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Subject: matchup of Map\_set & contour  
Posted by [shson](#) on Wed, 03 Sep 2003 13:37:58 GMT  
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Hello~

I want to overlap contour lines on a map.  
However, I think it doesn't match exactly (I checked the gridlines)..  
especially, as it goes to the edge..  
Could someone know how to fix it?  
Here is an example...

```
;-----  
lon = FINDGEN(91)  
lat = FINDGEN(115)  
x = 17.0 + lon*(1/6.0)  
y = 23.0 + lat*(1/6.0)  
  
seed=1L  
temp = sin(x)^2 * cos(x)  
z = DIST(91,115)  
  
LOADCT, 39  
  
WINDOW,1,TITLE='WORLD MAP',xsize=800,ysize=900  
  
CONTOUR, z, x, y, /Follow, position=[0.1,0.1,0.9,0.9] $  
    , NLevels=20, XStyle=1, YStyle=1, /NoErase, /FILL ;$  
MAP_SET, /CYLINDRICAL, LIMIT=[23.0,17.0,42.0,32.0], /CONTINENTS $  
    , /HIRES, Mlinethick=1., position=[0.1,0.1,0.9,0.9] $  
    , /Noerase;, /ISOTROPIC  
MAP_CONTINENTS, /HIRES,color=255, /FILL_CONTINENTS, /CYLINDRICAL ; /mercator  
MAP_CONTINENTS, /COAST, color=0, /HIRES, /CYLINDRICAL ; /mercator  
MAP_GRID, charsize=1.25, color=100, latdel=2, lonel=2 $  
    , /BOX_axes, GLineStyle=2  
;-----
```

Thank you.  
Sincerely.

Son

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Subject: Re: matchup of Map\_set & contour  
Posted by [shson](#) on Wed, 03 Sep 2003 18:11:59 GMT  
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Thanks a lot!  
Now, it works very well.

When you have a time, please explain why 'contour' line should be after 'map\_set' when you have a time?

Son

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Subject: Re: matchup of Map\_set & contour  
Posted by [David Fanning](#) on Wed, 03 Sep 2003 22:01:04 GMT  
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Son writes:

> When you have a time, please explain why 'contour' line should be  
> after 'map\_set' when you have a time?

This is primarily because the "IDL way" is to fit data to map projections, not to fit map projections to data. In any case, it is the MAP\_SET call that sets up all the data to device coordinate conversion factors, etc. that are needed for overplotting data on the map. This is similar to what happens when you issue a PLOT command.

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: matchup of Map\_set & contour  
Posted by [Chris Lee](#) on Thu, 04 Sep 2003 15:23:55 GMT  
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In article <62cdb6eb.0309031011.6e9ce978@posting.google.com>, "Son" <[shson@darkstar.sr.unh.edu](mailto:shson@darkstar.sr.unh.edu)> wrote:

- > Thanks a lot!
- > Now, it works very well.
- > When you have a time, please explain why 'contour' line should be after
- > 'map\_set' when you have a time? Son

Try setting the map projection to anything other than mercator (try /goodes) and remove the limit. Plotting the contour before using map\_set causes a map to be drawn over the unprojected contour.

Contur (ing) after the map\_set (with the /over keyword) tells IDL to use the graphics projection that you have already set up.

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