

AUTODESK®
BACKBURNER™
2008

Installation Guide



Autodesk®

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contents

Contents

1	Introduction	1
	Summary	1
	About This Guide	1
	System Components	2
	Backburner Component Requirements	3
	Backburner and Wiretap	6
	Notation Conventions	6
	Related Documentation	7
	Contacting Customer Support	7
2	Installation Workflow	9
	Summary	9
	Backburner Installation Workflow	9
	Setting Up TCP/IP on Windows-Based Backburner Components	11
	Verifying Communication Between Two Hosts	15
3	Setting Up Backburner Manager	17
	Summary	17
	Workflow for Setting Up Backburner Manager	17
	Installing Backburner Manager	17
	Starting and Configuring the Backburner Manager	20
	Setting Up Backburner Manager as a Windows Service	28

4	Installing Backburner Monitor	31
	Summary	31
	About Backburner Monitor	31
	Installing Backburner Web Monitor	32
	Installing the Apache HTTP Server and Backburner Web Server for Windows ...	32
	Installing Microsoft IIS and Backburner Web Server for Windows.....	39
	Installing the Apache HTTP Server for Linux	48
5	Setting Up Backburner Server	53
	Summary	53
	Workflow for Setting Up Backburner Server on Render Nodes.....	53
	Installing Backburner Server on Windows-based Render Nodes.....	54
	Starting Backburner Server on Windows-based Render Nodes.....	54
	Configuring Backburner Server on Windows-based Render Nodes.....	56
	Setting Up Backburner Server as a Windows Service.....	57
	Index	61



Introduction

Summary

About This Guide	1
System Components	2
Backburner Component Requirements	3
Backburner and Wiretap	6
Notation Conventions	6
Related Documentation	7
Contacting Customer Support	7

About This Guide

This guide explains how to install and configure Autodesk® Backburner™. Autodesk Backburner is a 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.

The Background Proxy Generation and Background Wire® features in Autodesk Effects and Editing applications also rely on Backburner. In these applications Backburner is installed when you install the application.

You can set up a Distributed Queueing System for any of the following Autodesk applications: Autodesk Inferno®, Autodesk Flame®, Autodesk Flint®, Autodesk Fire®, Autodesk Smoke®, Autodesk 3ds Max®, Autodesk Toxik™, Autodesk Combustion®, Autodesk Cleaner®, and Autodesk Lustre®

For help using Backburner, refer to the *Autodesk Backburner 2008 User's Guide*. For information on sending jobs to the rendering network from your Autodesk application, refer to the application's *User's Guide*.

Intended Audience

This guide is designed for system administrators required to set up and/or maintain an Autodesk Backburner Distributed Queueing 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 Media and Entertainment Customer Support should you require further assistance. See [“Contacting Customer Support”](#) on page 7.

NOTE: Some procedures in this guide require administrative privileges.

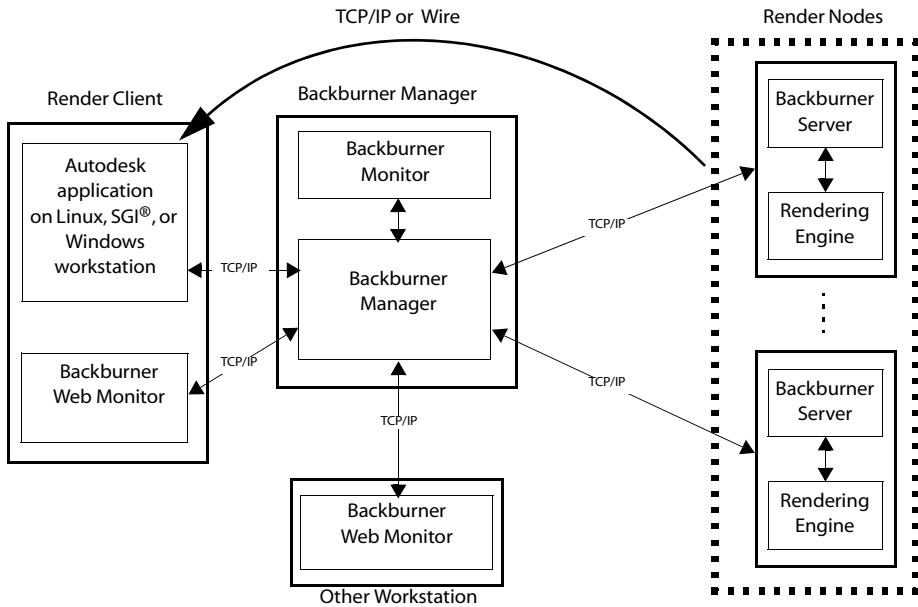
System Components

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

Component	Description
Render Client	An Autodesk application such as Flame, that sends jobs to the Distributed Queueing System
Backburner Manager	A workstation that distributes and manages the jobs running on the Distributed Queueing System
Render Node(s)	At least one Linux, IRIX®, or Windows computer that performs the rendering
Backburner Monitor and/or Backburner Web Monitor	At least one workstation that monitors the jobs running on the Distributed Queueing System

NOTE: For a complete description of each component, refer to the *Autodesk Backburner 2008 User's Guide*.

The following diagram illustrates the workflow among these components.



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

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 Queuing System used to process jobs from 3ds Max, Combustion, Cleaner XL, or Toxik are different than those of a Distributed Queuing 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.

For:	See:
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 or standalone

Autodesk Effects and Editing configurations, 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.

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 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 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. This should not require any manual installation since these background I/O tasks are handled by the same host on which the application is installed, and Stone and Wire are installed automatically with the installation.

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 XP 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.

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 Queueing System.

Render Client	Networking Requirements	Resources
3ds Max, Combustion, Toxik, and Cleaner XL	TCP/IP	"Setting Up TCP/IP on Windows-Based Backburner Components" on page 11
Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform	Wire and TCP/IP	If you are running the Backburner Manager on a Linux workstation, the user's guide for Burn. If you are running the Backburner Manager on a Windows workstation, "Setting Up TCP/IP on Windows-Based Backburner Components" on page 11.
Lustre	TCP/IP and optional browsed service	The most recent software installation guide for Lustre and "Setting Up TCP/IP on Windows-Based Backburner Components" on page 11.

Backburner and Wiretap

Backburner Manager is also a Wiretap™ server. Wiretap Server is installed when you install Backburner Manager and runs as part of Backburner Manager.

The configuration file for this Wiretap Server is `/usr/discreet/backburner/cfg/wiretap.cfg`. In most cases you do not need to modify the default values in the configuration file. Consult the comments included in the file for help understanding each of the keywords it contains.

The inclusion of Wiretap Server in Backburner Manager makes it possible to create custom monitoring and managing tools for all instances of Backburner Manager in your facility. You use the Wiretap SDK to communicate with the Wiretap Server in Backburner Manager.

Notation Conventions

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

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

Related Documentation

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

Guide	Provides
<i>Autodesk Backburner 2008 User's Guide</i>	Information on how to use Backburner.
<i>Autodesk Backburner 2008 Installation Guide</i>	(The current guide.) Information on how to set up and configure Backburner in your facility.
<i>User's Guide or Installation Guide (for your application)</i>	Any application-specific information about configuring and using Backburner in your facility.
<i>Autodesk Burn 2008 Installation and User's Guide</i>	Information on how to install, set up, and use Burn.

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

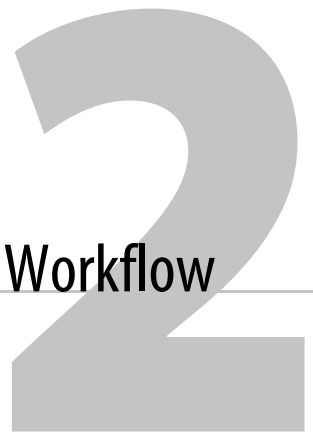
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Customer support is also available through your Autodesk reseller. To find a reseller near you, consult the reseller look-up database on the Autodesk Web site at www.autodesk.com/resellers.

Installation Workflow



Summary

Backburner Installation Workflow	9
Setting Up TCP/IP on Windows-Based Backburner Components	11
Verifying Communication Between Two Hosts	15

Backburner Installation Workflow

Setting up Backburner involves installing the following applications on different components of your Distributed Queueing System:

- Backburner Manager
- Backburner Monitor or Backburner Web 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.

Use the following workflow to set up a Distributed Queueing System.

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 [“Backburner Component Requirements”](#) on page 3.
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 11.

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.

For:	See:
3ds Max	The most recent installation guide for 3ds Max.
Combustion and Toxik	Chapter 3, "Setting Up Backburner Manager." on page 17.
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	Chapter 3, "Setting Up Backburner Manager." on page 17.
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 [Chapter 4, "Installing Backburner Monitor."](#) on page 31.
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.

For:	See:
3ds Max, Combustion, and Toxik	Chapter 5, "Setting Up Backburner Server." on page 53.
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.

For:	See:
Inferno, Flame, Flint, Fire, Smoke, and Backdraft Conform	The most recent user's guide for Burn.
Lustre	The most recent installation guide for Lustre.

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 [“Guidelines for Creating Workstation Names and IP Addresses on Windows-Based Backburner Components”](#) on page 11.
3. Install and configure TCP/IP on each Windows workstation. See [“Configuring TCP/IP on a Windows Workstation”](#) on page 13.

Guidelines for Creating Workstation Names and IP Addresses on Windows-Based Backburner Components

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 connection.

You use workstation names for network components when DHCP is used and when a workstation's IP address 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 Backburner Monitor or Render Nodes are 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 a 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

Workstation Name	IP Address
...	...
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 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 14.
2. Configure the TCP/IP protocol to either use a fixed IP address or use DHCP to be assigned an IP address. Do one of the following:
 - To configure TCP/IP to receive an IP address through DHCP, see [“Configuring TCP/IP to Use DHCP”](#) on page 14.
 - To configure TCP/IP to use a fixed IP address, see [“Configuring TCP/IP to Use a Fixed IP Address”](#) on page 15.

For guidelines on configuring TCP/IP for Backburner, see [“Guidelines for Creating Workstation Names and IP Addresses on Windows-Based Backburner Components”](#) on page 11.

3. 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: 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 Computer Name tab. 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.

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.

Verifying Communication Between Two Hosts

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

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

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



Setting Up Backburner Manager

Summary

Workflow for Setting Up Backburner Manager	17
Installing Backburner Manager	17
Starting and Configuring the Backburner Manager	20
Setting Up Backburner Manager as a Windows Service	28

Workflow for Setting Up Backburner Manager

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. Install Backburner Manager on the designated Windows or Linux workstation. See [“Installing Backburner Manager”](#) on page 17.
2. Start and configure Backburner Manager. See [“Starting and Configuring the Backburner Manager”](#) on page 20.
Only one Backburner Manager should be running on your network at all times. Otherwise, background rendering and I/O tasks may not be processed.
3. (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 28.

Installing Backburner Manager

The procedure for installing Backburner Manager depends on whether you are installing it on a Windows or Linux workstation. To install on a Windows workstation, see [“Installing](#)

[Backburner for Windows](#)” on page 18. To install on a Linux workstation, see [“Installing Backburner for Linux”](#) on page 18.

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.
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 *backburner.exe*.
The Backburner Installation wizard appears.
5. In the Render Client’s directory folder, double-click *backburner.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:

Application	Menu Item
Backburner Manager	manager
Backburner Monitor	monitor
Backburner Server	server

Backburner is installed. Next, start and configure the Manager on the Distributed Queueing System; see [“Starting the Backburner Manager for Windows”](#) on page 20.

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 subdirectories 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)	cd LINUX_2.6/x86_64
Red Hat Enterprise Linux WS 4.0 (32-bit distribution)	cd LINUX_2.6/i386

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. At the following prompt, choose Yes.

Backburner Manager configuration: Do you want to automatically run the Backburner Manager on this machine?

The script installs Backburner Manager.

8. If the following prompt appears, choose No.

Backburner Server configuration: Do you want to automatically run the Backburner Server on this machine?

The script completes and returns you to the terminal.

9. Check that the Backburner Manager service is configured properly. Backburner Manager runs in Linux as a background service (or daemon). The service must be configured to start with the workstation. Type:

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

Output similar to the following should appear. Levels 3, 4, and 5 must be set to “on” for the Backburner Manager daemon to start automatically.

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

If no output appears, or if the output is different from the above, contact Customer Support.

10. 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/
```

11. Run the installation script to set up the Backburner Manager and the Wiretap Server. Type:

```
./backburnerConfig
```

NOTE: When prompted whether you want to run Backburner Server on this machine, enter “n”

12. (Optional) Run the installation script to configure the Backburner Web Monitor. Type:

```
./backburnerConfigWeb
```

Starting and Configuring the Backburner Manager

The procedures for starting and configuring Backburner Manager depend on whether you installed it on a Windows or Linux workstation. If you installed it on a Windows workstation, see [“Starting the Backburner Manager for Windows”](#) on page 20. If you installed in on a Linux workstation, see [“Starting the Backburner Manager for Linux”](#) on page 22.

Starting the Backburner Manager for Windows

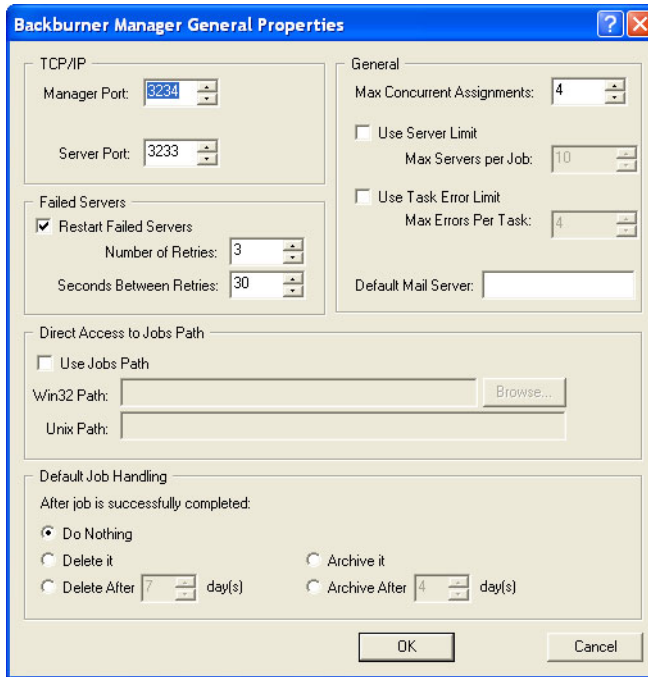
Start a Windows Backburner Manager using the following procedure. Backburner Manager should be running before you add Render Nodes or clients to your Distributed Queueing System.

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 23. 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 23.
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 either fields in the TCP/IP group of the Backburner Manager General Properties dialog, or elements in the *backburner.xml* file. The fields/elements specify the TCP/IP port numbers and subnet mask 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; when you launch the Monitor, select Manager Connect and enter the subnet mask in the dialog that appears.

NOTE: If you are using a firewall in your facility, such as Zone Labs® ZoneAlarm® or the firewall included with Windows XP, 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 either fields in the General group of the Backburner Manager General Properties dialog, or 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"> • Decrease this value when rendering jobs are large and/or your Distributed Queueing System is struggling to keep up with jobs. • Increase this value when rendering jobs are small and/or your Distributed Queueing System has no trouble keeping up with jobs. 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.
Default Mail Server	<DefaultMailServer>	Defines the default mail server used for email notification. This mail server is used only for jobs that do not already have a mail server associated with them.

Failed Node Behavior

Configure Backburner Manager to automatically restart Render Nodes with failed jobs by modifying either fields in the Failed Server group of the Backburner Manager General Properties dialog, or elements in 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 either fields in the Direct Access to Job Path group of the Backburner Manager General Properties dialog, or 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 creatives 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 either fields in the Default Job Handling group of the Backburner Manager General Properties dialog, or 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.

<DefJobHandling> Setting	State	XML Element(s)	Description
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 service so that it starts with the workstation. Windows services automatically start in the background every time the workstation is booted. In this case, Backburner Manager operates in the background 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 Windows XP 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.

3 Setting Up Backburner Manager



Installing Backburner Monitor

Summary

About Backburner Monitor	31
Installing Backburner Web Monitor	32
Installing the Apache HTTP Server and Backburner Web Server for Windows	32
Installing Microsoft IIS and Backburner Web Server for Windows	39
Installing the Apache HTTP Server for Linux	48

About Backburner Monitor

Backburner Monitor is the user interface to the Backburner Distributed Queueing System. It is a Windows application that is installed automatically when you install Backburner Manager on a Windows system. If you install Backburner Manager on a Linux system, this application is not available.

Backburner Web Monitor is the Web-based version of Backburner Monitor. It can run on any Windows or Linux workstation. It runs in a Web browser and is accessible from any host on the network.

Although the interfaces are not identical, both Backburner Monitor and Backburner Web Monitor provide the same functionality. Both also assume the workstation on which they are running has access to the Distributed Queueing System.

Installing Backburner Web Monitor

Backburner Web Monitor relies on Web server software which you must install and configure. After you install and configure this software, users can open a browser and connect to Backburner Web Monitor. The software you must install and configure is:

- 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.
 - (Windows only) The Microsoft Internet Information Server (IIS), which is a proprietary Web server application included with all versions of Windows XP Professional.

If necessary, consult your system administrator to determine the Web server application used by your facility and for assistance with installing and configuring this application. Installing the Web server application requires an understanding of HTML or XML, an understanding of Web server configuration, and a basic understanding of Autodesk Distributed Queuing System architecture.

- Backburner Web Server.

Use the following table to locate the procedures for installing the necessary software for your facility.

Web Server Application	Installation Instructions
Apache HTTP server on Windows	“Installing the Apache HTTP Server and Backburner Web Server for Windows” on page 32
Apache HTTP server on Linux	“Installing the Apache HTTP Server for Linux” on page 48
Microsoft IIS on Windows	“Installing Microsoft IIS and Backburner Web Server for Windows” on page 39

Installing the Apache HTTP Server and Backburner Web Server for Windows

The following procedure shows the general workflow for installing and configuring the Apache HTTP server and Backburner Web Server on a Windows workstation.

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 33.

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 Queuing 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 34.
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 36.
5. Specify which users have Backburner Web Monitor administrator privileges. See [“Assigning Backburner Web Monitor Administrator Privileges”](#) on page 39.

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 over 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 20.
If Backburner Manager is not installed on the workstation, install the Backburner software using the procedures in [“Installing Backburner for Windows”](#) on page 18 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 WindowsXP 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*
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 15.

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 23.

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

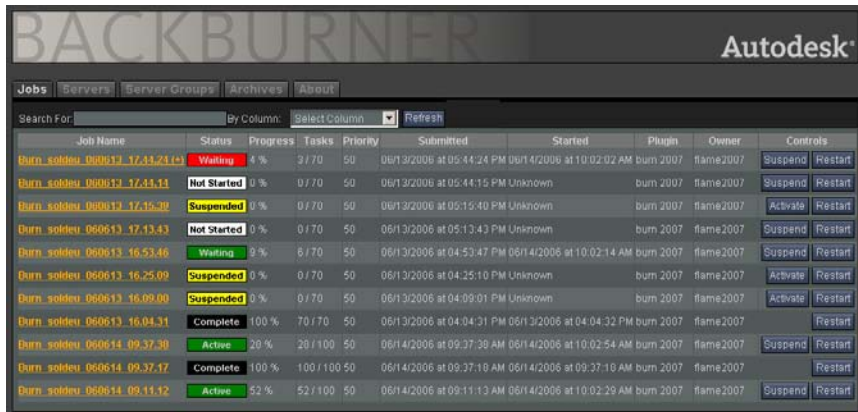
7. Save and close the *monitorCGI.cfg* file.
8. To test the Backburner Web Server, open a Web browser and enter the following in the address line:

http://<machinename>/backburner

All users on the network can use this Web address to access the Backburner Web Monitor. For example, if the machine name is managerhost, enter:

http://managerhost/backburner

If the Backburner Web Server is working, you are prompted to enter a user name and password. When you enter these login credentials, the Web Monitor appears in the browser.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
Burn_soldeu_060613_17.33.21(+)	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_17.33.14	Not Started	0 %	0 / 70	50	06/13/2006 at 05:44:15 PM	Unknown	burn 2007	flame2007	Suspend Restart
Burn_soldeu_060613_17.16-30	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	Restart
Burn_soldeu_060614_09.37.30	Active	20 %	20 / 100	50	06/14/2006 at 09:37:30 AM	06/14/2006 at 10:02:54 AM	burn 2007	flame2007	Suspend Restart
Burn_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

NOTE: If you cannot connect to the Backburner Web Server, try restarting the Backburner service and/or the Apache service in Windows.

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

Backburner Web Monitor allows network users on Windows- and Linux-based workstations to actively manage jobs and Render Nodes on the Distributed Queueing System. Backburner Web Server requires all users to provide a login name and password to access the Backburner Web Monitor. Setting up access to the Backburner Web Monitor requires that you:

- Create Backburner Web Monitor user accounts.
- Configure Backburner Web Server to authenticate users.

The first procedure in this section describes how to create a Backburner Web Monitor user account. The second describes how to delete a Backburner Web Monitor user account. The third describes how to configure Backburner Web Server to authenticate users at login.

To create Backburner Web Monitor user accounts:

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.

To delete a Backburner Web Monitor user account:

1. 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*.

2. Delete a username and password for a user by typing the following:

```
htpasswd.exe -D ..\auth\backburner.auth <username>
```

The username and password for the user is deleted from the *backburner.auth* file.

To configure Backburner Web Server to authenticate users:

1. 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*.

2. Go to the end of this file and then add the following lines:

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

```
AuthType Basic
```

```
AuthName Backburner
```

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

```
<Limit GET POST>
```

```
</Limit>
```

```
require valid-user
```

```
</Location>
```

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

3. Save and close the *httpd.conf* file.
4. To test that the Backburner Web Server performs authentication, open a Web browser and enter the following in the address line:

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

You are prompted to log in to the Backburner Web Monitor.

5. Enter the username and password for a Backburner Web Monitor user account.
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 a username and password.

Assigning Backburner Web Monitor Administrator Privileges

Users without administrator privileges can only monitor the status of the Distributed Queueing System in the Backburner Web Monitor, and manage their own jobs. Users with administrator privileges can actively manage all jobs and Render Nodes on the Distributed Queueing System. For a complete list of tasks that require administrator privileges, refer to the *Autodesk Backburner 2008 User's Guide*.

To assign administrator privileges to a Backburner Web Monitor user account:

1. Navigate to the *C:\Program Files\Autodesk\Backburner\cfg* folder and then open the *wiretap.cfg* file in a text editor such as *Notepad*.
2. Scroll down to the [SECURITY] section. This section contains the keyword *BackburnerAdministrators*, which specifies the user accounts with administrator privileges. For example, the following assigns administrator privileges to the user account *backburner*:
BackburnerAdministrators=backburner
3. Edit the *BackburnerAdministrators* keyword, separating account names with a comma. For example, the following assigns administrator privileges to the user accounts *backburner*, *loic*, and *solenn*:
BackburnerAdministrators=backburner, loic, solenn
4. Save and exit the file.

When users *backburner*, *loic*, and *solenn* log in to the Backburner Web Monitor, the system management tools appear in the user interface, indicating the user account has administrator privileges. For the location of the system management tools in the user interface, refer to the section “Accessing System Management Tools from the Backburner Web Monitor” in the *Autodesk Backburner 2008 User's Guide*.

Installing Microsoft IIS and Backburner Web Server for Windows

The following procedure shows the general workflow used to install and configure the Microsoft Internet Information Server (IIS) server and Backburner Web Server on a Windows workstation.

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.
6. Specify which users have Backburner Web Monitor administrator privileges. See [“Assigning Backburner Web Monitor Administrator Privileges”](#) on page 47.

NOTE: Users without administrator privileges can only monitor the status of the Distributed Queueing System in the Backburner Web Monitor. Users with administrator privileges can actively manage jobs and Render Nodes on the Distributed Queueing System. For a complete list of the tasks that require administrator privileges, refer to the *Autodesk Backburner 2008 User’s Guide*.

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 20.
If Backburner Manager is not installed on the workstation, install the Backburner software using the procedures in [“Installing Backburner for Windows”](#) on page 18 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`
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 *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 15.

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 *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 23.

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

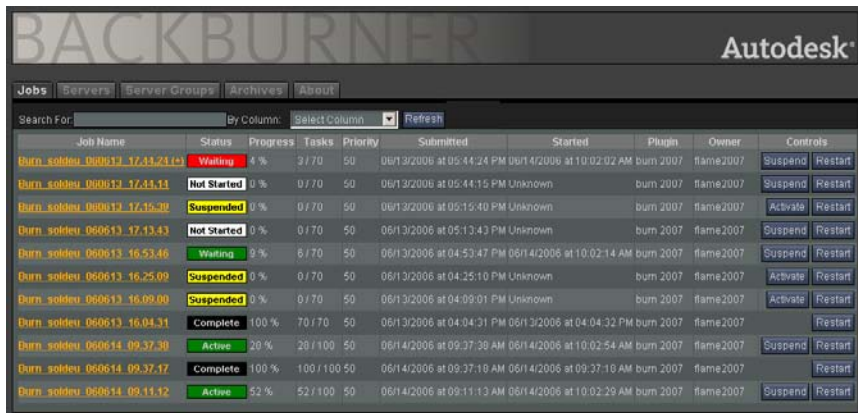
7. Save and close the *monitorCGI.cfg* file.
8. To test the Backburner Web Server, open a Web browser and enter the following in the address line:

http://<machinename>/backburner

All users on the network can use this Web address to access the Backburner Web Monitor. For example, if the machine name is renderhost, enter:

http://renderhost/backburner

If the Backburner Web Server is working, you are prompted to enter a user name and password. When you enter these login credentials, the Web Monitor appears in the browser.



Job Name	Status	Progress	Tasks	Priority	Submitted	Started	Plugin	Owner	Controls
burn_soldeu_060613_17.43.21.1*	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_17.43.13	Not Started	0%	0/70	50	06/13/2006 at 05:44:15 PM	Unknown	burn 2007	flame2007	Suspend Restart
burn_soldeu_060613_17.35.30	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	Restart
burn_soldeu_060614_09.37.30	Active	20%	20/100	50	06/14/2006 at 09:37:30 AM	06/14/2006 at 10:02:54 AM	burn 2007	flame2007	Suspend Restart
burn_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

NOTE: If you cannot connect to the Backburner Web Server, try restarting the Backburner service and/or the IIS service in Windows.

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

Backburner Web Monitor allows network users on Windows- and Linux-based workstations to actively manage jobs and Render Nodes on the Distributed Queueing System. Backburner Web Server requires all users to provide a login name and password to access the Backburner Web Monitor. Setting up access to the Backburner Web Monitor requires that you:

- Create Backburner Web Monitor user accounts.
- Configure Backburner Web Server to authenticate users.

The first procedure in this section describes how to create a Backburner Web Monitor user account. The second describes how to delete a Backburner Web Monitor user account. The third describes how to configure Backburner Web Server to authenticate users at login.

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* file appears in the right panel.
4. Right-click *monitorCGI.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

NOTE: These settings allow anyone who can log in to the Windows workstation to use the Backburner Web Server. If you want to provide access to users who do not have accounts on the Windows workstation, refer to the Microsoft IIS documentation for help setting up Microsoft IIS user accounts.

7. Click OK to exit the dialog, click OK again 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. Make the following modifications to the `<AuthorizedSite>` entry in the *monitorCGI.cfg* file. If the entry is missing from the file, add it.

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

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.

10. 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 log on to the Web Monitor.

11. 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.

Assigning Backburner Web Monitor Administrator Privileges

Users without administrator privileges can only monitor the status of the Distributed Queueing System in the Backburner Web Monitor, and manage their own jobs. Users with administrator privileges can actively manage all jobs and Render Nodes on the Distributed Queueing System. For a complete list of tasks that require administrator privileges, refer to the *Autodesk Backburner 2008 User's Guide*.

To assign administrator privileges to a Backburner Web Monitor user account:

1. Navigate to the *C:\Program Files\Autodesk\Backburner\cfg* folder and then open the *wiretap.cfg* file in a text editor such as *Notepad*.
2. Scroll down to the [SECURITY] section. This section contains the keyword *BackburnerAdministrators*, which specifies the user accounts with administrator privileges. For example, the following assigns administrator privileges to the user account *backburner*:

BackburnerAdministrators=backburner

3. Edit the *BackburnerAdministrators* keyword, separating account names with a comma. For example, the following assigns administrator privileges to the user accounts *backburner*, *loic*, and *solemn*:

BackburnerAdministrators=backburner,loic,solemn

4. Save and exit the file.

When users *backburner*, *loic*, and *solemn* log in to the Backburner Web Monitor, the system management tools appear in the user interface, indicating the user account has administrator privileges. For the location of the system management tools in the user

interface, refer to the section “Accessing System Management Tools from the Backburner Web Monitor” in the *Autodesk Backburner 2008 User’s Guide*.

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.

The following procedure shows the general workflow for installing and configuring the Apache HTTP server on a Linux workstation.

NOTE: It is not necessary to install Backburner Web Server on Linux.

To install and configure the Apache HTTP servers:

1. Install the Apache HTTP server on the Linux workstation where Backburner Manager is installed. See [“Installing the Apache HTTP Server for Linux”](#) on page 48.
2. 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 49.
3. Specify which users have Backburner Web Monitor administrator privileges. See [“Assigning Backburner Web Monitor Administrator Privileges”](#) on page 50.

Installing 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 Access to the Backburner Web Monitor

Setting up access to the Backburner Web Monitor requires that you create Backburner Web Monitor user accounts. Backburner Web Server requires all users to provide a login name and password to access the Backburner Web Monitor.

NOTE: The default user account *backburner* is created during the installation of Backburner Manager. The password associated with this account is *backburner*.

The first procedure in this section describes how to create a Backburner Web Monitor user account. The second describes how to delete a Backburner Web Monitor user account.

To create a Backburner Web Monitor user account:

1. Log in as root and open a terminal.
2. Check if the *backburner.auth* file is in place. Type:

```
ls /etc/httpd/auth
```

If the following output appears, proceed to step 4:

```
backburner.auth
```

3. If the *backburner.auth* is not in place, copy it from the backburner folder. Type:

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

```
cp backburner.auth /etc/http/auth
```

4. Add account. Type:

```
htpasswd /etc/httpd/auth/backburner.auth <username>
```

5. Enter a password when prompted.

The Backburner Web Monitor can now be accessed with the account information you have entered.

To delete a Backburner Web Monitor user account:

1. Log in as root and open a terminal.
2. Delete account. Type:

```
htpasswd -D /etc/httpd/auth/backburner.auth <username>
```

Assigning Backburner Web Monitor Administrator Privileges

Users without administrator privileges can only monitor the status of the Distributed Queueing System in the Backburner Web Monitor, and manage their own jobs. Users with administrator privileges can actively manage all jobs and Render Nodes on the Distributed Queueing System. For a complete list of tasks that require administrator privileges, refer to the *Autodesk Backburner 2008 User's Guide*.

NOTE: The default user account *backburner* created during the installation of Backburner Manager has administrator privileges by default.

To assign administrator privileges to a Backburner Web Monitor user account:

1. Log in as root and open a terminal.
2. Navigate to the folder containing the file that defines administrator privileges:


```
cd /usr/discreet/backburner/cfg
```
3. Open the file *wiretap.cfg* in a text editor and scroll down to the [SECURITY] section. This section contains the BackburnerAdministrators keyword, which specifies the user accounts with administrator privileges. For example, the following assigns administrator privileges to the user account *backburner*:

```
BackburnerAdministrators=backburner
```

4. Edit the BackburnerAdministrators keyword, separating account names with a comma. For example, the following assigns administrator privileges to the user accounts *backburner*, *loic*, and *solenn*:

```
BackburnerAdministrators=backburner,loic,solenn
```

5. Save and exit the file.

When users *backburner*, *loic*, and *solenn* log in to the Backburner Web Monitor, the system management tools appear in the user interface, indicating the user account has administrator privileges. For the location of the system management tools in the user

interface, refer to the section “Accessing System Management Tools from the Backburner Web Monitor” in the *Autodesk Backburner 2008 User’s Guide*.

5

Setting Up Backburner Server

Summary

Workflow for Setting Up Backburner Server on Render Nodes	53
Installing Backburner Server on Windows-based Render Nodes	54
Starting Backburner Server on Windows-based Render Nodes	54
Configuring Backburner Server on Windows-based Render Nodes	56
Setting Up Backburner Server as a Windows Service	57

Workflow for Setting Up Backburner Server on Render Nodes

Once Backburner Manager is running, set up Backburner Server on each Windows- or Linux-based workstation acting as a Render Node on the Distributed Queueing System.

Use the following workflow to set up Backburner Server on Windows-based Render Nodes. To set up Backburner Server on Linux-based Render Nodes for Burn, Lustre, or Incinerator™ and to make sure that Linux is properly installed, refer to the most recent *Autodesk Burn User's Guide* and either the *Autodesk Lustre Software Installation Guide* for Linux workstations or the *Autodesk Incinerator Installation and User's Guide*.

To set up Backburner Server on Windows Render Nodes:

1. Install Backburner Server on each Windows workstation designated as a Render Node. See [“Installing Backburner Server on Windows-based Render Nodes”](#) on page 54.
2. Start and configure Backburner Server. See [“Starting Backburner Server on Windows-based Render Nodes”](#) on page 54 and [“Configuring Backburner Server on Windows-based Render Nodes”](#) on page 56.
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 57.

Installing Backburner Server on Windows-based Render Nodes

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 *backburner.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

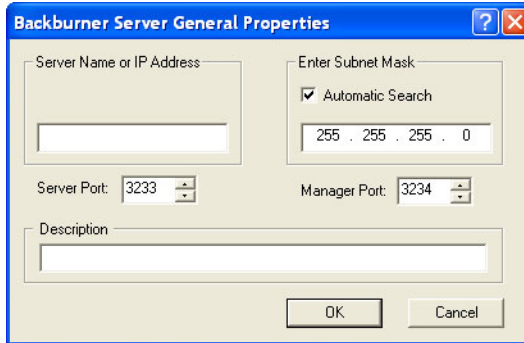
Backburner Server is installed on the Render Node. Next, start and configure the server so it can communicate with the Backburner Manager on the network.

Starting Backburner Server on Windows-based Render Nodes

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 Windows-based Render Nodes”](#) on page 56. 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 on Windows-based Render Nodes

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.

The following describes each of the elements in the Backburner Server General Properties dialog.

Server Name or IP Address — Specifies either the host name or IP address the Backburner Server uses to identify itself to the Backburner Manager. This is useful when a render node has more than one network interface and hence more than one IP address.

Manager Port field — Specifies the port number used by Backburner Manager. Only a trained network administrator should change this setting. Changing this port number from its default value is not recommended. If you do decide to use another port number, you must change the value on each Backburner component.

Server Port field — Specifies the port number used by the Render Node(s). Only a trained network administrator should change this setting. Changing this port number from its default value is not recommended. If you do decide to use another port number, you must change the value on each Backburner component.

NOTE: If you are using a firewall in your facility, such as Zone Labs ZoneAlarm or the firewall included with Windows XP, 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.

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.

Setting Up Backburner Server as a Windows Service

You can set up Backburner Server as a Windows 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 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 58.
2. Install and configure Backburner Server as a Windows 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 59.

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 Windows XP Professional 64-bit Edition, the Backburner directory may be *C:\Program Files <x86>\Autodesk\Backburner*.

3. Enter **serversvc -i**.

The following message appears:

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

NOTE: To remove Backburner Server once it has been installed as a service, type **serversvc -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.

index

Index

A

Apache HTTP server 32, 48

B

Backburner Manager

 configuring 23

 defined 2

 installing 18

 starting 20

Backburner Monitor, defined 2

Backburner Server

 configuring 56

 defined 2

 installing 54

 starting 54

Backburner Web Monitor

 defined 2

 installing 32

C

configuring TCP/IP on rendering network 13

conventions, notation 6

D

documentation 7

H

hardware requirements 4

I

installation workflow 9

installing

Backburner Manager 18

Backburner Server 54

Backburner Web Monitor 32

TCP/IP protocol 13

M

Microsoft IIS server 32, 39

N

network requirements 6

notation conventions 6

R

render client 2

render node 2

rendering network

 component requirements 3

 components 2

 creating IP addresses and workstation names

 11

 installation workflow 9

S

software requirements 5

starting

 Backburner Manager 20

 Backburner Server 54

 Backburner Windows services 28, 57

T

TCP/IP protocol

 assigning ports for Backburner 23, 56

 configuring on rendering network 13

creating workstation names and IP addresses

11

TCP/IP protocol, setting up on Windows 11

W

Windows

Backburner service, installing 28, 57

TCP/IP, installing 13

Wiretap 6