

How to Add Textures to a Starship

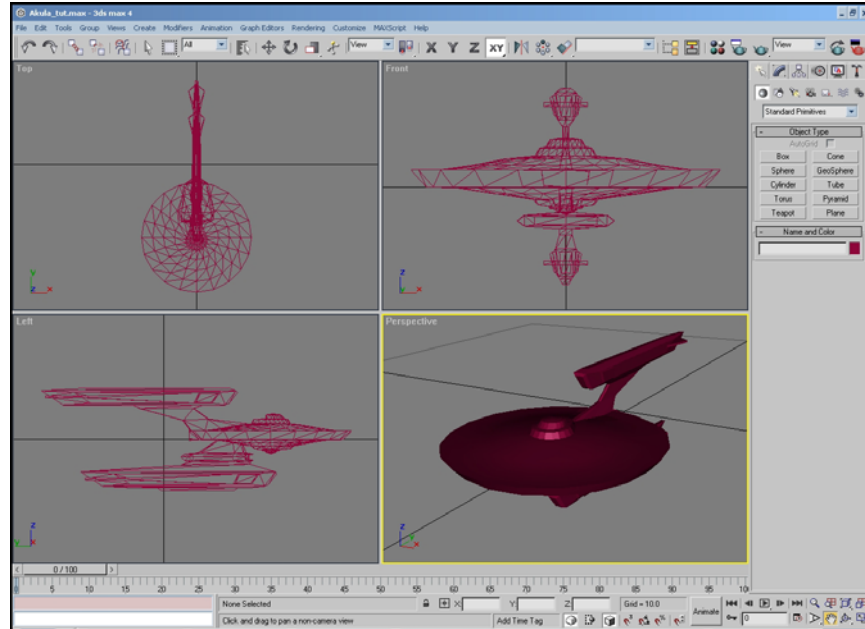
A 3ds max tutorial by Danny Hensel a.k.a. Mr_Tricorder

This tutorial was made specifically for people texturing models for the Starfleet Command, Starfleet Command Volume II, Starfleet Command Orion Pirates, and Starfleet Command III

This tutorial explains one method of adding textures to a 3D model such as a space ship. For this tutorial, I will be using my own Akula class starship model made in 3ds max 4 and textures from the game Starfleet Command Volume II.

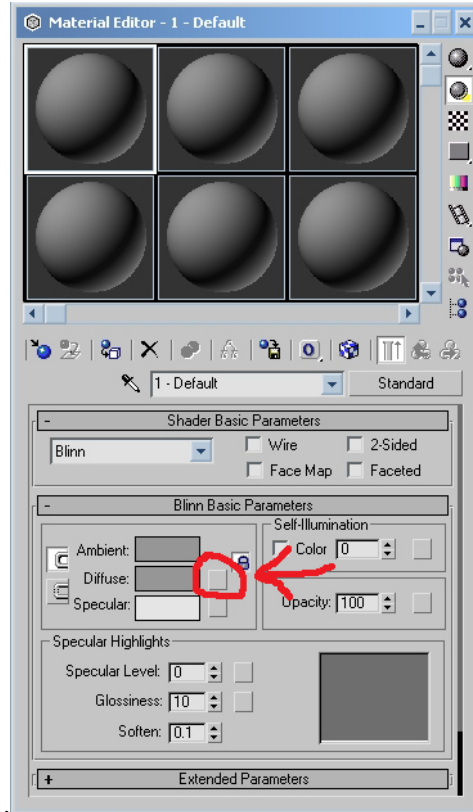
This is my second version of this tutorial. I have rewritten some sections and added certain explanations and tips to help people who are unfamiliar with 3ds max and/or the Starfleet Command games.

1. Open the included file, Akula_tut.max, in 3ds max. It should look something like this.



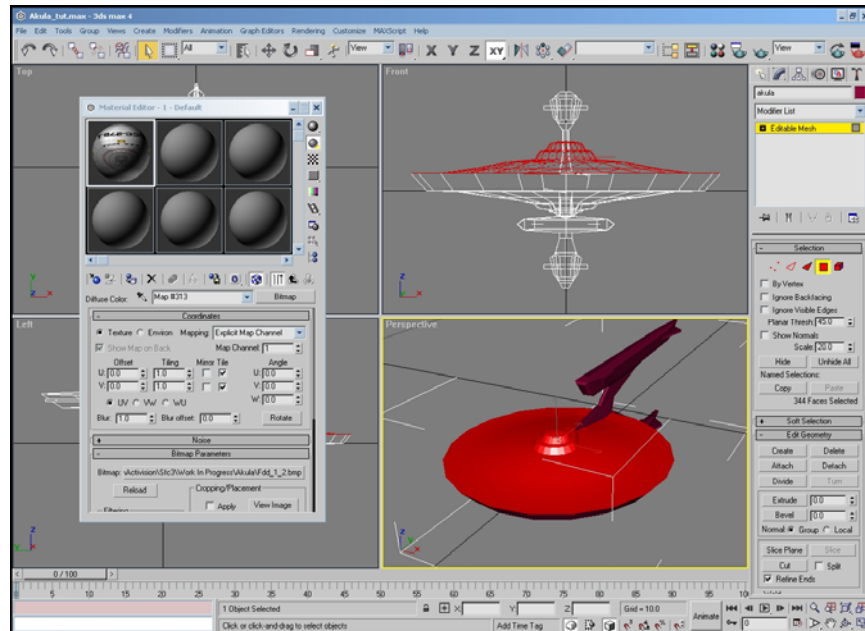
2. Next, open the Material editor either. You can do this by clicking the button with the four colored balls on the toolbar; go to the menu bar, open up the Rendering menu and select Material Editor, or hit the “m” key. Click on the button next to the diffuse color

swatch and select Bitmap from the following dialog box. Click OK.



3. Select the texture Fdd_1_2.bmp and click Open. This is the texture for the top of the saucer section.

4. Select the model, click on the modify tab, click the Faces button, and highlight all of the faces.

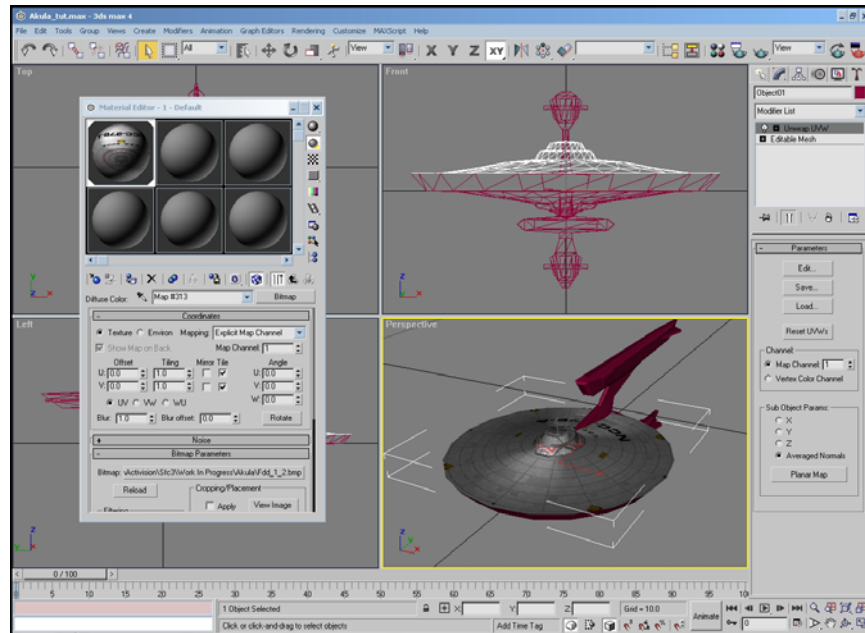


5. (Only follow this step if you need to apply multiple texture files to a mesh): Click the detach button and name the new object “saucer_top”, deselect the Faces button, and select the top of the saucer.

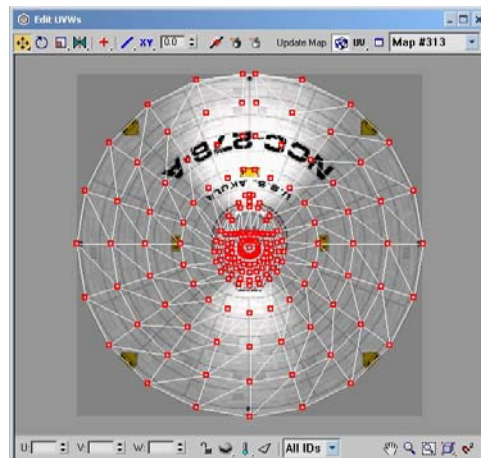
Note: Most of the time you will want to use multiple bitmap files when texturing a starship. When you apply a material to a mesh, it applies to the entire mesh. If you apply a new material to a mesh that already has a material applied to it, the old material will be replaced by the new material. To prevent this from happening, you will have to detach the sections that use different bitmaps, apply the bitmaps to the sections, and then re-attach the sections to the ship. If the entire mesh only uses one material, however, this step is unnecessary.

6. In the Material Editor, click the Show Map in Viewport button (the one in the horizontal toolbar that looks like a cube with blue and white squares on it) and apply the texture to

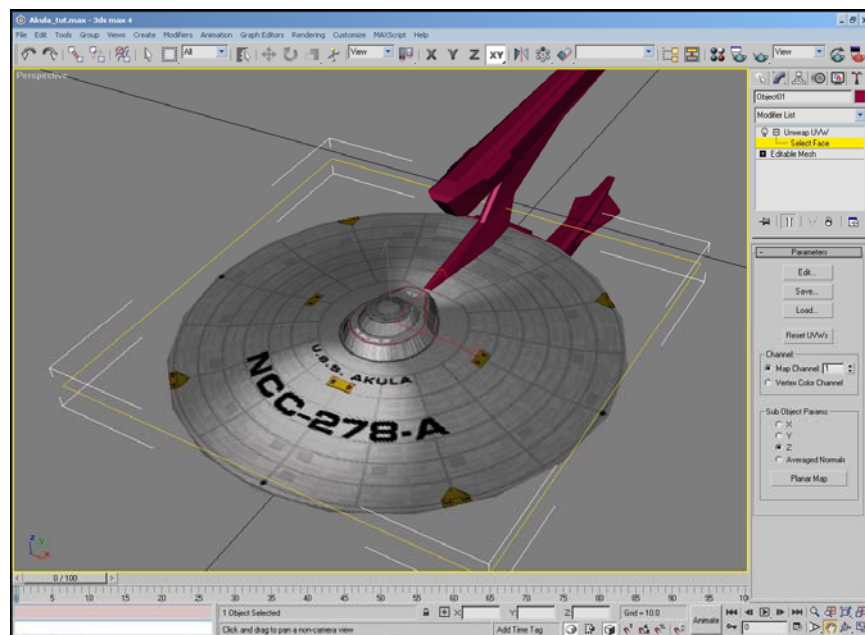
the top of the saucer. In the main window, on the Modify panel, click the modifier list pull-down menu and select Unwrap UVW.



- Now that we have applied the texture, we need to adjust its mapping coordinates to better fit the model. In the modifier stack, click the plus sign next to Unwrap UVW and select Select Face. (If step 5 was followed) Highlight all of the faces of the top of the saucer. Under Sub Object Params click Z (this is to determine the angle at which the texture is applied). Click the Planar Map button and then click the Edit button to bring up the Edit UVWs window.



8. Click the triangle near the center of the bottom bar. This will make any unselected vertices disappear. Click the rotate button, move the cursor over one of the vertices, and hold down the left mouse button and drag the mouse to rotate the vertices 180 degrees.
9. Adjust the vertices so they line up with the outer edge of the map. Then zoom in to the center and adjust the vertices so they better match the bitmap. There is no definite right way to do this or correct end result. Just make it look good. The end result should look something like this.



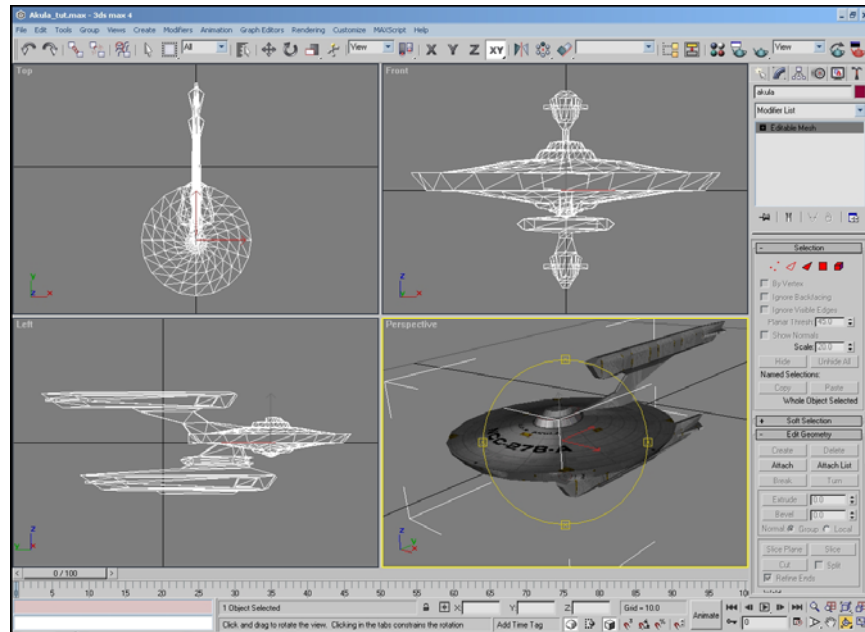
Tip: If you click and hold the Move button, a drop-down list of alternate move buttons will appear. Use these buttons if you only want to move vertices horizontally or vertically. Click and hold the scale button (the one with the little square inside the big square), and you will see a similar list of alternate scale buttons to scale vertices horizontally or vertically. You can do the same thing with the mirror button (the one with two triangles pointing inward to a vertical line) to be able to mirror the vertices in different directions.

10. Optional (mainly for Starfleet Command Volume II, Starfleet Command Orion Pirates, and Starfleet Command III): In the Material editor, click the Go to Parent button to go back to the basic parameters. Click the grey button in the self-illumination box, select bitmap and then select Fdd_1_2.bmp. Click Open. This will help the “lit” areas of the ship appear illuminated.

Note: The original Starfleet Command game does not use self-illumination maps and ships with self-illumination maps will not work in the original Starfleet Command game. In the other Starfleet Command games, ships without self-illumination maps will appear dark and/or waxy.

Tip: If the section of your ship appears black except for the parts that are lit after you apply the self-illumination map, in the Material Editor click the “up” arrow above the button that says “bitmap”, click the button next to the diffuse color swatch (the same one you used to select the original texture), and select the Show Map in Viewport button. The model should now appear as it did before you applied the self-illumination map, but don’t worry. It’s still applied to the mesh.

11. (If you did not need to follow step 5, ignore this.): Select the main part of the ship, click the Attach button, and click on the top of the saucer to make the model whole again.



Note: *Models in the Starfleet Command games must be whole models. If your ship is divided up into several objects, it must be combined into a complete and unbroken mesh before you export it to .mod format. When you attach a textured section to an untextured section, do not worry if textures appear on the untextured section. You will be able to properly apply textures to those sections later.*

12. Repeat this process for each section of the ship. Pay close attention to the texture maps before you detach parts of the ship. Make sure you match up different parts of the texture

maps with different parts of the mesh. The end result should look something like this.

