

Wet Body Geometry Shells

Is a collection of geometry shells that work as a second skin over your favorite texture to give it a wet effect from a basic skin glow to full body droplets to rolling water for a drenched look. It also gives you the ability to customize your wet look to your particular scene using a collection of drop presets. So with this set you have several double click solutions, preset pose effects and the ability to detail your particular effect controlling water placement through the use of multiple geometry shells down to the drop level.

Place drops on the forehead of your character to create a nervous character or underneath the eyes to create a crying one. Give character to your wet render by having a drop of water come down from the nose bridge to the lip or have water coming out of the mouth. Make it sexy by having drops slide down from Victoria's back, neck or navel, Michael's chest, biceps or abs. You control your water scene by having the ability to place your water where you want it.

Geometry Shells give you two advantage from previous Wet Body sets, the most important is the effects are visible in the viewport, no need to do a spot render or full render to visualize your effect. And placement of drops from the Wet Map Creator can be done directly on viewport and have interactive feedback as you slide the drops through your model using the Horizontal and Vertical Offset sliders of each shell without the need of the Layered Image Editor.

Figure 1: The Offset Distance Slider

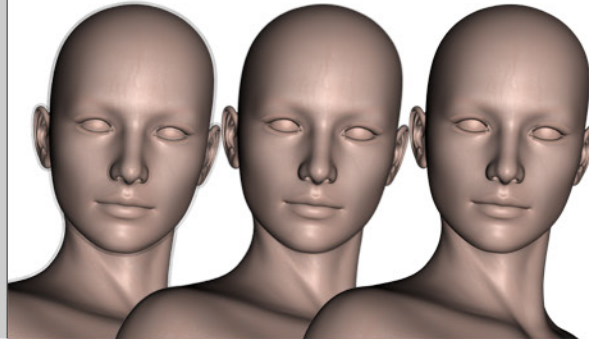
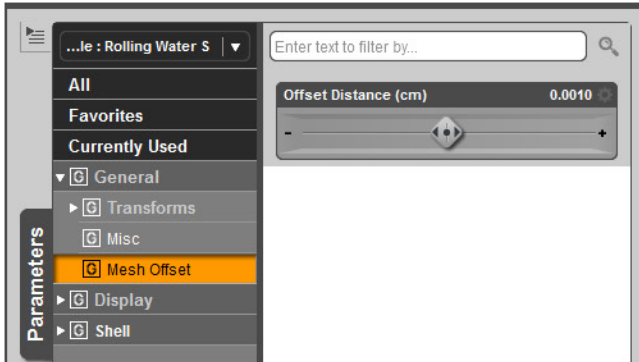


Figure 2: Geometry Shells at 0.3 Offset, 0.1 and 0.001

The Geometry Shell is a second skin that is layered on top of your mesh real skin. This allows you to make any changes like loading different textures with different UVs in your character and the Geometry Shell will remain unchanged. The Geometry shell exists at a distance above the character skin. This distance is controlled by the Mesh Offset parameter through its slider Offset Distance (Figure 1). The default value of the Geometry Shell in Wet Body is 0.001. This is a very close distance to the underneath skin that avoids the wet effects to show through skin tight clothing like underwear or swimsuits.

If your character has displacement maps for details like veins and such you may have to increase the shell offset distance to 0.1 like the example in Figure 3. As you see in its default value of .001 the displacement of veins intersects the shell so the drop doesn't show. We increase the offset to .01 and the drop starts to show, then with an offset of 0.1 the drop shows in its entirety.

These problems only happen with displacement maps and mostly in extreme cases like displacement veins. With HD Veins the mesh deforms directly with subdivision so the drop effect stays on top. No need to change the Offset Distance to 0.1 with HD morphs.

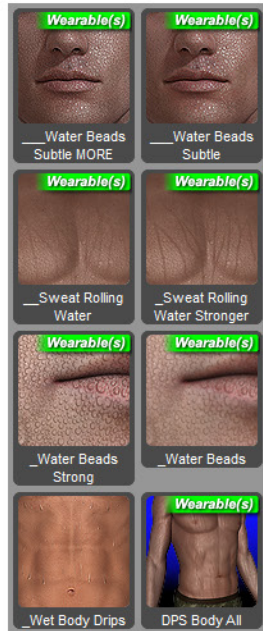
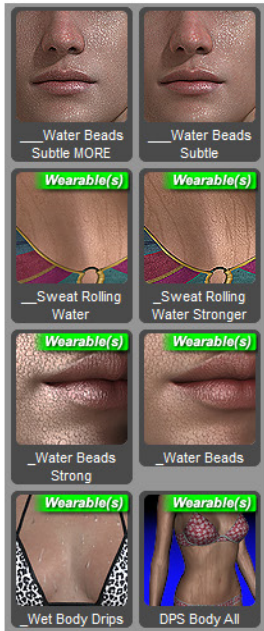


Figure 4: Each one Genesis 2 Female and Genesis 2 Male have 8 full body wet skin presets

Figure 3: M5 Displacement Details like Veins may intersect Wet Body Shells

The first 8 presets are full body presets they will give a quick wet look to your entire figure's skin. **Water Beads Subtle** and **Water Beads Subtle MORE** are better suited for close ups. **Water Beads** and **Water Beads Strong** are almost the same effect but will work better in long shots as beads are more visible. Finally **Sweat Rolling Water** and **Sweat Rolling Water Stronger** give you a drenched look. **Wet Body Drips** uses the SS Base Shader (<http://www.daz3d.com/subsurface-shader-base>) on the geometry shell. **DPS Body All** has several drops with small water trails all around the body including the back of the head and works better in combination with one of the previous shells but can be used by itself too.

Next you have 12 (DPS-drops) Geometry Shell presets that load rolling drops throughout selected face/body areas of Genesis 2 Male & Female.

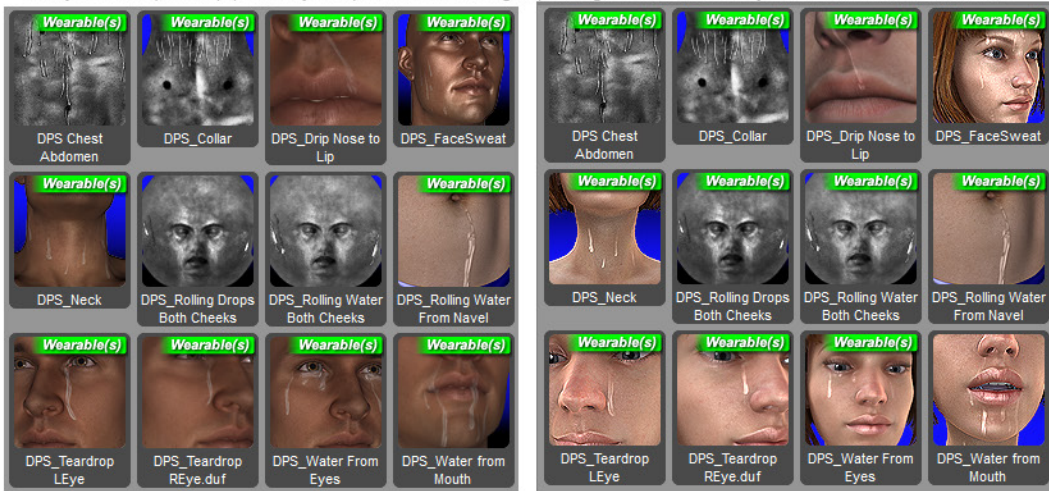


Figure 5: Geometry Shell Pre-made Water Effects

Finally we have the Geometry Shell Wet Map Creator presets consisting of 12 drop styles. Not every drop style is available for every surface area.



Figure 6: The Geometry Shell Drop Styles / Wearable Presets Icons - This group makes The Wet Map Creator: where you can design your own effects.



Figure 7: DAZ figure's textures are grouped into 3 UV Maps and divided into SkinFace, SkinTorso and SkinLimbs

Genesis 2 Male and Female use several textures that are grouped in sections and that correspond to areas in your figure's 3D human body. For example all the face surface excluding the ears is assigned to a group named SkinFace, all the limbs surfaces are grouped into a SkinLimbs group and the torso, back of the head and ears are assigned to a group named SkinTorso, these are the figure's UV Maps (Figure 7).

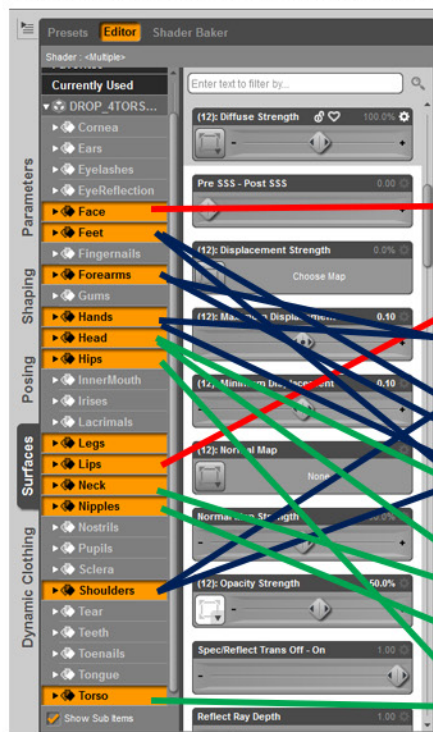


Figure 8: The Surfaces Tab

The Surfaces Tab divides these UV surface groups into smaller groups. For example the SkinFace surface now is divided into Face and Lips, the Skin Torso has now a Torso, Nipples, Hips, Head, Neck and Ears and Skin Limbs includes Shoulders, Hands, Forearms, legs, Toenails and Fingernails. (See Figure 8)

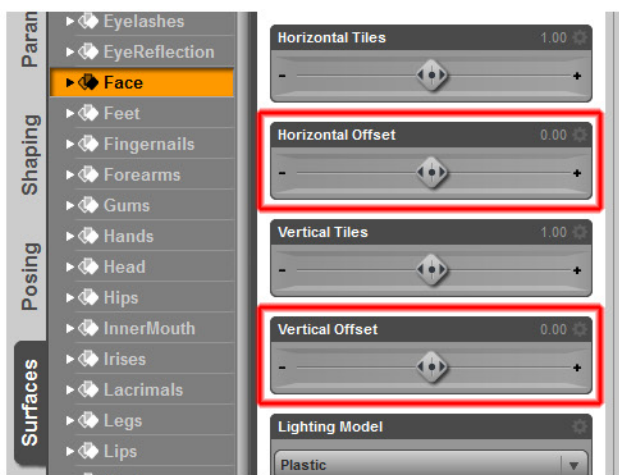


Figure 9: The Face surface area Horizontal & Vertical Offset sliders

Then each of these surfaces areas has a set of parameters. We will use the Horizontal Offset and Vertical Offset Sliders to move our drops across each surface. Remember that each surface has its limits as each wearable preset icon shows. Drops will be visible only inside these limits.

Each surface area:

- _Ears
- _Face
- _Feet
- _Forearms
- _Hands
- _Head
- _Hips
- _Legs
- _Lips
- _Neck
- _Nipples
- _Shoulders
- _Torso

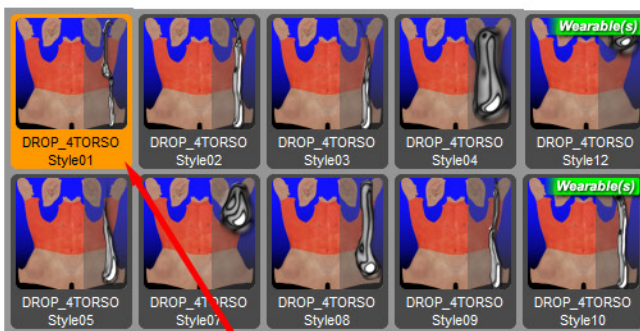


Figure 10: Set of Geometry Shell Wearable Presets available for the Torso surface. Each Wearable Preset icon shows in red the surface area or limits in the character where the water drop that resides on it will be visible

will have a corresponding set of Geometry Shell Wearable Presets. Each Wearable Preset icon shows in red the surface area or limits in the character where the water drop that resides on it will be visible. When you use the Surface Selection Tool and select your surface area in the Surfaces tab you can see a yellow line that marks the same surface area in your character that is in red in your Wet Map Creator wearable presets icons.

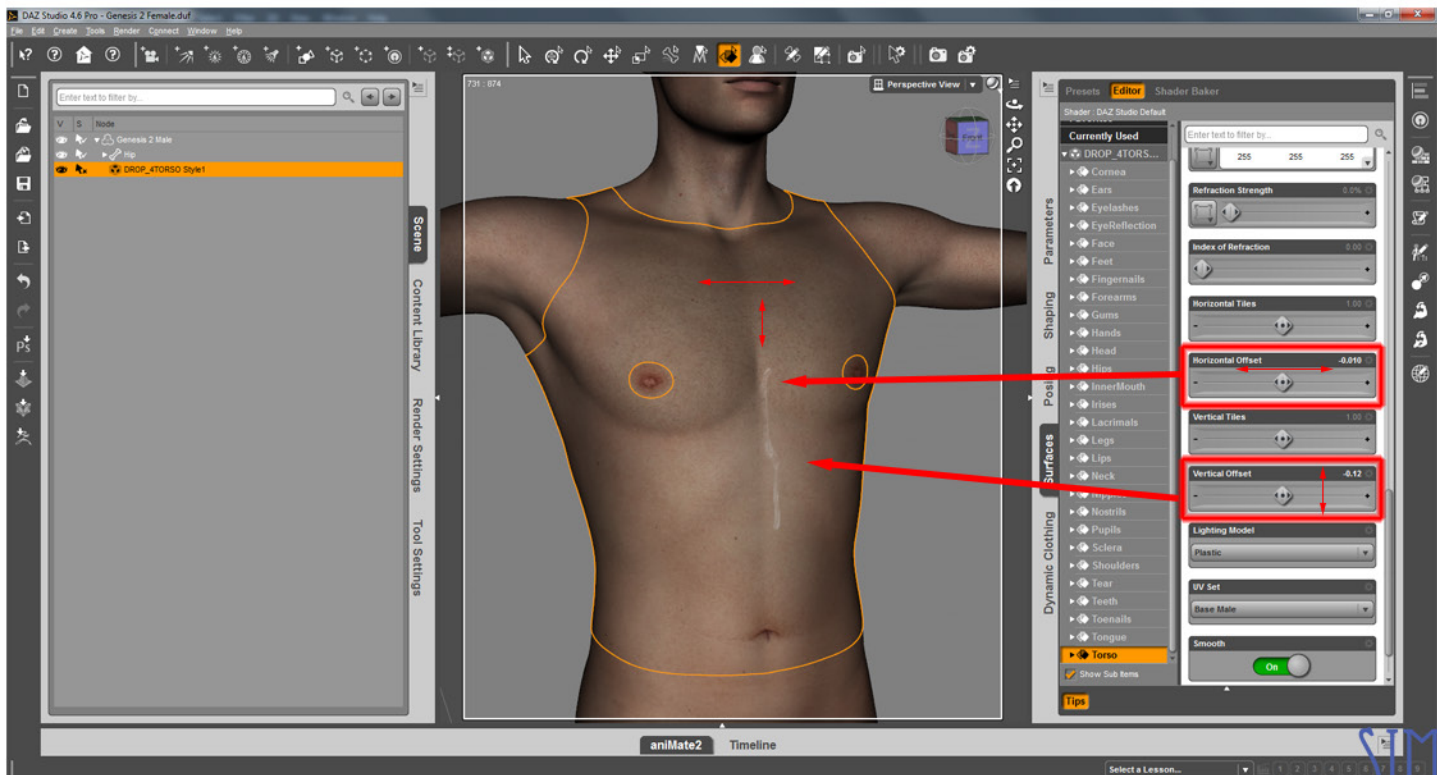
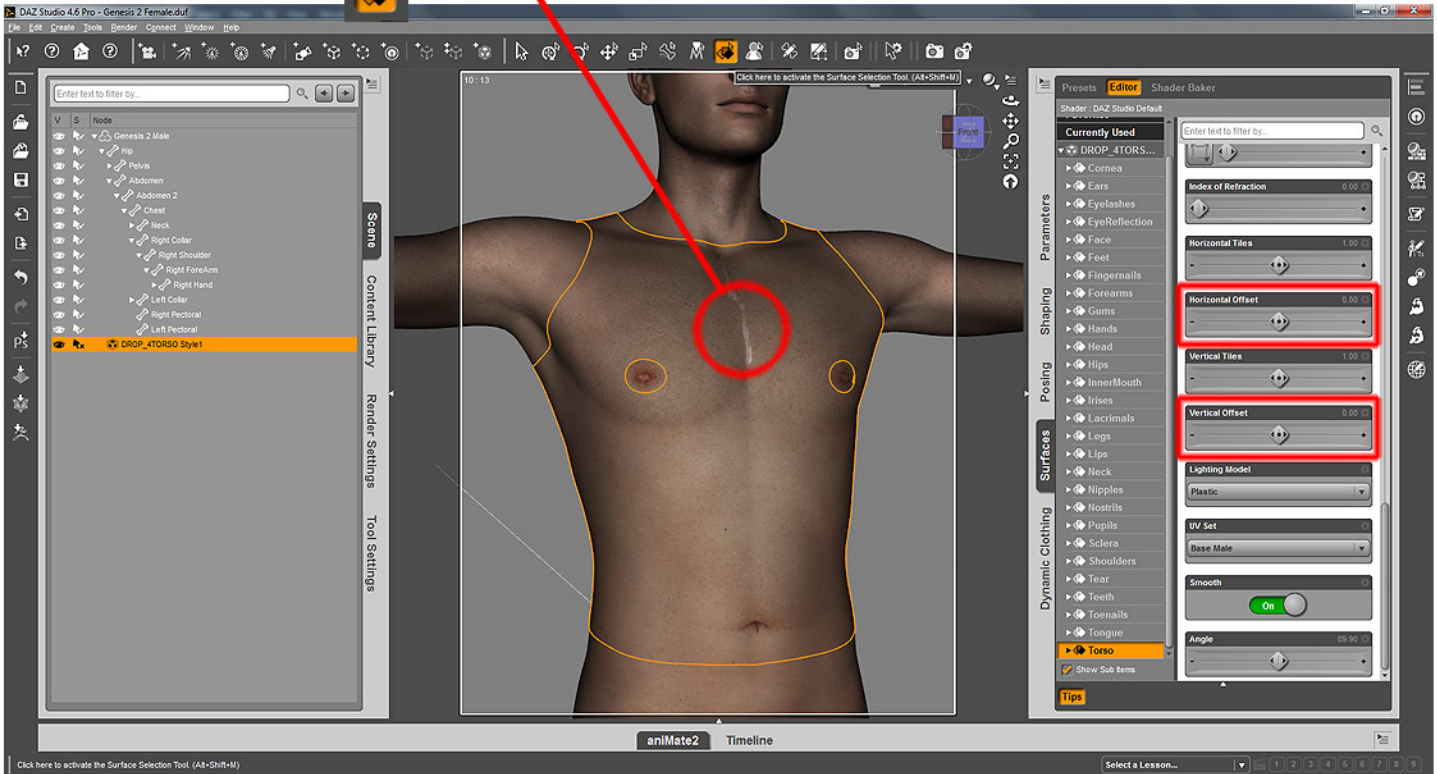


Figure 11: Torso surface area and Horizontal & Vertical Offset parameters being used to position a drop from the Wet Map Creator

You position your drops wherever you want it in your Torso surface area by using the Horizontal Offset and Vertical Offset sliders. Same with every other surface throughout the body.

Memory Management - Drop Shell Transfer to Shell Layers

Multiple Geometry Shell in your scene can make opening a scene and render times longer. As you work your water arrangements in each surface group you may end up with too many Geometry Shells in your scene. Depending on computer resources you may prefer to transfer all your drops to a single Geometry Shell. A blank canvas Geometry Shell has been provided prepared to accept your water drops. You need to go and save each of the geometry shells in your scene as a layered image preset.

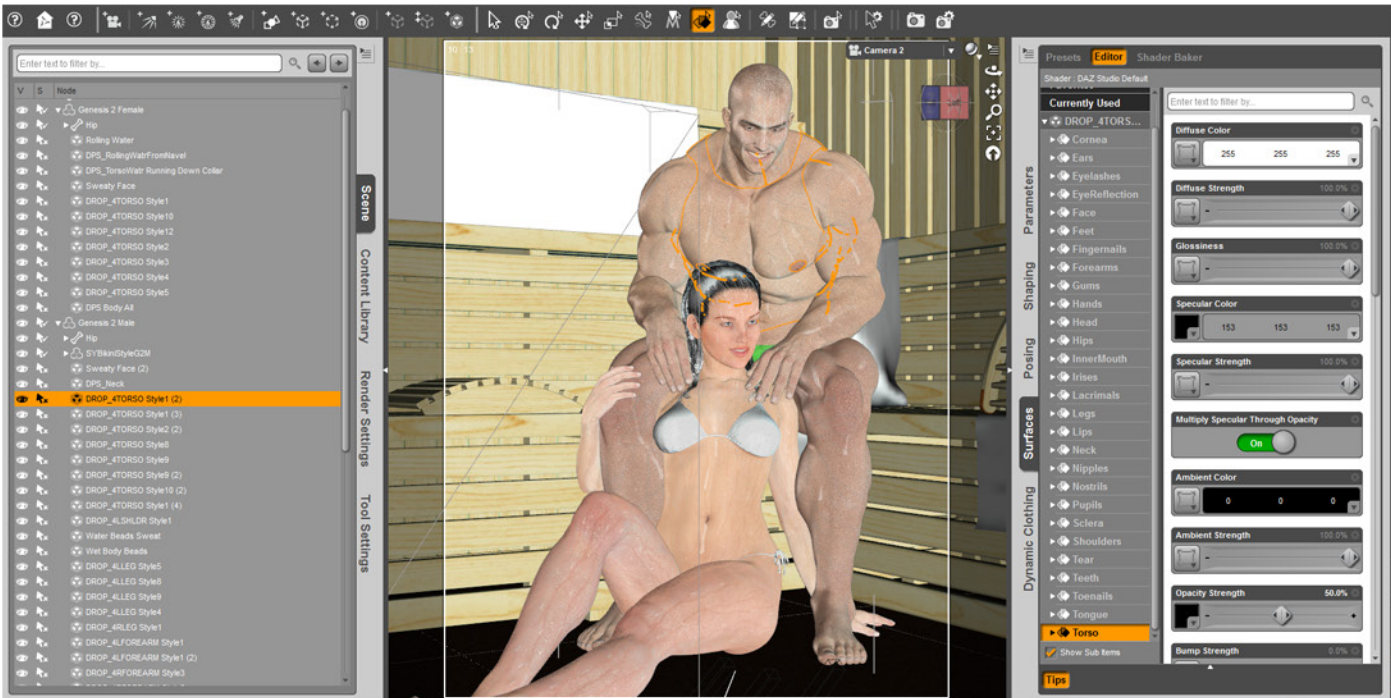


Figure 12: Scene with multiple geometry shells in each character

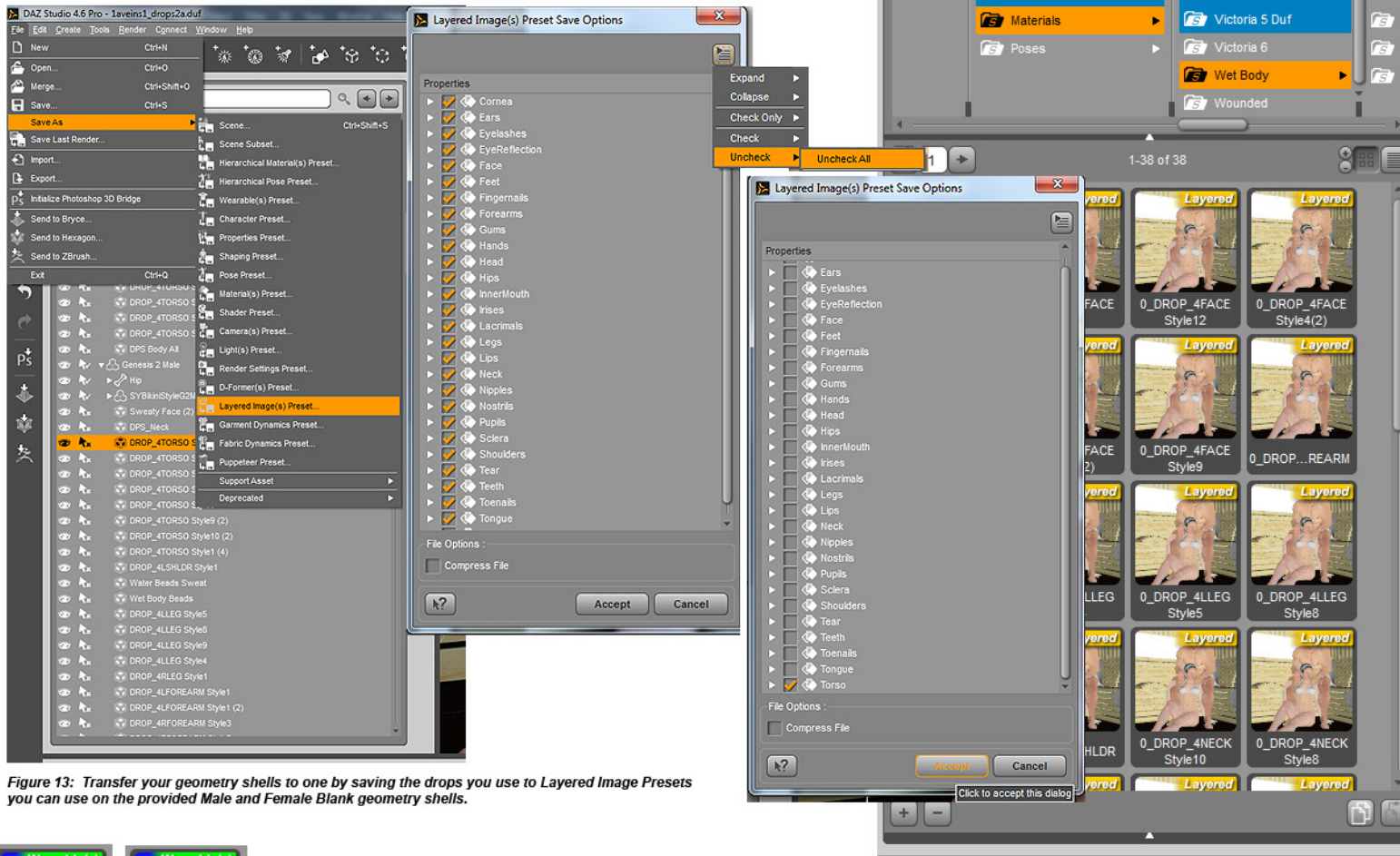


Figure 13: Transfer your geometry shells to one by saving the drops you use to Layered Image Presets you can use on the provided Male and Female Blank geometry shells.



The process involves going thru your geometry shells saving each style you use in each surface as a Layer Image Preset. Uncheck all and only check the surface where your drop resides. You will end up with several Layered Image Presets that you can load in the provided Male & Female Blank Shells and get rid of all your geometry shells in your scenes but the blanks or any others you haven't transferred to a Layered Image Preset. Now instead of using the Horizontal & Vertical Offset sliders to move your drops you will use your Geometry Shell Layered Image Editor tools.

Notice that correct position of drops is not transferred from geometry shell to Layered Image Preset so once all your drops are layered on the blank shell you need to reposition them with the Layered Image Editor.

Figure 14: Blank Female & Male Geometry Shells set up to accept drop layers are provided at the end of your Wet Map Creator

Drops Animation Hack: Wet Map Creator with the Age of Armor SSBASE Shader

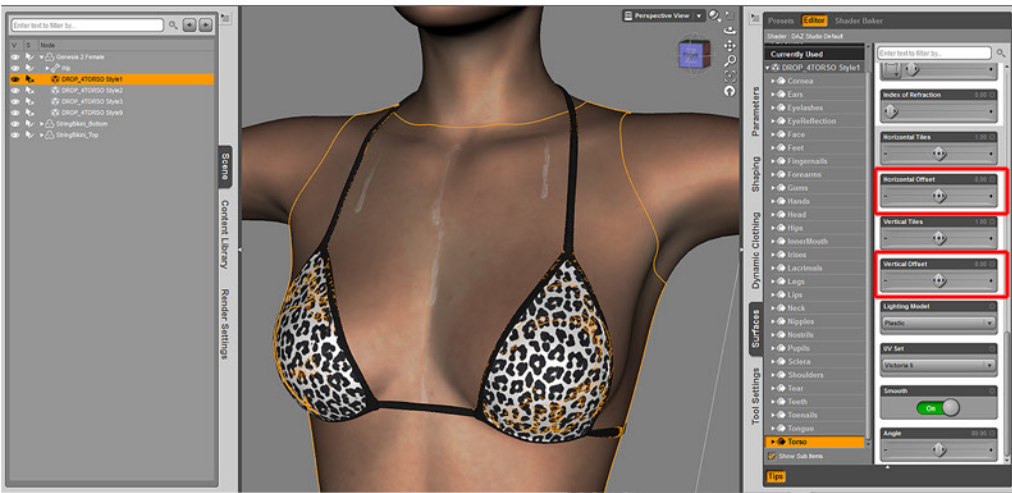


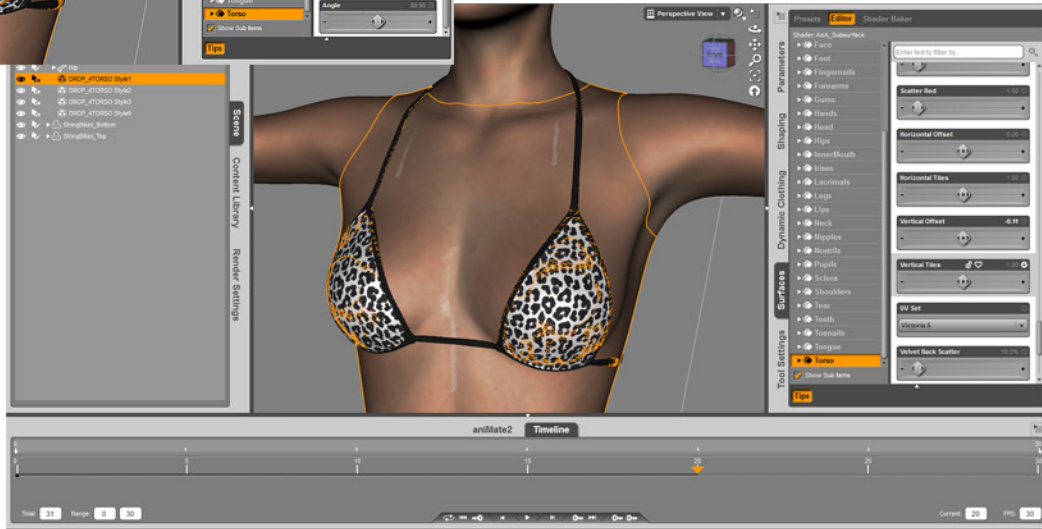
Figure 15: The Horizontal & Vertical Offset parameters can be animated to create drops of water that slide through your character skin.

After the Geometry Shell has the SSBASE shader applied it will still display your effect but only on the viewport. Once you render with 3Delight the SSBASE drop disappears.

If you are only doing an OpenGL render you can proceed and start animating your drops using the Horizontal & Vertical Offset sliders. The OpenGL viewport sees the drops fine.

Just remember once more, this is not a full feature supported by DAZ Studio so **once you close and save the scene you will lose your animation.**

You need to render your animation before closing your scene since the DUF file doesn't save Geometry Shell animation.



The default DAZ Studio Geometry Shell Horizontal & Vertical Offset sliders are great for positioning drops interactively sliding across your character's skin but they don't pass keyframe information to DAZ Studio's animation timeline. This means no animation is possible.

The SS Base Shader (<http://www.daz3d.com/subsurface-shader-base>) horizontal and vertical offset sliders transmit keyframe information to the DAZ timeline for animation.

Animation is not saved with the DUF file so this is more a hack than a full supported feature. In order to make drops from Wet Map Creator animate-able you need to apply the SSBASE shader.

As you should know to apply a shader to a surface you need to have your item (Geometry Shell) selected in the Scene Tab as well as the surface name where your drop resides in the Surface Tab and then double click on the shader. You will see a change in the order of the surface channels and some extra channels get added. The important thing here is your Horizontal & Vertical Offset sliders gain some temporary animation super powers.

If you intend to render your animation using 3Delight there is one more thing you need to do to each SSBASE Geometry Shell in order to make your drops visible in 3Delight: Open the Opacity Channel Layered Image Editor on the Surface your drop is and take note of the X position, Y position, X Scale and Y Scale. Click the "Resource" button and note the path of the Drop PNG the layer uses. Now go to the surface Displacement channel, open the Layered image editor and input the drop PNG file in its "Resource" button and copy the XY values you took from the Opacity channel. Then input a Displacement Strength of 15%, a Maximum Displacement of 0.30 and leave Minimum Displacement at zero. This values in the Displacement channels will make your drop visible with the SSBASE shader in 3Delight.

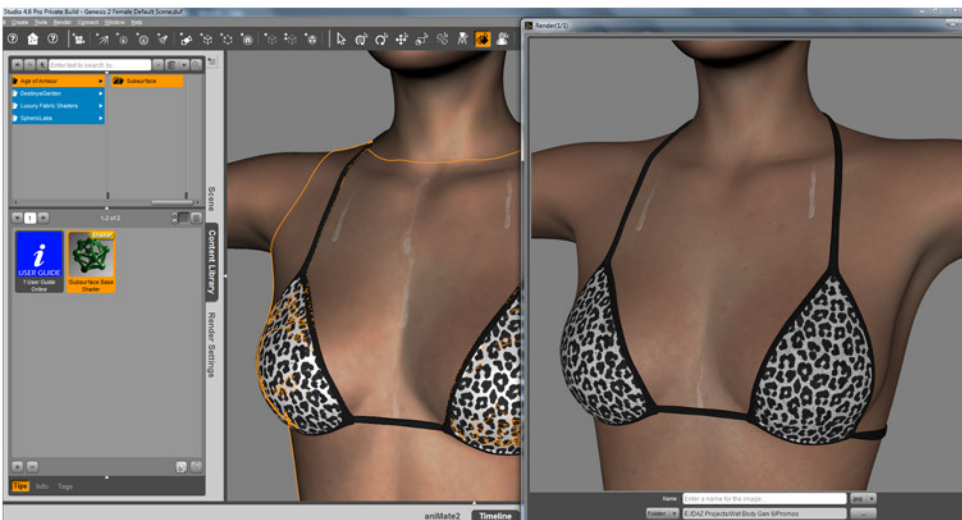


Figure 16: The SSBASE Shader will give the Horizontal & Vertical Offset temporary superpowers. They will be able to transfer keyframes to DAZ Studio timeline so you can animate drops. The shader makes your drop invisible in 3Delight. You need to plug into the Displacement channel all your opacity information like the drop.PNG file and X and Y offset and scale. Use Displacement Strength value of 15% Minimum Displacement .30 and Maximum Displacement 0 to make the drop visible in 3Delight with the SSBASE shader.

