Faculty of Computers, Informatics and Microelectronics

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WINDOWS PROGRAMMING

Laboratory work #1

Window. Basic window's form elements

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1 Purpose of the laboratory

Gain knowledge about basics of event-driven programming, understanding of window's class and basic possibilities of Win32 API. Also she will try to understand and process OS messages.

2 Laboratory Work Requirements

– **Basic Level (grade 5 - 6) you should be able to:**

a) Create a Windows application

b) In the middle of the window should be present the following text: "Done with Pride and Prejudice by student name". Replace student name with your name.

c) On windows resize, text should reflow and be in window's middle (vertically and horizontally)

– **Normal Level (grade 7 - 8) you should be able to:**

a) Realize the tasks from *Basic Level*.

b) Add 2 buttons to window: one with default styles, one with custom styles (size, background, text color, font family/size)

c) Add 2 text elements to window: one with default styles, one with custom styles (size, background, text color, font family/size)

– **Advanced Level (grade 9 - 10) you should be able to:**

a) Realize the tasks from *Normal Level*.

b) Make elements to interact or change other elements (2 different interactions) (ex. on button click, change text element color or position)

c) Change behavior of different window actions (at least 3). For ex.: on clicking close button, move window to a random location on display working space

3 Laboratory work implementation

3.1 Laboratory work analysis

Add link to your repository. The features added to my window are:

- 2 Buttons which change their font in dependence of whenever you push them one of the buttons being custom
- The buttons change the background color and change the font.
- A text line that is centered inside the window.

On the following pics below i show how the button work after being pressed.

3.2 Prove your work with screens

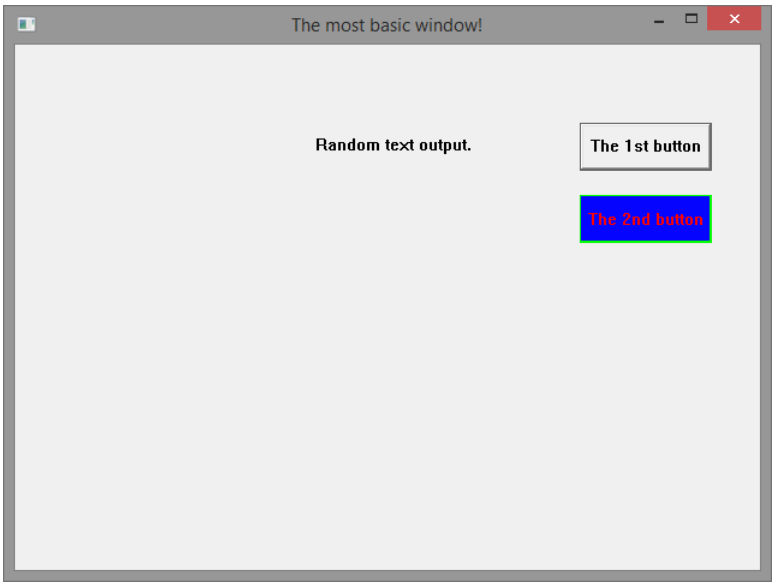

Figure 3.1 – Default

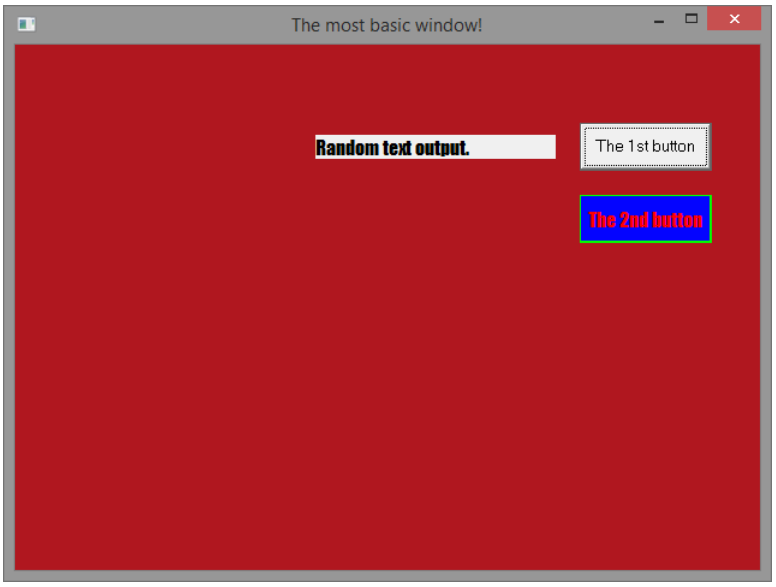

Figure 3.2 – Button 1

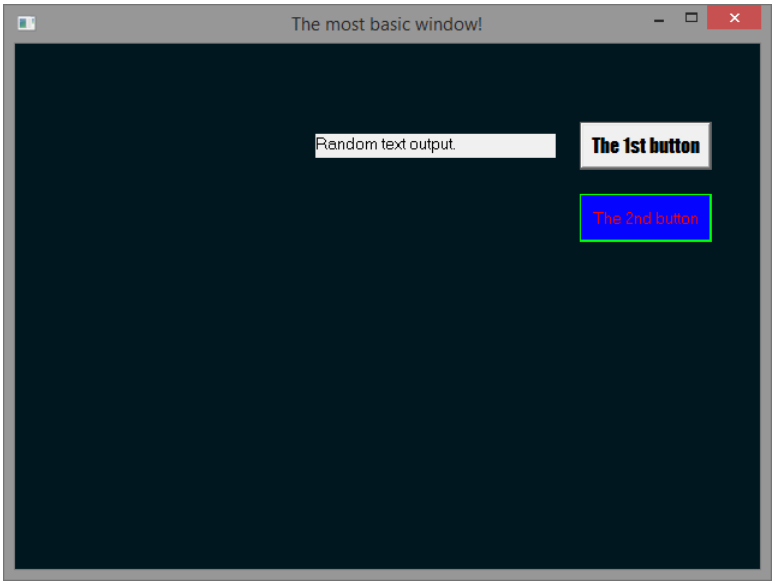

Figure 3.3– Button 2

Conclusions

I learned how the elements of the window are created, how their behavior can be changed. I worked with messages, understood how the elements and their actions are interconnected. This concepts can be applied not only in windows programming, but also in another systems of programming.

References

1 Aldebran Robotics, *official page*, `www.aldebaran.com/en`

2 Timo Ojala, *Multiresolution gray-scale and rotation invariant texture classification with local binary patterns*, 2002

3 Biometric, `www.biometricupdate.com/201501/history-of-biometrics`