

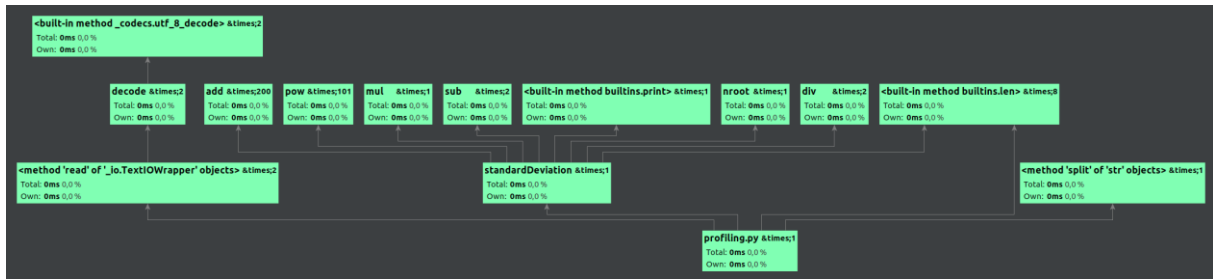
# Profiling – report

Purpose of this document is analysing profiler output from profiling standard deviation calculation program and suggest some optimization. As profiler was used a tool *cProfile* by *JetBrains*.

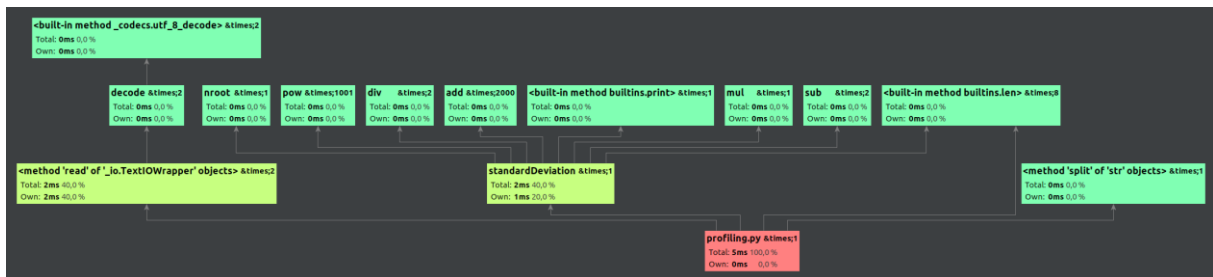
10 input values:



100 input values:



1000 input values:



In files `vystup.pstat` and attached callgraphs, we can see the calls for 10, 100 and 1000 numbers input. It is clearly visible that the most called functions are *add* and *pow*. Function *add* simply adds two numbers and it is invoked  $2 * n$ , where  $n$  is input values count. The next most invoked function is *pow*, which calculates powers and is called as many times as input values count + 1.

When optimizing and accelerating code, we should focus on these two functions.