Subject: Contour
Posted by NOYON Mario on Mon, 17 Mar 1997 08:00:00 GMT
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Is there a way to make a contour manualy with the mouse with IDL.
Does someone thinks that is possible or perhaps one of you has done it
before.

Thanks in advance.

********** *******
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Subject: Re: contour
Posted by Martin Schultz on Thu, 02 Oct 1997 07:00:00 GMT
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R. Bauer wrote:
>
> Hi
>
> Who can explain me the cell_fill flag by contour.
>
> Thanks
>
> --
> R.Bauer
>
> Institut fuer Stratosphaerische Chemie (ICG-1)
> Forschungszentrum Juelich
> email: R.Bauer@fz-juelich.de
Hi Reimar,

cell_fill splits the area to be filled into a number of smaller
cells (I think they are rectangles) instead of using some sophisticated
fill algorithm that uses the outline (contourline) of the area to be
filled. There are occasions when the standard fill produces very weird
results (I encountered these, but forgot how I made it), in these cases
cell_fill will be much more robust. It may be a good idea to try out
both algorithms (with and without cell_fill) if you have contour plots
with a lot of variety, many gaps in the data or other somewhat ill-posed
problems.

Regards,
Martin

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Subject: Re: contour
Posted by hcp on Fri, 03 Oct 1997 07:00:00 GMT
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|> R. Bauer wrote:
|> > Who can explain me the cell_fill flag by contour.
[and Martin Schultz replied]
|> cell_fill splits the area to be filled into a number of smaller
|> cells (I think they are rectangles) instead of using some sophisticated
|> fill algorithm that uses the outline (contourline) of the area to be
|> filled. There are occasions when the standard fill produces very weird
|> results (I encountered these, but forgot how I made it), in these cases
|> cell_fill will be much more robust. It may be a good idea to try out
|> both algorithms (with and without cell_fill) if you have contour plots
|> with a lot of variety, many gaps in the data or other somewhat ill-posed
|> problems.

Also, be warned that in IDL 5.0 the cell_fill keyword does the same
as the fill keyword.

In IDL 5.0.2 /cell_fill is back but has bugs which occur on
map projections (one of the main places where you need cell_fill in
the first place). RSI are aware
of this. The workaround they suggest is to use this short program as
a wrapper around contour.

```
; ********************************************************** **
PRO CONTOUR_CELL, z, x, y, _EXTRA=e
; This program was supplied by RSI as a fix for the bigs in the
; cell_fill algorithm of the contour
```

```
; routine. contour_cell,data,xgrid,ygrid,/cell_fill will work where
; contour ,data,xgrid,ygrid,/cell_fill will not

nx = n_elements(x)              ;Divide a rectangular grid into
                                ;triangles
ny = n_elements(y)
tr = lonarr(6, nx-1, ny-1, /NOZERO)
for iy=0, ny-2 do for ix=0,nx-2 do $ ;Make the triangles
  tr(0, ix, iy) = [0, 1, nx+1, 0, nx+1, nx] + (ix + iy*nx)
                                ;2/cell
CONTOUR, z, x # replicate(1,ny), replicate(1,nx) # y, $
  TRIANGULATION=tr, _EXTRA=e
end
;  ********************************************************** **
```

Hugh

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OBDisclaimer: The views expressed herein are mine, not those of UofE.
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Subject: Re: Contour
Posted by VU KHAC Tri on Fri, 30 Apr 1999 07:00:00 GMT
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Hi,
Suppose you have 2D BW image (0-black, 1-white)

```
img1 = AddBorderToImage(img, 1, 1, 1, 1)
img2 = shift(img1,1,1)
img3 = shift(img1,0,1)
img4 = shift(img1,-1,1)
img5 = shift(img1,0,1)
img6 = shift(img1,0,-1)
img7 = shift(img1,-1,1)
img8 = shift(img1,-1,0)
img9 = shift(img1,-1,-1)
My_Contour = (img1 EQ 1) AND ((img1 NE img2) OR (img1 NE img3) OR (img1 NE
img4) OR ...(img1 NE img())
My_Contour = TrimBorderOfImage(My_Contour, 1,1,1,1)
```

My_Contour now is the image of the contour of BW image.
Regards,
Tri.

> Ciao,
>
> I want to extract the contour of lungs in CT-images. Therefore I created
> an black/white image, where the threshold can be selcted by the user. I
> want to overlay the resulting contour of black/white image with the
> original image. Unfortunatly the returned contour is tiny and is not
> congruent with the original. How can I magnify the contour and fit it in
> the given frame?
> So far my code is looking like that:
>
> contour, contrast,path_xy=x,y,Path_info=pafo
>
> FOR I=0,(n_Elements(pafo)-1) DO BEGIN
> s=[indgen(pafo(I).N),0]
> Ploats,xy(*,pafo(I).Offset + s),/Norm
> ENDFOR
>
> Regards, Ruth
