
Subject: Wrapping image on polar projection
Posted by [Vinay](#) on Wed, 26 Feb 2014 20:58:46 GMT
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Hi folks,

Was anyone out there successful in wrapping images on polar projection using 'cg' routines. Most of the other examples essentially uses cgContour. OK here is where, I got stuck.

My data is similar to the example given in
http://www.idlcoyote.com/map_tips/warptomap.php

-----My code-----

```
Filein = 'test1.sav'
```

```
RESTORE, Filein
```

```
Help, image, lats, lons
```

```
S = Size(image)
```

```
lat = Rebin(lats, s(1), s(2))
```

```
lon = Rebin(lons, s(1), s(2))
```

```
image1 = Bytscl(image,min = 0.0, max = 0.15,/NaN )
```

```
cgDisplay, Title='Polar Projection'
```

```
map = Obj_New('cgMap', 'Polar Stereographic', LIMIT=[60, -180, 90, 180], Center_Lat=90,  
Center_Lon=180, POSITION=[0.05, 0.05, 0.95, 0.95])
```

```
warped = cgWarpToMap(Image1, lon, lat, MAP=map, MISSING=0, Resolution=[400, 300],  
/SetRange)
```

```
cgImage, warped, Position=[0.1, 0.1, 0.9, 0.9]
```

```
cgMap_Grid, Map=map, /Label, Color='Blue'
```

```
cgMap_Continents, MAP=map, Color='Blue'
```

```
cgMap_Continents, MAP=map, Color='Blue', /Countries
```

It will be great, if anyone has any suggestions!!

Thanks,

Vinay

Subject: Re: Wrapping image on polar projection
Posted by [David Fanning](#) on Wed, 26 Feb 2014 21:10:38 GMT

Vinay writes:

> Was anyone out there successful in wrapping images on polar projection using 'cg' routines. Most of the other examples essentially uses cgCoutour. OK here is where, I got stuck.

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> http://www.idlcoyote.com/map_tips/warptomap.php
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> image1 = Bytscl(image,min = 0.0, max = 0.15,/NaN )
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> cgMap_Continents, MAP=map, Color='Blue'
> cgMap_Continents, MAP=map, Color='Blue', /Countries
> -----
>
> It will be great, if anyone has any suggestions!!
```

Have you read this article:

http://www.idlcoyote.com/code_tips/usegriddata.html

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: Wrapping image on polar projection
Posted by [Vinay](#) on Wed, 26 Feb 2014 21:23:24 GMT
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On Wednesday, February 26, 2014 12:10:38 PM UTC-9, David Fanning wrote:

> Vinay writes:

>

>

>

>> Was anyone out there successful in wrapping images on polar projection using 'cg' routines.
Most of the other examples essentially uses cgCoutour. OK here is where, I got stuck.

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>

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>

>>

>

>>

>

>> -----My code-----

>

>> Filein = 'test1.sav'

>

>> RESTORE, Filein

>

>> Help, image, lats, lons

>

>>

>

>> S = Size(image)

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>> lat = Rebin(lats, s(1), s(2))

>

>> lon = Rebin(lons, s(1), s(2))

>

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>

>>

>

>> cgDisplay, Title='Polar Projection'

>

>>

>

>> map = Obj_New('cgMap', 'Polar Stereographic', LIMIT=[60, -180, 90, 180], Center_Lat=90,
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```
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>> warped = cgWarpToMap(Image1, lon, lat, MAP=map, MISSING=0, Resolution=[400, 300],
/SetRange)
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> Have you read this article:
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> http://www.idlcoyote.com/code\_tips/usegriddata.html
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>
>
> Cheers,
>
>
>
> David
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")
```

Hi David,

Yes, I know there are other ways to achieve this by using Map_set, Map_Patch, Map_Proj_Init ...etc. I was particularly, interested in using cgWarpToMap and was giving it a try !!!

Thanks,

Vinay

Subject: Re: Wrapping image on polar projection
Posted by [David Fanning](#) on Wed, 26 Feb 2014 21:30:10 GMT
[View Forum Message](#) <> [Reply to Message](#)

Vinay writes:

> Yes, I know there are other ways to achieve this by using Map_set, Map_Patch, Map_Proj_Init ...etc. I was particularly, interested in using cgWarpToMap and was giving it a try !!!

Yes, cgWarpToMap is in a bit of a state. Well, not the one you have, but the one I have. I was trying to incorporate the ideas I talk about in the article I referenced into it, but it is pretty much half there. Well, maybe two-thirds there, and I've run out of time right now to finish it.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: Wrapping image on polar projection
Posted by [David Fanning](#) on Wed, 26 Feb 2014 21:33:10 GMT
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Vinay writes:

> Yes, I know there are other ways to achieve this by using Map_set, Map_Patch, Map_Proj_Init ...etc. I was particularly, interested in using cgWarpToMap and was giving it a try !!!

If you wanted to send me your data, I could run it quickly though my cgWarpToMap and see if it is finished enough for your purposes.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: Wrapping image on polar projection

Posted by [David Fanning](#) on Thu, 27 Feb 2014 13:26:35 GMT

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Vinay writes:

```
>
> Hi folks,
>
>
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>
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> Help, image, lats, lons
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> lat = Rebin(lats, s(1), s(2))
> lon = Rebin(lons, s(1), s(2))
> image1 = Bytscl(image,min = 0.0, max = 0.15,/NaN )
>
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> map = Obj_New('cgMap', 'Polar Stereographic', LIMIT=[60, -180, 90, 180], Center_Lat=90,
> Center_Lon=180, POSITION=[0.05, 0.05, 0.95, 0.95])
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> warped = cgWarpToMap(Image1, lon, lat, MAP=map, MISSING=0, Resolution=[400, 300],
> /SetRange)
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```
> cgImage, warped, Position=[0.1, 0.1, 0.9, 0.9]
> cgMap_Grid, Map=map, /Label, Color='Blue'
> cgMap_Continents, MAP=map, Color='Blue'
> cgMap_Continents, MAP=map, Color='Blue', /Countries
> -----
>
> It will be great, if anyone has any suggestions!!
```

The reason you are not seeing *anything* in your window is that you have resized the latitude array incorrectly. You have this:

```
lat = Rebin(lats, s(1), s(2))
```

And it should be this:

```
lat = Rebin(Reform(lats, 1, s(2)), s(1), s(2))
```

But, your other problem is that cgWarpToMap just doesn't deal well with this kind of very low resolution data near the pole (always problematic). Either of the two methods I outline in this article "work", but I think the data itself limits our ability to get good results.

http://www.idlcoyote.com/code_tips/usegriddata.html

I've sent you a program with the code I wrote to test this.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: Wrapping image on polar projection
Posted by [Vinay](#) on Thu, 27 Feb 2014 17:57:02 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Wednesday, February 26, 2014 11:58:46 AM UTC-9, Vinay wrote:

```
> Hi folks,
>
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>
>
>
```

> Was anyone out there successful in wrapping images on polar projection using 'cg' routines.
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```
>  
> cgMap_Continents, MAP=map, Color='Blue'  
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> cgMap_Continents, MAP=map, Color='Blue', /Countries  
>  
> -----  
>  
>  
>  
>  
> It will be great, if anyone has any suggestions!!  
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>  
>  
>  
>  
> Thanks,  
>  
>  
>  
> Vinay
```

So true, the data is low-resolution and limits the ability to get good results. Yes, the gridded methods 'works' fine with quite acceptable results. Thankyou for your time.

Cheers!!
