

# **Installation and Licensing Guide**

Maya 6.5



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Maya®, Version 6.5

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Graph Layout Toolkit

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# 1

# Introduction

## Overview of Installation and Licensing

Welcome to Maya 6.5!

This guide describes the process of installation and licensing Maya 6.5 for all supported platforms, along with some information about troubleshooting your installation and licensing problems. Please follow your platform-specific installation instructions:

- "Installing Maya for Windows" on page 13
- "Installing Maya for Mac OS X" on page 31
- "Installing Maya for IRIX" on page 43
- "Installing Maya for Linux" on page 63

You can also install a special version of mental ray (satellite) for network rendering on computers that are accessible via a local network to the machine running Maya:

- "Installing mental ray (satellite)" on page 79

When you have finished installing Maya, proceed to the licensing chapter.

- "Licensing Maya" on page 85

If you have problems starting or licensing Maya, please review our troubleshooting guide.

- "Troubleshooting" on page 127

The Maya 6.5 installation and licensing process is available in Japanese for Windows and Mac OS X. The installation and licensing process will take place automatically in Japanese on a Japanese-language Windows or Mac OS X system.

## **1 | Introduction**

### **> Overview of Installation and Licensing**

This guide also contains the Terms and Conditions for your use of Maya. Please review them.

- "Software terms and conditions" on page 159

# 2

# Installing Maya for Windows

## Overview of installing Maya for Windows

This chapter describes how to install Maya for Windows, as well as the hardware and system requirements for running Maya on a Windows operating system.

### Before you begin

- Your computer system must meet specific requirements in order for you to successfully install and run Maya. Alias does not support hardware and software configurations that do not meet these requirements. Please take a few moments to review the following hardware and software requirements section.

**Note** The most up-to-date information on specific hardware system qualifications for your computer can be found on the Alias Web site:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

- You must have administrator privileges to install Maya. You do not need to be an administrator to launch Maya once it is installed.
- Make sure you meet the disk space and other requirements by reviewing "System requirements" on page 14.
- You can keep or uninstall previous versions of Maya. However, you *must* uninstall if you are installing the same Maya version as the one installed (for example, a pre-release copy). See "Uninstalling Maya" on page 27.

## 2 | Installing Maya for Windows

### > System requirements

- Exit all other programs before you launch the installer. You should also temporarily disable any virus detection software that is installed on your computer during the installation.
- You must run the installer on each computer where you want to run the software. If you're going to use a computer to serve licenses, you must also run the installer on that computer.

**Note** Having multiple versions of Maya installed on a machine and adding each version's path to the users environment PATH variable may cause version conflicts.

Only add the path currently needed for the version of Maya that is being run. Under most circumstances Maya performs correctly if the path is not set.

## System requirements

Alias certifies certain computer system configurations as meeting the requirements to work with the Maya software. To determine whether your particular system meets these requirements, please check the qualification charts for the latest information at [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts).

The system requirements are categorized as follows:

- Hardware and memory requirements—page 15
- Operating system requirements—page 15
- Graphics requirements—page 16
- Disk space requirements—page 18
- Other software—page 18
- Optional hardware—page 19

## 2 | Installing Maya for Windows

### > System requirements

### Examining system capabilities

You can examine your system capabilities using system diagnostic tools. Select Start > Programs > Accessories > System Tools > System Information.

### Hardware and memory requirements

The minimum hardware requirements for running Maya on a Windows computer are as follows:

- Pentium II processor or higher with at least 200 MHz for Windows 2000 Professional and at least 300 MHz for Windows XP Professional, Pentium 4 or AMD Athlon strongly recommended
- 256MB RAM, 512MB or more recommended
- CD-ROM drive
- A qualified hardware-accelerated OpenGL graphics card (overlay plane capability is recommended) Please refer to: [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)
- an Ethernet card (You can also use a hardware lock, which can be purchased through Alias.)
- Keyboard
- Three-button mouse with mouse driver software

**Note** Alias certifies combinations of processors, operating system versions, graphics cards and drivers for operation with Maya. For details, see [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts) for the latest information.

### Operating system requirements

- Windows 2000 Professional, or Windows XP Professional with appropriate Service Pack.

## 2 | Installing Maya for Windows

### > System requirements

- TCP/IP network protocol software (for running Maya batch rendering and other features).
- Graphics card driver. Driver software is available from the manufacturer's web site.
- Appropriate driver software for optional hardware.

### Graphics requirements

- A graphics card qualified to run Maya. Please refer to:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

Options in the Display Properties settings of Windows affect the display performance of Maya. To learn the correct option settings for graphics cards qualified for use with Maya, please check the qualification charts for the latest information. Also see the Readme file on your installation CD for any last minute updates.

Some major graphics card manufacturers have created a single option that you can turn on to optimize Maya display performance. If this option exists, it is available through the Windows Display Properties settings. Contact your graphics card manufacturer to see if their latest graphics software provides this option.

If you're using a card that's not qualified, do the following steps. (Some steps offer only general guidelines because each manufacturer has a unique set of display options.)

**Note** Many graphics card manufacturers document the setup of their graphics card for use with Maya. Refer to the instructions that came with your particular graphics card.



## 2 | Installing Maya for Windows

### > System requirements

#### **To set your graphics card options**

- 1** Right-click your desktop, select the Settings tab and click the Advanced button.
- 2** From the Color Palette menu, select True Color. This specifies 24 or 32 bits of color for best color quality in displayed images.
- 3** Drag the Desktop Area slider to the best display resolution supported by your hardware. The higher you set the display resolution, the more graphics card main memory you need. This is called VRAM on some computers.

Maya generally works best at 1280 by 1024 resolution. If you've selected True Color and your card has limited VRAM, it will work better at a lower resolution. (At the higher resolution, the card may run out of memory, forcing the OpenGL driver to operate in software mode rather than use hardware acceleration.)

After you install your graphics card driver software, it's likely that a tab named for the card was created in the Display Properties window. The tab has performance options that vary with each card. On Windows 2000 and Windows XP, click the Advanced button and select the appropriate tab.

#### **Graphics performance options**

The following are general suggestions for setting performance options:

- 1** In the Display Properties window, click the tab named for your graphics card (if available).
- 2** Turn on the overlay plane feature (if available).

Maya takes advantage of the hardware overlay plane feature available with most mid- and high-quality OpenGL graphics cards. In brief, overlay planes enable programs to quickly display certain elements of a user interface that exist on top of

## 2 | Installing Maya for Windows

### > System requirements

other elements, without having to redraw the entire user interface. Overlay planes are called hardware overlays on some products.

Maya works with four-bit or greater overlay planes, single- or double-buffered. For some graphics cards, overlay planes are available only if you turn off alpha planes operation. Because stencil planes are not required by Maya, you can turn them off.

- 3 Close the Display Properties window.

### Disk space requirements

The following *approximate* disk space requirements are based on the NTFS disk format. If you have a FAT disk format, expect slightly larger file sizes. These are default, *minimal* sizes; you'll need more space to install optional selections.

- NTFS: 375MB for Maya Unlimited (including 100MB for Maya documentation)
- FAT: 400MB for Maya Unlimited (including 115MB for Maya documentation)
- Maya Complete is 20MB smaller
- 30MB of temporary space on the C: drive to start the installer
- 110MB for the Shader Library

### Other software

- Adobe Acrobat Reader version 5.x or later is required to view the PDF documentation provided on the Documentation, Lessons, and Extras CD. If Adobe Acrobat Reader is not currently installed on your computer, it can be downloaded from the Adobe Web site ([www.adobe.com](http://www.adobe.com)).
- Netscape 6+ and Internet Explorer 5+ web browsers have been qualified to view the Maya Help.

### Optional Hardware

- Wacom tablet—The Wacom tablet works the same as with other programs. Using the pen and tablet overrides mouse operation. When the pen is out of contact with the tablet, the mouse becomes operational. Make sure you install the latest driver software ([www.wacom.com](http://www.wacom.com)).
- Motion capture devices—Maya supports real-time motion capture. Contact your motion capture equipment vendor for details.

### Installing Maya

For information on the other installation options, see the following:

- "Installing the Maya Shader Library" on page 26
- "Uninstalling Maya" on page 27
- "Maya Plug-ins" on page 26
- "Bonus Tools" on page 27

### To install Maya for Windows

- 1 Insert the Maya Software CD into your CD-ROM drive.

The Maya installer window appears.

If the Maya installer does not appear, choose Start >Run. Click Browse and choose the `Autorun.exe` file on the Maya CD (this is generally `D:\Autorun.exe`). Click OK in the Run dialog box to begin the installation.

## 2 | Installing Maya for Windows

### > Installing Maya



- 2** Click Install Maya to begin the software installation and follow the online instructions.

The Maya Installation Wizard appears. The installation wizard directs you through the process of installation. Click Next to proceed through the installation, Back to return to the previous window, or Cancel to stop the installation.

- 3** Click Next.

The Maya Software License Agreement and Documentation Server License Agreements appear. These agreements require your acceptance in order for the Maya software installation to continue. If you do not agree to the terms and conditions of the agreements, the installation process does not continue.

- 4** Click "I accept the terms...." and click Next to continue with the Maya software installation.

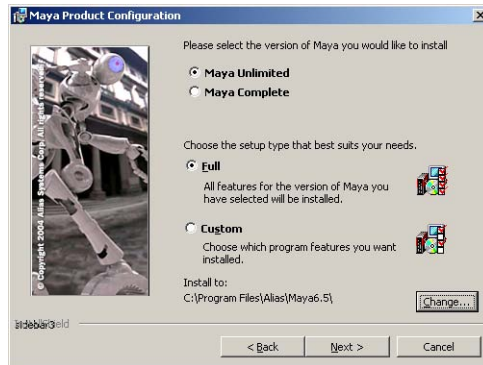
The Customer Information window appears.

- 5** Enter your name and the name of your organization in the text box, and then click Next.

The Product Configuration window appears.

## 2 | Installing Maya for Windows

### > Installing Maya



- 6** On the Maya Product Configuration screen, you can set three options:

- Maya Complete or Unlimited

Select the Maya product you purchased from the choices presented (Complete or Unlimited).

- Full or Custom Install

The Full setup installation is the recommended installation for most users. It installs the Maya application, all related applications and utilities, and sets the file type associations on your computer for Maya file types automatically.

If you want to install specific components of the Maya application, for example, the Maya developer features, modify the default file associations, or want to turn off items in the installation to save disk space, choose Custom setup from the menu.

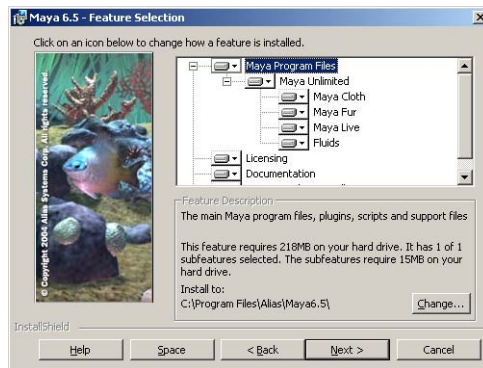
- Where to install Maya.

If you want to change the default location for the software installation, click Change. The Windows browser appears. Browse to the install location or enter the path.

## 2 | Installing Maya for Windows

### > Installing Maya

- Choose Full to select a Full setup Maya installation (recommended), click Next, and proceed to step 9.
  - Choose Custom. click Next, and proceed to the next step.
- 7** (Custom Installation only.) The Feature Selection window appears.



You can select specific components of the Maya application for installation in the Feature Selection window. You can turn off some items in the installation to save disk space.

By default, all options for Maya Complete or Maya Unlimited are turned on. If you want to turn off an item so it does not install, click the down arrow icon in the list and select the X from the submenu (this feature will not be available).

At a minimum, you must install the following to run Maya:

- Maya Program Files—contains the core Maya software. This option can't be turned off.
- Licensing—includes files essential to the subsequent licensing procedure.

## 2 | Installing Maya for Windows

### > Installing Maya

**Note** If you are installing on a computer that serves Maya licenses to other computers but won't be used to run Maya itself, you can save disk space by turning off everything except Licensing.

The remaining items are optional for a custom installation. If you're trying to conserve disk space, you can turn them off.

- Maya Unlimited—Optional modules for Maya Unlimited if you purchased it (Maya Cloth, Maya Fur, Maya Live, Fluids).
- Maya Documentation— Software to run the Maya online documentation and files for Maya's online documentation.
- Maya Developer Toolkit—Software that lets you work with the Maya API to write and edit plug-ins.

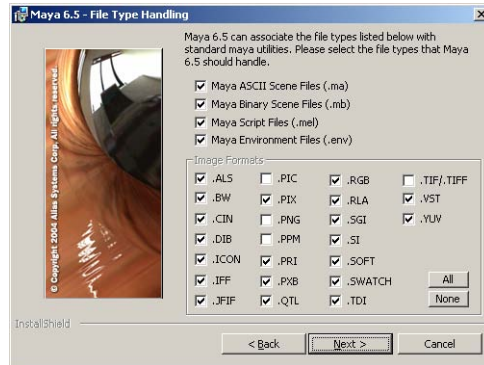
From this window, you can also click Help to get Custom Setup Tips or click Space to check available space on connected hard drives.

When you are ready to proceed, click Next.

- 8** (Custom Installation only.) The File Type Handling window appears.

## 2 | Installing Maya for Windows

### > Installing Maya



You can set how various file format types are handled on your computer using the options in this window. For example, if you double-click a Maya binary scene file (.mb), the computer automatically launches Maya based on the file type association that had been set. Depending on the other software you have configured on your computer, you can either leave these options enabled as is, or change them to suit your particular setup.

When you are ready to proceed, click Next.

- 9 (Full or Custom Installation.) The Add Location To Path window appears. Three options in this window are turned on by default.
  - Add a Shortcut to the Quick Launch Toolbar—Adds a Maya shortcut icon to your Windows Quick Launch Toolbar.
  - Add to System Path—Adds the Maya executable directory to your Windows system path. This lets you start Maya or any of its related programs from any directory when using the command prompt; for example, at the command prompt, you could simply enter `maya` to launch Maya or `fccheck` to launch the FCCheck image-



## 2 | Installing Maya for Windows

### > Installing Maya

viewing utility. Setting the system path may also be useful for batch files and other scripts involving Maya or other related programs.

- Add a Shortcut to the Desktop—Adds the Maya shortcut icon to your desktop during the installation.

Make your selections and click Next.

- 10** The Ready to Install the program window appears. If you want to review or change any of your installation settings, click Back; otherwise, click Install.

The Maya software and accompanying utilities are installed on your computer. The progress of the installation is indicated by the progress bar at the bottom of the installer's window.

- 11** Continue with the license setup program after the software installation:

- If you're an existing Maya customer, your license may already be installed for you.
- If you're a new Maya customer, start the Product Configuration Wizard after installation by choosing Maya from the Windows Start menu.
- If you're setting up a license server, see Chapter 7, "Licensing Maya" for details of how to set up both servers and clients.

For more information, see Chapter 7, "Licensing Maya".

**Note** If you are licensing your computer using a parallel port or USB hardware lock, you may need to reboot your computer in order for the licensing process to detect your hardware lock. For more information, see "Licensing: Hardware lock devices" on page 28 and Chapter 7, "Licensing Maya".

## 2 | Installing Maya for Windows

### > Installing the Maya Shader Library

## Installing the Maya Shader Library

You can either install the Maya Shader Library at the time you install the Maya software or install it later on. The Shader Library requires approximately 110MB of disk space.

### To install the Maya Shader Library for Windows

- 1** Insert the Maya software CD into your CD-ROM drive and click Install Shader Library when the Maya Installation window appears.  
The Wizard Welcome window appears.
- 2** At the Welcome dialog box, click Next.  
The Maya Shader Library for Maya Read Me screen appears.
- 3** Read the contents of this dialog box and click Next.  
The Wizard window options for installing the Shader Library appear.
- 4** If you want to change the destination folder, click the Change button. Click Next when ready.  
By default, the Maya 6.5 Shader Library is installed in `drive:\Program Files\Alias\MayaShaderLibrary`.
- 5** At the Ready to Install dialog box, click Install.  
The Shader Library files are copied to your system. When the Shader Library installation is finished the Installation Completed dialog box appears.
- 6** Click Finish when the installation is complete.

## Maya Plug-ins

The Maya Plug-ins button provides a link to a variety of third-party Maya Plug-in vendor Web sites. Plug-ins are software products that extend the functionality of your Maya software. For

## 2 | Installing Maya for Windows

### > Bonus Tools

more information on Maya Plug-ins and the Conductors program, click Maya Plug-Ins on the Maya Installer Window or see [www.alias.com/conductors](http://www.alias.com/conductors).

## Bonus Tools

Bonus Tools is a collection of unsupported Maya scripts and plug-ins provided to Maya users. The Bonus Tools button in the installer links to the Maya Bonus Tools on the Alias Web site. You can also access the Bonus Tools Web site from the Maya Help menu.

Follow the directions provided on the Web site for downloading and installing Bonus Tools on your computer.

After installing Bonus Tools, there is a drop-down menu for easy access to the tools that cover all aspects of everyday use: general UI, modeling, animation, texturing and rendering.

## Uninstalling Maya

To ensure a clean installation, uninstall any existing copy of Maya 6.5 on your computer before reinstalling Maya 6.5.

### **To uninstall Maya for Windows using the Maya software CD**

- 1** Insert the Maya software CD into your CD-ROM drive.
- 2** Click Uninstall Maya when the Maya Installation window appears.
- 3** Follow the instructions in the dialog box that appears.

### **To uninstall Maya for Windows using the Uninstall utility**

- 1** From the Windows Start menu, select Programs > Alias > Maya 6.5 > Uninstall Maya.

## 2 | Installing Maya for Windows

> Installing Maya 6.5 alongside Maya 6 and previous versions

- 2 Follow the instructions in the dialog box that appears.

### **To uninstall Maya for Windows using the Windows Add/Remove programs utility**

- 1 From the Windows Start menu, select Settings > Control Panels > Add/Remove Programs.
- 2 In the list programs that appear, click the Maya 6.5 components.
- 3 Follow the instructions in the dialog box.

## Installing Maya 6.5 alongside Maya 6 and previous versions

Maya 6.5 and previous versions of Maya can co-exist on the same machine. However, be aware of which version of Maya you are running. If you run the Render command in a terminal window, you should fully specify the directory path to be sure you are getting the version of the Maya renderer you expect.

## Licensing: Hardware lock devices

The following instructions are necessary only for upgrading customers who choose to continue using hardware locks.

You can license your Maya software with an ethernet address (network card) or with a hardware lock (or *dongle*) on your machine. For more information on licensing, see “Licensing Maya” in Chapter 7.

---

**Note** Maya 6.5 supports USB hardware locks for Windows.

---

## 2 | Installing Maya for Windows

### > Licensing: Hardware lock devices

A hardware lock (or dongle) is an encoded connector that attaches to the parallel port or USB port of your computer. A hardware lock allows you to run Maya on different computers (one computer at a time) without having to obtain a unique license for each computer. The software is licensed to the hardware lock device rather than a unique ethernet address.

If you're installing a *node-locked* license, plug the hardware lock into the parallel port or USB port of the computer that receives the license. For more information about node-locked licenses, see "Licensing Maya" in Chapter 7.

If you're installing a *floating* license, plug the hardware lock into the parallel port or USB port of the computer that serves licenses to client computers. (For more information about floating-locked licenses, see "Licensing Maya" in Chapter 7.) You do not plug a lock into client computers. When you choose a computer to operate as the license server, make sure it is stable and accessible to the clients in the network.

If you have a licensed version of Maya with a hardware lock, you can continue to use Maya with the hardware lock. If you plan to use the ethernet address instead of the hardware lock, you must contact Alias Sales Support to relocate it. You will also need to return your hardware lock to Alias.

Plug the lock into the computer before running the installer. Be careful not to force the lock into the parallel port or USB port incorrectly. Secure a parallel connector with the thumb screws so it won't fall off and interrupt Maya operation.

The drivers to detect the hardware lock are installed when you install Maya. If you go through the licensing process and it fails to detect the hardware lock, please reboot.

To avoid damaging a lock, exit Maya or stop Maya license server operation before removing the lock. For details, see "(Windows) To stop and start the license server" on page 113.

## **2 | Installing Maya for Windows**

### **> Licensing: Hardware lock devices**

If you install another Windows program that uses a parallel port hardware lock, plug the other lock into the back end of the installed Maya lock. The Maya lock must directly connect to the parallel connector.

You may plug your printer or other parallel port devices into the parallel port hardware lock. In some cases, the lock might interfere with the flow of data between your computer and your printer. If you have trouble printing, temporarily remove the lock and plug the printer directly into the computer's parallel connector.

If you are using a USB hardware lock, you can use it with a USB hub. However, there is no pass-through USB connection.

# 3

# Installing Maya for Mac OS X

## Overview of installing Maya for Mac OS X

This chapter describes how to install Maya for Mac OS X as well as the hardware and system requirements for installing and running Maya on a Mac OS X computer.

### Before you begin

- Your computer system must meet specific requirements in order for you to successfully install and run Maya. Alias does not support hardware and software configurations that do not meet these requirements. Please take a few moments to review the following hardware and software requirements section.

**Note** The most up-to-date information on specific hardware system qualifications for your computer can be found on the Alias Web site:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

- You must have administrator privileges to install Maya. This means that you need an administrator password on your computer to install Maya. You do not need to have administrator privileges to launch Maya once it is installed.
- You can keep or uninstall previous versions of Maya. However, you *must* uninstall if you are installing the same Maya version as the one installed (for example, a pre-release copy). See "Uninstalling Maya" on page 40.

### 3 | Installing Maya for Mac OS X

#### > System requirements

- Exit all other programs before you launch the installer. You should also temporarily disable any virus detection software that is installed on your computer during the installation.
- You must run the installer on each computer where you want to run the software. If you're going to use a computer to serve licenses, you must also run the installer on that computer.

## System requirements

Alias certifies certain computer system configurations as meeting the requirements to work with the Maya software. To determine whether your particular system meets these requirements. Please refer to

[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

The system requirements are categorized as follows:

- Hardware and memory requirements—page 33
- Operating system requirements—page 33
- Graphics requirements—page 34
- Disk space requirements—page 34
- Other software—page 34
- Optional hardware—page 35

## Examining system capabilities

You can examine your system capabilities.

### **To examine the system capabilities of your Mac OS X computer**

Do one of the following:

- From the Apple menu, select About this Mac and click the More Info button.



## 3 | Installing Maya for Mac OS X

### > System requirements

- Double-click the Apple System Profiler application (Applications > Utilities).

Apple System Profiler provides information about your computer, operating system, disks, and applications.

### Hardware and memory requirements

- Macintosh computer with at least a 450 MHz G4 processor
- 512MB memory (minimum)
- CD-ROM drive
- keyboard
- three-button mouse (recommended).

Maya can work with mouse input devices that have fewer buttons. See the *Environment Variables* guide in the Maya Help for details of how to set Maya to work with different mouse input devices.

If your mouse came with a preference program for customizing mouse buttons, set it to deactivate when Maya is active. Refer to the manual or online help that came with your mouse to find out how to do this.

### Operating system requirements

- Mac OS X version 10.3 or later.
- Mac OS X Server is not supported

Not all versions of Mac OS X can be used with Maya. Alias recommends that you refer to the qualification charts for your computer before upgrading to a newer version of operating system.

[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

### 3 | Installing Maya for Mac OS X

#### > System requirements

#### Graphics requirements

- A graphics card qualified to run Maya. Please refer to:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)  
Maya works best with a mid- to high-range, hardware-accelerated OpenGL graphics card
- Set your display to show millions of colors
- If possible, set your resolution higher than 1024 by 768. Lower resolutions can make it difficult to see some attributes inside editors
- Check [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts) to see which operating system and graphics card combinations have been qualified for use with Maya

**Note** Many graphics card manufacturers document the setup of their graphics card for use with Maya. Refer to the instructions that came with your particular graphics card.

#### Disk space requirements

- A minimum of 440MB of available disk space

#### Other software

- Apple QuickTime and Preview (which reads PDF files) are provided with the Mac OS X operating system. You can also download Adobe Acrobat Reader at [www.adobe.com](http://www.adobe.com).  
These applications are required for viewing the multimedia movies provided with the Maya application and viewing the PDF documentation provided on the Documentation, Lessons, and Extras CD.

## 3 | Installing Maya for Mac OS X

### > Installing Maya

- Safari, Internet Explorer 5+ and Netscape 6+ web browsers have been qualified to view the Maya Help.

## Optional Hardware

- Wacom tablet—The Wacom tablet works the same as with other programs. Using the pen and tablet overrides mouse operation. When the pen is out of contact with the tablet, the mouse becomes operational.

## Installing Maya

### To install Maya for Mac OS X

- 1** Insert the Maya software CD into the CD-ROM drive of your computer.  
The contents of the CD-ROM appear in a new Finder window.
- 2** Double-click the InstallMaya icon to begin the installation process.

**Note** You can also install the shader library. The shader library contains pre-defined materials you can apply to your models. See "Installing the Maya Shader Library" on page 39.

The installer window appears. You can cancel the installation at any time by closing the installer window.

- 3** Click Continue to proceed with the Maya software installation.

### 3 | Installing Maya for Mac OS X

#### > Installing Maya

**Note** If you are not logged in on an account with administrator privileges, the installer will ask you to type in the name and password of an administrator account on the local machine.

The Alias Software License Agreement appears (includes Maya Documentation Server License Agreement). You can print or save this License Agreement for future reference. This agreement requires your acceptance in order for the Maya software installation to continue. If you do not agree to the terms and conditions of the agreement, the installation process does not continue.

- 4** Click Continue and then Accept to continue with the Maya software installation.

- 5** In the Select a Destination screen, select the volume where you want Maya to be installed.

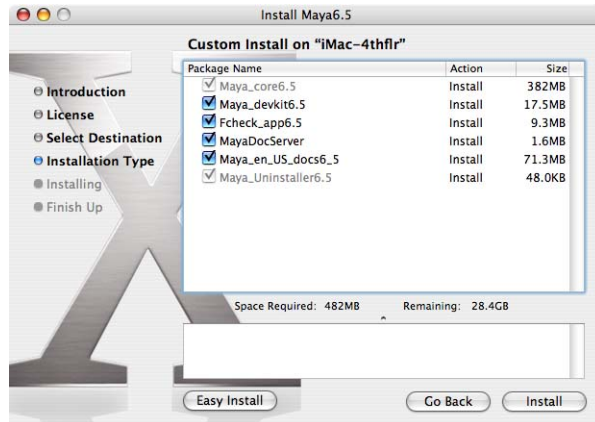
By default, Maya will be installed into the `Applications/Alias` folder of this volume, but you can specify another folder by clicking Choose.

Click Continue. The Easy Install screen appears.

- 6** If you want to perform a basic (non-customized) installation, click Install and proceed to step 8. If you want to choose which components of Maya to install, click Customize and proceed to the next step.
- 7** (Optional) If you click Customize, the following dialog box appears:

### 3 | Installing Maya for Mac OS X

#### > Installing Maya



Select which components you want to install. Your choices include:

The options for custom installation are:

- Maya\_core —You must install this component to use Maya on your computer.
- Maya Developer's Kit—Files and documentation for programmers who want to create Maya plug-ins (not included in the Easy install).
- Fcheck—A player for Maya movie and image file formats.
- Maya Documentation Server—Software to run the Maya online documentation.
- Maya English Documentation — The Maya online documentation (in English), which contains reference documentation, tutorial files, and multimedia.

#### 8 Click Install.

The Maya software and accompanying utilities are installed on your computer. The progress of the installation is indicated by the progress bar at the bottom of the installer's window.

### 3 | Installing Maya for Mac OS X

#### > Installing Maya

When the installer finishes a License Maya window appears. The software attempts to license you automatically. If this step doesn't succeed, a screen with further licensing options is shown.

From this window, you select which method to license your Maya software.

All customers must have a software license. A license is a coded record of your software purchase. Which licensing method you choose is determined by a number of factors. For more information, see Chapter 7, "Licensing Maya".

- 9** Select the licensing method that you require and then click Next.

Follow the window prompts provided for that particular method.

- 10** When the installer finishes it displays a message indicating that the software install is complete.

- 11** Click Done to complete the installation.

- 12** Continue with the license setup program after the software installation:

- If you're an existing Maya customer, your license may already be installed for you.
- If you're a new Maya customer, start the Product Configuration Wizard after installation by launching Maya.
- If you're setting up a license server, see Chapter 7, "Licensing Maya" for details of how to set up both servers and clients.

For more information, see Chapter 7, "Licensing Maya".

## Installing the Maya Shader Library

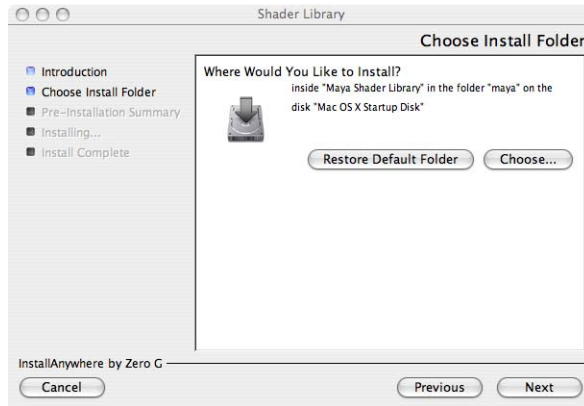
You can either install the Maya Shader Library during the Maya software installation or install it later on. The Shader Library requires approximately 110MB of disk space.

### **To install the Maya Shader Library for Mac OS X**

- 1** Insert the Maya software CD into your CD-ROM drive and double-click the ShaderLibraryInstaller when the Finder window containing the Maya 6.5 installation contents appears.
- 2** Double-click the installer icon.  
The Maya installer launches and the Authenticate screen appears prompting you to authenticate as the system administrator.
- 3** Type the system administrator password for your computer in the Password or phrase box.  
The language selection screen appears.
- 4** Select your preferred language from the available options in the drop-down list and click OK.
- 5** The installer window appears.

### 3 | Installing Maya for Mac OS X

#### > Uninstalling Maya



Click Choose to select the location to install the Shader Library. By default, the shader library is installed in the following location:

/Users/Shared/Alias/maya/Maya Shader Library

- 6 Once you have made your option selections click Install.  
The Shader Library is installed in the location you specified.
- 7 Click Done to exit the installer.

## Uninstalling Maya

### To uninstall Maya for Mac OS X

- 1 Navigate to the Maya directory (by default, this is Applications/Alias/maya6.5/).
- 2 Double-click the `uninstaller.command` icon and follow the instructions in the Terminal window that appears.



### **3 | Installing Maya for Mac OS X**

#### **> Software that can be installed separately**

## **Software that can be installed separately**

The following additional software is provided on the Maya 6.5 Mac OS X CD to be installed separately, if necessary.

- QuickTime Components — Allows users who do not have Maya to work with IFF files in applications that are QuickTime aware.
- Alias License Server — Installs the components necessary for a computer running Mac OS X to function as a license server. For more information, see Chapter 7, “Licensing Maya”.

## **Installing Maya 6.5 alongside previous versions of Maya**

Maya 6.5 and previous versions of Maya can co-exist on the same machine. However, be aware of which version of Maya you are running. If you run the `Render` command in a Terminal window, you must fully specify the directory path to be sure you are getting the version of the Maya renderer you expect.

### **3 | Installing Maya for Mac OS X**

> Installing Maya 6.5 alongside previous versions of Maya

# 4 Installing Maya for IRIX

## Overview of installing Maya for IRIX

This chapter describes how to install Maya for IRIX as well as the hardware and system requirements for installing and running Maya on an IRIX operating system.

## Before you begin

- Your computer system must meet specific requirements in order for you to successfully install and run Maya. Alias does not support hardware and software configurations that do not meet these requirements. Please take a few moments to review the following hardware and software requirements section.

**Note** The most up-to-date information on specific hardware system qualifications for your computer can be found on the Alias Web site:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

- You need access to the root or superuser account and password on your computer to install Maya. You do not need to be root to launch Maya once it is installed. You should not run Maya while logged in as root.
- Make sure you meet the disk space and other requirements by reviewing "System Requirements" on page 44
- You can keep or uninstall previous versions of Maya. However, you *must* uninstall if you are installing the same Maya version as the one installed (for example, a pre-release copy). See "Uninstalling Maya" on page 62.

## 4 | Installing Maya for IRIX

### > System Requirements

The default installation performs the following tasks:

- Creates and installs software in the following directories:  
`/usr/aw`  
`/usr/aw/maya6.5`  
This is the base location for all Alias software if it does not already exist. Any previous versions of Maya are left untouched.
- Creates or updates the symbolic links for the following:  
`/usr/aw/maya` to the actual installation location and some files in `/usr/sbin` to the new Maya software.
- Updates Alias common software (`/usr/aw/COM`) to work with Maya. This software contains the shared libraries and license-related programs used by all Alias software.
- Creates an Alias software page in the Icon catalog if it does not already exist.
- Adds Alias file types to the file database (`/etc/magic`).

## System Requirements

Alias certifies certain computer system configurations as meeting the requirements to work with the Maya software. To determine whether your particular system meets these requirements, please check the qualification charts for the latest information at [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts).

The system requirements are categorized as follows:

- Hardware and memory requirements—page 45
- Operating system requirements—page 45
- Disk space requirements—page 45

### Examining system requirements

- You can obtain information about your computer's processor and memory by typing the following command in a shell window:

```
hinv
```

- You can obtain information about the specific version of IRIX operating system on your computer by typing the following command in a shell window:

```
uname -R
```

### Hardware and memory requirements

To install and run Maya, your workstation must have:

- A system qualified to run Maya. Refer to the qualification charts at:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)
- 512MB or more available memory
- Keyboard
- Three-button mouse with mouse driver software
- Access to a CD-ROM drive

### Operating system requirements

- Maya 6.5 requires IRIX 6.5.15 or higher (depending on the system configuration). For the qualified version of IRIX 6.5. Refer to the qualification charts at:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

### Disk space requirements

The following are approximate sizes for the various Maya installation. These are default, *minimal sizes*; you'll need more space to install optional selections.

## 4 | Installing Maya for IRIX

### > Installing Maya

- Maya Complete: 350MB (including 74MB for Maya online documentation)
- Maya Unlimited: additional 22MB (372MB total)
- Maya Shader Library: additional 110MB

**Note** To find out the disk space for custom installations, view the information listed by Software Manager when you click Customize Installation.

## Installing Maya

This section describes how to install Maya, as well as the Shader Library. You can choose from the following methods of installation:

- "Installing Maya using Software Manager" on page 46
- "Installing Maya using the inst utility" on page 51

Other optional methods for the installation of Maya, such as batch installation, are covered in "Advanced installation procedures" on page 54.

**Note** It is possible to install Maya remotely across a network using a remote shell window. For this reason, the instructions refer to the target machine as the machine in which Maya is currently being installed.

## Installing Maya using Software Manager

### To install Maya using Software Manager

- 1 Log in to the target machine as root.

## 4 | Installing Maya for IRIX

### > Installing Maya

If you don't have root user privileges, see your system administrator.

**Note** Remember to log out of root when you want to run Maya. Alias does not recommend running Maya as a root user.

- 2 Insert the Maya software CD into the target machine or a remote machine with a CD-ROM drive.
- 3 Check for the following CD-ROM icon on your desktop, indicating that your CD-ROM is mounted.



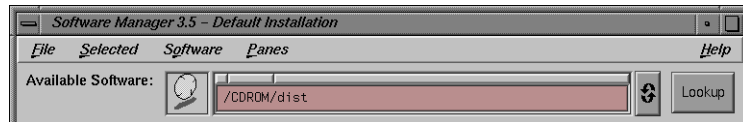
If you do not have the CD-ROM icon, check that the CD-ROM drive is mounted by typing `ls /CDROM`. This command lists the CD-ROM contents.

If the CD-ROM is *not* mounted, see "Mounting a CD-ROM drive" on page 57.

- 4 On the target machine, start Software Manager by doing one of the following:
  - Type the following in a shell: `swmgr <enter>`.
  - Double-click the CD-ROM icon on your desktop. In this case, skip to step 7.
- 5 Type the path to the CD-ROM at the top of the Software Manager window, for example:  
`/CDROM/dist <enter>`

## 4 | Installing Maya for IRIX

### > Installing Maya



**Note** *dist* must be added to the path or this step won't work.

If you are using a remote CD-ROM drive and your network is set up to use NFS with auto-mount, enter the path to the remote CD-ROM. For example:

`/remote/host/CDROM/dist`

where *remote* is the auto-mount point and *host* is the remote machine name.

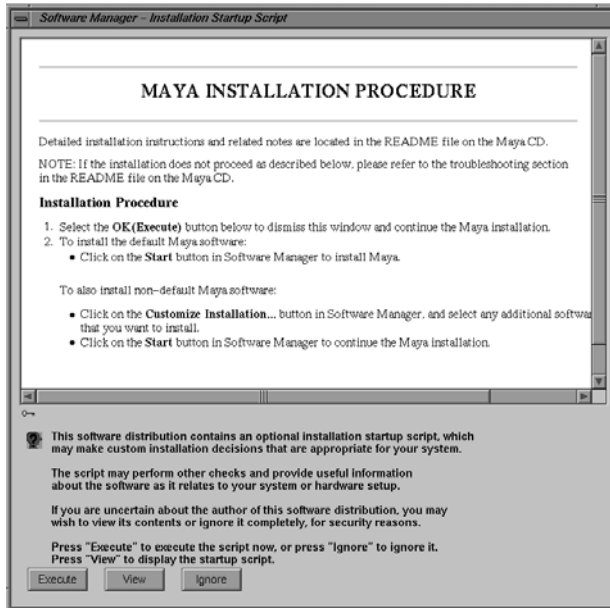
For other methods of accessing a remote CD-ROM drive, see "Accessing a remote CD-ROM" on page 59.

- 6** Click Lookup.
- 7** Click Execute after reading the installation instructions.



## 4 | Installing Maya for IRIX

### > Installing Maya



**Note** If an Alias Installation Error/IRIX Software Manager Conflicts window displays, you may need to either install or remove specific software from your system to correct the issue. Follow the instructions in the window before proceeding with the installation. For more information see "Troubleshooting" on page 127.

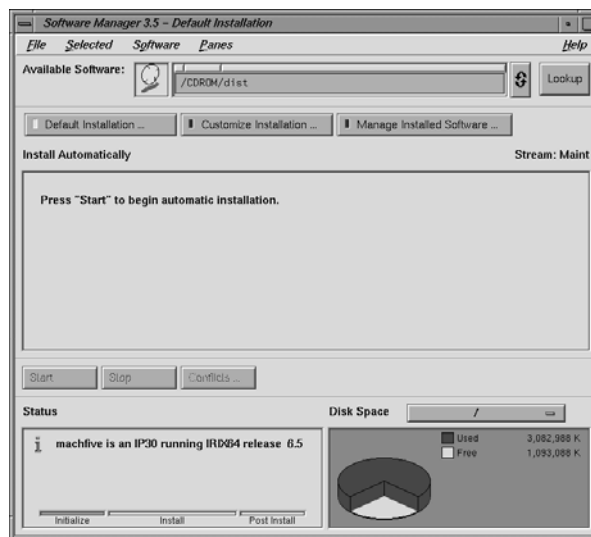
- 8** When the Software Manager window reappears, click the Start button. You can also click Customize Installation to turn off or on the items you want to install. At a minimum, you must install Alias Common Utilities and Maya 6.5, Base Software. These apply even if you are only batch rendering on this machine. However, if this machine is only serving licenses and not running Maya itself, make sure that Alias License

## 4 | Installing Maya for IRIX

### > Installing Maya

Server Software is checked to be installed in the Alias Common Utilities and ensure that your license tools are updated. (Maya 6.5 requires license tools 3.4.10 including FLEXlm 9.0 Server Software.)

The Maya Unlimited 6.5 software is selected by default. Turn it off if you are installing Maya Complete and you want to save space.

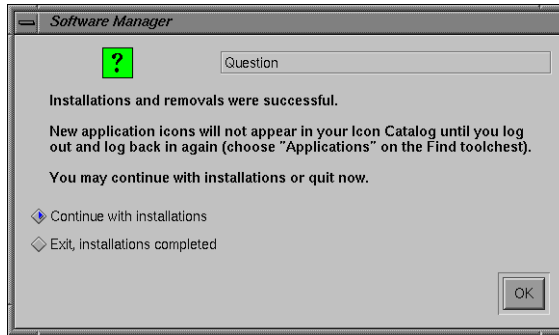


**Note** On some machines, the Start button is disabled when you choose Default Installation. In this case, you must click Customize Installation and then click Start.

- 9 Look for the following dialog box to indicate that the software installed successfully.

## 4 | Installing Maya for IRIX

### > Installing Maya



**10** Select Exit and click OK.

Before you can run your copy of Maya, it must first be licensed for use on your computer, see "Licensing Maya" on page 85.

If you want to install the shader library, see "Installing the Maya Shader Library" on page 60.

## Installing Maya using the inst utility

As an alternative to Software Manager, you can install Maya using the inst utility in a UNIX shell.

### Prerequisite steps

- Stop Maya and any license server processes, if running.
- Make sure you meet the "System Requirements" on page 44.

### To install using inst interactively

- 1** Log into the target machine as root.
- 2** Insert the Maya 6.5 Software CD into the target machine or a remote machine with a CD-ROM drive.
- 3** Check for the following CD-ROM icon on your desktop, indicating that your CD-ROM is mounted.

## 4 | Installing Maya for IRIX

### > Installing Maya



If you do not have this icon, check that the CD-ROM drive is mounted by typing `ls /CDROM`. This should list its contents.

If the CD-ROM is *not* mounted, see "Mounting a CD-ROM drive" on page 57.

- 4** On the target machine, enter the following command in a UNIX shell:

```
/usr/sbin/inst
```

- 5** At the `inst>` prompt, use the `from` command to specify the distribution area (for example: `from /CDROM/dist`).

If you are using a remote CD-ROM drive and your network is set up to use NFS with auto-mount, enter the path to the remote CD-ROM. For example:

```
/remote/host/CDROM/dist
```

where *remote* is the auto-mount point and *host* is the remote machine name.

For other methods of accessing a remote CD-ROM drive, see "Accessing a remote CD-ROM" on page 59.

- 6** After the README information appears, select option 1, *Run the installation startup script now*, to continue with the Maya installation.

- 7** Do one of the following:

- To install Maya default subsystems, enter *go*.
- To choose non-default selections, enter *step*, enter *i* on each line of the subsystems you want to install, then enter *go*.

## 4 | Installing Maya for IRIX

### > Installing Maya

At a minimum, you must install Alias Common Software, Common Desktop environment, and Maya Base Software. These apply even if you are only batch rendering on this machine. However, if this machine is only serving licenses and not running Maya itself, you can install just the Common Software and Common Desktop environment. As well, ensure that your license tools are updated. (Maya 6.5 requires license tools 3.4.10 including FLEXlm 9.0 Server Software.)

Maya Unlimited 6.5 software is selected by default. Turn it off if you are installing Maya Complete and you want to save space.

### Using inst without prompts

Alias recommends using the software manager utility for the installation of Maya. You can alternatively install Maya using the `inst` utility. If you are an advanced user, familiar with `inst`, you can run it without prompts, especially if you want to run it as part of a batch script. However, it requires that all prerequisites have been installed and that there is sufficient disk space.

See "Installing Maya on many machines at once" on page 55 for information on using `inst` in a batch script.

### To install using inst without prompts

- 1 Log in to the target machine as root.
- 2 Load the CD on the target machine or a remote machine with a CD-ROM drive.
- 3 From a UNIX shell, type the following:  

```
/usr/sbin/inst -a -f dist -V startup_script:execute
```

where *dist* is the location of the images, such as `/CDROM/dist` or a remote machine path.
- 4 Once the Maya software is successfully installed, you can proceed to Chapter 7, "Licensing Maya."

## 4 | Installing Maya for IRIX

### > Advanced installation procedures

## Advanced installation procedures

Complete the following procedures if you want to install Maya on a different file system, in a client/server configuration, or on multiple systems at one time.

### Installing on file systems other than /usr

By default, Maya is installed in the /usr partition. If you want to install Maya on a different file system (due to lack of sufficient disk space), create a symbolic link from /usr/aw/maya6.5 to that file system. For example, if your file system was called /freespace, you would enter the following commands before installing Maya:

```
su root  
mkdir -p /freespace/aw/maya6.5  
mkdir -p /usr/aw  
ln -s /freespace/aw/maya6.5 /usr/aw
```

When you install using this method, Software Manager may report there is insufficient disk space even though you know there is sufficient space on /freespace. If this happens, enter the following command in the Software Manager's Command Window:

```
set override_space_check true
```

This lets you install Maya on the other file system even though /usr is full.

### Performing a client/server installation

You can install Maya in a client/server configuration. In this configuration, the full Maya software is installed on a server whose file system is NFS-mounted on each of the clients. The clients then have a minimal set of software installed locally for desktop and security purposes.

## 4 | Installing Maya for IRIX

> Advanced installation procedures

**Note** We do not recommend a client/server configuration because it has a negative impact on Maya's performance. This is particularly a problem on slow networks. If you do choose to install a client/server configuration, be sure to install the IRIX prerequisite software and patch sets on each client.

### To install Maya in a client/server installation

- 1 Install all Maya software on the server machine.
- 2 Install the Maya client software on each of the clients.  
The selection file, `maya6_x_client.sel`, specifies what software should be installed on each client. This file is on the Maya CD under the `dist` directory.
- 3 Mount the Maya software directory `/usr/aw/maya6.5` from the server to each client `/usr/aw/maya6.5` directory.
- 4 If you have SuperConductors installed (either from the Conductors CD or downloaded from the Alias Web site), also mount the `/usr/aw/userconfig` directory on each client.

### Installing Maya on many machines at once

In order to install several machines simultaneously, you must create a batch script that executes the `inst` utility without prompts. Before this type of installation, make sure all prerequisite software and patches are installed, that there is enough disk space for the installation, and that there are no installation conflicts.

The key command that runs `inst` without prompts is:

```
/usr/sbin/inst -a -f dist -V startup_script:execute
```

where *dist* is the location of the `dist` directory (for example: `/CDROM/dist`).

## 4 | Installing Maya for IRIX

### > Advanced installation procedures

#### To create and run a batch installation script

- 1** Generate a file that contains a list of host names you want to install Maya on, one host name per line.
- 2** Ensure that the Maya distribution CD is accessible from each of the clients. NFS is the preferred method for doing this, but is not absolutely necessary.
- 3** Make sure that all the machines have the necessary IRIX prerequisites and patches installed.

If inst detects any missing prerequisites, the program will stop and your script will break.

- 4** Create a script that logs into each host and executes this command:

```
/usr/sbin/inst -a -f dist -F dist/maya6_x.sel -V  
startup_script:execute
```

For example, if the file from step 1 was named `hostlist` and the distribution CD was located at `master:/CDROM/dist`, you could use this `sh` script:

```
for i in `cat hostlist`  
do  
echo "Installing on host $i"  
rsh $i "/usr/sbin/inst -a -f master:/CDROM/dist \  
-F master:/CDROM/dist/maya6_x.sel -V  
startup_script:execute  
done
```

(This script uses Bourne/Korn shell syntax. Make the appropriate changes if you use the C shell.)

**Note** This example script installs the `maya6_x.sel` (normal or server) selection file. You can substitute `maya6_x_client.sel` to install client-only software.



## 4 | Installing Maya for IRIX

### > Mounting a CD-ROM drive

#### **To install Maya client software on multiple machines in batch mode**

- 1 Substitute the following selection file name in the -F argument of the batch script:

```
maya6_x_client.sel
```

- 2 You must also do the following:

- Use -V startup\_script:ignore instead of -V startup\_script:execute
- Specify an exact /CDROM/awdist6.X directory instead of /CDROM/dist

The following script shows an example for installing client-only software:

```
for i in `cat hostlist`
do
echo "Installing on host $i"
rsh $i "/usr/sbin/inst -a -f
master:/CDROM/awdist6.5 \
-F master:/CDROM/awdist6.5/maya6_x_client.sel \
-V startup_script:ignore
done
```

## Mounting a CD-ROM drive

If you experience problems because your CD-ROM drive is not mounted, follow these steps, for either a local or remote drive.

#### **To mount a local CD-ROM drive**

- 1 Find the controller number and unit number for the drive by typing:

```
hinv | grep CD
```

The output of this command will be similar to:

## 4 | Installing Maya for IRIX

### > Mounting a CD-ROM drive

CDROM: unit 4 on SCSI controller 0

In this example, the controller number is 0 and the unit number is 4.

- 2 Use the controller number and unit number to form the device name for the CD-ROM drive. The device name is in the format:

```
/dev/scsi/sc#d#l0
```

where the number following `sc` is the controller number, the number that follows the `d` is the unit number, and `l0` is spelled with lowercase `l` and zero. For the previous example, the device name would be `/dev/dsk/sc0d4l0`.

- 3 If a CD-ROM directory does not exist, create it by typing:

```
mkdir /CDROM
```

- 4 Mount the CD-ROM drive as a directory by typing:

```
/etc/mount -t iso9660 /dev/scsi/sc#d#l0 /CDROM
```

where `/dev/scsi/sc#d#l0` is the device name from step 2 and `/CDROM` is the directory you are mounting the CD-ROM drive to.

### **To mount a remote CD-ROM drive across a network with NFS**

These instructions assume you have NFS on both workstations.

- 1 On the remote machine, make sure the drive is mounted.
- 2 On the remote machine, add the file system to the exports list to allow your target machines to use the CD-ROM drive.  
Using a text editor, add `/CDROM` to the `/etc/exports` file.
- 3 On the remote machine, type `/usr/etc/exportfs -a` to allow other machines in the network to access the file system. This command requires NFS.

## 4 | Installing Maya for IRIX

### > Mounting a CD-ROM drive

- 4 On the target machine, if a CD-ROM directory does not exist, create it by typing:

```
mkdir /cdrom
```

In this example, we use `/cdrom`. You can use another name for the directory if you prefer.

- 5 On the target machine, mount the CD-ROM drive as a directory. Type:

```
/etc/mount hostname:/CDROM /cdrom
```

where *hostname* is the name of the machine that has the CD-ROM drive.

**Note** We use `/cdrom` (lowercase) as the local mount directory instead of `/CDROM` (uppercase). Using uppercase `/CDROM` as the local mount directory of a remote CD-ROM drive can cause installation problems.

## Accessing a remote CD-ROM

There are several ways to access a remote CD-ROM drive. We recommend having the CD-ROM drive auto-mounted. If you do not have this capability, here are some other typical methods.

### Local mount point using NFS

If you followed the instructions “To mount a remote CD-ROM drive across a network with NFS” on page 58, you specify that mount point during the installation. We recommend using lowercase `/cdrom` as the local mount directory, because uppercase `/CDROM` can cause installation problems.

## 4 | Installing Maya for IRIX

### > Installing the Maya Shader Library

#### Trusted user account

If you do not have NFS, you can still access a remote drive during the installation by specifying a trusted account on the remote machine. For example, in the Software Manager or *instfrom* command, type:

```
root@host:/CDROM/dist
```

where *host* is the name of a remote machine with trusted-root access. If the remote computer does not have trusted-root access, you can use an account that does not have a password. For example:

```
guest@host:/CDROM/dist
```

## Installing the Maya Shader Library

After installing Maya, you can install the Maya Shader Library, which is a collection of Maya scene files consisting of over 60 shading networks, including materials and file textures. To use the Shader Library, you can:

- run it from your local machine
- run it from the server
- run it from the CD-ROM

In order to run it from your local machine, you have to copy the entire `shaderLibrary` directory and its contents to your computer. For example, you can copy it to `/usr/aw/shaderLibrary`. If multiple users will be accessing this library, put it in a location in which all of the users have read access.

We recommend that you update each user's Maya environment file or `.cshrc` file so that Maya knows where you've stored the Shader Library. You should also set up a Shader Library tab in Hypershade.

## 4 | Installing Maya for IRIX

### > Installing the Maya Shader Library

#### To install the Maya Shader Library

- 1 Insert the Maya 6.5 Installation CD.
- 2 Start an IRIX shell.
- 3 Log in as root.
- 4 Type the following:

```
cd /CDROM
cp -pr shaderLibrary /usr/aw
```

**Note** Alternatively, you can access the Shader Library from the CD-ROM or copy the shaderLibrary directory to another location in your own home directory and set the following variables accordingly.

#### To update the Maya.env file or the .cshrc file

In the user's Maya.env or .cshrc file, set the following environment variable (for example):

```
setenv MAYA_SHADER_LIBRARY_PATH /usr/aw/shaderLibrary
```

**Note** This must be done for each user.

#### To set up a Shader Library tab in Hypershade

- 1 Start Maya.
- 2 In Hypershade, select Tabs > Create New Tab to open the Create New Tab window.
- 3 Type Shader Library in the New Tab Name text box.
- 4 Set the Initial Placement to Bottom.
- 5 Set the Tab Type to Disk.
- 6 Click the Root Directory folder button to browse to the path to which you copied the shader library directory and click OK.

## 4 | Installing Maya for IRIX

### > Uninstalling Maya

- 7 Click Create to see the new tab in the Hypershade panel.

## Uninstalling Maya

To ensure a clean installation, uninstall any existing copy of Maya 6.5 on your computer before reinstalling Maya 6.5.

### To uninstall Maya for IRIX using software manager

- 1 Log into the target machine as `root`.
- 2 Start software manager by typing the following command in a shell window:  

```
swmgr <enter>
```
- 3 Click Manage Installed Software.  
A list of installed software products appears.
- 4 From the list, select the Maya software products that you wish to uninstall.
- 5 Click Start.  
The software products will be uninstalled from your computer.

# 5

# Installing Maya for Linux

## Overview of installing Maya for Linux

This chapter describes how to install Maya for Linux as well as the hardware and system requirements for operating Maya on an Linux operating system.

## Before you begin

- Your computer system must meet specific requirements in order for you to successfully install and run Maya. Alias does not support hardware and software configurations that do not meet these requirements. Please take a few moments to review the following hardware and software requirements section.

**Note** The most up-to-date information on specific hardware system qualifications for your computer can be found on the Alias Web site:  
[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

- You will need access to the root or superuser account and password on your computer to install Maya. You do not need to be root to launch Maya once it is installed. You should not run Maya while logged in as root.
- Make sure you meet the disk space and other requirements by reviewing "System requirements" on page 64.
- You can keep or uninstall previous versions of Maya. However, you *must* uninstall if you are installing the same Maya version as the one installed (for example, a pre-release

## 5 | Installing Maya for Linux

### > System requirements

copy). You must also uninstall the AWCommon and AWCommonserver software before installing. See “Uninstalling Maya” on page 72.

The default software installation performs the following tasks:

- Creates and installs software in the following directories:

`/usr/aw`

`/usr/aw/maya6.5`

This is the base location for all Alias software if it does not already exist. Any previous versions of Maya are left untouched.

- Creates or updates the symbolic links for the following:

`/usr/aw/maya` to the actual installation location.

Some files in `/usr/local/bin` to the new Maya software.

**Note** If you are installing Maya on a remote machine, make sure the `DISPLAY` environment variable is pointing to your local machine so that the licensing GUI is displayed on your local machine to complete the installation.

## System requirements

Alias certifies certain computer system configurations as meeting the requirements to work with the Maya software. To determine whether your particular system meets these requirements, please check the qualification charts for the latest information at [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts).

The system requirements are categorized as follows:

- Hardware and memory requirements—page 65
- Operating system requirements—page 65



## 5 | Installing Maya for Linux

### > System requirements

- Graphics requirements—page 65
- Disk space requirements—page 66
- Other software—page 66
- Optional hardware—page 67

### Examining system capabilities

- You can obtain information about your computer's processor and memory by accessing the KControl (KDE Control Panel) or typing `kcontrol` in a shell window.

### Hardware and memory requirements

To install and run Maya, your workstation must have:

- Pentium II or higher processor, 300 Mhz or greater; Pentium 4 or AMD Athlon recommended
- 512MB or more available memory
- Keyboard
- Three-button mouse with mouse driver software
- a CD-ROM drive
- a network card

### Operating system requirements

Maya 6.5 has been qualified on Red Hat Linux 9.0 and Enterprise Linux WS 3.0. Please check at [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts).

### Graphics requirements

- A graphics card qualified to run Maya. Please refer to: [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

## 5 | Installing Maya for Linux

### > System requirements

**Note** Many graphics card manufacturers document the setup of their graphics card for use with Maya. Refer to the instructions that came with your particular graphics card.

### Disk space requirements

- Minimum: 250MB (without documentation package)
- Standard: 360MB (with documentation package)

### Other software

The following software must be installed on your workstation:

#### **OpenMotif run-time environment**

With Maya 6.5 the required library `libxm.so.3` is automatically installed in `/usr/aw/maya6.5/lib`.

#### **FAM run-time environment**

The File Access Monitor (FAM) software allows Maya to monitor file changes in the Expression editor. FAM may already be included, so you should check first to see if the files are already installed. Enter:

```
rpm -qa | grep fam
```

#### **X-Server/OpenGL Visuals requirements**

Maya expects to obtain specific visuals for use with OpenGL. The preferred visual configuration is:

- Both single and double buffered RGBA 8/8/8/8, with 24 bit depth buffers.

## 5 | Installing Maya for Linux

### > Installing Maya

- To use the Hardware Render Buffer window, adding Alpha and Accumulator buffers are also required.

If Maya can not obtain the visuals it requests, it usually outputs what was not found and continues if possible. Some aspects of Maya may not work correctly if the expected visuals are not available. Use the program **glxinfo** to list currently available visuals.

Please check you are using qualified video cards and drivers at:

[www.alias.com/qual\\_charts](http://www.alias.com/qual_charts)

### Optional hardware

Wacom tablet—The Wacom tablet works the same as with other programs. Using the pen and tablet overrides mouse operation. When the pen is out of contact with the tablet, the mouse becomes operational. Check the Wacom Web site for details on support of this device with a Linux operating system ([www.wacom.com](http://www.wacom.com)).

## Installing Maya

This section describes how to install Maya for Linux. When the installation is complete, you must license Maya. You must install Maya licenses if you are:

- Installing Maya for the first time.
- Adding additional licenses to a floating-type license.
- Changing the machine on which Maya is installed.

For information on upgrading to a higher version of Maya. See Chapter 7, “Licensing Maya” for details. If you have problems installing, see Chapter 8, “Troubleshooting.”

5 | Installing Maya for Linux

> Installing Maya

Installing Maya using the rpm utility

This section describes how to install Maya for Linux using the rpm command-line utility. With the rpm command you can use either the -i flag or the -ivh flag to install the programs. The -ivh flag provides you with more information during the installation.

**Note** If you have previously installed a version of Maya 6.5 for Linux, uninstall that version before installing this newest version. See “Uninstalling Maya” on page 72.

To install using rpm

- 1 Log in as root.
- 2 Insert the Maya CD into a CD-ROM drive.
- 3 Mount the CD-ROM drive. For example, type:  
`mount -r /dev/cdrom /mnt/cdrom`
- 4 Change to the CD-ROM directory where the Maya for Linux is installed. For example, type:  
`cd /mnt/cdrom/LINUX`
- 5 Use the ls command to list the packages on the CD.

Package Name (# is the package number)	Description	When Required
AWCommon-6.3-1.i686.rpm	Licensing software	Always
AWCommon-server-6.3-1.i686.rpm	Licensing Server software	For serving floating licenses
Maya6_5-6.5-#.i686.rpm	Maya for Linux	Always

5 | Installing Maya for Linux  
> Installing Maya

Package Name (# is the package number)	Description	When Required
Maya6_5-docs-6.5-#.i686.rpm	Maya 6.5 documentation	Optional

6 To install the required base software, enter the following command

```
rpm -ivh AWCommon-6.3-1.i686.rpm Maya6_5-6.5-#.i686.rpm
```

where # is the specific package number. For example, if the package number is 93 for Maya:

```
rpm -ivh AWCommon-6.3-1.i686.rpm Maya6_5-6.5-93.i686.rpm
```

Note If you have a previously installed version of AWCommon and Maya for Linux, uninstall that version before installing this newest version. To verify what version you have, type:  
rpm -qa | egrep 'AWCommon|Maya'  
See “Uninstalling Maya” on page 72.

- Maya 6.5 adds the required libxm.so.3 library to the Maya lib directory as part of its standard install, so installing the openMotif runtime rpm is not required.
- 7 Verify that OpenGL is installed. Look for a file named libGL.so in the /usr/lib or /usr/X11R6/lib directory.
- 8 To install the documentation, type the following:
- ```
rpm -ivh Maya6_5-docs-6.5-#.i686.rpm
```
- where # is the specific package number.
- 9 You should see the software files installed in the following directory:

## 5 | Installing Maya for Linux

### > Installing the Maya Shader Library

```
/usr/aw/maya6.5
```

Once the Maya software is successfully installed, unmount and eject the CD and store it in a safe place. Proceed to Chapter 7, “Licensing Maya.”

**Note** In order to use Maya, you may need to perform additional setup procedures. See the “Additional Linux Notes” on page 73 for additional information.

### Installing Maya on file systems other than /usr

By default, Maya is installed in the /usr partition. If you want to install Maya on a different file system (due to lack of space), create a symbolic link from /usr/aw/maya6.5 to that file system.

For example, if you are installing Maya on a file system called /freespace, type the following commands:

```
su root
```

```
ln -s /freespace/aw/maya6.5 /usr/aw
```

### Installing the Maya Shader Library

After installing Maya, you can install the Maya Shader Library, which is a collection of Maya scene files consisting of over 60 shading networks, including materials and file textures. To use the Shader Library, you can:

- run it from your local machine
- run it from the server
- run it from the CD-ROM

## 5 | Installing Maya for Linux

### > Installing the Maya Shader Library

In order to run it from your local machine, you have to copy the entire shader library directory and its contents to your computer. For example, you can copy it to `/usr/aw/shaderLibrary`. If multiple users will be accessing this library, put it in a location in which all of the users have read access.

We recommend that you update each user's Maya environment file or `.cshrc` file so that Maya knows where you've stored the Shader Library. You should also set up a Shader Library tab in Hypershade.

#### To install the Maya Shader Library

- 1 Insert the Maya 6.5 software CD.
- 2 Start a Linux shell.
- 3 Log in as root.
- 4 Type the following:  

```
cd /CDROM/LINUX  
cp -pr shaderLibrary /usr/aw
```

**Note** Alternatively, you can access the Shader Library from the CD-ROM or copy the `shaderLibrary` directory to another location in your own home directory and set the following variables accordingly.

#### To update the Maya.env file or the .cshrc file

In the user's Maya `.env` or `.cshrc` file set the following environment variable (for example):

```
setenv MAYA_SHADER_LIBRARY_PATH /usr/aw/shaderLibrary
```

## 5 | Installing Maya for Linux

### > Uninstalling Maya

#### To set up a Shader Library tab in Hypershade

- 1 Launch Maya.
- 2 In Hypershade, select Tabs > Create New Tab to open the Create New Tab window.
- 3 Type Shader Library in the New Tab Name text box.
- 4 Set the Initial Placement to Bottom.
- 5 Set the Tab Type to Disk.
- 6 Click the Root Directory folder button to browse to the path to which you copied the shaderLibrary directory and click OK.
- 7 Click Create to see the new tab in the Hypershade panel.

## Uninstalling Maya

To uninstall Maya for Linux you can use the rpm utility.

#### To uninstall Maya using rpm

- 1 Log in as root.
- 2 List the installed package names by entering:
- 3 Identify the package name you want to uninstall.

For example, you may see the following package:

```
Maya-6_5-#
```

You may also see the AWCommon packages, which are used for licensing:

```
AWCommon-6.3-#
```

```
AWCommon-server-6.3-#
```

**Note** Uninstalling the AWCommon software does not affect any license files in the license directory (/var/flexlm).



## 5 | Installing Maya for Linux

### > Additional Linux Notes

- 4 Uninstall all listed packages using the following command:

```
rpm -e Package
```

where *Package* is the name obtained in the previous step.

## Additional Linux Notes

These additional Linux user notes provide special information for configuring Maya to run on Linux, describe differences between Maya for Linux and other versions of Maya, that are specific to using Maya on the Linux operating system. For complete information on limitations and possible work a rounds, also refer to the *Maya 6.5 Release Notes*.

## Compiling plug-ins and standalone programs

To compile plug-ins and standalone applications for Maya 6.5 on Linux, use the released gcc 3.3.4 compiler. Maya has been compiled with this compiler under RedHat 9.0.

Plug-ins built with any other compiler will not work because the C++ ABI (Application Binary Interface) must match between Maya and plug-ins.

In order to build plug-ins you do the following:

- 1 Download the released gcc 3.3.4 compiler from the gcc web or mirror site: [gcc.gnu.org/releases.html](http://gcc.gnu.org/releases.html).
- 2 Compile and install the compiler using the gcc instructions.

The compile options that were used with Maya are:

```
gcc334 -v
Reading specs from /opt/gcc334/lib/gcc-lib/i686-pc-linux-gnu/3.3.4/specs
Configured with: ../gcc-3.3.4/configure --prefix=/opt/gcc334 --program-
suffix=334 --enable-shared --enable-threads=posix --disable-checking
--with-system-zlib --disable-libunwind-exceptions
--enable-__cxa_atexit
Thread model: posix
gcc version 3.3.4
```

## 5 | Installing Maya for Linux

### > Additional Linux Notes

#### 3 Modify the makefiles to use the proper compiler.

In the makefile modify the C++ line to use the proper compiler. How this occurs depends on how the options were given when compiling the compiler. In the case of Maya, the compiler used was named g++334.

### Installation notes

Because Maya is compiled under Red Hat 9.0, it is necessary to include some libraries that are not available in standard 9.0 distributions. These libraries and symbolic links are installed in `/usr/aw/maya6.5/lib` and should not interfere with the normal operation of your Linux system:

- `libstdc++.so.5.0.6`
- `libstdc++.so.5 -> libstdc++.so.5.0.6`
- `libstdc++.so -> libstdc++.so.5.0.6`
- `libgcc_s.so.1`
- `libgcc_s.so -> libgcc_s.so.1`

### Differences in operation

When installed on a Linux system, Maya works in much the same way as when installed on Windows or IRIX. One difference is that when you put a menu item or option on the shelf, you press Shift+Alt right mouse button (instead of Shift+Ctrl+Alt on IRIX).

### Using the MayaScheme file to set fonts, font sizes, and colors

Fonts, font sizes, and colors can be configured using the MayaScheme file. This file lets you specify X Resources that Maya uses for configurable text. The default file is found in `/usr/aw/maya6.5/app-defaults/MayaScheme`. Copy this file to your home directory's `$HOME/app-defaults` so that it can be edited.

Refer to the *Maya 6.5 Release Notes* for any known limitations.

### **Unsupported Maya features**

Some of the features in our IRIX and Windows versions are not currently supported. These include output to AVI or SGI movie formats. Please refer to the *Maya 6.5 Release Notes* for more information.

### **Linux desktop configuration**

To use Maya on Linux, certain default keyboard and mouse bindings must be changed from the factory settings. These default bindings prevent commands from being received by Maya, such as the ones that let you tumble or pan a view in a panel.

Different Linux window managers have different key bindings and different procedures for setting them. Linux systems are highly customizable, many combinations of Linux system components are possible—more than can be described (or tested) by Alias.

The following instructions give the procedures necessary for changing the most common configurations.

### **Changing Window Manager keyboard bindings**

The following lists procedures to change Window manager factory settings for KDE and Gnome.

### **KDE and Gnome desktop configuration**

For Maya to work properly with KDE and Gnome, some modifications should be made to the mouse control. The default bindings of the Alt key and mouse buttons do not work well with Maya. We recommend turning off the Alt+mouse buttons. Since Maya uses the Alt+mouse buttons for viewport tumbling, you need to ensure the bindings don't conflict.

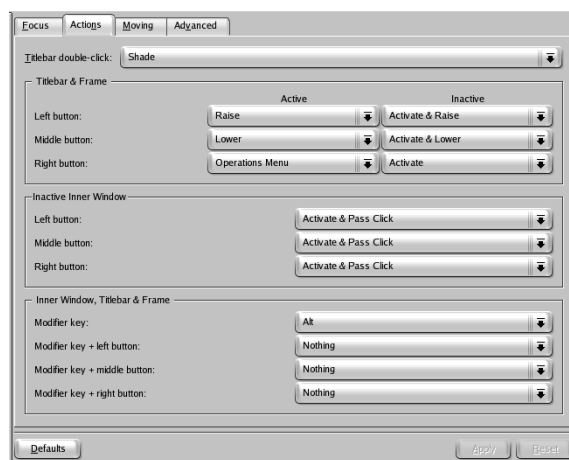
## 5 | Installing Maya for Linux

### > Additional Linux Notes

Different versions of KDE and Gnome may have different methods of selecting the key bindings. See the KDE and Gnome documentation for instructions if the following instructions don't work for your window manager.

#### KDE under Red Hat 9

- 1 Open the KDE Control Center.
- 2 Select Desktop and then select Window Behavior.
- 3 Open the Actions tab.
- 4 In the Inner Window, Titlebar & Frame section, for modifier key Alt, set all mouse action combinations to Nothing.



- 5 Click Apply and close the Control Center.

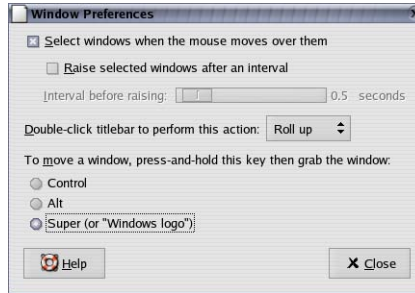
#### Gnome under Red Hat 9

- 1 Open the Gnome Panel.
- 2 Select Preference and then select Windows.

## 5 | Installing Maya for Linux

### > Additional Linux Notes

- 3 In the Window Preferences dialog box, set the “To move a window...” key to Super.



(Setting either Control or Alt here may cause problems when using Maya.)

- 4 Click Close.

## **5 | Installing Maya for Linux**

> Additional Linux Notes

# 6

## Installing mental ray (satellite)

### Overview

Mental ray for Maya now supports a new form of network rendering: *mental ray satellite rendering*. The new network rendering capability, based on mental ray satellite technology, allows you to install a version of mental ray (satellite) on any networked computer. This special version of mental ray resides on that machine and waits for rendering tasks from Maya. It supplements the mental ray rendering capabilities in Maya with additional rendering power provided by the networked computers' CPUs.

The rendering process is typically initiated from the *master* machine (the machine running Maya or where the command-line render starts from). The *slave* machines (satellite rendering computers) process rendering tasks they receive over the network from the master and send back results. The master machine handles task distribution, load balancing, and the collection of received rendering tasks which make up the rendered image.

For more information about mental ray satellite, see "Rendering with mental ray for Maya and mental ray satellite" in the *What's New for Maya 6.5* guide.

### Slave machine installation

**Note** mental ray satellite is not available for IRIX.

## 6 | Installing mental ray (satellite)

### > Slave machine installation

The special version of mental ray standalone with satellite rendering technology must be installed on all slave machines. The satellite-enabled versions of mental ray for Windows, Mac OS X, and Linux are included with this release of Maya on a separate CD.

#### **(Windows) To install mental ray standalone with satellite licensing**

- 1 On each slave machine, begin the installation process by inserting the mental ray satellite CD and double-clicking the mental ray standalone installer.

- (Windows) `Mental_Ray_Satellite_3.4-win32.exe`

The installer appears.

- 2 Follow the installation steps.

During the installation, you can click Custom to change the installation directory. The default installation directory is `C:\Program Files\Alias\mentalraysatellite3.4\`.

#### **(Mac OS X) To install mental ray standalone with satellite licensing**

- 1 On each slave machine, begin the installation process by inserting the mental ray satellite CD and double-clicking the mental ray standalone installer.

- (Mac OS X) `mentalraysatellite34.dmg`

The disk image mounts.

- 2 Double-click `install_mentalray_satellite`.

- 3 Follow the installation steps.

During the installation, you can change the installation directory. The default installation directory is `/Applications/Alias/mentalraysat34`.



## 6 | Installing mental ray (satellite)

### > Slave machine additional setup

#### **(Linux) To install mental ray standalone with satellite licensing using rpm**

- 1 Log in as root.
- 2 On each slave machine, begin the installation process by inserting the mental ray satellite CD.
- 3 Mount the CD-ROM drive. For example, type:

```
mount -r /dev/cdrom /mnt/cdrom
```

- 4 Enter the following command (where # is the specific package number):

```
rpm -ivh mental_ray_satellite3_4-3.4-#.i686.rpm
```

### Slave machine additional setup

Once this version of mental ray is installed and running, it waits for rendering tasks from mental ray for Maya on the master machine. The satellite-enabled version of mental ray does not require its own licensing; it is activated through Maya's licensing.

On the slave machine, the Ray Sat server must be running.

#### **To verify that Ray Sat server is running (Windows)**

- 1 Open a Windows command prompt.
- 2 Navigate to the /bin directory of the mental ray satellite standalone. By default this is C:\Program Files\Alias\mentalraysatellite3.4\bin\.
- 3 Type the following:

```
raysatserver /query
```

A message should be returned saying Ray Sat Server service is running.

## 6 | Installing mental ray (satellite)

### > Slave machine port setup

If you do not get this message, make sure that Ray Sat Server has been installed as a service, and start it from the Services Control Panel (Settings > Control Panel > Administrative Options > Services) or type the following:

```
raysatserver /start
```

## Slave machine port setup

On the slave machine, port number 7103 is set by default. You must edit the services file to change the port number that mental ray satellite uses to a value other than 7103.

### To change the port number

- 1 Edit the services file with a text editor.

The services file is located at:

- (Windows 2000)  
C:\WINNT\system32\drivers\etc\services
- (Windows XP)  
C:\Windows\system32\drivers\etc\services
- (IRIX, Linux, and Mac OS X) /etc/services

- 2 Change number in the following line (here, 7103) to the desired port number:

```
mi-raysat    7103/tcp
```

## Licensing of satellite rendering

For more details about licensing of Maya, see the *Licensing* chapter of this guide.

## 6 | Installing mental ray (satellite)

### > Licensing of satellite rendering

Your version of Maya determines how many networked CPUs running satellite-enabled mental ray standalone can participate in a render:

- Maya Complete – 2 additional networked CPUs
- Maya Unlimited – 8 additional networked CPUs

For node-locked licenses, the use of mental ray for Maya with satellite can only be initiated from the specified host for which you received your Maya key. The workstation can distribute mental ray for Maya rendering to either two or eight slave CPUs depending on your license.

For floating licenses, use of the new functionality is slightly more flexible.

Depending on the type of a Maya license you purchased, you additionally have either a mental ray for Maya Complete or mental ray for Maya Unlimited line item in your license. For floating license setups, the license running Maya and the license running mental ray for Maya can be logged out separately allowing certain rendering tasks to be initiated remotely.

There are two possible cases when using mental ray for Maya with floating licenses:

- (Interactive) With Maya running interactively on a workstation, initiate a mental ray for Maya render (either a single frame in the Render View, Batch render or command line render) on the workstation. The floating mental ray for Maya portion of your license is logged out. This allows the mental ray satellite slaves indicated in your rayhost file to participate in the render. The type of license you purchased controls whether you can use up to 2 or 8 mental ray standalone slave CPUs on other computers.
- (Offline) If you launch a command line mental ray for Maya render from any computer that is not a Maya workstation (and the interactive version of Maya is not running), the

## 6 | Installing mental ray (satellite)

### > Licensing of satellite rendering

mental ray for Maya license which allows the largest number of slaves (that is, Maya Unlimited) in your license server will be checked out first. The computer you launched the command from then becomes the master machine for mental ray for Maya satellite rendering.

**Note** If you have launched Maya but have not yet rendered with mental ray for Maya since the start of your interactive session, no mental ray for Maya line item from your floating license is checked out. You may therefore start a command line mental ray for Maya render from another host. This will check out the mental ray for Maya portion of your license, making it unavailable for any other workstation.

This licensing behavior can be overridden using the `-lic mc` flag with the `Render -r mr` command; that is, `Render -r mr -lic mc` attempts to check the mental ray for Maya Complete line item within the license first, and then the Unlimited line item within the license if a Complete line item is not available.

For more details on mental ray rendering, see the Rendering sections of the Maya Help, as well as the mental ray reference included with the Maya Help.

# 7

# Licensing Maya

## Overview of licensing

All customers must have a software license to run Maya. A license is a coded record of your software purchase. The license resides in a *license file* on your machine or a license server machine.

Whenever a Maya session is launched, the *license management* software, FLEXlm, searches the license file to check out a license for that session.

If you are an existing Alias customer, your license may already be installed for you when you install Maya, using the *Prekey* file on the Maya software CD. A message during the software installation tells you if the license wasn't installed. For more information, see "Prekey" on page 88.

If you are an existing Alias customer and your licenses were not automatically installed during the installation process, you can obtain and install your licenses from the *Webkey* file on the Alias Web site. For more information, see "Webkey" on page 88.

If you are a new customer, or you're an existing customer and your licenses are still not installed, follow the instructions in this chapter to obtain and install your licenses. For more information, see "Activation keys for node-locked licenses" on page 90 or "Overview of manual license installation" on page 100.

## 7 | Licensing Maya

### > Types of licenses

You must go through the process of obtaining and installing a license if:

- your license was not found in the Prekey or Webkey files
- you are installing Maya for the first time
- you are changing to a new Maya package (for example, from Complete to Unlimited)
- you are relocating Maya to a different computer
- you are adding additional licenses to a floating license. For more information about floating licenses, see "Types of licenses" on this page.

New customers who purchase a single computer (*node-locked*) version of Maya receive a *serial number* in one of the following ways:

- in the CD holder within your Maya package (available from selected resellers)
- directly from the reseller where you obtained your copy of Maya
- directly from Alias

After installing Maya and entering the serial number, new customers obtain an *activation key* which licenses your copy of Maya. For more information, see "Activation keys for node-locked licenses" on page 90.

## Types of licenses

### Node-locked, floating, and client licenses

There are two types of licenses you can purchase: node-locked or floating.

### Node-locked

A node-locked license lets you run Maya only on the computer where the license is installed.

### Floating

A floating license lets several users run Maya from any computer on the same network. For example, if you install a license for five users on your network, up to five machines can run Maya at one time.

Each user's computer—called a *client*—gets a floating license from a computer that serves licenses—called the *license server*. The license server can also serve itself a license.

**Note** If you purchased a parallel port or USB hardware lock (dongle) from Alias for your Maya for Windows license, see "Licensing: Hardware lock devices" on page 28.

If you have problems configuring your hardware lock, see "Confirming parallel port or USB driver activation" on page 132 or go to:

[www.alias.com/support/maya](http://www.alias.com/support/maya)

## What licensing does

The licensing process creates the license file, if necessary, and adds your new Maya license to the end of the license file. The location and name of the license file is:

- (Windows) C:\FLEXLM\aw\_*servername*.dat or aw.dat, where *servername* is the name of your license server.
- (Mac OS X) /var/flexlm/aw\_server.dat, aw\_client.dat, or aw.dat.

## 7 | Licensing Maya

### > Prekey

- (IRIX, Linux) `/var/flexlm/aw.dat` or `/var/flexlm/aw_servername.dat`, where *servername* is the name of your license server.

The licensing process comments out licenses for previous versions of Maya, but leaves them otherwise intact. Licenses are backwards compatible; that is, a Maya 6.5 license lets you run previous versions of Maya.

## Licensing during installation

### Prekey

If you are an existing Alias customer, your required licenses may already be installed for you when you install Maya, using the *Prekey* file on the Maya software CD. A message during the software installation tells you if the licenses were installed on some platforms. There may be a brief delay while the installation software searches the Prekey file.

If your license was found in the Prekey file by the install process, no further action is required. You can run and use Maya.

Even if you are an existing customer of Alias, your license may not be in the Prekey file; however, Alias provides several different ways for you to obtain and install your license.

For more information, see “Webkey” on this page and “Activation keys for node-locked licenses” on page 90.

### Webkey

If you are an existing Alias customer and your licenses were not installed during installation, you can obtain and install your licenses from the *Webkey* file on the Alias Web site.



## Getting the Webkey using the Alias Product Configuration Wizard (recommended)

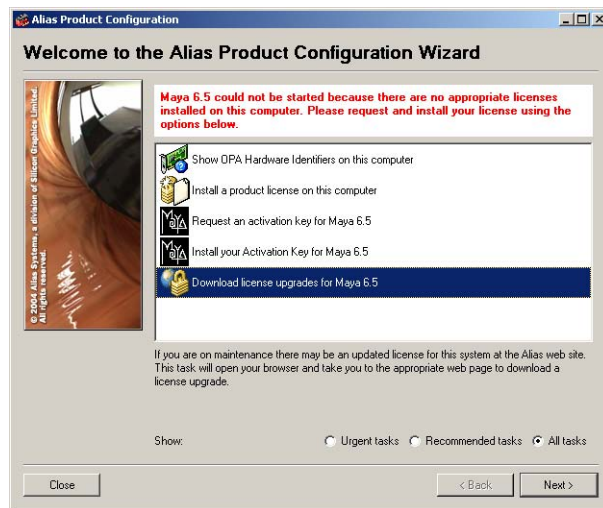
- 1 Start Maya. If you have not licensed Maya, the Product Configuration Wizard appears.

If the Product Configuration Wizard does not appear, you can launch it by doing one of the following:

- (Windows) Go to Start > Program Files > Alias > Maya 6.5 > On-line Product Activation.
- (Mac OS X) In the Maya directory (by default, this is /Applications/Alias/Maya6.5/), double-click the Maya Product Activation icon.
- (Linux, IRIX) Enter the following command in a shell:

```
/usr/aw/maya6.5/bin/opa
```

- 2 In the Product Configuration Wizard, click All Tasks.
- 3 Select Download license upgrades for Maya 6.5.



## 7 | Licensing Maya

### > Activation keys for node-locked licenses

**4** Click Next.

**5** You may be asked to identify a Web browser. Once you have chosen a Web browser, click Next.

A Web browser window opens, displaying the Maya Webkey web page.

Instructions on this Web page describe how to download and install the Webkey file.

You can also browse to the following URL in your Web browser to obtain the Maya Webkey file:

[www.alias.com/en/Community/Special/keys/maya/](http://www.alias.com/en/Community/Special/keys/maya/)

**Note** If you run Maya on several different operating systems, you need to download and install the Webkey file for all operating systems that currently have Maya licenses: for both license servers and any computers running Maya with a node-locked license.

You do not need to download or install the Webkey file for any client machines that obtain their licenses from a license server.

## Node-locked

### Activation keys for node-locked licenses

The following procedures explain how to activate Maya online and license node-locked (single computer) versions of Maya Complete and Maya Unlimited.

New customers who purchase a single computer (*node-locked*) version of Maya receive a *serial number* in one of the following ways:

## 7 | Licensing Maya

### > Activation keys for node-locked licenses

- in the CD holder within your Maya package (available from selected resellers)
- directly from the reseller where you obtained your copy of Maya
- directly from Alias

Maya serial numbers always begin with the letters 'MC' or 'MU'. If you did not receive a serial number, contact your local Alias sales office or your reseller.

**You need a serial number in order to activate Maya online.**

After installing Maya and entering the serial number, new customers can obtain an *activation key* which licenses your copy of Maya.

The following instructions apply to all supported platforms.

#### **To obtain an activation key by online product activation**

- 1 When you complete the install, start Maya.

The Alias Product Configuration dialog box appears (the appearance of this dialog box varies depending on which platform you're running Maya).

## 7 | Licensing Maya

### > Activation keys for node-locked licenses



You see one of the two following messages in red text on a white background in the top portion of this dialog box:

- If no license file is available for use with Maya:  
*Maya 6.5 could not be started because there are no appropriate licenses installed on this computer. Please request and install your license using the options below.*
- If there is a Maya license but it is for an earlier version of the software:  
*Maya 6.5 could not be started because the only available license on this computer is for a previous version of the software. Please use the options below to request and install your new license.*

## 7 | Licensing Maya

### > Activation keys for node-locked licenses

- 2 From this dialog box, you can find the tasks needed to license Maya. You can filter the task list by selecting one of the following:

- Urgent Tasks (default)
- Recommended Tasks
- All Tasks

The following instructions give the recommended order for obtaining your activation key and licensing Maya. Follow these steps by selecting Urgent Tasks (the default).

- 3 Click Request an Activation Key for Maya 6.5 and click Next.

The following dialog box appears:



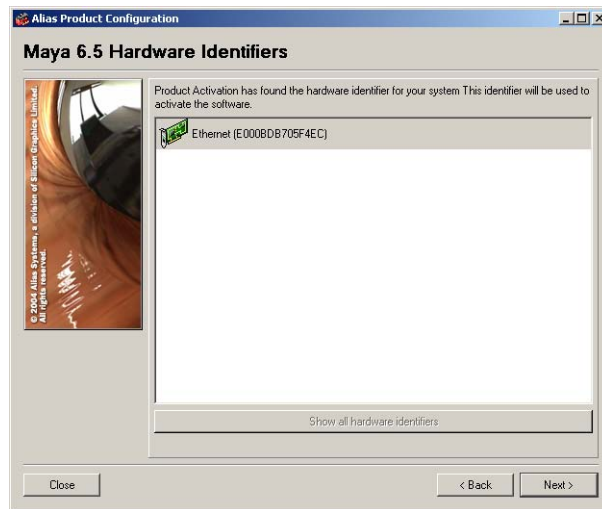
- 4 You are prompted to enter your serial number. Enter it and click Next.

## 7 | Licensing Maya

### > Activation keys for node-locked licenses

(Windows) A dialog box appears prompting you to make sure your USB or parallel port hardware lock (dongle) is connected, if you are licensing your machine via that method. If you are licensing via hardware lock and the hardware lock ID does not appear in the following hardware identifiers screen, we suggest you reboot your machine.

The following dialog box appears.



Your *hardware ID* (also known as the *hardware identifier* or *Host ID*) is listed in this dialog box. The hardware ID is a way of uniquely identifying your computer by using an encrypted form of your ethernet address (or parallel port/USB hardware lock).

## 7 | Licensing Maya

### > Activation keys for node-locked licenses

**Note** If there are multiple hardware IDs, choose the appropriate one.

For example, if you are installing Maya to a laptop that has a dock, you may see two ethernet addresses, or a different ethernet address than the one that appears when the laptop is not docked.

Make sure you choose the ethernet address that is always with your computer.

**Note** If you are using a parallel port or USB hardware lock device (dongle) to license Maya, you must choose the appropriate hardware ID (from the list that appears) that contains the FLEXID number for your hardware lock and **not** the Ethernet ID for your computer.

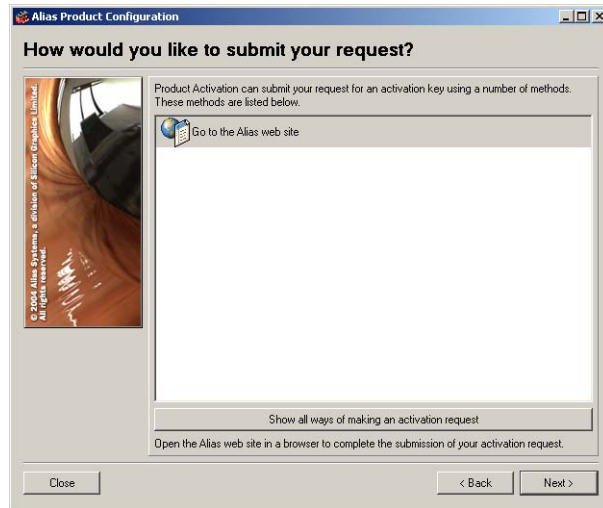
The hardware lock ID begins with the letter F, whereas the Ethernet address begins with the letter E. If the hardware lock ID does not appear in the list of hardware identifiers the hardware lock may not be properly attached or the Sentinel USB/parallel port driver may not be activated. For further information see "Confirming parallel port or USB driver activation" on page 132

#### 5 Click Next.

The following dialog box appears.

## 7 | Licensing Maya

### > Activation keys for node-locked licenses



You need to request an activation key either online using a Web browser or by e-mail, phone, or fax. By default, only the web browser method is listed, but you can click Show All Ways of Making an Activation Request to see all methods.

- 6** Select the desired option and click Next.



**Note** You can obtain an activation key for your computer running Maya even if it is not connected to the Internet. You must have another computer that is connected to the Internet.

1. Record the hardware ID of the computer that is not connected to the Internet from OPA. Also, have your serial number ready.
2. On the computer that is connected to the Internet, go to the following URL:  
[www.alias.com/cgi-bin/activation/activate.cgi](http://www.alias.com/cgi-bin/activation/activate.cgi)  
Enter the serial number, hardware ID, and other information from the computer you want to obtain an activation key for in the form provided. When you receive an activation key, follow the instructions in the next section ("To install your activation key" on page 98) on the computer you want to license.

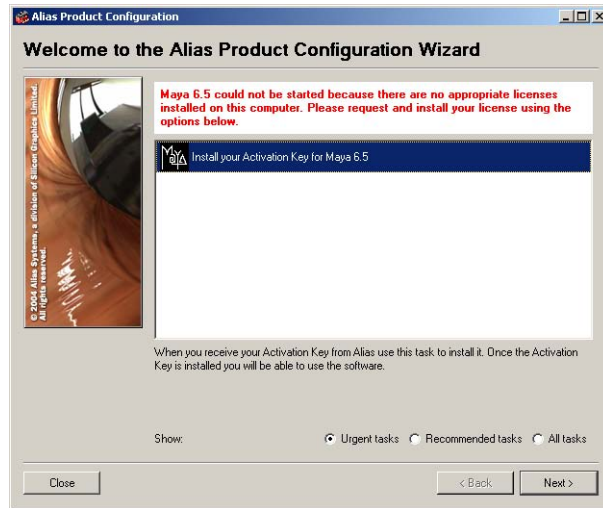
- If you are obtaining your activation key via the web site, choose your browser in the next screen. Your browser launches and takes you to the Alias web site.  
On the Alias Product Activation web site, fill out the form. Follow the online instructions to obtain your activation key.  
When you submit your form, your activation key is sent to the email address listed.
- If you selected phone, fax, or email, you are prompted to enter all the information Alias requires to process your activation key request. At the end of the entry process, you are prompted to email the message to Alias, or print the document to be faxed or mailed. Please note that this can take several days to process.

## 7 | Licensing Maya

### > Activation keys for node-locked licenses

#### To install your activation key

- 1 Once you've received your activation key via email (most common), fax, or mail, go to the Alias Product Configuration dialog box (you may need to restart Maya).



- 2 Choose Install Your Activation Key for Maya 6.5 and click Next.

If Install Your Activation Key is not showing, click All Tasks and select it.

The following dialog box appears:

## 7 | Licensing Maya

### > Activation keys for node-locked licenses



### 3 Enter your activation key and click Next.

This automatically installs your node-locked license and you are prompted to start Maya.

**Note** On Windows, the Product Configuration Wizard may display a message indicating that you do not have permission to save the license file to the directory C:\FLEXLM. A file browser appears where you can save the license to a selected location. You need to have permissions set correctly on this directory to move the license file to the default location (C:\FLEXLM). At that point, you need to talk to a system administrator to get permissions to put the file in the correct directory.

## 7 | Licensing Maya

### > Overview of manual license installation

- Tip** If you need to use the Product Configuration Wizard again, you can launch it by doing one of the following:
- (Windows) From the Start menu, go to Program Files > Alias > Maya 6.5 > On-Line Product Activation.
  - (Mac OS X) Double-click the Maya Product Activation icon in the Applications/Alias/maya6.5/ folder.
  - (IRIX, Linux) Run `/usr/aw/maya6.5/bin/opa`

## Manual license install

### Overview of manual license installation

The instructions in this section refer to the manual installation of licenses. You need to follow these instructions for:

- all floating licenses
- node-locked licenses where you didn't receive a serial number.

**Note** If you are running a node-locked version of Maya (Maya Complete or Maya Unlimited), you may have already received a serial number allowing you to use the Product Configuration Wizard, which is faster and more convenient. For details, see "Activation keys for node-locked licenses" on page 90.

## Obtaining a license

To obtain your license, you must send a request to Alias with your hardware ID and the products you want to license. Follow these instructions to find your hardware ID and send the request to Alias for each node-locked or license server machine.

### Getting your hardware ID values

#### **(Windows) To find your computer's hardware ID**

- 1** Select Start > Programs > Alias > Common Utilities > FlexLM License Utilities.

The LMTOOLS window appears.

- 2** In the LMTOOLS window, click the System Settings tab.
- 3** If you have a parallel port or USB hardware lock, record the FLEXID value. Otherwise, record the Ethernet Address value.

The value you record is your hardware ID.

- 4** Close the LMTOOLS window.

Continue by sending in your license request. For more information, see "Sending your license request" on page 102.

#### **(Mac OS X, Linux, IRIX) To find your computer's hardware ID**

- 1** Open a shell or Terminal window.
- 2** Enter the following command to find your computer's unique identifier:

```
/usr/aw/COM/bin/lmhostid
```

The `lmhostid` command is a license manager utility installed with Maya. When you enter this command, it returns machine information. For example:

## 7 | Licensing Maya

### > Sending your license request

```
lmhostid - Copyright (C) 1989-2003 Macrovision  
Corporation. All rights reserved.  
The FLEXlm host ID of this machine is "690c5c73"
```

The unique identifier is in quotes at the end of the returned value. In the above example, it is *690c5c73*. Your returned value may have more digits, depending on your platform.

- 3** Continue by sending in your license request. For more information, see "Sending your license request" on page 102.

## Sending your license request

- On any browser (it does not need to be the same machine as the one currently being licensed), access and complete the online SPAR (Software Product Authorization Request) form at:

[www.alias.com/spar/](http://www.alias.com/spar/)

Alias processes your request and provides you with the license via e-mail.

## Installing licenses

If your license was not installed and you have obtained your valid Maya license from your reseller or Alias, follow these instructions for either node-locked or floating licenses.

For floating licenses, you must complete additional instructions: "Additional setup for floating licenses" on page 111.

### Prerequisites

Before you install licenses, make sure you have done the following:

- installed Maya 6.5 software (you must at least have Maya licensing software installed)
- obtained your license in an e-mail from Alias.

- updated your licensing software on the machine serving Maya licenses to the most current version
- (Windows) rebooted your machine if you intend to use a hardware lock provided by Alias (otherwise, ignore this prerequisite)
- (Windows) checked the following: for floating licenses the server and clients must each have a C: drive in order for the licenses to be served properly.

### Installing licenses from e-mail

For node-locked licenses, perform these steps on each machine running Maya. For floating licenses, perform these steps on the license server machine.

In this section, we list how to install your license using the Alias Product Configuration Wizard on all supported platforms. This is the recommended procedure:

- "Installing your license using the Product Configuration Wizard (recommended)" on page 104

Alternately, you can install your license manually on all supported platforms.

- Windows. See "Installing your license manually on Windows" on page 107.
- Mac OS X. See "Installing your license manually on Mac OS X" on page 109.
- Linux and IRIX. See "Installing your license manually on Linux and IRIX" on page 110.

## 7 | Licensing Maya

### > Installing licenses

**Note** If your organization stores your license file somewhere other than the default location, then you need to point Maya to this in the `maya.env` file by updating the `SGIAWD_LICENSE_FILE` variable. This changes the license file location for all Alias products. For details, see [Environment Variables](#).

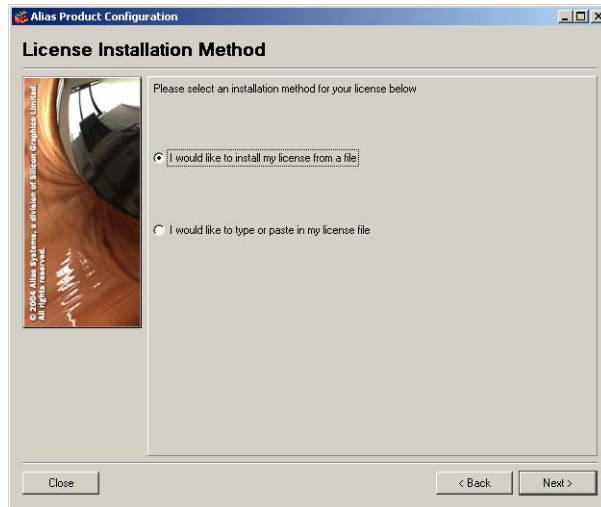
### Installing your license using the Product Configuration Wizard (recommended)

- 1** When you have received your license, start Maya.  
If the Product Configuration Wizard does not appear, you can launch it by going to Start > Program Files > Alias > Maya 6.5 > Install License.
- 2** You can choose to install your license by typing or pasting in your license, or from a file. Choose an option from the License Installation Method dialog box.



## 7 | Licensing Maya

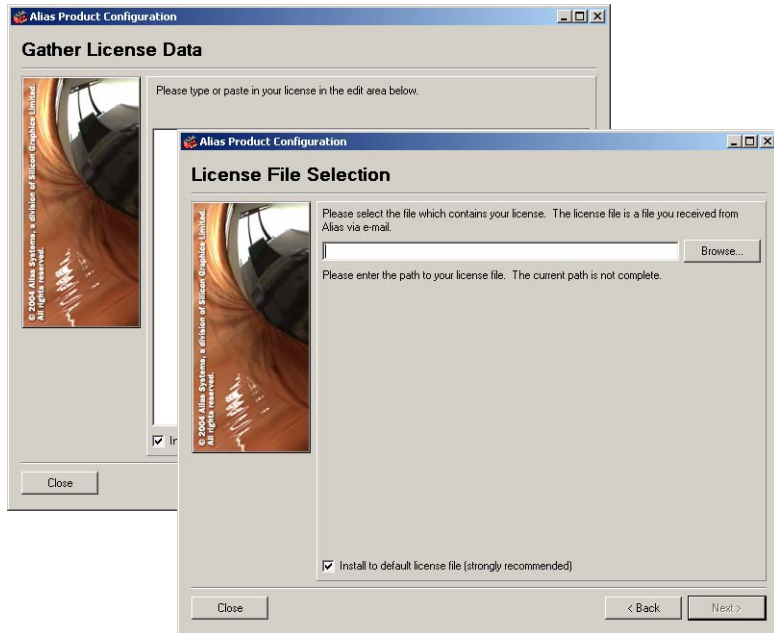
### > Installing licenses



- 3** If you choose to install your license from a file, you are prompted to browse for the file. If you choose to install your license by typing or pasting, you are presented with a text box to type or paste your license in.

## 7 | Licensing Maya

### > Installing licenses



**Note** It is strongly recommended that you install the license to the default location. If you want to install the license to another location, turn off the Install to default license file option at the bottom of these dialog boxes. A file browser dialog box appears prompting you for a location to save the license file.

- 4 Type or paste in your license, or choose the license file.  
The Product Configuration Wizard validates the license and notifies you of any problems during the process.

If you are notified of an error during the process, please make sure you have typed or pasted in the license correctly, or chosen the correct license file. For more information on the messages that appear during the licensing process, click Details to help you diagnose the problem; you may need to give this information to an Alias Support representative.

For information on installing your license manually, without using the Product Configuration Wizard, see “Installing your license manually” on this page.

This concludes the process of licensing Maya if you obtained a node-locked license from Alias. Proceed to “Confirming Maya startup” on page 122. If you are installing a floating license, continue with “Additional setup for floating licenses” on page 111.

## Installing your license manually

We recommend that you use the Product Configuration Wizard to install Maya licenses. For more information, see “Installing your license using the Product Configuration Wizard (recommended)” on page 104.

### Installing your license manually on Windows

#### To install the license manually (Windows)

- 1 Go to the email you received from Alias with your license, and copy the license string. It appears as follows:

```
FEATURE MayaUnltd sgiawd 6.500 20-jan-2005 \  
uncounted 70F9BD1AC42F \  
HOSTID=FLEXID=7-b285e673
```

- 2 Please check if there is an `aw.dat` (node-locked license) or `aw_servername.dat` (floating license) file located within the `C:\FLEXLM` directory.

## 7 | Licensing Maya

### > Installing licenses

If there is, paste or type the license into the top of the file and save it.

- 3** If there is no file or directory there, create the `C:\FLEXLM` directory.
- 4** Open Notepad (Start > Programs > Accessories > Notepad) and type or paste the license string into the new document.
- 5** Save the file from Notepad as `aw.dat` (node-locked license) or `aw_servername.dat` (floating license) within the `C:\FLEXLM\` directory.

**Note** You need to make sure that the view options on the license directory (`C:\FLEXLM`) are set to show all files and full file extensions; that is, make sure that Hide Known File Extensions is not checked as one of your View options for the `C:\FLEXLM` folder.

If Hide Known File Extensions is checked, the file may be called `aw.dat.txt` and you only see it as `aw.dat`.

`aw.dat.txt` will not work as a license file

`aw.dat` will work as a license file.

To fix this, in the My Computer window or Windows Explorer window, select Tools > Folder Options and click the View tab. Turn on Show All Files and turn off Hide File Extensions For Known File Types.

This completes licensing for this computer for node-locked licenses. Proceed to "Confirming Maya startup" on page 122. If you are installing a floating license, continue with "Additional setup for floating licenses" on page 111.

#### Installing your license manually on Mac OS X

You may need to create a su (superuser) account in order to install your license or start a license server. For more information, see "Enabling a superuser (su) account (Mac OS X)" on page 153.

You copy the license file to your disk (only if you received your license via email).

#### **(Mac OS X) To install the license by saving a license file**

- 1** You should have already obtained a license via email from Alias. If you have not received a license, see "Obtaining a license" on page 101.
- 2** Go to the email you received, and copy the entire license string.  
  
You don't need to understand the contents of the license to do this procedure. For details, see "Understanding licenses" on page 154.
- 3** Please check if there is an `aw.dat` (node-locked license) or `aw_server.dat` (floating license) file located within the `/var/flexlm/` directory. If there is, use a text editor to paste or type the license into the top of the file and save it.
- 4** If there is no file or directory there, create the `/var/flexlm/` directory by typing `mkdir /var/flexlm` in a Terminal window. You may need to be superuser to create this folder.
- 5** Use a text editor and type or paste the license string into a new file. Ensure this file is in plain text format as `aw.dat` within the `/var/flexlm/` directory. Please check in the `/var/flexlm` directory that the file is saved without a `.txt` extension.

Once the `aw.dat` or `aw_server.dat` file is in the `/var/flexlm/` directory, you should be able to start up Maya. This completes licensing for node-locked licenses. Proceed to "Confirming Maya

## 7 | Licensing Maya

### > Installing licenses

startup” on page 122. If you are installing a floating license, continue with “Additional setup for floating licenses” on page 111.

### Installing your license manually on Linux and IRIX

#### (IRIX and Linux) To install the license manually

- 1 Go to the email you received, and copy the license string. It looks like the following:

```
FEATURE MayaUnltd sgiawd 6.500 20-jan-2005 \  
uncounted 70F9BD1AC42F \  
HOSTID=7-b285e673
```

- 2 Please check if there is an `aw.dat` (node-locked license) or `aw_servername.dat` (floating license) file located within the `/var/flexlm/` directory.

If there is, paste or type the license into the top of the file and save it.

- 3 If there is no file or directory there, create the `/var/flexlm/` directory.
- 4 Use a text editor such as `vi` or `emacs` to create a file called `aw.dat` (node-locked license) or `aw_servername.dat` (floating license) in the `/var/flexlm/` directory and type or copy the license string into this file. Make sure you save the file as `aw.dat` (node-locked license) or `aw_servername.dat` (floating license) within the `/var/flexlm/` directory.

## Server setup

### Additional setup for floating licenses

To configure your machines to serve and receive licenses across the network, you must set up the license server, then set up each client computer that obtains a license from the server. (Servers can serve a license to themselves.)

- Note**
- If you are serving Maya 6.5 licenses, we strongly recommend that you install the current version of the server software on the license server and restart the license service.
  - (Windows) The server and clients must each have a C: drive in order for the licenses to be served properly. If a server or client does not have a C: drive, you can set the environment variable `SGIAWD_LICENSE_FILE`. Please see [Environment Variables](#).
  - Your license server can serve licenses to workstations on all supported platforms (Windows, Linux, IRIX, Mac OS X). This requires that the computers can access each other via TCP/IP. See "To initially set up an IRIX or Linux client" on page 118 for instructions.

### (Windows) License server management options and license server confirmation

#### To set options and start the license server

- 1 Select Start > Programs > Alias > Common Utilities > FlexLM License Utilities.

## 7 | Licensing Maya

### > Additional setup for floating licenses

- 2 In the LMTOOLS window, click the Service/License File tab and select the Configuration using Services option.
- 3 Click the Config Services tab.
- 4 Turn on Use Services.
- 5 Turn on Start Server at Power Up.
- 6 Check that the values shown are correct:
  - Path to the `lmgrd.exe` file is  
`C:\Program Files\Common Files\Alias Shared\licensing\etc\lmgrd.exe`
  - Path to the license file is:  
`C:\FLEXLM\aw_servername.dat`, where *servername* is the name of the license server machine.

**Note** The path to the debug log file is optional and can be left blank.

- 7 Click Save Service.
- 8 Click the Start/Stop/Reread tab and click Start Server.

#### **(Windows) To confirm the license server operation**

- 1 Click the Server Status tab.
- 2 Click Perform Status Enquiry.  
If the license server is up, the window displays:

```
<servername>:license server UP(MASTER)
```

where *servername* is the license server computer name. The text area should also list the products/features and the number of logins you have.

- 3 Close LMTOOLS.



## 7 | Licensing Maya

### > Additional setup for floating licenses

#### **(Windows) To stop and start the license server**

- 1 On the machine you want to license, click the Start menu and navigate to the Alias program group.
- 2 From Common Utilities, select FlexLM License Utilities.
- 3 In the LMTOOLS window, Service/License File tab, make sure Configuration using Services is turned on.
- 4 Click the Start/Stop/Reread tab and click the Stop Server and then the Start Server buttons.

#### **(Windows) Checking whether the license server is running**

You can use the Windows Task Manager to tell whether the license server is running. Do the following steps on the license server computer.

#### **To check license server status**

- 1 Press Ctrl+Alt+Delete on your keyboard.
- 2 Click Task Manager.
- 3 Click the Processes tab.

If `lmgrd.exe` and `sgiawd.exe` are in the list of processes, the license server is up. If neither are in the list, the license server is down. If only one is in the list, the license server is partially up. In this case, restart the computer.

#### **(IRIX and Linux) License server management options and license server confirmation**

#### **(IRIX and Linux) To start the license server**

- 1 Log in as root if you have not done so.
- 2 (IRIX) Enter this command:

```
/etc/chkconfig -f aw_flexlm on
```

## 7 | Licensing Maya

### > Additional setup for floating licenses

This ensures that the `aw_flexlm` script is installed in `/etc/init.d` and ensures the `aw_flexlm` script is turned on.

- 3 Stop then start the `lmgrd` daemon by entering the following commands:

```
/etc/init.d/aw_flexlm stop  
/etc/init.d/aw_flexlm start
```

- If the server was on previously, the command issues some status information. An example of this status information is:

```
lmdown - Copyright (C) 1989-2003 Macrovision  
Corporation. All rights reserved.  
Shut down FLEXlm server on node servername 1 FLEXlm  
License Server shut down
```

- If the server is already off, the command issues an error message similar to:

```
lmdown - Copyright (C)2003 Macrovision Corporation.  
All rights reserved.  
Connection to "servername" failed: Cannot connect  
to license server(-15,12:146) Connection refused
```

where *servername* is the name of the server machine. You can ignore this error message.

- If the server starts successfully, the status message should look similar to this:

```
License file = /var/flexlm/aw_servername.dat  
FLEXlm Licensing daemon for Alias software: /usr/  
etc/lmgrd
```

- 4 Log out of root.

### Additional troubleshooting steps

If you are having problems starting your licensing server, and stopping and then restarting your service as in the above instructions does not solve your problem, do the following:

## 7 | Licensing Maya

### > Additional setup for floating licenses

- 1 Type the following, and then press Return.  
`killall lmgrd`
- 2 Type the following, and then press Return.  
(IRIX) `/usr/etc/lmgrd -c /var/flexlm aw_servername.dat`  
(Linux) `/usr/aw/COM/etc/lmgrd`
- 3 View the log file at the following location.  
`/usr/tmp/aw_flexlm.log`
- 4 Type the following, and then press Return to see if the license manager is running in the process list.  
`ps -aef | grep lmgrd`  
This confirms that the daemon is now running.

For further information on troubleshooting floating license issues see "Troubleshooting licensing problems (IRIX, Linux, Mac OS X)" on page 133

### (Mac OS X) License server management options and license server confirmation

**Note** Mac OS X Server is not supported by the FLEXlm licensing software.

#### (Mac OS X) To start the license server

- 1 Log in as superuser (su).  
You may need to create a su (superuser) account in order to install your license or start a license server. For more information, see "Enabling a superuser (su) account (Mac OS X)" on page 153.
- 2 Start the license server by typing the following in Terminal.  
`/usr/aw/COM/bin/aw_flexlm start`

## 7 | Licensing Maya

### > Setting up each client

- 3 To confirm the server has started, type the following in Terminal:

```
/usr/aw/COM/bin/lmstat -c /var/flexlm/aw_server.dat
```

- 4 If the server has started successfully, you should see output that contains the line “License server UP (MASTER) v9.2”.
- 5 Launch Maya to see if the licensing setup has worked.

## Client setup

### Setting up each client

To set up each client, you must add information to each client computer’s `aw_servername.dat` file (on Mac OS X, `aw_client.dat`).

**Note** You can run Maya locally on the license server computer using its existing `aw_servername.dat` or `aw_server.dat` file, so you don’t need to do the following steps on the server.

#### To set up a Windows client

- 1 Make sure the license server and Windows client can access each other through your TCP/IP network.
- 2 From the Start menu, choose Programs > Alias > Maya 6.5 > Install License.  
The Install License screen of the Product Configuration Wizard appears.
- 3 Choose “I would like to type or paste in my license file” and click Next.

## 7 | Licensing Maya

### > Setting up each client

- 4 In the text area provided, type or copy the first line from the license text provided by Alias.

For example, from a server using an Ethernet Address:

```
SERVER server 0 7111
```

or from a server using a FLEXID:

```
SERVER server FLEXID=7-b1234a12 7111
```

- 5 Change the word *server* in the first line to match your machine name. For example, if the machine is *myserver*, it would appear like this:

```
SERVER myserver 0 7111
```

- 6 On the second line, type the following:

```
USE_SERVER
```

Your text should now appear similar to the following example:

```
SERVER myserver 0 7111
```

```
USE_SERVER
```

The `SERVER` and `USE_SERVER` lines tell the client which computer serves the licenses.

- 7 Press Enter to leave a blank line at the end.

Errors in the license are highlighted in red; the text turns black when the license is valid.

- 8 Click Next to save the file to the default location `C:\FLEXLM`.

The License Installation Results screen appears. You can click Show Details if you want more information on the license that was installed.

While you can go through this series of steps on each machine, once you have created the first `aw_servername.dat` file, you can copy it to the `C:\FLEXLM` directory on the other clients.

This completes the licensing procedure for floating licenses.

## 7 | Licensing Maya

### > Setting up each client

**Note** You can use an IP Address instead of the name of the server. For example, a license file named `aw_myserver.dat` on a client machine that is referencing the IP address would look like this:

```
SERVER 10.0.0.10 0 7111
USE_SERVER
```

#### To initially set up an IRIX or Linux client

- 1 Make sure the license server and IRIX or Linux client can access each other through your TCP/IP network.
- 2 On each client machine, create the following text file with a text editor such as `vi`, `jot`, or `nedit`:

```
/var/flexlm/aw.dat
```

or

```
/var/flexlm/aw.servername.dat
```

- 3 Type or copy this line from the license text provided by Alias. For example:

```
SERVER server 0 7111
```

- 4 Change the word *server* to match the name of your server. For example, if the server name is *myserver*, it would appear like this:

```
SERVER myserver 0 7111
```

- 5 On the second line, type the following:

```
USE_SERVER
```

Your file should now look like the following example:

```
SERVER myserver 0 7111
USE_SERVER
```

- 6 Press Enter to leave a blank line at the end.
- 7 Save the file and exit the text editor.

## 7 | Licensing Maya

### > Setting up each client

While you can go through this manual series of steps on each machine, once you have created the first `aw_servername.dat` file, copy it to the `/var/flexlm` directory on the other clients. If there are DOS control characters in the license file (that is, if you have copied it from a Windows client), remove them by typing the following command in a UNIX shell:

```
tounix /var/flexlm/aw_servername.dat
```

#### To set up a Mac OS X client

- 1 On your computer, open the `/var/flexlm/aw_client.dat` file in a text editor.
- 2 On the first line, type `SERVER` (space) the host name of the server (space) `0` (space) `7111` (enter). On the second line, type `USE_SERVER`.

For example:

```
SERVER licenseserver 0 7111
USE_SERVER
```

The number 7111 is the port number used by FLEXlm on the server. If your site administrator has customized the server to use a different port for some reason, enter that number instead of 7111.

- 3 Save the file. If you used the TextEdit application to edit the file, remember to save the file as plain text without a `.txt` extension.

While you can go through this manual series of steps on each machine, once you have created the first `aw_client.dat` file, we suggest you copy it to the `/var/flexlm` directory on the other clients.

This completes the licensing procedure for floating licenses.

## 7 | Licensing Maya

### > Limiting the use of Maya Unlimited product licenses

## Limiting the use of Maya Unlimited product licenses

Some users on your network may not need to use all the Maya features available to them. You can disable availability of optional licenses for specific users to ensure that those who need them have them on demand.

For example, suppose your network has several Maya Complete licenses, but only one Unlimited license. To prevent some users from using the Unlimited license, you may control which users receives the Unlimited license.

To control the Maya product users can launch on all platforms, you can include a line in the user's `Maya.env` file, for example:

```
MAYA_LICENSE = complete
```

For details on how to set up the `Maya.env` file, see the *Environment Variables* guide.

Alternatively, you can set an environment setting.

### **(Windows) To control Maya product availability for a user**

- 1** Log on to the user's account.
- 2** From the Start menu, select Settings > Control Panel.
- 3** Double-click the System icon.
- 4** Click the Advanced tab.
- 5** Click Environment Variables.
- 6** Click New in the user variables box.
- 7** In the Variable Name text box, type `MAYA_LICENSE`.
- 8** In the Variable Value text box, type the appropriate setting from the following table.



## 7 | Licensing Maya

### > Limiting the use of Maya Unlimited product licenses

| MAYA_LICENSE setting | Effect on Maya           |
|----------------------|--------------------------|
| complete             | Runs Maya Complete only  |
| unlimited            | Runs Maya Unlimited only |

#### 9 Click OK twice.

You can set this environment variable on a Linux or IRIX system in a variety of ways depending on your shell. You can also set environment variables on every login by putting them in a dot-file (.cshrc, .profile, or .login).

**Note** If Maya license is set to Complete and there are no Complete licenses available, even if there are Unlimited licenses, the software will not run, but will display a “No Licenses Available” message.

Sometimes, a user may need to use Maya Unlimited temporarily. Instead of editing the startup file, you can inform the user to start Maya with the following command, which overrides the startup setting:

```
maya -lic=unlimited
```

#### Other considerations

- If you repeat a command option or MAYA\_LICENSE setting, Maya uses the last setting.
- A command line option takes precedence over a conflicting environment variable setting.

## 7 | Licensing Maya

### > Confirming Maya startup

## Finishing installation

### Confirming Maya startup

Start Maya to confirm installation.

#### **To confirm you installed Maya correctly**

- (Windows) Do one of the following:
  - Start Maya from the Start menu
  - If you created a shortcut to Maya when prompted during installation, double-click the shortcut on your desktop.
- (Mac OS X) Double-click the Maya icon in the Maya folder (Applications > Alias > Maya6.5), or select it from the Dock if you added it.
- (Linux and IRIX): In a shell, enter: `maya`

The main Maya window opens.

The display of the main Maya window confirms you've installed Maya.

If an error message appears instead of the Maya window, it's possible you have a licensing problem. See "Troubleshooting" on page 127.

If the Product Configuration Wizard appears, Maya was unable to find a suitable license. See "To obtain an activation key by online product activation" on page 91.

### > Verifying license server installation (all platforms)

## Additional licensing information

### Verifying license server installation (all platforms)

If you are installing floating licenses, you must check to see that you have the correct version of the license server software.

#### Windows

Ensure that you installed the Licensing component when you installed Maya 6.5. This component is installed by default.

#### (Windows) To verify license server version

- Do both of the following:
  - At the Command Prompt, type:  

```
"C:\Program Files\Common Files\Alias Shared\Licensing\etc\lmgrd" -v
```
  - At the Command Prompt, type:  

```
"C:\Program Files\Common Files\Alias Shared\Licensing\bin\lmutil.exe" -v
```

You should have version 9.2 installed of both. If not, you must update the license software on the license server from the Maya installation distribution.

#### Mac OS X

Ensure that you installed the License Server component when you installed Maya 6.5. This component is usually installed by default.

#### (Mac OS X) To verify license server version

- Open a Terminal window and type:  

```
/usr/aw/COM/etc/lmgrd -v
```

## 7 | Licensing Maya

### > Verifying license server installation (all platforms)

You should have version 9.2 of the license server daemon installed. If not, you must update the license software on the license server from the Maya installation distribution.

## Linux

Ensure that you installed the latest version of the License Server software. You need to explicitly install this component.

### (Linux) To verify license server version

- In a shell window, type:

```
rpm -qa | grep AW
```

If the response is the following, you have the correct versions installed:

```
AWCommon-6.3-1  
AWCommon-server-6.3-1
```

If not, you must uninstall the older packages and install the current ones.

Please see “Uninstalling Maya” on page 72 and “Installing Maya using the rpm utility” on page 68 for details on how to uninstall old packages and install the `AWCommon-6.3-1.i686.rpm` and `AWCommon-server-6.3-1.i686.rpm` packages.

## IRIX

Ensure you have the license server components installed by doing the following:

### (IRIX) To verify license server version

- 1 Do one of the following
  - Open the Software Manager (`swmgr`)
  - Type `versions -n license_eoe awcommon`

## 7 | Licensing Maya

### > Verifying license server installation (all platforms)

- 2 You must have the following components installed:
  - Alias Common Utilities 6.2 (`awcommon`). Make sure you have installed the Alias License Server Software subsystem (`awcommon.sw.server`).
  - License Tools 3.4.10 (`license_eoe`). Make sure you have installed the FLEXlm 9.0 Server Software subsystem (`license_eoe.sw.flexlm_server`).

#### To install FLEXlm server software

- 1 Log into the license server machine as root.
- 2 Insert the Maya 6.5 IRIX CD into the drive.
- 3 At the command line, type `swmgr`.
- 4 Enter the path to the CD-ROM at the top of the Software Manager window, such as `/CDROM/dist`.

If you have a remote CD-ROM drive, specify its path. For more information, see "Accessing a remote CD-ROM" on page 59.
- 5 Click Lookup.
- 6 Click Execute (or OK) after reading the installation instructions.
- 7 When the Software Manager window reappears, click the Customize Installation button.
- 8 Select Alias Common Utilities, 6.2 and then click the button to expand the product's sub-products.
- 9 Turn on the check boxes for Alias Common Base Software, Alias Common Desktop Software and Alias License Server Software.
- 10 Select License Tools 3.4.10 and then click the button to expand the product's sub-products.

## **7 | Licensing Maya**

> Verifying license server installation (all platforms)

**11** Turn on check boxes for:

- FLEXlm 9.0 Server Software
- FLEXlm 9.0 Utilities
- License Manager 3.4.10 Software

**12** Click Start.

**13** When the installation is completed, select Exit and click OK.

# 8

# Troubleshooting

## Troubleshooting installation and licensing

This chapter describes troubleshooting for Maya installation and licensing. During installation, the installer displays error messages in response to problems. After installation and licensing, if you start Maya and the Product Configuration Wizard and/or error messages appear rather than the Maya main window, you may have a specific startup problem or a licensing problem.

- “Installation troubleshooting” on page 128
- “Startup problems” on page 131
- “Licensing troubleshooting” on page 133

If you feel you’re not making progress while troubleshooting, please go to our support Web site, where you’ll find information that may help solve your problem.

[www.alias.com](http://www.alias.com), and click *Support* and then *Maya*.

As well, you can contact our Support Services department for assistance.

## Contacting Support Services

### North America

Hours: Monday to Friday, 9:00 am to 8:00 pm EST

*Platinum Customers:*

Toll-free from U.S. and Canada: 877-927-7478

Elsewhere in the Americas: 416-362-8670

Fax: 416-369-6138

E-mail: [hotline@alias.com](mailto:hotline@alias.com)

## 8 | Troubleshooting

### > (Windows) Installer error messages

*Incident Support:*

Toll-free from U.S. and Canada: 800-747-9208

Elsewhere in the Americas: 416-362-8670

#### Europe

Hours: Monday to Friday, 9:00 CET to 18:30 CET

*Single Incident Support Service & Maintenance Customers:*

Toll-free from Germany: 0800-1827660

Toll-free from UK: 0800-7318923

Toll-free from France: 0800-902295

Toll-free from Italy: 800-780809

All others (toll call): +32 9 223 6945

Fax: +32 9 266 12 30

E-mail: hotline\_esc@alias.com

#### Asia-Pacific

Please contact your local reseller for support service.

## Installation troubleshooting

This section gives details on problems that may occur during installation.

### (Windows) Installer error messages

This section explains error and status messages that may occur as you run the Maya installer on Windows. For details on error messages that may occur when you start or run Maya, see "(Windows) Issues at startup" on page 131 and "Troubleshooting licensing problems (Windows)" on page 136.

### Hardware lock (dongle) problems

When the installation procedure works correctly, it installs and activates the Sentinel parallel port and USB device driver that communicates via your computer's parallel or USB port when the



### > (IRIX) Software Manager troubleshooting & FAQ

hardware lock is installed. This is necessary for correct license operation. If the procedure failed to activate the device driver, you must reboot your machine or activate it as described in "Confirming parallel port or USB driver activation" on page 132.

## (IRIX) Software Manager troubleshooting & FAQ

The following section refers to problems you may have when using Software Manager on IRIX.

- Q** Software Manager is not behaving as described in the installation instructions.
- A** Your Software Manager may be customized, as specified by the `/var/inst/.swmgrrc` file. Try renaming this file (for example, to `oldswmgrrc`) and restarting Software Manager to be sure it is in default mode.
- Q** The installation doesn't seem to be working. What should I do?
- A** In Software Manager, enter the `/CDROM/dist` location in the text field, then click the Lookup button. This takes you back to the beginning of the installation process.
- Q** An "Alias Installation Error" window appears. What do I do?
- A** You may be missing prerequisite IRIX software or patches. Follow the displayed instructions before continuing with the installation. The missing components may be SGI software patches. Some patches may be on the IRIX CD-ROM, but the best place to get patches is on the SGI Web site. For a list of qualified patches, refer to our Web site: [www.alias.com/qual\\_charts](http://www.alias.com/qual_charts).

## 8 | Troubleshooting

### > (IRIX) Software Manager troubleshooting & FAQ

**Q** Software Manager reports a conflict.

**A** Software conflicts are caused by several different reasons. Click Conflict and choose from the list of possible solutions.

To help prevent software conflicts:

- Do not click Cancel in the Installation Software Script window.
- Do not click the Default Installation button in the Software Manager window.

**Q** Software Manager reports a conflict related to a software patch for the “Java Runtime System Software”.

**A** This particular Java software patch is incompatible with the Maya installation and must be removed to successfully install Maya. Follow the instructions provided in the Software manager window.

**Q** Software Manager says I don’t have enough space on /usr even though I’m installing to a different file system.

**A** This is a limitation in some versions of the Software Manager. Make sure there is enough room in the file system, then type the following in the command line to disable space-checking:  
`set override_space_check true`

**Q** How do I remove Maya?

**A** Always use Software Manager or `inst` to remove Maya files.

If you are using Software Manager, click *Manage Installed Software*, select Alias Maya, then click Start.

If you also installed the Developer’s Tool Kit or other optional software, you must remove it as well.

## Startup problems

The following section deals with problems occurring at startup that are not license related.

### (Windows) Issues at startup

#### Preference corruption

If you are having problems starting Maya after installation and you believe everything is licensed correctly, your preferences may have become corrupted.

You can force Maya to restore your preferences file. Rename your existing user preferences file; for example, `prefs.backup`, and then restart Maya.

The default prefs directory path is:

- (Windows) `drive:\Documents and Settings\username\My Documents\maya\6.5\prefs`
- (Mac OS X) `Users/username/Library/Preferences/Alias/maya/6.5/prefs`
- (IRIX and Linux) `~username/maya/6.5/prefs`

#### The Product Configuration Wizard does not appear

If you are attempting to enter your serial number or activation number and the Product Configuration Wizard does not appear when you started Maya (and Maya does not run), select **Start > Programs > Alias > Maya 6.5 > Online Product Activation**.

If the Product Configuration Wizard still doesn't open you may have a damaged or incomplete install. Try reinstalling Maya.

## 8 | Troubleshooting

### > (Windows) Issues at startup

#### The main Maya view port doesn't open, but the Script Editor does

This is usually due to incorrect graphic card drivers on the machine. Check that the qualified graphic card drivers are installed.

#### Confirming parallel port or USB driver activation

The Sentinel driver enables communication between a node-locked computer and its parallel port/USB port, or between the license server computer and its parallel port/USB port. The parallel port or USB port connector is where the hardware lock is attached.

The installer upgrades the Sentinel driver unless the current version already exists on your computer.

There are several steps to make sure that the driver is installed and active:

- After install: reboot to activate drivers. This should fix most problems.
- In some circumstances—such as plugging the hardware lock in before an install on a machine that is not connected to the Internet—a generic USB driver may be installed for the hardware lock. In this case, we recommend the following:
  - Download Win32 device drivers from the following URL:  
[www.ealaddin.com/support/hasp/enduser.asp](http://www.ealaddin.com/support/hasp/enduser.asp)
  - Uncompress and install the downloaded file.

Once this is installed, the Device Manager should recognize the USB dongle as an Aladdin USB Key. You may need to reboot.

## **Licensing troubleshooting**

The following section deals with problems starting up Maya due to a licensing problem.

### **When you start Maya**

If the Product Configuration Wizard appears at startup, make sure you have licensed your copy of Maya correctly by checking the licensing steps starting in "Licensing Maya" on page 85, and also checking the following:

- You may have one or more environment variables set that affect licensing. Check your environment variables and your `Maya.env` file for `SGIAWD_LICENSE_FILE`, `MAYA_LICENSE` or `MAYA_ALT_EN` settings.
- Check for the existence of files in the license directory (Windows: `C:\FLEXLM`; Mac OS X, IRIX, Linux: `/var/flexlm/`) that begin with `aw` and end with the extension `.dat`. It is possible that you have a corrupt or expired license file that is misleading Maya that you are attempting to connect to a license server. This may prevent the Product Configuration Wizard from launching.

If the Product Configuration Wizard appears or Maya main window doesn't appear at startup, and you have followed the licensing steps correctly, please review the platform-specific troubleshooting information below.

### **Troubleshooting licensing problems (IRIX, Linux, Mac OS X)**

If the following error message appears, do the steps under the appropriate headings that follow.

```
No license suitable to run this version of Maya
Error setting license default
```

## 8 | Troubleshooting

### > When you start Maya

Cannot find any aw.dat (or aw\_servername.dat) files  
in /var/flexlm

Unable to locate a license server for Maya

Account is not available

Do the steps in sequence until the problem is solved. If you've tried all steps or you see an error message not listed, write down the exact error message and call our Support Services department.

#### No license suitable to run this version of Maya or Error setting license default

- 1** If you tried to run Maya on a client or server, make sure the time and date on the client and server are correct and synchronized. If the time and date of the client differs from the server by more than a half hour, the client may not be able to get a license.
- 2** Review the licensing procedure to make sure you completed all the steps.
- 3** Do the steps in "Examining a licensing log file" on page 138.

#### Cannot find any aw.dat (or aw\_servername.dat) files in /var/flexlm

- 1** Verify that the /var/flexlm directory contains the file aw.dat or aw\_servername.dat.
- 2** If this file doesn't exist, you may have not done the steps required in "Licensing Maya" on page 85. You'll need to reinstall licenses.

#### Unable to locate a license server for Maya

**Note** This message occurs only with floating licenses.

#### **To check possible client problems**

- Verify that the `USE_SERVER` line is below the `SERVER` line in the client license file. For an example, see "Setting up each client" on page 116.

#### **To check possible server problems**

- 1 Verify that you have installed the proper version of the licensing software. For more details, see "Verifying license server installation (all platforms)" on page 123.
- 2 Stop and start the license server software as described in "Additional setup for floating licenses" on page 111.
- 3 If that does not solve the problem, do the steps in "Examining a licensing log file" on page 138.

#### **Account is not available**

When attempting to set up a Linux floating license server, and after typing the following command to start flexlm:

```
/etc/init.d/aw_flexlm start
```

You receive the following error:

```
Account is not available
```

One possible cause of this problem is that the nobody account which serves the licenses on the server has its login shell set to `/sbin/nologin` within the `/etc/passwd` file.

#### **To correct the 'nobody' account problem**

- 1 In a shell window, edit the `/etc/passwd` file on the server.

## 8 | Troubleshooting

### > When you start Maya

- 2 Change the entry for the “nobody” account as in the following example:

```
nobody:*:99:99:Nobody:/:/sbin/nologin
```

to:

```
nobody:*:99:99:Nobody:/:
```

## Troubleshooting licensing problems (Windows)

If the Maya main window doesn’t appear, one of the following error messages may appear:

```
No license suitable to run this version of Maya
```

```
Error setting license default.
```

```
Unable to locate a license server for Maya.
```

```
Cannot find any aw*.dat files in C:\flexlm\.
```

```
No licenses found for your FLEXid flexid
```

For the message that appears, do the steps under the appropriate heading that follows. In each case, do the steps sequentially until the problem is solved. If you’ve tried all steps or you see an error message not listed, write down the exact error message and call our Support Services department.

The last message in the above list may occur as you run the License Installer software, not as you run Maya.

### No license suitable to run this version of Maya *or* Error setting license default

- 1 If you are using a FLEXlm Hardware Lock, make sure you attached the hardware lock correctly. See “Licensing: Hardware lock devices” on page 28 for installation details.
- 2 Confirm that the Sentinel driver for the Hardware lock device is correctly activated. See “Confirming parallel port or USB driver activation” on page 132.



## 8 | Troubleshooting

### > When you start Maya

- 3 If you tried to run Maya on a client or server, make sure the time and date on the client and server are correct and synchronized. If the time and date of the client differs from the server by more than a half hour, the client may not be able to get a license.
- 4 Review the licensing procedure to make sure you completed all the steps.
- 5 On the appropriate node-locked computer or license server computer, make sure the parallel port or USB port is operational if you are using a FLEXlm Hardware Lock. There are no easy ways to check that the port is operational other than to plug a printer (or some other device) into the parallel port or USB connector and print something.
- 6 Do the steps in "Examining a licensing log file" on page 138.
- 7 Do the steps in "Checking for licensing errors with FLEXlm licensing utilities (Windows)" on page 149.

#### Unable to locate a license server for Maya

**Note** This message only occurs with floating licenses.

#### To check possible client problems

- Verify that the `USE_SERVER` line is below the `SERVER` line in the client license file. For an example, see "Setting up each client" on page 116.
- Make sure that your client and the license server are connected via a TCP/IP network.

#### To check possible server problems

- Stop and start the license server software as described in "Additional setup for floating licenses" on page 111.

## 8 | Troubleshooting

### > Examining a licensing log file

#### Cannot find any aw\*.dat files in C:\flexlm\

- 1 From My Computer or Windows Explorer, verify that the C:\FLEXLM\ directory contains the file aw.dat or aw\_servername.dat.

If this file doesn't exist, you'll need to redo the licensing procedure as described in "Licensing Maya" on page 85.

- 2 Do the steps in "Checking that a license file is the correct file type (Windows)" on page 152.

#### No licenses found for your FLEXid flexid

- You don't have any licensing information in the license file.
- If the licensing information originates in an e-mail or other file of an IRIX or Linux computer and you transfer the file to the Windows computer, you must transfer it in ASCII mode rather than binary. Otherwise the file will contain additional control characters at line endings that the License Installer won't recognize, and you'll see the preceding error message.

You can use Notepad to examine the contents of the file on the Windows computer to make sure it has no added control characters.

## Examining a licensing log file

If you start Maya and the Product Configuration Wizard or error messages appear instead of the Maya main window, you can create and examine a licensing log file to learn the nature of the error. Error messages may include:

```
No license suitable to run this version of Maya
Error setting license default.
```

For a node-locked license, do the following steps on the computer where the message appears. For a floating license, do the following steps on the license server computer.

## 8 | Troubleshooting

### > Examining a licensing log file

#### To examine the license error log file (Windows)

- 1 From the Start menu, select  
Programs > Accessories > Command Prompt
- 2 At the Command Prompt, enter:  

```
set FLEXLM_DIAGNOSTICS=2
```
- 3 To repeat the failed attempt to start Maya, use the full path:  

```
<install_path>\maya
```

where *install\_path* is the path to which you installed the Maya software. For example, if you installed Maya on drive C:, the path would be: C:\Program Files\Alias\Maya6.5\maya.

When you set the FLEXlm diagnostics in step 2, the attempt to start Maya creates a licensing log file. An error message flashes onscreen before the Product Configuration Wizard appears.
- 4 Open the log file that was just created:
  - Using Windows Explorer, navigate to the folder in which you gave the command to start Maya. For example, if you typed *<install\_path>\maya* at the C:\ prompt, the log file is created in the root folder of the C:\ drive.
  - Open the file using Notepad or another text editor.
- 5 Find the message in "Understanding log file error messages" on page 140 and follow the instructions.  
  
Ignore other information in the file. If the message isn't listed, call Alias Support.

#### To examine the license error log file (IRIX, Linux, Mac OS X)

- 1 In a shell (IRIX, Linux), or in a Terminal window (Mac OS X), enter the following:  

```
setenv FLEXLM_DIAGNOSTICS 2
```

## 8 | Troubleshooting

### > Examining a licensing log file

- 2** (IRIX, Linux) Type `maya` to repeat the failed attempt to start Maya.

The diagnostic information is printed to the screen. As well, the Maya Product Configuration Wizard appears.

(Mac OS X) Type the following to start Maya.

```
/Applications/Alias/maya6.5/Maya.app/Contents/MacOS/Maya
```

Only use this command to perform FLEXlm diagnostics. This special command ensures that the startup attempt inherits the `FLEXLM_DIAGNOSTICS` environment variable from the typed-in command.

The diagnostic information is displayed in the Terminal window. As well, the Maya On-line Product Activation window appears.

- 3** The FLEXlm checkout error message always refers to the FEATURE below it. The format is:

- FLEXlm checkout error.
- License file being used.
- FLEXlm error code and FEATURE line in question.

- 4** Find the message in the following topic, “Understanding log file error messages” on page 140 and follow the instructions.

Ignore other information in the file. If the message isn’t listed, call Alias Support.

### Understanding log file error messages

Error messages within the file help you identify the problem. The most common error messages are explained below. If multiple errors exist, look for the feature name that matches the feature in your license file. Use the help in step 3 above to focus on the error. In the following explanations, *license file* refers to the `aw.dat` file for node-locked licenses, and `aw_servername.dat` (on the server) for floating licenses.

## 8 | Troubleshooting

### > Examining a licensing log file

| Error                                                                                                                                                                        | Possible solutions                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FLEXLM checkout error: Invalid (inconsistent) license key. The license key and data for the feature do not match. This usually happens when a license file has been altered. | <ul style="list-style-type: none"><li>• Check the license file for a typing mistake in the password, expiration, or license version. If it is a floating license, check to see if the HOSTID is spelled correctly. As well, check the spelling and punctuation in the ISSUER field.</li><li>• If you obtained a pre-release license for Maya, also check the spelling of eval or edu in the VENDOR_STRING.</li></ul> |
| FLEXLM checkout error: Feature has expired...                                                                                                                                | <ul style="list-style-type: none"><li>• Either the current machine date is later than the expiration date or there's a typing mistake in the expiration date.</li></ul>                                                                                                                                                                                                                                              |
| FLEXLM checkout error: Invalid date format in license file                                                                                                                   | <ul style="list-style-type: none"><li>• Check the license file's expiration date for an incorrect format, for example, may-4-2003. The correct format is 4-may-2003.</li><li>• The password may have invalid characters—not all hexadecimal.</li><li>• The license count digit may be absent: <i>uncounted</i> for node-locked, a number greater than 0 for floating.</li></ul>                                      |

## 8 | Troubleshooting

### > Examining a licensing log file

|                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FLEXLM checkout<br>error: Invalid<br>License File syntax.                                     | <ul style="list-style-type: none"><li>• Check the entire license file for a typing mistake.</li></ul>                                                                                                                                                                                                                                                                                                                             |
| FLEXLM checkout<br>error: No such<br>feature exists.                                          | <ul style="list-style-type: none"><li>• Check the license file's spelling of components, package, and feature lines.</li></ul>                                                                                                                                                                                                                                                                                                    |
| FLEXLM checkout<br>error: Future license<br>file format or<br>misspelling in<br>license file. | <ul style="list-style-type: none"><li>• Check the license file's spelling of VENDOR or any part of the string <i>HOSTID number</i>.</li><li>• <i>Windows hardware lock (dongle) users</i>: Check the license file's spelling of VENDOR or any part of the string <i>HOSTID=FLEXID=number</i>.</li><li>• Check that you typed \ instead of / at the end of a line.</li><li>• Check that the ISSUER is spelled correctly.</li></ul> |
| FLEXLM checkout<br>error: No SERVER<br>lines in license<br>file.                              | <ul style="list-style-type: none"><li>• For a node-locked license, check that the license file's License Count is <i>uncounted</i>.</li><li>• For a floating license, make sure the appropriate SERVER and VENDOR/DAEMON lines appear at the top of the <i>aw_servername.dat</i> file (where <i>servername</i> is the name of the license server machine). On Mac OS X, this file is named <i>aw_server.dat</i>.</li></ul>        |

## 8 | Troubleshooting

### > Examining a licensing log file

|                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>FLEXLM checkout<br/>error: Maya license<br/>in file appears to be<br/>corrupted.</code>                                                                             | <ul style="list-style-type: none"><li>• Check the entire license file for a typing mistake.</li></ul>                                                                                                                                                                                                                                                                                                                                        |
| <code>FLEXLM checkout<br/>error: Invalid host.<br/><br/>or<br/><br/>The hostid of this<br/>system does not match<br/>the hostid specified<br/>in the license file.</code> | <ul style="list-style-type: none"><li>• Check that the machine possesses the right hardware ID/HOSTID number, and that it is correct and not misspelled.</li><li>• To check the hardware ID of the current machine, see "Getting your hardware ID values" on page 101.</li><li>• Check that the hardware lock (dongle) is plugged into the parallel port or USB port correctly. See "Licensing: Hardware lock devices" on page 28.</li></ul> |
| <code>FLEXLM checkout<br/>error: No server for<br/>this feature.</code>                                                                                                   | <ul style="list-style-type: none"><li>• <code>sgiawd</code> in <code>DAEMON</code> (IRIX, Linux) or <code>VENDOR</code> (Windows, Mac OS X) line may be spelled incorrectly.</li></ul>                                                                                                                                                                                                                                                       |
| <code>FLEXLM checkout<br/>error: License server<br/>does not support this<br/>feature.</code>                                                                             | <ul style="list-style-type: none"><li>• Check the license file to see if the feature has expired, the license server has not yet started, or the version is higher than the highest supported version.</li><li>• Try using the computer's IP address instead of the hostname.</li></ul>                                                                                                                                                      |

## 8 | Troubleshooting

### > Examining a licensing log file

|                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>FLEXLM checkout error: Cannot connect to license server.</pre>                     | <ul style="list-style-type: none"><li>• FLEXlm floating license software has not been installed (see "Verifying license server installation (all platforms)" on page 123) or an older version of FLEXlm floating license software is installed. Maya 6.5 uses FLEXlm version 9.2.</li><li>• The license server has not been started.</li><li>• SERVER <i>servername</i> has not been changed to reflect the name or I.P. address of the server.</li><li>• DAEMON or VENDOR is not spelled correctly.</li><li>• (IRIX) The sgiawd path is not right. The default should be: /usr/aw/COM/etc/sgiawd.</li><li>• Check the network connection on your client machine.</li><li>• As a last resort, reboot your license server.</li></ul> |
| <pre>FLEXLM checkout error: Clock difference too large between client and server.</pre> | <ul style="list-style-type: none"><li>• Make sure the time and date on the client and server are correct and synchronized. If the time and date of the client differs from the server by more than a half hour, the client may not be able to get a license.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



## Finding licensing problems with diagnostic tools

For IRIX, Linux, and Mac OS X, you can use the `lmhostid`, `lmdiag`, and `lmstat` utilities to help find and fix licensing problems. For Windows, you can use the FLEXlm Licensing Utilities (`lmtools`) to help find and fix licensing problems.

### Checking your hardware ID with `lmhostid` (IRIX, Linux, Mac OS X)

The `lmhostid` tool provides the hardware ID for the current machine. This should correspond with the Host ID in the `aw.dat`, `aw_servername.dat`, or `aw_server.dat` file. If they do not match, make sure that a typing mistake was not made.

#### (IRIX, Linux, Mac OS X) To verify hostid information

- 1 In Terminal or in a shell, type the following:

```
/usr/aw/COM/bin/lmhostid
```

- 2 Press Return.

The result is displayed on the screen.

### Diagnosing your licensing problems with `lmdiag` (IRIX, Linux, Mac OS X)

The `lmdiag` tool diagnoses problems when a license checkout fails. You can use it for node-locked or floating licenses. `lmdiag` first prints information about the license. It then attempts to check out each license. If the checkout is successful, `lmdiag` notifies the user; if not, `lmdiag` gives the reasons why the checkout failed.

- Do one of the following:
  - (IRIX) At a UNIX prompt, type:

```
lmdiag -c /var/flexlm/LicenseFile
```

## 8 | Troubleshooting

### > Finding licensing problems with diagnostic tools

- (Linux) At a UNIX prompt, type:

```
/usr/aw/COM/bin/lmdiag -a -c /var/flexlm/  
LicenseFile
```

- (Mac OS X) In a Terminal window, type:

```
/usr/aw/COM/bin/lmdiag -c /var/flexlm/LicenseFile
```

The format of lmdiag is:

`-c LicenseFile`      Specifies the license file to diagnose.

## Checking floating licensing with lmstat (IRIX, Linux, Mac OS X)

The lmstat tool reports the status of the license manager daemons and feature usage. It provides information about the status of the server nodes, vendor daemons, vendor features and users of each feature. lmstat is only useful for checking floating license errors. You must run lmstat on the license server machine.

### To use lmstat

- 1 Do one of the following:

- (IRIX) At a UNIX prompt, type:

```
lmstat -a -c /var/flexlm/aw_servername.dat
```

- (Linux) At a UNIX prompt, type:

```
/usr/aw/COM/bin/lmstat -a -c /var/flexlm/  
aw_servername.dat
```

- (Mac OS X) In a Terminal window, type:

```
/usr/aw/COM/bin/lmstat -a -c /var/flexlm/  
aw_server.dat
```

## 8 | Troubleshooting

### > Finding licensing problems with diagnostic tools

- a Displays all. A lot of information appears if there are a lot of active users.
- c *license file* This ensures that you are checking the diagnostics for the correct license file.

#### 2 Press Return. The data is displayed on the screen.

When running `lmstat`, a lengthy list of status information appears. In short, the status information shows whether the license server is up and running, and whether each feature line in `aw_servername.dat` or `aw_server.dat` has no errors and the license count is correct. Examine the following entries in the status information for troubleshooting in the following steps:

```
lmstat - Copyright (C) 1989-2003 Macrovision
Corporation. All rights reserved.
Flexible License Manager status on Thu 5/15/2004
10:51
License server status (License file: /var/flexlm/
aw_servername.dat):
servername: license server UP (MASTER)
Vendor daemon status (on servername):
sgiawd: UP
```

#### 3 For the line that starts with *License server status*, make sure that the correct path to the license file is listed. If it is not the correct path, make sure that the license file exists in the `/var/flexlm/` directory, and make sure that the name of the server machine is correct.

#### 4 The next line of status information shows if the license server is UP. If it is not UP, the error message printed is:

```
License server status (License file: /var/flexlm/
aw_servername.dat):
servername: Cannot connect to license server (-
```

## 8 | Troubleshooting

### > Finding licensing problems with diagnostic tools

```
15,12:146) Connection refused
Vendor daemon status (on servername):
sglawd: Cannot connect to license server (-
15,12:146) Connection refused
```

If this is the message you receive, follow these steps sequentially:

- 5 Confirm that the license server is up.

For more information, see “Additional setup for floating licenses” on page 111. Follow the platform-specific instructions for the license server you are working with.

- 6 Below the status information is a list of features in the `aw_servername.dat` or `aw_server.dat` file and information explaining whether the clients can use the features. An example follows:

```
Feature usage info:
Users of MayaUnltdf: (Total of 3 licenses
available)
```

This example indicates that three floating Maya Unlimited licenses are available.

If the `aw_servername.dat` or `aw_server.dat` file has a typing error, you’ll see something similar to this example:

```
Users of MayaUnltdf: (Error: 3 licenses,
unsupported by licensed server)
```

Check `aw_servername.dat` or `aw_server.dat` for a typing error.

- 7 If following the above procedures does not solve the problem and successfully license Maya, gather all of the diagnostic output messages, the `aw_servername.dat` or `aw_server.dat` file, and the `aw_flexlm.log` file (located in `/usr/tmp`). Contact our Support Services department and provide them with this information.

#### Checking for licensing errors with FLEXlm licensing utilities (Windows)

Licensing sometimes fails because your licensing software is using the wrong hardware ID (also known as Host ID or Server Host ID) for the hardware lock plugged into your node-locked or license server computer. The Host ID/Server Host ID for a hardware lock is printed on a sticker on the lock.

For node-locked or floating licenses, you can use the FLEXlm licensing utilities to check that your licensing software is using the correct hardware ID. For floating licenses only, you can additionally use the FLEXlm licensing utilities program to check for errors not listed in “Understanding log file error messages” on page 140.

Do the following steps on the license server computer or on a computer that has a node-locked license.

#### To check for license errors (Windows)

- 1 On the machine you want to license, go to Start > Program Files > Alias > Common Utilities > FlexLM License Utilities.

**Tip** The FLEXlm Licensing Utilities are located at  
<drive>:\Program Files\Common Files\  
Alias Shared\Licensing\bin\lmtools.exe

- 2 In the LMTOOLS window, click the System Settings tab.
- 3 Record the FLEXID value, if shown. Otherwise, record the Ethernet Address value.

The value you record is your hardware ID.

- 4 In Notepad, open your license file (C:\FlexLM\aw.dat or aw\_servername.dat).

## 8 | Troubleshooting

### > Finding licensing problems with diagnostic tools

- 5 Depending on your license type, check the following:  
(Node Locked License) Find "HOSTID=" in your license file and compare it to your recorded system ID.  
(Floating License) Find "SERVER *servername* *hostID* 7111" in your license file and compare it to your recorded system ID. (Where HOSTID may either be a FLEXID or ethernet HOSTID.)  
If these ID numbers do not match, make sure that you installed the correct license. Otherwise, you need to obtain a new license for your recorded System ID.

**Note** A Host ID that contains FLEXID=7-0 or FLEXID=6-0 means the hardware lock is not plugged into the parallel connector correctly.

If you are checking for floating licensing errors, do the following:

- 6 Click the Server Status tab.
- 7 Select Display Everything.
- 8 Click Perform Status Enquiry.
- 9 Examine the status information that appears. For example:

```
License server status: 7111@servername
License file(s) on servername:
C:\FLEXLM\aw_servername.dat:
  servername: license server UP (MASTER) \
Vendor daemon status (on servername):
sgiawd: UP
```

where *servername* is the name of the license server computer.

## 8 | Troubleshooting

### > Finding licensing problems with diagnostic tools

The status information shows whether the license server is up and running, and whether each feature line in `aw_servername.dat` has no errors and the license count is correct.

The types of status information are as follows:

**License server status**—The number 7111 is a fixed number that represents the TCP port used internally by the licensing software. If you see a number other than 7111, make sure that you intend for that port number to be used. Otherwise, open the file `aw_servername.dat` and change the number to 7111.

**License file(s) on *servername***—Check that the path to the license file is correct.

***servername***—The next line of the status information shows the license server is up. If the license server isn't up, you'll see an error message that begins like this:

```
lmgrd not running: Cannot connect to license
server.
The server (lmgrd) has not been started yet, or
the wrong port@host or license file is being used,
or the port or hostname in the license file has
been changed...
```

If you see this message, confirm the license server is up and ensure the pathname to the server's `aw_servername.dat` file is correct.

**Vendor daemon status (on *servername*)**—The final two lines show whether the vendor daemon is up. The vendor daemon connects the license server to an application, in this case Maya. You can't directly start the vendor daemon when it's down. When you stop and start the license server software, the daemon starts also. If the license server is down, stop and start the license server software as described in "Additional setup for floating licenses" on page 111. If the problem persists, restart the license server computer.

## 8 | Troubleshooting

### > Finding licensing problems with diagnostic tools

**Other information**—Below the status information is a list of features in the `aw_servername.dat` file and whether the clients can use the features. An example follows:

```
Feature usage info:  
Users of MayaUnltdf: (Total of 3 licenses  
available)
```

This example indicates that three floating Maya Unlimited licenses are available.

If the `aw_servername.dat` file has a typing error, you'll see something similar to this example:

```
Users of MayaUnltdf: (Error: 3 licenses unsupported  
by license server)
```

Check `aw_servername.dat` for a typing error.

- 10** If doing the following procedure doesn't fix the problem, call Alias Support and keep the information from the preceding steps handy.

### Checking that a license file is the correct file type (Windows)

The `aw.dat` or `aw_servername.dat` file must be a `.dat` or FLEXlm license file. The following procedure shows how to check and correct the file type.

#### To check and correct the file type

- 1** From My Computer or Windows Explorer, right-click `aw.dat` or `aw_servername.dat` and select Properties from the pop-up menu.
- 2** In the Properties window, check that the file type is either `.dat` or FLEXlm License file.
- 3** If not, select Tools > Folder Options.
- 4** Select the View tab.



## 8 | Troubleshooting

### > Enabling a superuser (su) account (Mac OS X)

- 5 Turn off Hide file extensions for known file types and click OK. You'll likely see that `aw.dat` or `aw_servername.dat` file has an extension other than `.dat`, for example, `.txt`.
- 6 Right-click the filename and select Rename from the pop-up menu.
- 7 Change the file extension to `.dat`.  
You'll be prompted that if you change a filename extension, the file may become unusable.
- 8 Click Yes. (The file won't become unusable.)  
The file now has the correct `.dat` extension for licensing operation.

## Enabling a superuser (su) account (Mac OS X)

In Mac OS X, there are two levels of security:

- **Administrator Password Account.** Your primary account has administrative privileges. This password allows you to install software.
- **Root Account.** This special account will allow you to be a "super user". You must have root user to start the license server for Maya on Mac OS X.

**Note** Using root makes it very easy for an inexperienced user to damage or destroy important data; please use `su` and `sudo` with caution and read the appropriate Apple documentation. Please check the Apple Support Web site - Article 106290 for a description of a root user in Mac OS X.

## 8 | Troubleshooting

### > Understanding licenses

#### To enable a root user in Mac OS X

- 1** Open Netinfo Manager (Applications > Utilities > Netinfo Manager).
- 2** Select Security > Authenticate.  
A dialog box appears, asking for your Administrator password.
- 3** Enter your Administrator password.
- 4** Select Security > Enable Root User.

**Note** If the menu item says Disable Root User, your root account is already set.

- 5** Click OK in the dialog box that appears.
- 6** Enter your password for root access. Re-enter your password for confirmation.
- 7** To confirm that you have set up superuser correctly, close Netinfo Manager and go to a Terminal window.
- 8** Type `su`.
- 9** Type in your password.  
(When you type in your password it will not display on the prompt line in the terminal window.)
- 10** Type `whoami`. The response should be `root`.

## Understanding licenses

This section explains the structure of the license Alias sends you. Understanding this structure is helpful if you manually entered the license into a text file from fax or mail and you're looking for a typing error. A license can include multiple software components

and copies of Maya. The term license therefore refers to an entire license or an individual entry of a license, depending on the context.

**Tip** If you see a line near the top of your license that starts with `SERVER`, you're installing floating licenses. Otherwise, you're installing node-locked licenses.

## Node-locked licenses

If you order node-locked licenses, you receive one license for every machine. The contents of the e-mail, fax, or mail depends on the Maya package you order. The following figure shows the structure of a node-locked license:

```

      Feature Name      License Version  Expiration  License Count  Password
      |                 |                |            |            |
FEATURE MayaUnltd sgiawd 6.500 permanent uncounted 1234567890ab\
VENDOR_STRING=xxx HOSTID=690c5c73
      |                 |
      Vendor String      Host ID/hardware ID

```

**Feature Name**—the Maya product package you purchased.

**License Version**—the version number of the Maya package.

**Expiration**—when the license expires. The word “permanent” means there is no expiration date. Product pre-release licenses have expiration dates.

**License Count**—node-locked licenses have “uncounted” here, meaning that they do not have a license count.

**Password**—an encrypted string that authenticates the license.

8 | Troubleshooting

> Understanding licenses

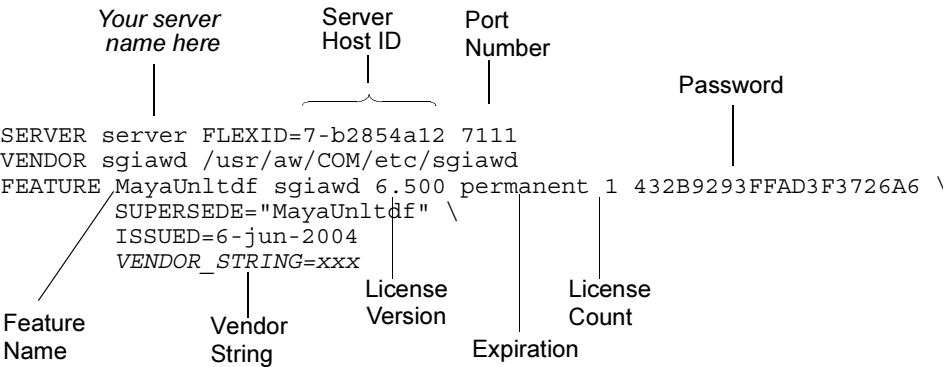
**Vendor String**—indicates you have a timed-out, pre-release, or educational license. If not present, it means that you have a purchased, permanent license.

**Host ID**—also known as hardware ID. The Host ID of the machine to be licensed, the ethernet address of the machine or your computer’s system ID, obtained either from your Ethernet card or from a hardware lock (dongle) attached to your machine (Windows only).

Floating licenses

If you order floating licenses, you receive a single license for the license server computer. The contents of the e-mail, fax, or mail you receive depends on the Maya features you order.

The following figure shows the structure of a floating license:



**server**—a placeholder where you must insert your actual server name.

**Server Host ID**—Also known as hardware ID. This is one of the server’s host ID, the server’s Ethernet address, or the computer’s system ID, obtained either from the MAC Address of your

Ethernet card or from a hardware lock (dongle) attached to your machine (Windows only; hardware lock server host IDs begin with FLEXID).

**Port Number**—a fixed number that represents the TCP port used internally by the licensing software.

**Feature Name**—the Maya product package you purchased. There may be several additional feature lines in your license; for example, the Maya Unlimited package includes separate lines for several different Maya Unlimited features.

**Vendor String**—indicates you have a timed-out, pre-release, or educational license. If not present, it means that you have a permanent license.

**License Version**—the version number of the software.

**Expiration**—when the license expires. The word “permanent” means there is no expiration date. Product pre-release licenses have actual expiration dates.

**License Count**—the number of floating licenses you ordered.

**Password**—an encrypted string that authenticates the license.

**Issue Date**—the date the license was generated for the customer.

**SUPERSEDE**—overrides any license whose ISSUED date is less than the new ISSUED date.

## Additional resources

- [www.alias.com](http://www.alias.com) provides information on various Alias and Maya issues.
- [www.alias.com/eng/support/maya/](http://www.alias.com/eng/support/maya/) is a direct link to the Maya support site

## **8 | Troubleshooting**

### **> Additional resources**

- [www.alias.com/eng/support/maya/faqs-tutorials/](http://www.alias.com/eng/support/maya/faqs-tutorials/) provides Maya-specific Frequently Asked Questions and Web-based Tutorials
- [www.macrovision.com/services/support/software\\_licensing.shtml](http://www.macrovision.com/services/support/software_licensing.shtml) provides information on licensing.

# 9

# Software terms and conditions

## Alias Software License Agreement

### IMPORTANT - PLEASE READ CAREFULLY

ALIAS (DEFINED BELOW) IS WILLING TO LICENSE THE SOFTWARE (DEFINED BELOW) ONLY TO THE CUSTOMER (DEFINED BELOW) AND ONLY IF ALL OF THE TERMS CONTAINED IN THIS SOFTWARE LICENSE AGREEMENT ARE ACCEPTED BY THE CUSTOMER. BY INSTALLING AND/OR USING AND/OR OTHERWISE ACCESSING THE SOFTWARE, THE CUSTOMER EXPRESSLY ACKNOWLEDGES AND AGREES THAT IT SHALL BE BOUND BY THE TERMS CONTAINED HEREIN.

#### Article 1 - Definitions

- a) "Activation Date" means the date upon which the Software shall be deemed to be activated, which shall be the earlier of: (i) the date upon which Alias or Reseller provides the Enabling Mechanism to Customer; (ii) the date upon which Alias provides the Enabling Mechanism to Reseller for delivery to Customer; or (iii) the ninetieth (90th) day following Delivery;
- b) "Agreement" means this Alias Software License Agreement;
- c) "Alias" means Alias Systems Corp.;
- d) "Customer" means the end user of the Software that acquires the License pursuant to this Agreement, as identified on the Order;
- e) "Delivery" means delivery of the media upon which the Software is provided to a carrier by Alias, its supplier, representative, agent or fulfillment services provider for carriage to Customer, or, where the Software is to be delivered via download, at such time when the Software is made available to Customer for download;
- f) "Enabling Mechanism" means a mechanism by which the Software is activated or by which Customer can activate the Software;
- g) "License" shall have the meaning ascribed thereto in Article 2.a);
- h) "Licensed Material" means the Software and the Materials;
- i) "Materials" means any and all documentation and/or material provided to Customer by Alias or Reseller in relation to the Software;
- j) "Order" means either: (i) the purchase order of Customer relating to the acquisition of one or more Licenses, which has been accepted by Alias or by a Reseller in Alias' or Reseller's sole discretion, as applicable; or (ii) a quotation that has been issued by Alias or a Reseller in respect of the acquisition of one or more Licenses, which has been accepted by Customer in accordance with and subject to its terms;
- k) "Original Site" means the Customer site identified on the Order;
- l) "Proprietary Material" means the Software and the Materials, including any portion thereof in any embodiment, including copies thereof, and any other information or data relating to the Software, in

written, graphic, or machine readable form, received by Customer from Alias or from a Reseller, including, but not limited to, designs, improvements, concepts and ideas, provided, however, that Proprietary Material does not include information and/or data that is rightfully in Customer's possession prior to its receipt from Alias or Reseller;

m) "Reseller" means an authorized reseller of Alias, which has been authorized to distribute Software within the territory in which the Original Site is located;

n) "Software" means the Alias software product(s), in object code form, described on the Order and provided to Customer pursuant to this Agreement and shall include any and all updates or upgrades thereto subsequently acquired by or provided to Customer;

o) "Third Party Material" means any software and/or documentation and/or material provided to Customer with the Software or in relation thereto, which has been produced and/or licensed by a third party and subsequently provided and/or made available and/or licensed to Alias by such third party for inclusion with the Software;

p) "Training Programs" is defined in Article 9; and

q) "Warranty Period" means the period commencing upon Delivery and ending upon the earlier of: (i) the thirtieth (30th) day after the Activation Date; or (ii) the ninetieth (90th) day after Delivery.

#### Article 2 - License and Software Rights

a) License Grant. Alias has granted to Customer and Customer has accepted, a non-exclusive, non-transferable, non-sublicensable, limited license to use the Licensed Material, subject to the terms and conditions of this Agreement (the "License").

b) Initial Hotline Support and Maintenance. Alias may, from time to time, elect to provide a period of initial hotline support services (which expressly excludes, without limitation, access to updates or upgrades of the Software) to Customer following acquisition of Software. Alias reserves the right to amend or terminate such policy at any time in its sole discretion, without notice. Alias' current policy is that, for a period of thirty (30) days from the Activation Date, Alias shall provide Customer with access to Alias' hotline support services in relation to the Software, where available. Unless Customer otherwise purchases support or maintenance services from Alias or a Reseller and with the sole exception of the above-noted temporary access to the hotline, Customer shall not be entitled to any form of support services, software maintenance services or products relating to the Software. Notwithstanding the foregoing, in the event that Customer acquires a Software support or maintenance contract contemporaneously with its acquisition of the Software, such support or maintenance contract shall commence on the earlier of: (i) the Activation Date of the Software being supported or maintained; or (2) any commencement date expressly identified on the applicable Order.

## 9 | Software terms and conditions

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c) **Installation Location.** Use of the License shall be limited to the Original Site or any other Customer site within five (5) kilometers of the Original Site. In the case of a "floating" or "network" License, Customer may install the Software on one local area network at the Original Site and Customer may simultaneously operate multiple copies of the Software on any computer directly connected to the applicable file server, provided the number of copies of the Software operating simultaneously does not exceed the total number of floating Licenses acquired by Customer and further provided the users accessing the Software through the network are no farther than five (5) kilometers from the applicable network server. Relocation of the Software may only be done with the express prior written consent of Alias.

d) **Licenses Non-Transferable.** It is expressly acknowledged and agreed the License is non-transferable and Customer shall not purport to assign or transfer the License without the prior written consent of Alias, which may be granted or withheld in Alias' sole and absolute discretion. Any such purported transfer or assignment in the absence of Alias' prior written consent shall be void and without effect. If such transfer is authorized, Customer agrees to provide any and all information reasonably requested by Alias relating to such transfer and Customer shall promptly execute and/or have executed by the proposed transferee any and all documentation provided by Alias required to effect such transfer.

e) **Back-Up Installations.** In the event of a major malfunction causing the specified computer hardware on which the Software has been installed to become inoperable for an extended period of time, Customer may install the Software on a back-up system on a temporary basis during such malfunction. Customer agrees to promptly notify Alias of any such back-up use and specify the location of the back-up system.

f) **Internal Use Only.** Customer may use the Software only in connection with operation and management of Customer's own internal business, subject to the terms hereof. Customer is not authorized to grant sublicenses to use the Software nor to permit other persons to use the Software on a time-sharing or any other basis.

g) **Customer Responsibilities.** Customer shall be exclusively responsible for the supervision, management and control of its use of the Software, including, but not limited to: (i) selection of the Software to achieve Customer's intended results; (ii) determining the appropriate use and establishing the limitations of the Software in Customer's operations; (iii) assuring operation of the Software by qualified, trained personnel, in the specified computer environment, including proper machine hardware configuration and operating system software; (iv) assuring proper operating methods; (v) establishing adequate back-up plans to prevent loss of data in the event of a malfunction of the Software; and (vi) implementing sufficient procedures and checkpoints to satisfy its requirements for security and to assure accuracy of input and output.

h) **License Termination on Non-Payment.** Alias reserves the right to disable the Software and/or terminate the License upon written notice if Customer fails to pay either Reseller or Alias for the License pursuant to the terms of the Order.

### Article 3 - Protection of Proprietary Material

a) **Ownership.** Alias and/or its suppliers and/or its licensors retain all right, title, and interest in and to all Proprietary Material (including, without limitation, all rights under any applicable copyrights, patents, trademarks and trade secrets) and to all copies thereof made by Customer.

b) **Reverse Engineering.** Customer shall not reverse compile, reverse engineer or disassemble the Software, except to the extent that Alias is not permitted by law to exclude or limit such rights. Customer shall not use the Software for the purpose of developing, modifying or improving a software product without the express prior written consent of Alias.

c) **Proprietary Material Confidential.** Customer acknowledges the Proprietary Material is confidential and constitutes a valuable asset of Alias and/or its suppliers and/or licensors and shall not disclose, publish, display or otherwise make available to any persons any of the Proprietary Material or copies thereof without Alias' prior written consent.

d) **Limitation on Reproduction.** Customer shall not copy or reproduce any of the Proprietary Material, except: (i) in the ordinary course of exercising its rights hereunder; (ii) for back-up purposes; or (iii) with the express prior written consent of Alias.

e) **Limitation of Access, Disclosure and Use.** Customer shall not use any Proprietary Material for any purpose not specifically authorized in this Agreement. Customer shall limit the use of and access to the Software and other Proprietary Material to its bona fide employees and/or consultants whose use of or access to such Proprietary Material is necessary to Customer's use of the Software (in accordance with the terms hereof) and Customer shall take appropriate action, by agreement, instruction or otherwise, to protect the Proprietary Material from unauthorized publication, disclosure or use.

f) **Notices.** Customer shall not remove any copyright, intellectual property or proprietary rights notice(s) included in or on any Proprietary Material and shall reproduce all such notices on any permitted copies made of any Proprietary Material.

g) **Inspection.** Alias shall have the right to inspect, upon reasonable prior notice and during normal business hours, any Customer location at which any Proprietary Material is used or kept to ensure or confirm compliance with the terms of this Agreement.

h) **Irreparable Harm.** Customer acknowledges and agrees that in the event of any breach of its obligations under this Article, Alias will suffer irreparable harm of a nature that is not compensable by damages and Alias shall be entitled to seek injunctive or other equitable relief on an expedited basis.

### Article 4 - Warranty and Liability

a) **Limited Warranty.** During the Warranty Period and subject to the provisions of this Article, Alias warrants as follows: (i) the media upon which the Software is provided to Customer, if any, shall be free of



material defect; and (ii) the Software shall reasonably conform to the specifications contained in the Software documentation furnished to Customer.

b) Remedies. Alias' sole responsibility under the limited warranty provided for in Article 4a) shall be, at its election, to: (i) replace the media upon which the Software has been provided to Customer, provided that Customer first returns the allegedly defective media to Alias; (ii) correct or replace the Software or that portion of the Software that fails to conform with the provided specification; or (iii) refund the purchase price paid by Customer for the License.

c) Disqualifying Events. Customer acknowledges and agrees the limited warranty provided in Article 4a) shall be invalidated and Customer shall have no claim whatsoever thereunder if: (i) Customer fails to report in writing to Alias any defect or error claimed to be a breach of warranty during the Warranty Period; (ii) the Software or the media upon which the Software is provided is misused; (iii) the Software or the media upon which the Software is provided is damaged, altered or affected by accident, neglect, misuse or other abuse; (iv) the claimed defect or error has been caused, in whole or in part, by persons other than Alias; or (v) if the Software has been installed on a system that has not been certified by Alias as compatible with the Software at the time of acceptance of the Order.

d) THE LIMITED WARRANTY SET FORTH IN THIS ARTICLE 4 IS THE ONLY WARRANTY MADE BY ALIAS WITH RESPECT TO THE SOFTWARE AND/OR THE LICENSE. ALIAS MAKES NO OTHER WARRANTIES, EXPRESS, IMPLIED OR ARISING BY CUSTOM OR TRADE USAGE, AND TO THE EXTENT PERMITTED BY APPLICABLE LAW, SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

e) IN NO EVENT SHALL ALIAS' AND/OR ALIAS' AFFILIATES' TOTAL AGGREGATE LIABILITY ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE LICENSED MATERIAL AND/OR THE LICENSE EXCEED THE AMOUNT ACTUALLY PAID BY CUSTOMER FOR THE LICENSE HEREUNDER. IN NO EVENT SHALL ALIAS BE LIABLE TO CUSTOMER FOR SPECIAL, CONSEQUENTIAL, INCIDENTAL, INDIRECT, PUNITIVE OR EXEMPLARY DAMAGES, HOWEVER CAUSED, WHETHER FOR BREACH OF WARRANTY, CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY CLAIMS RELATING TO LOST PROFITS, BUSINESS OR OPPORTUNITIES, EVEN IF ALIAS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND EVEN IF SUCH DAMAGES WERE FORESEEABLE.

### Article 5 - Intellectual Property

Alias shall defend or, at its option, settle, any claim or proceeding brought against Customer to the extent that it is based on an assertion the Customer's authorized use of the Software constitutes direct infringement of any Canadian or United States copyright or patent(s) registered on or before the date of the Order, and shall indemnify Customer against all reasonable costs, damages and expenses finally awarded against Customer which result from any

such claim, provided that Customer notifies Alias promptly in writing of any such claim or proceeding and gives Alias full and complete authority, information and assistance to defend such claim or proceeding and all negotiations for a compromise or settlement. Alias shall have no liability or obligation to Customer hereunder for any patent or copyright infringement or claim thereof based upon: (i) the combination of the Software with other products not furnished by Alias; (ii) any addition to or modification of the Software made after installation by any person or entity other than Alias; or (iii) any software or other technology not claimed to be owned by Alias, including without limitation the Third Party Material. Alias shall have no obligation hereunder for any costs incurred by Customer without Alias's express prior written authorization. If the Software or any part thereof becomes, or in Alias's opinion is likely to become, the subject of a claim of infringement, Alias shall have the right, at Alias's option and expense, to (i) procure for Customer the right to continue using the Software, (ii) replace or modify the Software so that it becomes non-infringing, or (iii) refund the amounts actually paid to Alias by Customer for the License, less a reasonable allowance to provide for use of the Software by Customer prior to the date of the refund. The provisions of this Article state the sole, exclusive and entire liability of Alias and the sole, exclusive and entire remedy of Customer, with respect to any claim of patent or copyright infringement with respect to the Software, and any part thereof.

### Article 6 - Term and Termination

a) Term. This Agreement takes effect on the date on which the Order is received and accepted by Alias or a Reseller and shall remain in effect unless terminated as provided herein. Notwithstanding the foregoing, in the event the Software is provided to Customer for evaluation and/or demonstration purposes, this Agreement shall be effective from the date such Software is provided to Customer until the date of termination of such evaluation or demonstration, as determined by Alias in its sole and absolute discretion.

b) Termination. If Customer shall fail to perform or be in breach of any of its obligations hereunder, Alias may terminate this Agreement and the License provided hereunder, by giving written notice of termination to Customer, which shall be effective immediately upon its sending. This Agreement and the License granted hereunder shall terminate automatically and without notice if Customer should cease to carry on its business as a going concern in the ordinary course, including any act or omission constituting bankruptcy, the appointment of a trustee, liquidator or receiver for the assets of Customer, or the taking advantage of any legislation providing protection of Customer from its creditors.

c) Consequences of Termination. Within five (5) days after any termination of this Agreement, Customer shall, at Alias' election, deliver or destroy all Proprietary Material, including all copies thereof, within its possession, custody or control. Customer shall delete or destroy any and all such Proprietary Material that is stored in any computer software or storage facility that, for any reason, cannot be delivered to Alias. Customer expressly represents and warrants that it shall delete or destroy any and all such information and data that is subsequently detected or discovered. An executive officer of

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Customer shall certify in writing to Alias that all Proprietary Material has been so destroyed or returned. Articles 1, 3, 4, 6.c), and 7 - 10 hereof shall survive any termination of this Agreement.

### Article 7 - Government End Users

This Article applies if the Software is acquired directly or indirectly on behalf of a unit or agency of the United States Government. For civilian agencies: the Software was developed at private expense and is "restricted computer software", submitted with restricted rights in accordance with subparagraphs (a) through (d) of the Commercial Computer Software - Restricted Rights clause of FAR 52.227-19 (June 1987) and its successors; and it is unpublished and all rights are reserved under the copyright laws of the United States. For units of the Department of Defense (DoD), the Software is licensed only with "Restricted Rights" as that term is defined in the DoD Supplement to the FAR, clause 252.227-7014 (June 1995), Rights in Technical Data and Computer Software and its Successors (including clause 252.227-7014(b)(3) (1994)), and use, duplication or disclosure is subject to the restrictions set forth therein.

### Article 8 - Third Party Material

The parties hereto expressly acknowledge and agree that, notwithstanding any other provision hereof, Alias makes no warranties whatsoever with respect to the Third Party Material and Customer acknowledges and agrees that Customer's rights and obligations with respect to such Third Party Material may be governed by the terms of a separate and/or supplementary license agreement, which may be provided and/or made available by Alias. ALIAS MAKES NO WARRANTY OF ANY KIND WITH RESPECT TO THE THIRD PARTY MATERIAL, EXPRESS, IMPLIED OR ARISING BY CUSTOM OR TRADE USAGE, AND TO THE EXTENT PERMITTED BY APPLICABLE LAW, SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NOTWITHSTANDING ANY OTHER PROVISION HEREOF, TO THE EXTENT PERMITTED BY APPLICABLE LAW, NEITHER ALIAS NOR ITS AFFILIATES SHALL HAVE ANY LIABILITY WHATSOEVER ARISING OUT OF OR IN RELATION TO THE THIRD PARTY MATERIAL.

### Article 9 - Academic and Educational Licenses

If Customer acquired the Software pursuant to one of Alias' academic or educational access programs (including, without limitation, student and/or instructor access programs) as they may exist from time to time and which shall be defined by Alias in its sole discretion from time to time, the following additional restrictions apply: Customer shall use the Software for educational purposes only and under no circumstances shall Customer use or permit others to use the Software in any manner for a commercial purpose or in respect of a for-profit enterprise of any kind. If Customer is a training or educational institution or an instructor at such an institution and acquired the Software pursuant to an Alias program designed to afford access to such Software to enable Customer to train others to use the Software, then Customer shall use the Software for educational purposes only and only as incorporated into such training or educational programs or curricula (the "Training Programs"). For

clarity, if the third parties being trained by Customer pursuant to the Training Programs pay to Customer a fee for such training, the receipt of such payment by Customer shall not in itself constitute a violation by Customer of the non-commercial use restrictions contained in this Article.

### Article 10 - General Provisions

a) Entire Agreement, Severance. This Agreement sets forth the entire agreement and understanding of the parties with respect to the subject matter hereof. Neither party shall be bound by or be liable for any alleged representation, promise, inducement or statement of intention not set forth herein and no waiver, alteration, modification, or cancellation of any of the provisions of this Agreement shall be binding unless made in writing and signed by the parties. Any provisions of the Order that are in any way inconsistent with or in addition to the terms and conditions of this Agreement shall not be binding upon Alias and Alias' failure to object to any such provision or processing or acceptance of such Order shall not be construed as a waiver of the terms and conditions of this Agreement nor as an acceptance of any such provisions. The failure of either party to require performance of any provision hereof shall not affect the right at a later time to enforce such provision. In the event that one or more of the provisions contained in this Agreement shall for any reason be held invalid, illegal or unenforceable in any respect, no other provisions contained in the Agreement shall be affected.

b) Evaluation or Demonstration Licenses. In the event the Software is provided to Customer for evaluation and/or demonstration purposes, Articles 2b), 4a), 4b), 4c) and 5 shall not apply. All Software provided for evaluation and/or demonstration purposes is provided "as is" and without warranties of any kind.

c) Governing Law / Export. This Agreement shall be governed by and interpreted in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein for purposes of any action commenced under this Agreement or with respect to any tort committed or alleged to be committed in the performance of this Agreement. No choice of law rules of any jurisdiction shall apply hereto. The parties hereto expressly waive any right they have to a jury trial and agree that any court proceeding under this Agreement shall be tried by a judge without a jury. Customer shall at all times comply with all Canadian, U.S., foreign and local export laws and regulations, as applicable, with respect to the acquisition, shipment or receipt of the Software.

d) Notices. Any notice or other document required or permitted to be given hereunder shall be validly given if delivered personally (including courier service) or by prepaid registered mail, return receipt requested or sent by facsimile transmission to the addressee thereof. Notices shall be deemed received three (3) days after mailing in the case of certified mail, and on the next business day in the case of courier delivery or facsimile transmission, except a notice of termination, which is governed by Article 6b). Notices shall be sent to Customer at the address specified on the Order. Notices shall be sent to Alias as follows: Alias Systems Corp., 210 King St. East, Toronto, Ontario, Canada M5A 1J7; Fax 416.369.6135; Attn: General Counsel.

## Installation and Licensing Guide

e) Headings. Article headings used in this Agreement are for reference purposes only and shall not be used in the interpretation of this Agreement.

f) Enurement. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns and legal representatives, provided, however, the rights and obligations of Customer hereunder may not be assigned, sublicensed or otherwise transferred, in whole or in part, without the prior written consent of Alias, which may be granted or withheld by Alias in its sole and absolute discretion. This Agreement may be assigned by Alias without notice.

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### MAYA® DOCUMENTATION SERVER LICENSE AGREEMENT

READ THIS AGREEMENT CAREFULLY. ALIAS SYSTEMS CORP. AND ANY THIRD PARTY LICENSORS WHOSE TECHNOLOGY IS INCORPORATED INTO OR PROVIDED WITH THE MAYA DOCUMENTATION SERVER ("ALIAS") IS WILLING TO LICENSE THE MAYA DOCUMENTATION SERVER ("SOFTWARE") TO YOU ("CUSTOMER") ONLY ON THE CONDITION THAT ALL OF THE TERMS CONTAINED IN THIS LICENSE AGREEMENT ARE ACCEPTED.

YOU ACCEPT AND AGREE TO BE BOUND BY THIS AGREEMENT BY CLICKING THE ICON LABELED "I ACCEPT" THAT IS DISPLAYED BELOW. IF YOU DO NOT AGREE TO THIS AGREEMENT, CLICK THE ICON LABELED "CANCEL" TO CANCEL INSTALLATION.

1. Ownership and License. This is a license agreement and NOT an agreement for sale. As between Customer and Alias, Alias continues to own the Software and all intellectual property rights therein. Customer's rights to use the Software are specified in this Agreement, and Alias retains all rights not expressly granted to Customer in this Agreement. Nothing in this Agreement constitutes a waiver of Alias' rights under domestic, foreign or international law, or any other state, provincial, local, or regional law.

2. License to Software. Alias grants to Customer and Customer accepts, a non-exclusive, non-transferable license to use the Software during the term hereof, subject to the terms and conditions of this Agreement. Customer may use the Software only in connection with operation and management of Customer's own internal business. Customer is not authorized to grant sublicenses to use the Software, nor to permit other persons to use the Software on a time-sharing or any other basis without the prior written consent of Alias, which may be granted or withheld in Alias' sole discretion.

#### 3. Third Party Components.

3.1. The Software is distributed with the following third party components/applications: (1) Lucene Search Engine Toolkit v1.3 ("Toolkit"); (2) Mozilla Rhino JavaScript Interpreter for Java v1.5 ("Rhino"); (3) Sun Microsystems' Java Runtime Environment v1.4; (4) Velocity 1.31 ("Velocity"); (5) log4j Lite 1.28 ("log4j Lite"); (6) Jazzy

0.5 ("Jazzy"); and (7) Jakarta Oro 2.07 ("Jakarta Oro"). The foregoing applications are collectively referred to herein as "Third Party Components".

3.2. The Toolkit, Velocity, Jakarta Oro, and log4j Lite ("Apache-Licensed Material") were developed by the Apache Software Foundation (<http://www.apache.org/>). (c) The Apache Software Foundation. All rights reserved. These applications consist of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org>. Notwithstanding any contrary or inconsistent terms hereof, the Apache-Licensed Material is provided subject to the terms of the Apache Software License v.1.1, a copy of which can be found in the Software documentation and/or help server directory.

3.3. Notwithstanding any contrary or inconsistent terms hereof, Jazzy is distributed subject to the GNU Lesser General Public License (a copy of which can be found in the Software documentation and/or help server directory) and WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

3.4. Notwithstanding any contrary or inconsistent terms hereof, Rhino is provided pursuant to the terms of the Mozilla Public License Version 1.1 ("License") and is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. (You may obtain a copy of the License at <http://www.mozilla.org/MPL/>). See the License for the specific language governing rights and limitations under the License.

3.5. Subject to the foregoing, the Third Party Components are provided pursuant to this Agreement and Customer's use of the Third Party Components shall be governed by the terms and conditions hereof.

4. Warranties. THE SOFTWARE IS PROVIDED AS IS. ALIAS DOES NOT WARRANT THAT THE SOFTWARE OR ANY COMPONENT THEREOF WILL MEET CUSTOMER'S REQUIREMENTS OR THAT ITS OPERATION WILL BE UNINTERRUPTED OR ERROR-FREE. ALIAS MAKES NO WARRANTIES, EXPRESS, IMPLIED OR ARISING BY CUSTOM OR TRADE USAGE RELATING TO THE SOFTWARE OR ANY COMPONENT THEREOF, AND WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, TO THE EXTENT PERMITTED BY APPLICABLE LAW, SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT PERMITTED BY APPLICABLE LAW, ALIAS SHALL HAVE NO LIABILITY IN CONTRACT, TORT OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THIS AGREEMENT. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, IN NO EVENT SHALL ALIAS BE LIABLE FOR ANY PUNITIVE OR MULTIPLE DAMAGES OR LOST PROFITS OR OTHER SPECIAL, DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING ANY DAMAGES RESULTING FROM LOSS OF BUSINESS ARISING OUT OF OR IN CONNECTION WITH THE PERFORMANCE OF THE SOFTWARE, EVEN IF ALIAS HAS BEEN PREVIOUSLY ADVISED OF THE POSSIBILITY OF SUCH

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DAMAGES. CUSTOMER SHALL INDEMNIFY ALIAS AND ITS LICENSORS AND HOLD ALIAS AND ITS LICENSORS HARMLESS FROM AND AGAINST ANY LOSS, CLAIM OR DAMAGE TO ANY PERSON ARISING OUT OF OR RELATING TO CUSTOMER'S USE OF THE SOFTWARE.

5. Protection of Proprietary Material. For the purposes of this Agreement, "Proprietary Material" means the Software and any portion thereof in any embodiment, including copies thereof, and any other information or data, in written, graphic, or machine readable form, received by Customer from Alias, including, but not limited to, designs, improvements, concepts and ideas provided, however, that Proprietary Material does not include information and data which is rightfully in Customer's possession prior to its receipt from Alias, or which, other than through the fault of Customer, is or becomes available in the public domain. Alias and/or its suppliers and/or its licensors retain all right, title, and interest in and to all Proprietary Material (including, without limitation, all trade secrets and intellectual property rights therein) furnished by Alias and to all copies thereof made by Customer. Customer acknowledges that the Proprietary Material is confidential and constitutes a valuable asset of Alias and/or its suppliers and/or its licensors and shall not disclose, publish, display or otherwise make available to any persons any of the Proprietary Material or copies thereof without Alias' prior written consent. Customer shall not copy or reproduce any of the Proprietary Material, except for back-up purposes, or with the prior written consent of Alias. Customer shall not use any Proprietary Material for any purpose not specifically authorized in this Agreement. Customer shall limit the use of and access to the Software and other Proprietary Material to its bona fide employees or consultants whose use of or access to such Proprietary Materials is necessary to Customer's use of the Software and shall take appropriate action, by agreement, instruction or otherwise, to protect the Proprietary Material from unauthorized publication, disclosure or use. Customer shall not remove any copyright or proprietary rights notice included in any Proprietary Material and shall reproduce all such notices on any copies made of any Proprietary Material. Customer acknowledges and agrees that in the event of any breach of its obligations under this Section, Alias will not have an adequate remedy at law, and, therefore, injunctive or other equitable relief would be appropriate.

6. Term and Termination. This Agreement is effective until terminated. If Customer shall fail to perform or be in breach of any of its obligations hereunder, Alias may terminate this Agreement and the license granted hereunder, by giving written notice of termination to Customer effective immediately upon its sending. Customer may terminate this Agreement at any time by destroying all copies of the Software in Customer's possession and certifying in writing such destruction to Alias, or by returning all such copies to Alias. This Agreement and Customer's license and rights hereunder shall automatically terminate if Customer purports to assign this Agreement or the license granted hereunder to another party or breaches any of its obligations hereunder in respect of the Proprietary Material. Upon termination, Customer must immediately cease all use of the Software and deliver or destroy all Proprietary Material, including copies thereof, in its possession, custody or control, including information and data relating to the Software stored in any computer software or

storage facility which for any reason cannot be delivered to Alias or which may be detected in the future on backup media. Sections 1, 3.2-3.4, 4, 5, 6, 7 and 8 hereof shall survive any termination of this Agreement.

7. Government End Users-Restricted Rights Legend. If the Software is acquired directly or indirectly on behalf of a unit or agency of the United States Government and this provision applies. For civilian agencies: the Alias Software was developed at private expense and is "restricted computer software" submitted with restricted rights in accordance with subparagraphs (a) through (d) of the Commercial Computer Software - Restricted Rights clause of FAR 52.227-19 and its successors; and it is unpublished and all rights are reserved under the copyright laws of the United States. For units of the Department of Defense (DoD): the Alias Software is licensed only with "Restricted Rights" as that term is defined in the DoD Supplement to the FAR, clause 252.227-7013 (c)(1)(ii) (Oct. 1988), Rights in Technical Data and Computer Software and its Successors (including clause 252.227-7014(b)(3) (1994)), and use, duplication or disclosure is subject to the restrictions set forth therein.

8. General Provisions. Customer acknowledges that the Software is subject to export control laws and regulations, including future amendments thereof ("Export Laws"). Customer shall not directly or indirectly purport to or transfer the Software in any manner in violation of any Export Laws. Customer shall indemnify Alias from and against any loss, claim or damage arising out of Customer's violation of the Export Laws. All written notices required hereunder shall be sufficient if sent by certified or registered mail, postage prepaid, addressed to the address provided by Customer prior to accessing the Software. This Agreement sets forth the entire agreement and understanding of the parties with respect to the subject matter hereof, and supersedes all prior oral and written agreements and understandings relating thereto. Neither party shall be bound by or be liable for any alleged representation, promise, inducement or statement of intention not set forth herein and no waiver, alteration, modification, or cancellation of any of the provisions of this Agreement shall be binding unless made in writing and signed by the parties. The failure of either party to require performance of any provision hereof shall not affect the right at a later time to enforce such provision. No remedy referred to in this Agreement is intended to be exclusive, but each shall be cumulative and in addition to any other remedy referred to herein or otherwise available at law or in equity. In the event that one or more of the provisions contained in this Agreement shall for any reason be held invalid, illegal or unenforceable in any respect, no other provisions contained in the Agreement shall be affected. This Agreement shall be governed by the substantive law of the Province of Ontario, Canada, without regard to its conflicts of law principles, and not by the 1980 United Nations Convention on Contracts for the International Sale of Goods, as amended. This Agreement shall be binding upon and enure to the benefit of the parties and their respective successors, assigns and legal representatives, provided, however, that the rights and obligations of Customer hereunder may not be assigned, sublicensed or otherwise transferred in whole or in part, without the prior written consent of Alias.

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