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Subject: Re: IDL sorting

Posted by [JD Smith](#) on Fri, 02 Nov 2007 00:02:42 GMT

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

> wlandsman <wlandsman@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

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