Subject: Re: what is the best way to do a surface (or 2D) interpolation?
Posted by Brian Larsen on Tue, 23 Sep 2008 16:54:58 GMT
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I think what you are looking for is krig2d. Look it up in help. The only annoyance is that it is either looking for a regular grid (which I think you have) or x,y,z triplets. I have never figured out how to make x,y,z triplets other than using nested for loops to step through the points.

From here read the krig2d help and work through the example there and see if that solves your issue. If not let me know whats not working and I'll see if I can help more.

One word of caution is that interpolation is great "inside" the range where you have data, however "outside" the region is extrapolation and is fraught with issues. I mean that your x's
IDL> print,vz
-1.62839 -1.23045 -0.628389 -0.327359 0.0483046 0.246672
and the new x's that you want
newx = [-2.0, -1.5, -1.0, -0.5, 0.0, 0.5]
some are outside and you need to be a little careful that the answer actually makes sense as if often (maybe stronger than often) doesn't.

Cheers,

Brian

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