Subject: 'tvim' and 'contour' problem.
Posted by D.Kennedy on Fri, 31 Jan 1997 08:00:00 GMT

I have a 2D array that looks like this:
IDL> help, map
MAP   FLOAT   = Array(27, 21)

I used 'tvim' (great library routine) to display this nice image.
As the picture, the 2-D array 'map' is actually a triangulated
surface made from real data points the scale doesn't match when
plotted. The picture goes from 0->27, 0->21, the 'real' scale
from the data points goes from 64->67, -28->-26.

I did this to fix it (brilliant routine TVIM!):
tvim, map, xrange=[l_min, l_max], yrange=[b_min, b_max]

but this means that then a following call to 'contour' will not work
as the scales are now mismatched, I think contour tries to draw
contours at x/y = 0 -> 30 when in fact the 'image' is at x/y = 60-ish.
(Based on no xrange/yrange arguement to TVIM, then the contours are fine.)

I just naively used 'contour, map, /overplot, clevels=clevels' where clevels
is from 'tvim'.

I then tried a method based on an example at the top of 'tvim', namely this:

map_max = max(map) & map_min = min(map) & delim = immx-immn
xrange=[l_min, l_max]
yrange=[b_min, b_max]
range=[map_max,map_min]
x_size = n_elements(map(*,0))
y_size = n_elements(map(0,*))
xx= findrng(xrange, y_size)
yy= findrng(yrange, x_size)

tvim, map, /scale, $
   range = range, clevels=clevels, $
   xrange = xrange, yrange=yrange
contour, map, xx, yy, levels=clevels,/overplot

But this gives me an error too -
% CONTOUR: X, Y, or Z array dimensions are incompatible

I've tried a few quick and dirty attempts to fix this ('axis' etc)
but didn't achieve a result. Anyone see where I'm going wrong?
I'm assuming that TVIM is widely used in conjunction with CONTOUR
and so someone must have a ready answer! ;-)

Thanks for any help. (E-mail replies too please)
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