

CSCI-4961/6961: 3D Computer Graphics
Class 8: September 25, 2006
Illumination and Shading

Today's Class

We will first wrap up our discussion of quaternions from last class.

1. Recap: Using quaternions for rotation
2. Composition of rotations using quaternions
3. Interpolation of quaternions for smooth rotations

We will then move on to illumination and shading, and focus on a conceptual understanding of how lighting and shading are modeled.

1. Local and global illumination
2. Illumination: ambient, diffuse, specular, and emissive components
3. Shading: Flat shading, Goraud (smooth) shading, Phong shading

Reading

Chapter 10 through 10.3, Chapter 10.10, and Chapter 10.20 of Hearn and Baker.
Chapter 5 of the OpenGL red book.

Activity

Try Nate Robins' OpenGL *lightmaterial* and *lightposition* tutorials.

Next Class

Shading and illumination (continued).