Subject: Re: transparent colours for filling contours?
Posted by ngls on Wed, 15 Aug 2001 13:03:46 GMT
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I've done vaguely similar things trying to blend a solid-colour (bitmap) image with a grey-scale image, such that the grey-scale would show through.

I did this by creating the two plots separately, taking (bitmap) images of the plots, converting these plots to HSL colours (from RGB colours) and then modifying the "L" (lightness) value of the colour image.

For instance, you could multiply the L values by 1.5 (say) to wash out the colours (if need be) and then divide by the grey-scale image to darken the colour image where the plot lines were drawn. If you had blacks or dark colours in the colour image you might have to add a constant (0.25 say) to the L values to wash out the colours, and then check for L>1.0

Of course, this only works with bitmap images of the plots and so restricts print quality. No doubt you could do all this much more directly with object graphics (no pun intended).

The code below might give you an idea of what I mean.

Good Luck.

Justin

```
PRO test_colour_merge
 ;Merges a black and white plot, with a colour image

 DEVICE, DECOMPOSED=0

 ;Make some data to plot
 z = SHIFT(DIST(50,50), 25, 25)
 z = SIN(z*2*!PI/max(z))
 x = FINDGEN(1000)*2*!PI/1000

 LOADCT, 0 ;Load grey-scale colours
 ;The COLOR value determines how dark/light the plot lines appear
 PLOT, x, SIN(x), BACKGROUND=255, COLOR=64
 img_grey = TVRD()

 ;Now do the colour
 LOADCT, 34 ;load rainbow colors
 SHADE_SURF, z ;Could probably use IMAGE keyword
 img_colour = TVRD(True=1) ;get the true-colour values

 ;Convert RGB colours to Hue, Lightness, Saturation
```

```
COLOR_CONVERT, img_colour[0,*,*], img_colour[1,*,*], $
img_colour[2,*,*], newH, newL, newS, /RGB_HLS


;newL = newL * 1.5 ;Wash colours by multiplication
newL = newL + 0.25 ;Wash out colours by addition

newL = newL * (img_grey/255.) ;Darken where the plot lines are
;newL = newL / (img_grey/255.) ;Lighten plot lines

;Check for L>1.0 in case of L addition
list = WHERE(newL GT 1.0, count)
if count GT 0 THEN newL[list]=1.0

;Convert back to RGB ready for display
COLOR_CONVERT, newH, newL, newS, R, G, B, /HLS_RGB

LOADCT,0 ;return to grey-scale ready for true-colour
DEVICE, DECOMPOSED=1
;Display the latest image
TV, [R,G,B], TRUE=1

END
```

ahw199@soton.ac.uk (Ann Webber) wrote in
<b73826cc.0108140426.18c18654@posting.google.com>:

> Hi,
> I am plotting contours over a map and I was wondering if there was a
> way of filling the contours so that I can still see the map
> underneath? i.e. I want to be able to see country boundaries
> underneath the filled contours. Is there a colour table that contains
> sone transparent colours? Or is this completely impossible to do?
> Regards
> Ann Webber
