Subject: filled contour workaround
Posted by caron on Wed, 01 Mar 1995 22:49:59 GMT
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After putting up with filled contours not working correctly,
I finally stumbled upon a work-around. I am plotting global data
with a world map in /cylindrical projection. So what I used to
do was:
1) call map_set to establish coord.system
2) call contour to draw filled contours, using /overplot
3) call map_continents to put world map on top
only trouble is, often but not always some of the contours would not fill in.
RSI fixed some of the problem in a release, but it has never worked right.

Here's the workaround:
1) call map_set to establish coord. system
2) call contour to draw filled contours, without /overplot: now the
contours are filled correctly, apparently because you let contour routine
establish its own coord. system
3) call map_set again, guessing at the values that make its coord
system the same as the one mysteriously selected by contour
4) call map_continents to put world map on top

Heres the workaround code. the last three lines to contour are new:

```
  ; establish projection
  map_set, /cylindrical, /noerase, color = 1, limit = limits, /noborder

  if cc_contour_filled then begin
     contour, arr, cc_lon(cc_lon0:cc_lon1), cc_lat(cc_lat0:cc_lat1), $
        levels = cc_contour_levels, $
        c_colors = cc_contour_colors, color = 1, $
        max_value = imd_missing_data, $
;       /overplot, /fill, /follow, /closed, /noerase
        xmargin = [0,0], ymargin = [0,0], $
        xstyle =4, ystyle = 4, $
        /fill, /follow, /closed, /noerase

     ; draw the continents on top of contours
     ; some funny bug: must "guess" at contour parameters
     map_set, /cylindrical, title = plot_title(level_name(cc_pv_lev_idx)), /noerase, $
        color = 1, limit = limits, $
        xmargin = [4,4], ymargin = [3,3]
     map_continents, color = cc_map_color_idx, mlinethick=1
```

Maybe someone can improve on this workaround. The problem is that the coord system
is only approximately the same (within a charactor!!). I tried manipulating !x.s and

!y.s but it didnt seem to work.

Subject: Re: filled contour workaround
Posted by afl on Thu, 02 Mar 1995 00:17:27 GMT
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In article <3j2tmn$h1m@ncar.ucar.edu>, caron@acd.ucar.edu (John Caron) writes:
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I would simply use the /cell_fill option with contour.
This seems to solve many of the problems previously encountered with /fill.
NOTE: Don't use /follow with /cell_fill!

Here is a simple example, but cell_fill should handle even tougher cases than this.

```
data = dist(91)
x = indgen(91)*4 - 180.
y = indgen(91)*2 -  90.

c_colors = indgen(12)+82   ; Choose your own colors!!
levels = indgen(12)*6

map_set, /cyl, /cont, /grid
contour, data, x, y, levels=levels, c_colors=c_colors, /cell_fill, /over
map_continents
map_grid
```

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