

## **CSCI 171 : 10 : Concepts and Applications of Computer Graphics : Spring 2007**

Credits: 3.0 CRN: 24317

The George Washington University

Department of Computer Science

Room: 4- Floor Computer Lab, Room 402, Tompkins Hall

Class Hours: Thursday 6:30 – 9:00 PM

### **Workflow for Texturing**

1. Open Perspective/Hypershade view
2. The top of Hypershade contains the Materials in your scene, make sure that tab is frontmost. The bottom half is your Work Area, you will build shaders, connections in the Work Area. Occasionally, you will want to RMB >Graph>Clear Graph to clear out the work area. MMB on a shader above to add it to the Work Area, you can also click on various nodes like File, Ramp, etc. in the left column to get them into the Work Area in order to build your shader.
3. Create a new Phong Shader by clicking on the left, or MMB dragging it into the Work Area.
4. Select your object in the Perspective window, then RMB click on the Phong1 node that you created and select Assign Material to Selection.
5. Hover your mouse above the Perspective window and hit '6' on your keyboard to go into textured/shaded mode
6. Double-click the new Phong Shader, to bring up the color options in the Attribute, change the color to make sure it's applied to your object. There are other options here to play with, but for now let's focus on adding a Ramp shader for the color
7. In the Hypershade scroll down on the left to 2D textures, open the arrow. Here's where you add File nodes, patterns, etc. For example, you can add your own image by using the File .
8. 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)
9. MMB the Ramp onto the Phong1 texture node, the pop up box will ask where you want the ramp shader out node to be connected, choose "color".

Congratulations! You've made your first Node connection using Hypershade. Nodes are a very powerful way of working in Maya, it's good to know how it works. Move the Ramp around and you'll see a green Node connecting it to the phong1. Hover your mouse over the resulting green line that connects the ramp to the Phong shader. You will see that your ramp's "outColor" is connected to the Phong's "phong.color" node. You can double-click on the line to bring up an intimidating connection editor, but don't do that! We'll get into that later.

10. Double click the Ramp or hit Ctrl-a to bring up the Attribute Editor. Click on the green box with the X in it to delete the green color. Slide the red circle almost to the top to create a very thin gradation. Change the red color to white to create an eyeball looking texture.
11. Change the blue to a brown color and slide it down towards the white. Click in the brown area above circle to add a new color, make it black.
12. Hit Ctrl-a to switch to the Channels editor and rotate the sphere 90 degrees on it's X axis. You now have a simple eye, created using a ramp shader.

### **Make and eyelid**

1. Create another sphere, make it slightly larger than the old one.
2. Right click on the sphere to change to Faces mode, click-drag to select faces on the lower half and delete them (switching to front view is helpful)
3. Right click to go to Vertex mode and select the bottom row of vertexes, Scale them to a tiny point and then move them up on the Y axis to finish a simple eyelid.