
Subject: Re: Misc. Bugs & Problems

Posted by [David Kastrup](#) on Fri, 26 Feb 1999 08:00:00 GMT

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"Steve Scheele" <sscheele@scitor.com> writes:

> < Problem: Sort slows down considerably when sorting integer arrays
>> containing many identical values. (on NT)
>
>> Note that this seems to be platform dependent.
>
> Yes - It is also my understanding that Sort uses the sort algorithm
> that is native to the particular OS. I had thought that Sort used
> quick sort. However, quick sort slows down considerably when
> sorting arrays already in (mostly) sorted order. My testing failed
> to show this particular problem.

Only naive quicksort slows down on sorted elements. The usual variant is the median of three quicksort picking the pivot from a median of first, last and middle element of a range. The most inefficient configuration for this sort is pretty hard to come up by design, but is also $O(n^2)$.

When you are using the GNU C library, qsort really reverts to a mergesort method unless memory is scarce.

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David Kastrup

Phone: +49-234-700-5570

Email: dak@neuroinformatik.ruhr-uni-bochum.de Fax: +49-234-709-4209

Institut für Neuroinformatik, Universitätsstr. 150, 44780 Bochum, Germany
