Subject: Re: Map an image onto a sphere
Posted by chris_torrence@NOSPAM on Thu, 14 May 2015 14:27:10 GMT
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On Monday, May 11, 2015 at 12:23:02 PM UTC-6, Joe Llama wrote:
> Hi all,
>
> I'm sure this has been answered before but I can't find the answer. I have an array that is 360 x 180 and I want to project it onto a sphere for display purposes. I've had success using the Molleweide projection with the documentation
>
>
> arr = randomu(seed, [360, 180])
> mollmap = IMAGE(arr, $
> LIMIT=[-90,-180,90,180], GRID_UNITS=2, $
> IMAGE_LOCATION=[-180,-90], IMAGE_DIMENSIONS=[360,180], $
> MAP_PROJECTION='Mollweide', rgb_table=13)
>
> But I can't seem to change it so that the projection is onto a sphere instead. Any help would be greatly appreciated. I would also ideally like to be able to specify the central longitude and latitude.

>
> Thanks!

Can you use a Stereographic projection?

```
arr = randomu(seed, [360, 180])
mollmap = IMAGE(arr, $
  CENTER_LONGITUDE=-105, $
  LIMIT=[-90,-185,90,-15], GRID_UNITS=2, $
  IMAGE_LOCATION=[-180,-90], IMAGE_DIMENSIONS=[360,180], $
  MAP_PROJECTION='Stereographic', rgb_table=13)
m = MapContinents(FILL_COLOR='gray')
```

If you change the center lon/lat, you will need to mess with the LIMIT to restrict it to a single hemisphere. Otherwise it starts to look really crazy because of the projection.

Cheers,
Chris