Vue Lighting Tutorial

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Overview

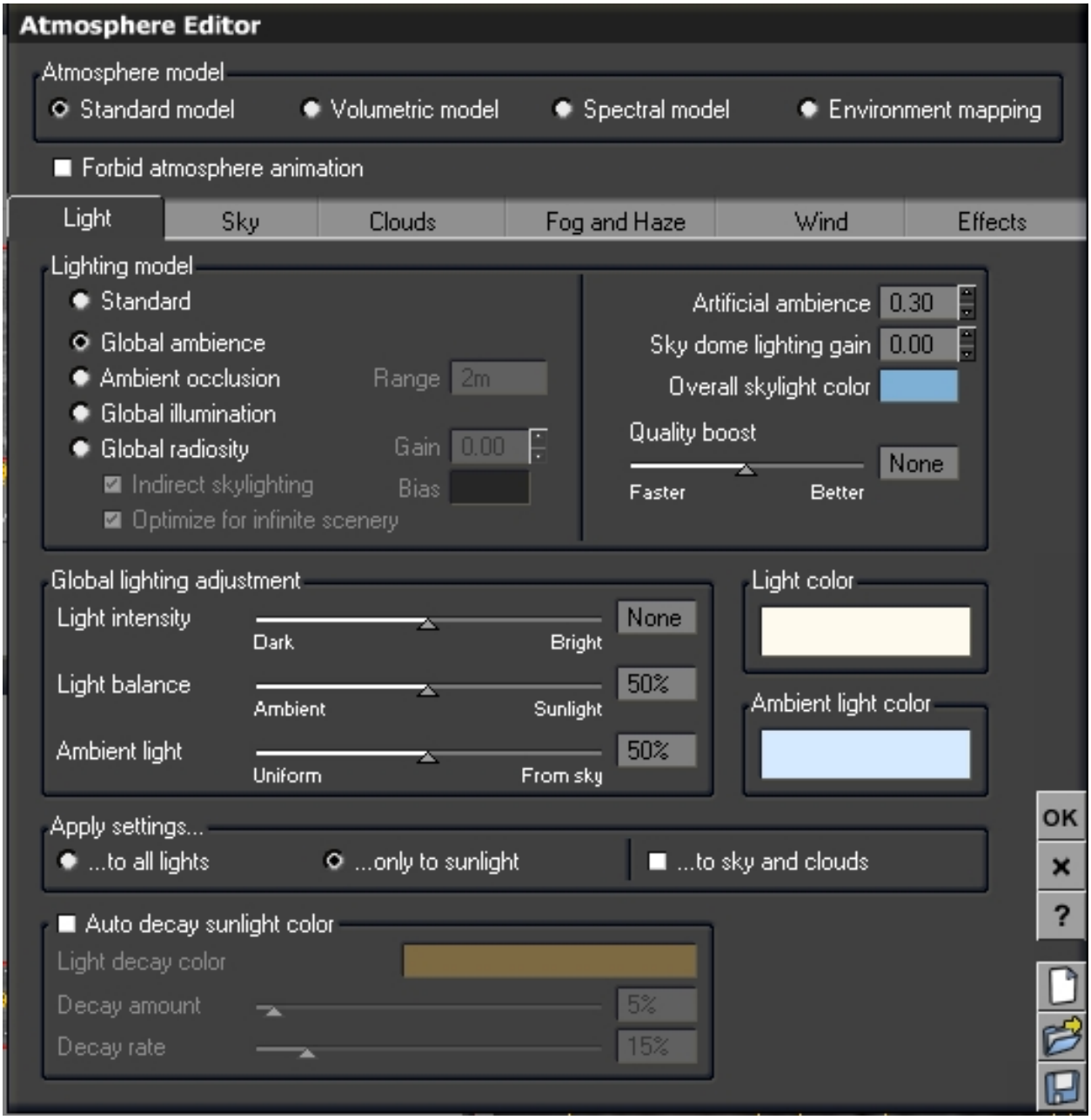
E-on Vue is a great software for doing 3D renders, especially environment scenes, such as outdoor landscapes and such. It has powerful controls over every part of the render, and that includes lighting. Lights have several important settings that greatly affect the overall image, and in this short guide I'll show you the important ones and how they will affect your result.

Sun

By default, every scene has a sun. This is very different than other 3D software in which by default you have no light, and any lighting on the objects come from the lights you place in your scene. In fact, many scenes can be done in Vue without adding any lights at all, using just the sun.

The settings of the sun can be controlled in 2 ways, first through the Atmosphere Editor, in the top toolbar, and also by clicking on the sun object and modifying its attributes like any other light.

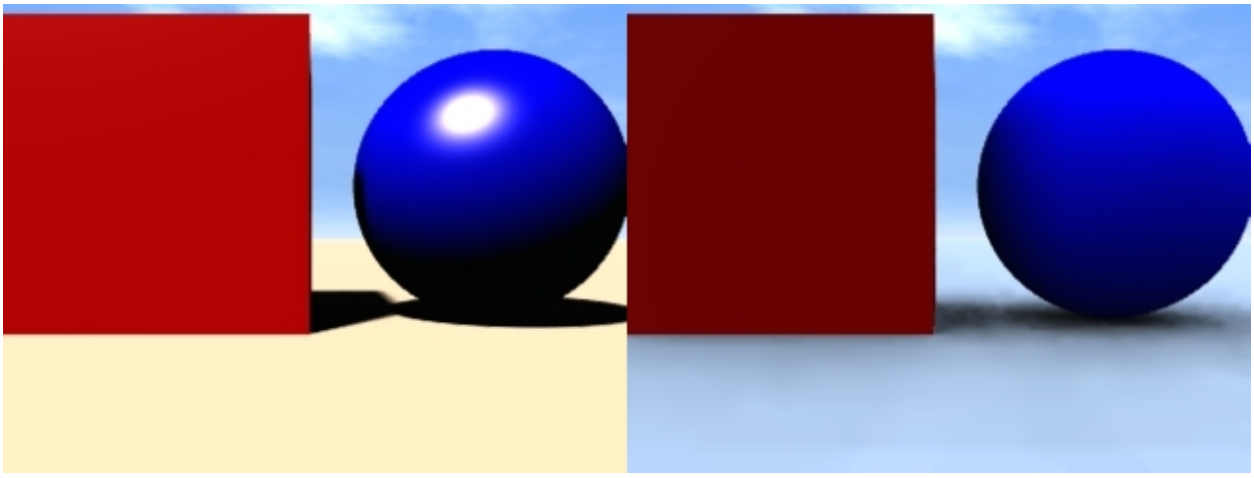
The available options in the Atmosphere Editor will change based on the type of atmosphere you use. By default, you will probably use a standard model, but if you want to use volumetric clouds (for example to have large realistic cumulus clouds) then you'll be using a spectral model.



The first setting to look at is the lighting model. Standard is the most basic, worse option, and Global radiosity is the most sophisticated, good looking (but also slower to render) option. One thing to remember is if everything else stays the same, as you go to the better models, the overall brightness of your scene will go up, as more light gets through the various objects with the more precise mathematical models. For good results, you usually want to use Global illumination or Global radiosity, depending on how much the render times affect you.

The next setting to pay attention to is the Global light adjustment. There are 3 sliders there, but the first 2 are the ones which will impact your scene the most. The first one is simple and affects how bright your sun is. The second one is more tricky. Basically, as you bring the balance to the left of the scale, your scene will look more 'realistic', more like a washed out photo, and colors will

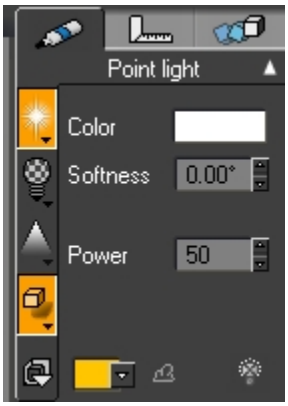
be less bright. The difference between shadows and light areas will be closer. As you bring the slider to the right, you will get much brighter colors, but your shadows will also be much darker, and light areas much brighter. A good setting is usually around 70%, and to get a Poser-like render you want to be to the right side of the scale. This is the same scene at 100% and 0%:



The other settings are either very obvious, such as the color of the light, or involve even finer control of the lighting model such as Artificial ambiance and Sky dome gain, which I won't get into. Also remember that you can delete the sun, if needs be.

Settings

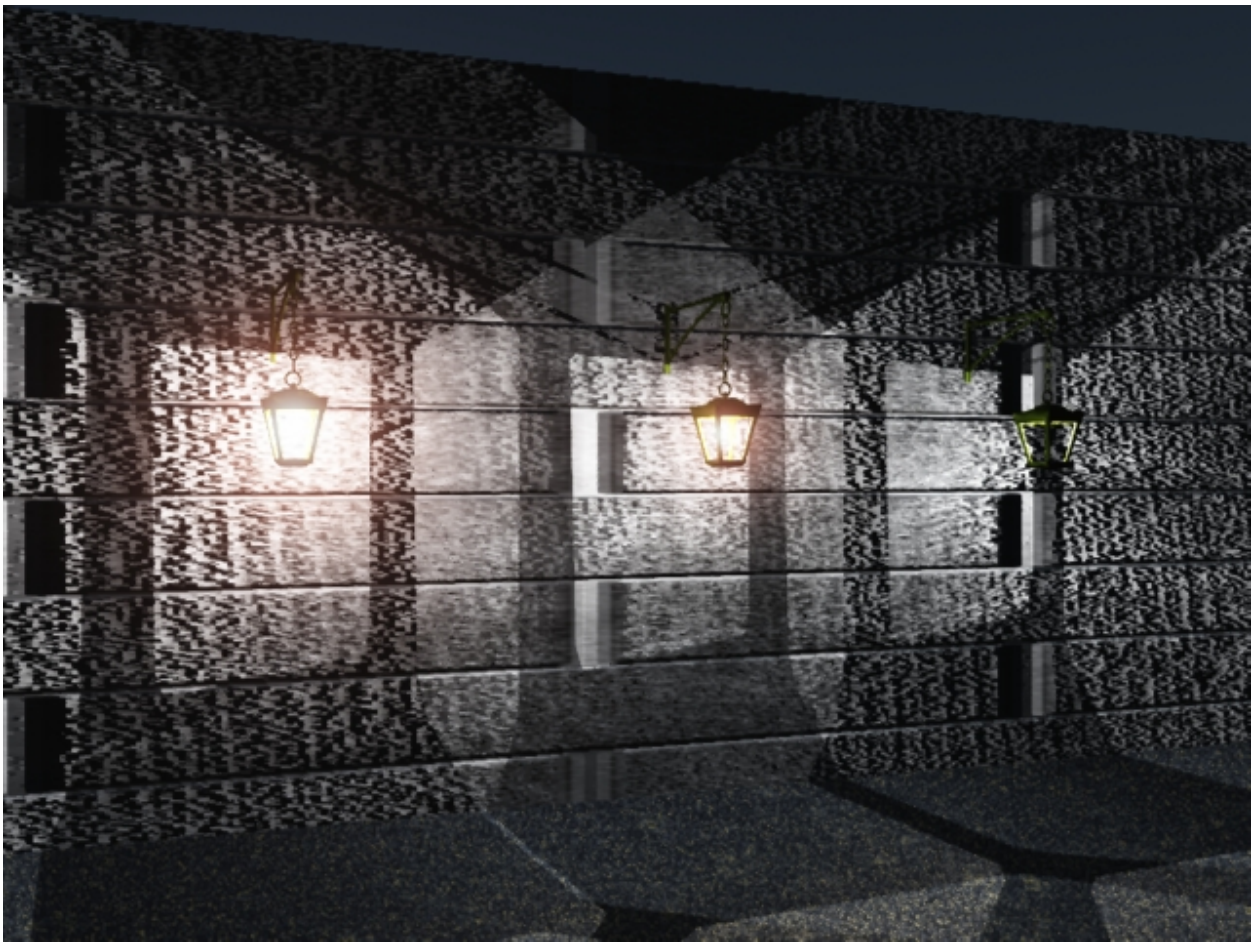
Once your sun is set, it's time to place your lights and edit their settings. When you select a light in the objects list (bottom right of the screen), the settings window will appear.



This window includes most of the things you may want to change with your lights. Also remember that everything explained here also applies to the sun. Don't forget to change the settings for the sun as well.

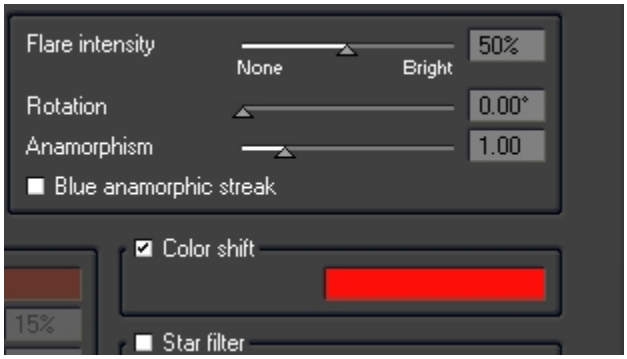
On the right side of the window are the obvious settings, such as the color of the light, and the power. The power you want to set will vary greatly depending on your scene. You will have to experiment. The softness is something you probably won't use often. It determines how soft your shadows will be. Remember that adding softness will greatly impact your render times.

On the left side, the first icon controls the lens flare. This controls how the light itself will look in the scene. By default when you add a light, it's either off or on at 50%. This is something very important to adjust, especially if you have point lights visible in your scene, such as street lights. 50% is usually way too much, and you will usually want lens flare to either be off, or be around 10% to 30%. A night scene, or a camp fire, will need a higher value, whereas a candle light, or a sci-fi console LED will need a very small value. Here is the same light at 100%, 50% and 0% lens flare:



If you double click the lens flare icon you get into the first tab of the Light Editor. There you have a lot of fine control over it, which I won't go into, except for the Color shift. Remember that red is

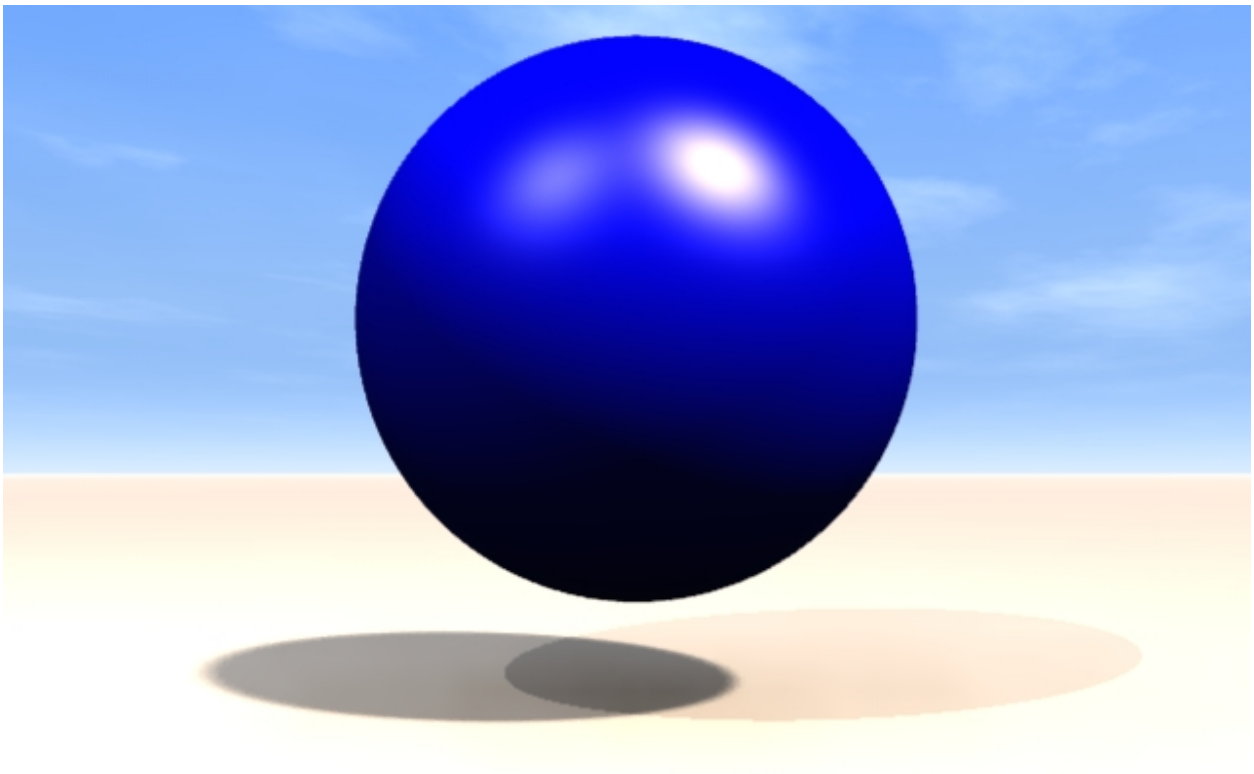
the default shift, but if you have a blue light, you may want to change to a blue shift, depending on the result you want.



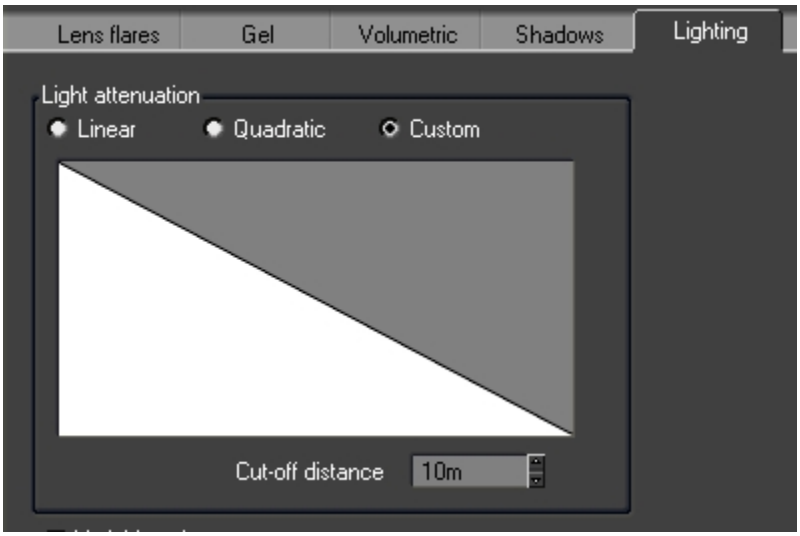
The second icon is the gel. This is simply the process of adding a thin colored window in front of the light, and is something I rarely use.

The third icon is for volumetric lights. This is useful to create light rays. By default, if you add a spot light and turn it on, your whole scene will likely be flooded with brightness. It can be tricky to get exactly the effect that you want. By default the intensity is set to 1.0, but I found that I often need to bring it down to 0.5 or lower.

The last icon is also the most important one. It controls the shadows, influence and lighting settings. The shadow is something I change on every light I make (don't forget the sun!!). By default, shadows are always set to 100%. This creates completely opaque shadows, which unless you have a night scene with a bright light, is not realistic. The shadow value can be controlled there. One thing to note is the value for lights and the value for the sun are going to be different, since the sun is so much brighter. I often set the sun to 50% and lights at 70%. Here is an example of a scene with the sun and a light, both with shadows set at 70%. Note the difference in the intensity of their shadows:



The next option available from that icon is the lighting tab. I rarely go there but when I do it's to adjust the range of the light. If you go in that option you'll see the first part of the screen is a graph with a value. This is how far your light will affect things. This can be useful if you want to create a bright light, but you don't want it to affect your scene too much.



Lastly, that same icon gives you access to the influence tab, which is useful if you want a light to only affect some things. There you can select exactly which object you want the light to affect, or not affect.

Positioning

Once you know how the settings for lighting works, you need to think where lights will be positioned in your scene. As I mentioned before, it is perfectly doable to have a nice scene with no light other than the sun. If you adjust the light balance and the amount of shadow the sun gives, you can have your whole scene lit up with nice realistic shadows everywhere.

However, you may often find out you get better results with more lights, and if you do any indoor parts, you will need to add lights. The amount and positioning of lights will vary based on your scene, so I'll discuss 2 typical cases.

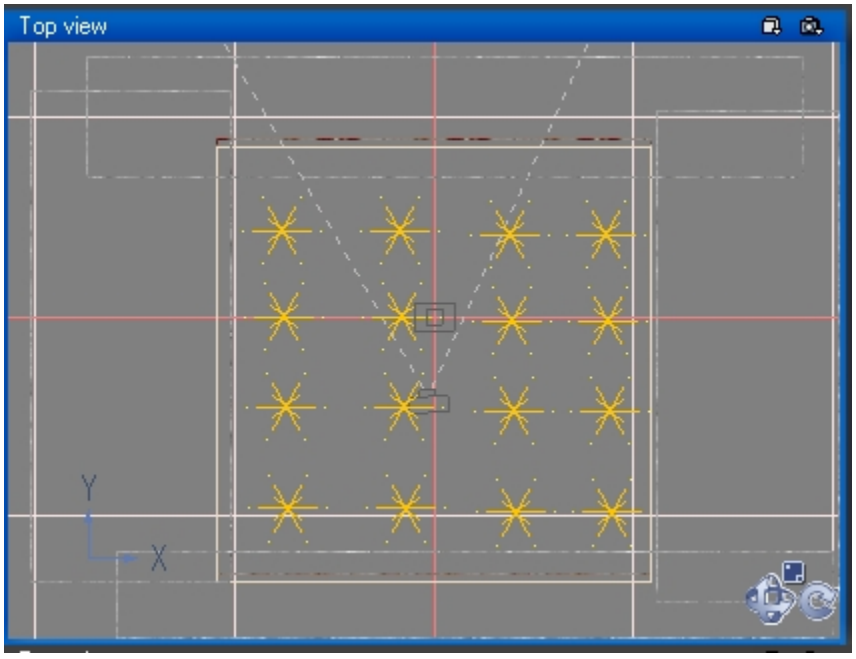
The first case is a portrait. Most photographers know the concept of a 3 lights setup. This is having 3 lights illuminating the subject from 3 sides, usually an intense light from the front, left or right side, and a bit above the subject, and 2 smaller lights, one behind and below the subject, and one to the side. This is how Poser does it by default.

You may often be tempted to use spot lights for this, but I almost exclusively work with point lights, as I find it gives me better results. Remember that spot lights, unless you add a volumetric effect, will not look like actual spots, but simply like a circle of light on whatever surface it touches.

Another way to do a portrait, and what I usually do instead of using 3 lights, is to use the sun, plus 1 other light, on the opposite side. This helps bring out the features on a body. I also often will make the light another color, like slightly orange, while the sun stays white.

The second case is indoor lightings. A lot of people have problems getting Vue to do good indoor scenes, because Vue has a lot of trouble getting the sun light to go indoors. If you have a small room with an open window, and no light in the room, and then you expect the sun to do most of the work inside, I can tell you right now that you're going to have a lot of issues. For this specific case, I recommend looking into a product called InteriorVue, which has been build around this issue.

Instead, when I do interior scenes, I don't rely on outdoor lighting at all. I in fact often delete the sun. What I do is create a realistic indoors lighting setup. For example, if I have a large room, I will add an array of point lights near the ceiling. Remember that for this, more is better. If 10 lights at 10 intensity doesn't give you the result you want, try 20 lights at 5 intensity. This is an example of a closed room and the light setup used:



I find Vue to be excellent for indoor scenes, as long as I don't try to get light through window openings.

Obj lights

The last point I will talk about is using an object to create light. Vue has 2 settings in the Material Editor that allows you to create light. The first is a way to make a texture brighter using Louminous, and then you have the option to add an artifical glow to that material. Both options are found in the Effects tab when editing any material.

The first option is very useful when trying to show a specific material should be brighter than usual, such as a LCD screen, a small LED or the halo of an angel. What I usually do is bring the sliders for Ambient, Diffuse and Luminous to 100%. For example this screen would be almost completely dark if left as-is when imported from Poser:

The glow option is useful to add artificial glow to an object. Be careful with the values however since at the default 50% the glow will most likely be much higher than what you want. Also note that glow is applied at the end of the render process, so you won't see it on your image until the render is finished. Here is an example of a 20% glow:

I hope these tips will be useful in your Vue scenes, and as always I appreciate any comments, suggestions or corrections you can provide. You can contact me at elfguy@gmail.com and I encourage you to visit my gallery on the web.

Have fun!