

Comparison of Several C/C++ Sorting Methods

Number of Integer Array Elements	10000	5
Maximum Array Bound	10000	
Number of Experiments	1000	

Walk Clock Runtimes in Microseconds

	Heap	Quick	std::qsort	Emden	Singleton	Singleton	Tree 3	Singleton
Minimum	21580	6868	4120	3133	4431	4431	3072	697
Maximum	34153	12172	9647	5473	6085	9076	15152	1152
Mean	22224	7977	4622	3358	4642	4698	5572	754
Median	21887	7870	4588	3310	4589	4615	4568	745
Variance	1814007	334730	130748	34574	26145	87254	6335575	1167

Heap Sort and Quick Sort are implementations of the algorithms in "Algorithms"

by Thomas Cormen, Charles E. Leirserson, and Ronald L. Rivest

std::qsort is the C++ Standard Template Library's Quick Sort

Left Singleton is a C/C++ translation of Richard C. Singleton's ALGOL 60 source code

Right Singleton is a C/C++ translation of Richard C. Singleton's original FORTRAN source code

Both Singleton's algorithms and Tree Sort 3 are from Harold Lorin's "Sorting and Sort Systems

The last Singleton's algorithm is a C/C++ macro-assembly language version x86