Performance Comparison

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Abstract

We present the performance comparison of the most used operations/algorithms.

1 Sorting Methods

We compare the time used by *sort* and *stable_sort*.

1.1 Description

sort usually implements the *QuickSort* algorithm, whereas *stable_sort* usually implements *HeapSort*.

We performed 100 consective sortings on a vector containing all integers in the range $[1, 10^6]$.

1.2 Results

We expected *stable_sort* to perform better, since conecutive sortings would trigger QuickSort's worst case; but QuickSort still performed much better.

sort	24.274
sort -O2	3.143
stable_sort	41.184
stable_sort -O2	8.120