Computer Animation I   Fall 2004

Assignment 4: Lighting the Head

This assignment is intended to give you experience with:
- creating, positioning, aiming, and setting the properties of lights
- rendering a high-quality anti-aliased image

Start by skimming the lighting section of the Maya PDF manual, pages 37 to 79. Feel free of course to read the whole Lighting chapter. This will supplement the material we've discussed in class.

The project folder contains a scene file and two images. Your goal is to re-create the target image to the best of your ability by adding lights to the scene file that's provided. Once you have accomplished this, you are to render an anti-aliased, full-resolution image and *hand in both the image and your final scene file*.

DUE Monday October 25th at the beginning of class

Step 1: get everything you need to do the assignment, check out the image, get ready
- The project folder is called "assignment_04"
- The image is "targetImage.tif" in the images folder. You should be able to see it by double-clicking it. If not, find the application called "Preview" on the dock and open it with that.
- The image was lit with four lights: a key, a fill, a rim on the head only, and a bounce on the head only. Try to identify what each of the lights do to the image.
- Render a test frame by hitting the render button (Remember, it's the slate icon near the top, right of the interface). That is Maya's default lighting.

Step 2: tackle the lights one by one, from broad strokes to fine strokes
- Create (AND NAME by double-clicking in the Outliner window) each light, choosing from directional, point, and spot ONLY. In case this isn't clear: you are not to use linear, ambient, area, or volume lights.
- Start by positioning and orienting the light then rendering to see the results. Though you can sometimes get a reasonable approximation of the lighting by hitting "7" in the viewing window, DO NOT TRUST this real-time lighting preview. Render instead. If you hit "7" and everything disappears, hit "5" to see things again.
- Only after you feel confident with position and orientation should you move on to the light properties of intensity, falloff, shadows, whether the light affects diffuse or specular or both, etc. THIS IS CRITICAL: there are so many degrees of freedom in lighting (just like in animation) that you will get lost if you don't take a hierarchical approach to lighting.
- Save your work often, as usual.

Step 3: render a nice image, hand it all in
- Once you're happy enough with your results, switch render quality to "production quality" (see old assignment sheets for instructions) and render the frame.
- Save the image (see assignment 1 for a reminder), and hand in both the image and your final scene file to the class disk.