Subject: Re: Matching Lats and Lons from two arrays
Posted by Juggernaut on Tue, 26 Aug 2008 16:58:57 GMT
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On Aug 26, 12:11 pm, Brian Larsen <balar...@gmail.com> wrote:
> I have tried this on several occasions (for a little different
> application but I think its the same) and have had no luck eliminating
> the for loop, so I just wrote it in a function to hide it from
> myself. This is my try at this based on value
locate:http://people.bu.edu/balarsen/Home/IDL/Entries/2008/1 /7_round2array_(...
>
> If others know how to eliminate the for loop that would be fantastic.
>
> Cheers,
>
> Brian
>
> --- -------------
> Brian Larsen
> Boston University
> Center for Space Physicshttp://people.bu.edu/balarsen/Home/IDL

Not sure if the following is what you're looking for but first off you
have in your one line
FOR K = 0, CLOSE_LATS DO BEGIN
which doesn't make sense based upon what search2d returns (an array)
maybe it was really n_elements(CLOSE_LATS)?...I don't know
But maybe the following will lead you to the promise land or far far
away from it

Well I'd say if you're dlat(192,139) means that you have 139 lats for
each of the 192 columns then you could do something like
CS_LATLON(0,4607)
dlat(192,139)
x2 = rebin(reform(dlat[0,*],139),139,4607)
x3 = rebin(reform(CS_LATLON,1,4607), 139,4607)
indices = where(abs(x3-x2) LT 1e-4)
x2[indices] gives the matching lats to within 1e-4
In the end something like
ncols = n_elements(dlat[*,0])
nrows = n_elements(dlat[0,*])
nels = n_elements(CS_LATLON)
for i = 0, ncols-1 do begin
  x2 = rebin(reform(dlat[i,*],nrows),nrows,nels)
  x3 = rebin(reform(CS_LATLON,1,nels), nrows,nels)
  indices = where(abs(x3-x2) LT 1e-4)
  vals = x2[indices]
  ;- Now you can print these vals or store them to an array or

whatever
endfor
Just repeat for the lons...still has for loops but I'm pretty sure
that works. I did a simple test on a 5x5 compared to a 1x25.
If it doesn't....I never did this.
Hope this helps eliminate some loops anyway....and actually is
relevant.