
Subject: Re: Color data points by 3rd variable
Posted by [David Fanning](#) on Thu, 25 Apr 2013 14:15:49 GMT
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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.")

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:

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> David
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> David Fanning, Ph.D.
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> Fanning Software Consulting, Inc.
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```

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

Subject: Re: Color data points by 3rd variable

Posted by [morganlsilverman](#) on Thu, 25 Apr 2013 14:45:32 GMT

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Colors=BytScl(temp5) seems to work. That's a lot simpler than I was trying to make it. How would I display a colorbar the corresponds to Colors? Thanks.

Sincerely,
Morgan

On Thursday, April 25, 2013 10:15:49 AM UTC-4, David Fanning wrote:

> Morgan Silverman writes:

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Subject: Re: Color data points by 3rd variable
Posted by [David Fanning](#) on Thu, 25 Apr 2013 14:51:06 GMT
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Morgan Silverman writes:

> Colors=BytScl(temp5) seems to work. That's a lot simpler than I was trying to make it. How would I display a colorbar the corresponds to Colors?

Uh, like this:

```
cgColorbar
```

Set the Range keyword so that it corresponds to your data range.

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.")
