Emmit Parubrub April 20th, 2017

Test Results:

All tests were made with a certain amount of integers and 3 arrays: sorted, random, and descending. Looking at the sorts, it seems like radix is the fastest sort.

hybridSort Results:

After hybridSort with array of 100 integers:

Total time without overhead: 0.333333333333336 milliseconds

After hybridSort with array of 1,000 integers:

Total time without overhead: 1.33333333333333 milliseconds

After hybridSort with array of 10,000 integers:

Total time without overhead: 29.16666666666668 milliseconds

After hybridSort with array of 100,000 integers:

Total time without overhead: 3105.16666666666 milliseconds

randomizedQuickSort Results:

After randomizedQuickSort with array of 100 integers:

Total time without overhead: 0.66666666666667 milliseconds

After randomizedQuickSort with array of 1,000 integers:

Total time without overhead: 7.16666666666667 milliseconds

After randomizedQuickSort with array of 10,000 integers:

Total time without overhead: 205.5833333333334 milliseconds

After randomizedQuickSort with array of 100,000 integers:

Total time without overhead: 26795.16666666668 milliseconds

shakerSort Results:

After shakerSort with array of 100 integers:

Total time without overhead: 0.666666666666667 milliseconds

After shakerSort with array of 1,000 integers:

Total time without overhead: 10.5 milliseconds

After shakerSort with array of 10,000 integers:

After shakerSort with array of 100,000 integers:

Total time without overhead: 59829.83333333336 milliseconds

heapSort Results:

After heapSort with array of 100 integers:

Total time without overhead: 0.66666666666667 milliseconds

After heapSort with array of 1,000 integers: Total time without overhead: 19.5 milliseconds

After heapSort with array of 10,000 integers: Total time without overhead: 622.0 milliseconds

After heapSort with array of 100,000 integers:

Total time without overhead: 67027.333333333 milliseconds

combSort Results:

After combSort with array of 100 integers: Total time without overhead: 1.0 milliseconds

After combSort with array of 1,000 integers:

Total time without overhead: 1.8333333333333 milliseconds

After combSort with array of 10,000 integers:

Total time without overhead: 5.58333333333334 milliseconds

After combSort with array of 100,000 integers: Total time without overhead: 40.5 milliseconds

iterativeMergeSort Results:

After iterativeMergeSort with array of 128 integers:

Total time without overhead: 0.333333333333333 milliseconds

After iterativeMergeSort with array of 1,024 integers:

Total time without overhead: 2.166666666666666 milliseconds

After iterativeMergeSort with array of 8,192 integers:

Total time without overhead: 7.08333333333334 milliseconds

After iterativeMergeSort with array of 131,072 integers:

Total time without overhead: 44.333333333333 milliseconds

bucketSort Results:

After bucketSort with array of 100 integers:

Total time without overhead: 1.33333333333333 milliseconds

After bucketSort with array of 1,000 integers: Total time without overhead: 2.0 milliseconds

After bucketSort with array of 10,000 integers:

Total time without overhead: 6.66666666666667 milliseconds

After bucketSort with array of 100,000 integers:

Total time without overhead: 21.3333333333336 milliseconds

radixSort Results:

After radixSort with array of 100 integers:

Total time without overhead: 0.5 milliseconds

After radixSort with array of 1,000 integers:

Total time without overhead: 1.3333333333333 milliseconds

After radixSort with array of 10,000 integers:

Total time without overhead: 2.333333333333 milliseconds

After radixSort with array of 100,000 integers:

Total time without overhead: 10.0 milliseconds