
Subject: Re: Arithmetic error

Posted by [Paul van Delst](#) on Thu, 31 Jan 2002 18:41:55 GMT

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Ed Wright wrote:

>
> in article a3b58p\$kb2i\$1@rook.le.ac.uk, Nigel Wade at nmw@ion.le.ac.uk wrote
> on 1/31/02 2:11 AM:

>
>> Ed Wright wrote:

>>
>>>
>>> To: IDL
>>> From: Ed Wright, JPL
>>>

>>> I require assistance with an odd problem. My current projects involves
>>> creating a dlm module of some 200+ routines from a library of 1500+
>>> routines. Several of the IDL callable routines replicate intrinsic IDL
>>> calls. While testing one such routine that calculates determinate of a 3X3
>>> I encountered a problem. The numerical result between my determinant
>>> function and determn matches to $10^{(-16)}$.

>>>
>>> Now the odd thing. Under certain circumstances the use of my determinant
>>> function as an argument in another routine call causes an error:

>>>
>>> % Program caused arithmetic error: Floating illegal operand.

>>>
>> That error means somewhere in your code you have generated a NaN (Not a
>> Number). The operations which generate NaNs include 0/0, Inf*0, sqrt(<0)
>> Inf-Inf, Inf/Inf (there may be others...).

>
> By code, should I take it to mean the external C code?

>
>>
>> Since you don't have a preceding 'Floating divide by zero', it's a fair bet
>> your error doesn't involve Inf. So, all you have to do is look through your
>> code to find where you might have a 0/0 or sqrt(<0). ;-)

>
> Oh, is that all. No problem. 300k lines - let me at them.... Mr. Codebuster,
> that's me.

Try !EXCEPT=2 and let IDL do the searching for you. Be prepared for a lot of output.....

paulv

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