

CSCI-4962: Three-Dimensional Computer Graphics
Class 5: September 12, 2002
Viewing and Projection Transformations

Today's Class

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

Reading

Chapters 2.6, 5–5.5, and 5.8–5.9 of the Angel textbook.
Chapter 3 of the OpenGL red book.

Activity

Try Nate Robins' OpenGL *Projection* tutorial.

Next Class

Projections, and Clipping.