# Laboratory Work No.3 WINDOWS PROGRAMMING

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In this laboratory work we improved our skills in working with mouse, creating different kind of lines, geometric figures, bezier curves, etc. In the following sections I described each feature, according to the required tasks.

### 1 Draw few lines of different colors and weights

Lines are drawn with the MoveToEx() function. It moves to the specified point. LineTo() - draws a line from specified position to another one, and we obtain the starting and the ending point of the drawn object. Color is set according to selected color buttons available. Weight is equal to value entered in the field.

#### 2 Draw a Bezier curve

Bezier Curve is determined by 4 points (x,y). It was specified a POINT array with custom points. It was drawn with the PolyBezier() function.

# 3 Draw few plane objects of different colors, weights, filled and not

Drawn objects: Ellipse with Ellipse() function, rectangle with Rectangle() function. Weight is determined by the value of weight variable. For filled option there is a checkbox, if it is checked - the object is drawn filled, otherwise - not.

## 4 Draw 2 different objects using mouse

Objects that are drawn with mouse, are managed in the WM LBUTTONDOWN, WM LBUTTONUP, WM MOUSEMOVE and WM RBUTTONDOWN. Objects that are drawn with mouse - Pen, Line, Polyline, Ellipse, Rectangle.

## 5 Draw a custom bitmap image

The bitmap image were found on internet. The bitmap was attached to the application with the help of LoadImage() , GetObject() and BitBlt() functions.

# 6 Add a switch (button, select list...) that will change mouse ability to draw objects

There are some check buttons for choosing desired color, made with WSGROUP style. The other ones are push buttons that allows the user to choose the desired tool to draw (paint).