

• **Timeprofilers:**

• Given a tree of finite spent in functions

• Can be used to identify hotspots

• Xcode Instruments, VS Profile, Intel VTune

System Tracers:

• Show events such as signals, 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





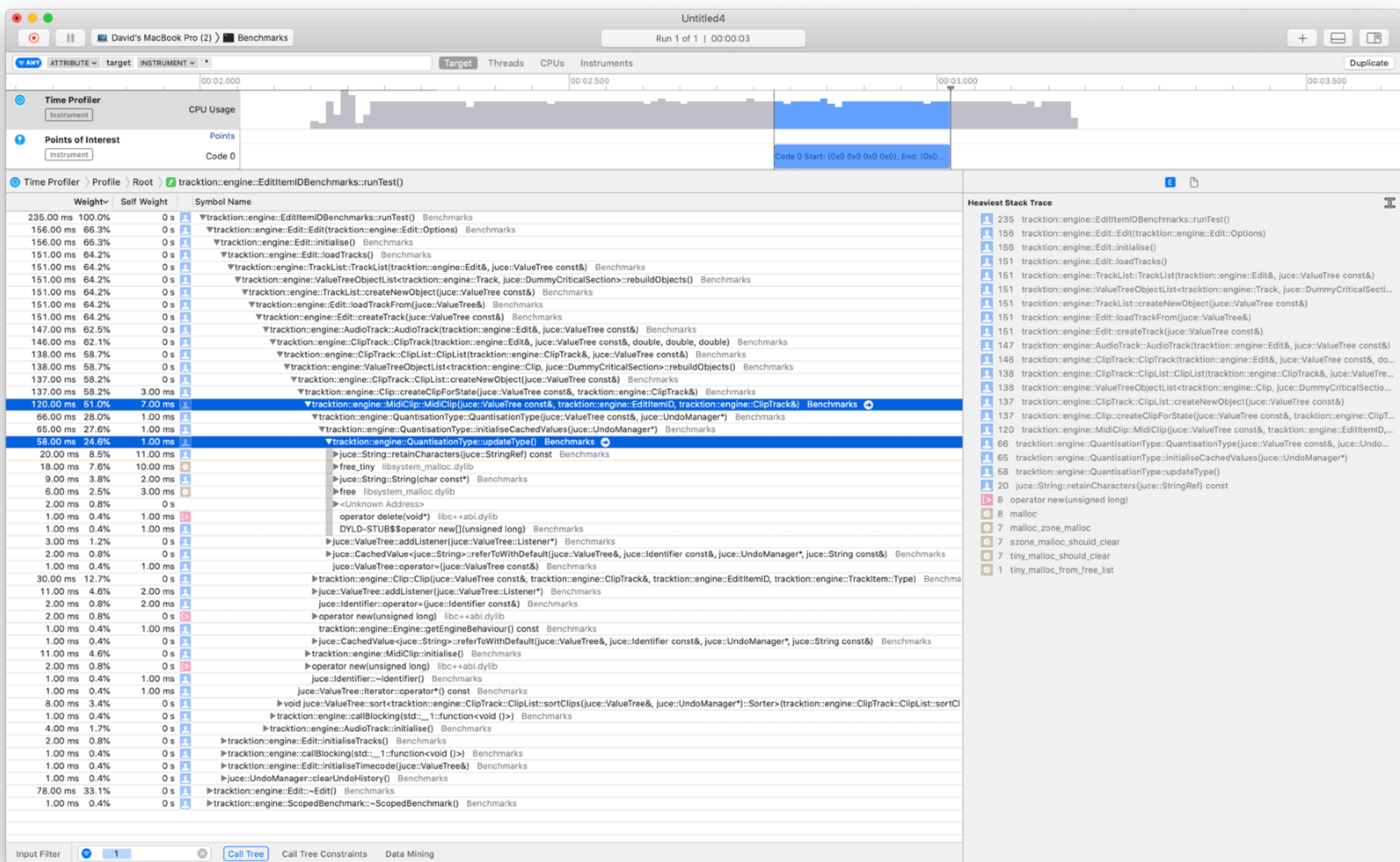




Profiling Tools

- Time profilers:
 - Give you a tree of time spent in functions
 - Can be used to identify hotspots
 - Xcode Instruments - Time Profiler, VS Profile, Intel VTune
- System Tracers:
 - Show events such as system calls, memory management, thread interruptions etc.
 - Xcode Instruments - System Trace, DTrace/strace
- Performance counters:
 - Reads CPU hardware registers for things like branch mis-predictions, cache misses etc.
 - Xcode Instruments - Counters, Linux - perf
- **Always profile release builds!**





Time Profiler