Subject: Re: QROMB crashes IDL
Posted by Martin Schultz on Sun, 22 Nov 1998 08:00:00 GMT
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Kjetil Kjernsmo wrote:

> Dear all!
>
> I have an integral that I want to check if it converges or diverges,
> and of course, if it converges, I want the value. They say it must be
> evaluated numerically, so I figured I would try to solve it in IDL,
> and see what happens.
>
> Unfortunately, it seems that when the integral diverges, IDL crashes
> with the following message:
>
> % Program caused arithmetic error: Floating illegal operand
> Floating exception
>
> [... rest snipped]

> Kjetil

> --
> Kjetil Kjernsmo
> Graduate astronomy-student Problems worthy of attack
> University of Oslo, Norway Prove their worth by hitting back
> E-mail: kjetikj@astro.uio.no - Piet Hein
> Homepage <URL:http://www.astro.uio.no/~kjetikj/>
> Webmaster@skepsis.no

I wouldn't call this a crash. Th eerror message that you get is simply the warning of IDL that it did encounter what you asked for : a NaN or Inf value! Check out the online help section on "math errors" to learn how to control them. The other idea is to test the validity of the expression with the finite() function before actually evaluating it. ... and then there is always the good old way of looking at the expression and testing for if (x ne 0.) then z=1/x etc. ;-)

Regards,
Martin.

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Subject: Re: QROMB crashes IDL
Posted by steinhh on Mon, 23 Nov 1998 08:00:00 GMT
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In article <365862CE.E87869EF@io.harvard.edu> Martin Schultz
<mgs@io.harvard.edu> writes:

> Kjetil Kjernsmo wrote:
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[...]

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The problem is that the idl session aborts. That is, on an
{ alpha OSF unix 5.1.1 Jul 20 1998}, IDL crashes (as in
going back to the shell prompt) if the function to be
integrated returns a NaNQ... Does this happen on most
platforms? Although it could be debated whether this is a
bug (I wouldn't expect *sensible* results from a
nonsensical intregral :-), it's certainly not what you'd
expect from IDL.

Bearing in mind that the qromb is a Num. Recipes routine,

though, I wouldn't expect RSI to "fix" it...

Regards,

Stein Vidar