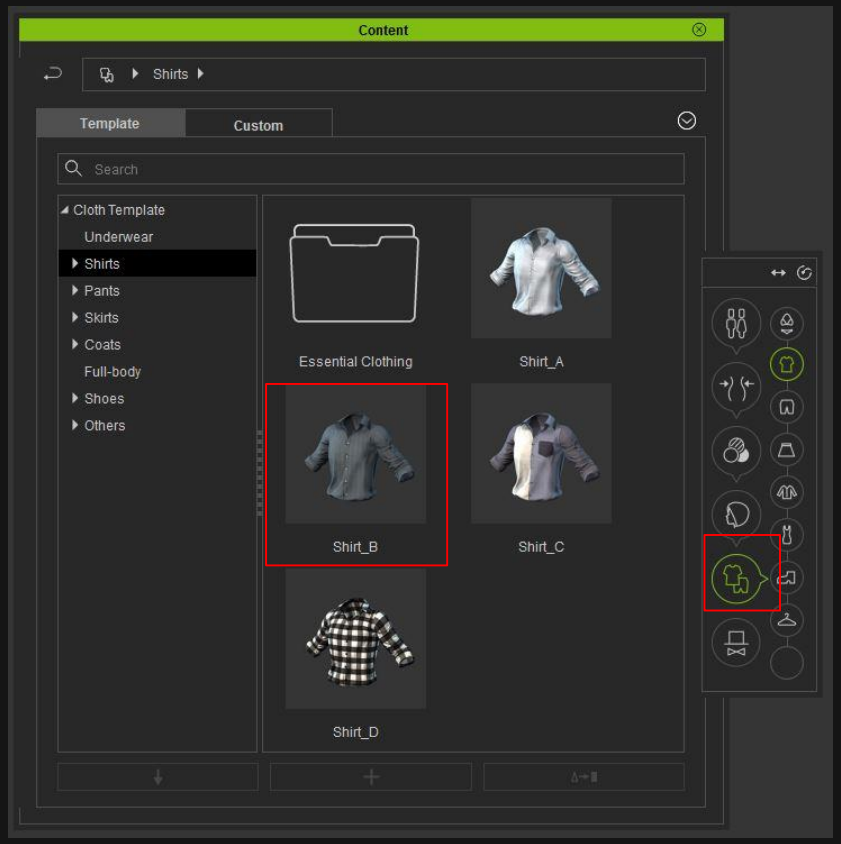
Character Creator

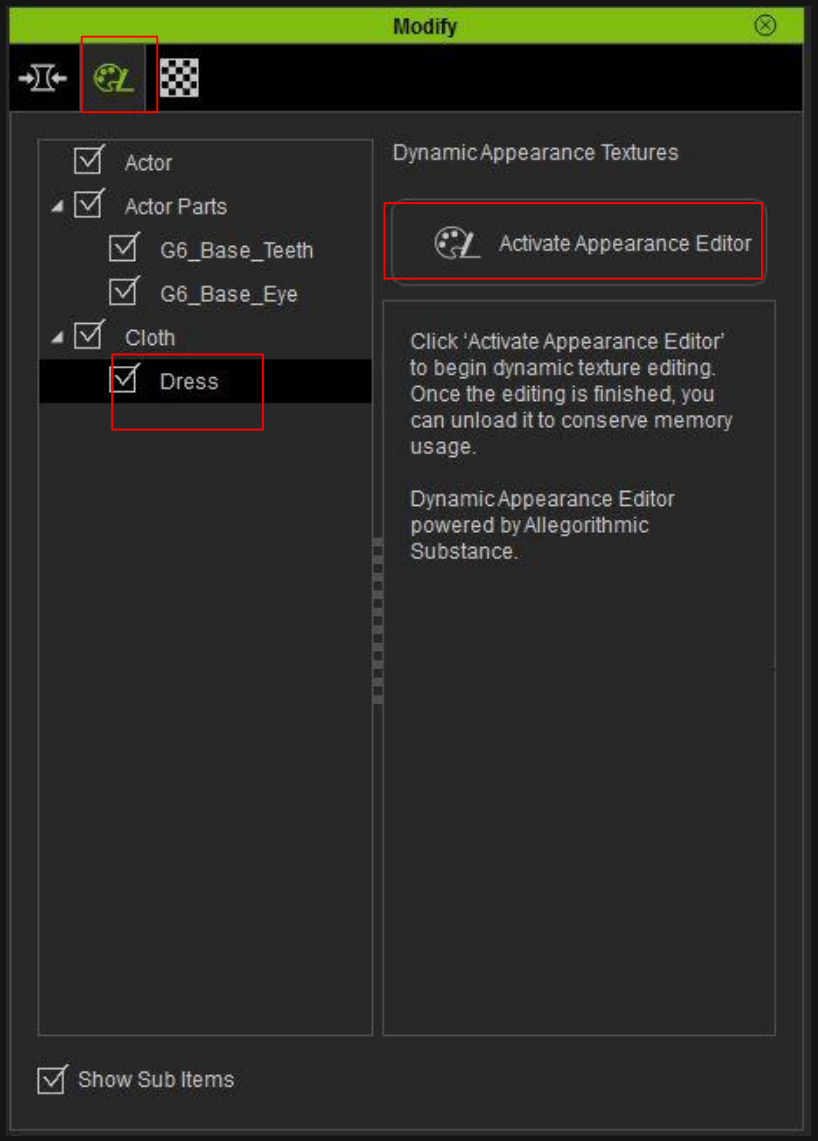
Clothing and Fabrics Design Guide

v1

Editing & Designing Clothing Texture



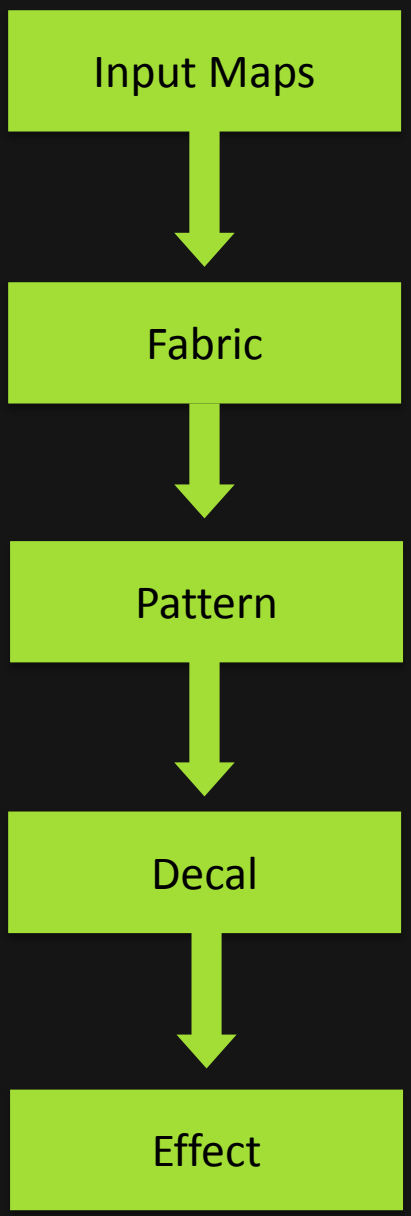
1. Open the Content Manager (shortcut: F4) , select the Clothing Icon, and double-click to apply a piece of clothing to the character



2. Click Modify to open the Modify Panel, select the appearance icon, and select the piece of clothing you want to edit.
3. Under the Dynamic Texture editor, press the “Activate Appearance Editor” button to start customizing the texture.

Clothing Customizations: The Fundamentals

- Each piece of clothing is made up of 5 Layers of customization, each layer below rests on top of the other in the actual 3D model texture. Think of it as a reversed Photoshop layer structure



The Base Normal Map, World Normal Map, AO and RGB mask for the object

Customize up to 7 different base fabric materials

Customize repeating plaid and patterns

Add up to 3 unique decals per item

Add procedural weathering effects and more

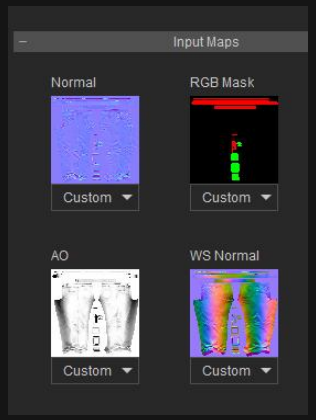
Maps

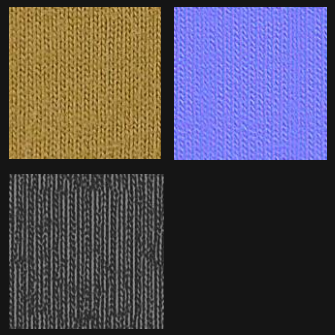
Fabric

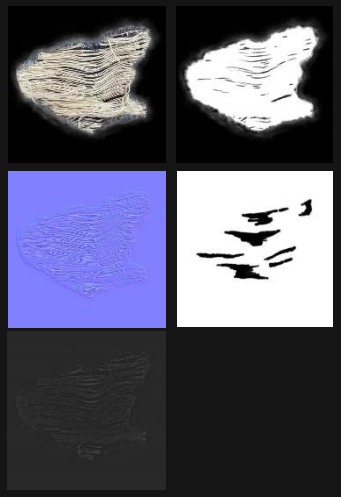
Decal

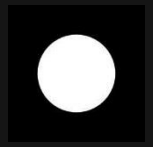
Pattern

Effect







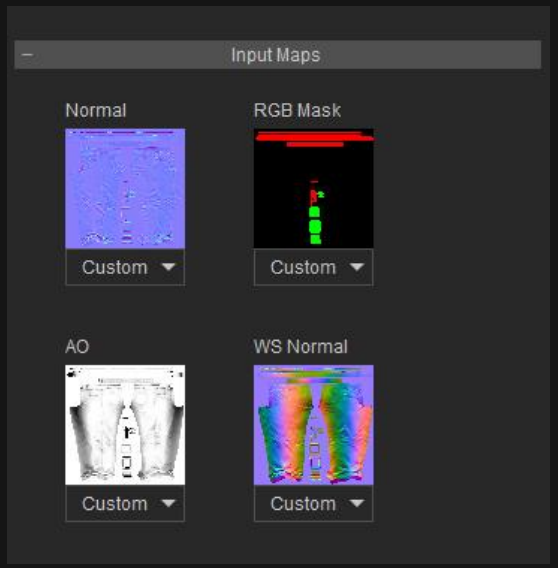


Input Maps

The Input map section contains four texture maps that come default with each piece of clothing

- **Normal Map**: Simulate lighting of bumps and dents
- **RGB Mask**: Marks the zone of each base fabric material, up to 7 different colors for 7 materials
- **AO (Ambient Occlusion) & World Space Normal Map**: used to generate procedural effects like weathering and dusts

Typically, a user should only modify the RGB Mask map, unless he has a good grasp on how normal maps work

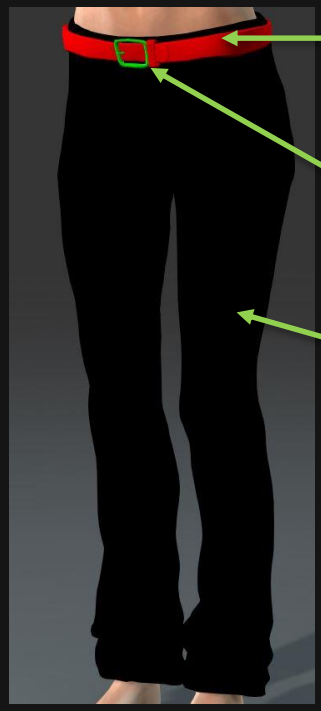


RGB Mask and Fabrics

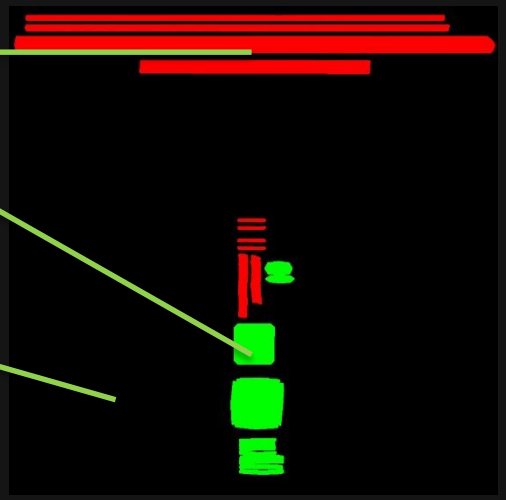
- The RGB mask map is based on the UV texture position of the clothing model
- Each color of the RGB mask map marks a unique Fabric material
- Example: This jean has 3 different unique materials. Black represents denim, Red is leather, and Green is metal (for the belt buckle)

Actual Model

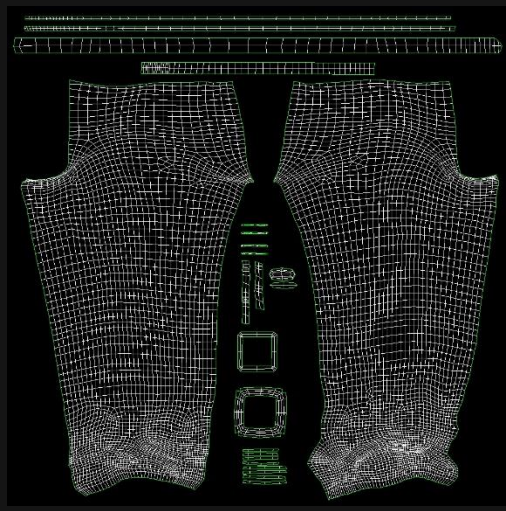
Model Overlay

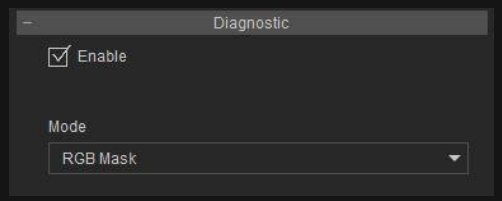


RGB mask map



UV map of pants



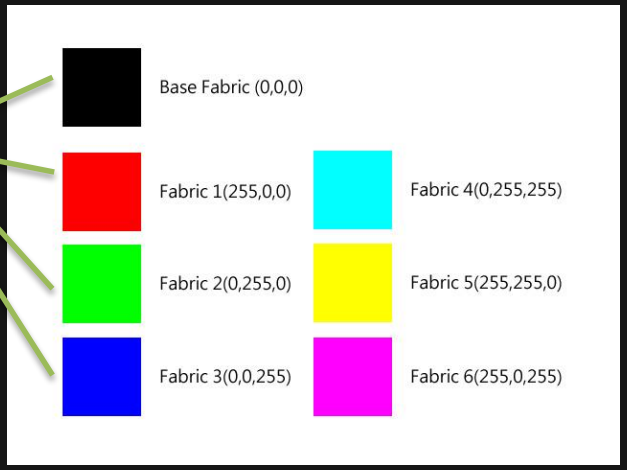


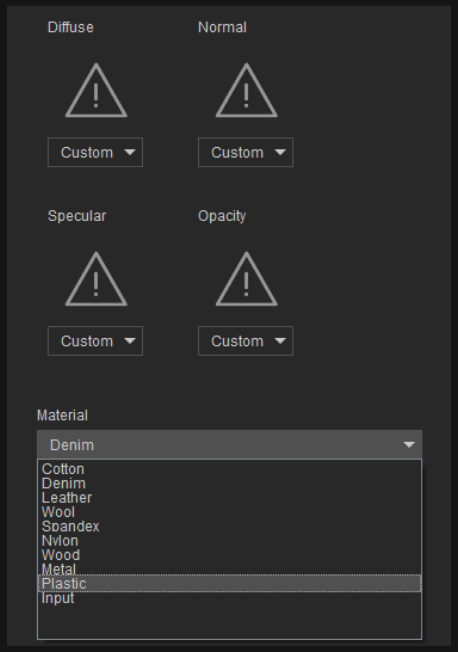
Note: Click enable under diagnostic to display RGB mask of clothing

- Under “Fabric”, there are a maximum of 7 unique fabric materials that you can customize from: base fabric to fabric 1 to 6

- Each color of the RGB mask corresponds to a particular Fabric number: Black color marks the base fabric, red marks Fabric 1, Green Marks Fabric 2, etc.

- For each Fabric, you can assign a unique material by using the drop-down menu .

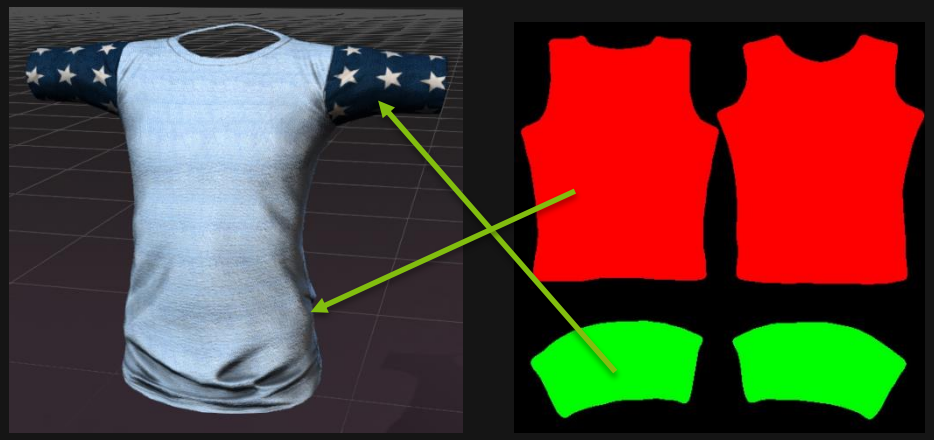


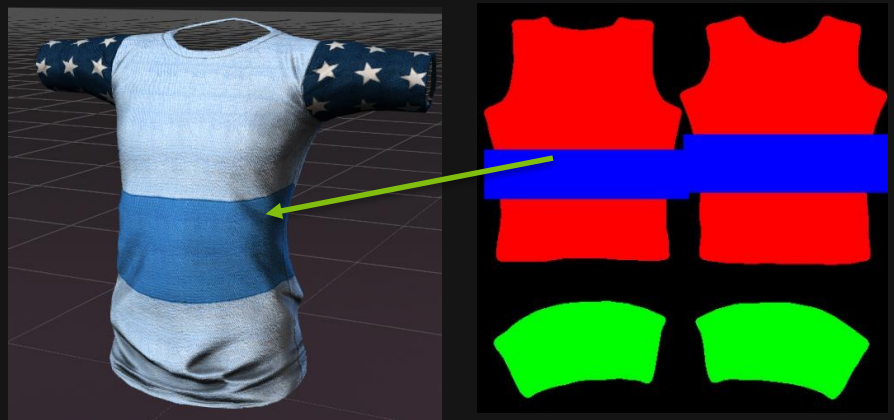


- By editing the RGB mask with Photoshop or any other image editing program, you can add and modify fabrics on the model

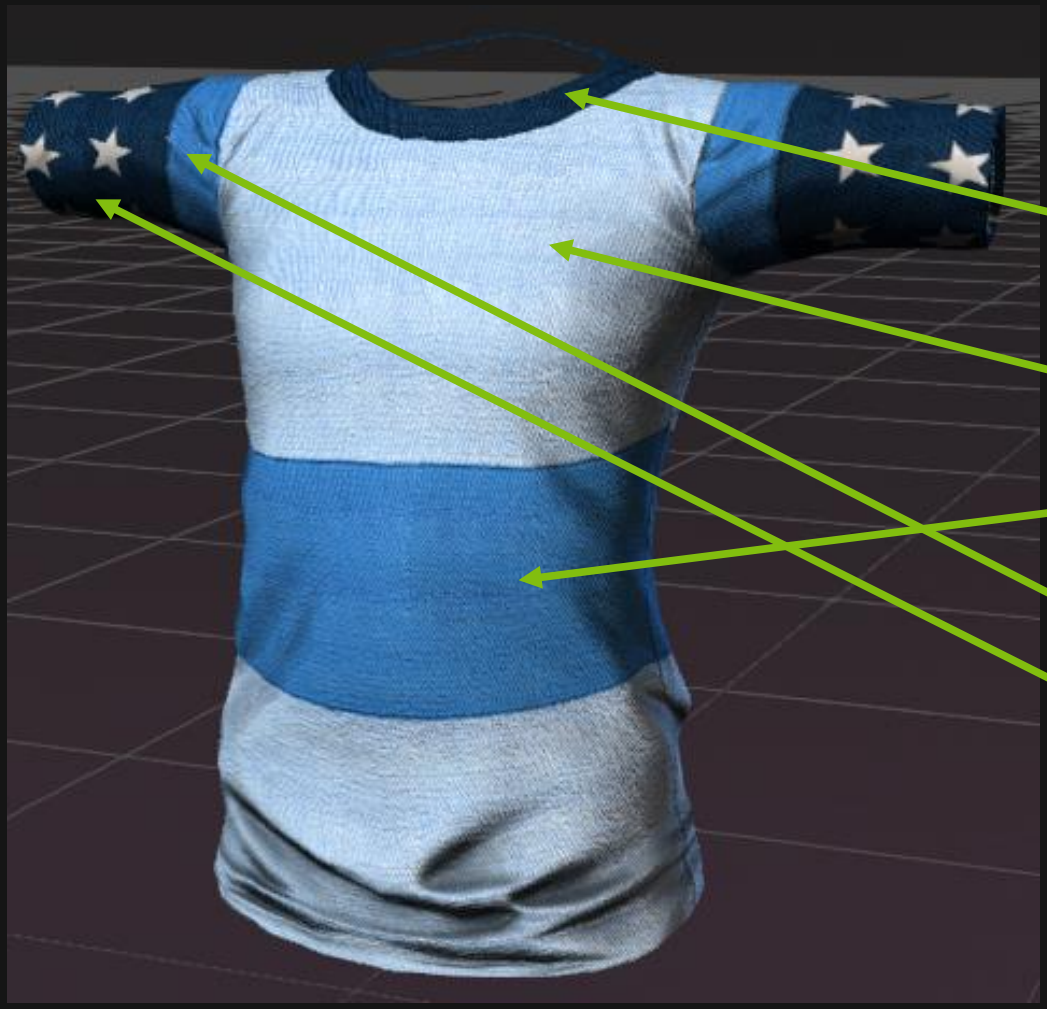
- For Example: this sweater has two unique materials: Red (which points to materials assigned to Fabric 1), and Green (which points to materials assigned to Fabric 2)

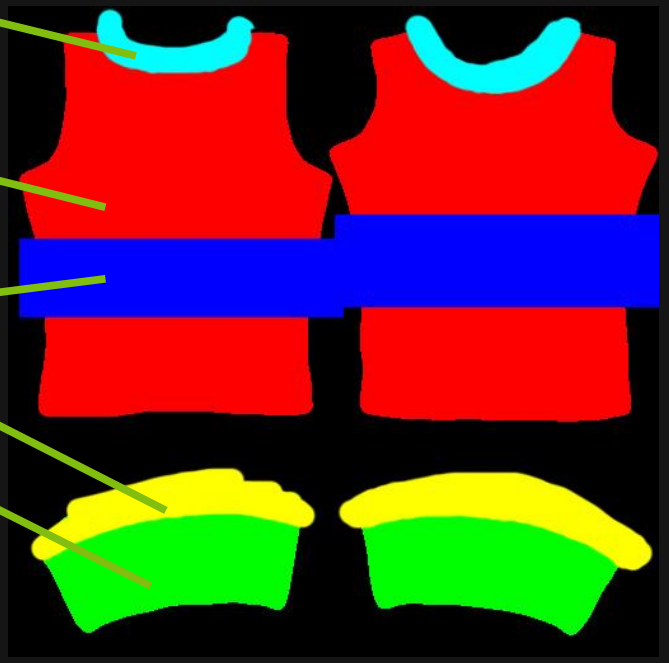
- By adding a third color, Blue on the RGB mask, it will assign that particular area of the sweater to a new material, which will be Fabric 3





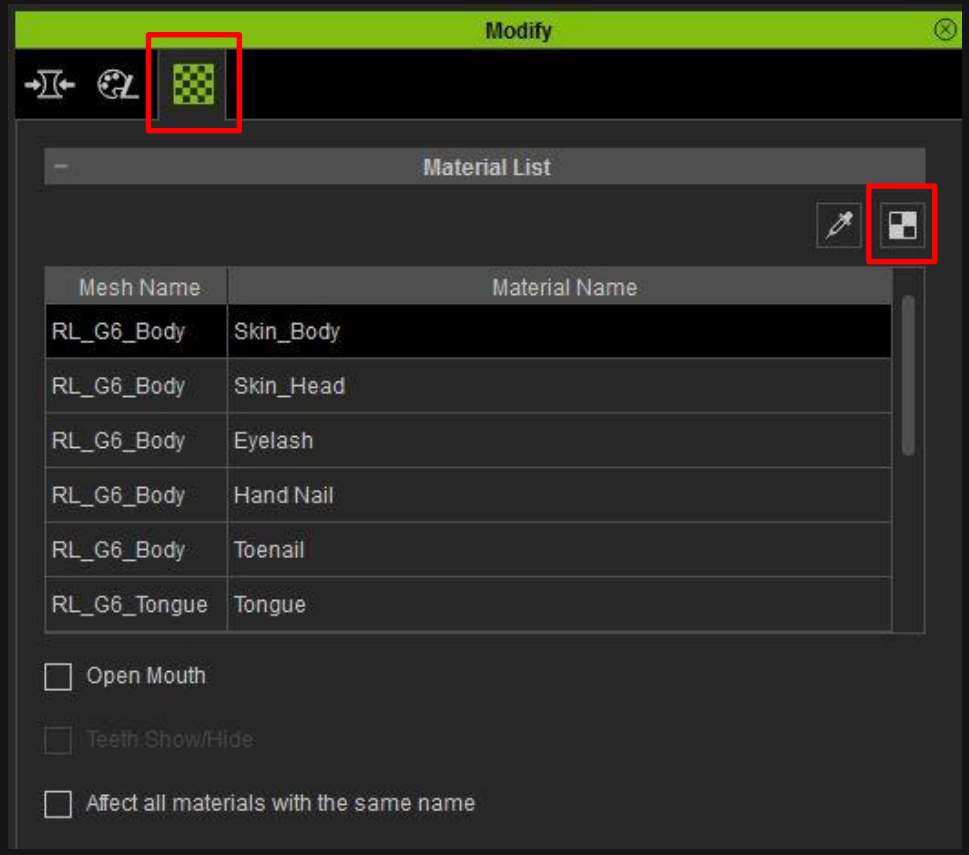
- Continue assigning different fabrics by adding mask color then selecting the appropriate material

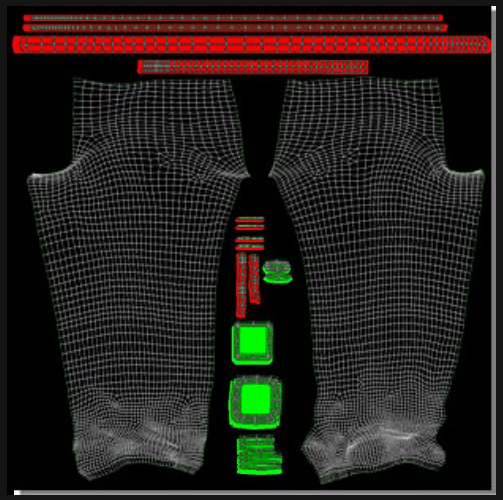




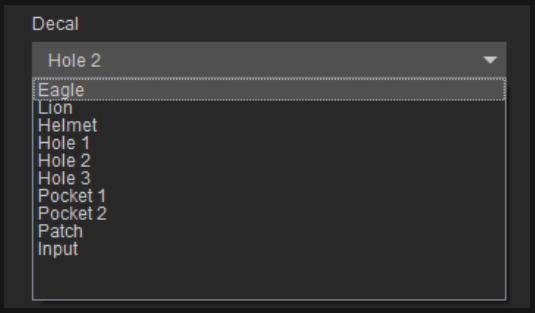
How to export UV wireframe map for 3D model

1. Under Modify panel, select material tab, and click the UV map icon, then select the your image editor program to continue.
2. Superimpose the UV map on top of the RGB mask map using Photoshop to precisely edit the masking area.



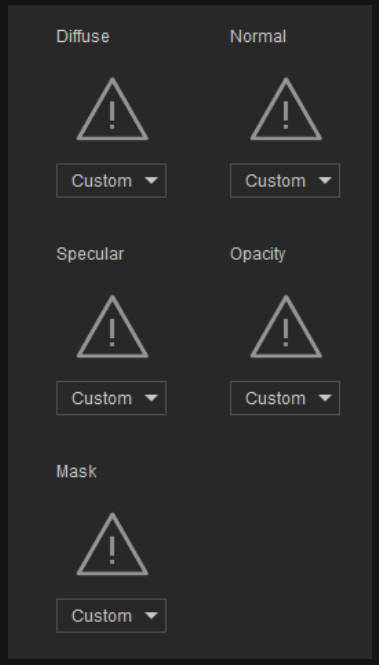


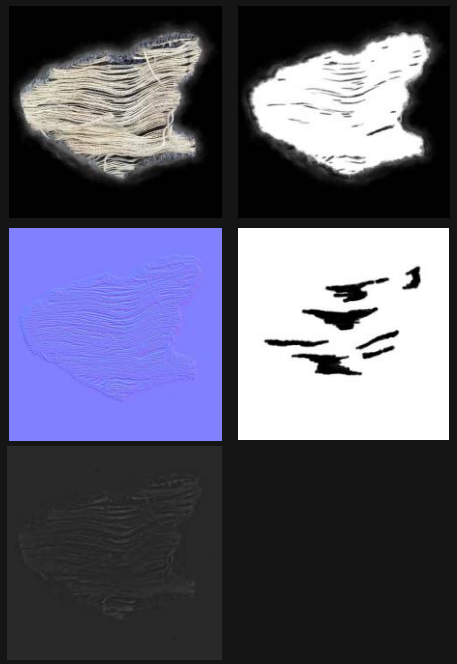
Decals



You can use decals to add a particular image to the model texture. There are currently nine embedded for you to try.

Three maximum decals are allowed for a particular clothing piece. You can adjust their positions accordingly.

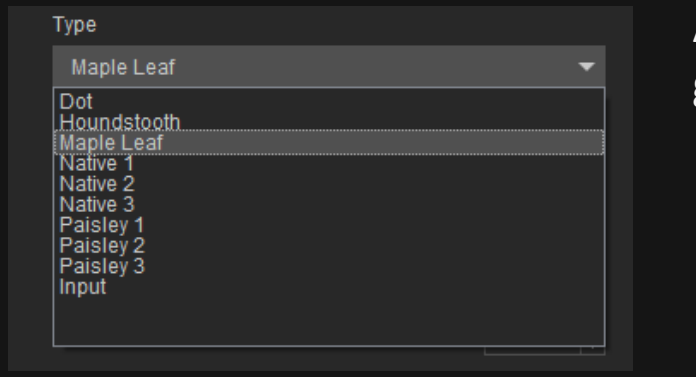


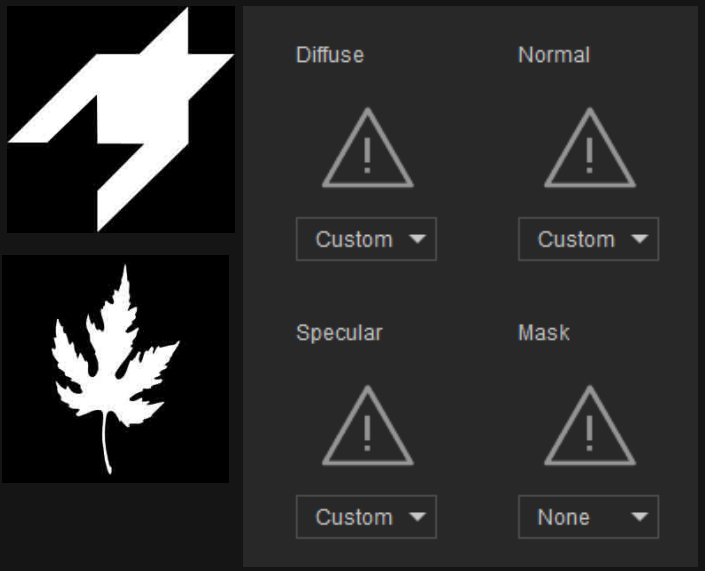


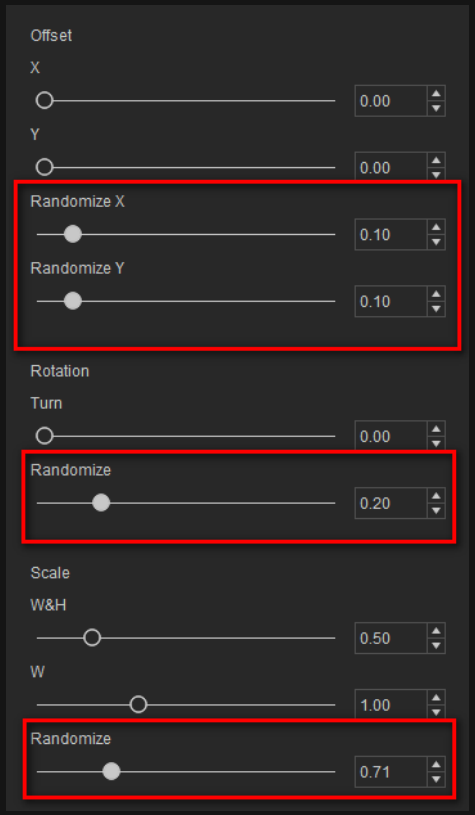
Pattern

Use pattern to create repeating textures on the clothing, such as checkered shirts.

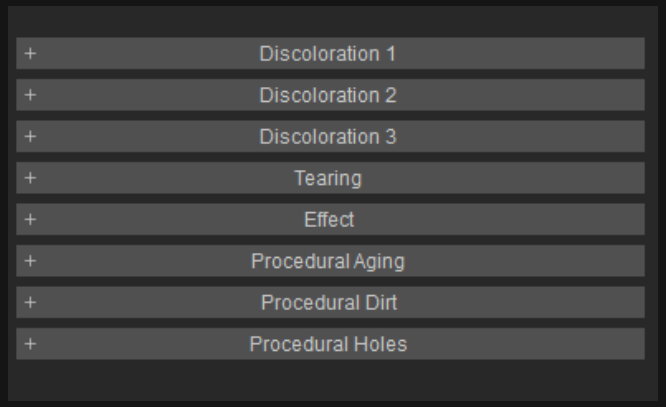
Also use this to add an alpha pattern, then randomize it to generate a unique look

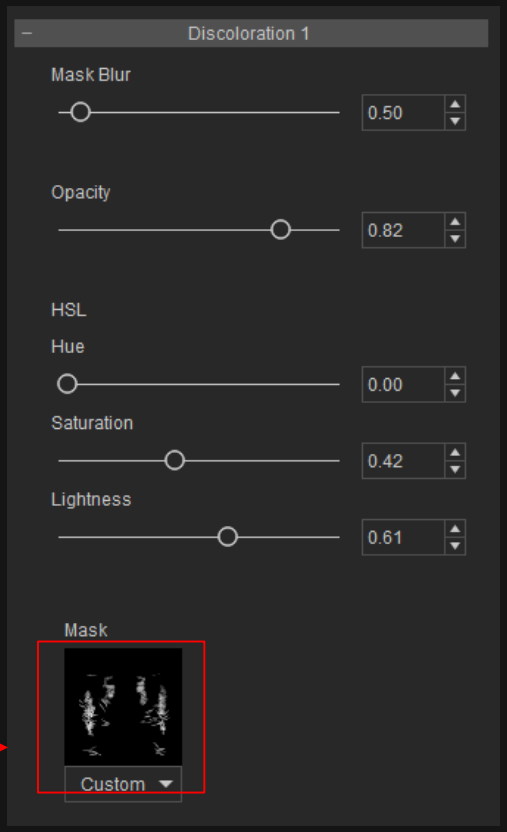






Effects



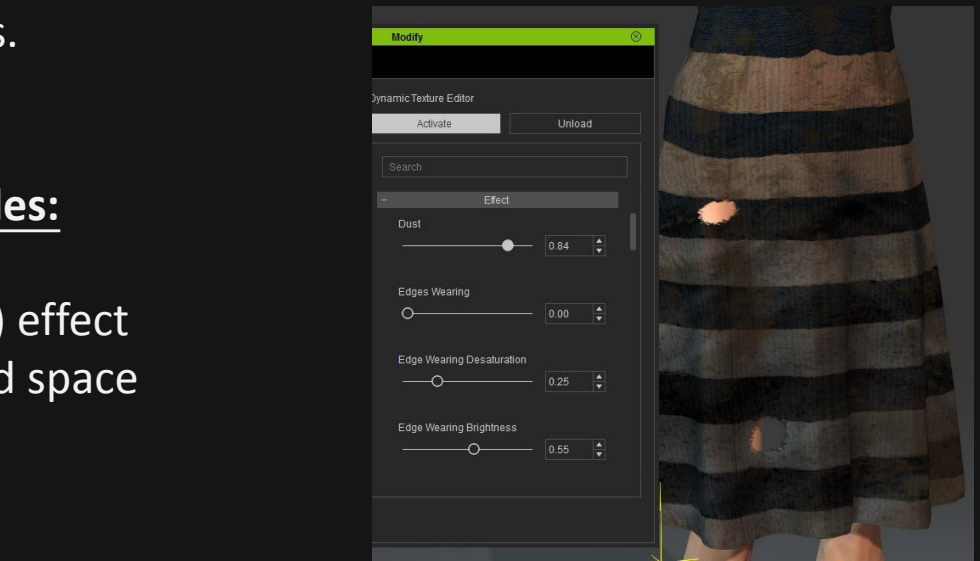


For Discoloration 1-3 and Tearing:

You can use customized Mask map and adjustment sliders to generate more detailed textures.

For Effect, Procedural Aging, Dirt and Holes:

This is a procedural (computer generated) effect based on normal map, AO map, and world space normal map.



Appendix 1 : List of Customizable Input Map

Input Map	Normal
	RGB Mask
	AO
	WS Normal
Fabric (1-7)	Diffuse
	Normal
	Specular
	Opacity
Pattern(1-3)	Diffuse
	Normal
	Specular
	Mask
Decal(1-3)	Diffuse
	Normal
	Specular
	Mask
	Opacity
Discoloration(1-3)	Mask
Tearing	Mask