

CPSC 360 – Assignment 2
Plethora of Primitives
Due: 1-10 @ 6pm

Overview: Now that we've discussed the importance of graphic output primitives and scan conversion, it's time for you to get more familiar with the primitives that OpenGL has to offer. Your assignment for the weekend is to write a demo program that displays each of the graphics primitives listed on page 46 and 47 of the "Red Book."

GL_POINTS is easy...just plot a few points on the screen. The others are only slightly more involved. For the remaining primitives you should first plot an outline of the shape you will be using to demonstrate the primitive...do this with GL_POINTS. Then, directly beside the point outline, you should demonstrate the primitive on that shape. As an example:



Here I have shown an outline of the shape I am going to plot, and then shown the result of plotting those vertices with GL_TRIANGLE_STRIP.

As you might have guessed, the display can get pretty cluttered if you plot all these things in the same window. To avoid this, your program should start by displaying a blank canvas. When the user presses the right mouse button a menu should be displayed, listing each of the primitive options. Selecting a primitive option should display the desired result.

Getting Started: Review chapter 2 of the Red Book for help with primitives. Section 11-7 of Hearn and Baker will tell you everything you need to know about GLUT menus.

Grading: Grading will be based on completeness, elegance of solution, and style. Be sure to comment your code appropriately.