

Photo2Vue Tutorial

PLEASE NOTE: This tutorial mainly discusses the use of a **SINGLE** image. The best results will always be gained by using a panoramic image and using the tweaks as shown. Neither is this tutorial a 1 click solution, you'll have to experiment to get the best results.

PLEASE READ THE BIBLIOGRAPHY AND NOTES FOR OTHER IMPORTANT INFORMATION !

1. Preparing the Guide

Do **NOT** start vue yet, In the zip file load unzip **guide.bmp** and load this into your image editing software and prepare to resize it.

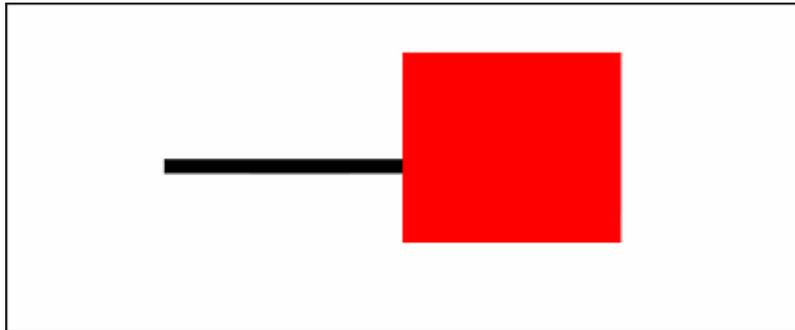


Figure 1. guide.bmp

The size you need to resize this image to all depends on the size of your photograph and the level of quality you want to see in the background of your Vue image. Another factor to consider is the amount of RAM in your computer.

For example, A Fuji S6500FD takes 6MP images at 2848x2136, so you would resample **guide.bmp** to 10363x4312 . So using 512mb you may struggle to perform the paste operation in the next stage.

Given the notes above resize the **guide.bmp** image to your chosen size. Save it – as a .BMP or .JPG. BMP gives better quality later. For the purpose of this tutorial we call this the **VUE_BACKGROUND** image.

A good idea is to name the file **vue_background01** - note the 01 – that's important as you may need to do some tweaking later – and numbering makes for easier housekeeping. *Tip: In some software. resizing the rather than re-sampling will give a sharper image.*

Now paste your photograph in the **RED** box. The important thing here is to remember that the **BLACK** line is a guide to where the horizon lies within Vue. If you use a photograph with an off level horizon you may get odd results. Though these do work great if you like the 1960's Batman ☺ Save the image and it will look something like this...

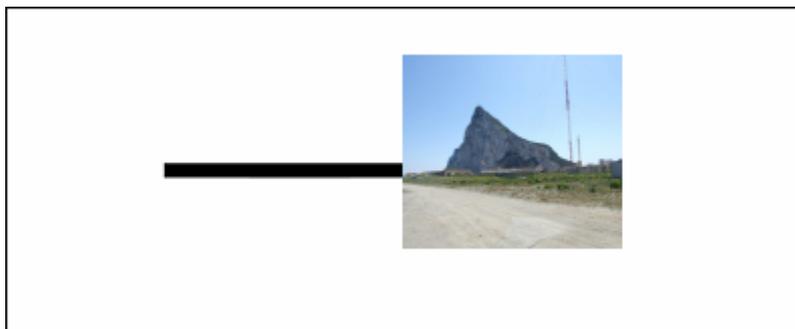


Figure 2. Sample Background

2. Loading the Background into Vue

Minimise your image editing software and load Vue. Leave the camera alone and do not load an atmosphere. Now click on the “**Atmosphere**” Menu and then the “**Atmosphere Editor**” (pressing F4 also load the Atmosphere editor).

Click on Environment Mapping within the Atmosphere Editor. You should see 3 squares as shown below. If you do not see 3 squares, still within Atmosphere Editor click on the effects tab. Now double click on the large square labelled **Environment Map**.

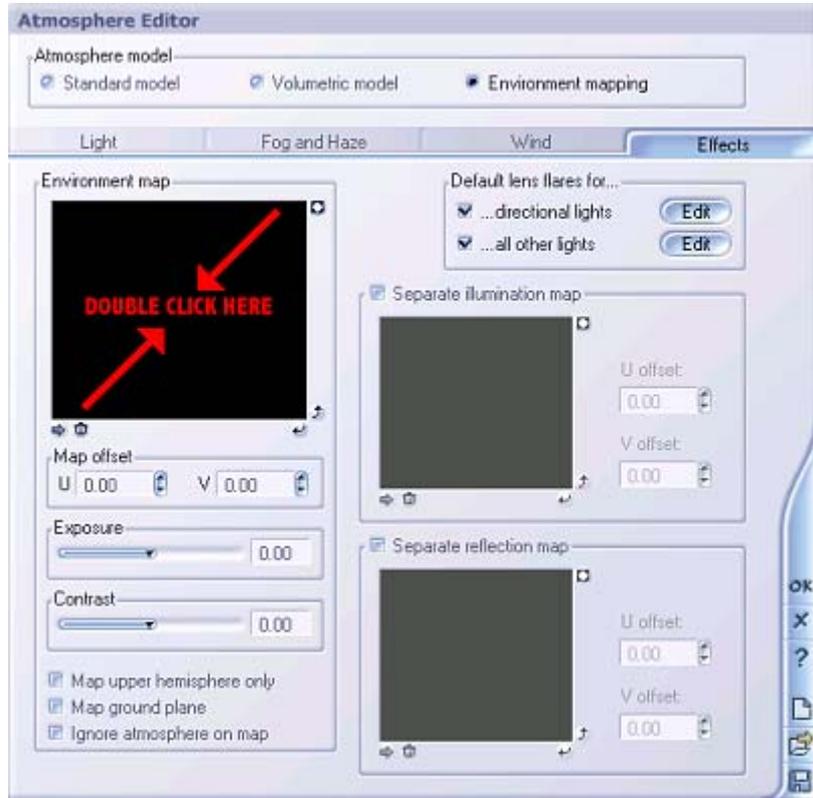


Figure 3. Environment Map 1

When you double click on the box the “**Please select a picture to load**” dialogue box will appear.



Figure 4. Environment Map 1 – Browse Dialogue

Click on the little folder and arrow icon as (as denoted in red in Figure 4). This will load a standard Windows Open dialogue box. Browse to where you saved **VUE_BACKGROUND**, select that image and click Open. **WAIT A FEW SECONDS!** Another dialogue box will appear....

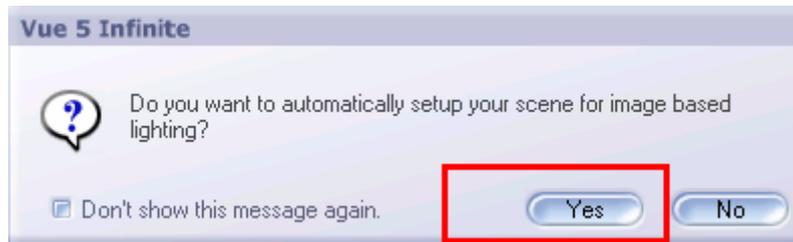


Figure 5. IBL Dialogue Box

In this dialogue box you must click on **YES !** The dialogue box will disappear returning you to the Atmosphere Editor. Click **OK** for now as we will fine tune things in a minute.



Figure 6. Main Window.

If you see this in the main window and NOT a whole image – there are 4 solutions....

1. Move the camera slightly left to right until the whole image appears.
2. Go back to your image editing software and move the image –save each version separately and reload using the stages above until a whole image appears. Remember the numbers from earlier 😊
3. If you only want to use a single photograph in your image, manipulate your **VUE_BACKGROUND** as shown in section 6.
4. As stated at the start of this tutorial the best results are obtained from using panoramic images.

NOTE If you experiment a lot Vue may throw up an Out of Memory Error. If this happens – just close Vue and restart Windows to clear the RAM.

3. It's Tweaking time!

Remembering now is a good time to save. Open up the atmosphere Editor again. Environment Mapping within the Atmosphere Editor should still be ticked so click on the light tab.

Change the settings you see on your screen to those shown in Figure 7.

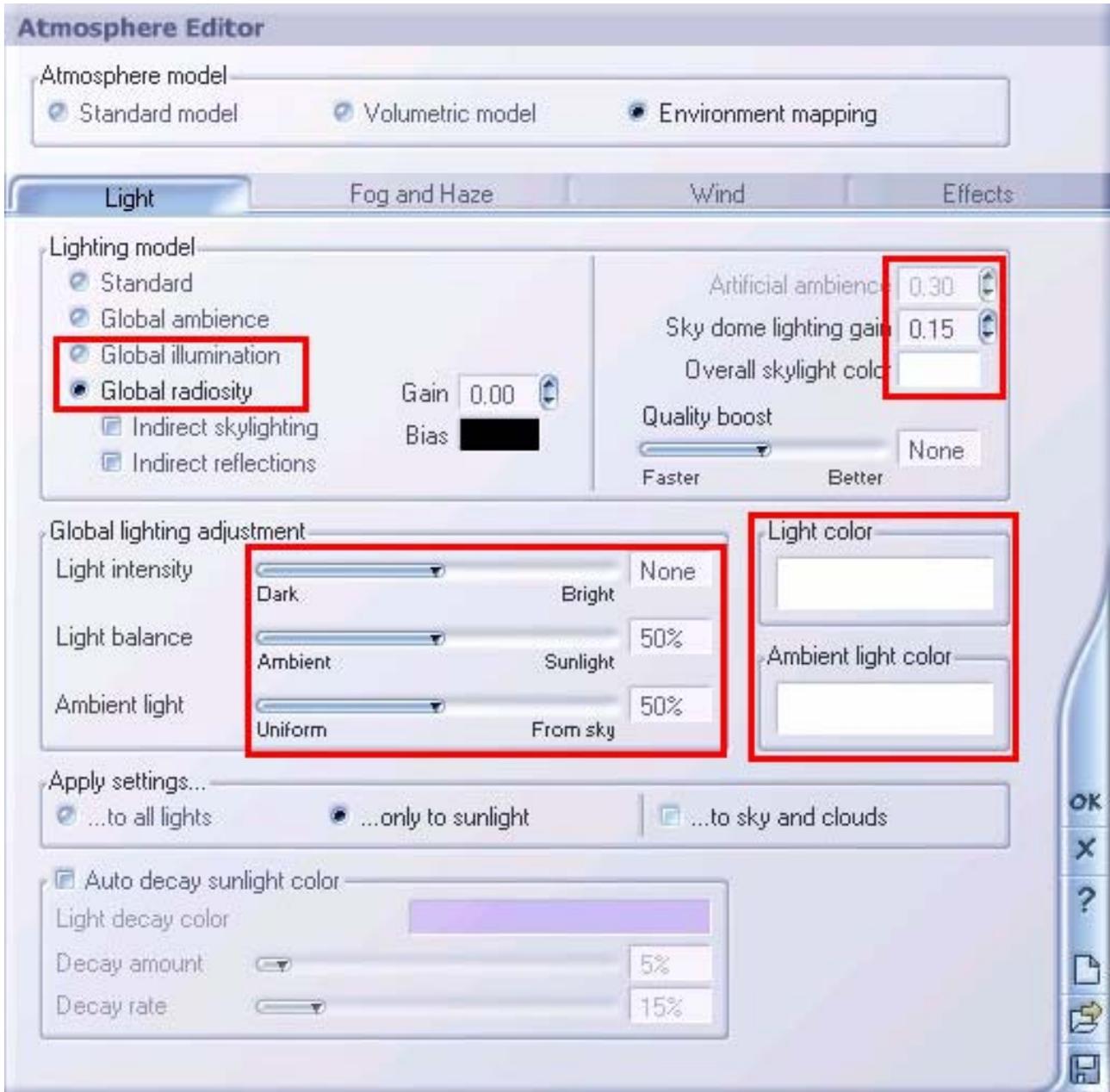


Figure 7. Light Settings

Note: Global Radiosity images can take slightly longer to render than Global Illumination. So set this to what ever you prefer to use.

Now click on the Fog and Haze and once again change the settings you see on your screen to those shown in Figure 8...

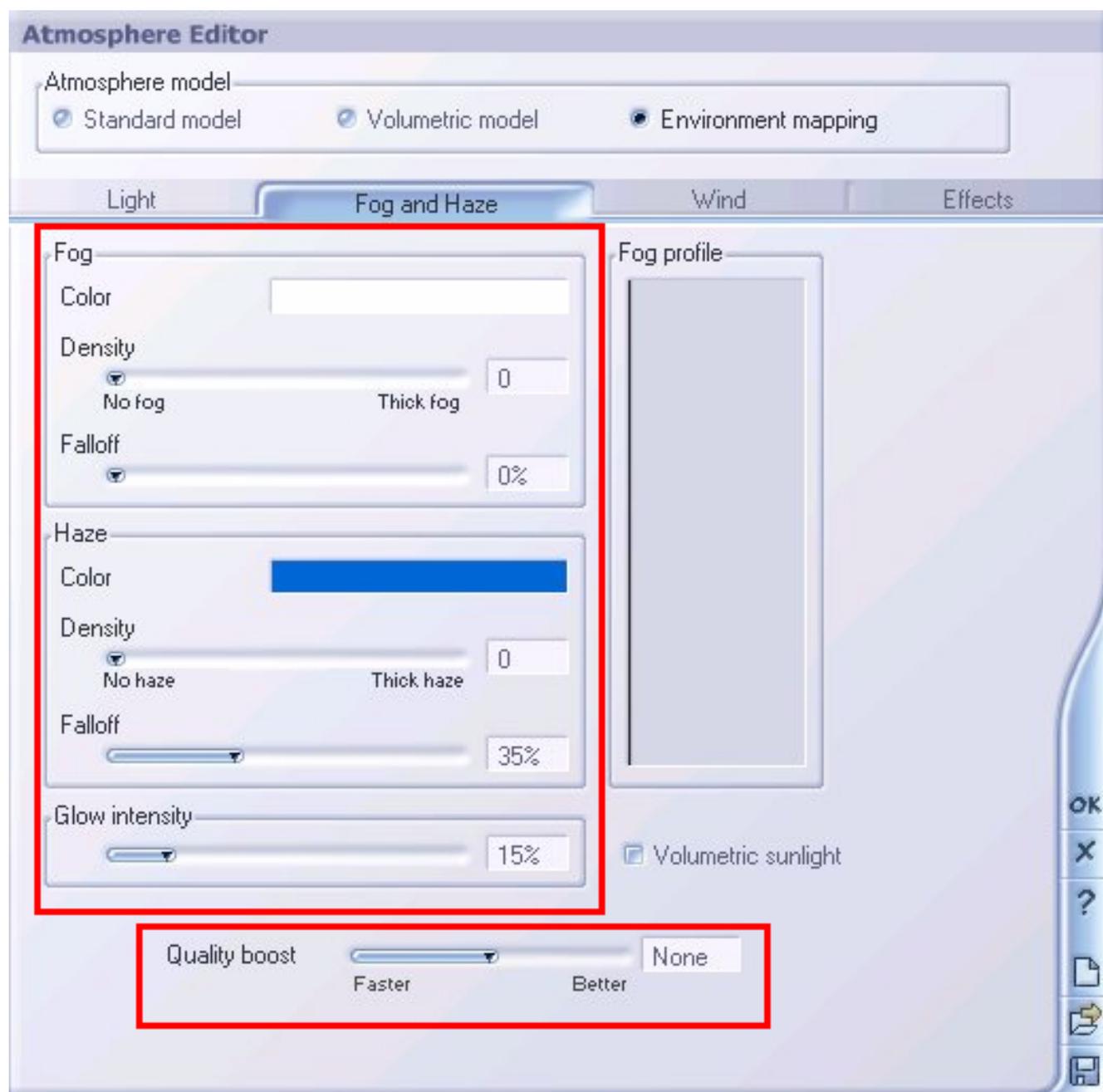


Figure 8. Fog & Haze Settings

Next click on the Effects tab and once more change the settings you see on your screen to those shown below in Figure 9.

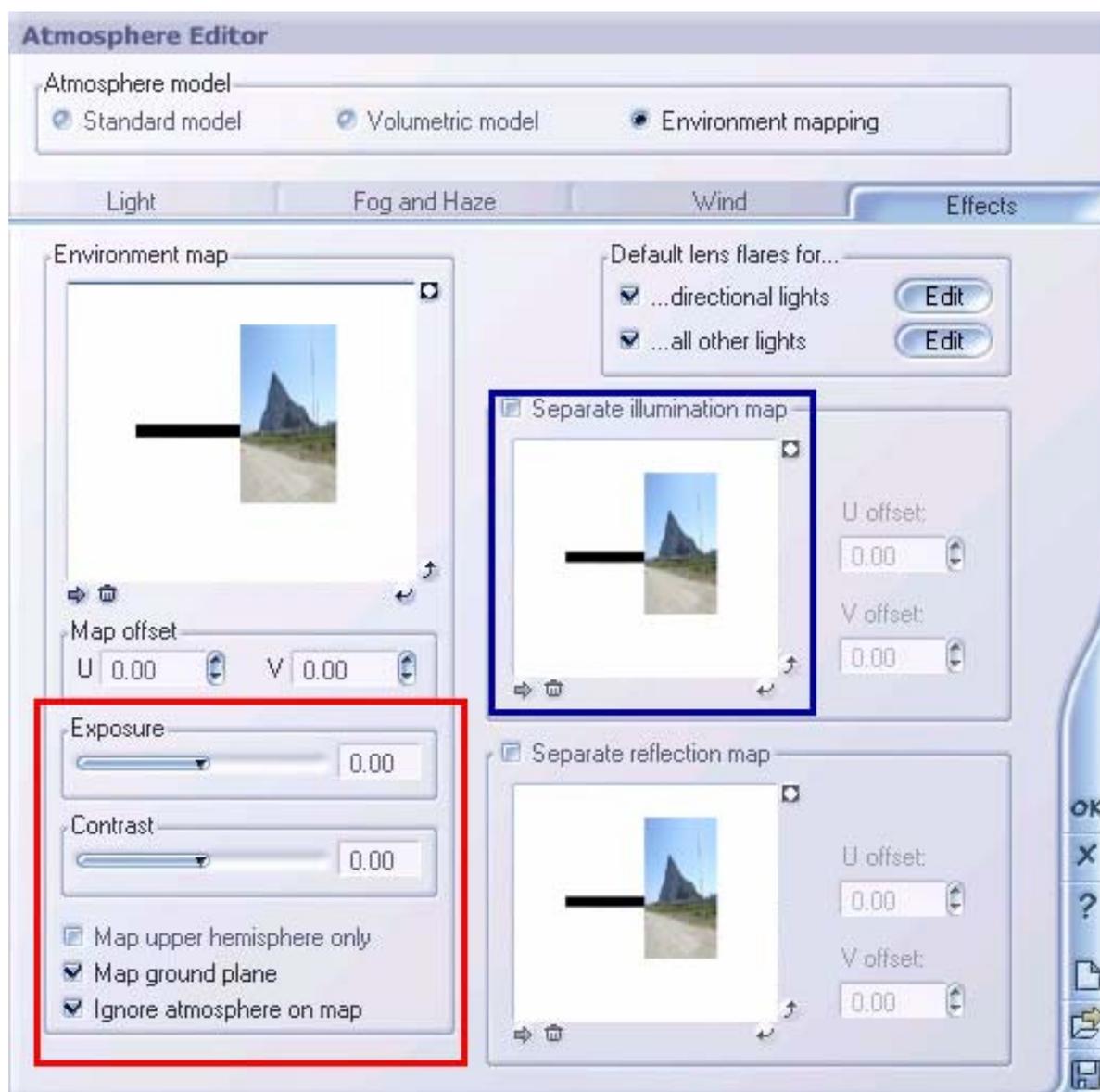


Figure 9. Effects Settings

Note the Blue Square on the figure above surrounding the **Separate Illumination Map** option. Sometimes loading the ORIGINAL photograph in here can give better results than using just the environment map alone.

Finally click on the OK Button and save the scene.

4. Carry on Tweaking...

On the left hand side of the screen add a cube to your scene and choose a simple texture or pattern. Save the scene. Open the render options and select **Preview** from **Preset Render Quality** and **Render in Main View** from **Render Destination**. Do a preview render in the main screen.

The shadows may look over dark – if this happens, on the right hand side of the screen select **Sunlight** from the menu. In the sunlight options right click the fourth icon down and click on **Edit Shadows and Lighting**. Using the Mark 1 Human Eyeball – available in most humans - adjust the shadow density to match the shadows in your scene. Areas between 50-75% seem to work best. You'll have to play around a little here until it's right. But it can make a big difference.

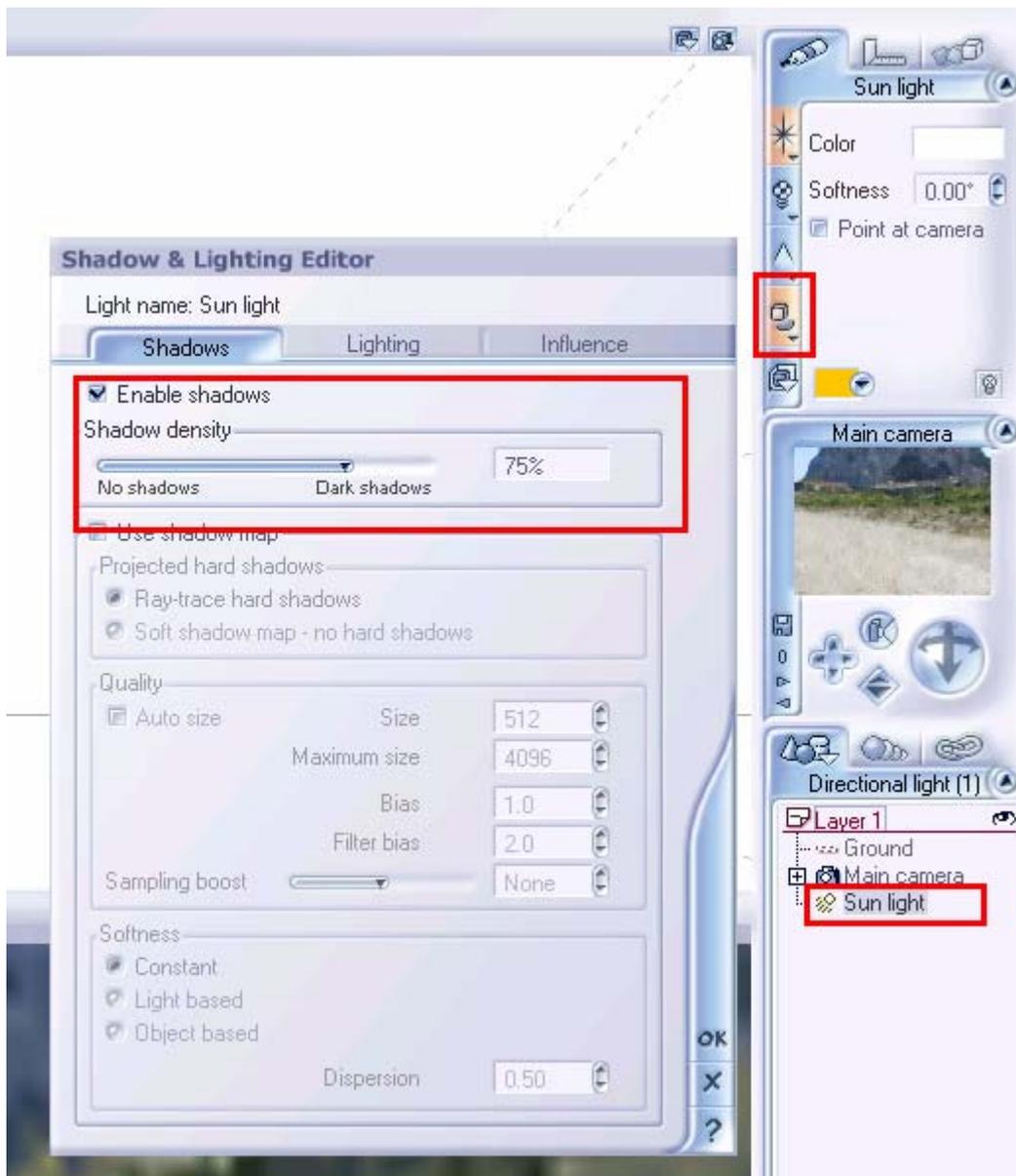


Figure 10. Sunlight Settings

Now the next tweak – looking at your photograph estimate where the sunlight is coming from. Typically most photographers will take an image with the sun directly behind them. So using the top View Window select and move the sunlight slightly behind the camera if appropriate. Now select the light in the Side View window and move it around it using the icon that looks like $\frac{3}{4}$ of a circle. As with the shadows, play around to get the best results.

6. Reflections

The biggest downside of this approach is that if an object has a very large surface area that's reflective – you'll see the guide bar and white area of **VUE_BACKGROUND** as shown in Figure 11. What you need to do



Figure 11. Bad Reflections

The simplest solution is to copy and paste the image repeatedly, finally mirroring the sides then flood fill the top and bottoms as shown in figure 12.



Figure 12. Simple Reflective Fix

This will give you similar results to that shown below – obviously the reflection isn't that accurate as in the real world, as the same scene isn't usually behind you as well as in front 😊 But it will do for a quick and simple fix.



Figure 13. Moderate Reflections

7. The Ultimate Approaches

Very simple this.

Replace your single image with a panoramic image. There are numerous tools available to create these images some such as Hugin [<http://hugin.sourceforge.net/>] are free. All you need to do is get the size correct to avoid distortion, mirror the ends (using a clone or undo brush to tidy up is a good timesaver) and use the tweaks as shown in Sections 3, 4 and 5.

Another way, and the best product available, is BountifulKnight's DomeRock360. Just \$10 from:

<http://market.renderosity.com/mod/bcs/index.php?ViewProduct=39819&vendor=187250>

This product is a vast improvement on the standard Vue skydome as it contains various MAT files, and 2 "layers".

8. Exporting

To share your custom atmospheres with others and for use as skydomes in other applications you can export your skies.

Setup your atmosphere and save it. On the **File Menu** click **Export Sky**. In the dialogue box use the settings as shown below. The geometry should **ALWAYS** be set to UV sphere. By adjusting the texture map resolution you can get smaller texture maps. Though remember the lower the values the less detail you may get. Between 2000x4000 seems to give the best results.

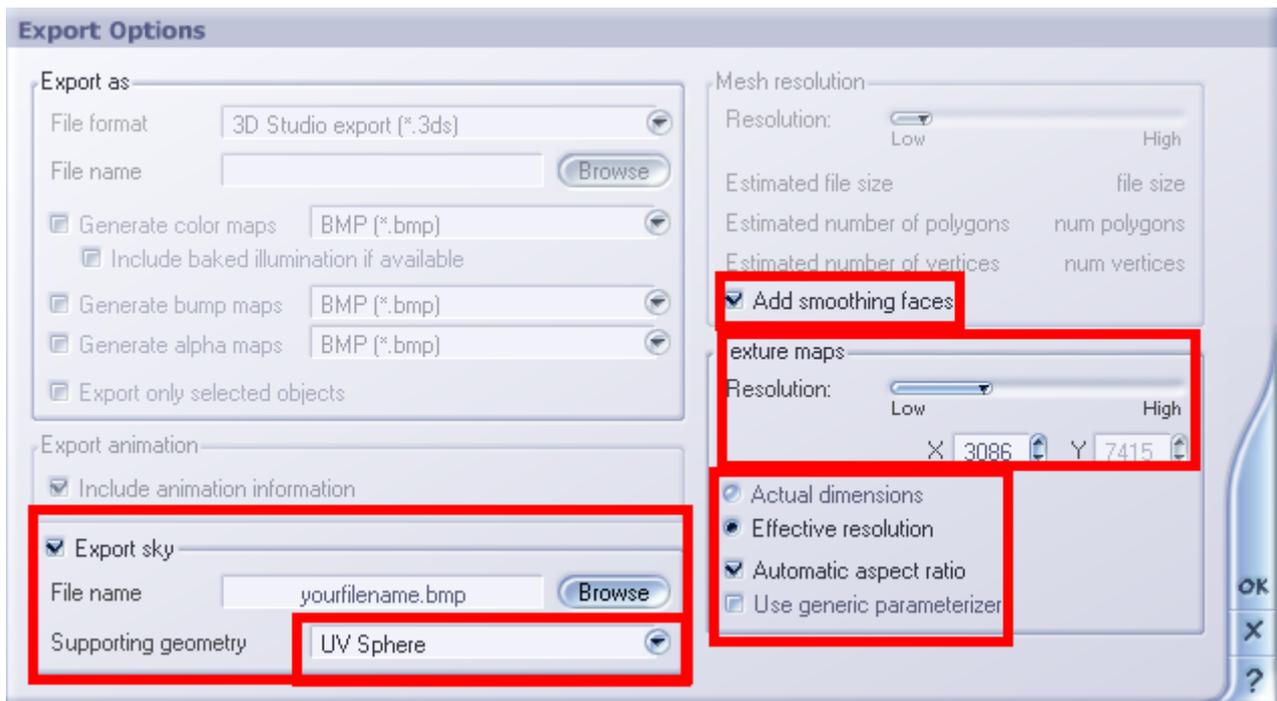


Figure 14. Export Sky Settings

To use the exported image as an atmosphere, follow Section 2 but don't load **VUE_BACKGROUND** as the Environment Map, load the exported sky image instead. Then use the tweaks in section 3 as desired.

8. Bibliography and Notes.

This tutorial is NOT my sole creation it has created by manipulating, combining and experimenting with the concepts created by Bountiful Knight and the tutorial by Nick Atrill in Issue 21 of Imagine FX. Please give credit where credit is due and support vendors like Bountiful Knight.

It is not perfect and is offered only as an educational resource. Please contact me at the email address in the readme file if you can to improve this tutorial for the benefit of the Vue community.