Texture Conversion Using Daz Studio and Blender

By ChangelingChick Based on Tutorial: Converting Textures from Gen2 to Gen3 by j cade

This tutorial will teach you how to transfer textures from the G2F UV to the G3F UV (and by extension, other character textures from one UVs to another), using Daz Studio and Blender.

Tools Needed:

- Daz Studio
- Blender
- Genesis 3 Female (comes with Daz Studio)
- Genesis 2 Female (comes with Daz Studio)
- Texture Conversion Helper morphs
  http://www.sharecg.com/v/81631/view/21/DAZ-Studio/Texture-Conversion-Helper-morphs
- Some sort of graphics program to clean up the textures (Photoshop, Gimp, PSP, etc)

Prep Work:

Make sure you have installed Daz Studio and Blender as well as the characters you want to transfer textures between.

In Your Graphics Program:

1. Create a new, blank png image at 4096 x 4096 or whatever size you want your textures to be at.
2. Save this in a folder you will remember later. I called mine Blanks.
3. Make copies of this for each base map on the G3F—face, torso, legs, arms, eyes, eye reflections, eyelashes, and mouth.
   *This will save you time later if you want to come back to your blender file and convert new texture sets.

In Daz Studio:

1. Open Daz Studio
2. Load G3F into the scene.
3. Select the figure (if it hasn't already been selected).
4. Right click on the Parameters tab and choose "Zero Figure"
5. On the Parameters tab, select General.
6. Change the Resolution to Base & put SubDivision Level and Render SubD Level to 0.
7. Now on the Parameters tab, go to Morphs, Morph Loader and look for Tex_Converter_Prep and set it to 100%.
8. Go to the Surfaces tab, and select ALL of G3F's surfaces. Make sure that there are NO texture maps associated with her at all.
   *I always check to make sure that the UV for all of the surfaces is the Base Female. Whatever UV you want to transfer to, make sure that is selected.
9. Now, go to File, Export.
10. Pick a folder to save your object as that you will remember and name it something like G3FTexturePrep.obj (or something else that you will remember). You don't want to lose this obj file.
11. Now, when the settings come up, don't panic. ANY setting is fine as long as you are consistent. I went with the Poser setup. Just **REMEMBER** what preset you use.
12. **BEFORE** you hit Accept, change a couple settings. Make sure that **Write Groups** is **NOT** checked.

13. For G3F, make sure **Collapse UV Tiles IS CHECKED**.
14. Now, hit Accept.
15. Repeat Steps 1-14 for G2F saving your object with an appropriate name.

    *If you have more than one UV you would like to transfer from, set it in the surfaces tab for all the surfaces and export your object again with a new name indicating the UV.

In Blender:

1. Open Blender
2. Stare blankly at the chaos before you. On the very top bar, there should be a spot that says Blender Render. If you see this, great. If not, you will see either Blender Game or Cycles Render. Click on whichever it says, and choose Blender Render from the list.
3. Assuming you have a default screen, just hit Delete. Blender confirms all your deletes so you will have to click to confirm before the cube disappears. All hail the cube.
4. In the upper left corner, go to File, Import, Wavefront Object (obj).
5. Navigate to your G2F file and select it, then click on Import Object.
6. Now, we want to clean up the interface to just what you'll be using so click the little triangles to close the extra options over here on the side. There is one that is closed that you want opened called Bake, so click on the triangle next to it as well.
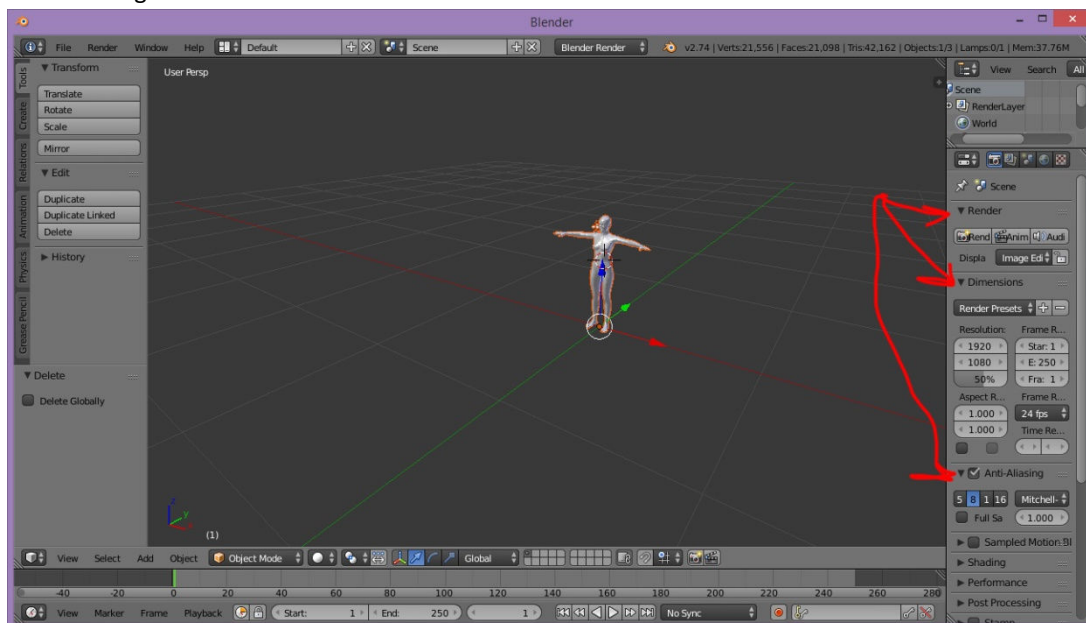

7. Now, right click on your G2F to select it. This is a good time to get a closer look on your figure, so get her set in your viewport the way you'd like to work with her. This is going to take some work.

    *Quick note: Selecting in Blender is by default done with the right mouse button instead of the left. The mouse wheel zooms. Holding the mouse wheel rotates your view. Shift + holding the mouse wheel pans your view.
8. What we are going to do is take all the material sections that use the same texture map and combine them into one material section. There are two reasons to do this. The first is that in the future, it will be WAY easier and faster to set up for a texture conversion. The second is that if they are separate materials, they will paint on a bunch of different images that you have to postwork together majorly later, and they won't look as good.

9. Here we go. At the bottom of the main window, there's a thingy that says Object Mode. Click on that and select Edit Mode with your figure selected. Scream and panic as your figure turns bright orange.

10. By default, you will be in vertex select mode. Over to the right are three unlabeled boxes, the third of which is face select mode. Click on this to make you figure slightly less terrifying.
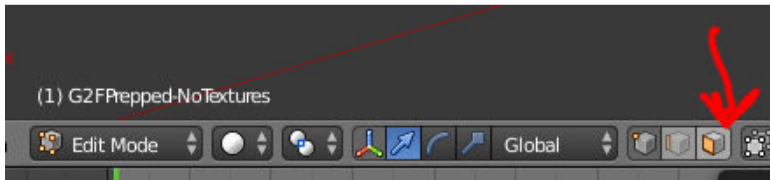

11. Right click on one of the faces of your figure. It should deselect everything and select only that face. Now, hold down shift and click every face individually that uses the same texture map. JUST KIDDING!!!
   *cough* Ok, go to the right and click the little icon on the side bar that looks like silver circle.
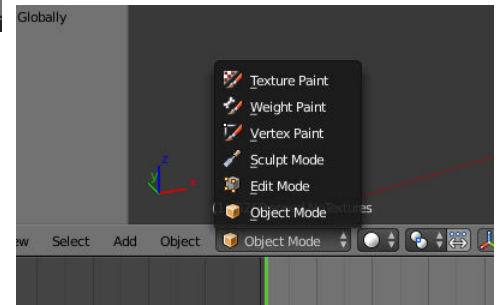
12. For each section that you want to condense, click on one face in that part of the UV. In that box to the right, click on the material zone and press Select. Click on the next material in that zone and press Select again. You don't even have to hold shift. It keeps the previous stuff still selected. Go through for every section of each part of the UV on G2F until you have all of it selected.

13. Now, pick one of the material zones in that section and click Assign. Now all of those faces you just selected are now assigned to the same material. At this point, I click in the box (in the image above where it say Torso.002) and rename the material zone to something like G2F_Torso. So, for the Torso material, you would select the Torso, Head, Neck, Hips and Nipples materials, then highlight Torso in the box and press Assign.
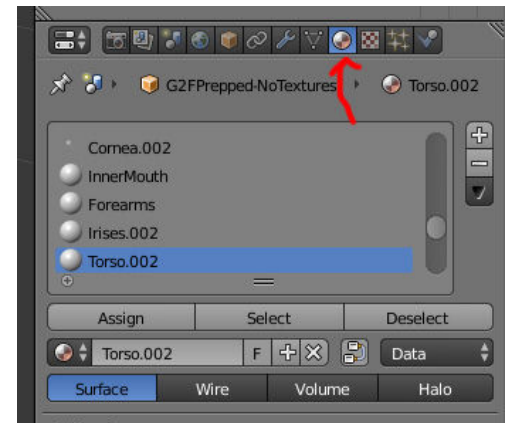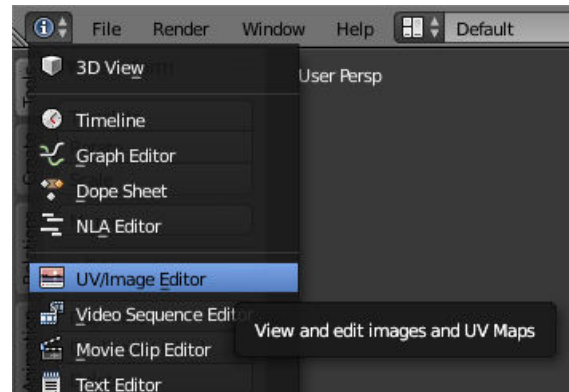

14. Now, go back to Object Mode and for each area you just emptied basically, highlight it in the box, and hit the minus button to the right to get rid of it. Repeat this process for each texture in the UV. It's a pain in the butt, but it says SO much time later and you get a much better final texture.

15. When all that is done, **SAVE YOUR BLENDER FILE**. Best place is where you saved those blank image files earlier, but anywhere you will remember where to find it will do.

16. In the upper right there is a scene hierarchy window where you will see your G2F object listed. There is an eye to the right of it. Click that eye to hide her for now.

17. Now, import your G3F figure just like you did your G2F figure.

18. Select your G3F figure.

19. Notice that you are now in Object mode again. Mode is determined by object and not globally… which is kind of cool really. Take her into Edit mode like you did your G2F (Step 9). In fact, at this point, you will follow steps 9-14 for your G3F. Yes, it's tedious. Yes, it's better. Yes, it's worth all the trouble.

20. **SAVE YOUR BLENDER FILE!!!** You have just done a TON of work, and the good news is—you won't have to do this part again.

21. Here's where it gets a little complicated. We're going to assign images to G3F first and save the blender file again (because at that point, the base setup will be done and will never have to be done again).
22. In the upper left hand corner, there's a tiny icon that is a blue dot with a white, lowercase i in it. Click on this and choose UV/Image Editor.
23. Now, go back into Edit Mode for your G3F if you aren't already there. Over in the material box, pick your first material. Press Select (making sure you don't have any faces from other sections selected).
24. On the top bar to the right of where you just went into UV/Image Editor mode, click on the button that says Open. Navigate to the blank image you made for that part of the UV and click Open Image. That image is now assigned to that part of your figure.
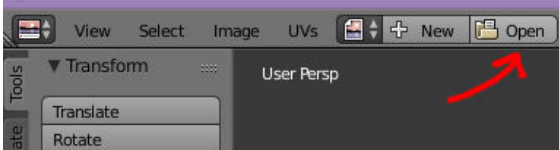
25. Repeat this for each material zone in your G3F figure ONLY. Don't do this for G2F.
26. Once all the blank images are assigned, put your G3F back into object mode, and I can't tell you how important this next part is… **SAVE YOUR WORK!!!**
You won't ever have to assign images to G3F again to transfer G2F textures to her.
27. Now, this is the last bit of prep to get our "template" blender file ready. Go over to the bar where the materials are and click to the left of the materials button (the silver dot) on the button that looks like a wrench.

28. Click on Add Modifier.
29. In the second column under Generate, click on Subdivision Surface.
30. A new box will pop up below. I set View and Render Subdivision to 2. **DO NOT** apply SubD to the UV maps.
   *__DO NOT__ hit apply after you do this. Resource hog is the phrase I'd use.
31. Go back up to your hierarchy and click the eye by G2F to set her as visible again.
32. Select G2F and click on Add Modifier again.
33. Select Subdivision Surface again and set View and Render Subdivision to 2. Again, **DO NOT** hit Apply.
34. Now, where you have that little wrench selected, go to the left and click on the little camera.
35. Down below under Bake, for Bake Mode choose Textures.
36. Check the box next to Selected to Active.
37. I leave the distance at 0. Apparently if there's a lot of white space, you can increase this to .003 or so to help with that. I haven't noticed a difference. But it bears saying just in case.
38. At this point, your template file is completely done, so…

SAVE YOUR WORK!!!

From here on out, it's easy.
39. Select G2F. Make sure you're in Object mode.
40. Select the Materials button (the silver dot).
41. Click on the first material you want to convert, then click on the checkered icon to the right of the silver dot (the texture icon).
42. There should be an empty box with a button that says New at the bottom. Click this button.

43. Down below there will be a new section that says Image. Under this, hit the Open button.
44. Navigate to the image you want to convert and select it, then click Open Image.
45. Go back to the material tab and select the next material.
46. Go back to the texture tab and set your texture for that section. Do this for each material section on your G2F.
47. Once this is done, you are ready to covert your textures.
48. Click the little camera again (where we set our bake options).
49. Up in the hierarchy window, left click on the G2F. Hold shift. Left click on the G3F. This selects the G2F and sets the G3F as active (remember that checkbox under Bake?).
50. Hit Bake.
51. Wait…and wait…and wait. There won't be a progress bar if you're still in UV/Image Editor mode (which is easier because you have to go back to it). The baking progress will be in the little Blender icon on your task bar though.
52. Once everything is done, go up to that bar at the top and click on the word Image.
53. Choose Save All Images. The converted images will NOT save unless you do so. Alternately, you can save each image individually, but that takes forever.
54. You are done with your first set of textures. REJOICE!! It is VERY important that you copy the textures that were blank to another folder to keep track of because they will get overwritten every time you choose Save All Images. The great news is that you don't have to keep your blanks actually blank. What's there is always completely overwritten each bake. The bad news is that you will notice there is some cleanup necessary. The big places to check are the ears, the eye-line, lips and eyelashes. Also, the mouth and nails may have a few spots to clean up.

   That's it! Hope this has helped you. This can be done with any two objects that have or can be made to have the same shape, so if you want, you could transfer V3 textures to G3F if you can match their shapes up.