

Benchmark	Time (s)	Instructions	Rel to start	Rel to prev	Improvement
sandmark.umz midmark.um	146.61 5.84	N/A 4.158×10^{10}	1.000 1.000	1.000 1.000	None (Starting Point)
sandmark.umz midmark.um	78.06 2.98	N/A 2.829×10^{10}	0.532 0.510	0.532 0.510	Compiled with optimization -O1 and linked against -lci40-O1
sandmark.umz midmark.um	70.50 2.83	N/A 2.912×10^{10}	0.481 0.485	0.903 0.950	Compiled with optimization -O2 and linked against -lci40-O2
sandmark.umz midmark.um	68.18 2.74	N/A 2.720×10^{10}	0.465 0.469	0.967 0.968	Moved all instructions and the primary instruction loop into main
sandmark.umz midmark.um	67.63 2.72	N/A 2.698×10^{10}	0.461 0.466	0.992 0.993	Moved our segment class into main and removed irrelevant init function
sandmark.umz midmark.um	64.25 2.58	N/A 2.494×10^{10}	0.438 0.442	0.950 0.949	Consolidated our get_word function into main
sandmark.umz midmark.um	40.23 1.62	N/A 1.079×10^{10}	0.274 0.277	0.626 0.628	Replaced the Bitpack class with our own bitpack functions
sandmark.umz midmark.um	37.91 1.50	N/A 1.035×10^{10}	0.259 0.257	0.942 0.923	Made all of our functions static inline
sandmark.umz midmark.um	21.17 0.84	N/A 7.355×10^9	0.144 0.144	0.558 0.560	Replaced our Sequence for storing segments with a UArray
sandmark.umz midmark.um	15.56 0.62	N/A 5.860×10^9	0.106 0.106	0.735 0.738	Got rid of all of our failure case code