Interactive Computer Graphics

Lab 9 (12/10/2021)

Using OpenGL, draw the following figures. The dimensions of the various components in the figures can be considered as you wish, but the overall shape should be the same as the figures given in the question.

1. **Point Clipping:** Given n random 2D points (x_i, y_i), for 1<=i<=n, and a clipping rectangle with diagonal vertices, (X_min, Y_min) and (X_max, Y_max), display (in red) the points that are inside the rectangle. [2 marks]
2. **Line Clipping:** Given n random lines segments with end points (x_i, y_i) for 1<=i<=n, and a clipping rectangle with diagonal vertices, (X_min, Y_min) and (X_max, Y_max), display(in green) the portions of the line segments that are inside the rectangle, using
    a. Cohen-Sutherland Line Clipping Algorithm
    b. Liang-Barsky Line Clipping Algorithm