

# Xtreme Merchant Resources Set 01

Thank you for purchasing X TREM SET 01 Merchant resources Set!!!

This set of maps was designed using commercial reference images from [www.3ds.com](http://www.3ds.com) in Blacksmith3D, Substance suite and Photoshop.

Its target is to provide base maps for female character material creation. Those maps are defined to work with Genesis 3 Female with "Base" UV definition from DAZ.

This product is not a material preset. It is designed for content creator (hobbyist or PA) to be a working base and reworked according their taste in an image editor and set in character's shader.

## 1 Iray, 3Delight?

### 1.1 Introduction

Iray renderer has introduced in DAZ many changes for users. With 3Delight renderer, the concept of setting the shader with Diffuse, Specular, Bump, Displacement and eventually SubSurface Scattering maps was quite known. Many outstanding Shaders were developed by DAZ and many great artist to help create realistic representation of human skin.

With Iray, there is more to manage and more to learn.

DAZ Studio is providing a library of base shaders. At the moment, there is no human skin specific shader like, for example, AgeOfArmour human skin shader for 3Delight. So, this set is made to work with the channels of the Iray Base Shader.

While we are developing content for DAZ, we are also users and we had to learn the concept of PBR, PBS and all the things related to Iray!

### 1.2 Iray Base shader

The default setting when loading Iray Base Shader is the PBR mode. It is mainly designed to reproduce dielectric/metallic materials. If you click on the PBR icon in the surface tab, you will discover that there are many modes: PBR Metallicity-Roughness, PBR Specular-Glossiness and Weighted.

PBR Metallicity-Roughness is mainly designed to set materials like metal for example.

PBR Specular-Glossiness works more like the 3Delight Renderer.

For the moment, we did not had a look at "Weighted" as here is so much to learn with the PBR!

## 1.2.1 Necessary maps

### 1.2.1.1 3Delight is mainly using:

Diffuse map

Specular Map

Glossiness Map

Bump map

Displacement Map

Transparency map

SSS map

### 1.2.1.2 Iray is mainly using:

Color map

Metallicity map

Roughness map

Height map

Glossy map

Normal map

Cutout map

Translucency map

Emissive map

Etc.....

As you can understand with this last list, setting material in Iray could be tricky!

## 2 The set

### 2.1 Map naming/corresponding of base maps

3Delight	Iray	Alternative setting
Diffuse	Color	
Normal	Normal	
Bump	Height	
Specular	Specular	
Glossy	Glossy	
Displacement	Displacement	
""	Metallic	Glossy
Diffuse strength	Roughness	

## 2.2 Sub Surface Scattering

Well, this is always a huge subject.

Skin is composed of multiple layers and is quite complex to reproduce in 3D render engine. Light is not only bouncing on the surface but also refracting and spreading in various ways under the epidermis, depending of the frequency, some parts are translucent, etc...I will not go on math or complete skin explanation.

There are many resources to explain skin subsurface scattering behavior on the web or in books.

Every render engine has its own way of calculating and render with its specific channel. You will not use the same maps or settings in DAZ Studio, Lightwave, Poser, Carrara or any other rendering application.

This set is designed to work in DAZ Studio.

As this product is designed for content creation, you should be able to use it both with 3Delight renderer than with Iray.

There are 3 kinds of maps:

SSS Subdermal: It's the internal part of the skin

SSS Epidermal: The visible part of the skin

SSS Weight: A grayscale map to tell the renderer the intensity of the SSS effect

As those maps are made to "play" with lights, they do not represent muscle or real anatomy, but only give indication to the shader where to apply effect or not and what color to impact.

The main color of the skin is given by the diffuse map, detail are made with bump, normal or displacement maps. The subtle shinny effect of the skin is driven by the gloss/specular maps but, the final touch is done with SSS settings.

Frankly, we will not give setting for it as it is really a matter of taste...and there is a lot of combination you can do between colors and values to get the desired effect. You can see in galleries SSS Skin looking like wax, some without effect; it's really a matter of taste and belonging to your light settings.

You will see that maps could give different results depending on the used channel.

## 2.3 Map Affectation:

Name-no suffix: Diffuse color. Should be affected in diffuse channel in 3Delight and base color in Iray.

Can be also used in iray in the translucent color.

Name-Bump: As 3Delight uses 128/128/128 RGB neutral value, this map is designed mainly for 3Delight shader for fine skin details.

Name-Height: Same as bump for Iray shader

Name-Normal: Goes to the normal channel. May replace or be add with bump or height maps to give/enhance details. Can be used also in the topcoat bump channel instead of the height map.

Name-Metallic: Used only on Iray to remove Metallic effect.

Name-Roughness: Used in Iray to enhance color map. Can be used also in 3Delight in diffuse strength to give some effects.

Name-TR: Transparency maps. Should be affected to transparency channel in 3Delight and Cutout Channel in Iray. Black is transparent, white is opacity.

SSS Subdermal should be affected to the subsurface color in both Iray and 3Delight. Could be replace by SSS weightmap with a specific color in 3Delight/Iray depending of your character

SSS Epidermal: Mainly for Iray. Can be used for topcoat channels or specular channel.

SSS Weight map: Mainly use in 3Delight SSS strength channel.

Name-DM: Displacement Map. Mainly used in 3Delight displacement channel. Can produce weird effect in Iray

Name-Glossiness: Goes to the glossiness channel. May be useful in some case to control gloss effect.

Name-Specular: Goes to the specular channel in Iray and 3Delight. Combination of gloss and specular maps and setting are the key of a realistic skin effect. Can be also used in topcoat channel in Iray.

### 3 Basic rules

As we said, we will not go on setting as it is part of the creation process.....and there are so many combination that it would lead to write a full book...

Iray and 3Delight are really not working the same.

To give an image, 3Delight works as if there were 2 layer while Iray has multiple layers. Interaction between those layers in Iray can be tricky.

Here are some rules we apply while creating our own products:

Diffuse/Color: Set the value to 1 in 3Delight and 50% in Iray and set the color to something different than pure white. (We did use 238/224/200 for i.e. on some of our creation). Can be used also for translucent channel in Iray.

Bump: 45-50% with a positive-negative value of 0.05 should be a good start

Normal: set at 1 in iray, no value in 3Delight

Metallic: Apply map and set it to 1 in Iray. We noticed that it helps calculation while rendering.

Roughness: Normally, set it at 1. We usually lower this value, depending of the desired effect.

Face DM: To be set in 3Delight Face displacement channel to enhance brows displacement

Nails TR: Dedicated to Iray to give some translucent effect for the nails. Cutout channel and value at 50%

Glossiness: Plug to the designed channel in 3Delight. Not necessary sometimes. Roughness map is more convenient in glossy channel for Iray.

Specular: Plug to the first and/or the second specular channel in 3Delight. Can be used in Iray.

SSS weight map: Plug to the SSS Strength channel in 3Delight. No real value, depending of the desired effect.

SSS Sub dermal: SSS color channel in Iray and 3Delight. Can be mixed with a custom color

SSS Epidermal: Can be plugged to the second specular channel color in 3Delight to get more realistic effect or in the topcoat color channel in iray. Can be used also for translucent channel in Iray.

Thank you again for purchasing this product.

We hope you will enjoy this product to create your very own creation!

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