
Subject: Re: Testing for NODATA presence in a dataset
Posted by [David Fanning](#) on Thu, 26 Dec 2002 16:25:15 GMT
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Tom McGlynn (tam@lheapop.gsfc.nasa.gov) writes and
Bill Thompson confirms:

```
> That doesn't distinguish NaN from the infinities.  
> The standard trick in any language for looking for NaN's is  
>  
> if x ne x then begin  
>   print,'This is a NaN'  
> endif else ...
```

Humm, well, consider this little test in IDL 5.5 or 5.6
for Windows:

```
IDL> a = [ 1.0, 2.0, !Values.F_NAN, 4.0, !Values.F_NAN ]  
IDL> print, a  
1.00000 2.00000 NaN 4.00000 NaN  
IDL> print, a(1)  
2.00000
```

All well and good so far. Test the algorithm.

```
IDL> if a(1) ne a(1) THEN print, 'NAN' ELSE print, 'Number'  
Number
```

Perfect. Working fine. Now test NAN.

```
IDL> print, a(2)  
NaN  
IDL> if a(2) ne a(2) THEN print, 'NAN' ELSE print, 'Number'  
Number  
% Program caused arithmetic error: Floating illegal operand
```

Oh, oh. What's up with that? And a floating illegal operand to
boot. :-(

How about the array in general?

```
IDL> print, array ne array  
0 0 0 0 0  
% Program caused arithmetic error: Floating illegal operand
```

Humm. I presume you guys have a reason for thinking
like you do. Any insights?

Cheers,

David

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