cartopy - set_extent() extending requested boundary

Asked 2 years, 7 months ago Active 2 years, 7 months ago Viewed 4k times

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i'm new to cartopy and still learning basic features.

I tried to plot a specific region however, cartopy extended this region and produced a map going up to approximately 85oN when I requested 80oN. Is there a way I can ensure I only get the region I am interested in?

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```
plt.figure(figsize=(5.12985642927, 3))
ax = plt.axes(projection=ccrs.PlateCarree(central_longitude=-35))
ax.set_extent([-100, 30, 0, 80])
ax.coastlines(resolution='110m')
gl = ax.gridlines(crs=ccrs.PlateCarree(), draw_labels=True,
                  linewidth=2, color='gray', alpha=0.5, linestyle='--')
```

PC regional map

cartopy

asked Apr 18 '17 at 10:55

Ray Bell

473 ● 4 ● 17

2 Answers

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You should make sure to tell the `set_extent` method what coordinate system you are specifying the extents in, in this case:

```
ax.set_extent([-100, 30, 0, 80], crs=ccrs.PlateCarree())
```

This method is preferred in cartopy because it avoids having to use the `set_xlim` / `set_ylim` which always operate in projection coordinates, which can be the cause of much confusion when working with projections other than `PlateCarree()`. Using `set_extent` with an explicit `crs` will always do what you expect regardless of the projection of your plot.

answered Apr 19 '17 at 20:29

ajdawson

1,829 ● 16 ● 26

answered Apr 18 '17 at 11:51

Corinne Bosley

54 • 2

Thanks. Good to know I can pick up some of the matplotlib functions in cartopy. Yes. Adding the ax.set_ylim([0, 80]) got me what what I wanted plt.figure(figsize=(5.12985642927, 3)) ax = plt.axes(projection=ccrs.PlateCarree(central_longitude=-35)) ax.set_extent([-100, 30, 0, 80]) ax.set_ylim([0, 80]) ax.coastlines(resolution='110m') gl = ax.gridlines(crs=ccrs.PlateCarree(), draw_labels=True, linewidth=2, color='gray', alpha=0.5, linestyle='--') imgur.com/a/JYzEm – Ray Bell Apr 18 '17 at 15:01