
Subject: Re: Comparing 2 arrays

Posted by [David Fanning](#) on Mon, 27 Aug 2007 15:06:08 GMT

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Conor writes:

> Hmm... I think Jean might be on to something. After all, the error in
> question here is the rounding error of the computer, and that rounding
> error is always an error on the last 'bit' of a floating point
> number. So for instance if you had two floating point numbers:
>
> 1.1123453e15
> and
> 1.1123454e15
>
> These might be the same number (to within the rounding error) but the
> difference between them is about 6.7e07. That's assuming of course
> that I'm properly understanding floating point representation (I'm an
> astronomer, not a computer engineer).

I guess I'm thinking more about how a number got INTO
the array in the first place. If it got there as a result
of some kind of calculation, accumulative rounding errors
could be a great deal larger than machine precision. And
yet, you might still want these numbers to be "equal" for
analysis purposes.

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
