same2007	Activate Restart Clone Archive Settings Delete
Burn_sobhu_060613_16.09.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM Unknown		burn 2007	same2007	Activate Restart Clone Archive Settings Delete
Burn_sobhu_060613_16.04.31	Active	0 %	0 / 70	50	06/13/2006 at 04:04:31 PM 06/14/2006 at 10:14:35 AM burn 2007		same2007		Suspend Restart Clone Archive Settings Delete
Burn_sobhu_060614_09.37.36	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:36 AM 06/14/2006 at 10:08:12 AM burn 2007		same2007		Restart Clone Archive Settings Delete
Burn_sobhu_060614_09.37.12	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:19 AM 06/14/2006 at 09:37:19 AM burn 2007		same2007		Restart Clone Archive Settings Delete
Burn_sobhu_060614_09.33.12	Complete	100 %	100 / 100	50	06/14/2006 at 09:11:13 AM 06/14/2006 at 10:02:29 AM burn 2007		same2007		Restart Clone Archive Settings Delete

Settings for the job appear in the Backburner Web Monitor.

The screenshot shows the Autodesk Backburner Web Monitor interface. At the top, there are tabs for 'Jobs', 'Servers', 'Server Groups', 'Archives', and 'About'. Below the tabs is a search bar and a 'Refresh' button. The main content area is titled 'Job Properties' and contains the following settings:

- Description:** MOTIONspark
- Priority:** 50 (0=Highest, 100=Lowest)
- Override Global Blocking Tasks:** ☐
- Enable Blocking Tasks:** ☐
- Use All Available Servers:** ☒
- Server Limit:** 0
- Server Group:** [Dropdown menu]

Below the job properties is the 'Notifications' section:

- Enable Notifications:** ☒
- Notify Failures:** ☒
- Notify Progress:** ☒
- Notify Completion:** ☒
- Notify Progress Every Nth Task:** [Input field]
- Send Emails:** ☒
- Alert Email From:** [Input field]
- Alert Email To:** [Input field]
- Alert Email Server:** [Input field]

Below the notifications is the 'Servers' section, which is divided into two columns:

- Available Servers:** burn1, valletta, opole, burn2, burn4, cden, lase. [Add button]
- Assigned Servers:** burn14, burn11, burn13, burn12. [Remove button]

Below the servers is the 'Job Dependencies' section, which is divided into two columns:

- Available Dependencies:** Burn_sddbu_060614_09.11.17, Burn_sddbu_060613_16.53.40, Burn_sddbu_060613_16.59.00, Burn_sddbu_060614_09.37.30, Burn_sddbu_060614_09.37.17, Burn_sddbu_060613_16.04.51, Burn_sddbu_060613_17.44.24. [Add button]
- Current Dependencies:** [Empty box] [Remove button]

3. If necessary, modify the job settings in the Web Monitor and then do one of the following:
 - Click Apply to apply the new settings to the job immediately. If the job is currently being processed, the new settings only apply to work processed from this point forward; completed work is left as-is.
 - Click Apply & Restart to restart the job with the new settings. If the job is currently being processed, all completed work is discarded and the job is reprocessed in its entirety using the new job settings.
 - Click Cancel to discard all modifications made to the job settings. If the job is currently being processed, the original settings continue to be used.

The Job list reappears in the Backburner Web Monitor.

4. If necessary, repeat steps 1 to 3 to modify settings for other jobs.

Modifying Job Settings in the Backburner Monitor:

Use the following procedure to modify job settings in the Backburner Monitor. This procedure requires access to the system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To modify job settings in the Backburner Monitor:

1. In a Backburner Monitor with access to system management tools, select the job in the Job list whose settings you want to modify.
2. Do one of the following to display the settings for the selected job:
 - Choose Jobs | Edit Settings.
 - Right-click the job and choose Edit Settings.
 - Press **CTRL+J**.

Settings for the job appear in a dialog similar to the following.

Job Settings	
Job Name	The Constant Writer
Job Description	Calling ping
Restart Job	No
Override Global Blocking Tasks	No
Enable Blocking Tasks	No
Use All Available Servers	Yes
Server Limit	0
Server Group	
Command Line Tool Settings	
cmd arguments	ping localhost
Working path	
Log path	
Task timeout (minutes)	600
Output files	
Notifications	
Enable Notifications	No
Notify Failures	No
Notify Progress	Yes
Notify Completion	No
Notify Progress Every Nth Task	5
Send Emails	Yes

OK Cancel

NOTE: The application plug-in used to process a job determines the job settings available in the Backburner Monitor. The settings for your job may differ from the example shown.

3. In the dialog that appears, double-click the first job setting you want to modify.
If the job setting can be modified, you are allowed to change it. Otherwise, the setting remains unchanged.
4. Modify the job setting to the required value.
5. Repeat steps 3 and 4 to modify other job settings.

6. Click OK to apply the modified settings for the job.

The new job settings are applied. If the job is currently being processed, the new settings only apply to work processed from this point forward; completed work is left as-is.

HINT: Restart a job to reprocess it using the new job settings in its entirety. See [“Restarting Jobs”](#) on page 31.

Restarting Jobs

You can restart a job currently being processed or that was completed previously to reprocess it in its entirety. The following list shows some situations where you may decide to restart a job:

- Settings were changed for a job in the Backburner Monitor while the job was being processed.
- The result of the processed job was not satisfactory and needs to be redone in its entirety.
- A job is restored from its archive must be reprocessed to include updated source material.

Restarting a Job from the Backburner Web Monitor

Use the following procedure to restart jobs using the Backburner Web Monitor. This procedure does not require access to system management tools.

To restart a job from the Backburner Web Monitor:

1. In a Backburner Web Monitor with access to system management tools, click Jobs.
2. Locate the job to be restarted in the Job list and click its Restart button.
3. When prompted, click OK to restart the job.

The job is restarted or becomes pending in the queue if another job is currently being processed. The icon for the job also changes colour to indicate its new status. Restarted jobs are indicated by a green icon while pending jobs are indicated by a white icon.

4. If necessary, repeat steps 1 to 3 to restart other jobs in the Web Monitor.

Restarting a Job from the Backburner Monitor

Use the following procedure to restart jobs using the Backburner Monitor. This procedure requires access to system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To restart a job from the Backburner Monitor:

1. In a Backburner Monitor with access to system management tools, select the job(s) to be restarted in the Job list.
2. Do one of the following to restart the selected job(s):
 - Choose Jobs | Restart Job.
 - Right-click the job and then choose Restart Job.
3. When prompted, click OK to restart the job(s).

Each job is restarted or becomes pending in the queue if another job is currently being processed. The icon for the job also changes colour to indicate its new status. Restarted jobs are indicated by a green icon while pending jobs are indicated by a white icon.

Cloning Jobs

A clone is a duplicate of an existing job submitted to the Distributed Queueing System. When you clone a job, the clone inherits the parent job's status and all settings. You can modify the settings for the cloned job in the Backburner Web Monitor or the Backburner Monitor without affecting those the original job.

You can use clones to test changes to job settings or Render Nodes, as well as to reprocess jobs using different settings. The following examples show certain situations where you may decide to use cloned jobs rather than modifying the settings for an existing job or submitting a new job:

- Clone a 3ds Max rendering job in order to compare the results generated by different rendering engines using the same source models and material.
- Clone a previously submitted half-resolution Lustre job to reprocess the job at full-resolution once you receive approval from the colorist.
- Clone a submitted job from Cleaner XL to determine if a new workstation you are considering purchasing is significantly faster at transcoding than workstations already being used.

Although you can clone any job submitted to the Distributed Queueing System, cloning Burn or Background I/O jobs submitted by Autodesk Effects and Editing applications is not recommended. When these types of job are initially submitted, space on a storage device is pre-allocated to store the job's resulting frames. However, processing a cloned Burn or Background I/O job overwrites the result of the original job because it uses the same pre-allocated space to store its resulting frames.

Cloning a Job Using the Backburner Web Monitor

Use the following procedure to clone a job in the Backburner Web Monitor. This procedure requires access to system management tools. See [“Accessing System Management Tools”](#) on page 15.

To clone a job using the Backburner Web Monitor:

1. In a Backburner Web Monitor with access to system management tools, click Jobs.
The Job list appears, showing management tasks available for each job.
2. Locate the job in the list to be cloned and then click the Clone button.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugins	Owner	Controls
Burn_solids_000013_17.45.21	Not Started	0 %	0/70	50	06/13/2006 at 05:44:24 PM Unknown		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000013_17.45.11	Not Started	0 %	0/70	50	06/13/2006 at 05:44:15 PM 06/14/2006 at 10:06:51 AM burn 2007		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000013_17.45.29	Suspended	0 %	0/70	50	06/13/2006 at 05:15:40 PM Unknown		burn 2007	fame2007	Activate Restart Clone Archive Settings Delete
Burn_solids_000013_17.43.43	Active	71 %	50/70	50	06/13/2006 at 05:13:43 PM 06/14/2006 at 10:06:08 AM burn 2007		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000013_16.53.46	Complete	100 %	70/70	50	06/13/2006 at 04:53:47 PM 06/14/2006 at 10:02:14 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete
Burn_solids_000013_16.25.09	Suspended	0 %	0/70	50	06/13/2006 at 04:25:10 PM Unknown		burn 2007	fame2007	Activate Restart Clone Archive Settings Delete
Burn_solids_000013_16.09.09	Suspended	0 %	0/70	50	06/13/2006 at 04:09:01 PM Unknown		burn 2007	fame2007	Activate Restart Clone Archive Settings Delete
Burn_solids_000013_16.04.31	Active	0 %	0/70	50	06/13/2006 at 04:04:31 PM 06/14/2006 at 10:14:35 AM burn 2007		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000014_09.37.39	Complete	100 %	100/100	50	06/14/2006 at 09:37:39 AM 06/14/2006 at 10:08:12 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete
Burn_solids_000014_09.37.12	Complete	100 %	100/100	50	06/14/2006 at 09:37:12 AM 06/14/2006 at 09:37:18 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete
Burn_solids_000014_09.11.12	Complete	100 %	100/100	50	06/14/2006 at 09:11:13 AM 06/14/2006 at 10:02:29 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete

3. When prompted, click OK to clone the job.

The job is duplicated and its clone appears at the top of the Job list, showing the same name and job status.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugins	Owner	Controls
Burn_solids_000013_16.03.21	Active	0 %	0/70	50	06/13/2006 at 04:04:31 PM 06/14/2006 at 10:14:35 AM burn 2007		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000013_17.45.21	Not Started	0 %	0/70	50	06/13/2006 at 05:44:24 PM Unknown		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000013_17.45.11	Not Started	0 %	0/70	50	06/13/2006 at 05:44:15 PM 06/14/2006 at 10:06:51 AM burn 2007		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000013_17.45.29	Suspended	0 %	0/70	50	06/13/2006 at 05:15:40 PM Unknown		burn 2007	fame2007	Activate Restart Clone Archive Settings Delete
Burn_solids_000013_17.43.43	Active	71 %	50/70	50	06/13/2006 at 05:13:43 PM 06/14/2006 at 10:06:08 AM burn 2007		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000013_16.53.46	Complete	100 %	70/70	50	06/13/2006 at 04:53:47 PM 06/14/2006 at 10:02:14 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete
Burn_solids_000013_16.25.09	Suspended	0 %	0/70	50	06/13/2006 at 04:25:10 PM Unknown		burn 2007	fame2007	Activate Restart Clone Archive Settings Delete
Burn_solids_000013_16.09.09	Suspended	0 %	0/70	50	06/13/2006 at 04:09:01 PM Unknown		burn 2007	fame2007	Activate Restart Clone Archive Settings Delete
Burn_solids_000013_16.04.31	Active	0 %	0/70	50	06/13/2006 at 04:04:31 PM 06/14/2006 at 10:14:35 AM burn 2007		burn 2007	fame2007	Suspend Restart Clone Archive Settings Delete
Burn_solids_000014_09.37.39	Complete	100 %	100/100	50	06/14/2006 at 09:37:39 AM 06/14/2006 at 10:08:12 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete
Burn_solids_000014_09.37.12	Complete	100 %	100/100	50	06/14/2006 at 09:37:12 AM 06/14/2006 at 09:37:18 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete
Burn_solids_000014_09.11.12	Complete	100 %	100/100	50	06/14/2006 at 09:11:13 AM 06/14/2006 at 10:02:29 AM burn 2007		burn 2007	fame2007	Restart Clone Archive Settings Delete

4. If necessary, modify the settings of the clone created in steps 2 and 3. See [“Modifying Job Settings”](#) on page 27.

By default, the job settings of a clone are identical to those of its parent job. You can modify these settings to customize how the clone is processed by the system.

5. If necessary, submit the cloned job for processing by doing one of the following actions:
 - If the status of a clone is Pending, allow the job be processed normally.
 - If the status of a clone is Completed, click Restart to process the job.
 - If the status of a clone is Suspended, click either Activate or Restart to process the job.

Cloning a Job Using the Backburner Monitor

Use the following procedure to clone a job in the Backburner Monitor. This procedure requires access to system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To clone a job using the Backburner Monitor:

1. From the Backburner Monitor with access to system management tools, select the job in the Job list to be cloned.
2. Do one of the following:
 - Choose Jobs | Clone Job.
 - Right-click the job and then choose Clone Job.

The job is duplicated and its clone appears in the Job list with the same name and job status.

3. If necessary, modify the job settings of the clone created in step 2. See [“Modifying Job Settings”](#) on page 27.

The job settings for a clone are identical to those of its parent job. You can modify these settings to customize how the clone is to be processed by the system.
4. If necessary, submit the cloned job for processing by doing one of the following actions:
 - If the status of a clone is Pending, allow the job be processed normally.
 - If the status of a clone is Completed, restart the job. See [“Restarting Jobs”](#) on page 31.
 - If the status of a clone is Suspended, either activate or restart the job. See [“Suspending and Reactivating Jobs”](#) on page 25 or [“Restarting Jobs”](#) on page 31.

Archiving Jobs

Archive completed jobs to remove them from the Distributed Queueing System but save their parameters in case a job needs to be redone later. A job archive is a compressed file containing all information needed by Backburner to recreate a job in the system. It does not, however, contain rendered frames or source clips.

Archiving jobs allows you to do the following:

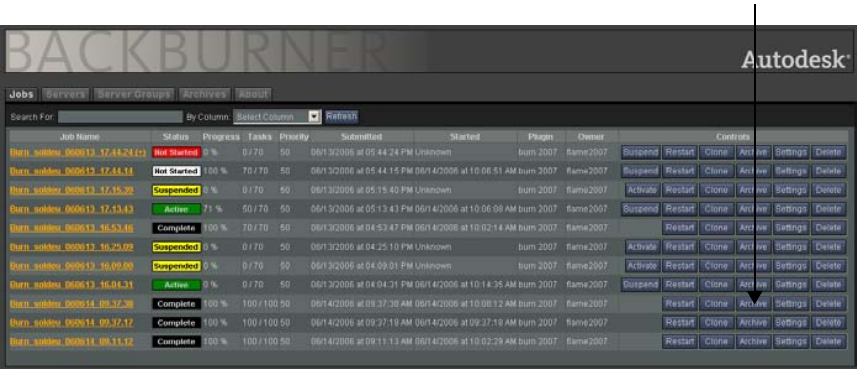
- Keep the render queue organized.
- View details for a job in case of Distributed Queueing System problems; for example, when a job appears to be completed but may not have been.
- Restore a job in case it needs to be re-rendered.
- Provide another level of backups for projects in your facility.

Archiving Jobs Using the Backburner Web Monitor

Use the following procedures to create a job archive, restore an archived job, and delete a job archive using the Backburner Web Monitor. These procedure requires access to system management tools. See [“Accessing System Management Tools”](#) on page 15.

To archive a job:

1. In a Backburner Web Monitor with access to system management tools, click Jobs.
The Job list appears, showing management tasks available for each job.
2. If necessary, suspend the job to be archived. See [“Suspending and Reactivating Jobs”](#) on page 25.
Jobs are archived (and restored) with their original status intact. Suspending the job before archiving it minimizes the impact on the system if the job is restored later.
3. Click Archive for the job to be archived.

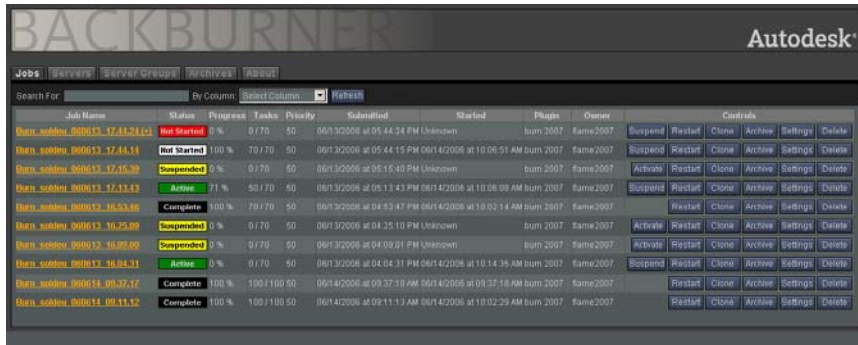


The screenshot shows the Autodesk Backburner Web Monitor interface. At the top, there's a header with the 'BACKBURNER' logo and 'Autodesk' text. Below the header, there are tabs for 'Jobs', 'Servers', 'Server Groups', 'Archives', and 'About'. The 'Jobs' tab is selected. Below the tabs, there's a search bar and a 'Refresh' button. The main area displays a table of jobs with columns: Job Name, Status, Progress, Tasks, Priority, Submitted, Started, Phases, Owner, and Controls. The table lists several jobs, including 'Burn_00013_12.44.24.1', 'Burn_00013_12.44.11', 'Burn_00013_12.15.29', 'Burn_00013_12.13.43', 'Burn_00013_16.53.06', 'Burn_00013_16.29.09', 'Burn_00013_16.09.00', 'Burn_00013_16.04.31', 'Burn_00014_09.37.39', 'Burn_00014_09.37.12', and 'Burn_00014_09.11.12'. Each job row has a status indicator (e.g., 'Not Started', 'Active', 'Suspended', 'Complete') and a set of control buttons (e.g., 'Suspend', 'Restart', 'Clone', 'Archive', 'Settings', 'Delete').

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Phases	Owner	Controls
Burn_00013_12.44.24.1	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:24 PM Unknown		burn 2007	burne2007	Suspend Restart Clone Archive Settings Delete
Burn_00013_12.44.11	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM 06/14/2006 at 10:06:51 AM burn 2007		burn 2007	burne2007	Suspend Restart Clone Archive Settings Delete
Burn_00013_12.15.29	Suspended	71 %	0 / 70	50	06/13/2006 at 05:15:40 PM Unknown		burn 2007	burne2007	Activate Restart Clone Archive Settings Delete
Burn_00013_12.13.43	Active	50 %	50 / 70	50	06/13/2006 at 05:13:43 PM 06/14/2006 at 10:06:50 AM burn 2007		burn 2007	burne2007	Suspend Restart Clone Archive Settings Delete
Burn_00013_16.53.06	Complete	100 %	70 / 70	50	06/13/2006 at 04:53:47 PM 06/14/2006 at 10:02:14 AM burn 2007		burn 2007	burne2007	Restart Clone Archive Settings Delete
Burn_00013_16.29.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM Unknown		burn 2007	burne2007	Activate Restart Clone Archive Settings Delete
Burn_00013_16.09.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM Unknown		burn 2007	burne2007	Activate Restart Clone Archive Settings Delete
Burn_00013_16.04.31	Active	0 %	0 / 70	50	06/13/2006 at 04:04:31 PM 06/14/2006 at 10:14:35 AM burn 2007		burn 2007	burne2007	Suspend Restart Clone Archive Settings Delete
Burn_00014_09.37.39	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:30 AM 06/14/2006 at 10:08:12 AM burn 2007		burn 2007	burne2007	Restart Clone Archive Settings Delete
Burn_00014_09.37.12	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:19 AM 06/14/2006 at 09:37:19 AM burn 2007		burn 2007	burne2007	Restart Clone Archive Settings Delete
Burn_00014_09.11.12	Complete	100 %	100 / 100	50	06/14/2006 at 09:11:13 AM 06/14/2006 at 10:02:29 AM burn 2007		burn 2007	burne2007	Restart Clone Archive Settings Delete

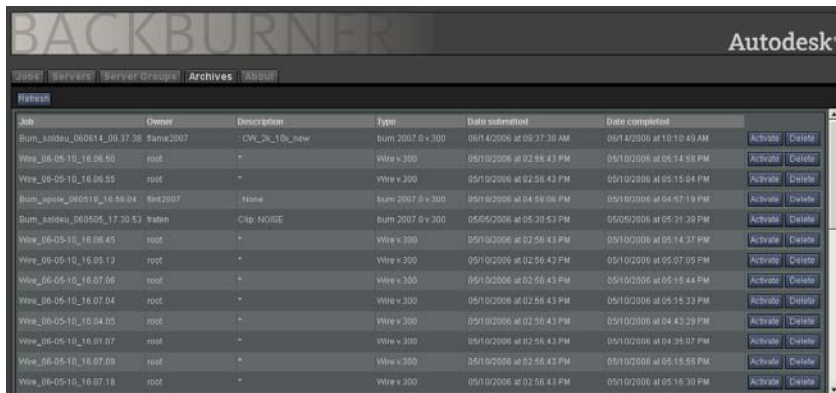
4. When prompted, click OK.

The job is archived and is removed from the Job list. By default, archived jobs are saved to the *Network\Archive* folder where Backburner is installed.



- Click Archives to view the list of job archives.

The archive for the job appears in the Web Monitor.

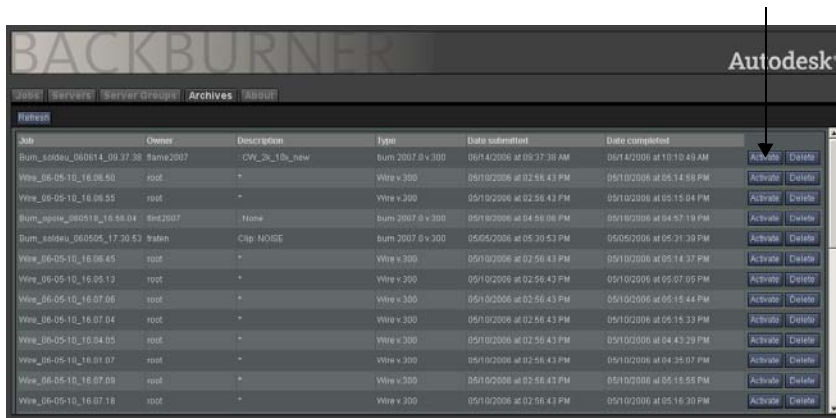


To restore an archived job:

- In a Backburner Web Monitor with access to system management tools, click Archives.

The list of job archives appears.

2. Locate the job to be restored and then click the Activate button.

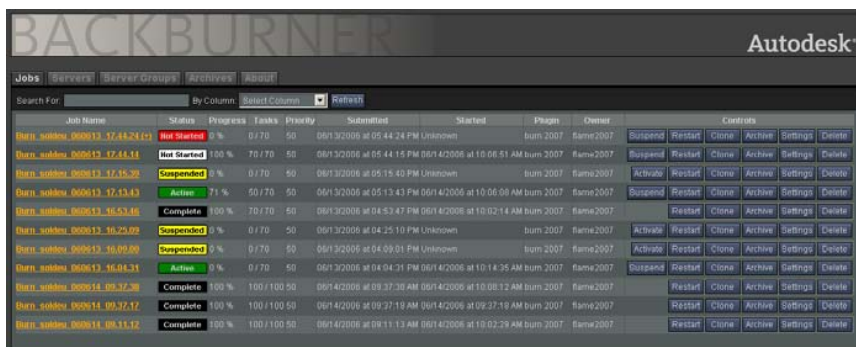


3. When prompted, click OK.

The job is restored from its archive to the system. Once the job is restored successfully, its archive is removed from the list.

4. Click Jobs.

The Job list appears, showing the job you restored in step 2.



The status of a job is archived with and restored from its archive. If a job was suspended or completed when it was archived, you must re-activate or restart it to process the job again after restoring it. Otherwise, the job will not be reprocessed by the system.

5. If necessary, re-activate or restart the job. See [“Suspending and Reactivating Jobs”](#) on page 25 or [“Restarting Jobs”](#) on page 31.

To delete an archived job:

1. In a Backburner Web Monitor with access to system management tools, click Archives.

The list of job archives appears.

2. Locate the job archive to be deleted and then click Delete.

You are prompted to confirm the deletion.

NOTE: You cannot restore a deleted job archive.

3. When prompted click OK.

The job archive is deleted and is removed from the list.

Archiving Jobs Using the Backburner Monitor

Use the following procedures to create a job archive, restore an archived job, and delete a job archive using the Backburner Monitor. These procedure requires access to system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To archive a job:

1. From the Backburner Monitor with access to system management tools, select the job to be archived in the Job list.

2. Do one of the following to archive the selected job:

- Choose Jobs | Archive Job.
- Right-click the job and then choose Archive Job.

3. When prompted, click OK.

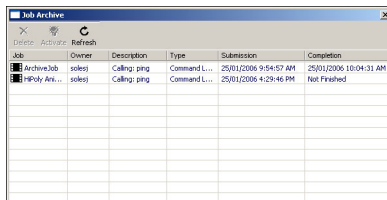
The job is archived and removed from the Job list. By default, archived jobs are saved to the *Network\Archive* folder where Backburner is installed.

To restore an archived job:

1. From the Backburner Monitor with access to system management tools, do either of the following to display Job Archive dialog:

- Choose Jobs | Job Archives.
- Right-click any job in the Job list and choose Job Archives.

The Job Archive dialog appears. Use this dialog to restore or delete archived jobs; see [“Job Archives Dialog”](#) on page 40.



2. Select the job to be restored in the dialog.

HINT: Click Refresh if you do not see the job to be restored.

3. Click Activate.

The job is restored from its archive to the Distributed Queueing System. Once the job is restored successfully, its archive is removed from the list in the dialog.

4. Close the Job Archives dialog to return to the Backburner Monitor.

The status of a job is archived with and restored from its archive. If a job was suspended or completed when it was archived, you must re-activate or restart it to process the job again after restoring it. Otherwise, the job will not be reprocessed by the system.

5. If necessary, re-activate or restart the restored job. See [“Suspending and Reactivating Jobs”](#) on page 25 or [“Restarting Jobs”](#) on page 31.

To delete an archived job:

1. From the Backburner Monitor with access to system management tools, do either of the following to display Job Archive dialog:

- Choose Jobs | Job Archives.
- Right-click any job in the Job list and choose Job Archives.

The Job Archive dialog appears. Use this dialog to restore or delete archived jobs; see [“Job Archives Dialog”](#) on page 40.

2. Select the job archive to be deleted in the dialog.

HINT: Click Refresh if you do not see the job archive you want to delete.

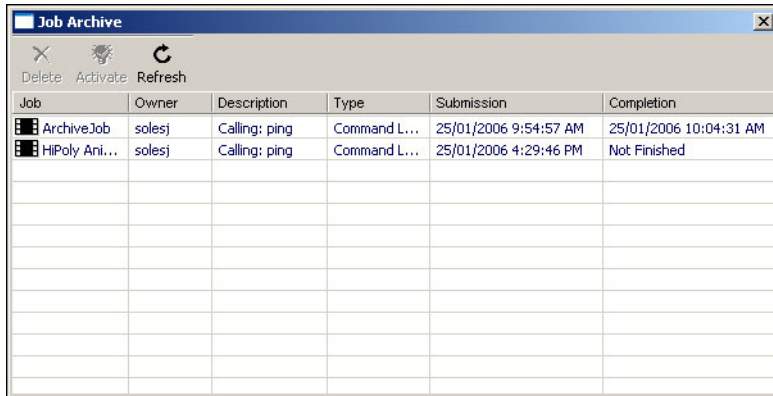
3. Click Delete.

The job archive is deleted.

Job Archives Dialog

Use the Job Archives dialog to delete, activate, and refresh jobs that are archived. Jobs are placed here under the following conditions:

- When you manually archive a job from the Job list.
- When the Backburner Manager is set to automatically archive jobs when they are completed.



Job	Owner	Description	Type	Submission	Completion
ArchiveJob	solesj	Calling: ping	Command L...	25/01/2006 9:54:57 AM	25/01/2006 10:04:31 AM
HiPoly Ani...	solesj	Calling: ping	Command L...	25/01/2006 4:29:46 PM	Not Finished

NOTE: You cannot use the Backburner Monitor while the Job Archives dialog is open. Close the dialog in order to return to the Monitor.

Job Archives Controls

The Job Archives dialog consists of a toolbar and a list of archived jobs.

Delete — Deletes a selected job from the archive. You are warned and must confirm before the deletion occurs. This button is active only when a job is selected.

Activate — Restores a selected job from its job archive. When a job is activated, it is removed from the Job Archives and placed in the Job list in the Queue Monitor. You can then choose to modify its settings and restart the job.

Refresh — Updates the list of archived jobs in the Job Archives dialog.

Job Archive List

The Job list shows the Job Name, Owner, Description, Type (render plugin), original Submission date, and Completion date. Unlike other lists in the Queue Monitor, you cannot add or remove columns. You can make multiple selections of jobs by pressing either the **SHIFT** or **CTRL** keys.

Deleting Jobs

Delete jobs from the Distributed Queuing System that were submitted by mistake or are consuming too many system resources using the following procedures.

Deleting a Job Using the Backburner Web Monitor

Use the following procedure to delete jobs using the Backburner Web Monitor. This procedure requires access to system management tools. See [“Accessing System Management Tools”](#) on page 15.

NOTE: Deleting a job is an action that cannot be undone. Archive a job before you delete it, if you think you may need to restore the job in the future. See [“Archiving Jobs”](#) on page 34.

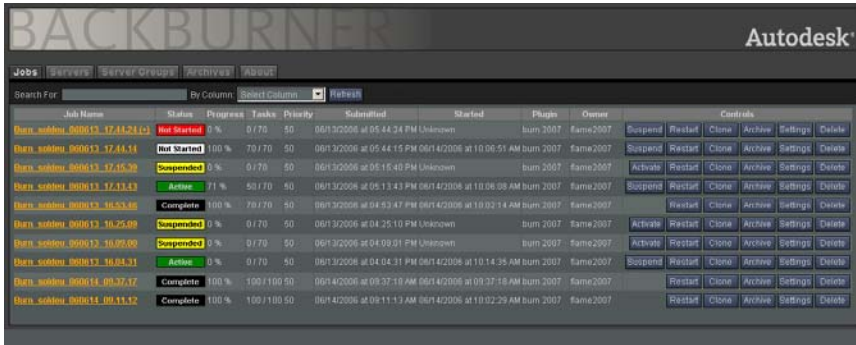
To delete a job using the Backburner Web Monitor:

1. In a Backburner Web Monitor with access to system management tools, click Jobs.
The Job list appears, showing management tasks available for each job.
2. Locate the job to be deleted and click the Delete button.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_soldev_000013_17.45.24.11	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:24 PM Unknown		burn 2007	burne2007	Suspend Restart Clone Archive Settings Delete
burn_soldev_000013_17.45.11	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM 06/14/2006 at 10:06:51 AM burn 2007		burne2007	burne2007	Suspend Restart Clone Archive Settings Delete
burn_soldev_000013_17.45.29	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM Unknown		burn 2007	burne2007	Activate Restart Clone Archive Settings Delete
burn_soldev_000013_17.43.43	Active	71 %	50 / 70	50	06/13/2006 at 05:13:43 PM 06/14/2006 at 10:06:00 AM burn 2007		burne2007	burne2007	Suspend Restart Clone Archive Settings Delete
burn_soldev_000013_16.53.46	Complete	100 %	70 / 70	50	06/13/2006 at 04:53:47 PM 06/14/2006 at 10:02:14 AM burn 2007		burne2007	burne2007	Restart Clone Archive Settings Delete
burn_soldev_000013_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM Unknown		burn 2007	burne2007	Activate Restart Clone Archive Settings Delete
burn_soldev_000013_16.09.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM Unknown		burn 2007	burne2007	Activate Restart Clone Archive Settings Delete
burn_soldev_000013_16.04.31	Active	0 %	0 / 70	50	06/13/2006 at 04:04:31 PM 06/14/2006 at 10:14:35 AM burn 2007		burne2007	burne2007	Suspend Restart Clone Archive Settings Delete
burn_soldev_000014_09.37.30	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:30 AM 06/14/2006 at 10:06:12 AM burn 2007		burne2007	burne2007	Restart Clone Archive Settings Delete
burn_soldev_000014_09.37.12	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:19 AM 06/14/2006 at 09:37:19 AM burn 2007		burne2007	burne2007	Restart Clone Archive Settings Delete
burn_soldev_000014_09.11.12	Complete	100 %	100 / 100	50	06/14/2006 at 09:11:13 AM 06/14/2006 at 10:02:29 AM burn 2007		burne2007	burne2007	Restart Clone Archive Settings Delete

3. When prompted, click OK.

The job is deleted from the system and is removed from the Job list.




Deleting a Job Using the Backburner Monitor

Use the following procedure to delete jobs using the Backburner Monitor. This procedure requires access to system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

NOTE: Deleting a job is an action that cannot be undone. Archive a job before you delete it, if you think you may need to restore the job in the future. See [“Archiving Jobs”](#) on page 34.

To delete a job using the Backburner Monitor:

1. From the Backburner Monitor with access to system management tools, select the job(s) to be deleted in the Job list.
2. Do one of the following:
 - In the toolbar, click the Delete button  (or press **DELETE**).
 - Choose **Jobs | Delete**.
 - Right-click a job in the Job list and choose **Delete**.

You are prompted to confirm the deletion of the job(s).

3. When prompted, click **OK**.
The selected jobs are deleted.

Submitting Jobs from a Command Line or Script

Use the Backburner `cmdjob` command line plug-in to submit batch, executable, or script files to Backburner as “custom” jobs. This tool provides flexibility in running custom jobs from scripts.

For example, you could create a script that submits all jobs contained in a network folder to be rendered automatically at night.



WARNING: Special security consideration should be given to the *cmdjob* utility, as it can execute commands remotely on all the Render Nodes on the network. A trained systems administrator should ensure that the execution permissions are properly set and managed.

Using the *cmdjob* Utility

Use the following procedure to submit jobs to Backburner using the *cmdjob* utility.

To use the *cmdjob* utility:

1. Open a DOS shell or Linux terminal and navigate to the the *Backburner* folder:

Operating System	Location of the Backburner Folder
Windows	C:\Program Files\Autodesk\Backburner
Linux	/usr/discreet/backburner

2. Submit a job or jobs to the *cmdjob* utility using the following syntax:

cmdjob <options> <executable_to_run> <parameters>

Refer to the following sections for help with the options and parameters you can specify, as well as for information on tokens:

- [“Options for the cmdjob Utility”](#) on page 43
- [“Parameters for the cmdjob Utility”](#) on page 46
- [“Tokens for the cmdjob Utility”](#) on page 46

You can use options, parameters, and tokens at the command line of a DOS shell or Linux terminal as well as in a batch file or script. Note the following:

- Options, parameters, and tokens are not case-sensitive.
- If multiple occurrences of the same option or parameter are used, only the last occurrence is processed by the *cmdjob* utility.

Options for the *cmdjob* Utility

This section describes the options you can use with the *cmdjob* command.

Options

Option	Description
-?	Display the help for the <i>cmdjob</i> utility.
-cmdFile:<file>;<file>... or @<file>;<file>...	Specifies one or more text files that contain options to the <i>cmdjob</i> utility.

Job Options

Option	Description
-jobName:<name>	Sets the job name. The default is "cmdJob".
-jobNameAdjust	Appends a number to the end of the job name if it is not unique.
-description:<string>	Defines a description of the job.
-priority:<number>	Sets the job priority. The default value is 50. The other values are either 0 (Critical) or 100 (Suspended).
-workPath [folder]	Working folder or directory for the <i>cmdjob</i> utility. The default value is "...\\backburner\\Network\\ServerJob" folder. This path is set before the <i>cmdjob</i> utility interprets processing options for a job. This path is also set as the working path for servers. If the working folder is not set, the full path to the executable and target files must be specified when submitting the job.
-logPath:<folder>	Specifies the location of the folder or directory in which the task" logs are created. This location must specify an existing folder since the command line utility cannot create this folder if it does not exist. This option is disabled by default.
-showOutput<file>;<file>;... .	Makes the specified output files accessible from the Backburner Monitor or Web Monitor.

Job Submission Options

Option	Description
-dependencies:<jobname>;<jobname>;<jobname>;...	Defines a list of job dependencies.
-timeout:<minutes>	Number of minutes before a task time-out should occur. Default value is 60 minutes.
-attach	Attaches the batch file to the job as a .zip file. The batch file is then extracted on each machine before the job is processed.
-progress	Shows the progress of the job in the shell as it is being processed.
-suspended	Sets the status of the job to suspended.
-leaveInQueue	Leaves the job in the queue after completion. The Backburner Manager's default behavior is used to archive or delete the job.

Option	Description
-archive or -archive:<days>	Archives the job on completion or after the specified number of days following completion using the Backburner Manager's default behavior. This option is ignored if <code>-leaveInQueue</code> is used.
-delete or -delete:<days>	Deletes job on completion or after the specified number of days following completion using the Backburner Manager's default behavior. This option is ignored if <code>-leaveInQueue</code> or <code>-archive</code> is used.
-nonConcurrent	Forces tasks to execute sequentially.
-dontBlockTasks	Disables task blocking for this job. Task blocking is enabled by default in the Backburner Manager.
-blockTasks	Forces task blocking for this job. If this is not specified, the current setting for task blocking in the Backburner Manager is used.
-perServer	Creates separate jobs that are identical to this job, and assigns one to each server assigned to this job. Each server performs the same tasks as the others.

Network Options

Option	Description
-manager:<name>	Sets the name of the manager. The default is an automatic search.
-netmask:<mask>	Sets the subnet mask.
-port:<number>	Sets the port number.
- servers:<server>;<server>; ... -serverCount:<number>	Defines the set of servers to which the job will be submitted. Ignored if a server group is specified using <code>-group</code> .
-serverCount:<number>	Sets the maximum number of servers that can simultaneously work on the job.
-group:<string>	Defines the server group to which the job will be submitted.

Notification Options

Option	Description
-emailFrom:<address>	Sets the source email address for notification emails.
-emailTo:<address>	Sets the destination email address for notification emails.
-emailServer:<server>	Sets the name of the SMTP email server Backburner uses to send notification emails.
-emailCompletion	Sends a notification email when the job is completed.
-emailFailure	Sends a notification email if the job fails.
-emailProgress:<number>	Sends a notification email when the number of tasks that you set are completed.

Parameters for the *cmdjob* Utility

This section describes the options you can use with the *cmdjob* command.

Option	Description
-taskList:<file>	Sets the task list file. The file contains a tab-separated table. Use fill-in tokens to reference the table.
-taskName:<number>	Sets the task name column in the task list file. A value of 0 means this column is unnamed while a value greater than 0 specifies the column in the file for the task names. This is used for feedback in the monitor when looking at the task list.
-numTasks:<number>	Sets the number of tasks for the job. This option is ignored if -taskList is used.
-tp_start:<number>	Sets the starting offset of the default task parameter in numeric format. Ignored if -taskList specified.
-tp_jump:<number>	Sets the increment of the default task parameter in numeric format. Ignored if -taskList used.
-jobParamFile:<file>	Sets the job parameter file. See example below.

Tokens for the *cmdjob* Utility

A token is a reference to a value that can vary. It is evaluated on the server assigned to the job at the time the *cmdjob* utility executes. You cannot nest tokens within tokens.

Option	Description
%jn	Job name.
%dsc	Job description.
%srv	Name of the server executing the task.
%tpX	Task parameter X from the task list where X is the column index in the task list file.
%*tpX	Same as %tpX where * indicates the number of 0 padded digits to use.
%tn	Task number of the assigned task.
%*tn	Same as %tn where * indicates the number of 0 padded digits to use.
%jpX	Parameter X from the job parameter file where X is the row index in the job parameter file.
%*jpX	Same as %jpX where * indicates the number of 0 padded digits to use.

Monitoring and Managing Render Nodes

Summary

Monitoring Rendering Nodes	47
Shifting Nodes Between Jobs in the Queue	53
Deleting Offline Rendering Nodes	56
Setting the Availability for Rendering Nodes	59
Grouping Rendering Nodes in Server Groups	62
Configuring Server Groups	70

Monitoring Rendering Nodes

It is a good idea to regularly check the status of nodes on the system to:

- Gauge the general performance of the system to ensure it is working properly.
- Identify Render Nodes that are offline due to hardware or software problems.
- View hardware and software information for each Render Node on the system.

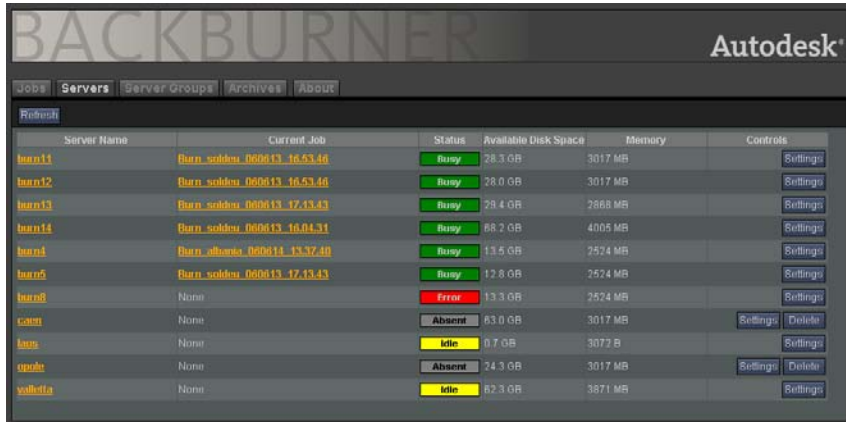
Monitoring Rendering Nodes Using the Backburner Web Monitor

Monitor the status of Render Nodes with the browser-based Backburner Web Monitor using the following procedure. This procedure does not require access to the system management tools.

To view Render Node status in the Backburner Web Monitor:

1. Start the Backburner Web Monitor through a Web browser. See [“Launching the Backburner Web Monitor”](#) on page 11.
2. Click Servers.

The Server list appears, showing all Render Nodes on the system.



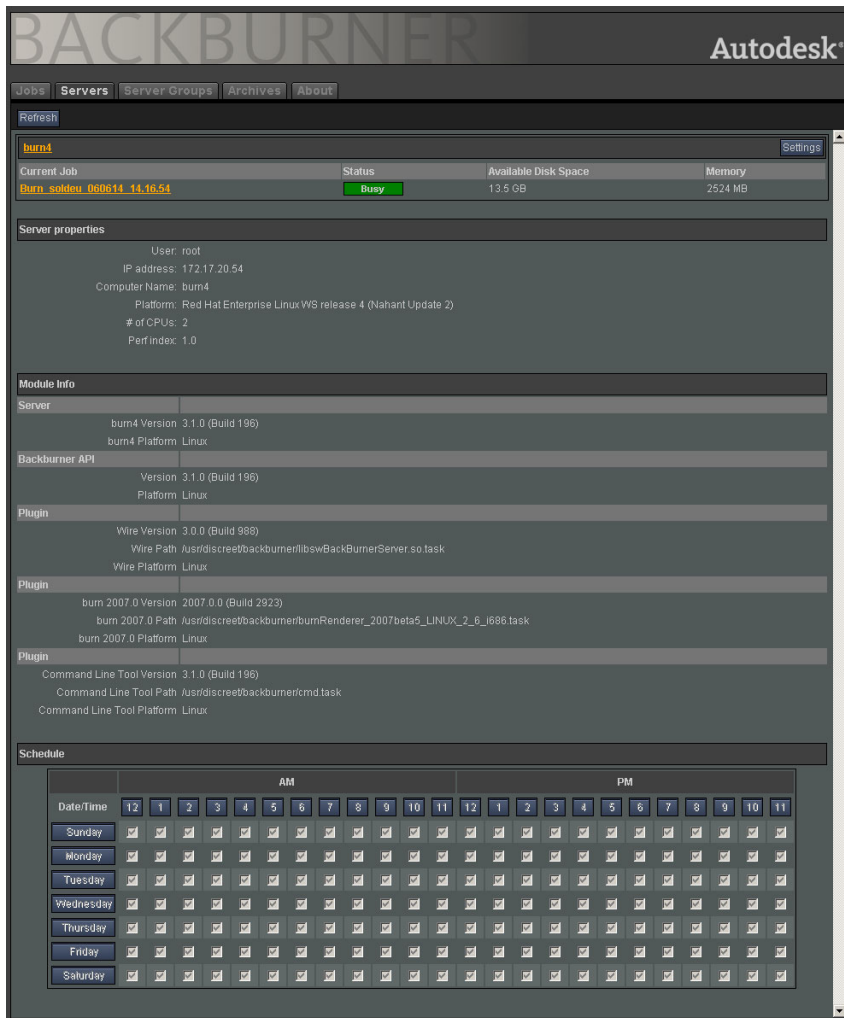
Server Name	Current Job	Status	Available Disk Space	Memory	Controls
luen11	Render_scene_060613_16.53.46	Busy	28.3 GB	3017 MB	Settings
luen12	Render_scene_060613_16.53.46	Busy	28.0 GB	3017 MB	Settings
luen13	Render_scene_060613_17.13.43	Busy	28.4 GB	2868 MB	Settings
luen14	Render_scene_060613_16.04.31	Busy	88.2 GB	4005 MB	Settings
luen1	Render_scene_060613_13.37.40	Busy	13.5 GB	2574 MB	Settings
luen6	Render_scene_060613_17.13.43	Busy	12.8 GB	2574 MB	Settings
luen8	None	Error	13.3 GB	2574 MB	Settings
com	None	Absent	63.0 GB	3017 MB	Settings Delete
luen	None	Idle	0.7 GB	3072 B	Settings
quade	None	Absent	24.3 GB	3017 MB	Settings Delete
valietta	None	Idle	82.3 GB	3871 MB	Settings

This list shows the following information for each node:

- The job the node is currently rendering, if any.
- The current status of the node.
- The available hard disk space and memory for the node.

3. Click a Render Node in the Server list to view its details.

Detailed hardware and software information for the node appears, such as the amount of RAM, hard disk space, operating system, and installed plug-ins.



4. Click Servers to return to the list of nodes.

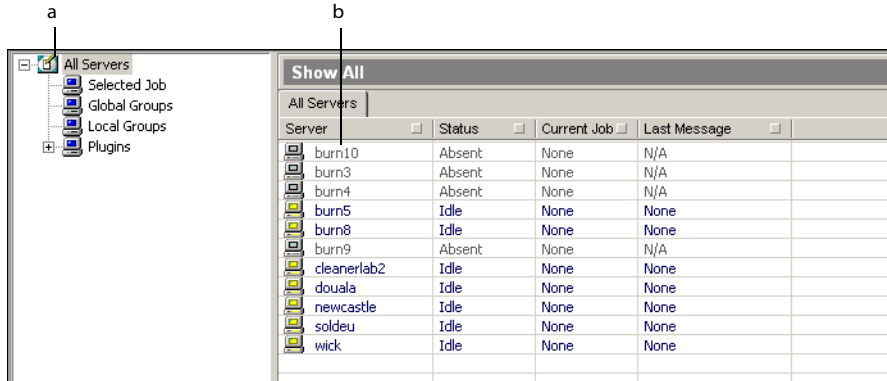
Monitoring Rendering Nodes Using the Backburner Monitor

Monitor the status of Render Nodes in the Windows-based Backburner Monitor using the following procedure. This procedure does not require access to the system management tools.

To view Render Node status in the Backburner Monitor:

1. Start the Backburner Monitor and connect to a Backburner Distributed Queueing System. See [“Launching the Backburner Monitor”](#) on page 13.

The Server List area appears at the bottom of the Monitor. This area shows nodes organized in a hierarchical tree view and as a list.



a) Hierarchical tree view

b) List of Render Nodes

The tree view presents a hierarchical list of all node groups, as well as the plug-ins available for the system. You can use this area to see which Render Nodes are available to render jobs, as well as manage groups of nodes.

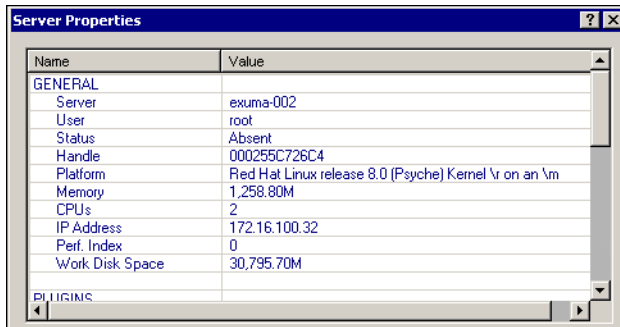
The list of Render Nodes shows all nodes assigned to the group selected in the tree view. If no group is selected, all Render Nodes on the system appear in this area. By default, this area shows the following information for each node:

- The name and current status of the node
 - The job the node is currently processing
 - The last message sent by the node to the Backburner Manager
2. If necessary, customize the information shown in the list of Render Nodes. See [“Customizing the Rendering Node List in the Backburner Monitor”](#) on page 51.
- You can find a particular node using search functionality available in the node list. Continue to the next step to use this functionality or go to step 4 to view the properties of a node on the system.

3. To locate a Render Node, do any of the following:
 - Scroll through the entries in the list using the provided scroll bars. The scroll bars appear when the number of nodes in the list exceeds its display area.
 - Rearrange the list alphanumerically by clicking the name of a column to reorder the list in ascending or descending order.
 - Filter the list of Render Nodes by first clicking the square filter icon at the right side of each column, and then using the dialog that appears to filter the list based on your criteria.

4. Right-click a Render Node and choose Properties (or press **CTRL+N**).

The Server Properties dialog appears, showing hardware and software information for the node.



Customizing the Rendering Node List in the Backburner Monitor

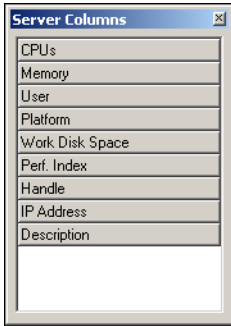
Add, remove, and rearrange information shown in the list of Render Nodes using the following procedures. You do this to customize the Backburner Monitor to suit your preferences and needs.

NOTE: You cannot customize the node list in the Backburner Web Monitor.

To add information to the list of Render Nodes:

1. Do one of the following to view information not currently displayed in the list of Render Nodes:
 - Choose Server | Column Chooser.
 - Right-click any node in the list and choose Column Chooser.

The Server Columns dialog appears.



- Click and drag the column title for the information to be added to the column title bar above the list of Render Nodes.

When you drag the column title to this bar, a pair of arrows indicate where the information can be placed.

Show All				
All Servers				
Server	Status	Current Job	Last M	
burn10	Absent	None	N/A	
burn3	Absent	None	N/A	
burn4	Absent	None	N/A	
burn5	Idle	None	None	
burn8	Idle	None	None	
burn9	Absent	None	N/A	
cleanerlab2	Idle	None	None	
douala	Idle	None	None	
newcastle	Idle	None	None	
soldeu	Idle	None	None	
wick	Idle	None	None	

In general, you can add information anywhere except as the leftmost column.

- Once you are satisfied with its placement, drop the column to add it to the list.

The column is added and information for each Render Node appears.

To rearrange columns in the list of Render Nodes:

- Click and drag the column title just slightly to the left of the position where you want the column to appear in the list of Render Nodes.

The information appears in its new position.

To remove a column from the list of Render Nodes:

- Right-click the column title of the information to be removed and choose Remove Column.

NOTE: You cannot remove the Server column from the list of Render Nodes.

Shifting Nodes Between Jobs in the Queue

You can shift Render Nodes between jobs to accommodate changing priorities and deadlines. Before you start shifting nodes manually, note the following rules that control how nodes are assigned to submitted jobs:

- Rendering nodes are assigned to a job until it is completed. The Backburner Manager does not shift nodes ‘on-the-fly’ between jobs.
- If a Render Node is shifted from one job to another, it remains assigned to its new job until this job is completed. There is no way to temporarily assign a node to a job.
- Only available Render Nodes (those with no job assignments) can be assigned to another job. If a node is currently busy, it must end its current task (or job) before it can become available. See [“Finding and Monitoring Jobs”](#) on page 17 and [“Monitoring Rendering Nodes”](#) on page 47.
- Jobs for Cleaner XL transcoding and background Wire transfers are always assigned to a single Render Node. You cannot add Render Nodes to these types of jobs, although you can transfer a Cleaner jobs between nodes. However, if you want to transfer a node that is processing a Cleaner job to another job, the Render Node must complete the Cleaner job before becoming available for other jobs.

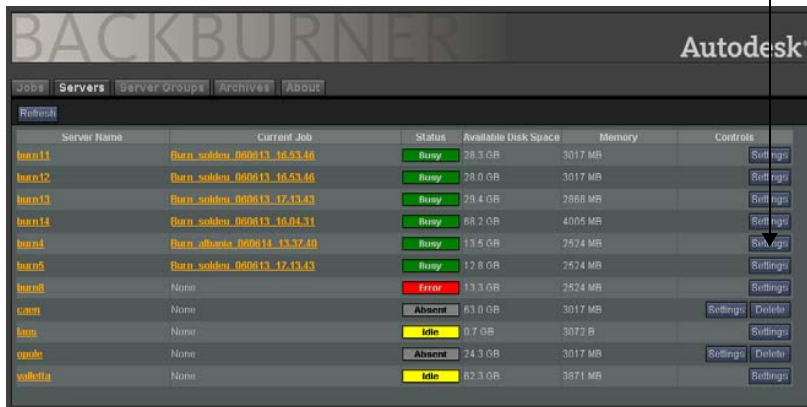
Shifting a Render Node Between Two Jobs Using the Backburner Web Monitor

Use the following procedure to shift a Render Node between two jobs using the Backburner Web Monitor. This procedure requires access to system management tools. See [“Accessing System Management Tools”](#) on page 15.

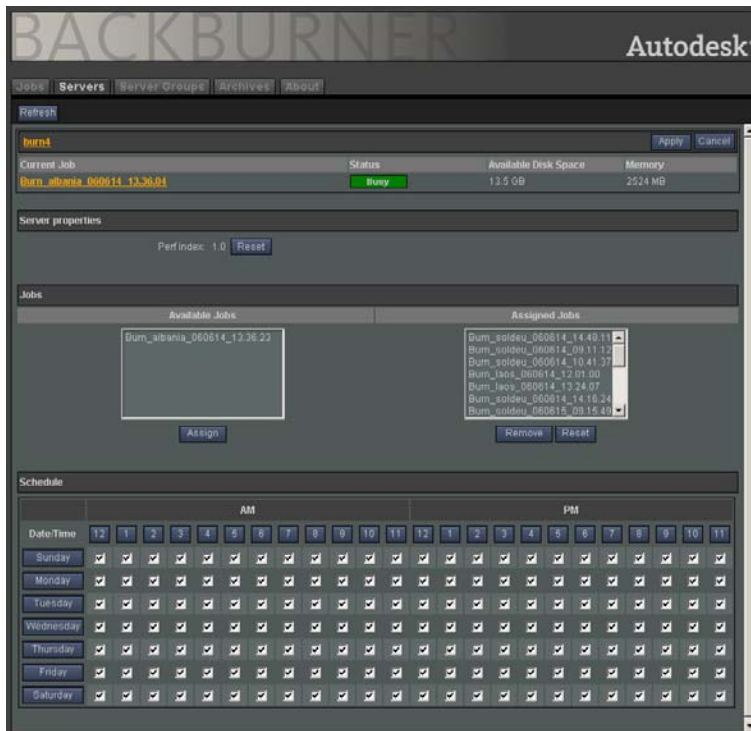
To shift a Render Node between two jobs using the Backburner Web Monitor:

1. In a Backburner Web Monitor with access to system management tools, click Servers.
The list of Render Nodes for the system appear.

2. Locate the node to be shifted and then click its Settings button.



Settings for the Render Node appear. The Assigned Jobs list in the Jobs area shows jobs currently assigned to the node. The Available Jobs list also in this area shows all jobs currently on the system.



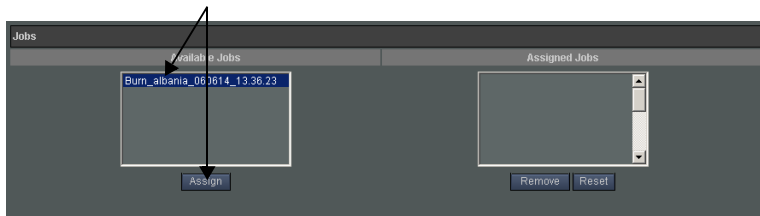
Before you can manually assign a job to the node, remove all jobs that were assigned to the node previously, including the job that the node is currently processing.

3. Select all jobs in the Assigned Jobs list and click Remove.



All jobs currently assigned to the Render Node are removed. Next, shift the node to a specific job by manually assigning it to the node.

4. From the Available jobs list, select the job to which you want to shift the node and click Assign.



5. Click Apply to save the job reassignments for the node.

The selected job is assigned to the Render Node. When the node ends its current task, it begins working on the newly assigned job.


6. Click Servers.
7. Repeat steps 2 to 5 to shift other Render Nodes on the system to the job.

NOTE: You can also shift a node between two jobs using the Assigned Servers list and Available Servers list that appear with the job settings in the Backburner Web Monitor. See [“Modifying Job Settings”](#) on page 27.

Shifting a Render Node Between Two Jobs Using the Backburner Monitor

Use the following procedure to shift a Render Node between two jobs using the Backburner Monitor. This procedure requires access to system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To shift a Render Node between two jobs using the Backburner Monitor:

1. In a Backburner Monitor with access to system management tools, highlight the node(s) in the Server list and then click the Remove Server icon  on the toolbar.

The node ends its current processing task and becomes available for other jobs.

2. Select the job in the Job list to which you want to shift the node(s).
3. Assign the Render Node(s) to the job by doing one of the following:
 - Highlight the unassigned node(s) in the Server list and then choose Servers | Assign To Selected Jobs.
 - Right-click the node name(s) in the list and choose Assign To Selected Jobs.

The Render Nodes are assigned to the new job and begin working on it. The nodes remain assigned to the new job until it is complete.

Deleting Offline Rendering Nodes

Delete offline nodes to keep the list of Render Nodes organized. However, Render Nodes may temporarily go offline for a number of reasons, including:

- Problems processing a job, such as when network problems prevent access of source material.
- Preventative maintenance, such as the installation of software patches or new drivers.
- Hardware or software issues, such as the failure of a crucial component or driver.
- Scheduling sets the node as unavailable during certain times, such as when a Render Node is used as an artist workstation or regular office PC during working hours. See [“Setting the Availability for Rendering Nodes”](#) on page 59.

As a general rule, only delete Render Nodes that you are certain will remain offline in the long-term, such as those experiencing hardware problems. When you delete a Render Node, the history of all jobs on which the node worked is affected. This revision may make it harder to troubleshoot job problems, such as identifying nodes responsible for corrupt renders. If possible, archive jobs to which the node was assigned before deleting it.

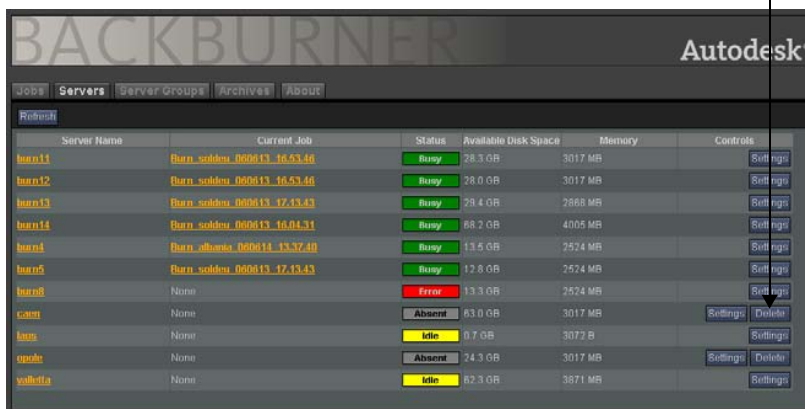
Deleting a Render Node from the Server List Using the Backburner Web Monitor

Use the following procedure to delete any nodes that are offline from the list of Render Nodes in the Backburner Web Monitor. This procedure requires access to the system management tools. See [“Accessing System Management Tools”](#) on page 15.

To delete an offline Render Node in the Backburner Web Monitor:

1. In a Backburner Web Monitor with access to system management tools, click Servers.
The list of Render Nodes appear.
2. Locate offline Render Nodes in the list that meet all of the following conditions:
 - The status of the node is currently listed in the Web Monitor as Absent.
 - No jobs are currently assigned to the node. See [“Monitoring Rendering Nodes Using the Backburner Web Monitor”](#) on page 47.
 - The node’s schedule indicates that it should be currently available for jobs. See [“Setting the Availability for Rendering Nodes”](#) on page 59.
 - You are certain that the node will remain offline in the long-term.

A Delete button appears for Render Nodes that meet the first three conditions, such as the node *caen* in the following example.



Server Name	Current Job	Status	Available Disk Space	Memory	Controls
lucci11	burn_soldou_000613_16.53.46	Busy	28.3 GB	3017 MB	Settings
lucci12	burn_soldou_000613_16.53.46	Busy	28.0 GB	3017 MB	Settings
lucci13	burn_soldou_000613_17.13.43	Busy	28.4 GB	2668 MB	Settings
lucci14	burn_soldou_000613_16.04.31	Busy	68.2 GB	4006 MB	Settings
lucci1	burn_soldou_000613_15.37.40	Busy	13.5 GB	2524 MB	Settings
lucci5	burn_soldou_000613_17.13.43	Busy	12.8 GB	2524 MB	Settings
lucci8	None	Error	13.3 GB	2524 MB	Settings
caen	None	Absent	83.0 GB	3017 MB	Settings Delete
luci	None	Idle	0.7 GB	3072 B	Settings
quatu	None	Absent	24.3 GB	3017 MB	Settings Delete
valletta	None	Idle	82.3 GB	3671 MB	Settings

Because a node can go offline temporarily due to job errors or network problems, ensure that all conditions are satisfied before continuing to the next step.

3. Locate the Render Node to be removed and click the Delete button.
You are prompted to confirm the deletion of the node from the list.
4. When prompted, click OK to delete the node.

The offline node is removed from the list.

Server Name	Current Job	Status	Available Disk Space	Memory	Controls
burn11	burn_soldeu_060613_16.53.46	Busy	28.3 GB	3017 MB	Settings
burn12	burn_soldeu_060613_16.53.46	Busy	28.0 GB	3017 MB	Settings
burn13	burn_soldeu_060613_17.13.43	Busy	29.4 GB	2668 MB	Settings
burn14	burn_soldeu_060613_16.04.31	Busy	68.2 GB	4005 MB	Settings
burn15	burn_soldeu_060613_13.37.48	Busy	13.5 GB	2924 MB	Settings
burn16	burn_soldeu_060613_17.13.43	Error	12.8 GB	2524 MB	Settings
laos	None	Idle	13.3 GB	2524 MB	Settings
opale	None	Absent	0.7 GB	3072 MB	Settings
valletta	None	Idle	24.3 GB	3017 MB	Settings Delete
valletta	None	Idle	62.3 GB	3871 MB	Settings

- (Optional) Repeat steps 2 to 4 to delete other Render Nodes that are offline from the list.

Deleting a Render Node from the Server List Using the Backburner Monitor

Use the following procedure to delete any nodes that are offline from the list of Render Nodes in the Backburner Monitor. This procedure requires access to the system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To delete a Render Node from the Server list using the Backburner Monitor:

- In a Backburner Monitor with access to system management tools, highlight the Render Node(s) in the list that meet all of the following conditions:
 - The status of the node is currently listed in the Web Monitor as Absent.
 - No jobs are currently assigned to the node. See [“Shifting Nodes Between Jobs in the Queue”](#) on page 53.
 - The node’s schedule indicates that it should be currently available for jobs. See [“Setting the Availability for Rendering Nodes”](#) on page 59.
 - You are certain that the node will remain offline in the long-term.

The Delete option becomes available for all Render Nodes that meet the first three conditions. Because a node can go offline temporarily due a job errors or network problems, however, ensure that all conditions are satisfied before continuing to the next step.

- Do one of the following to delete the selected Render Nodes from the list:
 - Choose Servers | Delete Server.
 - Right-click one of the selected nodes and choose Server | Delete Server.

The nodes are deleted and are removed from the list.

Setting the Availability for Rendering Nodes

By default, nodes are available to process jobs at all times. You can restrict availability of Render Nodes if these workstations are used for other functions (such as artist workstations or as regular office PCs) during business hours. For example, you can restrict certain workstations from processing jobs from 8 a.m. to 6 p.m. while they are being used as office PCs. From 6 p.m. to 9 a.m., these workstations act as Render Nodes to work on jobs overnight.

Scheduling the Availability of a Render Node Using the Backburner Web Monitor

Use the following procedure to schedule the availability of a Render Node using the Backburner Web Monitor. This procedure requires access to the system management tools. See [“Accessing System Management Tools”](#) on page 15.

To schedule the availability of a Render Node using the Backburner Web Monitor:

1. In a Backburner Web Monitor with access to system management tools, click Servers. The list of Render Nodes appear.
2. Locate the node whose availability is to be changed and click its Settings button.

Server Name	Current Job	Status	Available Disk Space	Memory	Controls
luna11	Burn_solideo_000613_16.53.46	Busy	28.3 GB	3017 MB	Settings
luna12	Burn_solideo_000613_16.53.46	Busy	28.0 GB	3017 MB	Settings
luna13	Burn_solideo_000613_17.13.43	Busy	28.4 GB	2868 MB	Settings
luna14	Burn_solideo_000613_16.04.31	Busy	68.2 GB	4005 MB	Settings
luna1	Burn_solideo_000613_13.37.40	Busy	13.6 GB	2524 MB	Settings
luna5	Burn_solideo_000613_17.13.43	Busy	12.8 GB	2524 MB	Settings
luna8	None	Error	13.3 GB	2524 MB	Settings
catali	None	Absent	63.0 GB	3017 MB	Settings Delete
luna	None	Idle	0.7 GB	3072 B	Settings
opale	None	Absent	24.3 GB	3017 MB	Settings Delete
vallella	None	Idle	82.3 GB	3871 MB	Settings

Settings for the Render Node appear. The Schedule area shows when the node is available to process jobs.

Date/Time	AM											PM											
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Sunday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tuesday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wednesday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Thursday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Friday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Saturday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

3. Navigate to the Schedule area in the Web Monitor.
4. Set the time(s) when the node is available or unavailable for processing using one of the following methods:
 - Select a one-hour period on a specific day by filling or clearing its respective checkbox.
 - Select a one-hour period on all days by clicking the button for the hour along the top.
 - Select an entire day by clicking the button for its name.

Filled checkboxes in the Schedule area show when the node is available to process jobs. By default, a node is set to be available at all times.

The following example shows the schedule for a Render Node that is available only at night during weekdays and all the time on weekends, such as for artist workstations or office PCs that are also used as Render Nodes afterhours.

Date/Time	AM											PM											
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Sunday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tuesday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wednesday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Thursday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Friday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Saturday	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

5. Click Apply to update the schedule for the node.

Scheduling the Availability of a Render Node Using the Backburner Monitor

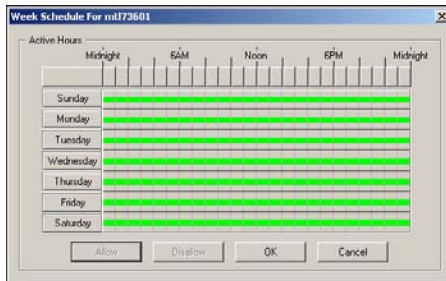
Use the following procedure to schedule the availability of a Render Node using the Backburner Monitor. This procedure requires access to the system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To schedule the availability of a Render Node using the Backburner Monitor:

1. In a Backburner Monitor with system management tools available, select one or more Render Nodes in the Server list, and then do one of the following:

- Right-click a Server and choose Week Schedule.
- Choose Servers | Week Schedule.

The schedule for the Render Node appears.



Time periods marked in green show when the node is available for processing jobs. By default, a node is set to be available at all times.

2. Set the time(s) when the node is available or unavailable for processing using one of the following methods:

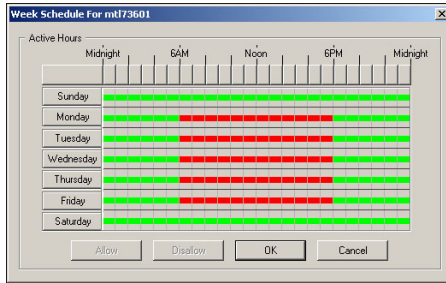
- Select a one-hour period by clicking one of the top buttons.
- Select an entire day by clicking the button for its name.
- Select the entire week by clicking the button at the top left.

The time selection is shown in white.

3. Do one of the following to set the availability of the node during the selected time:
 - Click Allow to make the node available for processing jobs during the selected time period.
 - Click Disallow to make the node unavailable for processing jobs during the selected time period.

The selection turns green (available) or red (unavailable) to indicate the node availability during this time period.

The following example shows a schedule for a Render Node that is available only at night during weekdays and all the time on weekends, such as for artist workstations or office PCs that are also used as Render Nodes afterhours.



4. Click OK to update the schedule for the node.

Grouping Rendering Nodes in Server Groups

Create groups of Render Nodes (called Server groups) to organize your Distributed Queueing System. A Server group is a shortcut to multiple Render Nodes that can be treated like an individual Render Node. For example, you can use a Server group for processing jobs to accommodate shifting priorities and deadlines in your facility.

You can configure certain Autodesk applications to submit jobs only to a particular Server group. This can improve the overall efficiency of the Distributed Queueing System as jobs are assigned to the nodes that can best process them. For example, assume you create a Server group consisting of high-end Render Nodes to quickly process Burn jobs submitted from Autodesk Effects and Editing applications. You configure your application to only submit its jobs to this group and then submit a Burn job for processing. When Backburner Manager receives this job, it immediately assigns the job to the Render Nodes in this Server group, rather than to other lower-end nodes that may process the job more slowly.

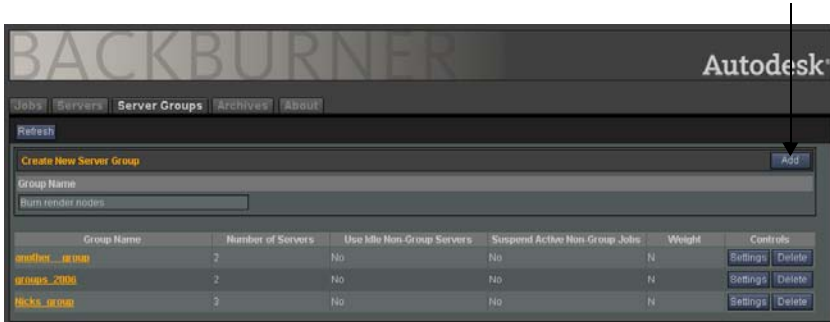
Grouping Nodes Using the Backburner Web Monitor

Use the following procedures to use the Backburner Web Monitor to create or delete a Server group from the Render Nodes on your system, as well as shift it between jobs as needed. These procedures require access to the system management tools. See [“Accessing System Management Tools”](#) on page 15.

To create a Server group:

1. In a Backburner Web Monitor with access to system management tools, click Server Groups.
A list of server groups for the system appears, if any groups are currently defined.

2. In the Group Name field, enter the name for the Server group and then click Add.



The Backburner Web Monitor displays settings to configure the group and assign Render Nodes to it.



3. Configure the behavior for the new Server group. See [“Configuring Server Groups”](#) on page 70.
4. Select one or more Render Nodes in the Available Servers list and then click Add Server.

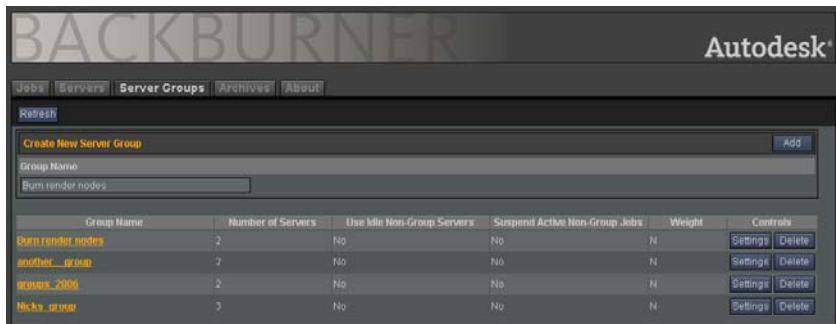
4. Monitoring and Managing Render Nodes

The Render Nodes are added to the group.



5. Click Apply.

The Server group is created and appears in the list.



NOTE: Any server groups created using the Backburner Web Monitor appears as a Global Group in a Windows-based Backburner Monitor.

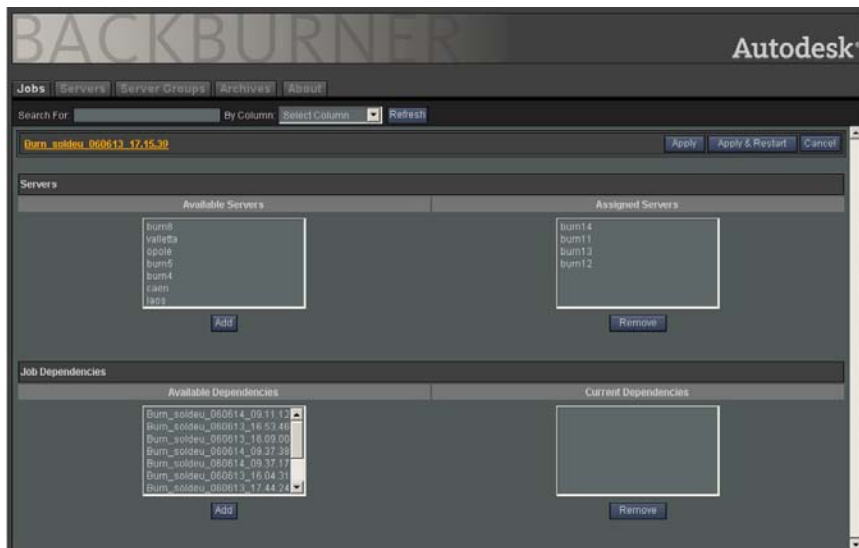
To assign a Server group to a job:

1. In a Backburner Web Monitor with access to system management tools, click Jobs.
The Job list for the system appears.

- From the Job list, locate the job to be assigned to the Server group and click its Settings button.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_solideo_060613_17-15-30	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:24 PM	Unknown	burn 2007	burne2007	Suspend, Restart, Clone, Archive, Settings, Delete
Burn_solideo_060613_17-15-31	Suspended	0 %	70 / 70	50	06/13/2006 at 05:44:15 PM	06/14/2006 at 10:06:51 AM	burn 2007	burne2007	Suspend, Restart, Clone, Archive, Settings, Delete
Burn_solideo_060613_17-15-32	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	burne2007	Suspend, Restart, Clone, Archive, Settings, Delete
Burn_solideo_060613_17-15-33	Active	71 %	50 / 70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:08 AM	burn 2007	burne2007	Suspend, Restart, Clone, Archive, Settings, Delete
Burn_solideo_060613_16-53-46	Complete	100 %	70 / 70	50	06/13/2006 at 04:53:47 PM	06/14/2006 at 10:02:14 AM	burn 2007	burne2007	Restart, Clone, Archive, Settings, Delete
Burn_solideo_060613_16-25-09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	burne2007	Activate, Restart, Clone, Archive, Settings, Delete
Burn_solideo_060613_16-09-09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	burne2007	Activate, Restart, Clone, Archive, Settings, Delete
Burn_solideo_060613_16-04-31	Active	0 %	0 / 70	50	06/13/2006 at 04:04:31 PM	06/14/2006 at 10:14:35 AM	burn 2007	burne2007	Suspend, Restart, Clone, Archive, Settings, Delete
Burn_solideo_060614_09-37-38	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:38 AM	06/14/2006 at 10:08:12 AM	burn 2007	burne2007	Restart, Clone, Archive, Settings, Delete
Burn_solideo_060614_09-37-17	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:19 AM	06/14/2006 at 09:37:19 AM	burn 2007	burne2007	Restart, Clone, Archive, Settings, Delete
Burn_solideo_060614_08-15-12	Complete	100 %	100 / 100	50	06/14/2006 at 08:15:13 AM	06/14/2006 at 10:02:29 AM	burn 2007	burne2007	Restart, Clone, Archive, Settings, Delete

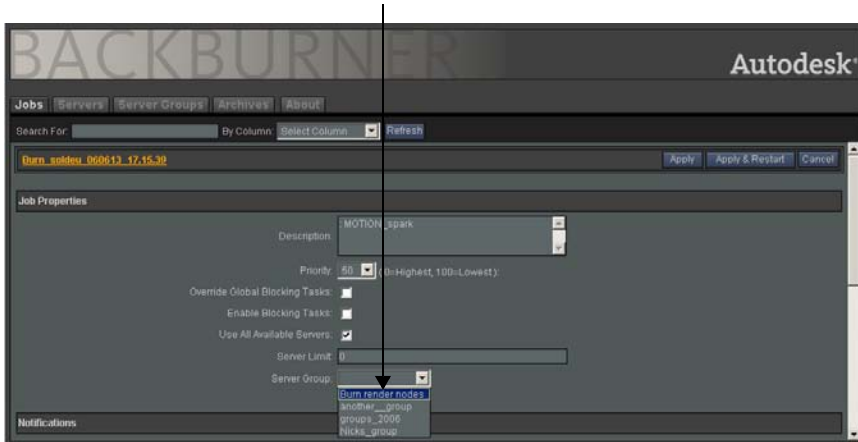
Settings for the job appear in the Backburner Web Monitor. The Assigned Servers list in the Server area shows any Render Nodes that can be assigned to the job. In the following example, four server groups are assigned to the job.



If you want to reassign the job exclusively to the Server group, continue to the next step. Otherwise, go to step 4 to add the server group as additional Render Nodes for the job.

- (Optional) Remove all currently assigned nodes from the job by selecting all Render Nodes in the Assigned Servers list, and then click Remove.

4. In the Job Properties area, select the Server group to be assigned to the job from the Server Group list.



5. Click Apply (or Apply & Restart) to assign the job to the Server group.
The job is assigned to the Server group and one of the following occurs:
 - If nodes in the group are busy, they complete their currently-assigned jobs before working on the job assigned to the group. Otherwise, the job is processed immediately by the Server group.
 - If the “Suspend current non-group jobs” option is enabled, all nodes in the Server group drop their current rendering job and begin processing the assigned job immediately.

NOTE: Server groups are subject to the same job assignment and completion rules, and restrictions as individual Render Nodes unless the “Suspend current non-group jobs” option is enabled. See [“Shifting Nodes Between Jobs in the Queue”](#) on page 53.

To delete a Server group:

1. In a Backburner Web Monitor with access to system management tools, click Server Groups.
The list of Server groups appears.
2. Locate the Server group to be deleted and then click the Delete button.
3. When prompted, click OK.

The group is deleted from the Server list. The Render Nodes remain available and can be assigned to other groups, if necessary.

Grouping Nodes Using the Backburner Monitor

Use the following procedures to use the Backburner Monitor to create or delete a Server group from the Render Nodes on your system, as well as shift it between jobs as needed. These procedures requires access to the system management tools. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 15.

To create a Server group:

1. In a Backburner Monitor with access to system management tools, right-click All Servers in the Server list.

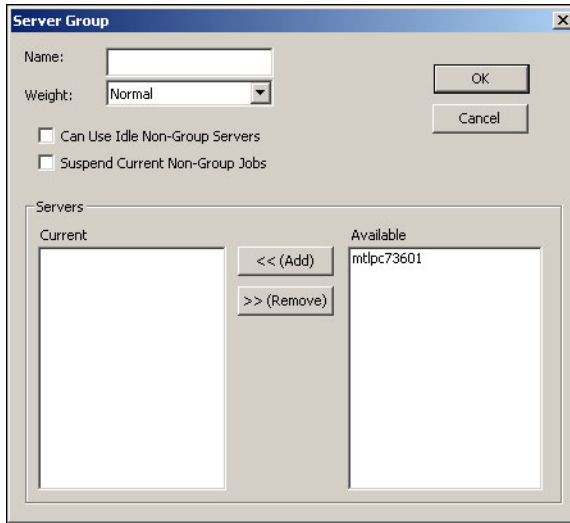
A menu appears for creating a global or local Server group from the Render Nodes on your system. Global groups are managed by Backburner Manager and are available to any Backburner Monitor connected to the network. Local groups are available only to the Backburner Monitor that creates the group.

2. From the menu that appears, select one of the following:

- Create Global Group
- Create Local Group

HINT: Creating global groups is recommended to simplify Render Node group management across the entire Distributed Queueing System.

The Server Group dialog appears. Use this dialog to create the group and add Render Nodes to it.



NOTE: If you are not connected to a Backburner Manager, the Create Global Group option is unavailable.

3. Use the Server Group dialog to name and configure the behavior for the group. See [“Configuring Server Groups”](#) on page 70.

Next, add Render Nodes to the group.

4. Select one or more Render Nodes in the Available list and then click Add.

The Render Nodes are added to the group.

HINT: You can also add Render Nodes in the Server list area to a group by dragging and dropping them on a group.

5. Click OK.

The Render Node group is added to the Global Groups or the Local Groups area, depending on the type of group you created in step 2.

To assign a Server group to a job:

1. Select the job in the Job list to be assigned to the Server group.
2. In the Server list, right-click the Server group and choose Assign Group to Selected Jobs.

The job is assigned to the Server group and one of the following occurs:

- If nodes in the group are busy, they complete their currently-assigned jobs before working on the job assigned to the group. Otherwise, the job is processed immediately by the Server group.
- If the “Suspend current non-group jobs” option is enabled, all nodes in the Server group drop their current rendering job and begin processing the assigned job immediately.

To shift a Server group between two jobs:

1. Select all jobs in the Job list.
2. In the Server list, right-click the Render Node group to be reassigned and choose Remove Group From Selected Jobs.

The Render Nodes in the group all end their current jobs and the group becomes available for other jobs. If you are using a global group and the “Suspend current non-group jobs” option is enabled, all Render Nodes in the group drop their current rendering job immediately.

NOTE: Server groups are subject to the same job assignment and completion rules and restrictions as individual Render Nodes. See [“Shifting Nodes Between Jobs in the Queue”](#) on page 53.

3. Select the job in the Job list to which you want to shift the group.
4. In the Server list, right-click the Server group and choose Assign Group to Selected Jobs:
The Render Node group is assigned to the new job and begins rendering. If you are using a global group and the “Can use idle non-group servers” option is enabled, Backburner Manager adds Render Nodes to the group temporarily as nodes become available from other jobs.

To delete a Server group:

1. In the Server list, right-click the Server group and choose Delete Group.
You are prompted to confirm the deletion of the group.
2. When prompted, click Yes.
The group is deleted from the Server list. The Render Nodes remain available and can be assigned to other groups, if necessary.

Configuring Server Groups

Use the Server Groups dialog in the Backburner Monitor or the Server Groups Web page in the Backburner Web Monitor to configure a global or local Render Node group for the Distributed Queueing System. You can use this dialog or Web page to do the following:

- Add Render Nodes to or remove Render Nodes from the group.
- Configure the weight (priority) for a Render Node group.
- Configure the behavior of a global group when a new job is assigned.

General Options

Use the options at the top to set the name, priority, and default behaviors for the rendering group.

Name field — Identifies the name of the Server group.

Weight list — Adjusts the priority of jobs assigned to a global Server group. For example, a job assigned to a Server group with a high weight is given a higher priority than a job assigned to a group marked with medium or low weight. Depending on the state of the job queue, the job assigned to a group with a high weight may be rendered ahead of higher priority jobs that are not assigned to Render Node groups.

NOTE: This list is available only for global groups in the Backburner Monitor.

Can Use Idle Non-group Servers — When enabled, allows the Backburner Manager to temporarily add Render Nodes to the group as nodes outside the group become idle. Enabling this option temporarily increases the rendering power of the group.

NOTE: This option is available only for global groups in the Backburner Monitor.

Suspend Non-Current Group Jobs — When enabled, allows Backburner Manager to suspend the processing jobs of all group members when a new job is assigned to the group. Enabling this option allows a Render Node group to quickly switch from one job to another.

NOTE: This option is available only for global groups in the Backburner Monitor.

Servers Area

Use the lists in the Servers area to manage Render Nodes in the group. The Add (Server) and Remove (Server) buttons allow you to add nodes to or remove nodes from the group.

List Name in the Backburner Web Monitor	List Name in the Backburner Monitor	Description
Servers in Group	Current	Lists the names of nodes currently in the group.
Available Servers	Available	Lists all nodes on the system that can be added to the group.

Troubleshooting Backburner

Summary

<i>Basic Troubleshooting Techniques</i>	73
<i>Common Problems</i>	74
<i>Verifying Communication Between Two Hosts</i>	77
<i>Verifying the Packet Size</i>	78
<i>Configuring Backburner Log Files</i>	78
<i>Editing the backburner.xml File</i>	82
<i>Resolving a Host Access Error</i>	83
<i>Resolving Invalid DNS Addresses</i>	84
<i>Resolving a Problem Connecting to the Backburner Manager</i>	84
<i>Adding the Backburner Path to the Windows Path Environment Variable</i> ...	86
<i>Resolving Network Card Priority</i>	87
<i>Resolving an Unavailable Render Node Problem</i>	87
<i>Restarting Suspended Render Nodes</i>	89
<i>Resolving a Render Node Failure</i>	89
<i>Adjusting the Maximum Number of Render Nodes Per Job</i>	90

Basic Troubleshooting Techniques

Troubleshooting problems on a Distributed Queueing System can be difficult because of the different hardware and software platforms that a Distributed Queueing System may cover. If you are having problems with the Distributed Queueing System, check the following issues first:

- All hosts on the Distributed Queueing System can communicate with each other. See [“Verifying Communication Between Two Hosts”](#) on page 77.
- If you are sending jumbo frames, verify that each host can handle that packet size. See [“Verifying the Packet Size”](#) on page 78.
- Any shared resources are both visible and accessible to all hosts on the Distributed Queueing System.

Make sure the folders containing images and models used for your jobs are shared by all hosts on the Distributed Queueing System. If your Distributed Queueing System is also rendering jobs from Autodesk applications that run on Linux or IRIX platforms, make sure that directories are visible from all hosts on the Distributed Queueing System, and that they have the appropriate permissions set.

- Any plug-ins, fonts, and codecs necessary for rendering jobs are installed on each Render Node.
- Licensing (where required) is properly configured for each host.

If your Distributed Queueing System is also rendering jobs from Autodesk applications that run on Linux or IRIX platforms, make sure the License Server for the network is functioning and that the licenses can be checked out.

Log files are also a useful source of information for troubleshooting a problem. Both Backburner Manager and Backburner Server maintain log files, and you can define the types of events you want these files to record. See [“Configuring Backburner Log Files”](#) on page 78 for an explanation of these files and the information they contain.

Common Problems

This section describes common problems in a Distributed Queueing System that uses Linux or Windows Render Nodes, and provides suggestions on how to solve these problems. For additional help with problems on a Distributed Queueing System using Burn Render Nodes, see the *Autodesk Burn 2008 Installation and User's Guide*.

Problems on Startup

These problems can occur when you start Backburner Manager or Backburner Server on Linux or Windows systems.

Problem	Common Cause
An <code>Application Terminated</code> error appears in the Backburner Monitor or the Backburner Web Monitor.	An incorrect IP address for the Backburner Manager, incorrect port numbers for the Manager and/or Server, incorrectly configured TCP/IP information. See “Resolving a Host Access Error” on page 83.
A <code>Host Not Found</code> error appears when starting Backburner Server on a Windows system.	An incorrect IP address for the Backburner Manager, incorrect port numbers for the Manager and/or Server, incorrectly configured TCP/IP information. See “Resolving a Host Access Error” on page 83.
An <code>Overlapped I/O Operation is in Progress</code> error appears when starting Backburner Server as a Windows service.	The Backburner Server service is already running. This is not a problem. You can continue with network rendering.

Problem	Common Cause
A Service is Installed. Cannot run Server Application. error appears when starting Backburner Server on a Windows system.	The Backburner Server service is installed and running. You can continue with network rendering without launching the Backburner Server application.
An Error registering to <server_name> error appears when starting Backburner Manager or Server on a Windows system.	Invalid IP addresses in the DNS Search Order, or the Primary or Secondary WINS Server in the Microsoft TCP/IP dialog. See "Resolving Network Card Priority" on page 87.
A Cannot handle registration from <server_name>. Will try later. error appears when starting Backburner Manager or Server on a Windows system.	The number of concurrent TCP sessions currently exceeds the limit the Manager can handle. Servers automatically retry, usually within a minute, so the problem should resolve itself.
A Cannot access job share <server_name>. Requesting archive directly. error appears when starting Backburner Server on a Windows system.	This warning may appear on Distributed Queueing Systems only and can be disregarded. The warning appears when a required folder and/or drive is not shared using Windows file sharing. If this occurs, Backburner switches to TCP/IP to access the required folder and/or drive across the network. You can prevent this warning from appearing by ensuring all network components share the same folders and drives.
An Invalid name or TCP/IP subsystem not installed error appears when starting Backburner Manager or Backburner Server on a Windows system.	The TCP/IP protocol is not running or not working properly. This error may occur on workstations where a pre-installed version of Windows includes a misconfigured TCP/IP protocol. Remove and then reinstall the TCP/IP protocol and reboot the workstation. Once the workstation has rebooted, see "Verifying Communication Between Two Hosts" on page 77 to ensure that it can communicate with other network components.

Problems Submitting Jobs

These problems can occur when you attempt to submit a job to the Distributed Queueing System on Linux or Windows systems.

Problem	Common Cause
The Backburner Manager is unavailable when submitting jobs to the Distributed Queueing System.	An incorrect IP address or an IP address that connects to the wrong Backburner Manager, a Backburner Manager that is not running or is hung, or communication problems between the Backburner Manager and the Render Nodes. See “Resolving a Problem Connecting to the Backburner Manager” on page 84.
An Unknown error loading application error appears in the Backburner Manager or Monitor when submitting jobs to the Distributed Queueing System on a Windows system.	The path to Backburner is not defined in the <i>Path</i> environment variable. See “Adding the Backburner Path to the Windows Path Environment Variable” on page 86.

Problems with Render Nodes

These problems can occur with a Render Node or the jobs sent to it on Linux or Windows systems.

Problem	Common Cause
A Render Node appears unavailable in the Backburner Monitor or Web Monitor.	The workstation is offline, the Backburner Server is not running or is hung, the Server is not using the correct IP address for the Manager, or the Manager cannot communicate with the Server. See “Resolving an Unavailable Render Node Problem” on page 87.
A Render Node is idle and cannot connect to the Backburner Manager.	Check the Render Node to make sure that the IP address for the Manager is correct. Other networking devices such as a second network card, or wireless device connected through a USB port may cause problems. See “Resolving Network Card Priority” on page 87.
A Cannot network render. Backburner not found or not installed. error appears in the application when a job is sent for rendering on a Windows system.	Either Backburner is not installed or its path is not defined in the <i>Path</i> environment variable. Verify that Backburner is installed and/or see “Adding the Backburner Path to the Windows Path Environment Variable” on page 86.
A Render Node remains suspended even while jobs are being processed by the Distributed Queueing System.	The Render Node is unavailable. See “Restarting Suspended Render Nodes” on page 89.
A Render Node fails when a job is assigned to the Distributed Queueing System.	Render nodes can fail during a network render job for a variety of reasons, some of the most common ones being incorrect paths, missing plug-ins, fonts, or codecs, or insufficient disk space. See “Resolving a Render Node Failure” on page 89.

Problem	Common Cause
An Unknown TCP gibberish from <Backburner_Manager_IP address_or_hostname> error appears in Backburner Server.	There is not enough free disk space on the Render Node, the connection between Backburner Manager and Backburner Server is bad, or network drivers are not working properly. Check the amount of free disk space on the Render Node and resubmit the job, if this is sufficient. If the problem reoccurs, check the drivers used for the network card and TCP/IP protocol as well as the physical network connection to the Render Node.
A Task Error: The filename, directory name, or volume label syntax is incorrect (0x7b) error appears in the log file of Backburner Server.	This error occurs when the output folder or directory name is misspelled or contains invalid characters. Check the output details for the job in the Backburner Monitor and correct the output folder name or path to fix this problem.
Only a single Render Node can be assigned to a job.	The output of the job is not an image sequence (for example, it is an AVI or MOV file). A job that does not produce an image sequence can only be assigned to a single server. Note that if such a job is stopped for any reason (to deactivate it or because the server goes down), re-rendering the file restarts at the first frame. Frames cannot be appended later to these file types. You can change which server a single-server job uses by removing the current server from the job, and then adding a different one.
No additional Render Nodes can be assigned to a job, even if Render Nodes are available.	The maximum number of Render Nodes per job is reached. You can change this maximum number to avoid this problem. See “Adjusting the Maximum Number of Render Nodes Per Job” on page 90. Changing these settings is not recommended. Increase these values only if you are sure that there is sufficient slack in your Distributed Queueing System.

Verifying Communication Between Two Hosts

Use the **ping** command to test communication between hosts, for example between a Render Node and a Backburner Manager on Linux or Windows systems.

Use:	To:
ping <ip_address>	Verify that the host on which you issue the command can communicate with the host whose address you specify in <ip_address>. Example: ping 132.22.34.15 If this command does not return a response from the host whose IP address you specified, ensure there is a valid network connection, and that both machines are on the same network.
ping <hostname>	Verify that the host on which you issue the command can communicate with the host whose name you specify in <hostname>. Example: ping managerhost

NOTE: If you can successfully “ping” the IP address, but not the hostname, the Domain Name Server may be unable to map the hostname to an IP address, or, if you are running the command on an IRIX or Linux workstation, the hostname/IP address pair may be missing from the */etc/hosts* file or from the NIS (Network Information Services) server. If necessary, consult your network administrator for help correcting the missing hostname.

Verifying the Packet Size

You can use the **ping** command to determine the packet size a host can accept on Linux or Windows systems.

Use:	To:
ping -s <packet_size> <hostname>	Verify that the host can handle the packet size it is being sent. Example: ping -s 50000 managerhost

If the host can handle regular packet size, but not oversize packets, your jumbo frame may be incorrectly configured, the switch may not support jumbo frames, or one of the ports (either the switch or the adapter) may not be set for jumbo frames. If you are not sure whether your system is using jumbo frames, consult your network administrator.

Configuring Backburner Log Files

Both Backburner Manager and Backburner Server maintain log files. The information in these log files can be useful when you are troubleshooting problems with the Distributed Queueing System. For example, you can consult the files to determine when the Backburner Manager or Server was started, when Backburner Servers on a network were shut down, and whether any errors occurred that halted the rendering of a job.

The log files are stored in the *C:\Program Files\Autodesk\Backburner\Network* folder in Windows systems, and in */usr/discreet/backburner/log* on Linux systems.

You can adjust system parameters and define the events and information that Backburner Manager or Backburner Server records in its log file by editing the *backburner.xml* file. Additionally, on Windows systems you can adjust the log file settings through an application dialog.

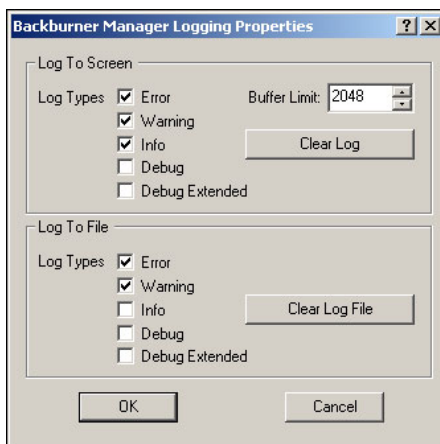
To configure Backburner log file settings on Windows systems:

1. Start Backburner Manager or Server. Refer to the *Autodesk Backburner 2008 Installation Guide* for help starting these applications.

NOTE: You cannot configure log file settings for Backburner Manager or Backburner Server while these applications are running as Windows services.

2. Choose Edit | Log Settings.

The Logging Properties dialog appears.



Use this dialog to set the events shown in the application's window or logged to its log file.

- The Log To Screen options set events that are displayed in the Backburner Manager or Server application window.
 - The Log To File options set events that are saved to the Backburner Manager or Server log files. These are usually the same messages that appear on the screen.
3. Enable options in the dialog to determine the messages that are saved to log files. See [“Specifying Backburner Log File Contents”](#) on page 80.

By default, the following events are always logged to the screen and to the log files:

- Error
- Warning
- Info

Enabled events are saved to the *backburner.log* file for Backburner Manager and to the *backburnerServer.log* file for Backburner Server. All Backburner log files are saved in *\Program Files\Autodesk\Backburner\Network*.

4. In the Buffer Limit field, specify the maximum size of the buffer holding the messages.
5. Click Clear Log to clear the buffer holding messages in the application window.
6. Click Clear Log File to clear the contents of the *backburner.log* or *backburnerServer.log* file.

NOTE: Log files are cleared only when you click the Clear Log File button. Otherwise, the size of these files continues to grow with each job rendered.

To configure Backburner log file settings by editing the *backburner.xml* file:

1. Stop Backburner Manager and/or Backburner Server.
2. Locate the *backburner.xml* file:
 - for Linux in */usr/discreet/backburner/Network*
 - for Windows in *C:\Program Files\Autodesk\Backburner\Network*
3. Edit the *backburner.xml* file using an XML or text editing application.
4. Under the <LogCfg> heading, enable or disable the options to determine the messages that are saved to log files. See [“Specifying Backburner Log File Contents”](#) on page 80. The settings are enabled with a “1” and disabled with a “0”.
5. Save and exit the *backburner.xml* file.
6. Restart Backburner Manager or Backburner Server. Refer to the *Autodesk Backburner 2008 Installation Guide* for help starting these applications.

NOTE: Any changes made to the *backburner.xml* file take effect only when the Backburner Manager or Backburner Server is restarted.

The new log file settings will now take effect.

Specifying Backburner Log File Contents

The information and type of events that can appear in the Backburner Manager or Server, or be written to their log files, are defined as follows.

Error — Fatal errors that halt the rendering of a job. These messages are preceded by a red “ERR”, label and includes the following events:

- Failed Renderings and Frame Errors
- Backburner Server runs out of memory
- Backburner Manager not found
- Error registering server(s)
- Error writing output file
- Loading time-outs

Warning — Non-fatal warning information. These are events that do not cause the application to stop rendering a job. These messages are preceded by a brown “WRN” label, and includes the following events:

- Backburner Manager or Backburner Servers shutting down
- Server(s) flagged as failed
- Loading time-out set too low
- Rendering time-out set too low

Info — General information about the current status of Backburner Manager and the Backburner Servers on the Distributed Queueing System. These messages are preceded by an aqua “INF” label, and includes the following events:

- Booting Backburner Manager
- Connection to Backburner Server(s)
- Registration to Backburner Manager
- Job submitted
- Job received
- Frame complete

Debug and Debug Extended — Detailed information about TCP/IP packets and the current state of Backburner Manager and the Backburner Servers. Debug Extended provides a more verbose listing than Debug. These messages are preceded by a blue “DBG” label, and include the following information:

- TCP/IP packets sent and received
- TCP/IP packet collection
- Frames assigned
- Log files creation and sent

- Assignment threads

Editing the *backburner.xml* File

When you run the Backburner Manager or Server, the application creates or updates the *backburner.xml* file in the Network directory under the Backburner installation directory. View or edit this file only if you have isolated a particular workstation as the cause of problems experienced on the Distributed Queueing System.

You may change parameters in the *backburner.xml* file by editing it in an XML editor or a text editing application.

On Windows systems, most of the settings in the *backburner.xml* file can be set using the Manager Properties dialog and Server Properties dialog.

Before viewing or editing the *backburner.xml* file, make sure the Backburner Manager and/or Backburner Server applications are shut down (or their services stopped and uninstalled). Any changes made to the *backburner.xml* file take effect only when the Backburner Manager or Server is restarted.

NOTE: Changing parameters manually in the *backburner.xml* file is done at your own risk.

Autodesk recommends changing only the following parameters in this file:

MaxBlockSize — Located under the <GeneralCfg> heading, this value is the maximum size of a data packet sent when transferring large blocks, such as projects. For slow connections like modems, it uses a smaller packet size, for example, 1024.

NetworkMask — Located under the <GeneralCfg> heading, this value shows the subnet mask used to locate other Backburner network components, such as Backburner Server or Manager. The subnet mask defined in the *backburner.xml* file must be the same as the one defined for general TCP/IP communications on the workstation.

ServerName — Located under the <SystemConfiguration><AppDetails><ServerSettings> heading, this value specifies either the host name or IP address the Backburner Server uses to identify itself to the Backburner Manager. This is useful when a render node has more than one network interface and hence more than one IP address

Acknowledgment Timeout — Located under the <TimerCfg> heading as AckTimeout, this value is the amount of time (in seconds) that the system will wait for an acknowledgment of commands (like Ping) sent back and forth between the Manager and Server. The default acknowledgment timeout is 20 seconds.

Acknowledgment Retries — Located under the <TimerCfg> heading as AckRetries, this value determines how many times the sender retries if no acknowledgment is received. The default is six tries. After that, the machine is considered down and is put off-line.

Resolving a Host Access Error

The common causes of a host access error in Linux or Windows installations are an incorrect IP address for the Backburner Manager, incorrect port numbers for the Manager and/or Server, or incorrectly configured TCP/IP information. You can troubleshoot the error by examining each of these in turn.

To resolve a host access error:

1. Ensure that the name and IP address of the Backburner Manager are correctly specified in the Backburner Server, as follows.

Connect the application directly to the Backburner Manager workstation by trying the following:

- If you use the Auto-Connect functionality, disable the Use First Available option and/or remove the subnet mask for the Distributed Queueing System. You are prompted to enter the name or IP address of the Backburner Manager workstation when you try to submit a job to the Distributed Queueing System.
- Disable any settings or preferences that automatically connect to the Backburner Manager.

If the application cannot connect to the Backburner Manager, continue to the next step.

2. Verify that the Manager and Server port numbers are correctly specified in the Manager General Properties and Server General Properties.

If this does not solve the problem, continue to the next step.

3. Verify that TCP/IP is correctly configured on all workstations running the software. If necessary, verify that the subnet mask is correct.

NOTE: Consult your network administrator before changing the subnet mask.

4. If a firewall is running on Distributed Queueing System components, review the firewall settings for each network component to ensure the following:
 - The Backburner application(s) are allowed to access the network.
 - The ports used by the Backburner Manager and the Backburner Monitor to communicate are not blocked by the firewall. By default, these ports are 3233 and 3234.

Resolving Invalid DNS Addresses

An invalid Domain Name Server (DNS) address in the DNS Search Order, or in the Primary or Secondary WINS Server in the Microsoft Windows TCP/IP dialog, causes an `Error registering <server name>` error when you start Backburner Manager or Server. The following procedure describes how to resolve invalid IP addresses for the Domain Name Server.

To resolve invalid DNS addresses:

1. Display the Microsoft TCP/IP dialog.
In Windows XP, choose Start | Settings | Network Connections, right-click Local Area Connection, and then click Properties. In the list, select Internet Protocol (TCP/IP) and click Properties. In the dialog that appears, click Use the following DNS server addresses, click Advanced and then check the DNS and WINS tabs.
2. Check the IP addresses listed for DNS and WINS servers for invalid IP addresses. If there are invalid IP Addresses listed in either the DNS or WINS Address panel, correct them and then reboot the workstation.

Resolving a Problem Connecting to the Backburner Manager

The Backburner Manager, on Linux or Windows systems, is the link between the Render Clients who submit jobs and the Render Nodes that process these jobs. If the Backburner Manager is not available, jobs cannot be submitted to or processed by the Distributed Queueing System. Not being able to connect to the Backburner Manager causes problems for both Render Clients and nodes, but Render Clients usually discover the problem. For example, if you submit a job while the Manager is down, an error appears in your application.

The most common reasons for not being able to connect to the Backburner Manager are: an incorrect IP address or an IP address that connects to the wrong Backburner Manager, a Backburner Manager that is not running or is hung, or communication problems between the Backburner Manager and the Render Nodes.

To resolve a problem connecting to the Backburner Manager:

1. Ensure you are connecting to the correct Backburner Manager, using its correct IP address, as follows.
Connect the application directly to the Backburner Manager workstation by trying the following:
 - If you use the Auto-Connect functionality, disable the Use First Available option and/or remove the subnet mask for the Distributed Queueing System. You are prompted to enter

the name or IP address of the Backburner Manager workstation when you try to submit a job to the Distributed Queueing System.

- Disable any settings or preferences that automatically connect to the Backburner Manager.

If the application cannot connect to the Backburner Manager, continue to the next step.

2. Verify that the Backburner Manager is running.

If it is not running or appears to be inactive on the workstation, restart the Manager for the network. Refer to the *Autodesk Backburner 2008 Installation Guide* for help starting Backburner Manager.

NOTE: If you are running Backburner Manager as a Windows Service, display the Services control panel, and verify that the Manager service is running. If the service is not running, highlight it and click Start.

If restarting the Manager does not fix the problem, continue to the next step.

3. If a Render Node has more than one network interface, this problem may be that the Backburner Server running on that node is identifying itself to the Backburner Manager using the wrong IP address. Do one of the following on the node to specify the IP address the Backburner Server uses to identify itself to the Backburner Manager.

- (Windows Render Node) Stop the Backburner Server on the node, and the Backburner Manager. Then on the Render Node, choose Start | Programs | Autodesk | Backburner | server to open the Backburner Server General Properties dialog and in the Server Name or IP Address field, enter the name or IP address you want to associate with the Backburner Server. Restart the Backburner Manager and the Backburner Server.
- (Windows or Linux Render Node) Stop the Backburner Server on the node, and the Backburner Manager. Load the `/usr/discreet/backburner/Network/backburner.xml` file in an XML editor or text editor and edit the `<SystemConfiguration>/<AppDetails>/<ServerSettings>/<ServerName>` to reflect the host name or IP address you want to associate with the Backburner Server. Save and exit the file, then restart the Backburner Manager and the Backburner Server.

4. Ensure the Render Nodes can *ping* the Backburner Manager. For help with the *ping* command, see [“Verifying Communication Between Two Hosts”](#) on page 77.

If the Render Nodes can successfully *ping* the Backburner Manager, continue to the next step.

5. If a firewall (such as Zone Labs ZoneAlarm) is running on Distributed Queueing System components, review the firewall settings for each network component to ensure the following:
 - The Backburner application(s) are allowed to access the network.
 - The ports used by the Backburner Manager and the Backburner Monitor to communicate are not blocked by the firewall. By default, these ports are 3233 and 3234.
6. Configure the log files to report detailed information about TCP/IP packets, as follows.

Enable the Log Debug and Log Debug Extended options in the preferences for the Manager and all Render Nodes running Backburner Server, and then restart the Backburner Manager and Backburner Server workstations.

Examine the TCP/IP information in the log files to determine why the Backburner Manager workstation and Render Nodes are not communicating.
7. Examine the *backburner.xml* file to ensure that the subnet mask defined for the Backburner Manager is correct and matches the subnet mask defined for the Render Node's TCP/IP settings. See [“Editing the backburner.xml File”](#) on page 82.

Adding the Backburner Path to the Windows Path Environment Variable

Environment variables are file paths that help Microsoft Windows find and launch applications such as Backburner Server. If the path to Backburner is missing or incorrectly defined, Windows is not able to launch Backburner Server or the application associated with the job. When this happens, the following errors may appear in the following applications:

- Unknown error loading application in the Backburner Manager and the Backburner Monitor.
- Cannot Network Render. Backburner not found or not installed. in the application that submitted the job to the Distributed Queueing System.

Do the following procedure to add Backburner to the *Path* environment variable in Windows.

To add the Backburner path to the Windows path environment variable:

1. In Windows XP, choose Start | Settings | Control Panel | System.
The System Properties dialog appears.
2. Show the Advanced tab, and then click Environment Variables to display the environment variables.
The Environment Variables dialog appears, showing user and system environment variables defined for the Windows workstation.

3. From the System Variables list, choose Path and then click Edit.
The contents of the *Path* environment variable appear.
4. Check the *Path* environment variable for the file path to Backburner: *C:\Program Files\Autodesk\Backburner* (default). If this path is missing or is incorrectly specified, re-enter it.
5. Click OK to return to the Environment Variables dialog, then close all dialogs and restart the Windows workstation.

Resolving Network Card Priority

If you have multiple network cards in your Linux or Windows Render Node, by default, Backburner Server uses the IP address of the first network card that it finds to identify itself to the Backburner Manager. This may lead to problems if this is the wrong card. You can force Backburner Server to use a specific network card. The following procedure describes how.

To resolve network card priority:

- Do one of the following:
 - (Windows Render Node) Stop the Backburner Server on the node, and the Backburner Manager. Then on the Render Node, choose Start | Programs | Autodesk | Backburner | server to open the Backburner Server General Properties dialog and in the Server Name or IP Address field, enter the name or IP address you want to associate with the Backburner Server. Restart the Backburner Manager and the Backburner Server.
 - (Windows or Linux Render Node) Stop the Backburner Server on the node, and the Backburner Manager. Load the */usr/discreet/backburner/Network/backburner.xml* file in an XML editor or text editor and edit the `<SystemConfiguration>/<AppDetails>/<ServerSettings>/<ServerName>` to reflect the host name or IP address you want to associate with the Backburner Server. Save and exit the file, then restart the Backburner Manager and the Backburner Server.

Resolving an Unavailable Render Node Problem

The most common reasons, in a Linux or Windows system, that a Render Node appears unavailable are that the workstation is offline, the Backburner Server is not running or is hung, the Server is not using the correct IP address for the Manager, or the Manager cannot communicate with the Server.

To resolve an unavailable Render Node problem:

1. Verify that the Render Node workstation is online.

If you are not at the Render Node, use the *ping* command to see this workstation is online. For help with the *ping* command, see [“Verifying Communication Between Two Hosts”](#) on page 77.

If the workstation is not online, restart the Render Node, and then see if it appears in the Distributed Queueing System.

If this does not resolve the problem, continue to the next step.

2. Check if the Render Node is scheduled to be offline using the Windows-based Backburner Monitor. See [“Setting the Availability for Rendering Nodes”](#) on page 59.

If the Render Node is scheduled to be offline and it should be online at this time, change the schedule for the Render Node.

If this does not resolve the problem, continue to the next step.

3. Verify the Backburner Server is running.

If it is not running or is hung, start the Server. Refer to the *Autodesk Backburner 2008 Installation Guide* for help starting Backburner Server.

NOTE: If you are running Backburner Server as a Windows Service, display the Services control panel, and verify that the Server service is running. If the service is not running, highlight it and click Start.

If this does not fix the problem, continue to the next step.

4. For Windows systems only, verify that the Render Node can communicate with the correct Manager.

Connect the Render Node directly to the Backburner Manager workstation by doing the following:

- Disable any Backburner Server settings or preferences that automatically connect to the Backburner Manager. In the Backburner Server General Properties dialog, disable Automatic Search and manually enter the name or IP address of the Backburner Manager.
- If the render node has more than one network card, in the Backburner Server General Properties dialog, manually enter the name or IP address you want to assign to the Backburner Server in the Server Name or IP Address field.
- Verify that the *HOSTS* file located in the *winnt\system32\drivers\etc* directory includes the IP address and corresponding machine name for each Render Node and the Backburner Manager workstation on the network. This file maps machine names to IP addresses.

If restarting the Server after this step does not fix the problem, continue to the next step.

5. If a firewall is running on Distributed Queueing System components, review the firewall settings for each network component to ensure the following:
 - The Backburner application(s) are allowed to access the network.
 - The ports used by the Backburner Manager and the Backburner Monitor to communicate are not blocked by the firewall. By default, these ports are 3233 and 3234.
6. Verify that the Manager can *ping* the Render Node. See [“Verifying Communication Between Two Hosts”](#) on page 77.
If the Manager can successfully *ping* the Render Node, continue to the next step.
7. Configure the log files to report detailed information about TCP/IP packets, as follows.
Enable the Log Debug and Log Debug Extended options in the preferences for the Backburner Manager and the Backburner Server workstations, and then restart the Backburner Manager and Backburner Server applications.

Examine the TCP/IP information in the log files to determine why the Render Node and Backburner Manager are not communicating.

Restarting Suspended Render Nodes

If the Backburner Monitor or the Backburner Web Monitor indicates that a Render Node assigned to a job is suspended even if its job is being processed, do the following to determine why the Render Node is suspended and, if necessary, to restart it.

To determine the cause of, and restart, a suspended Render Node:

1. Before restarting the Render Node, make sure that the workstation is available to render jobs. Select the Render Node in the Server List to view its details. Check in the Schedule section to see if the node is disabled for the current time period.
Render nodes that are not set to be available for rendering may appear suspended even if their job is being processed.
2. If the Render Node is supposed to be available for rendering jobs, stop and restart the Backburner Server application on the Render Node.

Resolving a Render Node Failure

The following list shows possible causes to verify in the case of a Render Node failure. Most of these are logged in the *backburnerServer.log* file, if you have configured the log file to include

fatal errors. Consulting this log file may help you determine the reason for the Render Node failure.

- Verify the paths to the footage and to the output folder are valid from the Render Node. A Render Node may fail if it cannot access the footage for a job, or cannot save its output in the output folder. Where possible, use UNC (`\\machine\folder`) paths for footage, such as bitmaps used for textures in 3D models. You can also ensure that paths to footage and projects are identical by maintaining the same directory structure on all Render Clients and Render Nodes in the Distributed Queueing System.
- Verify that any plug-ins, font, and codecs necessary for rendering jobs are installed on the Render Node.
- Ensure there is sufficient disk space to accommodate output (on the drive to which the Render Node saves its output), as well to hold input data associated with jobs (on the local drive of the Render Node).

Adjusting the Maximum Number of Render Nodes Per Job

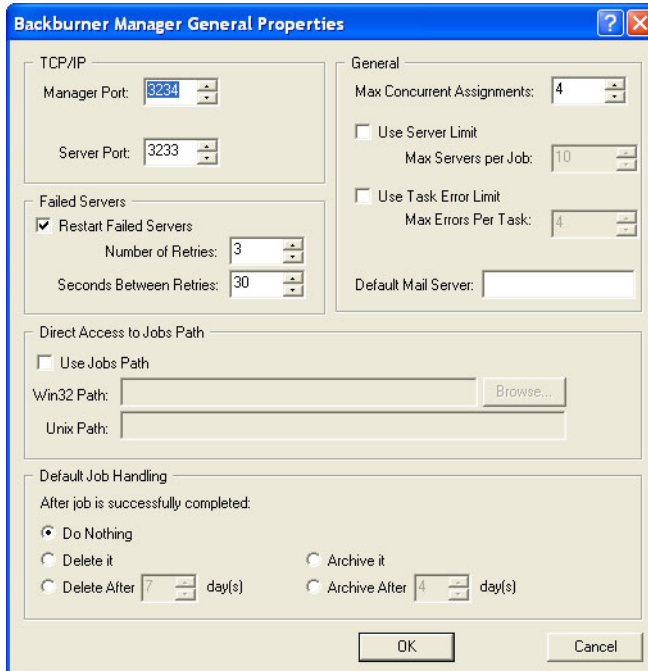
When the maximum number of Render Nodes per job is reached no additional Render Nodes can be assigned to a job, even if Render Nodes are available. You can remedy this problem by adjusting the settings for the Maximum Concurrent Assignments and Maximum Servers per Job in Backburner Manager. You can do this by editing the `backburner.xml` file. Additionally, on Windows systems you can use the Backburner Manager General Properties dialog.

NOTE: Changing these settings is not recommended. Increase these values only if you are sure that there is sufficient slack in your Distributed Queueing System..

To adjust the number of Render Nodes per job on Windows systems:

1. In Backburner Manager, choose Edit | General Settings.

The Backburner Manager General Properties dialog appears.



NOTE: Changing these settings is not recommended. Increase these values only if you are sure that there is sufficient slack in your Distributed Queueing System.

2. In the General group, adjust the value for Max Concurrent Assignments.
3. Optionally, in the General group, select Use Server Limit and adjust the value for Max Servers per Job.

NOTE: The settings from the Backburner Manager General Properties dialog are also written to the *backburner.xml* file in the *Network* folder where you installed Backburner.

To adjust the number of Render Nodes by editing the backburner.xml file:

1. Stop Backburner Manager.
2. Locate the *backburner.xml* file:
 - for Linux in */usr/discreet/backburner/Network*
 - for Windows in *C:\Program Files\Autodesk\Backburner\Network*

3. Edit the *backburner.xml* file using an XML or text editing application.
4. Under <ManagerSettings>, adjust the value for <MaxConcurrentAssignments>.
5. Optionally, set <UseServerLimit> to “Yes”, and adjust the value for <ServerLimit>.

NOTE: Changing these settings is not recommended. Increase these values only if you are sure that there is sufficient slack in your Distributed Queueing System.

6. Save and exit the *backburner.xml* file.
7. Restart Backburner Manager. Refer to the *Autodesk Backburner 2008 Installation Guide* for help starting Backburner Manager.

NOTE: Any changes made to the *backburner.xml* file take effect only when the Backburner Manager is restarted.

The new Render Node settings will now take effect.

index

Index

A

- access error 83
- addresses, invalid DNS 84
- Autodesk rendering network
 - See rendering network

B

- Backburner Manager
 - defined 2
 - log files 78, 90
 - problem connecting to 84
- Backburner Monitor
 - and Backburner Web Monitor explained 9
 - starting 13
- Backburner Monitor, defined 2
- Backburner Server
 - defined 2
 - log files 78, 90
- Backburner Web Monitor
 - defined 2
 - starting 11
- backburner.xml file 82

C

- command line rendering 42
- communication, verifying between hosts 77
- configuring Backburner log files 78, 90
- conventions, notation 4

D

- documentation 5

E

- environment variables for Backburner 86
- error, host access 83

G

- grouping render nodes 62
- groups, configuring Server 70

H

- host access error 83

I

- invalid DNS addresses 84

J

- jobs
 - archiving 34
 - cloning 32
 - deleting 41
 - modifying settings 27
 - restarting 31
 - shifting between render nodes 53
 - stopping and restarting 25
 - submitting from command line 42
 - viewing status 17

L

- log files 78, 90

M

- multiple network cards 87

N

notation conventions 4

P

packet size, verifying 78
ping command 77

R

render client 2
render node 2
render nodes
 deleting offline 56
 grouping in Server groups 62
 maximum number per job 90
 monitoring 47
 restarting 89
 scheduling availability 59
rendering network, components 2
restarting render nodes 89

S

Server groups, configuring 70
system management tools
 accessing 15
 tasks requiring 10

T

troubleshooting
 job submission 75
 render node failure 89
 render nodes 76
 startup problems 74
 techniques 73
 unavailable render node 87

W

Windows environment variables for Backburner
 86
Wiretap 4