

Procedurally Distributed Meshes

Small stones and pebbles are scattered on the ground using Grass Types. To change their density navigate to GrassType folder and open a GrassType file, in the settings you can change the Density value. Setting it to 0 will remove them entirely.

Maps

There are two demonstration maps and one overview map. Demonstration maps are the same but with different lighting for each. Overview map shows the assets only.

Cloud Shadows

Cloud Shadows feature is a material applied to Directional Light, making it cast dynamic shadows on the world. It can be customized through the material instance to control the movement direction, speed, scale, or even add a second layer of cloud shadows on top of the first layer, giving it a more believable look.

Colorizer

Takes the Albedo as input, applies color variation and gives you the output. You will control the color variation through the material instance. You can apply 4 levels of color variation to the input Albedo, each level enabled with a switch, so you'll enable them only when you need them as this will save you some performance. When modifying colorizer values you are basically modifying the mask that is used for the coloring.

Sandstorm

It's a combination of a modulated volumetric fog volume with particles located inside the Particle folder. It is required that you have an Exponential Height Fog in the level with "Volumetric Fog" checkbox enabled. Then, simply drag and drop the sandstorm and other particles into the scene and place them around as you like. Keep in mind it is designed to be viewed from inside as if you're within the sandstorm. You can further customize each particle using it's material instance parameters.

Tessellation

You can enable Tessellation for landscape surface by changing "No Tessellation" to "Flat Tessellation" inside the landscape material and applying the changes. This will expose the Tessellation related parameters to landscape material instance such as distance, multiplier and so on.

Tessellation Displacement Distance - Distance at which displacement stops

Tessellation Displacement Falloff - Softens the displacement transition

Tessellation Distance - Distance at which tessellation stops

Tessellation Falloff - Softens the tessellation transition

You can change tessellation amount for difference distances. For example, you can set the multiplier to 15 for distance of up to 5 meters from the camera, then set it to 10 for 5 to 10

meters, and 5 for 10 to 15 meters. There is no point in having high tessellation multiplier all along the way.

Tessellation Level 1 Distance - Distance for first layer of tessellation

Tessellation Level 1 Multiplier - Tessellation amount for first layer

Tessellation Level 2 Distance - Distance for second layer of tessellation

Tessellation Level 2 Multiplier - Tessellation amount for second layer

Tessellation Level 3 Multiplier - Tessellation amount for third layer (Distance is capped by Tessellation Distance)

Landscape Material Layers

Each layer has a set of parameters exposed to the landscape material instance through which you can modify them. Here are some common parameters explained.

Distance Fade - Enables the layer to tile less in distance. Making tiling less visible.

Near Scale - Tiling amount in near distance

Far Scale - Tiling amount in far distance

Blend Amount - Brightness of the blending mask (blending of layer to other layers)

Blend Contrast - Contrast of the blending mask (blending of layer to other layers)

Displacement - Displacement amount

AO in Normal - Enabled in case AO is in normal map B channel

AO Amount - AO Amount

AO Contrast - AO Contrast

Normal - Normal map intensity (Decrease R-G to lower intensity or decrease B to increase intensity)

Distance Roughness - Increases the roughness in distance.

Fresnel Full Roughness - Increases roughness with Fresnel mask.

Roughness in Albedo Alpha - Enabled in case roughness is in Albedo alpha channel.

Roughness Amount - Roughness Amount

Roughness Contrast - Roughness Contrast

Fresnel Reduce Specular - Reduce specular with Fresnel mask

Specular Amount - Specular Amount

Specular Contrast - Specular Contrast

Occlusion Amount - Small scale Occlusion Amount (Only if AO in Normal is enabled)

Occlusion Contrast - Small scale Occlusion Contrast (Only if AO in Normal is enabled)

Detail Mapping - Enables detail mapping.

Moving Dust

Landscape material has a feature called Moving Dust or Particle. This simulates dust moving on the ground surface as if the wind/sandstorm is directly affecting the landscape surface.

Parameters exposed to the landscape material instance are as follows.

Particle Affect Albedo - If moving dust should affect landscape Albedo

Particle Affect Specular - If moving dust should affect landscape Specular

Particle Affect Roughness - If moving dust should affect landscape Roughness

Particle Affect Normal - If moving dust should affect landscape Normal

Particle Amount - 0 Means everywhere higher values decrease it.

Particle Blend Bias - Used to prevent moving dust on extreme slopes

Particle Blend Sharpness - Used to prevent moving dust on extreme slopes

Particle Distance - Distance at which the particle disappears

Particle Falloff - Softens the disappearance of the moving dust.

Particle Albedo Opacity - Particle Albedo Opacity

Particle Roughness Opacity - Particle Roughness Opacity

Particle Normal Opacity - Particle Normal Opacity

Particle Scale_01 - Scale of the first layer of moving dust mask (Usually don't change this)

Particle Scale_02 - Scale of the second layer of moving dust mask (Usually don't change this)

Particle Scale_03 - Scale of the third layer of moving dust mask (Usually don't change this)

Particle Speed - Speed of the moving dust mask

Particle Normal - There are two normal maps, each with different directionality depending which direction you want the dust to be moving, pick the right normal map in your case.

Particle Normal Scale - Scale of the moving dust normal map

Particle Normal Intensity - Intensity of the moving dust normal map

Particle Normal Speed - Speed of the moving dust normal map

Particle Albedo Color - Changes the dust color

Particle Roughness - Roughness of the moving dust

Particle Direction - Direction of the moving dust. Only -1 or 1. Don't use other values. R stands for X, G stands for Y. So if you want the dust to be moving to the right for example, you set R to 1, and G to 0. And if you want to invert the direction you set R to -1 and G to 0. Same rule if you want to make the dust moving towards Y axis. You can even make it move towards in between by using R 1 G 1. B is always 0.