Benchmarks

Optimizations ARE enabled for each one. Zig – using ReleaseSafe, C – Immeasurable, left neutral, D – using whatever –O2 is for the Digital Mars D Compiler.

For the similar inputs given, *SimpleINI3* outperformed each implementation in time ran and memory consumption. This is not considering the copying of the arguments using argsAlloc() function to maintain portability, nor the different optimization options that zig provides, it was simply ran with –ReleaseFast (which should be the equivalent of –O2 in gcc.) The runtime of INI5 and SimpleINI3 were largely the same, except for INI5 being limited by the disk I/O from reading a file, while SimpleINI3 was largely copied directly into the source code.

The only programs which provided usable and realistic outputs for the given input were *SimpleINI2 and INI5*.

Program	Time (Avg. Of 5 runs)	Memory Consumption
SimpleINI (C)	**1.98ms**	Unmeasurable (page fault)
SimpleINI2 (D)	**11.402ms**	1,584 allocs, 1,580 frees, 2,298,275 bytes allocated
SimpleINI3 (C)	**0.73ms**	51 allocs, 51 frees, 3,869 bytes allocated
INI5 (Zig)	**1.32ms**	4 allocs, 4 frees, 10,447 bytes allocated