
Subject: Unequally spaced ticklabels with the FSC_COLORBAR function

Posted by [Karlo Janos](#) on Thu, 31 Oct 2013 08:49:09 GMT

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Hi,

I have found an issue with the FSC_COLORBAR function.

I wondered why the ticklabels were not distributed equally in the given range in my example (the line with the "levels" variable is taken from "fsc_colorbar__define.pro"):

```
IDL> minval = 46.8614502
IDL> maxval = 46.8615112
IDL> divisions = 10
IDL> levels = minval >
(INDGEN(divisions+1)*(maxval-minval)/divisions+minval) < maxval
IDL> pm, levels, FORMAT='(F0.6)'
46.861450
46.861458
46.861462
46.861469
46.861473
46.861481
46.861488
46.861492
46.861500
46.861504
46.861511
```

The reason is that when I call the function with "divisions" being an integer the above result occurs. A change to a DOUBLE value yields the correct result:

```
IDL> divisions = 10d0
IDL> levels = minval >
(INDGEN(divisions+1)*(maxval-minval)/divisions+minval) < maxval
IDL> pm, levels, FORMAT='(F0.6)'
46.861450
46.861456
46.861462
46.861469
46.861475
46.861481
46.861487
46.861493
46.861499
46.861505
```

46.861511

IDL>

David, if you are reading this, please consider a floating point variable for the division by the variable "divisions".

Regards

Karlo

Subject: Re: Unequally spaced ticklabels with the FSC_COLORBAR function
Posted by [David Fanning](#) on Thu, 31 Oct 2013 12:11:19 GMT
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Karlo Janos writes:

> David, if you are reading this, please consider a floating point
> variable for the division by the variable "divisions".

Karlo, if you are reading this, please update your Coyote Library to something that is less than 10 years old! :-)

```
minval = 46.8614502  
maxval = 46.8615112  
cgcolorbar, range=[minval, maxval], divisions=10d, format='(F0.6)'
```

You can find the Library here:

http://www.idlcoyote.com/programs/zip_files/coyotelibrary.zip

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: Unequally spaced ticklabels with the FSC_COLORBAR function
Posted by [Karlo Janos](#) on Thu, 31 Oct 2013 13:30:11 GMT

Hehe, nice joke. Actually I downloaded your library yesterday just to make sure that I _have_ the latest version. ;)

Anyway, if I understand your humorous hint correctly I should use "cgcolorbar".

A quick check showed me that

```
cgcolorbar, range=[minval, maxval], divisions=10
```

and

```
cgcolorbar, range=[minval, maxval], divisions=10d
```

yield the same results.

Thanks for your reply!

Regards

Karlo

31.10.2013 13:11, David Fanning:

> Karlo Janos writes:

>

>> David, if you are reading this, please consider a floating point

>> variable for the division by the variable "divisions".

>

> Karlo, if you are reading this, please update your Coyote Library to

> something that is less than 10 years old! :-)

>

> minval = 46.8614502

> maxval = 46.8615112

> cgcolorbar, range=[minval, maxval], divisions=10d, format='(F0.6)'

>

> You can find the Library here:

>

> http://www.idlcoyote.com/programs/zip_files/coyotelibrary.zip

>

> Cheers,

>

> David

>

>

>