

CSCI 181 : 10 : Computer Animation Design I : Fall 2006

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My Favorite Texture technique

1. Open Perspective/Hypershade view.
2. Create a new Phong Shader by clicking on the left, or MMB dragging it into the Work Area. Make it's color a warm yellow.
3. Scroll down on the left to 2D textures, you can add your own image by MMB dragging a File node into the work area, for this example you will select a Ramp. (Note, a 2D texture Ramp is different from the Ramp Shader located near the Phong shader, we want the 2D texture Ramp)
4. Select the ramp, hit Ctrl-a to bring up the Attribute Editor. Click on the green box with the X in it to delete the green color.
5. Make the top of the ramp Black instead of blue, and darken the red slightly.
6. Scroll down on the left side of the Hypershade to General Utilities and select the Sampler info node.
7. The Sampler info node uses the position of the camera and lights to map textures, rather than the UV space. What we're going to do is use it to warm up the shaded areas of our texture.
8. MMB drag the Sampler onto the Ramp shader. Select Default, since there is no Default setting, the Connection Editor pops up.
9. Select the Facing Ratio in the left column of the Connection Editor, this is the Sampler outputs. Immediately, certain attributes on the right are dimmed, you can only connect certain attributes to compatible attributes that are not dimmed. In the right column, click the + sign next to Uv Coord
10. You can't connect the facing ration to BOTH U and V, but you can connect to one or the other. Select V Coord. Both the Facing Ration and V Coord should be highlighted, showing they are connected. Close the Connection editor.
11. Back in the Work Area, MMB drag the Ramp onto your Phong shader, and select ambientColor. You should now see a nice glow around the edges of the Phong shader preview. You may need to tweak the ramp to make it subtle, either by darkening the color or changing the color. Black has no effect on the ambientColor channel, it's similar to to having no ambientColor, while lighter colors make it glow more.

Notes

- Variety is important in your textures. With this technique you could have a red texture that has a felt like feel, and contrast that with the default Phong texture which is more of a paper like feeling. Contrasting a dull Lambert shader with a glossy reflective Phong shader also works well.
- By linking a ramp to the Reflectivity node of a Phong shader, you can create a "fresnel" effect, where the edges are more reflective than the center area. This works really well for glass. You need to connect the outAlpha of the ramp, rather than the default outColor since the Reflectivity index does not support RGB values.