
Subject: Re: Overlay multiple filled contour plots?
Posted by [Sarah](#) on Thu, 10 Nov 2005 02:47:24 GMT
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Thanks Peter,

This has helped alot. You were right in assuming that 'some other variable' is defined and to be plotted over both land and sea, but does not fill the entire region. And further I had hoped to overlay several (non-overlapping) filled variables in the plot. Creating the colour table and appropriately filling a 'plot_array' works well. I will certainly use this in the future.

Unfortunately, I want to make use of the map projections and continents within the mapping routines as well!

The solution I've come up with is to use tvrd to capture each screen I want, then merge them together, in a similar fashion as you suggested above.

It's a bit clunky, but this is the script I came up with:

```
map_set,cen_lat,cen_lon, $
  limit = [min(xlat), min(xlong), max(xlat), max(xlong)], $
  /lambert, /continents

;get terrain image

contour,hgt,xlong,xlat,levels = [0,1,100,500,750,1000,1500,2000,2500],
$
  c_colors = [0,2,4,6,8,10,12,14,15],/fill, /overplot

array_1 = tvrd(true=1)

;get variable points to overlay, in this case xland

plot_points = where(xland ge 2, count)

sxld= size(xland)

plot_array = intarr(sxld[1],sxld[2])
if count ne 0 then plot_array[plot_points] = 1

contour, plot_array, xlong, xlat, levels = [1], $
  c_colors = [0], /fill, /overplot ; plot ocean white

array_points = tvrd()
```

```
points = where(array_points ne 0, count)

; get variable image

contour, xland, xlong, xlat, levels = [2], $
  c_colors = [64], /fill, /overplot

array_2 = tvrd(true=1)

; overlay array_2 onto array_1 at overlay points

if count ne 0 then begin

  array_temp = reform(array_1[0,*,*])
  array_temp[points] = (array_2[0,*,*])[points]
  array_1[0,*,*] = array_temp

  array_temp = reform(array_1[1,*,*])
  array_temp[points] = (array_2[1,*,*])[points]
  array_1[1,*,*] = array_temp

  array_temp = reform(array_1[2,*,*])
  array_temp[points] = (array_2[2,*,*])[points]
  array_1[2,*,*] = array_temp

endif

tv, array_1, true = 1

It seems to do okay!

Cheers, Sarah
```
