

Výstup z Profileru

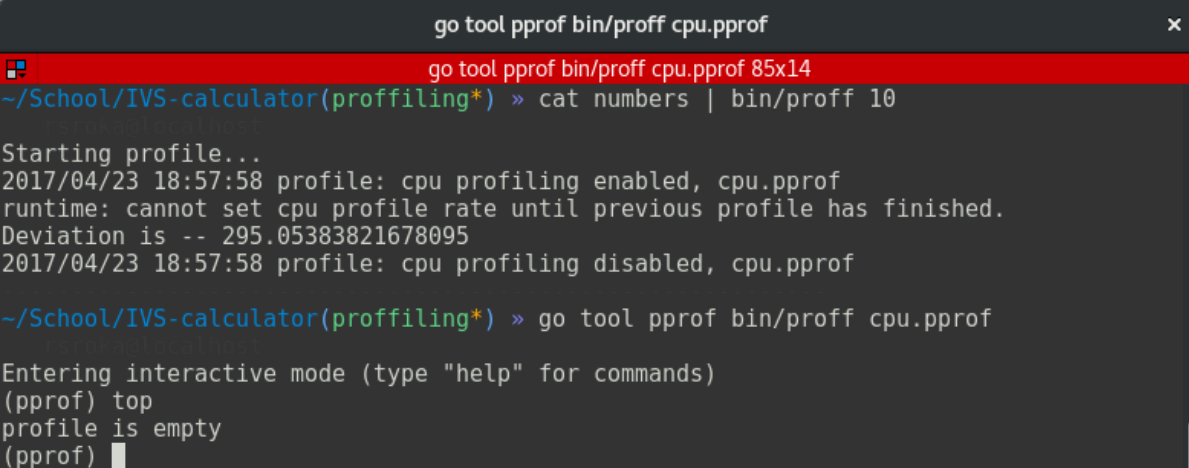
Na účel profilovania našej kalkulačky sme použili integrovaný tool obsiahnutý v go tools. Tento nástroj sa nazýva "pprof".

Profilovaný zdrojový kód sa nachádza v zložke src/proff.go a samotný profiling je možné pustiť pomocou Makefilu príkazom "make pprof" a následne profileru zadať príkaz "top".

Profilovanie pre vstup 10 čísel:

Príkaz: "cat numbers | bin/proff 10"

Bohužiaľ, sa nepodarilo zprofilovať takýto vstup. Program beží príliš rýchlo. Vyskúšané spomaliť pomocou utility nice, renice a cpulimit neúspešne.



```
go tool pprof bin/proff cpu.pprof
go tool pprof bin/proff cpu.pprof 85x14
~/School/IVS-calculator(proffiling*) > cat numbers | bin/proff 10

Starting profile...
2017/04/23 18:57:58 profile: cpu profiling enabled, cpu.pprof
runtime: cannot set cpu profile rate until previous profile has finished.
Deviation is -- 295.05383821678095
2017/04/23 18:57:58 profile: cpu profiling disabled, cpu.pprof

~/School/IVS-calculator(proffiling*) > go tool pprof bin/proff cpu.pprof

Entering interactive mode (type "help" for commands)
(pprof) top
profile is empty
(pprof) █
```

Profilovanie pre vstup 100 čísel:

Príkaz: "cat numbers | bin/proff 100"

Profiling už niečo zachytil ale ešte stále nič zaujímavé.

```
go tool pprof bin/proff cpu.pprof
go tool pprof bin/proff cpu.pprof 85x22

~/School/IVS-calculator(proffiling*) > go tool pprof bin/proff cpu.pprof

Entering interactive mode (type "help" for commands)
(pprof) top50
lus of lus total ( 100%)
    flat flat% sum%      cum cum%
    lus  100% 100%     lus  100% runtime.(*mcache).nextFree.func1
    0     0% 100%     lus  100% runtime.(*mcache).nextFree
    0     0% 100%     lus  100% runtime.allocm
    0     0% 100%     lus  100% runtime.mallocgc
    0     0% 100%     lus  100% runtime.mcall
    0     0% 100%     lus  100% runtime.newm
    0     0% 100%     lus  100% runtime.newobject
    0     0% 100%     lus  100% runtime.park_m
    0     0% 100%     lus  100% runtime.resetspinning
    0     0% 100%     lus  100% runtime.schedule
    0     0% 100%     lus  100% runtime.startm
    0     0% 100%     lus  100% runtime.systemstack
    0     0% 100%     lus  100% runtime.wakep
(pprof) █
```

Profilovanie pre vstup 1000 čísel:

Príkaz: "cat numbers | bin/proff 1000"

Je vidieť, že výpočet nRoot(obecnej odmocniny) funkcie zaberá asi najviac času.

```
make pprof
make pprof 85x45

~/School/IVS-calculator(proffiling*) > make pprof

cat numbers | nice -n 19 bin/proff 1000
Starting profile...
2017/04/23 19:23:46 profile: cpu profiling enabled, cpu.pprof
runtime: cannot set cpu profile rate until previous profile has finished.
Deviation is -- 23.52995654389868
2017/04/23 19:23:46 profile: cpu profiling disabled, cpu.pprof
go tool pprof bin/proff cpu.pprof
Entering interactive mode (type "help" for commands)
(pprof) top50
6us of 6us total ( 100%)
      flat flat% sum%      cum cum%
      1us 16.67% 16.67%      2us 33.33%  fmt.(*readRune).ReadRune
      1us 16.67% 33.33%      4us 66.67%  fmt.(*ss).accept
      1us 16.67% 50.00%      1us 16.67%  fmt.indexRune
      1us 16.67% 66.67%      1us 16.67%  math.Pow
      1us 16.67% 83.33%      1us 16.67%  runtime.freedefer
      1us 16.67% 100%      1us 16.67%  runtime.save
      0      0% 100%      1us 16.67%  fmt.(*readRune).readByte
      0      0% 100%      2us 33.33%  fmt.(*ss).ReadRune
      0      0% 100%      3us 50.00%  fmt.(*ss).consume
      0      0% 100%      5us 83.33%  fmt.(*ss).doScanf
      0      0% 100%      4us 66.67%  fmt.(*ss).floatToken
      0      0% 100%      2us 33.33%  fmt.(*ss).getRune
      0      0% 100%      4us 66.67%  fmt.(*ss).scanOne
      0      0% 100%      5us 83.33%  fmt.Fscanf
      0      0% 100%      5us 83.33%  fmt.Scanf
      0      0% 100%      1us 16.67%  io.ReadAtLeast
      0      0% 100%      1us 16.67%  io.ReadFull
      0      0% 100%      6us 100%   main.main
      0      0% 100%      1us 16.67%  mathlib.NRoot
      0      0% 100%      1us 16.67%  os.(*File).Read
      0      0% 100%      1us 16.67%  os.(*File).read
      0      0% 100%      1us 16.67%  runtime.deferreturn
      0      0% 100%      1us 16.67%  runtime.entersyscall
      0      0% 100%      6us 100%   runtime.goexit
      0      0% 100%      6us 100%   runtime.main
      0      0% 100%      1us 16.67%  runtime.reentersyscall
      0      0% 100%      1us 16.67%  syscall.Read
      0      0% 100%      1us 16.67%  syscall.Syscall
      0      0% 100%      1us 16.67%  syscall.read
(pprof)
```