
Subject: Re: COLORBAR label too long
Posted by [rchughes](#) on Fri, 17 Aug 2007 17:45:34 GMT
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Please disregard my diagram, it didn't come out properly. Just try the code and you will see what happens.

Ryan.

Subject: Re: COLORBAR label too long
Posted by [Paul Van Delst\[1\]](#) on Fri, 17 Aug 2007 17:54:54 GMT
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Ryan. wrote:

```
> Dear All,
>
> I have created a nice-looking plot with a color bar on the top but the
> labels extend too far past the end of the bar. My plot is positioned
> in the bottom 80% of the window and the color bar is in the top 20%
> (using the POSITION keywords). The array of values I give to the
> COLORBAR procedure extends beyond the end of the bar.
>
> Here is a diagram of what happens:
>
> 1 2 3 4 5 6 7 8 9 0  <-labels
> -----
> -----             <-colorbar
>
> |                   |
> |                   |   <-plot
> |                   |
> |                   |
> |                   |
>
> Here is my code:
> PLOT, FINDGEN(10), POSITION=[0.05, 0.05, 0.95, 0.82]
>
> ticks = (SINDGEN((clrTableLength/5)+1)*5)-(clrTableLength/2)
>
> COLORBAR, BOTTOM=0, NCOLORS=clrTableLength, /TOP, $
> TICKNAMES=ticks, COLOR=black, DIVISIONS=(clrTableLength/5), $
> POSITION=[0.07, 0.87, 0.93, 0.95]
>
> 'clrTableLength' is the length of a color table I created. Currently
> I am using a table of length 100 (i.e. clrTableLength=100)
```

Shouldn't "divisions" = (clrTableLength/5)+1 ?

cheers,

paulv

Subject: Re: COLORBAR label too long

Posted by [David Fanning](#) on Fri, 17 Aug 2007 18:10:24 GMT

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Ryan. writes:

> I have created a nice-looking plot with a color bar on the top but the
> labels extend too far past the end of the bar. My plot is positioned
> in the bottom 80% of the window and the color bar is in the top 20%
> (using the POSITION keywords). The array of values I give to the
> COLORBAR procedure extends beyond the end of the bar.
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> Here is my code:
> PLOT, FINDGEN(10), POSITION=[0.05, 0.05, 0.95, 0.82]
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>
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> TICKNAMES=ticks, COLOR=black, DIVISIONS=(clrTableLength/5), \$
> POSITION=[0.07, 0.87, 0.93, 0.95]
>
> 'clrTableLength' is the length of a color table I created. Currently
> I am using a table of length 100 (i.e. clrTableLength=100)

Your strings are longer than you think they are. :-)

Try this command instead:

```
ticks = StrTrim((SINDGEN((clrTableLength/5)+1)*5)-(clrTableLength/2) ,2)
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: COLORBAR label too long

Posted by [rchughes](#) on Fri, 17 Aug 2007 18:30:22 GMT

> Try this command instead:
>
> ticks = StrTrim((SINDGEN((clrTableLength/5)+1)*5)-(clrTableLength/2) ,2)

Thanks David, It looks beautiful now.

Ryan.

Subject: Re: COLORBAR label too long
Posted by [rchughes](#) on Fri, 17 Aug 2007 20:36:48 GMT
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All of a sudden I am getting labels with 4 digits after the decimal.
So now they are overlapping one another. Before I didn't have any.
Does anyone know why this would happen? It worked fine after I put in
the STRTRIM function and then I was working on something else (my
function that created the particular color table for this routine). I
know this is vague but am I missing any intricacy of IDL or did I
accidentally change something?

```
ticks = StrTrim((SINDGEN((clrTableLength/5)+1)*5)-(clrTableLength/2) ,  
2)    <- David's line of code  
ticks = STRTRIM((SINDGEN((clrTableLength/5)+1)*5)-(clrTableLength/2) ,  
2)    <- My line of code
```

Thanks,
Ryan.

Subject: Re: COLORBAR label too long
Posted by [David Fanning](#) on Fri, 17 Aug 2007 21:03:37 GMT
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Ryan. writes:

> All of a sudden I am getting labels with 4 digits after the decimal.
> So now they are overlapping one another. Before I didn't have any.
> Does anyone know why this would happen? It worked fine after I put in
> the STRTRIM function and then I was working on something else (my
> function that created the particular color table for this routine). I
> know this is vague but am I missing any intricacy of IDL or did I
> accidentally change something?
>
> ticks = StrTrim((SINDGEN((clrTableLength/5)+1)*5)-(clrTableLength/2) ,
> 2) <- David's line of code

```
> ticks = STRTRIM((SINDGEN((clrTableLength/5)+1)*5)-(clrTableLength/2) ,  
> 2)    <- My line of code
```

This all has to do with the "natural length" of a number and how these numbers are converted to strings. It can be a mess. :-)

My guess is that one of your numbers changed from an integer to a float, and it is that number you are using in your strings.

My suggestion would be to use a program like NUMBER_FORMATTER, which takes some of the mystery out of what you are going to end up with. Or, alternatively, you can convert your numbers to strings with the STRING function and the proper FORMAT keyword. (Good luck!)

http://www.dfanning.com/programs/number_formatter.pro

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: COLORBAR label too long

Posted by [David Fanning](#) on Sat, 18 Aug 2007 13:43:04 GMT

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David Fanning writes:

```
> My suggestion would be to use a program like NUMBER_FORMATTER,  
> which takes some of the mystery out of what you are going  
> to end up with. Or, alternatively, you can convert your numbers to  
> strings with the STRING function and the proper FORMAT  
> keyword. (Good luck!)  
>  
> http://www.dfanning.com/programs/number\_formatter.pro
```

While this suggestion could be followed, it was a little awkward, since NUMBER_FORMATTER was not set up to accept arrays of numbers. Plus, this discussion pointed out a couple of unanticipated weaknesses in the program. All of these deficiencies have been addressed this morning. You can find a new version in the usual place. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
