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Subject: Re: Plotting with colorbar

Posted by [David Fanning](#) on Fri, 17 Jan 2014 12:11:33 GMT

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fischertc13@gmail.com writes:

> I have a similar question where I have populated a 2D field with velocity measurements that are assigned a rainbow of colors and want array points that do not have a value to be whited out (or preferably not shown at all). I assign all points without a velocity a NaN value, but that just ends up assigning these points the 0 value in the Rainbow color table I am using.

>

> I can get the valueless array points to be white by instead assigning them some high velocity (i.e. 999999) in the Rainbow+White color table, but I when I try to plot the image as a postscript it instead uses the 254 value right before white which is instead red. Additionally, this puts a white bar at the top of my color bar which is a bit annoying.

>

> Here is what I'm using right now:

>

>

> i = WHERE(field EQ 0.000, count)

> IF (count GT 0) THEN array1[i] = !VALUES.F\_NAN

>

> set\_plot, 'ps'

> !p.font=0

> device, filename='vel\_center.eps',bits\_per\_pixel=8,/portrait,/inches , \$

> xsize = 7.2, ysize = 6./,encapsulated,/color,xoffset=1.0,yoffset=1.0

>

> !p.noerase=1

>

> loadct,39 ;rainbow

>

> tvim,array1,range=[-300,300],POSITION=[.08,.05,.83,.95],/noa xis

>

> fsc\_contour,image,levels=levels,/overplot,color='black',label=0

>

> loadct,0 ; b & w

>

> loadct,39 ;rainbow

>

> FSC\_COLORBAR, POSITION=[0.83,0.05,0.88,0.95], Divisions=4, Minor=5, Format='(F5.0)', Range=[-300, 300],title='Velocity (km/s)',/vertical,/right

>

> device, /close

> set\_plot, 'x'

> loadct,0 ; b & w

>

> Any comments are appreciated!

I would do a couple of things. First, I would update your Coyote Library. It appears to be about five years out of date. Then I would investigate the transparent properties of cgImage, specifically the MISSING keyword:

<http://www.idlcoyote.com/idldoc/cg/cgimage.html>

What you want to do is pretty easy:

[http://www.idlcoyote.com/cg\\_tips/transimage.php](http://www.idlcoyote.com/cg_tips/transimage.php)

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thue. ("Perhaps thos speakest truth.")

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