
Subject: Re: Overplot behalfts strange

Posted by [David Fanning](#) on Wed, 03 Nov 2010 16:51:08 GMT

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sirvival writes:

```
> I am trying to plot an array and then do an overplot with a contour of
> the same data.
>
>
> My code is like this
>
> colors
> y = indgen((ey-5)-(sy+5)+1)+(sy+5)
> window,5,xsize=1280,ysize=1000
> loadct,0
> display,ordim[sx:ex,sy+5:ey-5],x,y,/log,xtitle='Pixel',ytitle='Pixel'
> colors
> contour,ordim[sx:ex,sy+5:ey-5],x,y,nlevels=15,thick=2.5,col= 2,/
> overplot
>
>
> This does not work like I want it too. The contour does not get plotted
> as it seems.
>
> But if I do another plot in advance that looks the same but uses the /
> noerase keyword with contour I get what I am looking for.
> e.g.
> window,0
> display,ordim
> contour,ordim,nlevels=20,/noerase
>
> If I close idl it gets "reseted" and I have to do the /noerase plot
> again to get my plot working.
>
> Its not an big issue but I wonder whats happening.
>
> What I want is:
> http://img841.imageshack.us/img841/9059/contour.jpg
```

Ah, yes, timely question. I am working on this section of my book now. You are going to like it. :-)

The problem you have is that "Display" is probably just displaying an image, not setting up a data coordinate space. Hence, there is nothing for Contour to "overplot" on. No data coordinate space!!

With images, it is typically necessary (because image don't create data coordinate spaces in IDL), to "draw" a data coordinate space over the top of them. We try to do this invisibly, of course, so we usually turn the axes completely off. Your commands should be something like this:

```
contour,ordim[sx:ex,sy+5:ey-5],x,y,nlevels=15,thick=2.5,$
  col=2, xstyle=5, ystyle=5, /nodata
display,ordim[sx:ex,sy+5:ey-5],x,y,/log,xtitle='Pixel',$
  ytitle='Pixel'
contour,ordim[sx:ex,sy+5:ey-5],x,y,nlevels=15,thick=2.5,$
  col=2,/overplot
```

Or, you could just continue to use that NOERASE keyword. That's what I would probably do. You just need to remember to erase your display window before you display your image, since I doubt Display remembers to do that for you either.

By the way, you are doing your contour plots all wrong, too. :-)

<http://www.dfanning.com/documents/tips.html#CONTOURPLOTIPS>

Cheers,

David

--

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
