Change Hair and Eye Colour Guide

Tools and utilities

Here you will find all the resources you'll need:

- **UE Viewer**: https://www.gildor.org/en/projects/umodel
- **State of Decay 2 Asset Editor**: https://github.com/kaiheilos/Utilities
- **UnrealPak**: https://drive.google.com/file/d/1MwnXT_j1UW9VrnQal_DvLiNVRjVjdxmv/view
- **HairAndEyeHEX-WIP sheet** made by YuriLewd: https://docs.google.com/spreadsheets/d/1hxiW38nzR_JNwB6a6HzsWk8xWt_JmeICL5HO8npXmqE/edit#gid=913523577
- **Colour calculator** (thanks to ᴹⁱᵒ ᴰᵉᵛˡᵉˢ for pointing it out): https://doc.instantreality.org/tools/color_calculator/

Let's check on the **OpenKH** site (https://openkh.dev/kh3/pawns.html) the references for the files we want. In our example, we're going to change base Sora's hair and eye colour (p_ex001 for the reference).

After you've downloaded UE Viewer, open the .exe and use these settings:
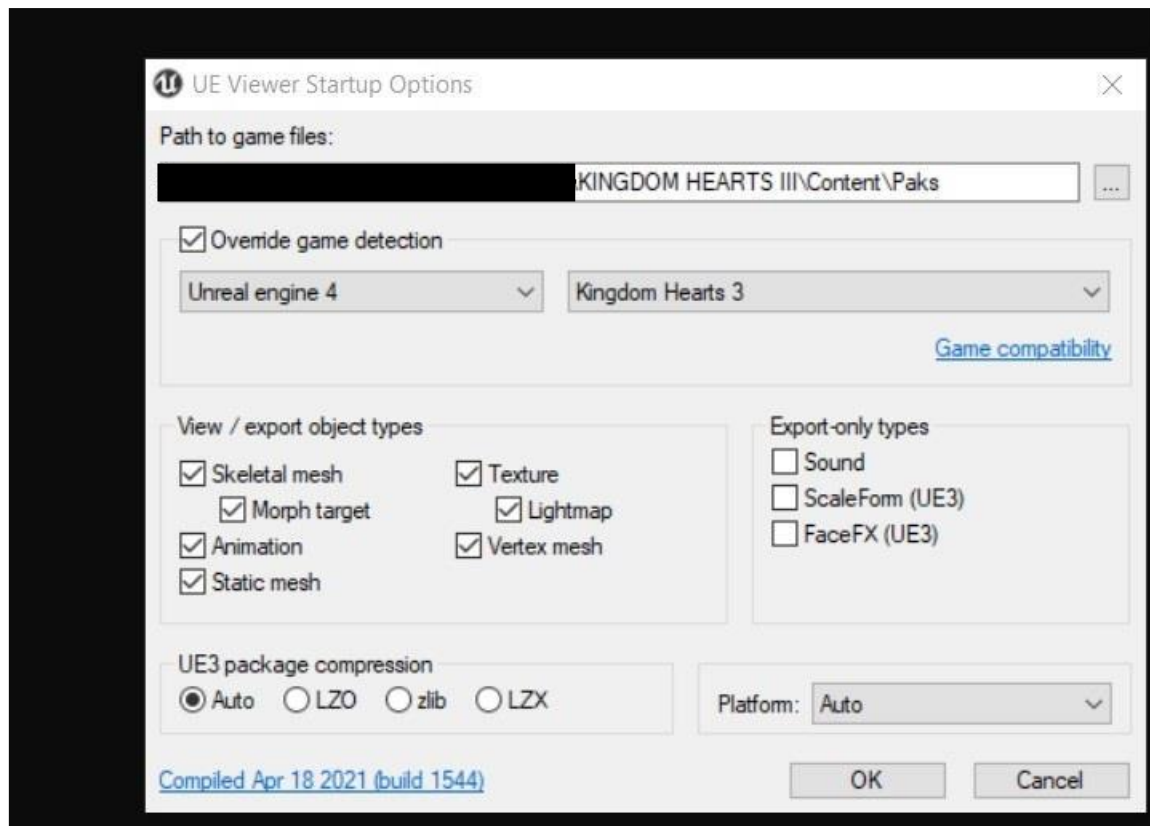
UE Viewer will ask to you an AES key; that's becouse the game files are encrypted. You'll have to paste this key:
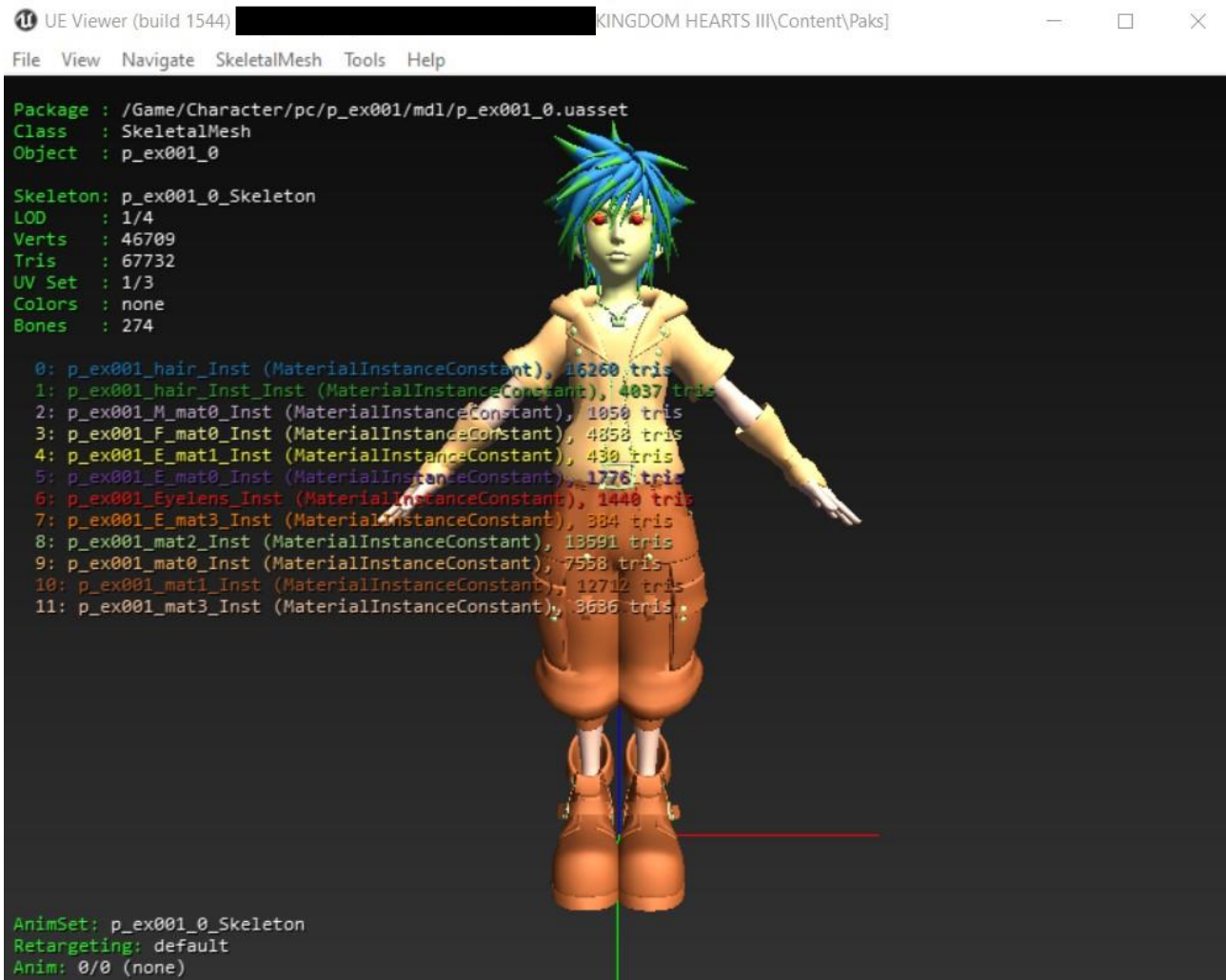o9Gty60nWTc2OIkbN3lWQ81u6t7W6uUYGvz9fSb2Vpa5SD735c8bsOaTeE2MFJw31

Now, we want to know exactly which materials we have to modify.
Let's search for Sora's model folder, and double click on the main file as shown below:
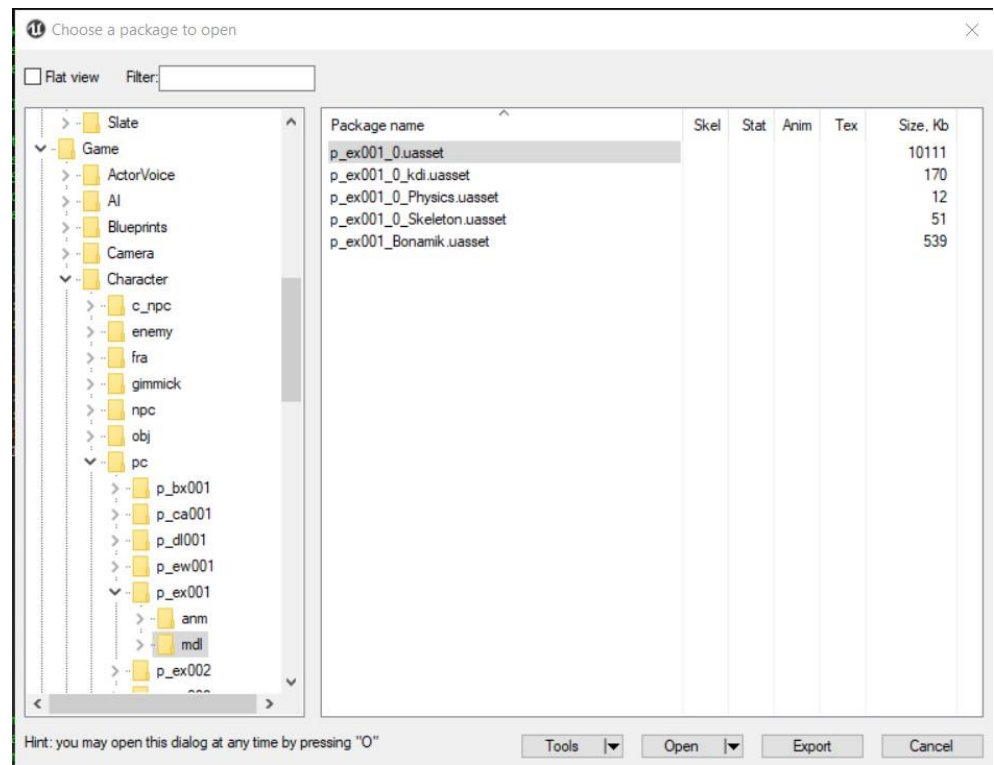
It's hard to tell which material we have to modify with Sora in this state!
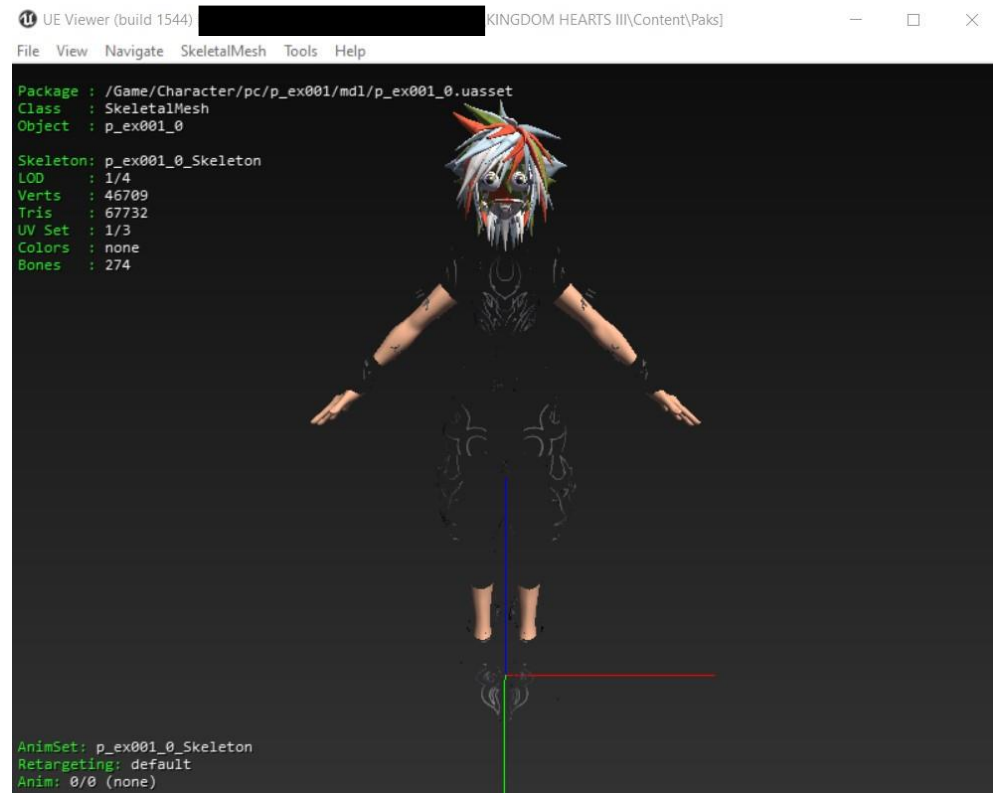
Let's press "M" to load the materials then:

There we go! Now we know that Sora's hair mat is called "p_ex001_hair_Inst", while the material for the iris is "p_ex001_Eyelens_Inst". Unlike other materials (like the ones for the cloth) that have their own associated diffuse textures, the materials for hair and eyes have their own properties for how the colours should be displayed in game.

Anyhow, let's head to the mat0 folder, and save the assets of the materials in a folder of our choice (best if it's the same where we saved SoD2 asset editor):
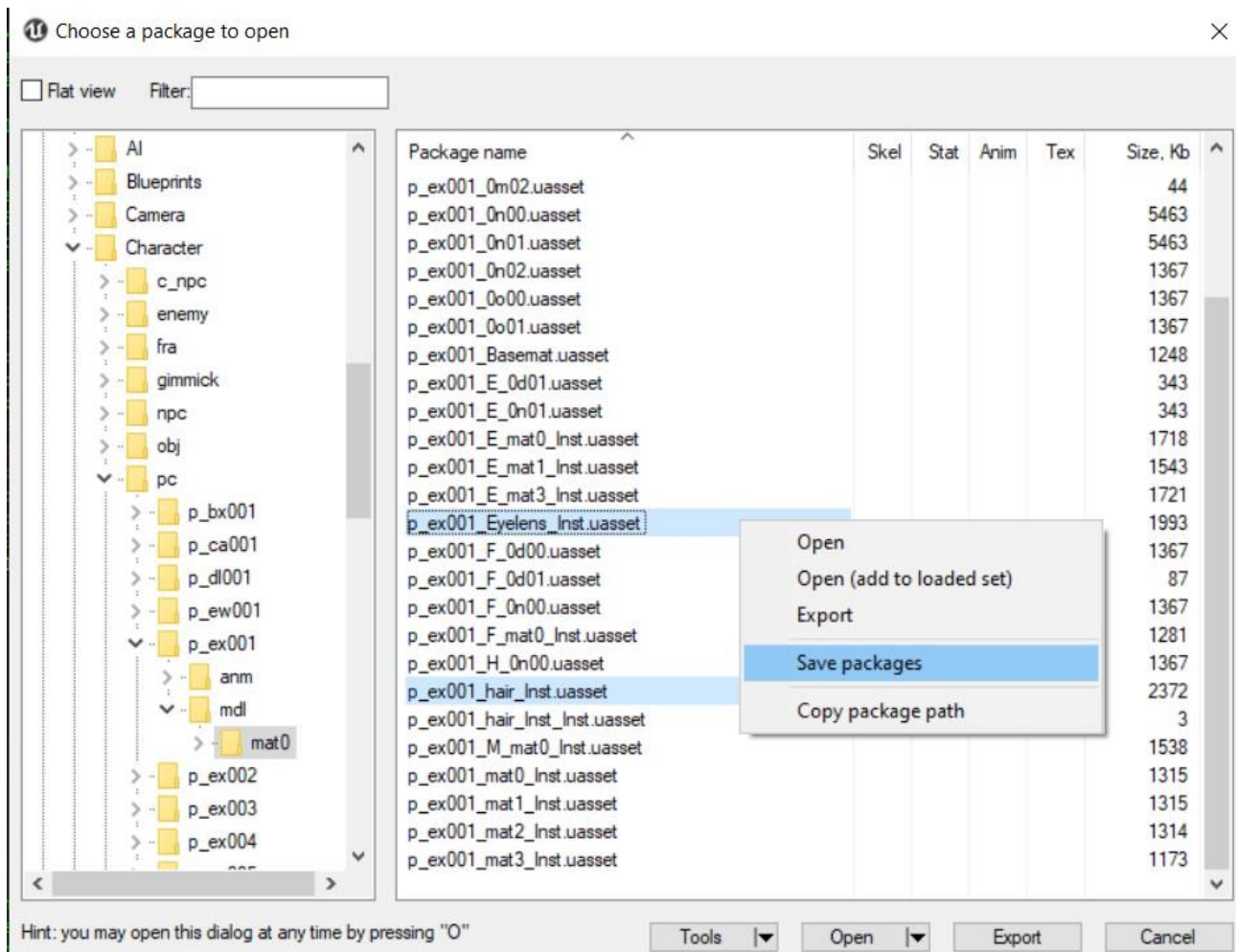
After that, let's open the SoD2 asset editor, go to "File", "Open" and select one of the asset (let's start with the hair).

Before going on, let's open the sheet that YuriLewd made; it gathers the values of hair and eyes colours of different main characters. There are three different parameters we want to look at: HairColor, HairPointEndColor and HairSSColor.

Let's go back to the asset editor, and open the Code Blocks menu like shown below:
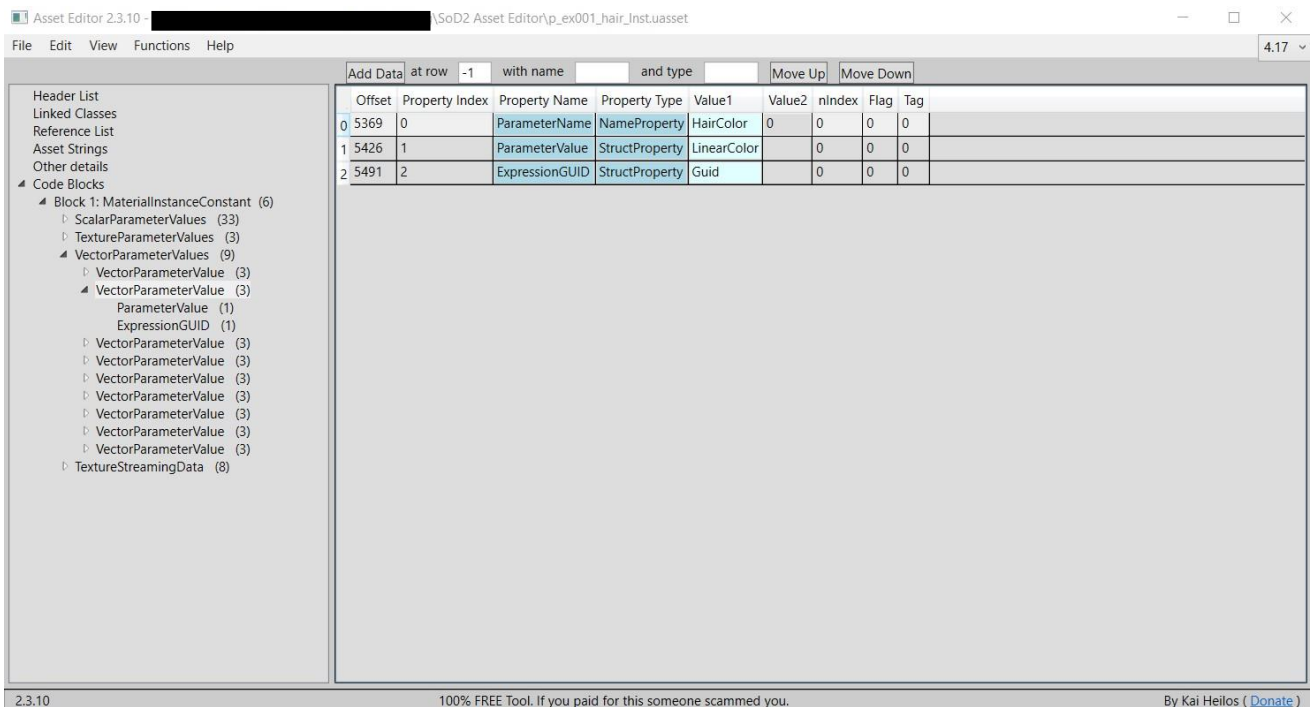
Here's the HairColor parameter, click on "ParameterValue" in the menu on the left:
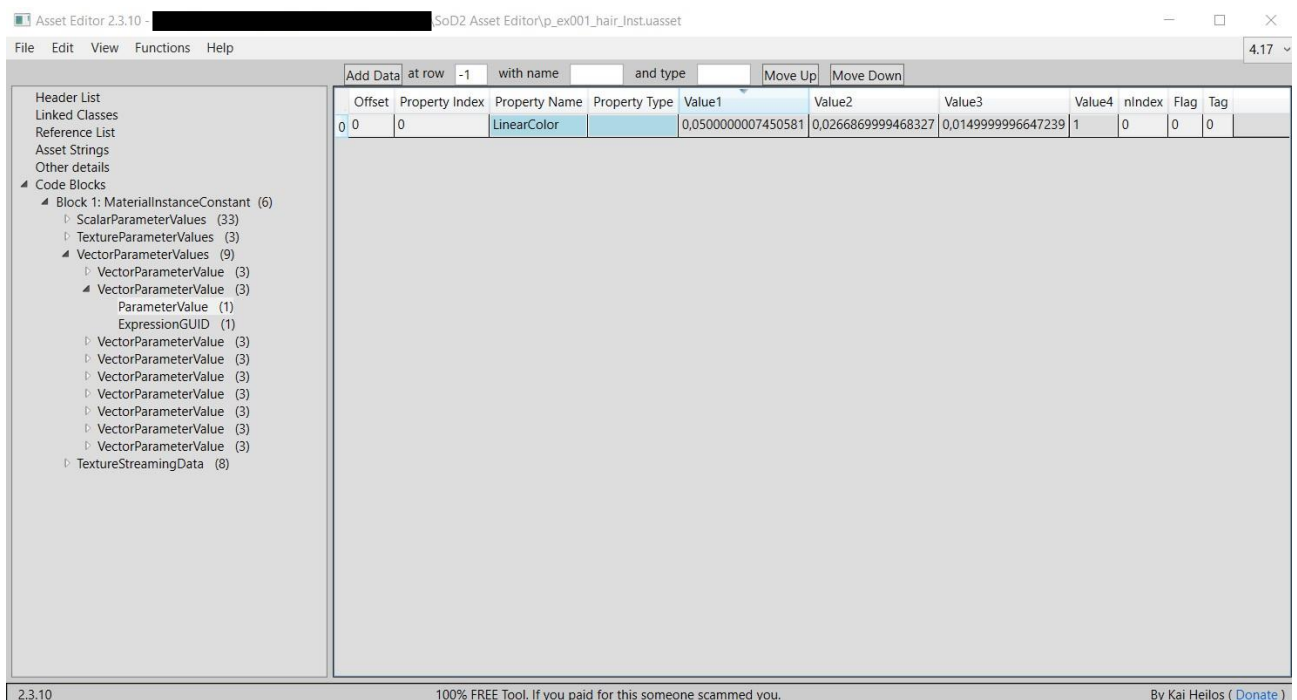
Now, you basically have to modify Value1, 2 and 3, according to the colours you want from the sheet.

What? Do you want to give to Sora's hair a colour that is not listed in the sheet? Then use the Colour Calculator! Pick a colour, and paste the RGB Normalized decimal values; altough, since all the parameters define a specific aspect of the hair, in this case you'll have to test the colours in game a little be more to get exactly the colour you want.

Now that HairColor values are set, you have to do the same thing with the other parameters.
Once you're done, save the changes, and do the same process for the iris material.

You have to recreate the same folder hierarchy where we picked the asset the first time with umodel; in our case, we have to create these folders in order to make this path:
"name of the mod"\KINGDOM HEARTS III\Content\Character\pc\p_ex001\mdl\mat0

and put the modified materials in the mat0 folder

After that, drag the folder of your mod on the "UnrealPak-with-Compression" batch file we downloaded before (it comes with UnrealPak.exe) and press a key when the process is finished.

Drop your .pak file in this path:
""wherever your game files are stored"\KINGDOM HEARTS III\Content\Paks\~mods"

That's it, enjoy the results. Hope you found this guide useful!

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