1-Click PBRSkin

What is it?

1-Click PBRSkin has been designed to make the process of converting older figures to use the new **PBRSkin** shader quicker and more efficient, automated via two conversion scripts.
Whilst this product provides great results out of the box and additional scripts to improve skins converted to the **PBRSkin** shader, results are still dependant on the quality of the character textures being used and manual adjustments may still be necessary.

Prerequisites

1. Please ensure you have installed **Default Resources for DAZ Studio 4.20+**, so that you have the **PBRSkin** shader available. You can check to see if it is already installed by going to: **Content Library > Shader Presets > Iray**, in which there should be a folder called **Daz PBRSkin**, with a shader preset called **Daz Iray PBRSkin**.

2. It's highly recommended that your **Daz Studio** application has layered textures set to **Speed/Size**, so that LIE (**Layered Image Editor**) is as fast as possible. You can check this setting by going to the menu bar at top of your screen and then: **Edit > Preferences > Interface** (tab) **> Miscellaneous** (section) **> Layered Textures** (slider, set all the way to the right).

Folder Structure

1 - Convert to PBRSkin (two conversion scripts):

- **1CPBR Convert to PBRSkin - Create Translucency**
  - In the conversion process, diffuse/base color textures are copied to the translucency color channel as LIE images, so that the gamma value for diffuse and translucency can be controlled separately.
  - By default, the LIE translucency textures are set to a gamma value of **1.4**, as this is an approximation for what a native, color-based translucency texture would be (as translucency is like a lighter version of the diffuse).
  - This script can be used on **Genesis 2**, **3**, **8**, **8.1** or **9** characters that are not currently using the PBRSkin shader and have no translucency textures, or where those textures are grayscale or otherwise undesirable. For example, most **Genesis 2** figures have no translucency textures and most **Genesis 3** (and **Genesis 8 Basic Male/Female**) have grayscale translucency textures.

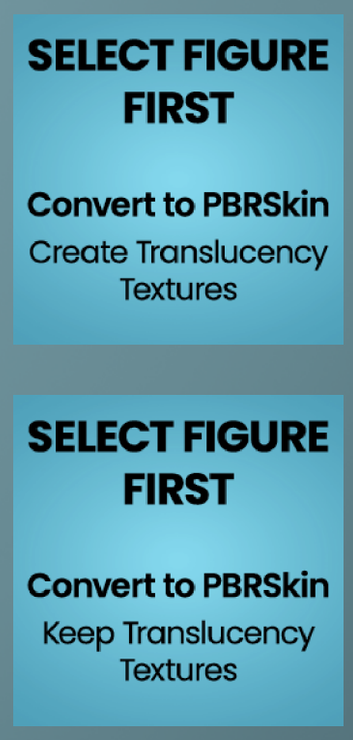

Figure 1: *Conversion Script Presets*

- **1CPBR Convert to PBRSkin - Keep Translucency**
  - This version of the script retains existing translucency textures and only copies diffuse to translucency for mouth related surfaces, as these rarely have translucency textures specified. Use this preset for characters that have color translucency maps.

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For both scripts, the cornea and other transparent eye surfaces are set to **Iray Uber** shader with custom refraction values, to faciliate realistic eye reflections. Other eye surfaces (iris, pupil and sclera) will remain untouched.

Note: Some characters use the same textures in the base color and translucency channels rather than having dedicated textures for translucency. For these characters you should only ever use the Create Translucency conversion script. It's worth getting in the habit of checking one of the skin surfaces before conversion. Also, Genesis 9 has separate mouth geometry, so these textures won't be converted. Genesis 9 Starter Essentials provides multiple PBRSkin options for free, so it is recommended to use these instead.

2 - Adjust Gamma (two slider dialog scripts):

- **1CPBR Gamma - Mouth and Teeth**
- **1CPBR Gamma - Skin, Lips and Nails**
  - Gamma is a numeric setting in the **Image Editor** and **Layered Image Editor** that can lighten/wash out or darken an image. This can help control the shade of the skin, ie how pale, tanned or deep toned the skin appears.
  - Two scripts have been provided to separate mouth/teeth from the skin/lips/nails, as in some cases it will be preferable for these to have different gamma values.
  - The full range for this setting in Daz Studio is **0.0** - **7.0**; **0.0** is equivalent to **2.2**, which is Daz Studio's default tone mapping gamma value in **Render Settings**. For this reason, the minimum/lightest value for the gamma sliders is set as **0.1** so the sliders maintain a logical scale.
  - On execution these scripts will display a dialog (see **Figure 3**) that will allow the diffuse and translucency texture gamma to be controlled separately. The **lower** the value, the **lighter** the texture will be, the **higher** the **darker** it will be. Different combinations will work for different skins - have fun experimenting!
  - The **Default** button will reset the slider to the default gamma (**2.2**) of the diffuse or translucency textures.
  - The **Restore** button will reset the slider to the current gamma value of the diffuse or translucency textures.
  - The **Iray Preview** checkbox will enable/disable Iray in the viewport so that changes can be previewed without submitting the dialog. As such, the sliders and buttons live update on value change.

Figure 2: *Gamma Script Presets*

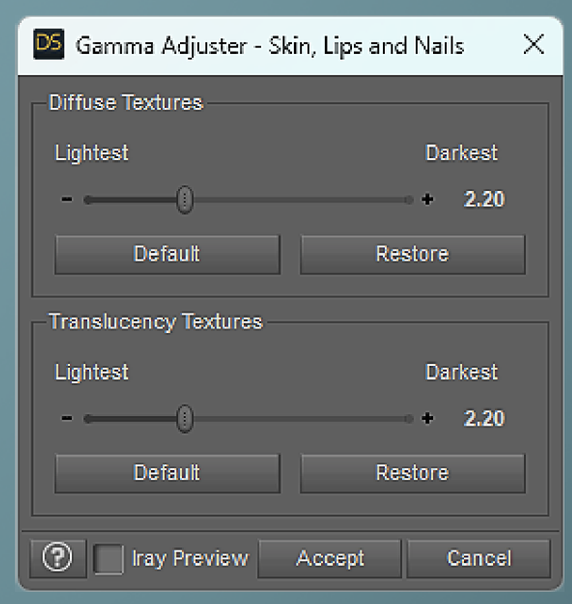

Figure 3: *Gamma Dialog*

Note: You cannot have two or more figures in a scene with the same textures and control their gamma separately - this is because they still share the same textures. Whilst we could have forced all textures to be converted to LIE instances to circumvent this, it would've heavily impacted performance due to duplication of images and significantly slowed down the conversion process.

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3 - Adjust Roughness (four slider dialog scripts):

- **1CPBR Roughness - Lips**
- **1CPBR Roughness - Mouth and Teeth**
- **1CPBR Roughness - Nails**
- **1CPBR Roughness - Skin**
  - These scripts operate in a similar fashion to the gamma scripts, however instead of being tied to images, they control the **Dual Lobe Specular Roughness Mult** value in surface properties. On execution, a dialog will be displayed (see **Figure 5**).
  - This property controls how rough or glossy **PBRSkin** surfaces appear overall.
  - The full range for the slider is **0.0** - **2.0**, where **0.0** is the **glossiest** setting and **2.0** is the **roughest** setting.
  - Some characters also have **Detail Normal Maps** (usually **Genesis 8.1** and **9** based). There will be an additional **Detail Weight** slider for these, providing extra control over skin glossiness (see **Figure 6**).
  - These scripts have been separated into four distinct groups so that they can have different roughness settings. For example, the mouth and teeth being a wet environment will be far glossier than the skin, most of the time.
  - The **Default** buttons will reset the sliders for the **Dual Lobe Specular Roughness Mult** and **Detail Weight** surface properties to their **default** values. For the **Dual Lobe Specular Roughness Mult** property, these defaults are:
    - **0.75** - **Lips**
    - **0.0** - **Mouth** and **Teeth**
    - **0.5** - **Nails**
    - **1.0** - **Skin**
  - The **Restore** button will reset the sliders to their **current** values for the **Dual Lobe Specular Roughness Mult** and **Detail Weight** surface properties.
  - The **Iray Preview** checkbox will enable/disable Iray in the viewport so that changes can be previewed without submitting the dialog. As such, the sliders and buttons live update on value change.

Figure 4: *Roughness Script Presets*

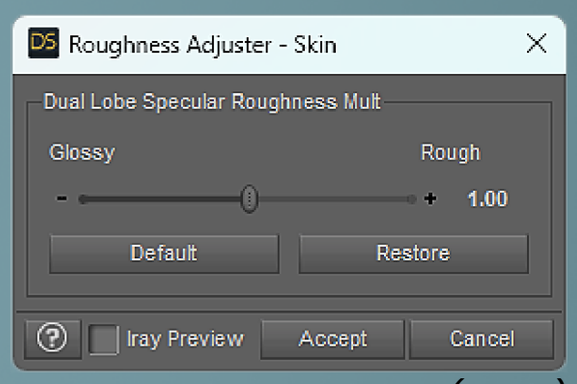

Figure 5: *Roughness Dialog (Basic)*

Figure 6: *Roughness Dialog (Advanced)*

Note: Genesis 9 doesn't have a Lip surface, so '1CPBR Roughness - Lips' is not compatible with this figure.

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4 - Adjust Translucency Color (one slider dialog script):

- **1CPBR Translucency Color - Skin, Lips and Nails**
  - This script controls the **Translucency Color** value in surface properties. On execution, a dialog will be displayed (see **Figure 8**).
  - This property will add the selected color to the **Translucency Color** channel as a tint to all skin, lip and nail surfaces and is particularly useful for neutralising excessive red, orange or yellow tones in the skin. Experiment with different hue and saturation levels until you get something you like!
  - On first load, the **Saturation** slider will have a value of **0** and the **Hue** slider will be **disabled**. This is because hue has no effect until saturation has a value greater than **0**, after which the **Hue** slider will be **enabled**.
  - The **Saturation** slider has a range of **0 - 255**, where **0** is **100% desaturated** and **255** is **100% saturated**.
  - The **Hue** slider has a range of **0 - 359**, representing the RGB color spectrum. **0** and **359** are both **red**.
  - The **color picker widget** will dynamically update as the **Saturation** and **Hue** slider values are changed.
    You can also click this (as with editing the **Translucency Color** property directly), to get the full color picker. Then benefit of using the script versus changing manually is that all relevant surfaces are updated at the same time.
  - The **Default** button will reset values to the **default** color for the **Translucency Color** surface property, which is usually white (**0 - Saturation**, **0 - Hue** and **1.00 1.00 1.00** for the **color picker**).
  - The **Restore** button will reset values to the **current** color for the **Translucency Color** surface property.
  - The **Iray Preview** checkbox will enable/disable Iray in the viewport so that changes can be previewed without submitting the dialog. As such, the sliders and buttons live update on value change.

Figure 7: *Translucency Script Preset*

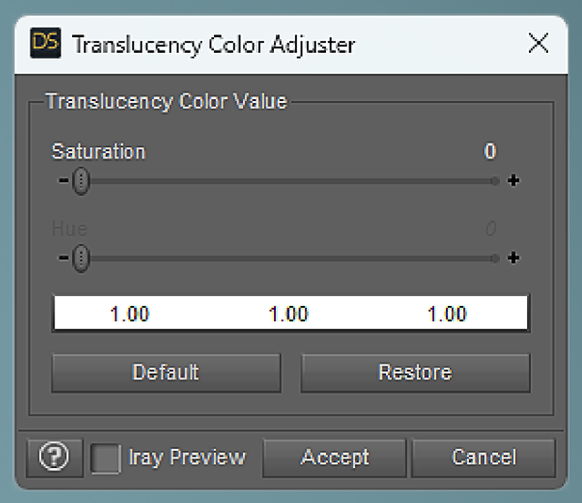

Figure 8: *Translucency Color Dialog*

Note: Generally speaking, a saturation value of between 10 - 30 is usually enough to neutralise excessive red, orange or yellow in lighter skin tones. For darker skin tones you may need to use higher saturation values.

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Top Tips

- All sliders support manual entry - you don't have to drag them. Just click on the current value to enter a custom value. Press **Tab** on your keyboard to commit the value, as **Enter/Return** will submit and close the dialog.
- Teeth can appear quite yellow on some characters post conversion. Whilst you could reduce the gamma to counteract this, bear in mind other mouth surfaces will also be affected (because they share the same texture) and could become too light. Instead, consider setting the **Transmitted Color** to **white**, and if they're still not white enough, remove the **diffuse/base color texture**.
- When using the **Iray Preview** feature in these scripts, the refresh of the Iray update when values are changed will get slower the more textures and meshes are in the scene. For best performance, hide scene assets that you're not working on. a quick way to do this would be to select all such assets and go to menu **Create > New Group > Parent Selected Items**, then hide the group in the scene.
- Makeup is not officially supported because there are so many different ways it can be applied, however here are some tips:
  - Geoshell-based makeup should work fine as its applied on separate geometry.
  - Makeup that replaces diffuse and translucency textures will need to be applied to the figure before conversion. There will be some desaturation post conversion especially to the lips and when using the **Create Translucency** conversion script, as the translucency textures will have their gamma reduced. As such, you should copy the lip surfaces prior to conversion. If you're not happy with the conversion, apply the desired makeup lip preset if one exists, otherwise select the lip surface, apply the **Iray Uber** shader and then paste the surfaces copied previously. **This won't be possible for Genesis 9 characters as they have no lip surface**.
  - Specular maps can also affect the perceived saturation of the lips, depending on lighting used. For **non Genesis 9** characters, lower the roughness of the lips to balance this.
  - **LIE** based makeup should be applied **before conversion when using the Create Translucency** script and **after conversion when using the Keep Translucency** script.
  - **Diffuse Overlay** makeup will not be converted, as this surface property doesn't exist in the **PBRSkin** shader; these will need to be applied manually.
  - To manually apply makeup to a converted skin, enable the surface property called **Makeup Enable**. Add the makeup opacity texture to the **Makeup Weight** channel and the makeup texture to **Makeup Base Color**.
  - If the makeup has its own specular/reflection texture, add this to **Makeup Roughness Mult** and adjust the slider to desired value.
  - If your desired makeup doesn't have an opacity texture but has a transparent background, add it to both the **Makeup Weight** and **Makeup Base Color** channels. Then, click on the makeup image in the **Makeup Weight** channel and select **Image Editor** from the dropdown. At the bottom of the dialog is a field labelled **Grayscale From:** which will be set to **Average**. Change this to **Alpha** then click **Accept**.

And finally - thank you for your purchase and we hope you enjoy! :)