

Due: Monday October 27 at 6:00am

Assignment 6—Shadow Mapping

In a nutshell

Extend your interactive 3-D graphics application with the ability to render shadows.

Details

1. Shadow mapping
 - One point light source.
 - Shadow map resolution: 512x512.
 - Use an epsilon for the depth comparison to correctly rule surfaces seen by the light as not in shadow.
2. Example
 - Demonstrate shadow mapping on a 3-D scene with at least one object that casts a shadow onto a second object and onto a ground plane.
 - Make a 30s 30fps video showing your shadow mapping.
 - i. First 10s segment the camera moves and nothing else.
 - ii. Second 10s segment the point light source moves and nothing else.
 - iii. Third 10s segment the object casting the shadow moves and nothing else.
3. Extra credit
 - Two or more light sources (2%)
 - Swinging projector displaying letters “CS 334” on the 3-D scene (4%)
 - Projective texture mapping or real world scene with at least 20 triangles (5%)

Turn in

- Code.
- Movie file.
- A README.txt description of your GUI.