
Subject: Re: Missing Data Programming Contest
Posted by [R.Bauer](#) on Thu, 09 Apr 2009 08:32:34 GMT
[View Forum Message](#) <> [Reply to Message](#)

Homeyer schrieb:

> On Apr 8, 6:02 pm, Homeyer <cam.the.weather....@gmail.com> wrote:

>> On Apr 8, 8:23 am, David Fanning <n...@dfanning.com> wrote:

>>

>>

>>

>>> Folks,

>>> I don't have time today to think about this, so I've

>>> decided to get you to do my thinking for me. :-)

>>> Suppose you are expecting a data array and you suspect

>>> the data has "missing values" in it that you wish to

>>> exclude from further processing. You write a keyword

>>> for your routine that allows the user to pass in what

>>> he is using for the "missing value".

>>> PRO Junker, data, MISSING_VALUE=missing_value

>>> How would you write the code to assure that this missing

>>> value would be excluded from further processing?

>>> You should assume:

>>> 1. The data can be any data type except complex or string.

>>> 2. The missing value *could* be !VALUES.F_NAN.

>>> 3. Unsophisticated users might be using your program,

>>> so, for example, they might pass in a missing value

>>> such as 594.32.

>>> No, this is NOT my homework! But I do need it ASAP. ;-)

>>> Cheers,

>>> David

>>> --

>>> David Fanning, Ph.D.

>>> Fanning Software Consulting, Inc.

>>> Coyote's Guide to IDL Programming:<http://www.dfanning.com/>

>>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

>> The following should suffice:

>>

>> IF (missing_value GT 0) THEN BEGIN

>> type = SIZE(array, /TNAME)

>>

>> CASE type OF

>> 'COMPLEX' : MESSAGE, 'Complex values not allowed for removing
>> MISSING data.'

>> 'STRING' : MESSAGE, 'String values not allowed for removing
>> MISSING data.'

>> ELSE : invalid = WHERE((array EQ missing_value), iv_count,

>> COMPLEMENT = valid, NCOMPLEMENT = v_count)

>> ENDCASE

```
>>
>> IF (v_count GT 0) THEN array = array[valid]
>> ENDIF
>>
>> That is, if you dont care about overwriting the original data or it is
>> not gridded. If it is gridded (data points with missing values should
>> remain), then you could replace those with NaNs in the final array
>> using the indices above.
>>
>> Cheers,
>> Cameron Homeyer
>
> oops, missed the NaN part:
>
> This would go before the last IF (v_count...
>
> IF (~FINITE(missing)) THEN invalid = WHERE(~FINITE(array), iv_count,
> COMPLEMENT = valid, NCOMPLEMENT = v_count)
>
```

What is the meaning of ~ in front of the function name?
