

CMSC 435 / 634 Introduction to Computer Graphics

Bonus Project Assignment: Lighting and Texture

Goals of this project: Understand lighting and texture setup in computer graphics. Once this project is completed, you will understand how materials and lights are placed and generated.

Introduction

In this assignment, you will write an OpenGL program which renders a lit teapot. To make your teapot as cute and interesting as possible, you could render the teapot by applying different textures to patches. In your scene, your code must include at least

- One ambient light source
- One specular highlight source (you need to make sure your teapot has shining material as well in order to see the highlight).
- One diffuse light source

Your code must render a scene that is similar to the following:

- Using an image to texture the teapot to produce a visual effect similar to the one below (image courtesy online). Note that you can select any image of your own.

Some useful OpenGL functions include: `gluBuild2DMipmaps`; `glMaterialfv(i)`; `glTexGeni()`; `glLightfv`.



What to turn in

Source code only by email to TA. Please do not include any .o files. Please include:

- A README with your handin containing basic information about your design decisions and any known bugs or extra credit;
- How to compile and run your code as if you are telling a colleague that is to continue the development.

Note: Please comment on your code. The better Alisa understands your code, the higher your grade is likely to be.