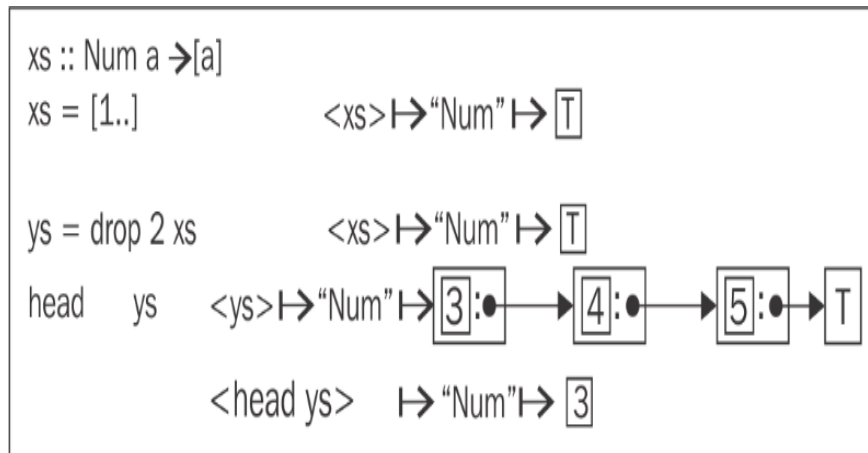
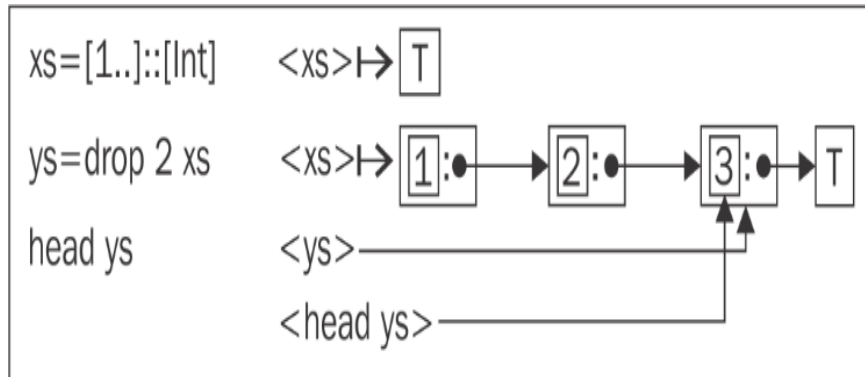
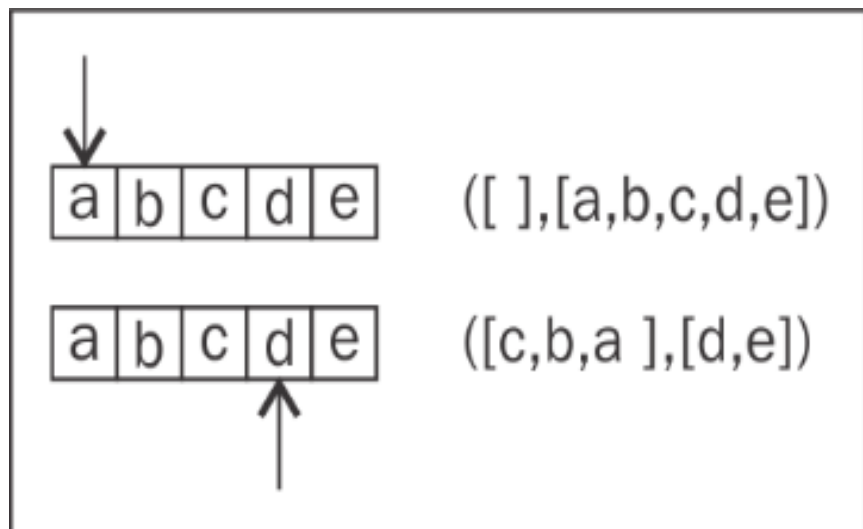
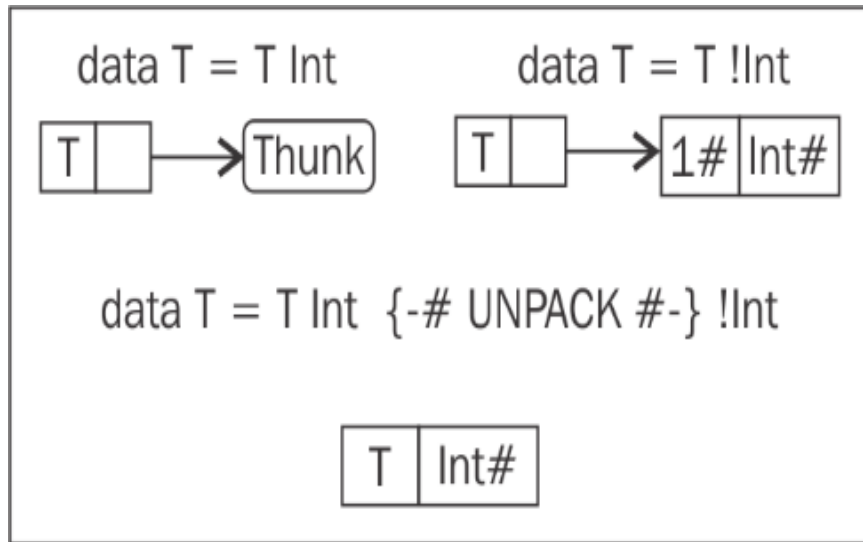


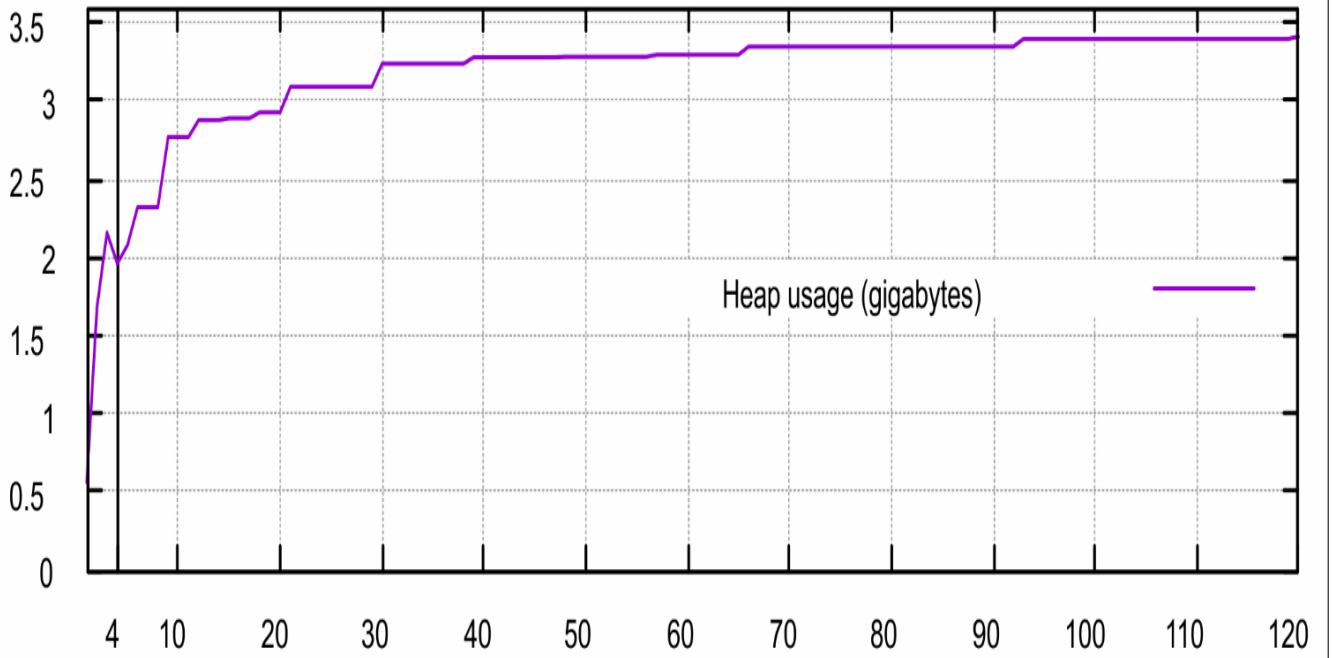
Chapter 1: Identifying Bottlenecks



Chapter 2: Choose the Correct Data Structures

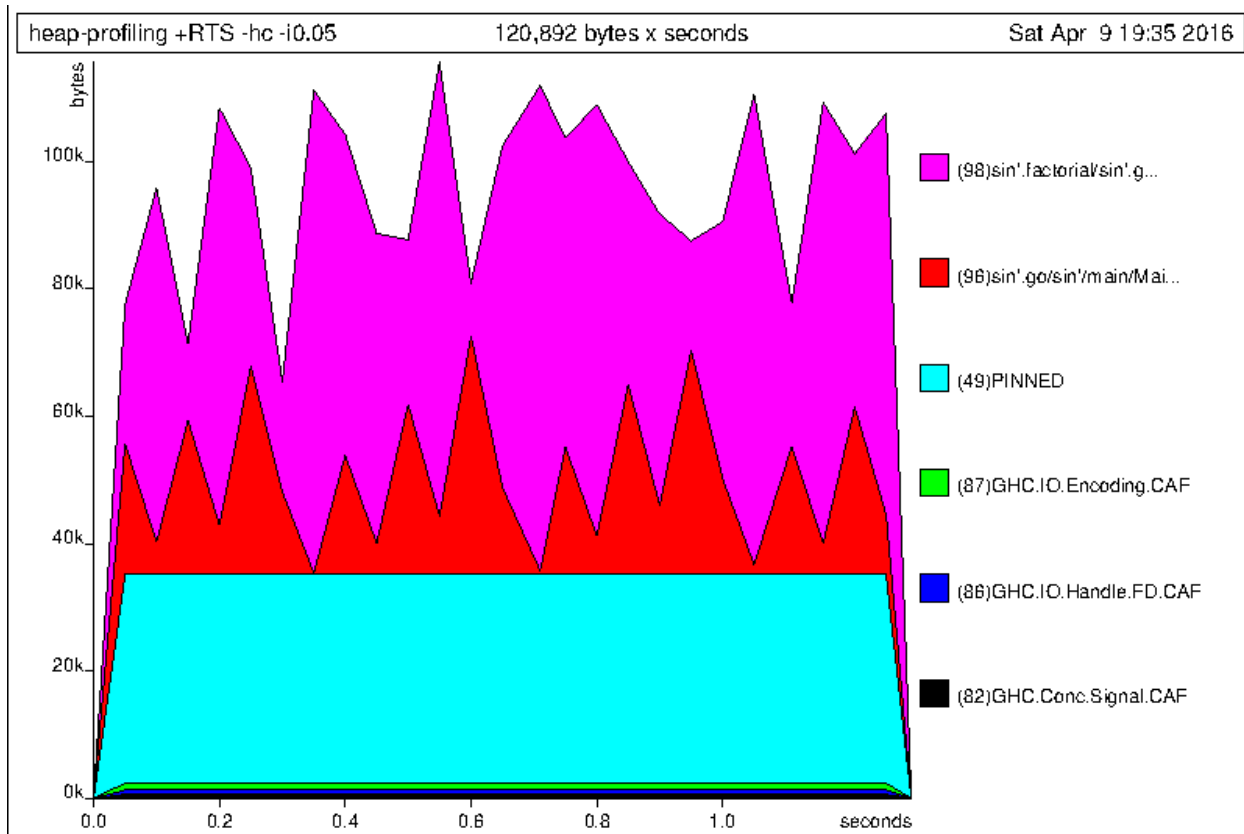


Performance with different buffer sizes



Chapter 3: Profile and Benchmark to Your Heart's Content

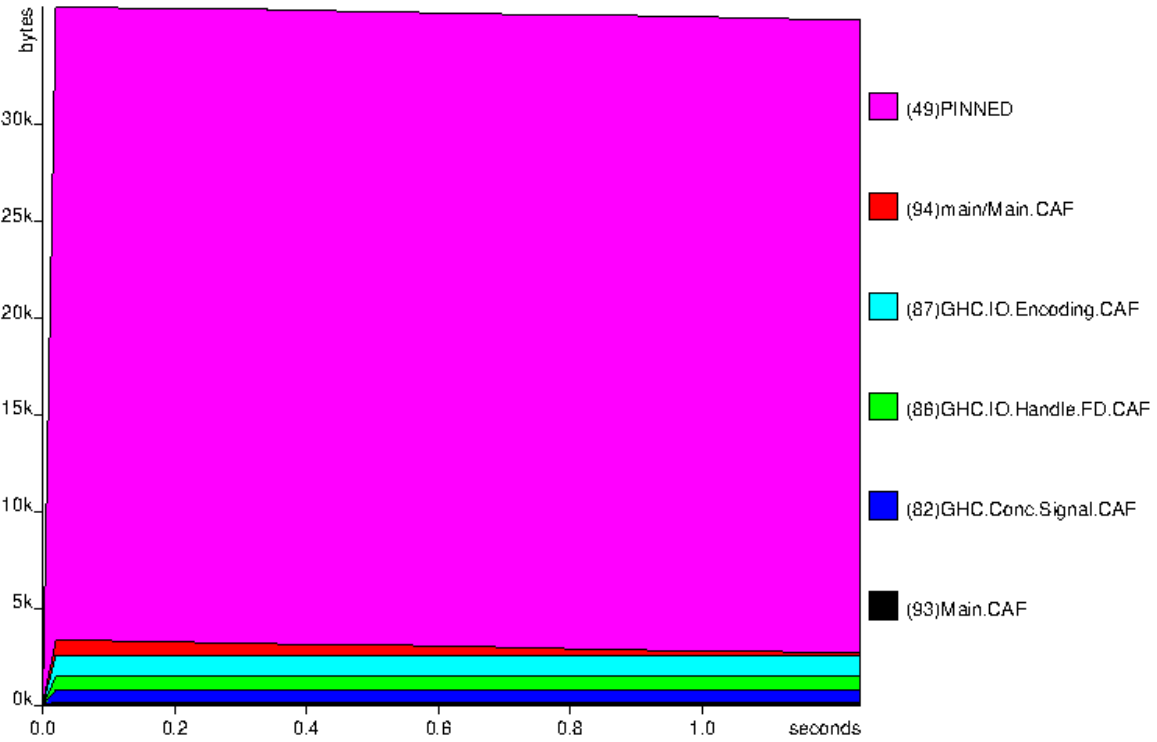
$$\sin x \approx \sum_{n=0}^{800} \frac{(-1)^n}{(2n+1)!} x^{2n+1}$$



heap-profiling-optimized +RTS -hc -i0.02

43,975 bytes x seconds

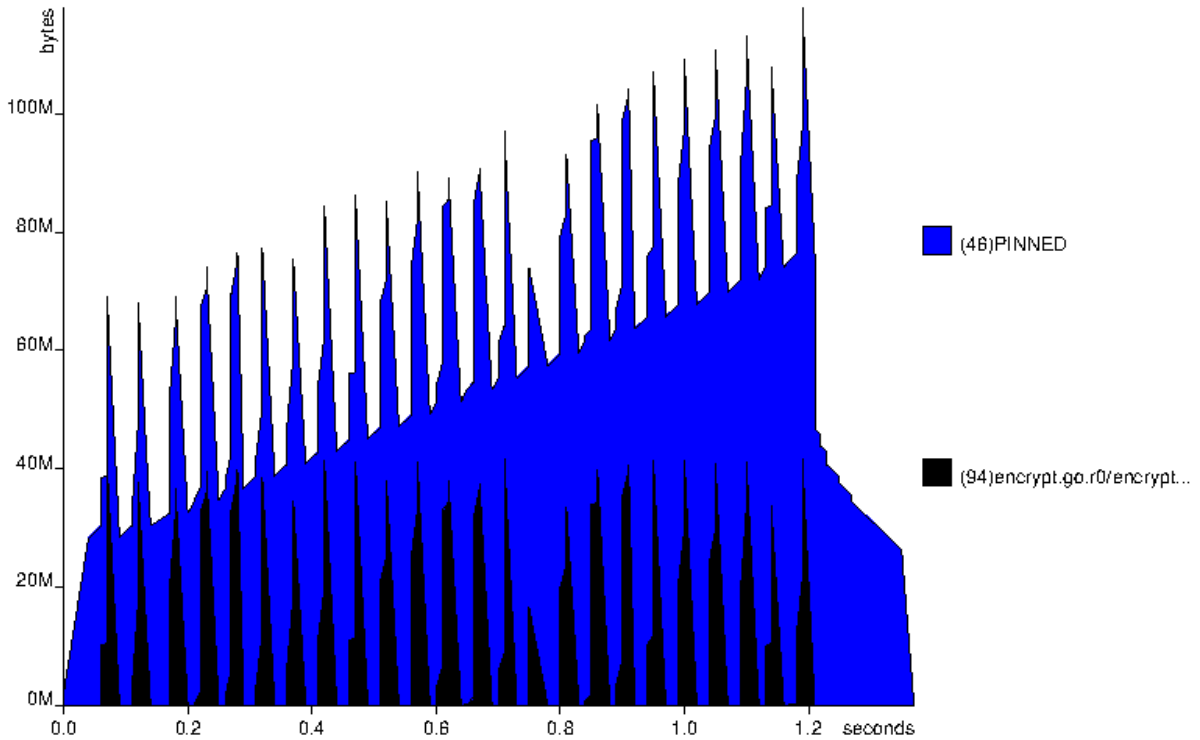
Sat Apr 9 21:22 2016



encryption encrypt key.bin plain.bin +RTS -h -i0.001

80,035,836 bytes x seconds

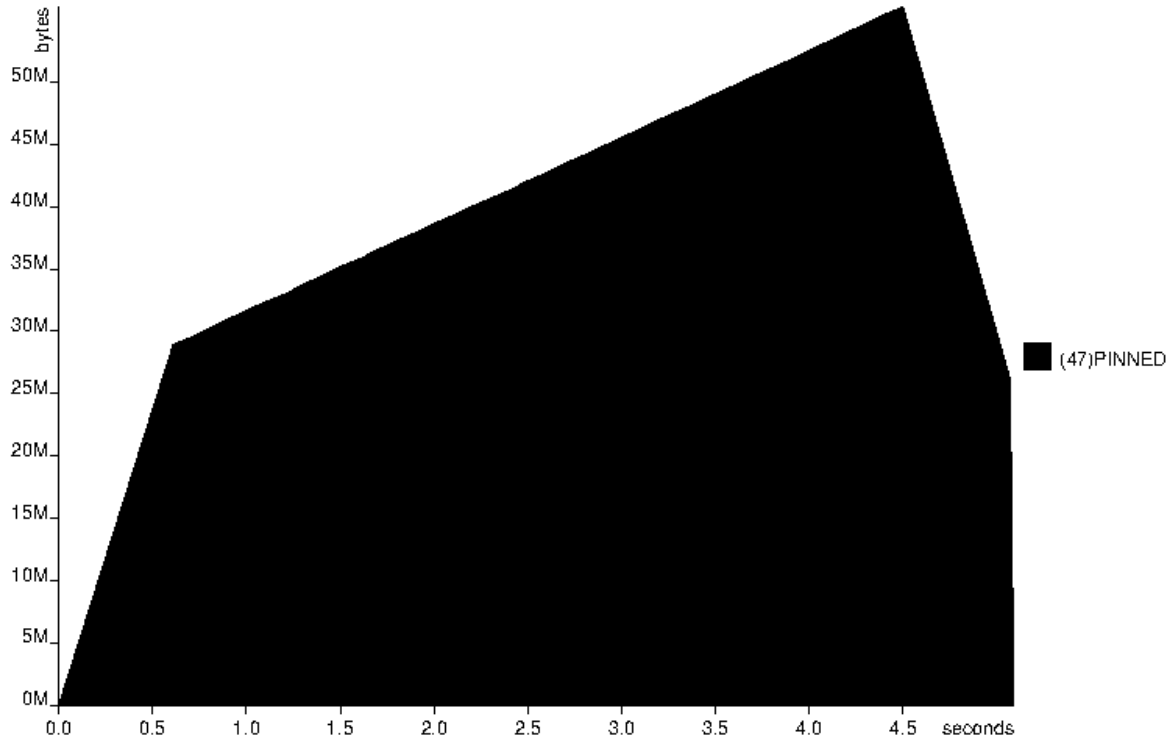
Sun Apr 10 00:08 2016



encryption-optimized encrypt key.bin plain.bin +RTS -s -hc

197,744,332 bytes x seconds

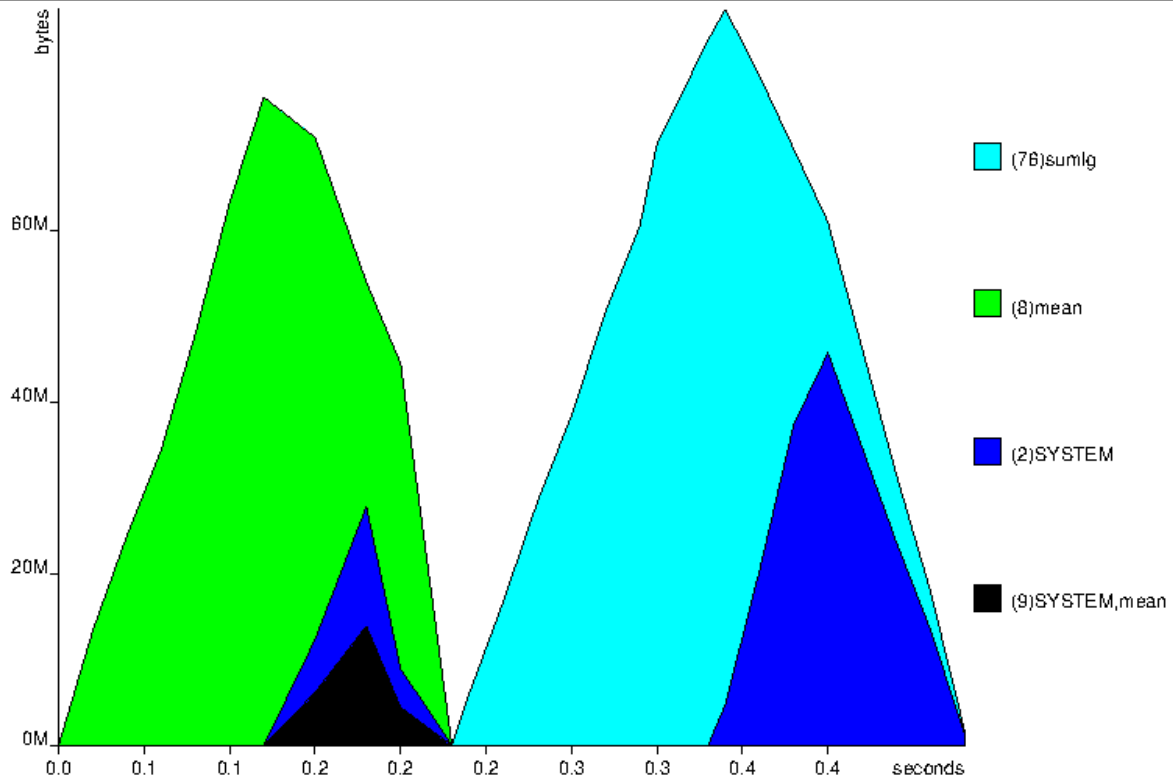
Sun Apr 10 01:49 2016



mean +RTS -hr -i0.02 -s

24,229,481 bytes x seconds

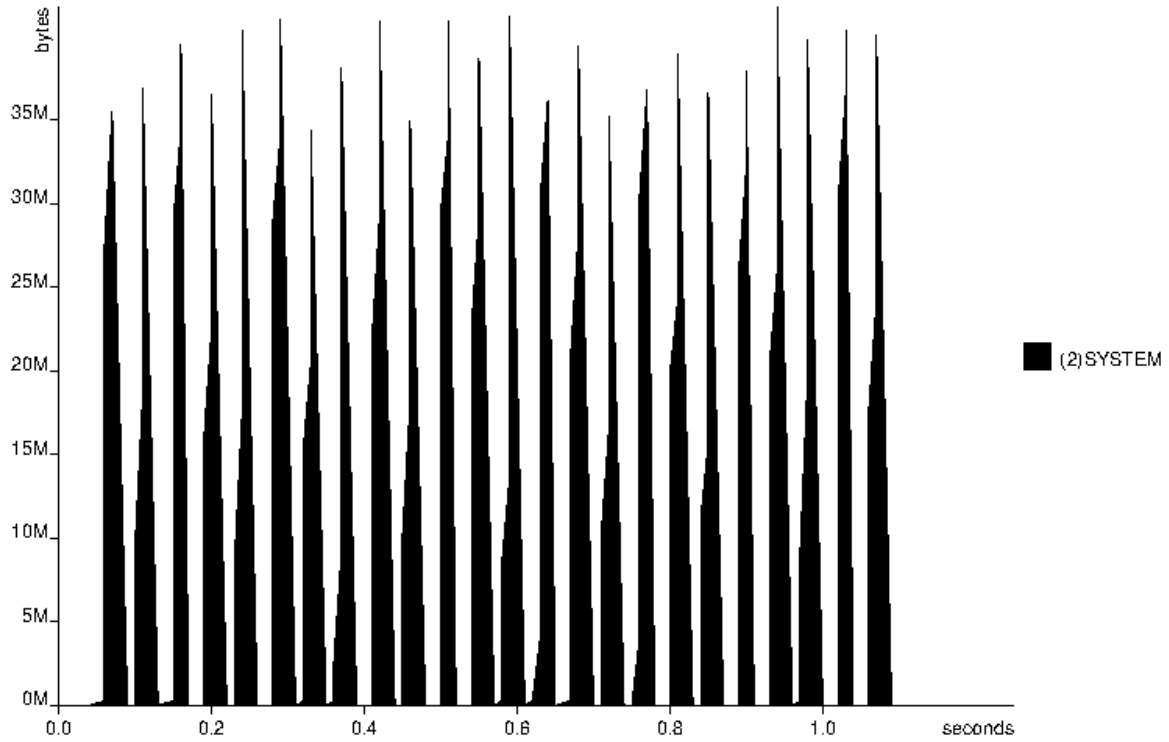
Sun Apr 10 12:23 2016



encryption encrypt key.bin plain.bin +RTS -hr -i0.002

13,443,179 bytes x seconds

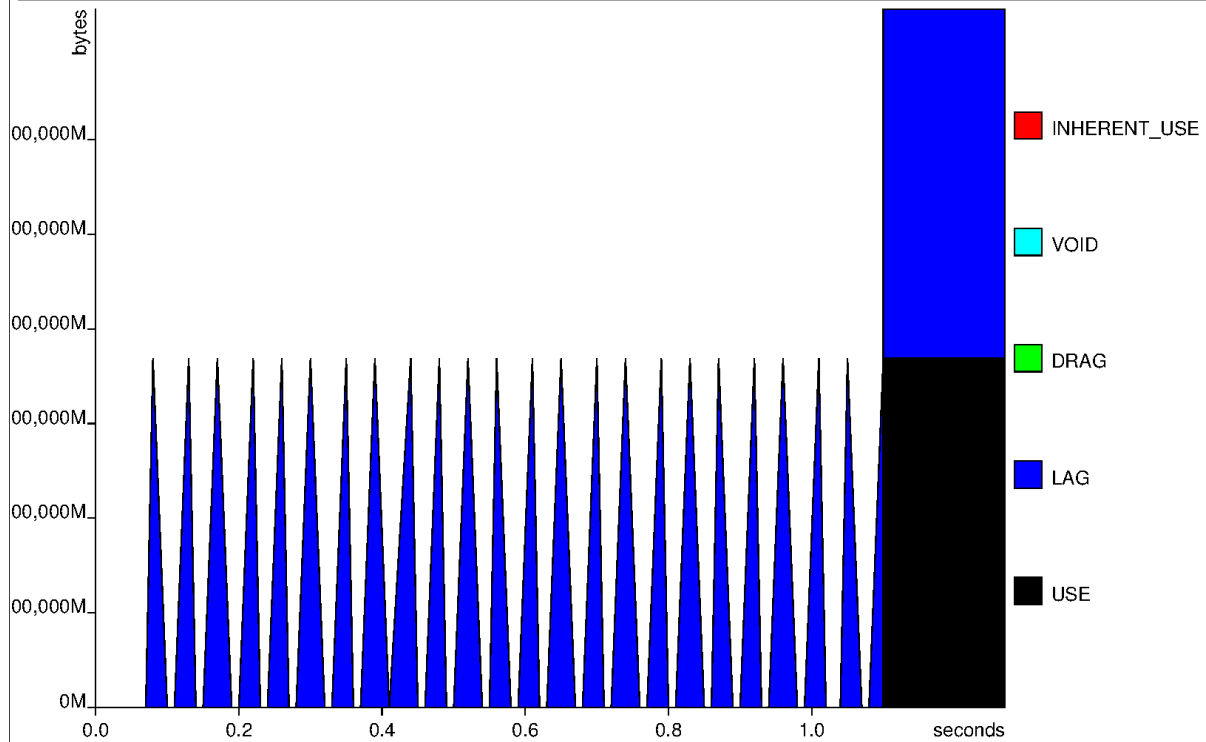
Sun Apr 10 03:49 2016

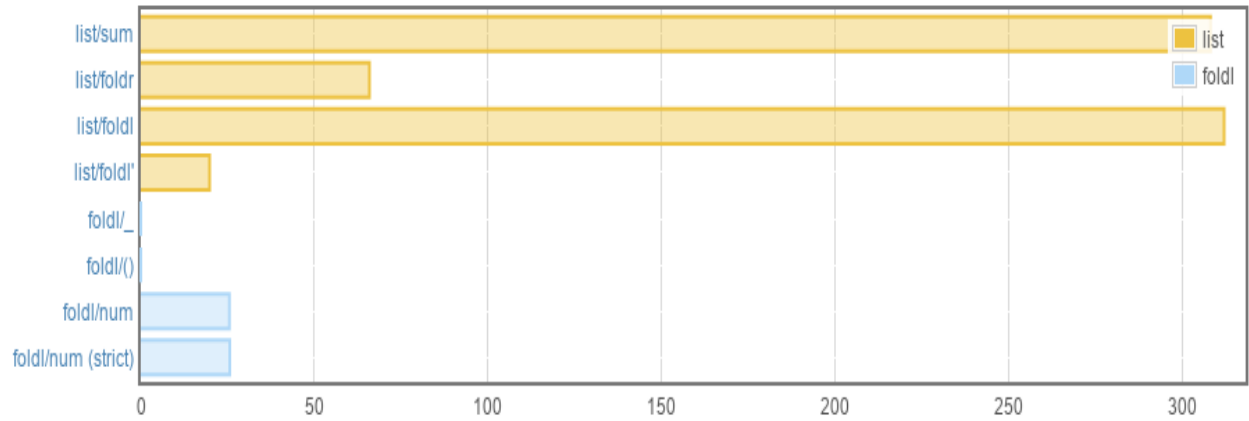


encryption encrypt key.bin plain.bin +RTS -hb -i0.002

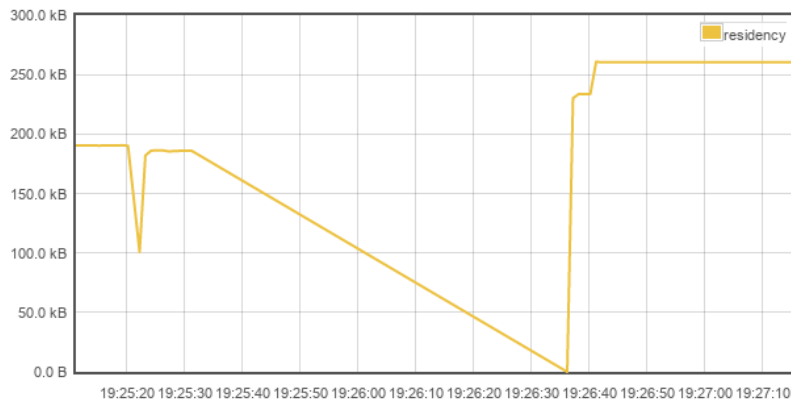
0 bytes x seconds

Sun Apr 10 13:09 2016

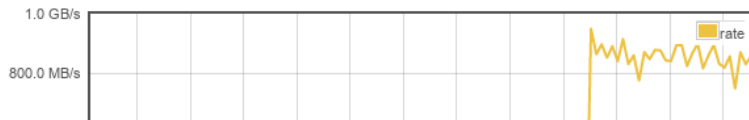




Current residency



Allocation rate



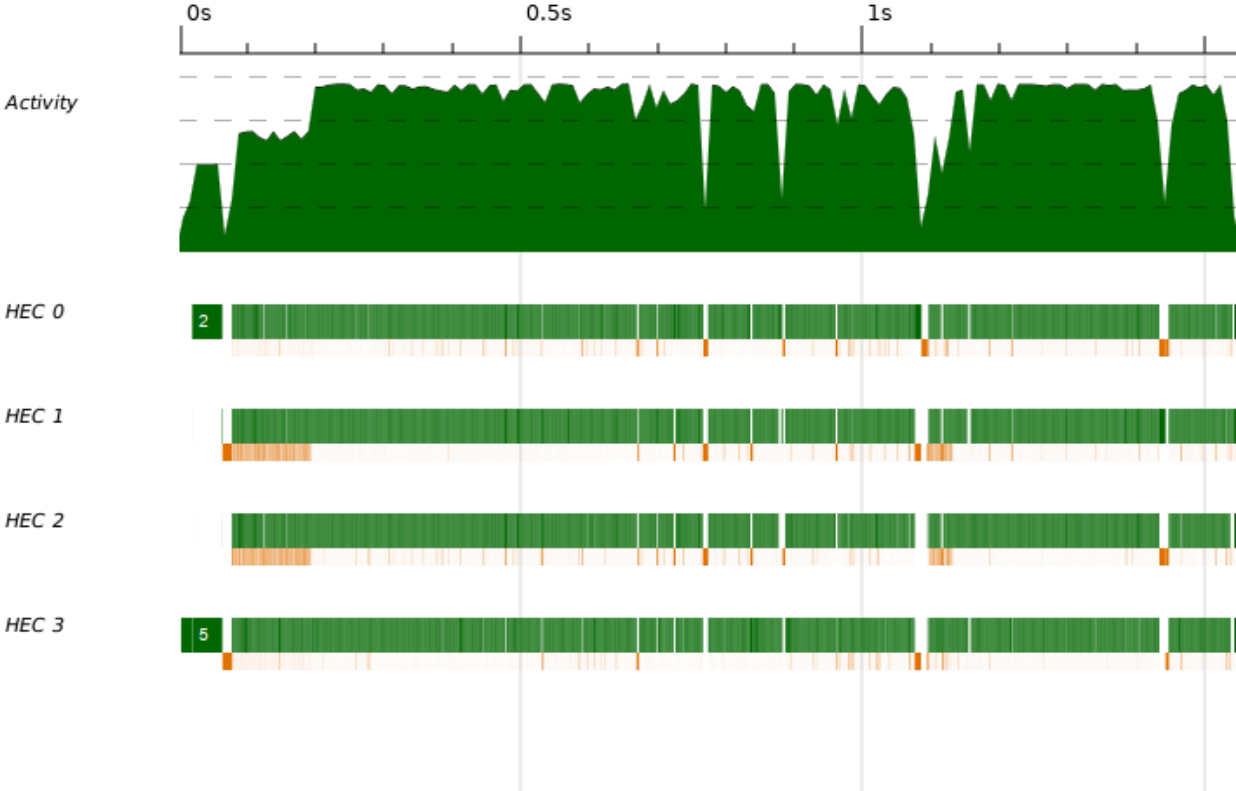
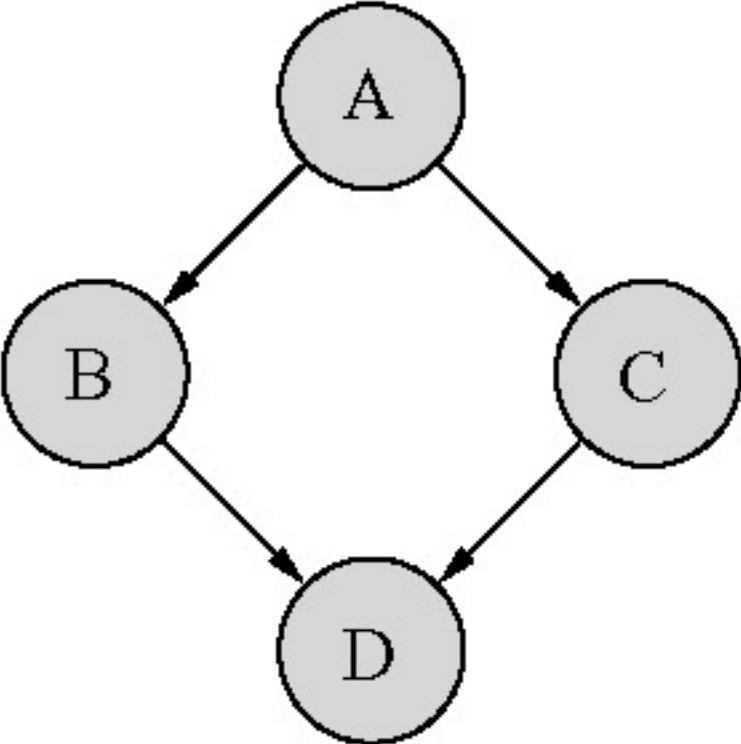
GC and memory statistics

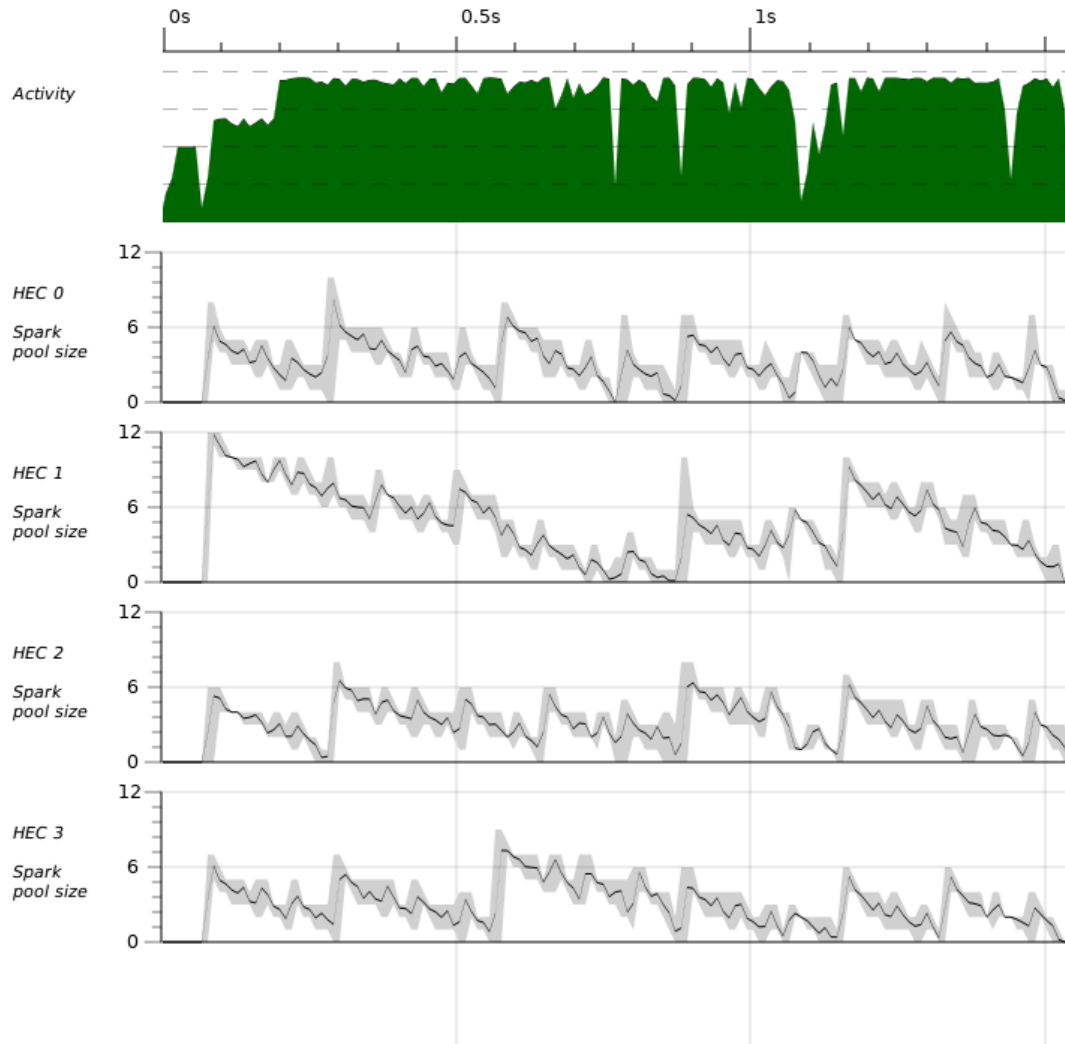
Statistic	Value
Maximum residency	260.8 kB
Current residency	260.4 kB
Maximum slop	181.2 kB
Current slop	0.0 B
Productivity (wall clock time)	91.6 %
Productivity (cpu time)	83.2 %
Allocation rate	856.7 MB/s

Metrics

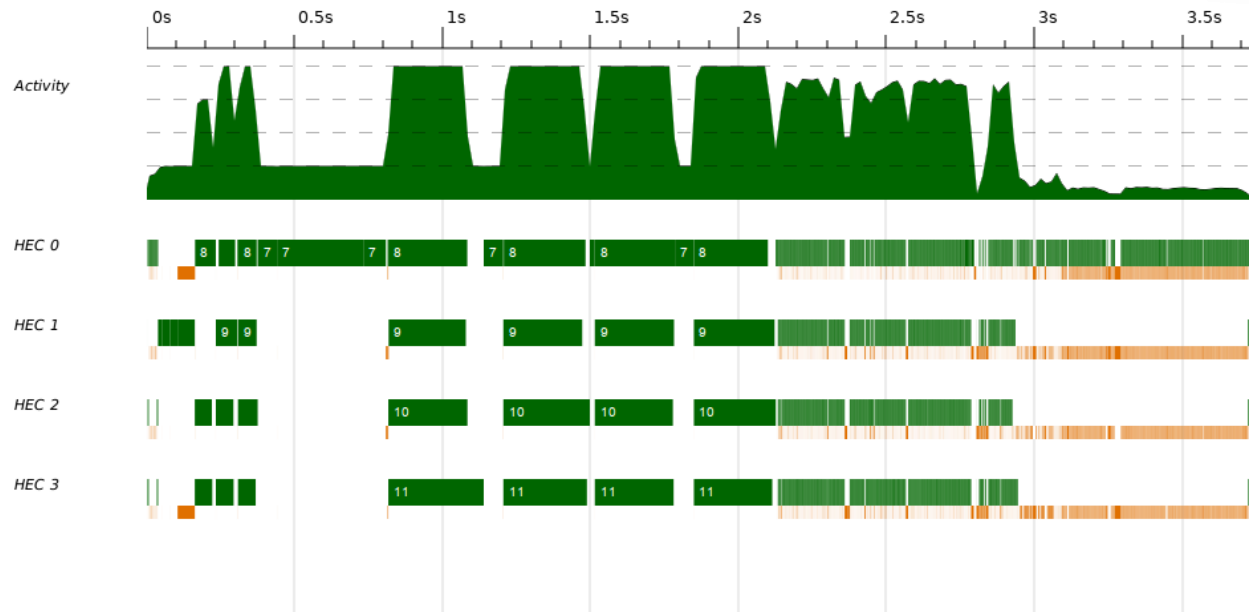
Name	Value
ekg.server_timestamp_ms	1,460,316,4
rts.gc.gc_cpu_ms	
rts.gc.mutator_wall_ms	
rts.gc.mutator_cpu_ms	

Chapter 5: Parallelize for Performance

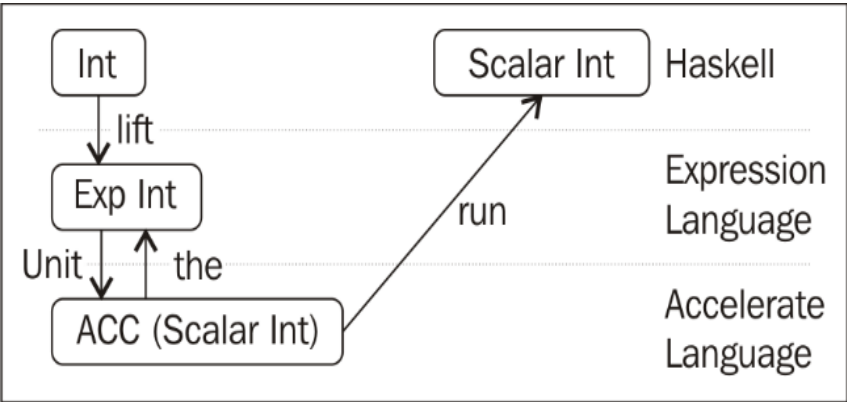




abca bcdc



Chapter 11: Programming for the GPU with Accelerate



Chapter 13: Functional Reactive Programming

