

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 reading the Lightwave manual, chapter 32 ("Shadow and Light") up to 32.8 or beyond if you're so inclined. This will supplement the material we've discussed in class.

The content folder contains a scene file, two object files, and an image. Your goal is to re-create the 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 Wednesday March 12th at the beginning of class

Step 1: get everything you need to do the assignment, check out the image, get ready

- The content folder is called "assignment 04 content"
- The image is "OrangeToMatch.tiff" in the Images folder. You should be able to see it by double-clicking it. If not, find the application called "Preview" and open it with that.
- The image was lit with five lights: a key, a fill, a rim on the orange only, a bounce, and a second fill on the room only. Try to identify what each of the lights do to the image.
- MAKE SURE the render options panel is set to "realistic" rendering mode and that "ray trace shadows" is checked. Otherwise, you probably won't have much luck matching the target image! Also, be sure that the camera width and height (camera properties) are 640 and 480, respectively. Render a test frame (F9) to see the default light in action.

Step 2: tackle the lights one by one, from broad strokes to fine strokes

- Create (AND NAME using Replace->Rename Current Item) each light, choosing whatever Lightwave light type you feel is appropriate for each. You are not to use linear or area lights, so you must choose one of point, spot, or distant. Remember that the scene file must always have one light, so either re-appropriate the default light or add a new one and then delete the default.
- Start by positioning and orienting the light (don't forget to set a keyframe!), then rendering (F9) to see the results. DO NOT TRUST THE REAL-TIME PREVIEW you see in the Lightwave interface. If the render doesn't appear, go back to render options and make sure render display is set to "Image Viewer."
- Only after you feel confident with position and orientation should you move on to intensity, falloff, shadows, whether the light affects diffuse or specular or both, etc.
- Save your work often, as usual.

Step 3: render a nice image, hand it all in

- Once you're happy enough with your results, turn on anti-aliasing by selecting the camera and opening up the properties panel (p). Set anti-aliasing to something like "enhanced low" or "medium" and hit F9 again to render the frame. You'll see that it takes longer, which makes sense because it's shooting more rays into the scene to clean up the edges.
- Save the image (see assignment 1 for a reminder), and hand in both the image and your final scene file to the class disk.