Homework (BE0B17MTB)

Problem Set 3B

1 Assignment

Create a recorder of a slider position as a simple application with a graphical user interface (GUI). To do so, implement a function called `problem3.m` which creates GUI according to the following requirements:

- Create a figure containing following graphic components: a checkbox, a slider, an axes, and a button. Place them so that the GUI will approximately correspond to the Figure 1. When the size of the figure is changed, adapt the height of the slider and size of the axes.
  (**2 points**)

- Create appropriate callback functions to achieve that:
  - during moving the slider, i.e. not just at the end of the movement, add the corresponding values to the line placed in axes, axes preserve its limits,
    (**3 points**)
  - rotating the mouse wheel increase or decrease the slider's value and adds corresponding values to the line, limit the recorded values within limits of the slider even when using mouse wheel,
    (**3 points**)
  - checking/unchecking of the checkbox enables/disables the recording of the slider value,
    (**1 point**)
  - reset button clears all so-far recorded values.
    (**1 point**)

- Try to run the file `problem3b.p` to check the complete functionality of the application on your platform.

- Prevent using `global` variables.

- Your application does not necessarily look exactly like our solution (colors, markers, fonts, sizes, . . .), but the functionality should be the same.
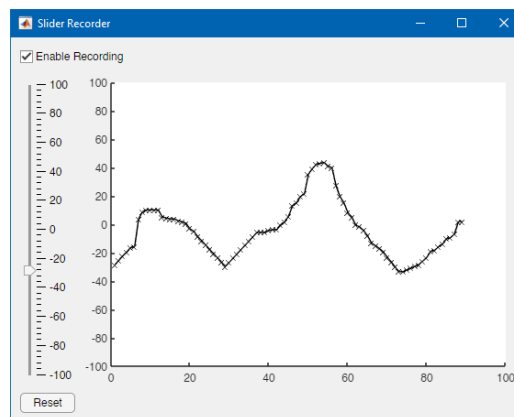

Figure 1: Resulting GUI of a the slider recorder.

2 Instructions

Complete all the assignments till May 10, 7:59 a.m. Created m-file upload to the BRUTE system. The problem shall be solved by the students individually (notice the BRUTE system has a duplicity checker). Do not use MATLAB App Designer and functions from MATLAB Toolboxes. Contact `matlab@fel.cvut.cz` with any questions.