Unreal for Virtual Production: Megascans To Swappable Materials

Version: 1.0
26 Nov 2019
Created by: Dan Corrigan

The Megascans to Swappable Material Tool can be found in Third Party->SwappableMaterials->MaterialGenerator
It will convert any number of material instances that use the megascans master materials into the swappable material standard.
To use it, right click the asset and run editor utility widget

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Once the tool is open, select any number of assets in the content browser and run get selected assets.
The tool will automatically filter out any materials that do not meet its requirements and place them under the Materials to convert header
Note: running the tool on a large number of assets at a time is prone to crash. At most I will convert 20 material instances, save, and then convert 20 more. I also keep stats on my GPU open and close/re-open UE4 if my GPU memory gets low. UE4 will crash if you run out of VRAM or RAM.

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In the bottom right corner of the tool there are two settings parameters.
ORM resolution will affect the size of the packed AO, roughness and metallic file. This value should be a power of two, and should be kept the same as to rest of the textures used by the megascans asset.
If make copies is checked, the tool will make a duplicate of the material instance to convert as a backup and append _bak. Meshes that reference the material will use the swappable version.

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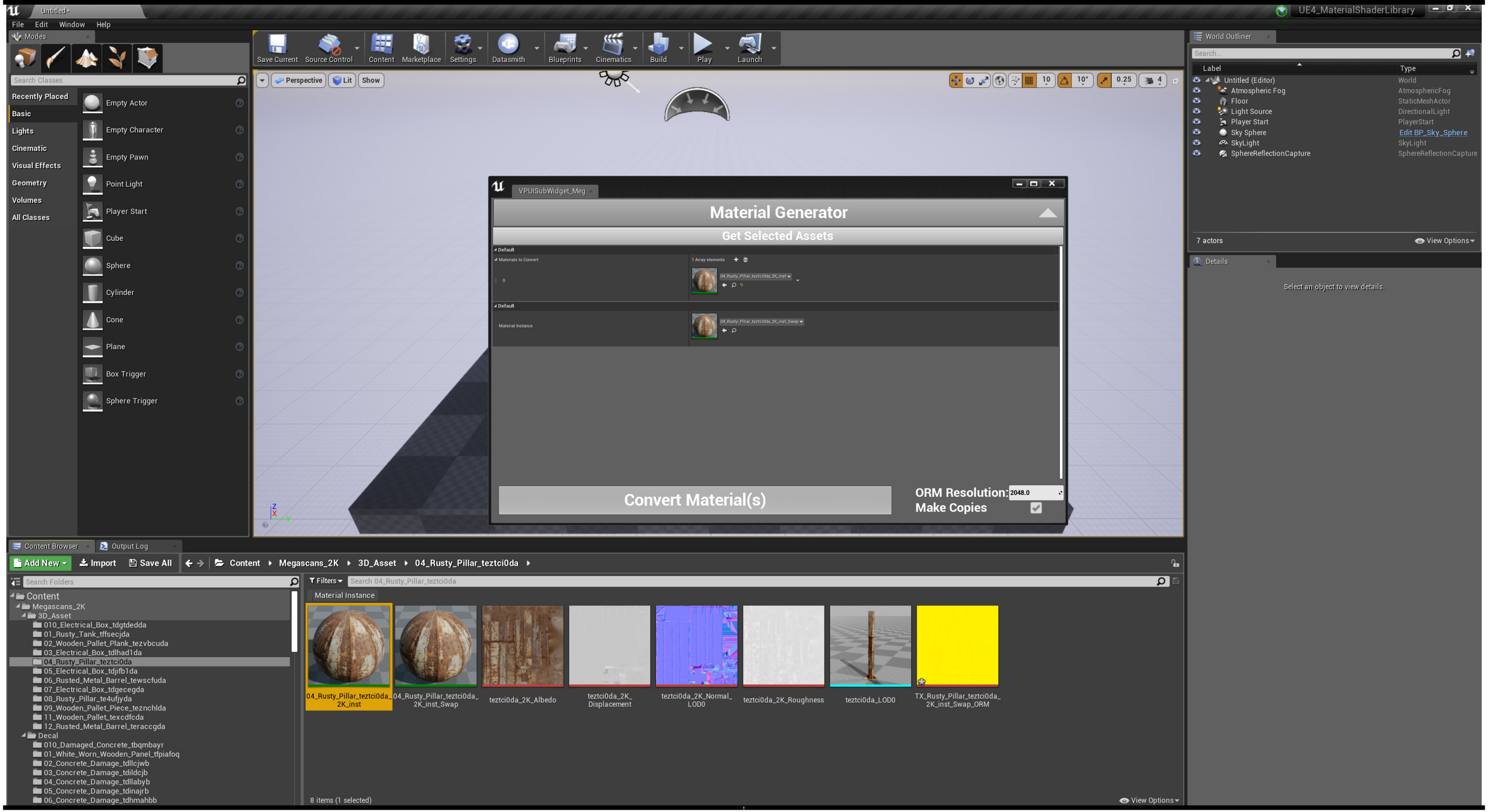

After running the tool, an ORM texture will be generated for each material that has roughness, metallic or ambient occlusion in the same folder as the material instance.
It is good practice to save all after each group of instances converted.

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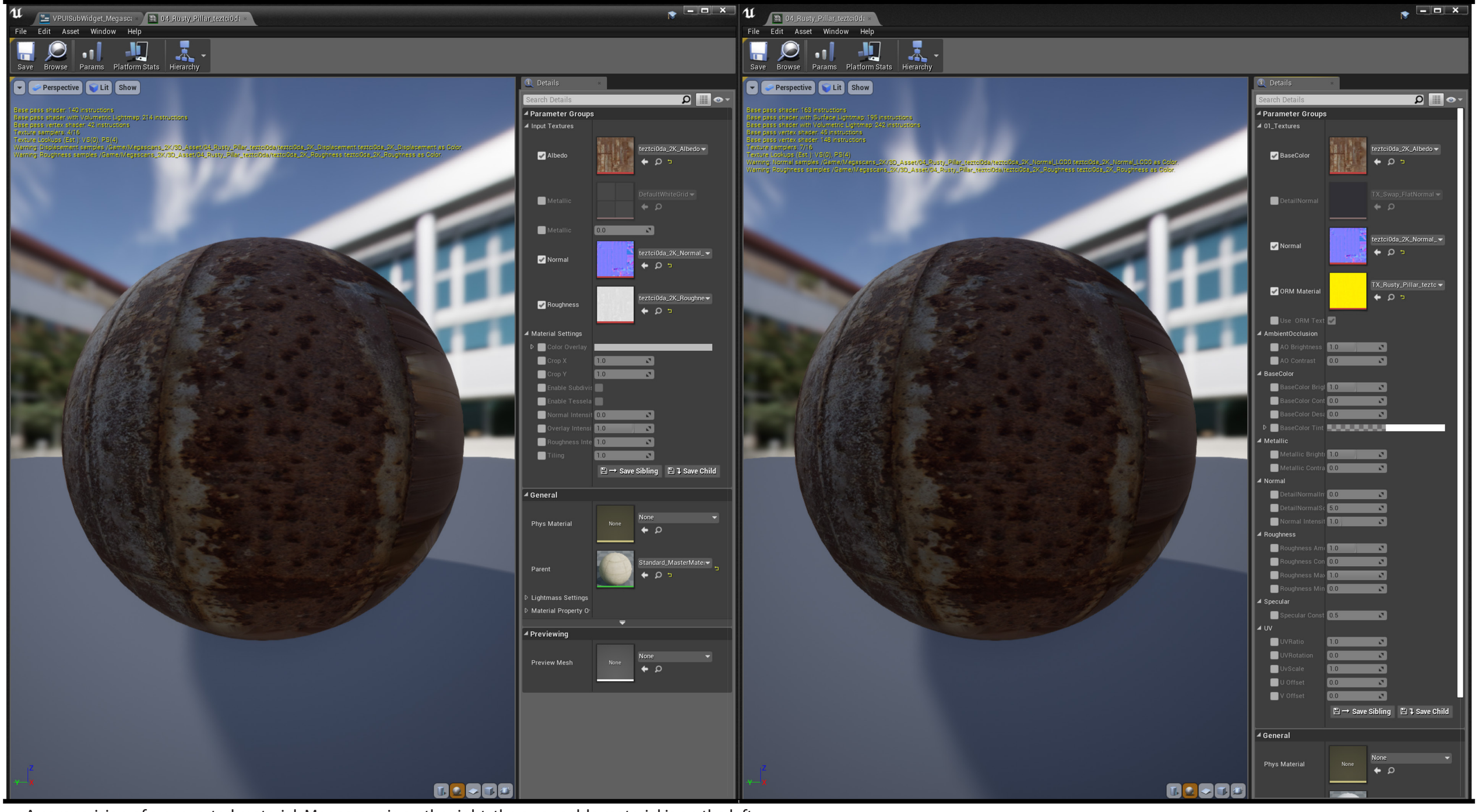

A comparision of a converted material. Megascans is on the right, the swappable material is on the left.
Most parameters will transfer between the two, but if you have a lot of scalar/vector tweaks you might have to retweak the swappable material