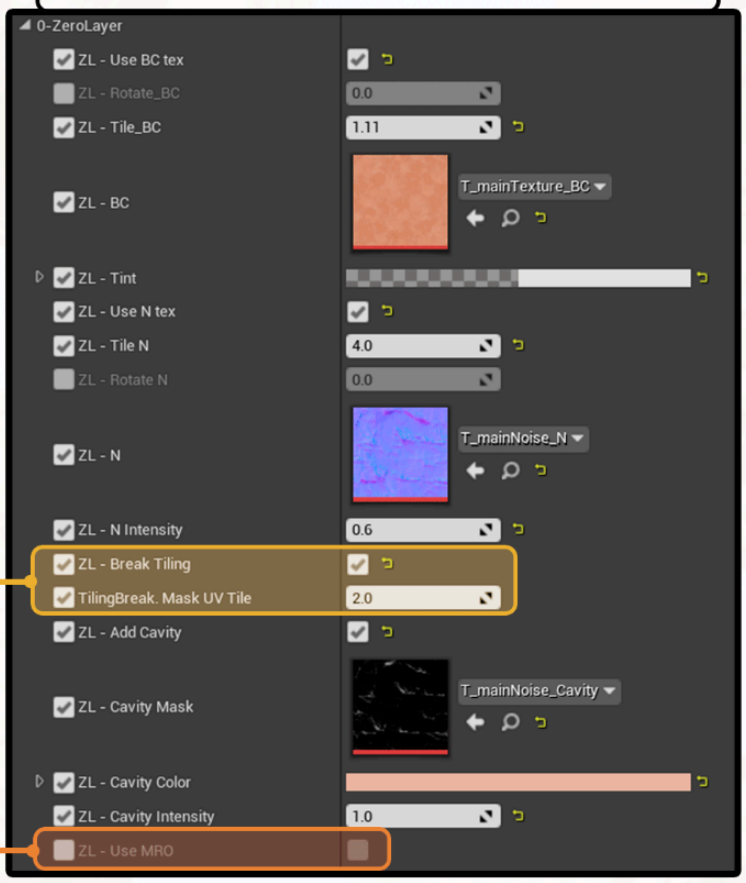
A QUICK ROCK SHADER BREAKDOWN AND SOME TIPS FOR OPTIMIZATION

Zero Layer

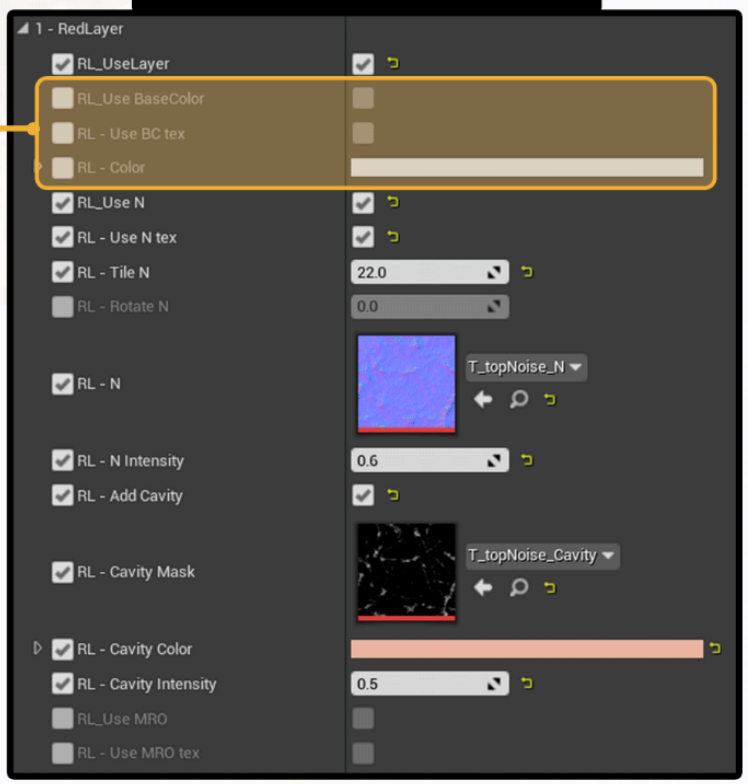
This layer is typically used for large details on the rock, that will be visible from a far distance.



Breaks an obvious tiling of the N map using a noise map, the tiling of which you control by TilingBreak slider

M - Mask - Red Channel
R - Roughness - Green Channel
O - Ambient Occlusion - Blue Channel

Red Layer

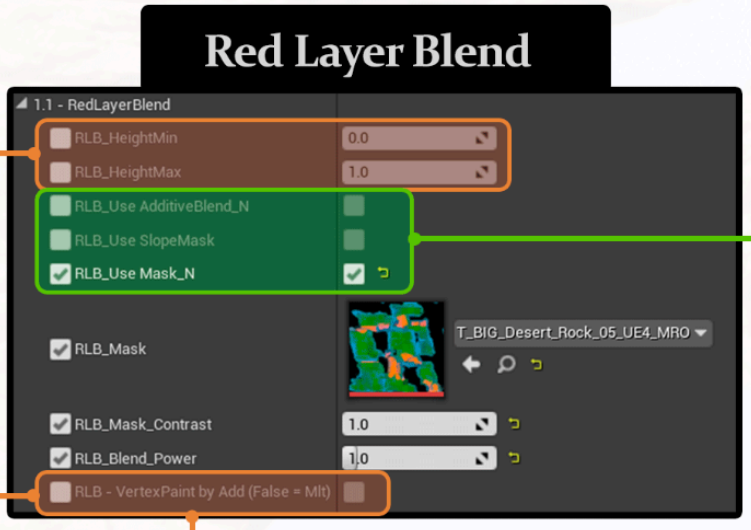


Optimization tip:
it's a good practice to turn off the layer completely ##_Use (layer name) if you don't use it.

Even if you don't plug a texture, but leave the Use BC tex parameter enabled, it will impact the shader complexity.

When Use BC tex is off you are only able to change the color.

Red Layer Blend



When you decide to add vertex paint (mask the layer using vp) instead of a uniform gradient the mask is applied, to create more "torn" edges.

The contrast of that mask is controled by Height Min and Max.

A name of a channel you must use for Vertex Paint is already in the title of the used layer.

red layer = red channel

Layer can be added in several ways:

1. Repalace (by default, when none of the highlighted options are enabled) Completely overlaps the previous layer.

2. Additive. Data from the previous layer combines with the current one.

3. Slope mask. The layer appers on'y on the top of the rock, no matter how you rotate it.

4. Mask, which is derived from the Red channel of a plugged texture.

5. You can even combine the blend methods and do Slope+ Additive, for instance.

The rest of the layers resemble each other, therefore I won't go into too much detail.

Green Layer

- I commony used this layer for the top flat part of the cliffs, where the player walks or for broken part of certain rocks.

Blue Layer

- a.k.a. sand layer.
  Use a Blue Channel in the Mesh Paint tab and a ##_Vertex Paint by Add parameter to add or erase the sand.

Overall Tint

- add color all over the rocks and mask it via Alpha Channel in the Mesh Paint tab.

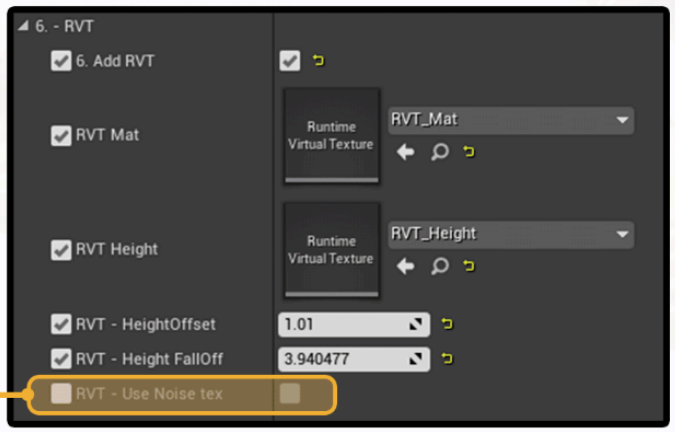
Unique Layer

- there's not many things for you to change.
  Increase or decrease the intensity of the textures for different rock look.

Optionally you can enable AO (derived from the blue channel of the MRO tex)

RVT Layer

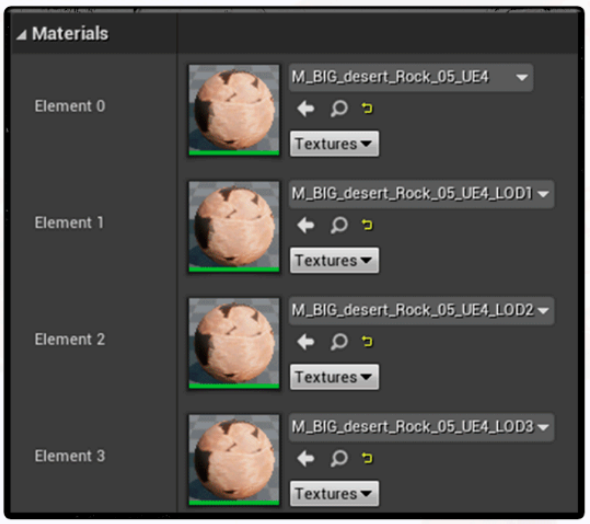
- The most expensive layer and, additionaly, RVT setup in your scene is required in order for this parameter to work correctly.



Same logic as with Vertex Paint + Noise texture, explained in the Red Layer part.
It creates less uniform, more natural mask transition.

OPTIMIZATION. QUICK TIPS

- As mentioned in the previous chapters, it's a good practice to turn off the layers completely rather than setting the intensity to zero, for instancem since doing the last won't help optimizing the shader complexity.



- You probably also noticed several material instances, applied to each cliff/rock.

Every successive material instance has less enabled options than the previous one.

The parameters were set to work well in my provided sample scene. If you noticed any texture pop or other visual issues in yours, feel free to adjust those parameters according to your needs.

- Since I used 4096x4096 textures almost everywhere, you can donwsize them to win some extra fps for your scene.

The one texture I'd be aware of is T_clouds_noise, used to break the tiling. Because reducing the size of this map can create the following waves.

"Thats all Folks!"