Subject: Re: GRIDDATA woes
Posted by David Fanning on Tue, 04 Mar 2008 19:49:54 GMT
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Kenneth P. Bowman writes:

> This problem looks just like the one David Fanning was working
> on recently, and here is an outline of the solution
>
>> Assuming that your data is 2-D (x = longitude and y = latitude), create
>> the grids that you want to interpolate to
>> nx = 360
>> ny = 181

>> Compute the "interpolation coordinates" from the original grid

>> yj = j + (y - y_original[j])/(y_original[j+1] - y_original[j])

This works OK, I think, if the values you wish to interpolate
to are completely contained within the bounds of the original
vectors. But, suppose the original array was 180x90 and
I want to interpolate from 360x180. Then, the beginning
and ending values in the vectors I want to interpolate to
are outside the bounds of the original vectors. When
I go to find the "interpolation coordinates", I encounter
divide by zero errors and get infinities in my vectors.

Do you have a way of handling this situation? I mention
this because in the perverse CCCMA climate model I am
using, the longitude vector is evenly spaced, *except*
for the two values at either end of the vector. (Don't
ask me, I have no idea.) My "regularly spaced" interpolation
vector blows up on me at either end.

Cheers,

David

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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")