



quicky 3ds max 7 tutorial v1.0

ghaz

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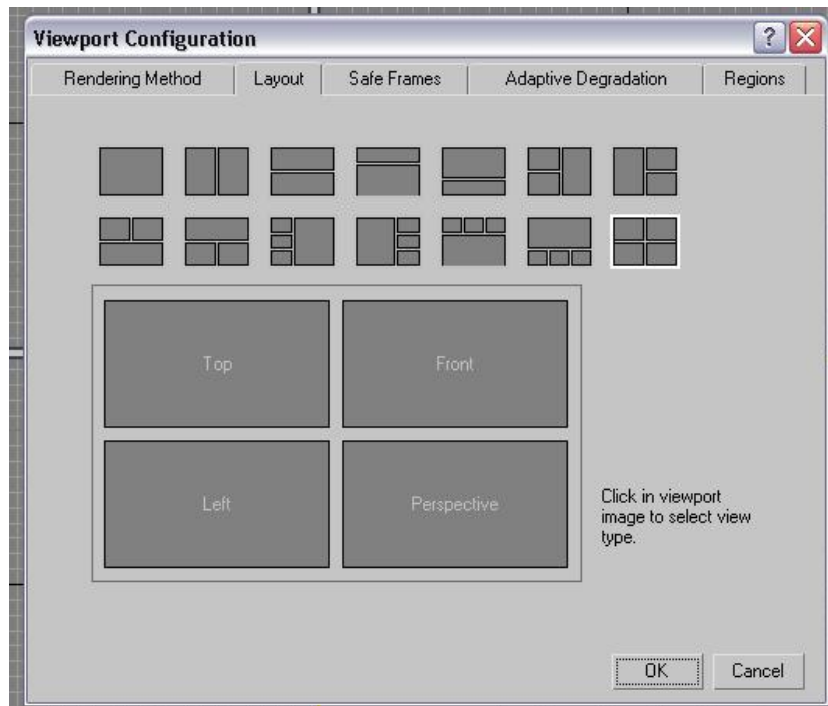


Figure 1: the viewport layout

This tutorial is for those who know as much about 3ds Max as I did when I got started. Absolutely nothing. So we will start from scratch and end up with a textured non-animated model (.MDL) that you can use for Fate. There are definitely better ways of doing it, but I'll show you what works for me while also using as many different 3ds max stuff as possible. I also advise you to make a brand new save after each big step. That way you can always go back to an old saved file if something goes wrong.

First I want to make sure that you viewport is setup the same as mine. It should be the same as the default, but just to make sure go to *Customize* ⇒ *Viewport Configuration*. If you click on the *Layout* tab, it should look like Figure 1. If it does not, click on the viewport picture to change it.

In Figure 2 you can see some of the important buttons. I will refer to these a lot. Red is **select**, green is **move**, blue is **rotate** and pink is **scale**. This is also a good time for you to learn some other basic controls. Middle-mouse-button pans the 'camera'. Mousewheel zooms in and out. Middleclicking on a view selects that view without losing your current object selection. Other

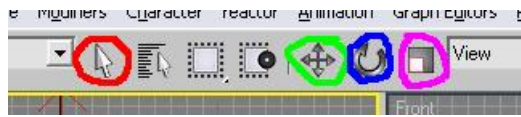


Figure 2: important buttons

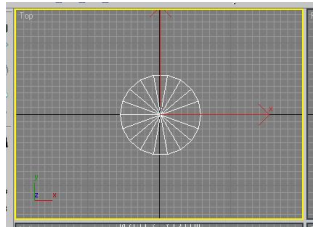


Figure 3: creating in top view

useful controls are in the bottom-right corner of the screen, **pan**, **zoom**, **rotate view** etc. Just note that rotate view rotates the ‘camera’, while the rotate in Figure 2 physically rotates your object. If you just want to see your object from a different angle, use the rotate in the bottom-right corner. Pressing **F3** and **F4** turns shading and wire mode on and off. So if the object in one of my screenshots is solid while yours is a wireframe, press **F3**.

OK, time to start with our axe. I’ll start with the handle. Click on the **Create** tab (Figure 4 : red circle, top right corner). Select **Geometry** (green circle) and click on **Cylinder** (blue circle). Click and drag on the top viewport (like Figure 3). It does not matter how big, we will manually set this in the next step. If you didn’t click anywhere else, your bottom right corner will show the cylinder parameters like in Figure 5 (ignore the specific values, yours will be different). If it shows only zeros for the radius and height, don’t worry. Just select the cylinder you created (click on the select button and click on the cylinder) and click on the **Modify** tab (next to the red circle in Figure 4). Now set *radius* = 4, *height* = 100, *height segments* = 1, *cap segments* = 1 and *sides* = 6. So now your object should look like the one in Figure 6.

Now we need to add the head of the axe. This might be tricky. First you need to convert the object to something that we can mold like a piece of clay. I use editable poly. Select your object. Right-click on it. At the bottom of the popup menu you will see a **Convert To** section. Go into that sub-menu

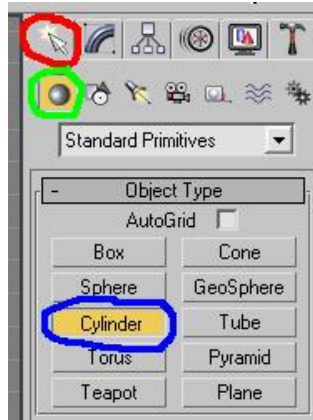


Figure 4: create cylinder

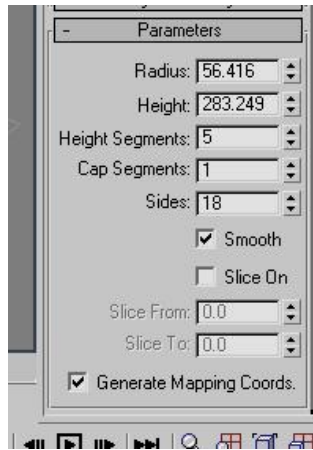


Figure 5: cylinder parameters

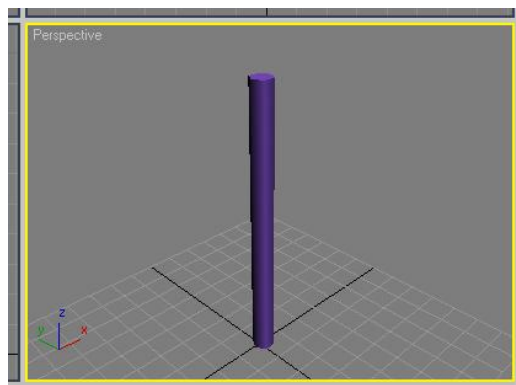


Figure 6: the handle

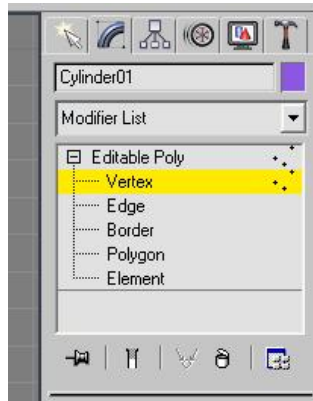


Figure 7: editable poly

and click on **Convert to Editable Poly**. If you now go to the **Modify** section on the top right of your screen you will no longer see the parameters of the cylinder. Now you will see Figure 7 (click on the little plus next to *Editable Poly* to see the detail). I only use the *vertex* and *polygon* options. A quick explanation might be necessary.

A vertex is a point in space. The line connecting two vertices is called a edge. A polygon is a 'surface' surrounded by edges. My jargon might not be totally correct, so if my explanation is too vague, just click on vertex, edge or polygon and select bits of your object. You will quickly learn what is what.

Click on **Polygon** and select all the polygons as shown in Figure 8. Make sure the *Ignore Backfacing* box is NOT checked. If it is, you can only select the polys in the front. We now want to create the polys for the head. If you haven't realized yet, you can scroll down on the right menus. Scroll down until you get to the *Edit Geometry* section. Click on the **Slice Plane** button. A yellow line should appear. Click the **move button** at the top and move it upwards until it looks like Figure 9. Note that when you click the move button, axes appear with the yellow line. If you hold the move cursor on the *x*-axis while moving, you will only move on the *x*-axis. The same applies for *y* and *z*. If you click on the top right corner of the square between the axes, you can move in any direction you can see in that specific view. Sometimes you might want to switch to a different view to move a object. If the yellow line is in position, just click **Slice** (the button below the *slice plane* button). Now your object should look like Figure 10. You can see that we sliced the polys into more polys.

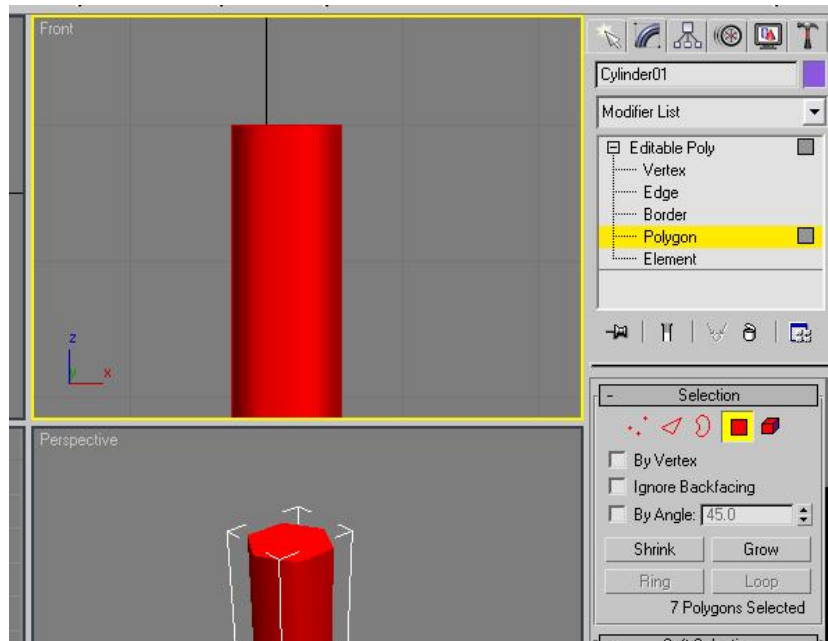


Figure 8: selecting polys

Now select the new polys. Make sure you don't select to poly at the top. Scroll around on the menu at the right and look for the *Edit Polygons* section. Click on the little settings box next to the **Extrude** button. Change the type to *Local Normal* and the height to 2. Press OK. See Figure 11 for details and how the result should look.

Now go to your front view and select the polys at the top-middle. Extrude them by 20. The result should look like Figure 12. Now we will shape the blades.

Change to vertex mode and look at your left view. Select the vertices in the corners as shown in Figure 13. Click and hold the **scale** button and select *non-uniform scale* (see Figure 14). Click on the *y*-axis and move up. Scale until it looks like Figure 15. Scaling the vertices on the *y*-axis only moves them away from each other. You could have moved the vertices by hand, but this method ensures that the top and bottom vertices are exactly the same distance from the middle.



Figure 9: slice plane

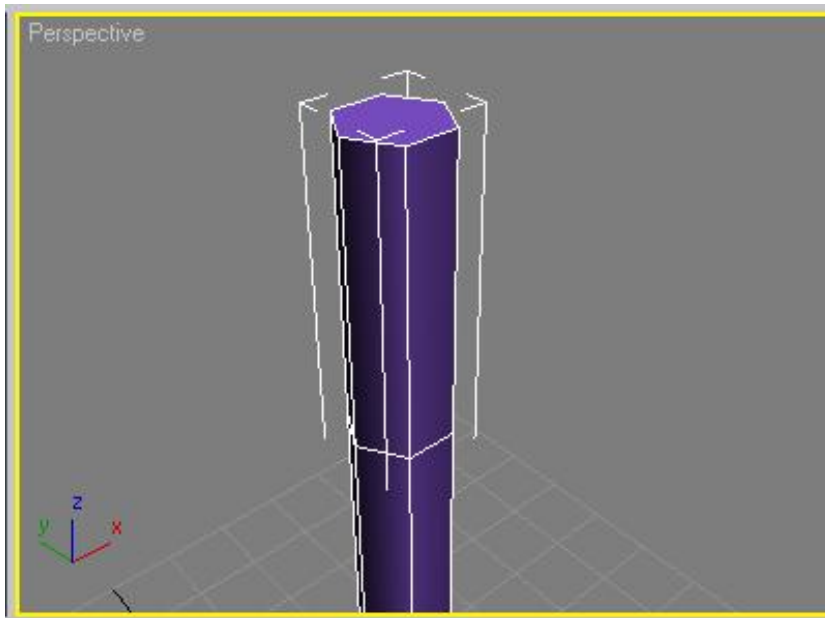


Figure 10: after slice

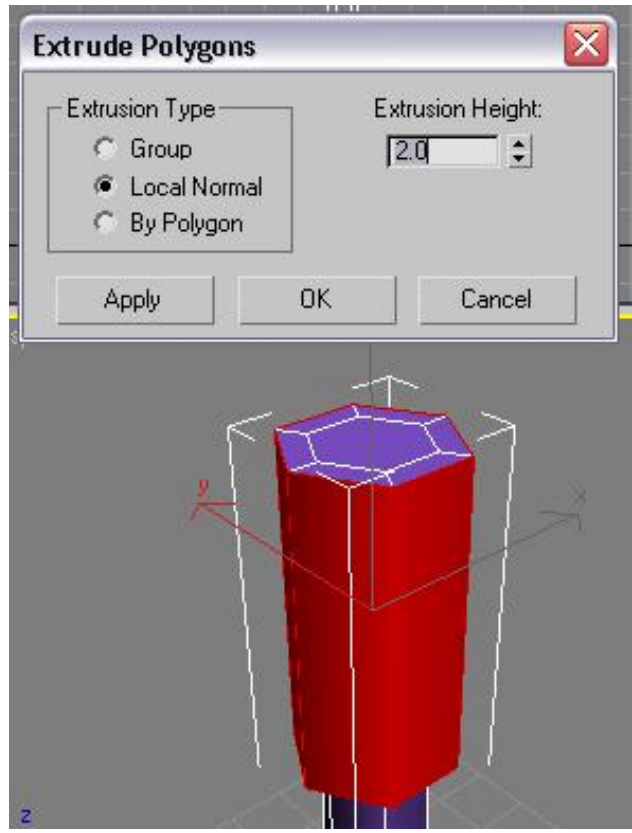


Figure 11: extruding

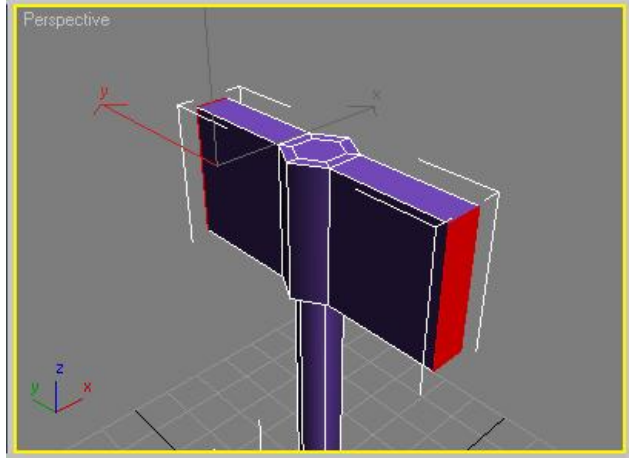


Figure 12: extruding the blade



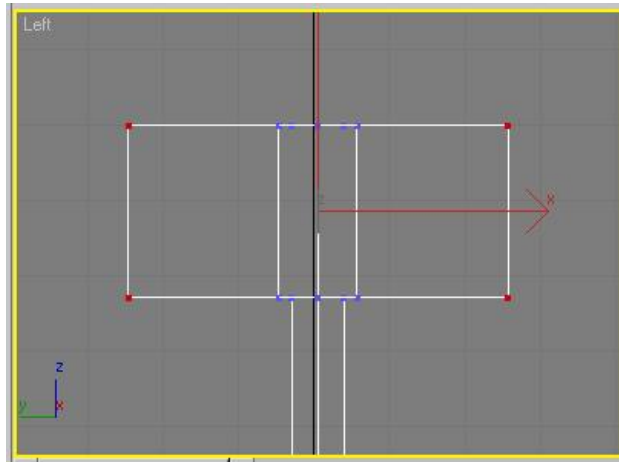


Figure 13: selected vertices

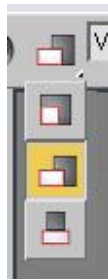


Figure 14: non-uniform scale

Now lets just sharpen the blades. Again select all the blade corner vertices. Click on the **Weld** settings box under the *Edit Vertices* section (see Figure 16). Set the threshold to 7 and press OK. If the distance between some the selected vertices is less than 7, this will weld them together. As you can see, the vertices at the ends of the blades are now welded together. The blade is now sharp.

This isn't the prettiest axe ever, but it looks fine for a first try. Now lets see how it looks in Fate. I included a mod manager compatible example item with this. So lets just export the model to the correct folder. If you don't know how to add an item to Fate, check out some of the excellent tutorials on the Fate Modding Forum.

To export, go to *File*  $\Rightarrow$  *Export*. Select *Screwdriver Model (\*.MDL)* as

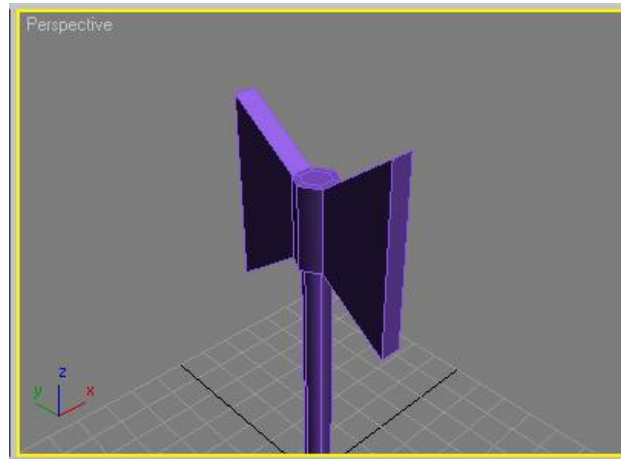


Figure 15: done with scaling

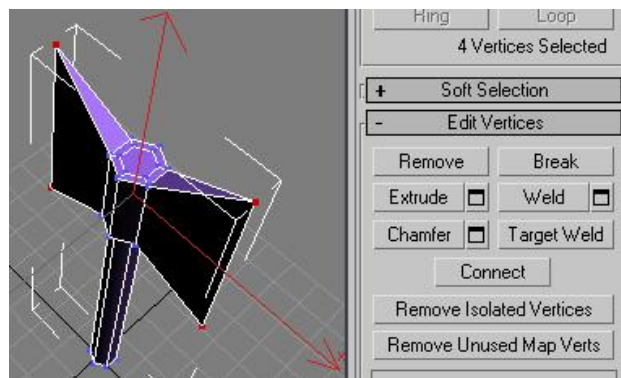


Figure 16: weld

the save type. If .MDL is not listed as a possibility, you need to get the plugins from the Mod Kit. Look for it on the Fate Modding Forum. Save it as **MODS/quickyttut/ITEMS/myaxe.mdl**. Use the viewer.exe program that comes with the Mod Kit to view the model. If it doesn't show in the viewer, something is wrong. (Ignore the weird texture that shows up in the viewer. We still have to add a texture) Use Mod Manager to apply the mod and enter the game. Press *Ctrl-Shift-~* and type *myaxe*.

If you did everything correct and you equipped the axe, you will see something like Figure 17. I like my axes big, but I think we can all agree that it is a bit too much. So lets resize. Select the axe and click and hold **scale** again, but this time choose *uniform scale*. You can either click and drag to scale, or manually enter the value in the box at the bottom of the screen as done in Figure 18. 4.5 gives a bit better result. Export and overwrite the old file in the mod folder. Run the game again and cheat the item. Looks better this time, but he doesn't grip the handle exactly where I want. To change this we move the *pivot*.

Select the axe. Click on the *Hierarchy* tab (top-right corner, next to the *Modify* tab). Click *Affect Pivot Only* and move the pivot to the desired position. The *pivot* shows where the object is positioned and which way it should face. So moving and rotating the pivot will result in a rotated or moved item in Fate. The end moving result should look something like Figure 21. If you export it again you will see the grip is now perfect (Figure 22).

Now we only have to do the texture. This isn't as easy as it sounds. Time to save and backup.

Select your object. Make sure you don't just select polys or vertices, but the object itself. Go the *Modify* tab and click on the words *Modifier List* (see Figure 23). Scroll down and select *Unwrap UVW*. It should be the exact words, not something close to it. If your Modify window doesn't look exactly like Figure 24, right-click the *Unwrap UVW* and delete. Make sure you object is correctly selected and try again. The purpose of the UVW-thing is to get a flat representation of your model that you can color. The list containing our *Edit Poly* and *Unwrap UVW* is called the modifier stack. It should also be seen as a litteral stack. You should **not** try to modify anything that is not on top. It could still work, but then again, why take the risk.



Figure 17: too big :)

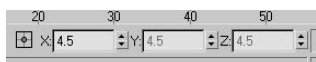


Figure 18: uniform scale



Figure 19: held too low

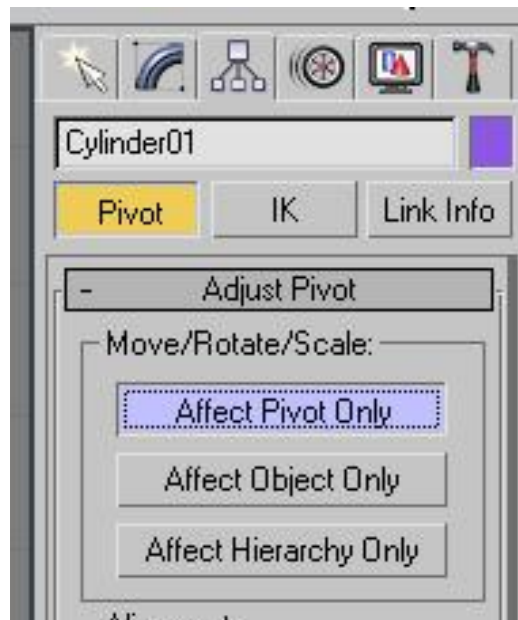


Figure 20: adjust pivot

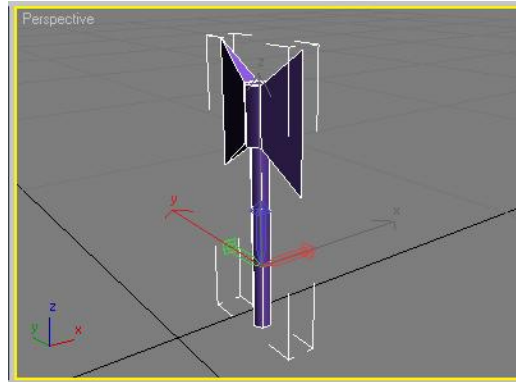


Figure 21: moved pivot



Figure 22: perfect grip

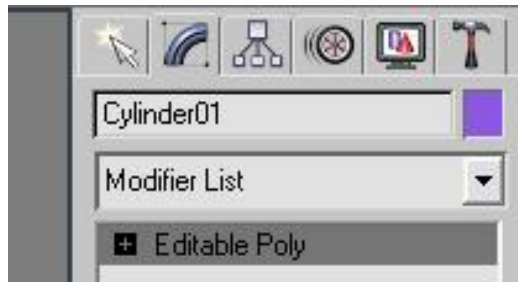


Figure 23: modifier list

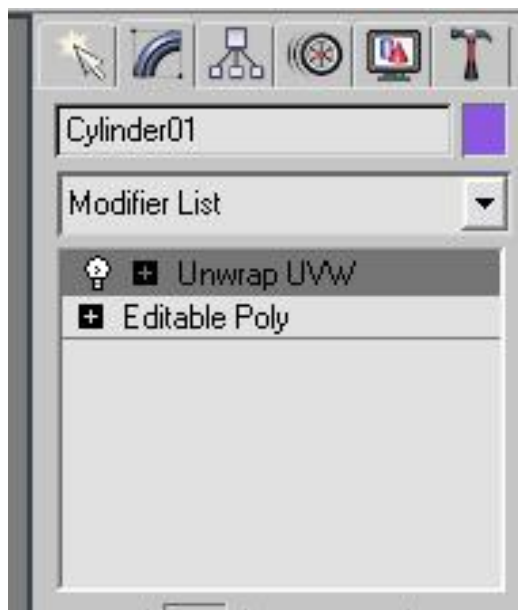


Figure 24: after clicking Unwrap UVW

With everything still selected, scroll down and click on the **Planer Map** button and then on **Edit**. What you see now will hopefully confuse you. It should look something like Figure 25. Luckily we can make it better. In this new *Edit UVWs* window go to *Mapping*  $\Rightarrow$  *Flatten Mapping* and press OK. Usually it doesn't turn out this nice, but this time we were lucky. Now it should look sort of like Figure 26. As you can see there are no overlapping lines, so it should be quite easy to colour.

The next step seems a bit crude, but it is the only way I know how. Still in the *Edit UVWs* window, go to *Options*  $\Rightarrow$  *Advanced Options*. Uncheck the

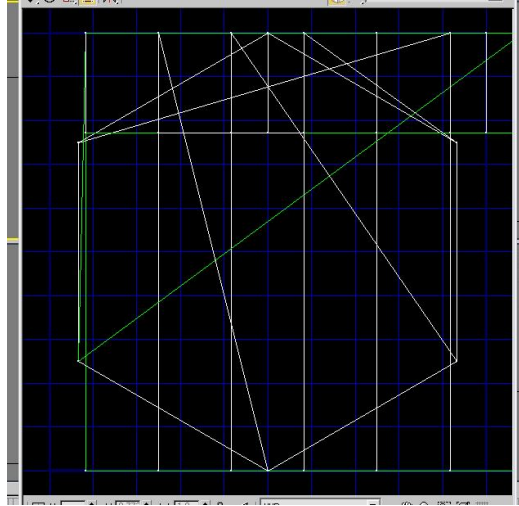


Figure 25: huh?

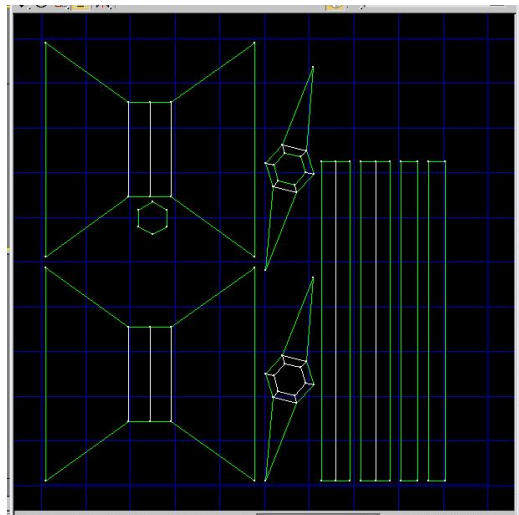


Figure 26: nice uvw map



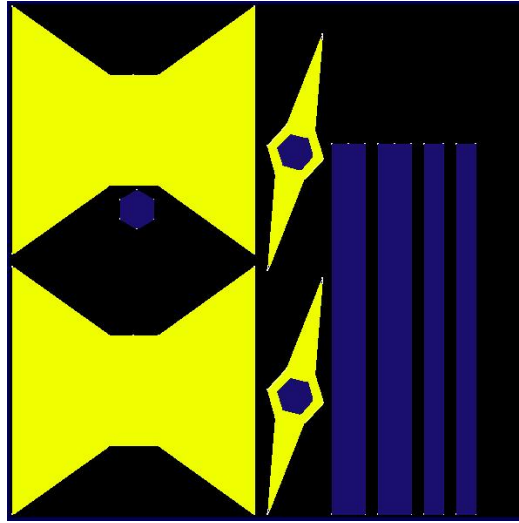


Figure 27: texture file

three boxes in the *colors* section. Now you should have a dark blue block with white lines showing the different polys. Zoom in until the dark blue block fills the screen and press *PrintScreen* on your keyboard. Open your favourite image editing program (GIMP, Photoshop, paint). Go to *Edit*  $\Rightarrow$  *Paste*. Select only the blue border with the image inside and go to *Edit*  $\Rightarrow$  *Copy*. Paste it as a new image. Should look like a image with a blue border. Now you should just color it. For this I really recommend Photoshop or GIMP. If you don't already have Photoshop, don't bother buying it, use the GIMP (it is free). Remember to save in in the same folder as your 3ds Max file.

I tried to finish my texture file as quickly as possible, so hopefully yours will look better. Mine looks like like Figure 27. I really hope yours looks better. Now we have to apply the texture to the model.

Close the *Edit UVWs* window. Select you object and press *m*. Select the top left material and click on the button that says **Standard** (see Figure 28). Double-click on *Multi/Sub-Object*. If it asks if you want to keep or discard old materials, I usually just discard, but if you added something previously it might be better to keep it. Now click on the topmost material. The material number doesn't matter (yours will probably be different from mine), just pick the one next to id 1 (see Figure 29). Scroll down to *Maps* and click on the box (labelled *none*) next to *Diffuse Color*. Double-click on

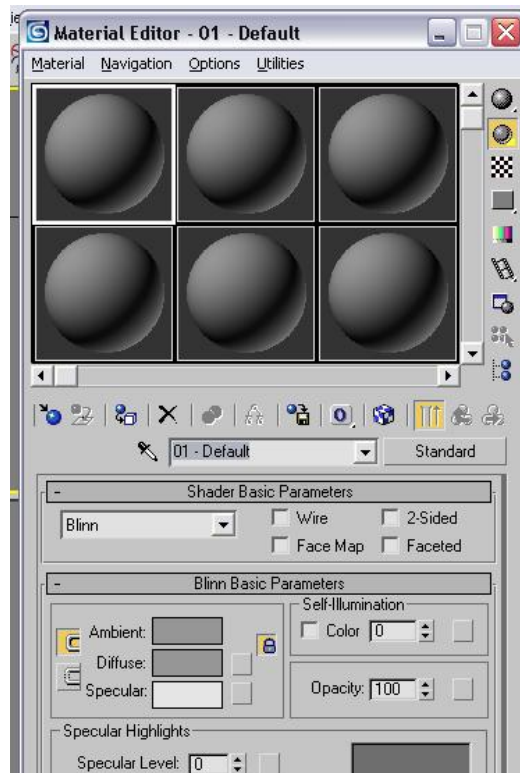


Figure 28: materials window

*bitmap* and find *myaxe.png*. It should be in the same folder as your *.max* file. Now click the **Assign Material to Selection** button and click **Show Map in Viewport** (see Figure 30). Click the **Go to Parent** button to go back to the main materials window. Your object should now be textured ... but it is not. Unfortunately I made a mistake, so lets fix it. :)

Close the materials window. What went wrong is that I forgot to give the object a material ID. This is something that you are supposed to do **before** you create the UVW map. We already spent a lot of time on the map and the texture, so to redo it all will just be terrible. Luckily we don't have to. Select your object and once again click on the *Modifier List* on the right. This time select *Edit Poly*. Now we can make changes to our poly without losing the previous work. Choose polygon mode and select all the polys. It should look like Figure 31. Make sure that the *Ignore Backfacing* box is not checked. Scroll down to the *Polygon Properties* section. Type 1 in the *Set ID* box and press *enter* (see Figure 32).

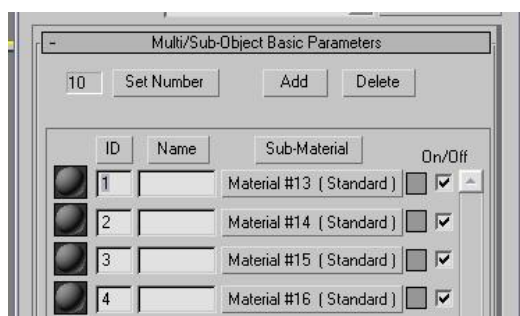


Figure 29: select the material

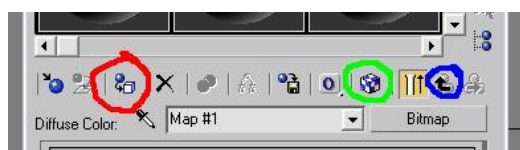


Figure 30: assigning the material

Now everything should work. If you want a nice rendered picture, press F10, choose the viewport and click on **Render**. This is a good way to create an icon.

OK, so export the model again and this time also copy *myaxe.png* to the mod folder. Now the model in-game should look like Figure 33 (hopefully with a better texture than mine).

For the final bit we'll make the blade shiny. This involves creating a reflection texture and assigning it to the model. Very easy. First make a copy of *myaxe.png* and rename it *myaxeref.png*. Open *myaxeref.png* in your image editor and get ready to edit. The reflection texture is a grayscale image where black causes no reflection and white total reflection. I'm going to edit mine so that the handle reflects nothing and the blade almost everything. The result looks like Figure 34.

Press *m* again to go to the materials window. Again click on the material next to id 1. Scroll down to *Maps* and click on the button next to *Reflection*. Double-click on *bitmap* and find *myaxeref.png*. Press the *Assign Material to*

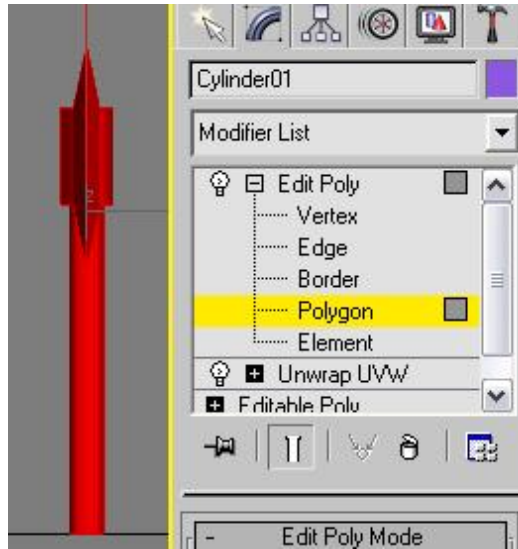


Figure 31: selecting all the polys



Figure 32: assigning material ids



Figure 33: textured axe

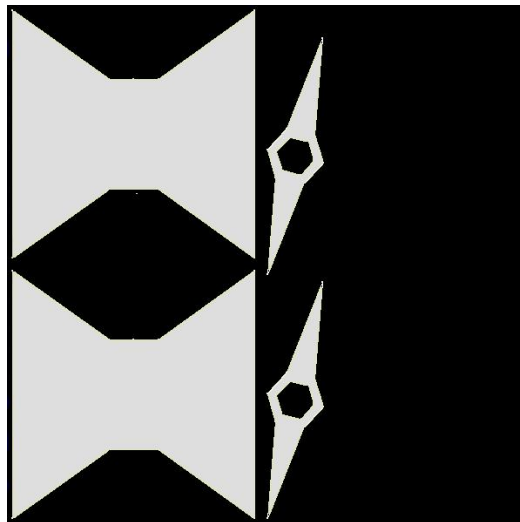


Figure 34: my reflection texture

*Selection* button. For some strange reason the reflection map doesn't work correctly when I render it in 3ds Max, but it works perfectly in Fate. So my method is probably wrong, but for Fate it works.

Last step! Export the model again and remember to also copy *myaxeref.png* to the mod folder. Run the game and play with your new axe.

Enjoy the chopping.

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