Subject: Re: IDL contour
Posted by at913 on Tue, 12 Jan 1993 14:39:19 GMT
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In a previous article, apwang@waikato.ac.nz () says:

> Hi,
> Does anyone know how to draw a contour graph in polar
> coordinate system without changing to cartician coordinate
> by using IDL? Any help will be appreciated very much!
>
> Thanx!
>
> Anping Wang
> Email apwang@waikato.ac.nz
>
>
I second the request for polar grid contour/surface routine
--
Mirko Vukovic
University of Wisconsin -- Madison
VUKOVIC@UWMFE.NEEP.WISC.EDU

Subject: Re: IDL contour
Posted by pat on Tue, 12 Jan 1993 16:52:04 GMT
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Mirko Vukovic (at913@cleveland.Freenet.Edu) wrote:

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>> Does anyone know how to draw a contour graph in polar
>> coordinate system without changing to cartician coordinate
>> by using IDL? Any help will be appreciated very much!
> I second the request for polar grid contour/surface routine

 you can't do it directly. what i do is interpolate
my polar grid to a cartesian grid and then contour it. i use
trigrid and triangulate to do the interpolation.
 the problem i still have is that polycontour bites.
if anyone has a color contouring routine which knows how
to handle unclosed contours, please post it. if i'm
feeling inspired one of these days, i translate the NCAR
CONPACK routines into IDL. they're ugly but they do
the job.

pat

--
"I have a cunning plan." -- Baldric

patrick m. ryan
nasa / goddard space flight center / oceans and ice branch / hughes stx
pat@jaameri.gsfc.nasa.gov / zmpmr@charney.gsfc.nasa.gov

Subject: Re: IDL contour
Posted by peba1231 on Tue, 12 Jan 1993 17:54:43 GMT
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In article <1993Jan12.165204.29186@nsisrv.gsfc.nasa.gov>,
pat@gsfc.nasa.gov (patrick m. ryan) writes:

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|> to handle unclosed contours, please post it. if i'm
|> feeling inspired one of these days, i translate the NCAR
|> CONPACK routines into IDL. they're ugly but they do
|> the job.
|>
|> pat
|>

Could you please send me your routine as soon as you wrote it :-)

Peter

--
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1000 Berlin 10 | e-mail: peba1231@camillo.fb12.tu-berlin.de
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Subject: Re: IDL contour
Posted by turet on Tue, 12 Jan 1993 21:02:29 GMT
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In article <1993Jan12.165204.29186@nsisrv.gsfc.nasa.gov> pat@gsfc.nasa.gov (patrick m. ryan) writes:
> Mirko Vukovic (at913@cleveland.Freenet.Edu) wrote:
>
>> In a previous article, apwang@waikato.ac.nz () says:
>>> Does anyone know how to draw a contour graph in polar

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>>> by using IDL? Any help will be appreciated very much!
>> I second the request for polar grid contour/surface routine
>
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> to handle unclosed contours, please post it. if i'm
> feeling inspired one of these days, i translate the NCAR
> CONPACK routines into IDL. they're ugly but they do
> the job.
>

What I've done is use Map_Set using a polar
stereographic projection and then contouring some
data on top of it. In the following example
`matrix1' is a 380 x 15 floating array consisting
of monthly measured heat fluxes at latitudes 50 to
85 deg. N. (see Oort). My data is available on
request. If you just want to try this out, create
an array that varies from about -400 to +400 or so:

```
   restore,'fwall_matrix.dat'
   x = seqa(-180,30,13)
   y = seqa(50.,2.5,15)
   xx = [min(x),x,max(x)]
   yy = [min(y),y,max(y)]
   mostr = ['JAN','FEB','MAR','APR','MAY','JUN',$
 [A'JUL','AUG','SEP','OCT','NOV','DEC']
   lat = 50.5 lon = seqa(-180,30,12)
   latstr = ['55','60','65','70','75','80','85']
   lev = seqa(-400,50,19)
   for iyr=0,25 do begin
      yrstr = '19'+strtrim(iyr+64,2)
      m1 = fltarr(13,15)
      m1(0,0) = matrix1(iyr*12:iyr*12+11,*)
      m1(12,*) = m1(0,*)
      m2 = make_array(15,17,/float,value=min(m1))
      m2(1,1) = m1
      map_set,/stere,90,-180,lim=[50,-180,85,180]
      xyouts,.5,.98,/norm,align=.5,'F!IWALL!N ('+yrstr+') -Wm!E-2!N',chars=1.3
      contour,m2,xx,yy,/follow,lev=lev,/overplot,path='path.dat'
      polycontour,'path.dat'
      contour,m1,x,y,/follow,lev=lev,/overplot
      map_grid,latdel=5,londel=30
      for i=0,11 do xyouts,lon(i),lat,/data,mostr(i),align=.5,$
```

```
 orient=i*30,chars=1.3
      for i=0,6 do xyouts,-180,i*5+55,/data,latstr(i)+'!9%!3N'
endfor
end
```

Good Luck

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(206) 526-6804
~
