
Subject: Re: IDL sorting

Posted by [Conor](#) on Tue, 06 Nov 2007 16:18:24 GMT

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On Nov 1, 7:02 pm, JD Smith <jdsm...@as.arizona.edu> wrote:

> On Thu, 18 Oct 2007 21:58:15 +0000, Karl Schultz wrote:

>> wlandsman <wlands...@gmail.com> wrote:

>>> On Oct 18, 2:30 pm, Karl Schultz <k...@io.frii.com> wrote:

>>>> Because it is not a *stable* sort. Stable sorting algorithms preserve

>>>> the order of equal keys.

>

>>>> > IDL just uses the sort algorithm of the underlying OS. As far as I

>>>> > am aware, the SORT function on Linux boxes *does* preserve the order

>>>> > of equal values, but that on Mac and Windows machines does not. I

>>>> > would be interested to hear if anyone finds any exceptions to this

>>>> > rule.

>

>>>> Are you using this SORT function from the command line? If so, you

>>>> are using a shell function or a sort program in your PATH. Someone

>>>> probably decided that a stable sort made more sense for people sorting

>>>> things from the command line or from shell scripts. Reasonable.

>

>>> I don't understand this paragraph. I am just using the IDL intrinsic

>>> SORT command. On every Linux box I have ever been on, it appears

>>> that the C lib sort algorithm used by IDL SORT() *is* stable, whereas

>>> it is *not* stable on Windows or MacOS.

>

>> When you said "SORT function on Linux boxes", I thought you meant from the

>> Linux command line. My bad.

>

>> So it looks like the qsort() implementation on the Linux distros you tried

>> happens to be stable. That's all.

>

> I side with Wayne: this platform difference has a real impact on many

> SORT-based algorithms. I understand the goal of re-using a tuned system

> QSORT, but going the extra step to get it to function the same on all

> IDL-supported systems would seem a no-brainer.

>

> JD

I think you have your answer: Just use a linux based operating system! Then, you'll probably be using a stable sort and you won't have to worry about this! I'm afraid I don't have any other thoughts :

(
