How to Attach Textures to Items in Nifskope, Avoid the Plastic Effect, and How to Access UV Maps

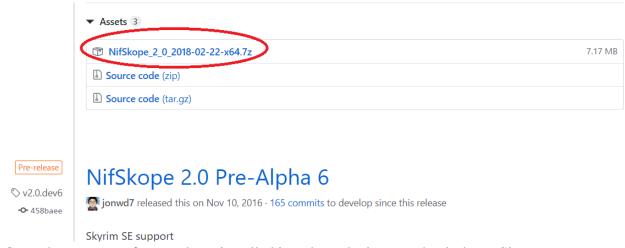
Hello everyone. In this first tutorial in my series, I will be discussing how to attach textures in Nifskope and avoid the plastic effect you see on items that makes them look overly shiny and fake. Also, I will teach you what UV maps are and how to find and produce them in Nifskope.

Part 1

- 1. Before we begin, you need to have the Nifskope program installed. You can do that by going to this site: https://github.com/nifskope/releases
- 2. Once you are on that site, if you have a 64 bit system (which most people do), install the blue part of what is circled first under "Nifskope 2.0 Dev 7," then follow the installation directions after clicking it:



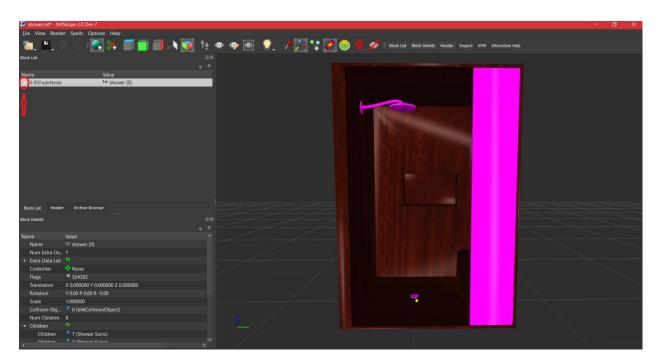
3. Then, go here on the same page and install the actual Nifskope program. Download the circled link, unzip the resulting file, and follow the directions:

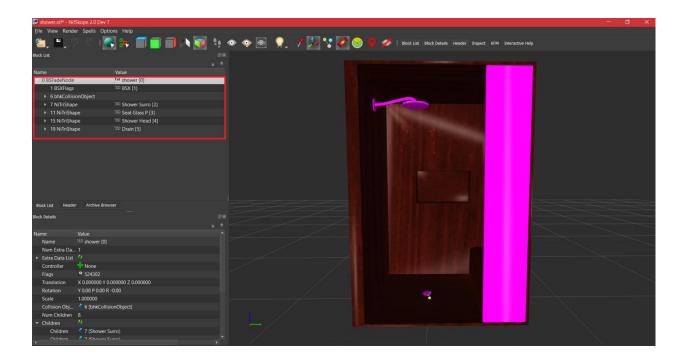


4. Open the program after you have installed it and put the icon on the desktop. Since we are working with a model and textures, you need to have both of them available in an easily accessible location on your computer. Keep in mind that all of your meshes

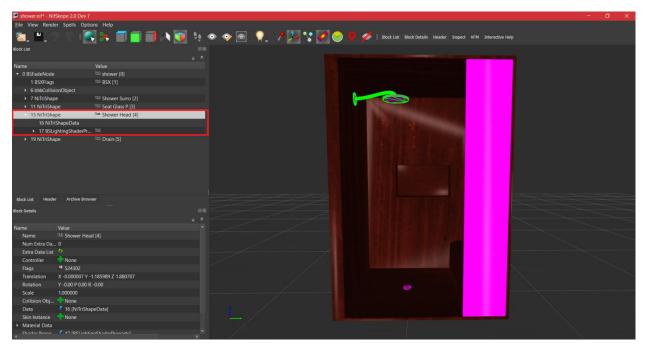
(models) and textures <u>must</u> be in your Skyrim Data folder on your computer. If they are not, the CK and thus Skyrim will not be able to use them. Therefore, I do advise that you put your model in the "Meshes" folder in your Skyrim Data folder and your texture in the "Textures" folder in your Skyrim data one. If those do not exist (they should if you have any mods installed since most produce those folders), you will need to make them with those specific names. Additionally, for organization purposes, you can put your meshes and textures in subfolders with names of your choice under the "Mesh" and "Texture" ones. The point is they must be in those two main folders in your Skyrim Data one for the CK and the game to use them.

- 5. To attach textures to a mesh, find the model on your computer first and open it in Nifskope. To do that, go up top and follow this path: File > Open > then find the model wherever you have it.
- 6. The mesh will load in the render window. If it does not have any textures attached, it will show up as a purple mesh. If it does have a texture attached, it will show up as it would in the CK and the game. Regardless, I will show you how to access textures so you can either add or replace existing ones. The process and location to do so are the same. Go to the left side where you see "0 BSFadeNode" and left-click the white arrow beside it to expand its menu:

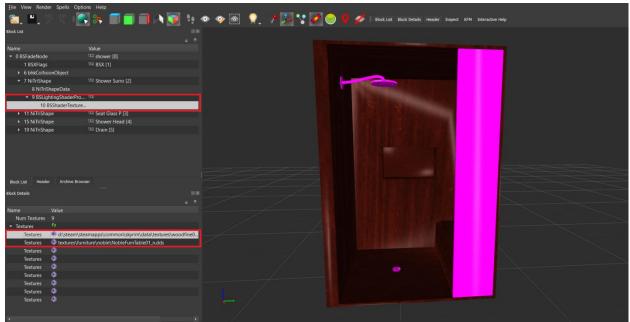




7. Once the menu is expanded like it is in the above picture, you will be presented with the various parts of the mesh. Each part is listed and each one can have its own separate and individual textures. Only items listed as a "NiTriShape" can have textures added as far as static meshes are concerned. Static meshes are typically models that are to be used as furniture, outdoor architectural features, etc. For our purposes, I am going to attach a texture to the first part of the mesh listed (7 NiTriShape Shower Surro) by clicking the arrow beside it. For your model, you can click the part of the mesh in the render window that you want to attach a texture to and once it is highlighted in the list to the left, click the arrow beside it:



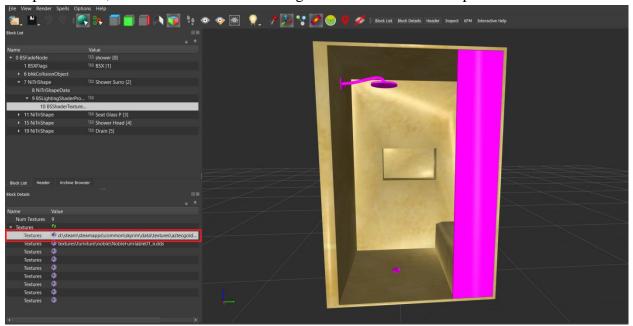
8. All of your textures will always be under the "BSLightingShaderProperty." Click the arrow beside it to expand it. Once you have done that, click "BS ShaderTexture".



9. At the bottom of the list to the left, you will see a bunch of purple flower icons that go down in a vertical line. There are sometimes more than two file path listings beside them depending on the kinds of textures the mesh has (if it has ones attached already). Mine has 2. The first type of texture you will always see is called a *diffuse* or color texture (what you actually see and what makes the mesh look like a real object). The second texture is a *normal map* (which is what gives the diffuse texture depth and helps temper light that hits the object). Both of those textures must always have .dds extensions since that is the file type for textures that the CK recognizes. To make those, you can easily

find tutorials online. The programs Gimp and Photoshop can both produce them. Since you have existing textures you plan on adding to the mesh, you will see that they should already have .dds extensions if you have gotten them from another mod or texture pack on Nexus.

10. Let's change the diffuse texture from the existing wood one I have there currently. Click the purple flower icon beside the diffuse texture on yours and find the texture on your computer. Then, double click it and will change the texture and the file path.

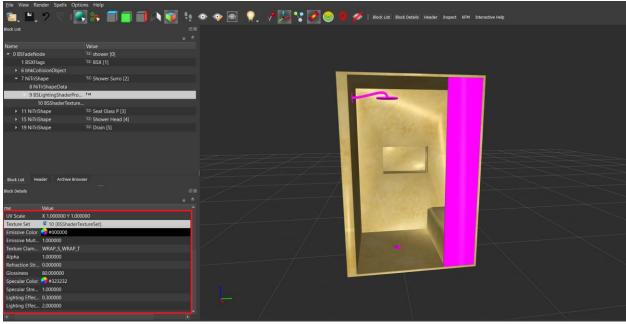


- 11. Viola! As you can see, the wood texture has become a gold one. If you have done the operation successfully, you will have the new texture on your mesh too! Let's save the file now.
- 12. Go up to the top and hit File > Save and give it any name you like in the location of your choice on your computer. Again, I do recommend putting it in the "Meshes" folder in your Skyrim Data one. You can also change the normal map (the texture file under the diffuse texture) if you like and have one available.

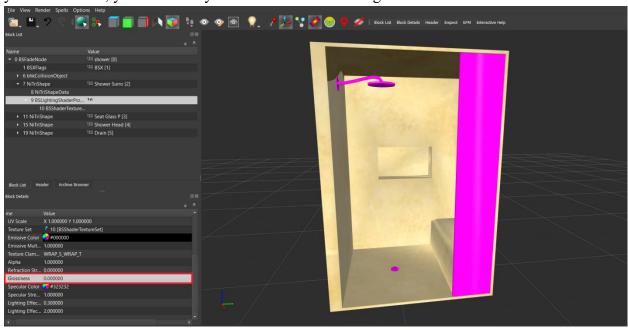
Part 2

- 1. Now that we have learned how to attach textures in Nifskope, you can also adjust the lighting effects to prevent your mesh from becoming too glossy and thus plastic, which is a common problem many meshes suffer from. Additionally, you can find UV maps to produce your own textures. I will show you how to do both in this part of the tutorial.
- 2. Let's begin with adjusting the lighting effects to prevent excess glossiness. Click on the "BSLightingShaderProperty" and look at the menu at the bottom that I have a red

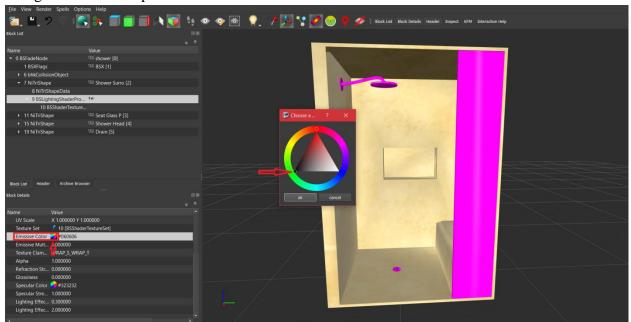
box around in this picture. You will have to scroll down on that menu to access these specific attributes I have boxed:



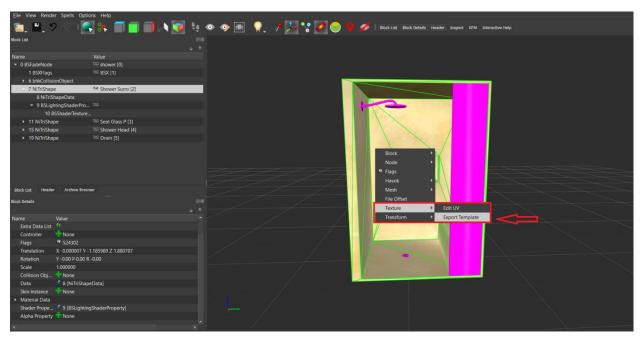
3. First, go to "Glossiness" setting. For mine, it is set to 80.000000. Double click whatever yours is and type in "0". You can also put a value between 0-100. The lower the value, the less gloss you will have. I like 0 because it takes it all away and produces the most realistic effect for most items. That said, some items look better with a little gloss (which produces shine). You will have to play around with this setting depending on the type of item it is and what you want its appearance to be. If you set it to "0", you will have your model look something like this:



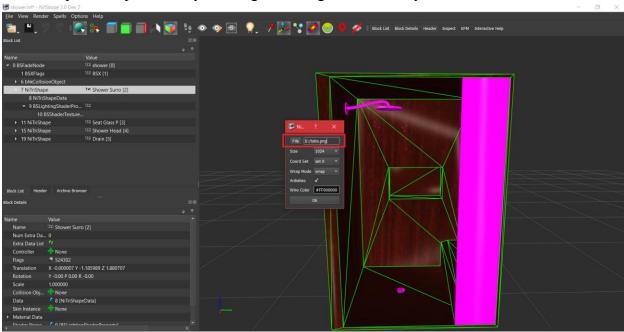
- 4. As you can see, especially on the back wall, the yellow hue has been reduced to a more solid, blander yellow. It is now completely gloss-free. Keep in mind you might also have to set the "Emissive Color" to black to produce that effect. I will show you how to do that now.
- 5. To change the "Emissive Color", find the setting in the menu and click the color wheel to the right of it, then click the black section on the far left corner of the color triangle. Refer to the picture below for all of those features:



- 6. Adjusting that particular setting will produce different shades of colored lighting that will hit the object. I use black because it is a neutral color that will enable the model to look the most realistic under all lighting conditions. Again, you will need to play around with this setting to determine what you like the most and what looks the most realistic for whatever object you are working with.
- 7. Additionally, you can generate UV maps from Nifskope to produce new textures. Before we do that, let me tell you what they are. UV maps are images that use grid formations to represent how your mesh looks when it is cut down the middle and laid on a flat surface. It sounds complicated, but basically, it turns your 3D model into a 2D image that you can draw a picture on and will become your texture. It is called a "map" because the vertices that make up the grid represent the various parts of the mesh you would see if you opened it in a 3D modeling program such as Blender or 3D Studio Max. In other words, the picture is a map of where all the vertices are on the mesh. Simple right?
- 8. Now that we know what a UV map is, let's generate one in Nifskope. On the part of the mesh you are interested in producing a UV map of, right-click it on the mesh, go down to "Texture", then find "Export Template."



9. Click "Export Template" and you will get a dialogue box that says this:



There are a couple features I want to draw your attention to in this dialogue box. The first one is the most important and it is boxed in red. By clicking "File", you can choose the location on your computer where you want to save and access your UV map. You can give it a new name in the box that pops up, hit "Ok" on it and then "Ok" on the dialogue box in the above picture to create the UV map. The second feature I want to draw your attention to is the "Size" drop-down menu that is under my red box in the above picture. You will see that it is set to 1024. That number may look familiar to you. That is the typical 1k pixel resolution you see many models

- have. Click the drop-down menu to choose other values to obtain UV maps with different resolutions. Keep in mind that for computer performance reasons (memory usage and framerate), it is generally best to keep it at 1024 or lower. It is a good idea to be considerate of the player's computer equipment and playing experience. Higher end machines can handle higher resolutions, such as 2k (2048) and even 4k (4096) that you might also be familiar with.
- 10. Once you have generated the UV map, find it in the location you stored it in on your computer and open it with any texture program such as Gimp or Blender. Now, you can produce a custom texture of your own!
- 11. Congratulations! You have mastered attaching textures to models in Nifskope, adjusting their gloss effects, and generating UV maps to create new textures from scratch. What I have just taught you in regards to how to apply textures via Nifskope is called "hard coding" a texture. The next tutorial will teach you how to "soft code" a texture, meaning how to apply a texture to a mesh via the Creation Kit. The difference between the two is important. The former is "hard coding" because the texture is applied to the model directly and can be seen with that texture in Nifskope or any 3D modeling program. In contrast, if you "soft code" a texture, that texture can only be seen on the mesh in the CK's render window. For that reason, "hard coding" a texture is the preferred method, but there are benefits and reasons for why you would want to "soft code" a texture. Move on to the next tutorial to learn them and how to do it. Don't worry! It is even simpler than what you just learned.