



• **Timeprofilers:**

• Given a tree of finite spent in functions

• can be used to identify hotspots

• Xcode Instruments-Timeline Profiler, VS Profile, Intel VTune

System Tracers:

• Show events such as system calls, memory management, thread interruption

• ~~Xcode Instruments - System Trace, DTrace/strace~~



• Performance counters:

• Reads CPUs hardware registers for things like branch mis-predictions, cache misses etc

• Xcode Instruments - Counters, Linux - perf

• **Always profile releases builds!**

**Profiling Tools**









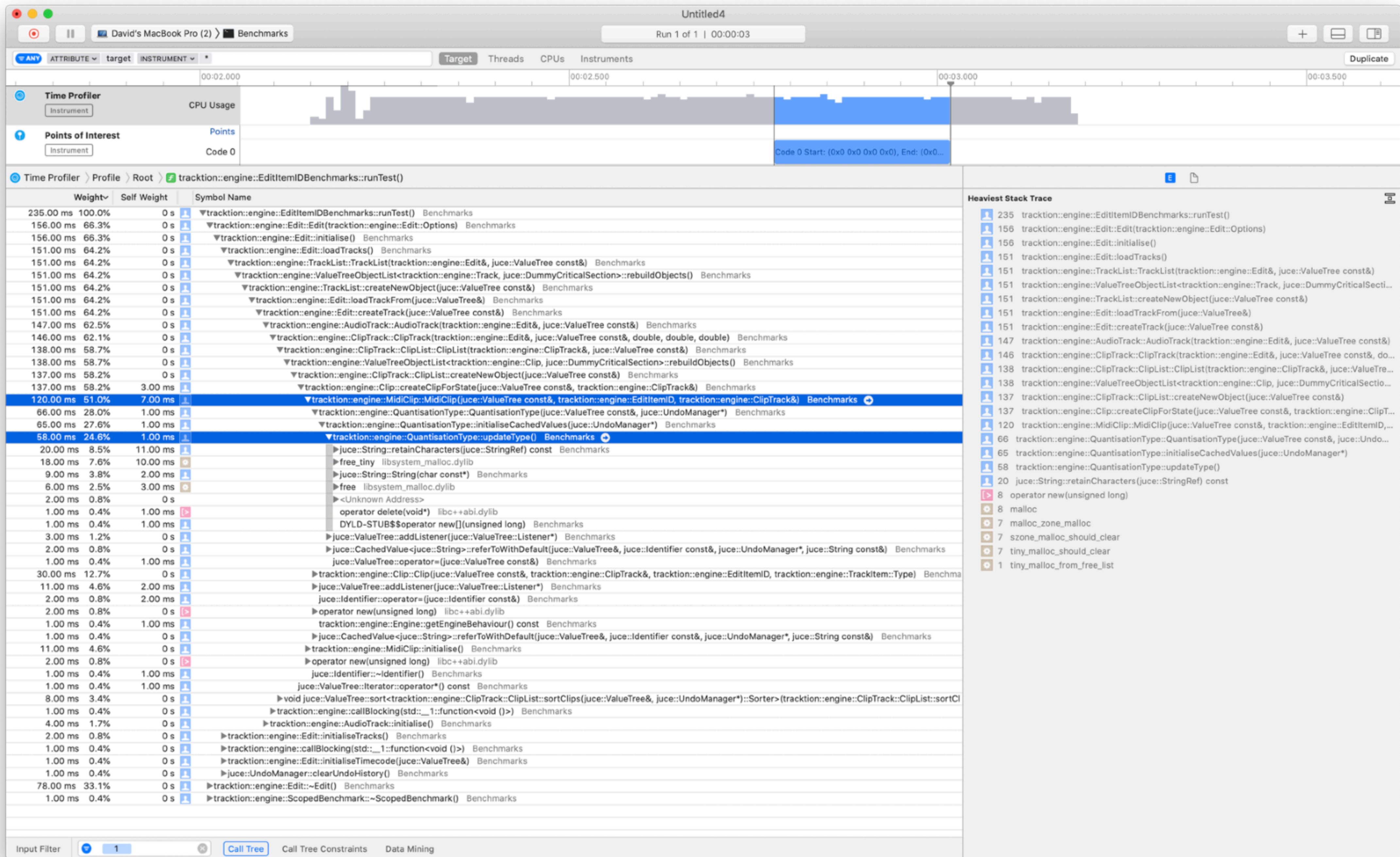
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# Time Profiler