WET AND TANNED SKINS
FOR GENESIS 8

Wet and Tanned Skins For Genesis 8 Males, or for Genesis 8 Females (called G8WT in the rest of the documentation) is a set of tools which will allow you to reach a wide variety of skin tones (not only tanned, but varying from pale to tanned) and of skin wet looks (from the original wet look to a very wet look).

This product is divided in two parts:
- one for Genesis 8 Males, and one for Genesis 8 Females. The names of all the scripts and presets will begin with "G8WT" (WT stands for Wet and Tanned).

With Wet and Tanned Skins for Genesis 8, you will be able to work separately on three aspects of the skin : the Tan, the Wet look, and the Tan Lines.
You can benefit all these features thanks to a very specific shader mixer shader especially developed and optimized for this "Wet/Tan/Tan Lines" purpose. This shader allows a Hue, Saturation, and Lightness correction of the Base Color Map, and also presents a dedicated Wet Layer above all the rest of the shader layers. The repartition of the tan lines is defined by grey level maps, and the Hue, saturation and Lightness of the Tan Lines can be modified only where the tan line is located. This will be explained in the Tan Lines Part.

This documentation is a synthesis of the key points of the product, but in case of additional questions, feel free to PM me directly on Daz Forums or to use the commercial thread of Wet And Tanned Skins For Genesis 8.

1. Apply the base shader

In order to apply the base shader, you must select a Genesis 8 figure and double click on the "applier" included. This figure must originally use an Iray uber shader so that the appliers work. Nowadays, all or almost all the figures come with an Iray Uber version of their materials, most of the time this is the default material.
This applier is "G8WT !!Apply Wet Tanned Skins".

This scripts will apply the new shader and copy some image maps of the initial figures on the required properties. Once done, you can use all the other scripts of this product. Initially the figure tan varies from "not tanned a lot" to "very tanned", depending on the characteristics of the figure Base Color Maps, on the post load options you make during the conversion, and the look wet is OFF (The figure has only its original specular/roughness/glossiness). What is applied is the starting point you can you to build your own Tan and your own Wet Look, using the partial presets included. The names of these partial presets will begin with "WNTG8 Tan" concerning the Tan part, and "WNTG8 Wet" concerning the Wet part.

Remark: using the applier for the first time during a Daz Studio session can take a few seconds up to one minute. During this time you will see the pop-up "loading Asset", because the new shader mixer shader has to be loaded. At the end, you will now that the preset has correctly been loaded thanks to an information message which will appear. This information message contains a short summary of how to change the Tan, the Wet look, and the Tan Lines for a figure. It is a very short summary of this full documentation.

2. Adjust the translucency level

The result you will obtain in term of tan will strongly depend of the original image maps used for the Base Color Maps of your figure.

If the image maps used for the Base Color maps are pretty dark, then the tan will be very fast too dark and eventually reddish as soon as you increase darkness, or tan booster, and this is generally the case because the Translucency Weight is then too high. This is why one of the first things that you have to do, as soon as the figure is converted, is to test various Translucency Levels. The idea when you do so is not to start with a too dark figure, because the darkness will very probably increase as you increase the tan look.

It is not recommender to use the translucency level as the main component of the tan. The idea is to make the first adjustment just after the conversion so that the skin is not too dark. Then you can use use the other presets, and AFTER YOU APPLY A TAN BOOSTER, OR A DARKNESS LEVEL for instance, you might have to adjust the translucency level again, still using the presets provided. Their names begin with "G8WT Tan !!!Translucency".

SOME FIGURES WILL BE FINE WITH ANY TRANSLUCENCY LEVEL PRESET

OTHER FIGURES WILL NOT SUPPORT HIGH TRANSLUCENCY

AND THIS DEPENDS ON THE BASE COLOR MAPS PROPERTIES

Example of Translucency Presets (G8WT Tan !!!Translucency) on two different Base Color Maps (two different figures). Some figures will be limited to low-medium translucency levels.

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3. Choose or set up the other tan options

The tan is obtained by combinations of changes in Hue, Saturation, and Lightness of the maps used as the Base Color maps and is strongly helped by "Tan Boosters", which change the gamma of these image maps, giving a more "vivid" aspect to base color maps. The tan lines are obtained only a black and white map is used in the "Tan Line" property, and then the intensity of the Tan line as well as the Hue and Lightness of this tan line can be modified. For the tan, the modifications made to the Base Color Maps in term of Hue, Saturation and Lightness will be reported only in the Base Color property, not in the translucency Color property. This is why if you increase the Translucency Weight, then you decrease the perception of these modifications (and you may end up with other required adjustments). It is recommended not to change too much the translucency weight.

When you use tan boosters, then the gamma of the image maps will change both for the Base Color and the Translucency Color properties, since a gamma change is linked directly to an image, not to a shader.

Some figures are more difficult to handle than the majority of figures. I think for instance to Lucas 8. In his case, the base color maps themselves are already very "tanned" or dark (dark-reddish for Lucas 8). The idea for such figures is to decrease or minimize the «general" factors increasing the tan (the tan boosters, translucency weight, darkness and saturation corrections) and to focus more on the SSS Reflectance tint (choose a brown color or preset) to build the tan.

3.1. The tools to adjust and modify the tan (and the skin tone)

In order to set up the exact Tan you want, you have several possibilities, you can choose the one you prefer, or use several of them :

a. Manual Adjustment in the Surfaces Tab Editor. In this case select all the surfaces and write in the "Enter Text to Filter By" box :
- "01" to access the Hue Corrections properties
- "02" to access the Saturation Corrections properties
- "03" to access the Ligthness (Darkness) Corrections Properties

b. Adjustments via the Global Interface, which gives you access, in the "Tan" Tab, to all the key properties allowing you to tweak the Tan look. The recommended drivers are the Hue, Saturation and Lightness ones, as well as the Tan Boosters. In addition you will find the Base Color, the SSS reflectance tint, as well as the Translucency Color and Weight, but these last ones are not the main drivers to the final skin look (except maybe the SSS reflectance tint, which has a major impact, but which is a very sensitive property).

In those two cases the rules of the game are easy : in order to get a more tanned skins, you can increase the Tan Booster level and/or increase the saturation and/or increase the change in the lightness (which darkens the result). The Hue Correction is here to alter the Hue of the final skin, which strongly depends on the Base Color Image Maps and on the lighting of your scene.

c. You can use the Partial Presets, this is probably how you will first build the tan, proposing various levels of Saturation, Lightness Corrections, and different options of Hue Corrections. These partial presets are named :

- G8WT Tan !!Darkness Level **number**
- G8WT Tan !!Saturation Level **number**
- G8WT Tan !Hue Correction **Type or number**

d. You can use the Full Presets, grouped in several families (with different translucency bases, Tan Booster Levels, etc., etc..), and in each family, the saturation and darkness of tan look increases as you increase the Level (G8WT Tan Option A Level 0 is the less tanned, G8WT Tan Option A Level 5 is the most tanned). **ONCE YOU HAVE APPLIED A FULL PRESET, IT IS INTERESTING TO USE THE PARTIAL PRESETS TO ADJUST THE TAN. Full presets are just potential starting points to build the tan you want.**

When you apply a full preset, if the gamma (Tan Booster level) is changed, then Daz Studio will make an image refresh which will take a few seconds to be processed. If the Tan Booster Level is kept, then there is no image refresh processed and this is much faster. Inside a same "Family" of full presets, (same Option letter for the G8WT Tan Option "Option Letter" Level "Level Number), the Tan Booster is preserved and you have no image refresh.

In general, all the modifications you make to the tan or the wet look will be displayed immediately in the viewport in Iray Mode, except the Tan Boosters and some of the Full Presets, for which Daz Studio has to refresh the maps, and as a consequence, it takes additional time to refresh these maps (a few seconds on a good computer).

The same way, the resulting skin can be saved as a material preset but for the current versions of Daz Studio, *the Tan Boosters parameters (gamma of image maps) are not automatically reloaded from the material preset when you apply this material preset*. You have to save the scene instead, or to save the figure as a scene subset eventually.

3.3. Remarks concerning Tan Boosters :

Tan boosters act directly on the Gamma value of Base Color image maps. Consequently, with the current versions of Daz Studio, there is no "undo" possible after applying a Tan Booster. If you want to reset the Tan Booster, Use "Tan Booster OFF", which will set the gamma at 0, which is the default gamma for a wide majority of Base Color Maps of a wide majority of figures.
FOR FIGURES USING DARK OR MEDIUM DARK BASE COLOR MAPS, AVOID USING MEDIUM, HIGH OR MAX TAN BOOSTERS. This would make the figure too dark-reddish.

Using Tan Boosters is a bit longer to apply than the rest of the other presets, because Iray needs to refresh the images with the new gamma. Yet using Tan Boosters are warmly recommended because they are really efficient in term of "Tanned Skins" visual impact.

Here is an example of the influence of the Tan Boosters.
Tan Boosters will apply the same gamma for all the base color image maps used for all skin surfaces, considering that they were all designed to support a same gamma value, which is almost always the case.

Example of Tan Booster on a very pale skin setting.

Example of Tan Booster effects on with other skin base: (partial presets: darkness level 4, saturation level 3, Hue change 0.9 "color_layer_hue" mode, with a (226, 198, 178) "01_Hue Change Base" Hue color.

3.4. The Partial Presets :

Tanned skins appear in general darker. Darkness appears first in the partial presets, because it has a strong influence on the final Tan Perception.

- You can load 7 partial presets acting only on the darkness of the skin.
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Example of Darkness levels change via some of the included Darkness presets on Michael 8.

G8WT Tan !!Darkness 0 will not change the lightness of the image maps used for the Base Color. From G8WT Tan !!Darkness 1 up to G8WT Tan !!Darkness 6, the Darkness of the Base Color Map will increase, giving the impression of a darker skin. Please note that you will not frequently use the 6th preset, but it can be useful for very high lightness HDR environments. In practice this is a bit more complex than that because it takes into account the initial color map lightness too, but I don't want to focus here on the technical part, just on what is important for you as a user

If, in the presets, you don't find the level of darkness that you want (what you would like is between two presets) then you can opt for a manual adjustment in the Surfaces Editor Tab, or an adjustment via the Global Interface. The property allowing to change this is called "03_Lightness Change Weight" and increasing it increases the Darkness.

- You can load 6 partial presets acting only on the saturation of the Base Color Map. G8WT Tan !!Saturation 0 will not change the saturation of the image maps used for the Base Color. From G8WT Tan !!Saturation 1 up to G8WT Tan !!Saturation 5, the Saturation of the Base Color Map will increase, giving the impression of a more dark skin. If, in the presets, you don't find the level of saturation that you want (what you would like is between two presets) then you can opt for a manual adjustment in the Surfaces Editor Tab, or an adjustment via the Global Interface, using the property: 02_Saturation Change Strength.

If, in the presets, you don't find the level of saturation that you want (what you would like is between two presets) then you can opt for a manual adjustment, or an adjustment via the Global Interface.

The property allowing to change this is called "02_Saturation Change Weight" and increasing it increases the Saturation.

Example of Saturation levels change via some of the included Darkness presets on Michael 8.

- You can load 21 partial presets acting only on the Hue Correction of the base color map of the figure, 10 using a layering technic in the shader, 11 acting directly on the SSS reflectance Tint.

Sometimes, depending on the original skin tone (image maps), the light used, as well as the other settings used for the tan, the skin may turn too orange or too green or too violet. In order to compensate this, to adjust the skin tone, you can adjust the skin tone using the partial presets included, and which are going to be detailed in the next part. If you don't find what you are looking for in the presets, you can proceed to an adjustment directly in the Surfaces Editor Tab, or in the Global Interface.

This is more complex to handle because you can act on a lot of things to change the tan tone, and you can find in this documentation the various ways you have to handle the Hue with this shader, in the part "Adjusting the Hue of the skin".

4. Adjust the Hue of the skin

Depending on the lights, the original image maps, and the tan settings (Boost, Darkness, Saturation) you choose, the skin may become too much orange (most often) or too yellow, or too much of another color. Tools are included so that you can change the Hue as much as possible via presets (and much more via the interface if necessary). You can also act directly on the Base Color to work on the Hue, but in general this is much less efficient as the following methods.

## 4.1. Hue Correction by layering images in the shader

You can adjust the hue using the "01_Hue Change Base Hue" (what color the Hue will be taken from), "01_Hue Change Base Strength" (what amount of correction will be done), and "01 Hue Change Blend Mode" (if you blend, add, multiply, screen, take the hue, take the average etc., etc. the Hue correction layer to the Base Color Map).

You can compare this to an effect in photoshop. You have the upper layer (which is the base color map multiplied by the hue you set), the lower layer (which is the bottom color map), the blending mode of the upper layer and the opacity of this layer (here the Strength). In general, the "01 Hue Change Blend Mode" will be set to "color_layer_hue" (last of the list) or "color_layer_blend" or "color_layer_add".

The "color_layer_add" is very interesting to use when you change the hue because it allows you to add *more precisely* more red, or more green or more blue to the skin tone (always taking into account the specificities of the initial maps). YET using color layer blend or add will tend to lower the effect of the saturation or darkness increase you would have already made.

In order to change this blend mode if you feel like doing so, you have to select all the surfaces and, in the "Enter text to filter by", at the top of the Surfaces Editor Tab, you have to write "01". You can also write "Hue", but in this case you will also see the Hue parameters of the skin affected by the tan line. Then you can change the 01 Hue Change Blend Mode.

IN THE SURFACES EDITOR
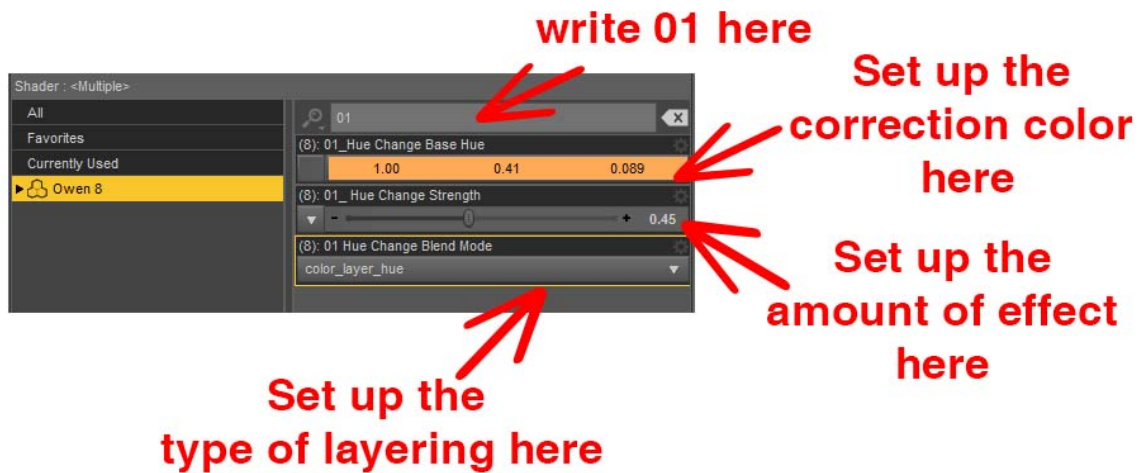
*How to manually change the blend mode for the Hue Correction.*

Concerning the Presets included, most of them can be used on tanned or untanned skins, and:

- G8WT Tan Hue Correction A0 will set the amount of hue shift, whatever the hue, to 0.

- G8WT Tan Hue Correction A (1, 2, 3) scripts will shift the skin Hue to something more pink, with an increasing strength.

- G8WT Tan Hue Correction B (1, 2, 3) scripts will shift the skin Hue to something more "flesh" color, with an increasing strength.

- G8WT Tan Hue Correction C (1, 2, 3) scripts will shift the skin Hue to something more orange, with an increasing strength.

4.3. Presets of Hue Correction

The presets included are the most commonly used during all the test stages :

- G8WT Tan Hue Correction A0 will set the amount of hue shift, whatever the hue, to 0.

- G8WT Tan Hue Correction A (1, 2, 3) scripts will shift the skin Hue to something more pink, with an increasing strength.

- G8WT Tan Hue Correction B (1, 2, 3) scripts will shift the skin Hue to something more "flesh" color, with an increasing strength.

- G8WT Tan Hue Correction C (1, 2, 3) scripts will shift the skin Hue to something more orange, with an increasing strength
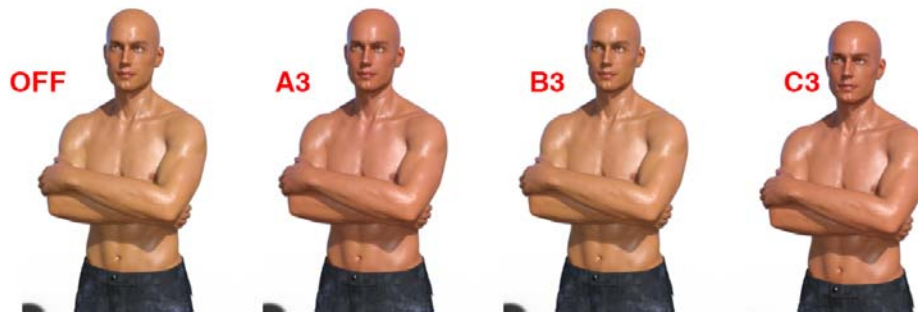
Examples of Hue Corrections Using Presets

4.4. Hue Correction by SSS Reflectance Tint

The "G8WT Tan !Hue SSSRT …" presets will apply a corrective color directly to the SSS reflectance tint.

Here is an example of how the G8WT Tan !Hue SSSRT presets can affect a skin tone :

Example of the change via some of the included G8WT Tan !Hue SSSRT presets on Michael 8.

- SSS Reflectance Tint requires very low saturated colors, and has a strong contribution to the final color, but it is very sensitive (a small color change in the SSS reflectance Tint can be highly visible).
You have 11 preset : one "OFF", the SSS Reflectance Tint is set to white, and 5 base colors in two levels of saturation (of influence) : Purple, Pink Red, Orange, Yellowish, Blueish. They correspond to the most efficient and commonly used SSS Reflectance Tint corrections used on a wide panel of figures under a wide panel of light conditions. Of course, you can change the SSS reflectance tint for the Hue correction yourself either in the Surfaces editor pane, or via the Global interface provided. Changing the SSS reflectance tint using the Global Interface will allow you to reach a wider panel of possible tan tones.

4. The Use of Full presets

Full presets are included and all act simultaneously on:
- Saturation Level: 02_Saturation Change Strength
- Hue Correction: 01_Hue Change Base Hue and 01_ Hue Change Strength
- Lightness Correction : 03_Lightness Change Weight
- Base Color
- Translucency Color and Translucency Weight
- Transmitted Color and Transmitted Measurement Distance
- Scattering Measurement Distance, SSS Amount and Direction (SSS is monochromatic in this shader)
- Tan Booster (gamma of image maps used for skin parts).
- SSS Reflectance Tint

They are not all compatible with all figures. The Full presets using a high Translucency Weight such as presets A (G8WT Tan Option A Level "i") or B (G8WT Tan Option A Level "i") will not be compatible with the figures which are using pretty dark Base Color Maps (such as Owen 8), because the translucency contribution will be too dark too. For those figures, the recommended presets are presets D or E. Of course, all figures being different, you will probably want to adjust the result with the partial presets included, or with the Global Interface.

The presets G8WT Tan Option LevelLT Option "letter" "i" present a much lower translucency weight for a better compatibility with darker skin tones. "LT" stands for Low Translucency.

The first presets you will see, with the names built under the model "G8WT Tan Option *0, 1, 2, 3*.. Level 0, 1, 2,3" will use the SSS reflectance tint as an important part of the tan look. For the last presets, with the names built under the model "G8WT Tan Option *A, B, C, D*.. Level 0, 1, 2,3" the SSS reflectance tint is only a minor part of the tan look and is set to white (then you can choose another SSSRT using the partial presets included).

Finally you will find tan presets for some of the main Genesis 8 figures. These are proposals of presets, you can of course modify them to your taste.

5. What if the presets are not enough ?

In this case, use the G8WT !Global interface. You can adjust Hue, Saturation, and lightness more precisely.
If it is still not enough, there is a very robust solution, which consists in lowering Hue Correction Strength, Saturation, and Lightness (Darkness) correction Strength, and to *use essentially the SSS Reflectance tint color* to build the tan. In this case choose a brown color for SSS reflectance tint and adjust this brown color to get a tan close to the one you want. Then finally readjust Hue, Saturation and lightness still using the Global interface.

6. "Diffuse Overlay" eyebrows:

In some figures, eyebrows come as a Diffuse Overlay property. With very dark skin presets, you may have to adjust the Diffuse Overlay color of the Face (for something darker or browner) in order to minimize the effect of the color difference at the frontier between the overlay and the base skin.

7. Build the Wet Look

The wet look is obtained using a Wet Layer directly inside the shader above all the other layers of the shader. The choice has been made that you can highly customize this wet look layer.
There three ways to customize the Wet Layer.
- First, manual adjustment for experimented users, you can access all the wet layer properties it in the Surfaces Editor Tab by selecting all the surfaces and writing "Wet" in the "Enter Text To Filter By" top box of the Surfaces Editor.
- The second method is to use the various partial presets for the Wet Look which are included in the product.
- Finally, you can use the "G8WT Global Interface" global interface.

When your figure is initially converted, the values for the Wet Layer are the following ones :
- Wet Layer Weight: 0 (No Wet Layer Applied)
- Wet Layer Roughness: 0.12
- Wet Layer Normal Factor: 0.03 (default)
- Wet Layer Grazing Factor: 1 (default)
- Wet Layer Exponent: 5 (default).
- Wet Layer Color: white (recommended)
- Wet Layer Anisotropy and Anisotropy rotations: 0
- Wet Color Effect 0 (keep it this way)
- Wet Layer Bump Mode: Height Map (keep it this way).
- Wet Layer Bump: uses the Bump maps of the original figure, with a strength of 6.

6.1. Wet Look Amount

Several partial presets are dedicated to change ONLY the amount of the Wet Layer, driven by the property "WET Layer Weight". Their name begin with "G8WT Wet !Amount". You can of course also adjust this amount manually (WET layer Weight in the Surfaces Editor) or using the manager interface if you prefer.

"G8WT Wet Amount 0" will set a null amount for the Wet Layer (switch it OFF), meaning that the skin will be "dry" or at least identical in term of glossiness or wet look to the original figure you loaded.

From " G8WT Wet Amount 1" to " G8WT Wet Amount 8" the Wet Layer weight is increased from 0.05 up to 6. THE REAL variation range is 0-1, meaning that for all the values between 1 and 6, if the "Wet Layer Weight" is unmapped, there is no

difference. But such a range of is provided because some people may decide to Map the Wet Layer Weight, and in this case, they need a wider range of values, and they will see a difference between 1 and 7. Higher ranges can be obtained using the Global Interface, which "pushes the limits" as you dial its value. This is why, if you use the presets you can stop at Wet !Amount Level 07, which corresponds to a value of 1. The other values are for advanced users who might map the Wet Layer Weight.

The Wet Amount does not change directly the look or spatial repartition of the Wet Layer properties, it will change ONLY the total amount of it.

Example of the change via some of the included G8WT Wet !Amount presets on Michael 8. Left GWT Wet!Amount 0, right Left GWT Wet!Amount 07

Normal, Grazing, and Exponent are the ones of the Schlick's approximation formula. Yet, you can have great effects going out of the "physics behind", i.e. by applying values very different from the default "physical" values. What matters is the result.

6.2 Wet Map (Wet Bump Map)

One of the key factor, REALLY IMPORTANT, in term of visual perception of the final Wet Look, will be the Wet Layer Bump (maps as well as strength of the maps). Initially when you convert a figure, the maps used are the bump maps of the figure, and the average strength is set up at 6. This is an average strength obtained after a lot of tests, but some figures may require a strength adjustment, which can be as usually obtained via the surfaces editor ("wet layer bump"), via the Global Interface, or using the included presets (choice are more limited than with the two other solutions). Increase this Wet Layer Bump for a more rough wet look, and decrease it for a more flat-shiny one. When you change the bump, you may have to re-adjust the amount of Wet look.
You can use different type of Wet Bump maps :

- G8WT Wet !MAP Option 1: The Bump maps of the figure itself. In this case a Wet bump of 6 is the recommended value, but it probably will need adjustments depending on the characteristics of the bump image maps of the figure. Adjustments in term of strength can also be done to adapt to your camera distance. The bump can be increased for far away shots, and decreased for close ups.

- G8WT Wet !MAP Option 2 : a standard Wet bump which can be used on any figure, especially for the ones where the bump maps are not detailed enough or do not produce a nice wet look. This works fine for Wet bump strength between 1 and 3 maximum.

- G8WT Wet !MAP Option 3 adds drops to the Wet Layer Bump. The normal factor of the Wet Layer is using a map lowering the wet look out of the drops for the sub-option A, no attenuation of the option B (3B), and a lower attenuation for the option C (3C).

Different Wet Maps can be loaded, from left to right : G8WT Wet !MAP Option 1, G8WT Wet !MAP Option 2, G8WT Wet !MAP Option 3A, G8WT Wet !MAP Option 3B, G8WT Wet !MAP Option 3C.

Here is an example image of the results of the different wet maps provided, for half body renders. You find the maps from left to right in the order of the content library. I increased the Wet Layer Exponent using Wet Layer Exponent C (3).

The rest is default : Wet Normal Default Level 2 Default, Wet Grazing Default. The Wet Layer Amount 5 preset was used (which corresponds to a 0.7 weight). The drops being small they are not easy to see on the comparison renders, they are more visible on bigger renders.

Using Wet !MAP Option 2 is one of the safest choice. For mid-range renders (half body), you can use the default Wet Bump Strength of 2, and for far away renders (full body), you can try a Wet Bump Strength up to 4. For a more "flat" oily look, you can try a bump of 1 (preset) or 1.5 (use the G8WT Global Interface) to reach these values.

Warning : If the Bump (BASE BUMP) of the figure is too "rough" then it prevents the good behavior of the bump maps (for instance on Zelara 8). In this case YOU HAVE TO LOWER THE BASE BUMP of the figure. You can do this using the G8WT !Global Interface script, in the Adjust Wet Look Tab.

Example of Wet Map 3C

6.3 Wet Bump (Wet Bump Map Strength)

By adjusting the strength of the bump maps used for the Wet Layer, you can really fine tune the visual - perceived -"roughness" of the wet skin. Some presets are provided, but for the bump, it is very interesting to use the "G8WT !Global Interface", in the "Adjust Wet look" Tab in order to reach more possible Bump Strengths, or to adjust it directly in the surfaces Editor Tab (write "Wet" or "Bump" in "Enter text to filter By.." at the top of the surfaces) to have less properties to see.
In the global interface, the maximum Bump Strength is set at 15 (for more precision of the dial), but you can reach 40 in the Surfaces Editor Tab.
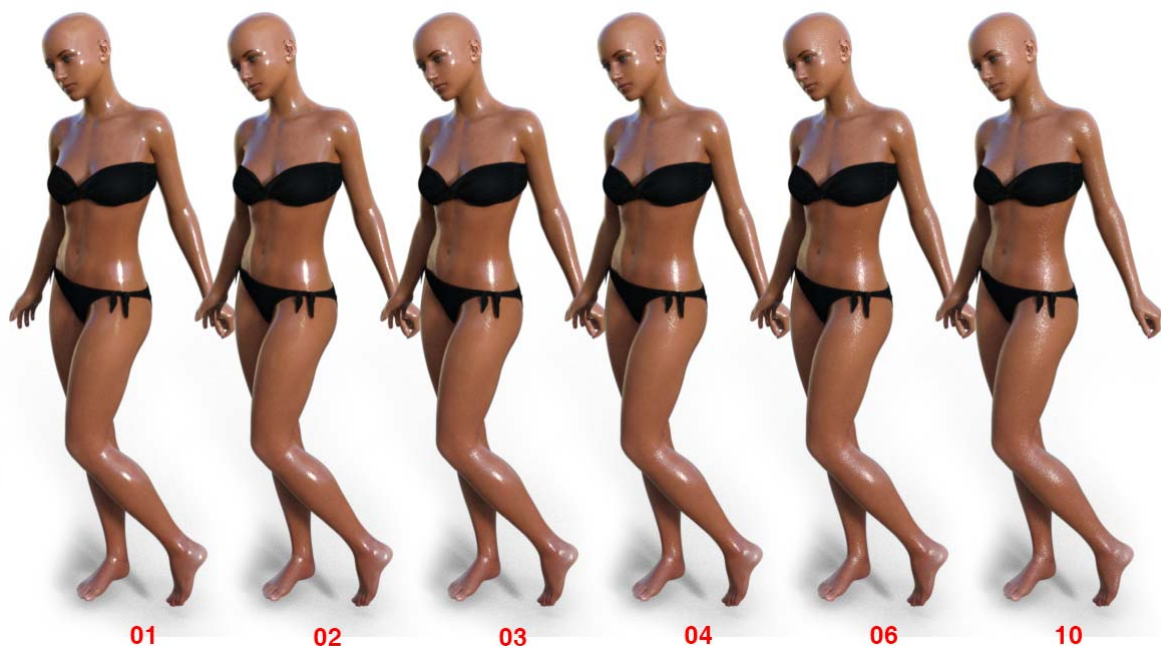
Increase the Bump to have more "little white dots" on the wet highlights – less uniform highlights. Do not increase it too much, otherwise you will remove the wet aspect. The interesting range of Bump strengths is different depending on the figure, the lights, and the maps used, and is in general necessary to adjust the bump strength for your render.

You will find some Wet Layer Bump Strength presets provided. Their names begin with : G8WT Wet Bump "index". The index represents the real Wet Layer Bump Strength. For instance, G8WT Wet Bump 04 represents a Wet Layer Bump with a strength of 5.

Here is an example of the influence of the various Bump Strength preset provided on Genesis 8 Base Female, after initial conversion, using Daz Studio Default environment light, and using presets:
- G8WT Wet !Amount Level 3 (Wet Layer Weight = 0.4)
- G8WT Wet Grazing Level 2 (Wet Layer Grazing Factor = 1.5),
- G8WT Wet Layer Exponent B (Wet Layer Exponent = 4),
- G8WT Wet Normal Level 4 (Wet Layer Normal Factor = 0.07)

Wet Bump Strength influence using provided Bump Strength presets (their names begin with : G8WT Wet Bump), using default (figure) Bump Maps

With the same values and settings, the default Wet Bump Map (based on Original figure maps, is replaced by "Bump Map 2 (G8WT Wet !Map Option2). This example is made to show that there is no "absolute" value for the Bump, the Bump strength has to take into account the characteristics of the Bump Maps. The lights, the camera distance, and the other wet settings will also probably influence the choice you will make for the Wet Layer Bump Strength.

Effects of WET LAYER BUMP STRENGTH presets (using custom Map - BUMP MAP 2)

| 01 | 02 | 03 | 04 too high | 06 too high | 10 too high |
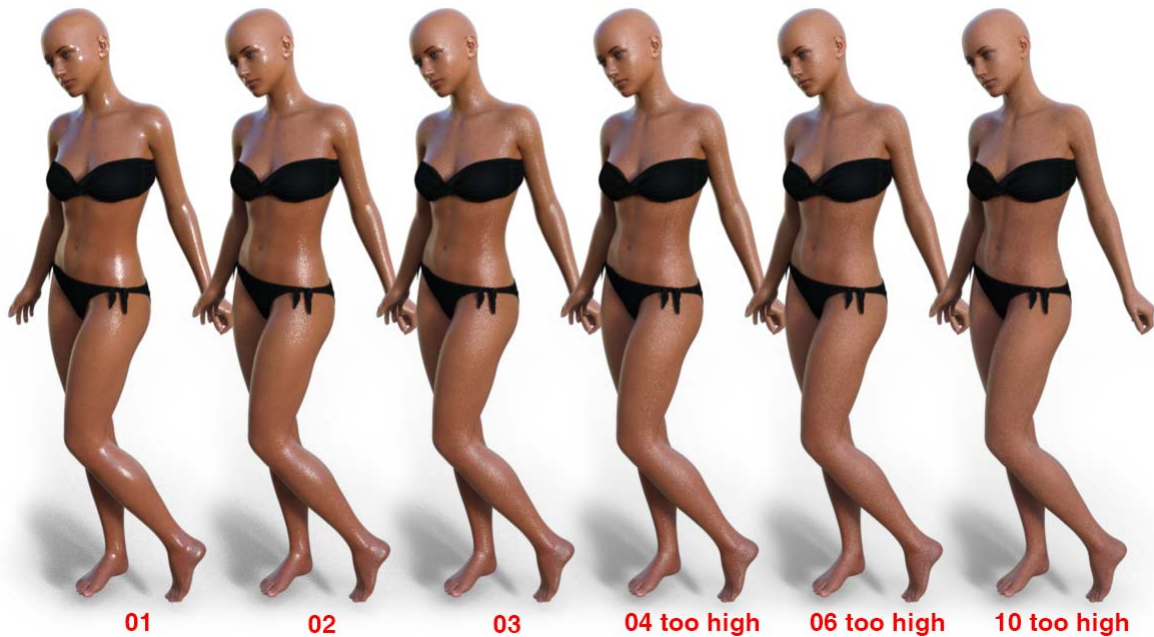
Wet Bump Strength influence using provided Bump Strength presets, Bump Maps 2 (G8WT Wet !Map Option 2)

In this second illustration, it is clearly visible that above 4, the Bump strength is too high to provide a wet effect.

This is why the Bump Strength presets are provided so that you can find the right order of magnitude for the Wet Layer Bump Strength, but for a better result, it is recommended to fine tune it manually using either the Surfaces Tab Editor (write wet in the "Enter text to filter By.." area located at the top of the surfaces properties), or using the Global Interface (G8WT !Global Interface).

6.4 Wet Layer Exponent

In order to determine the reflection at a given point, a mathematical approximation is made and is proportional to the following one:

" $F_o+(1-F_o)x(1-\cos(\theta))^{\wedge exponent}$ ", where $F_o = ((n1-n2)/(n1+n2))^{\wedge 2}$

This property, the Wet Layer Exponent, will determine how fast, the reflectivity will vary as a function of the angle of the incoming ray or light with the normal direction of the surface.
The default value for the exponent is 6. If you increase this exponent, the wet look of the skin will tend to decrease, and if you decrease this exponent, the wet look of the skin will tend to increase (giving the impression that the skin is more reflective). In general, you will never decrease this value bellow 3.

This property can be handled using the partial presets provided, the Surfaces Editor Tab (Enter text to filter by = "Wet"), or using the Global interface.

Some presets are provided and their names begin with : "G8WT Wet Exponent". The two following images show the evolution of the Wet Look (default Daz Studio light Dome was used), the first one showing front and back view of the figure using the Wet Layer Normal provided, the second one compares the default to the last preset.

Wet Layer Exponent Factor influence using provided Wet Layer Exponent presets

LEFT :
- G8WT Wet Layer Exponent A Default

RIGHT:
- G8WT Wet Layer Exponent D

WET LAYER EXPONENT CAN BE DECREASE FROM 5 (DEFAULT) TO 2 (MINIMUM RECOMMENDED) IN ORDER TO CHANGE THE CHARACTERISTICS OF THE REFLECTIONS, OF THE WET LOOK

Wet Layer Exponent influence on reflectivity (look at shoulders level and bottom of the cranium), more precisely how "fast" the reflectivity varies between normal and grazing reflections.

6.5 Wet Layer Grazing Factor

The Wet Layer grazing Factor describes the behavior of the "grazing" rays, the ones which arrive almost parallel to the surface (the angle to the normal is 90 degrees or almost 90 degrees). In optics, in classical conditions, grazing rays are almost always systematically reflected (Fresnel's laws). Thanks to the formula used for the wet layer, you can increase this amount "above physical limits" in order to increase the perceived wet look. This can be done, as usually, in the surfaces Editor Tab (Wet Layer Grazing Factor), in the Global interface, or using the Partial Presets. The

Wet Layer Grazing Factor influence on "Grazing" reflectivity (look at breast and shoulder level, and bellow the chin). Rendered from G8WT Wet Grazing Level 1 Default (left) to G8WT Wet Grazing Level 4 (right) presets.

The Grazing Factor default value is 1, but you can increase it up to 3 if you want, knowing that higher than a certain value (3.5-3 depending on the pose and lights), the drawbacks (a really too high grazing reflectivity on some areas of the body) override the benefits. Increase the Grazing Factor to increase the Reflectivity of the Grazing rays.

6.6 Wet Layer Normal Factor

The Wet Layer Normal Factor describes the behavior of the "normal" rays, the ones which arrive almost perpendicular to the surface (the angle to the normal is 0 degrees or almost 0 degrees). In optics, in the classical conditions we use here, normal rays are almost always systematically refracted (Fresnel's laws). A part of them is reflected too, and this depends on the optical indexes of the two media of the interface. Thanks to the formula used for the wet layer, you can move this amount "away from physical limits" in order to increase the perceived wet look.

The Normal Factor default value is 0.03, which is already slightly higher than its real physical approximation, and you can increase it, up to 0.2 eventually. Yet, in general (it also depends on the lights) the look goes from "wet" to "weird" as soon as you raise it too high. **Increasing Normal Factor increases the highlights strengths AND the global reflectivity.**

The following image illustrates the variation of the Wet Layer Normal Factor from 0.017 up to 0.1, using the partial presets acting on this property. Their names begin with "G8WT Wet Normal Level":

Yet, take care because, if increasing the normal factor may be very efficient to increase the wet look amount in a given environment with a strong light level, it is often, if you increase it a lot, not good for rendering this figure in a dark, not very contrasted environment. In order to illustrate this, here is a render comparison of the same figure, in the same environment light, with the same skin settings as the one used in the previous image. But this time, we have a look at the figure from backwards, where the light and light contrast is very low.

In dark environments with a low contrast, the reflectivity may appear too "metallic" or too "plastic" if you raise the normal factor too high. It is better to pull this trigger in rich and clear environments.

6.7 Wet Layer Roughness

The wet layer roughness has an influence on the size and brightness of the white highlights areas that you can see on the figure. If you increase the roughness, these highlights tend to be bigger and less shiny, lowering the Wet look. The contrary happens by lowering the roughness. The optimal roughness for what you wish as a wet look will also depend on the Bump maps and strength, since Bump maps are a texture contribution to the wet layer roughness, so there is a balance to reach between Wet Layer Bump Map, Wet Layer Bump Strength and roughness.

WET LAYER ROUGHNESS MUST REMAIN BETWEEN 0 AND 0.3

Roughness Preset : 0.12   0.2   0.24   0.28

Wet Layer Roughness must remain between 0 and 0.4. In this area, the difference between presets will be more visible with low bump strength (not the case here, were the bump strength dominates the wet look aspect).

COMPARISON BETWEEN A WET LAYER ROUGHNESS OF 0.12 (LEFT) AND OF 0.28 (RIGHT)

BUMP MAP USED : G8WT Wet !MAP Option 2 (BUMP MAP 2)

BUMP STRENGTH USED : G8WT Wet Bump 01 (BUMP STRENGTH 1)

Example of Wet Layer Roughness influence (0.12 left vs 0.28 right) on the wet look.

As for all the other settings, the Wet Layer roughness can be modified using partial presets, or using the Global interface or using the Surfaces Editor Tab (property Wet Layer Roughness).

7. Diffuse Overlay on BODY Remark!

Some very rare figures (for instance Quinton for Michael 8 or Kasper for Owen 8) use their own Base Color Maps as diffuse overlay maps on all the skins surfaces (arms, legs, torso, etc, etc..). For these figures, the conversion script, when it detects that the torso uses a non null Diffuse Overlay Weight, sets the Diffuse Overlay Weight for the surfaces of the skin to 0. In this case, if the Diffuse Overlay was made to add tattoos to the skin, you can set its weight to 1 after to conversion.
Figures using Diffuse Overlays for eyebrows or face make up only should not be affected by this part of the conversion script.

8. Build the Tan Lines :

This product allows the possibility to add tan lines (tan patterns, tan repartition) on your figures, and to adjust their color. The principle of the tan lines is easy to understand.

8.1. Where will there be Tan Lines?

First you have to define on which areas of the body the tan line will appear and where the skin will remain tanned. This is done buy using grey levels maps on the properties related to the strength of the tan lines saturation, Hue, and lightness modifications, which are :
- Tan Lines (how much the saturation of the skin is decreased)
- Tan Lines Hue Correction Strength (how much the Hue Correction acts on the Base Color Maps)
- Tan Lines Lightness Correction Strength (how much the Lightness Correction acts on the Base Color maps)
- Tan lines Darker Correction Strength (how much the Darkness Correction acts on the Base Color maps, null in general).

Each time you apply a tan line "location" preset, the ones whose name begin with "G8WT zTL "index"" or "G8WT zTL Layer", with a black and white thumb, you define only where the tan line will appear. You do not define what the hue, saturation and lightness correction will be on the tan line.

For the presets: "G8WT zTL 01, 02, 03, etc., etc…", when you apply a preset, it will ignore your precedent choices. It means that they cannot be added, they simply replace the precedent tan line pattern you had.

For the presets: "G8WT zTL Layer…", when you apply a preset, the new images will be LAYERED over the precedent images, using LIE presets, adding 70% of the

chosen map to the precedent map (70% because this way you can for instance still see – or "guess" - the top of the bikini under a Tee shirt Tan line). This way you can build more complex tan lines patterns.

<mark>G8FWT (or G8MWT) zTan Lines 0 Reset Maps is an utility which will set all the maps used to define where the tan lines must be visible to the default value</mark> (i.e. black maps, tan lines are visible nowhere).


8.3. Adjust the color of the Untanned Skin

<mark>In order to change the color of the skin where the tan line is, the useful surface properties are:</mark>
- For Saturation Correction:
    o How much you dial "<mark>Tan Lines</mark>" in order to lower to saturation of the skin

- For Hue Correction:
    o What color you choose to correct with. This is defined by the color you put in "<mark>Tan Lines Hue Correction</mark>". By default, this is multiplied by the base color map, but this can be removed if necessary.

    o What type of blend you are going to do with the "current" color of the tanned skin. Add? Blend? Screen? Overlay? This choice is up to you, and can be done in the "<mark>Tan Lines Hue Correction Blend Mode</mark>" dropdown list.

    o The amount with which this correction will be applied, which can be defined in "<mark>Tan Lines Hue Correction Strength</mark>".

- For Lightness Correction:
    o What color you choose to correct with. This is defined by the color you put in "<mark>Tan Lines Lightness Correction</mark>". By default, this is multiplied by the base color map, but this can be removed if necessary.

    o What type of blend you are going to do with your new color to the "current" color of the tanned skin. Add? Brightness? Screen? Overlay? Lighten? This choice is up to you, and can be done in the "<mark>Tan Lines Lightness Correction Blend Mode</mark>" dropdown list.

    o The amount with which this correction will be applied, which can be defined in "<mark>Tan Lines Lightness Correction Strength</mark>".

- The Darkness Correction works on the same principle as the Lightness Correction, but you will probably never need it for tan lines purposes.
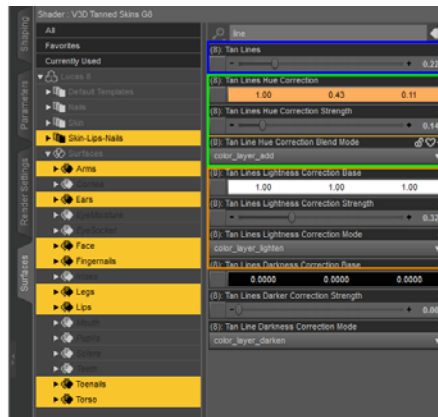
Overview of the properties allowing to change the Tan Line colors in the Surfaces Editor Tab

8.4. Load Presets of Colors for the untanned skins

Several presets are provided and their names all begin with "G8WT zTL HSV" (HSV stands for Hue, Saturation, Value). They are examples of tan lines corrections, and if you don't find in those presets what you need for your case of figure, you can use them as starting points to build your own "untanned color" using either the surfaces editor, as previously mentioned or using the Global Interface.

The result of these presets in term of visibility will depend on the way you created the tan and on the figure you work with.

You can also load partial presets which will ITERATIVELY (each time you click on them) increase or decrease either the saturation of the tan lines with G8WT zTL Line HSV Iterative Saturation Correction Up (or Down)", or the Hue correction influence only with G8WT zTL Line HSV Iterative Hue Correction Up -Down, or the Lightness correction influence only with G8WT zTL Line HSV Iterative Lightness Correction Up (or Down). The values of the variations "up and down", for all these properties, is 0.1.

## 9. The Global Interface : G8WT !Global Interface

In order to work on the Tan, the Wet Look, and the Tan Lines Colors, an interface gathering all the key properties by category is provided. It will allow you to reach more skin settings than working only with the presets.

In this interface, you will find 3 Tabs: "Adjust Tan", "Adjust Wet Look", "Adjust Tan Lines". The only limitations in comparison with the presets is that the Wet Look Tab does not allow to load Bump Maps presets, and that the Tan Lines Tab does not allow to load Tan patterns.

At the top of the interface you will find a dropdown list allowing you to process either Skin-Lips-Nails, or Skin-Lips, or Skin, or Lips only or Nails Only. This choice of surfaces will apply for any modification you make in the interface, except the Tan Boosters (which apply to all skin maps, and not on specific surfaces), and everything

concerning the Tan Lines (because nails and lips are almost never affected by tan lines).
<mark>The reset buttons available at the bottom of each tab are also affected the same way by this choice of surfaces</mark>. And Tan Lines reset will ignore the list of surfaces to reset them all.
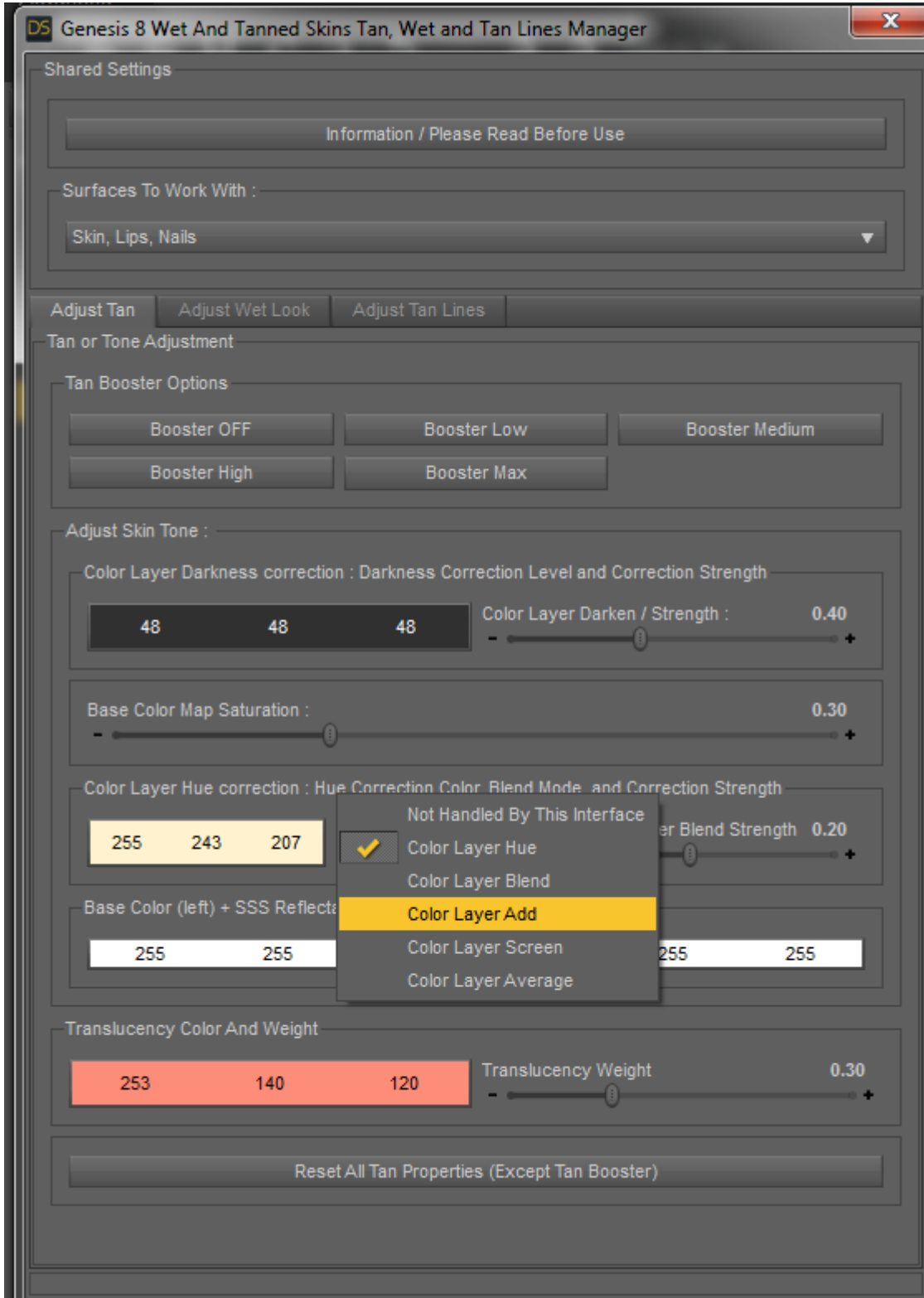
The "Adjust Wet Look" Tab gives you an access to all the properties dedicated to adjust or modify the Wet Look of a skin, except the load of the bump maps which has to be made in the smart content or the content library.

For the Advanced Settings (normal factor, grazing factor, exponent), since they are pretty unusual, indications are provided so that you can identify the range of variation, but you can go higher-lower if the result is better for you.
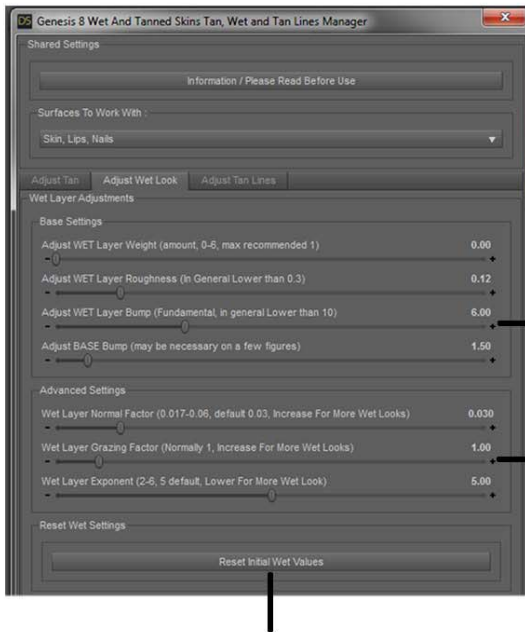
The Wet Look Control Tab :
All changes affect only the "Wet Layer"
of the Skin which is a dedicated
Layer created using the Shader Mixer

Adjust the base settings of the Wet Layer (Amount, Roughness, Bump)

Adjust the Advanced Settings of the Wet Layer (Grazing and Normal Factors, Exponent)

Reset Wet Look Properties

The "Adjust Tan" Tab gives you an access to all the properties dedicated to adjust or modify the tan of a skin. If you want to "UNDO A TAN BOOSTER", you have to come back to your previous Tan Booster. For this you have to click on the corresponding Tan Booster Button.

For the tan Lines adjustments, (except for Desaturation which is just a dial), you will always find on the left of each sub-box, the color with which the Base Map will be multiplied to give the corrective color, then in the middle, the Layering Mode (just like in photoshop when you use layers), and on the right the strength of this layering (this is the one which is "masked" using tan line patterns).

The layering mode is limited in term of choice, in each case to the most efficient layering modes observed during the development and test stages. If the mode you start from is not in this list, you will see "Not Handled By this interface" (yet it can be reset). If you choose "Not Handled By this Interface" as the layering mode, nothing will happen, your previous choice of mode is maintained.
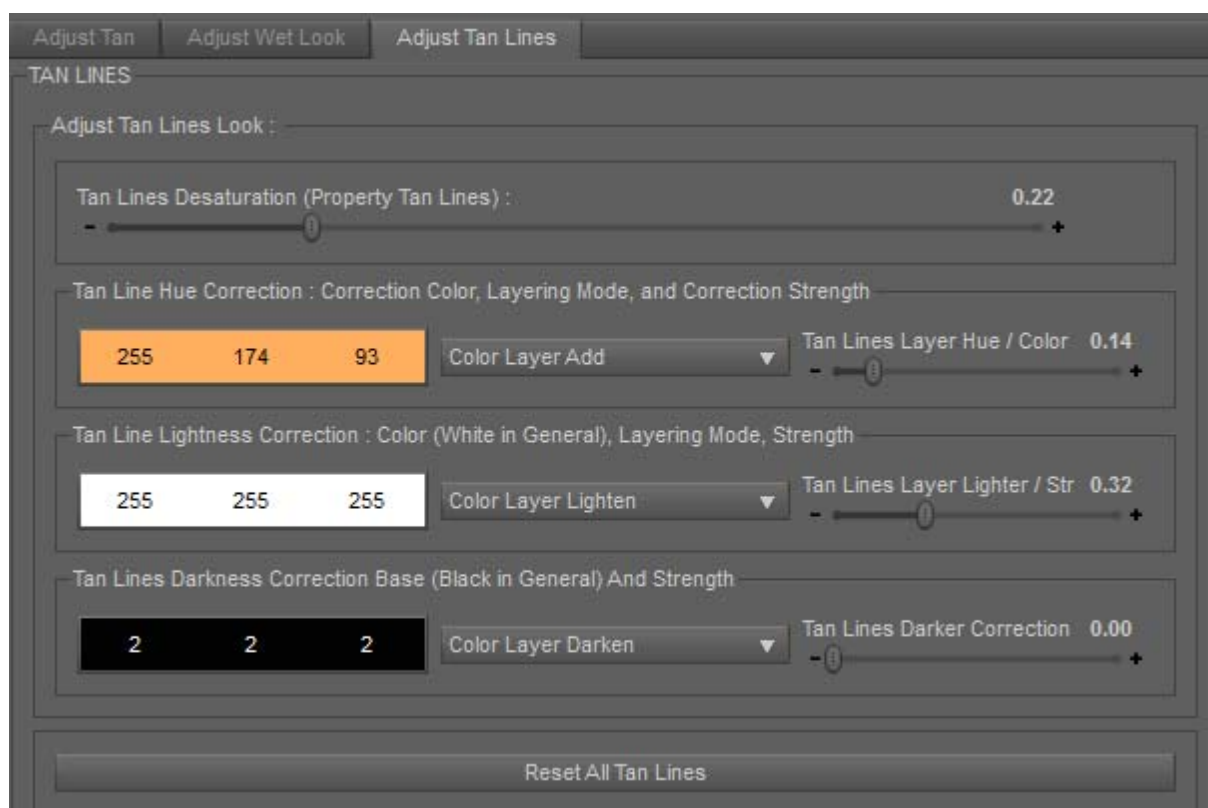
ONCE THE TAN LINES PATTERNS AND WET BUMP MAPS ARE CHOSEN, THE GLOBAL INTERFACE WILL GIVE YOU AN ACCESS TO MUCH MORE TAN/WET/TAN LINES POSSIBILITIES IN TERMS OF COLORS AND EFFECTS THAN THE PRESETS.

10. How can you get a pale skin base?

In order to reach a pale skin base, you have to decrease, until you find the right skin tone you want everything that tends to make it more saturated, or darker, this is why the following steps are recommended:
-   Lower the Tan Booster. Tan Booster OFF may be the right choice.
-   Decrease the Darkness Levels.
-   Decrease the Saturation Levels.
-   Choose a neutral (white) or really slightly warm, or cold (blueish) SSS reflectance tint. SSS reflectance Tint saturation must be VERY low.
-   Adjust (decrease) the Translucency Weight.
-   Choose a neutral Hue corrector. Eventually switch it OFF. If you are using the interface instead of the presets, try a cold Hue corrector, with a layer blend type "average" or "blend", or even "add" (see G8WT !Global Interface).

THESE RECOMMENDATIONS ARE ALSO FINE TO WORK WITH AFRICAN SKIN TONES.

11. Compatibility with Genesis 3

Even if not developed for Genesis 3, the shader and the scripts have been made compatible with Genesis 3 figures, with the exception of:
- Wet Bump Maps 2, 3A, 3B, 3C which will only be compatible if the figure uses the Genesis 3 base Female or Male UV set
- All the tan lines presets (in term of repartition, well the tan lines maps), which will only be compatible if the figure uses the Genesis 3 base Female or Male UV set
- The Genitalia transfer has not been tested for Genesis 3 figures

The presets have not been conceived for Genesis 3, this is why the recommendation would be to use the G8WT Global Interface script rather than the partial presets if you don't reach the expected result using only the presets.

12. Compatibility with Genitalia

A script allowing you to transfer the shader and the skin properties to the Genitalia parts of Genesis 8 figures is included. It is not conceived to work on something else than the official Genitalia elements provided on the Daz Store. The name of this script is : "G8WT Genitalia Male (for the male version) or Female (for the female version) Transfer". The Genitalia parts are supposed to be selected when you launched this script, and they are supposed to be parented directly to the figure.

Once launched, this script will apply the same shader to the Genitalia than the one used on the torso (the same values of all the properties), and will place all the required maps at the right place (on the right properties). The script is able to recognize the choice you made for the Wet Layer Bump Maps too.

Yet, the tan lines used on the torso cannot be automatically recognized by the script, this is why, if you use a tan line pattern which interacts with the Genitalia you have to select the corresponding Tan Line pattern for the Genitalia parts. If you use an overlay preset for the figure, choose the corresponding overlay preset. If you use a direct preset, choose the corresponding direct preset. If you want to Genitalia parts to be totally tanned or untanned, you also have presets for that.

For the wet Layer Bump and Tan Lines, the UV set is supposed to be the default UV set of the Genitalia.

But what has to be remembered is that the tan lines issue must be treated as a final step of the conversion.

13. Lights, shape and Wet Look

Lights are going to be an important part of the wet look. Actually, wet looks is perceived as a wet look because of the highlights the "liquid" produces on the skin

(then our well train brain tells us that it must be a liquid which produces these highlights). These highlights will come from the shader of course, but also from the interaction of the surface with the lights, i.e. from
- the lights,
- the shape of the figure
- the "additional relief" of the figure provided by the bump maps.

The shader also impacts this with the roughness, which is a purely mathematical additional relief (micro roughness) added on the surface.

This is why you will prefer a shape with a lot of details if possible (think how well wet looks appear on the abdominal muscles), but if not, the other elements making of the wet look will be sufficient, the result will simply not be as good as it could be.

The two other important things will be lights and bump maps. The light must be preferentially placed so that it enhanced these highlights. Some HDRI or light sets will do so (with or without rotating them), for other HDRI it will be more difficult. In this case it may be a good idea to add a few spotlights to increase the perceived wet look, because they will generate these famous highlights which will make us believe that "this is wet".