

Re: Division of large negative number leads to integer overflow

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Source: <http://coding.derkeiler.com/Archive/Fortran/comp.lang.fortran/2007-03/msg00053.html>

- *From:* nospam@xxxxxxxxxxxxxx (Richard Maine)
 - *Date:* Thu, 1 Mar 2007 22:28:32 -0800
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Arjen Markus <arjen.markus@xxxxxxxxxx> wrote:

I checked this with two different compilers on Windows XP. Is this behaviour prescribed by the standard or is it machine-dependent?

The standard doesn't specify what the valid range of integers is or that the range is symmetric. Good thing, insomuch as the range pretty much never is symmetric on current machines.

With pretty much all current machines, the negative of the largest positive value is out of range.

Executing operations whose result is "not defined by the processor's arithmetic" makes your program nonstandard. Anything can happen. An integer overflow is one real possibility. Getting a bogus value is another.

I don't find the behavior you observed at all surprising. It is not specified by the standard, but neither is it prohibited.

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Richard Maine | Good judgement comes from experience;
email: last name at domain . net | experience comes from bad judgement.
domain: summertriangle | — Mark Twain

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