Profiling report

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In this directory there are 4 graphs which were generated from their respective pstats files using python module **cProfile** and **gprof2dot**.

Those graphs show the number of times functions were called and percentage of runtime spent in those functions.

Profiling was done on file profiling.py which calculates standard deviation from sample on stdin using functions from our math library. It was done using samples of both negative and positive integers and floats. For **vystup_10** there were 10 real numbers from interval -100 to 100, for **vystup_100** there were 100 real numbers from interval -1000 to 1000, the same applies for **vystup_1000** but there were 1000 real numbers.

By analysis of those graphs I found out that there are 2 main functions that could use optimization, those are ***cnt_line_res*** and ***parse_line***, some optimization could possibly be done in function of division and power.

Function ***cnt_line_res*** calculates number of samples in line, sum of those numbers and sum of their square powers. Optimization could be done by changing the algorithm for calculating standard deviation.

Function ***parse_line*** gets rid of all unnecessary white characters in the line in order to work with the line later. Optimization could be done by changing the way of formatting the line or skipping it entirely.