

Substance Painter texture assign for Unity

Assigning textures to materials in Unity is incredibly tedious and time consuming. Each material has 4 or 5 textures which you need to find, then drag and drop onto the material.

The TextureAssign Unity editor script solves this problem by automating assigning the textures to the materials in Unity. It works by name-matching textures with materials.

In Substance Painter, the name of the Texture Set is the same as the name of the material in the mesh file. In Unity, the name of the material (automatically assigned on import) is also the same as the name of the material in the mesh file. When exporting textures in Substance Painter, the Texture Set name (and thus material name) is automatically added to the texture. Therefore, the texture names will be the same as the material names in Unity and can be automatically matched.

Substance Painter texture export

If you want to export AO maps which have been modified in the stack (such as baking error fixed), you can either make your own export preset file, or use the Unity Metallic preset provided in the package. The preset file (.spexp file) needs to be moved to this directory:

C:\Users*username*\Documents\Substance Painter\shelf\export-presets

To manually make a preset file:

- Press Ctrl-Shift-E to open the texture export dialog.
- Select the Configuration tab.
- Right click the Unity preset and select Duplicate.
- Rename the duplicate.
- At the Output Maps section, click on the button "Gray".
- Drag and drop "Mixed AO" from "Converted maps" (not from mesh maps or input maps) to the Gr icon on the newly created texture slot.
- After drag and dropping the AO channel, a dropdown box appears. Select "Gray Channel".
- At the name textbox, delete Grayscale.
- Click on the \$ sign and select "\$textureSet".
- Add "_AO" to the end of the name, so it now is "\$textureSet_AO".

The height map can be added using the same method, except it should be taken from the Input Maps. Also, add "_Height" to the end of the name because this is what the Unity editor script expects.

Once the export preset is installed or created, you can export the textures:

- Select the Export tab.
- Select the newly created preset as the Config.
- Select Export.

TextureAssign script usage

Installation:

Create a folder called "Editor" in your Unity project and place the file TextureAssign.cs in this folder.

First import all the textures into the Unity project, preferably organized in folders.

Open the Editor script: Window -> TextureAssign -> Assign Textures.

There are a few ways to assign textures:

1. Press the button "Assign textures".

-No folders which contain textures are selected: all textures are applied to the matching materials in the project.

-Folders which contain textures are selected: only textures from selected folders are applied to the matching materials in the project.

2. Press the button "Assign to selected object".

-A folder which contains textures, and an object are selected: only textures from the selected folder are applied to the selected object. A new material is created and applied to that object.

-No folder which contains textures is selected, and only an object is selected: textures for the selected object are applied automatically based on a matching object name and texture folder name. The name of the folder containing the textures for the object must be the same (or part of it) as the name of one of the parent objects of the selected object.

The material of the selected objects can be made unique by pressing the button "Make material unique". This will create a new material with the same properties and textures applied.

Texture compression can be automatically set to highest quality Crunch. This will take a long time to process. If a folder is selected which contains textures, only those textures will be processed.

An option is given to replace redundant textures with color values. Processing this will take a long time so only use it if your project contains uniform textures. It is recommended that you don't delete redundant textures though, because it will save you manual work.

An option is given to process opacity. When enabled, it checks every pixel in the albedo texture to see if the shader rendering mode has to be set to transparent. Processing this will take a long time so only use it if your project contains textures which contain transparency.

The maximum texture size is automatically set to 4k.

Normal maps are automatically set to the normal map type.

Limitations

-Currently only jpg and png textures are supported.

-Make material unique only works for meshes with only one material applied.

-Processing can take a very long time, especially if many textures and materials are used and if replace redundant and process opacity are enabled. During this time the Unity UI becomes unresponsive and it can appear as if Unity has frozen, but this is normal.

-Your material names cannot contain any underscores (_) or spaces.