Subject: Re: problems with VELOVECT
Posted by Lasse Clausen on Tue, 21 Aug 2001 15:04:37 GMT

> Can it be that this problem has to do with the fact that I'm having
> !VALUES.F_NAN values in the arrays VV_PLOT and VW_PLOT?
>

Nope! I changed the code so that instead of setting the value 99.9 to
!VALUES.F_NAN using the keyword MISSING=99.9. Still I get the same error
message.

Thanks in advance

Lasse Clausen

Subject: Re: problems with VELOVECT
Posted by btt on Tue, 21 Aug 2001 15:26:36 GMT

Hi,

Did you try pulling out the NANs? Maybe something like the following.

Index1 = Where(Finite(float(vv_plot)) EQ 1)
Index2 = Where(Finite(float(vw_plot[Index1])) EQ 1)

VELOVECT, VV_PLOT[Index1[Index2]], VW_PLOT[Index1[Index2]], length = 2

Ben

Lasse Clausen wrote:
>
> Greetings.
>
> I get the following error message
>
> % Compiled module: VELOVECT.
> % Attempt to subscript U with GOOD is out of range.
> % Error occurred at: VELOVECT   123
> /opt/rsi/idl_5/lib/velovect.pro
> %   VVF   68 vvf.pro
> %   AUSLESEN   121 auslesen.pro
> % $MAIN$ 37 soudan.pro
> % Execution halted at: VVF   68 vvf.pro
>

> when using this call
>
>   WINDOW,/FREE,XSIZE=1100,YSIZE=900
>   !MTITLE = 'velocity vector field - vel'
>   !XTITLE = 'time / UTC'
>   !YTITLE = 'height (km)'
>   VELOVECT,VV_PLOT,VW_PLOT,LENGTH=2
>
> Can it be that this problem has to do with the fact that I'm having
> !VALUES.F_NAN values in the arrays VV_PLOT and VW_PLOT?
>
> Thanks
> Lasse Clausen

--
Ben Tupper
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Subject: Re: problems with VELOVECT
Posted by Lasse Clausen on Tue, 21 Aug 2001 15:31:45 GMT
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Again me.

i've looked at the source code of VELOVECT.PRO and there are some things
I find suprising.

1)
PRO VELOVECT,U,V,X,Y, Missing = Missing, Length = length, Dots = dots,
$
        Color=color, _EXTRA = extra

that's the 'header'. 'Missing' is written with capital M.
further down it says

if n_elements(missing) le 0 then missing = 1.0e30

isn't IDL type-sensitive?

2) then it says

if n_elements(missing) gt 0 then begin
    good = where(mag lt missing)
    if keyword_set(dots) then bad = where(mag ge missing, nbad)

```
endif else begin
    good = lindgen(n_elements(mag))
endelse
```

Strange! this if-block is totally unessesary, i believe how can 'missing' not be greater than 0? if it's not set (or set to a negative number) in the procedure call, its value is set to 1.0e30 (which is obviously greater than 0). and if it's set, it's set to a positive number. so how can it *not* be greater than 0?

any remarks?

Lasse Clausen

Subject: Re: problems with VELOVECT
Posted by Lasse Clausen on Tue, 21 Aug 2001 16:02:53 GMT
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Guess who!?

well, it turned out to be a stupid programming error on my side (who hadn't expected that?) - please, forgive me for wasting your time.

anyway, I still hav the question about the if-block. I would be very gratefull if anybody explained its sense to me.

thanks
Lasse Clausen

Subject: Re: problems with VELOVECT
Posted by James Kuyper on Tue, 21 Aug 2001 16:34:09 GMT
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Lasse Clausen wrote:
...
> if n_elements(missing) le 0 then missing = 1.0e30
>
> isn't IDL type-sensitive?

No.

> if n_elements(missing) gt 0 then begin
>   good = where(mag lt missing)
>   if keyword_set(dots) then bad = where(mag ge missing, nbad)

> endif else begin
>   good = lindgen(n_elements(mag))
> endelse
>
> Strange! this if-block is totally unessesary, i believe how can
> 'missing' not be greater than 0? if it's not set (or set to a negative

It is 'n_elements(missing)' that is being compared with 0, not 'missing'
itself.