



QUICK GUIDE!

project
evolution
...ready when you are

STEP 1 – READ!

Get to know Evolution, she's not really your average Poser girl.

Also, I'm an artist, not a vendor. I make stuff for myself that others might find useful. So things might be a little more hardcore.

But yeah, please read up. The more you understand about Evolution, the easier things will become, the easier I can help.

The main manual does have chapters that contain **blue markers** for important stuff, if you're short on time.

If you downloaded the DEMO only, then you can stop reading after step 4, although the rest might be interesting to check out too.

Name	Date modified
1 - Evolution Documentation.zip	27/12/2017 03:37
2 - Project Evolution DEMO.zip	27/12/2017 06:46
3 - Project Evolution Early Edition v1.1 - Libraries.zip	30/12/2017 11:16
4 - Project Evolution Early Edition v1.1 - Textures1.zip	30/12/2017 11:19
5 - Project Evolution Early Edition v1.1 - Textures2.zip	30/12/2017 11:19
6 - Project Evolution Early Edition v1.1 - Textures3.zip	30/12/2017 11:18
7 - Project Evolution Content Support Kit (Beta).zip	26/12/2017 13:09



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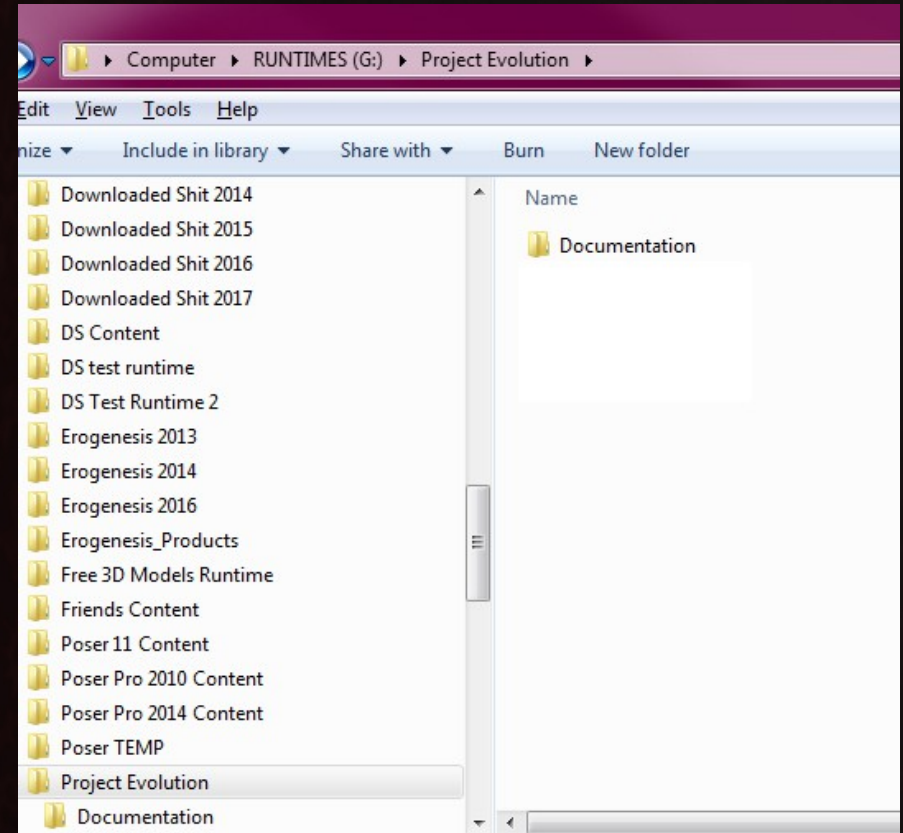
STEP 2 – MAKE A NEW RUNTIME

Normally people just install new content in the same old runtime, but it is **HIGHLY** recommended to make a new one here. It makes things so much easier.

Making a new runtime is easy, just make a folder called 'Project Evolution' directly on your C drive, or D, E, F, G drives. Whatever works.

Put it in the root, not buried behind a million folders lol.

You might as well extract the documentation in there. Keep it all together like.



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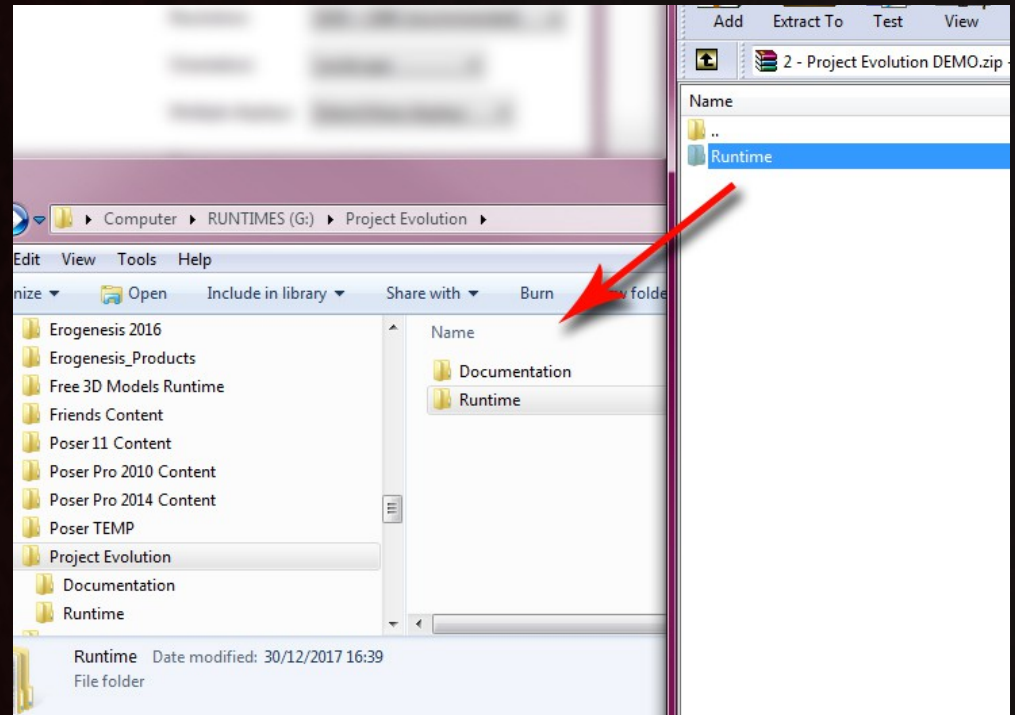
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STEP 2 – INSTALL THE DEMO!

Even if you've bought the official version, the demo / Introduction scene is **highly recommended!** In fact I urge you to check it out please!

Drag the runtime folder of the demo zip into the new Project Evolution folder....



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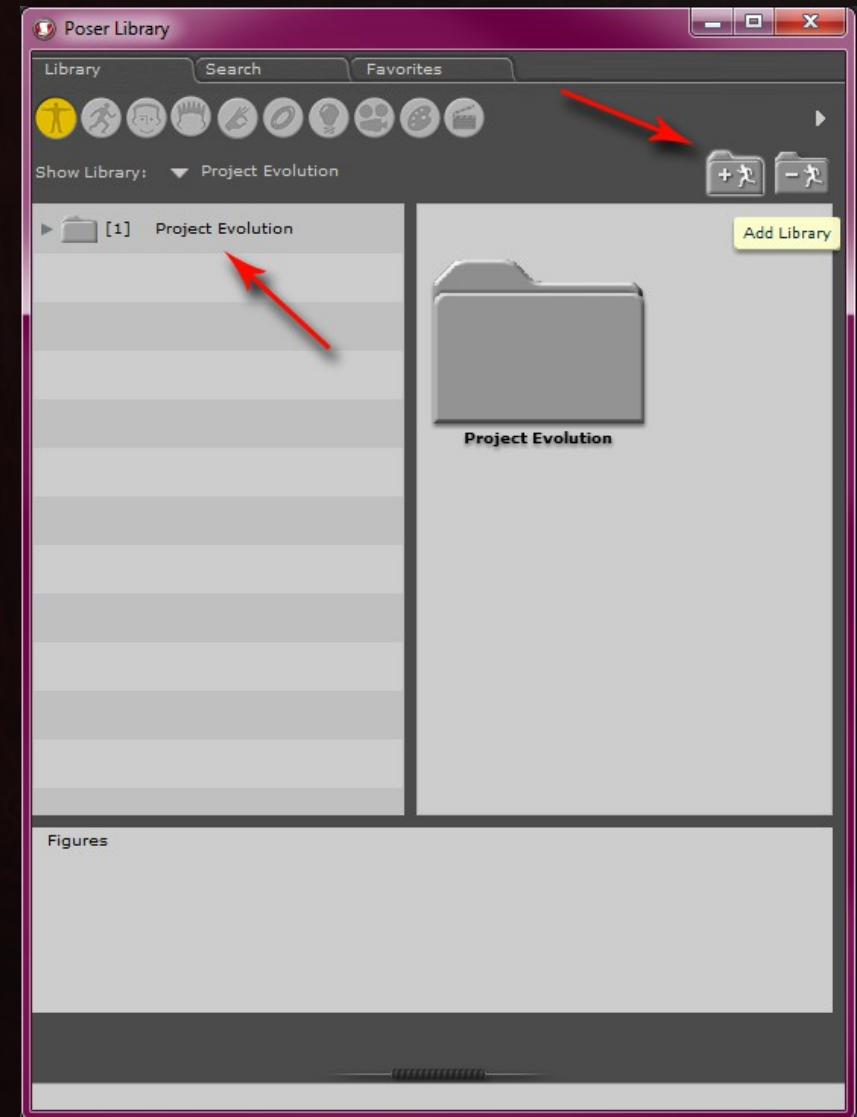
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STEP 3 – OPEN POSER

Once the runtime folder is in place, open Poser, go to your library, add the new runtime by selecting the folder you made 'Project Evolution'. (P11 is similar)

That runtime has now been installed. Its that simple.



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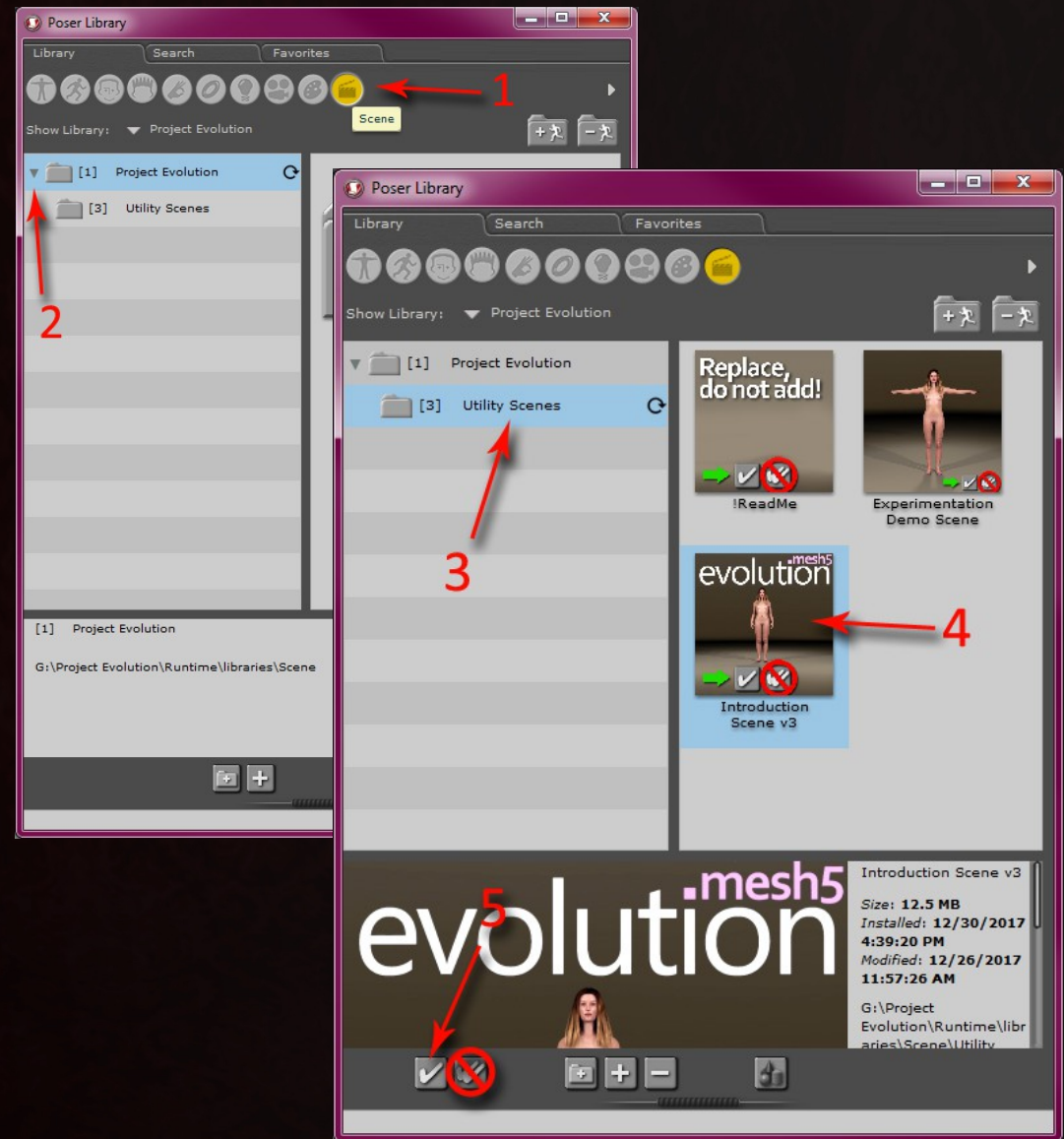
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STEP 4 – FIND & OPEN THE DEMO!

Now quickly go to the Scenes category (1), open the little folder tree (2), click on Utility Scenes (3), select the Introduction Scene (4), and click on 'Replace Scene' (5), not the double click one!



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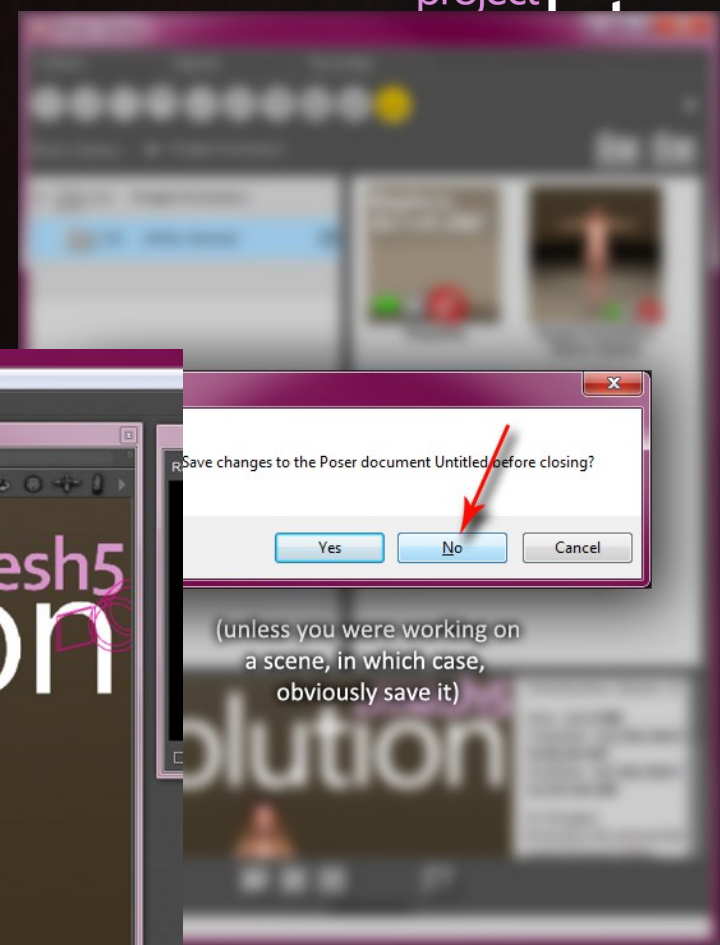
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Ignore the prompt, just say no, unless you were working on a scene, in which case click yes.

Now your scene should be open and you will see this. Use your keyboard arrow right to check out the introduction scene.



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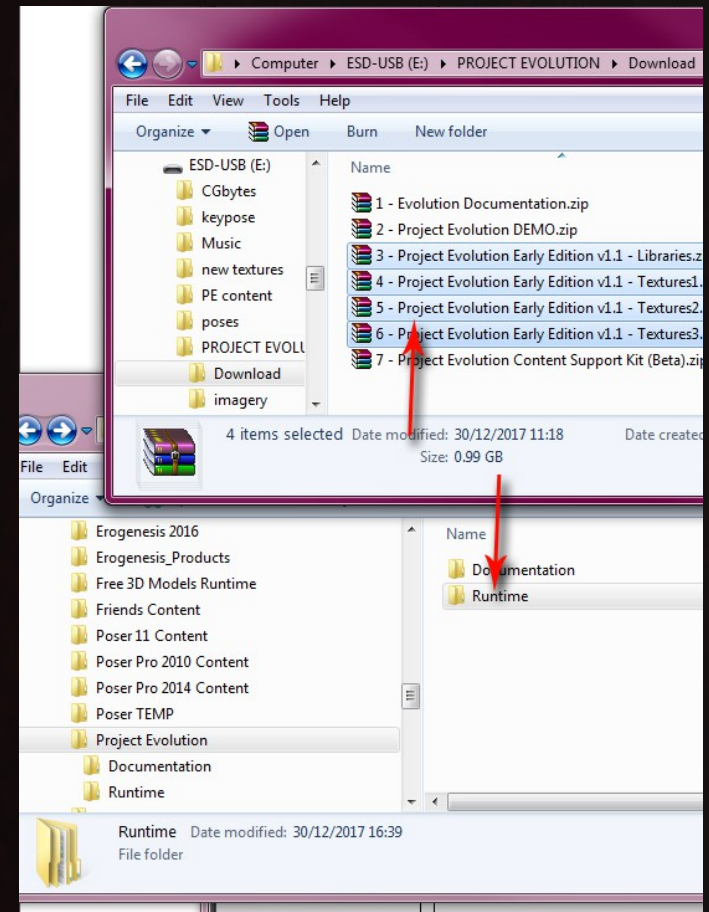
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STEP 5 – INSTALL THE REST

Now that you roughly know the deal with Evolution, lets install the rest. Just drag all the runtime folders in each zip and overwrite what's already in there.

Same with the Content Kit, if you bought it.



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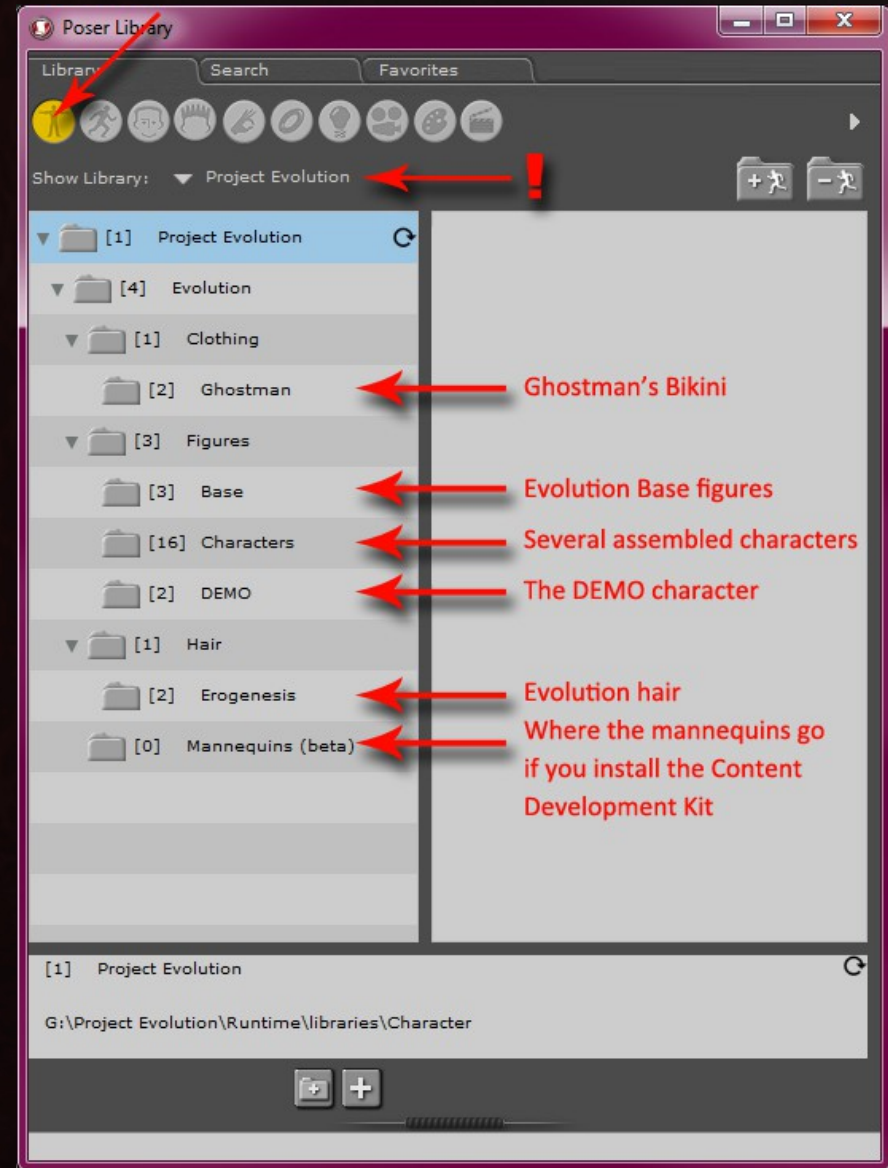
QUICK TOUR - FIGURES

Go back to Poser, go to the runtime / Figures, refresh your folder (with the little circle arrow next to the main folder ↻) and expand it.

In the picture on the right you can see a quick break-down of the contents of the figure folder.

The 'assembled characters' are just copies of the base figure with hair and materials loaded with hidden scripts.

(I might make a way to change up characters using similar scripts)



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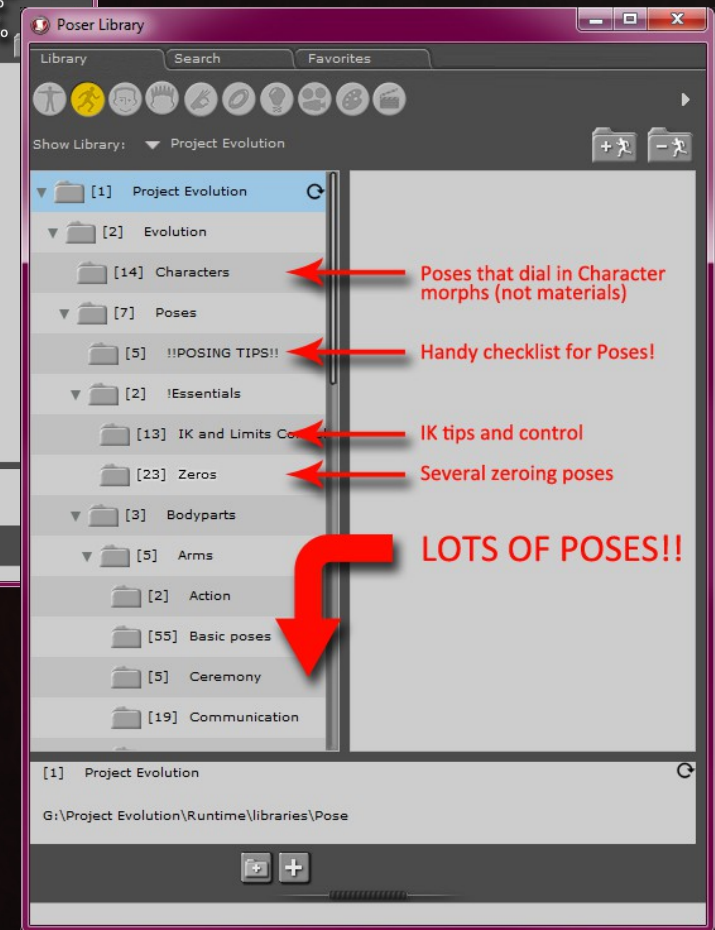
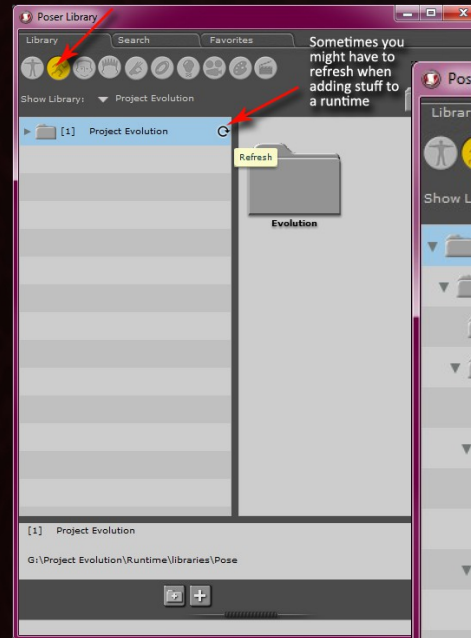
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QUICK TOUR - POSES

Go to Poses (again you might have to refresh the folder).

I added a load of poses that I use for my comic figure, which has almost the same rig and body shape.

Remember, I'm an artist, not a vendor. So my poses are more a starting point than click-load-render type poses. So you might have to bring the girls 'back down to earth' hehehe.



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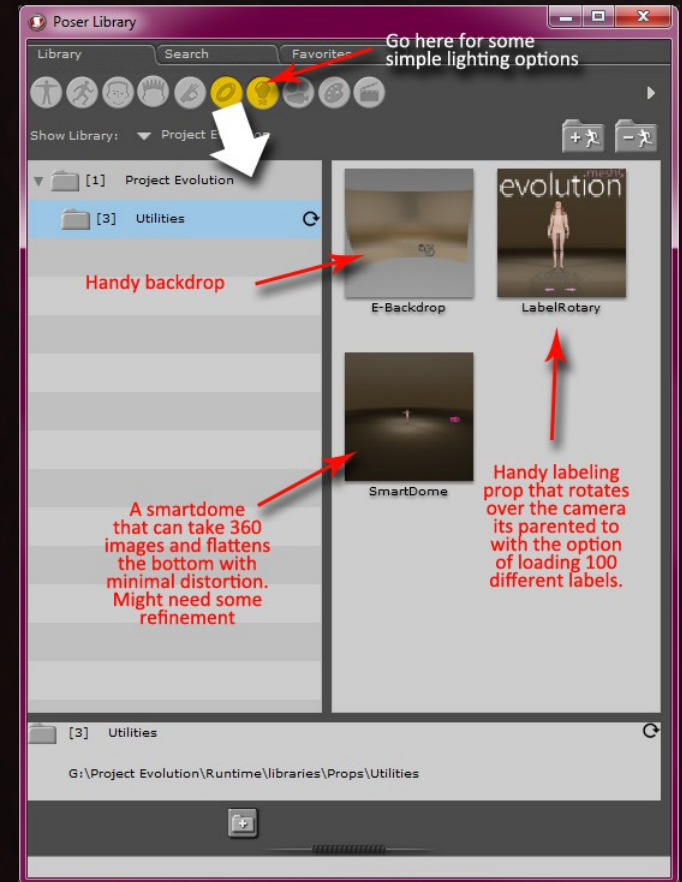
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QUICK TOUR – PROPS & LIGHTS

There are some handy little items in the props and lights categories.

Aside from lights with my settings, there's also a smart dome which can take 360 images like HDRIs. you have a 360 image with a ground plane on it, like a grass patch or a road, the smart dome brings the road to the surface without distorting the image too much, and this way you can cast shadows on your image in Superfly.



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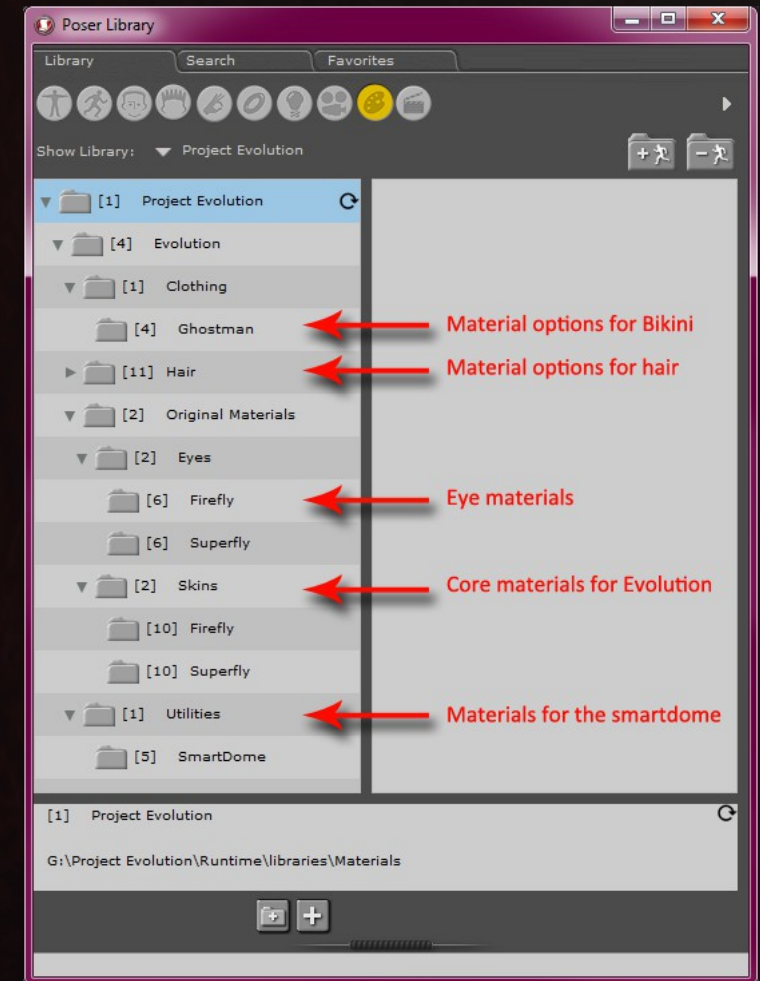
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QUICK TOUR – MATERIALS

Here you'll find all the material options for Evolution, her hair, her bikini, and the smart dome.



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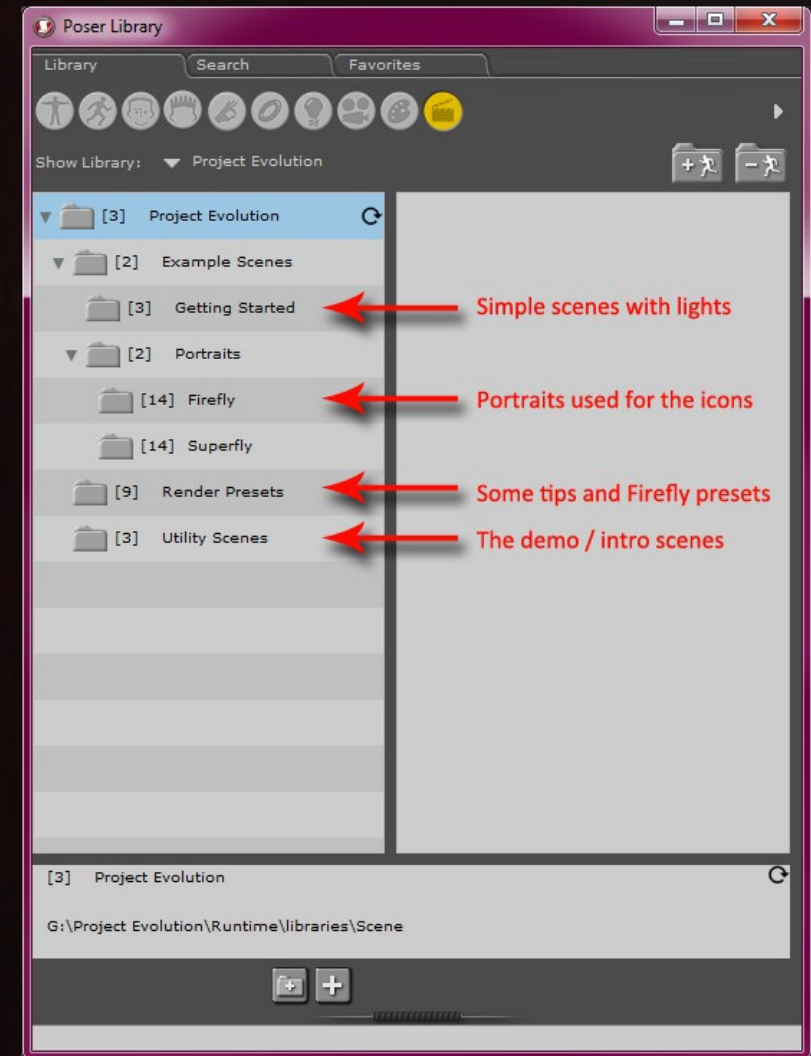
QUICK TOUR – SCENES

A lot of magic happens here.

I have scenes here with lighting and Firefly settings that you can save and use for your artwork. Just use them in combination with the lights I provided.

There are also some quick tips here to get shadows going in your scenes.

I will make a video on how to make a simple scene using these items.



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OFF YOU GO!

I hope this helps. There is so much I missed. Remember this is an artist project, I'm not a vendor, I don't do the whole click-load-render thing... well maybe a little... Point is, be patient, play, and let the real vendors hear your voice if Evolution is what you want to work with.

Most importantly, have fun. Because that's what I'm going to be doing!



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GLOSSARY

Here are some words and terms you might come across with Project Evolution.

Area Light – a type of light that was introduced in Poser 11 along with their new renderer Superfly. It emits light from a whole area (like a square) instead of a point like with the other Poser lights.

Bump – Bump maps or textures are black and white images that tell the renderer to fake a bumpy surface. The white parts are high and black parts are low.

CR2 – This is the base file format and code structure in Poser files. All files use this coding, from figure files, to poses to materials and even entire scenes. The file extensions might differ from pz2, to pz3 to mc6, as well as the zipped versions, crz, mcz, p2z, etc.

Deformations – Poser uses this word to denote anything from morphs to magnet deformations. Basically, your mesh has been deformed somehow...

Displacement – like bump maps, they tell the renderer what is high / low except this time its for real. Displacement maps can actually change the shape of an object in a scene.

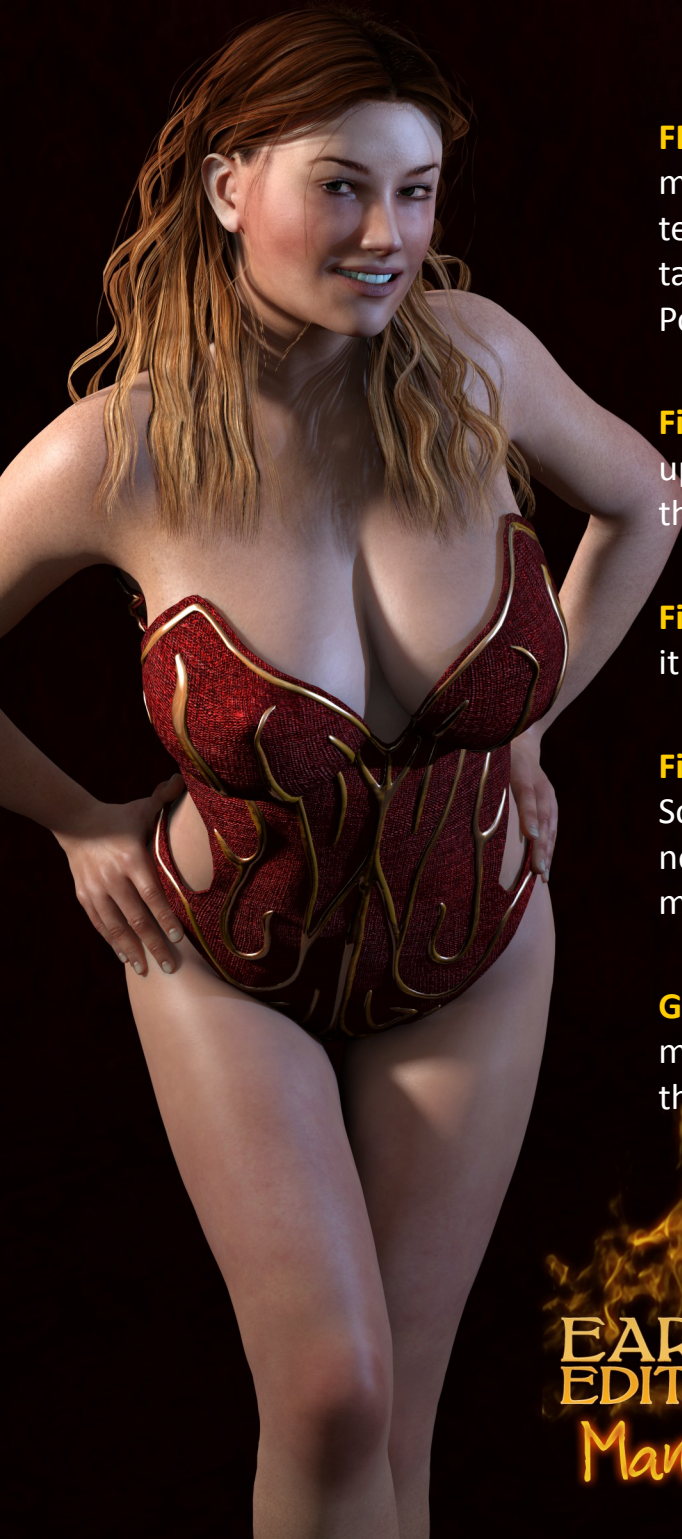
Facial Rig – a fancy name for the handles on Evolution's face. Many CGI figures in Max, Maya, C4D, Houdini, Lightwave, even Pixar characters have these rigs.

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FBM – Full Body Morph. It really means two things at the same time. Strictly speaking it concerns a morph that changes up the whole body of a figure, like what V4 had: Heavy, Thin, etc. In Poser terms its also about a dial that drives like named morphs in all the different bodyparts. Evolution takes this step a little further and also attached scaling and other parameters to such a dial. In Poser you can basically control any dial with any other dial, if you want.

Firefly – This is the older renderer of Poser. Its a lesser understood renderer that has a lot if tricks up its sleeve. Its renders are by default sharp, but not always physically accurate. If you understand this renderer, it is perfect for comics. It is my default renderer, all my pictures are made with it.

Fit – The word fit can mean many things in CGI, from fitting in shape to fitting with the rig. Make of it what you will.

Fitting Room – A room in Poser that helps transfer important elements from one figure to another. So for example if you have an object (like a garment) that 'fits' Evolution's shape, but you want it now to follow Evolution like clothing, the Fitting Room will sort that out for you. Check the mannequin guide I provided.

Ghostbones – These are bones that are not linked to a piece of mesh. A forearm has a piece of mesh that you can select and pull, but Evolution's ears are ghostbones. You cannot select a part of the mesh for the ears, they are controlled through the head.

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Handles / Chips – Handles are the little boxes that Evolution has around her face and body. They help give extra hands-on flexibility to the figure. Handles are a fairly new concept in Poser, although they've been around for a long time in other CGI packages. In Poser they call them 'chips' since they are basically extractions of the existing mesh that you can pull at. Pauline was the first Poser figure to feature them. Evolution doesn't use chips, but rather dedicated geometry (little boxes) to operate with.

IK chains / Posing – IK means 'Inverse Kinematics' and this is a type of figure mechanism that's been around for decades. It basically fixes a part of the figure in one place and the rest moves around it, like the feet stuck on the floor and the figure dancing. The feet could also be moved and the software calculates how the leg parts will follow like a leg should. With Poser this works the same except it seems that it goes up one level of the normal rotations since the IK movements do not update the rotations in the legs. So for example if the figure's foot is raised off the floor, the shin will bend down from the knee, but if you then select the shin, you'll see that the bend dial is still at zero. This is a problem for JCMs since they need that information to do their job.

Infinite Light – A type of light also common in CGI, where all the light rays do not come from a point, but travel parallel through the scene, like sunlight.

JCM – Joint Controlled Morphs. These morphs are just like any other morphs, except they are loaded by the value of the rotation of a joint. So like with the knee in Evolution, as the shin bends to 90, a JCM called Kneebend90 gets loaded to 1. After 90 when the shin bends further to 140, another JCM takes over and gets dialed to 1... etc... JCMs are used when the figure's usual rigging cannot do a particular thing, like squash a bodypart outwards, or do specific deformations between 140 and 160 degrees like with Evolution's knee. It could be done with ghostbones, but that causes different problems!

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Keyframes – Values of figure parts, like bodyparts or dials, that are fixed in a certain place on the animation timeline. So you can have the knee a zero at frame 1, and a keyframe with the knee bent at 90 degrees at frame 30. As you play through frames 0 to 30, you can see the knee bend with time. The way it goes towards that bend depends on the keyframe style: spline, linear, constant or break. But that's a long story.

Lighting – The word used to when talking about how the lights are set up in someone's scene.

Magnets – magnets are a type of deformation tool as old as Poser itself probably. You can deform anything in Poser using these magnets. Evolution uses two little magnets to deform the eyelids as the corneas rotate underneath them. Magnets are free of location, with makes them handy for more dynamic scenes.

Maps – The word map is often used when referring to textures, but they're actually just images. See UV maps to understand where the term Maps comes from.


Materials – Textures are not materials and materials are not textures. Where textures are just images, the materials bring the textures to life on a surface in a scene. Materials have components that do different things to the surface, like bump maps add a bumpy effect, and scatter adds a waxy effect, for example. But its all in one material. I think they are also referred to as shaders in other apps, although sometimes it seems that shaders also refer to just the individual elements in a material.

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Mesh – a Mesh is like a network of points in 3D space. Like a fishnet, except the connected knots for little flat surfaces, that together form the illusion of a shape. Evolution is a whole bunch of little points in 3D space that together form the outline of a human female. Poser then dictates how each of those points behave when one of her joints rotate. The renderer then interprets all those little flat surfaces and makes a picture of a nice looking girl for you.

Morphs – In Poser, the mesh of a figure (or anything else really) can be deformed in many ways. With magnets, with rigging and bones, or with morphs. Morphs are basically packets of numbers that tell certain points in a mesh to go a certain direction at when dialed to 1. You are free to deform the mesh in any way you like using morphs, but those values will not change. A morph of a spike on a horse's head will just become a bigger spike when dialed beyond 1.

Normals – In 3D space, when three or four points define a flat surface, that surface has a certain direction, and that direction determined how things are reflected off it. The direction of the flat surface also called the normal of the surface. So if a table top were such a flat surface in 3D space, the normal would point straight up. But, while normals are usually deduced from the shape of a 3D object, they can also be tampered with, using bump maps and normal maps.

Normal Maps – Normal maps are kind of similar to bump maps except they have the angle of the normal already baked into them. Bump maps just tell the renderer where what is high and low, and the renderer needs to calculate the angle of the normal from that, which takes longer. Normal maps just tell the renderer what the normal is. This type of map is used a lot in gaming, where processing speed is very important. This is not so important for artistic apps like Poser, but can still be effective for performance.

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Object – This can literally refer to anything in Poser, from a prop, to a bodypart, to a light, to a figure that needs converting...

Opacity – Refers to how much something is opaque, or not see-through. The exact opposite of transparency. An opacity map is black and white, where white is transparent.

PBM – Partial Body Morph. Its basically the same as a Full Body Morph but it then just affects a few bodyparts. All FBMs are actually PBMs since rarely FBM actually affect all body parts.

PBR – Physical Based Renderer. A type of renderer that relies more on actual real-world material properties than trying to fake it like the old renderers. Honestly, I'm not that versed in this field yet. I'll get there.

Phong / Blinn – These are just methods used to create reflective / specular effects on materials.

Point At – a feature in Poser that allows you to point something in a scene at another thing. It only works if the endpoint is pointed in the relevant direction, and like IK, JCMs are also not updated.

Point Light – A light in many CGI apps where light emits from a point in all directions, like a candle or a light bulb. Also called Omni lights.

Python Scripts – The best thing since sliced bread. Python is one of the many coding languages in computer environments and Poser has a special access point that allows you to script your way through a Poser scene. You can basically do everything you've ever wanted Poser to do, with scripting. I haven't included any scripts with the Early Edition of Evolution yet, but they'll probably be coming soon.

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Renderer – A renderer is just a virtual camera that makes pictures of the 3D environments that you put together. There are different renderers that attempt to make a picture of your 3D environment in different ways, like Firefly, Superfly, Reality, Octane, and outside of Poser with Arnold, Corona, Vray, Renderman, etc...

Render – The image that a renderer makes.

Rig / Rigging – A rig is basically the skeleton, or structure that helps a 3D figure move and behave like a real human. Rigs can include bones, joint parameters, weight maps, JCMs. The act of creating / setting up a rig is called rigging.

Shaders – Another word for material.

Shadows – Something that Poser can do very well... if you want it to. Shadows are everywhere in real life, and since most CGI attempts to replicate real life, omitting shadows in your renders is a big CGI no-no. Don't be fooled by ambient materials and lowering your shadow dial because the scene is too dark. A good set of lights is all you need. Check the tips in the runtime.

Specularity – the way a surface absorbs / reflects light.

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Spotlight – A light often used in CGI which is basically like a torch, or literally a stage light in a theater house. The light is emitted in one direction, and within a cone of which the angle can be set. Its an efficient lighting method unlike the point light which floods light in all directions.

Subsurface Scatter – an effect that simulates how light can get absorbed and then scattered within its matrix, like wax, ceramic, marble or even skin and other human tissues.

Superfly – The newest Poser renderer that is based off the Blender renderer called Cycles. Although still in development, the results from Superfly can be very realistic if you know what you're doing. Its not the world's fastest renderer, and I wouldn't recommend it for comics just yet, but that might change in future.

Textures – Textures are just images, usually jpegs but also pngs or even HDRs. They can be used to carry information for skin color, bumpiness, or even how light scatters on a certain surface, but they don't do that effect themselves.

Transparency – the word describing where that is transparent. A transparency map is black and white, where black is transparent. The opposite of opacity maps.

UV maps – textures are useless by themselves, until they are told HOW to wrap themselves around an object / mesh. A UV map is basically that, it's a map showing the software what part of the mesh gets what part of the texture. This is why textures are often referred to as maps, because they have the shape of that map... which is very confusing.

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Vertex – like a point on google maps, a vertex is also a point in 3d space, denoted by an x, y and z coordinate. Many vertices can form a mesh, as you might remember.

Weight Maps (WM) – Weight maps are the default deformation technique for Poer joints. Where morphs can deform an object in any way they like, Weight Maps (often just abbreviated to WM) deform a mesh according to the orientation of the joint they're associated with. Weight maps tell vertices to go this way and that when the joint bends, like JCMs do. Except unlike JCMs, WM can only deform in the plane of the rotation, and not perpendicular to it. This means like with the knee, WM can only move vertices up and down and forwards and backwards from the knee, not sideways. Also, unlike JCMs, WM cannot be limited to certain angles of the joint. If the WM value at 60 degrees is 1, then the WM value at 120 degrees is 2.



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