Subject: Re: manipulating structures
Posted by Kenneth Bowman on Mon, 09 Apr 2007 15:02:36 GMT
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In article <Pine.LNX.4.64.0704082118360.6079@bifur.rmki.kfki.hu>,
FOLDY Lajos <foldy@rmki.kfki.hu> wrote:

> On Sun, 8 Apr 2007, Kenneth P. Bowman wrote:
>
>> The rules for IEEE arithmetic say that the result of any operation
>> involving a NaN is a NaN. That is not true in the case of TOTAL. If
>> you sum an array that is all NaNs, the result is zero.
>
> You are summing an empty array, if the /NaN keyword (= discard NaNs) was
> set. So, what is the sum of an empty array: 0 or Nan? :-)
>
> regards,
> lajos

How can the sum of no numbers be a number?

I know we went through this same philosophical argument before, but in the end
the /NAN keyword is there as a programming convenience. Zero is
a valid answer when there are good data in the array. It should not be a
valid answer when there are no good data in the array.

As I said, it renders the /NAN keyword useless to me. I don't want to
get a valid number back when there are no valid input data.

Instead of

```
tot = TOTAL(x, /NAN)
```

I must do

```
i = WHERE(FINITE(x), COUNT = count)
IF (COUNT EQ 0) THEN tot = !VALUES.F_NAN $
        ELSE tot = TOTAL(x[i])
```

Ken