

Module 3: Realism and Performance

Lab Exercises for Week 11

Texturing

- (a) Put a simple texture onto a triangle. Experiment with different texture coordinates and the different wrapping modes.
- (b) Extend exercise (a) by experimenting with the use of `GL_LINEAR` and `GL_NEAREST` as the magnification/minification functions. (Time: approx 10 min)
- (c) Create a series of mipmaps for exercise (a) but create the images for the mipmaps with different colours so that you can tell which mipmap level is currently being used. Experiment with the different minification functions.
- (d) Alter exercise (c) to autogenerate the mipmaps. (Time: approx 10 min)
- (e) Alter exercise (d) to use a texture object. Use the OpenGL facility to generate the texture name. Also make sure that you free up the texture resources when they are no longer necessary. (Time: approx 10 min)
- (f) Alter exercise (e) to examine the separation of the specular lighting component. Also experiment with the perspective correction hint. (Time: approx 15 min)