Subject: Re: Incorrect behavior of /NAN
Posted by Craig Markwardt on Thu, 04 Apr 2002 17:32:43 GMT

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Kenneth Bowman <k-bowman@null.tamu.edu> writes:
> I tried to incite some interest in this last week, but had no takers,
> so I'll try again. ;-)
>
> I believe that the behavior of the TOTAL function is incorrect in
> the case where all of the data are NaN and the /NAN keyword is set.
>
> Here are several possible cases:
>
> IDL> a = !values.f_nan
> IDL> print, total([a, 1.0])
>   NaN
> IDL> print, total([a, 1.0], /nan)
>   1.00000
> IDL> print, total([a, a])
>   NaN
> IDL> print, total([a, a], /nan)
>   0.00000
>
> I believe that the last case is incorrect.
>
> The documentation for /NAN says "Elements with the value NaN are treated
> as missing data." In the last case there are no valid data, so how can
> their sum be zero?

Hi Ken--

If all the data are missing, how can the sum be NaN? Neither a return
value of 0, nor a return value of NaN, seems to be appropriate to
me. This appears to be an undefined case.

Craig

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Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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