Subject: Re: problem with TRIANGULATION option in CONTOUR
Posted by ben.bighair on Sat, 23 Oct 2010 22:52:29 GMT
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On 10/23/10 8:35 AM, Ardhuin wrote:
> Dear all,
> I have been having problems with plotting output of a numerical model
> that uses unstructured grids using IDL: this model computes wave
> heights in the ocean. If I use the set of triangles from the model, I
> get really funny errors:
> Out of range subscript encountered:<LONG Array[66453]>.
> although I only have 9626 points and about 16000 triangles.
>
> The command I use is
> CONTOUR,tablep,x,y,$
> xstyle=5,ystyle=5,/FOLLOW,/CELL_FILL, TRIANGULATION=tri,
> $
> C_COLOR=colorind(0:c_numlev-2+addmini+addmaxi), $
> LEVELS=lev,/
> NOERASE,TITLE=title,CLIP=[rangex(0),rangey(0),rangex(1),rang ey(1)], $
> XRANGE=rangex,YRANGE=rangey,MAX_VALUE=maxval, $
> POSITION=[blx*winx/mwinx,bly*winy/mwiny,trx*winx/
> mwinx,try*winy/mwiny]
>
> Where tablep , x and y
> If I first do TRIANGULATE,X,Y,tri then the contours comes out OK...
> but they cut out through land boundaries and islands.
>
> So I was thinking: my triangles must be wrong ...
> but if I do a TRIGRID with my triangles then I can plot nicely with
> TV ...
> array=trigrid(X,Y,tablep,tri,[dx,dy],
> [rangex(0),rangey(0),rangex(1),rangey(1)], $
> MAX_VALUE=maxval)
>
> So my triangles are OK for TRIGRID but not for CONTOUR... How is that
> possible ??
>

Hi,

You might consider running the points through GRID_INPUT first. I
really have no idea if that will help in this case, but it often comes
to the rescue when interpolating.

Cheers,
Ben