Lab-03: Affine Transform 2D with OpenGL

CSC411: Computer Graphics
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Objective

In this lab, the students will implement the algorithms to draw the polygons and transform Affine 2D using OpenGL Library.

Requirements

- Write a program that allow to draw any polygon which begin by left mouse click and end by right mouse click (remember to connect first & last point)
- Context menu that allow to select any drawing polygon
  - Select
    - Triangle
    - Rectangle
    - …
  - Hotkeys to transform selected polygon from context menu
    - Rotate (1 degree per click clockwise & counter-clockwise): <L>, <R>
    - Translate (1 pixel per click): 4 arrow keys (up, down, left, right)
    - Scale (10% per click): <+>, <->

Submission

Create 3 folders, compressed in 1 file MSSV_Lab3.zip
- Document
- Release
- Source

Resources

- Graham Sellers, OpenGL SupperBidle, Cheapter 1, 2, and 3.
- http://www.cppreference.com/wiki/container/vector/start
- http://www.cplusplus.com/reference/stl/vector/
- https://docs.microsoft.com/en-us/dotnet/api/system.drawing.drawing2d.matrix?redirectedfrom=MSDN&view=dotnet-plat-ext-3.1#Y2700