
Subject: Re: Color data points by 3rd variable
Posted by [morganlsilverman](#) on Thu, 25 Apr 2013 14:37:32 GMT
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On Thursday, April 25, 2013 10:15:49 AM UTC-4, David Fanning wrote:

> Morgan Silverman writes:

>

>

>

>> I'm plotting the latitude and longitude locations of the top 5% of my dataset. I want to color the locations of these data points by corresponding no2 values. I'm having a hard time figuring out how to set up the colorscale and colorbar correctly. I tried something along the lines of

>

>>

>

>> no2temp = no2sorted(0:83) ; only want top 5% of data points (83 values out of 1661)

>

>> NO2colors = no2temp

>

>> NO2colors(*) = 0

>

>> NO2colors = fix(no2temp*255/(max(no2temp)-min(no2temp)))

>

>> cgcolors = cgColor(Bindgen(256))

>

>> NO2colors = cgcolors[NO2colors]

>

>>

>

>> but it doesn't seem to work quite right. I'd like the range to be [1e16, 4e16]. Looking for any insight. Thanks.

>

>

>

> It isn't clear to me if you are plotting **all** the data, but only the

>

> top five percent is colored, or if you just want to plot the top five

>

> percent and you want the data colored. If you want the latter, and

>

> assuming your variables are lon, lat, and temps, I would do it like

>

> this:

>

>

>

> cutoff95 = Max(temps) * 0.95

>

```
> indices = Where(temps GE cutoff95)
>
> lon5 = lon[indices]
>
> lat5 = lat[indices]
>
> temp5 = temps[indices]
>
> colors = BytScl(temp5)
>
> cgPlotS, lon5, lat5, Color=colors
>
>
>
> I may have the cutoff wrong. I'm really not clear what the "top 5% of my
> dataset" means. :-)
>
>
>
> 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.")
```

David,

Thanks for responding. To clarify, it is the latter. I want to plot only the outliers of high values in my dataset and color those. I tried to sort the data and select only the values that were within the highest 5% of all values. I'm not sure I calculated that correctly either.

-Morgan
