

SMITHMICRO
SOFTWARE



Reference Manual

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POSER[®] DEBUT

The Fun Way to Learn 3D

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A Message from Larry Weinberg

In the 1980's, my secret ambition was to become an illustrator, to draw like the great old masters. But something was lacking in my brain that kept me from being able to visualize my characters' complex poses. I knew what I wanted to draw, and I knew what was great when I saw it, but starting from a blank page just never worked. I dropped into my local art supply shop and bought one of those little wooden mannequins that I thought would be my friend. He wasn't very nice to me and never did what I asked of him. I quickly became determined to put him out of a job and thus set out to build the world a better mannequin. At the time, I was programming and animating in Hollywood, mostly for Rhythm and Hues Studios. I had built up a wealth of 3D math and computer graphics knowledge. Why not make a digital mannequin? So, while giving life to flaming match characters, Mr. Peanut, and billowing sheets of fabric softener during my day job, I began creating Poser at night.

All I wanted was a simple visualization tool, one that would be easy to pose with and quick to use for any artist. I wasn't yet thinking about high quality rendering, shadows, animation, textures, or anything else. But Poser, like old John Henry, had a mind of its own. Poser 1 was released in 1995, and grew quickly. I knew Poser could be a useful tool

but the response was overwhelming and the art it helped create was mind blowing.

Throughout the subsequent version releases, Poser's community kept growing and diversifying, with people beginning to incorporate Poser into scientific, medical, architectural, CAD, theatrical, and dance-based projects and presentations. Ideas kept pouring in as more and more people joined the Poser community. Poser also evolved to include a new friendlier interface, more rendering powers, new content, and many new features.

The following that Poser attracted continues to amaze us all, as does the community's ongoing diversity, creativity, talent, and passion. The Poser artists and modelers of the world have pushed far beyond anything I thought possible. Poser has been used in award winning character animations, as design for huge sculptures, for comic books, for medical illustration and instruction, for legal reconstruction, and for unleashing the kind of astounding images that, well, move us all.

In 2000 Curious Labs took Poser's reigns. Our team began looking at where Poser and human simulation could (and should) continue growing. We knew we needed to remain committed to making products that would be easy enough for every artist to use. We also knew we needed to integrate our capabilities with the world of professional 3D graphics productions and with the new emerging Web-

deployable technologies. Poser keeps evolving with new versions like Poser Pro that allow scenes and characters to be hosted inside high end professional packages such as 3D Studio MAX, Maya, and Cinema 4D. So that. To bring Poser onto the Web we introduced Flash export and upload to Facebook.

Today, Poser has obtained huge levels of growth through the courageous efforts by a core of extremely talented and motivated professionals. Believe me, Poser is no longer written by me coding alone into the night. It's a powerful graphics product that is the culmination of the work of a very talented group that spans the globe.

Each of us at Smith Micro Software sees what we do as a labor of love. Poser could never have gotten this far without each and every one of our dedicated staff. And, Poser could certainly never have evolved this far without the involvement of the Poser community, who has supported our efforts with enthusiasm, forum inundations, email blasts, contributions to the product, and a stream of unbelievable images.

Thanks to everyone who has touched or been touched by Poser.

Larry Weinberg

Original Poser Creator

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Part 1: Poser Introduction

Chapter 1: Welcome to Poser!

Thank you for purchasing Poser® Debut. If you've never used Poser before, welcome!

Poser is the complete 3D figure design and animation solution. Artists and animators can create 3D scenes from a diverse collection of ready-to-use 3D human and animal models quickly and easily using Poser's intuitive interface. With Poser, you can create stills and animations and can quickly output movies and images for use in Web, print, and video projects. You can also export posed figures as 3D objects to add life to scenes created in other 3D applications. 3D novices, digital artists, and hobbyists alike can use Poser to quickly create breathtaking results!

Poser Debut is offered as an easy to use 3D character solution for artists, illustrators, animators and hobbyists. Poser's collection of powerful features shortcut the traditional complexities of working with 3D figures by combining an intuitive interface with a large library of ready to use content. Poser takes the mystery and challenge out of using 3D characters, allowing new users to start making art immediately. For experienced 3D users, Poser provides a sophisticated, fully featured character

animation system, letting them incorporate 3D figure content into riveting 3D images and animation for both personal and professional projects.

Included Documentation

Poser includes the following documentation:

- **Poser Reference Manual:** This Reference Manual has been rewritten and Poser features added. It is included in electronic PDF format on your Poser DVD. Selecting **Help > Poser Reference Manual** from within Poser will also launch this manual.



The version of the manual accessible from the help menu is optimized for screen viewing. If you wish to print it out, your Poser DVD contains a version that is optimized for print in the documentation folder.

- **Quick Reference Card (QRC):** The QRC is a fold-out reference that briefly describes key Poser features and includes a comprehensive list of Poser keyboard shortcuts.
- **Quick Start Guide:** This Quick Start guide is an on-screen step-by-step interactive guide that takes users

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through the necessary steps to quickly create scenes within Poser.

System Requirements

System requirements for Poser installation are as follows:

Windows

- Windows XP, Vista, 7, or 8
- 1.3 GHz Pentium 4 or newer, Athlon 64 or newer (1.65 GHz or faster recommended)
- 1 GB system RAM (4 GB or more recommended)
- OpenGL enabled graphics card or chipset recommended (recent NVIDIA GeForce and ATI Radeon required for advanced real-time preview features)
- 24-bit color display, 1440 x 900 minimum resolution
- 3 GB free hard disk space (6 GB recommended)
- DVD-ROM drive (Physical product only)
- Internet connection required for Content Paradise

- Windows® Internet Explorer® 7 or newer
- Adobe® Flash® Player 11 or newer

Mac

- Mac OS X 10.6, 10.7, or 10.8
- 1.5 GHz Intel Core processor (Core 2 Duo or faster recommended)
- 1 GB system RAM (4 GB or more recommended)
- OpenGL enabled graphics card or chipset recommended (recent NVIDIA GeForce and ATI Radeon required for advanced real-time preview features)
- 24-bit color display, 1440 x 900 minimum resolution
- 3 GB free hard disk space (6 GB recommended)
- DVD-ROM drive (Physical product only)
- Internet connection required for Content Paradise
- Adobe® Flash® Player 11 or newer

Poser Content Online

Poser's **Content** room includes a direct link to the online Content Paradise (<http://www.contentparadise.com>), which offers hundreds of figures, props, textures and other content available for use within Poser. Also, Poser's Download Manager makes the process of downloading content and installing it to the appropriate **Library** categories fully automatic, so accessing high quality content has never been simpler! See "[Chapter 8: The Content Room](#)" on page 161 for more information about the **Content** room, and Content Paradise.

Other Smith Micro Software Products

Check out these products from Smith Micro Software:

- **Manga Studio:** Manga Studio, the leading manga and comic art software, provides all the essential tools you need to create professional, ready-to-publish pages from start to finish! Manga Studio offers an intuitive interface, and delivers the best suite of ready-to-use screen tones, content and special manga and comic effects for hobbyists, experienced artists and professionals.

- **Anime Studio:** Anime Studio is your complete animation program for creating 2D movies, cartoons, anime and cut out animations. Create your own desktop animated shorts in the style of SouthParkStudios.com and JibJab.com, or use Anime Studio to produce full-length animation for film, video or streaming over the web. Anime Studio allows digital enthusiasts at home and professionals in the studio to bring their imagination to life!

When You Have Questions

As you begin using Poser for your 3D projects, you'll undoubtedly have questions or want to network with other Poser artists. You're not alone! There are many resources available for Poser artists. Here are just a few:

Need Help?

Poser includes the **Help** menu, which serves to answer most of your questions while using the application:

- **Poser Help:** Selecting **Help > Poser Reference Manual** opens the **Poser Reference Manual** in PDF format.
- **About:** Windows users can select **Help > About Poser** to display the Poser version and copyright

information. Macintosh users should look in the Poser Application menu, and select About Poser, to see this information. This option will be useful if you need to obtain technical support, since the Technical Support representative will need to know this information.

- The **Help > Content Paradise** submenu contains links to information on content from Content Paradise.

Smith Micro Software Resources

- **Online Support:** For technical support, customer service, downloads, and to visit the Smith Micro Poser community and gallery, visit us at <http://my.smithmicro.com/support>.
- **Using Poser:** For updates, tutorials, and Poser user stories, visit <http://poser.smithmicro.com/index.html>.
- **To Learn More:** If you'd like to learn more about Smith Micro Software, visit us at <http://my.smithmicro.com>.
- **Contacting Technical Support:** If our Web Knowledge Base does not resolve your situation, please contact us through <http://support.smithmicro.com>. Please refer to "Appendix A: Technical Support" on page 338 to view our technical support policy.

- **Sales:** You may reach our sales department via e-mail at: sales@smithmicro.com.
- **Other Links:** Selecting **Help > Smith Micro Web Links** or **Help > Other Web Links** within Poser lists other valuable online resources.

Third-Party Forums

You may also visit online Poser forums such as:

- **Animotions:** <http://www.animotions.com>
- **Renderosity:** <http://www.renderosity.com>
- **RuntimeDNA:** <http://www.runtimedna.com>



Smith Micro Software does not regulate content on third-party forums and their listing and order of appearance in this manual is not an endorsement.

About Your Reference Manual

Smith Micro Software strives to provide documentation that is complete, accurate, informative, and friendly.

Your feedback is always welcome. Please e-mail your comments to: techsupport@smithmicro.com.

The Poser Reference Manual is for both Macintosh and Windows. By convention, Macintosh commands precede Windows commands in the text. The Poser interface for Macintosh and Windows platforms is identical, unless otherwise specified.

For clarity, this manual uses several notational conventions to present information of special importance. Lists of items, points to consider, or procedures that do not need to be performed in a specific order appear in bullet format:

- Item 1
- Item 2

Procedures that must be followed in a specific order appear in numbered steps:

1. Perform this step first
2. Perform this step second

Specific keyboard keys are depicted in square brackets and are capitalized. For example: **[ESC]**. If more than one key should be pressed simultaneously, the notation appears as **[KEY1]+[KEY2]**, for example **[ALT]+[F4]**. When a modifier key differs between the Macintosh and Windows platform, the Macintosh modifier is listed first

Chapter 1: Welcome to Poser!

followed by a slash and the Windows modifier key. For example, **[COMMAND]/[CTRL]+[I]** is equivalent to the Macintosh **[COMMAND]+[I]** and the Windows **[CTRL]+[I]**.

Screen prompts, menu and window names, fields, buttons, boxes, etc. appear in **bold** type. Where you need to access a palette, command, or submenu, the syntax is **Menu > Submenu**. For example **File > Save As** means you should open the **File** pull-down menu and then select **Save As** to open the **Save As** dialog box.

Program and script code appears in standard Courier font, for example:

```
cd\letters\business\legal [ENTER]
```



Notes detail tips, tricks, and other important information.



Warnings alert you to potentially harmful consequences such as data loss.

Chapter 2: Installing Poser

Before opening your DVD holder, please take a moment to read, understand, and agree to the Poser End User License Agreement (EULA). If you do not agree with the terms of the EULA, please return your entire Poser package including the unopened DVD holder to Smith Micro Software or your place of purchase. Once you have read and accepted the EULA, you may proceed with installing Poser on your system.



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Chapter 2: Installing Poser

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Smith Micro Software, Inc., 51 Columbia, Aliso Viejo, CA 92656.

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BY CLICKING ON THE "I ACCEPT" BUTTON WHEN INSTALLING THE PROGRAM, YOU ACKNOWLEDGE THAT (1) YOU HAVE READ AND REVIEWED THIS AGREEMENT IN ITS ENTIRETY, (2) YOU AGREE TO BE BOUND BY THIS AGREEMENT, (3) THE INDIVIDUAL SO CLICKING HAS THE POWER, AUTHORITY AND LEGAL RIGHT TO ENTER INTO THIS AGREEMENT ON BEHALF OF YOU AND, (4) BY SO CLICKING, THIS AGREEMENT CONSTITUTES BINDING AND ENFORCEABLE OBLIGATIONS OF YOU.

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For Customer Service questions or problems (returns, warranty), please visit <http://my.smithmicro.com/support>.

For technical support, please refer to "Appendix A: Technical Support" on page 338 of your Poser Reference Manual.

Using the Smith Micro Download Manager

The Smith Micro Download Manager allows you to easily download and install the Poser Debut application and content installers from a central location. This section tells you how to install and run the Smith Micro Download Manager.

Installing the Download Manager (Windows)



Smith Micro Download Manager Setup Wizard

1. Locate the **Install Smith Micro Download Manager.exe** file on your Poser installation disks, or in the folder that you saved the installer to when you downloaded it.
2. Double-click the installer file to begin installation.

3. The **Welcome** screen appears. Click **Next** to continue.
4. In the **Select Destination Location** screen, you can accept the default installation folder (C:\Program Files (x86)\Smith Micro\Download Manager), or click **Browse** to choose another location on your hard disk. After choosing an installation location, click **Next** to continue.
5. In the **Select Start Menu Folder** screen, accept the default folder of **Smith Micro\Download Manager**, or click **Browse** to choose another folder on your hard disk. Click **Next** to continue.
6. In the **Select Additional Tasks** screen, check the option to create a desktop icon if desired. Click **Next** to continue.
7. The **Ready to Install** screen will confirm the installation location and start menu folder paths. Verify that the information is correct, and click **Install**.
8. After installation is finished, the final screen displays an option to launch the Download Manager right away. Check the option to launch, or uncheck the option to finish Setup without launching the Download Manager. Then click **Finish** to complete installation.

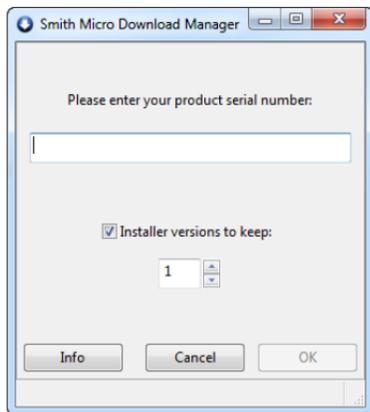
Installing the Download Manager (Mac)

1. Locate the **Install Smith Micro Download Manager.pkg** file on your Poser installation disks, or in the folder that you saved the installer to when you downloaded it.
2. Double-click the installer file to begin installation.
3. In the **Introduction** screen, click **Continue**.
4. The **Installation Type** screen appears. Click to accept the default installation location, or click the **Change Install Location** button to specify a custom installation location.
5. Click **Install** to continue installation. You may be prompted to enter your system password to complete installation. Enter your password and click **Install Software**.
6. After installation is complete, click **Close**. If you have installed the Download Manager to the default location, you will find a shortcut for the Smith Micro Download Manager in your Applications folder. Double-click the link to start the Download Manager application.

Using the Download Manager

The Smith Micro Download Manager allows you to selectively download and install the Poser application and content installers, as well as updates when they become available. Once the downloads start, you can pause and resume the download as needed.

1. When you first start the Download Manager you will be asked to enter a valid Poser serial number.



Enter your Poser serial number to use the Download Manager.

2. Check the **Installer versions to keep** checkbox if you want to retain a copy of the installers on your hard drive after installation is complete. Then increase or decrease the number of installers that you want to keep on your system. The number of installers defaults to 1, which means that the previous installers that you downloaded will be overwritten with the newly downloaded version.



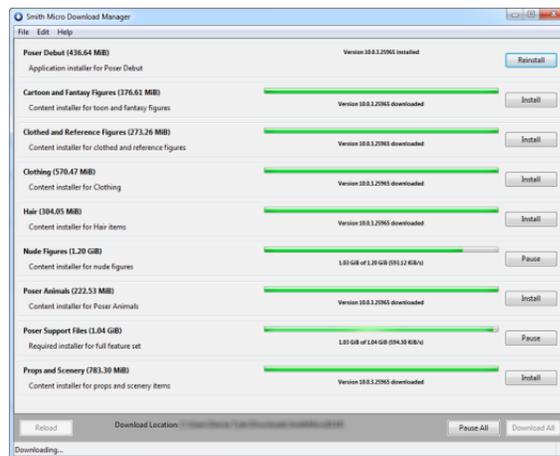
*If you do not have **Keep Installers** checked, it will not keep the installers. This flag does not stick to the installers you have already downloaded. The Download Manager checks the status of this option and acts appropriately on each startup.*

3. Click **OK** to proceed to the next screen.
4. The **Installer Download Location** field displays the path into which your downloads will be saved. You can accept the default location, or specify a custom location by clicking the [...] button to select another folder on your system.



If you have previously downloaded files with the Download Manager and then change the Data Location, the Download Manager will move the files that you previously downloaded into the new folder that you specify. If the location is on a different volume, it can take a while to copy the files to their new location.

- The download manager displays a list of available installers and their version numbers. A progress bar will display the progress for each installer that you choose to download. Choose installers to download as follows::



You can selectively download one or more installers, or download all of them.

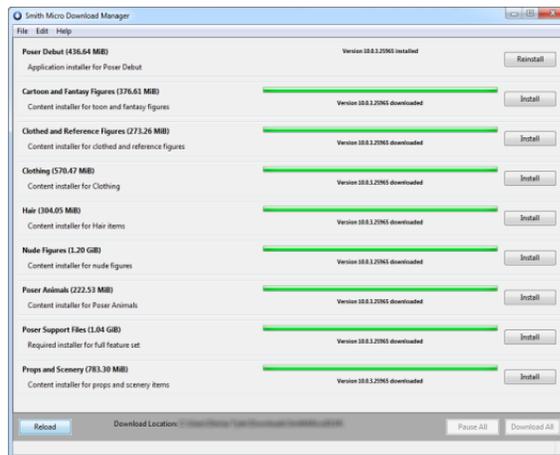
- To add all of the installers to the download queue, click the **Download All** button that appears at the bottom of the Download Manager.
- To pause all of the downloads, click the **Pause All** button.

- To download a specific installer, click the **Download** button that appears to the right of the installer name, for each installer that you want to download.
- To pause a specific download that is in progress, click the **Pause** button.
- To resume a paused download, click the **Resume** button.
- To cancel all downloads, close the Download Manager window.



The Support Files installer must be installed to obtain Face Room support for the figures included with Poser.

6. After all downloads are complete, click **Install** to run the Poser application installer. Content installers will display a **Waiting ...** status until after the Poser application is installed. If a previous installation is detected, you will be prompted to uninstall it before setup completes (recommended).



Run the Poser application installer first, then the content installers will be enabled to run.

Installing Poser

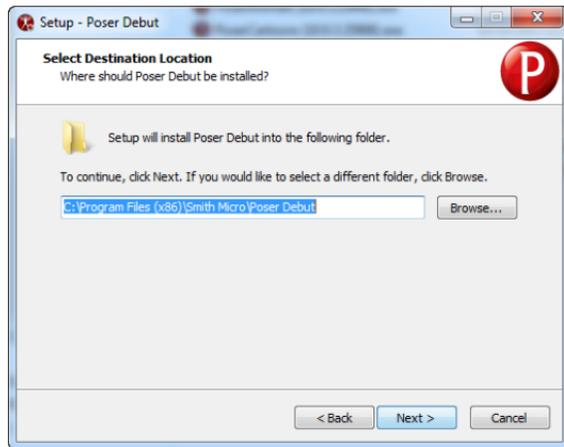
Installing Poser is a straightforward process. Before inserting your DVD or running the installer, be sure to save any work in progress and close all running applications, including virus-checking utilities and other "background" software.

Having this “clean” environment will help the installation process proceed smoothly and will prevent any loss of data in the highly unlikely event of a problem. To install Poser, complete the following steps:

Poser Installation (Windows)

1. Click on the Poser installer to start the Installer. If a previous installation has been detected, you will be prompted to uninstall it beforehand.
2. The Welcome screen will appear, click **Next** to continue.
3. The “Poser End User License Agreement (EULA)” on page 7 appears. Select **I accept the agreement** and click **Next**.
4. The Information screen appears. Review the Readme file. This file contains information that was too recent to be included in this manual. Please take a moment to read this file, as the changes outlined therein may affect how you install and/or use Poser. When you have finished reading the Readme file, click **Next** to proceed with the installation.
5. The Select Destination Location screen appears. Use this screen to select the installation path for the Poser

executable. Select the destination location where you want to install Poser. You can use the default location or click the Browse button to specify another location, click **Next** to continue.



Choosing an installation location.

6. The Select Components screen appears. Choose the desired installation options from the drop-down menu:

- **Full Installation:** Most users choose the Full Installation option. This option performs the complete installation of Poser including all content.
 - **Compact Installation:** This option installs Poser, Application Support Files, and Core Content Files. Additional content is installed if the applicable options are selected. This option is useful if hard drive space is limited.
 - **Basic Content (Clothed Figures, Props, Scenery):** This option installs clothed figures and medical references (skeletons and muscles), Props, and Scenery.
 - **Custom Installation:** Allows you to choose the items that you want to install.
7. Click **Next** to continue to the **Select Content Location** screen. Select the location for the Poser content Runtime directory. Based on the descriptions below, select the location that works best for you and click **Next**.
- **Shared Documents Directory:** This is the default installation option. Files can be shared—useful in multi-user environment or when UAC is enabled on Windows Vista or later.
 - **My Documents Directory:** The files will only be accessible to the user who installed them.
 - **Poser Directory:** The content library resides next to the Poser program files.
 - **Other Location:** Specify the directory of your choice. This option is desirable if you want to install your content on a different hard drive or folder name.
8. If you selected **Other Location** in step 8, the **Select Custom Content Location** screen appears. Use this screen to choose the installation folder for your Poser content. By default, Window 7 users install the content folder beneath the Users > Public > Documents folder on their C: drive; however, you can browser to or enter the folder or hard drive of your choice. Click **Next** after you make your choice.
9. The **Select Start Menu Folder** screen will appear. You can use the default location or click the **Browse** button to specify another location. When you are finished, click **Next**.
10. **Select Additional Tasks** screen will appear. Options here allow you to remove, backup or reuse existing preference files that store information such as library runtimes, interface layouts, and other preferences. You

can also enable the check boxes to create desktop icons for Poser. Click **Next** after you make your choices

11. Review your choices in the Ready to Install screen. Finally, click **Install** to install the Poser application. When they are finished installing, click **Finished**.



Portions of Poser require that Flash Player is installed on your system. Verify that Flash Player is present before using Poser.



Poser's Content Library utilizes Microsoft Internet Explorer technology. To ensure the optimal experience and compatibility for the Content Library, the installer will disable "Local Machine Lockdown" for the Poser application. This will not affect other applications outside of Poser. Details about "Local Machine Lockdown" can be found at [http://msdn.microsoft.com/en-us/library/ms537641\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/ms537641(VS.85).aspx).



The installer grants Poser components in `<AppLocation> \Runtime\ui\Flex\` a Flash sandbox setting of 'localTrusted'.



Some features of Poser, such as the Library and rendering in a separate process, require that you allow local network communication to operate. The features will not work if a personal firewall prevents local network communication.

Poser Installation (Mac)



It is recommended that you install Poser on a hard drive that is formatted with HFS+ Journaled formatting. Extended Journaled formatting can be used as long as you do not make it case-sensitive.

1. Double-click on the Install icon.
2. The Introduction screen appears. Click **Continue**.
3. The Readme file appears. This file contains information that was too recent to be included in this manual. Please take a moment to read this file, as the changes outlined therein may affect how you install and/or use Poser. When you have finished reading the Readme file, click **Continue** to proceed with the installation.

4. The "Poser End User License Agreement (EULA)" on [page 7](#) appears. Click **Continue**. Click **Agree** to continue the installation.
5. The Installation Type screen appears. Check or uncheck the content types you want to install (**Default Content, Clothed and Reference Figures, Clothing, Hair, Nude Figures, Props and Scenery, Cartoon and Fantasy Figures, and Animals**):
6. Click **Continue** after you choose the content you want to install.
7. Setup informs you how much space will be used by the installation, including the content you selected. Click the **Change Install Location** button to choose another installation location, if desired and click **Continue** to return to the previous screen.
8. Once you have made your selection, click the **Install** button. The Authentication window appears, and you will be asked to enter your user account password, or an account name and password with Administrator privileges, in order to proceed with the installation. After entering the information, click **OK** to continue.
9. When the installation is complete are finished installing, click **Quit**.

Chapter 2: Installing Poser

Upgrading From an Earlier Version of Poser

When upgrading from an earlier Poser version, be sure to install Poser in a separate, empty folder, so as not to interfere with existing Poser installations. Additionally, if you have large amounts of content from your previous versions of Poser, the ideal way to add this content to your Poser installation is with the **Add Runtime** feature. (See "[Accessing Different Content Libraries](#)" on [page 119](#) for more information about the **Add Runtime** feature.) We do not recommend attempting to copy over or reinstall your content in other ways, as we cannot guarantee that the content will be properly transferred to Poser.

Registering Poser

After installation, you can choose to register your copy of Poser via the Web. Registering Poser with Smith Micro Software is required in order to receive technical support, free product updates and other benefits.

1. If you wish to register your copy of Poser, simply check the box on the authentication window that appears upon your initial launch of Poser, and Poser will automatically register your product for you with Smith Micro Software. If you use this method, this is the only

action necessary on your part; the rest will be taken care of automatically.

2. Alternately, you can open your browser and navigate to <http://www.smithmicro.com/support/product-registration.aspx>. In the unlikely event you receive an error, please wait a while then try again. If you get repeated errors or if you do not have an Internet connection (or prefer to register via email), you may call or email Smith Micro Software to complete your registration.
3. Select the version of Poser that you wish to register from the drop-down list, and click the **Next** button to continue.
4. Enter your user information in the form that appears in your browser. Fields marked in red are required for you to register your copy of Poser. Enter your information, then click **Register** to complete your registration.
5. If one or more fields are missing information, a message will display specifying the incomplete fields. You will be asked to add the necessary information and resubmit your user information. Once your registration is successful, a summary screen will appear. Thank you for using Poser by Smith Micro Software!

Updating Poser

Smith Micro Software is committed to supporting all of our products by releasing Service Releases and other updates that address issues present in earlier versions and/or enhance the product's usability or functionality. Poser will automatically check for product updates upon launching, and will notify you when an update is available. Please visit <http://poser.smithmicro.com/updates.html> to download the latest updates.

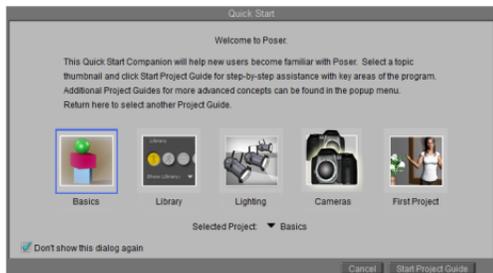
If you wish to disable the automatic update notification, you may do so by clearing the **Check for Updates on Launch** checkbox in the **General Preferences** dialog.

If you choose not to receive automatic notifications, please visit <http://poser.smithmicro.com/updates.html> regularly to check for product updates.

Alternately, you can click the **Check Now** button in the **General Preferences** dialog to execute an immediate update check. (See "[Setting Application Preferences](#)" on page 28 for more information about the **General Preferences** dialog.)

Project Selection

Upon launching Poser, you may want to choose **Window > Quick Start** to view the Quick Start dialog. This dialog allows you to select a Project to load into the **Project Guide** palette within Poser. A Project is an interactive guided workflow that you can use for guidance or reference as you undertake specific tasks within Poser. Click the icon for the Project you wish to select, or choose a Project from the pop-up menu for more options. Once you have selected a Project, click OK to close the dialog and complete your launch of Poser.



Quick Start window.

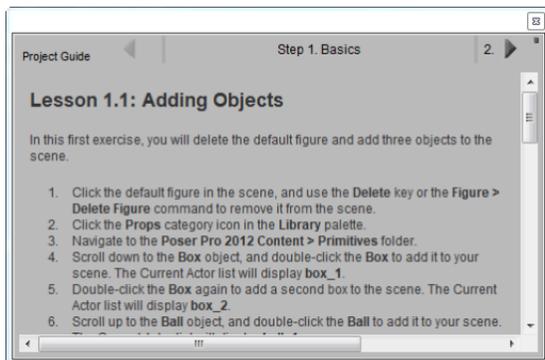
Should you choose to load a different Project once Poser has launched, simply select **Window > Quick Start** to open

Chapter 2: Installing Poser

the **Quick Start** dialog and change the current Project in the **Project Guide** palette.

Project Guide

Use the arrows at the top of the **Project Guide** palette to navigate through a Project. Click on the right arrow to step forward through the pages of the Project, or on the left arrow to step backwards through the pages. The current page number and title will be displayed in the center between the navigation arrows. The page content, as well as any associated actions by the Poser application, will be specific to the Project you choose to load.



Project Guide.



The projects in the Project Guide are interactive workflow guides, which means that you, the user, perform the tasks described within them. However, some steps may include actions automatically undertaken by Poser to assist you in following the processes described.

The **Project Guide** palette functions in the same manner as all palettes within Poser; once enabled, it will remain open and accessible. You may choose to interact with the

Project Guide at your own pace, either stepping through a given Project methodically or returning to the Project intermittently within the process of your own workflow. As such, the **Project Guide** is a flexible tool designed to meet a variety of work styles and needs. Should you decide to close the **Project Guide** palette, simply click on the close icon in the upper right corner of the palette. You can then reopen the palette at any time by selecting **Window > Project Guide** from the Poser menu bar.

Chapter 3: Setting Up the Poser Workspace

This chapter discusses the ways in which you can customize Poser to suit your individual needs. Your preference settings will be stored on your system in the home directory for your user name. This allows different users on the same system to set up their own individual preference settings. For specific information on the location of the preference files on your system, please see “Poser Default File Locations” on page 357.

Setting Application Preferences

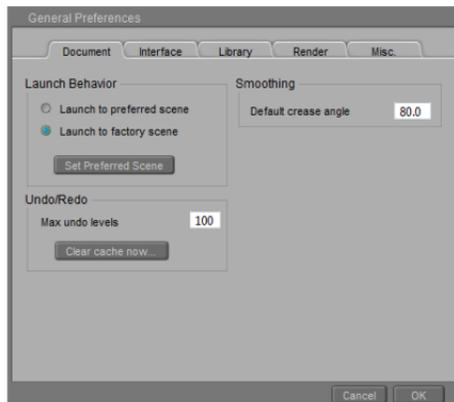
Poser’s **General Preferences** dialog allows you to control certain global Poser settings. Open this dialog by selecting **Edit > General Preferences**. The **General Preferences** dialog appears.

Click the **OK** button when finished to save your preferences and close the dialog. The following topics describe the available preferences.

Chapter 3: Setting Up the Poser Workspace

Document Preferences

The **Document Preferences** tab contains settings specific to the **Document** window. The Document Preference options are as follows:



Document Preferences.

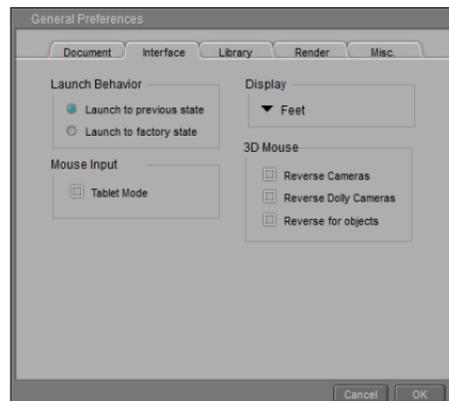
- **Launch Behavior:** The Launch Behavior options allow you to specify whether the **Document** window will open using your customized preferred settings, or the default factory settings, whenever you launch Poser.

If you customize the **Document** window by resizing and/or moving it, or by changing the character that loads when you start Poser, selecting the **Launch to preferred scene** radio button after you have adjusted the **Document** window will save these changes when you exit and re-launch Poser. If you want your **Document** window to revert to its default (as installed) location and size whenever you launch Poser, select the **Launch to factory scene** button. Please refer to “Chapter 5: The Document Window” on page 65 for more information about the Document window.

- **Set Preferred Scene:** Click this button after you arrange your document window the way you like. This will save it as the preferred startup state
- **Undo/Redo:** The **Undo/Redo** options allow you to specify the maximum number of levels for the Undo/Redo cache. By default the cache size is set to 100 levels of Undo. You can leave this setting at 100 if you have available system resources, or you can reduce the level to conserve memory. Clicking the **Clear cache now...** button will clear the Undo/Redo cache.
- **Smoothing:** The **Default Crease Angle** setting allows you to specify the default Crease Angle to be used in polygon smoothing calculations.

Interface Preferences

The **Interface Preferences** tab contains application-level settings for Poser’s general user interface. The Interface Preference options are as follows:



Interface Preferences.

- **Launch Behavior:** If you customize the Poser interface by adding, removing, rotating, resizing, and/or hiding different elements, or by creating your own palette arrangements in any of the Poser rooms, selecting the

Launch to previous state radio button after making your changes will save the changes when you exit and re-launch Poser. If you want your Poser interface to revert to its default (as installed) location and size whenever you launch Poser, select the **Launch to factory state** button.

- **Mouse Input:** The **Tablet Mode** option decreases the sampling rate for greater accuracy when using a graphics tablet as the input device. If your button has a scroll wheel, you can check the **Scroll to Zoom** option to zoom in and out of your scene. Uncheck the option to disable this feature.



*If you wish to operate Poser with a graphic tablet, please make sure to activate Tablet Mode in **Edit -> General Preferences -> Interface -> Mouse Input**.*

- **Display Units:** Poser allows you to work with real-world units, enhancing your ability to make accurate recreations. Use the **Display units** pull-down menu to make your selection. The available choices are:
 - Poser native units
 - Inches
 - Feet

- Millimeters
- Centimeters
- Meters



One Poser native unit is the equivalent of 8.6 feet, or 262.128 centimeters.

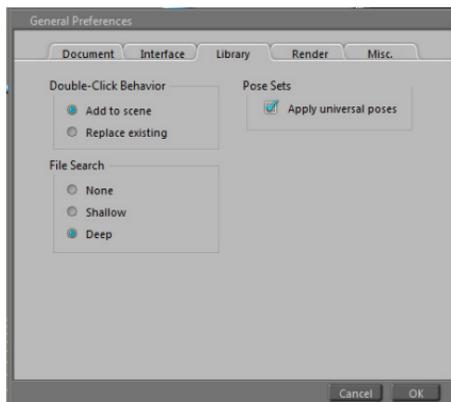
- **3D Mouse:** The 3D Mouse options control the behavior of a 3D input device such as 3Dconnexion's SpaceNavigator. Checking the **Reverse Cameras** box changes the direction the main and auxiliary cameras rotate when using a 3D mouse. Checking the **Reverse Dolly Cameras** box reverses the direction the dolly cameras rotate when using a 3D mouse. Checking the **Reverse Actors** box reverses the direction actors move when controlled with a 3D mouse.



When using a 3D Mouse (such as SpaceNavigator or similar), by default all rotation axes and translations will be transmitted. Holding down the Shift key will filter out translations, and holding down the CTRL key (Windows) or CMD key (Mac) will filter out rotations.

Library Preferences

The **Library Preferences** tab contains settings that are specific to the **Poser Library**. The **Library Preference** options are as follows:



Library Preferences (Poser).

- **Double-click Behavior:** The **Double-click Behavior** setting specifies the results of double-clicking on a **Library** preset. Select the appropriate radio button to choose between adding the new preset to the scene, or replacing the selected preset in the scene. Note that the first time you double-click on a **Library** preset, a dialog will come up allowing you to specify this setting. Your selected option will then be applied to all subsequent double-click instances, unless you change the setting in the **Library Preferences** tab.
- **File Search:** When an object is loaded from the **Library**, Poser searches for all the associated files included with that object. The **File Search** options allow you to configure the extent of that search. These options are:
 - **None:** Selecting **None** disables file searching; this option is useful for content developers in testing the accuracy of newly developed content, as it checks only the file locations that are specified in the Poser files. Referenced files will also be found next to a scene document when search policy is set to **None**.



It is recommended that content developers set the File Search to None when testing the packaging of content that is intended for distribution. Doing so will help determine if geometry files and textures appear in the correct locations and paths as designated within the library files. Error messages will display when content files are not in their expected locations.

- **Shallow:** Selecting **Shallow** will reduce the amount of time spent searching for missing or mislabeled files, but will increase the instances of files not found. This option looks in all runtimes for the item, using the relative path and filename provided. For example, if the file specified is **Runtime/geometries/FolderA/ObjectA.obj** but the file actually lives in an external runtime folder named **C:/MySpecialFolder/Runtime/geometries/FolderA/ObjectA.obj**, then the shallow search will find it. The Shallow search will also find **ObjectA.obj** in any directories that are already known by Poser.
- **Deep:** This is the default **File Search** setting. We recommend that you select **Deep** file searching, as this option initiates the most extensive searches for content file components, hence increasing the likelihood that missing or mislabeled files will

be found. This performs a thorough search in all Runtime folders.

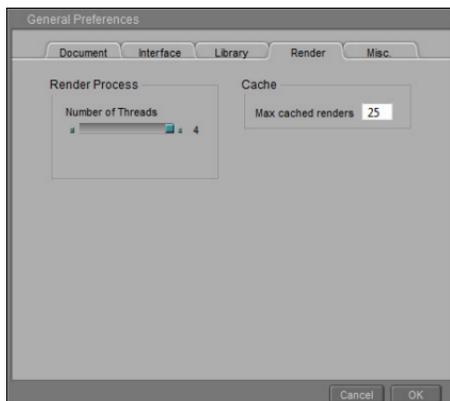


If your Runtime folders are extremely large, resulting in Deep search results that take too long to find missing files, consider changing to a Shallow search.

- **Pose Sets:** By checking the **Apply Universal Poses** box, poses saved to the library will be automatically written as universal poses, and library poses applied to figures by double-clicking will always be applied as universal poses.

Render Preferences

The **Render Preferences** tab contains settings that are specific to the FireFly render engine. The Render Preference options are as follows:



Render Preferences.

- **Number of Threads:** If you have a multi-processor and/or multi-core hardware system, you can take advantage of multi-threaded rendering by setting the **Number of Threads** slider to a value greater than one.



We recommend rendering your scene with as many threads as your system possesses CPU cores. The default value for hyper-threaded CPUs is twice the number of cores that you have (because the OS sees twice as many virtual cores as there are physical cores), with a maximum of four. On CPUs that are not hyper-threaded, the OS sees only the physical cores. If you are unsatisfied with the resulting performance, or if the render fails to complete, then reduce the number of threads and/or maximum bucket size. However, if you have a single-processor and single-core system, we recommend that you set the number of threads to one, as the increased memory demand of running parallel threads may offset the performance benefits.

- **Cache:** The **Max Cached Renders** setting allows you to configure the number of renders that will be cached for access via the Render Compare feature in the **Document** window's Render tab. Please see [“Render Comparison” on page 92](#) for more information about the Render Compare feature.



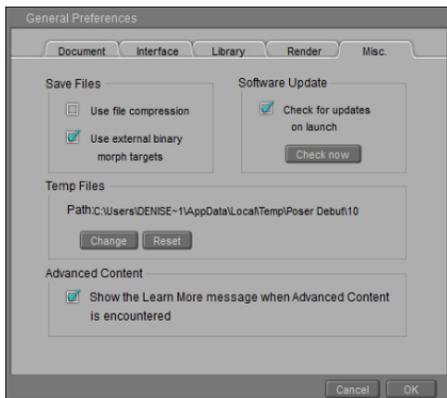
Files in the render cache are stored in the following locations:

Mac OS X: /Users/<user>/Library/Application Support/Poser Debut/10/RenderCache/

Windows XP: C:\Documents and Settings\<user>\Application Data\Poser Debut\10\RenderCache\

Windows Vista & 7: C:\Users\<user>\AppData\Roaming\Poser Debut\10\RenderCache\

Miscellaneous Preferences



Miscellaneous Preferences.

- **Save Files:** Poser offers the following options for file saving:
 - **Use File Compression:** Poser includes the ability to save compressed runtime files and scene files using “zlib compression”. This compression will significantly reduce the size of your runtime directory and save valuable hard drive space. These compressed files will act identically to non-compressed runtime files when used in Poser. To enable file compression, check the “Save Compressed Files” option. Poser will open both compressed and non-compressed files, but writes compressed files using specific file extensions.



Compressed Poser files can be opened by Poser versions running Poser 4 Pro Pack or later. Zlib compression is similar to gzip and zip compression methods, and can typically be uncompressed by any utility (such as WinZip) that handles either of these formats.



Please note that all content included with Poser is compressed.

 For more information on `zlib`, please refer to <http://www.info-zip.org/pub/infozip/zlib/>. To uncompress a file, change the extension on the file you wish to access to `.gz`, then run your decompression utility. Alternatively, you can use the included PoserPython decompression script by launching Poser and opening the Python Scripts window.

 All Poser files (scene, figure, pose, expression, hair, hand, prop, light, camera, material) can be compressed. Compressed Poser files have the extension `**Z` (`*.PZZ`, `*.CRZ`, `*.FCZ`, etc.). Poser prop files are saved with the extension `PZZ` to avoid confusion with compressed scene files.

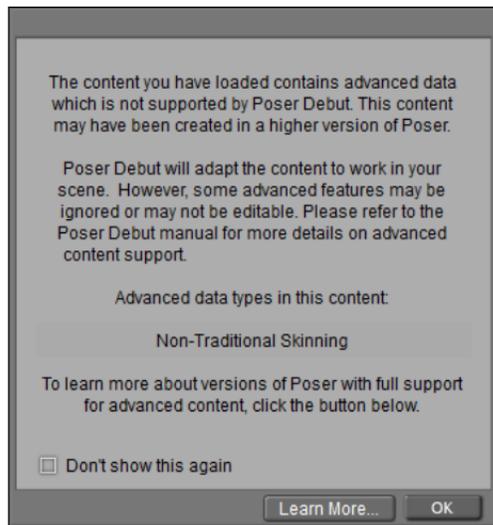
 If you plan to distribute files for use by artists with Poser 4 and earlier, please be sure to save them uncompressed. To do so, uncheck the **Use File Compression** option in the Misc Preferences tab.

 Poser uses standard Z-lib compression, allowing you to use any Z-lib compatible compression/decompression application to compress/decompress files.

 Some advanced artists use a text editing application to directly edit Poser files. You must uncompress compressed files before editing them. To do this, you can either load a file into Poser, disable compressed file support, and save the results to a new filename or use a third-party compression utility to uncompress the file. If you use the second method, you can recompress the file when you've finished making edits.

- **Use External Binary Morph Targets:** Checking this box will enable the use of External Binary Morph Targets (EBMTs) when saving new content, or resaving legacy Poser files. Saving legacy figures to the Poser Library with this option enabled will generate new `.PMD` EBMT files for those figures, thus allowing you to take advantage of morph target sharing, reduced file sizes, and faster processing speeds for your legacy figures.
- **Software Update:** Checking the **Check for Updates on Launch** box enables the Automatic Update Notification feature (see “Updating Poser” on page 25 for more information about this feature). Clearing the box disables Automatic Update Notification. Clicking the **Check Now** button will execute an immediate update check.

- **Temp Files:** Displays the path to temporary files created by Poser. Click the **Change** button to choose a folder on your system, or click **Reset** to change back to the default path that was initially set during your Poser installation.
- **Show the Learn More message when Advanced Content is encountered:** Other versions of Poser provide support for additional types of content that are not supported in Poser Debut. You will receive a warning when you attempt to use content that contains features that are not supported in Poser Debut. If you want to disable this warning, uncheck this option.



Advanced Content Warning Dialog.



When this warning appears, you can click the Learn More button for further information.



"Appendix D: Feature Comparisons and Handling" on page 364 provides an overview of the advanced features found in Poser 10 and Poser Pro 2014, and how these features are handled in Poser Debut.



The options in the **Window > Room Tools** submenus are enabled only when the respective room is active. For example, the commands in the **Window > Room Tools > Face** submenu will only be enabled when you are in the Face Room.

Setting Up Your Workspace

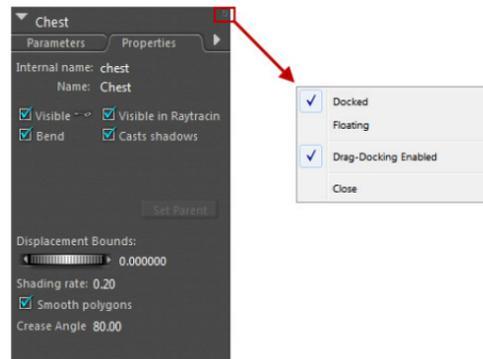
The Poser workspace consists of the entire Poser screen, including controls, the **Document** window, and other room-specific interface elements. You can customize most of these elements to suit the way you work and store your preferences for later use.

Docking and Floating Palettes

Poser's sleek interface is geared toward streamlining your workflow. You can dock, float, and arrange floating palettes in each of Poser's different rooms, to set up a workspace layout that meets your needs.

The Window menu contains commands that show or hide Poser's many palettes. If a palette is hidden, simply select the desired palette from the Window pull-down menu to display it.

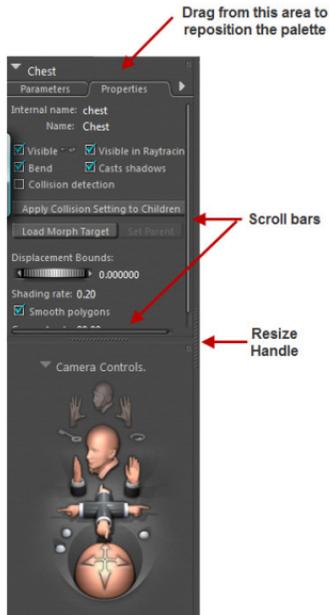
The upper-right corner of each palette contains a Palette Docking Control square. Click the square to open the palette docking menu, which contains commands that work as described below.



Palette Docking menu options.

Moving, Repositioning, and Resizing Palettes

Various controls allow you to resize docked or floating palettes, or reposition them as necessary. For example:



Resizing handles for palettes.

Chapter 3: Setting Up the Poser Workspace

- To resize a docked palette, position the cursor over the resize handle and drag in either direction indicated by the double-arrow resize cursor.
- To resize a floating palette, position your cursor over a side or corner, where it turns into a double-arrow resize cursor. Then drag to the desired size.
- To reposition a palette, position the cursor in the Title area of the palette, where it turns into a hand. Reposition the palette to another area on your screen. If the area that you drag to is highlighted in blue, the palette will dock into the highlighted area of your workspace. If the area that you drag to is not highlighted, the palette will float in the new area when you release the mouse button.
- Some palettes display scroll bars when they contain more information than can be displayed in the allotted space.
- Some palettes (such as the Editing Tools or Display Styles palettes) display options that wrap based on the width of the palette.
- Some palettes cannot be reduced beyond the minimum size required to display all of the palette options and controls. For examples, see the Camera Controls or Light Controls palettes.

Enabling or Disabling Docking

To enable or disable palette docking:

- Click the Palette Docking Control square at the top-right corner of the palette. Check or uncheck **Drag-Docking Enabled** as appropriate. This selection is checked when docking is enabled, and not checked when disabled.



When Drag-Docking is disabled, you can move the palette anywhere on the screen over the main workspace or to an additional monitor. The palette will always float until you enable drag-docking again.

Docking Palettes

To dock a palette, use one of the following methods:

- Drag the palette toward the area in which you want to place it. When the area becomes highlighted, release the mouse. If you drag the palette into an area that is already populated by one or more palettes, the active docking area will split horizontally or vertically to provide a location for the additional palette.

- Click the control at the top-right corner of floating palette, and choose **Docked** from the menu. The palette will dock into the position where it was last docked.

Floating Palettes

To float a palette, use one of the following methods:

- Drag the palette out of the docked location, and toward the document window. Release the mouse when there is no highlighted dock location for the palette.
- Click the control at the top-right corner of a docked palette, and choose **Floating** from the menu. The palette will float in the Poser workspace.

Closing Palettes

To close an open palette, use one of the following methods:

- Click the **Close** icon in the upper-right corner.
- Click the control at the top-right corner of the palette and choose **Close** from the menu that appears.

- Choose an open palette from the **Window** pull-down menu to close it. Palettes that are currently open are indicated by a check mark.

UI Memory Dots

You can save up to nine interface configurations using the **Memory** dots (described in “[Memory Dots](#)” on page 50). Each **Memory** dot retains a separate instance of your selected interface settings. This feature is globally applicable, meaning that UI dots can be applied regardless of the specific scene or resolution. An alternative method for saving UI settings for accessibility in any Poser scene is to modify Poser’s general preferences as described in “[Setting Application Preferences](#)” on page 28. However, while preferences set in this manner are saved separately for each screen resolution, you can only save one UI configuration per resolution using the general preferences.

Setting Up the Document Window

Please refer to “[Chapter 5: The Document Window](#)” on page 65 for more information on customizing the **Document** window and using the controls found there.

Chapter 3: Setting Up the Poser Workspace

Using the Log Window

The Log window enables you to view a list of ongoing commands as you use them in Poser. You can filter these comments on various criteria (timestamp, category, application commands, group selections, warnings, and debug information). This information can be useful when you are trying to troubleshoot a problem with Technical Support.

To display the Log window, choose **Window > Log**.



The window can be docked or undocked to the workspace by using the palette context menu. Click the square in the upper-right corner of the palette to display the docking options.



If a crash occurs and you can't get to the log window, you can copy the recent history from Users\<<user>\AppData\Local\Temp\Poser Pro\10\Poser.log



Log Window.

Part 2: Building Scenes

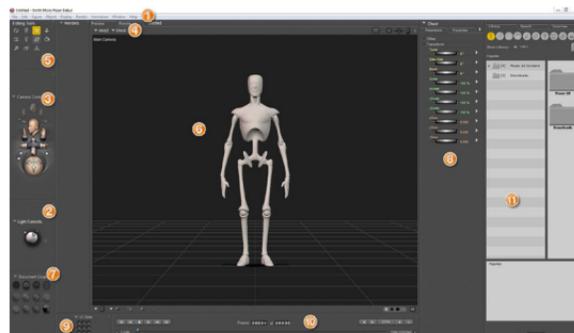
Chapter 4: The Pose Room

The **Pose** room is the focal point for much of your Poser activity. This is where you add figures and props to your scene and perform your desired posing and animation. This chapter introduces you to the basic Poser interface. The following chapters will describe these interface elements in greater detail.

The **Pose** room appears as follows at 1920 x 1200 resolution.



The number of palettes and options that you see in each room depends upon your screen resolution. At higher resolutions, the default work spaces display more palettes, while at lower resolutions you see fewer palettes.



The Pose Room.

Much of Poser's functionality is available by using floating palettes and windows within the rooms themselves. You can customize your Poser workspace by hiding/displaying and relocating controls anywhere you like. You can even save up to nine different screen configurations for the entire Poser workspace.

The numbers on the image above identify the controls available in the **Pose** room:

- **Menu** bar (1)
- **Light** controls (2)

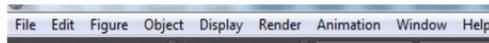
- **Camera** controls (3)
- **Room** tabs (4)
- **Editing** tools (5)
- **Document** window (6)
- **Display** controls (7)
- **Properties & Parameters** palettes (8)
- **UI** dots (9)
- **Animation** controls (10)
- **Library** palette (11)

Please refer to "[Setting Up Your Workspace](#)" on page 37 for more information about creating and saving custom workspace layouts. The following sections provide a brief description of the labeled interface elements and references to more detailed information.

Menu Bar

The **Menu Bar** consists of a series of pull-down menus used for accessing Poser functionality. Some menus and/or

submenus duplicate other on-screen interface elements. The **Menu Bar** appears as follows.



Poser's Menu Bar.

Light Controls

The **Light** controls allow you to adjust lighting properties. Use it for such purposes as adding and removing lights, and specifying light colors and other light properties. The **Light** controls appear as follows.

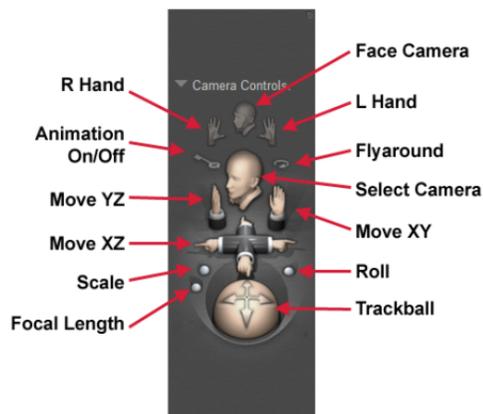


The Light Controls.

Please refer to "[Chapter 12: Lighting](#)" on page 231 for more information about the **Light** controls.

Camera Controls

The **Camera** controls allow you to select and move one or more Poser cameras. There are two types of camera controls: **View** and **Position**.



The Camera Controls.

The topmost controls are the **View** controls. Clicking one of these controls activates the **Face**, **Left Hand**, or **Right Hand** camera, as appropriate. You can also scroll through the list of available cameras. The controls beneath the hand controls are used to turn camera animation on or off, or to use the **Flyaround** camera. The **Position** controls appear below these controls and are used to move or rotate the currently selected camera. The **Camera Plane** position controls move the camera along the X, Y, and/or Z axis, while the **Trackball** rotates the currently selected camera without changing its location in 3D space. To use the **Camera** controls, simply click and drag your desired control. Moving a camera does not change the locations or poses of figures, props, and other elements in your scene.

A subset of these **Camera** controls appears in the upper-right corner of the **Document** window. Please refer to "[Chapter 11: Cameras](#)" on page 214 for complete information about the **Camera** controls.

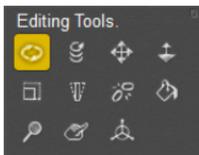
Room Tabs

The **Room** tabs allow you to switch between Poser's document preview and render views. To switch views, simply click its tab.

Editing Tools

The **Editing Tools** display contains the tools you use most often when posing figures/props.

By selecting a body part or prop followed by the desired **Editing** tool, you can pose objects in various ways such as translating (moving side to side or back and forth), rotating, twisting, etc. You can also perform other functions such as editing Inverse Kinematic (IK) chains and working with element/material groups. Each **Editing** tool is a little different, but their basic usage is as follows:



The Editing Tools.

1. Select your desired body part or prop (referred to as an **element** or **actor**) in your scene by clicking that actor.
2. Select the desired **Editing** tool. You can only have one **Editing** tool selected at a time. The currently selected **Editing** tool appears yellow within the Poser interface.

Chapter 4: The Pose Room

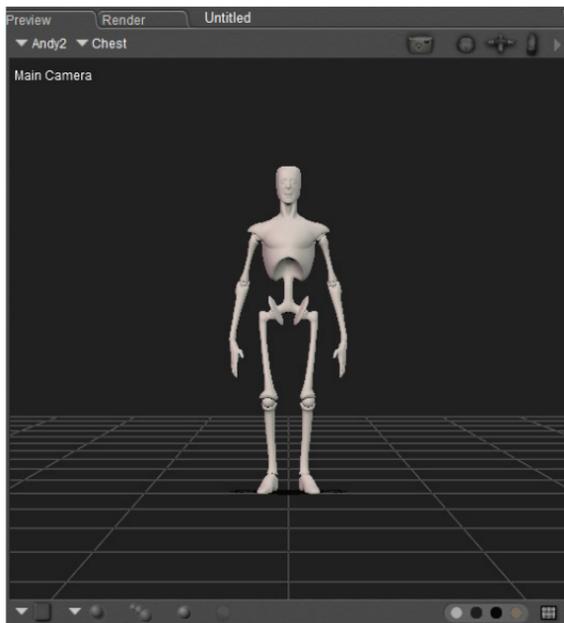
3. Click and drag to perform the selected tool's function.

You can use the **Editing** tools in any combination to create a virtually infinite number of still or animated poses. Please refer to ["The Editing Tools" on page 172](#) for more information on the **Editing** tools. In addition, each tool is discussed in depth where appropriate in this manual.

Document Window

The **Document** window is your viewport into the Poser workspace where you view and pose your figure and interact directly with your scene. Each view of the **Document** window is displayed through a virtual camera, which means you can view each scene from multiple camera angles, either one at a time or from up to four angles at once.

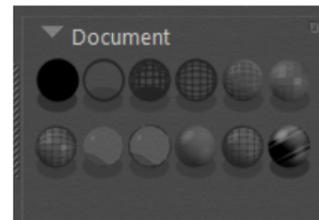
You can position cameras to view your scene from any angle or distance and can resize the **Document** window to suit your needs. In addition, the **Document** window has numerous controls around its edges that you use to change the appearance of scene elements. You can also select objects within your scene by clicking them directly within the **Document** window or by using the menus on the bottom of the window. Please refer to ["Chapter 5: The Document Window" on page 65](#) for more information about the **Document** window.



The Document Window.

Display Controls

The **Display** controls allow you to select your desired preview mode for your entire scene, a figure or prop, and/or specific elements of your currently selected figure/prop.



The Display Controls.

Please refer to "[Chapter 6: The Display Controls and Menu](#)" on page 96 for more information about the **Display** controls.

Parameters/Properties Palette

Poser offers an easy-to-use **Parameters** and **Properties** palette that allows you to access any scene object's properties and parameters in one convenient location.



Parameters Palette.

To switch between the **Properties** and **Parameters** palettes, simply click the desired tab at the top of the palette.

Chapter 4: The Pose Room



Although both properties and parameters appear in the same palette, we will treat them as separate entities throughout this manual for clarity.

Parameters Palette

The **Parameters** palette contains all of an object's parameters transformation settings, (as described in "Parameters Palette" on page 184) and morph targets. Each object type has specialized parameters, which are described where appropriate in this manual. Further, individual objects can have parameters unique to that object. For example, different figures have different morph targets available.

Properties Palette

The **Properties** palette contains all of an object's properties. In addition to certain universal properties (which are described in "Properties" on page 181, each object type has specialized properties, which are described where appropriate in this manual.

Library Palette

The Library palette consists of three tabs.

The **Library** tab contains all of the various categories of content from which you can choose.

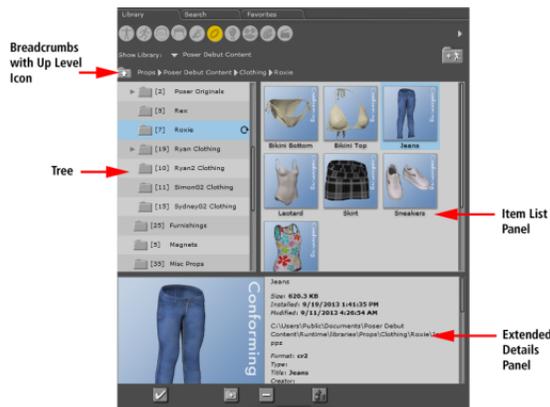
- The **Search** tab allows you to perform keyword searches through one or all of your runtimes.
- The **Favorites** tab gives you quick access to your favorite content.

Library Tab

The **Library** tab contain Poser's **Library** content categories. The **Categories** icons allow you to access and search through all of the content available to your installation of Poser, including content included with Poser and any additional content you may have obtained. The Library tab contains categories (**Figures, Props**, etc.) and subcategories (**Animals, New Figures**, etc.) for organizing your Poser content: You can also organize your favorite content in the Favorites tab for even quicker access.

Use the **Library** tab to add or remove elements from your Poser scenes. The vast collection of content included with Poser allows you start building scenes right away. The

Library makes it easy to add existing and new content collections so that you can find and add any items to your scene. Please refer to "[Chapter 7: The Poser Library](#)" on [page 111](#) for more information about the **Library** palette and to "[Changing the Library Appearance](#)" on [page 116](#) for information on how to show and hide the various elements in the Library tab.



Library tab.

Search Tab

Use the Search tab to perform keyword searches on one or all of your Runtime libraries. This powerful new feature makes it easier to find the content you want to use, even in large content collections. You'll find more information in "Searching the Library" on page 155.

Favorites Tab

The **Favorites** tab on the **Library** palette provides quick access to your favorite Poser content. For more information about adding favorites, see "Favorites Tab" on page 159

Memory Dots

Being able to customize your workspace wouldn't be useful if you had no way of saving your preferences. Poser includes **Memory** dots that allow you to save poses, camera locations, and user interface (UI) preferences and to switch between saved items with a single mouse click.

Chapter 4: The Pose Room



Memory Dots.

Clicking the arrow to the left of the description allows you to choose between the **Poses**, **Camera**, and **UI** memory dots that you have saved.



Memory Dots options.

Please refer to the following for more information on each type of **Memory** dot.

- **Pose Dots:** **Pose** dots are described in further detail in "Pose Dots" on page 196.

- **Camera Dots:** Camera dots are described in further detail in "Camera Dots" on page 229
- **UI Dots:** UI dots are described in further detail in "Setting Up Your Workspace" on page 37.

Using Memory Dots

To use **Memory** dots:

1. Set up your pose, cameras, and/or interface (UI) the way you want them.
2. Use the pull-down menu to select the dot type, as described above.
3. Click an empty memory dot. This dot will appear full, as shown below.



Filled, empty, and selected Memory Dots.

To use a dot, simply click it. The stored settings are applied to your scene. To clear a memory dot (delete its information and make it appear empty again), press and hold **[OPT]/[ALT]** while clicking the memory dot you wish to erase.

Animation Controls

The **Animation** controls allow you to preview animations and set up keyframes. You do this by posing your figure, moving to a new frame, and changing the pose. Clicking the **Play** button plays an animation using the keyframes. The **Animation** controls appear as follows:



Animation Controls.

Please refer to “Using the Animation Controls” on page 285 to learn more about the **Animation** controls, and to “Chapter 19: Animating with Poser” on page 283 for more information about creating and rendering animations using Poser.

Material Popup

The Material Popup icon is located in the lower right corner of the Document window. Click this icon to open the Material Palette, which allows you to make changes to the materials in your scene. For more information about this palette, see “Chapter 13: The Material Palette” on page 251.



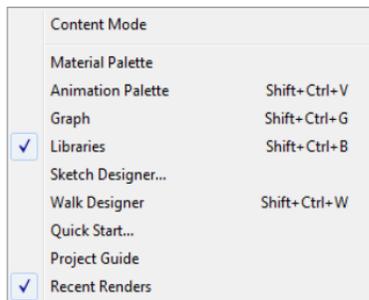
The Material popup opens the Material Palette.

Showing and Hiding Windows and Palettes

The **Window** menu allows you to enable and disable (show and hide) various Poser windows and palettes. The upper portion of the Window menu contains the following commands:



The palette options that are displayed in each room vary, depending on your screen resolution or upon which room you have displayed.



The Window menu shows and hides windows and palettes.

- **Content Mode:** Opens a web interface that takes you to Content Paradise, where you can buy additional content for your Poser application. To return back to Poser, click the **Back to Scene** button in the upper right corner of the interface.



For more information on Content Paradise, see "Chapter 8: The Content Room" on page 161.

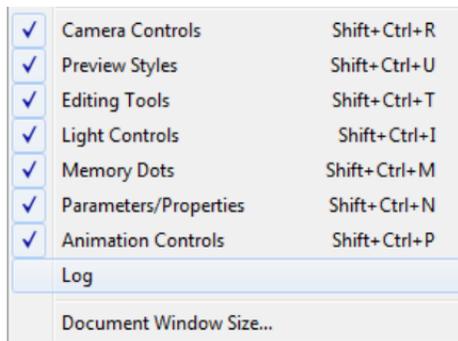
- **Material Palette:** Opens the Material Palette, which allows you to make changes to the materials in your

scene. For further information, see "Chapter 13: The Material Palette" on page 251.

- **Animation Palette:** Selecting **Window > Animation Palette** opens the **Animation** palette. Please refer to "Using the Animation Palette" on page 289 for information about the **Animation** palette and creating Poser animations.
- **Graph:** Selecting **Window > Graph** opens the **Graph** palette for the selected element in your scene. Please refer to "About the Graph Palette" on page 294 for information about using the Graph when making Poser animations.
- **Libraries:** Selecting **Window > Libraries** opens the **Library** palette. Please refer to "Chapter 7: The Poser Library" on page 111 for more information about the **Library** palette.
- **Sketch Designer:** Selecting **Window > Sketch Designer** opens the **Sketch Designer** window. Please refer to "Chapter 17: The Sketch Designer" on page 277 for more information about the Sketch Designer renderer.
- **Walk Designer:** Selecting **Window > Walk Designer** opens the **Walk Designer** window. Please refer to "Using the Walk Designer" on page 302 for more information about the **Walk Designer** window.

- **Quick Start:** Choose **Window > Quick Start** to open the **Quick Start Guide**, described in "Project Guide" on page 26.
- **Project Guide:** Choose **Window > Project Guide** to open the **Project Guide**, described in "Project Guide" on page 26.
- **Recent Renders:** Choose **Window > Recent Renders** to display a palette that contains thumbnails of the images that you most recently rendered. For more information, see "Displaying Recent Renders" on page 92.

The lower portion of the Window menu contains commands that toggle frequently-used palettes on and off.



Window menu commands show and hide windows and palettes.

- **Camera Controls:** Selecting **Window > Camera Controls** toggles the **Camera** controls display on and off. A check mark next to this option indicates that the controls are currently displayed, and vice versa. Please refer to "The Camera Controls" on page 214 for more information about the **Camera** controls.
- **Preview Styles:** Selecting **Window > Preview Styles** toggles the **Display** controls display on and off. A check mark next to this option indicates that the

controls are currently displayed, and vice versa. Please refer to [“Chapter 6: The Display Controls and Menu” on page 96](#) for more information about the **Display** controls.

- **Editing Tools:** Selecting **Window > Editing Tools** toggles the **Editing** tools display on and off. A check mark next to this option indicates that the controls are currently displayed, and vice versa. Please refer to [“The Editing Tools” on page 172](#) for more information about the **Editing** tools.
- **Light Controls:** Selecting **Window > Light Controls** toggles the **Light** controls display on and off. A check mark next to this option indicates that the controls are currently displayed, and vice versa. Please refer to [“Chapter 12: Lighting” on page 231](#) for more information about the **Light** controls.
- **Memory Dots:** Selecting **Window > Memory Dots** toggles the **Memory** dots display on and off. A check mark next to this option indicates that the controls are currently displayed, and vice versa. Please refer to [“Memory Dots” on page 50](#) for more information about the **Memory** dots.
- **Parameters/Properties:** Selecting **Window > Parameters/Properties** shows or hides the **Parameters/Properties**

palette, which contains tabs for the **Parameters** palette and **Properties** Palette. A check mark next to this option indicates that the **Parameters/Properties** palette is currently displayed, and vice versa. Please refer to [“Parameters Palette” on page 184](#) for more information about the **Parameters** palette, and to [“Properties” on page 181](#) for more information about the **Properties** palette.

- **Animation Controls:** Selecting **Window > Animation Controls** toggles the **Animation** controls display on and off. A check mark next to this option indicates that the controls are currently displayed, and vice versa. Please refer to [“Using the Animation Controls” on page 285](#) for more information about the **Animation** controls.
- **Log:** Choose **Window > Log** to open the Log Window. See [“Using the Log Window” on page 40](#) for further information.
- **Document Window Size:** Selecting **Window > Document Window Size** opens the **Preview Dimensions** dialog allowing you to resize your **Document** window when it is floating. Please refer to [“Chapter 5: The Document Window” on page 65](#) for information about resizing your **Document** window.



The Document Window is only resizable when it is floating. When docked, the document window expands to fit into the space that is not used by docked palettes.

Keyboard Shortcuts

Keyboard shortcuts are available for many menu commands found in Poser. The following tables summarize the available keyboard shortcuts for each menu.

File Menu

Command	Windows	Mac
File > New	CTRL+N	CMD+N
File > Open	CTRL+O	CMD+O
File > Close	CTRL+W	CMD+W
File > Save	CTRL+S	CMD+S
File > Save As	CTRL+Shift+S	CMD+Shift+S
File > Print	CTRL+P	CMD+P

File > Exit	CTRL+Q	
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Edit Menu

Command	Windows	Mac
Edit > Undo	CTRL+Z	CMD+Z
Edit > Redo	CTRL+Shift+Z	CMD+Shift+Z
Edit > Cut	CTRL+X	CMD+X
Edit > Copy	CTRL+C	CMD+C
Edit > Paste	CTRL+V	CMD+V
Edit > General Preferences*	CTRL+K	CMD+K

* Preferences command is found in the application menu in Mac systems

Figure Menu

Command	Windows	Mac
Figure > Drop to Floor	CTRL+D	CMD+D
Figure > Hide Figure	CTRL+H	CMD+H

Object Menu

Command	Windows	Mac
Object > Properties	CTRL+I	CMD+I

Display Menu

Command	Windows	Mac
Display > Camera View > Main Camera	CTRL+M	CMD+M
Display > Camera View > From Left	CTRL+; (semicolon)	CMD+; (semicolon)
Display > Camera View > From Right	CTRL+' (apostrophe)	CMD+' (apostrophe)
Display > Camera View > From Top	CTRL+T	CMD+T
Display > Camera View > From Front	CTRL+F	CMD+F
Display > Camera View > Face Camera	CTRL+= (equal)	CMD+= (equal)
Display > Camera View > Posing Camera	CTRL+, (comma)	CMD+, (comma)
Display > Camera View > Right Hand Camera	CTRL+[(left bracket)	CMD+[(left bracket)

Display > Camera View > Left Hand Camera	CTRL+] (right bracket)	CMD+] (right bracket)
Display > Camera View > Dolly Camera	CTRL+/(forward slash)	CMD+/(forward slash)
Display > Fly Around	CTRL+L	CMD+L
Display > Tracking > Bounding Boxes Only	CTRL+Shift+A	CMD+Shift+A
Display > Tracking > Fast Tracking	CTRL+Shift+X	CMD+Shift+X
Display > Tracking > Full Tracking	CTRL+Shift+C	CMD+Shift+C
Display > Show Background Picture	CTRL+B	CMD+B
Display > Guides > Ground Plane	CTRL+G	CMD+G
Display > Preview Drawing > OpenGL Hardware	CTRL+ALT+O	CMD+ALT+O
Display > Preview Drawing > SreeD Software	CTRL+ALT+S	CMD+ALT+S

Render Menu

Command	Windows	Mac
Render > Render	CTRL+R	CMD+R

Render > Antialias Document	CTRL+ALT+R	CMD+ALT+R
Render > Render Settings	CTRL+Y	CMD+Y
Render > Render Dimensions	CTRL+Shift+Y	CMD+Shift+Y

Animation Menu

Command	Windows	Mac
Animation > Make Movie	CTRL+J	CMD+J

Window Menu

Command	Windows	Mac
Window > Animation Palette	CTRL+Shift+V	CMD+Shift+V
Window > Graph	CTRL+Shift+G	CMD+Shift+G
Window > Libraries	CTRL+Shift+B	CMD+Shift+B
Window > Walk Designer	CTRL+Shift+W	CMD+Shift+W
Window > Camera Controls	CTRL+Shift+R	CMD+Shift+R

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Window > Preview Styles	CTRL+Shift+U	CMD+Shift+U
Window > Editing Tools	CTRL+Shift+T	CMD+Shift+T
Window > Light Controls	CTRL+Shift+I	CMD+Shift+I
Window > Memory Dots	CTRL+Shift+M	CMD+Shift+M
Window > Parameter Dials	CTRL+Shift+N	CMD+Shift+N
Window > Animation Controls	CTRL+Shift+P	CMD+Shift+P

Other Basic Operations

Creating a New Scene

Selecting **File > New** creates a new Poser scene. A dialog will appear if you have any unsaved changes in your previous scene. If this dialog appears:

- Selecting **Yes** opens a **Save Poser Scene** dialog box, allowing you to save your current Poser scene. After saving your current scene, the new scene will be created.

- Selecting **No** creates a new Poser scene without saving your unsaved changes. All unsaved changes will be lost, so use this option carefully!
- Selecting **Cancel** closes the dialog and cancels the new scene creation, leaving your current Poser scene open.

Opening a Scene

Selecting **File > Open** opens a standard **Open** dialog box, allowing you to access and work on a previously saved Poser scene file. You are prompted to save any unsaved changes in your current scene, if any (see above).

Opening a Recent File

Selecting **File > Recent Files** opens a pop-up list that displays a list of the ten most recent document files (.PZ3 or .PZZ formats) that you opened in Poser.

Closing Your Scene

Selecting **File > Close** closes your current Poser scene while leaving the Poser application running. You are prompted to save any unsaved changes in your current scene.

Saving a Scene

Selecting **File > Save** saves your current Poser scene using your previously specified filename and save location. If you have not previously saved your scene, Poser will open the standard **Save As** dialog box, allowing you to name and save your current Poser scene (see below).

Selecting **File > Save As** saves your current Poser scene allowing you to select a different filename and/or save location. This feature is useful for creating different versions of work, which allows you to return to any previous stage if you decide you don't like your progress beyond a given save point. For example, you could save `myscene_1.PZ3`, then save new versions as `myscene_2.PZ3`, `myscene_3.PZ3`, and so forth.

Compressed File Support

Poser allows you to compress saved figures/props/scenes to save hard drive room. To enable compression support, select **Edit > General Preferences**, select the Library tab, and check the **Use File Compression** box as described in "[Miscellaneous Preferences](#)" on page 34.

Reverting Changes

Selecting **File > Revert** allows you to undo your changes and reopen your current scene file in its last-saved state. This is a great way to do your recent changes over, however you will lose everything you've done since the last time you saved your scene. This is why we recommend that you save your scene often and, if you think you may want to return to an earlier version, to save progressive versions of your work using the **Save As** command. Clicking **Cancel** returns you to Poser, and clicking **Revert** proceeds to load the last saved version of your current scene.

Page Setup

Selecting **File > Page Setup** opens a standard **Print Setup** dialog box allowing you to set up your printers. Please refer to your operating system and/or printer documentation for information on setting your print preferences.

Print

Selecting **File > Print** sends your current scene to your selected printer. A standard **Print** dialog box opens allowing you to select your desired printer and general printing properties. Poser documents always print using

the full page size. Please refer to your operating system documentation for information on selecting print options.

Exit

Selecting **File > Exit** closes Poser. You are prompted to save any unsaved changes. You can also type **[COMMAND]/[CTRL]+[Q]** to exit Poser.

This menu option is available for Windows only. For Macintosh, the **Quit** command appears on the Poser **Application** menu.

Undo

Selecting **Edit > Undo** reverses your most recent change to the actual scene. You can also press **[COMMAND]/[CTRL]+[Z]**. Undo applies only to alterations made within the actual scene; it is not applicable to changes made to application settings, Library content, etc.

Poser supports multiple levels of Undo. Selecting **Edit > Undo** repeatedly allows you to step backwards through your most recent document changes, reversing each change individually and reverting the scene to its previous state. Some operations within Poser will purge the Undo/Redo cache; a warning dialog will appear asking you to

confirm before the action is implemented. Closing the file will purge the Undo/Redo cache.

You can specify the maximum size of the Undo stack. Please see [“Setting Application Preferences”](#) on page 28 for more information.



You can specify whether or not the Undo feature will apply to camera changes. Open the Properties palette for the currently selected camera, and check the “Remember changes for undo” checkbox in order to apply Undo to camera changes. Alternately, if you do not wish camera changes to be included in the Undo feature, make sure to uncheck this checkbox for each camera. This checkbox is active by default.

Redo

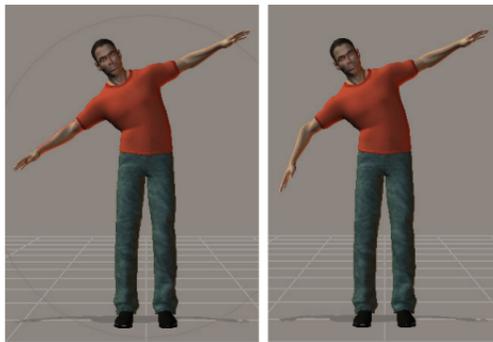
Selecting **Edit > Redo** reiterates the most recently undone action, thus reverting the scene to its previous state. You can also press **[COMMAND]/[CTRL]+Shift+[Z]**. To reverse a Redo action, simply select **Edit > Undo** again.

Cut

Selecting **Edit > Cut** removes the selected element(s) and places them in the system Clipboard for later pasting. You can also press **[COMMAND]/[CTRL]+[X]**. You can do this for poses and other functions.

Copy

Selecting **Edit > Copy** copies selected elements to the Clipboard. You can use this command to copy the position of one prop to another. You can also copy transformation and rotation channel information from the selected item and paste that information into another item. For example, the following figure shows rotation information pasted from the figure’s abdomen to its arm.



Before and after abdomen pose settings are copied to a figure's arm.

To copy and paste a shaped body part:

1. Manipulate the body part using any tool you desire.
2. Select the body part (source), then select **Edit > Copy** or press **[COMMAND]/[CTRL]+[C]**.
3. Click to select the body part you wish to copy to (target) and select **Edit > Paste** (see following subsection). This copies all settings from the source to the target, including deformers.

Chapter 4: The Pose Room

Paste

Selecting **Edit > Paste**, or pressing **[COMMAND]/[CTRL]+[V]**, places the item stored in the Clipboard into your current scene. If you are pasting a pose, select the element to apply the copied pose to, then make your selection.



Copying and pasting poses from one side to the other does not mirror the poses. The same pose is applied. To mirror poses, use the Symmetry function.

Copy Picture

Selecting **Edit > Copy Picture** takes a snapshot of your scene, which you can then paste into a graphics application such as Adobe Photoshop. Your scene is copied exactly as displayed in the **Document** window.



Copying and pasting images in this manner is not the same as rendering. Please refer to part 9 for information on rendering Poser scenes.

Duplicate

The **Duplicate [ObjectName]** option creates an exact duplicate of the currently selected figure or prop. The duplicate object is placed within the **Document** window, in the same position as the original. The duplicate object will appear in either the **Select Figure** or **Current Actor** menu, depending on whether it is a figure or a prop, and can be resized and repositioned independently from the original object.

Restore

Need to restore a scene element to its default state? Selecting **Edit > Restore** opens a submenu allowing you to restore scene elements, which are completely restored to their Poser default states, including but not limited to position, scale, morphs, parameters, materials, parent/child relationships, etc.



The Restore function is literally for cases when you wish to go back and start all over again.

Use it with care!

The **Restore** submenu appears as follows:

- **Element:** Selecting **Edit > Restore > Element** restores the current element to its default state. An element could be a body part, prop, single camera, or single light.
- **Figure:** Selecting **Edit > Restore > Figure** restores the current figure to its default state.
- **Lights:** Selecting **Edit > Restore > Lights** restores all lights in your scene to their Poser default state.
- **Camera:** Selecting **Edit > Restore > Camera** restores the current camera to its default state.
- **All:** Selecting **Edit > Restore > All** restores all scene elements to their default states. Use this option with care!

Memorize

While working, you might arrive at a convenient stopping point. You know you like what you have so far and do not want to revert all the way back to the Poser default state should you need to restore one or more scene elements (or even the entire scene) at a later time. No problem. Select **Edit > Memorize** and the element(s) you wish to memorize (the list is the same as for the **Restore** submenu, above). Doing this essentially changes the default for your

selected item(s), which can be undesirable in some cases. Redoing this operation saves the new default overwriting the old. If you later select **Edit > Restore**, your element(s) will be restored to the last memorized settings.



*It is very important when setting up new figures to use the **Edit > Memorize > Figure** command to preserve default poses so that Inverse Kinematics works properly.*

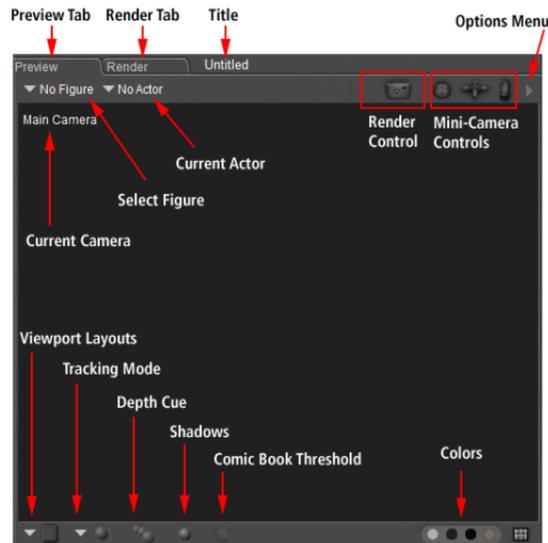
Memorization works on a per-file basis, meaning that memorizing defaults in one file does not affect the defaults of other Poser files or **Library** entries.

Chapter 5: The Document Window

The **Document** window is your portal to the Poser workspace where you view and can directly manipulate your scene and the elements within it. The **Document** window consists of two tabs: the **Preview** tab, which is where you do the work to set up your Poser scene; and the **Render** tab, which is where you can view the results of your renders. The following topics discuss the **Document** window controls and how to use them.

Preview Tab

Clicking on the **Preview** tab at the top left of the **Document** window brings up the scene preview window, where you can manipulate figures, props, etc. to set up your Poser scene. Refer to ["Preview Tab" on page 267](#) for detailed configuration parameters for the Preview tab's preview display window. The **Preview** tab contains the following controls:



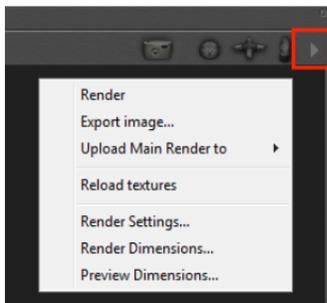
Components of the Document Window.

Title

The **Title** appears along the top of the **Document** window, and displays the current Poser scene (such as **My Scene. PZ3**).

Options Menu

Clicking on the arrow at the right side of the Title bar opens the Document window's **Options** menu. This menu contains the following settings and shortcuts:



Document Window Options Menu.

Render

Selecting **Render** from the **Context** menu renders your entire Poser scene, using the render settings specified in the **Render Settings** dialog, and the render engine specified in the **Render Engine Selection** menu on the **Render** tab. For more information on Poser's render settings, see "[Part 4: Rendering](#)" on page 262. The render results will appear in the **Render** tab of the **Document** window.

Export Image

Selecting **Export Image** opens a standard Save As dialog that will allow you to save the scene as it appears in your scene preview window as an image file. This can also be accomplished by selecting **File > Export > Image..**

Upload Main Render To

Choose **Upload Main Render To > Facebook** to upload the currently selected render to your Facebook account. For further information on how to perform the upload, see "[Uploading to Facebook](#)" on page 94.

Reload Textures

Clicking on **Reload Textures** will reload into memory all textures for the current scene preview display. This allows you to easily update any changes you may have made in other applications to the currently loaded textures.

Render Settings

Selecting Render Settings will open the **Render Settings** dialog. See "[Chapter 15: The Render Settings Dialog](#)" on [page 266](#) for more information on the Render Settings dialog options.

Render Dimensions

Selecting **Render Dimensions** brings up the **Render Dimensions** dialog, which contains settings that allow you to specify the dimensions of your render tab. See "[Render Dimensions](#)" on [page 67](#) for more information on the **Render Dimensions** dialog settings.

Preview Dimensions

Selecting Preview Dimensions brings up the Preview Dimensions dialog. Here you can specify your desired

height and width (in pixels) of the scene preview window. Clicking the **Match Background** button forces the **Document** window to match the dimensions of an imported background image or movie. Clicking the **Match Production Aspect** button sets the scene preview window size to the currently selected Production Frame aspect. This button is only active when the **Production Frame** feature is enabled (see "[Production Frame](#)" on [page 102](#)). Clearing a checkbox disables the specified option.

Document Window Size

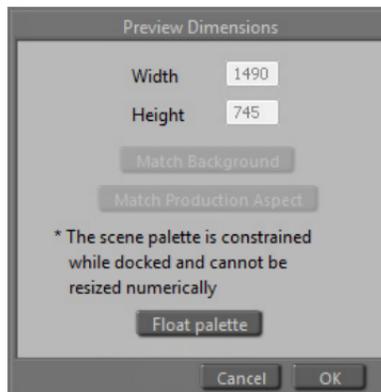
The **Document** window is dockable and floatable. When the **Document** window is in its floating state, there are two ways that you can resize it:

- Clicking and dragging the bottom right corner of the **Document** window to your desired size.
- Choose **Window > Document Window Size**, which opens the **Preview Dimensions** dialog. Enter your desired scene preview window height and width (in pixels) in the appropriate fields and click **OK** to resize the **Document** window.

- Click the **Match Background** button to match the **Document** window to the dimensions of an imported background image or movie.
- Click the **Match Production Aspect** button to set the scene preview window size to the currently selected Production Frame aspect. This button is only active when the **Production Frame** feature is enabled (see "Production Frame" on page 102).



*Note that the above two options are disabled (as shown below) when the **Document** window is docked. To undock the document window, click the **Float Palette** button in the **Preview Dimensions** dialog.*



Setting Document Window size.

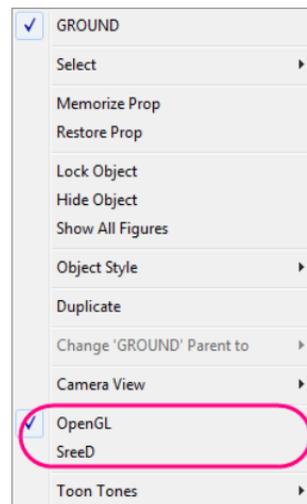
The **Document** window size is saved in the same manner as described in "Single/Multiple-View Panes" on page 83.

OpenGL Hardware Acceleration

Poser offers OpenGL hardware accelerated rendering as well as SreeD software rendering options for the scene preview display. Simply right-click (Windows) or Apple key-click (Mac) within the preview window to select hardware or software rendering for processing the scene previews.

In most cases, hardware rendered previews will be faster than software rendered previews. Additionally, hardware accelerated performance is independent of the preview window size, whereas software rendering will yield a lower frame rate with larger preview window sizes.

Recent and more powerful graphics cards with OpenGL support will provide better results with the display of your Poser scene, with better texture previews and faster interaction and updating of the scene. Unfortunately, due to the vast variety of graphics hardware available, hardware acceleration may not be supported on every system. In that case please use the SreeD software rendering option. Poser should automatically detect whether or not OpenGL hardware rendering is supported for your system, and if not, should default to SreeD software rendering.



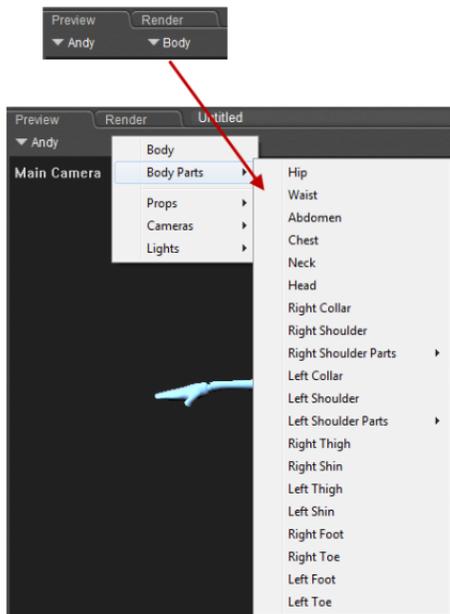
Choosing your Preview Rendering option.

Select Figure/Current Actor Menus

The top left of the **Preview** tab contains the **Select Figure** (left) and **Current Actor** (right) pull-down menus. The currently selected figure and item appear as labels, and

those item's properties and parameter dials are accessible in the **Parameters & Properties** palette. Double-clicking anywhere in the scene preview area will open the **Parameters & Properties** palette in the position and state in which it was last used, with the settings for the currently selected figure and/or actor displayed.

You can also select figures, props, and other scene objects by clicking on them directly in the scene preview area.



Select Figure (left) and Current Actor (right) menus.

- **Select Figure Menu:** Use the **Select Figure** pull-down menu to select your desired figure. This can be

helpful if you have a number of figures in your scene (particularly if you are using conforming clothing, each item of which is a Poser figure).

- **Current Actor Menu:** The **Current Actor** pull-down menu allows you to select scene items as follows:
 - **Body:** Selecting **Current Actor > Body** selects the entire body and all body parts of the currently selected figure.
 - **Body Parts:** Selecting **Current Actor > Body Parts** opens the list of the currently selected figure's body parts. By using this option, you will select only the specified body part on the currently selected figure.
 - **Props:** Selecting **Current Actor > Props** opens the list of all props in your scene (including hair and cloth objects), allowing you to select your desired prop.
 - **Cameras:** Selecting **Current Actor > Cameras** opens the list of the cameras in your scene. You may select any camera from this list. Please refer to "[Chapter 11: Cameras](#)" on page 214 for information about Poser cameras.
 - **Lights:** Selecting **Current Actor > Lights** opens the list of lights in your scene. You may select any light

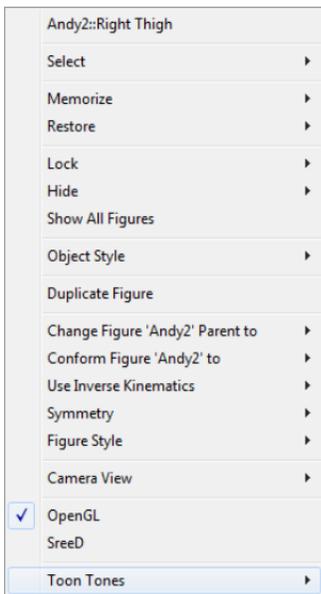
from this list. Please refer to "[Chapter 12: Lighting](#)" on page 231 for information about Poser lights.

Preview Tab Context Menus

Right-clicking (Windows) or Apple key-clicking (Mac) within a scene preview tab will open up the **Context** pop-up menu. The options that appear in this menu vary, depending on the type of item that you right-click over.

Actors Context Menu

When you right-click over a body part in a poseable figure, the context menu appears as shown below.



Actor Context Menu.

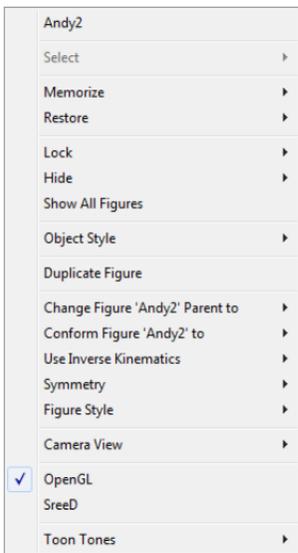
The Actor context menu provides the following commands:

- The top line in the context menu displays the name of the selected item.
- **Select:** Expand the **Select** menu to select the part that you right-click. A check mark appears beside the name of the body part when it is set as the current selection.
- **Memorize** and **Restore:** Equivalent to using the **Edit > Memorize** and **Edit > Restore** commands as they apply to the entire figure, or to the selected element. See ["Memorize" on page 63](#) and ["Restore" on page 63](#).
- **Lock:** Equivalent to using the **Figure > Lock Figure or Object > Lock Object** commands. Allows you to lock or unlock the transformations of the selected actor or figure. The item is locked when a check mark appears beside the item. See ["Lock Figure" on page 201](#) and ["Lock Object" on page 197](#).
- **Hide:** Hides the actor that is right-clicked.
- **Show All:** "Unhides" any hidden figures or actors.
- **Object Style:** Choose the desired display style from the submenu. See ["Chapter 6: The Display Controls and Menu" on page 96](#) for more information about the display styles available in Poser.

- **Duplicate Figure:** Equivalent to using the **Edit > Duplicate** command. See ["Duplicate" on page 63.](#)
- **Change Figure (figurename) Parent to:** Equivalent to using the **Figure > Set Figure Parent** command. Allows you to select a prop, camera, or light as a figure parent. Choose **Universe** to remove the figure parent. See ["Set Figure Parent" on page 212.](#)
- **Conform Figure (figurename)To:** Equivalent to using the **Figure > Conform To** command. Allows you to conform the figure to another figure in the scene. Choose **None** to unconform the selected figure. See ["Adding Conforming Clothing: Manual Conforming" on page 132.](#)
- **Use Inverse Kinematics:** Equivalent to using the **Figure > Use Inverse Kinematics** command. A check mark appears beside the leg or hand when inverse kinematics is on. See ["Inverse Kinematics \(IK\)" on page 165.](#)
- **Symmetry:** Equivalent to using the **Figure > Symmetry** command. Expand the menu and choose the desired symmetry. See ["Symmetry" on page 201.](#)
- **Figure Style:** Equivalent to using the **Display > Figure Style** command. Allows you to choose the display style for the figure. See ["Chapter 6: The Display Controls and Menu" on page 96](#) for more information about the display styles available in Poser.
- **Camera View:** Equivalent to using the **Display > Camera View** command. Select the desired camera view from the context menu.
- **OpenGL:** Equivalent to using the **Display > Preview Drawing > OpenGL Hardware** command. See ["OpenGL Hardware Acceleration" on page 68.](#)
- **SreeD:** Equivalent to using the **Display > Preview Drawing > SreeD Software** command. See ["OpenGL Hardware Acceleration" on page 68.](#)
- **Toon Tones:** Equivalent to using the **Display > Cartoon Tones** command. Select the desired cartoon display mode from the context menu. See ["Cartoon Tones" on page 109.](#)

Full Figures Context Menu

To display the context menu for a full figure, right-click the Figure circle that appears around a poseable figure. The options in the context menu are similar to those in the Actor context menu described in the previous section.



Full Figure Context Menu.

- The top line in the context menu displays the name of the selected item.
- **Select:** Expand the **Select** menu to select the part that you right-click. A check mark appears beside the

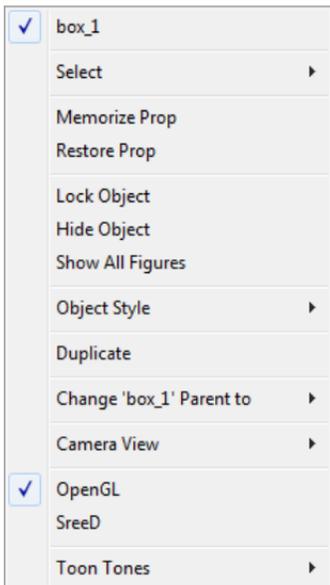
Chapter 5: The Document Window

name of the body part when it is set as the current selection.

- **Memorize** and **Restore:** Equivalent to using the **Edit > Memorize** and **Edit > Restore** commands as they apply to the entire figure, or to the selected element. See ["Memorize" on page 63](#) and ["Restore" on page 63](#).
- **Lock:** Equivalent to using the **Figure > Lock Figure** or **Object > Lock Object** commands. Allows you to lock or unlock the transformations of the selected actor or figure. The item is locked when a check mark appears beside the item. See ["Lock Figure" on page 201](#) and ["Lock Object" on page 197](#).
- **Hide:** Hides the actor that is right-clicked.
- **Show All Figures:** "Unhides" any hidden figures or actors.
- **Object Style:** Choose the desired display style from the submenu. See ["Chapter 6: The Display Controls and Menu" on page 96](#) for more information about the display styles available in Poser.
- **Duplicate Figure:** Equivalent to using the **Edit > Duplicate** command. See ["Duplicate" on page 63](#).

- **Change Figure (figurename) Parent to:** Equivalent to using the **Figure > Set Figure Parent** command. Allows you to select a prop, camera, or light as a figure parent. Choose **Universe** to remove the figure parent. See "[Set Figure Parent](#)" on page 212.
- **Conform Figure (figurename)To:** Equivalent to using the **Figure > Conform To** command. Allows you to conform the figure to another figure in the scene. Choose **None** to unconform the selected figure. See "[Adding Conforming Clothing: Manual Conforming](#)" on page 132.
- **Use Inverse Kinematics:** Equivalent to using the **Figure > Use Inverse Kinematics** command. A check mark appears beside the leg or hand when inverse kinematics is on. See "[Inverse Kinematics \(IK\)](#)" on page 165.
- **Symmetry:** Equivalent to using the **Figure > Symmetry** command. Expand the menu and choose the desired symmetry. See "[Symmetry](#)" on page 201.
- **Figure Style:** Equivalent to using the **Display > Figure Style** command. Allows you to choose the display style for the figure. See "[Chapter 6: The Display Controls and Menu](#)" on page 96 for more information about the display styles available in Poser.
- **Camera View:** Equivalent to using the **Display > Camera View** command. Select the desired camera view from the context menu.
- **OpenGL:** Equivalent to using the **Display > Preview Drawing > OpenGL Hardware** command. See "[OpenGL Hardware Acceleration](#)" on page 68.
- **SreeD:** Equivalent to using the **Display > Preview Drawing > SreeD Software** command. See "[OpenGL Hardware Acceleration](#)" on page 68.
- **Toon Tones:** Equivalent to using the **Display > Cartoon Tones** command. Select the desired cartoon display mode from the context menu. See "[Cartoon Tones](#)" on page 109.

Props Context Menu



Props Context Menu.

- The top line in the context menu displays the name of the selected item.

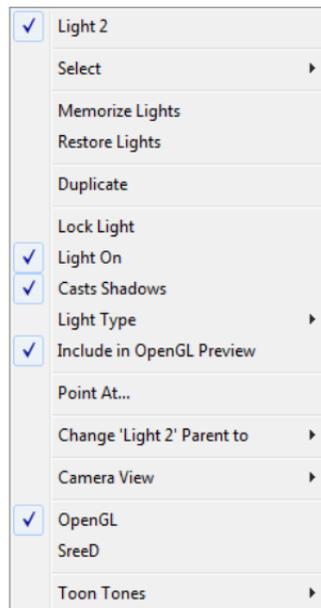
Chapter 5: The Document Window

- **Select:** Expand the **Select** menu to select the prop that you right-click. A check mark appears beside the name of the prop when it is set as the current selection.
- **Memorize Prop** and **Restore Prop:** Equivalent to using the **Edit > Memorize** and **Edit > Restore** commands as they apply to the prop. See "[Memorize](#)" on page 63 and "[Restore](#)" on page 63.
- **Lock Object:** Equivalent to using the **Object > Lock Object** command. Allows you to lock or unlock the transformations of the selected prop. The item is locked when a check mark appears beside the item. See "[Lock Object](#)" on page 197.
- **Hide:** Hides the actor that is right-clicked.
- **Show All Figures:** "Unhides" any hidden figures or actors.
- **Object Style:** Choose the desired display style from the submenu. See "[Chapter 6: The Display Controls and Menu](#)" on page 96 for more information about the display styles available in Poser.
- **Duplicate:** Equivalent to using the **Edit > Duplicate** command. See "[Duplicate](#)" on page 63.

- **Change (pro)name Parent to:** Equivalent to using the **Object > Change Parent** command. Allows you to select a figure, prop, camera, or light as a parent. Choose **Universe** to remove the figure parent. See "Changing a Parent" on page 212.
- **Camera View:** Equivalent to using the **Display > Camera View** command. Select the desired camera view from the context menu.
- **OpenGL:** Equivalent to using the **Display > Preview Drawing > OpenGL Hardware** command. See "OpenGL Hardware Acceleration" on page 68.
- **SreeD:** Equivalent to using the **Display > Preview Drawing > SreeD Software** command. See "OpenGL Hardware Acceleration" on page 68.
- **Toon Tones:** Equivalent to using the **Display > Cartoon Tones** command. Select the desired cartoon display mode from the context menu. See "Cartoon Tones" on page 109.

Lights Context Menu

For information regarding commands that are specific to lights, see "Chapter 12: Lighting" on page 231.



Lights Context Menu.

- The top line in the context menu displays the name of the selected light.

- **Select:** Expand the **Select** menu to select the light that you right-click. A check mark appears beside the name of the light when it is set as the current selection.
- **Memorize Lights** and **Restore Lights:** Equivalent to using the **Edit > Memorize** and **Edit > Restore** commands as they apply to the lights. See "[Memorize](#)" on page 63 and "[Restore](#)" on page 63.
- **Duplicate:** Equivalent to using the **Edit > Duplicate** command. See "[Duplicate](#)" on page 63.
- **Lock Light:** Equivalent to using the **Object > Lock Object** command. Allows you to lock or unlock the transformations of the selected light. The item is locked when a check mark appears beside the item. See "[Lock Object](#)" on page 197.
- **Light On:** Turns the light on or off. A check mark appears beside the command when the light is on.
- **Casts Shadows:** Turns shadows on or off for the selected light. Shadows are on when the option is checked.
- **Light Type:** Allows you to choose the type of light. A check mark appears beside the currently selected light type.
- **Include in OpenGL Preview:** Allows the effects of the current light to display in the preview render in the document window. A check mark appears beside the light if it is included.
- **Point At:** Equivalent to using the **Object > Point At** command. See "[Point At](#)" on page 197.
- **Change (lightname) Parent to:** Equivalent to using the **Object > Change Parent** command. Allows you to select a figure, prop, camera, or light as a parent. Choose **Universe** to remove the parent. See "[Changing a Parent](#)" on page 212.
- **Camera View:** Equivalent to using the **Display > Camera View** command. Select the desired camera view from the context menu.
- **OpenGL:** Equivalent to using the **Display > Preview Drawing > OpenGL Hardware** command. See "[OpenGL Hardware Acceleration](#)" on page 68.
- **SreeD:** Equivalent to using the **Display > Preview Drawing > SreeD Software** command. See "[OpenGL Hardware Acceleration](#)" on page 68.
- **Toon Tones:** Equivalent to using the **Display > Cartoon Tones** command. Select the desired cartoon display

Chapter 5: The Document Window

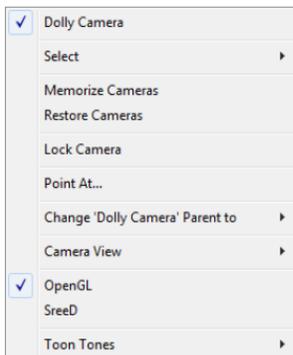
mode from the context menu. See [“Cartoon Tones” on page 109](#).

Cameras Context Menu

For information regarding commands that are specific to cameras, see [“Chapter 11: Cameras” on page 214](#).



You will need to make the camera visible in the Properties panel before you right-click to display the camera context menu.

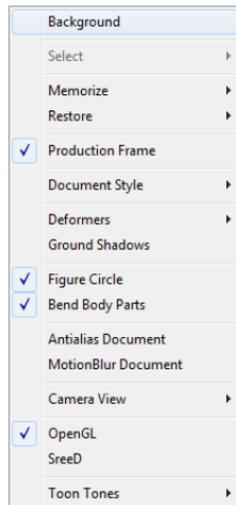


Cameras Context Menu.

- The top line in the context menu displays the name of the selected camera.
- **Select:** Expand the **Select** menu to select the light that you right-click. A check mark appears beside the name of the light when it is set as the current selection.
- **Memorize Cameras** and **Restore Cameras:** Equivalent to using the **Edit > Memorize** and **Edit > Restore** commands as they apply to the selected camera. See [“Memorize” on page 63](#) and [“Restore” on page 63](#).
- **Lock Camera:** Equivalent to using the **Object > Lock Object** command. Allows you to lock or unlock the transformations of the selected camera. The item is locked when a check mark appears beside the item. See [“Lock Object” on page 197](#).
- **Point At:** Equivalent to using the **Object > Point At** command. See [“Point At” on page 197](#).
- **Change (lightname) Parent to:** Equivalent to using the **Object > Change Parent** command. Allows you to select a figure, prop, camera, or light as a parent. Choose **Universe** to remove the parent. See [“Changing a Parent” on page 212](#).

- **Camera View:** Equivalent to using the **Display > Camera View** command. Select the desired camera view from the context menu.
- **OpenGL:** Equivalent to using the **Display > Preview Drawing > OpenGL Hardware** command. See “OpenGL Hardware Acceleration” on page 68.
- **SreeD:** Equivalent to using the **Display > Preview Drawing > SreeD Software** command. See “OpenGL Hardware Acceleration” on page 68.
- **Toon Tones:** Equivalent to using the **Display > Cartoon Tones** command. Select the desired cartoon display mode from the context menu. See “Cartoon Tones” on page 109.

Background Context Menu



Background Context Menu.

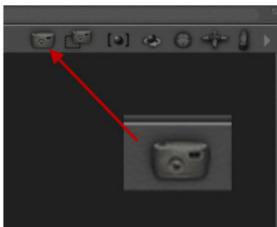
- **Memorize** and **Restore:** Equivalent to using the **Edit > Memorize** and **Edit > Restore** commands. See “Memorize” on page 63 and “Restore” on page 63.

- **Production Frame:** Equivalent to using the **Display > Production Frame** command. See "[Production Frame](#)" on page 102.
- **Document Style:** Allows you to choose the display style for the entire document. See "[Chapter 6: The Display Controls and Menu](#)" on page 96 for more information about the display styles available in Poser.
- **Deformers:** Allows you to show and hide the deformers in the scene.
- **Ground Shadows:** Equivalent to using the **Display > Shadows** command. Turns the ground shadow on and off. See "[Shadows](#)" on page 86.
- **Figure Circle:** Equivalent to using the **Display > Figure Circle** command. Toggles the display of the figure circle around the figure. See "[Figure Circle](#)" on page 104.
- **Bend Body Parts:** Equivalent to using the **Display > Bend Body Parts** command. Toggles bending on and off in a figure. See "[Bend Body Parts](#)" on page 104.
- **Antialias Document:** Equivalent to using the **Render > Antialias Document** command. Smooths rough edges in the rendered image. See "[Antialias Document](#)" on page 263.
- **Motion Blur Document:** Equivalent to using the **Render > Motion Blur Document** command. Adds a motion blur effect to the render. See "[Motion Blur Document](#)" on page 264.
- **Camera View:** Equivalent to using the **Display > Camera View** command. Select the desired camera view from the context menu.
- **OpenGL:** Equivalent to using the **Display > Preview Drawing > OpenGL Hardware** command. See "[OpenGL Hardware Acceleration](#)" on page 68.
- **SreeD:** Equivalent to using the **Display > Preview Drawing > SreeD Software** command. See "[OpenGL Hardware Acceleration](#)" on page 68.
- **Toon Tones:** Equivalent to using the **Display > Cartoon Tones** command. Select the desired cartoon display mode from the context menu. See "[Cartoon Tones](#)" on page 109.

Render

The **Render** icon at the top of the **Preview** or **Render** tab is a shortcut to the Render command. Clicking this symbol will render your entire Poser scene, using the render settings specified in the **Render Settings** dialog, and the render

engine specified in the **Render Engine Selection** menu on the **Render** tab. For more information on Poser's render settings, see "[Part 4: Rendering](#)" on page 262. The render results will appear in the **Render** tab of the **Document** window.



Render icon.

Mini Camera Controls

The **Mini Camera Controls** located at the top right of the **Preview** tab contain a subset of the total available **Camera** controls. From left to right, these are:

- **Camera Rotation:** The **Camera Rotation** trackball tilts and spins the currently selected camera about all three axes.

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- **Move XZ:** Clicking and dragging the **Move XZ** control moves the currently selected camera along the X and/or Z axes.
- **Move XY:** Clicking and dragging the **Move XY** control moves the currently selected camera along the X and/or Y axes.

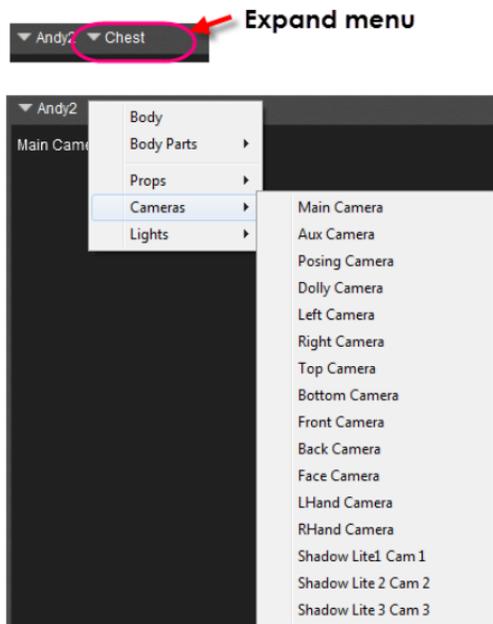
Please refer to "[Chapter 11: Cameras](#)" on page 214 for detailed information about the **Camera** controls.



Mini Camera Controls.

Changing Cameras within a Pane

The camera label in the upper left corner of the scene preview tab displays the currently selected camera for that pane. You can change the selected camera in each pane of the **Preview** tab. To do this, click on the **Current Actor** pop-up menu, or right-click anywhere within the desired pane to open the context menu, and click on the **Camera View** option.



Choosing a camera view from the Actor menu.

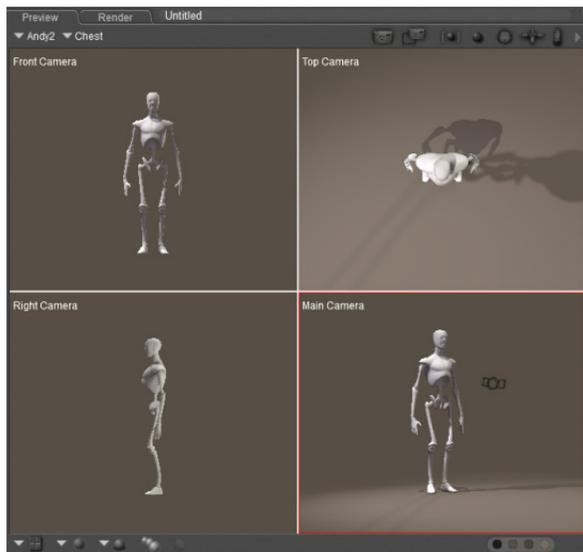
To change the camera, click your desired option. The view in the selected pane will switch to your newly selected camera.

Single/Multiple-View Panes

By default, the **Preview** tab consists of one pane, meaning that you can view your scene using one camera at a time. You can, however, add up to four simultaneous viewing panes (cameras) to your **Document** window using eight customizable layouts, which helps you visualize your scene in all dimensions.

To select a layout, click the **Document** window **Layout** menu button in the lower left corner of the **Preview** tab, and select your desired layout from the pop-up menu.

- To toggle between single pane and the most recently selected multiple-pane layout, press **[D]**.
- Press **[F]** to cycle through all of the available multiple-pane layouts.



Multiple view panes.

- You can resize panes by clicking and dragging their borders. Poser remembers pane sizes and camera selections if you switch layouts while working on a

Chapter 5: The Document Window

given scene, and these selections are also saved when you save your Poser scene.

- To use the same layout every time you launch Poser, select the **Previous State** option from the **General Preferences** dialog as described in “[Setting Application Preferences](#)” on page 28. You can also save up to nine pane/camera layouts using the **UI Memory** dots (see “[Memory Dots](#)” on page 50).
- Clicking anywhere in a pane makes that pane active. A red border appears around the active pane.

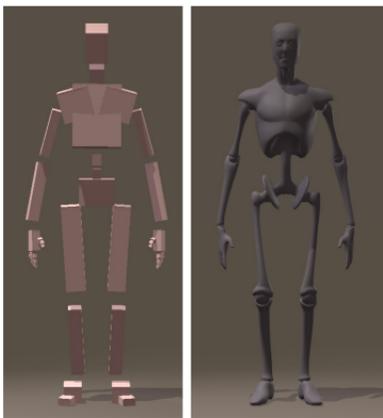
Tracking Mode

Tracking mode determines the type of preview Poser uses to display an object when you reposition either that object or a camera. The **Tracking Mode** pop-up menu in the lower left corner of the **Preview** tab offers three tracking mode options. From top to bottom, these are:

- Box:** Displays scene elements (figures and props) as bounding boxes all the time, whether still or moving. This is the fastest way to preview scenes and is useful for rough blocking work.
- Fast:** Displays figures and props in the currently selected display style while they or the camera are still

and as bounding boxes when in motion. This combines an accurate scene view so you can see before and after images without waiting for each frame to fully render. Fast tracking can help save time while blocking out scenes and creating animations.

- **Full:** Displays scene elements in the currently selected **Document** window display style at all times, whether still or animated. This mode is suitable for users with high-performance computers and for performing fine-tuning on previously blocked-out scenes.



Box and Full tracking modes.

Depth Cueing

The Depth Cueing button appears to the right of the **Tracking Mode** menu along the bottom left of the **Preview** tab.

Depth Cueing adds dimension to scene elements visible in the **Document** window. When Depth Cueing is enabled, elements farther away from the camera fade into the distance. This provides a quick visual indication of the depth of your scene, which can be helpful if you are viewing it using a single pane. To toggle depth cueing on and off, click the Depth Cueing button. **Depth Cueing** depends on the total depth of your scene. For example, if your scene consists of a single figure, the portions of that figure farthest from the camera will appear faded out. Adding another element (such as a prop) farther from the camera than the figure will cause the prop to appear faded with the figure being more visible. This is useful if you wish to control the amount of depth cueing in your scene.



Depth cueing fades objects that are farther away in the distance.



Depth cueing and shadows do not affect your rendered output.

Shadows

Items in your scene can cast shadows on the ground plane, which can help you orient them in 3D space. Disabling shadows can help speed up scene redraw time.

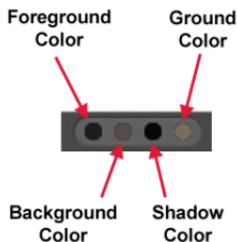
The Shadows button toggles display of the shadows on and off.



Displaying ground and hardware shadows.

Colors

You can improve your view of your scene by altering the foreground, background, shadow, and ground colors appearing within the **Document** window's **Preview** tab. The four dots located along the lower-right corner of the **Preview** tab allow you to control the following colors, respectively:



Interface options for foreground, background, shadow, and ground colors.

- **Foreground:** Clicking the **Foreground** button opens the Poser Color Picker and displays an eyedropper icon. Pressing **[OPT]/[ALT]** while clicking this button opens your operating system's standard Color Picker.

Position this dropper over the color you wish to select and click it. If you use the operating system's standard Color Picker, you can alter the color using numeric values. The **Foreground** color affects the color of the Silhouette, Outline, Wireframe, and Hidden Line display modes (see "[Chapter 6: The Display Controls and Menu](#)" on page 96).



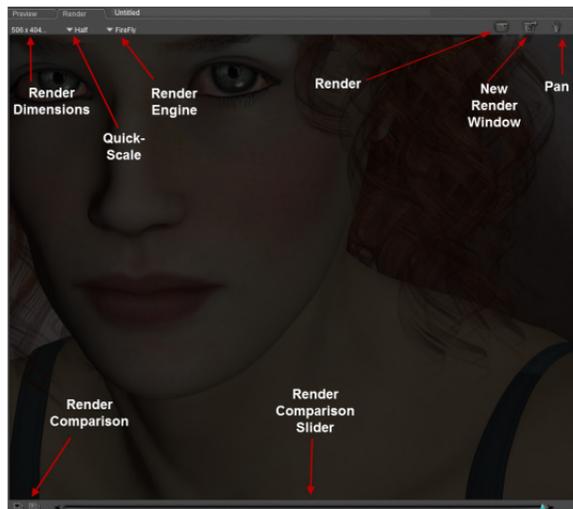
The color picker.

- **Background:** Change the **Background** color as described above. This color affects the Poser workspace background.
- **Shadow:** Change the **Shadow** color as described above. This color affects the preview shadow displayed in the **Preview** tab (if enabled).

- **Ground:** Change this color as described above. This color affects the ground plane displayed in the **Preview** tab (if enabled).

Render Tab

Clicking on the **Render** tab at the top left of the **Document** window displays the main render window, where you can see the rendered results of your Poser scene. The **Render** tab contains the following controls:

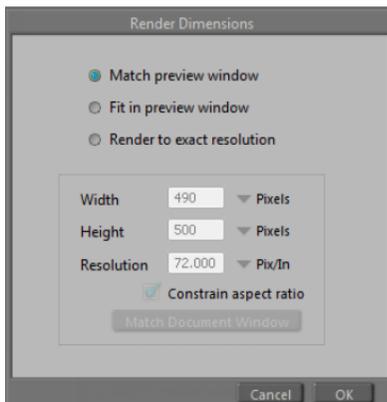


Render Window controls.

Render Dimensions

The main render window size is displayed in the upper left corner of the **Render** tab. Clicking this display brings up the

Render Dimensions dialog, which contains the following settings:



Render Dimensions options.

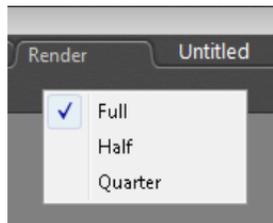
- **Match Preview Window:** Clicking the **Match Preview Window** radio button sets the resulting render to match the existing render preview window size.
- **Fit in Preview Window:** Alternately, clicking the **Fit in Preview Window** radio button will fit the resulting render within the render preview window, while maintaining the specified aspect ratio.
- **Render to Exact Resolution:** Clicking the **Render to Exact Resolution** radio button will generate the render results according to the specific resolution specified in the following fields.
- **Width:** Enter the width in pixels for the render window in the **Width** field. Larger measurements take longer to render and require more disk space.
- **Height:** Enter the height in pixels for the render window in the **Height** field. Larger measurements take longer to render and require more disk space.
- **Resolution:** Enter the resolution in dot pixels per inch (DPI) in the **Resolution** field. 72DPI is normal for screen-resolution images and is suitable for images you intend to distribute online. 300DPI is appropriate for most print functions, and 1200DPI is used when you need extreme detail. Higher resolution images require more disk space and take longer to render.
- **Constrain Aspect Ratio:** Checking the **Constrain Aspect Ratio** checkbox preserves the render window's **aspect ratio** (width divided by height). For example, if you begin with 640x480 and change the 640 to 1280, the height will automatically change to 960. Clearing this checkbox disables this option.

- **Match Document Window:** Clicking the **Match Document Window** button sets the **Document** window's current size in the **Width** and **Height** fields.

The production frame is determined by the aspect ratio resulting from the output width and height. You can set the production frame to be visible in the **Document** window's scene preview area, by selecting **Display > Production Frame** from the menu bar.

Quick-Scale

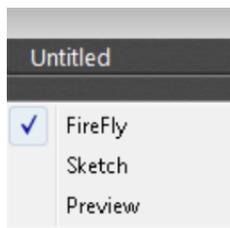
The **Quick-Scale** pop-up menu is along the top left of the **Render** tab. It offers quick access to three different render scale options: Full Size, Half Size, and Quarter Size. Note that this feature is not intended to replace the **Render Dimensions** menu, but rather is a tool for facilitating quick render previews, as the smaller scale render sizes require less time to calculate.



Quick Scaling options.

Render Engine Selection

Click on the name of the currently selected render engine, along the top of the **Render** tab, to display the **Render Engine** popup menu. This menu allows you to easily switch between the various renderers included with Poser. To modify the render settings for each render engine, open the **Render Settings** dialog by clicking on **Render > Render Settings...** in the menu bar (see "[Chapter 15: The Render Settings Dialog](#)" on page 266 for a description of this window).



Selecting a render engine.

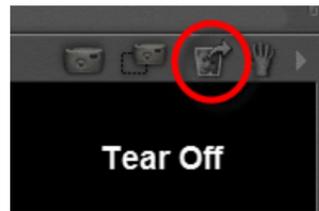
Render

To render the current image, click the **Render** icon along the top of the **Render** tab. The results will display in the main render window area, using the render settings specified in the **Render Settings** dialog, and the render engine specified in the **Render Engine Selection** menu (as described above).

New Render Window (Tear Off)

Clicking the Tear Off arrow symbol next to the **Render** icon sends the current Main render image to a new window. You can then select a previously rendered image, or

generate a new one, in the main render window and compare the two images side by side.



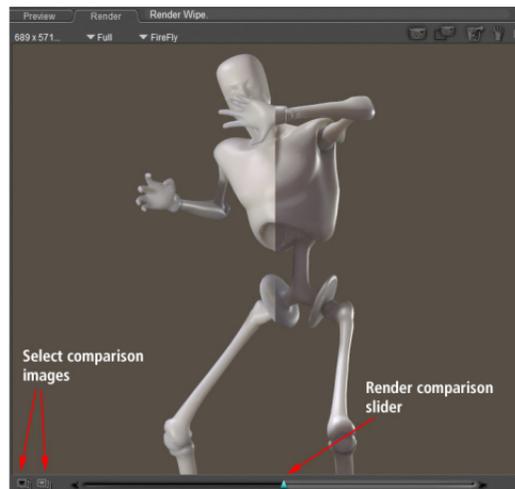
New Render Window icon.

Pan

If the image you have rendered is larger than the render window size, you can pan the image by clicking and dragging in the main render window. The **Pan** symbol at the top right of the **Render** tab activates this feature. Panning is useful as it allows you to shrink the **Document** window as needed, such as when entering the **Material** room, and still have access to your entire rendered image.

Render Comparison

Poser offers convenient render comparison features, allowing you to contrast two different rendered images within the main render window. Clicking either of the two squares in the lower left corner of the **Render** tab brings up a pop-up menu listing the most recent renders by date and time. By default, the most recent render is set as the Main render, and is checked in the list under the black square. The second most recent render is the default Compare render, and is checked in the list under the white square. You can, however, select any render from the list as your Main and Compare renders. To compare the Main and Compare renders, use the **Render Wipe** slider at the bottom of the main render window. Moving the slider to the right displays the Main render, while moving it to the left displays the Compare render. The default number of recent renders listed is ten. You can configure this number in the **General Preferences** dialog. (See ["Setting Application Preferences"](#) on page 28 for more information about the **General Preferences** dialog.)



Render Comparison controls.

Displaying Recent Renders

You can use the Recent Renders palette to display thumbnails of your most recent rendered images. This palette can be docked or floating in the same manner as other palettes in your workspace.

To show or hide the Recent Renders palette, choose **Window > Recent Renders**. A check mark appears beside the command when the palette is visible.

From the Recent Renders palette, you can perform the following functions:

- Click a thumbnail in the Recent Renders palette to display the selected render in the Render window. Partially and fully completed renders appear in this palette

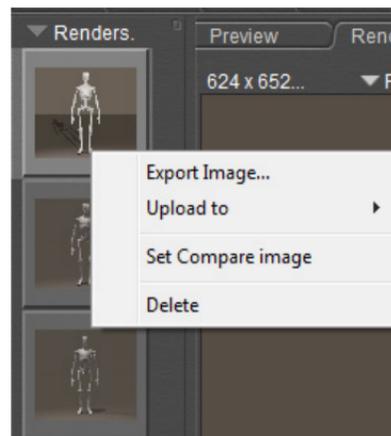


The number of thumbnails that appear in the palette are determined by the **Max Cached Renders** setting in the Render tab of the General Preferences dialog. For more information on this setting see "[Render Preferences](#)" on page 32.

Right-click a thumbnail to display a context menu with the following commands.

- **Export Image:** Opens the Export As dialog, which allows you to save the render in one of the supported image formats.
- **Upload To:** Allows you to upload the selected render to Facebook, as described later in this chapter.

- **Set Compare Image:** Designates the selected image as the image to compare with another thumbnail for use with the Render Wipe slider.
- **Delete:** Deletes the selected render from the render cache, and removes the thumbnail from the Recent Renders palette.

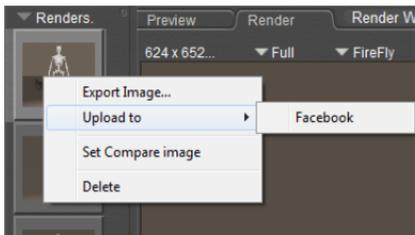


Recent Renders options.

Uploading to Facebook

If you have a Facebook account, you can upload your renders to your account directly from within Poser. The steps are as follows:

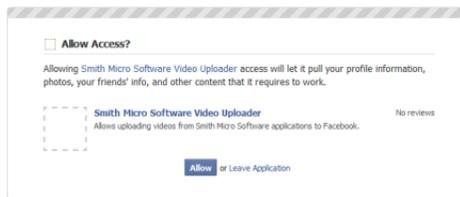
1. After you complete your render, do one of the following:
 - Click the arrow at the upper-right corner of the Document window to display the Options menu. Then choose **Upload Main Render To > Facebook**.
 - You can also choose **Window > Recent Renders** to display the Recent Renders palette. Then right-click on the thumbnail of the image that you want to upload, and choose **Upload to > Facebook** from the context menu.



Uploading to Facebook from the Recent Renders Palette.

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2. In the dialog that appears, you are asked to enter a name for the Facebook album that you want to upload to, and to add a description of the image. After you enter the information, click OK to launch Facebook.
3. A browser window opens and you are asked to log in to your Facebook account.
4. If you have not yet set up the Smith Micro Video Uploader, you are directed to a page where you check an option to allow Smith Micro Software Video Uploader to publish content. Click **Allow Publishing** to save the authorization permissions. You will be prompted to close the browser window to return to the Smith Micro Software Video Uploader.



Configure Facebook to allow access from Smith Micro Video Uploader.

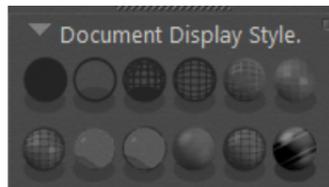
5. Your Facebook account opens, where you should see the image posted on your wall.

Chapter 6: The Display Controls and Menu

Poser allows you to select 12 display styles. Selecting a different display style can help you better visualize your scene and/or add additional artistic interest to your rendered output. You can select display styles on the scene, figure/prop, or element (body part) level.

By default, the Display controls appears with Document selected, as follows:

- When the Figure Display Style controls are displayed, there is an additional option **Use Document Style**. This sets the currently selected figure to the same display style that you have selected for the entire document.
- When the Element Display Style controls are displayed, there is an additional option **Use Figure Style**. This sets the currently selected element to the same display style as the figure to which it is a part.

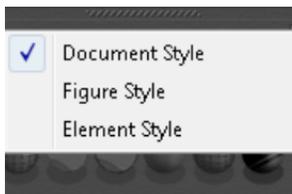


Document Display Style controls.



The Display Controls palette has adjustable width and height, and the controls auto-wrap to fit the allotted width. If additional height is needed to display all the controls, a scrollbar appears on the right side of the palette.

Clicking the arrow to the left of the title opens a pull-down menu with the following options:



Display styles can be set for the entire document, for a single figure, or for an element.

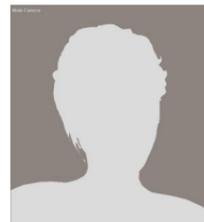
By default, the display style that you select will be applied to the entire document (Document Display Style). You can also apply different display styles to the selected figure, or the selected element.

- **Document Style:** Selecting the Document Style option accesses the Document Display controls. Changing this selection affects how all scene elements (figures and props) are displayed.
- **Figure Style:** Selecting the Figure Style option accesses the Figure Display controls, which causes only the selected figure or prop to display in the selected style without affecting the other scene elements.

- **Element Style:** Selecting the Element Style option accesses the Element Display control, which causes only the currently selected element (body part or prop part) to display in the selected style without affecting the other scene elements.

To select a different display style, click the desired button. From left to right, these buttons are:

- **Silhouette:** displays the figure/element only as a cutout, as shown to the right.



Silhouette Display Style.

- **Outline:** displays the figure/element only as an outline. When either the entire scene or an entire figure is displayed in this mode, outlines appear around each actor (body part), as shown to the right.



Outline Display Style.



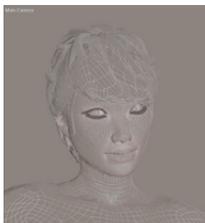
Wireframe Display Style.

- **Wireframe:** displays the figure/element as a polygonal mesh. This mode displays the actual polygons comprising the figure/element, including polygons that would normally be hidden from view (such as a figure's back when viewed from the front), as shown to the right.
- **Hidden Line:** displays only the figure/element's polygons that would normally be visible from the current camera. For example, if you are viewing a figure from the front, the polygons forming the back would not be visible, as shown to the right.



Hidden Line Display Style.

- **Lit Wireframe:** displays much the same as the Wireframe display style, except that the polygons' colors correspond to the color of the surface material, as shown to the right.



Lit Wireframe Display Style.

- **Flat Shaded:** displays figures/elements using the surface material colors while displaying the mesh facets, as shown to the right.



Flat Shaded Display Style.

- **Flat Lined:** same as the Flat Shaded display style, except that black mesh lines clearly denote polygon edges, as shown to the right.



Flat Lined Display Style.

- **Cartoon:** displays the figure/element using a simulated hand-drawn style, as shown to the right. Poser offers improved Cartoon display effects in conjunction with the OpenGL hardware acceleration option (see “OpenGL Hardware Acceleration” on page 68).



Cartoon Display Style.

- **Cartoon With Line:** same as the Cartoon display style, except that figures/elements are outlined with black lines, as shown to the right.



Cartoon with Line Display Style.

- **Smooth Shaded:** displays figures/elements as smooth continuous surfaces with the material colors, as shown to the right.



Smooth Shaded Display Style.

- **Smooth Lined:** combines the Flat Lined and Smooth Shaded by displaying the polygons as a black mesh over a smooth surface, as shown to the right.



Smooth Lined Display Style.

- **Texture Shaded:** displays figures/elements using texture maps, as shown to the right.



Texture Shaded Display Style.

You can also change display styles by selecting **Display > Document Style**, **Display > Figure Style**, and **Display > Element Style**.

By default, Poser renders using the **Texture Shaded** mode. While rendering high-resolution output using the currently selected display styles and/or depth cueing, etc. is not directly supported, you can achieve excellent results using the rendering tips discussed in "[Tips & Tricks](#)" on page 270.

The Display Menu Commands

As the name implies, the **Display** menu controls how items appear in your Poser workspace, specifically within the **Document** window.

Camera View

Choose **Display > Camera View** to select one of the cameras available in your scene. See "[Chapter 11: Cameras](#)" on page 214 for more information about the various camera views.

Camera Layout

Choose **Display > Camera Layout** to select the number of different views that you want to display in the document window. See ["Single/Multiple-View Panes" on page 83](#) for more information about multiple views.

Fly Around

This command puts the current camera in Flyaround mode. For more information, see ["Flyaround View" on page 219](#).

Frame Selected

The **Frame Selected** command fits the camera view around the currently selected actor. For example, you can pick a body part, and then choose the **Frame Selected** command to frame the camera view around that body part.

Show Camera Names

This command shows or hides the display of camera names in the document window.

Production Frame

Selecting **Display > Production Frame** allows you to specify whether you wish the production frame to be visible in the **Document** window's scene preview. The size of the production frame is determined by the aspect ratio resulting from the output width and height. See ["Render Dimensions" on page 67](#) and ["Keyframe Controls" on page 288](#) for more information about configuring the output dimensions for images and movies, respectively.

Depth Cued

Selecting **Display > Depth Cued** toggles depth cueing on and off. Depth cueing makes objects fade as they get further from the camera. A check mark appears when this feature is active and vice versa. Please refer to ["Depth Cueing" on page 85](#) for more information about depth cueing.



Depth Cueing fades objects over distance.

Tracking

Selecting **Display > Tracking** allows you to set your desired tracking mode. Please refer to "Tracking Mode" on page 84 for more information about tracking modes.

Shadows

Selecting **Display > Shadows** displays or hides ground shadows, as shown in the following figure.

Please refer to "Shadows" on page 86 for more information about ground shadows.



Ground shadows (top); Hardware shadows (middle); Both (bottom).

Figure Circle

Selecting **Display > Figure Circle** toggles displaying a white circle around your currently selected figure in your scene, which turns red depending on cursor location, allowing you to select the entire figure. Please refer to ["Selecting Body Parts" on page 169](#) for more information about the **Figure Circle**.

Bend Body Parts

Selecting **Display > Bend Body Parts** toggles bending on and off. All body parts are separate elements (actors). As you change their positions, Poser attempts to maintain continuity over the entire body. The arm should connect smoothly to the shoulder, etc. Poser achieves these smooth transitions by bending body parts where they join. However, the bends that work well for a body part might not work well when applied to figures created from props, or figures that have some body parts replaced by props (such as replacing a hand with a hook for a pirate character). Rendering images with bending disabled can cause figures to appear "broken", as shown above.



When the Bend Body Parts option is off, figures split at the group seams.

Show Background Picture

If you have a background image in your scene that was placed there using either the **File** menu (see ["Importing Background Pictures" on page 330](#)) or by pasting the current figure/prop into the background (see below), then selecting **Display > Show Background Picture** toggles displaying this image on and off. Please refer to ["Importing](#)

[Movies"](#) on page 329 for more information on adding a background animation to your Poser scene.

Clear Background Picture

Selecting **Display > Clear Background Picture** deletes the currently displayed background image (if any).

Paste Onto Background

You can paste an image of your currently selected figure/prop into your scene background: This is especially helpful for planning animation.



You can paste a "snapshot" of your scene onto the background and make changes.

To do this, select the prop/figure you wish to paste into the background, then Select **Display > Paste onto Background**. If you do this more than once, each succeeding image supersedes the previous one. This is also true if you import a separate background image/movie.

Show Background Footage

Selecting **Display > Show Background Footage** displays imported animation footage in the workspace background.

Clear Background Footage

Selecting **Display > Clear Background Footage** removes imported animation footage from your scene.

Guides

Poser provides several guides to assist you when posing figures. Guides are particularly useful for helping you achieve a particular perspective more easily. To display a guide, select **Display > Guides** and select the guide you wish to display. A check mark appears next to visible guides. To hide a guide, select **Display > Guides** and select the guide you wish to hide. Hidden guides have no check marks next to them. The available guides are described in the following sections.

Ground Plane

The ground plane provides a basic reference of the camera's position relative to the Poser workspace. It also

helps show scene elements' vertical positions relative to one another. You can display the ground plane using the same display style as the rest of your scene or you can give it its own display styles.

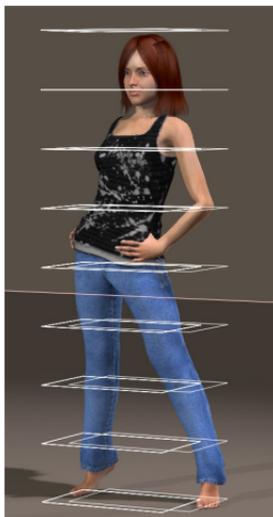


The ground plane represents the "zero" point of the scene's height.

Head Lengths

This guide references the figure's height. Most people are roughly seven "heads" tall, meaning that the average

head is 1/7th the height of a person. This guide can be helpful when you are performing body shaping operations such as using morph targets.



Head lengths are represented by several parallel planes.

Hip-Shoulder Relationship

This guide displays the relationship between the figure's upper and lower body. It helps you see the side-to-side, bend, and twist in the hip, abdomen, and chest. This is particularly useful when editing/viewing your figure using different cameras.



Hip and shoulder relationship guides.

Horizon Line

This guide references the Poser workspace's horizon line. You can check camera orientation by selecting a camera and checking its position relative to the horizon line. The horizon line is also useful when creating perspective between two or more figures or other scene elements. For example, if the horizon line crosses the front figure's chest, arrange all the figures so that the horizon line crosses their chests as well. This ensures that all figures are on the same plane and contributes to a viewer's sense that all figures have their feet on the ground.



Displaying the horizon line.

Vanishing Lines

Vanishing lines are an artistic technique for achieving realistic perspective. You can see this in real life by standing at the corner of a long building and sighting along a wall. You will see that the roof and the ground appear to converge the farther away you look until they eventually meet. This phenomenon is one of the things that give objects the appearance of depth in both real and virtual life.



Displaying vanishing lines.

Preview Drawing

Selecting **Preview Drawing** allows you to specify whether you wish to use OpenGL hardware rendering, or SreED software rendering, for your scene preview display. Please see ["OpenGL Hardware Acceleration"](#) on page 68 for more information about hardware versus software rendering.

Cartoon Tones

Selecting **Cartoon Tones** allows you to choose between the following options for your scene preview display: One, Two, or Three cartoon shading tones, Three Tones Plus Highlights, and Smooth Toned. These shading styles affect the Cartoon Display Style specifically, and are only visible when **Cartoon** is selected as the **Document Style**, **Figure Style**, or **Element Style** from the **Display** menu. Note that these styles are for the scene preview only, and are not to be confused with final render shading styles.

Comic Book Preview Mode

Comic book preview mode displays the items in your preview window with a look that is similar to comic book illustration, without the need to assign materials that have Toon IDs. The previews include persistent shadowing and

improved outlining. Comic Book styles not only work in Texture Shaded mode, but they also work with any other display style (Wireframe, Flat shaded, Cartoon, and so on).

The Cartoon Tones command, mentioned previously, includes two Comic Book mode toggles: Comic Book is used for black and white preview, and Comic Book (Color) for color previews:



Comic Book (left) and **Comic Book (Color)** (right).

There are two ways to enable one of the Comic Book styles:

- Choose **Display > Cartoon Tones > Comic Book** or **Display > Cartoon Tones > Comic Book (Color)**.
- Right-click in the viewport, and choose **Toon Tones > Comic Book**, or **Toon Tones > Comic Book (Color)**.



You can use the **Render > Antialias Document** command to produce a final rendering, or open the *Render Settings* dialog to render an image using your current *Preview* settings.

You can use the *Comic Book Threshold* slider, located below the lower-left corner of the document window. To adjust the light/dark contrast of the comic book preview, simply click the *Comic Book Threshold* icon to display the slider.



Comic Book Threshold slider

Chapter 7: The Poser Library

Poser's hierarchical **Library** palette provides access to all of the content that ships with Poser such as figures, props, lights, cameras, etc. It has three tabs: the **Library** tab that provides access to the Poser content categories, the **Search** tab which allows you to search your content folders for specific files, and the **Favorites** tab where you can gain easy access to your frequently used or favorite content items. The **Library** tab contains ten categories, discussed below. Each category is further divided into subcategories. You can create and remove categories and subcategories, and can add and remove content, including your existing content libraries, to/from the **Library** palette. See "[Maintaining Your Library Palette](#)" on page 149 for information on maintaining your **Library** palette.

The following figure shows the various controls and options that are contained in the library palette. The boxed area in Figure 1 shows the Library list. Navigate through the Library list as follows:

- Use the Right and Left arrow keys to open and close folders.
 - Click or select an item in the list to expand the display and view a larger preview of the content item.
-
- Use the Up and Down arrow keys to move higher or lower in your content tree.



The Library Window.

1. **Library Tabs:** Allows you to switch between three views in the Library Palette: Library, Search, and Favorites.
2. **Category Icons:** Allows you to select one of the ten library categories. From left to right, they are **Figures**, **Poses**, **Faces**, **Hair**, **Hands**, **Props**, **Lights**, **Cameras**, **Materials** and **Scenes**.
3. **Library Selection:** Click the **Show Library** selector to display all runtime folders, or to display the contents of a single selected runtime folder in the library contents window.
4. **Expanded folder:** Click the down arrow to collapse the contents of the folder. The number that appears in brackets at the beginning of the folder name designates the number of items that are contained within that folder.
5. **Collapsed folder:** Click the right arrow to expand the contents of the folder. The number that appears in brackets at the beginning of the folder name designates the number of items that are contained within that folder.
6. **Category Selection:** Allows you to select a library category (listed above in **Category Icons**) by name.

7. **Remove Library:** A **Remove Library (-)** icon appears to the right of the **Add Library** icon when you use the Show Library menu to select a Library that you added yourself through the **Add Library** command. See ["Removing Libraries" on page 123](#) for details.
8. **Add Library:** Click the **Add Library (+)** icon to open the Browse for Folder dialog, which allows you to select additional Library folders that you have stored on your computer.

 *Content that is created for Poser is typically arranged in a folder named **Runtime**, with subfolders beneath that for geometry, textures, and library items. For more information about creating, installing and accessing additional library folders, see ["Accessing Different Content Libraries" on page 119](#)*
9. **Item List Panel:** The currently selected item is highlighted in blue. If the Item List Panel is not displayed, the currently selected item displays as a larger icon in the Tree view.
10. **Extended Details Panel:** Displays a thumbnail, filename, file size, installation date, and other details about the item that is selected in the library.
11. **Single check mark:** Click the single check mark icon to replace the item that is currently selected in your scene with the item that is highlighted in the library. Functions of the single check mark button vary, depending on the Library category that is currently selected. See ["Loading and Managing Items using the Library Icons" on page 124](#).
12. **Double Check mark:** Click the double-check mark icon to add the currently selected item to your scene. The double check mark does not appear for every Library category and the purpose varies depending on the selected category. See ["Loading and Managing Items using the Library Icons" on page 124](#).
13. **Add a Folder (+):** Click this button to create a new folder or subfolder beneath the currently selected library folder.
14. **Save to Library (+):** Click this button to add the item that is currently selected in your scene into the library.
15. **Delete from Library (-):** Click this button to delete the library content item that is currently selected. Note that this button completely removes the library item from the Library, not from your scene.
16. **Add to Favorites:** Adds the item that is currently highlighted in the library to the library's Favorites tab.

17. **Display Options Widget:** Click the Display Options widget to expand or collapse the display options in the bottom of the library palette.
 18. **Display Options:** Use the **Display**, **Tree**, **List**, and **General** display options to configure how content is displayed in the Library palette.
 19. **Breadcrumb Trail:** Displays the library path to the currently selected folder or item. Use the Up arrow at the left of the breadcrumb trail to navigate up to the previous folder level.
 20. **Library Menu (not shown):** Click the Docking Control icon (the small square) in the upper-right corner to select commands that dock, undock, close, or enable/disable dragging. Refer to "[Docking and Floating Palettes](#)" on page 37 for further information.
- Additional library preferences appear in the Library tab of the General Preferences dialog. See "[Library Preferences](#)" on page 31 for a discussion of the settings you find in this tab.
 - Commands to dock or float the library appear in the docking options menu, accessible by clicking the Docking Control square in the upper-right corner of the Library window.
 - When the Library Palette is floating, you can position and resize it however you like. Drag either side of the Library palette across your screen to the desired width. You can also move the Library palette to a second monitor if desired. For further instructions on arranging palettes, refer to "[Docking and Floating Palettes](#)" on page 37.

The Library Palette allows you to display your content in a variety of ways. You can display your content in a **Tree** view, which displays all of the content in your libraries in a hierarchical list. The tree view appears as shown below if the Item List display is turned off

Displaying the Library Palette

If the Library Palette is not open, select **Window > Libraries**.

The library consists of several different sections that can be shown or hidden. For further information, see "[Accessing Different Content Libraries](#)" on page 119.

appears in the left side of the library. When you select a folder in the tree, the folders and content within the selected folder appear in a multi-column display that adjusts to fill the width of your library window as shown below.



Viewing library items in Tree view.

Alternatively, you can undock the Library palette and display content thumbnails in multiple rows and columns, which allows a better view of all of the content in a selected folder. When Item List is open, a hierarchical tree

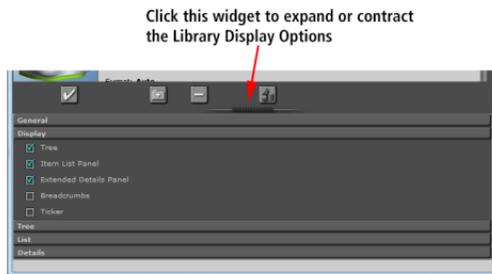


Displaying thumbnails in multiple rows and columns.

The following section describes how you can customize the appearance of the Library palette to suit your needs.

Changing the Library Appearance

A widget appears at the bottom of the Library palette, just beneath the library buttons shown in the previous figure. Click this widget to expand the Library palette to view the display options described in the sections that follow:



The Library Display Options widget.

General Options

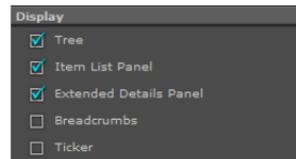
- **Reopen Folders:** When checked, preserves the state of current open folders when you close and then reopen

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the library. If you toggle it off, the library reverts to a completely clean state when relaunched, with all folders closed.

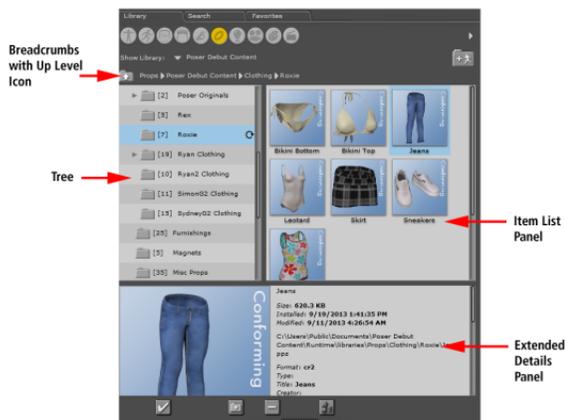
- **Show Path Tool Tip:** Enable or disable the tool tip that displays the path to a library folder when you hover your mouse over a folder name in the library.
- **Tool Tip Delay (ms):** Drag the slider left or right to adjust the amount of time between hovering over a library name and displaying its path tool tip. Time delay is adjustable from 100 to 1000 ms.
- **Show Folder Counts:** Check or uncheck this option to show or hide the number that represents the number of items in a folder. When checked, the number of items contained in the folder appears within parentheses.

Display Options



Display library options.

Check or uncheck the options listed below, to show or hide the various areas in the Library Palette as desired. These areas are labeled in the following figure.



Breadcrumbs, Tree, Item List, and Extended Details in the Library palette.

- **Item List Panel:** Displays the folders and content thumbnails for the folder that is selected in the tree. The thumbnail display appears in multiple rows and columns that adjust to the width and height of the Library palette. Check or uncheck this option to show or hide the item list panel.
 - **Extended Details Panel:** Displays information about the selected item. Check or uncheck this option to show or hide the extended details.
-  *The Extended Details panel will display basic information such as the product name, size, the date the file was installed and last modified, and the path to the file on your computer. Additional metadata can also appear about a library item if it has been added by the author of the content. Extended details can include additional information such as author name, copyright information, usage instructions, and more. Metadata is stored in a file that ends with an XMP extension. For more information, see the article at <http://blog.smithmicro.com/2010/07/12/poser-3d/metadata-makes-life-in-poser-easier/>.*

- **Tree:** Displays a hierarchical view of the contents of your library. Check or uncheck this option to show or hide the hierarchical tree in the Library Palette. If the

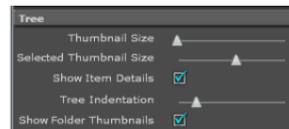
- **Breadcrumbs:** Displays the runtime folder path to the selected library folder. Check or uncheck this option to show or hide the breadcrumbs.
- **Ticker:** Displays up to the minute news about Poser and related content.



When breadcrumbs are displayed, you can use the Up arrow icon (at the right of the Breadcrumb trail) to navigate to the next highest folder level in the path. You can also click any folder in the breadcrumb trail to move up to the selected level.

Tree Options

Thumbnails and additional product details appear in the Tree if you have selected to disable the Item List Panel. The options in the Tree Options section control the size of preview and selected item thumbnails, details, and other items in the Tree.



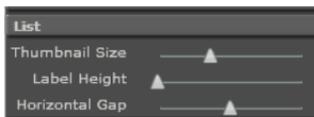
Tree library options.

- **Thumbnail Size:** Drag the slider left or right to decrease or increase the size of the preview thumbnails.
- **Selected Thumbnail Size:** Drag the slider left or right to decrease or increase the size of the thumbnail for selected library items.
- **Show Item Details:** Shows or hides the File Name, Size, Installed, and Modified details that appear beside the currently selected library item.
- **Tree Indentation:** Drag the slider left or right to decrease or increase the amount of indentation for items and folders that appear within and beneath library folders.
- **Show Folder Thumbnails:** Check or uncheck this option to show or hide Folder icons in the library. When unchecked, only the name of a folder will appear

in the library. When checked, a small Folder icon appears beside the folder name.

List Options

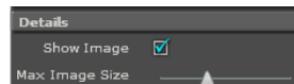
When the Item List is enabled, thumbnails appear in multiple columns that adjust to fit the width of the panel. Settings in the List Options section control size of the thumbnail and the placement of text around the thumbnail.



List library options.

- **Thumbnail Size:** Drag the slider left or right to decrease or increase the size of the content thumbnails.
- **Label Height:** Adjusts the amount of vertical space between the thumbnail rows to allow for labels that have multiple lines.
- **Horizontal Gap:** Adjusts the amount of horizontal space between the thumbnails

Details Options



Details library options.

- **Show Image:** Check this option to display an image of the selected library item in the Extended Details panel. Uncheck the option to remove the image display.
- **Max Image Size:** If you have images displayed in the Extended Details panel, drag the slider toward the left to reduce the size of the image, or toward the right to increase the size.

Accessing Different Content Libraries

Poser contains two Libraries: **Runtime** (contains the content that shipped with your copy of Poser) and **Downloads** (a default folder for added third-party content).



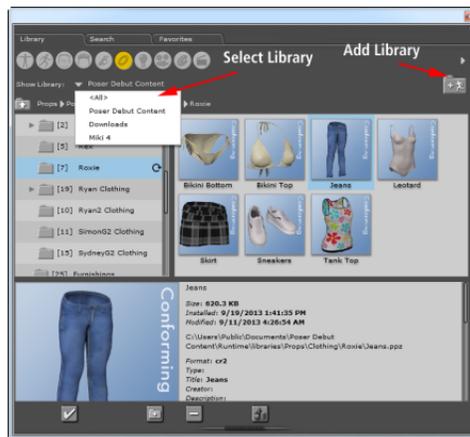
Poser content libraries are arranged in Runtime folders, which contain many different types of components that are used in Poser. In addition to content such as figures, props, hair, and poses, Runtime folders can also contain scripts, interface files, plug-ins, and other application-critical data. The collection of different types of elements in a Runtime folder is known as a **Library**.

You may add as many Libraries as you wish. This feature allows you to store Poser content in different folders and/or different drives, making content management more powerful than ever. Also, should you need to reinstall Poser for any reason, you can do so without affecting your custom Libraries. You can access each of your Libraries using the **Library** palette.

Switching Libraries

To filter content between loaded Library Runtimes, click on the Show Library menu, which is located along the top of the **Library** tab of the **Library** palette. Doing so will open the **Available Libraries** pop-up menu, from which you can display the contents of any single Library, or of all your runtime libraries.

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You can add and access external libraries from the **Library** palette.

Adding Libraries

As mentioned earlier, Poser creates **Runtime** and **Download** libraries during installation, dependent upon which content you elect to install during installation. There is also a great deal of third-party content available for

Poser, and if you have acquired a large collection you may find it necessary to arrange your content into multiple library folders. Then you can use the following process to make your additional folders appear in the Library palette.

Runtime folders have a structure similar to the following. Folders and content shown in italics are unique to the content and are named by the creator of the content.

```
Runtime
  Geometries
    (vendor or product folder)
      OBJ files for product
  Libraries
    Camera
      (vendor or product folder)
        Camera and thumbnail files for product
    Character
      (vendor or product folder)
        Character and thumbnail files for product
    Face
      (vendor or product folder)
        Face and thumbnail files for product
    Hair
      (vendor or product folder)
        Hair and thumbnail files for product
    Hand
      (vendor or product folder)
        Hand and thumbnail files for product
    Light
      (vendor or product folder)
        Light and thumbnail files for product
    Materials
      (vendor or product folder)
        Material and thumbnail files for product
    Pose
      (vendor or product folder)
        Pose and thumbnail files for product
```

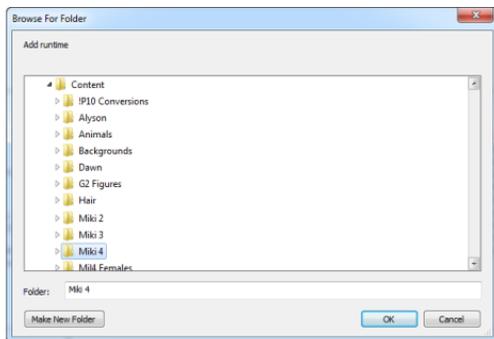
```
Props
  (vendor or product folder)
    Prop and thumbnail files for product
Scene
  (vendor or product folder)
    Scene and thumbnail files for product
Textures
  (vendor or product folder)
    texture image files for product
```

Poser products do not always contain all of the above-mentioned folders beneath the Runtime folder. For example, if you are installing a piece of clothing, it might add files in the **Geometries**, **Props**, and **Textures** folders but not in the others.

As an example of creating a new Library on your hard drive, assume the following:

- You have collected dozens or hundreds of items that relate to several different figures. You want to arrange them into different libraries that make the content easier to find.
- You have an external hard drive D: that has lots of room to store content. You decide you want to install all of your content there.
- You create a **Content** folder to store all this content. Beneath that **Content** folder, you create other subfolders to store each of the content types you want to organize. The folders can be named for a specific

figure (Miki 3, Terai Yuki, etc) or type of character (Monsters, Animals, etc), or even a theme (Anime, Horror, Sci Fi, etc). Arrange them in any way you like. The following figure shows some examples.



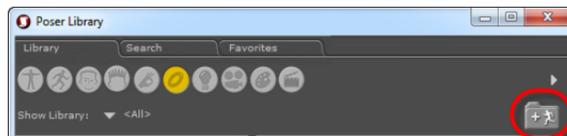
Adding a Library folder.

- Now you want to install all of the content that relates to one figure (such as Smith Micro's Miki 4 figure). You extract/install all of your Miki 4 clothing, hair, and other related content into the **D:\Content\Miki 4** folder. The final path to the runtime folder is **D:\Content\Miki 4\Runtime**.

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- To add this example Miki 4 Library to Poser, you would proceed as follows:

1. Open the **Library** palette if it is not open.
2. Click the **Add Library** button (+) to open a standard **Browse for Folder** dialog box.



The Add Library icon.

3. Select the hard drive that stores the Library files you want to add (for our example, you would choose D:)
4. Navigate to the folder that stores the Runtime folder and its subfolders (for our example, you would choose **Content**, then **Miki 4**).
5. Click **OK** to add the new Library



When adding existing Poser libraries to your Poser **Library** palette, you must preserve your Runtime folder name and structure (<drive > :\<<folder > \<<subfolder > \



Poser allows you to create your own folders to store your own poses, material settings and other creations, or so that you can organize library items to your liking. See "Creating Subfolders" on page 149.

Removing Libraries

The Remove Library button appears when a library other than the Poser default libraries is selected. You cannot delete the default Poser library. Deleting libraries only severs the link between the Library folders and the Library palette. It does not remove any of the folders or content from your hard drive. This protects your data from accidental deletion and allows you to reuse Libraries at need (such as from removable drives).



If you want to remove the Library from your hard drive completely, you will need to do this manually by deleting the folder and contents from your hard drive. Exercise extreme caution when deleting library folders from your hard drive, as they will be irretrievably lost.

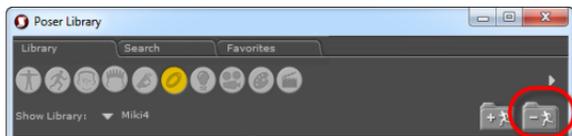
To remove a library:

1. Use the **Show Library** list to select a Library that you previously added using the steps outlined in "Changing the Library Appearance" on page 116



Note that you will be unable to delete libraries that were installed during the Poser installation. You can only remove libraries that you added yourself.

2. Click the **Remove Library** button (minus sign) to remove the selected Library from the Library palette. The name of the library is removed from the Show Library list, and its contents no longer appear in the Library.

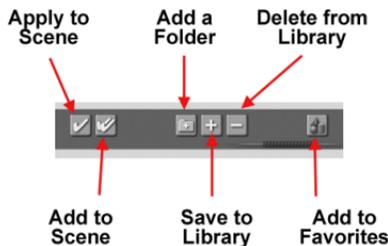


The Remove Library icon.

Loading and Managing Items using the Library Icons

The **Library** icons appear as shown in the following figure. Certain **Library** icons are only available for specific categories. These icons appear at the bottom of the palette.

From left to right, these icons are:



Several icons add content to the scene and to the Library.

- **Single check mark:** Clicking the single check button serves different functions as listed below:
 - **Figures Category:** Changes the selected figure.
 - **Poses Category:** Applies the pose to the figure for which it was originally designed.
 - **Faces:** Applies the selected face expression to the currently selected figure.
 - **Hair:** Adds selected hair to the scene.

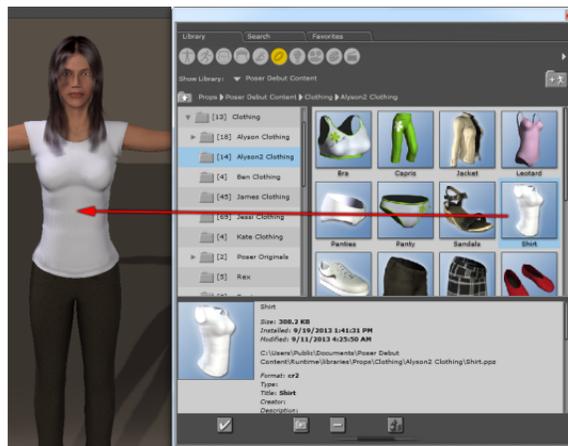
- **Hands:** Applies a hand pose to the currently selected figure. You are prompted to specify right hand or left hand.
- **Props:** Adds the currently selected prop to the scene.
- **Lights:** Replaces the existing lights in the scene with the currently selected light set.
- **Cameras:** Applies the camera settings to the camera.
- **Materials:** Applies the single material to the currently selected single material in an object; or, applies a Material Collection to all materials in the current object.
- **Scenes:** Closes the current scene and replaces it with the scene you are adding from the library.
- **Double check mark:** The double check mark button appears for the following categories and serves the purposes listed below:
 - **Figures Category:** Creates a new figure in the scene. Typically used to add additional human characters, clothing, and other poseable figures.
 - **Poses Category:** Applies the currently selected pose as a universal pose.
 - **Lights:** Adds the lights in the library to those already present in the scene.
 - **Scene:** Keeps the content that is currently in your scene, and adds the additional content from the selected library item.
 - **Add a Folder:** Click the **Add a Folder (+)** button to create a folder beneath the currently selected Library folder.
- **Add to Library:** Clicking the **Add to Library (+)** button adds the selected item to the **Library** palette.
- **Delete from Library:** Clicking the **Delete from Library (-)** button removes the selected item from the **Library** palette.
- **Add to Favorites:** Click to add the currently highlighted library item to your Favorites list.

Placing/Adding Items to the Poser Workspace

In addition to using the library icons as discussed in the previous section, you can also drag an item from the library and drop it into your scene. As you drag an item

from the library to the scene, a tooltip displays the action that you are performing.

You can also select multiple items into the library and add them to your scene at the same time. Click to select the first item, and then press the Shift key (Windows or Mac) to select a contiguous range of thumbnails between the first and last items you selected. You can also **CMD-click** (Mac) or **CTRL-click** (Windows) to add additional items to the selection. Then drag or drop the additional items into your scene.



Adding clothing to a figure.

Removing an Item From the Poser Workspace

To remove an item from the Poser workspace, first select the item to remove by either selecting it in the **Document** window or using the **Current Actor** pull-down menu (see

"Select Figure/Current Actor Menus" on page 69), then press [DEL].

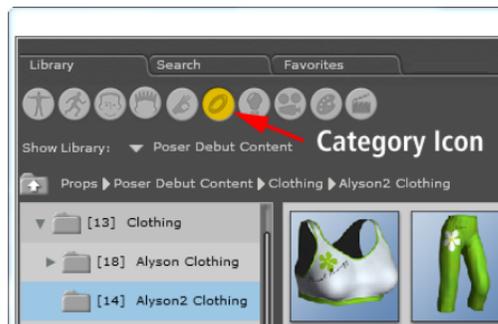
About Library Palette Categories

Poser's new library allows you to quickly select categories and the items contained within them.



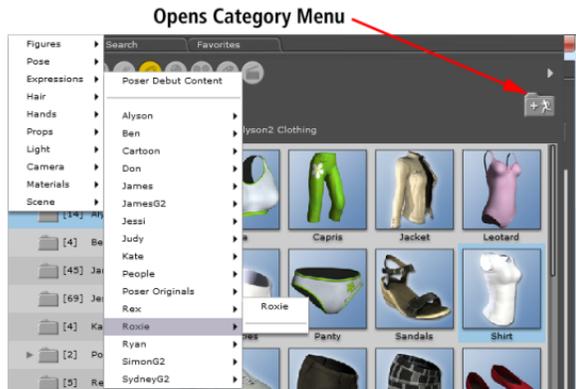
*If you are seeking more information related to installed third party Poser content, please look in the "ReadMe" Folder located in the Poser installed "runtime" folder. This folder is in the content location that you selected when installing Poser. There are not ReadMe's for every specific piece of content, but there are some that may help get you more familiar with how pieces of content were designed to be used together, special features of a piece of content or in depth details on how to use it. The P.I.C.K Content for example has a PDF file in the **ReadMe/CP Partners/MindVision-GDS** folder which has in depth details on how to use it to its fullest potential*

- Click a **Category** icon to select a Content category. Then drill down in the hierarchical list in the Library list to select the item you want to add to your scene.



Category icons help you choose a Library category.

- You can also drill down through the **Category** menu to select an item. First, click the **Category** icon to select the main category for your content. Then click the Category button (shown in the following figure) to drill down in the menus until you find the item you want to choose. In the following figure, the menu drills down from **Hair > Poser Content > People > Alyson** to list all of the available hair objects in that folder.



Category menus allow you to select a category folder.

The **Library** palette categories are described in further detail below in “About Library Palette Categories” on page 127. Please refer to “Loading and Managing Items using the Library Icons” on page 124 for information on working with **Library** palette content.

The default categories are broken down by Poser file type: **Figures, Poses, Faces, Hair, Hand poses, Props, Lights, Cameras, Materials** and **Scene**. Please refer to “Poser File Types” on page 355 for a brief discussion of Poser file

Chapter 7: The Poser Library

types and how they relate to using Poser. When you switch between categories, the Library remembers which item was selected the last time you used a specific category.

You can navigate through the Content pane as follows:

- When you reach a content folder that contains items, you can navigate through the contents in the folder using your arrow keys. Click to activate a selection in the Content pane, then use the Left and Right arrow keys to collapse or expand folders, and the Up and Down arrow keys to navigate through the folder contents.
- Press the **Refresh** button to refresh the contents. This is useful after you install content while Poser is running.
- The Library popup menu displays nested menus, but you can also click on a folder or category to switch to it, and then highlight an item to load it.

The Figures Category

Figures are poseable content items that use an extension of **CR2** or **CRZ**. The Figures category houses your poseable Poser figures. This category contains many figures to work with, including various types of males and females, children, skeletons, mannequins, stick figures, and animals.

Morph values can be saved with figures if you choose the option to do so while saving them. Newer Poser figures feature fully articulated hands and feet with movable fingers and toes.



Poser includes two versions of both M/F human skeletons. These skeletons are found in the **Additional Figures/Skeletons** content folder. The human skeletons named Ryan and Alyson are designed to conform inside the Ryan or Alyson figures to create medical illustration effects. These conforming skeletons will follow the conformed figures' poses and positions. A semi transparent version of each character's texture is found in the Materials in the Library, so setting up a skeleton inside a figure is easy to achieve using these pre-configured material collections. The fully articulated M/F skeletons are accurate versions of the human skeleton with each bone poseable. These are not designed to conform inside the human figures, but instead work best on their own.



The **Figures** category stores poseable figures, such as humans and animals.

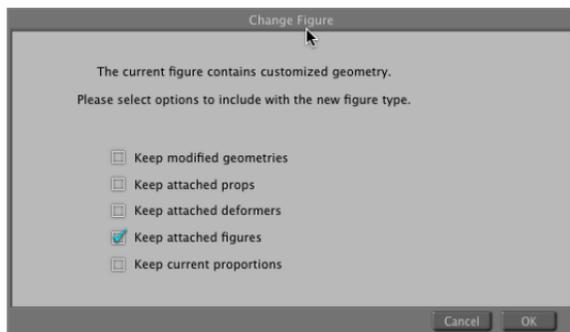
Some models are available in high- and low- resolution versions. Use high-resolution models for realism, and

low-resolution models (these have very low polygon counts) when performance matters. For example, using low polygon figures instead of high polygon figures in the distance of a large scene can conserve on your computer resources.

Replacing Figures

If you want to replace a figure or light in your scene with one from the **Library** palette:

1. Select the figure you wish to replace and click the **Change Figure** (single check mark) button.
2. If you are replacing a figure, the **Change Figure** dialog appears with the following options:
 - **Keep modified geometries:** Check this option if you have modified the geometry of the figure with morphs and want to pass the modifications on to the figure that is replacing it. Props and magnets attached to the figure, and other changes such as groups changed or added and normals reversed, will be applied to the figure after replacement.
 - **Keep attached props:** Check this option if you have attached props to the figure and want to attach them to the figure that is replacing it.
 - **Keep attached deformers:** Check this option if you want the new object to use any deformers (magnets or wave deformers) that you have added to the object that is being replaced.
 - **Keep attached figures:** When checked, any figures that are attached to the original figure will remain in the scene and will be attached to the new figure. For example, if you have Alyson wearing conforming clothing, and then you replace Alyson with Alisha, then Alisha will wear the same clothing. When this option is not checked, the clothing worn by the original figure will be removed from the scene when the replacement figure appears.
 - **Keep current proportions:** To have the new figure retain the old figure's proportions, check the **Keep current proportions** checkbox. Leaving this checkbox blank allows the new figure to retain its own proportions.



Change Figure options.

3. After you make your selections, click **OK** to add the figure.

Adding Conforming Clothing: Automatic Conforming

The simplest way of clothing figures is with conforming clothing. Conforming clothing is poseable, just like a human or animal figure. This type of clothing is typically designed for a specific figure (for example, clothing designed for Alyson will not fit or conform exactly to the G2 figures). However, when conforming clothing is “attached”

(or conformed) to the figure, it automatically bends and poses along with the character that wears the clothing.



Options in the Properties dialog allow you to choose whether or not you want to include morphs and/or scaling when conforming your clothing to a figure. For further information, see “Figure Properties” on page 181.

Conforming clothing is rigged like a figure, including the same joint parameters. Some conforming clothing includes morphs that correspond with the morphs in the figure.

You will find conforming clothing in either the Figure library or the Props library.

- When found in the Figures library (as is typical for older clothing, or conforming clothing created by third-party content creators), conforming clothing will use a CR2 or CRZ extension.
- When found in the Props library (as is common for Poser 7 and later, and G2 Figure clothing prepared by Smith Micro), conforming clothing will use a PP2 or PPZ extension.

You can drag and drop conforming clothing onto a selected figure and the clothing will automatically inherit

the pose of the figure. To automatically conform clothing to your figure, follow these steps:



Conforming clothing automatically “fits” to the character that it is designed for.

1. Click to select the figure in your scene that you wish to clothe. This makes it the active figure in your scene.
2. Locate a conforming clothing item in the desired **Figures** or **Props** category. Clothing is often named for

the figure that it is designed to fit (for example, Alyson Pants).

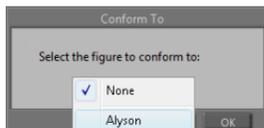
3. Drag the clothing from the library and drop it onto the figure that you selected in Step 1. If your figure is posed, you should see the clothing conform to the pose of the figure.

Adding Conforming Clothing: Manual Conforming

You can use the **Figure > Conform To** command to manually conform clothing to any figure in your scene. The process is as follows:

1. Select the figure you wish to clothe.
2. Select a conforming clothing item from the desired **Figures** or **Props** category. Clothing is often named for the figure that it is designed to fit (for example, Alyson Pants).
3. If your clothing is in the Figures category, click the **Create New Figure** button at the bottom of the Library palette. If the item is in the Props category, click the **Apply Library Preset** button. The clothing appears to the scene in its default position and pose. Alternatively, you can drag and drop from the Library to the Document window.

- When added to the scene, conforming clothing appears in the **Select Figure** menu pull-down menu (described in "Select Figure/Current Actor Menus" on page 69) . Verify that the clothing item that you want to conform is currently selected.
- Choose **Figure > Conform To**. The Conform To dialog appears, listing all of the figures in your scene.



The Conform To dialog allows you to select the character that will wear the clothing.



Some tight-fitting conforming clothing may not completely cover the base figure's skin, particularly when the figure is animated. You might notice the base figure poking through areas of the conforming clothing. There are two ways to correct this problem. The first method is to hide the body part of the figure that is poking through by setting the body part as invisible (see "Body Part Actor Properties" on page 182). The second method of correction is to use the Morph Brush to raise the clothing over the hole, or lower the body part underneath the clothing (see "Adjusting Morphs with the Morphing Tool" on page 324).

- Select the figure you wish to conform the clothing to in the dialog that appears. Click **OK** when finished. The clothing conforms to the figure.
- Apply a pose to the figure, and the conformed clothing should automatically snap to the new position.



If the clothing item that you added does not appear in the Select Figure menu, check inside the **Current Actor > Props** menu, because you may have added a dynamic clothing item instead.



You can also use conforming clothing without a figure. Conforming clothing is treated like any other Poser figure and can be added to the Poser workspace and posed/animated just like any other Poser figure.



When adding a pose to a figure, facial expressions are not applied, even if they are included in the Pose file. This preserves any work you have done to your face prior to applying the pose. To apply facial expressions, choose items from the Face category in your library. If the pose contains morph settings they will override the values on the figure to which they are applied.

The Poses Category

The Poses **Library** palette category houses poses (*.PZ2), which actually fit into several different categories.

Figure Poses

Poses were originally designed as pre-defined poses (standing, sitting, working, and so on) that you could apply to your currently selected figure. Pose files store pose information for an entire figure, including its hands (see below for more information). They contain joint positions for each of the figure's joints (such as Left Elbow bend 45 degrees).



Use presets in the Pose category to pose your characters.

To add a pose to a figure:

1. Select the figure (not its clothing) to apply the pose to.

2. Open the Poses category and highlight the pose that you want to apply to the figure.
3. Choose one of the following options:
 - Click the **Apply Original Pose** (single check mark) button to apply the pose to the selected figure when the pose was created specifically for that figure.
 - Click the **Apply Universal Pose** (double check mark) button to apply the pose to the selected figure as a Universal pose.
 - Drag and drop the pose from the Library to the figure. A tooltip displays the name of the character as your mouse hovers over it. Release the mouse when the tooltip displays the correct character name.



After posing, the clothing also poses with the character.



Some of the Poses included in the **Library** are **Universal Poses**, meaning they will be compatible with any human Poser figure. If you check the **Apply Universal Poses** option in the **General Preferences dialog > Library tab**, you can save any pose to your library as a **Universal pose**.



Poses that are set-up for figures with standard rigging may not apply correctly when used with figures provided with Poser 7 and later.



Poses that were created in Poser 6 or earlier versions applied specifically to a particular figure. For example, a pose you may have created for the James figure may not work correctly when applied to the Kate figure due to the different joint setups between the two figures. However, you can apply a legacy pose to the figure for which it was designed, and then save it to the **Library**, which will convert the pose to a **Universal Pose** for use with other figures.

Material (or MAT) Poses

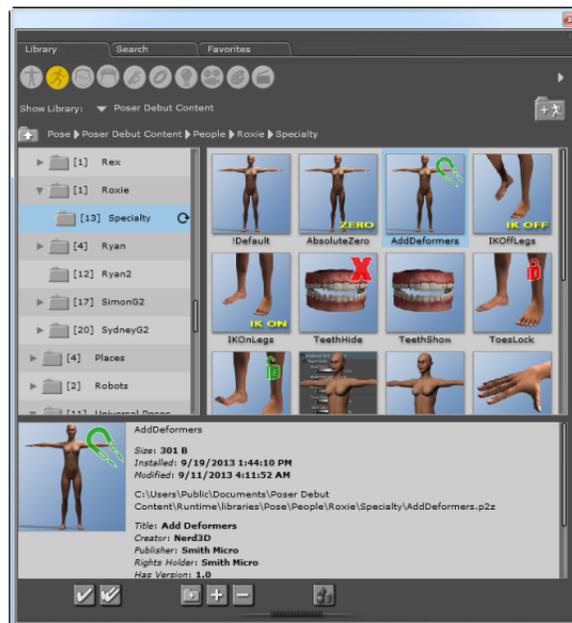
Material collections, discussed in [“The Materials Category” on page 145](#), are the preferred method for saving complete materials for a figure or prop to the Materials library. Third-party content creators sometimes use Material Poses (or MAT files for short), as an alternative to MC6 material collection files. MAT Poses are typically found in the Poses library and are not created or tested by Smith Micro Software. If you need help with MAT files, please refer to the file creator (if you purchased or obtained a MAT file using the **Content** room, for example) or to one

of the many online resources, some of which are listed in "Third-Party Forums" on page 5.

Other Pose Types

Though not as common as figure and MAT poses, you will also find a mixture of other types of pose files in the Pose Room. Like MAT poses, these are generally created by third-party content creators. Other uses for Pose files include:

- Many Smith Micro characters (including Ryan and Alyson) include Specialty poses that zero a figure, add deformers, turn IK off of the legs and arms, and lock or unlock the toes. Third-party content may or may not include similar poses.



Specialty poses perform specific functions that help with posing and fitting clothing.

- MOR poses, which apply character morphs and settings to a figure.
- INJ and REM poses, which inject or remove injected morphs into or from a figure.

When you are not certain what a pose type is used for, check the Readme file (which usually accompanies the third-party product), or contact the individual that created the product.

The Faces Category

The **Face Library** palette category houses facial expression files (*.FC2), which can be applied to your currently selected figure.

Face files contain parameter settings that activate facial morph targets (see "[Chapter 21: Modifying Figures & Props](#)" on page 323 for information about morph targets) to create the expression. These files are the same as if you manually adjusted each of the face dials available for your current figure, or if you use the Random Face poses in the Library, except that they apply preset values at once, saving time.

Poser Face directories contain full facial expressions (Angry, Disgust, Fear, and so on). You can also dial these individually, by facial region (eyes, lips, cheeks, and so

on). To do so, click on the head to find the full set of facial morphs. Any combination of these head/face morph targets will be stored in the Face category when you add a new entry.

Facial expressions are often designed for a particular figure, since each figure can have different facial parameters available. For example, an expression file created for the Poser 6 Male figure (James) may not work on Ryan, because Ryan has far more available facial parameters.

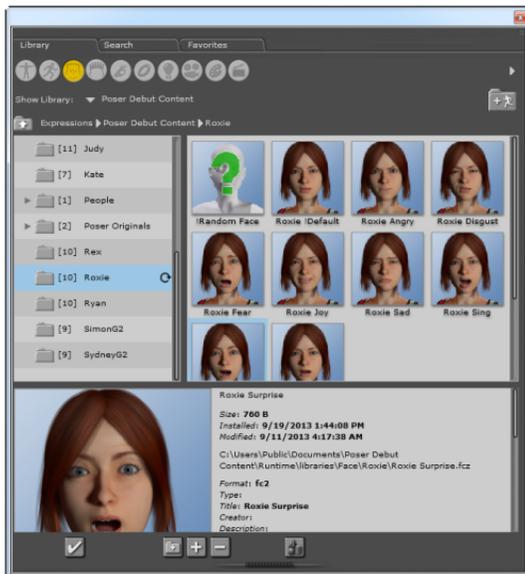


Ryan and Alyson's Face directories contain full facial expressions. You can also dial the expressions manually in the Morphs section of the Parameters palette when you select Ryan or Alyson. To dial these individually, by facial region such as eyes, lips, or other feature, click the head to find the full set of morphs. You can save any combination of these head/face morph targets when you save a new face to the Library's Face category.

To add a facial expression:

1. Select the figure to apply the expression to.
2. Locate the desired facial expression in the Face library.

- Double-click the selected facial expression, or click the **Apply Library Preset** button, or drag the selected expression from the library to the character. The facial expression on your figure changes.



Expressions for your characters are found in the Face category.

The Hair Category

The **Hair Library** palette category houses hair (*.HR2) files, which can be applied to your currently selected figure. Hair created for one figure may or may not fit or work with other figures.

There are three different types of hair used in Poser:

- Conforming hair, which is commonly found in the Figures library (usually when created by third-party vendors) or in the Hair library (usually when created by Smith Micro). This type of hair is added and conformed to your figure as instructed in ["Adding Conforming Clothing: Manual Conforming"](#) on page 132.
- Prop hair, which is a modeled and textured OBJ file found in the Hair category, using an HR2 extension.
- Strand-based (or dynamic) hair, which is created in the Hair room and typically found in the Hair category, using an HR2 extension.



*Strand-based hair created in the **Hair** room cannot be saved to the **Library** palette unless it is saved with underlying geometry such as a figure or skull cap.*

Adding Hair to a Figure

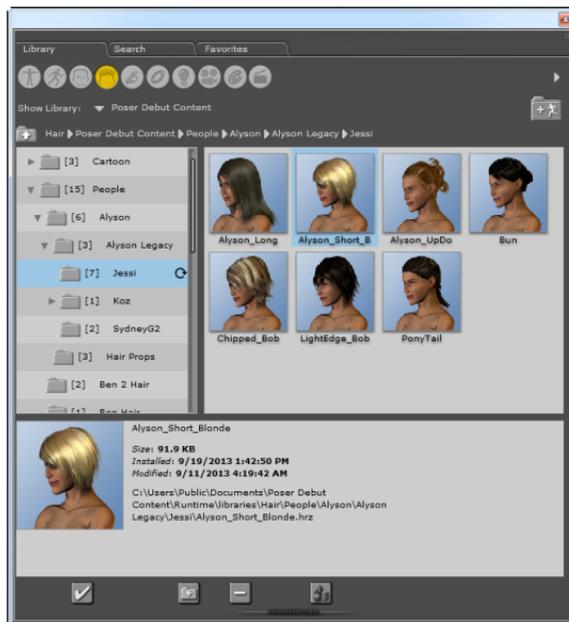
Conforming hair is added to your figure using the same method as conforming clothing, discussed in “Adding Conforming Clothing: Manual Conforming” on page 132.

To add either strand-based or prop-based hair to a figure:

1. Select the figure to which you wish to add hair.
2. Select your desired hair using the **Library** palette.
3. Click the **Apply Library Preset** icon or drag the hair from the library to your scene. The hair is added to the figure.

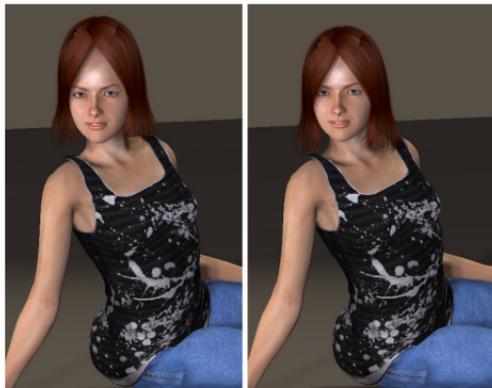


If your figure already has prop-based hair, adding new hair replaces the old. You can either add or replace selected conforming hair, depending on whether you choose the single check mark or double check mark (which adds another conforming hair figure).



The Hair library stores many different types of hair for your characters.

While prop-based hair usually orients itself to the angle and rotation of the head, you may need to reposition the hair to precisely fit the figure's head (especially if it was created for another figure as is the case in this example). To do this, use the **Current Actor pull-down** menu to select the hair, then use the hair's **Trans** parameter dials as necessary in the **Parameters** palette. To translate conforming hair, you usually use the Translate dials in the Head actor of the head.



You can use the *YTrans* parameter dial to adjust the height of the hair.

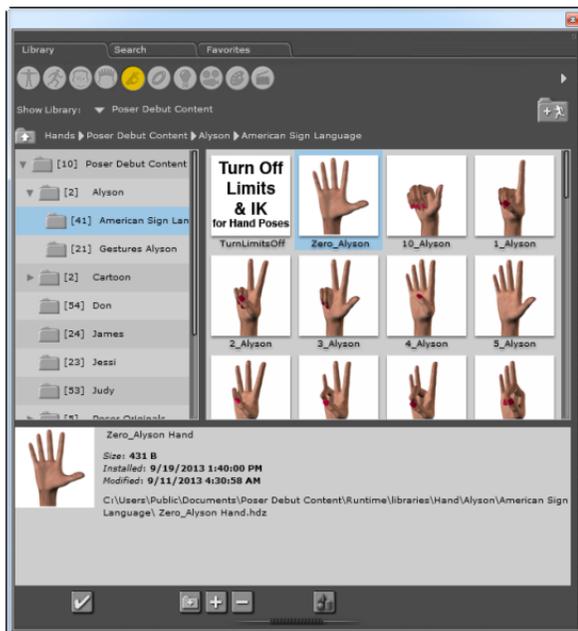
The Hands Category

This **Library** palette category houses hand (*.HD2) files, which can be applied to your currently selected figure. Hand files are subsets of Pose files that only contain positioning information for the hand and its children (fingers). Hand poses contain both finger positions and wrist positions.



Not all figures hands are created using the same number of joints. Ryan and Alyson contain an additional joint at the knuckle and older hand poses may not work correctly on their hands. Additionally, Hand poses saved using Ryan or Alyson may not apply to older content correctly.

If you apply a pose file to a figure then apply a hand, only the hand positions will change. If, however, you apply a hand file to a figure followed by a pose, the pose application will override the positions specified by the hand file.



The Hands category stores poses that affect the hands and fingers.

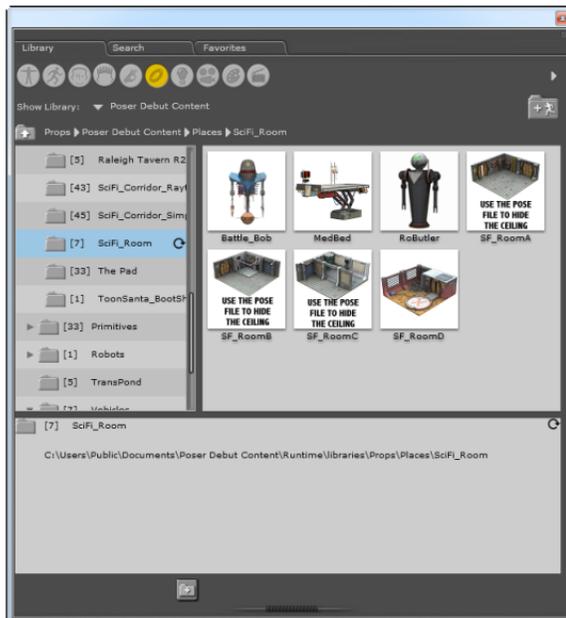
To add a hand pose to a figure:

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1. Click the figure to which you want to apply the hand pose.
2. Select the **Hands** category in the Poser **Library**, and select the hand pose that you want to apply.
3. Click the **Apply Library Preset** button at the bottom of the Library palette, or drag the hand pose from the library to the character to which you want to apply the pose. A dialog asks if you want to apply the pose to the figure's right hand or left hand. Click either button to apply the pose.

The Props Category

This **Library** palette category houses props (*.PP2), which are loosely defined as static or poseable objects that are not figures. Items such as swords, balls, canes, furniture, walls, some types of clothing (such as dynamic) and other non-conforming items fall into this category. You will also find conforming clothing items in the Props library.



The Props library includes many elements for scene building.

Adding Props

To add a prop to your scene:

1. Open the scene to which you want to add the prop.
2. If you want to replace a prop that is already in your scene with another prop from the library, select the prop in your scene that you want to replace.
3. Choose the **Props** category from the **Library** palette.
4. From the **Library** palette, select the prop you want to add to the scene.
5. Click the **Apply Library Preset** (single check mark) button.
6. By default the prop appears in the center of the scene in its default position. You can use the Translate dials in the Parameters palette to reposition the prop to the correct spot in your workspace.



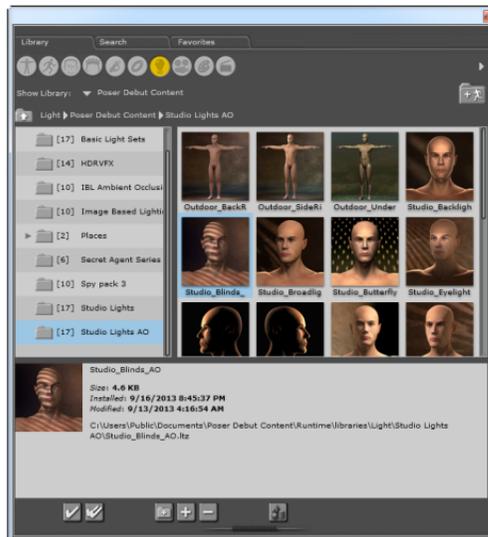
A prop added to a scene.



If you wish to have the prop move with another scene item (such as a tennis racket moving in concert with the figure's hand), you need to specify a parent for the racket. Please refer to "Changing a Parent" on page 212 for directions on setting a parent for an object.

The Light Category

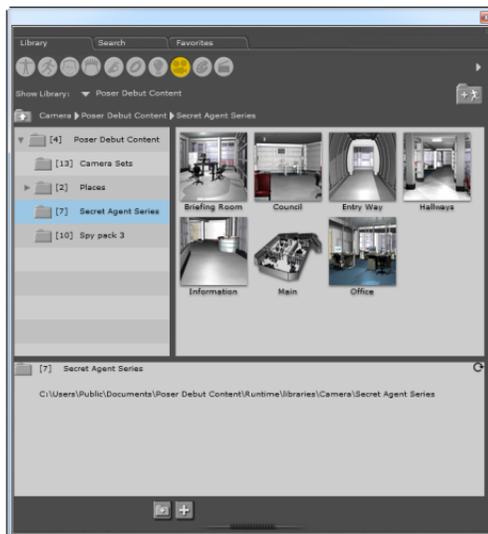
This **Library** palette category houses lights (*.LT2), which includes the number, color, position, and other lighting attributes. Please refer to "Chapter 12: Lighting" on page 231 for a description of Poser lights.



Several lighting presets can be found in the Lights category.

The Camera Category

This **Library** palette category houses cameras (*.CM2), which includes all Poser cameras, their positions, and other attributes. Please refer to "Chapter 11: Cameras" on page 214 for information about Poser cameras.



The Camera category stores different settings to position cameras in your scene.

The Materials Category

Poser's Material library provides an easy way to apply preset materials to the items in your scene. You can navigate through the items in your library, and then drag and drop compatible materials from the Library to the objects in your scene. As you drag your material into the scene, a tooltip displays the name of the actor in your scene. Release the mouse when the tooltip displays the correct actor name.

When saving materials to the library, Poser offers two methods for storing material definitions for an entire figure in a single file. Both of these methods can save considerable time, since they can apply colors and maps to an entire figure simply by loading them from the **Library** palette instead of having to add them one by one.

This **Library** palette category houses materials (*.MT5), which include all Poser materials and any associated shader trees created or loaded into the **Material** room. Materials and material collections can be dragged from the Library and dropped onto an object in your scene.

The Material Collection (MC6/MCZ) file format was designed as a fully integrated replacement for MAT pose files. Additionally, Poser includes a built-in compatibility feature, which enables you to simply change the extension of your MAT files to MC6 or MCZ, and Poser will recognize

them as Material Collections. However, Smith Micro Software does support the MAT files included in your Poser installation.



Use the Materials category to apply different textures and materials to the items in your scene.

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Adding Materials to the Library Palette

Poser offers the option of saving either single materials, or grouped material collections from a single figure, to the **Library** palette.

To save single material to the **Library** palette:

1. Open the Material Room.
2. In the Library palette, select the desired Category/Subcategory that will store the new material.
3. Move the mouse into the Preview window, where it turns into an Eyedropper tool. Use the eyedropper to “pick up” the material that you want to save. The material settings appear in the Simple or Advanced view in the Material room.
4. Click the **Save to Library** icon (+) at the bottom of the **Library** palette.
5. In the **New Material Set** dialog, select the **Single Material** radio button.
6. Enter a name for the Material and click **OK**. A square showing the single material appears in the currently selected Material library category/subcategory.

Adding Material Collections to the Library Palette

Poser also allows you to save some or all of the materials for a single figure together in a Material Collection, in addition to saving single materials individually. Simply select the **Material Collection** option in the **Add to Library** dialog, as described below, and choose which materials you would like to include in the collection. Like MAT files, Material Collections provide the convenience of grouping materials in a single file, and also offer the added benefit of seamless integration into your Poser workflow. Please refer to [“Chapter 13: The Material Palette” on page 251](#) for information about the **Material** palette.

To save Material Collection to the **Library** palette:

1. Open the Material Room and select your desired category/subcategory.
2. Move the mouse into the Preview window, where it turns into an Eyedropper tool. Use the eyedropper to “pick up” one of the materials in the object that uses the material collection that you want to save. The single material that you clicked appears in Simple or Advanced view in the Material room.
3. Click the **Add to Library** icon (+) at the bottom of the **Library** palette.
4. In the **New Material Set** dialog, select the **Material Collection** radio button, and click the **Select Materials** button to open the Select Materials dialog.
5. Choose which materials you would like to include in your collection from the list presented in the **Select Materials** dialog, and click **OK**. **Select All** and **Select None** buttons are also provided to add or clear all materials in the selection set.
6. Enter a name for the Material Collection and click **OK**. A small thumbnail of the object with your material settings appears in the currently selected Material library category/subcategory.

The Scene Category

The Scene category allows you to load or save complete scenes. This is especially useful when you want to work with objects that are inter-related to each other, or which use dependent parameters to interact with each other. It also allows you to load complex scenes or a complete set design -- including lights, cameras, and props in the background -- with a single click.

Adding Scenes from the Library

You can use the Scene category in the library to open a scene, or to merge content from an existing scene into your current project. Follow these steps:

1. Open the Library and select the Scene category.
2. Create or navigate to the folder that stores the scene you want to use.
3. Choose one of the following:
 - Click the **Load New Scene** (single check mark) button to replace the contents of the current scene with the scene contents in the library. This is the same as using the **File > Open** command. You will be prompted to save any unsaved changes in the existing project before its contents are replaced.
 - Click the **Import Scene** (double check mark) button to add the contents of the scene in the Library to your current scene. This is the same as choosing the **File > Import > Poser Document/ Prop** command. Everything from the imported scene will be added; however if a light in the existing scene is named the same as a light in the

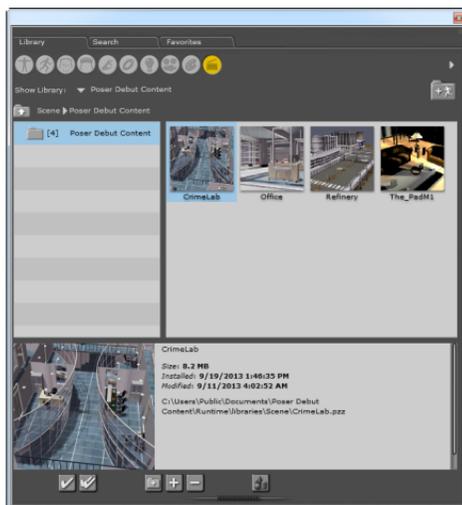
imported scene, it will be replaced with the light from the imported scene.

Saving Scenes to the Library

Saving the scene into the library allows you to easily find and reuse projects that you have previously created, and also makes it easier to share complete project settings with others.

To save a scene to the library, proceed as follows:

1. Open the Library and select the Scene category.
2. Create or navigate to the folder that will store the new scene.
3. Click the **Add to Library** icon (+) at the bottom of the **Library** palette.
4. In the **New Set** dialog, enter a name for the new scene.
5. Click **OK**. A small thumbnail of the scene appears in the currently selected Scene library category/ subcategory.



The Scene category allows you to use or save complete scenes into the Library.

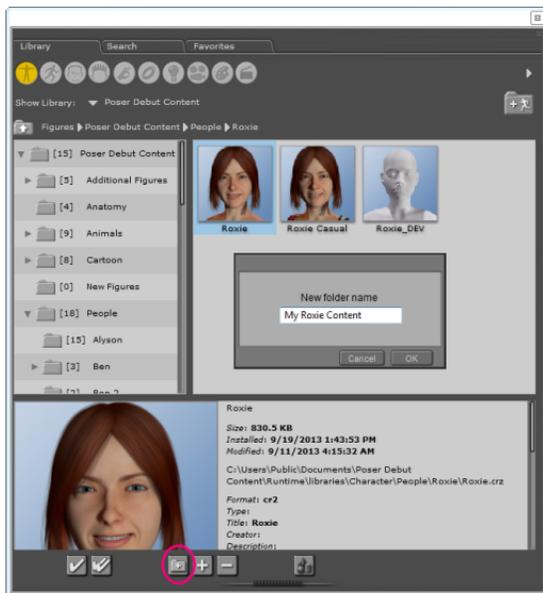
Maintaining Your Library Palette

You can maintain your **Library** palette by adding and removing items to and from the **Library** palette, as described below.

Creating Subfolders

You can create new subfolders in the library to store your content. Follow these steps:

1. Use the **Show Library** menu to select **<All >** libraries, or the library to which you want to add the folder.
2. Click the category icon that applies to the subfolder you want to create. For example, if you are using the new folder to store a Prop, select the Prop category.
3. Highlight the folder beneath which you want the new folder to appear.
4. Click the **Create New Folder** icon located at the bottom of the Library palette. You are prompted to enter a name for the new folder.
5. Enter a new folder name and choose **OK**. The folder appears in the Library palette.



Creating a new Library subfolder.

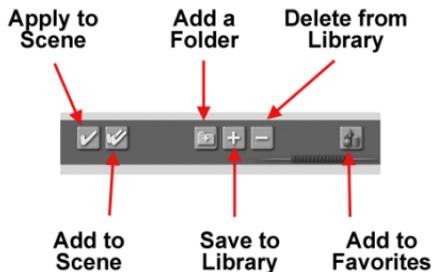
Adding Items to the Library

The following section provides some notes on saving content in general.

Saving an item to the **Library** palette adds the appropriate item to the currently selected category/subfolder. The actual file location of your saved item will display along the bottom of the **Library** palette when you select the item by clicking on its preview image once it has been added to the **Library**. In addition, when you save content to the Library, a basic set of metadata is saved along with the object. This metadata appears in the Library's Extended Details panel when it is displayed. For more information about the Extended Details panel and metadata, see "Display Options" on page 116.

To add an item to the **Library** palette:

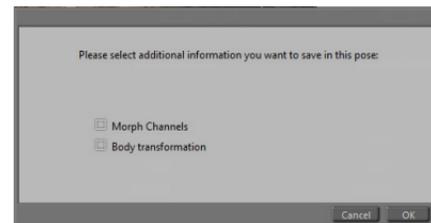
1. Select your desired category/subcategory.
2. Click the **Save to Library** icon (+) at the bottom of the **Library** palette.



Library buttons help you maintain and use your library.

3. Complete the dialog that follows (see following subtopics for information on category-specific dialogs).
4. Enter a name for the new **Library** palette item and click **OK**. You may be prompted to select a subset of actors for inclusion in the saved item, depending on the item type being saved (poses, expressions, props, lights, cameras or material collections). Please refer to the following sub-topic for information on selecting actors.
5. Depending on the **Library** palette category being saved to, you may be asked if you wish to save

morph channels (such as facial expressions, muscle bulges, etc.). Saving morph channels will preserve all adjustments you might have made to any morph target parameters. You may also be asked whether you wish to save Body transformations; this option will preserve any modifications to parameters on the "Body" actor.

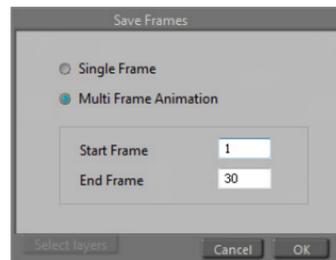


When saving content, you may be prompted for additional information to be saved.



This option appears when saving poses, but you need to take care when saving morph channels and body transformations with poses that you will distribute to others. If your pose is designed as a regular pose that reposes the figure (for example, from standing to sitting), in most cases you do not want to include body transformations or morphs that will affect the settings of the figure that is in another user's scene. On the other hand, if your pose is meant to set morph targets for a custom figure, you want to include morph channels in the pose set.

- Poses and Faces can save animated data (such as an animated pose like swinging a golf club). To select only the current frame, select **Single Frame**. To save more than one frame of animation, select **Multiple Frames** and enter your desired starting and ending frame numbers. If you are adding an animated pose that includes animation layers, the **Select Layers** button will be enabled. Clicking this button opens the **Select Layers** dialog, which allows you to specify which layer(s) you wish to save with the pose. Click **OK** when you have finished making your selections.



Poses can be saved as still poses (a single frame), or as animated poses (multiple frames).

Your new item will be added to the **Library** palette and will be accessible whenever Poser is running. Poser also automatically generates an editable .PNG format preview image based on Camera position. You can make a better preview image by positioning the camera to focus on the item you're saving.

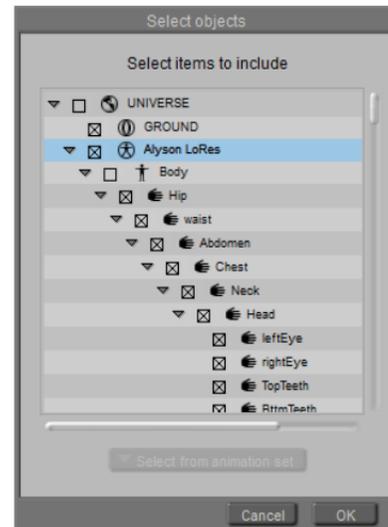


To add dynamic cloth to the **Library** palette, add it as you would any other prop. For strand-based hair objects, you must either save a Poser scene file (PZ3) with your hair object in it or grow hair on a prop and save that prop to the **Library** palette.

Adding Actors to a Library Palette Entry

When you save Poses and Faces to the library, a **Select Subset** button appears in the New Set dialog, allowing you to specify which actors to include in the library file. This allows you to create poses that affect only a part of the figure (for example, a pose that only affects the arms and hands, rather than the entire body of a figure).

If you opt to select a subset of actors within your scene for saving to the **Library** palette, the **Hierarchy Selection** dialog appears, allowing you to specify the actors you wish to include in your new **Library** palette entry.



You can include or exclude specific body parts from saved poses.

The list of actors appears hierarchically. You can expand collapsed hierarchies by clicking the + sign next to a collapsed branch, and can collapse expanded branches by clicking the - sign next to an expanded branch.

To include an actor in your new **Library** palette entry, check the box to the left of your desired actor. Clearing an actor's checkbox excludes it from the **Library** palette entry. Excluding an actor that is a parent of one or more actors excludes the children actors as well.

Adding Items to the Library Palette (Manual Method)

You can also add items to the **Library** palette by creating folders and subfolders in the Poser hierarchy and adding your items directly to those folders.



This is an advanced feature that should only be undertaken by advanced Poser users who are familiar with creating custom content. Manually adding Library items could result in misplacing files, which could cause these Library items to be invisible and/or unusable. Smith Micro Software cannot provide technical support for people who manually create content folders. If you purchased content and are unable to get it to appear in the Library or if it has other errors, please contact the content creator.

Adding Items to the Library Palette (Poser Download Manager)

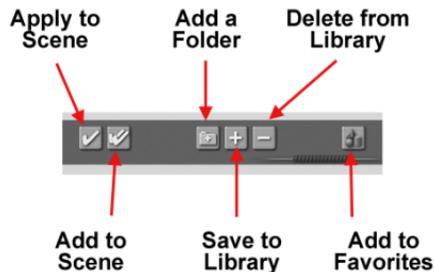
Poser's Download Manager can detect and install Poser content downloaded using the **Content** room. Please refer to "[Chapter 8: The Content Room](#)" on page 161 for more information about the **Content** room.

Deleting Items from the Library Palette

To delete an item from the **Library** palette, select it by clicking its preview image, then click the **Delete from Library** icon (-) at the bottom of the palette (see below for an image of the **Library** icons).

Searching the Library

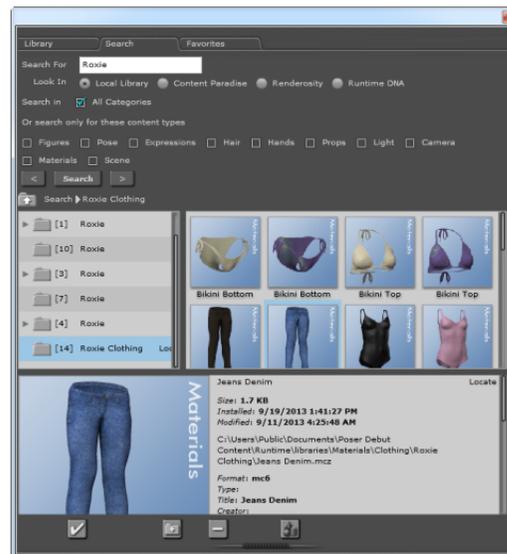
The new Search tab in the library allows you to perform a keyword search in your local content libraries. You can perform the search in all or selected categories.



The Library icons.



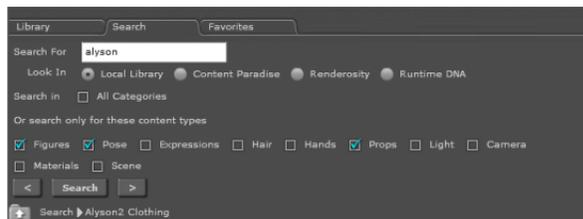
Deletions are permanent! Be sure you really want to delete the selected item. If you have not saved your content elsewhere (such as archiving the source files), the deleted content will be permanently lost. You cannot undo content deletions.



You can search the library for specific search terms.

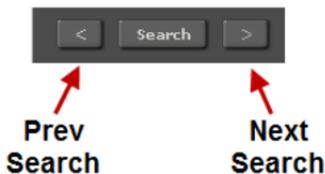
To perform a Library search, follow these steps:

1. Switch to the Search tab in the Library.
2. Enter a keyword (such as Ryan) or a series of keywords (such as Ryan pants) in the **Search For** field.
3. From the **Look In** section, click the **Local Library** radio button.
4. Check or uncheck options as follows:
 - To perform a search throughout all Library categories, check the **All Categories** option.
 - To perform a search in specific categories in your Library, uncheck the All Categories option and then check or uncheck **Figures, Pose, Face, Hair, Hands, Props, Light, Camera**, or **Materials** as needed to find the content you are looking for.



When searching, you can include or exclude specific categories.

5. Click the **Search** button. Poser performs a search for the content that you specified, and search results appear in the Content pane.
6. To scroll forward or backward to view previous or later searches, you can use the arrow keys to the right and left of the **Search** button.



You can navigate forward and backward through search results.



Poser stores all search strings in a file named **SearchState.xml** file, which is located in your Poser installation folder. Windows Vista users can find this file in the **Users \ (username) \ AppData \ Roaming \ Poser \ 9.0** directory. These search terms are used in conjunction with the **Prev Search** and **Next Search** buttons shown in the previous figure. You can edit this file to remove unwanted keywords from the search results.

Searching for New Content

The Search tab in the library also allows you to perform a keyword search in Content Paradise, Renderosity, and

RuntimeDNA for new content to add to your libraries. You can perform the search in all or selected categories.



A working Internet connection is required for the Content Paradise search and preview features to function correctly.

To perform a search on Content Paradise, Renderosity, or Runtime DNA, follow these steps:

1. Switch to the Search tab in the Library.
2. Enter a keyword (such as pants) or a series of keywords (such as Alyson pants) in the **Search For** field.
3. From the **Look In** section, click the radio button beside the name of the content provider site that you want to search (**Content Paradise**, **Renderosity**, or **Runtime DNA**).
4. Use the **Category**, **Seller**, **Software**, or **Show Me** buttons to narrow your search to selected categories, if desired. The categories you choose here are specific to the content provider site that you choose to search.



The Search pane also allows you to find content on Content Paradise.

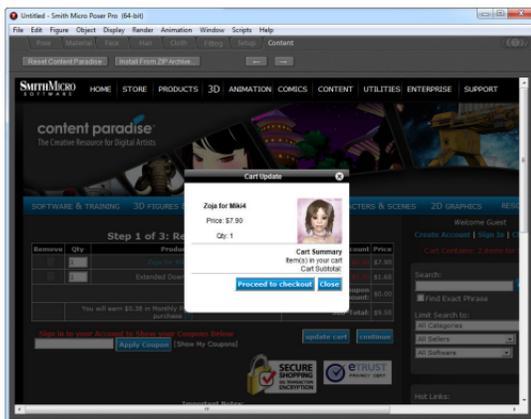
- Click the **Search** button. Poser performs a search for the content that you specified, and search results appear in the Content pane.



Results from your Content Paradise, Renderosity, or Runtime DNA search are displayed in the Search pane.

- Perform either of the following steps on a search result:

- Single-click a thumbnail in the results. Details for the selected item appear in the Extended Details area. If you want to purchase the item, you can click the **Add to Cart** link in the Extended Details area to add the item to the shopping cart on the selected site.



You can add a selected search result to your shopping cart.

7. Double-click a thumbnail in the results. The product page opens in the Content tab within Poser. If you want to purchase the item, you can click the **Add to**

Cart button to add the item to your shopping cart. For more information about the Content tab, see "[Chapter 8: The Content Room](#)" on page 161.

8. You can perform additional content searches or add other search results into your cart. After your shopping session is complete you can proceed to checkout to purchase your selections.

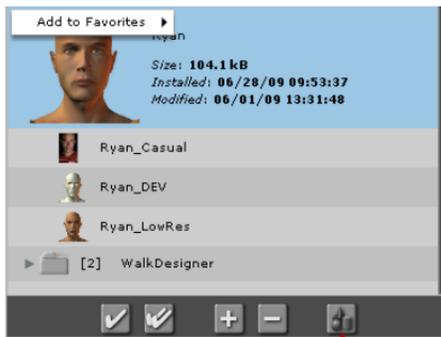
Favorites Tab

The Favorites tab allows you to quickly add your favorite content to library folders that you create yourself.

To add an item to the Favorites tab:

1. Highlight the library item that you want to add to favorites.
2. Click the **Add to Favorites** button at the bottom of the **Library** palette. An Add to Favorites menu appears above the selected item.
3. From the menu, select an existing Favorites category, or choose **<<New Folder >>** to create a new Favorites folder. When the New Library Name dialog appears, enter a name for your new folder and click **OK**. The

new folder appears in the Favorites tab and your item appears within it.



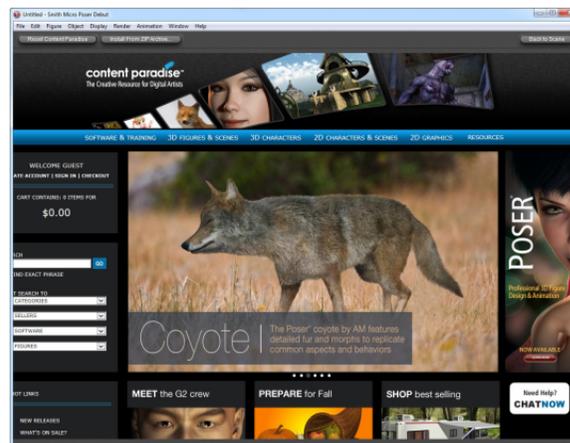
Add to Favorites

Add selected search results to your Favorites library folder.

Chapter 8: The Content Room

Welcome to Content Paradise! Poser's **Content** room accesses Content Paradise, which is your gateway to leading marketplaces that provide both free and for-sale Poser content. Need a Poser figure, prop, texture, or something else? Content Paradise has you covered. And, Poser's Download Manager can auto-install most downloaded content and add it to the **Library** palette. No more manually placing files in folders!

Choose the **Window > Content Room** command to open the **Content** room.



The Content Room.

Aside from the Download Manager, the **Content** room accesses the online Content Paradise Web server. Poser for Windows seamlessly displays Web pages in the Poser workspace. Poser for Macintosh automatically opens a new browser window connected to Content Paradise. Content Paradise features and interface are subject to change. Because of this, the discussion in this reference manual is limited to discussing the Download Manager.

Content Paradise includes comprehensive online help, which is accessible from anywhere in the interface by clicking the **Help** links. Please be sure to read all of the applicable Terms of Service, including the Privacy Policy. Smith Micro Software reserves the right to alter these policies at any time without prior notice.

Downloading and Installing Content

After you purchase your content and check out of the marketplace(s), you will be able to download it to your computer. A progress meter keeps you informed of your download's status. Follow the onscreen instructions to begin the download. Once the data transfer is complete, you can begin the installation process. Macintosh users can simply unpack the downloaded files, and install them according to your needs. Windows users can use the auto-install option, as described below.

The **Install Options** dialog appears for each downloaded file once data transfer is complete, with the following options:

- **Install Path:** When you click **Install**, the content will install to the folder specified in the **Install Path** field. By default, the Poser **Downloads** Library folder is specified.

Chapter 8: The Content Room

To change the folder to which content is installed, enter your desired path in the **Install Path** field, or click the folder icon to browse to your desired location. Please see "[Chapter 7: The Poser Library](#)" on page 111 for information about Libraries and the **Library** palette.

- **Install:** Clicking the **Install** button installs the downloaded content to the path specified in the **Install Path** field.
- **Cancel:** Clicking the **Cancel** button cancels the installation process. Downloaded content will remain uninstalled in the location to which it was originally downloaded.

If the file being installed already exists, a dialog pops up asking if you want to overwrite the existing file. Click **No** to abort, or **Yes** to proceed with overwriting the old file.

A confirmation dialog appears once installation is complete. Click OK to acknowledge successful installation of your downloaded content.

If Poser cannot recognize the content or cannot install content (such as an executable file), the **Copy to Folder** dialog appears, with the following options:

- **Copy Path:** When you click **Copy**, the downloaded content will be copied to the folder specified in the

Copy Path field. To change the folder to which content is copied, enter your desired path in the **Copy Path** field, or click the folder icon to browse to your desired location.

- **Copy:** Clicking the **Copy** button copies downloaded content to the path specified in the **Copy Path** field. You will then need to manually install the content yourself.
- **Cancel:** Clicking the **Cancel** button cancels the copy process. Downloaded content will remain uninstalled in the location to which it was originally downloaded.

In addition to the Content Paradise website, the **Content** room also contains two buttons:

- The **Reset Content Paradise** button returns you to the Content Paradise home page.
- The **Install From Zip Archive** button opens the Install Options dialog, which is described above.

Chapter 9: Posing Figures

This chapter explains how to pose figures and the tools you'll use while doing so. Posing is the process of bending, twisting, and pulling a figure into new and fantastic positions. You can even create movies by changing poses over time.

General Posing Principles

A pose has two aspects: how the body parts move relative to the rest of the body (such as raising or lowering an arm, your shoulder, upper arm, forearm, hand, and fingers are moving relative to the rest of your body) and the figure's position relative to the Poser workspace (such as walking around a room). Poser's **Editing** tools ("The Editing Tools" on page 172) allow you to move body parts, figures, and props by simply clicking and dragging. It doesn't get any easier!

When posing in Poser, you're working in all three dimensions. Your only limitations are specific motion limits placed on joints to keep poses realistic. Enabling limits prevents, for example, a figure's knees from bending

backward or the head from twisting 360 degrees. However, you can disable limits and put your figures into any position you can imagine.

Posing and Camera Views

Most Poser figures (Version 3 and later) allow you to pose faces and hands (expressions, gestures, etc.). Poser includes **Face** and **Hand** Cameras (see "Chapter 11: Cameras" on page 214) that zoom into these areas for close-up work.

While posing, you can switch cameras to view your work from many different angles and can even select up to four simultaneous camera views in the **Document** window (see "Chapter 5: The Document Window" on page 65). It is recommended that you select the **Posing** camera while working, thus saving the **Main** and **Auxiliary** cameras for your final shots, particularly if rendering animations.

The Pose Library

You can add poses you create to the **Pose** Library, as described in "Maintaining Your Library Palette" on page 149, or you can apply still or animated poses from the library to your currently selected figure as described in "The Poses Category" on page 134.

Translation

Translation moves multiple body parts by pulling them in a chain. To visualize this, imagine a person lying down with their arms out to their sides. If you were to take hold of the hand and lift it, at first only the affected arm would move. Keep moving higher, you'd lift the shoulders, chest, hips, and eventually the whole person off the ground. Poser's **Editing** tools work this way. Drag any part and connected parts follow. Parts move, bend, and twist as you would expect them to.



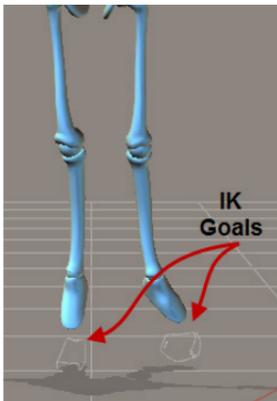
When you pull one body part, connected parts follow.

Inverse Kinematics (IK)

Poser's Inverse Kinematics (IK) features help you achieve realistic poses and add natural-looking motion to your animations. IK effects are most apparent when using the **Editing** tools.

To demonstrate how IK works, try this:

- Create a scene and load the default character (in this case, Andy is still configured as the default).
- Use the **Figure > Inverse Kinematics** command to make sure that IK is on (it is on by default).
- Use the Translate tool or the YTran parameter dial to translate the hip upward on the Y Axis so that the feet move up off the floor.
- Then move one of the feet to the side with the Translate tool. You'll see an outline appear of where the foot once was. That is the IK goal. The foot will move into that position wherever possible.



With IK enabled, the feet move to the position of their IK goals whenever possible.

The purpose of IK is to make it easier to pose or animate the arms and legs of a figure. For example, when IK is on, you can translate the hip, and the legs bend to accommodate the new hip position without changing the positions of the feet. Arms behave similarly: Place a figure's hands against an imaginary wall and move the hip forward. The arms bend while the hands remain fixed in position. For more information on IK, see ["Understanding IK" on page 167](#).

Chapter 9: Posing Figures



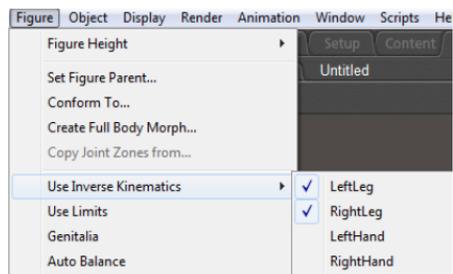
Enabling IK on a pose created with IK disabled may alter your pose.

Enabling/Disabling IK

Inverse Kinematics can add realism to your scenes. You can toggle Inverse kinematics (IK) on and off for the following limbs:

- Left Leg
- Right Leg
- Left Arm
- Right Arm

To toggle IK on or off for a limb, select **Figure > Use Inverse Kinematics > limb**, where limb is one of the four limbs. A checkbox next to a limb indicates that IK is active for that limb, and vice versa.



You can enable or disable IK for the legs and hands.

Understanding IK

Kinematics is the study of motion velocity, rotation, and position. In terms of structures such as arms and legs, kinematics is used to calculate how actions taken at a structure's root determine the position and rotation of the other end. For example, hold your arm straight and rotate your shoulder joint. Kinematics calculates the change in position of your arm, hand, and fingers. If you know the angle by which you rotated your shoulder, you can calculate your arm's new position.

It follows that Inverse Kinematics studies the same problem from the other end: The extremity moves, and

IK determines how the objects joined to it must respond in order to support the new placement. If you raise your hand straight out to the side, your hand, arm, and shoulder must move to accommodate your hand's new position. Or if someone was to grab your hand and push, your arm would bend while your body remains still.

Poser supports IK for the arms and legs. With IK enabled, you can translate the hands and feet and achieve appropriate arm and leg positions automatically. IK creates targets to indicate the end of the chain. When the hands or feet move, the target is set to its new position. Moving any other body part keeps the target in its original position relative to the rest of the body. Once the target is reached, the end of the chain is fixed and the other parts must bend to accommodate the hand or foot position. For example, a foot reaches its target and the knee bends.

To work effectively with IK, you need to keep the following things in mind:

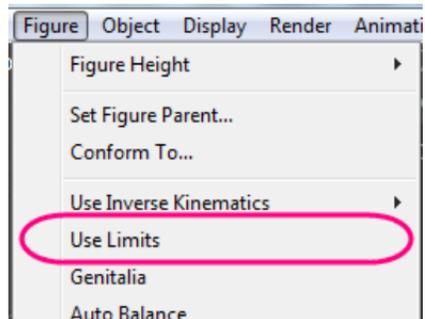
- Enable (turn on) IK when you are working with the **Editing** tools.
- The **Rotate**, **Translate**, and **Twist** tools may not behave as you might expect for some body parts. For example, you cannot easily rotate or translate a thigh or shin when IK is enabled for that leg because the foot's position takes precedence. This behavior

corresponds to real life: When you stand, your feet and legs support your body, meaning that you cannot arbitrarily move or rotate them. This consideration applies to both the **Editing** tools and the parameter dials.

- You cannot use IK and the **Chain Break** tool (see "Chain Break" on page 177) on the same limb.

Limiting Motion

Selecting **Figure > Use Limits** toggles parameter limits on and off. Please refer to "Editing Parameter Dials" on page 187 for information about setting limits for parameter dials. The figures included with your copy of Poser have realistic limits applied to them, meaning that you can't, for example, bend a knee backward. Limits are disabled when this option is toggled off.



The Use Limits command prevents body parts from going beyond preset range limits.

The **Use Limits** option keeps body parts from moving beyond natural ranges of motion. The figures that come with Poser have realistic limits that were set when the figures were rigged. Third-party content may or may not have realistic joint limits. If you have questions about a particular piece of content, please contact the content's creator or the marketplace where you purchased the content. "Natural" is a subjective definition. The limits for Poser figures are a rough guideline that may or may not look right to you. You can customize maximum and

minimum limits using the methods described in "Editing Parameter Dials" on page 187.

Select **Figure > Use Limits** to toggle limits on and off. A check mark next to this option indicates that limits are being enforced, and vice versa.

Posing Body Parts

Like their real-world counterparts, Poser figures are made of body parts connected by joints. Posing a figure is as simple as moving body parts to create a new position or pose. Body parts are independent, and each considered an actor in its own right. This concept holds true no matter what the figure looks like (snake, 2-legged, 8-legged, etc.). There are some special posing cases:

- Hands (see "Posing Hands" on page 193)
- Faces (see "Posing Faces" on page 190)
- Eyes (see "Posing Eyes" on page 192)
- Animals (see "Posing Animals" on page 195)

Posing a Figure

The easiest way to pose a figure is to use the **Editing** tools as described in "The Editing Tools" on page 172. The part will move based on the part selected, your currently selected Editing tool, your camera angle, and whether or not IK is enabled. You can also use the parameter dials on the **Parameters** palette to precisely move parts. Most poses are created using the **Editing** tools to get the rough position followed by the parameter dials for fine adjustments.

Selecting Body Parts

Before you begin posing figures, you need to know how to select the body part Actor(s) you wish to move in order to create your still or animated pose. You can select body parts using the **Editing** tools, the **Current Actor** pull-down menu, or by clicking the desired part in the **Document** window. Each of a figure's body parts is a poseable element.



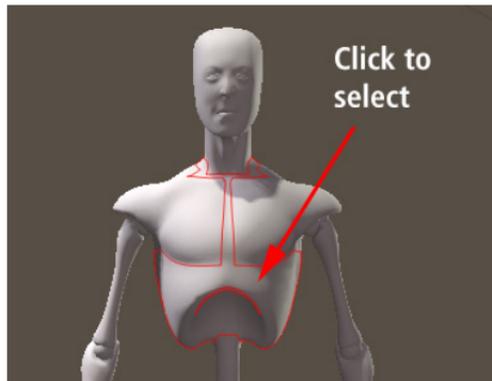
The selected body part is outlined when selected.



If you right-click (Windows) or Apple key-click (Mac) within the **Document** window, a pop-up context menu brings up a menu listing all the body parts positioned under your mouse cursor. You can select your desired body part directly from this list, without having to interrupt your workflow or change your camera view. This process also makes it easier to select a specific actor in areas where many objects overlap.

Using the Editing Tools

To select a body part using the **Editing** tools, click your desired tool then click the body part you wish to pose. The currently selected body part is highlighted in the **Document** window and labeled in the **Select Figure** and **Current Actor** menus in the top left corner of the **Document** window.

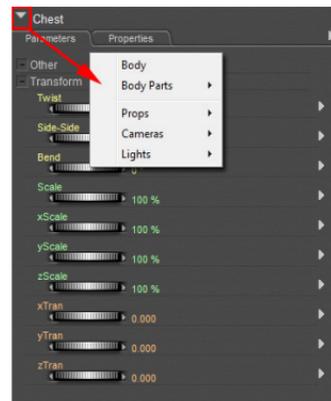


Click a body part with an editing tool to select it.

Using the Parameters/Properties Palette

You can also select body parts using the selection menu that appears at the top left corner of the Parameters/Properties palette. Click the arrow at the top-left corner of the palette to display the menu. Here you can select any of the following:

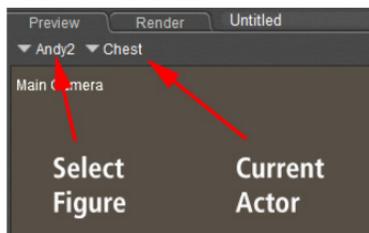
- Any body part for the currently selected figure.
- The Body Actor of the currently selected figure.
- Any props connected to the currently selected figure (such as hair, jewelry, articles that are parented to it, and so on).
- Any of the cameras in the scene.
- Any of the lights in the scene.



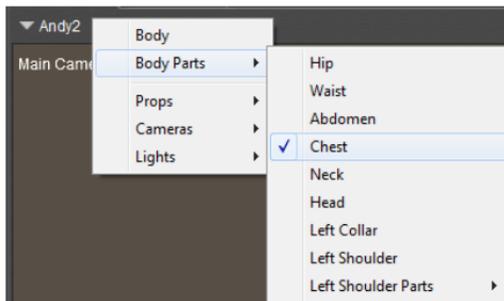
A selection menu appears at the top of the Parameters/Properties palette.

Using the Current Actor Pull-down Menu

To select a body part Actor using the pull-down menus:



Select Figure and Current Actor menus.



Drill through submenus to select your item.

1. Select the desired figure using the **Select Figure** pull-down menu.
2. Select your desired body part using the **Current Actor Item** pull-down menu.

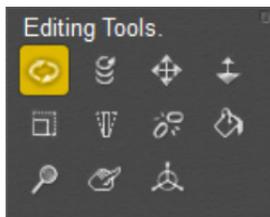
This method can be preferable if your scene has several figures and/or detailed body parts (such as poseable fingers and toes).



If there are too many actors or scene elements displayed in the Current Actor pull-down menu, you can increase the Hierarchical Threshold value in the Interface tab of the Preferences dialog. See "Interface Preferences" on page 29.

The Editing Tools

The **Editing** tools appear as follows on your Poser workspace:



The Editing tools.

As described in ["Setting Up Your Workspace"](#) on page 37, you can locate the **Editing** tools wherever you like on your Poser screen and can display or hide the title. The tools will auto-wrap to fit the allotted width or height of the palette. Tool tips are displayed at the top of the palette that reveal the name of the tool when you hover your mouse over it.

The **Editing** tools let you move body parts in many different ways. A tool's effect can vary depending on whether or not Inverse Kinematics (IK) is enabled. Please refer to ["Inverse Kinematics \(IK\)"](#) on page 165 for information about IK. **Editing** tools can pose an individual body part or a complete figure.



The **Color**, **View Magnifier**, **Morphing**, and **Direct Manipulation** tools serve other purposes than posing and are discussed later in this chapter.

The Editing tools work on an entire figure, or on a body part Actor on a figure.

- To pose a body part, select it and drag.
- To pose the entire figure, use one of the following methods:
 - Click and drag on the desired **Editing** tool and the entire figure will move according to the tool that has been selected.
 - Select your desired **Editing** tool, then select the **Figure Ring** surrounding your desired figure and drag. The **Figure Ring** is highlighted when selected, indicating that you are working on the entire figure at once.
- To move an entire figure, you can:
 - Click and drag an **Editing** tool.
 - Select and drag the Figure Ring.

- Select **Body** using the **Select Actor** pull-down menu.
- Select the figure's hip and move it (with IK disabled).

When using an **Editing** tool in the **Document** window, your cursor changes to a visual representation of the selected tool. This helps you keep track of how you're moving the selected figure or element.

When using an **Editing** tool with a figure prop, you don't need to click and drag with the cursor positioned over the affected item; you can click and drag anywhere in the **Document** window. Also, be aware that your camera view affects how your figure or element appears. Depending on the pose you are creating, you may want to switch to a different camera. For example, if you are moving an arm in front of a figure, a side view will give you a good view of the arm's position relative to the figure's front, and so on. You can change **Camera** views as described in "Select Figure/Current Actor Menus" on page 69, and can even view your Poser scene from multiple cameras at once, as described in "Changing Cameras within a Pane" on page 82.

From left to right, the **Editing** tools are:

Rotate

The **Rotate** tool bends a body part at its joint. Rotation works in three dimensions, allowing you to make a lot of progress very quickly. To rotate a body part, select the body part you wish to rotate and drag perpendicular to the part to cause the rotation to rotate up and down (relative to your point of view). Dragging parallel to the part rotates it in and out, again relative to your point of view.

To rotate the entire figure, select it. Dragging the mouse up/down and left/right functions as a trackball and rotates the figure on its own axes based on your camera location. You can also adjust an item's rotation using the parameter dials, as discussed in "Parameters Palette" on page 184.



Rotate tool.

Twist

The **Twist** tool rotates a figure/part/prop along its longest axis (length). You can twist an entire figure by selecting it and dragging. Most of the body's joints don't allow much twisting. For example, your forearm can twist almost 180 degrees while your wrist can hardly twist at all. The twist axis of the head, neck, and torso is along the spine. For the forearm, the axis lies along the arm's length. Twisting an entire figure rotates it about its own axis. If the figure is standing, it spins around. If lying down, it rolls over. You can also adjust an item's twist using the parameter dials, as discussed in "Parameters Palette" on page 184.



Twist tool.

Translate/Pull

The **Translate/Pull** tool moves the selected figure/part/prop along the camera's view (vertically... X and Y axes) depending on how you drag. The translation may occur on the figure's X, Y, and or Z axes depending on the position of the camera relative to the figure. You can translate body parts or figures, and can also adjust an item's translation using the parameter dials, as discussed in "Parameters Palette" on page 184.



Translate/Pull tool.

Translate In/Out

The **Translate In/Out** tool moves the selected figure/part/prop along the Camera's Z axis (in and out). This translation may take place along the figure's X, Y, and/or Z axes.

Dragging down pulls the item towards you, and vice versa. Moving an item towards you makes that items seem larger, and vice versa. You can also adjust an item's translation using the parameter dials, as discussed in "Parameters Palette" on page 184.



Translate In/Out tool.

Scale

The **Scale** tool allows you to scale the selected figure/part/prop along the camera's X and Y axes. The item's affected axes will vary depending on the camera's position relative to that item. Dragging in towards the element reduces the scale, and dragging away from the element increases the scale. To scale in two dimensions, drag laterally. Dragging vertically scales in

the third dimension. The axes affected depend on your currently selected camera position. You can also press and hold **Shift** while using this tool to scale evenly in all three dimensions. Make a mistake? No problem. Select **Edit > Undo**, or press **[COMMAND]/[CTRL]+[Z]**. You can animate scale using the parameter dials as described in "Parameters Palette" on page 184.



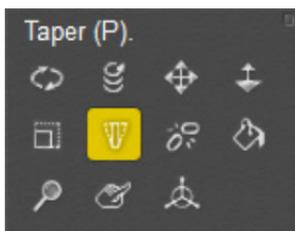
Scale tool.

To scale an entire figure, select the desired figure using the **Select Figure** pull-down menu in the **Document** window or by clicking its **Figure Ring**. A figure's size is relevant only in relation to other figures and props within your scene. To pose a single figure, scaling is not necessary: You can simply zoom the camera. If you are working with two or more figures and want to give one the appearance of being in the distance, it's best to simply move the selected figure to the background using the **Translate** tool (see

above). You can also adjust an item's scale using the parameter dials, as discussed in "Parameters Palette" on page 184.

Taper

The **Taper** tool allows you to taper the selected figure/part/prop along the Camera's X and Y axes. The item's affected axes will vary depending on the Camera's position relative to that item. This only affects the end of the selected actor that is most distant from the center of the body. Dragging to the right increases the amount of taper, and dragging to the left decreases the taper, "flaring" the selected actor. You can also adjust an item's taper using the parameter dials, as discussed in "Parameters Palette" on page 184.



Taper tool.

Chain Break

The **Chain Break** tool ends the chain of parts affected by the **Translate** tools.



Chain Break tool.

Using chain breaks on different body parts can create interesting effects. For example, to prevent the chest from moving, apply a chain break to it. You can then translate the hand freely without moving the chest: only the hand, forearm, upper arm, and shoulder will move. You must have IK disabled on the desired limb(s) in order for this to work. Please refer to "Inverse Kinematics (IK)" on page 165 for information about Inverse Kinematics.

To add a chain break, select the **Chain Break** tool and click where you want the chain broken. A **Chain Break** icon appears wherever you insert a break. You can insert

as many breaks in your scene as needed. To remove a chain break, click the desired icon.



Using the Chain Break tool.



All figures have chain breaks at their hips. You cannot remove these breaks.

Color

The **Color** tool allows you to change a material group's surface (diffuse) color.



Color tool.

View Magnifier

The **View Magnifier** tool allows you to zoom in and out to and from your desired areas of the **Document** window without altering the position of your currently selected

camera. This can be of great help when working with scenes.



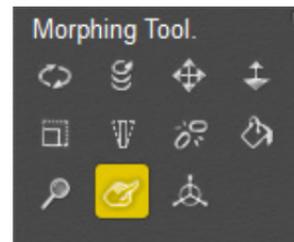
View Magnifier tool.

To use the **View Magnifier** tool, select it:

- Click anywhere in the **Document** window or current view pane to zoom in on the selected area. Repeated clicking will continue zooming in one step per click.
- To zoom in on a specific region in the **Document** window, click and drag a rectangle around the area you wish to magnify. Your view will zoom in on the closest point that encompasses your selected region.
- To zoom out, press **[COMMAND]/[CTRL]** while clicking in the **Document** window.

Morphing Tool

The **Morphing Tool** opens the **Morph Editor** palette. See "Chapter 21: Modifying Figures & Props" on page 323 for more information about morph targets and the **Morph Editor** palette.



Morphing tool.

Direct Manipulation

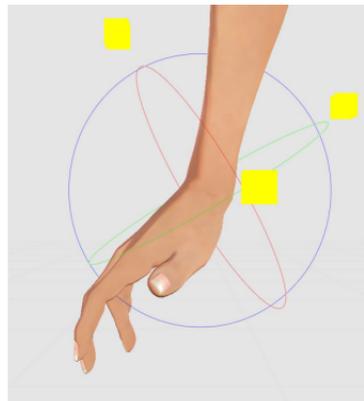
The **Direct Manipulation** tool allows you to directly adjust an element's **Translate**, **Scale**, and **Rotation** parameters: You can also use this tool to adjust falloff zones when setting up joint parameters for a poseable figure.



Direct Manipulation tool.

To adjust an element, first select the **Direct Manipulation** tool, then select your desired element:

Clicking and dragging one of the shaded boxes above the selected element increase or decreases the element's X, Y, or Z scale. This is the same as adjusting the **xScale**, **yScale**, and **zScale** parameters, respectively.



The Universal Manipulator tool makes posing easier.

You can also click and drag the colored circles to rotate the selected element along its axes. Poser calculates the rotation by using object coordinates for optimum control. Dragging the red circle rotates about the element's X axis, the green circle rotates about the element's Y axis, and the blue circle rotates about the element's Z axis. The cursor changes to indicate which transformation will occur. For example, move the cursor over the circles, the cursor changes to a rotation icon, and so forth. Elements rotate about their origins.

Clicking near the selected element's origin translates the element as if you were using the **Translate** tool. Clicking away from the origin and axes/circles allows you to rotate the element as if you were using the **Rotate** tool.

The Parameters/Properties Palette

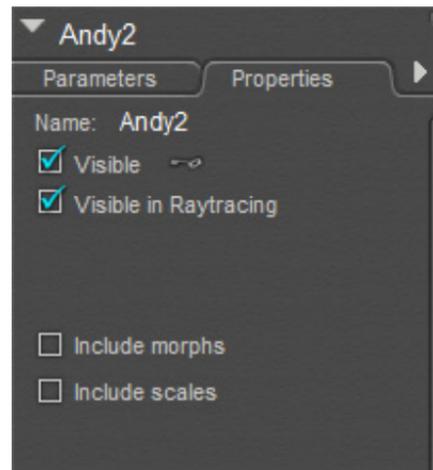
Poser offers a combined **Properties/Parameters** palette that lets you quickly switch between a selected element's properties and parameter dials.

For clarity, each tab on this combined palette is referred to as a separate palette, either the **Properties** palette or the **Parameters** palette, as appropriate. To switch between the two, click your desired tab. You can also access an object's **Properties** palette by double-clicking the desired object. Once you do this, clicking the **Parameters** tab opens the same object's **Parameters** palette. You can also access both palettes by selecting **Window > Parameter Dials**.

Properties

The **Properties** palette contains the properties available for the currently selected scene element. Properties for lights, cameras, props, etc. are listed in their respective sections.

This section describes the properties available to figures and body parts.



The Properties palette allows you to set options for a selected item.

Figure Properties

Figures have the following properties:

- **Name:** The **Name** field displays the figure or actor name. Enter a new name in this field if you desire.
- **Visible:** Checking the **Visible** checkbox makes the figure visible and vice versa. Invisible objects are not included in any render calculations, and do not appear in the rendered scene.



You can animate visibility by clicking the **Animation Toggle** (key icon) next to the **Visible** checkbox. When animation is enabled, the icon appears green. When disabled, it appears clear.

- **When conforming:** These options allow you to choose which properties will automatically apply to clothing when it is conformed to a figure:
 - **Include Morphs:** When this option is checked, the conforming article will automatically adjust to fit morphs that are set in the character to which it is conformed. Note, however, that the applicable morphs must be included in the conforming article in order for this to occur. In other words, if the character has a "Big Belly" morph that is set, the conforming clothing must also have a "Big Belly" morph in order for automatic morph conforming to work properly.

- **Include scales:** When this option is checked, the conforming article will automatically adjust to fit any scaling changes that are set in the character to which it is conformed. In other words, if you have scaled the thighs and shins of your character to 90%, the thighs and shins of the conforming clothing will automatically adjust to fit that scaling.



The accuracy of auto-scaling when conforming is dependent upon proper configuration of content. If auto-scaling does not appear to be working properly for third party-content, check the documentation furnished with the content, or contact the content developer.

Body Part Actor Properties

Body part Actors have the following properties:

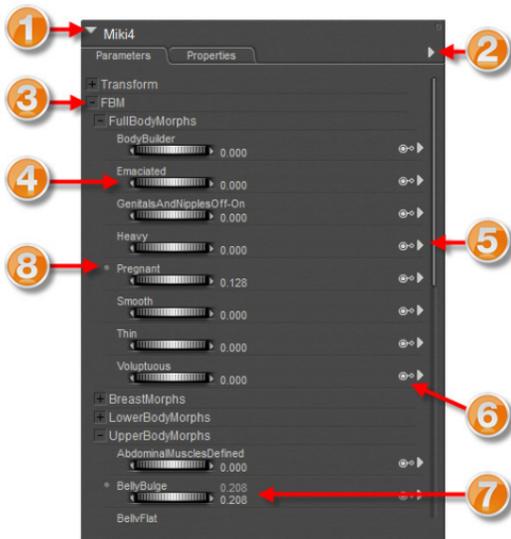


Body actor properties.

- **Internal Name:** The **Internal Name** field displays the body part's internal (hidden) name, which Poser uses to track that part. You cannot edit a body part's internal name within Poser.
- **Name:** The **Name** field displays the body part's name. Enter a new name in this field if you desire.
- **Visible:** Checking the **Visible** checkbox makes the body part visible and vice versa. Invisible objects are not included in any render calculations, and do not appear in the rendered scene. See [“Figure Properties” on page 181](#) for information on animating the **Visible** property.
- **Visible in Raytracing:** Checking the **Visible in Raytracing** checkbox makes the body part visible in raytraced reflections, such as if the figure is in front of a mirror. Clearing this checkbox makes the figure not appear in reflections. This option is used when raytracing.
- **Bend:** Checking the **Bend** checkbox enables bending for the selected body part and vice versa. Bends are discussed in [“Bend Body Parts” on page 104](#). Remember that selecting **Display > Bend Body Parts** bends all body parts and this property only affects the currently selected body part.
- **Casts Shadows:** Checking the **Casts Shadows** checkbox forces the selected body part to cast a shadow, which will be visible in your scene. Clearing this box means the selected body part casts no shadow.
- **Set Parent:** Click the **Set Parent** button to assign a parent to the currently selected prop. In the case of a figure, this button is only enabled for the active end point actor of an IK chain. If the chain is turned on, it allows you to set a parent for that endpoint actor (such as a foot), to a moving object, or to another prop or constraint.

Parameters Palette

The **Parameters** palette contains all of the parameters for the currently selected scene element:



The Parameters Palette.

The following topics discuss the **Parameters** palette in detail:

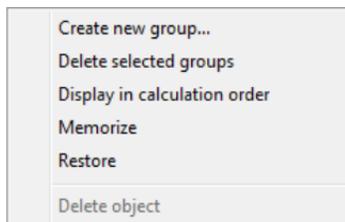
- (1) Current Actor Menu
- (2) Parameters Palette Options Menu
- (3) Parameter Dial Groups
- (4) Parameter Dials
- (5) Parameter Dial Menu
- (6) Master Parameter Indicator
- (7) Dependent Parameter, showing Natural and Driven parameter values
- (8) If a dot appears to the left of a parameter dial name, it means that the dial is set to something other than its default value.

Current Actor Menu

The **Parameters** palette's **Current Actor** pull-down menu (1) functions the same as the **Current Actor** pull-down at the bottom left of the **Document** window. Please refer to ["Select Figure/Current Actor Menus"](#) on page 69 for more information about the **Current Actor** menu.

Parameters Palette Options Menu

The **Parameters** palette options menu (2) contains the following options:



Parameters Palette Options menu.

- **Create New Group:** Selecting **Create New Group** creates a new subgroup under the currently selected group. The **Create New Group** dialog appears prompting you for a name. Enter your desired name in the field. To rename an existing group (or if you make a mistake when creating the group), double-clicking the group name in the **Parameters** palette opens a field allowing you to specify a new name.
- **Delete Selected Groups:** Selecting **Delete Selected Group** deletes the currently selected group. Parameter dials in deleted groups are moved to the next highest group or subgroup, as appropriate.
- **Display in Calculation Order:** Reorders parameter channels. Allows you to correct the initial order of physics simulation parameters in order to accommodate existing and new morphs.
 -  *If morphs are added after, they will double after simulation. You will need to reorder the channels to address this issue.*
- **Memorize:** Selecting **Memorize** memorizes the current parameter dial settings as default. Please refer to [“Memorize” on page 63](#) for more information on memorizing parameter dials.
- **Restore:** Selecting **Restore** restores the most recently memorized defaults. Please refer to [“Restore” on page 63](#) for more information about restoring saved defaults.
- **Delete Object:** Selecting **Delete Object** deletes the current object.

Parameter Dial Groups

Poser offers parameter dial grouping (3), which organizes parameters into easy to navigate categories.



Different figures may have different parameter dial groups.

Parameter dial groups have the following functionality:

- Clicking the + sign next to a collapsed group/subgroup expands that group/subgroup.
- Clicking the – sign next to an expanded group/subgroup collapses that group/subgroup.
- Double-clicking a group name allows you to rename that group.
- You can drag and drop groups to change their hierarchical relationship to each other. For example, a group could become a subgroup under another group, and vice versa.
- You can drag and drop parameter dials to different locations within the same group or across groups and subgroups to organize them as you see fit.



Parameter dial groups and subgroups are saved in your Poser scene files.

Parameter Dials

The parameter dials (4) in the **Parameters** palette let you pose a figure and adjust other attributes for figures, props, lights, camera, etc. using precise numerical increments. Each body part and most other elements in the scene have their own set of parameter dials. When an entire figure is selected, the displayed parameters affect the entire figure. To use a parameter dial, you can either click and drag it to the right to increase the selected value or left to decrease it. You can also click the displayed numeric value and manually enter your desired value using the text box that appears.

To restore a parameter dial's default (or last memorized) setting, press and hold **[OPT]/[ALT]** while clicking the desired parameter dial. To change a parameter dial's default value, set the dial to your desired value and either select **Edit > Memorize > element**, as described in [“Memorize” on page 63](#), or use the **Parameter Palette** menu as described in [“Parameters Palette Options Menu” on page 185](#).

Each parameter dial has its own **Parameter Dial** menu (5), which is accessible by clicking the arrow to the right of your desired parameter dial. The **Parameter Dial** menu has the following options:

- **Reset:** Selecting **Reset** resets the parameter dial to its default or last-memorized value.

Master Parameter Indicator

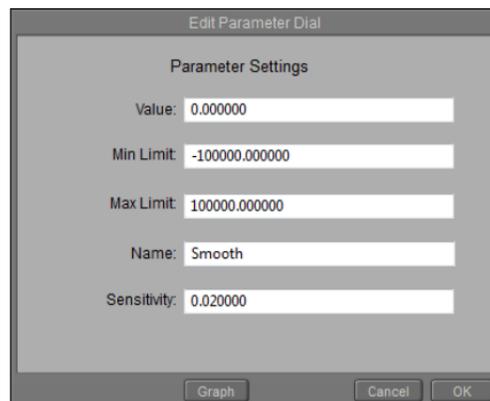
The Master Parameter indicator appears when the designated parameter dial is used to drive settings of other parameter dials. Click the Parameter Dial menu arrow to open the Dependent Parameter editing tool and the list of parameters controlled by that dial.

Dependent Parameter Dials

When a parameter is configured as a dependent parameter, two values will be displayed to the right of the parameter dial. These dials are referred to as the natural and driven parameters.

Editing Parameter Dials

You can edit parameter dials by double-clicking your selected parameter dial to open an **Edit Parameter Dial** dialog, which allows you to set the following limits:



Each parameter dial has options that you can edit.

- **Value:** The **Value** number sets the current parameter dial value.
- **Min/Max Limit:** The **Min Limit** and **Max Limit** values define the minimum and maximum limits for the

parameter, respectively. The numbers can stand for different types of values depending on the parameter you are editing. If it is a joint parameter, the value will be expressed in degrees above or below 0 (neutral). If you are adjusting a scale parameter, the number will be a percentage with 100 being normal size.

- **Name:** You can rename the parameter by entering a new name in the **Name** field.
- **Sensitivity:** The **Sensitivity** value modifies the parameter dial's sensitivity to clicking and dragging. A lower number decreases the sensitivity and vice versa.
- **Graph:** Clicking the **Graph** button opens the Graph palette for the selected element. Please refer to ["Using Graphs"](#) on page 293 for more information about the **Graph** palette.

Click **OK** when you have finished making changes.

Universal/Figure Parameters

This topic discusses both universal parameter dials and those used for figures. Parameters for cameras, lights, and other elements are discussed in their respective sections.

Chapter 9: Posing Figures

Scale Parameters

Scale parameters are found in the Transform group of the Parameters palette. Their functions are as follows:



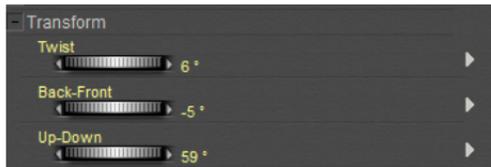
Scale Parameters.

- **Taper:** The **Taper** parameter dial tapers the selected body part/prop. This function is the same as using the **Taper** tool, described in ["Taper"](#) on page 177.
- **Scale:** The **Scale** parameter dial enlarges or shrinks the selected body part/prop in all three axes equally. This is the same as using the **Scale** tool, described in ["Scale"](#) on page 176. Normal scale is 100%.
- **XYZScale:** The **xScale**, **yScale**, and **zScale** parameter dials enlarge or shrink the selected body part/prop along the selected axis only. This allows you to squeeze

or stretch items. This is the same as using the **Scale** tool. Normal scale is 100%.

Posing Parameters

Posing parameters appear in the Transform group of the Parameters palette, and appear in yellow text. The following parameters are available for posing: Note that the options you see for each joint vary, depending on the rotation order of the joint: Each joint will have three options, one each for X, Y, and Z rotation.



Posing Parameters.

- **Twist:** The **Twist** parameter dial rotates a body part along its own axis. For example, using twist on the head and neck turns the head. This is the same as using the Twist tool, described in "Twist" on page 175.
- **Bend:** The **Bend** parameter dial rotates a body part on its major axis. Most body parts bend forward and back, except for the shoulder and hands, which bend up and down.
- **Side-to-Side:** The **Side-to-Side** parameter dial rotates a body part perpendicular to its major axis. The thigh has lots of side-to-side motion, while the knee has very little.
- **Turn:** The **Turn** parameter dial only appears for the feet in some characters, instead of the **Twist** parameter. This parameter turns the feet inward or outward.
- **Front-Back:** The **Front-Back** parameter dial is used with shoulders and collars to rotate them forward or back, perpendicular to their major axis.

Body Parameter Dials

The following parameter dials are available for entire figures. Remember to select the correct figure when working with multiple figures in a scene:



Body Parameters.

- **XYZRotate:** The **xRotate**, **yRotate**, and **zRotate** parameter dials rotate a figure around the X, Y, or Z axis as appropriate.
- **XYZTran:** the **xTran**, **yTran**, and **zTran** parameter dials move a figure along the indicated axis.

Chapter 9: Posing Figures



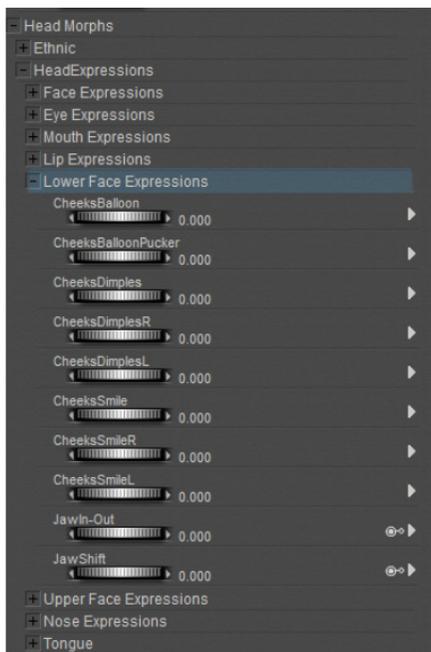
The XYZTran and other positioning dials reflect the currently selected unit of measure, which is available in the **General Preferences** dialog. For example, if a dial is set to 12 inches and you change units to feet, the dial will now read 1 foot.

Posing Faces

Poser's human figures and many third-party figures have fully articulated faces, meaning you can position facial muscles such as mouth, eyebrows, cheeks, and eyes to create different facial expressions using the **Parameter** dials and/or the **Morphing Tool** (described in "Adjusting Morphs with the Morphing Tool" on page 324).



Facial expressions work for Alyson and Ryan and their lo-res versions, even though the warning dialog will appear when applying face expressions to the lo-res figures.



Faces can be enhanced with Expression morphs.



Different Poser and third-party figures will have different body morphs. Smith Micro Software cannot provide support for third-party figures. Please contact the vendor where you obtained your third-party content for technical support.



Some older Poser figures do not have poseable faces.

When you select a head, a series of face-specific parameter dials appears in the **Parameters** palette, each dial controlling a different aspect of the face. When using face parameter dials, think of it as manipulating facial muscles to achieve the final results.

The **Face** camera uses the selected figure's face as its center of rotation, allowing you to preview your face poses up close.

Face Parameters

Face parameters normally operate in the range of 0 to 1, with 0 being fully off and 1 being fully on. Negative values (<0) produce inverted poses, and poses greater than +/- 1 give exaggerated poses. For example, a negative **Frown** parameter setting produces a slight smile. Face

parameters are morph targets that can be used in concert to create expressions.



Please refer to "Chapter 21: Modifying Figures & Props" on page 323 for

information on morph targets and how they work inside Poser.

Poser figures contain an array of facial morphs and parameters that allow you to create an endless variety of faces and expressions. The list of face parameters varies by figure, and the all parameters are self-explanatory. To view the available face parameters, select the desired figure's head and open the **Parameters** palette.

Faces & Phonemes

A phoneme is a linguistic term for the positions of the tongue, lips, and teeth as they make sounds. Producing certain sounds requires the mouth and tongue to be in certain positions. Stringing phonemes together is what produces speech.

Poser allows you to create the appearance of phonemes (called visemes when observed) to accurately simulate speech, a useful feature when adding sound to your scenes (such as a speech). You simulate speech by using different phonemes and keyframes to sync your figure's

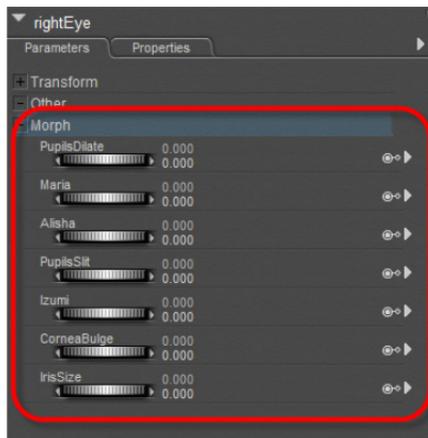
Chapter 9: Posing Figures

mouth movements to an imported sound (see "Sound" on page 309)..

Posing Eyes

To pose eyes, select them using either the **Editing** tools or the **Current Actor** pop-up menu and position them by clicking and dragging, or by using the parameter dials.

Alyson and Ryan also have additional morph dials for the eyes, which can vary the shape of the iris and pupil, or which move the eyes up, down, right, or left.



Eye morphs size or position the Eyeball, Iris, Cornea, and Pupil.

Posing Hands

Many Poser figures have fully articulated hands. When you move a finger, the appropriate knuckle(s) bend. You can pose hands for both these figures and older Poser figures without articulated hand joints by applying hand poses from the **Library** palette.

The **Left Hand** and **Right Hand** cameras use the hand as their centers of rotation, making it easier to create precise hand poses.

Use the **Editing** tools to pose hands as you would any other body part. Please refer to "The Editing Tools" on page 172 for information on using the **Editing** tools. You can also apply preset hand poses to any Poser figure using the **Hands** category in the **Library** palette, just as you would any other pose.

When you select the main portion of a hand (labeled **Left Hand** and **Right Hand** in the **Item Select** menu) on some Poser figures, you may also see a special set of hand parameter dials in the **Parameters** palette. These dials are as follows:

- **Grasp:** The **Grasp** parameter dial controls how tightly the hand/fist is clenched.
- **Thumb:** The **Thumb** parameter dial moves the thumb. Higher values move the thumb in towards the hand, and vice versa.
- **Spread:** The **Spread** parameter dial controls the amount of hand spread. Higher values spread the hand out, and vice versa.

In addition, Alyson, Ryan, Rex, and Roxie figures include several additional controls that provide extremely fine

control over hand poses. These additional options, coupled with the extra joints in their hands, provide fine enough control to pose your hands holding chopsticks or other eating utensils: These additional dials are found in the Hand Controls section in the Parameters palette when you choose the hand actor for the Alyson, Ryan, Rex, and Roxie:

- **ThumbBend:** Bends all sections of the thumb at the same time.
- **IndexBend:** Bends all sections of the index finger at the same time.
- **MiddleBend:** Bends all sections of the middle finger at the same time.
- **RingBend:** Bends all sections of the ring finger at the same time.
- **PinkyBend:** Bends all sections of the pinky at the same time.



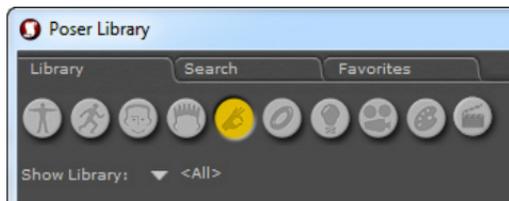
*Alyson, Ryan, Rex, and Roxie also include advanced controls in the feet, that bend the toes in a more realistic manner. Select the Right Toe or Left Toe actor, and expand the Toe Controls section in the **Parameters Palette** to find four dials: **BigToeCurl**, **BigToeSpread**, **ToesCurl**, and **ToesSpread**.*

Using the Hand Model

The **Figures > Poser Content > Additional Figures** subfolder includes disembodied hands that use the new joints found Alyson and Ryan. These hands include extra joints that allow you to create hand poses that bend in a more realistic manner. Use the **Left Hand** or **Right Hand** in this subfolder to create hand poses that are compatible with Alyson and Ryan. Then save the poses to the Hand library for future use.

Using Preset Hands

When you're done posing a hand, you can save it to the **Hands** category in the Library. Hand poses are a subset of a figure pose, meaning that figure poses include the hands but hands don't include figures.



Use Hand poses to pose a character's hand and fingers.



The Hands library folder includes various subcategories. When selecting preset hand poses for your figure(s), pay attention to the subcategory from which you choose them, as you can only apply specific hands to the corresponding figures. For example, you can only apply Poser 2 Fig. Hands to Poser 2 figures.

To use a preset hand pose:

1. Click a figure to select it.
2. Open the **Library** palette, then open the **Hands** category and your desired subcategory.

3. Double-click the pose you want to use. A dialog appears asking if you wish to apply the preset to the left or right hand. Make your selection and click **OK**.

Posing Animals

You can pose animals using the same techniques used to pose humans. Animals have their own set of IK settings, bend zones, and limits. On the Horse model, for example, moving the hip down toward the ground does not make the animal sit, unlike a human figure. **Editing** tools, parameter dials, menus, etc. all work the same with animals as they do with humans. Technically speaking, animals and human figures are identical, and Poser makes no distinction between them.



Animals do not work with the Walk Designer, which is primarily designed for two-legged (bipedal) figures. However, animals can work with the Talk Designer if the animal includes morphs that support it.



Animal figures are poseable as well, but do not work with the Walk Designer.



The stock animal figures shipping with Poser use the same limb names as humans, that is, front legs and paws are labeled Shoulder, Arm, Hand, etc. This means that animal figures will not work in the Walk Designer, which was created for use with two-legged figures. To animate an animal walking or running, you need to keyframe its strides manually.

Chapter 9: Posing Figures

Posing Animal Heads

Several animal models have fully articulated heads. For example, you can pose the dog's mouth and ears. Use the parameter dials just as you would for a human figure. The available parameter dials for a given animal's head will vary depending on the animal.

Pose Dots

You can save up to nine pose configurations using the **Memory** dots (described in "[Memory Dots](#)" on page 50). Each **Memory** dot retains all of your selected figure's pose. This feature is specific to your current scene, meaning that **Pose** dots cannot be transferred to different scenes. To save pose settings and have them accessible in any Poser scene, you need to add pose sets to the **Library** palette.



Pose Dots.

Saving Poses in the Library

All parameters are saved along with body part positions when you save a pose to the **Library** palette. To save a pose to the **Library** palette:

1. Open the **Library** palette.
2. Select the **Pose** category and your desired subcategory.
3. Follow the directions in "Adding Items to the Library" on page 150.

Other Posing and Figure Aids

The **Object** menu allows you to manipulate objects within your scene.

Lock Object

Selecting **Object > Lock Object** locks the currently selected element (body part, prop, etc.). To lock your desired actor, select it, then select **Object > Lock Object**. The currently selected actor will be locked, meaning that it will not move relative to its parent. For example, if the elbow is bent 45 degrees relative to the upper arm, it will hold that

position. Locking actors is a great way to protect your work once you've perfected a portion of your figure.

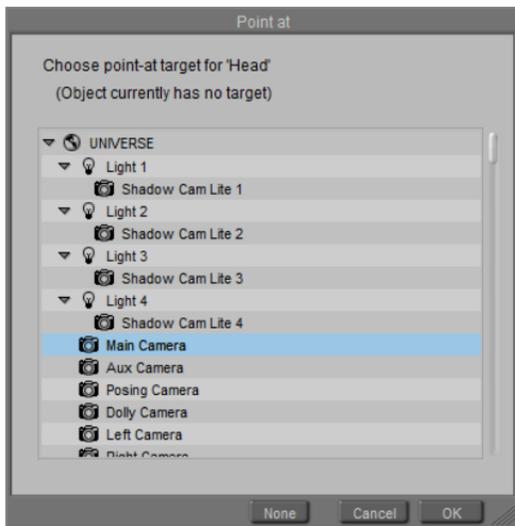
To unlock a locked actor, select it and **Object > Lock Object**. A checkbox appears next to this menu item when the selected actor is locked, and reselecting this option clears the checkbox and unlocks the actor.

Point At

You can aim body parts, cameras, props, lights, etc. at other scene elements using the **Point At** command. This works in numerous situations, such as having a figure's eyes track a moving object, keeping a camera focused on the action, etc. This is different than parenting in that no hierarchical relationship is created. One object simply points at another. By contrast, parented objects retain their exact position and orientation relative to their parent actors.

To point an actor at another actor:

1. Select the element you want to aim using the **Select Item** pop-up menu.
2. Select **Object > Point At** to open a dialog box listing the actors in the scene.



Choosing an object to point toward.

Select the object to aim at and click **OK**. The selected element points at the object and a **Point At** parameter dial appears in that element's **Parameters** palette. Selecting 1 points the element directly at its selected target, and 0 points the element away from the target.

Chapter 9: Posing Figures



When selecting only a single item from the Object Parent hierarchy window, you can simply double-click on that item to make your selection and close the window.

To disable pointing for an element:

1. Select the element.
2. Select **Object > Point At**.
3. Select **None** in the dialog that appears and click **OK**.

Figure Height

Poser provides several figure heights, which you can adjust by selecting **Figure > Figure Height** and selecting one of the eight heights available.

Note that these settings may not work with all figures. You will get the best results when using these options with legacy figures, such as figures made for Poser 4 and earlier versions. Figure heights are intended for figures that have very basic construction.

Figure heights are measured in "heads", meaning the ratio of the head height to the overall body height:

- **Baby:** 4 heads (each head is approximately 6 inches tall)
- **Toddler:** 5 heads (each head is approximately 6.5 inches tall)
- **Child:** 6 heads (each head is approximately 7 inches tall)
- **Juvenile:** 7 heads (each head is approximately 7.5 inches tall)
- **Adolescent:** 7.5 heads (each head is approximately 9 inches tall)
- **Ideal Adult:** 8 heads (each head is approximately 9 inches tall)
- **Fashion Model:** 8.5 heads (each head is approximately 9 inches tall)
- **Heroic Model:** 9 heads (each head is approximately 9 inches tall)

You can create interesting effects by applying different height settings to different figures.

Genitalia

Some male and female nude models are anatomically correct. Selecting **Figure > Genitalia** toggles displaying genitals on or off.

The Figures library includes a **Poser Content > People > Ryan > Genitals** subfolder that contains props for all four male figures (**Diego, Marcus, Ryan, and Tomo**). There are versions for the LowRes versions of these figures as well. Add the proper library item to the male figure in your scene, and then choose **Figure > Conform To** conform to the male figure. **Basic, Advanced, Shiny, and Ultimate** material collection files are found in the **Materials > Poser Content > People > Ryan > (figurename) > Genitals** subfolders.



Many female figures do not have modeled genitalia, relying instead on texture/bump/transparency maps to create the appearance of genitalia. This option only works for figures that have modeled genitalia that is set up to take advantage of this feature. To remove genitals on a female character that does not have modeled genitalia, you will need to modify the texture map. The Judy and Jessi models contain modeled genitalia, which are controllable via this function.



*Different figures use different mechanisms for dealing with genitalia, so not all figures will be affected by the **Figure > Genitalia** menu option. Some newer figures, such as the G2 male figures and Ryan, contain genitalia that is set up as a separate conforming figure.*

Auto Balance

The **Auto Balance** feature is a valuable tool for helping create realistic poses. When enabled, Poser calculates a figure's mathematical "weight" and maintains it. In the following example, there is more weight in the figure's hip or center portion than in the torso. As you pose a figure, **Auto Balance** adjusts body parts to maintain the original weight distribution, resulting in more natural-looking poses without having to use several position adjustments. To further affect the weight distribution and compensation calculations, you can reposition the **Center of Mass Control Object** (the outlined ball) at the base of the figure. This control object is adjustable along the X and Z axes in the ground plane. Moving the **Center of Mass Control Object** also adjusts the **Center of Mass Indicator**, which appears as a shaded sphere in the XZ (ground) plane under the figure. This **Indicator** shows the position above which the current

center of mass is located, as calculated from the body part weights and the position of the **Control Object**.



Using Auto Balancing.

When using **Auto Balance**, use small subtle motions to achieve the best results. Large motions may create drastic results. If this occurs, restore the figure as described in

["Restore"](#) on page 63. You may also want to select **Figure > Use Limits** while working with the **Auto Balance** feature, to help maintain realistic body positioning.

Selecting **Figure > Auto Balance** toggles Auto Balance on and off for the selected figure. When enabled, the Center of Mass controls will be visible at the figure's base. A check mark appears next to this option in the menu when it's enabled. Reselecting this option clears the check mark and disables Auto Balance for the selected figure.

Lock Figure

Selecting **Figure > Lock Figure** locks the figure in its current position. You cannot pose or move a locked figure. This is a great way of protecting your work in complex scenes where you have finished posing a figure and don't want it to move accidentally. A check mark appears next to this option when the currently selected figure is locked. Reselecting this option removes the check mark and unlocks the figure.

Lock Hand Parts

Selecting **Figure > Lock Hand Parts** locks the selected hand in position, protecting it against accidental position

changes while you pose the rest of your figure. To use this option:

1. Select the hand to lock.
2. Select **Figure > Lock Hand Parts**. The hand is now locked. This command is not available for all Poser figures.

Please refer to ["Posing Hands"](#) on page 193 for information on posing hands.

Drop to Floor

You can place a figure in any position, such as in the middle of a flying leap. You can leave your figure in the air, or you can lower it to the ground depending on your needs. Selecting **Figure > Drop to Floor** brings the lowest part of the selected figure or prop into contact with the workspace floor. To display the floor, refer to ["Ground Plane"](#) on page 106.

Symmetry

The **Symmetry** command allows you to copy pose characteristics from one side of the body to another, which can save you time when creating scenes in the **Pose** room or when building custom figures using the **Setup**

room. Pose an arm and/or leg, and use this command to instantly apply the same position to the other side. You can also swap entire poses from side to side and straighten the currently selected figure's torso.



Start pose (left); Right to Left (center); Swap Right and Left (right).

Selecting **Figure > Symmetry** opens the **Symmetry** menu, which contains the following options for your currently selected figure:

- **Left to Right:** Selecting **Left to Right** applies the position of the bones on the left side of the figure to the right side.
- **Right to Left:** Selecting **Right to Left** applies the position of the bones on the right side of the figure to the left side.

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- **Swap Right and Left:** Selecting **Swap Right and Left** swaps the positions of the bones on the right and left sides of the figure.
- **Left Arm to Right Arm:** Selecting **Left Arm to Right Arm** positions the right arm bones in the same position as the left arm.
- **Right Arm to Left Arm:** Selecting **Right Arm to Left Arm** positions the left arm bones in the same position as the right arm.
- **Swap Right and Left Arms:** Selecting **Swap Right and Left Arms** swaps the positions of the bones on the right and left arms of the figure.
- **Left Leg to Right Leg:** Selecting **Left Leg to Right Leg** positions the right leg bones in the same position as the left leg.
- **Right Leg to Left Leg:** Selecting **Right Leg to Left Leg** positions the left leg bones in the same position as the right leg.
- **Swap Right and Left Legs:** Selecting **Swap Right and Left Legs** swaps the positions of the bones on the right and left legs of the figure.

- **Straighten Torso:** Selecting **Straighten Torso** straightens the torso area (Hip, Abdomen, Chest).

When you select a Symmetry function, a dialog box appears asking if you wish to copy the joint zone setup as well. Click **Yes** to apply the symmetry to the bone structure, or **No** to avoid copying the joint setup.



Symmetry also copies element settings (morph targets, deformers, parameters, etc.) from one side to the other. For example, if you scale the Left Hand to 200% and apply Left to Right symmetry, the other hand will scale as well. Do not use this command if you want to use asymmetrical settings.

Delete Figure

Selecting **Figure > Delete Figure** deletes the currently selected figure. A confirmation dialog appears. Click **OK** to proceed with the deletion or **Cancel** to abort. Windows users can also delete a figure by selecting it and pressing [DEL].

If your figure is wearing conforming clothing or has other attached figures, you can check the **Delete attached figures** option to delete them in addition to the figure that you are deleting.

Hide Figure

Selecting **Figure > Hide Figure** hides the currently selected figure if you have more than one figure in your scene. This is helpful when you work with complex scenes, especially where a figure is getting in your way. You can also hide a figure by selecting the figure to hide by selecting **Body** using the **Select Element** pull-down menu and clearing the **Visible** checkbox in the **Properties** palette as described in “[Properties](#)” on page 181.



Collision detection settings do not apply to hidden objects.

Show All Figures

Selecting **Figure > Show All Figures** makes all hidden figures in your scene visible. You can also make hidden figures visible by selecting them and checking the **Visible** checkbox in the **Properties** palette. If one or more body parts are set to invisible, these will remain invisible when the selected figure is shown.

Chapter 10: Working with Props

Poser lets you add props to your scene. Props are three-dimensional objects that your figures can interact with or that simply add interest to your scene. Props can be accessories to add to your figure's character such as a wig, a moustache, a pair of sunglasses, a cigar, or a briefcase. Or, your figure could base its pose on a prop, such as leaning on a cane, climbing a ladder, or tossing a ball. This chapter covers hair, conforming (figure-based) clothing, and miscellaneous props not fitting into these categories. Poser treats conforming clothing items like figures, however we will treat conforming clothing as props in this chapter for the sake of discussion.

About Props

You can manipulate props just as you would any other element, which is why you see the term body part/prop used throughout this manual. You can change a prop's color, shape, deformation, material, and maps. Props can even cast shadows.

Chapter 10: Working with Props

Poser's replaceable geometry feature (see "[Replacing a Body Part with a Prop](#)" on page 210) lets you replace body parts with props, making the prop actually part of the figure. You can also parent a prop to a body part or another prop or scene element, such as a briefcase in a hand. Props also add general interest and meaning to your scenes, such as a mushroom for a frog to perch on.



Props add interest to your scene.

You can select props from the Props category in the **Library** palette, the **Content** room, or import props in a variety of popular 3D formats. You can also create your own props in your favorite 3D modeling application

(provided that application exports to one or more formats supported by Poser's **Import** function).

Props function like other scene elements, meaning you can use the **Editing** tools and parameter dials and can specify properties in the **Properties** palette.

Prop-based Hair

Prop-based hair is a special kind of prop that automatically attaches itself to a figure's head. You can choose from a number of styles in the **Library** palette (see "The Hair Category" on page 139). Once assigned, hair moves with the figure's head. Some newer hair models that come with Poser are morphable, as are many third-party hair props. It is common to use Transparency Maps to improve the look of prop-based hair.



Prop-based hair automatically attaches to a figure's head, and is geometry-based.

To add hair to a figure from the **Library** palette, please refer to "Adding Hair to a Figure" on page 140. Hair includes parameter dials in the **Parameters** palette (see "Prop Parameters" on page 209), allowing you to specify its scale and position. Some hair also includes morph parameter dials that allow you to, for example, swing a ponytail as a character walks. The **Library** palette also contains a pose-able hair model, which contains elements

just like a figure. You can edit and pose these elements just as you would any Poser figure.

To use the conforming hair model:

1. Add the **James** figure from the **Figures > Poser Content > People > James** category of the **Library** palette.
2. Select and add the **Messy Hair** model from the **Hair > Poser Content > People > James Hair** category in the **Library** palette.
3. Set the head as the parent for the hair as described in [“Changing a Parent” on page 212](#).

Clothing

Conforming Clothing

In addition to cloth objects, Poser includes libraries of figure-based clothing that you can use on nude figures, which are located in the **Figures** category of the **Library** palette and includes shirts, pants, shoes, dresses, skirts, etc. Conforming clothing attaches to a figure and automatically moves with the figure's poses. See [“Adding Conforming Clothing: Automatic Conforming” on page 131](#) and [“Adding Conforming Clothing: Manual](#)

[Conforming” on page 132](#) for more information on using automatic and manual conforming methods to attach clothing to your figures.



Clothing before conforming.



Clothing after conforming.

Adding & Importing Props

There are several ways to bring props into Poser. Props can be added to the document window from the Props library, or you can also import props from other 3D applications.

The Props Library

You can add props from the **Library** palette's **Props** category as described in "Adding Hair to a Figure" on page 140.

Using 3D Objects as Props

You can import 3D objects created in other 3D applications to use as props. Poser's **Import** functionality is described in "Importing Files" on page 329.

Poser places props in the workspace with your specified origin point. If you do not specify an origin point, the prop will appear in the center of the workspace. If you import a prop and can't see it, the prop may be too large and/or your currently selected camera may be zoomed in too close to see it. Try zooming out and/or switching cameras. You will probably have to scale and translate props to get them where you want them in your scene, using either the **Editing** tools or the prop's **Parameter** dials.

Moving, Resizing, and Deforming Props

You can move, resize, and deform props using the **Editing** tools, the **Properties** palette, and/or the **Parameters** palette.

Deleting Props

To delete a prop, select the prop you wish to delete and either select **Object > Delete Object** or press [DEL].

The Prop Origin

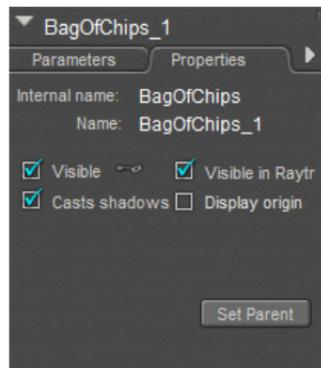
A prop's origin appears in the **Document** window as 3D crosshairs. This is the center of that prop's rotation and scale. When you rotate a prop, it rotates about its origin. It grows or shrinks from the origin point when scaled. You can display a prop's origin by selecting the desired prop and checking the **Display Origin** checkbox in the **Properties** palette.

You can move a prop's origin using the **originXYZ** parameter dials. Moving the origin alters the prop's rotation and scale points. When adjusting the origin parameters, remember that you are making these

adjustments based on the prop's original origin location, not its current position.

Prop Properties

Props have the following properties:



Prop properties.

- **Internal Name:** The **Internal Name** field displays the prop's internal (hidden) name, which Poser uses to track that part. You cannot edit a prop's internal name within Poser.

- **Name:** The **Name** field displays the prop name. Enter a new name in this field if you desire.
- **Visible:** Checking the **Visible** checkbox makes the prop visible and vice versa. Invisible props are not included in any render calculations, and do not appear in the rendered scene. See [“Figure Properties” on page 181](#) for information on animating the **Visible** property.
- **Visible in Raytracing:** Checking the **Visible in Raytracing** checkbox makes the prop visible in raytraced reflections, such as if the figure is in front of a mirror. Clearing this checkbox makes the figure not appear in reflections.
- **Casts Shadows:** Checking the **Casts Shadows** checkbox forces the selected prop to cast a shadow, which will be visible in your scene. Clearing this box means the selected body part casts no shadow.
- **Set Parent:** Clicking the **Set Parent** button allows you to make the prop a child of another element in your scene. Please refer to [“Changing a Parent” on page 212](#) for information on setting prop parents.
- **Display Origin:** Checking the **Display Origin** checkbox displays the prop's origin. Please refer to [“The Prop](#)

[Origin” on page 208](#) for more information about prop origins.

Prop Parameters

Props have the following parameters:

- **Scale:** The **Scale** parameter dial increases or decreases the size of the prop in all axes.
- **XYZScale:** The **xScale**, **yScale**, and **zScale** parameter dials increase or decrease the size of the prop in the selected axis.
- **XYZRotate:** The **xRotate**, **yRotate**, and **zRotate** parameter dials rotate the prop around the selected axis.
- **XYZTran:** The **xTran**, **yTran**, and **zTran** parameter dials move the prop along the selected axis.



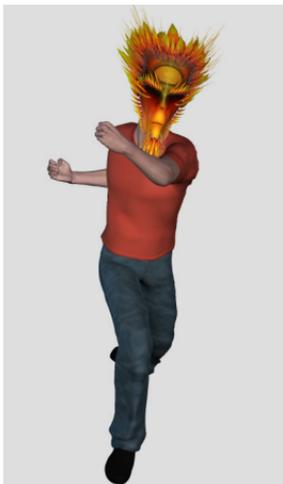
Prop parameters.

Replacing a Body Part with a Prop

Poser lets you replace a body part with a prop, such as a hook on a pirate's hand or a mask for a man's head. This example was created by importing a model of a mask, then replacing the figure's head with that mask.



You should replace body parts with props before posing figures to make positioning and aligning easier.



A mask prop replaces the figure's head.

To replace a body part with a prop:

1. Add or import the desired prop.
2. Position and deform the prop as desired using the **Editing** tools, deformers, and/or parameter dials. Be sure that the prop's position overlaps the body a little (in most cases) to avoid a "break" where the body

meets the prop. You might also want to make the body part being replaced invisible using the **Properties** palette as described in "Properties" on page 181.

3. Select **Object > Replace Body Part with Prop** to open the **Replace Part** dialog.
4. Choose the prop to swap using the **Prop** pull-down menu and click **OK**. The prop assumes the name of the body part being replaced.

If the replaced body part doesn't look right, try disabling bending by selecting the replaced body part and clearing the **Bend** checkbox in the **Properties** palette.



Props turned into body parts retain their current positions relative to the figure that they had prior to being converted. Be sure to place props in their desired locations before turning them into body parts.

Changing Figures with Replaced Geometry

If you try to change a figure that has a prop for a body part using the **Change** function in the **Library** palette,

a warning will appear asking if you want to keep the replaced geometry on the new figure replacing the old.

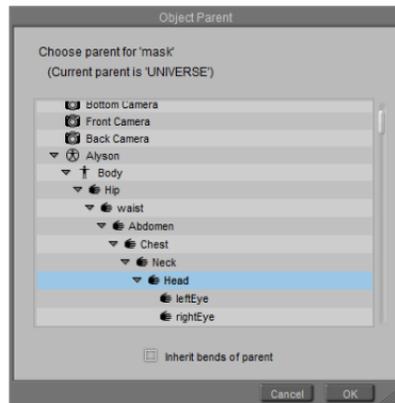
- To keep the props that have replaced body parts, check the **Keep modified geometries** button. To keep the props attached to their parents on the new figure, check the **Keeps props attached to figure** checkbox. Click **OK** when ready.
- To undo a geometry change and restore a figure's default geometry, simply reload the original figure from the **Library** palette.

Set Figure Parent

You can attach props to body parts, body parts to each other, figures to props, figures to figures, cameras to body parts- the list goes on and on. Setting a parent creates a hierarchical relationship. You can parent entire figures to various other scene elements. To set a parent for a figure:

1. Select the figure you wish to parent (make the child of another object).
2. Select **Figure > Set Figure Parent** to open the **Object Parent** dialog.

3. Select the desired parent object and click **OK**. To parent props, camera, etc., select **Object > Change Parent** as described in "Changing a Parent" on page 212.



Choosing a parent for an object.

Changing a Parent

You can attach props to body parts, body parts to each other, figures to props, figures to figures, cameras to

body parts, etc. Setting a parent creates a hierarchical relationship, as described in "Poser File Types" on page 355. You can even control whether parented props bend along with their parent body part. Some items like sunglasses, etc. should not bend. However, other items such as elbow pads on a roller blader should bend with the parent. You should change parent props before posing your figures, since it may be harder to align props with figures once the figures have been posed (such as a sword in a warrior's hand).

Here's an example of a ball parented to a figure's right hand.



A ball follows a figure's hand when it is parented to the hand.

You could also parent a chair to a figure's hip and make the chair inherit the figure's bend.



When selecting only a single item from the Object Parent hierarchy window, you can simply double-click on that item to make your selection and close the window.



While IK is set "on" for a figure, you can use the Change Parent command on a body part actor to parent it to something else (such as another figure body part or prop).

In the preceding examples, we parented the ball to the figure's right hand and the chair to the figure's hip. To set parents for an entire figure, select **Figure > Set Figure Parent** as described in "Set Figure Parent" on page 212.

Deleting Objects

Selecting **Object > Delete Object** deletes the currently selected prop. A confirmation dialog appears. Click **OK** to delete the prop, **Cancel** to abort.

Chapter 11: Cameras

This section describes how Poser's cameras work. As indicated previously, cameras aim at the Poser workspace from different vantage points. Switching cameras allows you to view your scene from up to four of these vantage points at once.

Camera View

Selecting **Display > Camera View** allows you to select one of the cameras available in your scene.

Show Camera Names

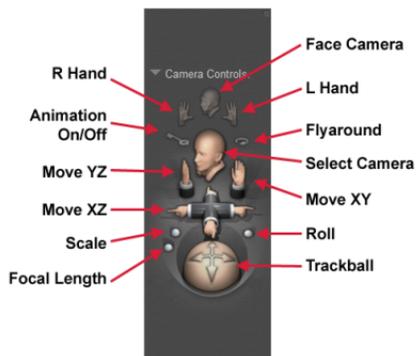
Selecting **Display > Show Camera Names** displays the name of the currently selected camera in the top left corner of the **Document** window's scene preview area. Clicking this option again disables this feature.

The Camera Controls

The **Camera** controls allow you to quickly select and position cameras. Used in conjunction with the available

Document window layouts, they allow you to quickly navigate your scene and/or set up final shots for still or animated output. Remember that every view you see of your scene inside the **Document** window is done using one or more cameras. You can move cameras in any direction, however positioning them can be a time-consuming process. Having multiple cameras allows you to use preset camera positions to quickly navigate your scene, while the ability to position cameras allows you to create custom still or moving shots for use either while working on your scene or during rendering.

The **Camera** controls appear as follows in the Poser workspace.



Camera Controls.

In addition, the **Mini Camera** controls appear on the top of the **Document** window, allowing you to navigate your scene without having to have the full **Camera** controls visible (such as when you are using the **Material** room).



Mini Camera Controls.

The **Animation On/Off** control allows you to enable or disable automatic keyframe generation when you move or change rotation of a camera. The **Flyaround** camera view provides an animated view of your scene as a camera rotates around it while pointed at the center origin.

The **Mini Camera** controls consist of (from left to right) the **Trackball**, **Move XY**, and **Move XZ** controls. These function identically to their counterparts in the main **Camera** controls and are therefore detailed in this chapter.

The available 3D cameras are: **Main**, **Auxiliary**, **Posing**, **Face**, **Left Hand**, **Right Hand**, and **Dolly**. The available orthographic (2D) cameras are: **Left**, **Right**, **Top**, **Bottom**, **Front**, and **Back**. When you render stills or animations, the rendering takes place using the currently selected camera. Please refer to "[Part 4: Rendering](#)" on page 262 for more information on rendering. Each camera is discussed above.

The Main, Auxiliary, and Posing Cameras

The **Main**, **Auxiliary**, and **Posing** cameras are revolving cameras, which means they rotate about the center of the Poser workspace. By default, figures and props are

placed at the center of the workspace. Moving figures/props does not alter these camera's positions. The **Auxiliary** camera provides a secondary camera for your use, such as when you are deciding which shot to render and want to explore possibilities without affecting your previous camera positioning/animation work

The **Posing** camera is similar to the **Main** and **Auxiliary** Cameras except that it rotates about the currently selected figure, not the workspace. If you select another figure, the **Posing** camera moves to that figure/prop.


Main
Auxiliary
Posing

Main, Auxiliary, and Posing cameras as displayed in the Camera Controls.

The Face Camera

The **Face** camera provides a close-up of the currently selected figure's face, allowing you to precisely adjust

facial expressions and see your results in detail. This camera rotates around the currently selected figure's face and moves if you select another figure. This camera also works with animal figures. To switch to the **Face** camera, select your desired figure and click the **Face Camera** control.


Face

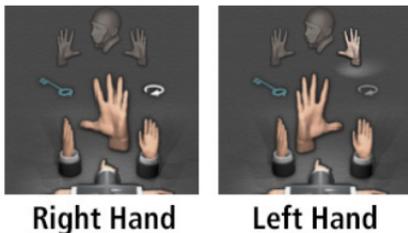
The Face camera displayed in the Camera Controls.



For the Face camera to work properly, be sure your figures' heads are all named "Head". This is not an issue for figures that were included with Poser but could be an issue for third-party content and custom figures you create yourself.

Left and Right Hand Cameras

Like the **Face** camera, you can zoom in on the left or right hand of the currently selected figure to fine-tune gestures and other hand positions. Hand cameras also focus on the currently selected figure. If the figure is an animal, the Hand cameras will focus on the feet/paws/claws as appropriate. To switch to a hand camera, click the **Left hand** or **Right Hand** icon as appropriate.



Left and Right Hand cameras as shown in the Camera Controls.



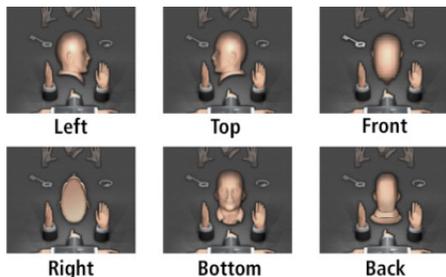
For the hand cameras to work properly, be sure your figures' hands are all named "Left Hand" and "Right Hand". This is not an issue for figures that were included with Poser but could be an issue for third-party content and custom figures you create yourself.

The Dolly Camera

The **Dolly** camera rotates about its own center independently of scene contents, meaning it can move around and between elements in the scene. If you want to emulate a motion picture camera, the **Dolly** camera is your best choice.

Orthographic Cameras

The **Left**, **Right**, **Top**, **Bottom**, **Front**, and **Back** cameras are orthographic cameras, meaning that they produce orthographic projections. Orthographic projections makes objects appear flat (2D), without the perspective of 3D views. Orthographic cameras cannot be rotated, since they are permanently aligned to the X, Y, and Z axes in the Poser workspace. Because of this, they make excellent



references for viewing your scene. *Orthographic cameras as shown in the Camera controls.*

Shadow Light Cameras

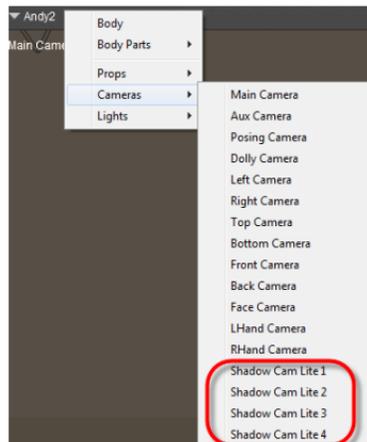
Shadow light cameras are very useful for aiming lights and creating their shadows. Each light in your scene has one **Shadow Light** camera. Each shadow camera shares both XYZ location and aim direction with its assigned light. Poser uses these cameras to calculate shadows cast by the objects in each light's path. Positioning these cameras and/or adjusting their parameters/properties can affect how shadows appear in your rendered scenes. You can select these cameras using the **Select Actor** pull-down menu. Shadow cameras have a reduced set

Chapter 11: Cameras

of properties/parameters (see “[Camera Properties & Parameters](#)” on page 223 for more information).



If you see poor depth map shadows in a portrait shot, or if you see warping or flickering shadows in animation, you can tweak the shadow cams to adjust the field of view to the parts of the scene that really matter.



Shadow Light cameras displayed in the Select Actor drop down menu.

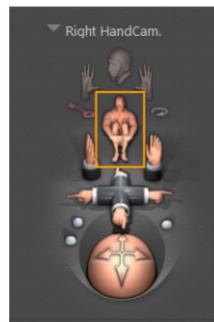
Changing Cameras

To change a camera, use any of the following methods:

- Right-click the camera label in any **Document** window pane and choose one of the options in the **Camera View** submenu.
- Click the **Face**, **Left Hand**, or **Right Hand** icon in the **Camera** controls (see "The Camera Controls" on page 214).
- Click the **Select Camera** control in the **Camera** controls (see "Select Camera Control" on page 219).
- Select **Display > Camera View** using the Menu Bar, then selecting your desired camera in the **Cameras** pull-down menu.

Select Camera Control

Clicking and dragging the cursor over the **Select Camera** control cycles through the available camera views and changes the **Document** window or currently active view pane to the newly selected camera.

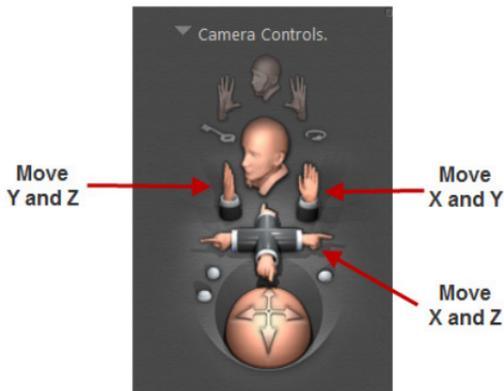


The Select Camera control.

Just above the main **Select Camera** control are three shortcut buttons for specific cameras. You can replace an existing camera shortcut with your currently selected camera by pressing **[OPT]/[ALT]** while clicking one of the **Select Camera** shortcut buttons. A shortcut for your currently selected camera will replace the previously existing camera shortcut.

Flyaround View

The **Flyaround** view places the currently selected camera on a virtual track above and away from the center of



Camera Plane controls.

Rotation Trackball

The **Rotation** trackball tilts and spins the currently selected camera about all three axes. The **Main**, **Auxiliary**, **Posing**, and **Dolly** cameras rotate about the center of the Poser workspace. The **Posing** camera rotates around the currently selected figure. The **Face** and **Hand** cameras rotate about the respective actors (body parts) of the

selected figure. You can also use the **Rotation** trackball by pressing **[OPT]/[ALT]** and dragging the cursor around the workspace using the **Document** window.



The Rotation Trackball.

Scale Control

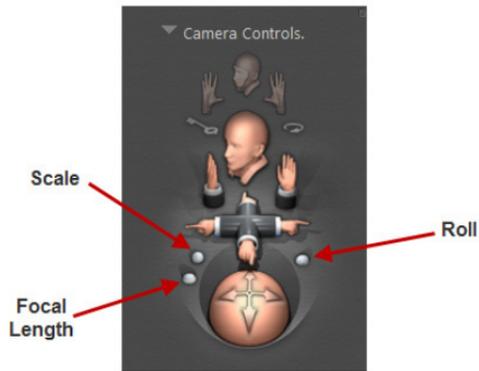
The **Scale Camera** control works like a zoom lens. Click the control and drag right to zoom towards the camera's aim point (workspace, figure, or actor, depending on the camera). Clicking and dragging left zooms out, and vice versa.

Focal Length Control

The **Focal Length** control increases or decreases the selected camera's focal length. Clicking the control and dragging right increases the focal length, while clicking and dragging to the left reduces the focal length. You can also adjust the camera's **Focal Length** parameter in the **Parameters** palette.

Roll Control

The **Roll Camera** control banks the camera to the left or right, tilting your view of the Poser workspace. Click the control and drag left or right to tilt the camera in the indicated direction.



Scale, Roll, and Focal Length camera controls.

Creating Cameras

You can create new revolving or dolly cameras using the **Object > Create Camera** menu option.

You can specify the type of camera you wish to create by selecting either Revolving or Dolly from the **Create Camera** sub-menu. A revolving camera rotates about the center of the Poser workspace, regardless of the position of objects within the scene. A dolly camera rotates about its own center, and can move around and between elements in the scene.

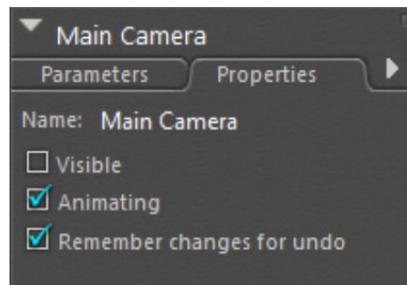
Camera Properties & Parameters

When you select a camera, its properties and parameters will appear in the **Properties** and **Parameters** palettes, respectively. To access a camera's properties and parameters in the appropriate palette when you do not currently have a camera selected, you can:

- Click your desired camera object if it is visible in the **Document** window.
- Use the **Current Actor pull-down** menu.

Camera Properties

Cameras have the following properties, available in the **Properties** palette.



Camera Properties.

- **Name:** The **Name** field displays the camera name. Enter a new name in this field if you desire.
- **Visible:** Checking the **Visible** checkbox makes the camera visible in the **Document** window, and vice versa. Invisible objects are not included in any render calculations, and do not appear in the rendered scene. See ["Figure Properties" on page 181](#) or information on animating the **Visible** property. When

cameras are visible, you can right-click to display a context menu as described in ["Cameras Context Menu" on page 79](#).

- **Animating:** Check the **Animating** box to have the selected camera's movements recorded as keyframes in your animation, or clear it to disable this feature. With this feature disabled, you can still move the camera but its movements will not be recorded as keyframes in your animation. Camera animation allows camera movements to appear as part of rendered movies, allowing for such techniques as follow shots, flyaround views, etc. Please refer to ["Chapter 19: Animating with Poser" on page 283](#) for more information on creating animations. To enable/disable camera animation, open the **Properties** palette.

When a camera is animated, your view of your scene changes over time, which can add realism and interest to your animation. Watch a movie and notice how often the camera moves. You can animate Poser cameras just like any other 3D object using keyframes and tween frames. Different cameras will animate differently, since they have differing centers of motion.

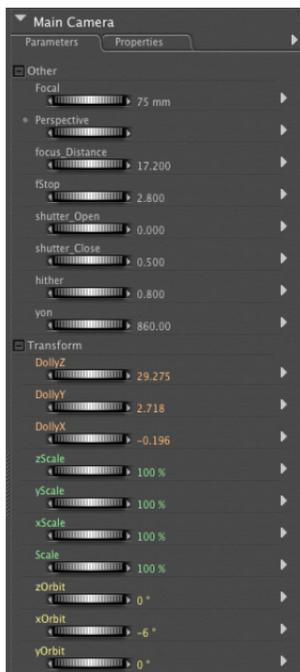


You can only use one camera per animation; you cannot switch cameras in mid animation. To do this, create separate clips then edit them together using video editing software.

- **Remember changes for Undo:** Checking the **Remember changes for Undo** checkbox specifies that any camera changes will be included in the Undo/Redo cache. Unchecking this checkbox means that the Undo feature will not apply to camera changes.

Camera Parameters

Like all parameter dials, clicking and dragging a dial to the right increases its value, and clicking and dragging to the left decreases its value. You can also click your desired parameter's numeric value to open a text field allowing you to directly type your desired value.



Camera Parameters.

Other Parameters

The **Other Parameters** section contains a variety of parameters to control the behavior of the selected camera. These parameters are as follows:

- **Focal:** The **Focal** parameter dial sets the camera's focal length. Smaller numbers give wider angles and will add more stretching and distortion as they decrease. Larger numbers give results like telephoto lenses, and result in less distorted but flatter images.
- **Perspective:** The **Perspective** parameter shifts the current camera's perspective without changing the camera's location. This can give the illusion that the camera is farther or nearer to objects in your scene. The Perspective setting is hidden, because it is interconnected with the Focal setting. If you adjust the Perspective dial, you will see a change in the Focal setting.
- **F-Stop:** The **F-Stop** number represents a lens aperture size. The larger the number, the smaller the aperture opening. Each number is multiplied by a factor of approximately 1.4 as the scale rises, giving standard values of 1.0, 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22, 32, etc. Each change either doubles or halves the amount of light transmitted by the lens to the film plane. Basically,

f-stop is calculated from the focal length of the camera lens divided by the diameter of the bundle of light rays entering the lens and passing through the aperture in the iris diaphragm. On a physical camera, this represents the lens focal length (see next bullet) divided by the f-stop value to determine the actual aperture size. The F-Stop setting affects the depth of field in Poser, just as it would in a real camera lens. Smaller F-stops increase depth of field and narrow the point of focus. Focus on the subject, and then enter the desired value in the **F-Stop** field.

- **Shutter Open:** The **Shutter Open** value represents the shutter opening time in fractions of a frame, where 0.0 is the beginning of the frame and 1.0 is the end of the frame. Unlike a real camera shutter, this one opens and closes instantly with zero elapsed time. Regular camera shutters, while extremely fast, require a small time interval to travel between the closed and open positions.
- **Shutter Close:** The **Shutter Close** value represents the shutter closing time in fractions of a frame, where 0.0 is the beginning of the frame and 1.0 is the end of the frame. Unlike a real camera shutter, this one opens and closes instantly with zero elapsed time. Regular camera shutters, while extremely fast, require a small time interval to travel between the closed and open

positions. For example, setting a beginning time of 0.0 and an ending time of 0.5 means the shutter would be open for the first half of a frame.



*The **Shutter Open** and **Shutter Close** settings only result in a visible effect when 3D Motion Blur is activated in the **Render Settings** dialog. As the amount of time between **Shutter Open** and **Shutter Close** increases, the motion blur effect increases.*

- **Hither:** The **Hither** parameter controls the distance of the **clipping plane**. Objects (or portions thereof) closer to the camera than the hither distance will not appear in your view plane.
- **Yon:** The **Yon** parameter sets the farther range of the **clipping plane**. Objects (or portions thereof) farther from the camera than the yon distance will not appear in your view plane. The **Yon** parameter is only applicable with OpenGL hardware rendering.

Transform Parameters

When a camera is selected, you can use the parameter dials on the **Parameters** palette to precisely adjust that camera's position. The **Dolly**, **Posing**, **Face**, and **Hand**

cameras have the standard 3D **Pitch**, **Yaw**, and **Roll** parameters, while the **Main** and **Auxiliary** cameras have **xOrbit**, **yOrbit**, and **zOrbit** parameters. These parameters are measured in degrees.

XYZ Dolly

The **Dolly** parameter dials move the selected camera along the desired axis without altering its orientation, just like a movie camera on a dolly cart, as shown below.

- **DollyX:** The **DollyX** parameter moves the camera laterally. Increasing this value moves the camera to the right.
- **DollyY:** The **DollyY** parameter moves the camera vertically. Increasing this value moves the camera up.
- **DollyZ:** the **DollyZ** parameter moves the camera in and out. Increasing this value moves the camera in and out.

XYZ Scale

As mentioned above, camera scale functions like a zoom lens. The **Scale** control zooms the camera equally in all three axes. Using the parameter dials, however, you can scale in any amount using any combination of axes to create distorted effects. While this might give the same

appearance as distorting the figures/props in your scene, scaling cameras only affects the selected camera; items in your scene are not affected. Decreasing scale values zooms in along the selected axis, and vice versa.

- **xScale:** The **xScale** parameter changes the camera's horizontal scale.
- **yScale:** The **yScale** parameter changes the camera's vertical scale.
- **zScale:** The **zScale** parameter changes the camera's depth scale.
- **Scale:** The **Scale** parameter dial changes the selected camera's scale equally along all three axes and functions in the same manner as the **Scale** camera control. If you have already selected unequal scales using the individual axis controls, the **Scale** dial/control preserves your previously selected ratios.

XYZ Orbit

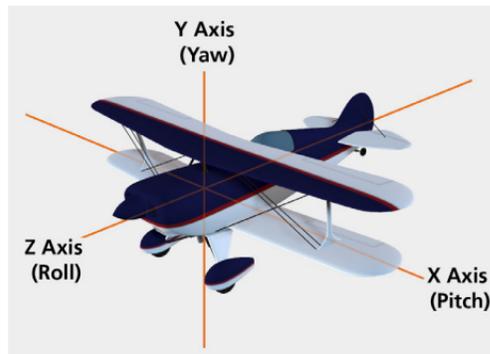
The **Orbit** parameters orbit the selected camera around the indicated Poser workspace axis. It helps to think of the selected axis as the center of a wheel with the camera being at the edge. The camera maintains its distance from the axis and remains pointing in the same direction relative to its starting point. Setting positive degrees of rotation in

the **Orbit** parameter dials orbits the selected camera in a counterclockwise direction around the selected axis, and vice versa.

- **xOrbit:** The **xOrbit** parameter orbits the selected camera using the Poser workspace's X axis as the center of rotation.
- **yOrbit:** The **yOrbit** parameter orbits the selected camera using the Poser workspace's Y axis as the center of rotation.
- **zOrbit:** The **zOrbit** parameter orbits the selected camera using the Poser workspace's Z axis as the center of rotation.

Pitch, Roll, Yaw

These parameters rotate the **Dolly**, **Posing**, **Face**, and **Hand** cameras about their own axes. To illustrate this, let's use the example of a small plane with its X, Y, and Z axes labeled.



Pitch (Up or Down); Roll (Tilt); Yaw (Turn).

- **Pitch:** The **Pitch** parameter rotates the selected camera about its own X axis (up/down). A positive number pitches the camera up (the scene appears to pitch down), and vice versa.
- **Roll:** the **Roll** parameter rotates the selected camera about its own Z axis (tip left/tip right). A positive number rolls the camera to the left (the scene appears to rotate to the right), and vice versa.

- **Yaw:** The **Yaw** parameter rotates the selected camera about its own Y axis (rotate left/rotate right). A positive number yaws the camera to the left (scene appears to yaw to the right), and vice versa.

Pointing Cameras at Scene Objects

To point your camera at another scene object:

1. Select your desired camera using the **Current Actor** pop-up.
2. Select **Object > Point At** to open the **Choose Actor** dialog.
3. Choose your desired scene object in the list of actors (the camera can point at anything) and click **OK**.

The camera will point at the selected object and a **Point At** parameter dial will appear in the Parameters palette for that camera. Setting this parameter to 1 locks the camera on target, and 0 completely disables pointing. Intermediate values cause the camera to lag behind the object it's pointing at. This parameter allows you to create interesting effects when creating animations.

Disabling Camera Pointing

To disable camera pointing:

1. Select your desired camera using the **Current Actor** pop-up.
2. Select **Object > Point At** to open the **Choose Actor** dialog.
3. Choose **None** in the list of actors (the camera can point at anything) and click **OK**.

Locking Cameras

Once you have positioned a camera to your liking, you can lock it to prevent it from being moved. To lock a camera, select it as described above, then select **Object > Lock Object**. Selecting this option again toggles locking off.

Camera Dots

You can save up to nine camera configurations using the **Memory** dots (described in "[Memory Dots](#)" on page 50). Each **Memory** dot retains the settings for all cameras in your scene. All **Memory** dots are saved with the application, so your saved camera configurations will be

accessible in any Poser document loaded. You can also save camera settings to the **Library** palette as described below, which would allow you to use your **Memory** dots for other settings.

Saving Camera Sets

The **Cameras** category in the **Library** palette allows you to save camera positions and access them using a few mouse clicks. Camera positions are saved relative to the Poser workspace, not figures or other scene items. Saving camera sets saves all cameras; you cannot save one camera. As with any other **Library** palette category, you can add subcategories to the **Cameras** categories. Please refer to [“Chapter 7: The Poser Library” on page 111](#) for a description of the **Library** palette, and to [“Maintaining Your Library Palette” on page 149](#) for information on adding items to it.

to have the light move as the source element moves. By default, Poser scenes include three infinite lights.

When you add, remove, move, or adjust lights, the **Document** window, **Light** controls, and the selected light's parameter dials automatically adjust to show the light's new position/properties, allowing you to preview your changes in real time.



When you right-click on one of the lights in your scene, a context menu provides several different commands that allow you to perform several different functions. The commands shown in the light context menu are described in "Lights Context Menu" on page 77.

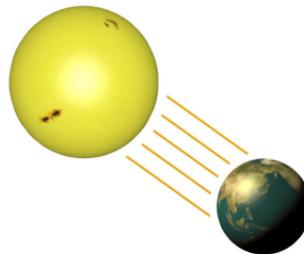
Light Types

Poser allows you to create four types of lights: infinite, point, spot and image based.

Infinite Lights

Infinite lights are comparable to the sun or moon shining on the Earth. Rays from infinite lights are parallel as they enter your Poser workspace. If you have multiple figures

and/or props in your scene, infinite lights shine on each item equally. You cannot place any scene element beyond an infinite light's range, and no figure/prop can be lit differently than another.



Infinite Lights shine parallel, and equally on all items in your scene.

Point Lights

Point lights are similar to a light bulb, in that they emit light from a single source point outward in 360 degrees. These lights are ideal for times when you want an omnidirectional light source that can interact with objects and cast shadows in ways that an infinite light cannot. For performance reasons depth mapped shadows are

not supported for point lights; point light shadows must be calculated using raytracing.

Spotlights

Spotlights cast light in a specific direction, throwing light along a cone-shaped path to create a classic stage spot effect. These lights are useful for illuminating specific objects or for creating lighting effects. Spotlights can increase rendering times.

Diffuse Image Based Lights (IBL)

Diffuse Image Based Lighting (Diffuse IBL) takes a light probe, which is ideally a 360 degree light distribution map captured in a single map, and illuminates the scene using that map. In Poser, only the diffuse component of the light is defined by the light probe. As this technique is based on complete light data for a given space, the lighting results are very realistic. In order to get realistic shadows when using an image based light, we recommend using Ambient Occlusion (see "Light Properties" on page 240). You must activate raytracing in the **Render Settings** dialog in order to render Ambient Occlusion effects.

Selecting Lights

You can select lights as follows:

- Clicking one of the Lights in the **Light Position** indicator.
- Using the **Current Actor** pop-up menu.

Creating Lights

To create a light, click the **Create Light** icon in the **Light** controls, or click on **Create Light** in the **Light Options** pop-up menu. Your new light will appear in the **Light Position** indicator.

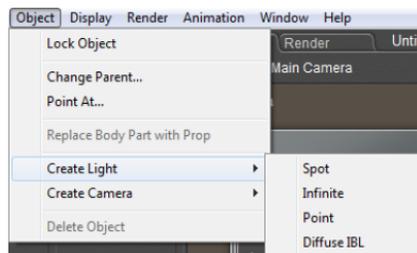


The Create Light icon.

By default, Poser creates spotlights. To create a different type of light, select **Object > Create Light**, and select the type of light you wish to create from the pop-up menu that appears.

To change a light to another light type, select the new light and click the **Light Properties** icon (see below for information about light properties). You can also right-click the **Create Light** icon (in the box above) to access the light type menu.

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Creating a light with the Object menu commands.

If you select the Diffuse IBL light type on the **Properties** tab, you will then need to go to the **Material** room, select that light as the current actor, and apply an image map to use as the light probe. In the **Simple** tab, you can simply select an image map via the **Texture Manager**.

Adjusting Light Intensity

You can set a light's intensity using the **Brightness** control like a dimmer switch. Click and drag the brightness indicator to the left to dim the selected light, or to the right to brighten it.

You can also set the light's intensity using the parameter dials in the **Parameters** palette.



Adjust light intensity

Slide the Light Intensity slider to adjust the brightness of a light.



You can set a light's intensity to a negative value, thereby creating a "non-light" that will actually darken the affected area(s) of your scene. You can use this feature to create interesting effects.

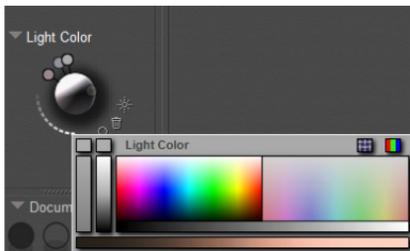
Light Color

Light colors contribute to your scene's overall appearance and mood. Unlike paints, light colors multiply instead of mixing and adding to one another. For example, a red figure with blue lighting would appear black, not purple. If you don't want a light to affect the color of items in your scene, set that light's color to white or gray. Because of this relationship between scene items and lights, you might want to set your scene items' colors before setting lighting colors. Note that with image based lighting, you should generally use a white color, so as not to interfere with the light colors already contained within the image map.

To change a light's color, click the **Color** icon in the **Light** controls to open a standard Color Picker dialog. Make your selection, and your selected light will change to its new color.

Two icons appear in the upper-right corner of the Light Color picker. The first icon opens the Material Editor, where you can change material properties to the light. The other icon opens your standard system color picker.

You can also set a light's color using the parameter dials in the **Parameters** palette.



Changing the color of a light.

Delete Light

Select the light you wish to delete and click the **Delete Light** icon in the **Light** controls, or click on **Delete Light** in the **Light Options** pop-up menu.

Aiming Lights

Spotlights and infinite lights are directional light sources, and therefore can be aimed with relation to your scene. You should finish posing your figures and positioning your props before aiming your lights. Doing this in reverse will cause your scene elements' appearances to change

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as you move them. For example, rotating a figure 180 degrees causes illumination falling on its front to fall on its back. You may need to re-aim your lights to continue working. Some traditional artists place a bright light above and to the left of a figure. Using a strong single light source lets you see shading on distant and oblique surfaces, contributing to the scene's depth and curvature. You may want to read books on lighting, including using lights in photographic studios, to give you ideas on using lights to enhance your Poser scenes.

If you import a background image or movie, you should set your lights to mimic the lighting in the background. For example, if your background image shows a strong light coming from the figure's right, don't light the figure from the left. This will help preserve consistency between your scene and the background and help integrate both elements together. Ideally, when working with backgrounds, you should have the background look like part of your scene. If your scene is a room using an image of a brightly lit background visible through the windows, you should have most of your lighting streaming in through the windows to blend the room and its contents with the outside world and lend realism to your scene.

You can aim lights using any of the following methods:

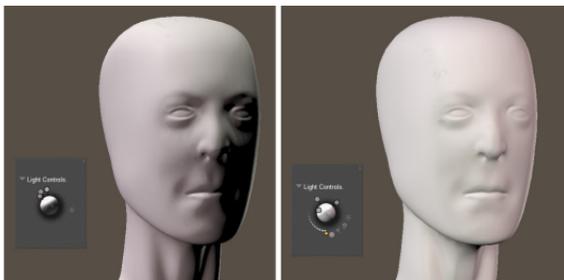
- Using the **Light Position** control (see below).

- Moving a light's indicator in the **Document** window (see below).
- Using the **Editing** tools (**Rotate** and **Twist** for infinite lights, and **Rotate**, **Twist**, **Translate/Pull** and **Translate In/Out** for spotlights. Please refer to "The Editing Tools" on page 172 for information on using the **Editing** tools).
- Using the selected light's parameter dials in the **Parameters** palette.
- Using the **Object > Point At** ("Point At" on page 197) or **Object > Set Parent** ("Changing a Parent" on page 212) menus.
- Using the desired light's **Shadow** camera, as described in "Shadow Light Cameras" on page 218.

As discussed above, infinite lights always shine into the scene. Aiming an infinite light sets the location from which the light shines (such as setting the sun's position in the sky). When aiming spotlights, you're setting both the angle at which the light shines and the light's position in 3D space.

Using the Light Position Control

The globe in the center of the **Light Position** indicator represents your Poser scene in 3D space, and the light dots represent the positions of each of the lights within your scene. These dots can be moved in two ways with respect to the globe: Rotation and Revolution. Rotation keeps the light in the same physical position relative to the scene, but adjusts its direction around its own local axis. Revolution moves the light around the globe to a new position relative to the scene, while keeping the light pointed at its parent, as shown in the figures below. You can select which positioning method you wish to use by clicking either **Rotate** or **Revolve** in the **Light Options** pop-up menu. The check mark indicates which option is currently selected. Then click and drag your selected light dot(s) to change their position and/or direction. Revolving these dots to different positions around the globe adjusts the lighting angle, as shown below.



Adjusting light positions.



Clicking anywhere in the Light Position control selects the nearest light.

Using Light Indicators

When you select a light, Poser displays a light indicator describing your selected light's position in the **Document** window. In some cases, viewing the indicator from a different angle can help you visualize your light's position. You can switch Camera views and/or zoom to view light indicators from different angles. Additionally, you can adjust a light's position by clicking and dragging the light

Chapter 12: Lighting

indicator in the actual scene. The **Light** controls will reflect any changes you make to the light indicator's position. Note that image based lights have no light indicators, as they surround your entire scene.

Infinite Light Indicators

An infinite light's indicator appears as a ring surrounding the currently selected figure/prop. This ring serves as the equatorial line of an invisible globe with the light shining down on your scene from the point on the equator indicated by the arrows, as shown here.



Infinite Light Indicators.

Then viewed from oblique angles, the circle appears as an ellipse, helping show if the light is in front of or behind the figure. The light is not actually on the edge of the indicator. The indicator simply represents a larger globe

encompassing the entire Poser workspace. You can click and drag a light indicator to reposition the selected light.

Point Light Indicators

A point light's indicator appears as a small outlined circle, depicting the light's position in 3D space (remember, you can position point and spotlights in 3D space, unlike infinite lights), as shown here.

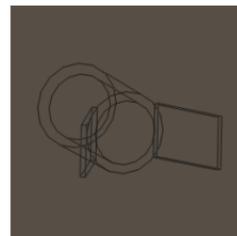


Point Light Indicators.

As point lights emit light equally in all directions, there is no direction indicator as with a spotlight.

Spotlight Indicators

A spotlight's indicator appears as the outline of a spotlight in your Poser workspace depicting both the light's position in 3D space and the direction the light is pointing, as shown in this image.



Spotlight Indicators.

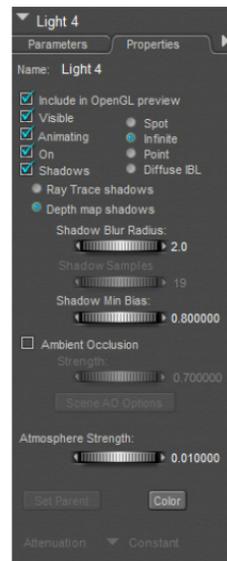
Clicking and dragging a spotlight's indicator moves the light around the scene.



You may want to use orthographic views (Left, Right, Top, Bottom, Front, or Back) to move Spotlight indicators, since doing so constrains the spotlight's motion to two dimensions (YZ if using the Left or Right views, XZ if using the Top or Bottom views, and XY if using the Front or Back views). Using perspective views can move your spotlight in oblique directions, causing unexpected lighting effects.

Light Properties

Light properties help you fine-tune your lighting effects. To access a light's properties, select the light and either click the **Light Properties** icon in the **Light** controls or select **Object > Properties**. You can also access light properties in the **Properties** palette.



Light Properties.

Depending on the light type that you select, you can control some or all of the following light properties:

- **Include in OpenGL Preview:** By default, Poser displays the eight brightest lights. Users can optionally choose

which eight to display. By providing real time previews of eight user-selectable lights, posing and lighting is faster and yields better results. Use this option to select each light you want to illuminate the scene preview. Mip Map support has been enabled for enhanced performance when previewing large textures. Together, these real-time preview engine enhancements let the user view larger textures and offer more complete scene previewing when setting up lights. If your scene has more than eight lights, you can check or uncheck this option to include or exclude the current light from the preview display.

- **Visible:** Checking the **Visible** checkbox makes the light visible in the **Document** window, and vice versa. Invisible objects are not included in any render calculations, and do not appear in the rendered scene. See [“Figure Properties” on page 181](#) for information on animating the **Visible** property.
- **Animating:** Checking the **Animating** checkbox allows you to animate the light just as you would any other Poser object. Animated lights can also have different settings in various keyframes. For example, you could create a red spotlight on your figure's left side that orbits overhead and turns blue. When you rendered this animation, you would see your figure's color

changing and shadows moving with the light. You cannot animate lights that are turned off (see above).

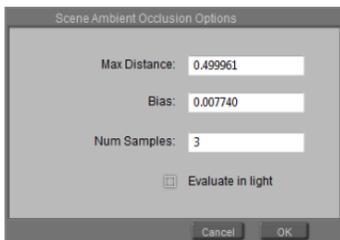
- **On/Off:** Checking the **On** box turns the light on, just like flicking its switch. Clearing the checkbox turns the light off. As a shortcut, you can also press **OPT/ALT** while clicking a light in the **Light** controls to toggle the selected light on or off.
- **Spot/Infinite/Point/Diffuse Image (IBL):** Check the appropriate radio button (**Spot**, **Infinite**, **Point** or **Diffuse Image (IBL)**) to make your selection. Spot, infinite, point and image based lights are discussed above.
- **Shadows:** Checking the **Shadows** checkbox enables you to choose one of the following two options:
 - **Raytrace Shadows:** Selecting **Raytrace Shadows** enables raytracing of shadows. Traditionally, raytracing results in clear, hard-edged shadows. However, Poser offers a method for softening the shadow edges, thus adding more realism to your raytraced shadows. You can control this effect using the **Shadow Blur Radius** dial (see below).
 - **Depth Map Shadows:** Selecting **Depth Map Shadows** enables depth-based shadow mapping. If you are using displacement maps,

we recommend you select this option rather than raytracing, for greater accuracy. Enabling this option activates both the following dials:

- **Shadow Blur Radius:** All shadows have a blurry region around their edges. The **Shadow Blur Radius** parameter specifies the radius of this blurry region. By default, this dial is set to a low value. Raising the blur radius increases the soft shadow edge effect.
- **Shadow Samples:** The **Shadow Samples** parameter controls the smoothness of shadows. The default value is equivalent to earlier Poser versions that used a fixed quality. Lower shadow sample settings render faster but may produce grainier shadows with a random dither. Higher shadow samples reduce the graininess that can sometimes be seen in soft raytraced shadows. As a general rule, the larger your **Shadow Blur Radius** setting is, the more you will need to increase the **Shadow Samples** to get a smooth result.
- **Shadow Min Bias:** The **Shadow Min Bias** parameter specifies how far to shift samples towards the light source to prevent self-shadowing of objects.
- **Ambient Occlusion:** Checking the **Ambient Occlusion** checkbox enables Ambient Occlusion for the selected

light. Ambient occlusion adds realism to your scene by approximating the way light and shadows act in real life. It helps bring out details in creases and corners. This option provides the advantage of calculating Ambient Occlusion effects on all surfaces within the scene, without having to attach an Ambient Occlusion node to every material. Enabling this option activates the following controls:

- **Strength:** The **Ambient Occlusion Strength** dial specifies the degree to which Ambient Occlusion effects will darken the occluded surfaces within the scene.
- **Scene AO Options:** The **Scene Ambient Occlusion Options** button provides access to the global set of Ambient Occlusion parameters. **Max Distance** allows you to control the maximum distance that the rays will travel through the scene, thus limiting the amount of data collected. **Bias** helps to prevent false shadows and artifacts that may occur by using raytracing techniques. If the Bias setting is too high, your shadows will migrate in the scene. **Num Samples** determines the number of rays projected. Too few samples will result in grainy appearance in darker areas of the scene. Higher sample rates yield higher quality darkened areas, but take longer to render.



Scene Ambient Occlusion options.

- **Atmosphere Strength:** The **Atmosphere Strength** dial and field allow you to specify the strength of atmospheric (volumetric) effects



Atmosphere Strength control.

- **Set Parent:** Clicking the **Set Parent** button allows you to make the light a child of another element in your scene.

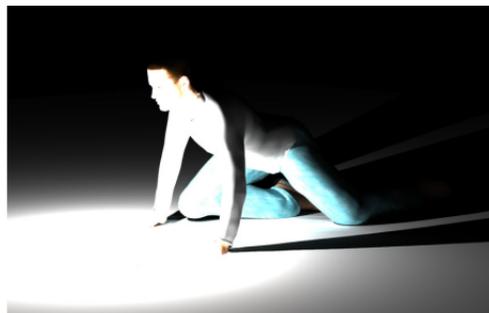
- **Color:** Clicking the **Color** button opens the Poser Color Picker, allowing you to set the light's color.
- **Attenuation:** (Enabled for Spot lights or Point lights only): This setting controls how bright or dark a spot light or point light gets based on the distance away from the light source. Options for spot and point lights are:
 - **Constant:** Behaves the same as Poser 7 and earlier lights. This setting is predictable and controllable. The Start Distance and End Distance parameters are very useful for setting how close or far the light reaches.



Constant Attenuation.

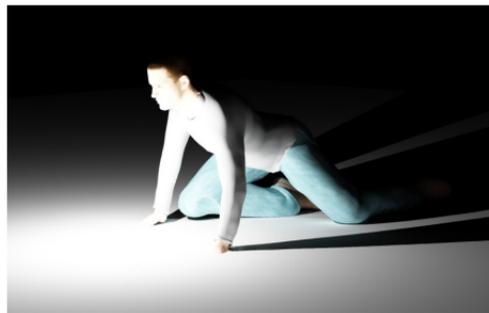


Constant Attenuation with Tone Mapping.



Inverse Linear Attenuation.

- **Inverse Linear:** Use this option for lights that are more physically correct. Objects that are close to the light source are infinitely brighter (not exponentially, but linearly). In other words, if Object B is twice the distance from the light as Object A, then Object B receives half as much light as Object A. This option allows some artistic freedom without being as touchy as Inverse Square (described next).



Inverse Linear Attenuation with Tone Mapping.



Inverse Linear Attenuation with Tone Mapping. Adjusted.

- **Inverse Square:** This option provides physically correct lighting that is more dramatic, and harsher than Inverse Linear. The light brightens exponentially as you get closer to the light source. If Object B is twice the distance from the light as Object A, it receives 1/4 the amount of light.



Inverse Square Attenuation.



Inverse Square Attenuation with Tone Mapping.



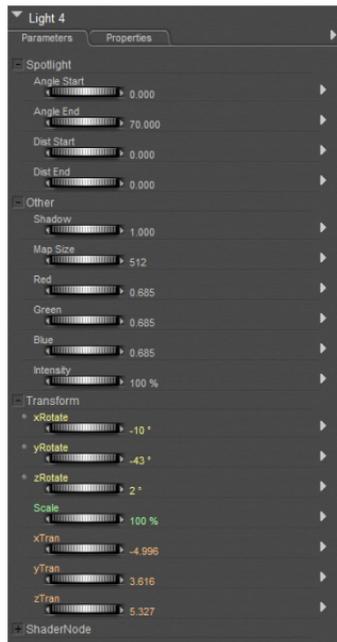
Inverse Linear Attenuation with Tone Mapping. Adjusted.

- **Evaluate in Light:** When checked, includes Ambient Occlusion in render calculations relating to light and shadows.

Light Parameters

Be sure to select the light you wish to work with before using the parameter dials to avoid accidentally changing settings for the wrong light. Once you've adjusted a light the way you want it, you can use the **Lock Object** command (see "Lock Object" on page 197) to prevent

accidental changes. Lights have the following parameters, available in the **Parameters** palette:



Light Parameters.

Angle Start/End (Spotlight Only)

The **Angle Start** and **Angle End** values allow you to specify how a spotlight's light "falls off" as you approach the edge of the cone of light projected by the spotlight. The **Angle Start** parameter specifies the degree angle below which the light will be at full intensity, and the **Angle End** parameter specifies the point above which the light will be at zero intensity. For example, when the Angle Start is set at 30, and the Angle End is set at 100, the light will be constant from 0-30 degrees, will gradually fall off between 30-100 degrees, and will be off above 100 degrees.

Distance Start/End (Spotlight Only)

As you know, light fades with distance from its source. The **Distance Start** and **Distance End** parameters specify the distance from the light source (in grid units) where the spotlight's intensity begins to drop (fall off), and the distance in grid units when the spotlight is no longer casting light, respectively.

Shadow

Poser lights can cast shadows, if you enable this option using the selected light's **Cast Shadow** property in the **Properties** palette as described above. Shadows add

depth, realism, and dramatic effects to your still or animated scenes. To change the cast of a light's shadow, move the light.

Spotlights cast shadows based on the spotlight's angular range, meaning that tighter spotlights produce cleaner shadows. By contrast, infinite lights adjust the view to fill the screen with all objects that cast shadows. Because of this, if you render a close-up of a scene with many figures and/or props (especially widely spaced items), the shadow map will not contain much information.



Each light has a shadow camera, available using the Current Actor pull-down menu.

Advanced users can aim these cameras as desired.

Each light's shadow map contains shadow information for the scene as viewed through that light's shadow camera.

The shadow-related parameter dials are:

- **Shadow:** Use the **Shadow** parameter dial to specify the selected light's shadow strength. A setting of 0 disables cast shadows for the selected light, while a setting of 100% casts a dark shadow. You can animate shadow strength over time.

- **Map Size:** The **Map Size** parameter dial sets the size of the selected light's shadow map in pixels (shadow maps are square). Poser uses image maps to apply shadows to objects in the scene, and applies these shadows during rendering. Larger map sizes increase the accuracy and detail of shadow maps, but at a cost in memory and render time. For example, each 1024x1024 map requires about 4MB of space, while a 2048x2048 map requires 16MB. You cannot animate the shadow map's size.

XYZ Rotation

Adjusting these dials adjusts the direction in which the light is pointing. For example, think of the sun's path across the sky throughout the day and how it appears farther north or south with the changing of seasons. When the **xRotate** and **yRotate** dials are set to 0 degrees, the light aims at the Poser workspace from the front. **ZRotate** is only significant when the **xRotate** and **yRotate** settings are not 0,0 or 180, 180. In all cases, the figure is in the default position.

- **xRotate:** The **xRotate** parameter rotates the selected light about the X axis.
- **yRotate:** The **yRotate** parameter rotates the selected light about the Y axis.

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- **zRotate:** The **zRotate** parameter rotates the selected light about the Z axis.

Scale

The **Scale** parameter dial allows you to scale a light's indicator. This does not affect the light itself.

Red, Green, Blue

The **Red**, **Green**, and **Blue** dials specify the amount of each of the three primary colors to add to a light's final color. A value of 1 means that the selected color is fully added, and 0 means that color is not included at all. Using these three primary colors to create a final color is called RGB lighting (Red, Green, Blue). Each of the three colors can have 256 values ranging from 0 to 255. This gives us 256 red, 256 green, and 256 blue shades to work with, or 256^3 (16,777,216) total possible colors. Parameter dial values correspond to RGB values as follows:

- Parameter dial 0 = RGB color value 0 for the selected color.
- Parameter dial 1 = RGB color value 255 for the selected color.

Intensity

You can control your light's intensity using the **Brightness** control or the **Intensity** parameter dial. A setting of 0% means the light is fully off, and a setting of 100% means the light is completely on (at full brightness/intensity).

XYZ Translation (Spotlight Only)

The **Translation** dials allow you to specify a spotlight's precise location in 3D space by specifying grid coordinates. As previously described, spotlights emit light from their location in 3D space, meaning that objects "behind" the light are not illuminated.

Saving & Loading Light Sets

You can save light sets to the Library, allowing you to reuse them in later scenes. Light sets have the file extension *.LT2 and are saved to the **Lights** Library. Please refer to "[Maintaining Your Library Palette](#)" on page 149 for information about adding items to the **Library** palette.

Animating Lights

Lights can be animated like other Poser objects using keyframes and tween frames. Please see "[Chapter 19: Animating with Poser](#)" on page 283 for information about animating within Poser.

Part 3: Materials

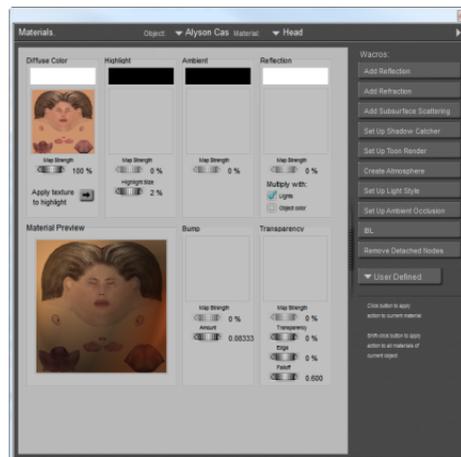
Chapter 13: The Material Palette

Poser Debut's **Material** palette is a very powerful tool for creating and editing materials for the content in your scene.

In this chapter we will explore the **Material** palette's basic building blocks.

If the Material palette is not opened, you can display it by choosing the Window > Material Palette command. The Material Palette appears as follows:

Access the **Material** room by clicking the **Material** room tab at the top of the Poser workspace. The **Material** room appears as follows:

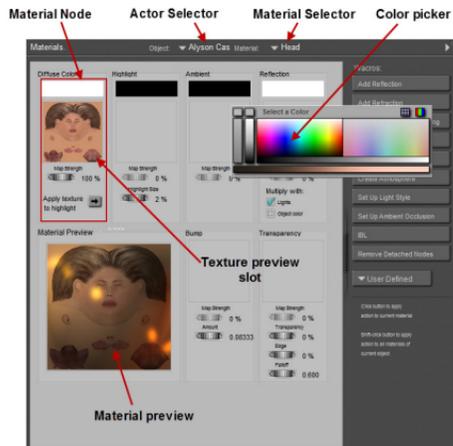


The Material Palette.

The **Material** palette provides you with easy to use controls for adjusting various material attributes. Each of these attributes, and how they can be modified, are discussed in detail below.



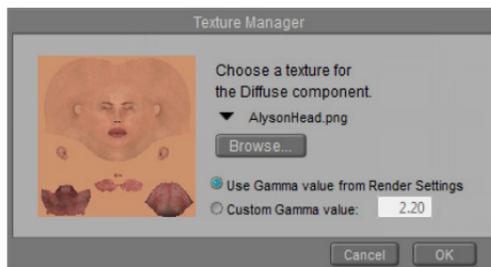
Poser Debut allows you to load content or scenes that are created in Poser 10 or Poser Pro 2014. These additional versions of Poser allow users to create materials using advanced material settings that are not editable in Poser Debut. However, you will be able to render them. When you view these advanced materials in the Materials palette, an information icon will appear near the advanced property. Click the information icon to display a dialog, then click Learn More to read additional information about these advanced Poser versions. You can also refer to the feature comparison charts in “Appendix D: Feature Comparisons and Handling” on page 364.



Elements of the Simple material view.

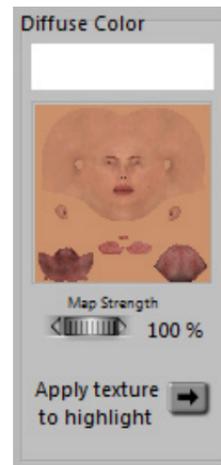
You can use the **Actor Selector** to select one of the content items in your scene. Then, use the **Material Selector** to select one of the materials that you want to change.

For all attributes, clicking in the **Texture Preview Slot** will bring up the **Texture Manager** dialog. Here you can preview and select a previously used image map from the pop-up list, or browse for a new map.



The Texture Manager.

Note that when accessing the **Texture Manager**, you have the ability to select both images and movies. Click the **OK** button to load the image map. A preview of your selected map should appear in the appropriate texture preview slot of the **Simple** tab.



A material with a Diffuse color map.

The **Map Strength** dial adjusts the degree to which that image map affects the surface material.

The image map pop-up list in the Texture Manager provides a historical list of path names for previously used image maps and movies. This list facilitates quick image selection; it does not indicate that these files are currently loaded into memory.

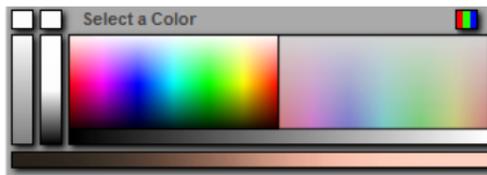
Diffuse Color

The Diffuse color is the primary surface color of the current figure or prop. If there is no texture map applied to the figure, the Diffuse color will be the figure's only color (not considering the effect of any colored lights). In a high quality rendering, when a texture map is loaded the Diffuse color tints the texture map. If you don't want the texture map to be affected by the Diffuse color, leave the Diffuse color set to white (the default color).



A diffuse color map applied to a material.

To change the Diffuse color, click on the **Color Slot** at the top of the Diffuse component area. This will bring up the Poser Color Picker, where you can select your desired color. If you wish to access the system Color Picker, simply click on the RGB bar at the top right corner of the Poser Color Picker.



The color picker.

If you choose to have highlights on a textured surface, you might want to consider using the same map for Highlights as for Diffuse. When you have a texture map applied to the Diffuse component, pressing the **Apply texture to highlight** button will also apply the same texture map to the Highlight component. If you have a different texture map already loaded for the Highlight component, checking this box will override it and apply the texture map from the Diffuse component.

Highlights

The Highlight component corresponds to the Specular root nodes on the **Advanced** tab, and controls the object's highlight. Highlights are bright areas appearing where the light is reflected directly toward the camera. You can select a highlight color, apply a texture map, and adjust the texture map strength, as described above. In daylight and under most room lights, highlights are white. To complement the lighting environment you've set, select a color similar to your main light.

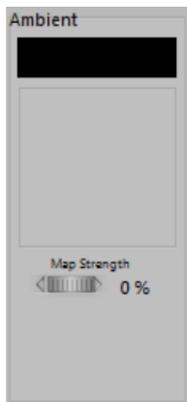


Highlight settings.

The **Highlight Size** dial allows you to determine the size and intensity of your material's specular highlights. Smooth surfaces have sharper specular highlights, whereas rougher materials should have softer highlights. On the dial, higher values result in larger, softer highlights for a duller, more matte effect, and lower values result in smaller, sharper highlights for a shiny, more polished effect.

Ambient

In Poser, you can set the Ambient color for each figure or object individually. An object's Ambient color is the color it emits equally in all directions. It simulates an ambient (overall room) lighting contribution. Unlike the other color properties, it acts without taking into account any light positions or colors. In other words, even if all other lights are turned off, the material will continue to emit the Ambient color. Thus, using an Ambient color on a surface can reduce the effect of shadows on that surface.



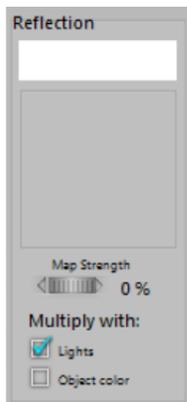
Ambient settings.

The Ambient color mixes with the other lighting properties. Too much ambience flattens the detail of an object, because it looks the same regardless of how the surface interacts with lights in the scene. If you want to turn ambient light down or off, set the Ambient color to gray or black. If you want more intense ambient light, set the Ambient color to white or a bright color. Loading an image map into the Ambient component will cause that image to function in the same way as an Ambient color. The

Ambient color selection, texture map selection, and Map Strength control all function as described above.

Reflection

Reflection makes a figure or object direct light back at its source, giving it a reflective appearance. Poser offers two methods for applying Reflection to your scene. The first is to use a Reflection map, which is a 2D texture applied to a virtual sphere that surrounds your Poser workspace. The texture is then reflected from the workspace and onto your object. This method is best for scenes requiring subtle reflections, as it renders much quicker than raytracing, but results in somewhat less accurate reflection calculations. The other method is to use Raytraced Reflection, which is calculated using the raytracing rendering technique. This method is ideal for scenes containing objects with highly reflective qualities, such as chrome or mirrors, as raytracing yields extremely accurate reflections. However, using this method will increase your render times.



Reflection settings.

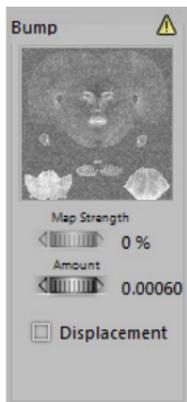
Reflective Color is a tint that is added only when a Reflection map is applied. Use the **Reflection Color** option to create dramatic effects in your renderings. To make a highly reflective object appear more vivid, use a variation of the object's color. If the object's color is particularly bright, you may want to use a darker tint of the same color. For an unusual tint, use a color that is distinctly different from the object's color. The **Map Strength** dial adjusts the **Texture Strength** parameter on the Reflection

map node on the **Advanced** tab, and determines to what degree the Reflection map will affect the material.

The **Multiply with Lights / Object color** checkboxes control whether reflections are enhanced by light, object color, or both.

Bump

A Bump map is a special image, wrapped around the object, that works with the scene lighting to give the appearance of 3D texture on an otherwise smooth object. Bump maps can be used on individual objects or parts of a figure to emulate any manner of textures, from wrinkles and pores in skin, to raised patterns in clothing or props, to cracks and bumps in stone.



Bump settings.

You can load Bump maps using the texture preview slot and the **Texture Manager**, and adjust the Bump map strength with the **Map Strength** dial, as described above. The **Amount** dial specifies the amount of Bump, in units specified in the **General Preferences** dialog. Higher values yield more Bump effect, or rougher surfaces, while lower values yield less Bump and smoother surfaces. The **Amount** dial corresponds directly to the **Bump** attribute on the **Advanced** tab.

Chapter 13: The Material Palette

Note that Bump maps simply disturb an object's normals. Thus, if you apply a Bump map to a sphere, the surface will seem rough while the edges remain smooth. Poser's **Material** room contains a Displacement channel, which allows you to use Bump maps to actually alter the geometry of the surface. For example, applying a Displacement map to a sphere would make the edges appear rough, as well as the surface. The **Displacement** checkbox in the **Bump** attribute enables the **Displacement** attribute on the **Advanced** tab, replacing the Bump effect with actual Displacement. With Displacement enabled, the **Amount** dial specifies the amount of Displacement rather than the amount of Bump.



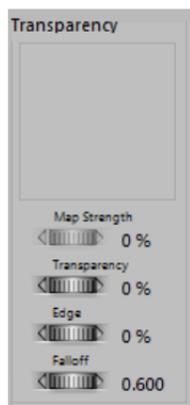
*The strength of bump and displacement maps is expressed in real world units (whichever unit is set under **Edit >General Preferences**). Please note that with the default unit of Feet very small values already yield a strong bump or displacement effect.*



For more advanced users, adding a Normal Map can add yet more realistic surface details.

Transparency

Transparency allows light to pass through a figure or object, so you can see through it. The higher a transparency value, the more of the surrounding environment is visible through the object's surface. If no light is reflected on an object, 100% Transparency and Edge settings make it invisible.



Transparency settings.

When a Transparency map is applied to an object, its texture interferes with the transparency of the object. For

example, a checkerboard map results in an object that is alternately transparent and solid. You can thus use textures as Transparency maps.

The **Transparency**, **Edge**, and **Falloff** dials work together to determine how an object's transparency behaves.

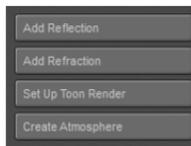
The **Transparency** dial affects the transparency of the part of the object facing the camera, particularly toward the center of the object. Higher Transparency values yield greater transparency.

The **Edge** dial affects the transparency of the object's edges specifically. A high Edge value makes the object very transparent on its edges. For most renderings, you'll want to use a Transparency value that is higher than the Edge value.

The **Falloff** dial determines the rate at which the transparency becomes more opaque as you approach the edges of an object. For a real world example, look at a transparent object such as a drinking glass. The edges of the glass are less transparent than the rest of the surface. This is where the transparency of the glass "falls off". In Poser, you can vary this falloff behavior. A smaller value renders a sharper edge appearance, while a larger value renders a more gradual falloff. If the Transparency and Edge values are the same, there is no falloff in the rendering.

Wacros

Wacros are easy-to-use scripts designed to complete specific tasks within the Material room. The **Wacro Drawer** comes with ten predefined Wacros, each of which accomplishes a basic material setup task or process—often with the click of a single button.



Material Wacros.

The following Wacros are included with your Poser installation:

- Add Reflection:** Before clicking the **Add Reflection** Wacro button, make sure you have selected a material to which you want to add reflective attributes. Poser Debut will add advanced raytraced reflection properties to the selected material. The only property that you will be able to change is the color of the reflection.
- Add Refraction:** Before clicking the **Add Refraction** Wacro button, select a material to which you want to add refraction. Refraction causes light to bend as it passes from one transparent medium (material) to another; the degree to which this occurs depends on the material's refractive index. Note that refraction only affects transparent materials, so the material you select must be made transparent for refraction to be visible. Click the **Add Refraction** button. If you have selected a material that is opaque, a dialog will appear asking whether you wish to make the material transparent and add refraction. Click Yes on this dialog to proceed.

 *Refraction requires raytracing, so be sure to have raytracing selected when you render in order to see the refraction effect. We also recommend setting the number of raytrace bounces to at least two (or higher if you have reflective surfaces behind the transparent materials).*
- Set Up Toon Render:** The **Set Up Toon Render** Wacro will configure your material to appear cartoon-like when rendered. Clicking the button opens a dialog asking whether you want to have specular highlights

on your toon surfaces. Click either No or Yes on this dialog to proceed.

- **Create Atmosphere:** In order to view the effects of the **Create Atmosphere** Wacro, you need to have something in the background of your scene, such as a background plane or additional figures or props. Then, select Atmosphere from the **Object** menu at the top of the **Shader** window. Clicking the **Create Atmosphere** button opens the **Choose an Atmosphere** dialog. Select the type of atmosphere you wish to create, from the following options: Fog, Smoke, SmokeyRoom, Depth_Cue. Then click OK.

Part 4: Rendering

Chapter 14: The Render Menu

Antialias Document

The Render pull-down menu (in the top Poser menu bar) is where you render still images of your scene and access Poser's render settings.

Render

Selecting **Render > Render** renders your current scene using the currently selected renderer and that renderer's current settings. Please refer to "[Part 4: Rendering](#)" on [page 262](#) for more information about the FireFly render engine and adjusting render settings.

Sketch Style Render

Selecting **Render > Sketch Style Render** renders your scene using the current Sketch Designer settings. Please see "[Chapter 17: The Sketch Designer](#)" on [page 277](#) for information on working with the Sketch Designer. Once you've set your options, you can use this menu command for rendering at any time while working in your scene.

Selecting **Render > Antialias Document** smooths rough edges in your **Document** window view for preview purposes. Antialiasing is a process of oversampling image data to smooth object edges and avoid a jagged appearance along them. The following images show a test render both without (left) and with (right) antialiasing enabled.



Normal preview (left); Anti-aliased (right).

You can specify whether or not to apply antialiasing during renders when specifying render settings. Please refer to "[Chapter 15: The Render Settings Dialog](#)" on page 266 for more information about specifying render settings.

Motion Blur Document

As you probably know, fast-moving objects appear blurry. The blur is caused by the fact that our eyes cannot "refresh" quickly enough to see that the object is no longer in its previous location. The **2D Motion Blur** feature lets you give your animations the illusion of motion, adding a whole new dynamic and level of realism to your renderings.

Please see "[Chapter 16: Using The FireFly Render Engine](#)" on page 272 for information about using the **3D Motion Blur** feature. You can also blur a single frame for test purposes by selecting **Render > MotionBlur Document**.



Using motion blur.

Render Settings

Selecting **Render > Render Settings** opens the **Render Settings** dialog. Please refer to "[Chapter 15: The Render Settings Dialog](#)" on page 266 for information about the **Render Settings** dialog.

Render Dimensions

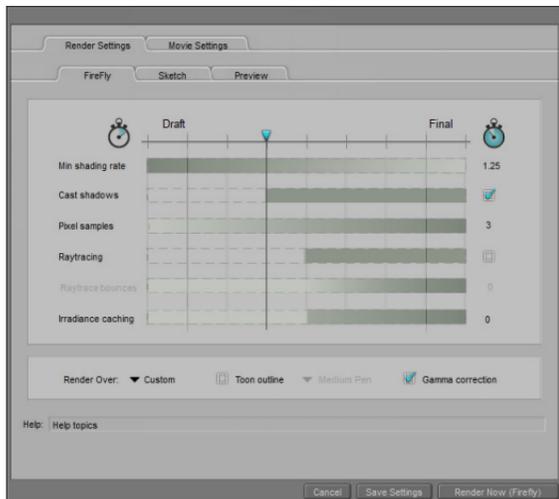
Selecting **Render > Render Dimensions** brings up the Render Dimensions dialog, which contains settings that allow you to specify the dimensions of your render tab. See “Render Dimensions” on page 67 for more information on the **Render Dimensions** dialog settings.

Reload Textures

Selecting **Render > Reload Textures** will reload into memory all textures for the current scene preview display. This allows you to easily update any changes you may have made in other applications to the currently loaded textures.

Chapter 15: The Render Settings Dialog

To open the **Render Settings** dialog, select **Render > Render Settings**. This window appears as follows.



The Render Settings dialog.

Note that the **Render Settings** and **Movie Settings** dialogs appear as tabs within a single dialog, thereby making it easy for you to toggle between them.

Render Engines

Poser allows you to render still and animated scenes using three separate render engines. You can select which tool you wish to use by clicking on the relevant tab in the **Render Settings** dialog. The available Poser renderers are:

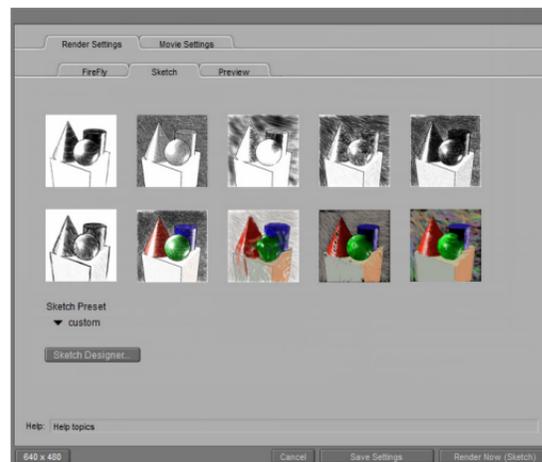
- FireFly rendering engine:** This rendering engine supports the use of procedural shaders, contains many controls that let you control exactly how you want your rendered images/movies to appear, and has the capability of generating truly breathtaking results. Please refer to "[Chapter 16: Using The FireFly Render Engine](#)" on page 272 for information on using the FireFly renderer.
- Sketch Renderer:** The **Sketch Renderer** simulates a variety of fine art techniques, to render your scene as a drawing or painting. This tab also provides access to the **Sketch Designer**, discussed in "[Chapter 17: The Sketch Designer](#)" on page 277.

- **Preview:** If you want to render quality high-resolution wireframe or silhouette (or any other display style) views of your scene, please choose the Preview rendering engine.

You can also select the **Preview** tab to configure your scene preview window options.

Sketch Tab

The **Sketch Tab** provides thumbnail previews of ten standard Sketch preset styles. Simply click on the appropriate thumbnail to select the desired preset, and then click the **Render Now** button to render your image using those preset values. Alternately, you can use the **Sketch Preset** pop-up menu to select from a list of standard presets and any custom presets you may have saved using the **Sketch Designer**. To easily access the **Sketch Designer** for fine tuning your sketch settings or creating new presets, simply click on the **Sketch Designer** button. Please see [“Chapter 17: The Sketch Designer” on page 277](#) more information about using the **Sketch Designer** render engine, please see .

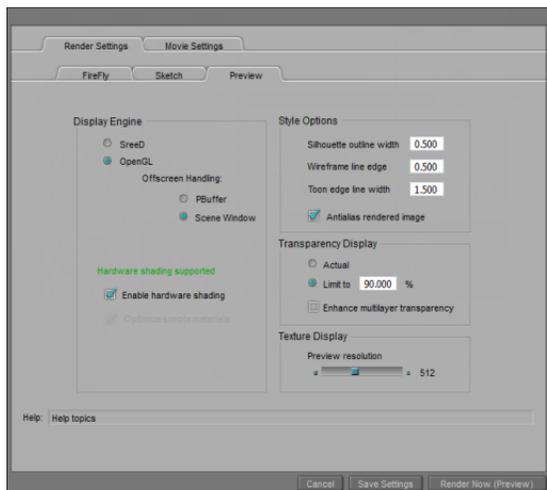


The Sketch Renderer.

Preview Tab

This tab allows you to customize the Scene Preview display in the **Document** window, using the following settings: The settings in this tab apply to the document preview, and the use of Preview for actual output.

The settings are discussed in the following sections.



The Preview Render tab.

Display Engine Settings

Select the appropriate radio button to use Poser's built-in SreeD software rendering, or OpenGL hardware rendering, for image previews. These settings apply to the document

Chapter 15: The Render Settings Dialog

preview, and the use of Preview for actual output. Please refer to "OpenGL Hardware Acceleration" on page 68 for more information about the OpenGL hardware rendering option for Poser.



*When using OpenGL for rendering, there are two additional options for offscreen handling. The default is **Scene Window**. When rendering a final output with the Preview renderer, if you encounter blank areas where other windows were overlapping the scene window, you should switch to **PBuffer**.*

Procedural Shader Preview

When using OpenGL hardware rendering, you can choose to see the effects of the procedural shaders you are using in your actual Scene Preview display, provided your system will support it.

Once you select OpenGL, Poser will automatically check whether or not your system will support the calculation of real-time procedural shader effects. Poser will then provide a message within the **Preview** tab, stating whether or not your system will support this feature. If you are not using OpenGL, Poser will provide a message that the status of this feature is undefined for your system; simply switch to OpenGL to have Poser confirm the support status.



Procedural shader preview is available for scenes using up to eight light sources.

- **Enable Hardware Shading:** You can enable procedural shader previews by clicking the checkbox. This feature is enabled (checked) by default.



When Hardware Shading is enabled, the preview renderer will only display five lights, due to complexities of depth map shadows, AO, and normal mapping. When Hardware Shading is turned off, you can preview up to eight lights.

- **Optimize Simple Materials:** Enable shader optimization by checking the checkbox. When shader optimization is enabled, shaders will not be generated for simple materials. Optimization is enabled by default.



The procedural shader preview feature does not support bump or displacement maps. Additionally, certain nodes are not supported, such as some raytracing effects, and some of the Variable nodes.

Scene Style Options

You can also specify various **Style Options** for your scene preview display, by entering your desired values in the appropriate fields. These options include the following:

- **Silhouette Outline Width:** The **Silhouette Outline Width** option allows you to specify the width of the lines used in the Outline display style.
- **Wireframe Line Edge:** The **Wireframe Line Edge** option allows you to specify the width of the lines used in the Wireframe display style.
- **Toon Edge Line Width:** The **Toon Edge Line Width** option allows you to specify the width of the Toon Outline display option, as enabled via the FireFly render settings.
- Check the **Antialias rendered image** option to smooth out rough “stairstep” edges that might appear in diagonal or curved-shaped areas of high contrast.

Click the **OK** button to apply your settings.

Transparency Display

You can set the **Transparency Display** to the actual transparency, or a specified limit, by clicking the appropriate radio button.

Selecting the **Actual** button will make any fully transparent surfaces invisible in your scene preview.

- If you wish to have some indication of where those items are in your scene preview, you can specify a limit to the transparency by selecting the **Limit to** button, and entering a maximum transparency percentage value. In the final render, transparent items are always rendered using the actual transparency settings.
- Objects with multi-layered transparency, such as hair, can sometimes appear to have inverted polygons in areas where the layers overlap. Check the **Enhance multi-layer transparency** option to improve the display of multi-layered transparent objects. The preview display runs slower when this option is enabled.

Texture Display Resolution

Adjust the **Preview Texture Resolution** slider to your liking. Lower settings provide less detail in your scene preview, but save on system resources. Higher settings provide

more realism, but may result in slower performance while building your scene in preview mode.

Movie Settings

You can access the **Movie Settings** window by toggling the **Movie Settings** tab next to the **Render Settings** tab. Please refer to "[Keyframe Controls](#)" on [page 288](#) for more information on movie settings.

Tips & Tricks

This section contains a few tips and tricks for improving still and animated renders:

- Experiment with low render settings and gradually increase them until you get the results you want. This will render your scene using the optimal balance between quality and speed. Small Web animations might need lower quality rendering while a piece of fine art might require very high settings.
- Still and animated renders use the currently selected camera. Be sure to select the proper camera before rendering, particularly if camera motion is part of your animation.

- By default, Poser renders using the **Texture Shaded** display style.
- Use the draft and production rendering options to save time while working and produce highly realistic results.

Use prop-based hair and figure-based clothing instead of strand-based hair and dynamic cloth where you do not need dynamic effects. This will conserve computing resources.

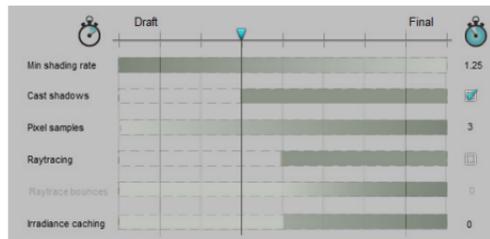
Chapter 16: Using The FireFly Render Engine

This chapter describes the FireFly technology features and render settings:

The FireFly renderer includes a wealth of powerful features, all of which help to create beautiful, realistic renders in little time. Those aspects of FireFly that are configurable are described in the following section. The following features enhance FireFly's performance and results:

Firefly Tab: Quality Settings

The FireFly tab offers a choice of different render setting presets that are automatically configured for you.

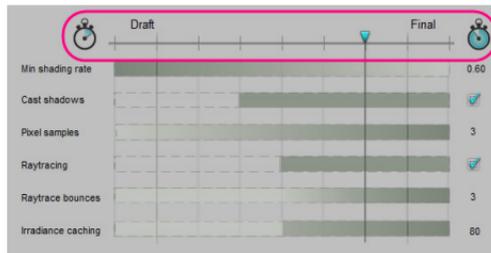


Firefly settings.

Draft vs. Final Quality

The Render Quality slider ranges from Draft Quality (faster render times) to Final Quality (slower render times). Moving this slider will automatically adjust the values of the specific render settings, as shown on the graphs below the slider. The values of the render settings (Min shading rate, Pixel samples, Raytrace bounces, and Irradiance caching) are depicted using a gradual shaded bar, with lighter color representing smaller values and darker representing larger values. Render settings such as Cast Shadows and Raytracing are either enabled for the render or not, so those settings are depicted using a solid color bar indicating the point at which they become enabled.

At the Draft Render Quality, the rendering settings will provide faster renders at lower quality. Use this option while creating your scene to get an idea what it will look like once it's completed. At the Final Render Quality, the render settings yield high-quality renders, but with increased render times. Use this option for your final output. There are also options below, above, and between Draft and Final quality which will increase or decrease rendering time depending on your selection.

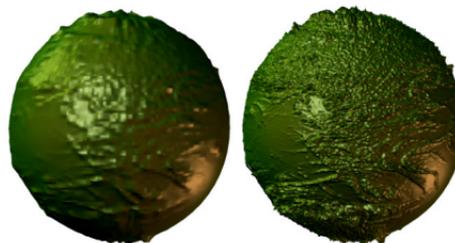


Increase or decrease render quality with the Render Quality slider.

The properties beneath the quality slider are as follows:

- **Minimum Shading Rate:** The **Minimum Shading Rate** value determines the level to which object polygons will be subdivided (or diced) into micro-polygons. For

example, a shading rate of 1 means that polygons will be divided into micro-polygons that each occupy approximately one pixel of the rendered image, and a value of 4 means that each micro-polygon will cover approximately 4 pixels of the rendered image. Values less than one (such as 0.2) cause each micro-polygon to be less than a pixel in size. Micro-polygons within a given polygon are as identical in size, shape, and area as possible. At render time, the renderer will subdivide each polygon, sample each micro-polygon, and assign the micro-polygons' average color to the pixel being rendered.



High minimum shading rate (left), loss of detail; Low minimum shading rate (right), full detail visible.

- **Cast Shadows:** This option is set automatically in Auto Settings. Checking the **Cast Shadows** checkbox causes the rendering engine to calculate shadows when rendering. Individual settings will override this general setting. For example, if a figure in your scene is set to not cast shadows, then it will cast no shadows even if **Cast Shadows** is turned on for all other objects in the scene. However, if the **Cast Shadows** checkbox is not enabled, no shadows will be rendered regardless of individual object settings. Enabling this option adds realism to your renders but can affect render time.
- **Pixel Samples:** Pixel sampling rates determine how many pixels are sampled when calculating antialiasing for a single pixel. For example, a setting of 3 creates a 3-pixel by 3-pixel grid with the pixel being sampled in the center. At render time, the renderer would examine the 3x3 area when determining the color and other values to assign to the pixel currently being rendered. Expanding this number can refine your renders but will greatly affect render times. 3x3 is considered a good default.
- **Raytracing:** Checking the **Raytracing** box enables raytracing, and vice versa. Enabling raytracing greatly enhances renderings, especially for curved surfaces, shadows, reflections, and refraction. However, it also greatly increases rendering times. Raytracing projects

rays from the camera through every pixel visible in the render window, also called the View pane. Each pixel is then set to the color value returned by the ray projected through it, based on the ray's point of intersection with an object in the scene. If the ray fails to intersect any objects, the pixel will be set to the background color. To determine whether the point of intersection is in shadow, a secondary ray is projected from the intersection point towards each light source. If the shadow rays intersect an object, the original intersection point lies in the shadow of that object. For reflections, when the ray intersects a reflective surface, a new ray is traced starting from the point of intersection and the color returned by that ray is incorporated into the color of the original intersection. This process is called **recursive raytracing** because reflected rays can spawn more reflected rays as long as they keep intersecting reflective objects. The images below show an example of raytracing. You can set the number of reflections (bounces) using the **Raytrace bounces** option (see below).

- **Raytrace Bounces:** When raytracing is enabled, the **Raytrace bounces** option specifies how many "bounces" or recursions the renderer will use when raytracing. You should select the number of raytrace bounces based on the number of reflective or refractive surfaces that will interact in your scene.

Higher numbers can add realism if the scene requires complex raytracing calculations. However, as higher numbers require longer render times, in a simple scenario increasing the number of raytrace bounces will just waste computation time.



One raytrace bounce (left); three raytrace bounces (right).

- **Irradiance Caching:** Irradiance Caching is used to accelerate Ambient Occlusion, Gather and some Light effects. This is done by reusing and interpolating values instead of expensively calculating them separately for every shading point. This process speeds up calculations by tracing less rays. The irradiance caching quality can be adjusted using the Irradiance caching slider. A lower setting means lower quality: FireFly will use more estimations, resulting in shorter processing times but less accuracy. A higher setting equals higher quality: FireFly will run more new calculations, resulting in longer processing times but increased accuracy.
- **Render Over:** Use the dropdown list to choose one of the following rendering options:
 - **Background Color:** Selecting **Background Color** renders the image/movie over the **Document** window's background color. Please refer to "[Colors](#)" on page 87 for information about changing **Document** window colors.
 - **Black:** Selecting **Black** renders the image/movie over a plain black background.
 - **Background Picture:** Selecting **Background Picture** renders the image/movie over the background image in your scene. Please refer to "[Importing Background Pictures](#)" on page 330 for information on importing background pictures.
- **Toon Outline:** The **Toon Outline** option uses post-processing during the rendering process to draw an outline around the edges of cartoon images. You can select from nine outline brush styles. We recommend

applying a Toon shader node to your images, and then complementing that shading with the **Toon Outline** option. Check the **Toon Outline** checkbox to enable this feature.



Toon Outline.

- **Gamma Correction:** Applies gamma correction to your render..

Once you have finished entering your desired settings, click **OK** to store them. Render settings are saved when

you save your scene. Clicking **Cancel** closes the **Render Settings** dialog without storing your changes.

To render your scene as a still image, select **Render > Render** or click the **Render Now** button in the **Render Settings** dialog.

To render animations, please refer to "[Keyframe Controls](#)" on [page 288](#) for more information.

Chapter 17: The Sketch Designer

Poser's **Sketch Designer** renders scenes as sketch-like drawings using black-and-white or colored brush strokes that you can tailor to your liking. Simulate pen, pencil, pastel, charcoal, and even watercolors and paintings without ever having to pick up a pencil or brush!



The Sketch Designer.

You can save **Sketch Designer** renders and reload them later for further work. The Sketch Designer also lets you create amazing animations that look like hand-drawn movies. For best results, try rendering scenes using plenty of detail (hair, clothing, etc.) and dramatic lighting.

To access the Sketch Designer, select **Window > Sketch Designer**. Alternately, you can access the Sketch Designer via the **Sketch** tab in the **Render Settings** dialog, which also contains other render and movie settings.

Sketch Elements

The Sketch Designer recognizes three distinct divisions within your scene:

- **Objects:** Checking the **Objects** radio button allows you to determine the sketch style for objects and figures in your scene.
- **Background:** Checking the **Background** radio button allows you to determine the sketch style for your scene's background.
- **Edges:** Checking the **Edges** radio button allows you to determine the sketch style for the edges of objects and figures in your scene.

Presets

You can use the **Load Preset** button at the bottom of the Sketch Designer to select one of the available preset sketch styles. You can also use the sliders and other options to create an almost infinite variety of styles.

The **Save Preset** button allows you to save your custom preset. After you adjust the sketch style to your desired settings, click **Save Preset**. Enter a name for your preset and click **OK**. Your new preset will appear in the Presets menu.

To delete a preset, click the **Delete Preset** button, and then choose the preset you want to delete from the menu that appears.



The Delete Preset option allows you to remove the sketch presets included with Poser. Once deleted, you must reinstall Poser to restore your factory default sketch presets.

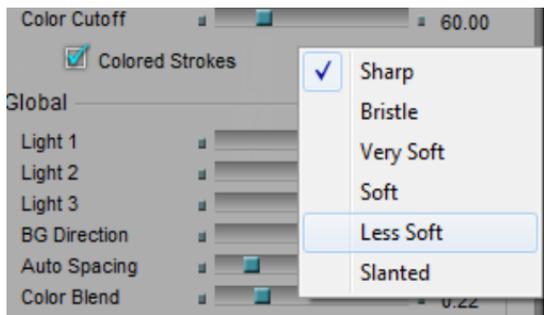
Checkboxes

The Sketch Designer has three checkboxes:

- **Over Black:** Checking the **Over Black** checkbox renders your scene over a black background with white strokes. When disabled, the background is white with black strokes.
- **Auto Density:** Checking the **Auto Density** checkbox causes stroke density to reach an automatic density based on the current scene, ignoring the **Density** slider setting (see below). When disabled, the density is calculated based on the **Density** slider setting.
- **Colored Strokes:** Checking the **Colored Strokes** checkbox causes sketches to be rendered in color. When disabled, sketches are rendered in black and white.

Brushes

The **Sketch Designer** includes several predefined brushes, available using the **Brushes** pull-down menu. For maximum effect, try using these brushes with both the **Min Width** and **Max Width** sliders set to higher values.



Brush Presets.

Sketch Parameters

The **Sketch Designer** includes the following parameters, controllable using sliders. Moving a slider to the right increases the selected value, and vice versa. These parameters customize many characteristics of the sketched lines. Your sketch redraws each time you adjust a value, allowing you to see the results of your changes.

- **Density:** The **Density** slider controls the density of lines in the sketch.
- **Line Length:** The **Line Length** slider defines the length of strokes.
- **Min Width:** The **Min Width** slider defines the width of the edge of each stroke, which affects the brightness of the original image.
- **Max Width:** The **Max Width** slider defines the width of the center of each stroke, which affects the brightness of the original image.
- **Lo Brightness:** The **Lo Brightness** slider determines the band of tone. A low setting only draws lines in the darkest parts of your scene. If the **Over Black** option is disabled, setting this control to 0 produces the best results.
- **Hi Brightness:** The **Hi Brightness** slider determines the band of tone. A lower setting only draws lines in the darkest parts of your scene. If the **Over Black** option is enabled, setting this control to 1 produces the best results.
- **Stroke Head:** The **Stroke Head** slider determines the amount of taper at the stroke's head.
- **Stroke Tail:** The **Stroke Tail** slider determines the amount of taper at the stroke's tail.

- **Line Random:** The **Line Random** slider controls line randomizations. Higher settings result in more randomly shaped lines.
- **Color Random:** The **Color Random** slider controls color randomizations. Higher settings result in more random colorization.
- **Opacity:** The **Opacity** slider determines the clarity of lines. Lower values create more transparent strokes.
- **Cross Hatch:** The **Cross Hatch** slider controls the frequency of cross-hatching in the strokes.
- **Total Angle:** The **Total Angle** slider determines the total amount of angle change that a stroke can have before it stops drawing. Higher values darken the image. Lower this value when you have lower **Density** settings.
- **Color Cutoff:** The **Color Cutoff** slider determines the threshold of color changes allowed for a stroke. Use this slider in conjunction with **Total Angle**.
- **Light 1, 2, and 3:** The **Light 1**, **Light 2**, and **Light 3** sliders determine the extent to which the first three lights in your scene contribute to the direction of strokes. Higher values make the strokes go in the direction of the selected light(s).
- **BG Direction:** The **BG Direction** slider defines the direction of the background strokes.
- **Auto Spacing:** The **Auto Spacing** slider controls the amount of space between strokes if the Auto Density option is enabled.
- **Color Blend:** The **Color Blend** slider determines how much color in the **Document** window will be blended into the sketch.

Rendering Sketches

After setting up your sketch, you can render it to the **Document** window. This is useful if you want to export a movie rendered using the Sketch Designer renderer. To render to the **Document** window, select **Render > Sketch Style Render**.

Exporting Painter Scripts

Clicking the **Export Painter Script** button in the lower left corner of the **Sketch Designer** exports the current **Sketch Designer** settings to Corel Painter. This has been tested to work with Painter 6 and previous versions, and is not supported for later versions though it may work with them.

Part 5: Animating

Chapter 18: The Animation Menu

The **Animation** pull-down menu lets you control various aspects of your Poser animations.

Make Movie

Setting **Animation > Make Movie** opens the **Make movie** window. Please refer to "[Chapter 20: Rendering Animations](#)" on page 314 for more information on rendering animations in Poser.

Skip Frames

Selecting **Animation > Skip Frames** toggles skipping frames on and off. This option can help speed playback.

Mute Sound

Selecting **Animation > Mute Sound** toggles sound muting during animation playback. A check mark appears when muting is enabled, and vice versa.

Chapter 18: The Animation Menu

Clear Sound

Selecting **Animation > Clear Sound** deletes the sound previously imported into your Poser scene.

Play Movie File

Selecting **Animation > Play Movie File** allows you to open a movie file for playback within Poser. A standard **Open** dialog appears, allowing you to browse to your desired movie file.

Chapter 19: Animating with Poser

Poser allows you to animate figures and props, giving life to your scenes. You can use your work in multimedia projects, on the Web, and in videos by exporting rendered results to Windows AVI, Macintosh QuickTime, or Flash movie format. AVI movies are rendered in 32-bit color, which by default includes an alpha channel (mask) for each frame. This can aid in compositing the animation with other movie footage. QuickTime movies can also contain an Alpha channel if set to render at millions of colors.

Once rendered, exported animations can be opened and edited in post-production tools such as Adobe Premiere and Adobe After Effects, where you can edit sequences and add special effects. While you can create long animations, we recommend creating a series of shorter animations and piecing your scenes together using an editing application. Real movies follow this guideline as well: Each time a camera angle changes, you're seeing a new take of a scene or a different scene altogether. This includes cases such as conversations, where the camera is switching back and forth between the participants. Poser includes many powerful tools designed to help you create stunningly realistic animations. Animation is easy to learn

but hard to master. Start with short simple movies and work up as your skills improve. The results may surprise you!

Animation Overview

At its simplest, the animation process is as follows:

1. Decide how many frames you want in your animation. One way to do this is to decide how long your animation will be in seconds, then multiply that by the your desired number of frames per second (**frame rate**).
2. Create a starting pose.
3. Select your next keyframe.
4. Create a new pose.
5. Repeat Steps 3 and 4 until your animation is complete.

Poser uses a technique called keyframe animation to simulate motion based on a series of still poses. You set up a series of poses at different points in time. These are the keyframes. Poser fills in the gaps, interpolating between keyframes to create the illusion of motion. This keeps you from having to move your figure each time you want to create a motion, such as is done in stop-frame animation,

where each frame is individually positioned (many "Claymation" movies use stop-frame animation).

What You Can Animate

What can you animate using Poser? Just about everything! Here are some examples:

- **Figures (humans, animals, clothing, etc.):** If you can imagine a motion, you can create it using Poser! Please refer to "[Chapter 9: Posing Figures](#)" on page 164 for information about posing human figures, and to "[Posing Animals](#)" on page 195 for some information about posing animals.
- **Hands:** Gestures and small motions add incredible realism to videos. Many amateur animators ignore hands when animating, which subtly detracts from your scene's realism. Please refer to "[Posing Hands](#)" on page 193 for information about posing hands.
- **Faces:** Animating faces can add emotion and power to your scene and can also mimic speech. Please refer to "[Posing Faces](#)" on page 190 for more information about posing faces.
- **Props:** You can animate props by moving them about the Poser workspace, parenting them to other actors,

etc. Please refer to "[About Props](#)" on page 204 for more information about props.

- **Lights and Cameras:** Change color and position of lights and zoom, pan, or bank cameras over time.
- **Walk Paths:** You can create paths that your figures walk along, as described in "[Creating a Walk Path](#)" on page 307.

By default, your animation moves over the **Document** window's background. You can have still or animated backgrounds in your scenes. Please refer to "[Importing Background Pictures](#)" on page 330 and to "[Importing Movies](#)" on page 329 for more information about backgrounds in Poser scenes.

Inverse Kinematics

You can use IK or not in your animations, however it is a global setting. If enabled on a figure's limbs, it's on for the duration of your animation, and vice versa. You can turn it on or off while you work, but the final state is what will "stick" in your final animation. Toggling IK on and off can affect your animation; it's best to pick an option before starting to animate and stay with it to avoid having unexpected changes occur in your animation. Please

refer to [“Inverse Kinematics \(IK\)” on page 165](#) for more information about Inverse Kinematics.

Animation Tools

Poser has five animation tools:

- **Animation controls:** The simple, single channel **Animation** controls allow you to create quick click-and-drag animations as well as preview your work. Access the **Animation** controls by clicking the handle at the bottom of your Poser workspace. See [“Using the Animation Controls” on page 285](#) for more information.



*If not displayed, choose **Window > Animation Controls** to show the Animation Controls.*

They will dock or float depending on how you last used them.

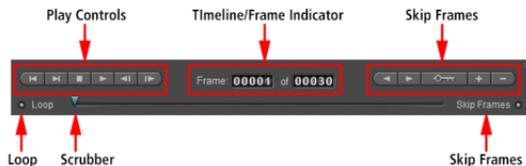
- **Animation Palette:** The **Animation** palette contains the advanced editing features, with which you can create more complex animations. Among other things, you can edit keyframes, animation layers and individual actors, and create Animation Sets. Access the **Animation** palette by selecting **Window > Animation Palette**. Please refer to [“Using the Animation](#)

[Palette” on page 289](#) for more information about the **Animation** palette.

- **Walk Designer:** Creating realistic walking movements is a very time consuming animation task to get right. Poser's **Walk Designer** takes the effort out of this process and lets you quickly create realistic walks (for human figures only). Access the **Walk Designer** by selecting **Window > Walk Designer**. Please refer to [“Using the Walk Designer” on page 302](#) for more information about the **Walk Designer**.

Using the Animation Controls

The **Animation controls** are dockable and floatable. This palette contains the tools most commonly used when creating animations. They allow you to add and edit keyframes and preview your animation. If the Animation controls do not appear on your screen, choose **Window > Animation Controls** and place them where you find it most convenient (generally the top or bottom of your document window is the common location). The **Animation controls** appear as follows, and consists of the controls described in the following sections:



Animation Controls.

Timeline/Frame Indicator

The center portion of the **Animation controls** displays the **Timeline**, which represents the total time of your animation in Poser. This timeline contains a pointer (**Scrubber**) representing the location of the current frame relative to the entire animation, which is visible in the **Document** window. The **Scrubber** is very commonly used to quickly find specific points within animations. Click and drag the **Scrubber** to quickly navigate your animation.

Just above the **Scrubber** is the **Frame Indicator**, which indicates both the total number of frames in your animation and your current position within that timeline, with the left field indicating position and the right indicating animation length. For example, if the two

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numbers read 60 and 120, that means that you are viewing the 60th frame of an animation that is 120 frames long.

You can jump to a specific frame by clicking the left number field and entering the frame number you wish to jump to. You can also add or remove frames by clicking the right number field and entering the number of frames you wish in your animation. Entering a larger number lengthens your animation and vice versa. Shortening animations will cut the excess frames from the end. For example, if you reduce an animation from 120 to 90 frames, you will lose the final 30 frames.

Recording Keyframes

Poser records changes made to figures, props, materials, etc. as keyframes. Create keyframes by moving the scrubber to a new point on the timeline and making your desired change(s) to your scene. Recorded keyframes store new body part positions, new prop positions, material settings, etc. for each figure and prop within your scene. You can only record one set of position parameter settings for any given keyframe. For example, if you select a frame and move a figure's arm up then change your mind and move the arm down again, the downward position is what will be "remembered" and what will affect your animation. To make a figure's arm wave up and down:

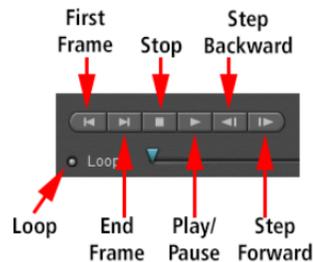
1. Select a starting pose.
2. Move the scrubber to the point in time/frame number you wish to edit.
3. Raise the arm using the **Editing** tools.
4. Move the scrubber to a later point in time/frame number.
5. Lower the arm, again using the **Editing** tools.
6. Continue creating keyframes until the motion sequence is complete.



Camera animation must be enabled for the currently selected camera. In order to automatically record keyframes, if animation is disabled, you can add keyframes manually (see following subsection).

Play Controls

The **Play** controls appear on the left side of the **Animation controls** and allow you to preview your animation using VCR-like controls. From left to right, the **Play** controls are as follows:



The Play Controls.

- **First Frame:** Clicking the **First Frame** button moves to the first frame in your animation.
- **End Frame:** Clicking the **End Frame** button moves to the last frame in your animation.
- **Stop:** Clicking the **Stop** button stops animation playback at the current frame.
- **Play/Pause:** Clicking the **Play** button plays your animation at normal speed, including background movies and sounds (if any). While your animation is playing, this button becomes the **Pause** button. Clicking it freezes the animation at the current frame.

- **Step Backward:** Clicking the **Step Backward** button moves back to the previous frame (i.e., the frame before the current one).
- **Step Forward:** Clicking the **Step Forward** button moves forward one frame (i.e., the frame after the current one).
- **Loop:** Checking the **Loop** radio button causes your animation to repeat itself continuously when playing until you click the **Stop** button.
- Animation previews run in the **Document** window. Be sure to select the appropriate tracking mode (see "Tracking Mode" on page 84).

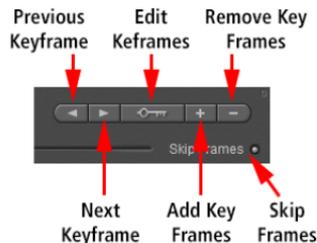
Keyframe Controls

In most cases, Poser's automatic animation engine records keyframes as you create animations. Sometimes, however, you'll want to manually add keyframes, such as when camera animation is disabled. It is important for you to track the status of camera animation, as you could create a series of keyframes without realizing that the animation is off. As mentioned above, if camera animation is disabled, you must manually add keyframes in order to record them. You may also need to fine-tune animations, which may necessitate recording additional keyframes. For example,

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you could position the figure's left foot at Frames 10 and 20, with Poser calculating its position for the tween frames. If you wanted to refine this, you could add a keyframe at Frame 15.

The **Keyframe** controls allow you to quickly and easily add, preview, and remove keyframes within your animation. From left to right, the **Keyframe** controls are:



The Keyframe Controls.

- **Previous Keyframe:** The **Previous Keyframe** button returns to the previous keyframe.
- **Next Keyframe:** The **Next Keyframe** button advances to the next keyframe.

- **Edit Keyframes:** Clicking the **Edit Keyframes** button opens the Animation Palette, discussed next.
- **Add Key Frames:** Clicking the **Add Key Frames** button adds a keyframe at the current frame number. For example, if you have existing keyframes at Frames 15 and 30, you could drag the **Scrubber** to Frame 22 and insert a keyframe by clicking the **Add Key Frames** button. You can also insert a keyframe by moving to any frame in your animation and making a change in your scene. This change will automatically be recorded as a new keyframe.
- **Remove Key Frames:** Clicking the **Remove Key Frames** button removes the currently selected keyframe. For example, if your character's arm is over his head in Frame 1, down at Frame 15 and out to the side in Frame 30 and you remove the keyframe in Frame 15, the figure's arm will move out to the side position specified in Frame 30 without dropping to the figure's side. To delete a keyframe, use the **Next Keyframe** or **Previous Keyframe** buttons to locate your desired keyframe, then click the **Remove Keyframe** button.
- **Skip Frames:** Check this radio button to skip frames during playback. This helps conserve system resources while previewing your animation before you render it.

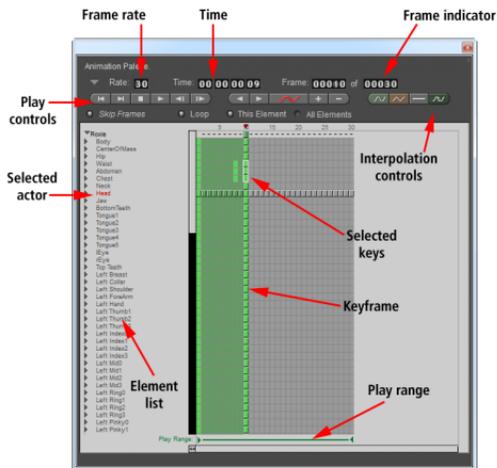
Using the Animation Palette

To display the **Animation** palette, you can either select **Window > Animation Palette**, or click the **Display Animation Palette** button in the **Animation** controls as described above. To close the palette, either select **Window > Animation Palette** again, or click the small box in the upper left corner.

The upper section of the **Animation** palette contains several controls as follows:

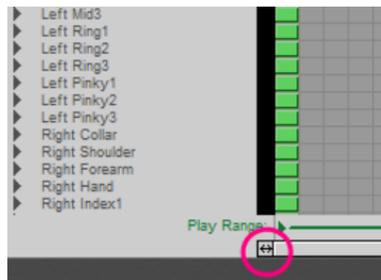
Controls

Several controls and options appear in the Animation Palette. These options are discussed below.



The Animation Palette.

You can resize the grid in the Animation Palette, making the keyframes wider or narrower, by clicking and dragging the resize button (below the text that reads **Play Range** as shown in the following figure). Drag left to make the grid narrower, or toward the right to make the grid wider.



Resizing the grid.

Frame Rate

The frame rate specifies the number of frames played per second. To change the scene frame rate, you can either click the current frame rate and enter your desired number in the text box that appears or click the arrow to the left of the current frame rate and make your selection from the **Frame Rate** pull-down menu. Choices are 12, 15, 18, 24, 25, 30, 50, and 60 frames per second. Some common frame rate settings are:

- **NTSC:** 30
- **PAL:** 25

- **Film:** 24
- **Flash:** 12 (recommended) or 15



For Poser integration into other apps, the user will need to determine the frame rate to match that of the hosting software. The default frame rate in Poser is 30 fps, but other applications might use 24 fps. Users will need to create a file with the same frame rate. This needs to be handled specially for each app.



*You can also set the output frame rate using the **Movie Settings** window (“[Keyframe Controls](#)” on page 288). This setting is independent from your scene frame rate, as specified in the **Animation** palette (see above). Additionally, you can generate a quick preview render by specifying the **Every N-th Frame** setting in the **Movie Settings** window. Again, this setting is for output purposes only, and is independent of your scene frame rate.*

Time

The **Time** control displays the amount of time in your animation between the first frame and the currently selected frame. Time is displayed in SMTPE format

(Hours:Minutes:Seconds:Frame). You can jump to a specific point in time by entering your desired numbers in the fields. For example, if you jump to 1 minute in an animation using 24 frames per second, you'll arrive at Frame 1440 (24 frames/sec times 60 seconds).

Frame

The **Frame Indicator** is identical to its counterpart in the **Animation** controls. You can jump to a specified frame and add or remove frames from your animation as described in “[Timeline/Frame Indicator](#)” on page 286.

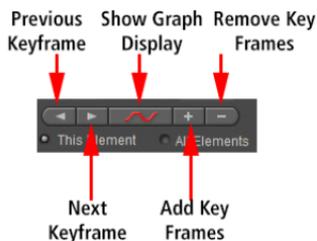
Play Controls

The **Play** controls are identical to their counterparts in the **Animation** controls. See “[Play Controls](#)” on page 287 for more information.

Play Range

By default, the entire animation plays when previewing animations using the **Play** controls. You can, however, opt to view only a portion of your animation during preview. This feature is useful if you have a long animation and only want to focus on small portions at a time. The **Play Range** indicator appears at the bottom of all three tabs on the **Animation** palette. To adjust the play range, drag the

palette feature a button that allows you to open the Graph palette.



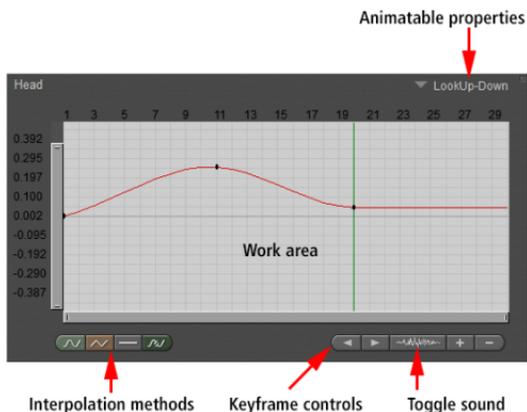
Keyframe Controls.

- **Previous Keyframe:** The **Previous Keyframe** button returns to the previous keyframe.
- **Next Keyframe:** The **Next Keyframe** button advances to the next keyframe.
- **Show Graph Display:** Clicking the **Show Graph Display** button opens the Graph, discussed in “Using Graphs” on page 293.
- **Add Key Frames:** Clicking the **Add Key Frames** button adds a keyframe at the current frame number. For example, if you have existing keyframes at Frames 15 and 30, you could drag the **Scrubber** to Frame 22 and insert a keyframe by clicking the **Add Key Frames** button. You can also insert a keyframe by moving to any frame in your animation and making a change in your scene. This change will automatically be recorded as a new keyframe.
- **Remove Key Frames:** Clicking the **Remove Key Frames** button removes the currently selected keyframe. For example, if your character's arm is over his head in Frame 1, down at Frame 15 and out to the side in Frame 30 and you remove the keyframe in Frame 15, the figure's arm will move out to the side position specified in Frame 30 without dropping to the figure's side. To delete a keyframe, use the **Next Keyframe** or **Previous Keyframe** buttons to locate your desired keyframe, then click the **Remove Keyframe** button.
- **Skip Frames:** Check this radio button to skip frames during playback. This helps conserve system resources while previewing your animation before you render it.

Using Graphs

When you double-click a keyframe, the Graph palette for that keyframe appears. An element's **Graph** palette allows you to perform precise edits on keyframes and modify the

interpolation methods used in your animation. The **Graph** palette contains the following functions:



The Graph Palette.

- **Animatable Properties:** The **Animation Properties** pull-down menu allows you to select all of the animatable properties for the currently selected element.
- **Interpolation Methods:** See [“Selecting Interpolation Types” on page 294.](#)

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- **Keyframe Controls:** See [“Keyframe Controls” on page 292.](#)
- **Work Area:** See below.

The following subsections describe the **Graph’s** functionality in further detail.

About the Graph Palette

The **Graph Work Area** consists of two axes and a graph. The horizontal axis represents time in frame numbers. The vertical axis’ values change depending on the selected attribute. If you choose a position attribute such as **xTrans**, the values represent positions in 3D space (Cartesian coordinates). If you select an editing property such as **Bend**, the axis represents degrees. A morph parameter’s values are measured in percentages.

The **Graph** itself shows the actual change in the attribute over the course of your animation. Its shape indicates the type of interpolation being used. You can also use the **Graph** palette for synchronizing sound to motion, as described in [“Syncing Sound & Motion” on page 310.](#)

Selecting Interpolation Types

The **Graph** contains controls allowing you to specify interpolation methods, which can be specified on both

the element and frame range levels. The **Interpolation** controls appear as follows:



Interpolation Controls.

To choose an interpolation method, select the elements and frame range to modify, then click your desired Interpolation button. The **Animation** palette uses color codes to depict varying interpolation methods.

- **Spline:** Green



Splines can sometimes go beyond and exceed the maximum keyframed values depending on the slope created by tightly-spaced keyframes. Adding additional keyframes can constrain the slope into more pleasing levels.

- **Linear:** Red
- **Constant:** Grayed out
- **Break Spline:** A hash mark appears where **Break Spline** has been applied.

Editing the Graph

You can edit the graph to achieve varying degrees of interpolation. For example, to decrease the amount of **Spline** interpolation, straighten the curve. You can set the curve's shape using preset interpolation methods or by dragging the curve's points to obtain your desired shape. You can also apply different interpolation methods to different parts of the graph using the **Break Spline** function.

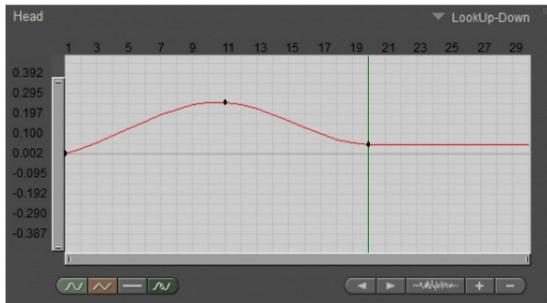
Be aware that changing the graph's shape affects the selected element's motion. To edit the graph, use the **Animation Properties** pull-down menu or select **Graph** from the **Parameters** palette (see "Using Graphs" on page 293) to select the attribute to be edited. Next, drag any point on the graph in the direction you want to move the curve. The curve will reshape itself based on your chosen interpolation method(s). Use the scrollbar to view parts of the graph that are not currently being displayed.

To change the type of interpolation applied to a portion of the graph, click and drag to select the frames you wish to change. Your selected area will become highlighted. Next, click one of the **Interpolation** buttons at the bottom of the palette. This can add keyframes to your animation.

Vertical lines on the graph denote keyframes. You can move these points to change when keyframes occur, and

can also add keyframes by clicking the point on the line where you want to insert the keyframe.

The **Current Frame** indicator is a visual reminder of the frame you're currently working on. To select a keyframe, click the **Next Keyframe** or **Previous Keyframe** button, as appropriate, click a keyframe indicator, or drag the **Current Frame** indicator to the frame you wish to edit. Click and drag a rectangle to select a range of frames.



Keyframes displayed in the Graph.

You can also perform the following functions using the **Graph**:

- To move keyframes, select the keyframe(s) you want to move, and drag forward or backward in the timeline to a new location.
- To add a keyframe, drag the **Current Frame** indicator to your desired location and click the **Add Key Frames** button.
- To delete a keyframe, move the **Current Frame** indicator to the desired keyframe and click the **Delete Key Frames** button.
- To cut, copy, and paste, use the editing hotkeys ([**COMMAND**]/[**CTRL**]+[X], [**COMMAND**]/[**CTRL**]+[C], and [**COMMAND**]/[**CTRL**]+[V], respectively) or choose the appropriate command from the **Edit** menu.
- To close the **Graph** palette, click the small box in the upper left corner.

Using the Graph With the Animation Palette

If you open the **Animation** palette, you can access the **Graph** palette for the currently selected scene element by clicking the **Display Graph Palette** button, or by double-clicking a keyframe in the **Animation** palette. With both palettes open, you have the following options:

- Double-clicking any element in the **Animation** palette's **Element** list switches the current **Graph** palette to the selected element.
- Pressing **Opt/ALT** while double-clicking any element in the **Animation** palette's **Element** list opens a new **Graph** palette for the selected element while not affecting any other open **Graph** palettes. You can use this function to open as many **Graph** palettes as you like at one time, which can greatly speed up your animation work. You can even open more than one **Graph** palette for each element, allowing you to (for example) adjust the Right Forearm's **Twist** and **Bend** at once to achieve smooth realistic movement.

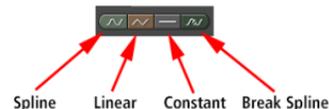


When you have more than one **Graph** palette open at once, changing elements by double-clicking them will only change the most recently opened **Graph** palette. All other **Graph** palettes will retain their current settings. If you need to change more than one **graph** palette, close out all unneeded palettes, then re-open them by selecting your currently needed elements.

Interpolation Controls

The process of filling in the blanks between keyframes (the area known as **tween frames**) is called interpolation, and the frames between keyframes are called tweens. Interpolation determines how intermediate poses are created.

Poser supports four types of interpolation, which allows you to make subtle changes to your animations. Interpolation settings apply to a range of frames, meaning that you can use different interpolation methods at different intervals in your animation. The **Interpolation** controls allow you to specify the interpolation method.

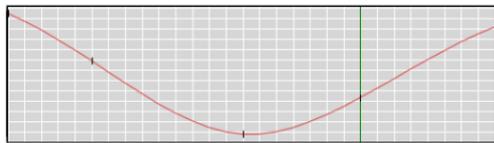


Interpolation Controls.

From left to right, the buttons are:

- **Spline:** Places tween poses and settings on a curve. Motion begins at one keyframe, accelerates to full velocity, and gradually slows down as it approaches the next keyframe. For example, if the first keyframe

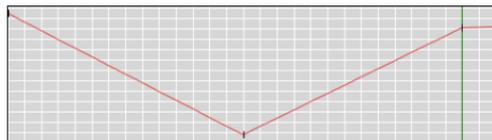
has an arm by a figure's side and the second one has it raised, the arm will begin moving slowly, accelerate to a constant velocity, and slow as it reaches the second keyframe. This is not to say that the movement will be fast; actual speed of motion depends on the amount of change between keyframes and the number of tween frames. In our above example, having the second keyframe 5 frames from the first would make a very rapid motion, while having 100 frames would make a very slow motion. The key thing to remember is that this type of animation resembles a smooth curve and is normally the most realistic.



Spline Interpolation.

- **Linear:** Takes the two keyframes and divides the motion between them equally with no acceleration or deceleration of the moving items. In the above example, the arm would move at a constant velocity from keyframe to keyframe. If you created a third

keyframe with the arm back down, the change direction at the second keyframe would be abrupt.



Linear Interpolation.

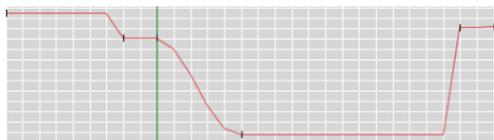
- **Constant:** This has no intermediate poses. If you set a series of poses with different keyframes, the first pose will be maintained until the second keyframe, at which point it will instantly change to the second pose, which will be maintained until the third keyframe, and so on.



Constant Interpolation.

- **Break Spline:** Stops interpolation at the selected point so you can begin a new interpolation style. This is useful

for blending different interpolation styles. For example, a bouncing ball moves in a smooth arc until it hits the floor, at which point it undergoes an abrupt change in direction and speed. This is one scenario where changing interpolation styles can aid your animating work.



Breaking interpolation.

Loop

Clicking the **Loop** radio button causes your animation to repeat itself continuously when playing until you click the **Stop** button. Click the button again to toggle its functionality off.

This Element/All Elements

This option selects whether changes made using the **Keyframes** tab (interpolation type, keyframe changes,

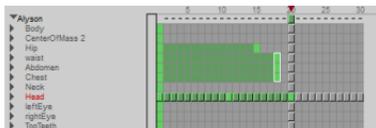
etc.) apply to the entire scene or just to the selected element. Click the **This Element** or **All Elements** radio button, as appropriate, to make your selection.



Selecting elements to change.

Elements List/Timeline

The **Elements List** displays a list of all elements in your scene. The **Timeline Area** displays your animation frames and all of the keyframes stored for each body part/prop/material/etc. Keyframes appear in red, with tween (interpolated) frames appearing in different colors according to their interpolation type (see "[Interpolation Controls](#)" on page 297). You can expand and collapse element listings by clicking the triangles next to elements in the list. Each element can be further expanded to display its properties and parameters that can be animated. For example, you can view the **Scale** and **Transition** elements for a figure's forearm. The following image displays a portion of the **Elements List** for a scene.



The Element List.

To select an element, click it in the **Element List**. This selects the desired element in the same manner as clicking it in the **Document** window, using the **Current Actor** menu or selecting it using any of the other available selection methods. Poser highlights the currently selected element in the **Elements List** as well as that element's row in the **Timeline**. Use the vertical scroll bar on the right of the **Elements List** and expand and collapse branches to view all of the elements in your scene. Collapsing branches saves space in the display.



When you collapse an entire figure in the Elements List, the keyframes displayed will only be those pertaining to that figure's location in the Poser workspace. You'll need to expand the Elements List to show posing/parameter changes.

Double-clicking an element in the list, or selecting an element and clicking the **Show Graph** button, opens the

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Graph for the selected item. Please see "Using Graphs" on page 293.

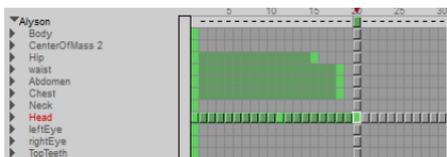
Editing Keyframes on the Timeline

You can use the **Timeline** to select, add, edit, or delete keyframes. The **Timeline** appears as a grid that displays keyframes for each element in your scene. Columns indicate time, with each column corresponding to a single animation frame or point in time (See "Elements List/Timeline" on page 299). The **Ruler** at the top of this area indicates whether the columns indicate frames or points in time. Each row corresponds to an element in your scene. As described above, the **Timeline** presents information using color codes. Use the horizontal and/or vertical scrollbars to navigate the **Timeline** if necessary.

Selecting Keyframes

By default, Poser selects the first frame in your animation (Frame 1) when you open the **Animation** palette. You can select any frame by clicking in or above its column. You can also enter a number in the **Frame** field. When you select a keyframe, Poser displays the current element's row and time column, creating an intersection.

Selecting a different keyframe moves the intersection to the newly selected point. To select a keyframe, click any one of the light green squares on the **Timeline** grid.



Selecting Keyframes.

Adding & Removing Keyframes

Adding keyframes stores a specific pose and/or saves a Poser-created interpolation (tween) frame. You can add keyframes for the entire scene or the selected element by checking either the **This Element** or **All Elements** radio button as described in “[This Element/All Elements](#)” on [page 299](#). When **This Element** is selected, keyframes are only recorded for your currently selected element. When **All Elements** is selected, keyframes are recorded for every element in your scene. To add a keyframe:

1. Select **This Element** or **All Elements**, as appropriate.

2. Select the frame or point in time where you wish to add the keyframe.
3. Click the **Add Keyframes** button.

Removing Individual Keyframes

Removing keyframes can modify how your animation appears. You can clear a keyframe for a specific element or your entire scene by selecting **This Element** or **All Elements**, as appropriate. Removing a keyframe does not delete the frame, but removes the saved information. To remove a keyframe:

1. Select **This Element** or **All Elements**, as appropriate.
2. Select the frame or point in time where you wish to remove the keyframe.
3. Click the **Delete Keyframes** button.

Removing Multiple Keyframes

To remove an entire range of keyframes, click and drag over the keyframes you wish to delete in the Timeline and press [DEL]. To remove multiple specific keyframes, press and hold **Shift** while selecting individual keyframes, then press [DEL].

Moving Keyframes

While creating animations, you may decide to have one or more keyframes occur earlier or later than your present settings. You may also want to apply the settings in some keyframes to others. Poser allows you to move both individual and multiple keyframes. To do this, click the keyframe you wish to move and drag the colored cell horizontally to its new location. To move multiple keyframes, select them and drag your selection to its new location on the timeline.

Copying Keyframes

You can copy keyframes, figure parts, and parameters appearing in the **Element List**. By doing this, you can (for example) have several Poser figures marching in perfect step. Although Poser does not limit how you copy and paste keyframes, you should avoid mixing data (such as copying **Scale** parameter settings to a **Rotation** parameter). You can also obtain unexpected results by copying movements from one side of a body to another. If you do copy parameters from side to side, you will need to make the affected parameters negative on the side you copied to.

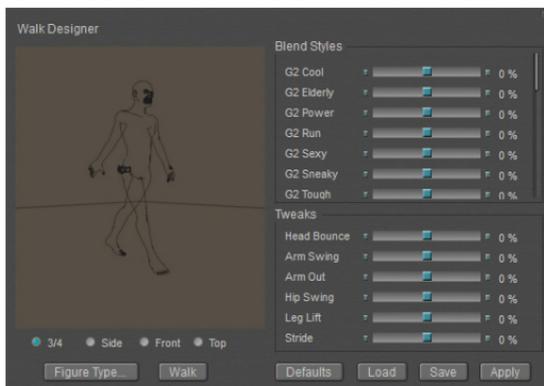
Choose **Edit > Copy** or press **[COMMAND]/[CTRL]+[C]** to copy frames to your clipboard. When you reach your

destination, select **Edit > Paste** or press **[COMMAND]/[CTRL]+[V]**.

Alternatively, you can click the desired keyframe then press and hold **Opt/ALT** while dragging the keyframe to its new location. You can move multiple keyframes by selecting them and **Opt/ALT**+dragging your selection to its new location.

Using the Walk Designer

Of the wide range of human motions, walking is among the hardest to simulate with any degree of accuracy. Walking looks simple: just place one foot in front of the other. In reality, however, it is an incredibly complex motion involving a variety of muscles in the legs, torso, arms—practically the entire body. Thus, creating an accurate walk simulation entails a great deal of precision posing. Poser's **Walk Designer** allows you to bypass most of this and create a realistic walk using just a few simple steps.



The Walk Designer.

Creating the Walk

To open the **Walk Designer**, select the figure you'd like to animate in the Poser scene, then choose the **Window > Walk Designer** menu command.

Unless you want your figure to walk in place (without a walk path), create a walk as follows:

1. Create a walk path (your figure will follow this path when walking)
2. Create a walk using the **Walk Designer**.

The **Walk Designer** has two sections. The upper set of controls creates the walk's larger motions, while the lower set lets you set up the walk's secondary motions. To preview a walk, click the **Walk** button at any time while using the **Walk Designer**. The preview will loop indefinitely and the button will change to **Stop**.

Views

As you can see in the previous graphic, the Walk Designer includes a real-time preview of the walk being created. As you change the parameters, the walk changes to reflect your updates. You can specify the angle from which to preview your walk by checking the appropriate radio button underneath the Preview tab:

- **(default):** Checking the radio button looks at the figure on an angle.
- **Side:** Checking the **Side** radio button looks at the figure's side.

- **Front:** Checking the **Front** radio button looks at the figure's front.
- **Top:** Checking the **Top** radio button looks down from the top.



The Walk Designer reflects your current Poser workspace's foreground, background, and shadow colors, as well as tracking mode.

Figure Types

This step is optional, however it can address potential issues such as irregular or jerky motions in generated walks. To load a figure type, click the **Load** button in the Walk Designer and use the standard **Open** dialog to locate your desired character (*.CR2) file.



Try loading the same figure you're working on. For example, if creating a walk for the Don figure, load him into the Walk Designer for best results.

Blend & Tweak Styles

Once you've loaded your figure type, you can begin designing your walk. By default, the sliders are all in the middle of their ranges. This combination applies a workable default walk. Dragging a slide to the right increases its value and effect, and vice versa. To create a walk:

1. Drag the **Blend** sliders to create the large motions. Use the preview to view all of the available settings. Try using combinations of several settings, and remember that small changes can produce dramatic results.
2. Adjust the **Tweak** sliders to fine-tune the walk.
3. When your walk looks the way you want it to, click the **Done** button to open the **Apply Walk** dialog (see below).



Clicking the Defaults button restores all sliders to their default positions.

Loading & Saving Walks

You can load and save walk files using the **Walk Designer**. This is not the same as saving animated poses to the

Library palette. To save a walk, create it, then click the **Save** button to open a standard dialog box allowing you to specify the name and location for the saved walk. Select your desired path, enter a name for the saved walk, and click **OK**.

To load a walk, click the **Load** button to open a standard **Open** dialog, allowing you to specify a path and filename for the walk file to load.

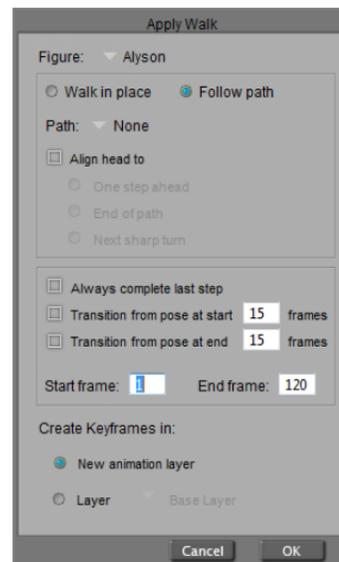


For greatest realism, load walks created using the same figure type.

Applying Walks

Once you've created your walk, you need to apply it to the figure's walk path (see "[Creating a Walk Path](#)" on [page 307](#) for instructions on creating walk paths). The **Walk Apply** dialog allows you to specify various options for applying your newly created walk. If you want your figure to walk in place, you can use this dialog without having a walk path.

You have the following options when applying walks:



The Apply Walk dialog.

- **Figure:** If your scene has more than one figure in it, the **Figure** pull-down menu allows you to select the figure to apply the walk to.

- **Walk in Place/Follow Path:** Clicking the **Walk in Place** radio button causes the selected figure to walk in place without going anywhere. You can use this option to create a walk without a walk path. Alternately, if you wish your figure to follow a walk path, click the **Follow Path** radio button.
- **Path:** If your scene has more than one walk path, you can use the **Path** pull-down menu to specify the walk path to use.
- **Align Head to:** Checking the **Align Head to** box lets you control how the figure's head acts as it moves along the walk path. **One Step Ahead** keeps the head aligned with the body and produces the most head movements. **End of Path** keeps the figure's head looking at the end of the walk path no matter where it leads. **Next Sharp Turn** aligns the head to the turns in the walk path, the head only moving when the path curves.
- **Always Complete Last Step:** Checking the **Always complete last step** box forces the walk animation to complete within the allotted time. This is useful if the walk ends in mid-stride at the end.
- **Transition From/To Pose at Start/End Frames:** The **Transition from pose at start** and **Transition from pose at end** options allow your figure to smoothly transition into and out of the walk at the beginning and end of the walk cycle, respectively. When enabled, Poser interpolates between the figure's pose at the start of the walk and the settings you specified in the **Walk Designer**, and vice versa at the end of the cycle. For example, you can use this feature to quickly set up a runner by posing the figure in the crouched starting position, designing a run, and specifying a realistic transition time. When you play your animation, the runner will come off the starting blocks and begin the run. Checking one or both boxes enables the specified option(s). Once enabled, enter the number of frames to be used for the transition. Longer time periods (more frames) allow more realistic movements and vice versa.
- **Start Frame:** Enter the frame in your animation where the walk will begin in the **Start Frame** field.
- **End Frame:** Enter the frame in your animation where the walk will end in the **End Frame** field. Poser suggests a value that is expected to yield a natural walk speed. The more frames allocated, the more time a figure will take to walk along the specified path.

Creating a Walk Path

Creating a walking figure is a two-step process. The first step entails creating a walk path for your selected figure that defines where s/he is going to walk. The figure can walk in place or along a path.

Walk paths are designed to work with the **Walk Designer** (see “Using the Walk Designer” on page 302). While the **Walk Designer** specifies how your figure walks, a walk path specifies where. The path is a curve drawn in the **Document** window that sets the figure's course as it moves about the Poser workspace. Create the path, design the walk, and the figure walks along the path from start to end, stopping at the end.

To create a walk path, Select **Figure > Create Walk Path**. A default path appears in the Poser workspace. We recommend shifting to the **Top** camera and zooming out to get the best view of your scene and walk path, but you can work using any camera you like. The following image shows a default walk path.



Default walk path.



Walk paths must be created on the ground plane.

Shaping Curves

The curve's position is defined using control points. Click and drag control points to shape your path any way you like.

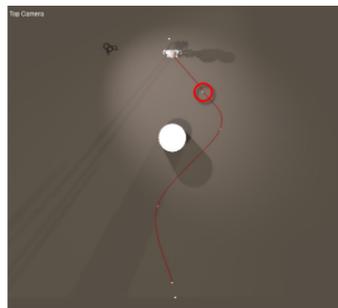


Drag a control point to reshape the curve.

You can position the beginning and end of the walk path by dragging the end control points. You can also reposition the entire walk path by selecting the ring that appears when your cursor is near the walk path, which functions like the **Figure Ring** discussed in "Selecting Body Parts" on page 169.

Adding and Removing Control Points

To add control points, simply click anywhere along the line. Your new control points appear. Adding control points can add detail and/or lengthen your walk path.



You can add or remove points on the walk path.

To delete control points, press and hold **Opt/ALT** while clicking the point you wish to remove.

Once you have completed your walk path, use the **Walk Designer** to design a walk for your figure. Please refer to "Using the Walk Designer" on page 302 for more information about the **Walk Designer**.



A reshaped walk path.



Because of the nature of the spline used for walk paths, it is impossible to create a hard right-angle turn. These and other abrupt direction changes can result in unnatural-looking walks.



Once you have created a walk using the Walk Designer, you can delete the walk path. The figure will still behave as though the walk path was present.

Sound

Poser allows you to import sounds, which play when your animation plays. This is a great way for you to add soundtracks, speech, etc. to your animations. To import a sound clip, select **File > Import > Sound** and use the standard **Open** dialog that appears to locate your desired sound file. If you wish to import a speech sound clip for use with the **Talk Designer**, select **File > Import > Lip Sync Audio** (see below for information on the **Talk Designer**). Imported sounds attach to your animations at the first frame and play whenever the animation is played. Also, you can only import one sound file. If your animation calls for more than one sound, edit your desired sounds together in an audio editing application and create a new sound file for importing into Poser.

Importing Sound

Selecting either **File > Import > LipSync Audio** or **File > Import > Sound** allows you to import WAV, MP3, and other audio format sound clips that you can use as a soundtrack for your animation. Imported speech or sounds are added to the beginning of your animation and play every time you play your animation. Upon selecting this option, a standard **Open** dialog appears, allowing you to select the filename and location of the sound file you wish to import.

If you selected the **LipSync Audio** option, the **Talk Designer** will open with your specified audio file selected. Please refer to [“Syncing Sound & Motion”](#) on page 310 for information on working with imported sounds.

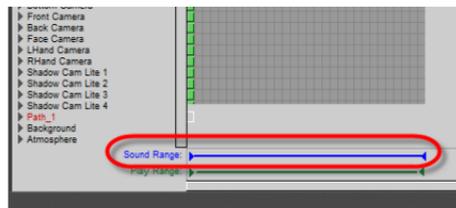


Importing sounds files will add keyframes based on the current frame rate selected.

For example a two second long sound file will expand the default animation to 60 frames if a frame rate of 30 frames per second has been selected for the animation.

Editing Sound

Sound duration appears in the **Sound Range** bar at the bottom of the Animation Palette. You can clip imported sounds by shortening the sound bar. However, if sound playback begins at any frame other than 1, the beginning of the sound will be clipped.

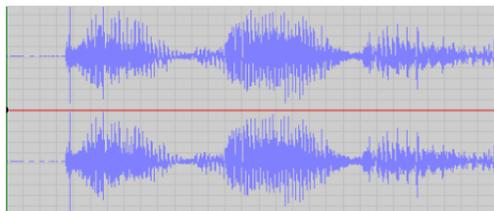


The sound range is displayed at the bottom of the Animation Palette.

To specify start and end frames for the sound, drag arrows on either side of the sound bar.

Syncing Sound & Motion

The **Graph** palette displays a graphic representation of the sound file called a waveform, which lets you see where changes in sound occur. You can use this information to position keyframes in your animation. Simulate speech by matching peaks in the waveform with changes in mouth position, as shown above. To display waveforms in the **Graph** palette, open it as described in [“Using Graphs”](#) on page 293 and click the **Toggle Sound Display** button to toggle waveform display on and off.



A sound appears as a waveform in the Graph palette.

Importing BVH Motion Capture Files

Selecting **File > Import > BVH Motion** allows you to import motion-capture files in the popular BVH format. A standard **Import** dialog appears, allowing you to select your desired path and filename.

To determine the correct axis or scale for the BVH files consult the developer's readme or documentation. Developers such as Biovision or House of Moves will provide this information. Or, you can specify whether a figure's arms are aligned in the X or Z axis during import. The align axis is determined at the time of recording. Choose the correct axis so your figure will move correctly. Begin by

selecting the body. Import the BVH file and select the **Z-Axis** arm alignment and **Scale Automatically** options. Some actors may not be recognized, but the BVH file will still load. If you make a mistake, return to Frame 1 and re-import the file. Imported BVH keyframes are applied to the currently selected figure and can be edited like any other keyframe (see "Editing Keyframes on the Timeline" on page 300).



In some cases, figures can float above the surface of the floor after you import BVH data. Choose the **Scripts > Utility > dropFigToFloorAllFrames** command for a useful Python utility that drops the figure to the floor across all keyframes.

Advanced Animation Techniques

This section is where we stop talking about technical details for a moment and focus on a few artistic considerations. Editing animations is pretty easy work in and of itself. Getting your animation to look just the way you want it and adding realism are the hard parts. A jerky movement can turn smooth and flowing or an unrealistic motion can become realistic if you keep a few simple techniques in mind.

Keyframes and Timing

How should you space keyframes? Begin by considering time and frame rate. Space keyframes so that the motion looks natural at the selected frame rate. For example, if you have a motion that requires $\frac{4}{5}$ of a second, you'll need 24 frames at 30fps, 20 frames at 24fps, 9 frames at 12fps, etc. The basic formula is frame rate (in frames per second) times motion duration in seconds = number of frames required.

Creating Realistic Motion

Now that you've gotten the number of frames required for a motion down, what's next? Break down the motion into component parts. For example, look at a baseball player swinging a bat. At first glance, it may look like the arms are moving. Upon closer inspection, however, you see that the entire body is in motion. Some movements, like the arms and legs, are more pronounced than others. So, begin with the large movements then go back and work on the finer adjustments. Using our baseball player example, you could start with two keyframes: One at the beginning of the swing, the other at the end.

Previewing this animation with only two keyframes would probably give you a pretty good result, however the details are where your animations will shine.

Chapter 19: Animating with Poser

Now that the major motions are roughed in, let's add some detail. For example, add the hip swings, shoulder tilts, etc. The subtle details may not be overly noticeable, but your viewers will pick up their presence or absence though they may not be able to tell you what's wrong with your animation if these elements are not present. Poser's **Animation** palette and graph (described in the previous sections) are ideal for this fine-tuning. Smooth transitions don't occur in all movements. For example, when a bat strikes a fast-moving baseball, there is an immediate change in direction. This is an animation where linear interpolation might be better suited. You can adjust splines in the Graph palette, or change interpolation types to create motions. You can adjust splines or change interpolation types in the Graph palette.

By working this way, you can create any kind of action and can make that animation look as realistic as possible.

Long/Complex Animations

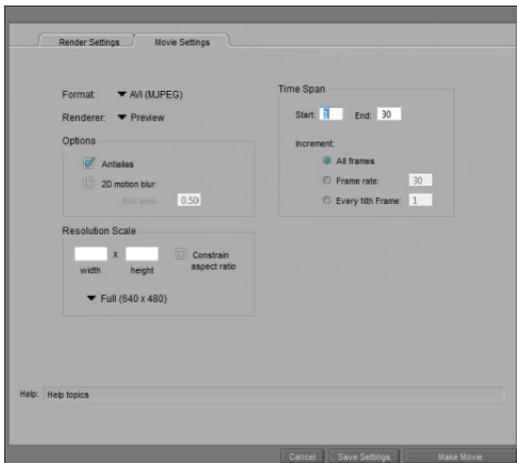
If you are trying to make a long movie or one that incorporates changing cameras, you should create small clips and edit them together in a video editing application such as Adobe Premiere.

Saving Animations to the Library

You can save animations to the **Library** palette as still (single-frame) or animated (multiple frame) poses for use with other figures/props. See ["Adding Items to the Library"](#) on [page 150](#) for more information on saving still or animated poses to the **Library**.

Chapter 20: Rendering Animations

You can access the **Movie Settings** window by selecting **Animation > Make Movie**. This window can also be accessed via the **Render Settings** dialog. The **Movie Settings** window appears as follows.



The Movie Settings dialog.

Chapter 20: Rendering Animations

To use the **Movie Settings** window:

1. Select your desired movie format using the **Format** pull-down menu. Your available options are:
 - **Image Files (Mac and Windows):** This option creates an **Image Sequence**, which is a series of still images, one for each frame in your animation. For maximum value results and optimal quality, we recommend using the **Image Files** option to render your final movie, and then using a compositing tool for editing and post-production work.
 - **Flash (Mac and Windows):** Adobe Flash is a popular format for animations posted on Web sites. If you have selected Flash format, click the **Options** button for settings specific to that format. The Flash movie options will be discussed in detail later in this chapter. See [“Flash Options” on page 319](#) for more information.
 - **Quicktime (Mac Only):** Default Macintosh movie format. We recommend that you use this format only for preview purposes while still working on your animation, as it provides the fastest possible access to rendered results. See [“QuickTime Options” on page 317](#) for more information.
 - **AVI (Windows Only):** Three options are available in Windows for AVI format. Choose **AVI (MJPEG)**

to produce an AVI file of any dimension, using a higher amount of compression (for streaming); choose **AVI (DV)** to produce a 720x480 pixel DV-quality AVI file. Choose **AVI (Uncompressed)** to produce an AVI file of any dimension, which will not be compressed.



AVI DV format will produce a 720 x 480 pixel AVI file, regardless of your render settings. If your project render settings are not set to the same aspect ratio, the movie will be stretched to fit within the 720x480 movie file.

- **iPad Videos (Windows Only):** Two options appear in Windows to save your files in M4V format. Choose iPad Video (small) to render a M4V file that has a higher amount of compression. Choose iPad Video (large) to create a M4V video file with less compression and higher quality.



iPad Small and Large options may not be available on earlier versions of Windows.

- **WMV/ASF (Windows Only):** Three options appear for WMV/ASF format, for varying compression options: **Medium Quality**, **High Quality**, and **Uncompressed**.



WMV/ASF options use Windows Media Audio 10 and Windows Media Video 9.



WMV output presets are also available in Windows Vista, and Poser will write out valid WMV files if you choose the WMV/ASF preset. While Media Player for Windows Vista does not support WMV files, you will be able to play them in any third-party media player that runs under Windows Vista and has WMV support.

2. Select which renderer you wish to use for your animation using the **Renderer** pull-down menu. Your options are the **FireFly**, **Sketch** or **Preview** render engines. See "[Chapter 16: Using The FireFly Render Engine](#)" on page 272 for more information about the FireFly renderer, and "[Chapter 17: The Sketch Designer](#)" on page 277 for more information about the Sketch Designer renderer. The Preview renderer provides a quick draft-quality render of your movie.
3. Under the **Options** section, check the appropriate checkboxes when available:
 - **Antialias:** Antialiasing is available with the Preview render engine, to improve the quality of images in draft preview renders.

- **2D Motion Blur:** This option provides realistic 2D motion blurring effects to images and animations rendered with the FireFly or Preview render engines. Use the **Blur Amount** value to customize the results of this effect.
4. Use the **Resolution Scale** section to specify your desired movie dimensions. Check the **Constrain aspect ratio** option to maintain the same width to height ratio when you change either dimension.
 5. Specify your desired export **Resolution Scale**. The **Quick-Scale** pop-up menu offers quick access to four different render scale options: **Full Size**, **Half Size**, **Quarter Size**, and **Preview Size**.



*Note that the Resolution Scale feature is not intended to replace the **Frame Size** value, but rather is a tool for facilitating quick render previews, as the smaller scale render sizes require less time to calculate.*



*The production frame is determined by the aspect ratio resulting from the output width and height. You can set the production frame to be visible in the Document window's scene preview area, by selecting **Display > Production Frame** from the menu bar.*

Chapter 20: Rendering Animations

6. Specify your **Time Span** settings:
 - **Range:** Enter the start and end frame numbers for the portion of your animation that you wish to render in the **Start** and **End** boxes. This feature is useful if you wish to save a subset of the total animation. For example, if you create a 60-frame animation, you could opt to save a 15-frame movie beginning 35 frames into the total animation.
 - **Increment:** Click the appropriate Increment radio button to specify how many frames to render in your movie output. Your choices are as follows:
 - All Frames:** Clicking the All Frames button will render all frames in the specified range, as defined by the movie's frame rate.
 - Frame Rate:** Click the **Frame Rate** (number of frames per second) radio button to use the movie's current output frame rate (as opposed to the actual frame rate of the Poser keyframe data) or specify your own. Enter the desired frame rate in the box, if you wish to specify a frame rate other than the rate defined for the document (for example, lower frame rates are generally recommended for Flash output). Higher numbers give smoother animations but require longer

rendering times and take up more room on your hard drive. Please refer to “[Frame Rate](#)” on page 290 for a listing of common frame rates.

Every Nth Frame: Clicking this radio button allows you to render fewer frames, for fast preview purposes. For example, rendering every 2nd frame takes half the time as rendering every frame, and so on. Specify your desired “N” value in the box.

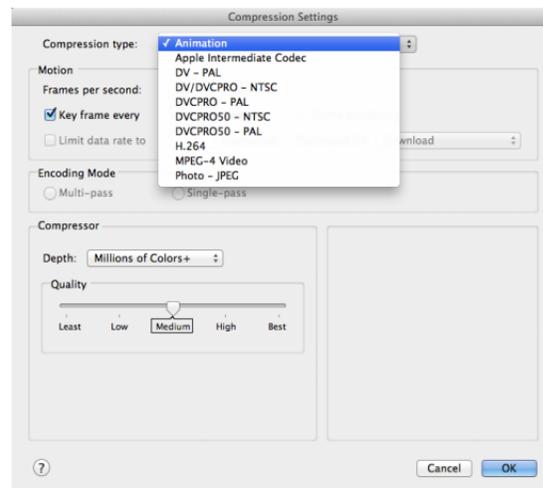
- Click the **Make Movie** button to open the **Save Movie** dialog box, which allows you to browse for your desired folder, then click the **Save** button to save your new animation to the selected folder. Animation renders can take some time depending on your scene, animation settings, and computer, so please be patient.

QuickTime Options

When you choose Quicktime format and click the Options button, the Compression Settings dialog opens. This dialog includes the following settings for 32-bit Macintosh systems:



Certain Codecs may require a specific image aspect ratio in order to function properly.



The Compression Settings dialog (32-bit Macintosh systems).

- Compression Type:** Select which Codec you wish to use from the **Compression Type** pop-up menu. Note that certain Codecs offer additional configuration settings, as mentioned below. Available choices are **Animation**, **Apple Intermediate Codec**, **DV-PAL**, **DV/DVCPRO-NTSC**, **DVCPRO-PAL**, **DVCPRO50-NTSC**,

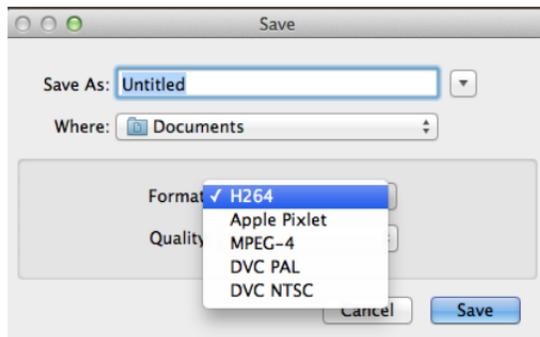
DVCPRO50-PAL, H.264, MPEG-4 Video and Photo-JPEG.

Certain Codecs may require a specific image aspect ratio in order to function properly. Depending on the codec you select, the selections will vary.



For information on Motion, Encoding Mode, and Compression settings, refer to QuickTime documentation at http://images.apple.com/quicktime/pdf/QuickTime7_User_Guide.pdf.

When running Poser on a 64-bit Mac, the choice set for Quicktime movies is a more contemporary selection set than previous versions of Quicktime.



The Save dialog (64-bit Macintosh systems).

- **Format:** Select which Codec you wish to use from the **Compression Type** pop-up menu. Note that certain Codecs offer additional configuration settings, as mentioned below. Available choices are **H.264** (saves as .MP4), **Apple Pixlet** (saves as .MOV), **MPEG-4** (saves as .MP4), and **DVC Pal**, or **DVC NTSC** (which save as .DV).

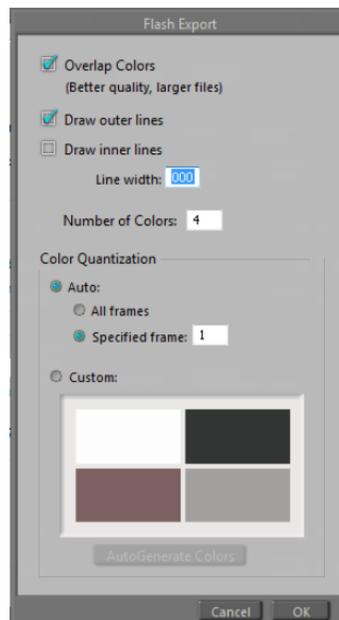


Certain Codecs may require a specific image aspect ratio in order to function properly. Depending on the codec you select, the selections will vary.

- **Quality:** Choose the level of quality that you desire. Choices are **Maximum**, **High**, **Normal**, **Low**, and **Minimum**.

Flash Options

Clicking the **Flash Options** button opens the **Flash Settings** dialog. You have the following options when exporting Adobe Flash movies:



The Flash Export dialog.

- **Overlap Colors:** Checking the **Overlap Colors** checkbox causes Adobe Flash to take the color that

is used the most and create a silhouette of the entire object (such as a figure or prop). The next color is placed on top of the first, and so on, with each layer of color containing the layers above it. Selecting this option makes for larger files, but will increase the quality of the final file. Deselecting this option causes blocks of different colors to appear next to each other with no overlapping, which could cause the animated object to appear broken or discontinuous.

- **Draw Outer Lines:** Checking the **Draw Outer Lines** checkbox draws a border around the entire silhouette.
- **Draw Inner Lines:** Checking the **Draw Inner Lines** checkbox draws lines around each color layer.
- **Line Width:** Enter the desired line width (in pixels) in the **Line Width** box.
- **Number of colors:** Enter the desired number of colors in the **Number of colors** box. Note that adding colors will increase the file size and download time for people viewing this file via the Web. Four colors are good for most situations, though the maximum possible is 253.
- **Color Quantization:** Quantization is the process of selecting the specified number of colors that best represent your Poser figure. You can select either **Auto**

or **Custom** quantization of colors. In either case, your color choices will be saved with the project file.

- **Auto Quantization:** Check the appropriate radio button to select if you want the quantization to occur across **All Frames** or at a **Specified Frame**.
 - **All Frames:** This option can be useful in situations when you want color quantization to be applied to each frame; for example, if you are animating materials.
 - **Specified Frame:** If you selected **Specified Frame**, enter the frame number where the quantization should occur in the **Specified Frame** field.
 - **Custom Quantization:** You can select custom colors by clicking within the color preview windows to bring up the Poser Color Picker. The number of custom color preview windows will be determined by the **Number of Colors** setting (see above). Mousing over any of the preview windows will display the RGB color values for that color at the top right of the Custom Color display window. Click on the **AutoGenerate Colors** button to restore the default custom color values.



For optimal results when exporting to Flash format, use the scene preview Cartoon display style when preparing your scene.

Part 6: Working with Content

Chapter 21: Modifying Figures & Props

This chapter explains how to create completely custom looks for your figures and props. For example, human bodies come in all shapes and sizes. You can modify proportions using various tools to achieve interesting effects.

Poser includes a wide variety of tools for figure/prop shaping. Here are some tips, tricks, and important things to keep in mind when editing figures and/or props:

- All Poser figures come with morph targets and full body morphs, allowing you to reshape one or more body parts.
- The Scale and Taper tools (see ["Scale" on page 176](#) and ["Taper" on page 177](#), respectively) can change a body or element's shape. The Scale and Taper tools are located in the Editing tools display.
- You can replace body parts with props (see ["Replacing a Body Part with a Prop" on page 210](#)).
- You can save your work to the Library palette.
- You can modify entire figures or individual body parts. For example, enlarging the abdomen can create a beer belly. Widening the head broadens the face. Shaping figures is easiest when the figure is in its default pose where you can clearly see the results of each of your actions.
- You may want to hide the other figures and props in your scene for an uncluttered view.
- As you finish shaping and posing each body part, you can lock it as described in ["Lock Object" on page 197](#). And, once you've posed your figure, you can guard against accidental changes by locking the entire figure as described in ["Lock Figure" on page 147](#).
- Symmetry can be a huge time saver, allowing you to pose half your figure and apply the pose to the other side. Please refer to ["Symmetry" on page 201](#) for information about using Symmetry. Also, try using cutting and pasting to apply poses across multiple figures.
- If your computer can support it, we recommend enabling Full Tracking mode (see ["Tracking Mode" on page 84](#)) so you can view your work in real time. This does require extra computing resources, which can

affect performance depending on your computer's specifications and the complexity of your scene.

Adjusting Morphs with the Morphing Tool

Morph targets are custom parameters added to body parts or props that allow you to reshape the affected part(s). Poser includes some built-in morph targets with the stock figures, and you can create your own. Morph targets allow you to easily resize and reshape items and are fully animatable.

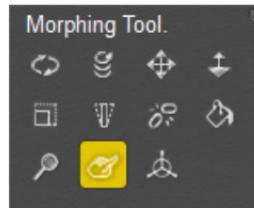


Faces reshaped with the Morphing Tool.

While morph targets appear as parameter dials in the **Parameters** palette, they are actually custom geometry containing the deformation, which you then apply using parameter dials. Does this seem confusing? It's actually

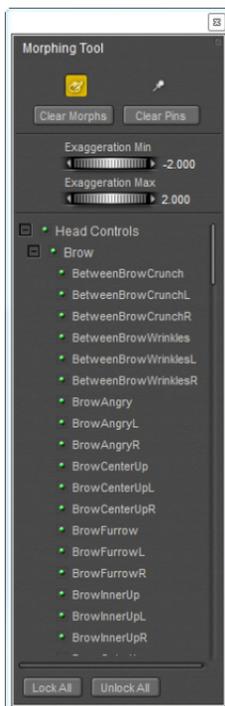
pretty simple once you get the hang of it. Let's explore this functionality a little further.

While morph targets appear as parameter dials in the Parameters palette, they are actually custom geometry containing the deformation, which you then apply using parameter dials. Does this seem confusing? It's actually pretty simple once you get the hang of it. Let's explore this functionality a little further.



The Morphing Tool in the Editing Tools palette.

The Morph Editor allows you to visually sculpt your figures' morph targets by clicking on a body part such as the head, then dragging the mouse to change the shape of that body part. The changes that you see are all based on the morphs that are already present in the body part. You can do this with any scene object that has morph targets.



The Morphing Tool.

To use the Morphing Tool:

Select the body part you wish to sculpt, then select the Morphing Tool. The Morph Editor displays all of the morph targets available for the selected body part:

1. The list of morph targets is hierarchical and displays branches containing the available morph targets. Clicking the – icon next to an expanded branch collapses that branch, and clicking the + icon next to a collapsed branch expands that branch. You can also use the scroll bars to navigate the list. The Morph Editor will allow you to manipulate all selected morph targets. A green dot next to a morph target includes the specified morph target when using the tool, and a Lock icon means the specified morph target will not be affected by the tool. Even if a morph target is enabled, it may or may not be affected by your use of the tool. For example, selecting a vertex in the forehead may affect the eyebrows but will not affect the mouth. Select your desired morph target(s), then click and drag any vertex on the selected body part.

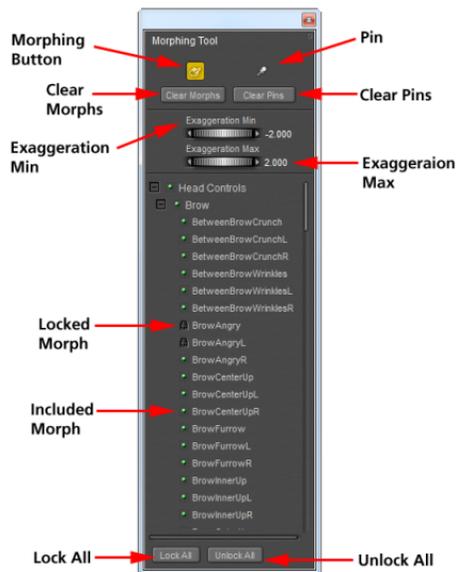


A face before and after using the Morphing Tool.

- Once you have a portion of the body part the way you want it, you can click the Pin button then click one or more vertices to pin them, preventing further manipulation as you work on other areas of the object. Pinned vertices appear as red dots on the current object and may move as you keep adjusting other portions of the body part (depending on how many morph targets affect the pinned vertex), however they will retain their current settings. Also, pins are retained if you stop using the **Morphing Tool** and resume using it later. To stop pinning vertices, click the **Morphing**

button (see below). You may notice some trembling if you adjust morphs that affect pinned vertices.

The Morph Editor palette has the following functions:



Elements in the Morph Editor Palette.

- **Morphing:** Clicking the Morphing button re-enables the Morphing Tool. Click this button after pinning vertices to resume adjusting morphs.
- **Pin:** Clicking the **Pin** button disables the Morphing Tool and allows you to pin one or more vertices as discussed above.
- **Clear Morphs:** Clicking the **Clear Morphs** button resets all morphs. Use this option with care as it will undo all of your changes, even if you exit and resume using the Morphing Tool.
- **Clear Pins:** Clicking the **Clear Pins** button removes all pins previously applied to the current object.
- **Exaggeration min/max:** Exaggeration refers to the degree to which a morph target's value will affect the vertices. The **Exaggeration Min** and **Exaggeration Max** values limit the extent of a morph target's possible effect when the Morphing Tool is operating. No morph target can be modified beyond these limits (see "Universal/Figure Parameters" on page 135 for more information about parameter dial limits). Increasing these limits therefore increases the exaggeration effects of all morph targets. For a technical description of **Exaggeration Min/Max**, see the following note.



Mathematically, each morph target defines a displacement vector (\mathbf{v}) on each object vertex, and its exaggeration value defines a multiplier (\mathbf{w}). Thus, a morph target's net effect is $\mathbf{p} + \mathbf{w}\mathbf{v}$, where \mathbf{p} is the original vertex position. If $\mathbf{w}=1$, we add \mathbf{v} to \mathbf{p} . \mathbf{w} can be any value. The larger w is, the more exaggeration this morph target's effect has. The **Exaggeration Min** and **Exaggeration Max** values globally define the limits for \mathbf{w} across all morph target weights when the **Morphing Tool** operates.

- **Lock All:** Clicking the **Lock All** button locks all morph targets, which disables morph-based shape changes. This is handy when you're satisfied with your overall shape and only want to fine-tune a few specific morphs. In that case, you could use this option then unlock only those morphs you want to adjust.
- **Unlock All:** Clicking the **Unlock All** button unlocks all morph targets, allowing you to modify them.



To move in the Z axis, press and hold **[COMMAND]/[CTRL]** while dragging.

Using IK

To enable IK for your figure, select **Figure > Use Inverse Kinematics** and select the chain you wish to enable. You will see the chains you created as well as the standard Poser chains (if you added chains to a standard Poser figure). A check mark appears next to each enabled IK chain. To disable IK, select **Figure > Use Inverse Kinematics** and select the chain you wish to disable. You can also open the Hierarchy Editor and check and uncheck the boxes next to each IK chain in the list to enable and disable IK.

Chapter 22: Using Poser with Other Applications

Poser allows you to import and export various types of content such as background images, movies, and 3D objects. This allows you to use third-party applications to create textures, background scenes, and clothing that you can use to enhance your scenes.

Importing Files

Selecting **File > Import** allows you to bring both Poser and non-Poser files into your scenes. These could be images, movies, or props.

Importing Movies

To import movies, select **File > Import > AVI Footage** (Windows) or **File > Import > QuickTime** (Macintosh). You can use imported movies to add background action to your Poser animations. For example, you could have a scene with two Poser characters sitting on a train with an

imported movie showing the scenery rolling past as if the train was in motion.

If your imported movie's size or aspect ratio (width/height) is different than your current **Document** window settings, you will be informed that the background width and height are different, and will be asked if you want to change the window to match the background.

Selecting **Yes** resizes your **Document** window to fit the imported movie. It is recommended that you only use this option while the Document window is docked.

- Selecting **No** "stretches" the **Document** window to accommodate the movie. You may see areas of the **Document** window not covered by the imported movie.
- Changing the aspect ratio of imported movies can introduce unwanted artifacts and distortions into your scene when rendered. Smith Micro Software therefore recommend resizing your **Document** window or importing correctly sized animations.



Aspect ratio of imported movies can be retained or adjusted to fit the size of the window.

Imported movies will begin at the first frame of your Poser animation. If your animation is longer than the movie, the movie will remain in the background paused at its last frame. If your animation is shorter than the movie, you will see Frames 1-X of the imported movie, where x is the number of frames in your Poser animation.

When importing movies, you should try to light your scene in a manner consistent with the background so as to blend

them together. Please see "Chapter 12: Lighting" on page 231 for information about lights in Poser.

Importing Background Pictures

You can also import static images as backgrounds. For example, if you are creating a scene with Poser characters in a room with a window, you could use a background image to simulate the view from the window. Selecting **File > Import > Background Picture** opens a standard **Open** dialog, allowing you to select your image's format and location. As with movie imports, you are asked if you wish to resize your **Document** window to match the imported image, and the results are the same as described above. Changing the aspect ratio of imported images can introduce unwanted artifacts into your scene when rendered and can result in blank areas on the sides of the **Document** window (see above). We therefore recommend resizing your **Document** window or importing correctly sized images. Poser supports importing background images in a wide variety of formats. The following is only a partial list of those formats supported: SGI, BMP, DDS, EXR, GIF, HDR, JPG, PCD, PNG, PSD, TGA, TIFF and WBMP.

When importing images, we recommend that you import them while the document window is in its docked state. You should try to light your scene in a manner consistent with the background so as to blend them together. Please

see “Chapter 12: Lighting” on page 231 for information about lights in Poser.

Importing Poser Documents or Props

Selecting **File > Import > Poser Document/Prop** loads either an entire Poser scene or a Poser prop into your scene. This can be useful for inserting props that are not part of your **Library** palette’s **Props** category. Imported scenes/props become part of your current scene complete with animations, morphs, poses, etc. This option opens a standard dialog box allowing you to browse for the desired file. Use the **Files of type** pull-down menu to select one of the following types of Poser files:

- **Poser document files (*.PZ3 and *.PZZ):** This option imports Poser 3.0 and later scenes, both uncompressed and compressed.
- **Poser Prop Files (*.PP2 and *.PPZ):** This option imports uncompressed or compressed Poser prop files.



See “Miscellaneous Preferences” on page 34 for more information about compressed file support within Poser.

Importing 3D Objects

Poser allows you to import geometries in the following formats:

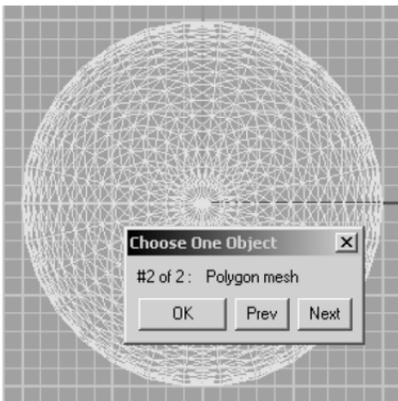
- **Wavefront OBJ (File > Import > Wavefront OBJ)**

Most 3D modeling applications support exporting to at least one of the above formats. Some formats, such as Wavefront OBJ, allow you to save geometries as either polygons or NURBS surfaces. Poser will only accept geometries saved as polygons.

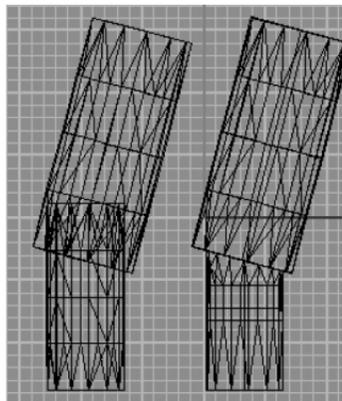
Tips & Tricks

When using your favorite 3D modeling application for creating new geometries for conversion into Poser figures/props, it is a good idea to follow these guidelines in order to speed up the figure creation process and provide a better end result:

- Make sure that you do not have duplicate or overlapping polygons. Duplicate polygons occur when you have two identical parts of the geometry occupying the same location, for example if you accidentally paste an item twice. The following graphic depicts an instance of duplicated polygons within a 3D modeling application.



Two spheres that overlap each other.



Remove overlapping polygons.

- Eliminate overlapping polygons, which can occur if pieces of the geometry are embedded within each other. The following graphic shows an example of overlapping polygons on the left (the smaller pipe embedded within the larger one), and the correct way to create the geometry on the right (without overlapping polygons).
- Poser allows you to import geometries as a single file with groups within the file, as separate files, or as a single file with no groups. We recommend that you create your geometries as single files with no groups, since Poser includes powerful grouping tools and since some geometry formats (such as Wavefront OBJ) allow you to assign polygons to more than one group at a time. Importing geometries with polygons assigned to more than one group will cause Poser to duplicate

those polygons, resulting in additional unwanted figure parts.

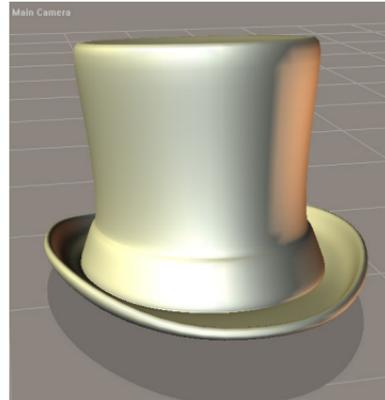
Use the following procedure to import geometries into Poser:

1. Begin the process by creating a polygonal mesh object in your favorite 3D modeling application. Once you have finished, import it into Poser by selecting **File > Import > format**, where **format** is the format you wish to import (such as OBJ). A Standard **Open** dialog appears, allowing you to select your desired filename and path.
2. Once you have selected the desired geometry, the **Prop Import Options** dialog appears. It contains the following options:
 - **Centered:** Checking the **Centered** checkbox positions the imported geometry in the center of the Poser workspace.
 - **Place on floor:** When enabled, the **Place on Floor** option places the bottom of the prop at "ground level" on the floor of the workspace.
 - **Percent of standard figure size:** The **Percent of standard figure size** option scales the geometry relative to the height of a standard Poser figure. For example, setting the scale to 50% imports the geometry at 50% of the height of a standard Poser figure. The rest of the geometry scales to maintain the correct proportions relative to the selected height. When importing DXF geometries, Poser considers one DXF unit as being equal to the height of a standard Poser figure, or about six feet.
 - **Offset:** Entering numeric values in one or more of the **Offset** fields positions the geometry at the selected position within the Poser workspace.
 - **Weld identical vertices:** When enabled, the **Weld identical vertices** option unites identical vertices within the geometry.
 - **Make polygon normals consistent:** If the geometry file contains vertex normals, checking the **Make polygon normals consistent** checkbox makes the polygon normals consistent with the vertex normals.
 - **Flip normals:** The **Flip Normals** option reverses all of the geometry's normals.
 - **Flip U Texture Coordinates:** The **Flip U Texture Coordinates** option reverses the geometry's U texture coordinates.

- **Flip V Texture Coordinates:** The **Flip V Texture Coordinates** option reverses the geometry's V texture coordinates.

Once you have finished selecting your desired options, click the **OK** button.

3. The geometry file imports into Poser. The amount of time required to import a geometry file depends on factors such as the size of the file, number of polygons or groups, speed of your computer, etc. A progress indicator tracks the import process. When the process is complete, the imported geometry appears in your Poser **Document** window.



An object after it is imported into your scene.

Imported geometries are treated as static props. You can add props to the **Library** palette as described in "Maintaining Your Library Palette" on page 149.

Exporting Files

In addition to supporting a wide range of import formats, Poser supports many formats for export, allowing you

to use your Poser output with your favorite 2D and 3D applications.

Exporting Images

To export an image, select **File > Export > Image**. A standard **Save As** dialog appears, allowing you to specify your desired filename and save location. In addition, you may be able to select various image-specific attributes (such as quality for JPG exports).



If you want Poser to write an alpha channel to preserve transparency in your exported image, you should export to either the PNG, TIFF, or PSD formats. An alpha channel causes the foreground to be transparent wherever it is empty, in order to allow the background to show through. This feature is essential for compositing in image editing applications.

Exporting an image saves a snapshot of your current scene as seen in the active tab of your **Document** window. Therefore, if you are in the **Preview** tab of the **Document** window, your exported image will be a snapshot of the scene exactly as it appears in the **Preview** tab. If you are in the **Render** tab, your exported image will be the rendered

image that is currently selected in the **Main Render** menu at the bottom left of the **Document** window.

Exporting BVH Motion Files

To export a BVH motion capture file:

1. Select the figure you wish to export.
2. Select **File > Export > BVH Motion**.
3. Select **Scale Automatically**. If the exported file looks incorrect, re-export it and disable automatic scaling.
4. A standard **Save** dialog appears, allowing you to specify your desired filename and save location.

Exporting 3D Objects

Poser allows you to export OBJ format by selecting **File > Export > Wavefront OBJ**. To export to a 3D format:

1. Select **File > Export > Wavefront OBJ**.
2. In the dialog that appears, check the appropriate radio button to export either a still (at the current frame of your animation) or an animation. If you select to export an animation, enter the frame starting and

- ending numbers in the appropriate text boxes and click **OK**.
3. Select the actor(s) you want to export in the following dialog and click **OK**.
 4. A standard **Save As** dialog appears, allowing you to select your desired filename and path.

Appendices

Appendix A: Technical Support

We've worked hard to ensure that Poser's powerful features are both easy to use and available to users running a wide variety of computers. However, there may be times when you need technical support. Smith Micro Software is pleased to offer free technical support to registered users of our products. To receive technical support, please visit our Web site at <http://my.smithmicro.com/support> and browse through our extensive product FAQs.

Please use the following checklist before contacting Technical Support:

- **Poser Reference Manual:** This Reference Manual answers most Poser questions. Before contacting Technical Support, please read the pertinent section(s) of this manual thoroughly.
- **FAQ:** Please visit the product FAQs at the above-listed URL.
- **Third-party forums:** If your question is more artistic than technical, check out some of the great online Poser

forums where artists come together. Please see "[Third-Party Forums](#)" on page 5 for links to a few online forums.

Still don't see your question answered? Please contact Technical Support by clicking the link to <http://support.smithmicro.com> and completing our online support form. When contacting Technical Support, please fill out the form as completely as possible and include as much information as possible. This will help us resolve your issue faster. Once the form is complete, a Technical Support representative will contact you directly as soon as possible. Support requests are answered via e-mail in the order they are received. Online support is free to all registered Poser users. Poser users are strongly encouraged to register at <http://store.smithmicro.com/productregistration.aspx> after installing the application.

Telephone support is also free to registered users. Before using telephone support, please check the resources listed above. Phone support is intended to solve critical technical issues. We are unable to answer project-based questions. Our Technical Support phone number is listed on our website at <http://smithmicro.com/contact>. Telephone support hours are 10 am to 4 PM (U.S. Pacific time). If you call during other hours, or if a representative is not able to answer your call immediately, you will be asked to leave a message, and we will return your call as soon as possible.

Appendix A: Technical Support

(generally within two business days). When calling, please be in front of your computer with Poser running.

In order to receive support, we require the following information:

- Your name
- E-mail address
- Telephone number (including international dialing information, if applicable)
- Your current operating system
- Your computer specifications (CPU, RAM, hard drive, video card, etc.)
- Poser serial number
- Detailed description of the problem

This information will help us isolate and resolve your issue. We require this information in order to provide support services and are unable to respond to incomplete requests in a timely fashion.

For international support, please contact your local distributor. Smith Micro Software maintains a list of our international distributors at <http://my.smithmicro.com/store/intlpartners.html>.



Smith Micro Software reserves the right to alter our technical support policies at any time without advance notice.

Appendix B: 3D Basics

This part describes basic 3D concepts. The following discussion centers on Poser, however most of these concepts apply to all 3D applications. Novice 3D artists should read the entire chapter to gain valuable "behind the scenes" insight that will help in learning and using Poser. Veteran 3D users can use this chapter as a handy reference or refresher.

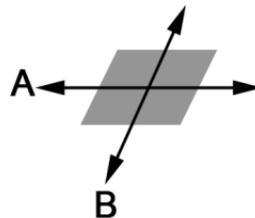
About 3D Space

Let's begin by defining the three dimensions:

- **Zero dimension:** A point is an example of a zero-dimensional object. It defines a point in space but has no length, height, or width.
- **First dimension:** A one-dimensional object is a single line. It has length but no height or depth.
- **Second dimension:** A two-dimensional object has any two of the following three dimensions:
 - Length
 - Height

Appendix B: 3D Basics

- Depth



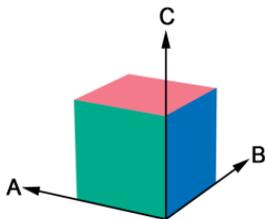
A two-dimensional object.

Pick any one of the three dimensions and call it A. Now pick either of the remaining two dimensions and call it B. In the graphic, the arrows represent the two dimensions and the rectangle represents a two-dimensional object. You will immediately notice that all two-dimensional objects are perfectly flat, like the surface of a sheet of paper. Two-dimensional objects are called **planes**.

- **Third dimension:** Three-dimensional objects use all three of the dimensions (length, height, and depth).

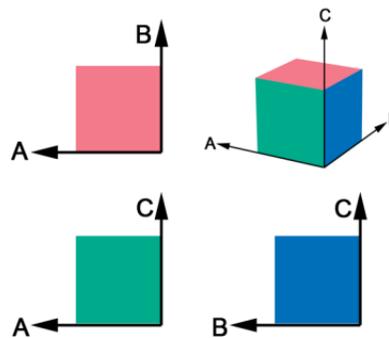
As you can see from the graphic, the cube is a three-dimensional object. It has length, height, and depth. That's pretty simple, right? Here's the hard part: You create 3D data using two-dimensional tools. Your computer screen

is a two-dimensional object and your mouse can move in two dimensions; it can report left-right and front-back motion but cannot report how far above or below the desk it is. Furthermore, your output will always be two-dimensional. Look at the above graphic: It does not have depth. It does, however, represent three dimensions using a simple optical illusion called **perspective**, which is defined as the tendency of objects to appear progressively smaller the farther away they are until they disappear on the horizon at a location called the **vanishing point**. You can see this by standing at the corner of a long building and noticing how the roof line appears to get closer to the ground the farther away you look. Given these limitations, you ask, how can one create 3D information?



A three-dimensional object.

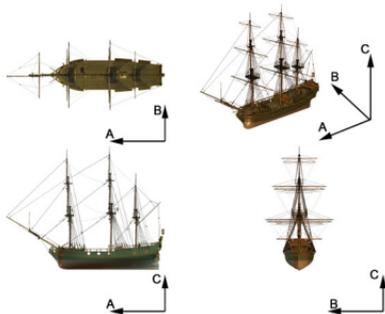
The short answer is that all 3D applications, Poser included, create a “virtual” 3D space. Look at the above graphic again. We can view and manipulate the cube in three dimensions by separating them into separate workspaces called **views**. One view will display the A and B dimensions, the second will display the A and C dimensions, and the third will display the B and C dimensions. You can also have a fourth view that displays all three dimensions. This graphic shows how the four views might look in a 3D application such as Poser.



Four views of the same object.

Let's look at the same graphic again, only this time let's substitute a simple boat for the cube to better illustrate

the concept. One of the benefits of this system is that it becomes possible to precisely control your 3D model. For example, you can determine the length of the boat using the AB or AC view, the width using the AB or BC view, and the height using the AC or BC view. Which view you use depends on what you are trying to accomplish. For example, to create the stern, you would probably use the BC view, and would probably use the AB view to create the overall shape.



Four views of a more complicated object.

In these examples, the A, B, and C dimensions are collectively called **axes**. Taken individually, each dimension is called an **axis**. So far, we have used each

axis to describe one of the three dimensions without caring about which axis describes which dimension. The A dimension could describe any of the three dimensions with B describing either one of the remaining two dimensions and so forth. We did this to illustrate the most basic theory behind 3D applications such as Poser. Let's expand on that.

It should be obvious that the AB, AC, and BC views lack perspective. Two-dimensional views without perspective are called **orthographic** views. Each three-dimensional object has six orthographic views: Top, Bottom, Left, Right, Front, and Rear. Pick up any object you like and look at it from all angles; you will see that this always holds true. So, while the boat example above shows the Top (AB), Left (AC), and Rear (BC) views, it could just as easily show any three of the six possible views. This is important because, like the boat, not all three-dimensional objects are symmetrical.

Now that you understand this fundamental concept, let's learn how it's used in the real world. To recap, the three dimensions are width, length, and height or depth, each dimension is represented by an axis, and we can view each pair of axes in two ways to generate a total of six possible views. So far so good, except for one small problem: If everyone used an arbitrary system of axes to define the three dimensions, then it would be difficult to pass data back and forth. In the above example, we are

using the AB as the Left view. Someone else could just as easily define AB as any of the six available views. You can see the chaos that could ensue. To prevent this, both 2D and 3D objects conform to a standard system of axes called the **Cartesian coordinate system**. The term **Cartesian** is used in honor of the French mathematician and philosopher Rene Descartes (1596–1650), who was one of the first to employ such coordinate systems.

Cartesian Coordinates

Before getting too far into Cartesian coordinates, let's pause for a quick math review: If you arranged all of the numbers from negative infinity to positive infinity along a line, the number 0 would be in the center of that line. Negative numbers would be on the left side of 0 with -1 being the closest to 0, and positive numbers would be on the right side of 0 with +1 being the closest to 0.



The number 0 is in the center of an infinite amount of numbers.

Negative numbers being on the left (or front) works for horizontal lines or axes. For vertical lines, negative numbers

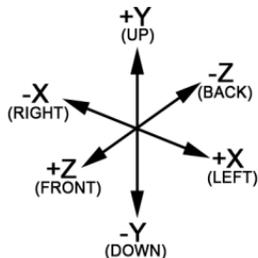
are beneath 0 with positive numbers above 0. This stands to reason, since negative numbers are literally less than 0. When dealing with coordinate systems, we assume that each dimension is infinite, with zero representing the dimension's center or **origin**.

The Cartesian coordinate system goes one step further by defining three axes, called X, Y, and Z. In our previous examples, we deliberately used the arbitrary letters A, B, and C to illustrate the concept of axes and avoided using the actual letters because we wanted to familiarize you with the general idea of axes and dimensions before focusing on how they are actually used. In the Cartesian coordinate system, the axes correspond to dimensions as follows:

- **X:** Width
- **Y:** Height
- **Z:** Depth

Let's combine the origin with the Cartesian axes as follows. As you can see, the Cartesian coordinate system uses three axes to represent each of the three dimensions: X, Y and Z. The positive X axis points to the right, the positive Y axis points up, and the positive Z axis points towards the front of the scene. The center of the 3D space is a single point, which is the midpoint (**origin**) of the three axes.

Thus, the 3D space extends to infinity in both negative and positive directions along all three dimensions. You can see the origin in any of the Poser views.



Directions extend along three dimensions, represented as X, Y, and Z.

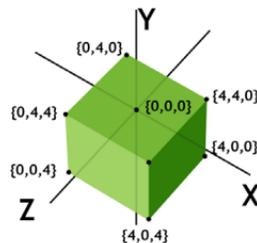
Now that we have a standard system for defining 3D space and objects within that space, we can use coordinates to define the object's shape. Remember that coordinates are always listed in XYZ order. Coordinates themselves are defined as the distance from the origin along each of the three axes. For example, the coordinate $\{1,1,1\}$ signifies a point that is 1 unit to the right of the X origin, 1 unit above the Y origin, and 1 unit behind the Z origin.

Appendix B: 3D Basics



The format of listing the X, Y, and Z coordinates within braces and separated by commas is the standard shorthand used with the Cartesian coordinate system.

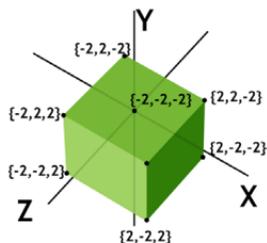
Remember the box we used in the previous 3D example? We can use Cartesian coordinates to define its corners. What if we move the box over somewhat? The graphics on the right show how that might affect the coordinates. As you can see, Cartesian coordinates serve to define an object's shape, size, and location in 3D space.



Point coordinates.

Planes

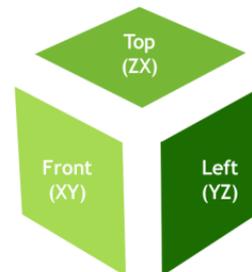
As we discussed earlier, 3D applications must depict and manipulate 3D data using a series of 2D views and tools. You already know that 2D objects are planar because they exist on a mathematically defined plane. A plane is a formula defining the relationship between two dimensions, such as XZ. Combining these two facts with what we just learned about the Cartesian coordinate system and a quick glance at our monitor, we find that 3D applications like Poser use three views aligned with coordinate planes to help you locate points in 3D space.



Planes in 3D space.

You can change the Poser **Document** window to show several cameras, including the orthogonal views (Left, Right, Front, Back, Top, Bottom) and perspective views

(Main, Auxiliary, Face, Hand, Posing). Please refer to the “[Chapter 5: The Document Window](#)” on page 65, for a description of the Poser **Document** window. The graphic shows a quick rendition of three orthogonal views:



Three orthogonal views.

Global vs. Local Coordinates

There is one last wrinkle to the Cartesian coordinate system. To explain this wrinkle, let's use the example of a motorcycle rider leaning into a turn. What just happened? For the sake of argument, let's assume that the headlight is 30 inches above the ground when the motorcycle is upright. If the rider leans the motorcycle 45 degrees to the

left, then headlight will now be 21.2 inches to the left of center and 21.2 inches off the ground.

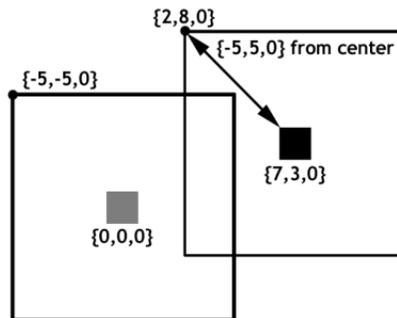


For anyone into trigonometry, we find the new location by multiplying the original location by the sin and cosine of the angle. In this case, $\sin(45) = \cos(45) = .707$, and $.707 * 30 =$ approximately 21.2.

Thus, the headlight's coordinates will have changed from $\{0, 30, 0\}$ to $\{21.2, 0, 21.2\}$. However, nothing has changed about the motorcycle itself. The headlight is still in the exact same position **relative** to the rest of the machine. To demonstrate this, let's create a second 3D space using the motorcycle's center of gravity (balance point) as the origin. Let's further say that the headlight is 12 inches above and 30 inches in front of the center of gravity. This means that the headlight's relative coordinates are $\{0, 12, -30\}$, and these relative coordinates do not change because the headlight does not move relative to the center of gravity. But what do we mean by **relative**?

Has the motorcycle leaned 45 degrees to the left, or has the world leaned 45 degrees to the right? To an observer standing on the ground, the motorcycle has leaned over 45 degrees. To the rider, s/he is still on top of the motorcycle and it is the world that has leaned over 45 degrees. Further, the rider maintains her or his relationship

to the motorcycle, meaning (for example) that her or his head is still 30 inches behind and 32 inches above the headlight. Thus, while the motorcycle's **world coordinates** have changed, its **object** (or **local**) **coordinates** have remained the same.



World coordinates vs. local coordinates.

If this seems a bit complex, bear with us as we use a far simpler example. Each object in Poser has its own object coordinate system. When an object is first created, its center and orientation are the same as the world's. As described above, this changes when the object moves. The world's center and orientation are still the same, but the object's center and orientation may have

changed. Look at the square in the graphic. Say the upper-left corner is located at $\{-5,5,0\}$. When the object is first created, that point is the same in local and global coordinates because the object's center is at $\{0,0,0\}$. If we move the object $+7$ along the X axis and $+3$ along the Y axis, the upper-left corner would now be at $\{2,8,0\}$ in global coordinates but would remain at $\{-5,5,0\}$ in local coordinates, that is, relative to the object's center. In other words, any point can be specified relative to its object's local coordinate system (**object space**) or relative to the global coordinate system (**world space** or **global coordinates**) shared by all objects.

Transformation

So far, you have learned about 3D objects, the Cartesian coordinate system, and the difference between object space and world space. Let's move on and learn how we can use XYZ values to define an object's **transformation** in addition to its size, shape, and position.

An object's **transformation** describes an object's position (**translation**), orientation (**rotation**), and size (**scale**) in 3D space. When an object is first created, its transformation is set to align with the global coordinates. Its position is set to $\{0,0,0\}$, its orientation is set to $\{0,0,0\}$, and its size is set to $\{1,1,1\}$. An object's transformation values are almost certain to change as you work with the object.

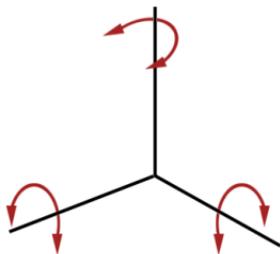
Translation

An object's **translation** describes its position in 3D space relative to its center and is measured in defined grid units. Let's take another look at the box we used in an earlier example.

As you can see, the box's center is the same as the origin ($\{0,0,0\}$). What happens if you want to move the box? You can move each one of the points, delete the existing box and draw a new one in its new location, or simply translate the box. For example, setting a Translate value of $\{2,2,2\}$ would move box's lower left corner to $\{0,0,0\}$ since $(-2)+2=0$. Again, the Translate value refers to the location of the center of the object relative to world space.

Rotation

An object's **rotation** value refers to its orientation in 3D space measured in degrees. As you probably know, any actual object will revolve around its center of gravity (balance point). Objects in Poser have no mass and no center of gravity, so you can set the object's center wherever you like and the object will rotate around that point.



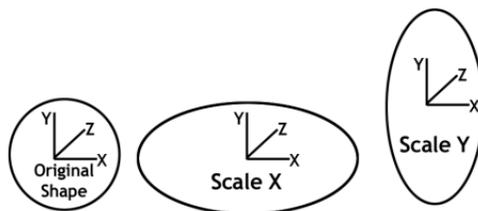
Three axes of rotation.

Let's think back to the motorcycle example. If you model a motorcycle and decide you wish to lean it 45 degrees, nothing is stopping you from performing trigonometric calculations to determine the new location of each part. Remember that each part of the motorcycle will move in at least two dimensions as the whole machine rotates. In this case, since the motorcycle is rotating about the Z axis, you could simply enter a rotation value of $\{0,0,45\}$. The trigonometric calculations will still need to be performed, however Poser will get stuck with the job instead of you.

Scale

An object's **scale** value refers to its size in relation to itself and is measured in percent. In this case, a value of 1 corresponds to 100%. Take the example of a circle. As with all other Poser objects, it is initially created with a scale value of $\{1,1,1\}$, meaning that it is 100% of its original size in all three dimensions.

Now that your perfect circle is in place, you realize you need to double its height on the Y axis. Simply enter a scale value of $\{1,2,1\}$ and the circle will turn into an ellipse that is twice as long on the Y axis as it is wide. To stretch it on the X axis, you would enter $\{2,1,1\}$.



Scaling axes.

To compute every point on a model, multiply the original coordinates by the X, Y, and Z components. With this in mind, it becomes easy to see how different values can

change the size of your object. For example, entering a scale value of {2,2,2} would double the circle's size. Poser allows you to set each scaling factor independently in order to obtain squashing and stretching effects. This is called **differential scaling**.

Now that you've learned about 3D objects, Cartesian coordinates, object space vs. world space, and object transformations, let's go ahead and learn more about 3D objects themselves.

Vertices

A point is a zero-dimensional (0D) object in 3D space. It has a set of coordinates to define its location but has no length, width, or height. It is nothing more than a location in Cartesian space. However, we can connect points to create edges or polylines. An edge is part of a polygon between two vertices, and a polyline connects two vertices together that are not part of a polygon. At its root, 3D modeling consists of nothing more than connecting a series of vertices together to create 3D objects.

A group of vertices used to define a 3D object is called a point cloud. Each point in a cloud is usually called a vertex and is used to define one of the corners of a polygon. Points used to define a spline (see below) are called control points. We'll define these terms a little later.

Splines

Splines are lines that are defined by multiple **control points**. The following graphic shows three basic types of splines. The simplest type of spline consists of a set of control points connected by straight lines, called a **linear spline** (shown on the near right). The other two splines are curved. You can curve a spline by adjusting its **basis**, or method used to compute the spline. Splines can be divided into **interpolating** and **approximating**.



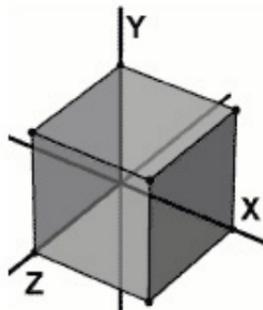
Splines can be linear or curved and are controlled with control points.

An interpolating spline will always touch the points that define it. In the above graphic, the two splines on the left are interpolating. This gives them a more drastic skin-like bend than approximating splines. Approximating splines,

such as the right-most example in the above graphic, have a softer curve because they don't necessarily touch the points that define them. Either type of spline requires three or more control points in order to show any curvature. Poser uses interpolating splines for such things as the **Walk Designer** and the **Animation** palette.

Polygons

Polygons are multiple-sided surfaces that use vertices to define their corners and edges to define their limits. Most 3D applications use **triangles** (3-sided polygons) and/or **rectangles** (4-sided polygons). Groups of polygons form a **polygonal mesh**, which alone or with other meshes defines a **mesh object**. Let's reexamine the box example we used above: In this example, the point cloud consists of eight vertices. These eight vertices are connected by 12 edges, which define six rectangular polygons. Had we used triangles, the eight vertices would be connected by 18 edges, which would define 12 polygons.



Polygons.

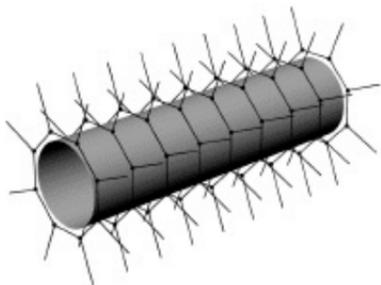
The Poser Workspace

The Poser **workspace** is the virtual 3D world in which you build your scenes. This world contains an origin and the three axes.

The Document window acts as the viewfinder for the currently selected camera. By looking through this viewfinder, you can see the workspace. Please refer to the [“Chapter 5: The Document Window” on page 65](#) for more information about the Document window.

Normals

A surface **normal** is a line (**vector**) that points perpendicular to (away from) the surface it originates from. Since models have more than one surface, knowing which way the normals are facing can help you understand how a particular function will affect a model. This is important when rendering a model or for calculating other operations such as a **collision** (determining if two objects are residing in the same 3D space). If a model's normals are inverted, certain routines may behave erratically or your model may render incorrectly. Poser allows you to control the direction of the normals and automatically performs these calculations for you.



Surface normals.

Camera

The **Camera** is a default object. This means that it always exists and cannot be deleted. However, the camera is an object like any other and can be moved and animated. Additionally, you can apply many different settings to the camera including its **position**, **angle**, **perspective**, and **focal length**. These are standard photography terms. Object animation rules apply to the camera.

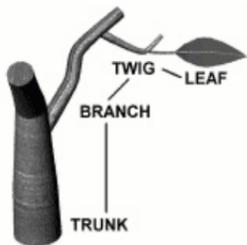
Lights

A light source is a special kind of primitive. When Poser launches, it places three default lights in your scene. You can add, edit and remove lights in your scene and can also control and animate many settings such as color, intensity, position, shaders (gels), etc.

Hierarchy

Poser objects are often grouped in a **hierarchy** in order to facilitate manipulation. The original object is known as a **parent**, and each object linked to it is known as a **child**. The graphic shows an example of a simple hierarchy. In this example, the trunk is the parent. The branch is a child of the trunk, the twig is a child of the branch, and the leaf

is a child of the twig. Selecting and moving the trunk will also move the branch, twig, and leaf. Moving the branch does not affect the trunk but moves the twig and leaf, and moving the twig moves the leaf without affecting the branch or trunk. Selecting the leaf only moves the leaf.



An example of hierarchy.

Let's try another example: Bend your arm at the shoulder. Notice that your shoulder rotation moves your upper arm, lower arm, wrist, hand, and fingers. In this case, your upper arm is a child of your shoulder and so forth. Now try bending a finger. Your hand, wrist, arm, and shoulder do not move.

Appendix B: 3D Basics

Animation

Poser lets you animate virtually everything in your scene including objects, lights, materials (which can have a shader tree containing one or more nodes), and the camera. Each scene item has different settings (**parameters**) that can also be animated. For example, you can animate an object's scale, rotation, translation, and shape, or a light's color, position, and intensity (Poser calculates shadows). You can animate any component of an object's material. Plus, you can animate the camera's position and rotation. Creating animations involves making changes to these parameters over time and assigning these changes to **keyframes**.

Keyframing

Animations are made up of individual images known as **frames**. An animation is created when a series of frames that vary slightly from one frame to the next are displayed one after another over time.

Keyframing is the core of computer animation and involves the following general process: First, a starting frame is created on a timeline and all parameters for each object in a scene are assigned to that frame. Next, an ending frame is created later on the timeline and all changes to any parameters are assigned to this frame.

Poser then compares the parameters assigned to the starting and ending frames and calculates all of the intermediate frames that occur between the starting and ending frames. This calculation is called **interpolation**.

For example, if you tell Poser that an object is large and red at Frame #1 then small and blue at Frame #10, then Frames 1 and 10 become the **keyframes**. Poser then calculates the intermediate values for all of the frames in between the keyframes. Thus, as the animation moves from Frame 1 to Frame 10, the large red ball will gradually shrink and turn blue with each passing frame until it reaches the values you set for it at Frame 10. Keyframing and interpolation allow you to create complex animations with a minimum amount of work.

Appendix C: Poser File Structure

This Appendix describes some basics about the Poser file system.

About Poser Files

Some advanced Poser users obtain added control over their work by editing the source files directly instead of, or in addition to, using the Poser application. This manual provides a detailed description of the Poser file formats, including syntax, layout, and commands/ parameters contained within each file type.

Poser uses separate files for each character, prop, light, and camera, as well as other files for particular character details (face, hands, etc.). These files typically reside in Poser's Runtime folder. The Poser installer automatically creates folders and inserts files into their correct locations. While each type of Poser file has a separate extension and purpose, each of the file types discussed in this manual (with the exception of OBJ and non-native Poser formats) follows the same general format and uses one or

more subsets of the overall Poser command/parameter structure.



Please refer to the Poser end user license agreement (eula) in part 1 of this manual for information regarding the legal uses of the Poser file formats and structures.

A Word of Warning

Editing files directly can give you ultimate control over your Poser creations and help provide spectacular results. However, editing files directly could cause problems up to and including crashing the Poser application file, corrupting your edited file, and causing data loss.

Smith Micro Software provides this information as an aid to advanced Poser users for reference purposes only. Direct editing of Poser files is specifically not recommended and is not supported. Please do not contact Smith Micro Software tech support regarding file-editing problems. Any work you do within Poser files is done solely at your own risk. You are on your own.

This appendix provides some guidance with regard to valid values and error handling, however it is impossible to cover the nearly infinite ways in which you may edit files

and how those edits may affect the Poser application or data.

Editing Files

You can edit all native Poser files using a plain text editor such as Notepad (Windows) or TextEdit (Macintosh). In addition, some users have created helpful applications to aid you in editing Poser data. Please refer to the online 3D community at large for help locating and reviewing these third-party applications.

Poser files contain formalized descriptions and instructions written in a code that Poser can read. As with any computer program, each element of a Poser file must be in the correct format, using valid values, and located in the correct portion of the file. Poser files can be large and complex, and it is not advisable to modify them unless you have a good idea how to go about it.

All native Poser files follow a similar structure, however each file type has a separate filename extension and library location (discussed below). The simplest Poser files control props, lights, and cameras, while the most complex (CR2 and PZ3) describe Poser characters and scenes, respectively.

It should rarely be necessary to modify native Poser files outside of Poser, with the notable exception of CR2 files.

When editing any Poser files, be sure to back up the original file and work on a copy. This will prevent data loss if something goes wrong. You may also wish to save iterations of files as you work, allowing you to easily revert to a previous state without losing all of your work.

Poser File Types

There are several native file types associated with Poser:

- **Prop:** This file type contains information about a prop including source geometry, materials, texture and other maps, etc. Prop files have the extension PP2. Magnet files are prop files with a pre-positioned magnet as the prop. Props are often supplied as PP2 files with embedded OBJ information. They may also include texture and bump map files.
- **Camera:** Camera files contain camera information including location, direction, focal length, etc. They have the extension CM2.
- **Light:** These files contain information on lights, including type, position, color, and other attributes. Light files have the extension LT2.
- **Hair:** Hair files contain information on hair props and are similar to prop files. This file type has the extension

HR2. Hair files may have the geometry embedded within them (as opposed to in a separate OBJ file).

- **Face:** Face files contain information required to articulate and/or deform a face to the desired expression and have the extension FC2.
- **Hands:** Like face files, hand files contain information required to articulate hands into the desired positions or gestures. Hand files have the extension HD2.
- **Pose:** Pose files contain information required to articulate an entire figure into the desired position, which can include face and hand information. Pose files have the extension PZ2.
- **Character:** A character file contains all information required for a Poser character including reference geometry, Joint Editor palette morph targets, materials, default pose, etc. These files have the extension CR2.
- **Scene:** This file type is what is created when you create a Poser scene and select File > Save within the Poser animation. This file type contains all of the information found in the above-mention files plus details on movie, background, rendering, animation set, lights, cameras, figures, and other information. Poser scene files have

the extension PZ3. They are similar in structure to CR2 files.

- **Material Collections:** A Material Collection is a fully integrated file format, which stores groups of materials from a single figure for access through the Library palette. Material Collection files have the extension MC6/MC7.
- **External Binary Morph Targets:** Poser saves morph targets to an external binary file format, which contains only the morph targets for a particular figure or scene. These files have the extension PMD.

File Hierarchy

For purely conceptual purposes, it is useful to think of various Poser file formats as falling into a loose hierarchy, with some files containing subsets of information stored within other file types. Also, while each Poser file type contains information unique to that format, several file types are virtually identical in structure. For example, hand and face information is part of a pose, which along with hair forms part of a character, which combined with other information is part of a scene.

File Families

It is also useful to think of Poser files in terms of the types of information they contain. For conceptual purposes only, you can think of Poser files as being grouped into the following families:

- Face, Hands, Pose
- Hair, Prop
- Camera, Light
- Character
- Pose

Poser Default File Locations

In the list below, note that the following list provides the default locations of the Poser file types. If you are downloading any Poser files, be sure to place them in their correct locations. File placement is most critical for files that belong in the Runtime: Geometries folder. Library files have more flexibility. In the following list, an expression in parentheses means that the subdirectory or name depends upon the figure. You may create your own subfolders and relocate files within the Libraries subfolder.

In this case, file locations will be reflected in Poser's **Library** palette. You may place graphic (texture, bump, etc.) files wherever you like, since Poser allows you to specify their locations. The following list gives all file locations relative to the Poser: Runtime folder:

- **OBJ (figure geometry):** Geometries\<(figure name)
- **RSR (small file, Windows-only thumbnail graphic):** libraries\character\<(category)\(character name)
- **RSR (large file, both Mac and Windows – Binary OBJ):** Same location as associated geometry file
- **PZ3 (Poser scene):** any (user-selected location)
- **CM2 (Camera):** libraries\camera\Camera Sets
- **CR2 (Character):** libraries\character\<(category)\(character name)
- **FC2 (Face):** libraries\faces\<(category)
- **HR2 (Hair):** libraries\hair\<(category)
- **HD2 (Hand):** libraries\hand\<(category)
- **LT2 (Light):** libraries\light\Light Sets
- **PZ2 (Pose):** libraries\pose\<(category)

- **PP2 (Prop):** libraries\props*(category)*
- **MT5 (Shader):** libraries\material*(category)*
- **TIF, BMP, BUM, JPG (textures, bump maps, etc.):** textures*(category)*\(*subcategory*). You may store additional images in any folder you wish.
- **PZS (Web links):** Web links*(category)*
- **MC6/MCZ (Material Collections):** libraries\material*(category)*
- **PMD (Morph Targets):** PMD files are binary morph target files that are a redistributable means to deliver morph targets. If you have **Use External Binary Morph Targets** enabled in the Misc tab of the General Preferences dialog, PMD files are created next to a CR2 (when a figure is added to the **Library**), next to a PP2 (when a prop is added), or next to a PZ3 (when a scene file with morph targets was created in an earlier version of Poser, or when the morph set of figures and/or props has been changed since they were added to the scene).



Users who download characters or other Poser files may need to manually place some or all of the files in their correct locations. Please use the above list to ensure correct file placement.

Appendix C: Poser File Structure

Poser stores files containing preference information in the user's home directory. This preference information includes Memory dots, Library preferences, Poser UI preferences, and the Poser.ini/Poser Prefs file. These preference files are stored in the following locations:

Windows: %AppData%\Poser Debut\10\

Windows XP example: C:\Documents and Settings*<PoserUser>*\Application Data\Poser Debut\10\

Windows Vista & 7 example: C:\Users*<PoserUser>*\AppData\Roaming\Poser Debut\10\

Mac OS X: ~/Library/Application Support/Poser Debut/10/

Mac OS X example: /Users/*<PoserUser>*/Library/Application Support/Poser Debut/10/

Poser Downloaded File Locations

By default, Poser places downloaded content (obtained using the **Content** room) in the **Download** library. Please refer to "[Chapter 7: The Poser Library](#)" on page 130 for more information about Poser libraries.

Other Poser File Types

Some users may encounter PHI and PCF files. Previous versions of Poser used PHI to perform functions that are now carried out in the hierarchy editor/**Setup** room (Pro

Pack & later). PHI files were directly contained within OBJ files, and were located with the OBJ file. PCF files are used by an application called Objection Mover and are beyond the scope of this document.

Commonly Used Poser Objects

Morph targets and characters are commonly used and traded/sold by and among users and third-party vendors. This section provides a brief explanation of each.

Morph Targets

Morph targets are supplied as OBJ files that you import into Poser for application to part of a figure. The figure's CR2 file controls morph targets, and a dial appears for each morph target when an applicable body part is selected. For example, a head morph target dial will appear when you select the figure's head.

Characters & Clothing

Characters can be modifications of meshes that come with Poser or can include entirely new OBJ meshes (models). Characters based on pre-existing meshes typically come as CR2, texture, and bump files. Also,

each piece of conforming clothing uses CR2 files to make it poseable, making clothing downloads similar to characters; thus, the download is similar to that of a character.

Basic File Syntax

As you will see by examining this document, each Poser file type uses the same general syntax.

Tabs

Tabs within Poser files are mostly insignificant, however they serve to show file structure, such as:

```
section 1
    child 1
        grandchild
        grandchild n
    child n
section n
```

Brackets & File Sections

Each Poser file opens and closes with brackets ({}), as does each section within a Poser file. Major file sections describe the file version, location and name of the underlying OBJ file (if any), and file properties. One of the major file sections (Channels) contains position, size, texture, morph

target, and other properties. Poser automatically modifies values and adds entries as needed.

As described above, brackets denote the beginning and end of file sections. A left bracket begins each section, while a right bracket ends a section:

```
{begins
} ends
```

For example,

```
{
section A
}
```

Nested Brackets

As implied above, one can nest file sections using brackets to denote each section and subsection, as follows:

```
{
section A
  {
    section B
  }
}
```

Parameters

Parameters and other items within a section do not need brackets. For example:

```
{
section A
  parameter 1
  parameter n
```

```

{
  section B
  command 1
    parameter 1
    parameter n
  command 2
    parameter 1
    parameter n
}
}
```

Comments

You can insert comments into Poser files, as follows:

```
{
number 4.01
This text is a comment added to the CR2 file.
}
```

Poser & OBJ Files

The Geometries folder contains several dozen subfolders with names corresponding to Poser figures. Each of these subfolders contains OBJ files, each of which is a mesh object, e.g. a set of polygons arranged so as to form the desired shape. These polygons are placed into different groups that define important subdivisions within the mesh (such as body parts, also known as actors). In order to work with Poser, these groups must have specific names, such as hip, abdomen, etc. Poser groups do not require such specific naming conventions; figures created using

the **Setup** room could have groups named, for example, **Bone_1**.

The OBJ file itself does not contain enough information to allow Poser to produce all of the mesh object's properties, hence the presence of CR2 and other files that provide supplemental information. Poser files can contain embedded information that would normally reside within the OBJ file. This is why many prop downloads do not include an OBJ file.

Some native Poser files normally refer to an underlying OBJ geometry file, which is also in text format. Native Poser files describe parameters controllable within Poser, such as size, position, textures, etc. One OBJ file can have more than one Poser file pointing to it. This happens, for example, if a modified prop, character, etc. is saved to the Library under a different name and/or location.

Character (CR2) files contain Poser-specific details such as size, position, pose, textures, proportions, etc. and also control the dials that change the figure. Normally, one CR2 file governs a single figure. By combining the OBJ mesh information with the CR2 details, Poser can create customized poseable figures.

Some Poser files (pose, face, hands, etc.) work by modifying the CR2 itself. Poses, faces, and hands are already described within the CR2, however applying the data contained in one of these files changes the

corresponding values within the CR2 file itself. These applied CR2 changes are then saved to the Poser scene (PZ3) file. If the user saves the modified character in the Library, the modified information gets written to a new CR2 file.

PZ3 files are similar enough to CR2 files to allow changing a PZ3 extension for a given scene file to CR2, thereby creating a new character complete with its associated props, hair, etc.

Dependent Parameters

With Poser you can set up meta-level parameters, called dependent parameters, which allow you to modify other parameters and morph targets with a single parameter dial. An example of this type of dependent parameter would be a full range of belly types, with the following values along the dependent parameter dial:

- -1.0 underweight belly
- -0.5 sixpack belly
- 0.0 regular belly mesh
- 0.5 slightly protruding belly

- 1.0 large protruding belly
- 2.0 hanging beer belly

This range of belly types would incorporate various morph targets and parameter values at each of the key points along the dependent parameter dial. Thus, dependent parameters are far more powerful in the scope of modifications they can encompass than a single morph target or parameter dial.

The following sample code illustrates how to set up a dependent parameter. This code is an example of a targetGeom channel in a CR2 file. The resulting dependent parameter will appear as a morph target parameter dial named "bump3".

```
targetGeom bump3
{
name bump3
initValue 0
hidden 0
forceLimits 1
min -100000
max 100000
trackingScale 0.02
keys
{
static 0
k 0 0
}
interpStyleLocked 0
numbDeltas 261
useBinaryMorph 1
blendType 0
valueOpKey
```

```
Figure 1
bone_1:1
Custom_Morph
beginValueKeys
valueKey 0.5 0
valueKey 0.75 1
valueKey 1 0
endValueKeys
}
```

The end of this sample defines some interesting interactions with regards to the "bump3" dependent parameter. The "valueOpKey" keyword identifies a section that defines that this parameter can be driven by the Custom_Morph dial on the **bone_1** actor of the specified figure. The "ValueKeys" section defines how exactly the "bump3" dependent parameter will be affected:

- If Custom_Morph equals 0.5, the value of bump3 will increase by 0.
- Once Custom_Morph reaches 0.75, the value of bump3 will increase by 1.
- By the time Custom_Morph equals 1, the value of bump3 will increase by 0 again.
- Values in between these points are determined by spline interpolation.

In the next example, we are looking at the rotateX parameter of an actor (in this case **bone_2:1**, which is not

apparent from the code sample below). The resulting dependent parameter dial is called "xRotate".

```
rotateX xRotate
{
  name xrot
  initialValue 0
  hidden 0
  forceLimits 0
  min -100000
  max 100000
  trackingScale 1
  keys
  {
  static 0
  k 0 0
  }
  interpStyleLocked 0
  valueOpKey
  Figure 1
  bone_1:1
  Custom_Morph
  beginValueKeys
  valueKey 0.25 0
  valueKey 0.75 45
  valueKey 1 0
  valueKey 1.25 -45
  valueKey 1.5 0
  endValueKeys
}
```

As in the previous example, the "valueOpKey" section defines that the Custom_Morph parameter dial on **bone_1:1** of the specified figure can take control of this parameter. The "valueKey" value pairs add rotation in degrees of xRotate to certain values of the Custom_Morph parameter.

Appendix D: Feature Comparisons and Handling

Poser Debut includes a number of features that allow you to create exciting 3D images. In actuality, Poser Debut offers a subset of features that are also included in Poser 10 and Poser Pro 2014.

Feature Comparisons

The following comparison charts shows feature comparisons between Poser Debut, Poser 10, and Poser Pro 2014. Following the feature comparisons, we will describe how the advanced features of Poser 10 and Poser Pro 2014 are handled in Poser Debut.

Standard Features

	Poser Debut	Poser 10	Poser Pro 2014
Magnet and Deformer Weight Maps	Yes	Yes	Yes
Rendering Speed Optimization	Yes	Yes	Yes
OpenGL Speed Optimization	Yes	Yes	Yes
New Realistic Human and Cartoon Figures	Yes	Yes	Yes
Facebook® image export	Yes	Yes	Yes
Recent Render palette	Yes	Yes	Yes
Pixar Subdivision Surfaces	Supported	Yes	Yes
Bullet Physics for Rigid, Softbody & Hair Dynamics	Supported	Yes	Yes
Material Compound Nodes	Supported	Yes	Yes
Gamma Correction	On/Off	Yes	Yes
Raytrace Preview Pane		Yes	Yes
Morph Brush Improvements		Yes	Yes

Grouping Tool Improvements		Yes	Yes
Material Room for advanced material editing		Yes	Yes
Face Room for creating custom faces on supported figures		Yes	Yes
Hair Room for creating dynamic hair and fur		Yes	Yes
Cloth Room for creating dynamic clothing props		Yes	Yes
Setup Room for the creation and rigging of new figures		Yes	Yes
Content Room browser within Poser		Yes	Yes
Wardrobe Wizard to fit existing clothes items onto new figures		Yes	Yes
Python Add-ons		Yes	Yes
wxPython Support		Yes	Yes
Python 2.7 Support		Yes	Yes

Supported = Playback enabled, not editable by the user

Pro Features

	Poser Debut	Poser 10	Poser Pro 2014
Fitting Room			Yes
Magnet & Deformer Weight Map Painting Tools			Yes
PoserFusion plug-ins			Yes
PoserFusion plug-ins			Yes
Full COLLADA export/import			Yes
64-bit fully native application Macintosh and Windows®			Yes
64-bit FireFly rendering engine Macintosh and Windows®			Yes
64-Bit Queue Manager, Network Render Queue			Yes
HDRI export/import			Yes
PSD layer rendering			Yes

Background Rendering			Yes
----------------------	--	--	-----

Interface and Workflow

	Poser Debut	Poser 10	Poser Pro 2014
Updated interface for improved workflow	Yes	Yes	Yes
Parameter change indicator	Yes	Yes	Yes
Expanded Context Menus	Yes	Yes	Yes
Copy and Paste Mirror		Yes	Yes
Dependent Parameter Editor enables creation of interaction links		Yes	Yes
Grouping Tool to create material and polygon groups		Yes	Yes
Hierarchy Editor		Yes	Yes
Pressure Sensitive Morph Brush Support		Yes	Yes
Cross Body Part Morph creation		Yes	Yes
Full Body Morph import		Yes	Yes

Full Body Morph deletion		Yes	Yes
Grouping Objects		Yes	Yes
Frame Object Camera		Yes	Yes
Rotate Object Camera		Yes	Yes
Hierarchical Scene Inventory display		Yes	Yes

Rigging

	Poser Debut	Poser 10	Poser Pro 2014
Support for traditional grouped actor Poser characters	Yes	Yes	Yes
P23 format support for third party Weight Map figures	Yes	Yes	Yes
Multiple Sphere and Capsule Zone Rigging system	Supported	Yes	Yes
Weight Map Rig Support	Supported	Yes	Yes
Support for new single mesh characters	Supported	Yes	Yes
Hybrid Rigging; Weight Maps and traditional Poser Zones	Supported	Yes	Yes

Weight Maps and Zones propagate beyond parent or child body part	Supported	Yes	Yes
Improved Symmetry		Yes	Yes
Copy/Paste Mirror Values		Yes	Yes
Joint Strength Indicator		Yes	Yes
Display of Weight Map affected vertices		Yes	Yes
Copy/Paste Weight Maps			Yes
Full Suite of Weight Map Creation Tools			Yes
Weight Map Auto Transfer			Yes
Weight Map Painting with pressure sensitive tablet support			Yes
Generate new Weight Maps from traditional Poser Zones			Yes

Supported = Playback enabled, not editable by the user

Fitting Room

	Poser Debut	Poser 10	Poser Pro 2014
Fit existing clothing items to new figures			Yes
Multiple Modes for fitting include Tighten, Smooth, Soft Features and Rigid Features			Yes
Prefit Mode to Direct Clothing Item around Figure Features			Yes
Transfer Rigging, Weight Maps & Morphs from Figure to Converted Clothing			Yes
One step rig transfer and autogroup for creating new conforming figures			Yes

Pixar Subdivision Surfaces

	Poser Debut	Poser 10	Poser Pro 2014
Subdivide Figures, Body Parts and Props	playback only	Yes	Yes
User Definable Subdivision Levels for both Preview and Render resolutions		Yes	Yes
Generate from Figure Uni-mesh for Subdivision		Yes	Yes

Bullet Physics

	Poser Debut	Poser 10	Poser Pro 2014
Create Rigid and Softbody Dynamic Simulations	playback only	Yes	Yes
Paint Dynamics Weight Map for Soft Body Deformations		Yes	Yes

Live Simulation Mode		Yes	Yes
User Defineable Gravity, Damping Steps per Second and Collision Margins		Yes	Yes
Use Constraints to build complex mechanical objects and links		Yes	Yes
Save Simulation Settings in Library		Yes	Yes

Rendering and Shaders

	Poser Debut	Poser 10	Poser Pro 2014
Optimized Rendering Performance	Yes	Yes	Yes
Cartoon Preview Mode generates B&W and Color Cartoon Images and Animations	Yes	Yes	Yes
FireFly render engine	Yes	Yes	Yes
Render Images and Animation/Video	Yes	Yes	Yes
SketchDesigner for sketch rendering	Yes	Yes	Yes

Automatic settings for FireFly render engine	Yes	Yes	Yes
Ambient Occlusion	Yes	Yes	Yes
Toon Outline	Yes	Yes	Yes
Render Over Image/ Color	Yes	Yes	Yes
SubSurface Scattering Materials	Supported	Yes	Yes
Invisible Light Casting Objects	Supported	Yes	Yes
Improved Depth of Field Quality	Supported	Yes	Yes
Improved Motion Blur Quality	Supported	Yes	Yes
Improved Indirect Lighting Quality	Supported	Yes	Yes
Improved Reflection Quality	Supported	Yes	Yes
Indirect Lighting with Ambient Occlusion Rendering Support	Supported	Yes	Yes
Fast Scatter Node for "bioluminescent skin effects"	Supported	Yes	Yes
Polygon Smoothing	Supported	Yes	Yes
Displacement Map support	Supported	Yes	Yes

Depth of Field and Motion Blur	Supported	Yes	Yes
Indirect Lighting for Global Illumination rendering effects	Supported	Yes	Yes
Tone Mapping	Supported	Yes	Yes
Create Custom Compound Materials Node		Yes	Yes
Full manual settings for FireFly render engine		Yes	Yes
Area Render		Yes	Yes
Raytrace Preview Pane		Yes	Yes
64 Bit Rendering Macintosh® and Windows®			Yes

Supported = Playback enabled, not editable by the user

OpenGL Support

	Poser Debut	Poser 10	Poser Pro 2014
Optimized OpenGL Performance	Yes	Yes	Yes
OpenGL Cartoon Mode Preview	Yes	Yes	Yes

OpenGL real-time scene preview of lights	Yes	Yes	Yes
Real-time Soft Shadows	Yes	Yes	Yes
Real-time Ambient Occlusion	Yes	Yes	Yes
Real-time Normal Map display	Yes	Yes	Yes
Back facing polygon display	Yes	Yes	Yes
Gamma Correct real-time display	Yes	Yes	Yes

Performance

	Poser Debut	Poser 10	Poser Pro 2014
Pre-Render Texture Caching	Yes	Yes	Yes
Dynamic Hair Collision and Render Improvements		Yes	Yes
Multi-thread Bending		Yes	Yes

Library and Content

	Poser Debut	Poser 10	Poser Pro 2014
Included content	over 3GB	over 3GB	over 3GB
Includes Poser 10 Male and Female of weight mapped humans	Yes	Yes	Yes
Includes new Cartoon Characters	Yes	Yes	Yes
Includes legacy content from previous versions	Yes	Yes	Yes
Drag and drop content from Library	Yes	Yes	Yes
Auto-conform on drag and drop	Yes	Yes	Yes
Multi-Select Library items for Drag and Drop	Yes	Yes	Yes
New Scene Category in Library	Yes	Yes	Yes
Content Management system with meta data support and online search of Content Paradise	Yes	Yes	Yes

Multiple views in library: Tree View, Multicolumn Thumbnail List, and Extended Details	Yes	Yes	Yes
Search local content	Yes	Yes	Yes
Search Content Paradise content	Yes	Yes	Yes
In-application Project Guide with full video Tutorials	Yes	Yes	Yes
Library Support for Bullet Physics Simulation Settings and Weight Maps		Yes	Yes

Lighting

	Poser Debut	Poser 10	Poser Pro 2014
Unlimited number of Point Lights, Spot Lights, Infinite Lights and Diffuse Image Based Lights	Yes	Yes	Yes
Physically correct light falloff for more realistic scene illumination	Yes	Yes	Yes

Performance optimizations for file handling, memory management and rendering improvements on multi-processor systems	Yes - Four threads	Yes	Yes
--	--------------------	-----	-----

Animation

	Poser Debut	Poser 10	Poser Pro 2014
Keyframe Animation System	Yes	Yes	Yes
Walk Designer to auto-generate walk and run cycles	Yes	Yes	Yes
Animate Rigid Body and Soft Body Effects with Bullet Physics	Playback	Yes	Yes
Animation Layers and Groups		Yes	Yes
Constraint Channels and Objects		Yes	Yes
Talk Designer to auto-generate talking facial animation		Yes	Yes

Advanced Content Handling

While working in Poser Debut, you may encounter cases where you will be allowed to render the more advanced features found in Poser 10 or Poser Pro 2014, shown in the preceding charts. However, you may not be able to edit or change them. In cases such as these, you will receive informational dialogs that advise you of such.

The following charts summarize how Poser Debut will handle scenes or content that utilize more advanced features found in Poser 10 or Poser Pro 2014.

FEATURE	HANDLING
Advanced Content Feature: <ul style="list-style-type: none"> • Dynamic Cloth • Dynamic Hair 	<ul style="list-style-type: none"> • Will play back in animation, but any changes that the content interacts with will no longer function properly. • Dynamics cannot be recalculated. • Content will be loaded, but the settings will be left as is. An advanced content dialog will appear. • Content will not be editable. • Dynamics can be played back as long as DYN data accompanies the loaded content file.

Render Settings: <ul style="list-style-type: none"> • Indirect Light • Gamma Control • Depth of Field • 3D Motion Blur • Displacement • Render Shadow Only • HDR Enabled • Tone Mapping 	<ul style="list-style-type: none"> • Content will be loaded, but the setting will be turned off. An advanced content dialog will appear. • Settings will not be editable. • When scene is saved from Poser Debut, the content is saved at a level supported by Poser Debut.
Render Settings: <ul style="list-style-type: none"> • Depth of Field Focus Guide 	<ul style="list-style-type: none"> • Content will be loaded, but the setting will be turned off. An advanced content dialog will appear. • When scene is saved from Poser Debut, the settings are saved at a level supported by Poser Debut.
Render Settings: <ul style="list-style-type: none"> • Remove backfacing polygons • Post Filter 	<ul style="list-style-type: none"> • Content will be loaded, but the settings will be left as is. An advanced content dialog will appear. • Settings will not be editable. • When scene is saved from Poser Debut, the settings are saved at a level supported by Poser Debut.

Appendix D: Feature Comparisons and Handling

Materials: <ul style="list-style-type: none">• Advanced Shader Nodes	<ul style="list-style-type: none">• Shader nodes are imported and preserved when saved, but not accessible in the Simple Material Editor.• When the scene is saved from Poser Debut, the settings are saved at their original level.• An advanced content dialog appears when an Info button is clicked.
Dependent Parameters	<ul style="list-style-type: none">• Settings are not editable.
Python Scripts	<ul style="list-style-type: none">• Not supported.

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