

Constructing a Basic Natural Scene from a photo in Vue



Having been frustrated in trying to set up realistic scenes in Vue, I'm following the advice to keep the scale of everything as it would be in real life.

I will be generally basing the scene on a moose standing in a stream, as shown in the painting above.

Opening

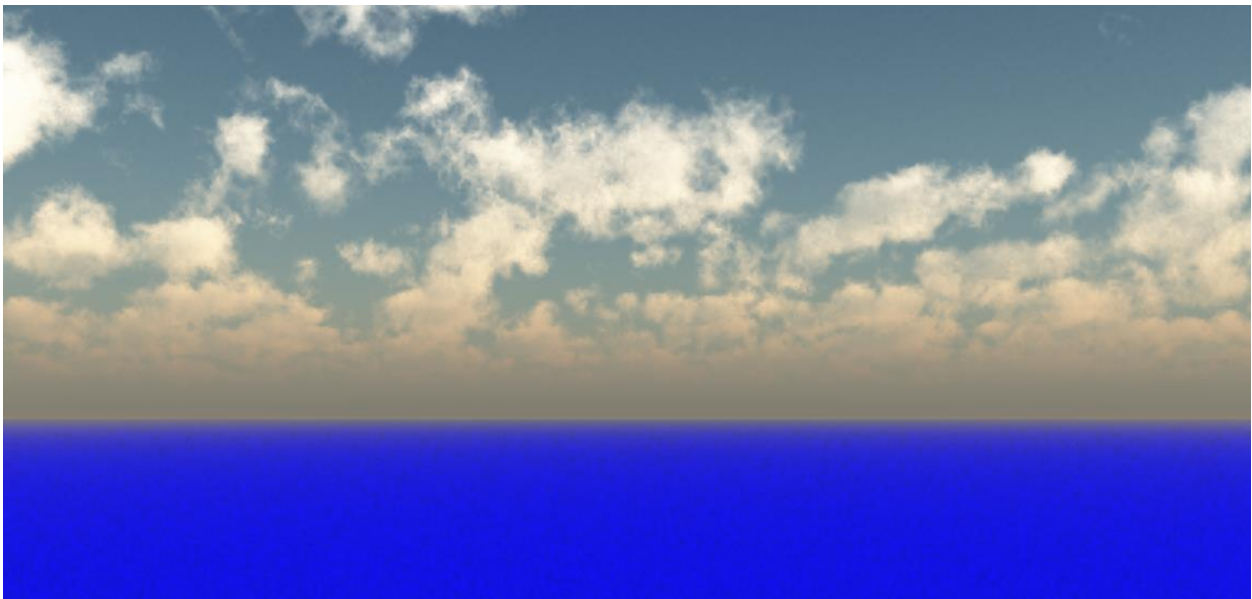
- Open a new scene using the **Daytime/Spectral Sunshine/Bisbee** atmosphere. (Sun, clouds and a bit of haze)
- Set the camera as the above picture suggests; about one meter above the ground.
- Erase the default **Ground** layer.

Water:

For the water, we want it to be opaque while we build the rest to see our terrains well. We'll use a cube made precisely and use a basic blue material for it at this point.

- Create a 1km x 1km x 10cm cube. Position it in the middle of the general area and set its Z position at -15cm (bottom). This just comes up to cover the square corners of the terrain just a bit.




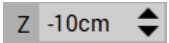
We'll be adjusting the water material later but now it gives a clearer idea of where the terrains are in the scene.

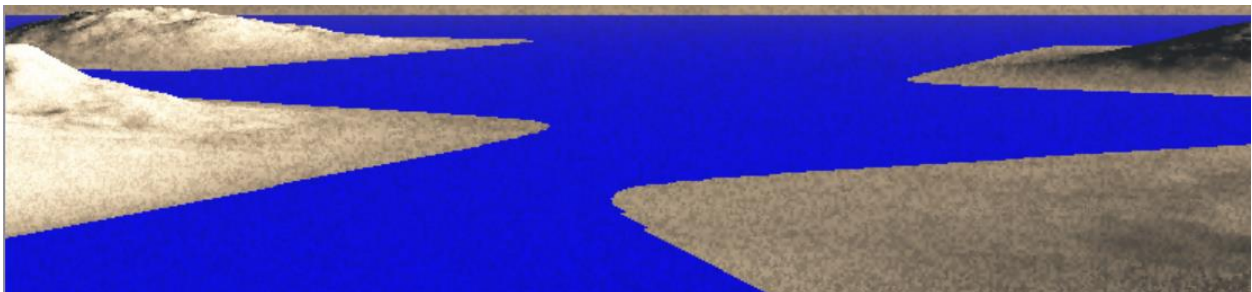


Terrains (set up for correct scale)

Foreground:

The foreground terrains will be the close-up (@ 15-20m) elements of the scene and will poke in to the scene from right and left.

- Create a 20m x 20m x 1.3m sized terrain:  → 
- Move the terrain so one corner of the terrain pokes into the scene from the right.
- Position it freehand but set the Z position to -10cm.  → 
- Make 3 copies of the terrain and move one the the further right and two likewise from the left. They should already have Z = -10cm.
- Adjust the Z size of the terrains a bit but around 1.2m to 1.4m.



Near Background Forest:

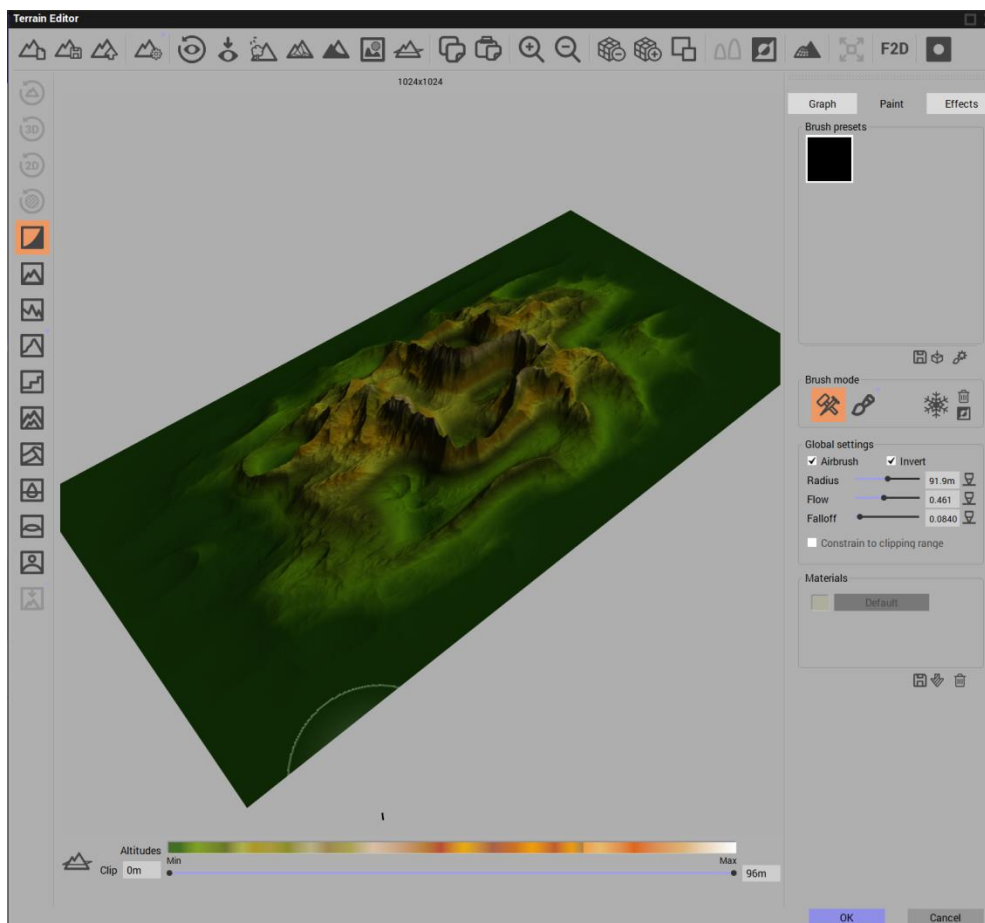
In the nearer background we will be placing a forest made of mostly conifer trees. The trees will fill in the near background from left to right but have no noticeable depth so the terrain that will hold them does not need to be too deep.



- Create a terrain that is 500m wide by 100m deep and about only 4 – 5m in Z thickness.
- Set the near background terrain about 50 – 60m beyond the 2nd bank terrains and rotate it a bit .

Far Background Mountains:

The background mountains will be more dramatic than the other terrains used in this scene. For these we will go into the terrain editor to use some of its features.

- Create a simple 1k by 500m heightfield terrain as before.
- Double-click the terrain to open it in the **Terrain Editor**



- Increase the resolution of the terrain to 1024 x 1024 by clicking the **Increase Resolution** button twice: 
- Click the **Peak generator** button:  to randomly generate a heightfield that is strong in sharper peaks. Re-click this to randomly create a different peak pattern each time.
- Click **OK** to accept the current terrain.
- Place the mountain terrain some 50 – 60m beyond to forest terrain and adjust it from left to right at a position that best shows the mountain.
- Adjust the mountain to allow the left side to be tallest in the scene and the right side to taper down somewhat.



- Press the **Alt** key and move the mountain with the mouse to duplicate it.
- Now rotate the duplicated mountain terrain 180° and move it to the right, behind the original mountain terrain.

This second mountain is to be considered much further away than the first mountain so we will move it further away from our view and possibly raise it up to make appear to be a much larger mountain. The natural haze in this atmosphere will give it a distant appearance.

- Move the far mountain about 400 – 500m beyond the edge of the water cube.
- Raise the far mountain upward so its peaks are generally in line with the first mountain.




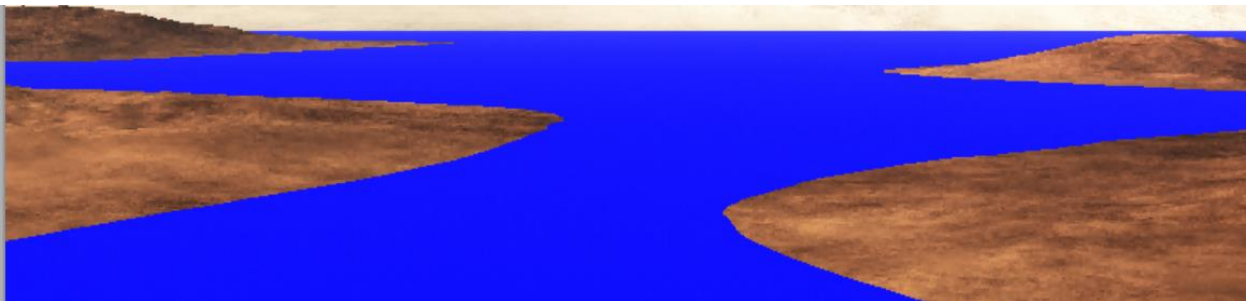
Vegetation:

With the vegetation, we will again begin with the closest terrains and then move further away each time. First set a material for the ground of the terrain. Then add

Nearer Banks:

We'll begin with the close right bank. First we set the colour of the terrain itself. In the painting there are a couple of places where you can see to the earth. It is brownish with not much texture. So this is what we set the terrain material to.

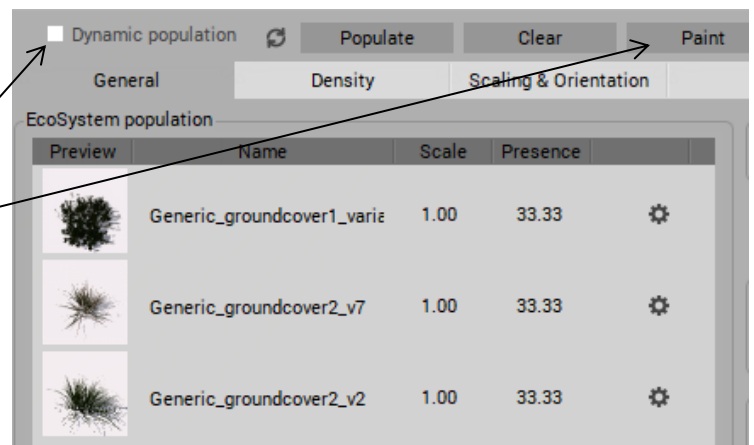
- Select the close right bank and click the material icon:  in the **Aspect** panel.
- Go to the rock material and select the Red-Brown Rock.
- Go to the Material Editor/Colour tab and darken the **Overall colour** of the Red-Brown Rock to an earth tone.
- Copy and Paste this material to the other three close terrains.



Add Plants

- Open the **Material Editor** for the right – closer terrain.
- Add a new layer to the material, make it an **EcoSystem/Particle** layer and rename the layer: **Ground Cover**.
- In the General tab, add three different plants: all vob object plants from the **Groundcover** section.
- Leave **Dynamic population** off and click **Paint** to manually populate the plants over the viewable area of the terrain.

Came to @ 1000 instances applied




- Repeat this for each of the four nearer banks. Could **copy-paste** but doing the above for each terrain gives best control over the coverage of the terrain.



Upgrading the Water

Now it is time to set up the water material to get a better view of how the vegetation looks against it.

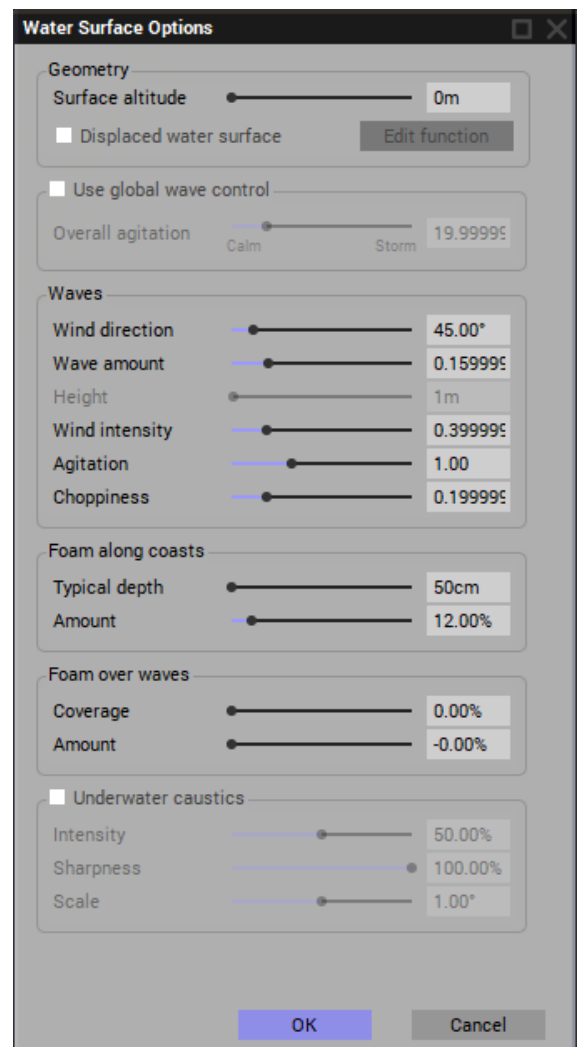
The **Default Sea water** material allows for manipulating the effect of the coast and wave foam as well as wind/wave amount and direction.

- Delete the blue cube we've been using so far for the water layer.
- Now add a default "Sea" infinite plane by clicking its icon: 

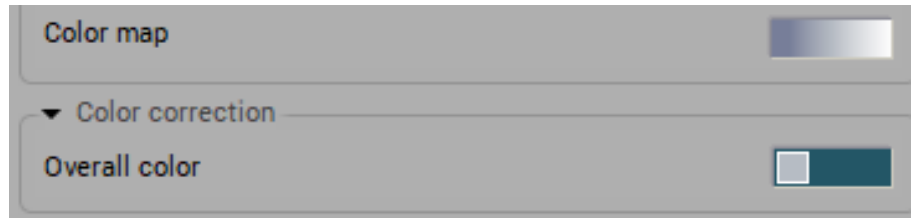
- Double-click the **Sea** in **World Browser** to open the **Water Surface Options** window:

The bottom edges of the terrains are just a few cm under the water. Right now the coastal foam of the water shows them very strongly. We will set the foam depth very shallow to hide those edges and show just a little bit of the foam around the terrain shores.

- Set the **Foam over waves** to zero.
- Set the **Foam along coast – Typical depth** to about 40-50 cm
- Set the **Foam along coast – Amount** to a low 12-15% value
- Set the various wave values quite low; .2 to .3 levels.



- Open the **Material Editor/Colour** tab for the **Sea**.
- Set the **Default Water** colours as shown here.



Add taller plants

Given the size of the taller plants, it seems best to place them onto the various terrains individually instead of adding another EcoSystem layer on each terrain material and painting the new plants onto it.

This way the size and placement of each added plant is selectable and controllable. Relatively few plants should be required for each terrain.

- Right-Close bank: Use Quixel Megascans: Aquatic/Shoreline plants – Softstem_Bulrush variation 1 through variation 9. (imported-converted to vob objects)



- Expand the tall plants to the other three terrains

Add Near bank Trees

There are a lot of variation in tree sizes available between Vue (veg files) or .vob files and the xfrog plant .vob files. We may have to scale the inserted trees as we place them in on the left and 2nd right banks.

- Place trees, according to the painting example, on both the terrains. Set the tree placement and sizing to be close to the example.



Background Conifer Trees

- Create modify the background forest terrain to be 400m by 100m and about 5m high.
- Set the terrain material to be **Landscape/Natural3** material with darkened grass.
- Open the terrains **Material Editor** and add a new **EcoSystem/Particle** layer called “Forest”
- Select four different conifer trees, each with a fairly unique design and manually paint the trees onto the terrain within the camera’s field of view.
- Paint a line of trees along the front edge of the terrain. (@ 300 instances)



Looks like the default size of the selected ecosystem trees are a bit big. The trees appear to be much too close to the main camera. We'll have to adjust the size of the trees in the ecosystem in the Material Editor – EcoSystem painter.

- Clear the ecosystem and change the **Scale** of each tree in the ecosystem painter to about .5
- Once again, paint a line across the front edge of the terrain in the cameras field of view.
- Take a couple of passes if the forest seems to be too thin or a pass beyond the front edge of the terrain.



Placing the Moose

With the proper SDK (Software Development Kit) for Poser, loaded in Vue, Poser files can be imported into Vue. The imported Poser Characters can even be enabled to be posed from within Vue (Lots of memory req'd).

Here, we'll set up the moose pose in Poser and then import a still frame #1 of that pose into View.

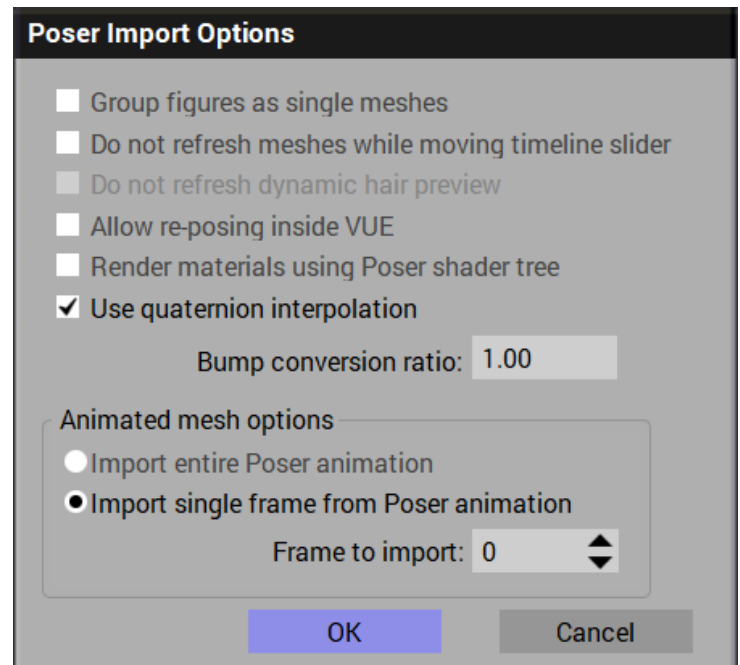
- We'll start up Poser even with Vue still open.
- Select the moose from the **Character/Animals/Moose** library in Poser.
- Then select the moose pose from the; **Pose/Animals/Wildlife_series/Moose** library. There will be a number of stock poses.
- Pose 01 shows the moose standing with its head slightly turned. Load this one.



From here the moose can be further posed and adjusted in proportions. Even change the angle of its antlers.

- Save the moose in Poser and exit Poser.

- To import the moose into the Vue scene, select ; **file/import Object** then locate the poser moose file that was saved. It will have a .pz3 extension.
- In the **Poser Import Options** dialog that will open, make sure to select the Import single frame option button, then click **OK**.
- The size of the imported moose will be huge! So resize and position the moose at the appropriate place in the scene.





Enhancements & Tweaks

Mountains:

- The 1st (left) mountain is pretty white. If we rotate the sun away from our view and a little closer to the mountain, we'll see much stronger shadows appear on the mountain sides.
- The lower part of the mountain, behind the forest has a touch of green. This because the default mountain material has two mixed materials; rock and grass. The lower part of the mountain is mostly the grass.
- You can make that second material a stronger grass colour to represent foot-hill vegetation or change it over to a more rock colour as the rest of the mountain is.

Vegetation:

- The near terrains have a bit of the brown ground showing through. We'd like to fill that in with ground cover.
- Open the **Material Editor** for each terrain and paint some more undergrowth plants in those brown spots. (you can hide the trees in World Browser; right end of each tree title, to see the ground for painting the undergrowth)
- The tall grass could be more full along the nearest banks.
- We'll add some more

Water:

- The water looks very quiet and blue
- In the Material Editor change just the colour of the “Default water” to a more grayish level of blue
- Double-click the “Sea” in World Browser to open the **Water Surface Options** window and set the **Wave amount** to 1.0, the **Agitation** to 1.0 and the **Choppiness** to .3
- We would like to suggest that this patch of water the moose is in to be a small inlet of a larger lake so we’ll put a few lilies around the terrains to make it look so.
- Place a few Rambrandt lilies and Carolana lilies around the close terrains.
- Place a few cat-tails (Shilf) very close to the camera but just below its field of view so that just the tops of them is seen in the view. This gives the impression that we are at the water’s edge.

Lighting:

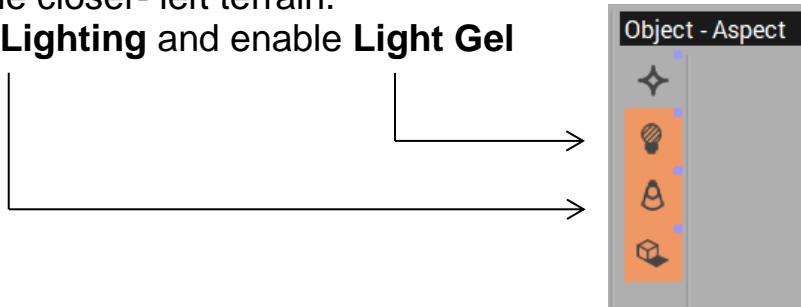
- Having moved the sun to get the best shadows on the mountain, we’ve darkened the moose and left bank trees somewhat.
- We want to bring the light of both of those up a bit without ruining the mountain shadows by the sun. We’ll use **Quadratic Spot Lights**, pointing from the camera direction, for this.
- Set up a **Quadratic Spot Light** to point at the trees of the left close bank.
- Set its **Spread** at only about 20° so it does not cover the moose.
- Set its **Power** at 20. This should bring a bit of light but not overpower the light from the sun.
- Set up a second **Quadratic Spot Light** to point at the moose. Set Power to 10 and Spread to 15°

Sky:

- The sky is a pleasant blue. It could have a bit more clouds that are smaller in size.
- The **Stretched Cirrus Puff** cloud layer doesn’t add much and can be deleted.
- In the **Low Clouds** layer, set the **Altitude** to 1km, the **Height** to 200m and the **Cover** to 55-60%. Adjust if the cloud shadows affect the scene.

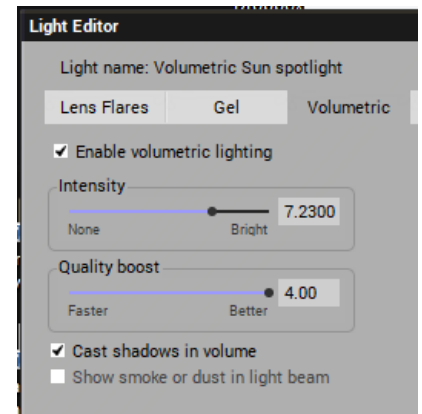
Volumetric Sun:

- Often an enhancement to a nature scene, like this one, is to show the sun's rays piercing the mist. This is the use of volumetric light.
- Add a simple **Spotlight**. Move it to about tree-top level just to the left side of the trees of the closer- left terrain.
- Turn on **Volumetric Lighting** and enable **Light Gel**




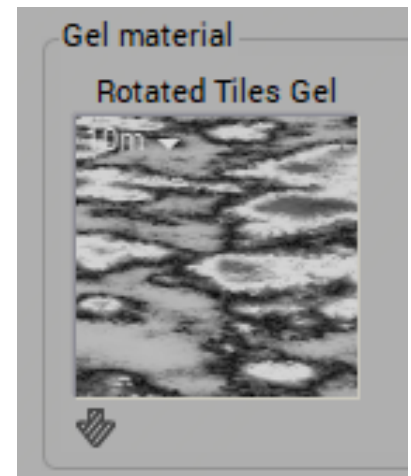
- Experiment with the volumetric spotlight's **Power** and **Spread**.

- Double-click the spotlight to open the **Light Editor** window. Select the **Volumetric** tab
- Set the volumetric **Intensity** to about 7.0 and the **Quality Boost** to full (4.00).
- Set **Cast shadows in volume** to be enabled.



Next, we want a **Gel** pattern in the volumetric light beam to break the beam into varying shafts of light.

- Select the **Gel** tab of the **Light Editor**.
- Click the Gel pattern download icon:  and select a gel pattern with a good contrast and randomness.



The rest is just experimentation with these settings and values to get the desired result.

