Report

Laboratory Work Nr.4
on Event-Driven Programming

Windows Timer. Animation.

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Laboratory Work Nr.4

Laboratory Work Requirements:

Mandatory Objectives:

- Create an animation base on Windows timer

Objectives With Points:

- (2pt) Increase and decrease animation speed using mouse wheel

- (2pt) Solve flickering problem

- Add animated objects which interact with each other(2-6pt), ex:

  - Few balls which have different velocity and moving angles. In order to get max points, add balls with mouse, make balls change color on interaction and any other things that will show your engineering spirit

  - Any other interesting and reach in animation application

- (Math.floor(+35% for task with interacting objects)) Animate a Nyan Cat that leaves a rainbow tail

Laboratory Work Implementation

Tasks and Points

Mandatory Objectives:

• Create an animation base on Windows timer which involves at least 5 different drawn objects

Objectives With Points:

• (2pt) Increase animation speed

• (2pt) Solve flickering problem

• Add animated objects which interact with each other(2-6pt), ex:

  – Few balls which have different velocity and moving angles. In order to get max points, add balls with mouse, make balls change color on interaction and any other things that will show your engineering spirit

  – Any other interesting and reach in animation application

• (Math.floor(+35% for task with interacting objects)) Animate a Nyan Cat that leaves a rainbow tail

Total Points: All Mandatory Points + All Bonus Points + Early Submission

Laboratory Work Analysis

As you open the window some objects will start to move!

As time will pass, the number of objects will increase as well as the movement speed.

The displacement is controlled by a function which checks if there is any collision. The type of collision in my case is with the left and right limits of the client window, every time the objects touch them, they will transform from circles to squares and back.

As developing this laboratory the flickering problem was met. In order to solve it I had to implement double-buffer.

Conclusion

Also Windows Timer was studied during this laboratory work. Using timer I created animations. Beside animations timers can be used in many other domains.