

CSCI-4961/6961: 3D Computer Graphics
Class 5: September 14, 2006
Viewing and Projection Transformations

Today's Class

1. Viewing transformation, and derivation of the viewing transformation matrix in `gluLookAt`
2. Orthographic projections, and derivation of the projection transformation matrix in `glOrtho`
3. Perspective projections, and derivation of the projection transformation matrices in `gluPerspective` and `glFrustum`
4. Transformed depth coordinates and depth buffer precision

Reading

Chapters 6.1–6.4, and 7.1–7.10 of Hearn and Baker.
Chapter 3 of the OpenGL red book.

Activity

Try Nate Robins' OpenGL *Projection* tutorial.

Next Class

Projections, and Clipping.