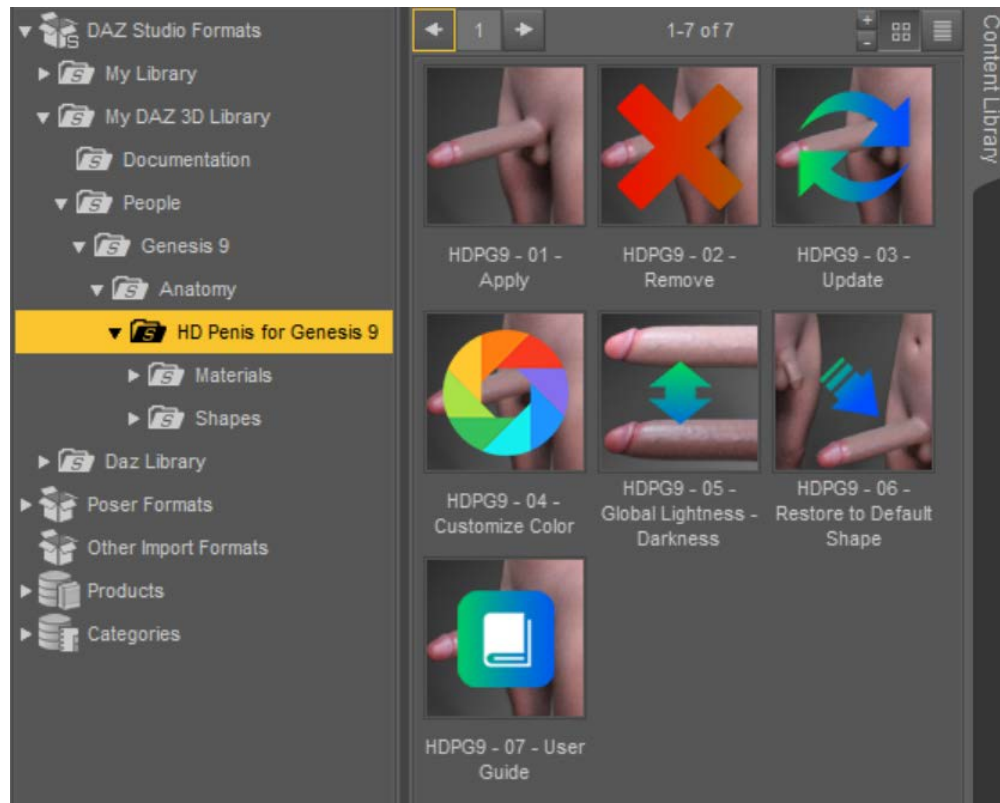


1. Basic usage of HDPG9

1.1 Main scripts of HDPG9

After installing HDPG9 into your daz library folder, go back to DAZ Studio and go to the Content Library pane. You will see the main scripts of HDPG9 under 'People > Genesis 9 > Anatomy > HD Penis for Genesis 9'.



HDPG9 - 01 - Apply: Select your character in the scene and double-click this script to apply HDPG9 to it. The script will automatically generate a default penis color map based on your character's skin color.

HDPG9 - 02 - Remove: Select the character in the scene that has HDPG9 applied to it and double-click this script to completely remove HDPG9.

HDPG9 - 03 - Update: If you make changes to your character after applying HDPG9 to it, you can run this script to keep HDPG9 in sync with the character. I will explain this script further in **Section 2**.

HDPG9 - 04 - Customize Color: Run this script after applying HDPG9 to your character to customize the color of HDPG9. I will explain this script further in **Section 3**.

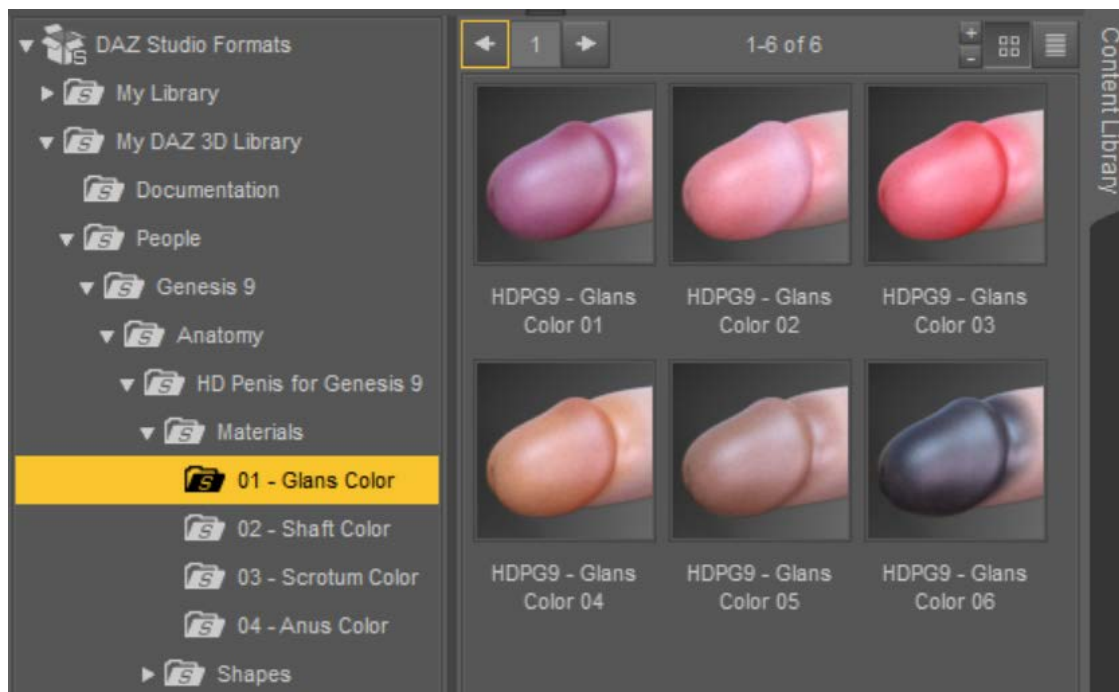
HDPG9 - 05 - Global Lightness - Darkness: This script is used to adjust the overall brightness of HDPG9 in the rendering results. Detailed instructions are in **Section 4**.

HDPG9 - 06 - Restore to Default Shape: This script calls DAZ Studio's 'Zero Figure' action to restore HDPG9 to the default pose and shape.

HDPG9 - 07 - User Guide: Double-click this script to open this user guide in DAZ Studio.

1.2 Color Presets for HDPG9

There are four subfolders under 'People > Genesis 9 > Anatomy > HD Penis for Genesis 9 > Materials'.

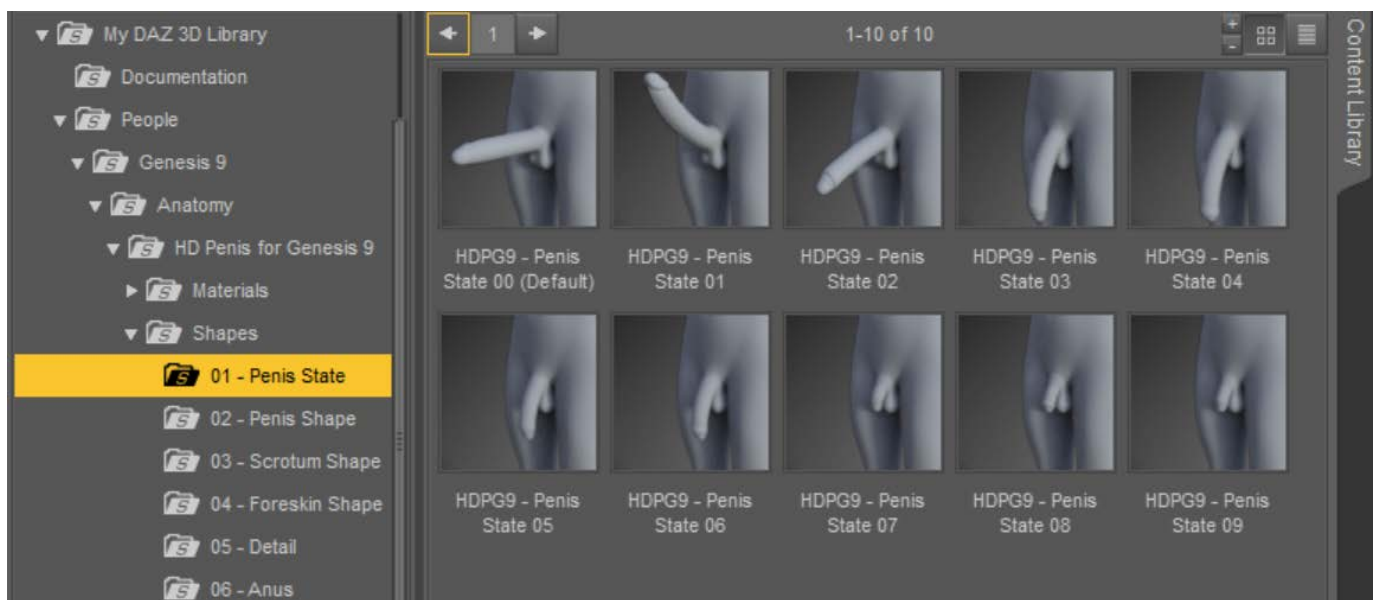


In these subfolders are color presets for different areas. After applying HDPG9 to your character, double-click on one of the color presets to change the color of the corresponding area of HDPG9.

Please note: Because these presets take some time to modify the color map of HDPG9, you will need to wait a few seconds after double-clicking one of the preset icons before you can see the color of the HDPG9 change.

1.3 Shape Presets for HDPG9

I have also created a lot of shape presets for HDPG9. They are stored in subfolders under 'People > Genesis 9 > Anatomy > HD Penis for Genesis 9 > Shapes' according to different areas or types.

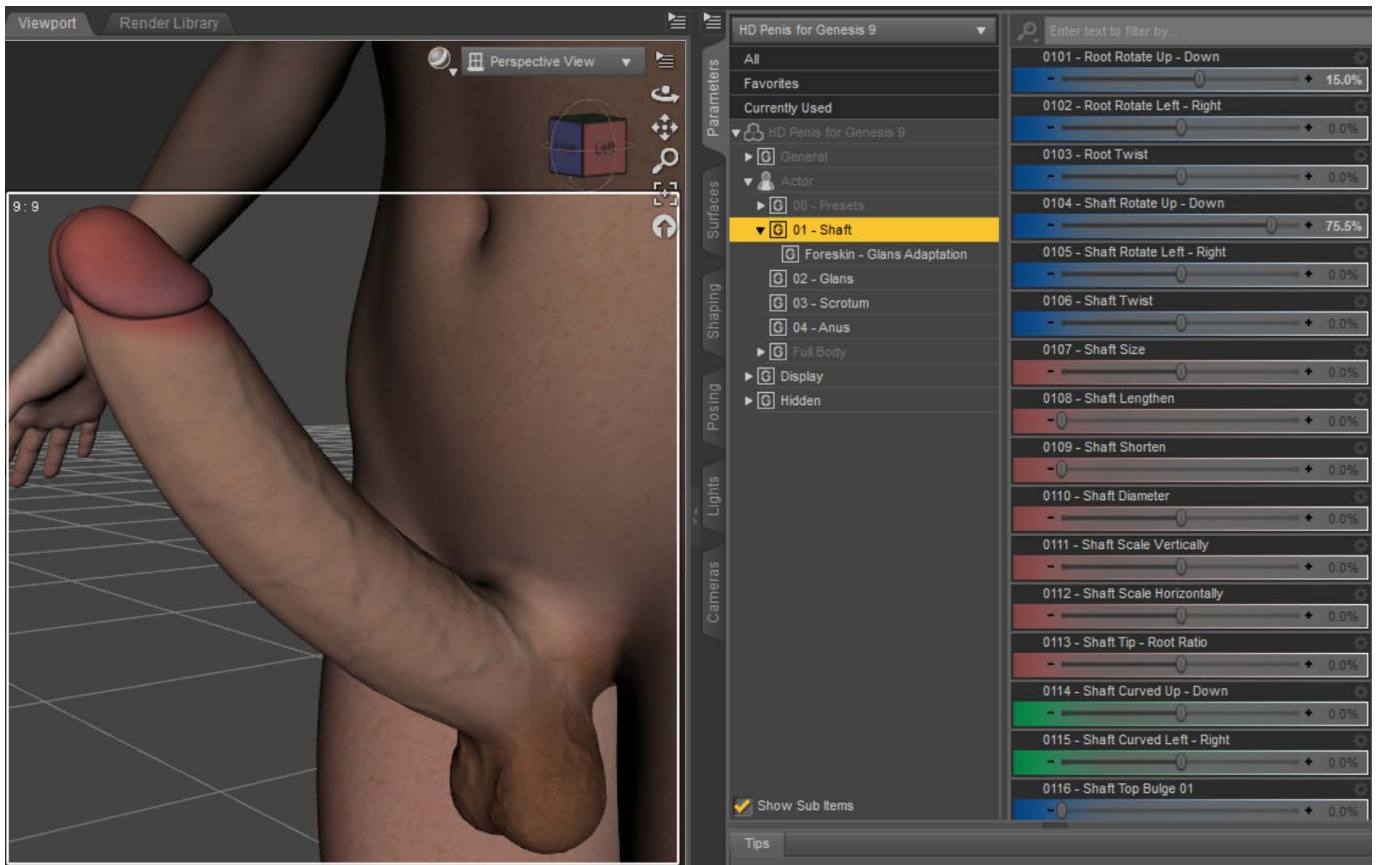


After applying HDPG9 to your character, double-clicking a shape preset icon will immediately change the shape or pose of the HDPG9.

1.4 Morphs of HDPG9

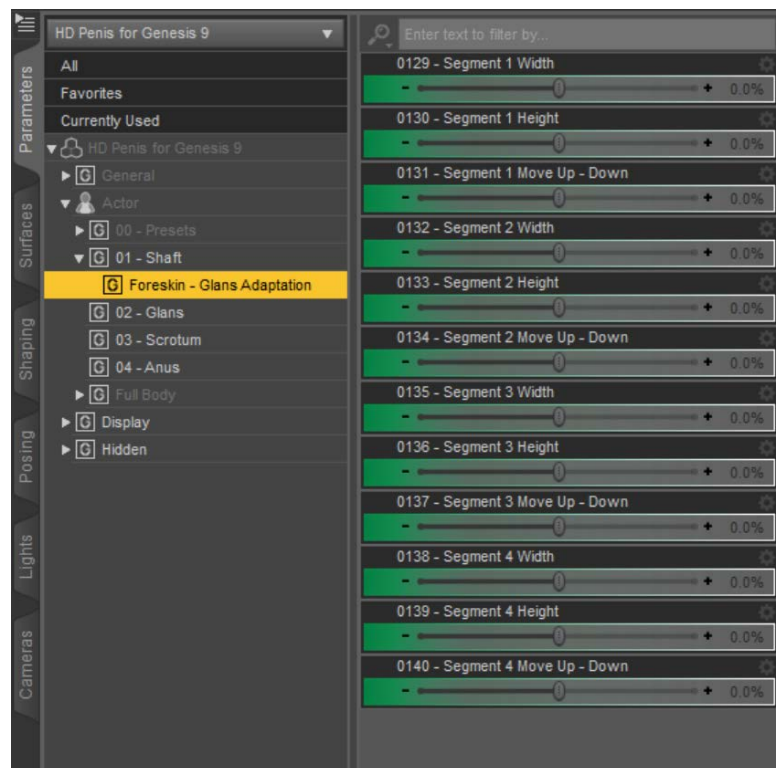
With HDPG9 selected in the scene, go to the Parameters pane. Under 'HD Penis for Genesis 9 > Actor' you can see all the morphs for HDPG9.

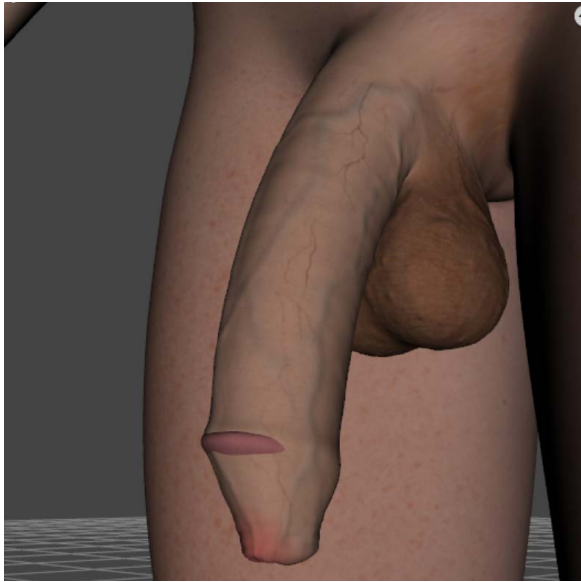
If you have double-clicked a shape preset in 1.3, you will see that some morphs are already enabled.



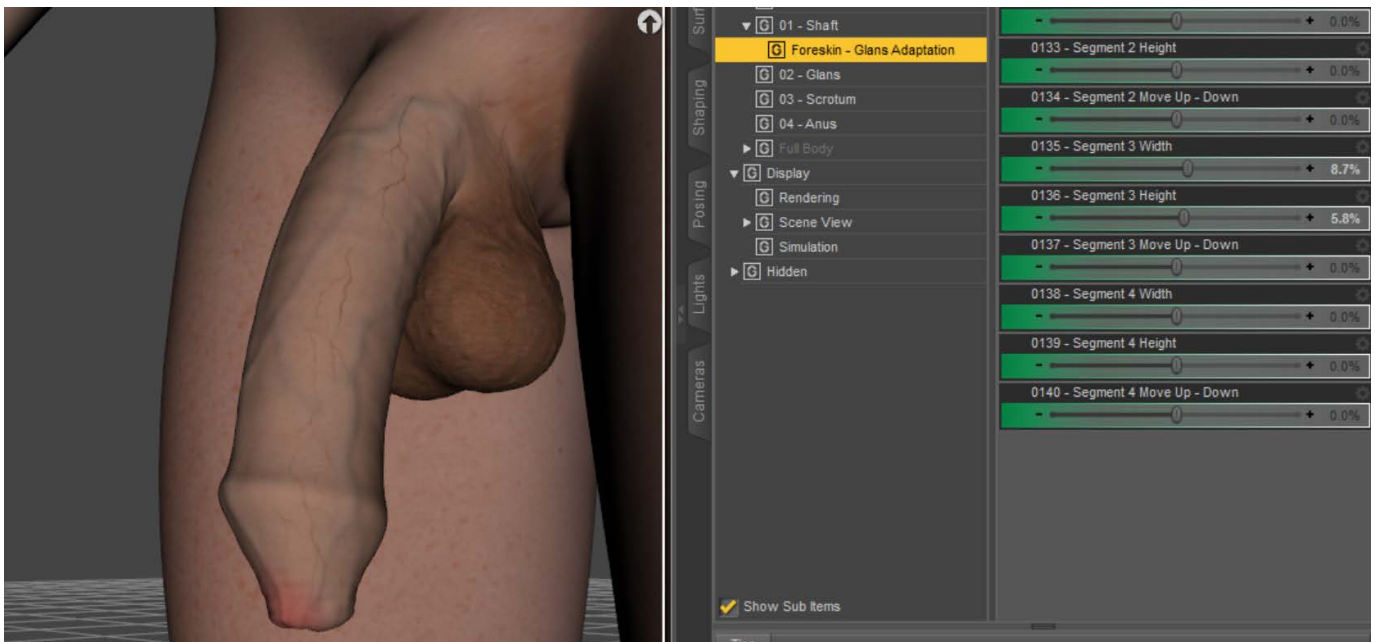
1.5 Foreskin - Glans Adaptation

Of note is the set of morphs under '01 - Shaft > Foreskin - Glans Adaptation'.





If you find that there is poke-through with the foreskin and the glans when setting the shape of the HDPG9, you can adjust the appropriate morphs here to fix it.



2. Update HDPG9

After applying HDPG9 to your character, if you make changes to the character and you don't want to delete HDPG9 and then apply it again, you can try HDPG9's update script. Changes to the character include the following:

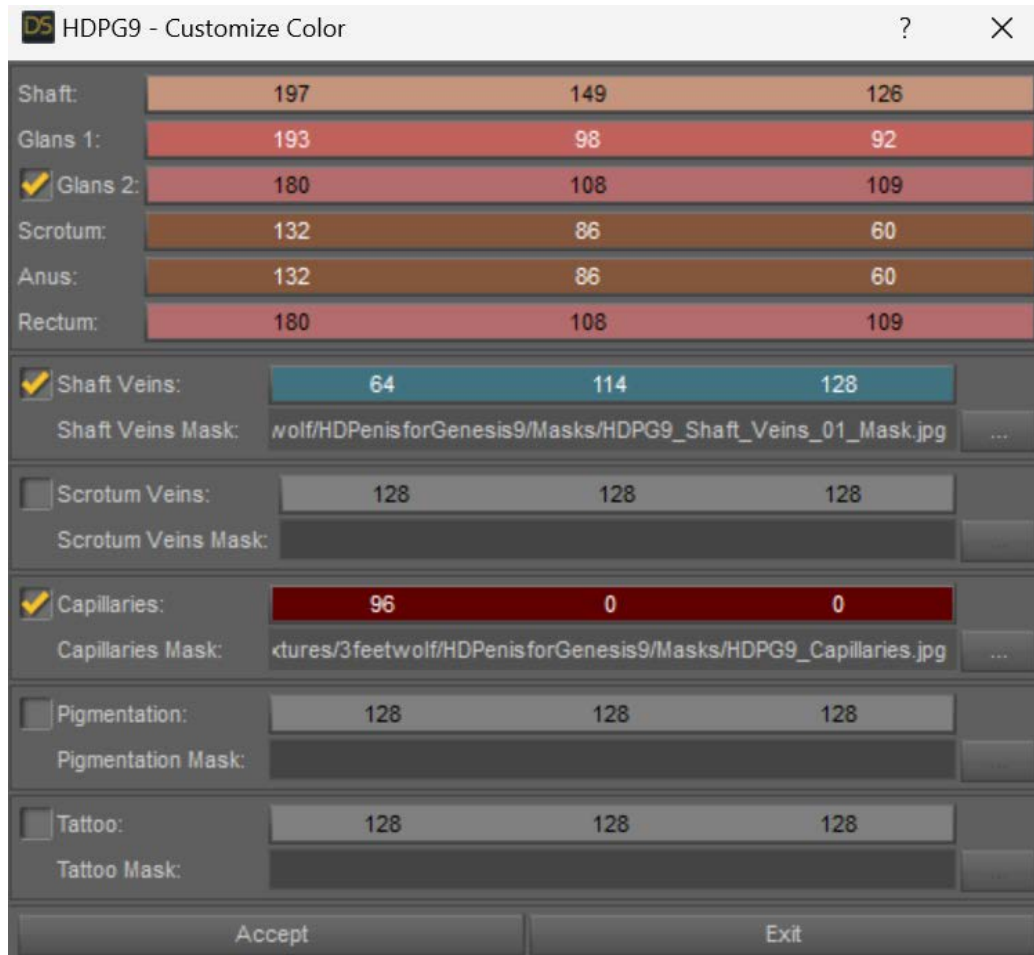
- You change the material parameters of the character's skin, or change the color map of the character's skin.
- You apply another character's full body morph to the character.
- You apply a Geometry Shell prop to the character.

In any of the above cases, you can select your character and run the HDPG9 update script. After it runs, HDPG9 will be synchronized with the character again.

3. Customize Color

After applying HDPG9 to your character, you can run its customize color script at any time to customize the color of HDPG9.

The Customize Color window lists all the elements of HDPG9 and their current colors. Just set new colors for these elements, then click the 'Accept' button and wait for the script to regenerate the color map of HDPG9.



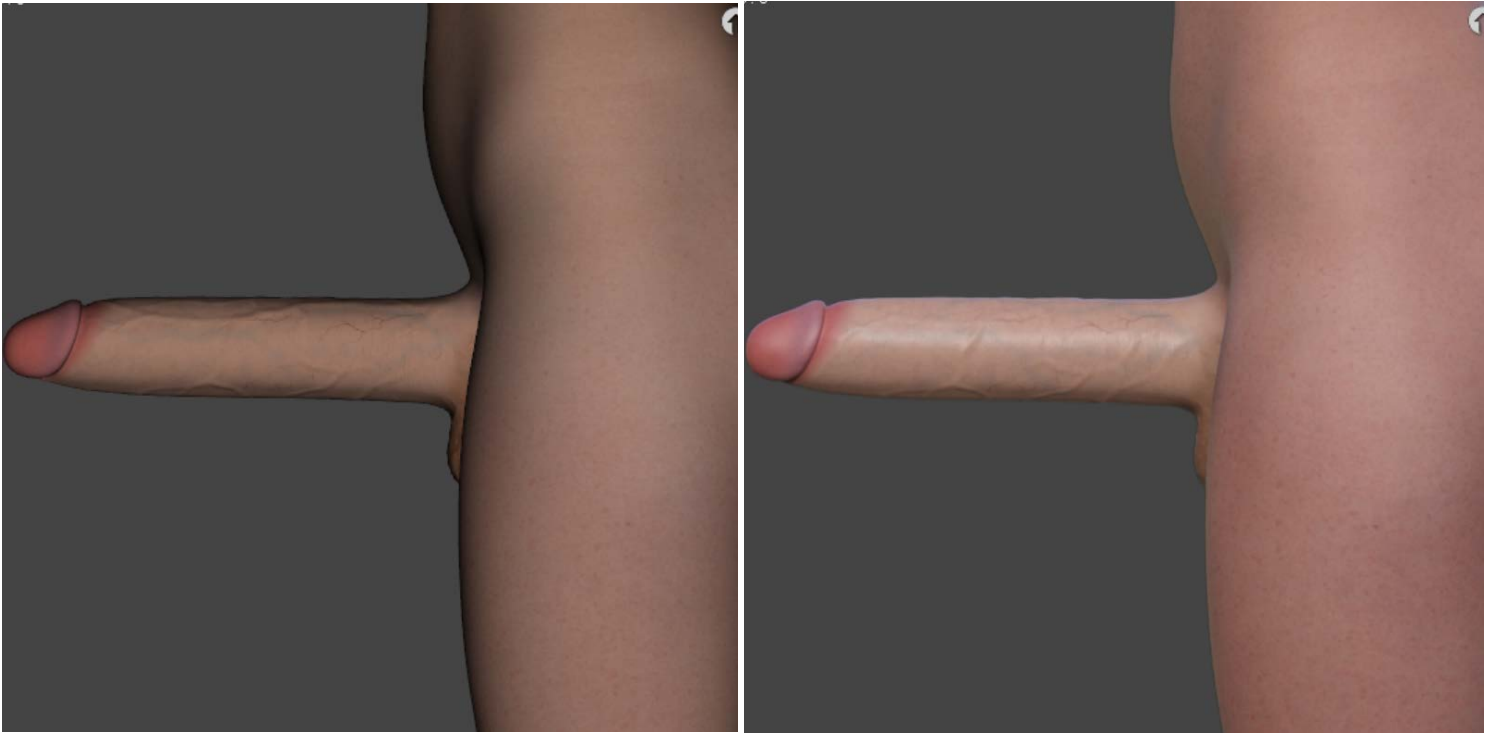
I introduced the color presets of HDPG9 earlier. The colors in these presets are all extracted from reference images. If you are not sure what color a certain element should be, you can first go to the corresponding preset folder and select a color that is closest to your idea and apply it to HDPG9. Then run the customize color script again, you will see that the element has changed to the color you chose. Then you can fine-tune it until you are satisfied.

Please note that some elements have a checkbox in front of their names, which means you can decide whether to add the color of this element to the new color map as needed. In addition, some elements require you to specify a mask map to set the shape of the element, such as veins, capillaries, etc.

You can also make your own mask image to add any shape of color to your character's penis. If you plan to do this, you can find the HDPG9 uv template in the 'Template' folder of the HDPG9 installation package. You can use it as a reference to make a new mask image, and then replace the mask image of any element in the Customize Color window.

4. Global Lightness - Darkness

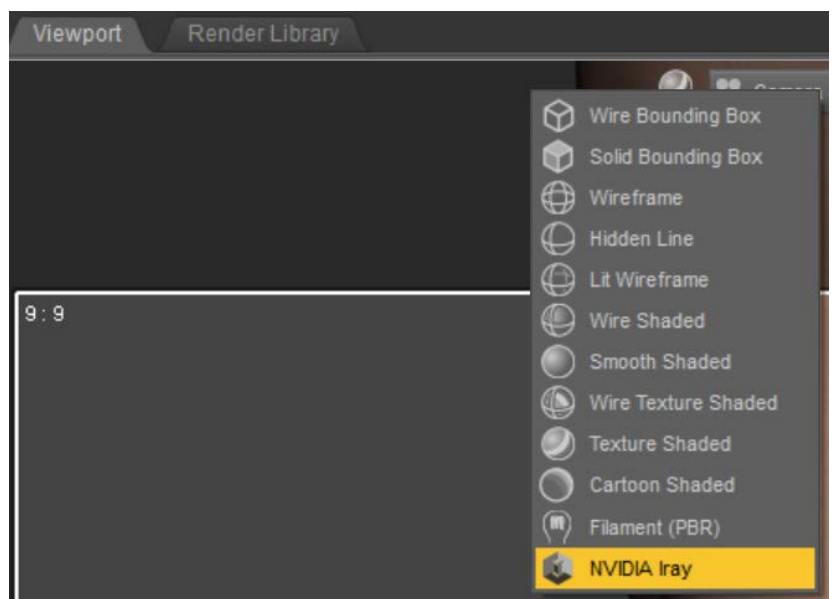
Please see the two pictures below, which show the same character. The left one shows the character in the Texture Shaded, while the right one shows the rendering result. We can see that in the left picture, the color of the penis is exactly the same as the character's skin. But in the rendering result on the right, the color of the penis looks whiter than the character's skin.



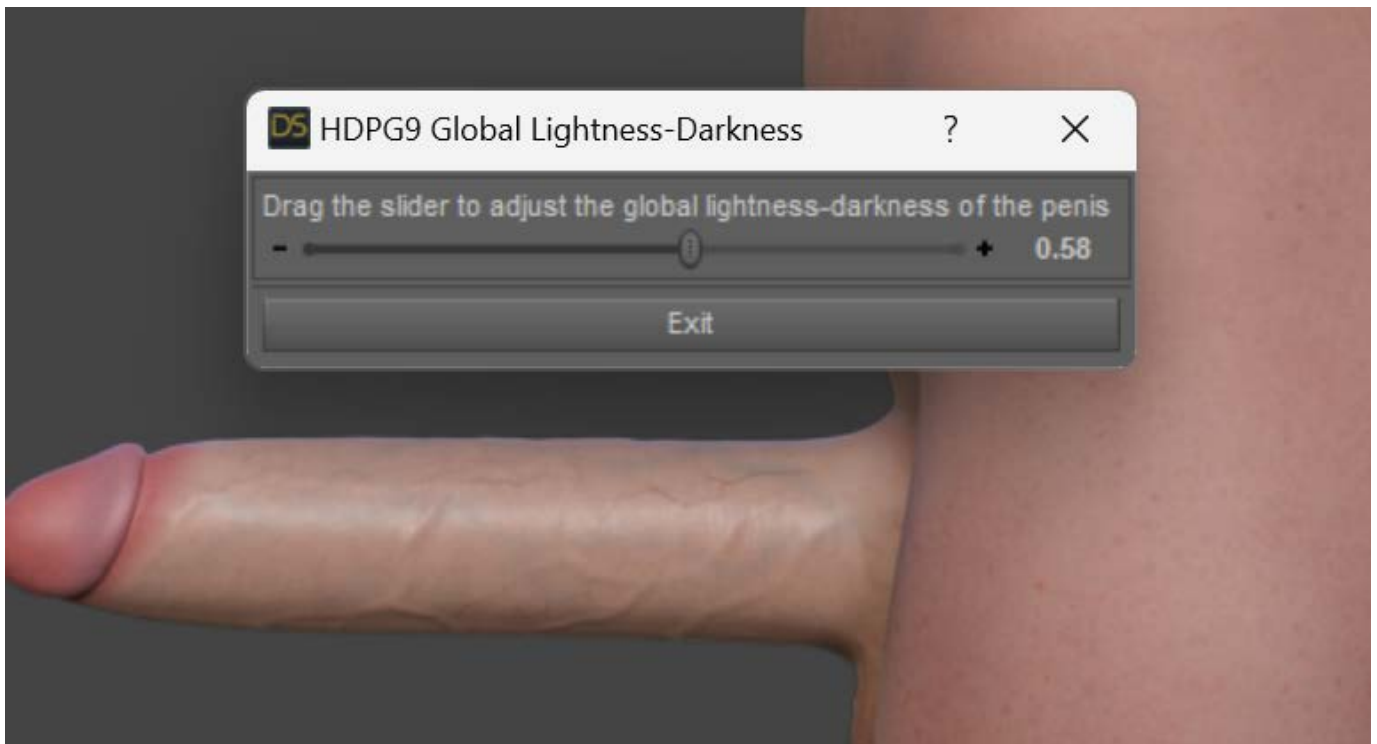
Simply put, the reason for this problem is that HDPG9 uses a Geometry Shell to implement the color of the penis. The material settings of the Geometry Shell are not completely consistent with the material settings of the character's skin, especially when most Genesis 9 characters use PBRSkin Shader (Geometry Shell usually cannot use PBRSkin Shader). Therefore, even if HDPG9 can automatically create a color map that matches the character's skin color, there may still be color differences in the final rendering results.

The global lightness - darkness script can help us quickly fix this problem:

First, click the small ball in the upper right corner of the viewport and select 'Nvidia Iray' in the pop-up drop-down menu. This way we can directly observe the rendering results in the viewport in real time.



Make sure the character is selected, then double-click to run 'HDPG9 - 05 - Global Lightness - Darkness'.



In the pop-up 'HDPG9 Global Lightness - Darkness' window, drag the slider to the right appropriately until the color difference between the penis and the character's skin in the rendering result is basically eliminated.

