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Subject: Re: data interpolation

Posted by [T Bowers](#) on Thu, 03 Feb 2000 08:00:00 GMT

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Hi Dave,

See IDL's triangulate procedure and trigrd function. use 'em kinda like this:

put your x coordinates (longitude?) in a variable, e.g. xData  
put your y coordinates (latitude?) in a variable, e.g. yData  
put your data values (population, etc.?) in a variable, e.g. zData  
then do...

```
//Create a mesh to interpolate to...  
triangulate, xData, yData, angles, b
```

```
//Use IDL's interpolation function, trigrd  
minX = min(xData, max=maxX, /NaN) & minY = min(yData, max=maxY, /NaN)  
limits = [minX, minY, maxX, maxY]  
zGrid = trigrd(xData, yData, zData, angles, [0,0], limits, $  
    XGRID=xGrid, YGRID=yGrid, MISSING=!Values.F_NaN)
```

```
//Now you have gridded data, so see what it looks like...  
surface, zGrid, xGrid, yGrid
```

good luck,  
todd

"David Miller" <[millerdo@erols.com](mailto:millerdo@erols.com)> wrote in message  
news:87a3de\$13g\$1@bob.news.rcn.net...

> I have three data points (corresponding to three cities). I want to find  
the

> interpolated value at a point within the triangle defined by the three  
> cities. Is there an interpolation routine built into IDL for this task?

>

> Thanks,

> Dave

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> --

> David O. Miller

> SSAI - NASA/Goddard Space Flight Center

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