CS 232: Computer Modeling and Shading **Spring 2001**
Rendering High Resolution Stills

When you create shaders you need to show them off somehow. The way to do that is to render high resolution stills.

There are two differences between rendering a turntable movie and rendering a high-resolution still. The first is that when you make a still, you only render one frame (instead of 60). The second is that when rendering a still the resolution you render at is higher than the 320x240 default set for the turntable. Here are the steps to follow to make a still.

- Just like with turntables, start with the **whiteLight.lws** scene. Make sure you have your object loaded, scaled appropriately, and a child of the rotation center object.
- Go to camera selection mode (capital **C**).
- Open the camera properties panel by hitting **p**.
- You will see entry fields for **Resolution**, **Resolution Multiplier**, **width**, and **height** at the top of the properties box. These redundantly control the spatial resolution of the render.
- I recommend using the resolution multiplier to set the resolution so that the **aspect ratio** of your scene doesn't change (and therefore you don't have to re-frame the object being rendered). The resolution multiplier defaults to 50% in the **whiteLights.lws** scene file. If you look closely, you'll see that the actual resolution is VGA (640x480).
- Use a resolution multiplier of 200% to make an image that is 1280x960.
- Use the slider at the bottom or the arrow keys to go to a frame that you like, then hit **F9** to render the frame. It will take a while since it is so big!
- Look at your high-res render. The material you created will probably not look right the first time around. Luckily, the surface editor can be accessed in Lightwave as well as in Modeler!
- Open the surface editor and make the changes you would like to make. **Because the surface settings are saved with the object, be sure to EXPLICITLY save the object if you want the surface to be saved with it!** Saving the scene doesn't save the materials.
- Rendering a 1280x960 frame can take a while when **antialiasing** is active. So before you render frame after frame to refine your material, go to the camera properties panel again and set antialiasing to NONE.
- Render and tweak until your surface looks right.
- Re-open the camera properties panel and turn **antialiasing** back to **LOW**.
- Render again.
- Now that the frame looks right, you can save it by going to the **File** menu on the image viewer. There is a **save as** option that should list a number of supported file formats. If you don't see this list, reload all the plugins and try rendering again.
- Save your file using the format **LW_Tiff24**. Use the file extension **.tiff** to identify it as a Tiff file.
- Make sure your images are named accordingly, then copy them to e-work.

SNOW DAY UPDATE:

For Tuesday, in addition to creating three different materials (and handing in stills), read LW 9.1-9.12, O'Rourke 112-119, and Foley 741-744.