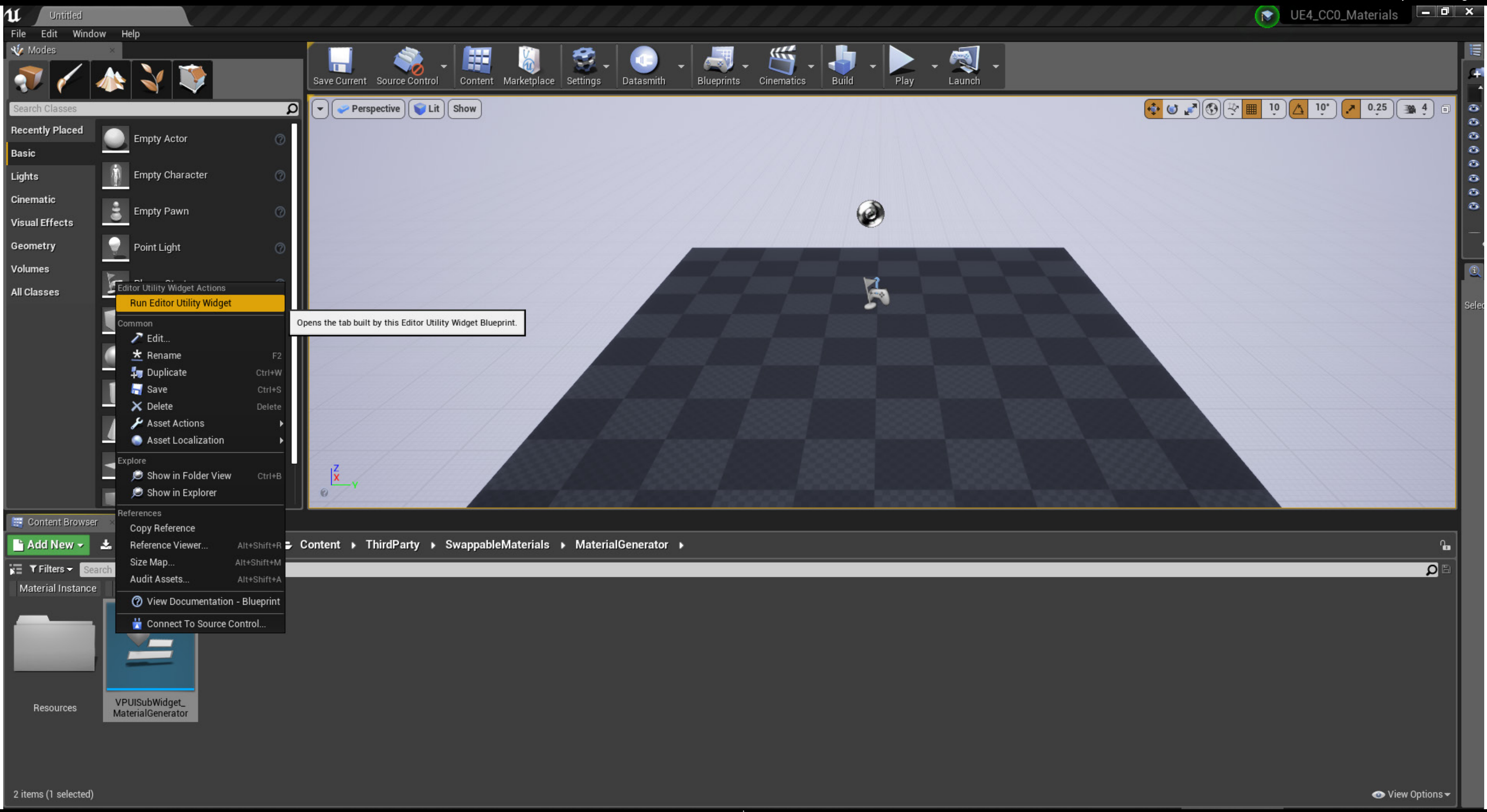
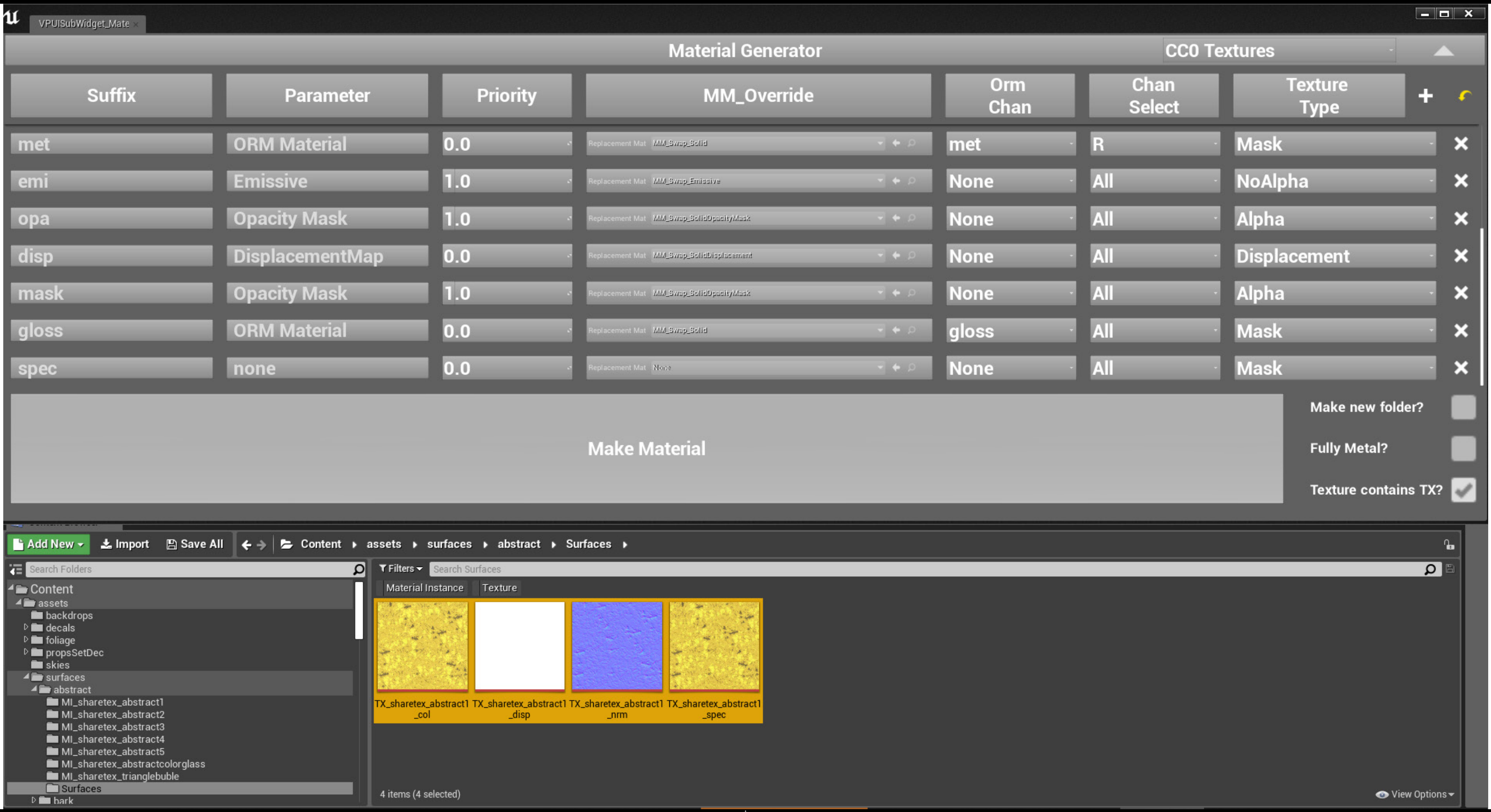


Material Generator

Version: 1.0
17 November 2019
Created by: Dan Corrigan



This tool can be found in Content->ThirdParty->SwappableMaterials->Material Generator
It is designed to create material instances from groups of textures that follow a naming convention: TX_TextureName_parameter or TextureName_parameter
Right click the Editor utility widget and select run at the top to get started.



With the tool open, select a preset (top right), find a group of texture files you wish to make a material from and press make material.
If you wish the material to be created in a new folder named after the material, tick Make new folder? If the material should be metal and does not have a metallic map, tick fully metal?
At the end of this guide you will find a section on customizing parameters to suit the specified naming convention.

VPUISubWidget_Mate x

Material Generator

CCO Textures

Suffix	Parameter	Priority	MM_Override	Orm Chan	Chan Select	Texture Type	+
col	BaseColor	0.0	Replacement Mat <u>MM_Swap_Solid</u>	None	All	NoAlpha	✕
nrm	Normal	0.0	Replacement Mat <u>MM_Swap_Solid</u>	None	All	Normal	✕
ORM	ORM Material	0.0	Replacement Mat <u>MM_Swap_Solid</u>	None	All	Mask	✕
rgh	ORM Material	0.0	Replacement Mat <u>MM_Swap_Solid</u>	rgh	R	Mask	✕
ao	ORM Material	0.0	Replacement Mat <u>MM_Swap_Solid</u>	ao	R	Mask	✕
met	ORM Material	0.0	Replacement Mat <u>MM_Swap_Solid</u>	met	R	Mask	✕
emi	Emissive	1.0	Replacement Mat <u>MM_Swap_Emissive</u>	None	All	NoAlpha	✕

Make Material

Make new folder?

Fully Metal?

Texture contains TX?

Add New Import Save All

Content ▶ assets ▶ surfaces ▶ abstract ▶ Surfaces ▶

Search Folders

Content

- assets
 - backdrops
 - decals
 - foliage
 - propsSetDec
 - skies
- surfaces
 - abstract
 - MI_sharetex_abstract1
 - MI_sharetex_abstract2
 - MI_sharetex_abstract3
 - MI_sharetex_abstract4
 - MI_sharetex_abstract5
 - MI_sharetex_abstractcolorglass
 - MI_sharetex_trianglebubble
 - Surfaces
- hark

Filters Search Surfaces

Material Instance

Texture

MI_sharetex_abstract1

TX_sharetex_abstract1_col

TX_sharetex_abstract1_disp

TX_sharetex_abstract1_nrm

TX_sharetex_abstract1_ORM

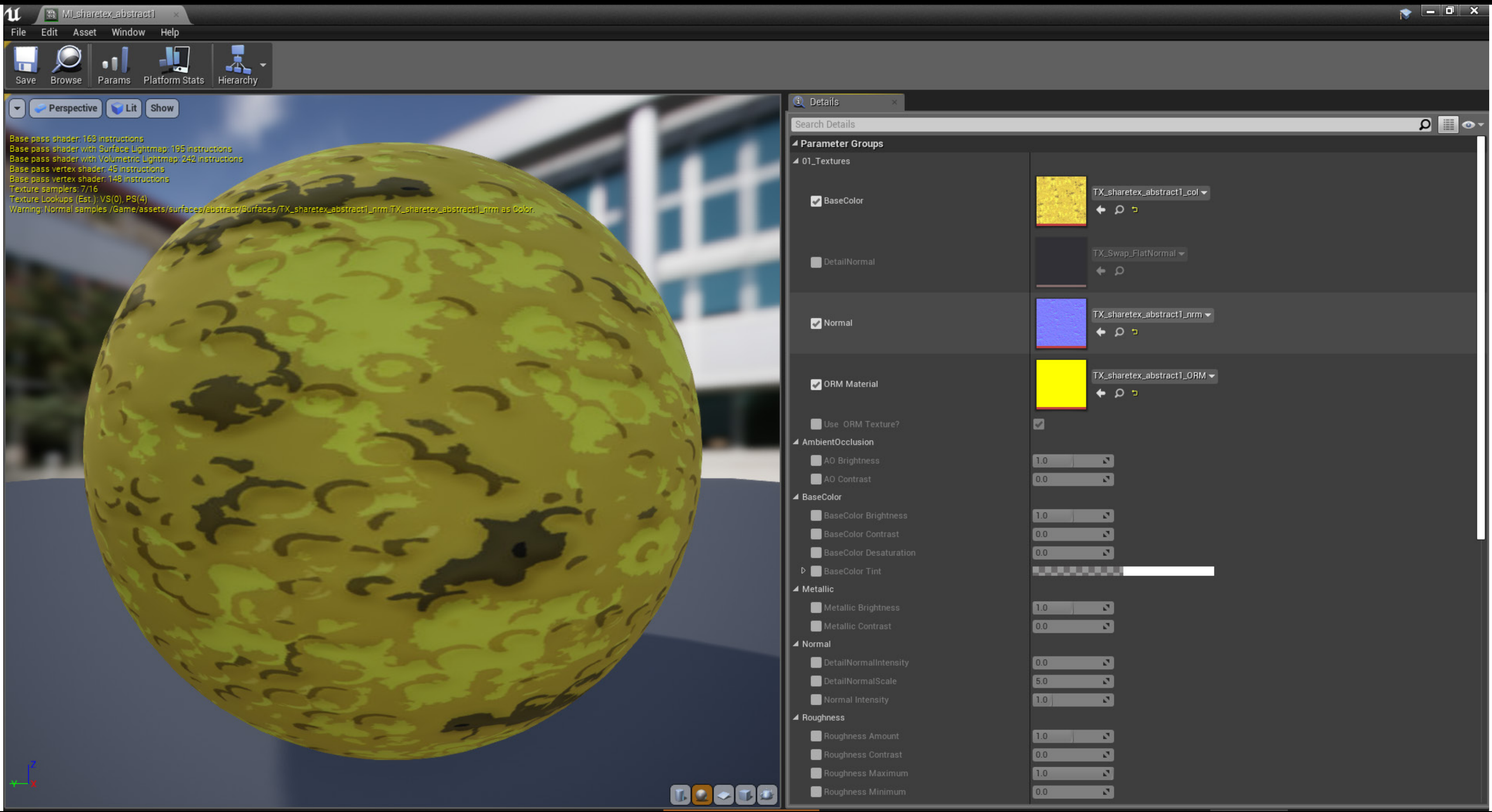
TX_sharetex_abstract1_rgh

TX_sharetex_abstract1_spec

7 items (5 selected)

View Options

The tool will create a material instance in the desired folder and an ORM texture if the textures meet the prerequisites. There is currently a bug where the tool will not create an ORM texture the first time around. Running make material several times will solve this issue, and it should not show up again until you close the widget.



The material instance created will have the maps populated to the correct locations.

VPUISubWidget_Mate x

Material Generator

Megascans

Suffix	Parameter	Priority	MM_Override	Orm Chan	Chan Select	Texture Type	
Albedo	BaseColor	0.0	Replacement Mat MM_Swap_Solid	None	All	NoAlpha	X
Normal	Normal	0.0	Replacement Mat MM_Swap_Solid	None	All	Normal	X
ORM	ORM Material	0.0	Replacement Mat MM_Swap_Solid	None	All	Mask	X
Roughness	ORM Material	0.0	Replacement Mat MM_Swap_Solid	rgh	R	Mask	X
AO	ORM Material	0.0	Replacement Mat MM_Swap_Solid	ao	R	Mask	X
met	ORM Material	0.0	Replacement Mat MM_Swap_Solid	met	R	Mask	X
Emissive	Emissive	1.0	Replacement Mat MM_Swap_Emissive	None	All	NoAlpha	X

Make Material

Make new folder?

Fully Metal?

Texture contains TX?

Add New Import Save All

Content Megascans_2k Surface 02_Icelandic_Sand_Rock_2x2_M_tepffaxg

Search Folders

paper

plastic

prebuiltFacade

rockStoneSand

roofing

rope

skin

technologySciFi

wood

Megascans_2k

3D_Asset

Master_Materials

Surface

010_Icelandic_Mossy_Gravel_2x2_M_td3ibe2q

01_Icelandic_Scattered_Rocks_2x2_M_tfuhff0g

02_Icelandic_Sand_Rock_2x2_M_tepffaxg

03_Icelandic_Lava_Rock_2x2_M_tfyhfgzl

04_Icelandic_Sharp_Rock_2x2_M_tfomccmq

Filters

Search 02_Icelandic_Sand_Rock_2x2_M_tepffaxg

Material Instance

Texture

02_Icelandic_Sand_Rock_2x2_M_tepffaxg_2K_inst

MI_tepffaxg_2K

tepffaxg_2K_Albedo

tepffaxg_2K_Displacement

tepffaxg_2K_Normal

tepffaxg_2K_Roughness

TX_tepffaxg_2K_ORM

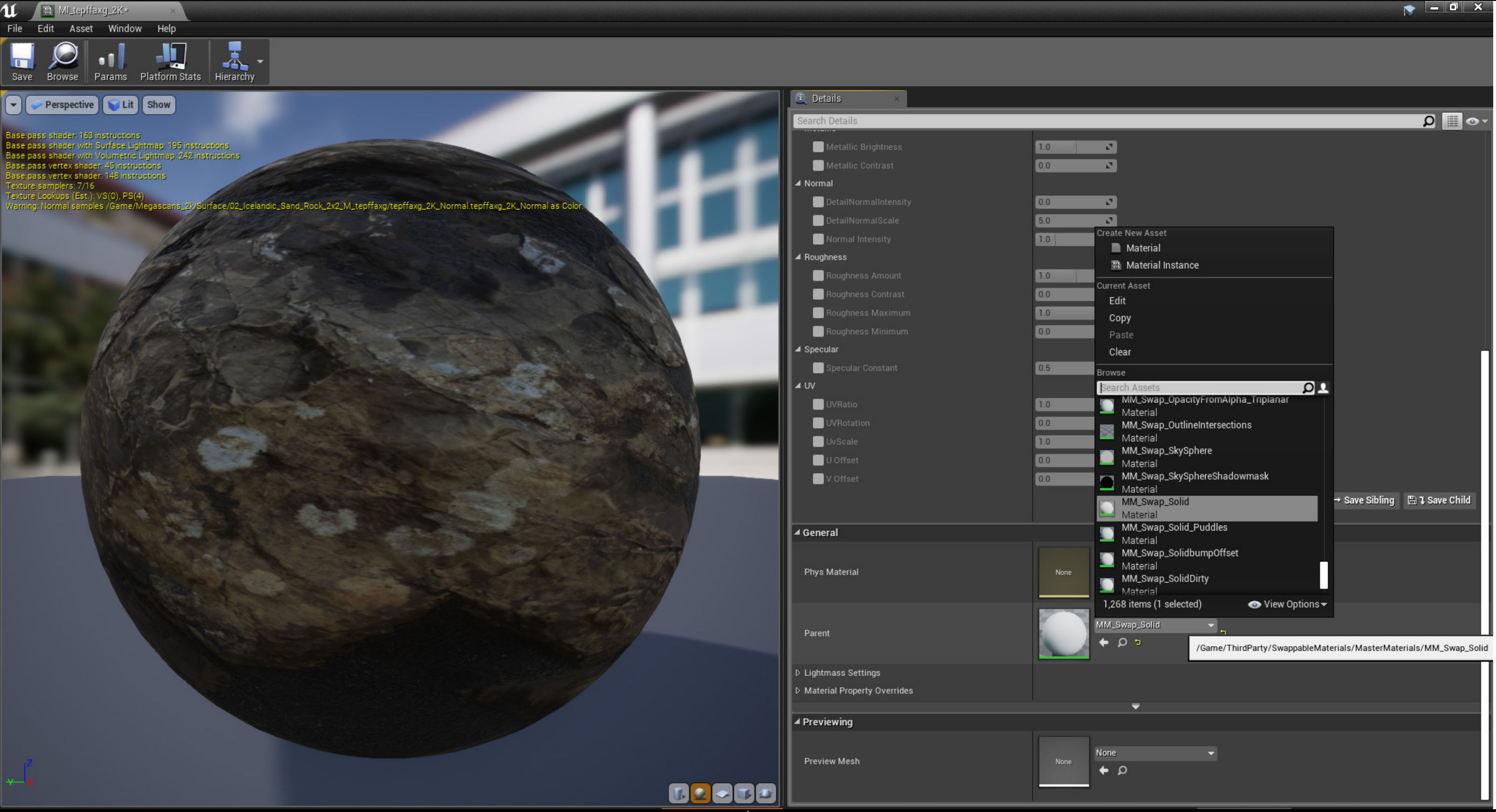
7 items (4 selected)

View Options

This tool has a megascans preset built in to generate a brand new material instance based off a megascans surface. In the future I will add a button to convert a selected material to a swappable material so you do not end up with duplicate material instances. Note that since megascans textures do not start with TX, the preset unchecks Texture Contains TX?

Material Generator

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For any material instance generated by this tool, you can change the parent to another swappable material and all the texture maps should convert over.

VPUISubWidget_Mate x

Material Generator

CCO Textures

Suffix	Parameter	Priority	MM_Override	Orm Chan	Chan Select	Texture Type	+ ↻
met	ORM Material	0.0	Replacement Mat MM_Swap_Solid	met	R	Mask	✕
emi	Emissive	1.0	Replacement Mat MM_Swap_Emissive	None	All	NoAlpha	✕
opa	Opacity Mask	1.0	Replacement Mat MM_Swap_SolidOpacityMask	None	All	Alpha	✕
disp	DisplacementMap	0.0	Replacement Mat MM_Swap_SolidDisplacement	None	All	Displacement	✕
mask	Opacity Mask	1.0	Replacement Mat MM_Swap_SolidOpacityMask	None	All	Alpha	✕
gloss	ORM Material	0.0	Replacement Mat MM_Swap_Solid	gloss	All	Mask	✕
spec	none	0.0	Replacement Mat None	None	All	Mask	✕

Make Material

Make new folder?

Fully Metal?

Texture contains TX?

- The suffix and parameter fields dictate what texture gets placed where in the new material instance. The suffix of a texture is the last bit of the name after the last underscore: TX_name_suffix
- The MM_Override parameter will allow you to change the parent material. If the priority field is higher than the one found by all previous textures, the generated material will use the MM_Override as its new parent. For instance, for the settings above, the material parent defaults to MM_Swap_Solid, however, if the group of textures you have selected includes an _emi, the parent will change to MM_Swap_Emissive since it has a priority of 1, higher than the default of 0
- Orm Chan dictates whether or not this texture should be baked into a combined map. This dropdown gives options for roughness, metallic, ambient occlusion, gloss (roughness inverted), alpha (will create an _opa map) and mask (_opa map inverted)
- Chan Select is used with ORM Chan and will allow you to choose which channel (RGBA) from the source texture is used in the final baked texture. Useful if you have RMA textures to convert to ORM, or Alpha channels in your Base Color
- Texture Type dictates the compression settings of the final texture. These compression settings allow for less texture memory to be taken up, especially when you compress without alpha
- Next to texture type is a plus to add a new line and each line has an x to remove it. The yellow arrow next to add will revert the tool back to the currently selected preset
- Next to Make Material at the bottom, there is an option to place all textures and the material instance into a nested folder
- The fully matal parameter will bake a white image into the metallic channel instead of the default black into the ORM. Useful if you are converting megascans metals which do not have a metallic texture