Subject: Re: Unable to get GRIDDATA Function to Work Properly
Posted by Jeremy Bailin on Tue, 16 Aug 2011 16:32:23 GMT
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On 8/15/11 10:01 PM, Jon wrote:
> Hello IDL'ers
>
> I'm trying to do some interpolation with the GRIDDATA function.
>
> I have a regular lon/lat grid spanning the globe, consisting of values
> that are either 0 or 1. I am trying to interpolate these values to an
> irregular lon/lat grid spanning much of the U.S.
>
> Trouble is, no matter what I do, I cannot get the routine to give me a
> 1, where they clearly should exist. For a simple example, on my global
> grid, all points surrounding -115 W, 35 N are 1, but when I run (where
> testGrid is my global grid):
>
> myGrid = GRIDDATA(Lon, Lat, testGrid, /GRID, XOUT=[-115.0],
> YOUT=[35.0])
>
> I get a 0. Shouldn't this routine interpolate a value of 1 at this
> point?
>
> Thanks,
> JonR

I haven't done it, but based on the help page I'd guess that you might
want to use /SPHERE and /DEGREE.

-Jeremy.

Subject: Re: Unable to get GRIDDATA Function to Work Properly
Posted by Jon on Wed, 17 Aug 2011 00:29:54 GMT
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On Aug 16, 10:32 am, Jeremy Bailin <astroco...@gmail.com> wrote:
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>
>
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> -Jeremy.

Those seemed like reasonable suggestions, but unfortunately they did
nothing for me =(

Subject: Re: Unable to get GRIDDATA Function to Work Properly
Posted by Klemen on Wed, 17 Aug 2011 11:40:52 GMT
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>> want to use /SPHERE and /DEGREE.
>
>> -Jeremy.
>
> Those seemed like reasonable suggestions, but unfortunately they did
> nothing for me =(

Ty it again. Use a combination of TRIANGULATE and GRIDDATA - an
example below (with a link to discussion about reprojection). But be
aware - this might be very slow if working with large datasets. If you
don't have many points to interploate it would make sense to select
the area around each point and use only the closest points for
interpolation. You can of course use also some other method instead
of /NEAREST_NEIGHBOR.
Cheers, Klemen

TRIANGULATE, lon, lat, trg, SPHERE=sphere, /DEGREES, FVALUE=testgrid
mygrid = GRIDDATA(lon, lat, m_testgrid, /SPHERE, /DEGREES, /

NEAREST_NEIGHBOR, TRIANGLES = trg, /GRID, XOUT=[-115.0], YOUT=[35.0])

http://groups.google.com/group/comp.lang.idl-pvwave/browse_thread/thread/688e9587fa29ecb7/2f7820d787d6047f?hl=en&lnk =gst&q=#2f7820d787d6047f