
Subject: Re: Irregular data... IDLgrContour vs. contour
Posted by [Paul Selby](#) on Wed, 16 Mar 2005 21:57:43 GMT
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jamiesmyth_uni@yahoo.ca wrote:

```
> Hi all,  
>  
> I'm a little stuck using IDLgrContour with irregular data. In direct  
> graphics I would simply type:  
>  
> contour, zdata, xdata, ydata, /irregular, yrange=[0,60], nlevels=8  
>  
> where:  
>  
> XDATA      FLOAT    = Array[113]  
> YDATA      DOUBLE   = Array[113]  
> ZDATA      DOUBLE   = Array[113]  
>  
> Of course, IDLgrContour doesn't accept the /irregular keyword... must I  
> grid the data myself? If so, can anyone point me to a good gridding  
> routine? I notice that iconour brings up a 'gridding wizzard'...  
>  
> Thanks,  
> Jamie
```

I needed to do something similar at work.

I used TRIANGULATE to get triangles which I then converted to a connectivity for IDLgrContour. I don't have the code with me here but the following seems to do the trick

```
; get some irregular data  
; irreg_grid1.txt comes with IDL 6.1 not sure about other versions  
filename = filepath("irreg_grid1.txt", subdirectory = ['examples', 'data'])  
data = fltarr(3, 105)  
openr, lun, filename, /get_lun  
readf, lun, data  
free_lun, lun  
x = reform(data[0, *])  
y = reform(data[1, *])  
z = reform(data[2, *])  
  
; construct polygon list  
triangulate, x, y, tri  
dims = size(tri, /dimensions)  
poly = lonarr(4, dims[1])  
poly[0, *] = 3
```

```
poly[1:3, *] = tri
poly = reform(poly, n_elements(poly), /overwrite)

; display contours in Object and Direct graphics
cont = obj_new('IDLgrContour', z, geomx = x, geomy = y, polygons = poly)
xobjview, cont
contour, z, x, y, /irregular
```

Hope this helps
Paul
