

CSI 494 – SpTp: Computer Graphics – Spring 2009

Assignment #1

This assignment is meant to give you some practice with using OpenGL basics and with event-based programming. In this project, you are to create a list of line segments produce by the user through both keyboard and mouse input. The user will click and hold the left mouse on the screen as the start point and let go of the mouse at the position on the screen that will denote the endpoint (of a line segment). The user may also hit the 's' key once to label a start point and the 'e' key once to label an endpoint. Lastly, the 'p' key will be pressed to list all lines that are in the system. At this point in the program, you are not required to draw any lines on the screen. Below I've listed some steps that may help you along this process.

Hints and steps you may use to accomplish this:

1. Comment out the current pieces of the keyboard and mouse function. You may keep those pieces of code around as a reference if you like, but it is probably best to start fresh with the new pieces of code you will write.
2. Create a struct with the integer (x,y) position of a pixel that is selected. I tend to call these points.
3. Create a struct to hold the start and end points of a line segment. I tend to call these lines.
4. Create an stl vector of lines. Make this a global variable.
5. Handle the user input, pushing back (push_back in stl) the new lines that are created.
6. Don't forget to walk through the vector and output the list of lines when the 'p' key is pressed.