

AUTODESK®  
BACKBURNER™  
2007

# Installation and User's Guide



Autodesk®

Autodesk® Backburner™ 2007

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# Introduction

## Summary

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## About the Autodesk Backburner Distributed Queueing System

Autodesk® Backburner™ is the set of applications used to manage and monitor the Autodesk Backburner Distributed Queueing System. The Autodesk Backburner Distributed Queueing System is a background rendering network system that allows multiple jobs, such as composites or animation scenes, to be rendered by many computers working collectively on the same network. 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

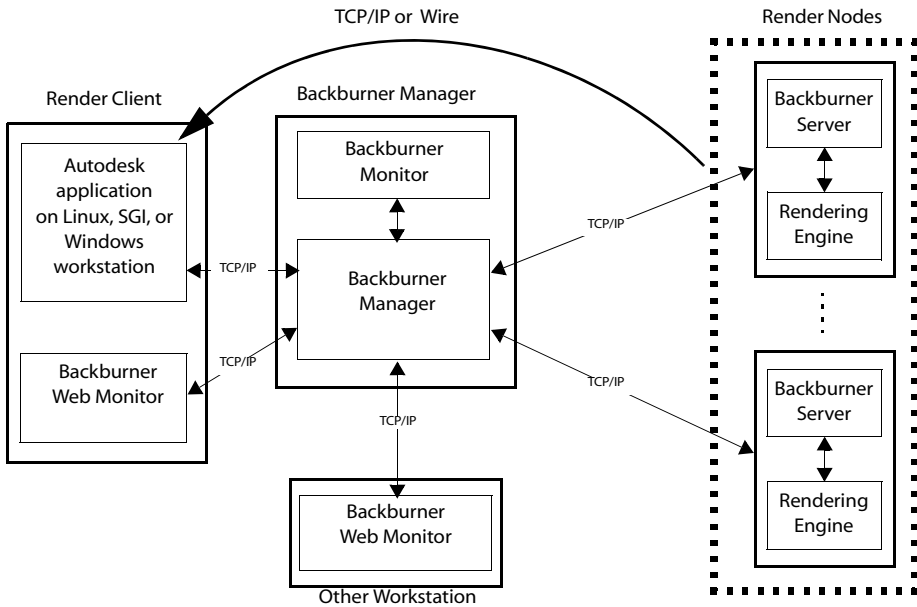
Many Autodesk applications use Backburner to manage jobs sent for processing by the rendering network, including Autodesk Flint®, Autodesk Flame®, Autodesk Inferno®, Autodesk Smoke®, Autodesk Fire®, Autodesk 3ds Max®, Autodesk Toxik™, Autodesk Combustion®, Autodesk Cleaner®, and Autodesk Lustre®.

## System Components

The Autodesk Backburner Distributed Queueing Systems consists of the following components:

- An Autodesk application that sends jobs to the Distributed Queueing System (the Render Client)
- At least one Linux or Windows computer that does the rendering (the Render Node)
- A workstation that distributes and manages the jobs running on the Distributed Queueing System (the Backburner Manager)
- At least one workstation that monitors the jobs running on the Distributed Queueing System (the Backburner Monitor)

The workflow between these components is shown in the following 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 Installation Guide*.

The following provides more details about each component.

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

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

**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.

## Using This Guide

This guide explains how to install, configure, and use Backburner to manage your Autodesk Backburner Distributed Queueing System. This guide also describes how to set up a Distributed Queueing System for 3ds Max, Combustion, and Cleaner using Backburner. For information on sending jobs to the rendering network from your Autodesk application, refer to the application's *User's Guide*.

Read this section for an overview of what each chapter covers and when the information applies to you.

[Chapter 1, “Introduction,”](#) on page 1 — Learn about the Autodesk Backburner Distributed Queueing System and its components. You also learn where to find related documentation and technical support.

[Chapter 2, “Installing Backburner,”](#) on page 9 — Learn how to set up and configure the Backburner components (Backburner Manager, Backburner Monitor, and Backburner Server) on the Distributed Queueing System. Hardware, software, and network requirements for 3ds Max, Combustion, or Cleaner Render Nodes are provided here. You also learn how to set up the Apache HTTP and Backburner Web servers required for the Backburner Web Monitor.

[Chapter 3, “Managing Jobs and Render Nodes,”](#) on page 57 — Learn how to monitor and manage an operational Distributed Queueing System using the Backburner Monitor and Web Monitor.

[Chapter 4, “Troubleshooting Backburner,”](#) on page 117 — Learn about the most common problems faced by Backburner users and how to address them, if they occur. You also learn about general troubleshooting strategies that can help you diagnose and fix problems with your own Distributed Queueing System.

## Intended Audience

This guide is designed for system administrators required to set up and/or maintain an Autodesk Backburner Distributed Queuing System. You should have knowledge of the following to use this guide:

- Autodesk applications such as Smoke, Flame, 3ds Max, Cleaner, or 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 should you require further assistance. See [“Contacting Customer Support”](#) on page 7.

**NOTE:** Some procedures in this guide require administrative privileges.

## 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.	<b>rpm -qa</b>
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 italics.	<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 Guides	Provides
<i>User Guide</i>	Detailed instructions on using the software.
<i>What’s New Guide</i>	A complete list of the new features for this release.
<i>Hot Keys Reference Guide</i>	A complete list of hot keys for commonly used functions.

<b>User Guides</b>	<b>Provides</b>
<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.
<b>Installation and Configuration Guides</b>	<b>Provides</b>
<i>Hardware Setup Guide</i> (for your workstation)	Information on how to setup your workstation and video I/O 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 require to do so.
<i>Stone and Wire Filesystem and Networking Guide</i> (for this release)	Procedures for configuring your Stone filesystem, Wire networking, and Wiretap™ services.
<i>Stone Direct Configuration Guide</i> (for this release)	Provides detailed connectivity diagrams and configuration procedures for you Stone storage arrays.
<i>Software Installation Guide</i> (for your product)	Information about installing and licensing your Autodesk Editing or Effects software and installing and configuring Autodesk Cleaner® XL.
<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.
<b>Other Guides</b>	<b>Provides</b>
<i>Autodesk Cleaner XL User's Guide</i>	Information on how to use Cleaner XL.
<i>Autodesk Cleaner XL Troubleshooting Guide</i>	Troubleshooting information for Cleaner XL.
<i>Using QuickTime with Linux Workstations Guide</i>	Information on how to use Cleaner XL to convert QuickTime® files for use on Linux workstations.
<i>Autodesk Burn 2007 Installation and User's Guide</i>	Information on how to install, set up, and use Burn.
<i>Autodesk Backburner 2007 Installation and User's Guide</i>	Information on how to install, set up, and use Backburner.
<i>Autodesk Wiretap 2007 Web Installation and User's Guide</i>	Information on how to install, set up, and use Wiretap Web Server.

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

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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 <a href="mailto:me.emea.support@autodesk.com">me.emea.support@autodesk.com</a>
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 <a href="mailto:me.support.singapore@autodesk.com">me.support.singapore@autodesk.com</a>
Within India:	Hotline (from Mumbai): +91-22-6695-2244 9:30 AM to 6:30 PM (local time) Monday to Friday, excluding holidays <a href="mailto:me.support.india@autodesk.com">me.support.india@autodesk.com</a>
Within Japan:	Hotline (from Tokyo): 0120-107-290 Direct dial: +81-3-6221-1810 10 AM to 6 PM (local time) Monday to Friday, excluding holidays <a href="mailto:me-sys-support@autodesk.jp">me-sys-support@autodesk.jp</a>
Within China:	Direct dial: +86-10-6505-6848 9 AM to 6 PM (local time) Monday to Friday, excluding holidays <a href="mailto:me.support.china@autodesk.com">me.support.china@autodesk.com</a>
Within Australia and New Zealand:	Hotline (from Melbourne): +1-300-36-8355 Direct dial: +61-3-9876-8355 8 AM to 6 PM AEST Monday to Friday, excluding holidays <a href="mailto:me.support.anz@autodesk.com">me.support.anz@autodesk.com</a>

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# Installing Backburner



## Summary

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## Backburner Installation Overview

This chapter explains how to set up Backburner and create an Autodesk Backburner Distributed Queueing System in your facility. Setting up Backburner involves installing the following applications on different components of your Distributed Queueing System:

- Backburner Manager
- Backburner Monitor
- Backburner Server

Components in a Distributed Queueing System may be installed across IRIX, Windows, and Linux platforms. Setting up Backburner ties these components together in a network that enables jobs to be distributed and managed across these different platforms.

The following procedure outlines the general workflow for setting up a Distributed Queueing System, showing the points at which you set up Backburner on the network components.

**To set up an Autodesk Backburner Distributed Queueing System:**

1. Check that the workstations used for the Distributed Queueing System meet minimum hardware, software, and network requirements. See [“Checking Backburner Component Requirements”](#) on page 11.
2. If necessary, configure the TCP/IP network protocols on the Windows workstations participating in the Distributed Queueing System to allow communication and file transfer. See [“Setting Up TCP/IP on Windows-Based Backburner Components”](#) on page 14.
3. Install the Backburner Manager application on the Windows or Linux workstation designated as the Backburner Manager of the Distributed Queueing System. Use the following table to locate the installation instructions for your application.

<b>For:</b>	<b>See:</b>
3ds Max	The most recent installation guide for 3ds Max.
Combustion and Toxik	<a href="#">“Setting Up Backburner Manager for the Distributed Queueing System”</a> on page 20.
Cleaner XL	The “Setting Up Cleaner XL Network Encoding” chapter in the most recent <i>Software Installation Guide</i> for Inferno, Flame, Flint, Fire, Smoke, or Backdraft Conform.
Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform	<a href="#">“Setting Up Backburner Manager for the Distributed Queueing System”</a> on page 20.
Lustre	The most recent installation guide for Lustre.

4. To monitor and control the Distributed Queueing System from a Web browser using the Backburner Web Monitor, set up the Backburner Web Server on the Backburner Manager workstation. See [“Setting Up Backburner Manager for Web Monitoring”](#) on page 32.
5. Install the Backburner software package on each Render Node of your Distributed Queueing System. Use the following table to locate the installation instructions for your application.

<b>For:</b>	<b>See:</b>
3ds Max, Combustion, and Toxik	<a href="#">“Setting Up Backburner Server on the Render Nodes”</a> on page 48.
Cleaner XL	The “Setting Up Cleaner XL Network Encoding” chapter in the most recent <i>Software Installation Guide</i> for Inferno, Flame, Flint, Fire, Smoke, or Backdraft Conform.
Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform	The most recent user’s guide for Burn.
Lustre	The most recent installation guide for Lustre.

6. Set up the workstation running your Autodesk application as a Render Client. Use the following table to locate the installation instructions for your application.

For:	See:
3ds Max, Combustion, and Toxik	Your application's most recent user's guide.
Cleaner XL	The "Setting Up Cleaner XL Network Encoding" chapter in the most recent <i>Software Installation Guide</i> for Inferno, Flame, Flint, Fire, Smoke, or Backdraft Conform.
Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform	The most recent user's guide for Burn.
Lustre	The most recent installation guide for Lustre.

## Checking Backburner Component Requirements

Before setting up Backburner in your facility, check that each component meets minimum hardware, software, and network requirements. Each Backburner component (clients, Backburner Manager, and Render Nodes) differs according to the following requirements:

- Hardware requirements for submitting, managing, and processing jobs.
- Network requirements for managing and/or communicating with other network components as well as transferring material.
- Software requirements for processing submitted jobs.

The requirements for components of a Backburner Distributed Queueing System used to process jobs from 3ds Max, Combustion, Cleaner XL, or Toxik are different than those of a Distributed Queueing System used to process jobs from Inferno, Flame, Flint, Fire, Smoke, Backdraft Conform, or Lustre.

### Hardware Requirements for Render Clients and Render Nodes

In general, hardware requirements for Render Clients are more demanding than those for Render Nodes. While the hardware requirements for Render Clients maximize performance, requirements for Render Nodes are usually based on the minimum configuration needed to run the software.

The following are general hardware guidelines for Render Nodes in a Distributed Queueing System used to render jobs from 3ds Max, Combustion, Cleaner XL, or Toxik.

- Render nodes may be any Windows workstation meeting the minimum hardware requirements for running 3ds Max, Combustion, Cleaner XL, or Toxik. However, nodes with better hardware (such as more memory or faster processors) are generally faster renderers.
- Each Render Node should be equipped with the same graphics card used in the Render Client. Standardizing on the same graphics card across the Distributed Queueing System ensures that the output from the Render Nodes is identical to locally rendered output from the Render Client.
- Render nodes generally do not need their own mouse, keyboard, or monitor unless they are also used as an artist workstation during working hours. Use a KVM switch to share a keyboard, mouse, and monitor between dedicated Render Nodes.

**NOTE:** Render nodes for a Distributed Queueing System used to render jobs from Inferno, Flame, Flint, Fire, Smoke, Backdraft Conform, or Lustre are Linux workstations with specialized hardware requirements.

Use the following table to determine the hardware requirements for the Render Client and nodes for your Distributed Queueing System.

<b>For:</b>	<b>See:</b>
3ds Max, Combustion, and Toxik	Your application's most recent installation guide.
Cleaner XL	The most recent user's guide for Cleaner XL.
Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform	The most recent user's guide for Burn.
Lustre	The most recent installation guide for Lustre.

## Hardware Requirements for the Backburner Manager

You can run the Backburner Manager on any Windows- or Linux workstation equipped with a network card. The following are recommendations for choosing a Backburner Manager workstation:

- The Backburner Manager workstation should be dedicated to managing the Distributed Queueing System. Avoid running Backburner Manager on a workstation that is also being used as a Render Client or a Render Node. For only very small networks, the Backburner Manager workstation may also be used as a Render Client and Render Node. But this scenario is not recommended.
- The Backburner Manager workstation used to manage a larger Distributed Queueing System should have better hardware to handle increased network traffic (such as job requests and messages) between components. Upgrade the Backburner Manager workstation as your Distributed Queueing System grows in size.

## Networking Requirements

Networking requirements for Backburner components differ based on the workstation platform and the application used as the Render Client. In general, all workstations need to be connected over a network with the TCP/IP protocol properly installed. Use the following table to determine the networking requirements and resources for your Distributed Queuing System.

Render Client	Networking Requirements	Resources
3ds Max, Combustion, Toxik, and Cleaner XL	TCP/IP	<a href="#">"Configuring TCP/IP on a Windows Workstation"</a> on page 16
Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform	Wire and TCP/IP	The user's guide for Burn. <a href="#">"Configuring TCP/IP on a Windows Workstation"</a> on page 16, if the Backburner Manager is run on a Windows workstation.
Lustre	TCP/IP and optional browsed service	The most recent installation guide for Lustre and <a href="#">"Configuring TCP/IP on a Windows Workstation"</a> on page 16.

## Software Requirements for Render Clients and Render Nodes

Software requirements differ based on the workstation and application used as the Render Client. The following are general software requirements for the Backburner Render Clients and Render Nodes:

- Render clients must be running the appropriate operating system (with any required patches and drivers) for the Autodesk application to submit jobs to the network. A Web browser such as Internet Explorer is also required to use the Backburner Web Monitor.
- Render nodes for 3ds Max, Combustion, Toxik, or Cleaner XL must be running Windows 2000 or Windows XP and the Backburner software package must be installed.
- Render nodes for Inferno, Flame, Flint, Fire, Smoke, Backdraft Conform or Lustre must have a supported version of Red Hat® Linux, Red Hat Enterprise Linux Workstation, or Red Hat Fedora Core installed, and the Burn software package must be installed and licensed correctly.
- Render clients used in background I/O tasks, such as background Wire transfers between Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform workstations, must have the latest version of Stone and Wire installed and configured properly.

## Software Requirements for the Backburner Manager

You can install and run the Backburner Manager on any workstation with the following operating systems installed:

- For Windows workstations, Windows 2000 or WindowsXP Professional (32 or 64-bit editions).
- For Linux workstations, Red Hat Enterprise Linux Workstation 4 and above.

If you plan to use the Backburner Web Monitor to manage the Distributed Queueing System in your facility, you will also need to install and run the Apache HTTP (Linux) or Microsoft® Internet Information Server (IIS - Windows) web servers on the same workstation. If so, ensure that the workstation meets the requirements for these applications.

## Setting Up TCP/IP on Windows-Based Backburner Components

All Backburner components use the TCP/IP network protocol for communications and file transfer. Each workstation in your Distributed Queueing System needs to be configured for this protocol. This section describes the TCP/IP protocol and provides procedures to configure TCP/IP under Windows for the following components:

- A workstation running the Windows version of Backburner Manager.
- Windows clients and Render Nodes used to process jobs from 3ds Max, Combustion, Toxik, or Cleaner XL.

These procedures do not apply to any workstation running an Autodesk Effects or Editing application (such as Flame or Smoke) or Lustre, or to a workstation running the Linux-based Backburner Manager. While these components also use the TCP/IP protocol, you must refer to the latest *Software Installation Guide* for these applications as well as the latest user's guide for Burn, for relevant installation and configuration instructions.

The following procedure outlines the general workflow for setting up TCP/IP for your Distributed Queueing System.

### To set up TCP/IP for Windows-based Backburner components:

1. Ensure the following:
  - You have administrative privileges on each workstation.
  - The network is operational, with network adapter cards installed on each workstation.
2. If necessary, create workstation names and IP addresses for each Windows workstation. See [“Creating Workstation Names and IP Addresses”](#) on page 15.

3. Install and configure TCP/IP on each Windows workstation. See [“Configuring TCP/IP on a Windows Workstation”](#) on page 16.

## Creating Workstation Names and IP Addresses

The TCP/IP protocol requires a device, called a network adapter or Network Interface Controller (NIC), to communicate with other workstations. Typically, the network adapter is a network card, but a modem can also be used if you connect to the Internet through a dial-up connections.

You use workstation names for network components when DHCP is used and when a workstation's IP addresses changes from session to session. However, you may want to use fixed IP addresses for network components in the following cases:

- If you are running several processing sub-networks, each with its own Backburner Manager and set of Render Nodes. It is easier to set up each sub-network when the Manager has a fixed IP address.
- If the Render Nodes or Backburner Monitor is located outside the local network, such as in a WAN or a multi-segmented network connected through a router. Render nodes connected to the same network can still use DHCP, but the Backburner Manager must have a fixed name and IP address.
- If a Distributed Queueing System is set up as a peer-to-peer network without an Windows server, such as a home network, it is easier to set up the network components with fixed IP addresses.
- If you are using batch rendering without being connected to a network, such as when a workstation does not have a network card but is being used as its own Render Node. You must set up a fixed TCP/IP address and configure the Microsoft Loopback adapter.

If you decide to use fixed IP addresses, you must ensure that each IP address for the Distributed Queueing System is unique. On open networks, such as those in large facilities, you must consult your system administrator before altering the IP address of any workstation. Otherwise, IP addresses may conflict with other workstations causing network and workstation instability.

No matter who creates workstation names or IP addresses, all addresses need to follow a consistent pattern and each address must be unique. Do the following procedure to create workstation names and IP addresses for Backburner components.

**To create workstation names and IP addresses:**

- Create a list of workstation names and IP addresses.

It is good practice to name the nodes according to their IP addresses. Unless you have specific needs for compatibility with another network, use the following table as a model for your Distributed Queueing System.

Workstation Name	IP Address
server001	192.168.100.1
server002	192.168.100.2
server003	192.168.100.3
...	...
server254	192.168.100.254

The following list shows restrictions for workstation names and IP addresses:

- Each workstation name and IP address must be unique.
- Workstation names must not start with numbers, include spaces, or contain underscores (\_).
- IP addresses must not contain 0 or 255 as their last group of digits; these are reserved.

**NOTE:** Using illegal names or IP addresses may cause unexpected behavior in the Distributed Queueing System.

**Configuring TCP/IP on a Windows Workstation**

Configure TCP/IP on a Windows 2000 or XP workstation using the following procedure:

**WARNING:** Do not alter network protocols, IP addresses, workstation names, workgroup names, or domain names in any way without first consulting your system administrator.

**To configure TCP/IP on a Windows workstation:**

1. Assign the workstation a name and then assign it to the appropriate workgroup or domain in your facility. See [“Assigning a Name and Workgroup or Domain to a Windows Workstation”](#) on page 17.
2. If necessary, install the TCP/IP protocol. See [“Installing the TCP/IP Protocol on a Windows Workstation”](#) on page 18.

Once the TCP/IP protocol is installed, configure it to either use a fixed IP address or use DHCP to be assigned an IP address. For guidelines about configuring TCP/IP for Backburner, see [“Creating Workstation Names and IP Addresses”](#) on page 15.

3. Configure the TCP/IP protocol on the workstation for your facility by doing one of the following:
  - To configure TCP/IP to receive an IP address through DHCP, see [“Configuring TCP/IP to Use DHCP”](#) on page 19.
  - To configure TCP/IP to use a fixed IP address, see [“Configuring TCP/IP to Use a Fixed IP Address”](#) on page 19.
4. Repeat all steps for each workstation on your network.

**NOTE:** Remember that each workstation must have a unique IP Address and name to avoid conflicts.

### Assigning a Name and Workgroup or Domain to a Windows Workstation

Assign a Windows workstation its name, as well add it to the workgroup or domain used for all Backburner components using the following procedure.

**NOTE:** The following procedure is based on the Classic Windows interface in Windows XP Professional.

#### To assign a workstation a name and workgroup or domain:

1. In the Windows Start menu, choose Settings | Control Panel | System.
2. View the name of the workstation by doing the following:

For:	Do:
Windows 2000	Click the Network Identification tab in the Systems Properties dialog and then click the Properties button to display the Identification Changes dialog.
WindowsXP	Click the Computer Name tab in the Systems Properties dialog, and then click Change to display the Computer Name Change dialog.

If you already assigned a name to the workstation, the name appears in the Computer Name field on the Network Identification tab (Windows 2000) or Computer Name tab (WindowsXP). Check this name against your list of workstation names and IP addresses.

3. To change the name, enter a host name for the workstation in the Computer Name field. The following restrictions apply:
  - Do not use a numeral for the first character of a workstation/host name.
  - Do not use underscores or spaces in the workstation/host name.

4. In the Member Of Group, enter either a workgroup or domain name, depending on how your network is going to be set up:
  - Select Domain if your network administrator has a domain already set up and functioning correctly.
  - Select Workgroup if your facility does not have a network domain set up.

### Installing the TCP/IP Protocol on a Windows Workstation

Check for and install the TCP/IP protocol on a Windows workstation using the following procedure.

**NOTE:** The following procedure is based on the Classic Windows interface in Windows XP Professional.

#### To install the TCP/IP protocol:

1. View the available network connections for the workstation by doing the following:

For:	Do:
Windows 2000	From the Windows Start menu, choose Settings   Network and Dial-up Connections   Local Area Connection.
WindowsXP	From the Windows Start menu, choose Settings   Network Connections

2. From the dialog that appears, display the Local Area Connection Properties dialog by doing the following:

For:	Do:
Windows 2000	Click Properties.
WindowsXP	Right-click Local Area Connection and then click Properties.

3. In the Local Area Connection Properties dialog, check the list for “Internet Protocol (TCP/IP)”.

If you find this entry, the TCP/IP protocol is already installed. Go to one of the following procedures:

- To configure TCP/IP for DHCP, see [“Configuring TCP/IP to Use DHCP”](#) on page 19.
- To configure TCP/IP for a fixed IP address, see [“Configuring TCP/IP to Use a Fixed IP Address”](#) on page 19.

Otherwise, TCP/IP is not installed. Ensure none of the list items are highlighted (click in a blank area of the list), and complete the remaining steps in this procedure.

4. Click Install to display the Select Network Component Type dialog.
5. Select Protocol, and then click Add.

6. In the Select Network Protocol dialog, select Internet Protocol (TCP/IP), and then click OK. You are prompted to use DHCP. Consult your system administrator to see if your network is DHCP-compatible; if it is, click Yes. If you are unsure, click No and proceed to set your workstation with a fixed IP address.

TCP/IP is added to the list of installed protocols.

7. Click Close and reboot the workstation, if prompted.
8. Repeat steps 1 to 3 to re-display the Local Area Connection Properties dialog and then configure the IP address for the workstation.

### **Configuring TCP/IP to Use DHCP**

If your facility runs DHCP, configure the TCP/IP protocol on the workstation to use DHCP to obtain an IP address by doing the following procedure.

**NOTE:** The following procedure is based on the Classic Windows interface in Windows XP Professional.

#### **To configure TCP/IP to use DHCP for IP addressing:**

1. From the Local Area Connection Properties dialog, select Internet Protocol (TCP/IP) and click Properties to display the Internet Protocol (TCP/IP) Properties dialog. In the Internet Protocol (TCP/IP) Properties dialog, ensure the option “Obtain an IP address automatically” is selected.
2. Click OK to close each dialog in turn. Windows finishes configuring the software.
3. Reboot the workstation to complete the configuration, if prompted.

### **Configuring TCP/IP to Use a Fixed IP Address**

If you are using fixed IP addresses in your facility, configure the TCP/IP protocol using the following procedure.

**NOTE:** The following procedure is based on the Classic Windows interface in Windows XP Professional.

#### **To configure TCP/IP with fixed IP addresses:**

1. From the Local Area Connection Properties dialog, select Internet Protocol (TCP/IP), and then click Properties to display the Internet Protocol (TCP/IP) Properties dialog.
2. In the Internet Protocol (TCP/IP) Properties dialog, choose “Use the Following IP Address”.

3. In the IP Address field, enter the address for that workstation.  
**NOTE:** Check your list of workstations and IP addresses to ensure the entry is correct.
4. In the Subnet Mask field, enter 255.255.255.0 (this is the same for every workstation).  
**NOTE:** If you are on an open network, this subnet mask might be different. In this case, use the mask that your network administrator specified.
5. Click OK to close each dialog in turn.  
Windows finishes configuring the software.
6. Reboot the workstation to complete the configuration, if prompted.

## Setting Up Backburner Manager for the Distributed Queueing System

Set up the Backburner Manager on the designated Windows or Linux workstation. Because Backburner Manager is the hub of the Distributed Queueing System, it should be running before you set up Render Clients or Render Nodes. The following procedure shows the general workflow for setting up Backburner Manager.

### To set up Backburner Manager:

1. If necessary, uninstall previous versions of Backburner installed on the Windows or Linux workstation designated as the manager of the Distributed Queueing System.  
You must uninstall all previous versions of Backburner before installing the latest version on the Manager workstation. Otherwise, your Distributed Queueing System may not work properly.
2. Install Backburner on the designated Windows or Linux workstation by doing one of the following:
  - To install Backburner on a Windows workstation, see [“Installing Backburner for Windows”](#) on page 21.
  - To install Backburner on a Linux workstation, see [“Installing Backburner for Linux”](#) on page 22.
3. Start and configure Backburner Manager by doing one of the following:
  - To start and configure Backburner Manager on a Windows workstation, see [“Starting the Backburner Manager for Windows”](#) on page 23.
  - To start and configure Backburner Manager on a Linux workstation, see [“Starting the Backburner Manager for Linux”](#) on page 25.

Only one Backburner Manager should be running on your network at all times. Otherwise, background rendering and I/O tasks may not be processed.

4. (Optional) If Backburner Manager is installed on a Windows workstation, set up the Backburner Manager as a Windows service so it is started with the workstation. See [“Setting Up Backburner Manager as a Windows Service”](#) on page 31.

## Installing Backburner for Windows

Use the following procedure to install Backburner on a Windows workstation from your Autodesk application CD.

**NOTE:** Backburner is installed by default as part of the 3ds Max and Cleaner XL installation processes.

### To install Backburner on a Windows workstation:

1. Log in to the workstation as Administrator.
2. In Windows Explorer, locate the *.zip* file for Backburner on the CD.  
**NOTE:** If you downloaded Backburner, this file may be in *.tar.gz* format.
3. Extract the contents of this file to a folder on your desktop or hard drive using Windows Explorer or WinZip®.
4. Open this folder and double-click the file *Backburner3.exe*.  
The Backburner Installation wizard appears.
5. In the Render Client’s directory folder, double-click *Backburner3.exe*.  
The Backburner setup program appears.
6. Follow the prompts to install Backburner on the workstation.

The following applications are installed and appear in the Autodesk | Backburner group in your Windows Start menu:

- Backburner Manager
- Backburner Monitor
- Backburner Server

Backburner is installed. Next, start and configure the Manager on the Distributed Queueing System; see [“Starting the Backburner Manager for Windows”](#) on page 23.

## Installing Backburner for Linux

Use the following procedure to install Backburner on a Linux workstation from your Autodesk application CD and configure the service to start with the workstation.

### To install Backburner on a Linux workstation:

1. Log in to the workstation as root and open a terminal, if necessary.
2. Insert your application CD in the CD-ROM drive and then mount the drive by typing:  
**mount /mnt/cdrom**
3. Locate and navigate to the directory containing the Backburner installation packages on the CD.

This directory contains a sub-directories for each distribution of Red Hat Enterprise Linux Workstation (WS) or Red Hat Linux supported for Backburner.

4. Navigate to the sub-directory for the installed Linux distribution:

For:	Type:
Red Hat Enterprise Linux WS 4.0 (64-bit distribution)	<b>cd LINUX_2.6/x86_64</b>
Red Hat Enterprise Linux WS 4.0 (32-bit distribution)	<b>cd LINUX_2.6/i386</b>

**HINT:** The Linux distributions listed above are officially supported for Backburner. However, the Manager may run on other non-supported Linux distributions that use the 2.6 kernel, such as Red Hat Fedora Core 4.

5. View the contents of the sub-directory by typing **ls**.  
The software package(s) for Backburner appear as well as an installation script.
6. Run the installation script. Type:

**./INSTALL**

The installation script starts and prepares to install Backburner. During installation, you may also be prompted to set up Backburner Server.

7. If the following prompt appears, choose No.  
**backburner Server configuration: Do you want to automatically run the backburner server on this machine?**

The script installs Backburner and returns you to the terminal.

Backburner Manager runs in Linux as a background service (or daemon). You must now configure its service to start with the workstation.

8. Check that the Backburner Manager service is configured properly. Type:

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

Output similar to the following should appear. If no output appears, or if the output is different than the following, contact Customer Support.

```
backburner_manager 0:off 1:off 2:on 3:on 4:on 5:on 6:off
```

Note that levels 3, 4, and 5 must be set to “on” for the Backburner Manager daemon to start automatically.

9. If you are performing an upgrade to a currently installed version of Backburner then your installation is complete. Otherwise you will need to run additional installation scripts.

Change directories. Type:

```
cd /usr/discreet/backburner/
```

10. Run the installation script to set up the Backburner Manager or Backburner Server. Type:

```
backburnerConfig
```

11. Run the installation script to configure the Backburner Web Monitor. Type:

```
backburnerConfigWeb
```

## Starting the Backburner Manager for Windows

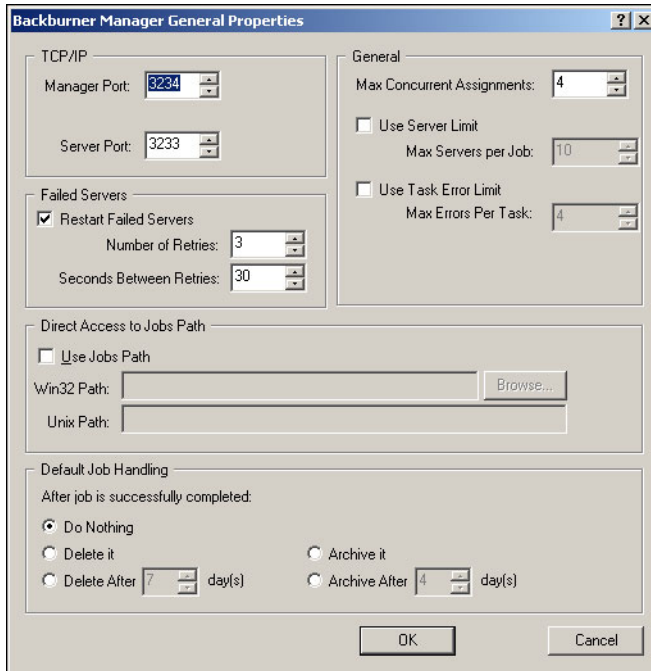
Start a Windows Backburner Manager using the following procedure. Backburner Manager should be running before you add Render Nodes or clients to your Distributed Queueing System.

### To start and configure Backburner Manager:

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

The Backburner Manager General Properties dialog appears the first time you start the Manager. Use this dialog to configure setting for Backburner Manager. Using the default

settings for Backburner Manager is recommended, since these settings are appropriate for most facilities.



2. If necessary, use the General Properties dialog to configure Backburner Manager; see [“Configuring Backburner Manager”](#) on page 26. Otherwise, click OK to start Backburner Manager.

**HINT:** 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. If you start the Manager and the *backburner.xml* file does not exist, the General Properties dialog reappears with default settings.

Backburner Manager is started. The Backburner Manager window shows messages for events affecting the Manager. Depending on the selections made in the Logging Properties dialog, messages are displayed alerting the user to the following:

- Connection and registration between the Manager and Server(s)
- New job assignments
- The workstation that is the queue controller
- Frames assigned/rendered

- Acknowledge packets sent between the Manager and Server(s)
- Manager/Server(s) shutting down
- Rendering errors encountered

**NOTE:** You can select which events get logged by Backburner Manager.

Once Backburner Manager is running properly, you are ready to set up the Backburner Web Monitor and the Render Nodes on the Distributed Queueing System.

**HINT:** You can change the configuration of Backburner Manager through its General Properties dialog at any time. To display this dialog, choose Edit | General Settings in Backburner Manager. You must restart Backburner Manager for changes to take effect.

## Starting the Backburner Manager for Linux

Start and configure a Linux-based Backburner Manager for your background Distributed Queueing System. Backburner Manager should be running before you add Render Nodes or clients to your Distributed Queueing System.

### To start and configure Backburner Manager:

1. Log in to the workstation as root and open a terminal.
2. Stop the Backburner Manager service. Type:

```
/etc/init.d/backburner_manager stop
```

The Backburner Manager service on the workstation is stopped, if it was running previously. If it was not running previously, a “Failed” error message will be displayed. If you are starting Backburner Manager for the first time, do steps 3 to 6 to configure the Manager before starting it. Otherwise, go to step 7 to start the Manager.

3. Navigate to the *Network* directory of the Backburner application and view its contents by typing:

```
cd /usr/discreet/Backburner/Network; ls
```

The *backburner.xml* file in this directory contains the configuration settings for the Backburner Manager. You must edit this file to configure the Manager for your facility. Before editing it, make a backup copy of this file.

4. Make a backup copy of the *backburner.xml* file. Type:

```
cp backburner.xml backburner_backup_<date>.xml
```

where <date> is today’s date.

The file is created in the *Network* directory. You can refer to and/or restore this file in case of problems.

5. If necessary, edit the *backburner.xml* file in a text editor such as *vi* or an XML editor to configure Backburner Manager for your facility; see [“Configuring Backburner Manager”](#) on page 26.
6. Save and close the edited *backburner.xml* file.
7. Start Backburner Manager by typing:

```
/etc/init.d/backburner_manager start
```

The Backburner Manager service starts, using the configuration information from the *backburner.xml* file. Once Backburner Manager is running properly, you are ready to set up the Backburner Web Monitor and the Render Nodes.

**HINT:** All Backburner Manager events are recorded in log files in the directory */usr/discreet/backburner/Log*. You can use the *tail* command to view the contents of this log for a Linux-based Backburner Manager.

## Configuring Backburner Manager

Configure Backburner Manager by either:

- Using the Backburner Manager General Properties dialog for a Windows-based Backburner Manager.
- Editing the *backburner.xml* file for a Linux-based Backburner Manager.

**NOTE:** Backburner Manager should be stopped before configuring.

While the default settings are appropriate for most cases, you may have to adjust these settings to enable communication between Backburner Manager and other components.

You configure the following for Backburner Manager:

- TCP/IP port numbers for both Backburner Manager and Render Nodes.
- Default behaviors for job distribution, failed Render Nodes, and completed jobs.
- Remote Windows and UNIX file paths for jobs.

Read the following sections to learn how to configure Backburner Manager for your facility.

**NOTE:** The *backburner.xml* file provides many elements that can be used to customize Backburner Manager. Take care when modifying this file directly unless you are familiar with XML and are comfortable with editing *.xml* files. Do not modify the *backburner.xml* file beyond the scope of the

elements covered in the following sections, unless directed to do so by Customer Support. Otherwise, the overall stability of your Distributed Queueing System may be affected.

### TCP/IP Settings

Configure general TCP/IP settings for Backburner Manager by modifying the following:

- The Manager Port and Server Port fields in the TCP/IP Group of the Backburner Manager General Properties dialog.
- The `ManagerPort`, `ServerPort`, and `NetworkMask` elements of the `GeneralCfg` element of the *backburner.xml* file.

These fields/elements specify the TCP/IP port numbers to be used by the Distributed Queueing System. Port numbers are like extensions for different users of the same telephone number. They represent two channels of communication between the Render Node and the Manager. Only a trained network administrator should change these settings.

Changing these port numbers from their default values is not recommended. If you decide to use other port numbers, these values must be changed in the TCP/IP settings of each Backburner component.

Field	XML Element	Description
Manager Port	<ManagerPort>	Specifies the port number used by Backburner Manager. The default value is 3234.
Server Port	<ServerPort>	Specifies the port number used by the Render Node(s). The default value is 3233.
N/A	<NetworkMask>	Sets the default subnet mask used for the network. The default value is 255.255.255.0. This value can be overridden using the Windows-based Backburner Monitor. See <a href="#">“Monitoring System Activity”</a> on page 59.

**NOTE:** If you are using a firewall in your facility, such as Zone Labs® ZoneAlarm® or the firewall included with WindowsXP, make sure you configure the firewall to allow access to the Manager and Server ports. Otherwise, components for your Distributed Queueing System are not able to communicate, receive footage, or return rendered material.

### General Settings

Configure general Backburner Manager behavior by modifying the following:

- The Max(imum) Concurrent Assignments, Use Server Limit, and Use Task Error Limit fields in the General group of the Backburner Manager General Properties dialog.
- The `MaxConcurrentAssignments`, `UseServerLimit`, and `UseTaskErrorLimit` elements of the `ManagerSettings` sub-element of the `AppDetails` element of the *backburner.xml* file.

Field	XML Element(s)	Description
Max Concurrent Assignments	<MaxConcurrentAssignments>	Specifies the number of jobs the Manager sends out simultaneously. This number depends on the processor speed of the Manager workstation, general job size, and overall network speed. Generally, the default value of 4 is adequate. You can change this value in the following situations: <ul style="list-style-type: none"> <li>• Decrease this value when rendering jobs are large and/or your Distributed Queueing System is struggling to keep up with jobs.</li> <li>• Increase this value when rendering jobs are small and/or your Distributed Queueing System has no trouble keeping up with jobs.</li> </ul> Avoid increasing this value substantially; too high a value may cause an increased number of node timeouts because the jobs are sent faster than the nodes can handle them. In such cases, decrease the value.
Use Server Limit	<UseServerLimit> and <ServerLimit>	Sets the maximum number of Render Nodes that will be allocated for a specific job. This feature can override the server limit settings in some applications. For information, see the application's Advanced Settings Dialog.
Use Task Error Limit	<UseTaskErrorLimit> and <TaskErrorLimit>	Defines the number of times a Render Node will retry a task before suspending it.

### Failed Node Behavior

Configure Backburner Manager to automatically restart Render Nodes with failed jobs by modifying the following:

- Restart Failed Servers, Number of Retries, and Seconds Between Retries fields in the Failed Server group of the Backburner Manager General Properties dialog.
- `RetryFailedServers`, `RetryCount`, and `TimeBetweenRetries` elements of the `ManagerSettings` sub-element of the `AppDetails` element of the *backburner.xml* file.

Field	XML Element(s)	Description
Restart Failed Servers	<RetryFailedServers>	Activate to enable automatic Render Node restarting. If this option is disabled, the Render Node will not attempt to render the job again after the first failure. This option is enabled by default.
Number of Retries	<RetryCount>	Specifies the number of times the Manager attempts to restart a failed Render Node. The number of retries is set to 3 by default. The range is between 1 and 1024.
Seconds Between Retries	<TimeBetweenRetries>	The time between each retry in milliseconds. This value is set to 30000 milliseconds by default. In Windows this value is adjusted to be displayed as 30 seconds.

The state of a Render Node is recorded on a per-job basis. The Backburner Manager regularly goes through the list of Render Nodes for a job, checking for failures. If Restarts Failed Servers is enabled (set as 1 in the *backburner.xml* file), the Manager keeps track of the following:

- The time a Render Node fails on a particular job.
- The elapsed time since the node failed on a particular job.

If the time elapsed is greater than the specified Seconds Between Retries, the Backburner Manager decreases the Number of Retries by one and resets the Failed flag for the Render Node. Once the failure count reaches the specified Number of Retries, the Manager stops trying to restart the Render Node for that particular job.

Once a restarted Render Node completes a frame, it is flagged as active and resumes processing until the job is complete.

### Job Path Settings

Configure Backburner Manager to access jobs on specified system or network drives by modifying the following:

- The Use Jobs Path, Win32 Path, and Unix Path fields in the Direct Access to Job Path group of the Backburner Manager General Properties dialog.
- The EnableJobPath, Win32Path, and UnixPath elements of the ManagerSettings sub-element of the AppDetails element of the *backburner.xml* file.

You use these fields/elements when you do not want to have jobs kept on the drive or workstation where Backburner Manager is installed. Examples of such situations are:

- You have very little drive space on the system drive where Backburner Manager is installed. Because another system drive has plenty of space, you share a folder on this drive called

*MyJobs* where jobs will be placed when submitted. In this case, you would direct jobs to `\\computername\MyJobs`

- You are using your workstation simultaneously as a Backburner Manager and artist workstation. To reduce the overhead on the workstation from Backburner Manager, you set up a shared job folder on a network file server, called *backburnerJobs*. The Win32 job path would be set to `\\fileserver\backburnerJobs` and jobs you submit placed on the file server.

Field	XML Element(s)	Description
Use Jobs Path	<EnableJobPath>	When enabled, defines job location using the Win32 or UNIX paths. This tells the Render Nodes to get the job files from this location, minimizing the file I/O traffic on the Manager workstation.
Win32 Path	<Win32Path>	The Windows file path where jobs are located. You can click the Browse button in the General Properties dialog to search your system for the job location.
Unix Path	<UnixPath>	The Unix file path where jobs are located. You can click the Browse button in the General Properties dialog to search your system for the job location.

### Default Job Handling Behavior

Configure how Backburner Manager handles completed jobs by modifying the following:

- The Do Nothing, Delete it/Delete After, Archive it/Archive After fields in the Default Job Handling group of the Backburner Manager General Properties dialog.
- The DefJobHandling, DeleteDays, and ArchiveDays elements of the ManagerSettings sub-element of the AppDetails element of the *backburner.xml* file.

You use these settings to better manage the job queue in the Manager. For example, use these settings to delete a completed job after a certain number of days or leave the job indefinitely in the queue to be archived. Archiving is useful when you submit a final version of the project and you know no additional changes are required.

**NOTE:** These settings can be overridden from the Advanced Settings dialog accessed from the Network Job Assignment dialog.

<DefJobHandling> Setting	State	XML Element(s)	Description
0	Do Nothing		When enabled in the General Properties dialog, a completed job is left in the queue.
1	Delete it		When enabled in the General Properties dialog, the job is deleted from the queue upon completion.
2	Delete After	<DeleteDays>	When enabled in the General Properties dialog, the job is kept in the queue for the specified number of days upon completion. Once the number of days has been exceeded, the job is deleted from the queue.
3	Archive it		When enabled in the General Properties dialog, the job is archived upon completion. Archive it is enabled by default for Windows Managers.
4	Archive After	<ArchiveDays>	When enabled in the General Properties dialog, the job is kept in the queue for the specified number of days upon completion. Once the number of days has been exceeded, the job is deleted from the queue.

## Setting Up Backburner Manager as a Windows Service

You can set up Backburner Manager as a Windows 2000 or XP Professional service so that it starts with the workstation, like a Linux-based Manager. Windows services automatically start in the background every time the workstation is booted. In this case, Backburner Manager operates in the background under Windows 2000 or XP instead of as a separate application.

Running the Manager as a service does not:

- Change the information shown in the Backburner Monitor or Web Monitor.
- Prevent Backburner Manager from being started manually as an application, although you may receive an error if it is already running as a service.

While running Backburner Manager as a Windows service is more convenient, it also means that information for the Manager is less obvious if problems occur. This is why your Distributed Queueing System should be running smoothly before setting up your Backburner Manager as a service.

Do the following procedure to set up Backburner Manager as a Windows service.

**To set up Manager as a Windows service:**

1. Go to the workstation on which you will install the Manager as a service.
2. Open a Command Prompt (DOS) shell and navigate to the default Backburner directory, *C:\Program Files\Autodesk\Backburner*.

**NOTE:** If you are running WindowsXP Professional 64-bit Edition, the Backburner directory may be *C:\Program Files <x86>\Autodesk\Backburner*.

3. Enter **managersvc -i**.

The following message appears:

```
Backburner Manager ... Service Installed.
```

**NOTE:** To remove Backburner Manager once it has been installed as a service, type **managersvc -r** from the Backburner root directory.

4. Choose Start | Settings | Control Panel | Administrative Tools | Services, right-click Backburner Manager, and choose Start.

When you next restart the workstation, Backburner Manager is also started automatically.

**NOTE:** Choose Properties from the right-click menu to set users, passwords, and other parameters.

## Setting Up Backburner Manager for Web Monitoring

You can monitor and manage your Distributed Queueing System in two ways:

- Using the Backburner Monitor application running on any Windows workstation with access to the Distributed Queueing System
- Using the Backburner Web Monitor from any workstation with a Web browser and access to the Distributed Queueing System

Previously, certain network tasks (such as deleting jobs) could only be done from the Windows-based Backburner Monitor. The current version of the Backburner Web Monitor provides the same functionality as the Backburner Monitor on Windows.

In order to make the Backburner Web Monitor available, you need to install the Backburner Web Server as well as one of the following Web server applications:

- The Apache HTTP server, which is a popular open-source Web server application available for many platforms including Windows, Linux, and IRIX.
- The Microsoft Internet Information Server (IIS), which is a proprietary Web server application included with all server versions of Windows 2000, as well as with all versions of WindowsXP Professional.

If possible, consult your system administrator to determine the Web server application used by your facility and for assistance with installing and configuration this application. No matter which Web server application is used, you must also have the following prerequisites to install and configure the Web server for the Backburner Web Monitor:

- An understanding of HTML or XML.
- An understanding of Web server configuration.
- A basic understanding of Autodesk Distributed Queueing System architecture.

Use the following table to locate the procedures for installing the Web server application and the Backburner Web Server for your facility:

Web Server Application	Installation Instructions
Apache HTTP server on Windows	<a href="#">“Installing the Apache HTTP Server and Backburner Web Server for Windows”</a> on page 33
Microsoft IIS on Windows	<a href="#">“Installing Microsoft IIS and Backburner Web Server for Windows”</a> on page 40
Apache HTTP server on Linux	<a href="#">“Installing the Apache HTTP Server for Linux”</a> on page 47

## Installing the Apache HTTP Server and Backburner Web Server for Windows

Install and configure the Apache HTTP server and the Backburner Web Server for a Windows workstation to make the Backburner Web Monitor available to network users. The following procedure shows the general workflow used to install and configure the Apache HTTP server and Backburner Web Server.

### To install and configure the Apache HTTP and Backburner Web servers:

1. If necessary, download and install the Apache HTTP server on the Windows workstation where Backburner Manager is installed. See [“Installing the Apache HTTP Server for Windows”](#) on page 34.

**NOTE:** Installing the Apache HTTP server and the Backburner Web Server on the same workstation as the Backburner Manager is recommended. Do not install these Web servers on multiple workstations on the Distributed Queueing System.

2. Install and configure the Backburner Web Server for Apache. See [“Installing the Backburner Web Server for Apache”](#) on page 34.
3. Configure the Backburner Web Server so it can connect to and communicate with the Backburner Manager. See [“Configuring the Backburner Web Server”](#) on page 35.

4. Set up access to the Backburner Web Monitor users so network users can manage jobs and Render Nodes through the Web Monitor. See [“Setting Up Access to the Backburner Web Monitor”](#) on page 37.

### Installing the Apache HTTP Server for Windows

Download and install the Apache HTTP server for Windows using the following procedure. You must install the Apache HTTP server before installing or configuring the Web Server used for the Backburner Web Monitor. This procedure assumes that the Apache HTTP server is installed on the same workstation as the Backburner Manager.

#### To download and install the Apache HTTP server:

1. On the Windows workstation designated as the Backburner Manager, open a Web browser and go to <http://httpd.apache.org>.
2. Click Download from a Mirror.
3. Choose a mirror site to download the HTTP server, locate the link for the Win32 Binary MSI Installer (*apache\_2.0.59-win32-x86-no\_ssl.msi*), and then click the link to download the installer package.
4. Go to the location where the installer package was downloaded and then run the *apache\_2.0.59-win32-x86-no\_ssl.msi* file to start the installation.  
The Apache Installation Wizard appears.
5. Once you have reviewed the license agreement and the Read This First information, follow the Installation Wizard's on-screen prompts, keeping all settings at their default values.
6. Once the installation process is complete, click Finish.

The Apache HTTP server is installed and started. You can monitor its status and control the service by double-clicking the icon that appears in the Windows system tray, or by choosing Start | Programs | Apache HTTP Server 2.0.59 | Control Apache Server | Monitor Apache Servers.

### Installing the Backburner Web Server for Apache

Install the CGI application for the Backburner Web Server under the Apache HTTP server using the following procedure. This step configures Apache to access the Backburner Web Server for a Backburner Web Monitor user on the network.

**To install the Backburner Web Server:**

1. Start the Backburner Manager on the workstation, if necessary. See [“Starting the Backburner Manager for Windows”](#) on page 23.

If Backburner Manager is not installed on the workstation, install the Backburner software using the procedures in [“Installing Backburner for Windows”](#) on page 21 and then start the Manager.

2. Navigate to the folder where Backburner is installed, by default *C:\Program Files\Autodesk\Backburner*.

**NOTE:** If you are running Windows XP Professional 64-bit Edition, Backburner may be installed in the folder *C:\Program Files <x86>\Autodesk\Backburner*.

3. Copy the entire *backburner\_html* folder to *C:\Program Files\Apache Group\Apache2\htdocs*.
4. Rename the *backburner\_html* folder you copied in step 2 as *backburner*.  
You should now have a *C:\Program Files\Apache Group\Apache2\htdocs\backburner* folder.

5. Copy the following files from *C:\Program Files\Autodesk\Backburner* to *C:\Program Files\Apache Group\Apache2\cgi-bin*:

- *monitorCGI.cfg*
- *monitorCGI.cgi*
- *monitorCGI-auth.cgi*

6. If you are running Windows XP Professional 64-bit Edition, then you will have to perform the following steps to allow the *.cgi* extension to appear as a Web service extension in the Internet Information Services Manager.
  - a) In Windows, from the Control Panel, open Administrative tools then start the IIS Manager.
  - b) In the folders listed under your Local Computer, go to the “Web Service Extensions” folder, click on “All Unknown CGI Extensions”, and then click “Allow”.

This will allow you to view the Web Monitor page correctly.

**Configuring the Backburner Web Server**

Configure the Backburner Web Server to connect to the Backburner Manager using the following procedure.

**To configure the Backburner Web Server:**

1. Identify the full computer name (such as *Saturn.Sol.com*) of the workstation running the Backburner Manager using either of the following methods:
  - Choose Start | Settings | Control Panel | System, open the Computer Name panel in the System Properties dialog and view the workstation name in the Full Computer Name field.
  - Test the connection to the Backburner Manager workstation using the *ping* utility and then view the workstation name that appears in the utility output. For information about the *ping* utility, see [“Verifying Communication Between Two Hosts”](#) on page 121.

**HINT:** You can also use the *ping* utility to check that the workstation running the Backburner Manager is online.

2. Navigate to *C:\Program Files\Apache Group\Apache2\cgi-bin*, and then open the *monitorCGI.cfg* file in an XML or a text editor such as *Notepad*.

The *monitorCGI.cfg* file contains Backburner Manager settings for the Backburner Web Server. You must configure this file so that a Backburner Web Monitor can access the Backburner Manager of your Distributed Queueing System.

3. Locate the following line in the *monitorCGI.cfg* file:

```
<!-- Default Manager Hostname -->
<Manager>localhost</Manager>
```

4. Replace the value for *localhost* in this line with the full computer name of the workstation running Backburner Manager you determined in step 1.

For example, if the name of the workstation running Backburner Manager is *Saturn.Sol.com*, the line appears as:

```
<Manager>Saturn.Sol.com</Manager>
```

5. Locate the following line in the *monitorCGI.cfg* file:

```
<!-- Port that the manager is running on -->
<Port>3234</Port>
```

6. If necessary, replace the value in this line with the port number used to communicate with Backburner Manager.

Check the Backburner Manager General Properties dialog or the *backburner.xml* file if you are unsure what port number is being used by the Backburner Manager; see [“Configuring Backburner Manager”](#) on page 26.

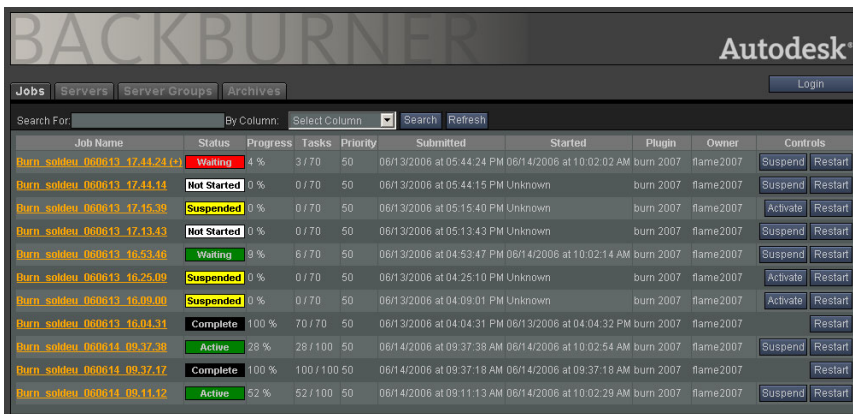
**NOTE:** The default Backburner Manager port number is 3234. Changing this port number is not recommended.

7. Save and close the `monitorCGI.cfg` file.
8. To test the Backburner Web Server, open a Web browser and enter the following in the address line:

**http://<machinename>/backburner**

For example, if the machine name is `managerhost`, the address is `http://managerhost/backburner`.

If the Backburner Web Server is working, the Web Monitor appears in the browser. All users on the network can use this Web address to access the Backburner Web Monitor.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldeu_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_soldeu_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_soldeu_060613_17.15.30	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_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_soldeu_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_soldeu_060613_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_060613_16.09.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_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	Suspend Restart
Burn_soldeu_060614_09.37.38	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_soldeu_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_soldeu_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

With the Backburner Web Server working, you are now ready to set up usernames and passwords for users of your Distributed Queueing System.

### Setting Up Access to the Backburner Web Monitor

The Backburner Web Server can be run in one of two ways:

- In read-only mode, where Backburner Web Monitor users can only monitor the status of the Distributed Queueing System.
- In authenticated mode, where Backburner Web Monitor users can actively manage jobs and Render Nodes on the Distributed Queueing System.

Set up the Backburner Web Server to run in authenticated mode using the following procedure. While running in authenticated mode is not mandatory, this mode allows network users on non-Windows workstations to manage jobs and Render Nodes via the Backburner Web Monitor. Otherwise, network users must use the Windows-based Backburner Monitor application for most management activities.

Running the Backburner Web Server in authenticated mode also allows a system administrator control over Distributed Queueing System access. In the following procedure, you set up

usernames and passwords for all Distributed Queueing System users. In [Chapter 3, “Managing Jobs and Render Nodes.”](#) on page 57, you configure network permissions for these users.

**To set up authenticated access to the Backburner Web Monitor:**

1. Create a sub-folder called *auth* in the main Apache folder, *C:\Program Files\Apache Group\Apache2*.

You should have a *C:\Program Files\Apache Group\Apache2\auth* folder. Next, set up a password file for the Backburner Web Server in this folder.

2. Open a command prompt (DOS) shell, and then navigate to the *C:\Program Files\Apache Group\Apache2\bin* folder by typing the following:

```
cd "C:\Program Files\Apache Group\Apache2\bin"
```

**HINT:** Use quotation marks in a command to access folders or files with non-standard names, such as folders with spaces like *C:\Program Files*.

You use the *htpasswd.exe* utility in this folder to set up usernames and passwords for all Distributed Queueing System users.

3. Create a password file that contains the username and password of the first user. Type:

```
htpasswd.exe -b -c ..\auth\backburner.auth <username>  
<password>
```

where *<username>* and *<password>* are the respective username and password.

A text file called *backburner.auth* is created in the folder, *C:\Program Files\Apache Group\Apache2\auth*. This file contains the list of usernames and encrypted passwords for all network users.

4. Set the username and password for remaining users by typing the following for each network user:

```
htpasswd.exe -b ..\auth\backburner.auth <username> <password>
```

The username and password for each user is appended to the *backburner.auth* file that you created in step 5. Once you have set up logon credentials for all network users, you are ready to run the Backburner Web Server in authenticated mode.

5. Navigate to the *C:\Program Files\Apache Group\Apache2\conf* folder and then open the *httpd.conf* file in a text editor such as *Notepad*.
6. Go to the end of this file and then add the following lines:

```
<Location /cgi-bin/monitorCGI-auth.cgi>
```

```
AuthType Basic
```

**AuthName Backburner**

**AuthUserFile "C:\Program Files\Apache  
Group\Apache2\auth\backburner.auth"**

**<Limit GET POST>**

**</Limit>**

**require valid-user**

**</Location>**

**NOTE:** To avoid any typographical errors, you should cut and paste these lines from this document. If you are running WindowsXP Professional 64-bit Edition, the path in the `AuthUserFile` line may be "`C:\Program Files <x86>\Apache Group\Apache2\auth\backburner.auth`".

7. Save and close the `httpd.conf` file.
8. Navigate to `C:\Program Files\Apache Group\Apache2\cgi-bin`, and then open the `monitorCGI.cfg` file in an XML or text editor such as *Notepad*.  
The `monitorCGI.cfg` file contains settings for the Backburner Web Server, including a setting for running the Web Server in authenticated mode.

9. Locate the following line in the `monitorCGI.cfg` file:

```
<AuthorizedSite></AuthorizedSite>
```

10. Edit this line as follows:

```
<AuthorizedSite>monitorCGI-auth.cgi</AuthorizedSite>
```

This setting will enable the Login button to appear in the Backburner Web Monitor so that users may login in using authenticated mode. All users connecting to the Distributed Queueing System through the Backburner Web Monitor are required to provide a username and password to access the Distributed Queueing System.

11. Save and close the `monitorCGI.cfg` file.
12. To test that the Backburner Web Server is running in authenticated mode, open a Web browser and enter the following in the address line:

```
http://<machinename>/backburner
```

If the Backburner Web Server is running in authenticated mode, you are prompted to login to the Web Monitor.

13. When prompted, enter the username and password for the system administrator that you set up in step 5.

The Backburner Web Server checks the logon credentials that you supply against the username and password in the *backburner.auth* file. If these match, the Backburner Web Monitor appears. Otherwise, you are prompted again for your username and password.

## Installing Microsoft IIS and Backburner Web Server for Windows

Install and configure the Microsoft Internet Information Server (IIS) and the Backburner Web Server for a Windows workstation to make the Backburner Web Monitor available to network users. The following procedure shows the general workflow used to install and configure the Microsoft IIS server and Backburner Web Server.

### To install and configure the IIS and Backburner Web servers:

1. If necessary, install the IIS Web server on the Windows workstation where Backburner Manager is installed. See [“Installing the Microsoft Internet Information Server”](#) on page 40.

**NOTE:** Installing the Microsoft IIS server and the Backburner Web Server on the same workstation as the Backburner Manager is recommended. Do not install these Web servers on multiple workstations on the Distributed Queueing System.

2. Install the Backburner Web Server for IIS. See [“Installing the Backburner Web Server for Microsoft IIS”](#) on page 41.
3. Configure security in IIS so the Backburner Web Server can run as a Web application. See [“Setting Up IIS Security for the Backburner Web Server”](#) on page 42.
4. Configure the Backburner Web Server to connect to and communicate with the Backburner Manager. See [“Configuring the Backburner Web Server”](#) on page 43.
5. Set up access to the Backburner Web Monitor users so network users can manage jobs and Render Nodes through the Web Monitor. See [“Setting Up Access to the Backburner Web Monitor”](#) on page 45.

### Installing the Microsoft Internet Information Server

Install the Microsoft IIS on a Windows workstation using the following procedure. This procedure assumes you are installing IIS and Backburner Web Server on the same workstation as Backburner Manager. You must install Microsoft IIS from your Windows CDs, if it is not already installed.

#### To install Microsoft IIS:

1. Log in as an administrator or super-user.
2. Choose Start | Settings | Control Panel | Add or Remove Programs.
3. Click the Add/Remove Windows Components button on the left side of the dialog.

The Windows Components dialog appears, showing the components currently installed on the workstation. If the Internet Information Server is checked, IIS is already installed; go to [“Installing the Backburner Web Server for Microsoft IIS”](#) on page 41. Otherwise, do the remainder of this procedure.

4. Choose Internet Information Server and then click Next.
5. Follow the prompts to install IIS on your system.  
You may be prompted to insert your Windows CDs to install this component.

### Installing the Backburner Web Server for Microsoft IIS

Install the CGI application for the Backburner Web Server under the Microsoft IIS server using the following procedure. This procedure configures IIS to access the Backburner Web Server for a Backburner Web Monitor user on the network.

#### To install the Backburner Web Server files for IIS:

1. Start the Backburner Manager on the workstation, if necessary. See [“Starting the Backburner Manager for Windows”](#) on page 23.  
If Backburner Manager is not installed on the workstation, install the Backburner software using the procedures in [“Installing Backburner for Windows”](#) on page 21 and then start the Manager.
2. Copy the `C:\Program Files\Autodesk\Backburner\backburner_html` folder to `C:\Inetpub\wwwroot` using Explorer or My Computer.  
**NOTE:** If you are running Windows XP Professional 64-bit Edition, Backburner may be installed in the folder `C:\Program Files <x86>\Autodesk\Backburner`.
3. Rename the `backburner_html` folder you copied in step 1 as `backburner`.  
You should have a `C:\Inetpub\wwwroot\backburner` folder.
4. Create a sub-folder called `cgi-bin` in `C:\Inetpub\wwwroot`.
5. Copy the following files from `C:\Program Files\Autodesk\Backburner` to the `C:\Inetpub\wwwroot\cgi-bin` folder:
  - `monitorCGI.cfg`
  - `monitorCGI.cgi`
  - `monitorCGI-auth.cgi`
6. If you are running Windows XP Professional 64-bit Edition, then you will have to perform the following steps to allow the `.cgi` extension to appear as a Web service extension in the Internet Information Services Manager.

- a) In Windows, from the Control Panel, open Administrative tools then start the IIS Manager.
- b) In the folders listed under your Local Computer, go to the “Web Service Extensions” folder, click on “All Unknown CGI Extensions”, and then click “Allow”.

This will allow you to view the Web Monitor page correctly.

### Setting Up IIS Security for the Backburner Web Server

Configure the security for the Backburner Web Server in IIS using the following procedure.

This procedure ensures that the Web Server has the proper security clearance from IIS to run as a Web application over the network.

#### To configure IIS and set the security for the Backburner Web Server:

1. Using Windows Explorer or My Computer, navigate to the *C:\Inetpub\wwwroot* folder.
2. Right-click the *backburner* folder and choose Properties.
3. In the dialog that appears, open the Web Sharing panel, and then enable Share This Folder. You are prompted to set the security for the *backburner* folder.
4. Leave all settings at their defaults and click OK twice to return to the *C:\Inetpub\wwwroot* folder.
5. Right-click the *C:\Inetpub\wwwroot\cgi-bin* folder and choose Properties.
6. In the dialog that appears, open the Web Sharing panel, and then enable Share This Folder. You are prompted to set the security for the *cgi-bin* folder.
7. From the dialog that appears, select Execute (including scripts) and then click OK.
8. Click OK again to return to the *C:\Inetpub\wwwroot* folder.  
Next, set up the security for the shared *backburner* and *cgi-bin* folders in IIS using the Computer Management Console tool.
9. Choose Start | Settings | Control Panel | Administrative Tools | Computer Management. The Computer Management Console appears. You use this application to configure services and applications (such as IIS) for your Windows workstation.
10. Choose Services and Applications | Internet Information Services | Web Sites.  
IIS-managed Web sites appear in the right pane. If you just installed IIS, only one site (the Default Web Site) appears. Otherwise, all IIS-administered Web sites appear in the panel.
11. Right-click Default Web Site and choose Properties.
12. In the dialog that appears, open the Documents panel and then click Add.

13. Enter *index.html* in the Add Default Document dialog and click OK.  
*index.html* is added to the list of documents, enabling IIS to handle browser requests for a Web page with this specific name.  
**NOTE:** The *index.html* entry must be added to the document list for the Backburner Web Server to work. The Web Server does not work with the default *index.htm* entry.
14. Click OK, and double-click Default Web Site.  
Icons for the shared *backburner* and *cgi-bin* folders appear in the right pane.
15. Right-click the *backburner* icon and choose Properties.
16. In the dialog that appears, open the Directory Security panel, and then click Edit in Anonymous Access and Authentication Control.
17. In the dialog that appears, enable Anonymous Access and click OK.  
The *backburner* folder contains a file that connects the Backburner Web Monitor to the Backburner Web Server as well as the files that control the look of the Monitor. Allow anonymous access to this folder to:
  - Redirect the Backburner Web Monitor to the Backburner Web Server.
  - Permit any Web browser to load the Backburner Web Monitor page.
18. Click OK to return to the Computer Management Console.
19. Right-click the *cgi-bin* icon and choose Properties.
20. In the dialog that appears, open the Directory Security panel, and then click Edit in Anonymous Access and Authentication Control.
21. In the dialog that appears, enable Anonymous Access and click OK.
22. Click OK again to return to the Computer Management Console.
23. Close the Computer Management Console.

### Configuring the Backburner Web Server

Configure the Backburner Web Server to connect to the Backburner Manager running the Distributed Queueing System. This procedure allows a Backburner Web Monitor user to connect to the network managed by the Backburner Manager.

**To configure the Backburner Web Server:**

1. Identify the full computer name (such as *Titan.Saturn.Sol.com*) of the workstation running the Backburner Manager using either of the following methods:
  - Choose Start | Settings | Control Panel | System, open the Computer Name panel in the System Properties dialog and view the workstation name in the Full Computer Name field.
  - Test the connection to the Backburner Manager workstation using the *ping* utility and then view the workstation name that appears in the utility output. For information about the *ping* utility, see [“Verifying Communication Between Two Hosts”](#) on page 121.

**HINT:** You can also use the *ping* utility to check that the workstation running the Backburner Manager is online.

2. Navigate to *C:\Inetpub\wwwroot\cgi-bin*, and then open the *monitorCGI.cfg* file in an XML or a text editor such as *Notepad*.

The *monitorCGI.cfg* file contains settings for the Backburner Web Server. You must configure this file so that a Backburner Web Monitor can access the Backburner Manager of your Distributed Queuing System.

3. Locate the following line in the *monitorCGI.cfg* file:

```
<!-- Default Manager Hostname -->
<Manager>localhost</Manager>
```

4. Replace the value for *localhost* in this line with the full computer name of the workstation running Backburner Manager.

For example, if the name of the workstation running Backburner Manager is *Titan.Saturn.Sol.com*, the line appears as:

```
<Manager>Titan.Saturn.Sol.com</Manager>
```

5. Locate the following line in the *monitorCGI.cfg* file:

```
<!-- Port that the manager is running on -->
<Port>3234</Port>
```

6. If necessary, replace the value in this line with the port number used to communicate with Backburner Manager.

Check the Backburner Manager General Properties dialog or the *backburner.xml* file if you are unsure what port number is being used by the Backburner Manager; see [“Configuring Backburner Manager”](#) on page 26.

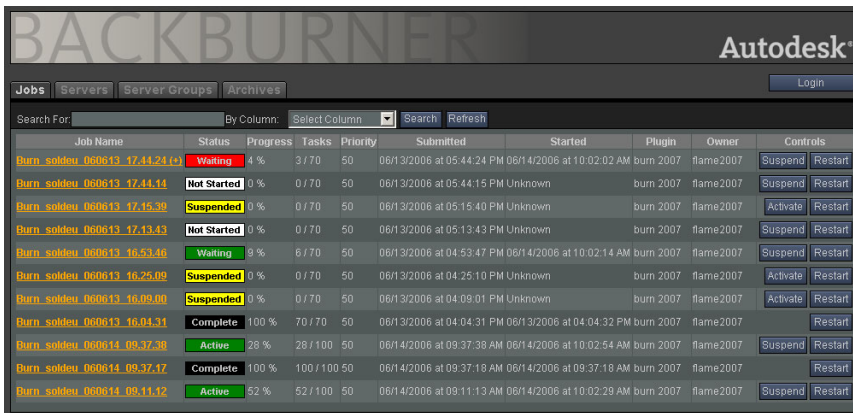
**NOTE:** The default Backburner Manager port number is 3234. Changing this port number is not recommended.

7. Save and close the *monitorCGI.cfg* file.
8. To test the Backburner Web Server, open a Web browser and enter the following in the address line:

**http://<machinename>/backburner**

For example, if the machine name is renderhost, the address is *http://renderhost/backburner*.

If the Backburner Web Server is working, the Web Monitor appears in the browser. All users on the network can use this Web address to access the Backburner Web Monitor.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_soldou_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_soldou_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_soldou_060613_17.15.36	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_09.37.38	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_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

With the Backburner Web Server Tasks working, you are now ready to set up usernames and passwords for users of your Distributed Queuing System.

## Setting Up Access to the Backburner Web Monitor

The Backburner Web Server can be run in one of two ways:

- In read-only mode, where Backburner Web Monitor users can only monitor the status of the Distributed Queuing System.
- In authenticated mode, where Backburner Web Monitor users can actively manage jobs and Render Nodes on the Distributed Queuing System.

Set up the Backburner Web Server to run in authenticated mode using the following procedure. While running in authenticated mode is not mandatory, this mode allows network users on non-Windows workstations to manage jobs and Render Nodes via the Backburner Web Monitor. Otherwise, network users must use the Windows-based Backburner Monitor application for most management activities.

Running the Backburner Web Server in authenticated mode also allows a system administrator control over Distributed Queuing System access. In the following procedure, you set up

usernames and passwords for all Distributed Queuing System users. In [Chapter 3, “Managing Jobs and Render Nodes.”](#) on page 57, you configure network permissions for these users.

**To set up access to the Backburner Web Monitor:**

1. Choose Start | Settings | Control Panel | Administrative Tools | Computer Management.  
The Computer Management Console appears.
2. Choose Services and Applications | Internet Information Services | Web Sites | Default Web Site.
3. Select the *cgi-bin* folder for the Default Web Site.  
The *monitorCGI.cgi* and *monitorCGI-auth.cgi* files appear in the right panel.
4. Right-click *monitorCGI-auth.cgi* and choose Properties.  
Web site properties for the authenticated Backburner Web Server appear in a dialog.
5. In the dialog that appears, open the File Security panel, and then click Edit in Anonymous Access and Authentication Control.
6. In the dialog that appears, do the following:
  - Disable Anonymous Access
  - Enable Integrated Windows authentication
 These settings allow anyone who can log in to the workstation to use the Backburner Web Server in authenticated mode.
7. Click OK twice to return to the Computer Management Console and then close this application.  
You have configured IIS so the Backburner Web Server may run in authenticated mode. Next, configure the Web Server itself to run in authenticated mode and then test this mode using the Backburner Web Monitor.
8. Navigate to *C:\Inetpub\wwwroot\cgi-bin*, and then open the *monitorCGI.cfg* file in an XML or text editor such as *Notepad*.  
The *monitorCGI.cfg* file contains settings for the Backburner Web Server, including a setting for running the Web Server in authenticated mode.
9. Locate the following line in the *monitorCGI.cfg* file:
 

```
<AuthorizedSite></AuthorizedSite>
```
10. Edit this line as follows:
 

```
<AuthorizedSite>monitorCGI-auth.cgi</AuthorizedSite>
```

This setting will enable the Login button to appear in the Backburner Web Monitor so that users may login in authenticated mode. All users connecting to the Distributed Queueing System through the Backburner Web Monitor are required to provide a username and password to access the Distributed Queueing System.

11. Save and close the *monitorCGI.cfg* file.
12. To test that the Backburner Web Server is running in authenticated mode, go to a workstation with access to the Distributed Queueing System, then open a Web browser and enter the following in the address line:

**http://<machinename>/backburner**

If the Backburner Web Server is running in authenticated mode, you are prompted to logon to the Web Monitor.

13. When prompted, enter your Windows username and password.

The Backburner Web Server checks your logon credentials against your Windows username and password. If these match, the Backburner Web Monitor appears. Otherwise, you are prompted again for your username and password.

## Installing the Apache HTTP Server for Linux

If your facility is running a Distributed Queueing System for Autodesk Effects and Editing applications on IRIX or Linux, you can also run the Backburner Web server from a Linux workstation or Render Node with the Apache HTTP server for Linux.

Install the Apache HTTP server for a Linux workstation using the following procedure. This procedure assumes you are installing the Apache HTTP server that is included with your Linux distribution.

**NOTE:** You must have root access to perform the following procedure.

### To install the Apache HTTP server:

1. Log in as root and open a terminal.
2. Check if the Apache HTTP server is installed. Type:

**chkconfig --list | grep -i httpd**

If the Apache HTTP server's `httpd` daemon does not appear in the output, continue to the next step. Otherwise, go to step 4.

3. Install the Apache HTTP server package (`httpd`) from your Linux distribution on the Linux workstation where Backburner Manager is installed. Refer to your Linux distribution's documentation or help system for installation instructions.

**NOTE:** It is recommended that you install the Apache HTTP server on the same workstation as the Backburner Manager. Do not install these Web servers on multiple workstations on the Distributed Queueing System.

4. Make sure that the Apache HTTP server is set to start with the workstation. Type:

```
chkconfig httpd on
```

5. Start the Apache HTTP server by typing:

```
/etc/init.d/httpd start
```

## Setting Up Backburner Server on the Render Nodes

Once Backburner Manager is running, set up Backburner Server on each Windows workstation acting as a Render Node on the Distributed Queueing System. The following procedure shows the general workflow for setting up Backburner Server for Windows.

**NOTE:** Before you set up Backburner Server on Linux-based Render Nodes for Burn or Lustre, make sure that Linux is properly installed. See the most recent user's guide for Burn, or the Linux installation guide for Lustre.

### To set up Backburner Server on the Render Nodes:

1. Install Backburner Server on each Windows workstation designated as a Render Node. See [“Installing Backburner Server”](#) on page 48.
2. Start and configure Backburner Server. See [“Starting Backburner Server”](#) on page 49.
3. (Optional) Set up the Backburner Server as a Windows service so it is started with the workstation. See [“Setting Up Backburner Server as a Windows Service”](#) on page 51.

## Installing Backburner Server

Use the following procedure to install Backburner Server on a Windows workstation from the Combustion or Toxik application CD. You use the same installation file as you used to set up Backburner Manager.

**NOTE:** Backburner Server is installed by default as part of the 3ds Max and Cleaner XL installation processes.

**To set up Backburner Server on a Render Node:**

1. Log in to the workstation as Administrator.
2. In Windows Explorer, locate the *.zip* file for Backburner on the CD.  
**NOTE:** If you downloaded Backburner, this file may be in *.tar.gz* format.
3. Extract the contents of this file to a folder on your desktop or hard drive using Windows Explorer or WinZip.
4. Open this folder and double-click the file *Backburner3.exe*.  
 The Backburner Installation wizard appears.
5. Follow the prompts to install Backburner on the workstation.  
 The following applications are installed and appear in the Autodesk | Backburner group in your Windows Start menu:
  - Backburner Manager
  - Backburner Monitor
  - Backburner Server

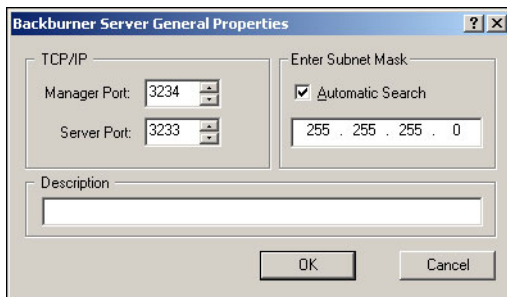
Backburner Server is installed on the Render Node. Next, start and configure the server so it can communicate with the Backburner Manager on the network.

**Starting Backburner Server**

Start and configure Backburner Server on each Windows Render Node.

**To start and configure Backburner Server:**

1. Start Backburner Server by choosing Start | Programs | Autodesk | Backburner | server.  
 When you run the server for the first time, the Backburner Server General Properties dialog is displayed.



2. If necessary, use the General Properties dialog to configure Backburner Server, such as to configure the Render Node for a specific subnet mask; see [“Configuring Backburner Server”](#) on page 50. Otherwise, click OK to start Backburner Server.

**HINT:** You can change the configuration of Backburner Server through its General Properties dialog at any time. To display this dialog, choose Edit | General Settings in Backburner Server. You must restart Backburner Server for changes to take effect.

Backburner Server is started and connects to the Backburner Manager specified in the General Properties dialog. Depending on the log settings, the Server window displays messages alerting the user to the following changes:

- Connection and registration between the Manager and Server(s)
- New job assignments
- Frames assigned/rendered
- Acknowledge packets sent between the Manager and Server(s)
- Manager/Server(s) shutting down
- Rendering errors encountered

**NOTE:** You can set the events logged by Backburner Server.

3. Repeat steps 1 and 2 to start and configure Backburner Server on each Windows Render Node of your Distributed Queueing System.  
Once Backburner Server is running on all Render Nodes, you can submit jobs from Render Clients for processing.

### Configuring Backburner Server

Use the Backburner Server General Properties dialog to configure Backburner Server for the Distributed Queueing System. While the default settings in this dialog are appropriate for most facilities, you may have to adjust the settings to enable communications between Backburner Server and Backburner Manager.

You can use this dialog to configure the following:

- The TCP/IP port numbers for both Backburner Manager and Render Nodes.
- The TCP/IP subnet mask used by the Distributed Queueing System.
- (Optional) A description of the Render Node to identify it on the network.

Read the following to configure Backburner Server using this dialog.

### TCP/IP Group

The two fields in the TCP/IP group specify the TCP/IP port numbers to be used by the Distributed Queueing System. Port numbers are like extensions for different users of the same phone number. They represent two channels of communication between the Render Node and the Manager. Only a trained network administrator should change these settings.

Changing these port numbers from their default values is not recommended. If you do decide to use other port numbers, the values in the TCP/IP group must be changed for each Backburner component.

**Manager Port field** — Specifies the port number used by Backburner Manager.

**Server Port field** — Specifies the port number used by the Render Node(s).

**NOTE:** If you are using a firewall in your facility, such as Zone Labs ZoneAlarm or the firewall included with WindowsXP, make sure you configure the firewall to allow access to the Manager and Server ports. Otherwise, components for your Distributed Queueing System are not able to communicate, receive footage, or return rendered material.

**Automatic Search** — When the Automatic Search option is enabled, Backburner Server automatically searches for a Backburner Manager using the TCP/IP subnet mask shown. By default this subnet mask is set to 255.255.255.0, but it can be changed to any valid subnet mask. When this option is enabled, Backburner Server connects to the first Manager found. Automatic Search is enabled by default.

In most cases, you should disable this option to reduce traffic on the Distributed Queueing System. When Automatic Search is disabled, you specify the Backburner Manager to which a Render Node should connect; see “Enter Manager Name or IP Address” below.

**Enter Manager Name or IP Address** — When Automatic Search is disabled, Backburner Server searches for a Backburner Manager using the specified IP address or Domain Name System (DNS) name shown.

Use this option to address issues arising from running multiple Backburner Managers on the same TCP/IP subnet. For example, you can enter the Manager system’s IP address to avoid any problems or conflicts caused by improper implementation of DNS. You can also use this option to segment your render farm into separate Distributed Queueing Systems by specifying the Backburner Manager to which each Render Node connects.

### Setting Up Backburner Server as a Windows Service

You can set up Backburner Server as a Windows 2000 or XP Professional service so that it starts when the Render Node is rebooted. Windows services automatically start in the background every time the workstation is booted. The `\network` subdirectory and initialisation and log files

from application mode remain in place, but Backburner Server operates in the background under Windows 2000 or XP instead of as a separate process.

Running the Backburner Server as a service does not:

- Change the information shown in the Backburner Monitor or Web Monitor.
- Prevent Backburner Server from being started manually as an application, although you may receive an error if it is already running as a service.

Setting up Backburner Server as a service is more convenient, but it also means that information for the Render Node is less obvious when problems occur. This is why your Render Node needs to be running smoothly before setting up your Backburner Server as a service.

The following procedure shows the general workflow for setting up Backburner Server as a Windows service. You must do this procedure for each Render Node where you wish to set up Backburner Server as a service.

**NOTE:** These procedures require you to have administrative privileges on every Windows workstation used as a Render Node.

### **To set up Backburner Server as a Windows service:**

1. Create a special user account that gives Backburner Server specific rights to access other workstations on the network. See [“Creating a Special User Account for the Backburner Server Service”](#) on page 52.
2. Install and configure Backburner Server as a Windows 2000 or XP Professional service and then assign the user created in step 1 to this service. See [“Configuring Backburner Server as a Windows Service”](#) on page 53.

### **Creating a Special User Account for the Backburner Server Service**

If you run the Server as a service, you should create a special user account that gives the Server the right to access other workstations on the network for necessary maps, cross-references and output directories. This account must be identical across all rendering server workstations.

By assigning a user to the Backburner Server service, you configure the Render Node to operate with the permissions and access rights of that user account. Without this assignment, the Render Node operates with system permissions, which do not let the server service access map, cross-references, image, or output directories on other workstations.

**NOTE:** For the following procedure, Windows XP Professional was set to display a Classic Windows interface.

**To create a special user for the Backburner Server service:**

1. Login as an Administrator or a super-user.
2. In the Windows Start menu, choose Settings | Control Panel.
3. In the Control Panel dialog, double-click Administrative Tools.
4. In the Administrative Tools dialog, double-click Computer Management.
5. In the Computer Management dialog, choose System Tools | Local Users and Groups | Users.
6. In the right pane, right-click in a blank area and choose New User to display the New User dialog. If the New User option is unavailable, you do not have the required administrative privileges.
7. In the New User dialog:
  - Enter a user name.  
This can be any name, but it should be the same for all Render Nodes.
  - Enter a password and confirm the password.  
Like the user name, this password needs to be the same for all rendering servers.
  - Disable “User must change password at next logon” and enable “Password never expires”.  
This will bypass errors when you assign this special user account to the rendering service.
  - Click Create and then click Close. Do not close the Administrative Tools dialog.  
When the network is part of a domain, it is a good idea to have your network administrator create a special user account on the domain.
8. Ensure the user account you created in steps 5 and 6 has read/write access to the network servers where maps, cross-references and frames are stored. Refer to the Windows documentation to learn how to set up network access for users.

**Configuring Backburner Server as a Windows Service**

Do the following to install and register the Backburner Server as a Windows service and then assign the special user you created previously to the Backburner Server service.

**To install and register Backburner Server as a service:**

1. Go to the workstation on which you will install the Server as a service.
2. Open a Command Prompt window and navigate to the default Backburner directory, *C:\Program Files\Autodesk\Backburner*.

**NOTE:** If you are running WindowsXP Professional 64-bit Edition, the Backburner directory may be *C:\Program Files <x86>\Autodesk\Backburner*.

3. Enter **server svc -i**.

The following message appears:

```
Backburner Server ... Service Installed.
```

**NOTE:** To remove Backburner Server once it has been installed as a service, type **server svc -r** from the Backburner root directory.

4. Choose Start | Settings | Control Panel | Administrative Tools | Services, right-click Backburner Server, and choose Start.

**NOTE:** Choose Properties from the right-click menu to set users, passwords, and other parameters for the service.

5. Repeat steps 1 to 4 on each workstation that you want to set up Backburner Server as a service.

When you next restart the workstation, Backburner Server is also started automatically.

Once all Windows workstations are set up, do the next procedure to allow the special user you created previously to use the Backburner Server service.

**To assign a user to the Backburner Server service:**

1. Ensure each server is set up with the Backburner Server running as a service.
2. In the Administrative Tools dialog, double-click Services.
3. In the Services dialog, from the Services list, right-click the Backburner Server item.
4. Choose Properties to display the Properties dialog.
5. On the Log On tab, choose This Account and enter the name of the user you created for the special user account.

If a user account was created on the domain, enter [domain name]\[user name] as This Account, or browse the domain for the user.

6. In the Password and Confirm Password fields, enter the password for the special user account.

7. Click OK to exit the Properties dialog.
8. If the service is started, stop it by right-clicking the item and choosing Stop.
9. Right-click the item and choose Start to restart the service with the newly assigned user.

**NOTE:** If you did not disable “User Must Change Password At Next Logon” when setting up the new account, you will encounter errors. You need to log in again as the newly assigned user to change the password. Once the password is changed, the Backburner Server starts.

10. Close the Services dialog.

## 2 Installing Backburner

# 3

## Managing Jobs and Render Nodes

### Summary

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<a href="#">Finding and Monitoring Jobs</a> .....	62
<a href="#">Monitoring Rendering Nodes</a> .....	70
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<a href="#">Suspending and Reactivating Jobs</a> .....	79
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### Backburner System Management Overview

Once Backburner is installed and running on all components, use the Backburner Monitor or the Backburner Web Monitor to monitor the status of all jobs and Render Nodes. You can also use the system management tools in these applications to perform such tasks as deleting or archiving jobs on the system.

Use the following table to locate the information for the task you want to perform using the Backburner Windows Monitor or the Backburner Web Monitor.

To:	See:
Connect to a Distributed Queueing System and view general system activity	<a href="#">"Monitoring System Activity"</a> on page 59.
Check the current status of the jobs on the system	<a href="#">"Finding and Monitoring Jobs"</a> on page 62.
Check the current status of rendering nodes on the system	<a href="#">"Monitoring Rendering Nodes"</a> on page 70.
Access system management tools for managing jobs and nodes	<a href="#">"Accessing Backburner System Management Tools"</a> on page 76.
Suspend a job or reactivate a suspended job	<a href="#">"Suspending and Reactivating Jobs"</a> on page 79.
Modify the settings for a job	<a href="#">"Modifying Job Settings"</a> on page 81
Restart a job	<a href="#">"Restarting Jobs"</a> on page 85
Clone a job	<a href="#">"Cloning Jobs"</a> on page 86
Archive a completed job	<a href="#">"Archiving Jobs"</a> on page 88.
Delete a job on the system	<a href="#">"Deleting Jobs"</a> on page 95.
Understand how to manage rendering nodes	<a href="#">"Managing Rendering Nodes"</a> on page 96.
Shift a job in the queue between rendering nodes	<a href="#">"Shifting Nodes Between Jobs in the Queue"</a> on page 97
Remove an offline node from the list of rendering nodes	<a href="#">"Deleting Offline Rendering Nodes"</a> on page 100
Restrict the availability of rendering nodes	<a href="#">"Setting the Availability for Rendering Nodes"</a> on page 102
Create and manage groups of rendering nodes	<a href="#">"Grouping Rendering Nodes in Server Groups"</a> on page 105
Render a job from the DOS prompt or batch script	<a href="#">"Rendering Jobs from a Command Line or Script"</a> on page 113.

Previously, you could only use the Windows-based Backburner Monitor for certain management tasks, such as deleting jobs on the system. In Backburner 2007, you can also use the browser-based Backburner Web Monitor for all Backburner management tasks for your facility. Related procedures for both the Backburner Web Monitor and Backburner Monitor appear for each task.

**NOTE:** Avoid using both the Backburner Monitor and the Backburner Web Monitor simultaneously for system management. Otherwise, certain management tools may not work in the Web Monitor. See ["Accessing Backburner System Management Tools"](#) on page 76.

## Monitoring System Activity

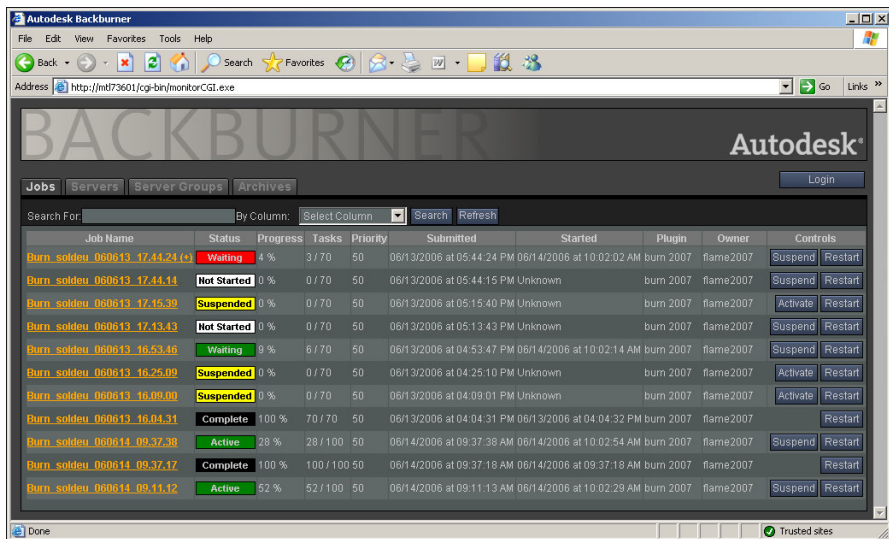
Connect to and view activity on the Backburner Distributed Queuing System using either the browser-based Backburner Web Monitor or the Windows-based Backburner Monitor.

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

### To view system activity using the Backburner Web Monitor:

1. In a 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`.

The Backburner Web Monitor appears in the browser.



By default, the Backburner Web Monitor runs in read-only mode, which allows you to view general system activity, as well as suspend and restart jobs. However, you cannot access system management tools to perform management tasks (such as deleting jobs) from a Web Monitor that is running in read-only mode.

If a Login button appears, you can run the Web Monitor in authenticated mode to access system management tools; see [“Accessing Backburner System Management Tools”](#) on page 76.

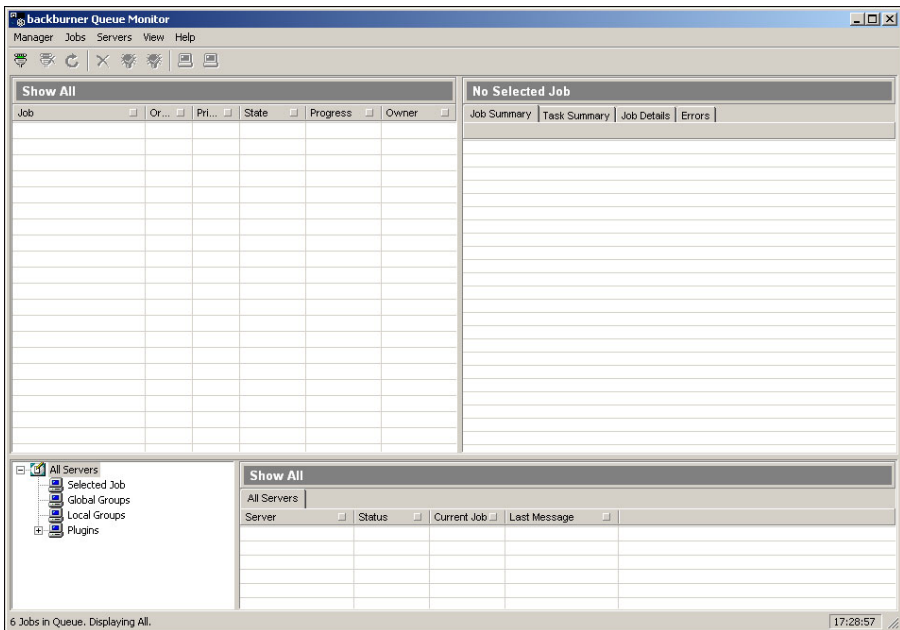
- Repeat the previous step to start the Backburner Web Monitor from other workstations on your system.


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

#### To view system activity using the Windows-based Backburner Monitor:

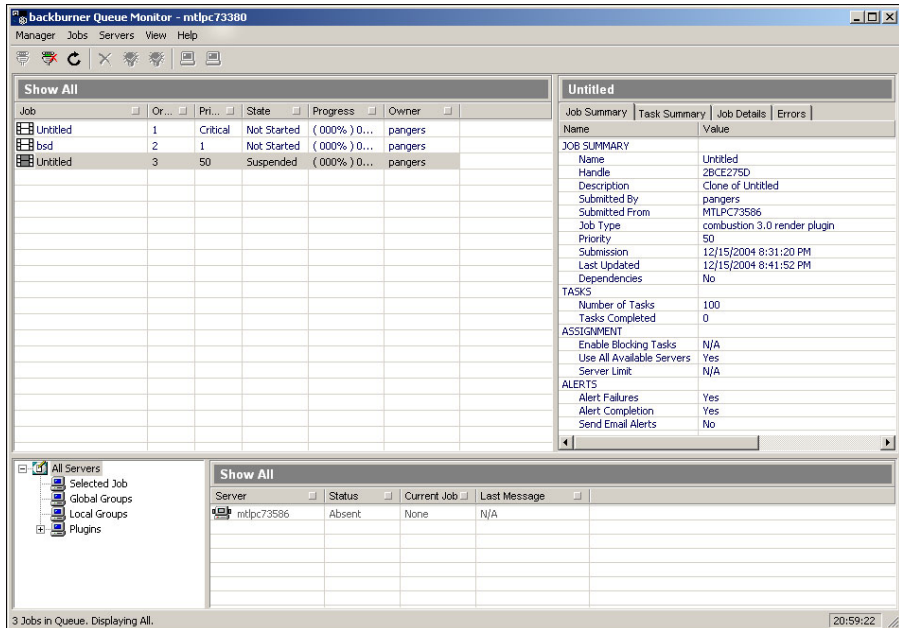
- Choose Start | Programs | Autodesk | Backburner | monitor.

The Backburner Monitor appears. The Monitor displays no information because it is currently unconnected to a Distributed Queueing System.



- 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.
- 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.
- 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.



- Repeat the previous steps to start 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 [“Accessing Backburner System Management Tools”](#) on page 76.
- 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 Backburner Monitor on every workstation and Render Node on the Distributed Queueing System to decrease traffic and improve network performance.

## Finding and Monitoring Jobs

Use the browser-based Backburner Web Monitor or the Windows-based Backburner Monitor to find jobs on the Distributed Queueing System and monitor their status. 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.

Depending on the Backburner application used in your facility, do one of the following to find and monitor jobs:

- To use the Backburner Web Monitor to find and monitor jobs, see [“Finding and Monitoring Jobs using the Backburner Web Monitor”](#) on page 62.
- To use the Backburner Monitor to find and monitor jobs, see [“Finding and Monitoring Jobs using the Backburner Monitor”](#) on page 66.

These procedures can be done from a Backburner Web Monitor or Backburner Monitor running in read-only mode. You do not need access to system management tools to find jobs on the system and view their status.

### 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.

#### To find jobs and view their status:

1. Start the Backburner Web Monitor through a Web browser. See [“Monitoring System Activity”](#) on page 59.
2. Click Jobs.

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

The screenshot shows the Backburner AutodesK interface. At the top, there are tabs for 'Jobs', 'Servers', 'Server Groups', and 'Archives'. Below the tabs is a search bar and a 'Login' button. The main area displays a table of jobs with the following columns: Job Name, Status, Progress, Tasks, Priority, Submitted, Started, Plugin, Owner, and Controls. The jobs listed include various statuses such as 'Waiting', 'Not Started', 'Suspended', 'Active', and 'Complete'.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldeu_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_soldeu_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_soldeu_060613_17.45.38	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_060613_17.43.43	Not Started	0 %	0 / 70	50	06/13/2006 at 05:13:43 PM	Unknown	burn 2007	flame2007	Suspend Restart
Burn_soldeu_060613_16.51.48	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_soldeu_060613_16.25.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_060613_16.05.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_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_soldeu_060614_09.37.38	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_soldeu_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_soldeu_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

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 Managing Jobs and Render Nodes

- To locate a job on the system, do the following to set search criteria and click Search:
  - In the Search For field, enter a keyword for the search. You can enter partial or complete alphanumeric keywords in this field.
  - From the By Column list, select a filter to be used for the search, such as a job's name, owner, or current status.



a) Search For field

b) By Column list

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

The image shows a screenshot of the 'BACKBURNER' interface. The top of the interface features the 'Autodesk' logo and a 'Login' button. Below the logo is a navigation bar with tabs for 'Jobs', 'Servers', 'Server Groups', and 'Archives'. The 'Jobs' tab is selected. Below the navigation bar is a search bar with a 'Search For:' field and a 'By Column:' dropdown menu. The dropdown menu is currently set to 'Status-Pending'. There are 'Search' and 'Refresh' buttons to the right of the dropdown menu. Below the search bar is a table of jobs. The table has the following columns: Job Name, Status, Progress, Tasks, Priority, Submitted, Started, Plugin, Owner, and Controls. The table contains four rows of job data.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_soldeu_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_soldeu_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_soldeu_060613_17:15:36	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart
burn_soldeu_060614_09:37:38	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_soldeu_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

- 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 displays the Autodesk Backburner Web Monitor interface. At the top, the 'Autodesk' logo is visible on the right, and the 'BACKBURNER' logo is on the left. Below the logo, there are navigation tabs for 'Jobs', 'Servers', 'Server Groups', and 'Archives'. A search bar is present with a 'Search' button and a 'Refresh' button. The selected job is 'Burn\_soldeu\_060613\_17.44.14', with a 'Restart' button to its right. Below the job name, the following information is displayed:

Owner: flame2007b5 Submitted From: soldeu Submitted: 06/13/2006 at 05:44:15 PM

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

Below the table, the 'Job Properties' section shows:

Handle: 1469987880  
 Description: MOTION\_spark  
 Job Type: burn 2007.0  
 Started: 06/14/2006 at 10:06:51 AM  
 Ended: 06/14/2006 at 10:08:32 AM  
 Last updated: 06/14/2006 at 10:08:54 AM  
 # of Dependencies: 0

The 'Summary' section contains a table of individual tasks:

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 2007 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.

The screenshot shows the Autodesk Backburner Monitor interface. At the top, there is a navigation bar with 'Jobs', 'Servers', 'Server Groups', and 'Archives' tabs. Below this is a search bar with 'Search For:' and 'By Column:' options. The main area is a table listing jobs with columns for Job Name, Status, Progress, Tasks, Priority, Submitted, Started, Plugin, Owner, and Controls. The jobs listed include various statuses such as 'Waiting', 'Not Started', 'Suspended', 'Active', and 'Complete'.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldeu_060613_17.44.24.1	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_soldeu_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_soldeu_060613_17.15.30	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_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_soldeu_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_soldeu_060613_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_060613_16.05.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart
Burn_soldeu_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_soldeu_060614_09.37.38	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_soldeu_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_soldeu_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

Find jobs on the system and view their status in the Backburner Monitor using the following procedures. You can also use these procedures to customize the information in and layout of the Monitor.

**To find jobs and view their status:**

1. Start Backburner Monitor and connect to a Backburner Distributed Queuing System. See [“Monitoring System Activity”](#) on page 59.

The Job list shows all current rendering jobs on the Distributed Queuing System, along with their progress and status.

a

Job	Or...	Pri...	State	Progress	Owner
Untitled	1	Critical	Not Started	( 000% ) 0...	pangers
bsd	2	1	Not Started	( 000% ) 0...	pangers
Untitled	3	50	Suspended	( 000% ) 0...	pangers

a) Job list

The color of the 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

2. If necessary, customize the columns and layout of the Job list area. See [“Customizing the Job List in Backburner Monitor”](#) on page 69.

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
<b>JOB SUMMARY</b>	
Name	Untitled
Handle	28CE275D
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
<b>TASKS</b>	
Number of Tasks	100
Tasks Completed	0
<b>ASSIGNMENT</b>	
Enable Blocking Tasks	N/A
Use All Available Servers	Yes
Server Limit	N/A
<b>ALERTS</b>	
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 Backburner Monitor

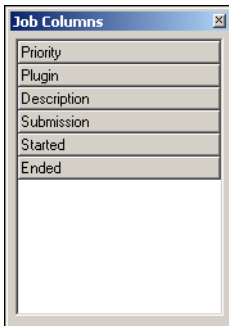
Add, remove, and rearrange information shown in the Job list using the following procedures. You do this to customize Backburner Monitor to suit your preferences and needs.

**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.

- 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.

## Monitoring Rendering Nodes

Use the browser-based Backburner Web Monitor or the Windows-based Backburner Monitor to track the nodes on a Backburner Distributed Queueing System. 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.

Depending on the Backburner application used in your facility, do one of the following to monitor Render Nodes:

- To use the Backburner Web Monitor to monitor Render Nodes, see [“Monitoring Rendering Nodes using the Backburner Web Monitor”](#) on page 71.
- To use the Backburner Monitor to monitor Render Nodes, see [“Monitoring Rendering Nodes using Backburner Monitor”](#) on page 72.

These procedures can be done from a Backburner Web Monitor or Backburner Monitor running in read-only mode. You do not need access to system management tools to monitor Render Nodes on the system.

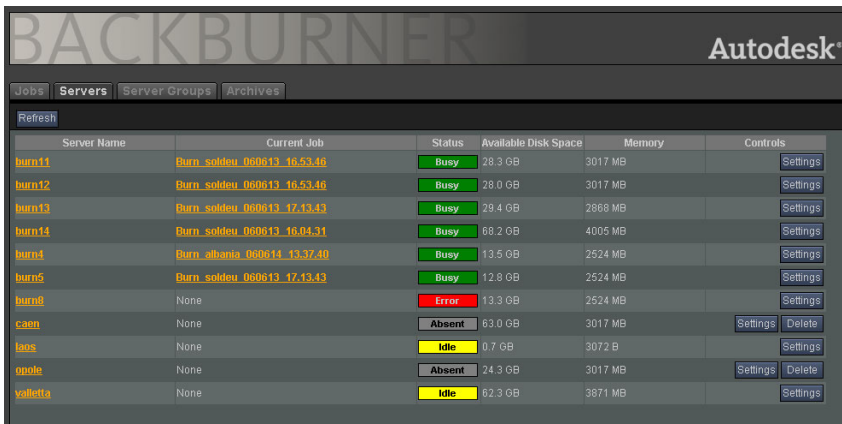
## Monitoring Rendering Nodes using the Backburner Web Monitor

Monitor the status of Render Nodes with the browser-based Backburner Web Monitor using the following procedure.

### To view Render Node status in the Backburner Web Monitor:

1. Start the Backburner Web Monitor through a Web browser. See [“Monitoring System Activity”](#) on page 59.
2. Click Servers.

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



The screenshot shows the Backburner Web Monitor interface. At the top, there is a navigation bar with tabs for 'Jobs', 'Servers', 'Server Groups', and 'Archives'. Below the navigation bar is a 'Refresh' button. The main content area displays a table of servers with the following columns: Server Name, Current Job, Status, Available Disk Space, Memory, and Controls. The table lists several servers, including burn11 through burn6, caon, laos, opale, and valletta. The status of each server is indicated by a colored icon: green for 'Busy', red for 'Error', and yellow for 'Idle'. The 'Controls' column contains 'Settings' and 'Delete' buttons for each server.

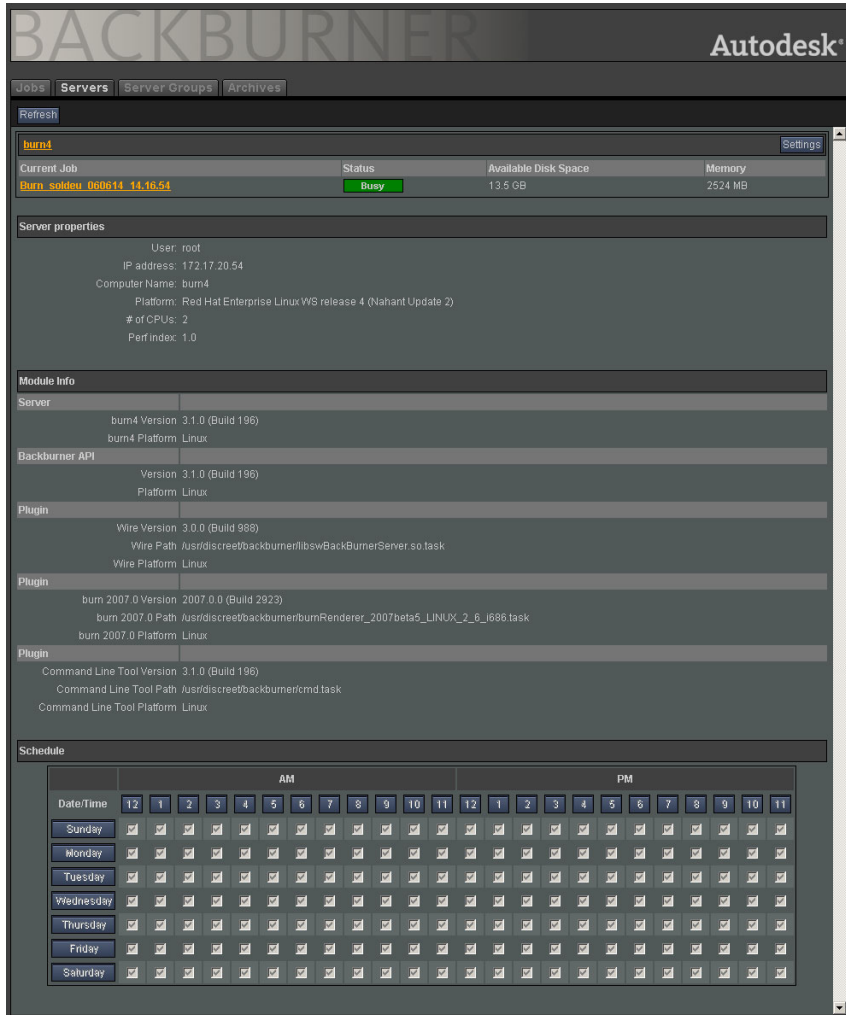
Server Name	Current Job	Status	Available Disk Space	Memory	Controls
burn11	Burn_soldeu_060613_16.53.46	Busy	28.3 GB	3017 MB	Settings
burn12	Burn_soldeu_060613_16.53.46	Busy	28.0 GB	3017 MB	Settings
burn13	Burn_soldeu_060613_17.13.43	Busy	28.4 GB	2888 MB	Settings
burn14	Burn_soldeu_060613_16.04.31	Busy	68.2 GB	4005 MB	Settings
burn1	Burn_albania_060614_13.37.40	Busy	13.5 GB	2524 MB	Settings
burn6	Burn_soldeu_060613_17.13.43	Busy	12.8 GB	2524 MB	Settings
burn0	None	Error	13.3 GB	2524 MB	Settings
caon	None	Absent	63.0 GB	3017 MB	Settings Delete
laos	None	Idle	0.7 GB	3072 B	Settings
opale	None	Absent	24.3 GB	3017 MB	Settings Delete
valletta	None	Idle	62.3 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.

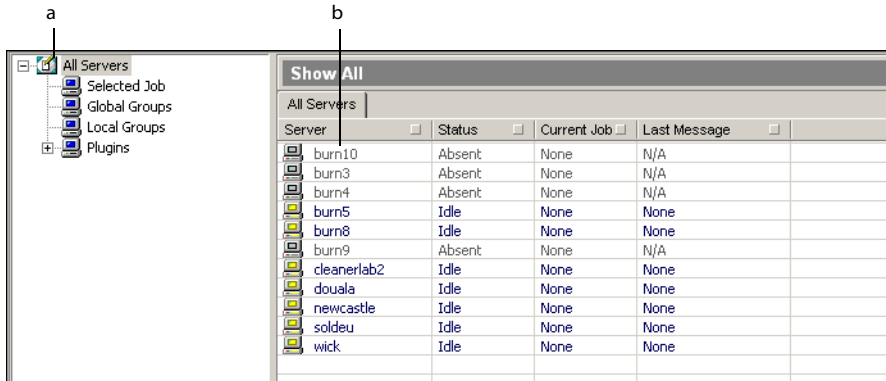
## Monitoring Rendering Nodes using Backburner Monitor

Monitor the status of Render Nodes in the Windows-based Backburner Monitor using the following procedure.

### To view Render Node status in the Backburner Monitor:

1. Start Backburner Monitor and connect to a Backburner Distributed Queuing System. See [“Monitoring System Activity”](#) on page 59.

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

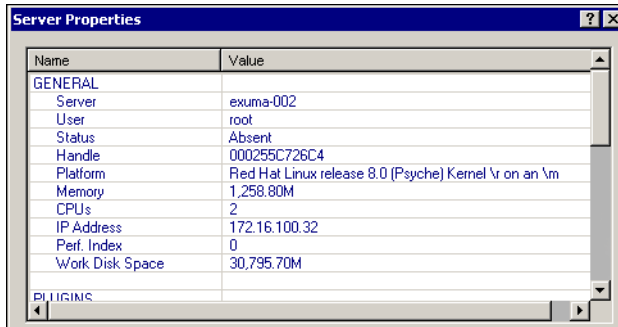
The tree view presents a hierarchical list of all node groups, as well as the plug-ins available for the system. You can use this area to see which Render Nodes are available to render jobs, as well as manage groups of nodes.

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 Backburner Monitor”](#) on page 74.

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 Backburner Monitor

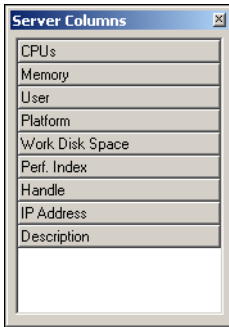
Add, remove, and rearrange information shown in the list of Render Nodes using the following procedures. You do this to customize Backburner Monitor to suit your preferences and needs.

**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.

## Accessing Backburner System Management Tools

Occasionally, you may need to perform certain management tasks to keep the overall Backburner Distributed Queueing System running smoothly. For example, you may need to delete a job submitted by accident or restrict the availability of certain workstations that are used as artist workstations during the day and as Render Nodes during the night.

You perform these tasks using system management tools available in the browser-based Backburner Web Monitor or the Windows-based Backburner Monitor. However, access to these tools is restricted to provide security for the Distributed Queueing System. Depending on the Backburner application used in your facility for system management, do one of the following to access the system management tools:

- To use Backburner Web Monitor for system management, see [“Accessing System Management Tools from the Backburner Monitor”](#) on page 78.
- If you use the Backburner Monitor for system management, see [“Accessing System Management Tools from the Backburner Web Monitor”](#) on page 76.

The system management tools available in the Backburner Web Monitor and Backburner Monitor are identical. However, you should use only one of these applications to manage the Distributed Queueing System in your facility. Otherwise, the Windows-based Backburner Monitor will block task requests from a Web Monitor when both applications have access to system management tools and are accessing the same Distributed Queueing System.

### Accessing System Management Tools from the Backburner Web Monitor

You can run the Backburner Web Monitor in one of two ways:

- In read-only mode, where Backburner Web Monitor users can only monitor the status of the Distributed Queueing System. This is the default mode for the Web Monitor.
- In authenticated mode, where Backburner Web Monitor users can use system management tools to actively manage jobs and Render Nodes on the Distributed Queueing System.

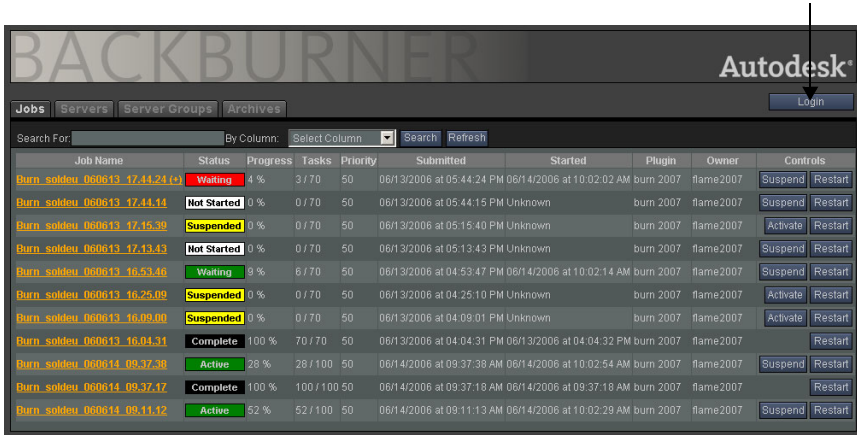
Your system administrator must provide you with a username and password. Once you have these, use the following procedure to run a Web Monitor in authenticated mode and access system management tools.

#### To access system management tools:

1. Start the Backburner Web Monitor in a browser. See [“Monitoring System Activity”](#) on page 59.

The Login button indicates that you can run the Backburner Web Monitor in authenticated mode.

- Click the Login button.

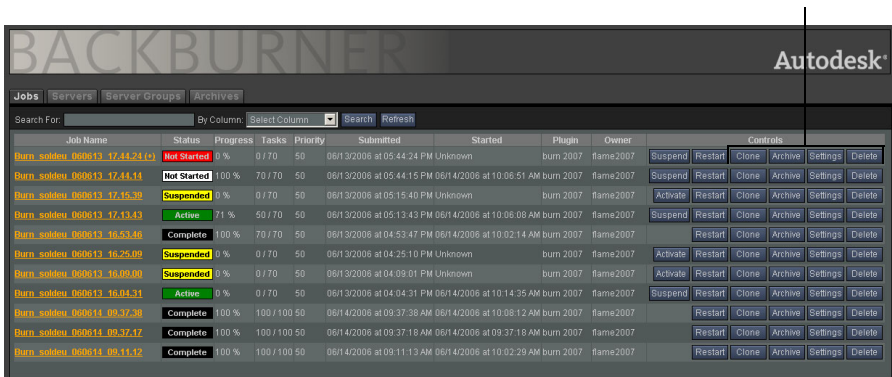


You are prompted to provide your username and password to access the system management tools.

- Enter the username and password provided by your system administrator and click OK.

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

The Backburner Web Monitor begins running in authenticated mode and system management tools appear in the Controls area.



**NOTE:** Avoid running the Backburner Web Monitor in authenticated mode from every workstation on the Distributed Queuing System to improve network performance.

4. Perform one of the following management tasks using the system management tools in the Web Monitor:
  - To suspend or reactivate a job, see [“Suspending and Reactivating Jobs”](#) on page 79.
  - To change or update a job’s settings, see [“Modifying Job Settings”](#) on page 81.
  - To restart a job, see [“Restarting Jobs”](#) on page 85.
  - To duplicate (clone) a job, see [“Cloning Jobs”](#) on page 86.
  - To archive a completed job or to restore an archived job, see [“Archiving Jobs”](#) on page 88.
  - To delete a job, see [“Deleting Jobs”](#) on page 95.
  - To manage Render Nodes, see [“Managing Rendering Nodes”](#) on page 96.

## Accessing System Management Tools from the Backburner Monitor

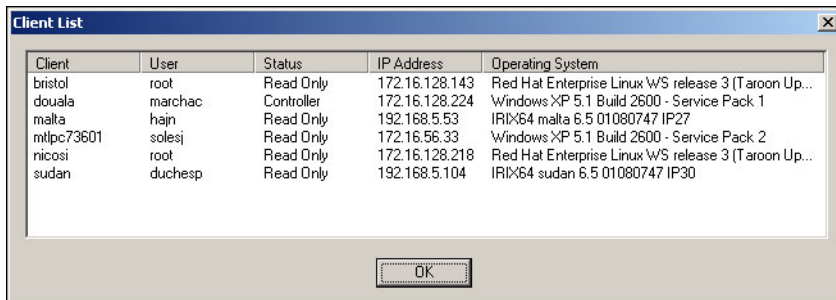
Although you can run the Backburner Monitor from any Windows workstation on your Distributed Queuing System, only the first Monitor that connects to a Backburner Manager has access to system management tools for tasks such as stopping, restarting, or deleting jobs. Subsequent Monitors that connect to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

### To access system management tools:

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

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

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 one of the following management tasks using the system management tools in the Backburner Monitor:
    - To suspend or reactivate a job, see [“Suspending and Reactivating Jobs”](#) on page 79.
    - To change or update a job’s settings, see [“Modifying Job Settings”](#) on page 81.
    - To restart a job, see [“Restarting Jobs”](#) on page 85.
    - To duplicate (clone) a job, see [“Cloning Jobs”](#) on page 86.
    - To archive a completed job or to restore an archived job, see [“Archiving Jobs”](#) on page 88.
    - To delete a job, see [“Deleting Jobs”](#) on page 95.
    - To manage Render Nodes, see [“Managing Rendering Nodes”](#) on page 96.

## Suspending and Reactivating Jobs

Suspending and reactivating jobs is the most common system management task performed using the Backburner Monitor or Web Monitor. 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.

Use the following procedures to suspend and reactivate jobs using either the Backburner Monitor or the Backburner Web Monitor. If you are using the Windows-based Backburner Monitor, you must have access to system management tools before you can perform these procedures. See [“Accessing System Management Tools from the Backburner Web Monitor”](#) on page 76.


**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.


**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

Modify the settings of a submitted job in the Backburner Web Monitor or Backburner Monitor using the following procedures. 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.

Before modifying the settings for a job, note the following:

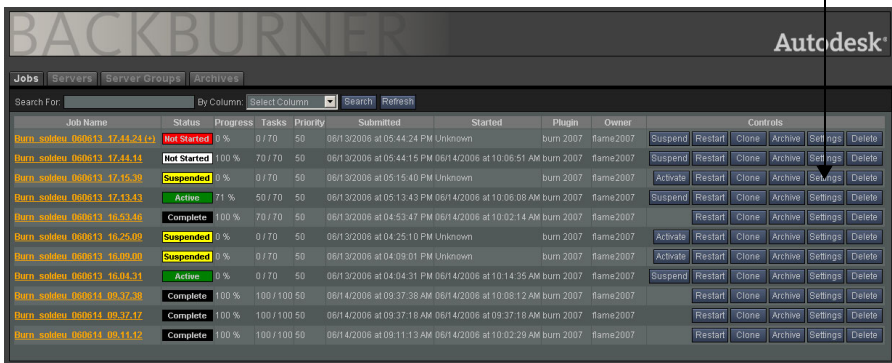
- You must have access to system management tools to modify settings for any job on the system. See [“Accessing Backburner System Management Tools”](#) on page 76.
- The settings that you can modify for a given job depend on the rendering engine process used with your application. These rendering engine 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 Backburner Web Monitor.

**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 Managing Jobs and Render Nodes

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



The screenshot displays the Autodesk Backburner interface. At the top, the 'BACKBURNER' logo is on the left and the 'Autodesk' logo is on the right. Below the logos, there are tabs for 'Jobs', 'Servers', 'Server Groups', and 'Archives'. A search bar is present with a 'Search For:' field, a 'By Column:' dropdown, a 'Select Column' dropdown, and 'Search' and 'Refresh' buttons. The main area contains a table of jobs with the following columns: Job Name, Status, Progress, Tasks, Priority, Submitted, Started, Plugin, Owner, and Controls. The 'Controls' column includes buttons for Suspend, Restart, Clone, Archive, Settings, and Delete. The 'Settings' button for the first job is highlighted with a mouse cursor.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_sdlou_060613_17.44.24 (c)	Hot Started	0%	0/70	50	06/13/2006 at 05:44:24 PM	Unknown	burn 2007	flame2007	Suspend Restart Clone Archive Settings Delete
burn_sdlou_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	flame2007	Suspend Restart Clone Archive Settings Delete
burn_sdlou_060613_17.15.39	Suspended	0%	0/70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
burn_sdlou_060613_17.13.43	Active	71%	50/70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:08 AM	burn 2007	flame2007	Suspend Restart Clone Archive Settings Delete
burn_sdlou_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	flame2007	Restart Clone Archive Settings Delete
burn_sdlou_060613_16.25.09	Suspended	0%	0/70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
burn_sdlou_060613_16.09.00	Suspended	0%	0/70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
burn_sdlou_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	flame2007	Suspend Restart Clone Archive Settings Delete
burn_sdlou_060614_00.37.36	Complete	100%	100/100	50	06/14/2006 at 00:37:36 AM	06/14/2006 at 10:08:12 AM	burn 2007	flame2007	Restart Clone Archive Settings Delete
burn_sdlou_060614_00.37.17	Complete	100%	100/100	50	06/14/2006 at 00:37:18 AM	06/14/2006 at 09:37:18 AM	burn 2007	flame2007	Restart Clone Archive Settings Delete
burn_sdlou_060614_00.11.12	Complete	100%	100/100	50	06/14/2006 at 00:11:13 AM	06/14/2006 at 10:02:29 AM	burn 2007	flame2007	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', and 'Archives'. Below the tabs is a search bar and a 'Refresh' button. The main content area is divided into several sections:

- Job Properties:** Includes fields for Description (MOTION\_spark), Priority (50), Override Global Blocking Tasks (unchecked), Enable Blocking Tasks (unchecked), Use All Available Servers (checked), Server Limit (0), and Server Group (dropdown).
- Notifications:** Includes checkboxes for Enable Notifications, Notify Failures, Notify Progress, and Notify Completion. There is also a field for 'Notify Progress Every Nth Task' (set to 1) and a 'Send Emails' checkbox. Below these are fields for Alert Email From, Alert Email To, and Alert Email Server.
- Servers:** Divided into 'Available Servers' (listing burn0, valletta, opole, burn5, burn4, caen, laos) and 'Assigned Servers' (listing burn14, burn11, burn13, burn12). There are 'Add' and 'Remove' buttons for each list.
- Job Dependencies:** Divided into 'Available Dependencies' (listing various Burn\_solideu jobs) and 'Current Dependencies' (empty). There are 'Add' and 'Remove' buttons for each list.

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.

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

**To modify job settings in Backburner Monitor:**

- In a Backburner Monitor with access to system management tools, select the job in the Job list whose settings you want to modify.
- 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

**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.

- 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.
- Modify the job setting to the required value.
- Repeat steps 3 and 4 to modify other job settings.
- 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 85.

## Restarting Jobs

Restart a job in the Backburner Web Monitor or Backburner Monitor using the following procedures. 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 it 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.

Use the following procedures to restart jobs using either the Backburner Web Monitor or Backburner Monitor. If you are using the Windows-based Backburner Monitor, you must have access to system management tools before you can perform these procedures. See [“Accessing System Management Tools from the Backburner Monitor”](#) on page 78.

### 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.

### 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 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.

Use the following procedures to clone a job in the Backburner Monitor or Web Monitor. You must have access to system management tools before you can clone a job. See [“Accessing Backburner System Management Tools”](#) on page 76.

### **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.

- Locate the job in the list to be cloned and then click the Clone button.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_soldou_060913_17.44.24 (C)	Not Started	0%	0/70	50	06/13/2006 at 05:44:24 PM	Unknown	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060913_17.44.14	Not Started	0%	0/70	50	06/13/2006 at 05:44:15 PM	06/14/2006 at 10:06:51 AM	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060913_17.15.39	Suspended	0%	0/70	50	06/13/2006 at 05:15:40 PM	Unknown	bum	flame2007	Activate Restart Clone Archive Settings Delete
burn_soldou_060913_17.13.43	Active	71%	50/70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:09 AM	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060913_16.23.48	Complete	100%	70/70	50	06/13/2006 at 04:53:47 PM	06/14/2006 at 10:02:14 AM	bum	flame2007	Restart Clone Archive Settings Delete
burn_soldou_060913_16.25.09	Suspended	0%	0/70	50	06/13/2006 at 04:25:10 PM	Unknown	bum	flame2007	Activate Restart Clone Archive Settings Delete
burn_soldou_060913_16.09.00	Suspended	0%	0/70	50	06/13/2006 at 04:09:01 PM	Unknown	bum	flame2007	Activate Restart Clone Archive Settings Delete
burn_soldou_060913_16.04.31	Active	0%	0/70	50	06/13/2006 at 04:04:31 PM	06/14/2006 at 10:14:35 AM	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060914_09.37.38	Complete	100%	100/100	50	06/14/2006 at 09:37:38 AM	06/14/2006 at 10:08:12 AM	bum	flame2007	Restart Clone Archive Settings Delete
burn_soldou_060914_09.37.17	Complete	100%	100/100	50	06/14/2006 at 09:37:18 AM	06/14/2006 at 09:37:18 AM	bum	flame2007	Restart Clone Archive Settings Delete
burn_soldou_060914_09.11.12	Complete	100%	100/100	50	06/14/2006 at 09:11:13 AM	06/14/2006 at 10:02:29 AM	bum	flame2007	Restart Clone Archive Settings Delete

- 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	Plugin	Owner	Controls
burn_soldou_060913_16.01.31	Active	0%	0/70	50	06/13/2006 at 04:04:31 PM	06/14/2006 at 10:14:35 AM	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060913_17.44.24 (C)	Not Started	0%	0/70	50	06/13/2006 at 05:44:24 PM	Unknown	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060913_17.15.39	Not Started	0%	0/70	50	06/13/2006 at 05:15:40 PM	Unknown	bum	flame2007	Activate Restart Clone Archive Settings Delete
burn_soldou_060913_17.13.43	Suspended	0%	0/70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:09 AM	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060913_17.13.43	Active	71%	50/70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:09 AM	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060913_16.23.48	Complete	100%	70/70	50	06/13/2006 at 04:53:47 PM	06/14/2006 at 10:02:14 AM	bum	flame2007	Restart Clone Archive Settings Delete
burn_soldou_060913_16.25.09	Suspended	0%	0/70	50	06/13/2006 at 04:25:10 PM	Unknown	bum	flame2007	Activate Restart Clone Archive Settings Delete
burn_soldou_060913_16.09.00	Suspended	0%	0/70	50	06/13/2006 at 04:09:01 PM	Unknown	bum	flame2007	Activate Restart Clone Archive Settings Delete
burn_soldou_060913_16.04.31	Active	0%	0/70	50	06/13/2006 at 04:04:31 PM	06/14/2006 at 10:14:35 AM	bum	flame2007	Suspend Restart Clone Archive Settings Delete
burn_soldou_060914_09.37.38	Complete	100%	100/100	50	06/14/2006 at 09:37:38 AM	06/14/2006 at 10:08:12 AM	bum	flame2007	Restart Clone Archive Settings Delete
burn_soldou_060914_09.37.17	Complete	100%	100/100	50	06/14/2006 at 09:37:18 AM	06/14/2006 at 09:37:18 AM	bum	flame2007	Restart Clone Archive Settings Delete
burn_soldou_060914_09.11.12	Complete	100%	100/100	50	06/14/2006 at 09:11:13 AM	06/14/2006 at 10:02:29 AM	bum	flame2007	Restart Clone Archive Settings Delete

- If necessary, modify the settings of the clone created in steps 2 and 3. See [“Modifying Job Settings”](#) on page 81.

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.

- 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.

**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 81.

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 85.
  - If the status of a clone is Suspended, either activate or restart the job. See [“Suspending and Reactivating Jobs”](#) on page 79 or [“Restarting Jobs”](#) on page 85.

## 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.

Depending on the Backburner application used in your facility for system management, do one of the following to archive jobs:

- To use the Backburner Web Monitor to archive jobs, see [“Archiving Jobs using Backburner Web Monitor”](#) on page 89.
- To use Backburner Monitor to archive jobs, see [“Archiving Jobs using Backburner Monitor”](#) on page 92.

You must have access to system management tools before you can perform any job archive tasks in the Backburner Web Monitor or Backburner Monitor. See [“Accessing Backburner System Management Tools”](#) on page 76.

## Archiving Jobs using 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.

### 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 79.  
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.

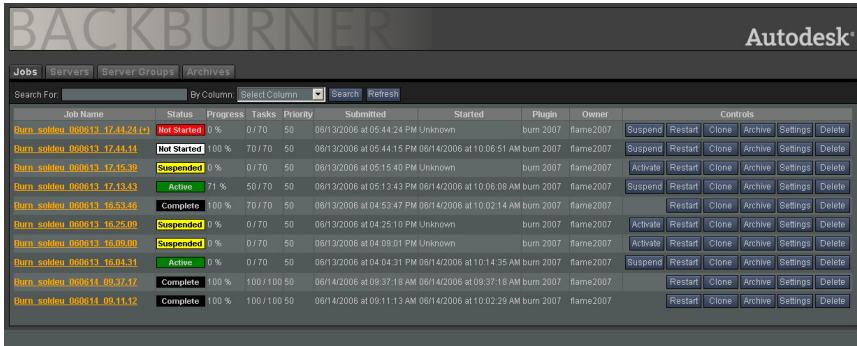
The screenshot shows the Backburner Web Monitor interface. At the top, there are tabs for 'Jobs', 'Servers', 'Server Groups', and 'Archives'. Below the tabs is a search bar and a 'Refresh' button. The main area displays a table of jobs with the following columns: Job Name, Status, Progress, Tasks, Priority, Submitted, Started, Plugin, Owner, and Controls. The 'Controls' column contains buttons for Suspend, Restart, Clone, Archive, Settings, and Delete. The jobs listed include various statuses such as 'Not Started', 'Suspended', 'Active', and 'Complete'.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_solidu_060613_17.44.24 (1)	Not Started	0%	0/70	50	06/13/2006 at 05:44:24 PM	Unknown	bum	2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060613_17.44.14	Not Started	0%	70/70	50	06/13/2006 at 05:44:15 PM	06/14/2006 at 10:06:51 AM	bum	2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060613_17.45.30	Suspended	0%	0/70	50	06/13/2006 at 05:15:40 PM	Unknown	bum	2007	Activate Restart Clone Archive Settings Delete
burn_solidu_060613_17.43.43	Active	71%	50/70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:08 AM	bum	2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060613_16.53.48	Complete	100%	70/70	50	06/13/2006 at 04:53:47 PM	06/14/2006 at 10:02:14 AM	bum	2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060613_16.25.09	Suspended	0%	0/70	50	06/13/2006 at 04:25:10 PM	Unknown	bum	2007	Activate Restart Clone Archive Settings Delete
burn_solidu_060613_16.09.00	Suspended	0%	0/70	50	06/13/2006 at 04:09:01 PM	Unknown	bum	2007	Activate Restart Clone Archive Settings Delete
burn_solidu_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	bum	2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060613_09.37.30	Complete	100%	100/100	50	06/14/2006 at 09:37:30 AM	06/14/2006 at 10:06:12 AM	bum	2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060613_09.37.17	Complete	100%	100/100	50	06/14/2006 at 09:37:18 AM	06/14/2006 at 09:37:18 AM	bum	2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060613_09.11.12	Complete	100%	100/100	50	06/14/2006 at 09:11:13 AM	06/14/2006 at 10:02:29 AM	bum	2007	Suspend Restart Clone Archive Settings Delete

4. When prompted, click OK.

### 3 Managing Jobs and Render Nodes

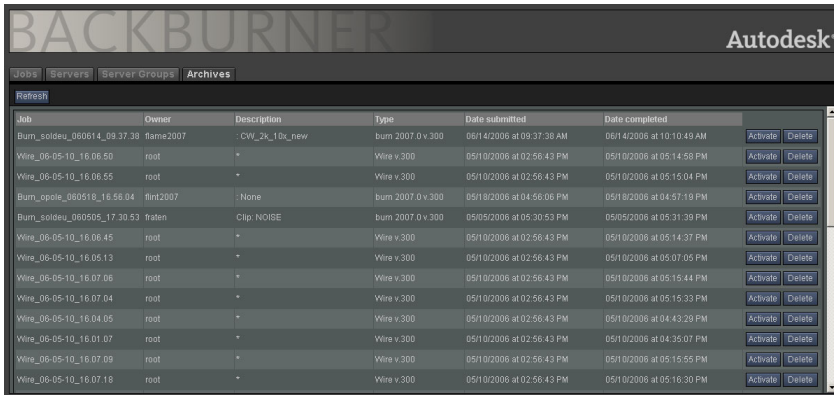
The job is archived and is removed from the Job list. By default, archived jobs are saved to the *Network\Archive* folder where Backburner is installed.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldeu_060614_17.44.24 (1)	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:24 PM	Unknown	burn 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.45.39	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM	06/14/2006 at 10:06:51 AM	burn 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.45.39	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.43.43	Active	71 %	50 / 70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:06 AM	burn 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.53.48	Complete	100 %	70 / 70	50	06/13/2006 at 04:53:47 PM	06/14/2006 at 10:02:14 AM	burn 2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.09.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_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	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_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 Clone Archive Settings Delete
Burn_soldeu_060614_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	flame2007	Restart Clone Archive Settings Delete

5. Click Archives to view the list of job archives.

The archive for the job appears in the Web Monitor.



Job	Owner	Description	Type	Date submitted	Date completed	Controls
Burn_soldeu_060614_09.37.38	flame2007	-CVI_2k_10c_new	burn 2007.0 v.300	06/14/2006 at 09:37:38 AM	06/14/2006 at 10:10:49 AM	Activate Delete
Wire_06-05-10_16.06.50	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:14:58 PM	Activate Delete
Wire_06-05-10_16.06.55	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:04 PM	Activate Delete
Burn_opole_060518_16.56.04	flint2007	None	burn 2007.0 v.300	05/18/2006 at 04:56:06 PM	05/18/2006 at 04:57:19 PM	Activate Delete
Burn_soldeu_060505_17.30.53	fraten	Clip: NOISE	burn 2007.0 v.300	05/05/2006 at 05:30:53 PM	05/05/2006 at 05:31:39 PM	Activate Delete
Wire_06-05-10_16.06.45	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:14:37 PM	Activate Delete
Wire_06-05-10_16.06.13	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:07:05 PM	Activate Delete
Wire_06-05-10_16.07.06	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:44 PM	Activate Delete
Wire_06-05-10_16.07.04	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:33 PM	Activate Delete
Wire_06-05-10_16.04.05	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 04:43:29 PM	Activate Delete
Wire_06-05-10_16.01.07	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 04:36:07 PM	Activate Delete
Wire_06-05-10_16.07.09	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:55 PM	Activate Delete
Wire_06-05-10_16.07.18	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:16:30 PM	Activate Delete

#### To restore an archived job:

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

The list of job archives appears.

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

The screenshot shows the BACKBURNER interface with the 'Archives' tab selected. A table lists several jobs. The job 'Burn\_soldeu\_060614\_09.37.38' is highlighted, and an arrow points to its 'Activate' button.

Job	Owner	Description	Type	Date submitted	Date completed	Activate	Delete
Burn_soldeu_060614_09.37.38	flame2007	CVI_2k_10r_new	burn 2007.0 v.300	06/14/2006 at 09:37:38 AM	06/14/2006 at 10:10:49 AM	Activate	Delete
Wire_06-05-10_16.06.50	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:14:58 PM	Activate	Delete
Wire_06-05-10_16.06.55	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:04 PM	Activate	Delete
Burn_gpole_080518_16.58.04	flint2007	:None	burn 2007.0 v.300	05/18/2006 at 04:56:06 PM	05/18/2006 at 04:57:19 PM	Activate	Delete
Burn_soldeu_060505_17.30.53	fraten	Clip: NOISE	burn 2007.0 v.300	05/05/2006 at 05:30:53 PM	05/05/2006 at 05:31:39 PM	Activate	Delete
Wire_06-05-10_16.06.45	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:14:37 PM	Activate	Delete
Wire_06-05-10_16.05.13	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:07:05 PM	Activate	Delete
Wire_06-05-10_16.07.06	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:44 PM	Activate	Delete
Wire_06-05-10_16.07.04	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:33 PM	Activate	Delete
Wire_06-05-10_16.04.05	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 04:43:29 PM	Activate	Delete
Wire_06-05-10_16.01.07	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 04:35:07 PM	Activate	Delete
Wire_06-05-10_16.07.09	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:15:55 PM	Activate	Delete
Wire_06-05-10_16.07.18	root	*	Wire v.300	05/10/2006 at 02:56:43 PM	05/10/2006 at 05:16:30 PM	Activate	Delete

- 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.

- Click Jobs.

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

The screenshot shows the BACKBURNER interface with the 'Jobs' tab selected. The job 'Burn\_soldeu\_060614\_09.37.38' is now listed in the Jobs tab with a status of 'Complete'.

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldeu_060614_17.44.24 (+)	Not Started	0%	0/70	50	06/13/2006 at 05:44:24 PM	Unknown	burn 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_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	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.16.30	Suspended	0%	0/70	50	06/13/2006 at 05:15:40 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.13.43	Active	71%	50/70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:09 AM	burn 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_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	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.25.09	Suspended	0%	0/70	50	06/13/2006 at 04:25:10 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.09.00	Suspended	0%	0/70	50	06/13/2006 at 04:09:01 PM	Unknown	burn 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_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	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060611_09.37.38	Complete	100%	100/100	50	06/14/2006 at 09:37:38 AM	06/14/2006 at 10:06:12 AM	burn 2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060614_09.37.12	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 Clone Archive Settings Delete
Burn_soldeu_060614_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	flame2007	Restart Clone Archive Settings Delete

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.

- If necessary, re-activate or restart the job. See [“Suspending and Reactivating Jobs”](#) on page 79 or [“Restarting Jobs”](#) on page 85.

**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 Backburner Monitor**

Use the following procedures to create a job archive, restore a job from its archive, and delete a job archive using the Backburner Monitor.

**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.

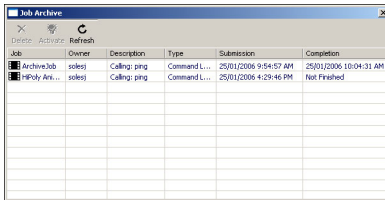
The job is archived and removed from the Job list. By default, archived jobs are saved to the *Network\Archive* folder where Backburner is installed.

**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 94.



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

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 Queuing 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 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 79 or [“Restarting Jobs”](#) on page 85.

#### 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 94.

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.

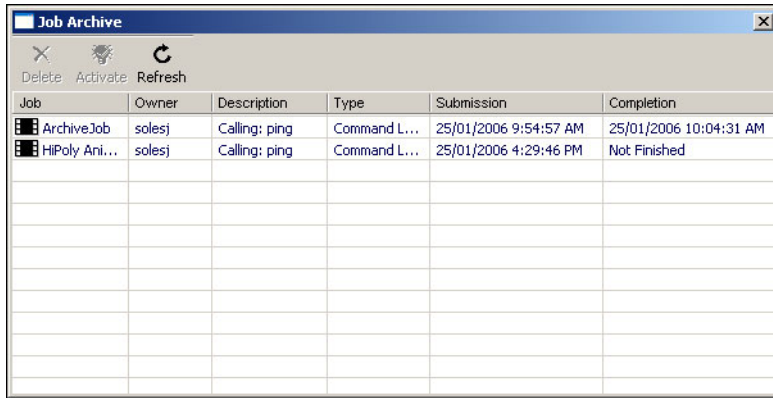
3. Click Delete.

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

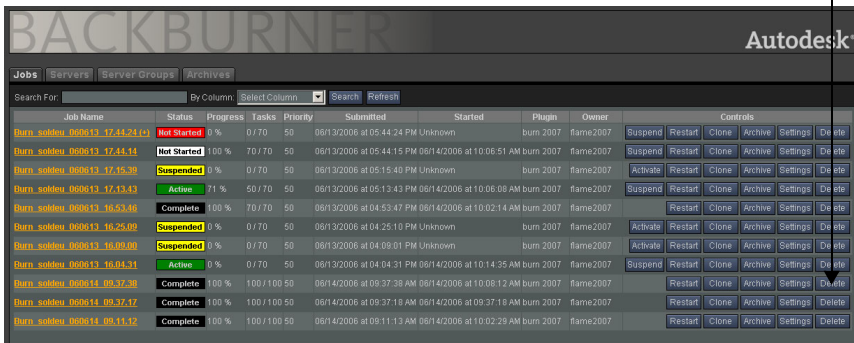
Delete jobs from the Distributed Queuing System that were submitted by mistake or are consuming too many system resources using the following procedures.

Use the following procedures to delete jobs using Backburner Web Monitor or Backburner Monitor. You must have access to system management tools before you can delete any jobs using the Backburner Web Monitor or Backburner Monitor. See [“Accessing Backburner System Management Tools”](#) on page 76.

**NOTE:** Deleting a job is an action that cannot be undone. Archive of a job before you delete it, if you think you may need to restore the job in the future. See [“Archiving Jobs”](#) on page 88.

### To delete a job using 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.



The screenshot shows the Backburner Web Monitor interface. At the top, there are tabs for 'Jobs', 'Servers', 'Server Groups', and 'Archives'. Below the tabs is a search bar with 'Search For:' and 'By Column:' dropdowns, and 'Selected Column', 'Search', and 'Refresh' buttons. The main area displays a table of jobs with columns for Job Name, Status, Progress, Tasks, Priority, Submitted, Started, Plugin, Owner, and Controls. The controls column contains buttons for Suspend, Restart, Clone, Archive, Settings, and Delete.


Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldeu_060813_17.44.23 (x)	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:24 PM Unknown		bum 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060813_17.44.14	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM 06/14/2006 at 10:06:51 AM bum 2007		bum 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060813_17.15.39	Suspended	0 %	0 / 70	50	06/13/2006 at 05:15:40 PM Unknown		bum 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060813_17.13.43	Active	71 %	50 / 70	50	06/13/2006 at 05:13:43 PM 06/14/2006 at 10:06:08 AM bum 2007		bum 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060813_16.53.46	Complete	100 %	70 / 70	50	06/13/2006 at 04:53:47 PM 06/14/2006 at 10:02:14 AM bum 2007		bum 2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060813_16.25.09	Suspended	0 %	0 / 70	50	06/13/2006 at 04:25:10 PM Unknown		bum 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060813_16.09.00	Suspended	0 %	0 / 70	50	06/13/2006 at 04:09:01 PM Unknown		bum 2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060813_16.04.31	Active	0 %	0 / 70	50	06/13/2006 at 04:04:31 PM 06/14/2006 at 10:14:35 AM bum 2007		bum 2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060814_09.37.30	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:38 AM 06/14/2006 at 10:08:12 AM bum 2007		bum 2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060814_09.37.17	Complete	100 %	100 / 100	50	06/14/2006 at 09:37:18 AM 06/14/2006 at 09:37:18 AM bum 2007		bum 2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060814_09.11.12	Complete	100 %	100 / 100	50	06/14/2006 at 09:11:13 AM 06/14/2006 at 10:02:29 AM bum 2007		bum 2007	flame2007	Restart Clone Archive Settings Delete

3. When prompted, click OK.

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

Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_solidu_060813_17.41.24 (1)	Not Started	0%	0/70	50	06/13/2006 at 05:44:24 PM Unknown		bum 2007	flame2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060813_17.44.19	Not Started	100%	70/70	50	06/13/2006 at 05:44:15 PM Unknown	06/14/2006 at 10:06:51 AM bum 2007	flame2007	flame2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060813_17.45.39	Suspended	0%	0/70	50	06/13/2006 at 05:15:40 PM Unknown		bum 2007	flame2007	Activate Restart Clone Archive Settings Delete
burn_solidu_060813_17.43.43	Active	71%	50/70	50	06/13/2006 at 05:13:43 PM Unknown	06/14/2006 at 10:06:00 AM bum 2007	flame2007	flame2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060813_16.53.40	Complete	100%	70/70	50	06/13/2006 at 04:53:47 PM Unknown	06/14/2006 at 10:02:14 AM bum 2007	flame2007	flame2007	Restart Clone Archive Settings Delete
burn_solidu_060813_16.25.09	Suspended	0%	0/70	50	06/13/2006 at 04:25:10 PM Unknown		bum 2007	flame2007	Activate Restart Clone Archive Settings Delete
burn_solidu_060813_16.09.00	Suspended	0%	0/70	50	06/13/2006 at 04:09:01 PM Unknown		bum 2007	flame2007	Activate Restart Clone Archive Settings Delete
burn_solidu_060813_16.04.31	Active	0%	0/70	50	06/13/2006 at 04:04:31 PM Unknown	06/14/2006 at 10:14:35 AM bum 2007	flame2007	flame2007	Suspend Restart Clone Archive Settings Delete
burn_solidu_060814_09.37.17	Complete	100%	100/100	50	06/14/2006 at 09:37:18 AM Unknown	06/14/2006 at 09:37:18 AM bum 2007	flame2007	flame2007	Restart Clone Archive Settings Delete
burn_solidu_060814_09.11.12	Complete	100%	100/100	50	06/14/2006 at 09:11:13 AM Unknown	06/14/2006 at 10:02:29 AM bum 2007	flame2007	flame2007	Restart Clone Archive Settings Delete

### To delete a job using Backburner Monitor:

- From the Backburner Monitor with access to system management tools, select the job(s) to be deleted in the Job list.
  - 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).
  - When prompted, click OK.
- The selected jobs are deleted.

## Managing Rendering Nodes

A Backburner Distributed Queuing System requires very little management once it is running. However, you may occasionally need to manually manage your Render Nodes. For example, you may want to shift nodes to a higher priority job when its deadline is approaching.

You can manage the Render Nodes on your system in the following ways:

- You can shift individual nodes between different jobs; see [“Shifting Nodes Between Jobs in the Queue”](#) on page 97.
- You can remove offline (absent) nodes to keep the list of Render Nodes organized; see [“Deleting Offline Rendering Nodes”](#) on page 100.
- You can set the time when individual nodes are available for rendering jobs; see [“Setting the Availability for Rendering Nodes”](#) on page 102.

- You can create groups or Render Nodes to manage and organize system resources; see [“Grouping Rendering Nodes in Server Groups”](#) on page 105.

Use the following procedures to manage nodes using Backburner Monitor or Backburner Web Monitor. You must have access to system management tools before you can manage Render Nodes using the Backburner Web Monitor or Backburner Monitor; see [“Accessing Backburner System Management Tools”](#) on page 76.

## Shifting Nodes Between Jobs in the Queue

Shift Render Nodes between jobs to accommodate changing priorities and deadlines using the following procedures. Before you start shifting nodes manually using the Backburner Monitor or Web Monitor, note the following rules that control how nodes are assigned to submitted jobs:

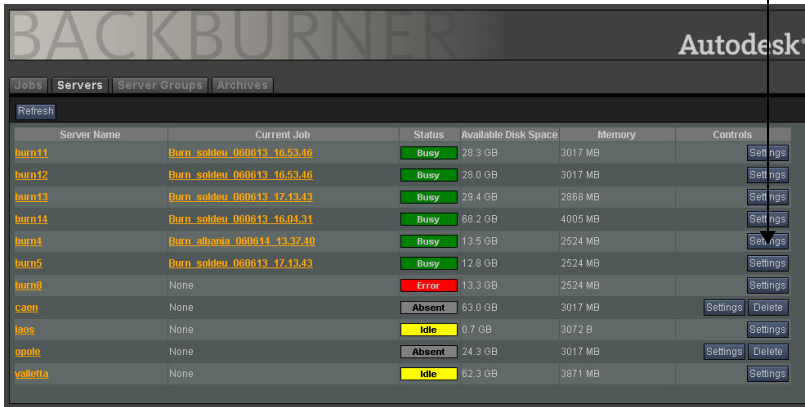
- Rendering nodes are assigned to a job until it is completed. The Backburner Manager does not shift nodes ‘on-the-fly’ between jobs.
- If a Render Node is shifted from one job to another, it remains assigned to its new job until this job is completed. There is no way to temporarily assign a node to 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 62 and [“Monitoring Rendering Nodes”](#) on page 70.
- Jobs for Cleaner XL transcoding and background Wire transfers are always assigned to 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.

### To shift a Render Node between two jobs using 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.

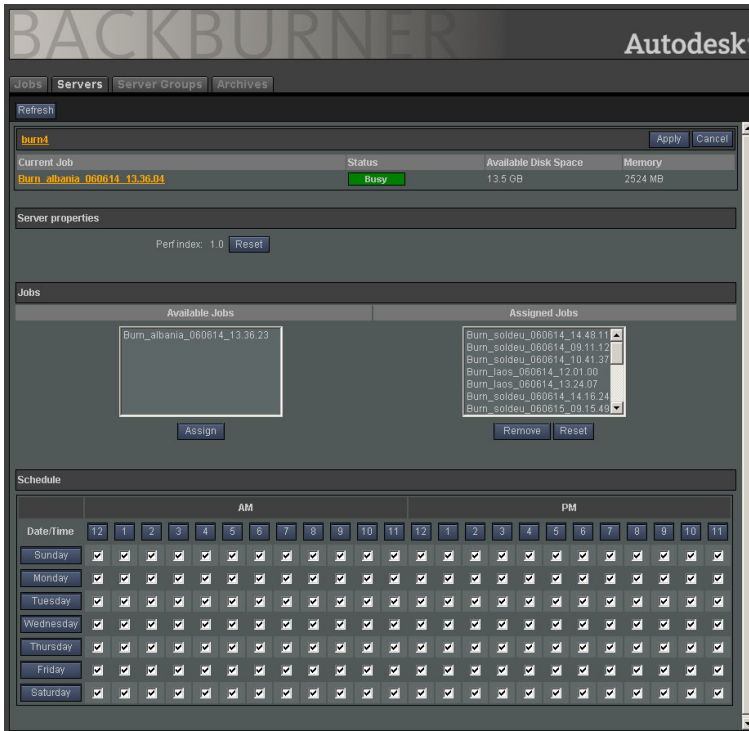
### 3 Managing Jobs and Render Nodes

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



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_16.53.48	Busy	28.0 GB	3017 MB	Settings
burn13	Burn_soldeu_060613_17.13.43	Busy	28.4 GB	2868 MB	Settings
burn14	Burn_soldeu_060613_16.04.31	Busy	68.2 GB	4005 MB	Settings
burn1	Burn_albania_060614_13.37.40	Busy	13.5 GB	2524 MB	Settings
burn5	Burn_soldeu_060613_17.13.43	Busy	12.8 GB	2524 MB	Settings
burn8	None	Error	13.3 GB	2524 MB	Settings
caen	None	Absent	63.0 GB	3017 MB	Settings Delete
laos	None	Idle	0.7 GB	3072 B	Settings
opole	None	Absent	24.3 GB	3017 MB	Settings Delete
valletta	None	Idle	62.3 GB	3871 MB	Settings

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.



The screenshot shows the 'Settings' window for the 'burn1' server. It includes a 'Server properties' section with a 'Perf index' of 1.0 and a 'Reset' button. The 'Jobs' section is divided into 'Available Jobs' and 'Assigned Jobs'. The 'Available Jobs' list contains 'Burn\_albania\_060614\_13.36.23'. The 'Assigned Jobs' list contains several jobs including 'Burn\_soldeu\_060614\_14.48.11', 'Burn\_soldeu\_060614\_09.11.12', 'Burn\_soldeu\_060614\_10.41.37', 'Burn\_laos\_060614\_12.01.00', 'Burn\_laos\_060614\_13.24.07', 'Burn\_soldeu\_060614\_14.16.24', and 'Burn\_soldeu\_060615\_09.15.49'. There are 'Assign', 'Remove', and 'Reset' buttons for job management. At the bottom, there is a 'Schedule' grid for days of the week and hours of the day (AM and PM), with checkboxes for each time slot.

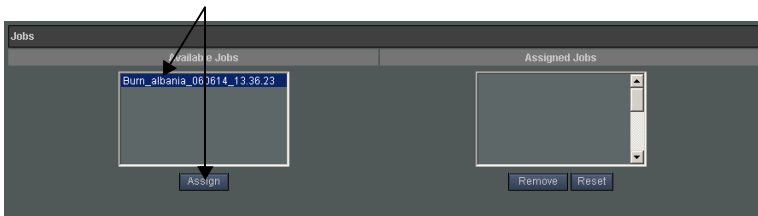
Before you can manually assign a job to the node, remove all jobs that were assigned to the node previously, including the job that the node is currently processing.

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 81.

#### To shift a Render Node between two jobs using 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 102.

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.

Delete any nodes that are offline from the list of Render Nodes in the Backburner Monitor or Web Monitor using the following procedures.

### 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 71.
  - The node’s schedule indicates that it should be currently available for jobs. See [“Setting the Availability for Rendering Nodes”](#) on page 102.
  - 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
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	2868 MB	Settings
burn14	Burn_soldeu_060613_16.04.31	Busy	88.2 GB	4005 MB	Settings
burn1	Burn_albania_060614_13.37.40	Busy	13.5 GB	2524 MB	Settings
burn5	Burn_soldeu_060613_17.13.43	Busy	12.8 GB	2524 MB	Settings
burn8	None	Error	13.3 GB	2524 MB	Settings
caen	None	Absent	63.0 GB	3017 MB	Settings Delete
laos	None	Idle	0.7 GB	3072 B	Settings
google	None	Absent	24.3 GB	3017 MB	Settings Delete
valletta	None	Idle	62.3 GB	3871 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	2868 MB	Settings
burn14	Burn_soldeu_060613_16.04.31	Busy	88.2 GB	4005 MB	Settings
burn1	Burn_albania_060614_13.37.40	Busy	13.5 GB	2524 MB	Settings
burn5	Burn_soldeu_060613_17.13.43	Busy	12.8 GB	2524 MB	Settings
burn8	None	Error	13.3 GB	2524 MB	Settings
laos	None	Idle	0.7 GB	3072 B	Settings
google	None	Absent	24.3 GB	3017 MB	Settings Delete
valletta	None	Idle	62.3 GB	3871 MB	Settings

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

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

1. 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 97.
- The node’s schedule indicates that it should be currently available for jobs. See [“Setting the Availability for Rendering Nodes”](#) on page 102.
- 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.

2. 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**

Set times when a Render Node is available using the following procedures for the Backburner Monitor or Web Monitor.

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.

**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
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	28.4 GB	2868 MB	Settings
burn14	Burn_soldeu_060613_16.04.31	Busy	68.2 GB	4005 MB	Settings
burn1	Burn_albania_060614_13.37.40	Busy	13.5 GB	2524 MB	Settings
burn5	Burn_soldeu_060613_17.13.43	Busy	12.8 GB	2524 MB	Settings
burn8	None	Error	13.3 GB	2524 MB	Settings
caen	None	Absent	63.0 GB	3017 MB	Settings Delete
laos	None	Idle	0.7 GB	3072 B	Settings
opole	None	Absent	24.3 GB	3017 MB	Settings Delete
valletta	None	Idle	62.3 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.

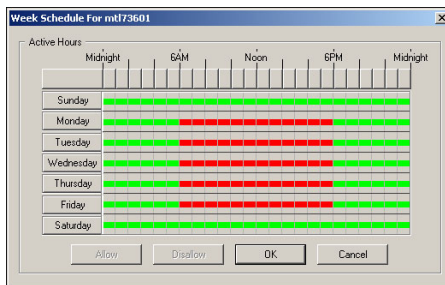
Filled checkboxes in the Schedule area show when the node is available to process jobs. By default, a node is set to be available at all times.



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) in Backburner Monitor or Backburner Web Monitor to help you 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.

Depending on the Backburner application used in your facility for system management, refer to one of the following sections for relevant procedures:

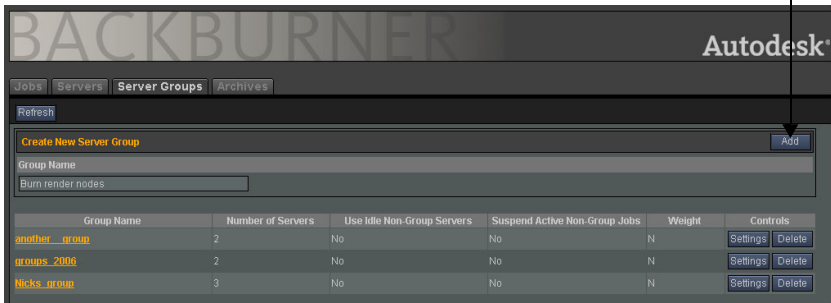
- To use the Backburner Web Monitor for managing Server groups, see [“Grouping Nodes using the Backburner Web Monitor”](#) on page 106.
- To use Backburner Monitor for managing Server groups see [“Grouping Nodes using Backburner Monitor”](#) on page 110.

### Grouping Nodes using the Backburner Web Monitor

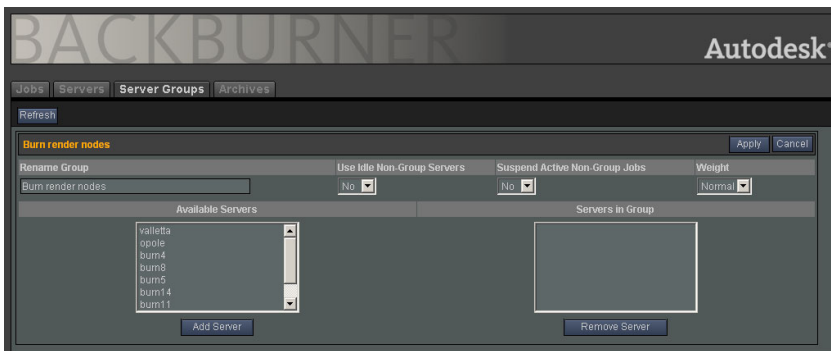
Use the following procedures to use the Backburner Web Monitor to create or delete a Server group from the Render Nodes on your system, as well as shift it between jobs as needed.

#### To create a Server group:

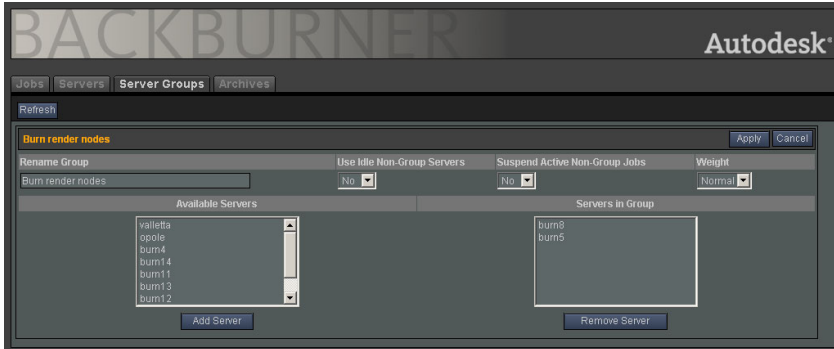
1. In a Backburner Web Monitor with access to system management tools, click Server Groups. A list of server groups for the system appears, if any groups are currently defined.
2. In the Group Name field, enter the name for the Server group and then click Add.



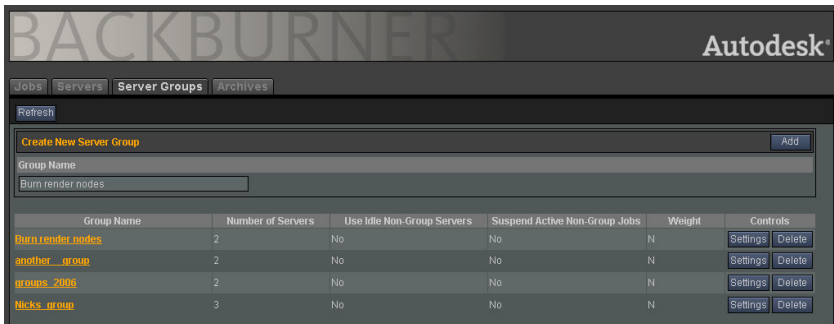
The Backburner Web Monitor displays settings to configure the group and assign Render Nodes to it.



3. Configure the behavior for the new Server group. See [“Configuring Server Groups”](#) on page 112.
4. Select one or more Render Nodes in the Available Servers list and then click Add Server. 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.

### 3 Managing Jobs and Render Nodes

- 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_soldeu_060613_17.14.21.02	Not Started	0%	0/70	50	06/13/2006 at 05:44:24 PM	Unknown	bum_2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.14.14	Not Started	0%	0/70	50	06/13/2006 at 05:44:15 PM	06/14/2006 at 10:06:51 AM	bum_2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.15.30	Not Started	0%	0/70	50	06/13/2006 at 05:15:40 PM	Unknown	bum_2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_060613_17.13.43	Active	71%	50/70	50	06/13/2006 at 05:13:43 PM	06/14/2006 at 10:06:08 AM	bum_2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_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	bum_2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.25.09	Suspended	0%	0/70	50	06/13/2006 at 04:25:10 PM	Unknown	bum_2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.09.08	Suspended	0%	0/70	50	06/13/2006 at 04:09:01 PM	Unknown	bum_2007	flame2007	Activate Restart Clone Archive Settings Delete
Burn_soldeu_060613_16.01.31	Active	0%	0/70	50	06/13/2006 at 04:04:31 PM	06/14/2006 at 10:14:35 AM	bum_2007	flame2007	Suspend Restart Clone Archive Settings Delete
Burn_soldeu_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	bum_2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_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	bum_2007	flame2007	Restart Clone Archive Settings Delete
Burn_soldeu_060614_09.11.12	Complete	100%	100/100	50	06/14/2006 at 09:11:13 AM	06/14/2006 at 10:02:29 AM	bum_2007	flame2007	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.

**Servers**

Available Servers	Assigned Servers
bum8 valletta opole burro bum4 caen lags	bum14 bum11 bum13 bum12

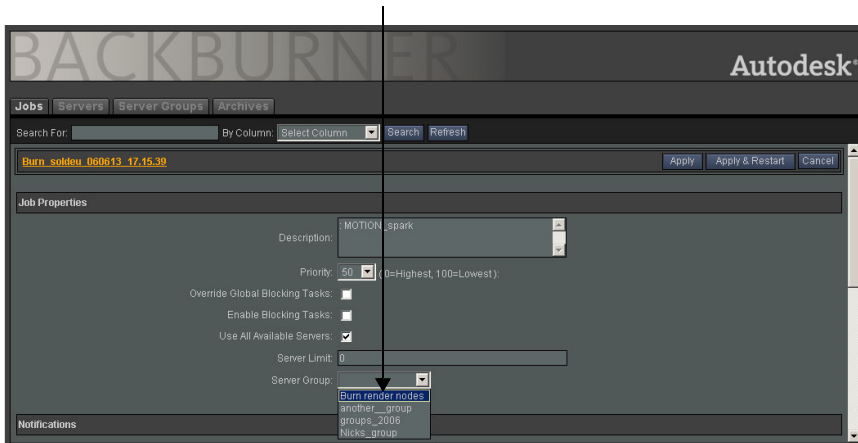
**Job Dependencies**

Available Dependencies	Current Dependencies
Burn_soldeu_060614_09.11.12 Burn_soldeu_060613_16.53.46 Burn_soldeu_060613_16.09.08 Burn_soldeu_060614_09.37.38 Burn_soldeu_060614_09.37.17 Burn_soldeu_060613_16.04.36 Burn_soldeu_060613_17.14.21.02	

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 97.

#### 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 Backburner Monitor

Use the following procedures to use 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.

### To create a Server group:

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

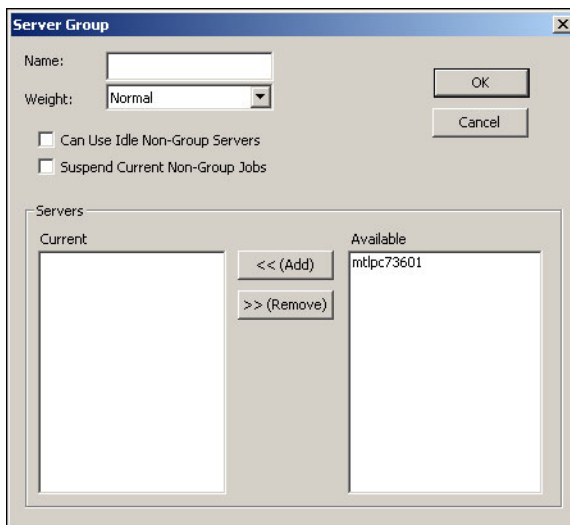
A menu appears for creating a global or local Server group from the Render Nodes on your system. Global groups are managed by Backburner Manager and are available to any Backburner Monitor connected to the network. Local groups are available only to the Backburner Monitor that creates the group.

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 112.

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 97.

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 Backburner Monitor.

**Can Use Idle Non-group Servers** — When enabled, allows 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 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 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 Backburner Web Monitor	List Name in 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.

## Rendering Jobs from a Command Line or Script

Use the Backburner command line plug-in to submit batch, executable, or script files to Backburner as “custom” jobs. For example, you could create a script that submits all jobs contained in a network folder to be rendered automatically at night.

To render jobs using the command line plug-in, use the Windows *cmdjob.exe* or the Linux *cmdjob* utility located in your *Backburner* folder. This tool provides flexibility in running custom jobs from scripts.

 **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.

### Backburner Command-Line Control

You can use the following switches at the command line of a DOS shell or Linux terminal as well as in a batch file or script. Note the following about these switches:

- Switches are not case-sensitive.
- If multiple occurrences of the same switch are used, only the last occurrence is processed by the *cmdjob* utility.

The following tables show switches and their effects.

Variables	Variables Defined
-jobName [name]	Sets the job name, default is "cmdJob".
-jobNameAdjust	Appends a number at the end of the job name if it is not unique.
-manager [name]	Sets the name of the manager, default is automatic search.
-netmask [mask]	Sets the mask.
-port [number]	Sets the port number.
-priority [number]	Sets the job priority; critical=0, default=50, suspended=100.
-suspended	Submits the job as suspended.
-progress	Shows the progress of the job in the shell as it is being processed.
-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.
-workPath [folder]	Working folder or directory for the <i>cmdjob</i> utility. 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 "per 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.
-description [string]	Sets the job description.
-showOutput [file;file;...]	Sets a list of output files to be accessible from Backburner Monitor or Web Monitor.
-group [string]	Defines the server group to which the job will be submitted.
-servers [string;string...]	Defines the set of servers to which the job will be submitted. Ignored if a server group is specified using -group.
-serverCount [number]	Sets the maximum number of servers that can simultaneously work on the job.
-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.
-taskList [file]	Sets the task list file.

<b>Variables</b>	<b>Variables Defined</b>
-numTasks [number]	Sets the number of tasks for the job.
-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.
-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.
-perServer	Creates separate jobs that are identical to this job, and assigns one to each server assigned to this job. Each server will perform the same tasks as the others.
-timeout [number]	Number of minutes before a task time-out should occur. Default value is 60 minutes.
-nonConcurrent	Prevents multiple tasks from executing on multiple computers.
-leaveInQueue	Leaves the job in the queue after completion. Unless set otherwise, the Backburner Manager's default behavior is used to archive or delete the job.
-archive	Archives job on completion using the Backburner Manager's default behavior. Ignored if -leaveInQueue used.
-archive [days]	Archives job after specified number of days after completion. Ignored if -leaveInQueue used.
-dependencies [string;string...]	Defines a list of job dependencies.
-delete	Deletes job on completion using the Backburner Manager's default behavior. Ignored if -leaveInQueue or -archive used.
-delete [days]	Deletes job after specified number of days after completion. Default is to perform the manager action. Ignored if -leaveInQueue or -archive used.
-dontBlockTasks	Disables task blocking; task blocking is enabled by default in the Backburner Manager.
-blockTasks	Enables task blocking; task blocking is enabled by default in the Backburner Manager.



# Troubleshooting Backburner



## Summary

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## Basic Troubleshooting Techniques

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

- All hosts on the Distributed Queuing System can communicate with each other. See [“Verifying Communication Between Two Hosts”](#) on page 121.
- If you are sending jumbo frames, verify that each host can handle that packet size. See [“Verifying the Packet Size”](#) on page 122.
- Any shared resources are both visible and accessible to all hosts on the Distributed Queuing 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 122 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 2007 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 Backburner Monitor or 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 <a href="#">“Resolving a Host Access Error”</a> on page 127.
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 <a href="#">“Resolving a Host Access Error”</a> on page 127.
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 <a href="#">"Resolving Network Card Priority"</a> on page 131.
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 <a href="#">"Verifying Communication Between Two Hosts"</a> on page 121 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 <a href="#">“Resolving a Problem Connecting to the Backburner Manager”</a> on page 128.
An Unknown error loading application error appears in 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 <a href="#">“Adding the Backburner Path to the Windows Path Environment Variable”</a> on page 130.

## 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 <a href="#">“Resolving an Unavailable Render Node Problem”</a> on page 131.
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 <a href="#">“Resolving Network Card Priority”</a> on page 131.
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 <a href="#">“Adding the Backburner Path to the Windows Path Environment Variable”</a> on page 130.
A Render Node remains suspended even while jobs are being processed by the Distributed Queueing System.	The Render Node is unavailable. See <a href="#">“Restarting Suspended Render Nodes”</a> on page 133.
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 <a href="#">“Resolving a Render Node Failure”</a> on page 133.

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 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 <a href="#">"Adjusting the Maximum Number of Render Nodes Per Job"</a> on page 133. 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:
<b>ping</b> <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: <b>ping 132.22.34.15</b> 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.
<b>ping</b> <hostname>	Verify that the host on which you issue the command can communicate with the host whose name you specify in <hostname>. Example: <b>ping managerhost</b>

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

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.

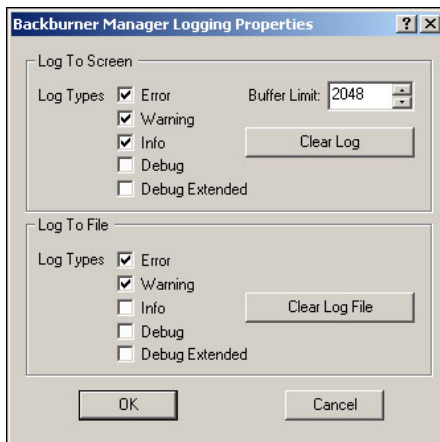
### To configure Backburner log file settings on Windows systems:

1. Start Backburner Manager or Server. See [“Starting the Backburner Manager for Windows”](#) on page 23 or [“Starting Backburner Server”](#) on page 49.

**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 125.

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 125. 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. See [“Starting the Backburner Manager for Linux”](#) on page 25 or [“Starting the Backburner Manager for Windows”](#) on page 23 or [“Starting Backburner Server”](#) on page 49.

**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 Queuing 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.

**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 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 2000, choose Start | Settings | Network and Dial-up Connections | Local Area Connection and 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.
  - 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 submitted a job to the while the Manager was 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. See [“Starting the Backburner Manager for Windows”](#) on page 23.

**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. Ensure the Render Nodes can *ping* the Backburner Manager. For help with the *ping* command, see [“Verifying Communication Between Two Hosts”](#) on page 121.

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

4. 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 Backburner Monitor to communicate are not blocked by the firewall. By default, these ports are 3233 and 3234.

5. 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.

6. 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 126.

## 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 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 2000 or 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 on your Linux or Windows system, by default, Backburner uses the first network card that it finds. This may lead to problems if this is the wrong card. You can force Backburner to use a specific network card. The following procedure describes how.

### To resolve network card priority:

1. List the statistics for all the network adapter cards on the system:
  - In Windows, from a command prompt, type
 

```
ipconfig /all
```

All available network cards are listed displaying their MAC addresses (identified by Physical Address).
  - In Linux, type
 

```
ifconfig -a
```

All available network cards are listed displaying their MAC addresses (identified by HWaddr).
2. Edit the *backburner.xml* file to assign the MAC address in the <ServerMAC> field for the selected network card. See [“Editing the backburner.xml File”](#) on page 126.

## 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 121.

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 102.

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. See [“Starting Backburner Server”](#) on page 49.

**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.
- 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 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 121.

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 Backburner Monitor or 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

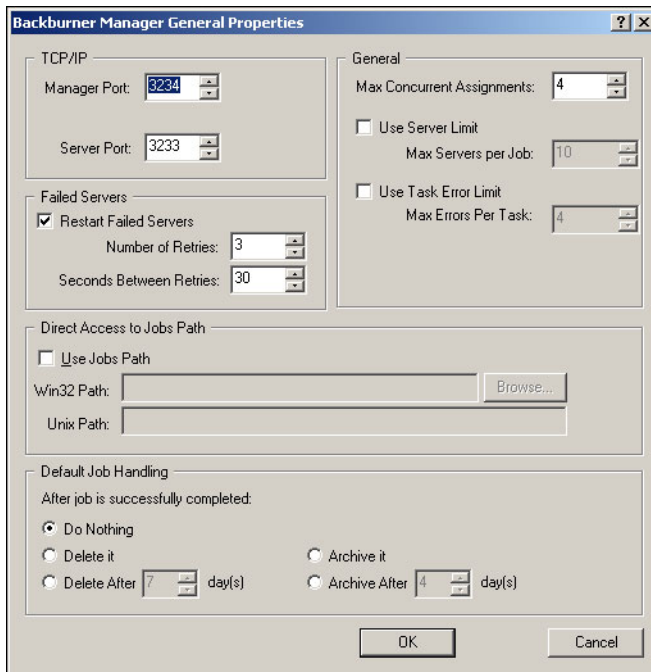
Job in Backburner Manager. You can do this by editing the *backburner.xml* file. Additionally, on Windows systems you can use the Backburner Manager General Properties dialog.

**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>`.
7. Restart Backburner Manager. See [“Starting the Backburner Manager for Linux”](#) on page 25 or [“Starting the Backburner Manager for Windows”](#) on page 23.

**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.



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