

EZSkin 3 User Guide



Fverbaas
Snarlygribbly

Credits.....	1	innermouth	8
User guide	1	invisible	8
Cover images.....	1	iris.....	8
Internal artwork	1	Lacrima.....	8
The basics	1	lips.....	8
What is EZSkin?	1	nails	8
How is EZSkin3 different from EZSkin2?	1	pupil	8
How can I install EZSkin3?	1	sclera	8
Unpacking EZSkin3	1	skin	8
Starting EZSkin	2	specular	8
The title bar.....	2	tear.....	8
A menu icon bar.....	2	Teeth	8
Info on Selected figure	2	Tongue	8
Selection of shader engine used.	2	Appendix B	9
Process section	2	Getting the most out of EZSkin	9
Presets section.....	2	Scene preparation	9
A message / status line	2	Render settings	9
Loading Figure Definitions	2	Appendix C	10
Configuring the other options.....	3	The toolbar icons.....	10
Using EZSkin3	3	Menu	10
Basic use	3	Apply	10
Advanced use 1	4	Import Figure Definitions	10
Advanced use 2	4	Export Figure Definitions.....	10
Advanced use 3: Overlays	4	Settings.....	10
Special: Converting hair	4	Web.....	10
Expert use: Make your own Custom Shaders and let EZSkin3 do exactly what you want.....	4	Exit	10
Figure Definition Editor Window	6	Appendix D	11
Figure's object file	6	The file list	11
Use figure definition	6	Appendix E	12
<< Add figure	6	EZSkin database locations	12
Applying shaders.....	6	EZSkin3 data	12
Updating the figure in the definitions library	6	EZSkin2 data	12
Saving a new definition (or not).....	6	Special thanks	13
Using a custom definition	7		
Restore.....	7		
Appendix A.....	8		
The Shaders	8		
cornea	8		
eyelash	8		
eyetrans	8		
gums	8		
hair.....	8		
ignore.....	8		

Credits

USER GUIDE

Fverbaas

PROOFREADING

johnbiehl

COVER IMAGES

Bu_es (front cover), Bagginsbill (rear cover)

INTERNAL ARTWORK

Amethystpendant, Artitude41, Gadzooks, Glitterati3D, Hauge, Jura, PangurBan, RedPhantom, Seeker

The basics

What is EZSkin?

EZSkin is a tool that helps you to apply shaders of a design you want to figures and props, including hair props. It uses the diffuse, bump, specular and transparency images to build a new shader optimized for your purpose. It does not matter what the original shader was like. It will be completely over-written by new ones based on what you plan to do, and how you want the skin to render. It is possible to define your own shaders.

HOW IS EZSKIN3 DIFFERENT FROM EZSKIN2?

Version three is completely rewritten to add shaders for the Superfly render engine that came with Poser 11. The shaders for Firefly that came with EZSkin2 are still there but now have a counterpart tuned for best results with Superfly.

EZSkin3 allows you to specify masks to define areas where specific shaders work. The rigid separation between for example lips and face skin can be replaced by a more natural transition.

There is a new functionality to support tinkering with shader settings: An 'undo' function restores the settings to the previous state. A function to temporarily save a setting and restore it helps you to 'lock' a setting you want to keep.

EZSkin3 has inherited the simple powerful control over most of the details of the skin shader. The tabs are no longer there however. The different materials have now their own dedicated editor window.

What has also remained is the ability to add characters to the figure recognition list without having to edit any XML files. EZSkin3 uses a different definition format than EZSkin2 but the legacy figure definitions can be imported and merged with the definitions provided.

The effect files for soapy, sweaty, wet skin are no longer there. These will in time be replaced by a new functionality.

How can I install EZSkin3?

UNPACKING EZSKIN3

The EZSkin v3 distribution comes as an archive in .zip format. Check you have the following files:

- EZSkin3.pyc
- EZSkin v3 user guide in pdf format (this document)

- a folder with Presets
- a folder with Figure Definitions
- a folder with Custom Shaders.
- a readme file
- a license file

1) Extract all files from the zip archive to a folder of your choice. This can be anywhere you like. When EZSkin needs to find files it starts by looking in your main Runtime folder so you may find it convenient to choose that as a location for extracting the files, but you will be able to browse to whatever location you chose anyway.

2) Copy EZSkin3.pyc to the ScriptsMenu folder in the Runtime/Python/poserScripts folder of the runtime installed in the same folder as the Poser executable. Note that while this location is recommended, EZSkin will in fact run from any location. EZSkin does not need write access to the folder from which it is run.

3) Run EZSkin and import the figure definitions (you may prefer to create these from scratch though)

4) Run EZSkin and import the Presets (Again, you may prefer to create your own)

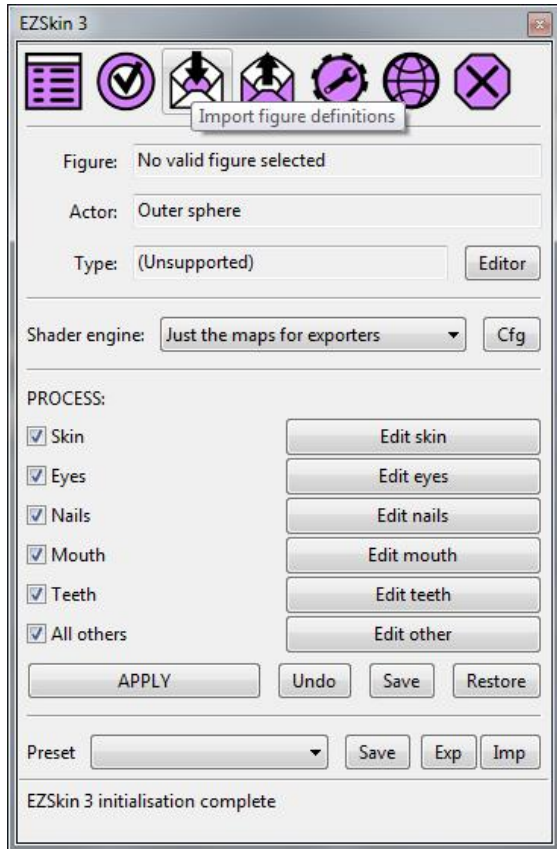
Set up the custom shader engines folder: Create a folder anywhere on your computer to which you have write access. Then copy the files from the zip's 'Custom shaders' folder into your newly created folder. Run EZSkin and open the settings dialog. Set the 'Custom shader engines' folder to the newly created folder.



Starting EZSkin

To run EZSkin3 after installation first (re)start Poser 11 and load a figure. If you installed EZSkin3 as described above find the EZSkin3 script in Poser's Scripts menu. If you installed somewhere else you need to use Poser's "File / Run Python script".

You will then see:



The EZSkin main window

Let's take a moment to look at the main interface window.

The window is divided in the following sections (from top to bottom):

THE TITLE BAR

Note: The Close button on the right of the title bar is disabled - please use the Close button on the toolbar instead.

A MENU ICON BAR.

The functions accessed by the buttons are indicated as tooltips when you move the mouse pointer over them. The button you will use most frequently is the one on the right: 'Close EZSkin'. Since the button in the title bar does not work this is the easiest way to close EZSkin3.

INFO ON SELECTED FIGURE.

Note despite them being shown in a frame these boxes are not for selection or input. These boxes just reflect the name of the figure or prop you have currently selected in

Poser and, when known, the figure type (or shader mapping) this selected figure is associated with. We have not yet told EZSkin which definitions exist so the 'type' field says 'not supported'.

From here you could start making a mapping, or figure definition, for the figure. The 'editor' button will give a screen in which you can define the shader mapping for the figure. How to do that can be found in the section 'add/edit a figure type' below.

In most cases however it is not necessary to do this. EZSkin3 comes with ready definitions for most popular figures.

SELECTION OF SHADER ENGINE USED.

EZSkin3's core purpose is to make shader definitions for Poser 11 render engines Firefly and Superfly so these are included. EZSkin also comes with some example 'custom' shader engines.

PROCESS SECTION

Selection of material groups for which the shader is to be modified, buttons to start an editor to say how this is to be done and action buttons. The 'Apply' button is the one you will use most frequently.

PRESETS SECTION

Allows you to save the current settings. More about this later

A MESSAGE / STATUS LINE

Often overlooked but can contain valuable information.

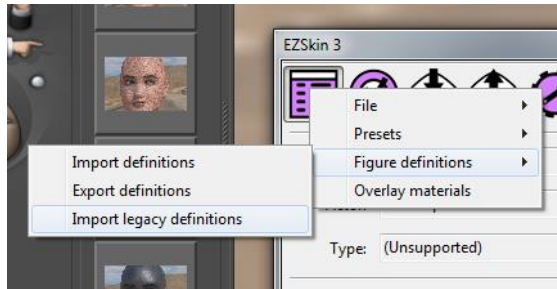
Loading Figure Definitions

EZSkin is all about figure definitions so before we can use it most effectively we need to let EZSkin know the definitions we want to use. In the Figure Definitions folder in the archive you will find files with figure definitions. If you've used EZSkin2 before, you may have built your own collection of figure definitions and you will want to re-use them, either because they are for figures not in the standard package or because you updated the figure definitions that came with EZSkin2 with your own preferences.

Newly imported definitions over-write any existing ones, so you have to decide whether you want to:

- Use your legacy definitions preferably. In that case first import the definitions that came with EZSkin3 and then import your legacy shaders. You can choose which ones you want to use.
- Use new wherever practicable. In that case first import your legacy shaders and then import the ones provided with EZSkin3. Any figure definitions that already exist in the EZSkin3 database will be replaced by the new ones.

Loading figure definitions can be done through the Menu:



Alternatively the toolbar icon can be used.

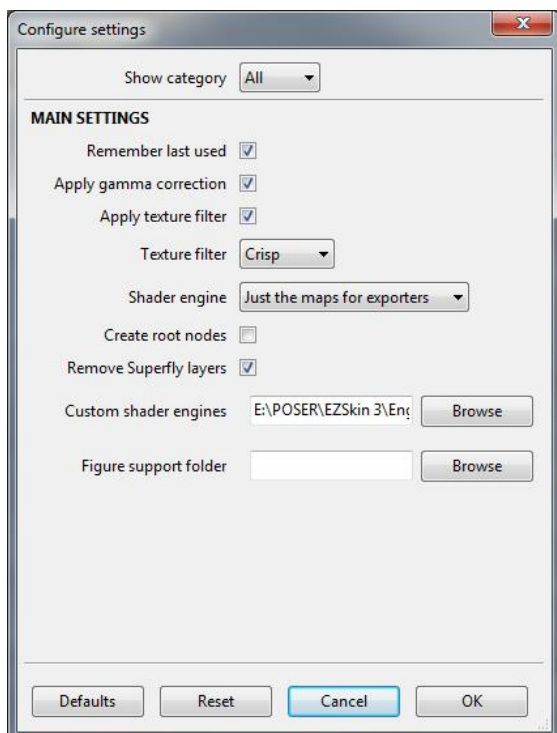
To copy the definitions you made in EZSkin2 open your old Poser version you made them with, start EZSkin2, and export the figure data to a location where you can find them and reload from there.

If you have already uninstalled your old Poser version you can also take the backdoor option and load the files EZSkin2 made directly. Once you have loaded what you need you can delete the rest of the EZSkin2 stuff there.

See Appendix E for the locations where you can find EZSkin2 and EZSkin3 data files.

CONFIGURING THE OTHER OPTIONS

With the figure definitions loaded EZSkin3 will be ready to go for most users. There are a few options though you may want to explore. If you click the 'Settings' icon (the one with the spanner / wrench in the middle) the 'Configure Settings' window is displayed:



All inputs here have tool-tips that show up if you move the mouse pointer over the text. Many items here are self-explanatory and need no further explanation in this

document. Here we just want to highlight two items on this window:

- 'Remember last used'. When this box is checked EZSkin3 will save all its current settings when it is closed. This can be convenient but can also be confusing or annoying when the settings have gone off-optimal beyond repair and you would like to make a clean start.
- The 'Custom Shader Engines' folder selection box helps you indicate a folder where custom shader engines are found. This can again be any location but a natural choice would be the 'Custom Shaders folder you extracted from the archive. If you select that folder, and close and restart EZSkin3 (be sure you have 'remember last used' set before you close!), you will see you have another shader engine at your disposition. See below about 'Let EZSkin make exactly what you need: add Custom Shaders'.

Button 'Reset' brings input back to how it was when you opened the window.

Button 'Defaults' restores input back to how it was when EZSkin3 was installed.

Note: The 'figure support' folder input will become relevant in future developments. The input has no function in this release and can be ignored.

This completes the global setup of EZSkin3.

Using EZSkin3

BASIC USE

Once all the setup is done EZSkin3 can be super easy to use:

In Poser, select the figure for which you want to convert the shaders.

In EZSkin3 select the shader engine for which you want to tune the shaders. (Firefly or Superfly, or a custom one if you have added any)

A shader engine in EZSkin is a module that creates the shaders, and should not be confused with Poser's render engines.

Click the 'apply' button.

You will see the Message Line show the conversion is completed. Note the preview in Poser is updated only once you either close EZSkin or do something that affects the preview (like changing camera). (In other words you see nothing happen unless you do something)

Note 1: EZSkin3 works best from Poser's Pose Room. EZSkin3 can be used from the Material Room but this will slow down the conversion.

Note 2: The EZSkin3 window is visible only in the 'room' that was open when started EZSkin3. If you start EZSkin3 for example in the Material Room and in Poser

switch to the Pose room, you no longer see the EZSkin3 window and may think you closed it, but you cannot start a new instance. In that case go back to the Material Room and close (or use) EZSkin3.

ADVANCED USE 1

You may want to exclude certain shaders from being applied. Just un-check the boxes for the shader groups you do not want to apply. Shaders have been grouped. If the 'Process' tick-box is not checked, the shader definition of the materials assigned the respective group will not be modified in the process. Groups are:

- Skin: containing the skin shader.
- Eyes: containing the cornea, eyetrans, iris, pupil, sclera, lacrimal and tear shaders.
- Nails: containing the nails shader
- Mouth: containing gums, innermouth, lips and tongue shader
- Teeth: containing teeth shader
- All others: containing eyelash, hair, invisible, and specular shaders

ADVANCED USE 2

You can tweak the settings of the shaders to optimize your result. There is an editor window for each group of shaders with settings relevant for that group. The control for each setting has a tooltip which provides more information about its purpose or where to find the explanation.

Rather than giving a tedious in-depth description of all the inputs we suggest you play around a bit here and experiment. In the teeth shader for example there is a colour chip that allows you to change the tint of the teeth. Same for hair or for lips. Tweaking the colour of these items in EZSkin3 is easier than going into the material room each time, navigate to the node and make your changes.

The good thing here is that in every editor there are buttons to reset to the last situation or reset to default. Very convenient in case you messed it all up.

ADVANCED USE 3: OVERLAYS

EZSkin3 can provide overlay shaders, that is, it can create a bend between two materials in the definition of the figure, controlled by a mask.

Poser 6 Jessi for example has no separate material for lips. The figure used a specular map to cater for the differences in specularly. This means you cannot easily apply a lipstick colour on her. The overlay function in EZSkin3 makes this easier. Using a mask rather than a material zone allows you to make more natural transitions.

The access to the functionality is somewhat hidden under the 'file' menu.

Simply select the material to be used as overlay, the material that will be overlaid, the mask to be used and the shader tree in which this is to be done. Finally there

is a button to commit the insertion. This insertion is done in the material definition as it is at that moment. This means that the overlays should be applied AFTER you made any other conversions. Remember EZSkin3 simply erases everything that is there to set up the new shader. This includes the overlays. They will be erased like all the rest, unless of course you choose not to apply the shader that is connected to the material that is overlaid.

Any overlays are erased when you re-apply the EZSkin3 conversions. Settings are not persistent.

SPECIAL: CONVERTING HAIR

EZSkin3 can also be used for transmapped hair. Functions allow optimising the shader and changing the hair colour.

- Select the hair
- Set the hair material zones to EZSkin's 'hair' shader, using the Editor
- Ensure 'All others' is ticked in the PROCESS section on the main screen
- Click the 'Edit other' button
- Choose a hair colour
- Tick 'Monochrome'

You are now ready to apply the EZSkin shaders

Ticking the 'Monochrome' checkbox ensures the existing hair colour is removed before applying your new hair colour. If you leave the box unchecked the resultant colour will be the original colour tinted by the new colour, which only occasionally looks good.

EXPERT USE: MAKE YOUR OWN CUSTOM SHADERS AND LET EZSKIN3 DO EXACTLY WHAT YOU WANT

It was mentioned before but it is mentioned here again, for the sake of completeness - the standard shaders that come with EZSkin3 for Firefly and Superfly are just the defaults. You can make your own shaders from the bottom up. This requires programming in Python and a full description is beyond the scope of this manual. Users familiar with programming in Python will know what to do when they study the code in the example custom shaders.

Your home made shader need not cover all the material definitions. If there is no code to redefine a shader it will be left untouched during the processing.



Artwork by Gadzooks



Artwork by Artdude41

Figure Definition Editor Window

The Editor allows you to assign shaders to the materials of your figure and to save those assignments as a 'figure definition' to EZSkin's internal library for re-use.

When you select a figure to process with EZSkin, the internal library is checked for a suitable definition and, if one is found, then the appropriate shaders are automatically assigned for you. However, you can override those assignments if you want.

Figure's object file

EZSkin identifies a figure by referencing its geometry (.obj) file, and this is also displayed for your information.

Use figure definition

This drop down box allows you to manually select the figure definition to apply to your figure. This can be useful when:

- You have a new figure which shares the same definition as other figures in your library. For example, you made your own customized version of Pauline with adapted geometry but the material definition is the same as the original.
- You want to design a custom definition (there is a custom option at the top of the list)

Upon selecting a figure definition the shaders defined in it will be applied to your figure where the material zones have an identical name to the material zones in the definition.

<< Add figure

This command button associates the current figure with the definition showing in the 'Use figure definition' drop down box.

EZSkin will remember this association so that next time you use EZSkin with this figure it will automatically recognise the figure.

This can be useful if you make your own updated geometry. For example, the provided definition of P6 Jessi comes as an association with her P6 partner James. If you load P6 Jessi you will see she is of the 'Type' James.

Applying shaders

- Select a shader from the drop-down list
- Select one or more materials
- Click on the 'Apply shader' button

A list of shaders and details about them can be found in Appendix A.

Updating the figure in the definitions library

You can use the 'Update definition' button to replace the definition shown in the 'Use figure definition' drop down box with your customised definition. In actual fact the customised definitions are added to the existing one, only replacing those material zones which have the same name as the ones in your current figure.

In this way you can create definitions which encompass figures with similar, but not quite the same, materials.

Saving a new definition (or not)

Rather than overwrite a definition you can choose to save a new one: just enter the new name in the text box to the right of the button. Be careful not to use the name of an existing definition!

Keep in mind that it is not required to save a definition to use it. EZSkin works on the definition that is loaded in memory. Saving is for re-use later.

Note 1: You can only save definitions for actors that have a separate geometry file. EZSkin can do the conversion on a transmapped hair prop but the definition cannot be saved if the geometry of the hair prop is embedded.

Note 2: Some legacy figures have the eyeballs defined as props with the geometry definition embedded in the .cr2. In these cases EZSkin will not correctly save the definition of the materials in the eyes. You will have to process them separately.

Using a custom definition

Sometimes you might want to change the mapping of a figure's materials to EZSkin shaders without saving it as a permanent definition.

For example, you may have made some changes manually to the iris which you want to keep, while still using EZSkin to apply shaders to the other eye materials. In such a case you could set the iris material to use the 'ignore' shader (which as its name suggests means that it will be ignored by EZSkin).

To use the temporary custom figure definition, select the 'Custom' option from the Figure Definition dropdown box (it should be the first item in the list). This setting will remain in effect for that figure until you close EZSkin (or return to the editor and select a different figure definition).

Restore

This buttons forces EZSkin to re-evaluate the current figure and apply a figure definition to it if one can be found.



Artwork by Seeker

Appendix A

The Shaders

EZSkin3 offers the following shaders to represent the different parts of the body. Some of the shaders have additional notes to help you decide when to use them.

Shaders have been developed for steady good performance in giving a natural realistic look. Of course there is nothing that prevents users from choosing the shader type that fits them best for their purpose.

The definition of the eyes in Poser figures can be quite detailed and uses medical terminology. To assist users for whom English is a second language, some explanation is added.

CORNEA

Intended to be used for the glassy 'dome' on the eyes. Adds reflection.

EYELASH

Assumes a transmap to represent the lashes

EYETRANS

Same as 'invisible' shader

GUMS

Intended to represent the gums

HAIR

Intended to represent hair. It is designed to work with transmapped hair.

Useful tip: It works best on hair that does not have burnt in specular highlights.

IGNORE

materials with this shader are not processed at all by EZSkin.

INNERMOUTH

Intended to represent the areas of the inside of the mouth that are not gums, teeth or tongue.

INVISIBLE

Makes the entire material invisible. This can be very useful if your figure is fully dressed. It makes poke-thru a much less concern.

IRIS

Intended to represent the iris of the eye.

LACRIMAL

Intended to represent the skin adjacent to the eye

LIPS

For figures with a separate material zone for the lips

NAILS

Like skin but uses a different scatter group. Note nail polish etc. may change appearance. Can also be to represent jewellery and the frame of glasses.

PUPIL

This is identical to the 'skin' shader, but by default uses a different scatter group

SCLERA

Intended to represent the white parts of the eye.

SKIN

Intended to represent the skin in general.

SPECULAR

Intended for specularity.

TEAR

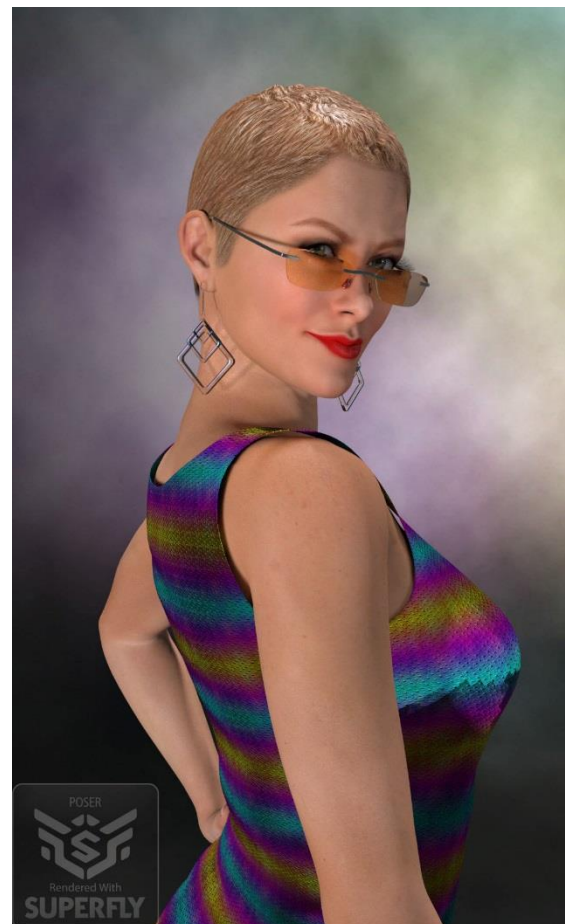
Intended to represent any water in the eyes as some figures have been modelled with.

TEETH

Intended to represent the hard stony structure of teeth.

TONGUE

Intended to represent the upper (rough) part of the tongue.



Artwork by Pangurban

Appendix B

Getting the most out of EZSkin

The shaders generated by EZSkin will look their best if you prepare your scene carefully and choose appropriate render settings.

SCENE PREPARATION

Use ray traced lights (not depth mapped)

Enclose your scene in an environment, so that reflections have something to reflect

Remove Ambient Occlusion from lights

RENDER SETTINGS

Ensure SSS is checked

Ray trace bounces should be at least 1



Artwork by Hauge

Appendix C

The toolbar icons



MENU

This icon gives access to EZSkin's menus. Note that the menus are also available by right clicking on the main user interface.



APPLY

This icon instructs EZSkin to apply the EZSkin shaders to the selected figure or prop.



IMPORT FIGURE DEFINITIONS

This icon enables you to select a file containing figure definitions. If your figure definitions are in EZSkin 2 format then use the import option from the menu instead.



EXPORT FIGURE DEFINITIONS

This icon enables you to select figure definitions and save them to a file (which could then be shared with other EZSkin users or used as a backup)



SETTINGS

This icon displays EZSkin's settings dialog which contains controls for global settings that are applicable to all EZSkin operations.



WEB

This icon will open your default internet browser and display the EZSkin support page on Snarlygribbly's website.



EXIT

This icon will close EZSkin. Snarlygribbly will not take any personal offense at the idea that you might want to close his script sometimes ☺

Many thanks to Biscuits for designing these icons, even if they are dangerously close to being just a little bit pink.



Artwork by Glitterati3d



Artwork by Jura

Appendix D

The file list

The EZSkin v3 distribution comes as a zip file containing these files:

- EZSkin3.pyc
- EZSkin v3 user guide.pdf
- a folder with Presets
- a folder with Figure Definitions
- a folder with Custom Shaders.
- a readme file
- a licence file

If you are reading this you have already found the user guide.

To run EZSkin you only need the EZSkin3.pyc file. See above under 'installation' for instructions where to best place it.

The other folders are not needed to run EZSkin3.



Artwork by RedPhantom



Artwork by Amethystpendant

Appendix E

EZSkin database locations

EZSkin writes data files giving the current status every time it closes.

If you want to un-install EZSkin or restore to a clean state, you will have to remove or rename these folders.

EZSKIN3 DATA

On a standard windows installation the most recent EZSkin3 data files can be found under:

[Windows]

`C:\Users\[your user name]\AppData\Roaming\Poser Pro\11\ezskin3\`

[Mac]

`~/Library/Application Support/Poser Pro/11/ezskin3`
where ~ is a shortcut to the current user folder:
Macintosh HD/Users/[your user name]

EZSKIN2 DATA

On a standard windows installation the EZSkin2 legacy figure definition files made with PoserPro 2014 can be found under:

`C:\Users\[your user name]\AppData\Roaming\Poser Pro\10\ezskinefs.cfg`

Version number may vary with your Poser versions of course



Artwork by Wimvdb



Artwork by Hauge.

Special thanks

I should like to extend my special thanks to the EZSkin testing team who have made all of this possible:

- Amethystpendant
- Anupaum
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- MrMongo
- Gadzooks
- Danae
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