
Subject: Re: machine dependant sort & other IDL mysteries
Posted by [David Fanning](#) on Thu, 06 Feb 2003 15:00:46 GMT
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Mark Servetus (markservetus@hotmail.com) writes:

- > Just got done debugging a case of the machine dependant sort method
- > (many thanks to pwave) when the values being sorted are identical.
- > (XP vs. 2000, fyi)
- >
- > Since IDL is marketed as machine independent, I would have expected a
- > note in the reference that SORT may not produce same results in some
- > cases. Then I would have expected a /FIFO or something flag which,
- > when used, would guarantee cross machine congruence.
- >
- > Since neither of those things was provided, I am now suspicious of
- > other methods.
- >
- > Does anyone have any advice that would ease my worries?

I think you have the wrong idea of what "machine independent" means. It certainly doesn't mean "runs identically". For something to "run identically" RSI would have to not only write the IDL code, they would have to write the operating system code for all the machines they planned to support.

Obviously, they are not going to do that. So they take advantage of what an operating system offers. Sorting things is a common OS operation, so each OS provides a SORT algorithm. Microsoft's algorithm just happens to be brain dead. I'm not sure that is completely RSI's fault.

Yes, you might have expected a caveat to that effect, but if RSI gets into the business of providing caveats to all of their routines, I'm afraid I'll have to measure for another bookcase to hold the expanded documentation suite.

And, anyway, two minutes searching Google archives for IDL and SORT turns up the NASA BSORT routine anyway. Problem solved. :-)

Cheers,

David

P.S. JAVA seems to be the kind of thing that "runs

identically" (well, maybe it will once Microsoft gets the new Sun patches out to us), but I've noticed lately that JAVA programs seem to be buggier than even *my* programs. Maybe "runs identically" is beyond our reach.

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: machine dependant sort & other IDL mysteries
Posted by [Liam E. Gumley](#) on Thu, 06 Feb 2003 15:30:37 GMT
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"Mark Servetus" <markservetus@hotmail.com> wrote in message
news:16cf4e47.0302060605.45ddc357@posting.google.com...

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Try BSORT from the Astronomy library:

<http://www.astro.washington.edu/deutsch-bin/getpro/library01.html?BSORT>

The problem is that SORT does not maintain original subscript order for equal input values. On different IDL platforms, the order of sorted equal values may be different. See the Google history on this topic:

<http://groups.google.com/groups?q=bsort&meta=group%3Dcomp.lang.idl-pvwave>

Cheers,
Liam.
Practical IDL Programming
<http://www.gumley.com/>
