Subject: matching irregular data sets
Posted by Steve W. Nesbitt on Wed, 07 Nov 2001 23:45:55 GMT
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Howdy,

This may or may not be a dumb question. I am working on matching two
irregularly-spaced remote sensing data sets, specifically doing a
nearest-neighbor or bilinear interpolation of one data set to another.
I have written a routine to do this, but it is painfully slow since the
arrays I'm matching are lat/lon grids [400,3000]. I have searched the
manual ad nauseum! for an IDL canned routine to do this, but they seem
to require that the output grids be regularly spaced. I would like the
output to be gridded to the second irregular grid, and it would be nice
if it would return the indices of the original grid in the output. Let
me know if one of you IDL gurus can help me out on this one.

Many thanks,
-Steve

_____ _____
Steve Nesbitt   135 S 1460 E WBB Rm. 806C
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Tropical Convection Research Group   Phone: 801-581-3458
University of Utah-Department of Meteorology   Fax: 801-585-3681
            http://www.met.utah.edu/zipser/nesbitt

Subject: Re: matching irregular data sets
Posted by Pavel A. Romashkin on Thu, 08 Nov 2001 20:39:23 GMT
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Is BILINEAR(P, X, Y) of any use? Or is it the one that is so slow?

Pavel

"Steve W. Nesbitt" wrote:
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> Many thanks,
> -Stevee

Subject: Re: matching irregular data sets
Posted by air_jlin on Fri, 09 Nov 2001 01:25:30 GMT
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hi Steve,

i'm not an idl guru, but my experience with interpolating large fields
is that it's just plain slow (i've tried a couple methods).

if you're interested in how i did my near neighbor, you can see it at:

   http://www.johnny-lin.com/lib.html#atmos

it's called NN_INTERP, and isn't the prettiest, but it seems to work.
the main slow down is that it calculates the distances between *all*
possible location pairs, since i wanted the procedure to be able to
accomodate irregular input and output grids. if you have a timeseries
of fixed grids, you can speed things up tremendously by precalculating
the distances (the procedure has that option in it).

hope this helps!

best,
-Johnny

Johnny Lin
CIRES, University of Colorado
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Web: http://cires.colorado.edu/~johnny/

"Steve W. Nesbitt" <snesbitt@met.utah.edu> wrote in message
news:<3BE9C7B3.DE76D102@met.utah.edu>...
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