
Subject: logarithmic colorbar

Posted by [simona bellavista](#) on Mon, 03 Feb 2014 15:43:24 GMT

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I am trying to make a logarithmic colorbar. I am not entirely sure this is correct.

The variable a that I am plotting as a shade of color is actually a $\log_{10}(a)$. In the colorbar I would like to have a logarithmic axis. I do the following:

```
colors = bytscl(aalog10(a))
```

```
plot, x, y, /nodata
```

```
for i = 0, n_elements(x) plots, x[i], y[i], color=colors[i], psym=4
```

```
vtick = aalog10(2e3*dindgen(5)+1e3)
```

```
colorbar, range = [min(aalog10(a)),max(aalog10(a))], orientation=1, tickvalues=vtick,  
tickname=string(tickvalues,format='(I6)')
```

and the ticks are created as usually equi-spaced and they are actually 7.

And also the option orientation does have any effect and I can't get the bar on the side, but instead it is on the top inside my plot, how do I get it to stay on the side? I think the problem is that when plot is called it fills the whole window and no space is left.

Subject: Re: logarithmic colorbar

Posted by [David Fanning](#) on Mon, 03 Feb 2014 15:54:43 GMT

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simona bellavista writes:

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This article might help:

http://www.idlcoyote.com/graphics_tips/logcb.html

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: logarithmic colorbar

Posted by [simona bellavista](#) on Mon, 03 Feb 2014 17:43:46 GMT

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Dear David,

your answer are always resolute.

I just want to point out to hypothetical future readers that in order to fit the color bar I changed the margins with with xmargin.

On Monday, 3 February 2014 16:54:43 UTC+1, David Fanning wrote:

> simona bellavista writes:

>

>

>

>>

>

>> I am trying to make a logarithmic colobar. I am not entirely sure this is correct.

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>> for i = 0, n_elements(x) plots, x[i], y[i], color=colors[i], psym=4

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>> vtick = alog10(2e3*dindgen(5)+1e3)

>
>> colorbar, range = [min(alog10(a)),max(alog10(a))], orientation=1, tickvalues=vtick,
tickname=string(tickvalues,format='l6')
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> Cheers,
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>
> David
>
> --
>
> David Fanning, Ph.D.
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> Fanning Software Consulting, Inc.
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> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
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Subject: Re: logarithmic colorbar
Posted by [David Fanning](#) on Mon, 03 Feb 2014 17:49:33 GMT
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simona bellavista writes:

> I just want to point out to hypothetical future readers that in order to fit the color bar I changed

the margins with with xmargin.

Yeah, I never use margins, because they have such strange units (character size) that it becomes impossible to overlap other annotations on top of them, create the same kind of hard copy output, etc. I always position my graphics output with the POSITION keyword, since it means the same thing on every graphics device, including the PostScript and Z graphics buffer.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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