

OUTDATED

DT version coming soon™ (no eta yet)

Intro

In this tutorial, I'll add some glow on the highlight of this hair:



This tutorial will cover how to create the penumbra mod, the actual edit in Photoshop, saving as a DDS file and the material setup for Alum level 2.

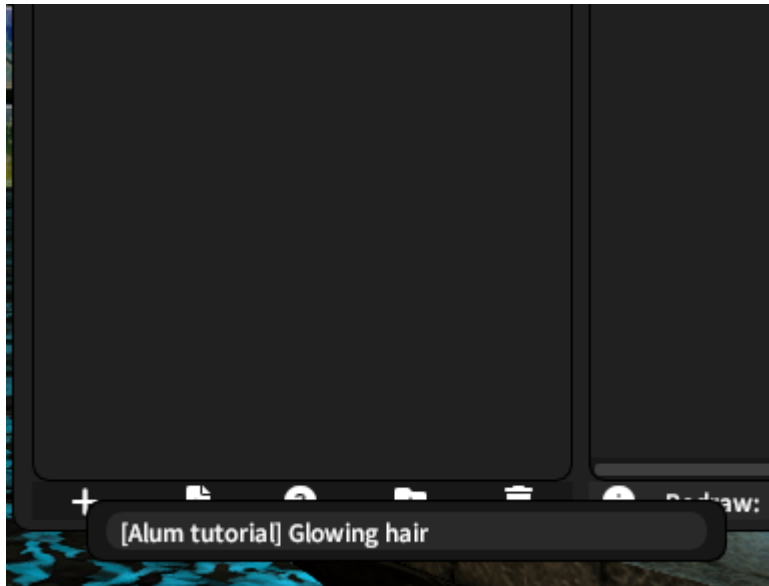
You'll need:

- Penumbra.
- [Atramentum Luminis mod](#) set to "Textures and Materials" for the Hair framework.
- Photoshop.
- [NVIDIA Texture Tools Exporter](#) to export as a DDS and use BC7 if you want. You'll need to create a dev account on nvidia but it's free. Note than exporting with PNG when you have 0 alpha could cause issues.
- [Alum's documentation](#).

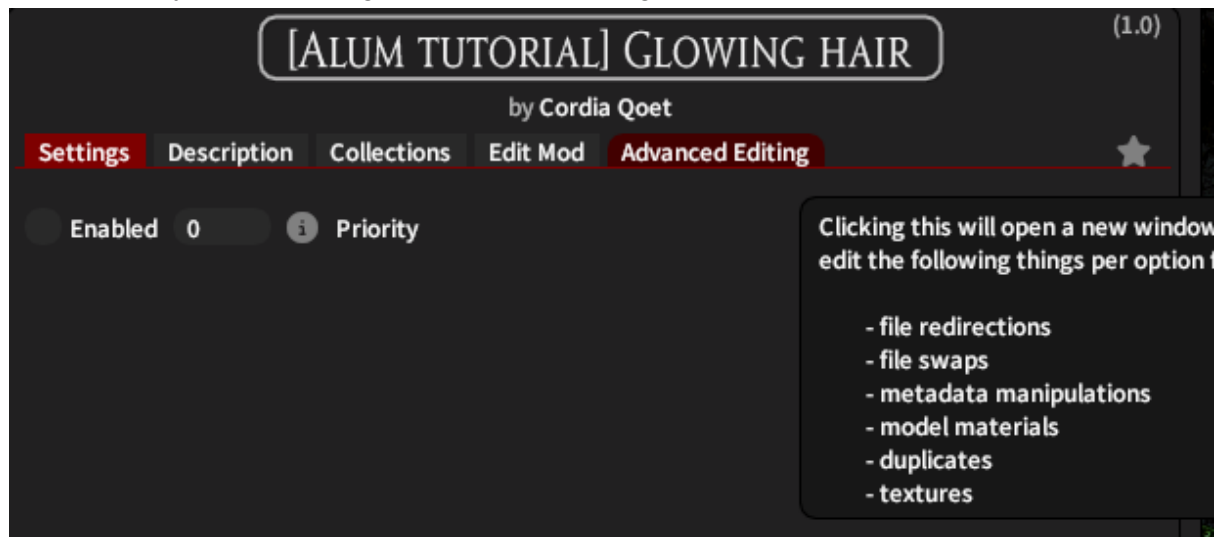
There is an alternative method without photoshop at the end, but this guide will use photoshop to show how to deal with RGBA channels and DDS export.

Create the mod in penumbra and get the texture

Start by creating the mod in Penumbra



Then, select your mod and go in advanced editing



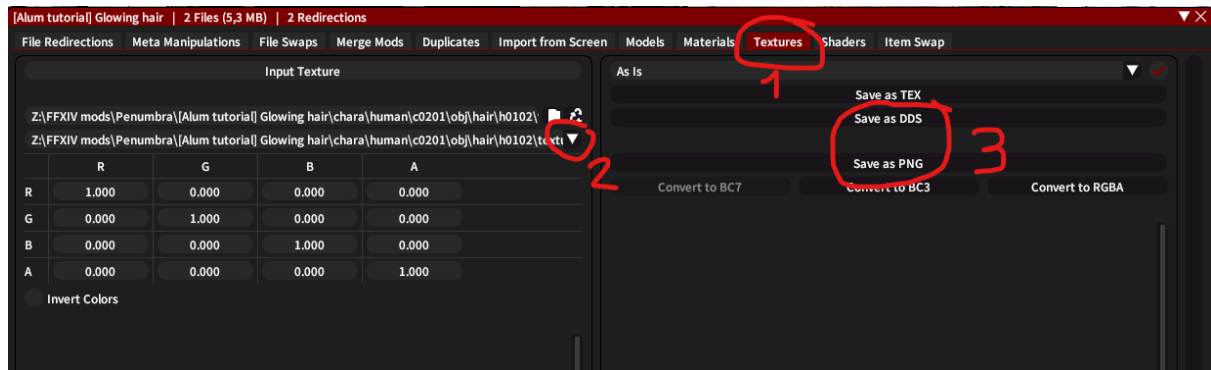
Go to the “Import from Screen” tab, hit “Refresh Character List” and look for your hair

[-] AuRa Female Hair (Hair) 102	chara/human/c1401/obj/hair/h0102/model/c1401h0102_hir.n z:\ffxiv mods\penumbra\bliss[hair]charming\charming base install\charming - female 102\chara\hum	
[-] Midlander Female Hair (Hair) 102	chara/human/c0201/obj/hair/h0102/material/v0001/mt_c020 z:\ffxiv mods\penumbra\bliss[hair]charming\charming base install\charming - female 102\chara\hum	
Shader Package	shader/sm5/shpk/hair.shpk	shader(sm5)shpk\hair.shpk
g_SamplerNormal	chara/human/c0201/obj/hair/h0102/texture/-c0201h0102_hi Z:\FFXIV mods\Penumbra\Bliss[Hair]Charming\charming base install\charming - female 102\chara\hu	
g_SamplerMask	chara/human/c0201/obj/hair/h0102/texture/-c0201h0102_hi Z:\FFXIV mods\Penumbra\Bliss[Hair]Charming\charming base install\charming - female 102\chara\hu	

Since glow on hair is only available on level 2, we'll need the material too, so save the material and the multi.

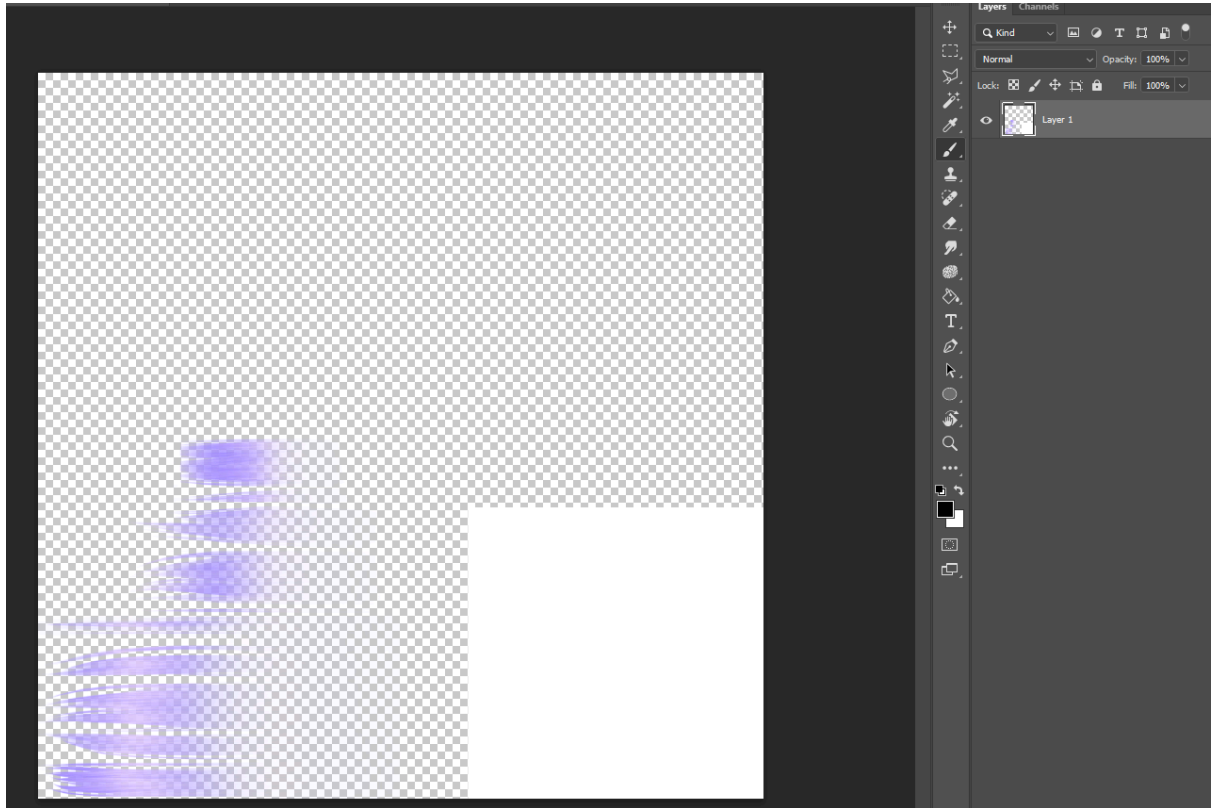
[+] AuRa Female Hair (Hair) 102	chara/human/c1401/obj/hair/h0102/model/c1401h0102_hir.n z:\ffxiv mods\penumbra\bliss\hair\charming(charming base install\charming - female 102\chara\hum		
[+] Midlander Female Hair (Hair) 102	chara/human/c0201/obj/hair/h0102/material/v0001/mt_c020 z:\ffxiv mods\penumbra\bliss\hair\charming(charming base install\charming - female 102\chara\hum		
Shader Package	shader/sm5/shpk/hair.shpk		
g_SamplerNormal	chara/human/c0201/obj/hair/h0102/texture/-c0201h0102_hi Z:\FFXIV mods\Penumbra\Bliss\Hair\Charming(charming base install\charming - female 102\chara\hu		
g_SamplerMask	chara/human/c0201/obj/hair/h0102/texture/-c0201h0102_hi Z:\FFXIV mods\Penumbra\Bliss\Hair\Charming(charming base install\charming - female 102\chara\hu		

Now, go in the “Textures” tab and get the texture in the dropdown on the left (you should have only one), save it as PNG or DDS on the right. Save it wherever you want.

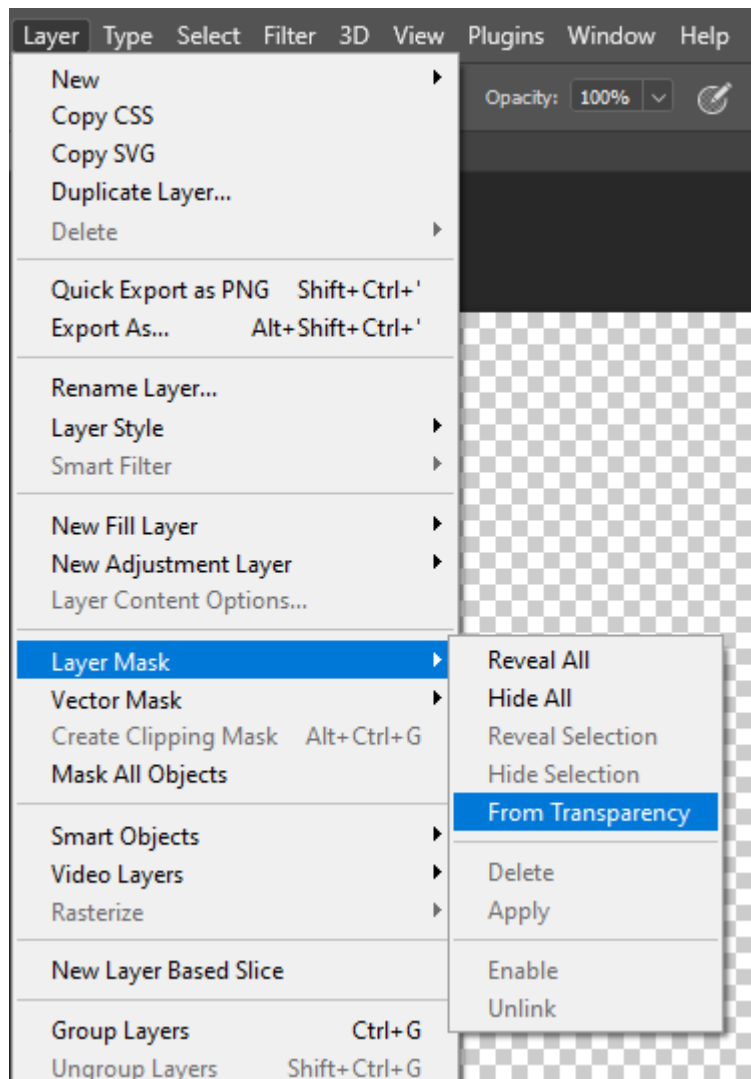


Photoshop

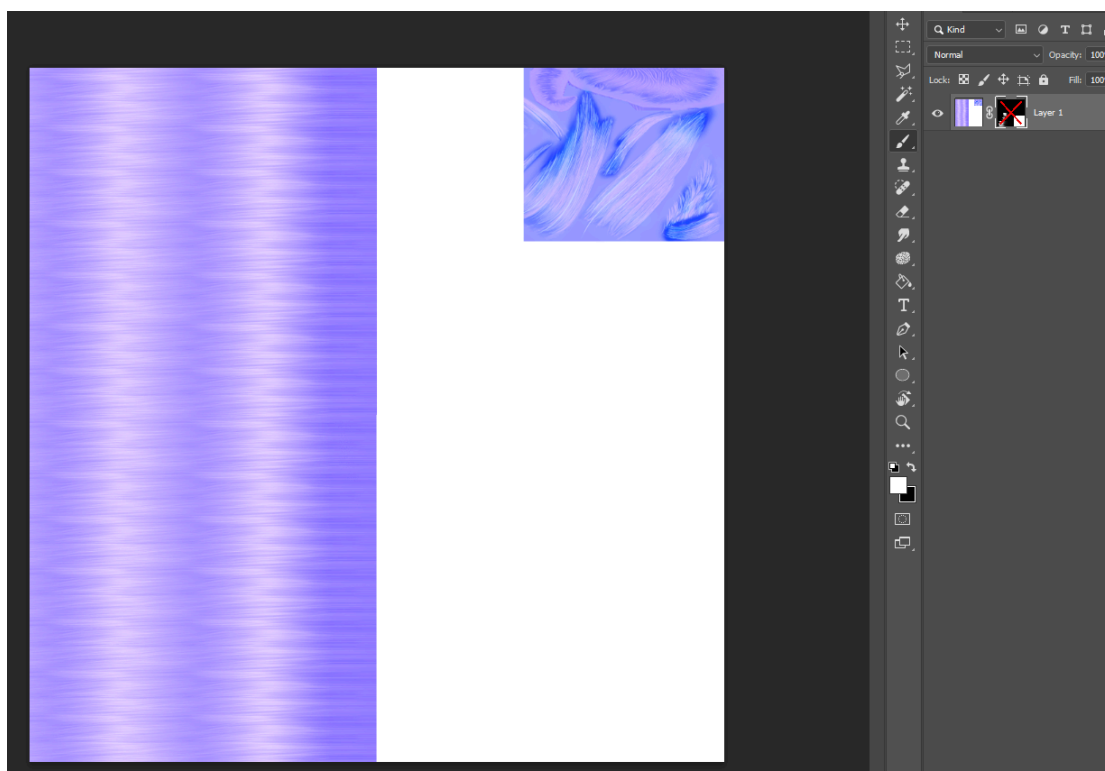
Open your texture in photoshop, for my exemple, the texture looks like that



You should get the alpha in a layer mask, for that, go in Layer -> Layer Mask -> From Transparency



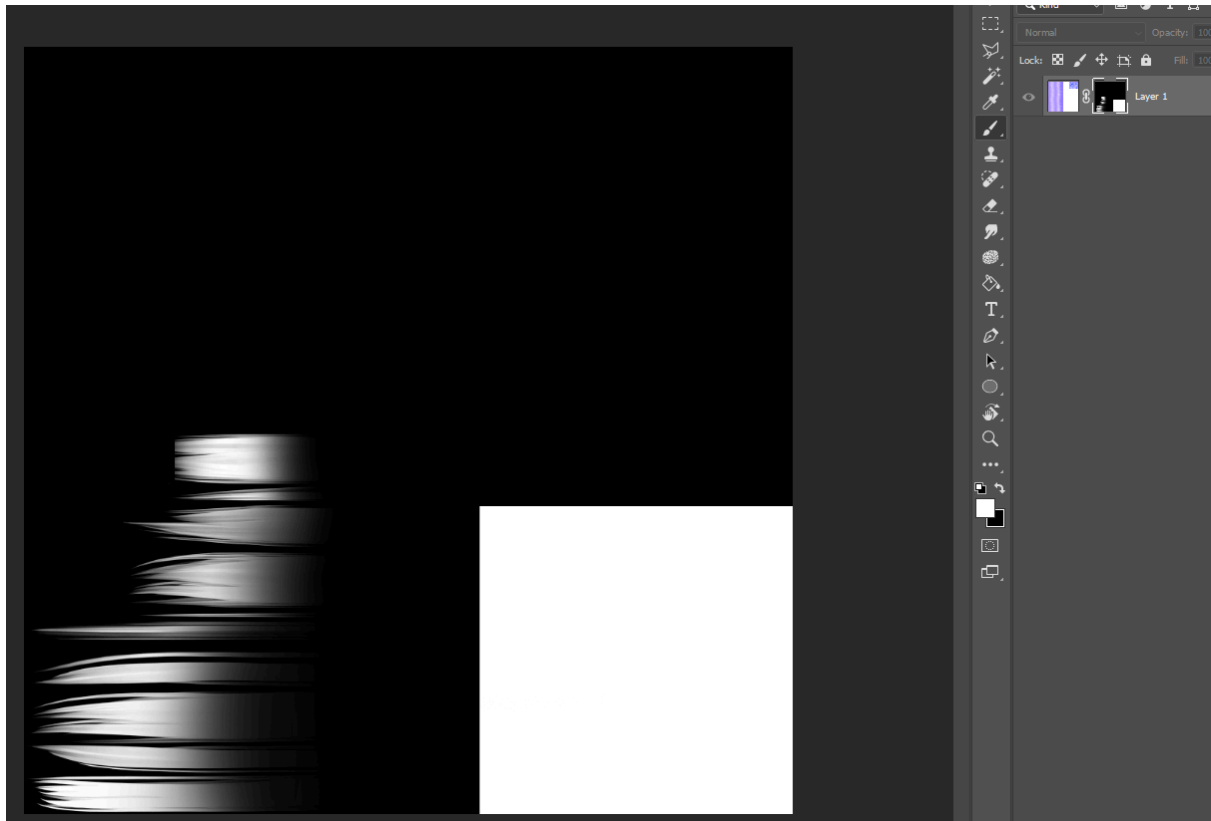
Now if you shift click the mask to hide it, you should be able to see what was hidden by the alpha



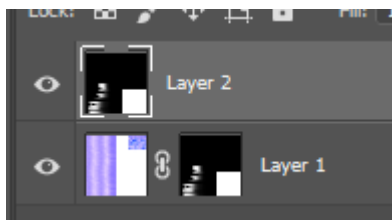
Now, since I want to have glow on my highlights, you have to know how the game stores that data. You can look up there:

[+ FFXIV/TexTools Reference Information](#)

Highlights color influence is stored in the alpha channel, which we conveniently just isolated in a mask, so we can Alt+click the mask to show it



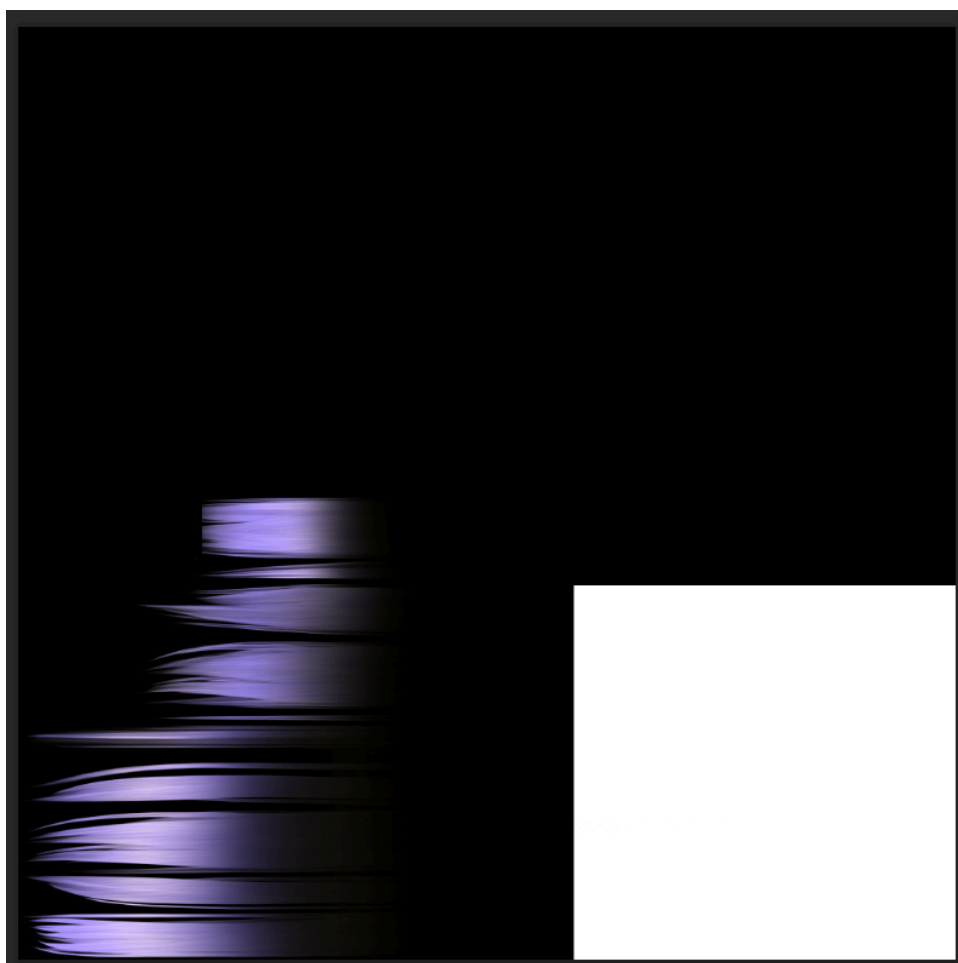
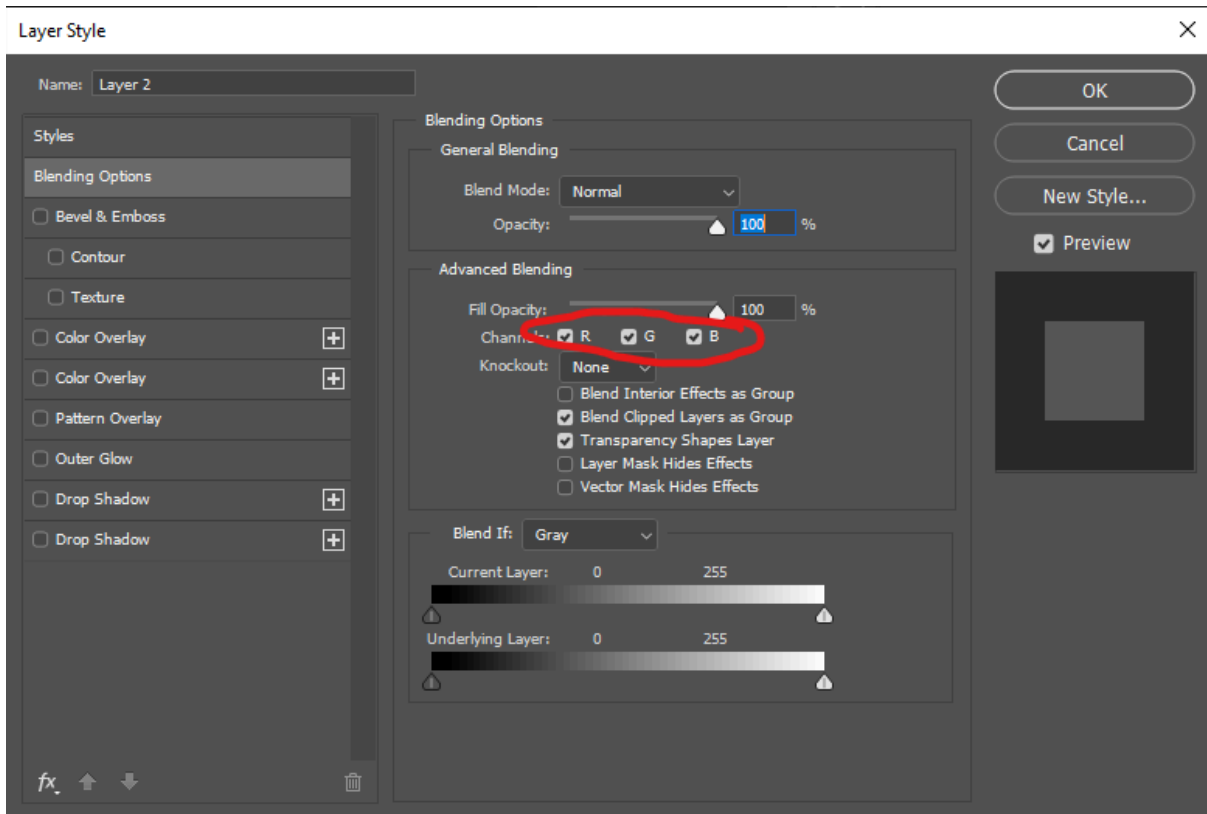
Use the select tool to select the whole image, and copy. Then create a new layer and paste.



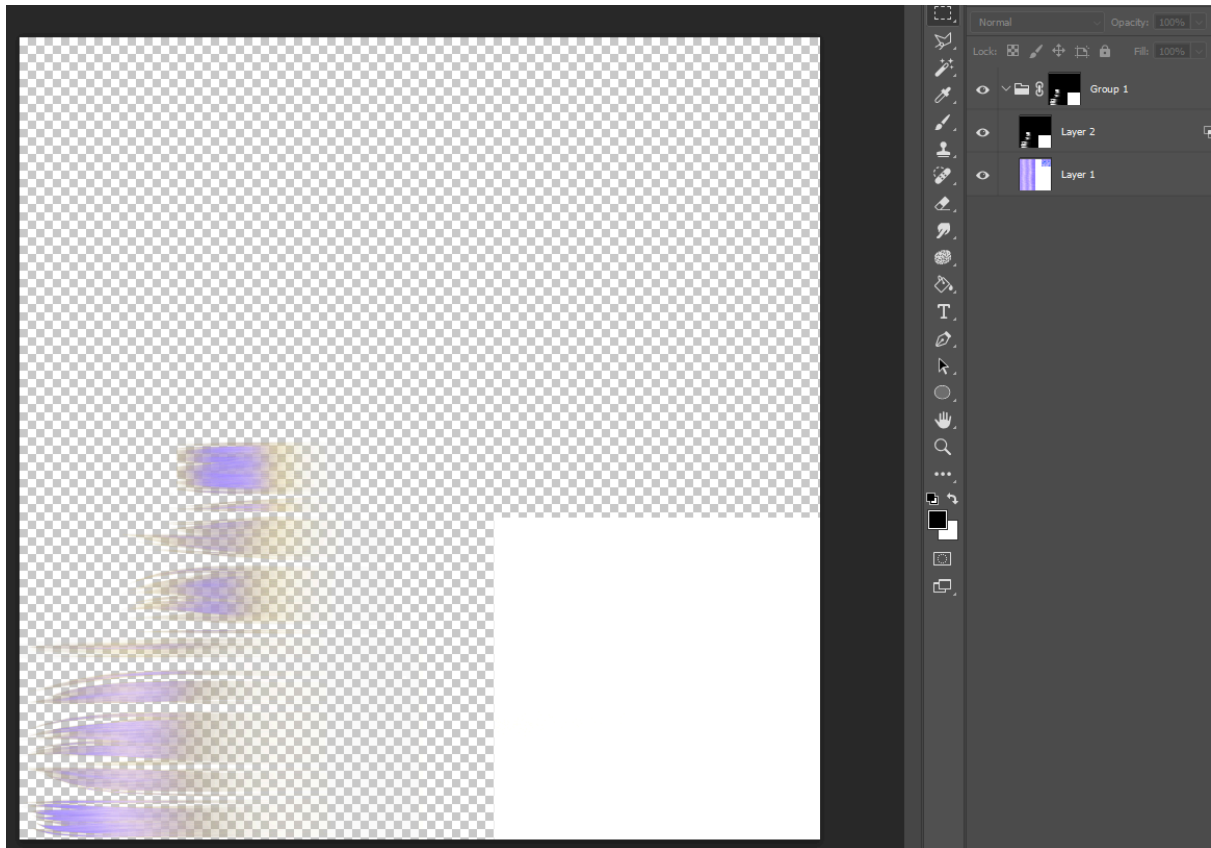
For hair glow, Alum's documentation says:

For hair, the glow information is to be added to the multi map's blue channel ("black" is no glow, "white" is full glow).

So we just need to add this image to the blue channel. For that, double click the layer you just created to bring up the Layer Style window. What we need here is the "Advanced Blending" section. Untick R and G and hit OK.

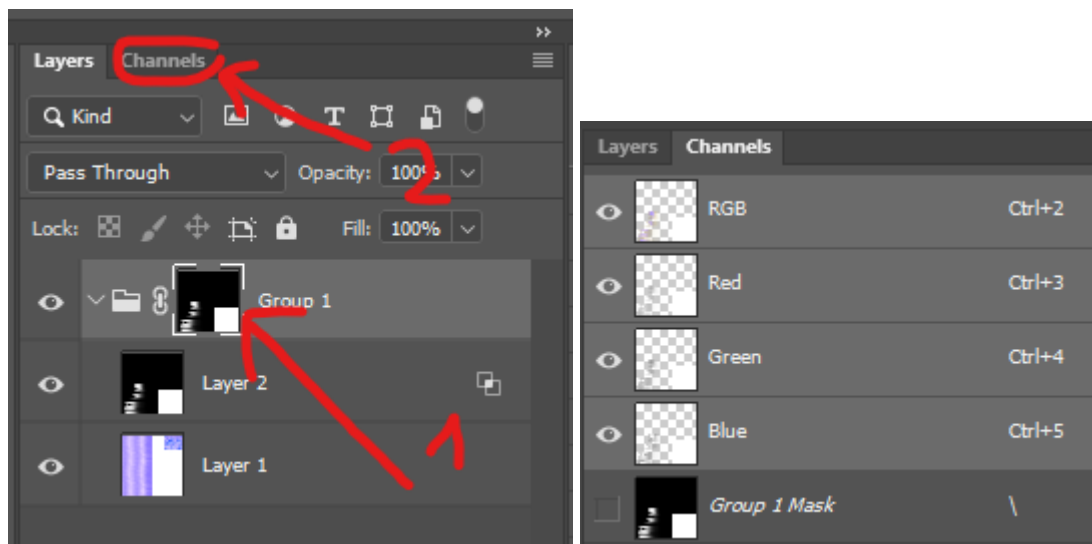


We're almost done, we just need to select both layers, hit CTRL+G to group them, open the group and click and drag the mask of layer 1 on the group.

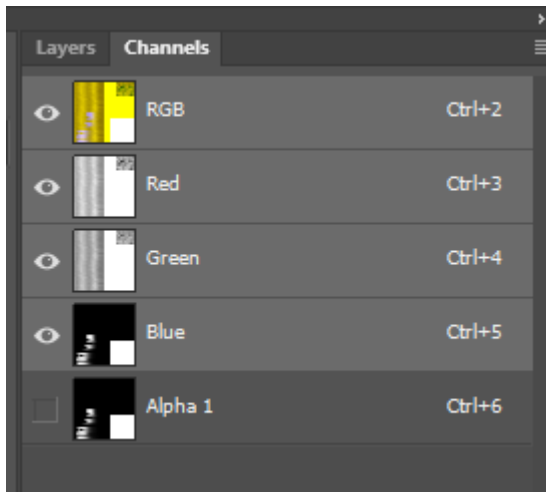


Now you can save that if you want to come back later, then prepare the export.

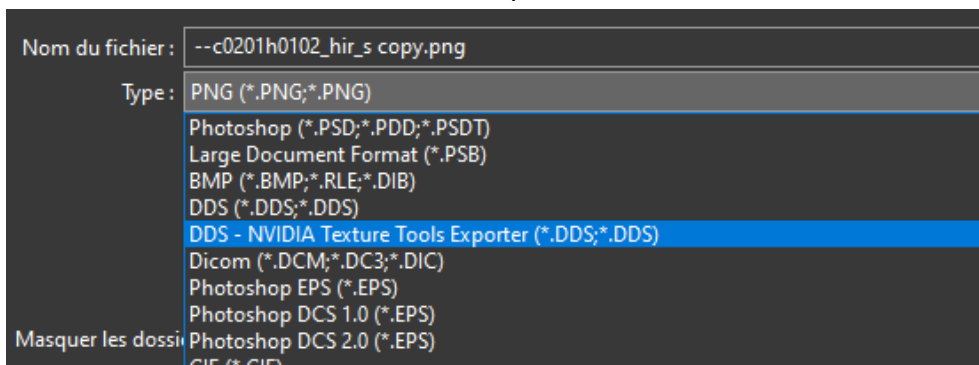
You need to add the Alpha channel for the DDS export, for that, select your mask, then go in the Channels tab.



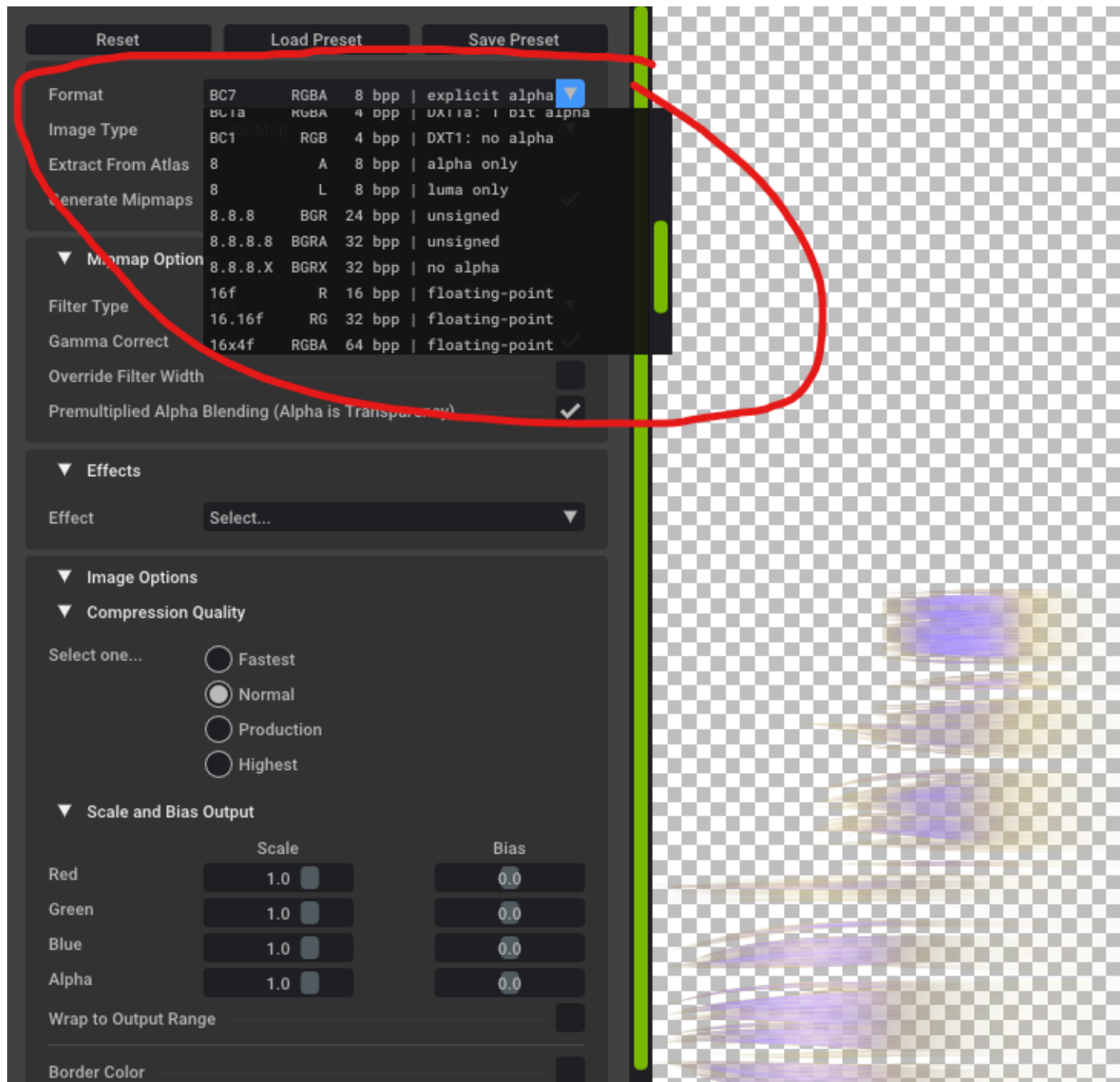
Right click the “Group 1 Mask” and duplicate it, name it “Alpha 1”. Then, delete the channel “Group 1 Mask”. It should now look like that:



To export as a DDS, go in File -> Save a Copy...
 Select “DDS - NVIDIA Texture Tools Exporter”, a name and hit Save.



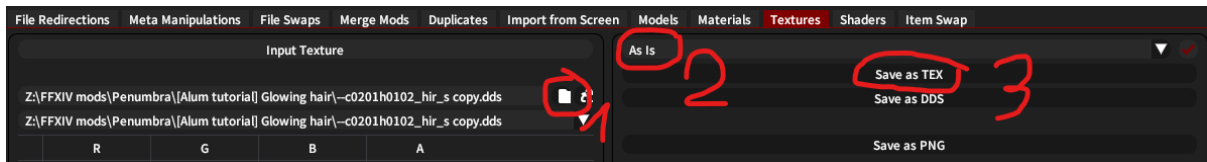
That will open the Nvidia tool, you can select on the top left the format, either BC7 if you want your texture to be compressed, or 8.8.8.8 BGRA for uncompressed.



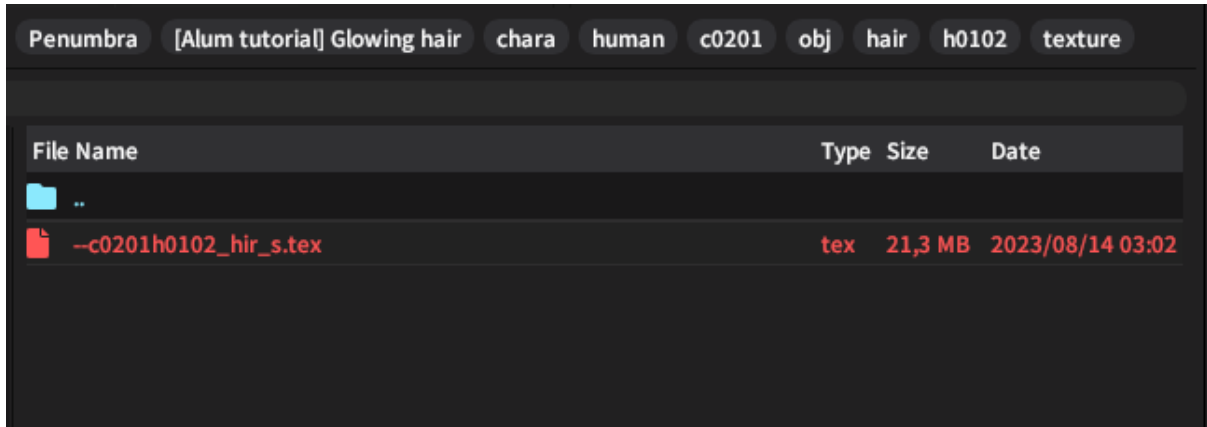
You can hit “Display Compressed” in the top right corner and cycle through “Color”, “Alpha” and “Both” to make sure the texture looks good, then hit “Save”. I strongly advise to use BC7 unless it ruins the texture, it divides the texture’s size by four usually without noticeable loss 98% of the time.

Back to Penumbra

Import back the texture in penumbra, select your texture on the left, if you already compressed your texture with Photoshop, you can use “As Is” and Save as Tex



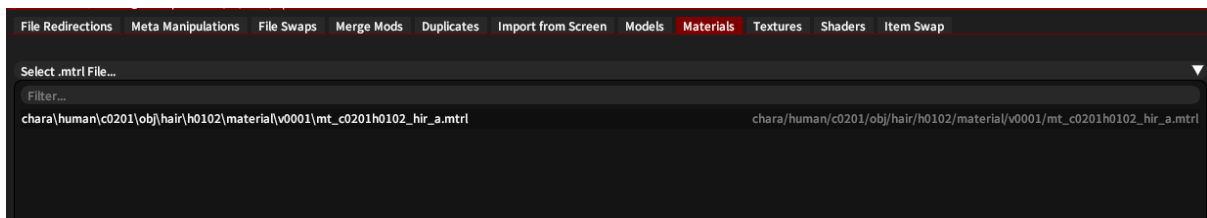
Go find the texture in the mod folders and overwrite it (in my case, --c0201h0102_hir_s.tex)



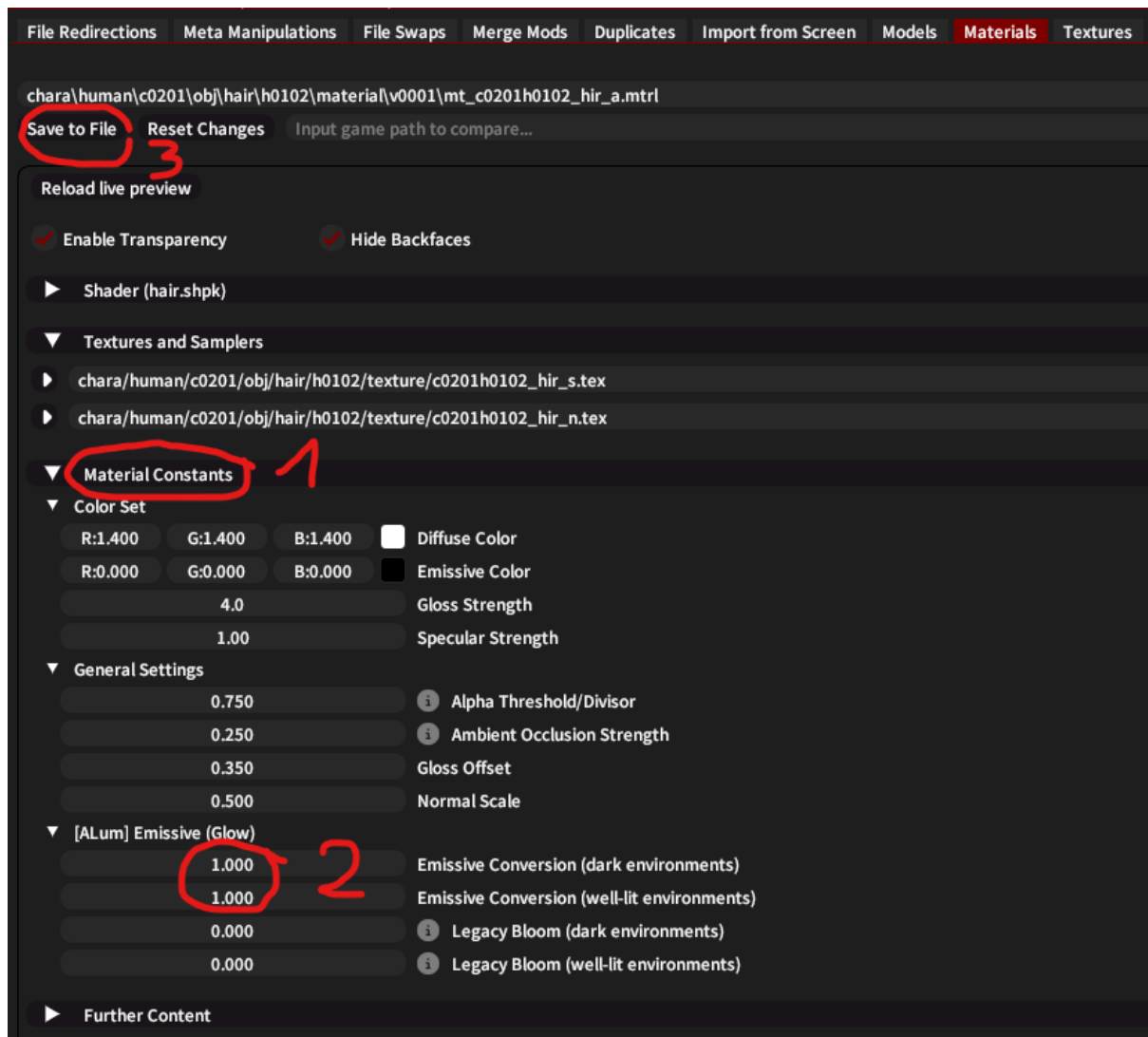
Material Editing

Don't forget to activate Alum and set the Hair Framework to "Textures and Materials" before trying to edit your material.

Go in the Material tab and select your material



We add the material constants and set the values to 1, then hit "Save to File"



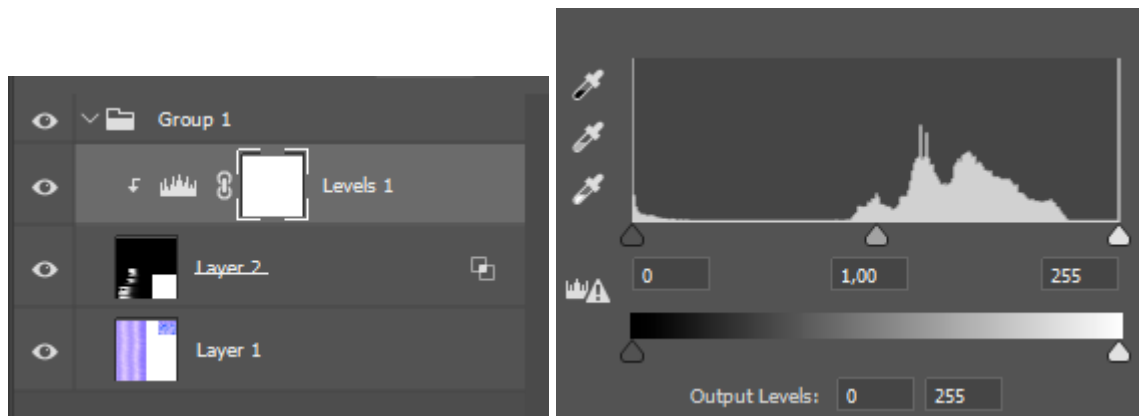
Activate the mod, make sure the priority is higher than the base hair mod if you're editing a modded hair like me, and redraw.



Now, you can tweak the glow strength with the material, if the glow is too strong, reduce the values, if too weak, increase them.

Final notes:

You can go back to Photoshop to edit a bit your glow, you could get various results by adding some filter to it. For example, you could add a level filter on top of your glow and bind it to it with Alt+click between the two.



You can try to move each slider and see what it does, I'll advise to hide the base layer to really see the effect. You could invert the layer (select it and hit CTRL+I) to invert the glow, making the highlight not glowing and the rest glow.

You can use the same kind of process for almost all Alum's effects, you just need to read the documentation to know where to put your stuff for the effect you want.

Alternative method using only penumbra

For stuff like hair highlights, you can also achieve the same result with only penumbra, skipping completely the photoshop part by altering the channel target in the textures tab like shown here. That works only for stuff where you already have the data you want to use for your glow in another channel of the texture. Use the invert buttons under the table to get the opposite, ie all hair glowing except the highlights.

Input Texture

Z:\FFXIV mods\Penumbra\Bliss\Hair\Charming\Charming Base Install\Charming - Female 10:

Z:\FFXIV mods\Penumbra\Bliss\Hair\Charming\Charming Base Install\Charming - Female 102\ch: ▼

	R	G	B	A
R	1.000	0.000	0.000	0.000
G	0.000	1.000	0.000	0.000
B	0.000	0.000	0.000	0.000
A	0.000	0.000	1.000	1.000
1	0.000	0.000	0.000	0.000

▼ Presets Invert Colors R G B A