Subject: Re: Counting the number of iregular value in regular grid Posted by jkj on Sun, 27 May 2007 11:25:46 GMT

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On May 26, 1:04 am, Nick < jungbin...@hotmail.com> wrote:
> I was trying to count the number of irregular data in regular grid.
> I made code but it's too slow to calculate my lots of data.
> Could you give me some advice to make this code more faster?
> Thank you, Jungbin
>
 ;1 X 1 Grid
> glon = -179.5 + findgen(360)
 glat = 89.5 - findgen(180)
>
        for j = 0, 359 do begin
>
         if [ (lon(x)-0.5 \text{ ge glon(j)}) and (lon(x)+0.5 \text{ lt glon(j)}) ]
 then begin
         for k = 0, 179 do begin
>
           if [(lat(x)+0.5 le glat(k))] and (lat(x)-0.5 gt)
>
  glat(k)) ] then begin
            if (finite(value(j,k)) eq 1) then nn(j,k) = nn(j,k)
>
> +1
>
           endif
         endfor ;k
>
         endif
I think your comparison logic is backwards (won't you always end up
with a null set?), so I changed the comparisons, so my suggestion:
lowlon = lon - 0.5
highlon = lon + 0.5
lowlat = lat - 0.5
highlat = lat + 0.5
i_loop = where(lowlon[x] le glon and highlon[x] gt glon)
if(j_loop[0] ge 0)then begin
 k_loop = where(lowlat[x] le glat and highlat[x] gt glat)
 if(k_loop[0] ge 0)then begin
  ; ...now you have a list of j and k indices which
     meet your criteria
 endif
endif
...I'm actually not certain how to gracefully use the resulting j_loop
and k_loop arrays to index the value and nn arrays... there must be
some slick array method to do that, however
-Kevin
```