Subject: Re: Filtering out NaNs
Posted by Mark Hadfield on Sun, 23 Mar 1997 08:00:00 GMT
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Stein Vidar Hagfors Haugan <steinhh@rigil.uio.no> wrote in
article <5gp9oq$8hp$1@ratatosk.uio.no>...
>
> NaNs are characterized by the fact that they are *not* equal
> to any number (that's what it says, isn't it :-)
>
> In fact, it's not even equal to itself - and this is the distinguishing
> feature that must be used to pick them out. I.e.,
>
> a(where(a ne a)) = missing_flag

I've always used the finite function, eg:

  a(where(1-finite(a))) = missing_flag

However FINITE returns 0 for infinities as well as NaNs and I suppose this
could be a problem in some instances.

I just tried 4 different comparison operators against pairs of NaN's and
found that on my system (IDL 5.0 prerelease on WinNT/Intel) NaN IS equal to
itself, but it's also greater than itself.

```
IDL> a = !values.f_nan
IDL> print, a eq a, a ne a, a gt a, a lt a
  1   0   1   0
% Program caused arithmetic error: Floating illegal operand
```

Curious.

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