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Subject: Filled Contour Plotting  
Posted by [cavanaugh](#) on Tue, 07 Feb 1995 17:44:20 GMT  
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The IDL V3.6 Reference Guide says about the CONTOUR routine (on page 1-49) :

"Contours that are not closed can not be filled because their interior and exterior are undefined. Contours created from data sets with missing data may be closed; many map projections can also produce contours that are not closed. Filled contours should not be used in these cases."

And, of course, I would like to make a filled contour plot, using a data set with missing data and overplotting the contour plot onto different map projections. Has anyone found a way to do this? What about the CLOSED keyword? I found a routine called POLYCONTOUR, but the documentation says that this routine is obsolete.

Any help would be greatly appreciated.

Charles

--  
Charles Cavanaugh  
cavanaugh@ncar.ucar.edu  
NCAR Boulder, CO, USA  
My opinions

"Words are very unnecessary, they can only do harm"  
- Depeche Mode  
"Facts all come with points of view"  
- Talking Heads

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Subject: Re: Filled Contour Plotting  
Posted by [msg5332](#) on Fri, 10 Feb 1995 02:30:31 GMT  
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In article <3h8bhk\$akq@ncar.ucar.edu>, cavanaugh@uars1.acd.ucar.edu (Charles Cavanaugh) wrote:

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```

The /CLOSED keyword seems to work fine and is a nice improvement over the older version of IDL. Just use that and you should be able to fill the open contours which intersect the sides of your map domain.

The IDL contour routine provides a solid color fill or line-pattern fill which works well if you don't mind the way it looks. The line fill pattern works with most if not all of the output devices (like postscript, etc).

POLYCONTOUR seems to still work and is necessary if you want to define your own specific pattern to fill with. The pattern must be 3-d array with 2 or more defined patterns. If you use want to define your own patterns using polyfill, you must first save the contours to a file with the PATH\_FILENAME="your.file" in the contour call. Then call polycontour. For example...

```

;-----
contour, fldplt, xpositions, ypositions, LEVELS = lvls, $
      PATH_FILENAME = 'contours.dat', /CLOSED

pat = bytarr(4,4,2)      ; here we have defined only 2 patterns

pat(0,*,0) = [0, 0, 255, 0]
pat(1,*,0) = [0, 255,255,255]
pat(2,*,0) = [0, 0, 255, 0]
pat(3,*,0) = [0, 0, 0, 0]

pat(0,*,1) = [0, 255, 0, 255]
pat(1,*,1) = [0, 0, 255, 0]
pat(2,*,1) = [0, 255, 0, 255]
pat(3,*,1) = [0, 0, 0, 0]

```

```

POLYCONTOUR, "contours.dat", /DELETE_FILE, PATTERN = pat
;-----

```

The only problem with defining your own patterns is that they won't be printed correctly if you use postscript. One way around this is to plot to

the Z-buffer and then TVrd the Z-buffer and save the image to postscript.  
I think the HP device has some built-in patterns but I haven't tried that  
yet. Does anyone else have solutions to the printing problem?

- Matt Gilmore

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