



TECHNICAL UNIVERSITY OF MOLDOVA

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## PPE Laboratory 2

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**Title:**

**Advanced Form Elements. Child Windows. Basics of Working With Keyboard..**

**Contents:**

- The Keyboard;
- Child Window Controls;
- Menus and Other Resources;
  - Scroll Bar;
  - Listbox;
- Dialog Boxes.

**Mandatory Objectives:**

- Display a dialog box on some event (ex. on clicking some button);
- Add a system menu to your application with at least 3 items (add actions to that items);
- Add a scroll bar that will change any visible parameter of any other element (color of a text);
- Hook keyboard input. Add 2 custom events for 2 different keyboard combinations (ex. change window background on ctrl+space).

**Objectives With points:**

- Add a listbox and attach some events when any element is accessed (clicked) ;
- Add 2 scroll bars that will manage main window size or position;
- Customize your application by adding an icon and using different cursor in application ;
- Use a scroll bar to scroll through application working space. Scroll should appear only when necessary (eg. when window width is smaller than 300px) .

## Tasks:

During This Laboratory Work i Created System Menu With Elements like "File", "Visual Settings" and "Info" and I added Actions. So If user press Random background Color in visual settings the default color of desktop Application will be changed to random one. Pressing "Info" Will appear Window with Information Who is the Author of these lab.

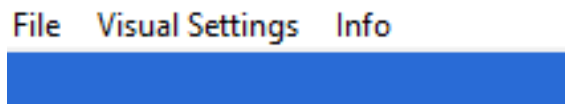


Figure 1: The menu

Is present the listbox where i manually added few messages, during application running user can add new or delete existent ones

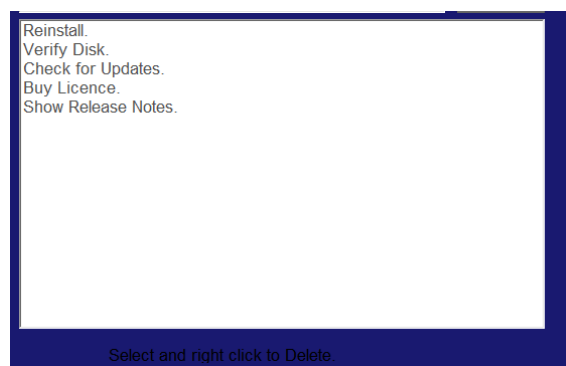


Figure 2: ListBox

I Added the scroll bar, using it user will change the visibility of The text in upper Box;

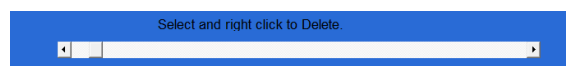


Figure 3: The Scroll bar

Also there is Dialog Box showing the current Date, it appears after pressing "The Date" button

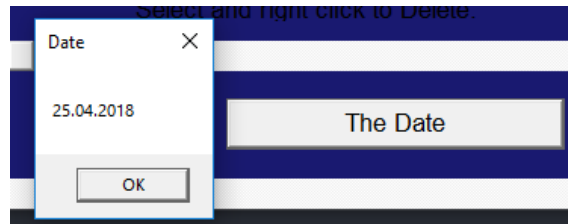


Figure 4: DialogBox

Also i Addd 2 scroll Bars, on left ang right sides which manage the Window size, also added Custom Cursor and Icon for application. I implemented 2 Hot Keys "Alt + L" for menu item "Info" and "Alt + " for "Shut Down"

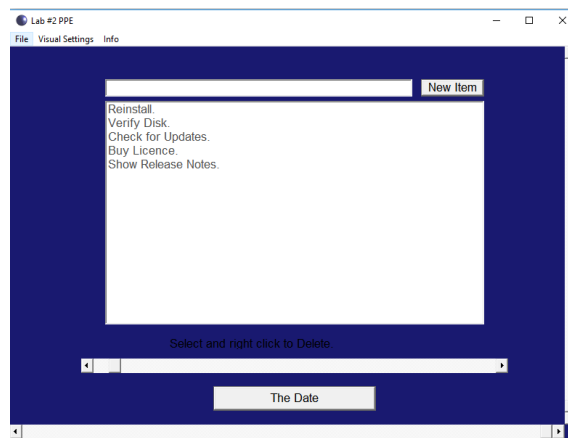


Figure 5: The overall Image

## Conclusion

During This lab work i Understand the key features of WinApi Like list boxes, Menu, and how to add custom elements. The hardest part was repositioning all window elements on scrolling.

## References

- [1] Section I, Chapter 6
- [2] Section I, Chapter 9
- [3] Section I, Chapter 10
- [4] Section I, Chapter 11