Subject: Ug...Floating Illegal Operand...leave me alone!
Posted by randomguy79 on Tue, 17 Jul 2001 20:05:27 GMT
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Hey everyone,

I'm rather new to the world of IDL...so bear with me. I've been attempting to debug a program all afternoon...but the damn "Program caused an arithmetic error: Floating illegal operand" message won't go away no matter what I do. I've narrowed the problem down to an expression in the following form:
a=a+((b*c)/d) where all the variables are of DOUBLE precision. They were originally FLOAT but I changed them all and thought it may have been the problem, but apparently it wasn't.

A little more detail on the program: I'm working through about 73 datasets using a for loop. The expression above is embedded in an additional for loop so as to perform some manipulations ((b*c)/d) on arrays and sum all these manipulations into 'a.' The interesting thing is, I can run 1, 10, or even 72 datasets and not get the "floating illegal operand" error. Only when I run all 73 datasets at once do I recieve the message when the program is complete. I'm getting results as well...I just question whether or not they're right because of the arithmetic error.

I'm not sure if the Check_math function would help out here or not. I tried using it earlier but I couldn't actually figure out how to use it properly. Can anyone help me out here at all? Either helping me diagnose this or helping me figure out how to use the check_math function? I'm really stumped and extremely frustrated. Thanks.

Matt
randomguy79@yahoo.com

Subject: Re: Ug...Floating Illegal Operand...leave me alone!
Posted by Paul van Delst on Wed, 18 Jul 2001 15:55:58 GMT
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Timm Weitkamp wrote:
>
> Hi,
>
> Concerning Jeff's statement:
>
>> zeros. (I don't think there's a way to make IDL halt at the time the
>> error occurs, as it does with other errors.)
>

> I think that's true, but you can at least make IDL print out the error
> message at the moment where it occurs (instead of the default behavior
> of message output after program termination) by setting the system
> variable !EXCEPT to 2.

Excellent advice for finding those pesky "Floating Illegal Operand" errors. It allowed me to find where floating underflows in the denominator of an expression were causing rather largish errors... :o)

Be prepared for a lot of screen output though.

paulv

--
Paul van Delst A little learning is a dangerous thing;
CIMSS @ NOAA/NCEP Drink deep, or taste not the Pierian spring;
Ph: (301)763-8000 x7274 There shallow draughts intoxicate the brain,
Fax:(301)763-8545 And drinking largely sobers us again.
Alexander Pope.
