Ministry of Education of the Republic of Moldova Technical University of Moldova Department of Applied Informatics

Report

Laboratory Work Nr.3 on Event-Driven Programming

Basics of Working with Mouse. GDI Primitves. Bezier Curve.

Performed by Denis Dumitras Supervised by Coslet Mihai

April 09, 2018

Laboratory Work Nr.3

Laboratory Work Requirements:

Mandatory Objectives:

- Draw few lines of different colors and weights
- Draw a Bezier curve
- Draw few plane objects(ex. circle, square, pie, polygon...) of different colors, weights, filled and not
- Draw 2 different objects using mouse

Objectives With Points:

- (1pt) Draw a custom bitmap image
- (2pt) Add a switch(button, select list...) that will change mouse ability to draw objects
- (1pt) Draw a Bezier curve using mouse
- (1pt) Fill an object with a gradient
- (2pt) Delete objects using mouse clicking
- Use mouse as an eraser of:
 - (1pt) a fixed width
 - (2pt) a adjustable width
- (2pt) Zoom in and out application working area using keyboard

Laboratory Work Implementation

Tasks and Points

Mandatory Objectives:

- Draw few lines of different colors and weights
- Draw a Bezier curve
- Draw few plane objects(ex. circle, square, pie, polygon...) of different colors, weights, filled and not
- Draw 2 different objects using mouse

Objectives With Points:

- (1pt) Draw a custom bitmap image
- (2pt) Add a switch(button, select list...) that will change mouse ability to draw objects
- (1pt) Draw a Bezier curve using mouse
- (2pt) Delete objects using mouse clicking
- Use mouse as an eraser of:
 - (1pt) a fixed width
 - (2pt) a adjustable width
- (2pt) Zoom in and out application working area using keyboard

Laboratory Work Analysis

When you'll run my application, a simple window containing some images , figures, line , square, ellipse and Bazier curve.

Using left click you can draw a circle, and with right click a square!

Conclusion

This laboratory work introduced me to Graphical Device Interface. I have learned how to obtain a Device Context, how to draw in the client area and how finally to release that DC. One thing I want to mention is that drawing will not be performed until the DC is obtained. In other words DC gives us the permission to draw.

In order to display the desired figures I used a lot of GDI functions.

The application developed in this laboratory work helped me to understand how mouse events are handled.