Subject: Basic UVW mapping...
Posted by Sir Phoenixx on Thu, 03 Feb 2005 16:54:12 GMT
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This will show (step by step) how to UVW map the exterior of a basic building shaped model. This can be done with any model, but it gets more complex with spheres, cylinders, odd shapes, etc.. (note: This was done in 3d Studio MAX 4.2, it should be similar enough in 6 to follow along.)

(EDIT: Forgot to add that you have to click on "Fit" after "View Align" before you square the dimensions...)

Just a little bit of color coding for a few things:

Using the Reset XForm utility
UVW Mapping the sides
UVW Mapping the top, and putting it all together
How to get and use "Texporter"

Here's the building, just the exterior sides and top:

1. Before you UVW map, use "Reset XForm" under the "Utilities" tab on the command panel to the right, and clicking on the "Reset Selected" button, do this for each object before UVW mapping them. (If it's not there, you might have to add it to a new button.)

2. After you do that, convert back to editable mesh, and select all of the polygons of one of the sides, and towards the bottom of the command panel you can give them the number "10". (This makes it easy to show just that set of vertices when editing the UVW map later.)

3. Make sure the correct viewport is in focus, and apply the UVW Map modifier to the polygons, click on "View Align" and "Fit" towards the bottom of the command panel, select the width or height, which ever is higher, and paste it into the other to make it a perfect square.

4. Apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window. Select all of the vertices, and move them off to the left.

5. Close the window, convert back to editable mesh, and select all of the next set of polygons to the right, and number them "11".

6. Repeat step 3 for these polygons.

7. Apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window. Select all of the vertices, and uniform scale them down to about the same size as the last set (doesn't have to be perfect for now), and move them just to the right of where the last

ones were.

8. Close the window, convert back to editable mesh, and select all of the next set of polygons to the right, and number them "12".

9. Repeat step 3 for these polygons.

10. Apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window. Select all of the vertices, and uniform scale them down to about the same size as the last set (doesn't have to be perfect for now), and move them just to the right of where the last ones were.

11. Close the window, convert back to editable mesh, and select all of the next set of polygons to the right, and number them "13".

12. Repeat step 3 for these polygons.

13. Apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window. Select all of the vertices, and move them just to the right of where the last ones were.

14. Close the window, convert back to editable mesh, and select all of the next set of polygons to the right, and number them "14".

15. Repeat step 3 for these polygons. (Switch to the opposite viewport, as this is on the other side.)

16. Apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window. Select all of the vertices, and move them just below where the others are.

17. Close the window, convert back to editable mesh, and select all of the next set of polygons to the right, and number them "15".

18. Repeat step 3 for these polygons. (Switch to the opposite viewport, as this is on the other side.)

19. Apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window. Select all of the vertices, and move them just to the right of where the last one was.

20. Close the window, convert back to editable mesh, and select all the side polygons (numbers 10-15), and apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window.

21. Now, uniform scale each set of vertices to match the first set in height, and move each of the sets on the top row together, and move the two bottom sets together. Then, scale the vertices that make up each corner of the building together, so they don't overlap and are together. (You can leave them apart if you want.) After that, move the top vertices on each row just a little to remove some distortion.

22. Select all of the vertices, and uniform scale them down to fit inside the square at the top.

23. Close the window, convert back to editable mesh, and select the top polygons, and number them "16".

24. Repeat step 3 for these polygons.

25. Apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window.

26. Select the vertices on the outside, and scale them up to get rid of some distortion.

27. Close the window, convert back to editable mesh, and select all of the UVW mapped polygons (or just select the object istelf if all of the polygons are UVW mapped), and apply the "Unwrap UVW" modifier, and then click on the "Edit" button below to get the edit UVW window.

28. Select the vertices of the top polygons, rotate them so they're horizontal, and uniform scale them down to fit below the sides.

You can use the same method to do the rest of the building, and fill in the empty spots on this UVW map. Make sure to fill in the square as much as possible.

You can go here to get "Texporter", it's a plugin for 3d Studio MAX that saves an image of the UVW mapping so you can paint over it in an image editor. Just download it and follow the instructions to install it.

1. Click on the "Texporter" button under "Utilities" on the command panel. Type in "512" (or 1024, depending on how big you want it) in the width and height to make a 512x512 texture.

2. Deselect "Polygon Fill"; select "All Lines"; deselect "Backface Cull", "Mark Overlaps" and "Smooth Colors"; and select "Constant", and pick white out of the color box.

3. Click on "Pick Object", select the object, and then click the save icon in the top left corner, now you have a template that you can paint over. All you have to do now is apply it to the object.