
Subject: Re: save axis
Posted by [Haje Korth](#) on Tue, 03 Aug 2010 18:27:34 GMT
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Ok, so

```
    axs=axis('Y',location=[100,0],title='Cum.  
Probability',color='red',tickdir=0,textpos=1)  
    axs.yrange=[0,1]
```

seems to specify the range. But why can't I specify range in the
initial call to axis?

H

Subject: Re: save axis
Posted by [Haje Korth](#) on Tue, 03 Aug 2010 18:35:57 GMT
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one more quirk. the full plot code I use is

```
plt=plot(loc,hist,  
histogram,xrange=[0,100],yrange=[0,0.2],color='black',linestyle='solid',thick=2.5,$  
    xtitle='AC  
Count',ytitle='N',title=region_a[i],axis_style=1,margin=[0.1 5,0.15,0.15,0.15])  
    axs=axis('Y',location=[100,0],title='Cum.  
Probability',color='red',tickdir=0,textpos=1)  
    axs.yrange=[0,1]
```

As soon as I set the axis range, the title set in plt call moves to
0.2 in the middle of the plot. grrrrr.

H

Subject: Re: save axis
Posted by [chris_torrence@NOSPAM](#) on Tue, 03 Aug 2010 21:55:59 GMT
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On Aug 3, 12:35 pm, Haje Korth <hajeko...@gmail.com> wrote:

```
> one more quirk. the full plot code I use is  
>  
> plt=plot(loc,hist,/
```

```

> histogram,xrange=[0,100],yrange=[0,0.2],color='black',linestyle='solid',thick=2.5,$
> xtitle='AC
> Count',ytitle='N',title=region_a[i],axis_style=1,margin=[0.1 5,0.15,0.15,0.15])
> axs=axis('Y',location=[100,0],title='Cum.
> Probability',color='red',tickdir=0,textpos=1)
> axs.yrange=[0,1]
>
> As soon as I set the axis range, the title set in plt call moves to
> 0.2 in the middle of the plot. grrrrr.
>
> H

```

Hi Haje,

The new AXIS function works a bit differently than the direct graphics procedure. With the new graphics, the AXIS function cannot be used to change the plot range (i.e. there is no equivalent to the SAVE keyword).

Instead, you have two different routes you can take.

1. You can embed the new axis in the existing plot (like you were doing). To make this work, you will need to force the tick names to match the desired range. For example:

```

axs=axis('Y',location=[100,0],title='Cum. Probability', $
color='red',tickdir=0,textpos=1, $
tickvalues=[0,0.1,0.2], $
tickname=['0', '0.5', '1.0'])

```

Obviously this gets trickier when you have a varying Y range (not just hardcoded to 0 - 0.2).

2. The better way is to create a new plot coordinate system. This way you could have a new X and Y range (if you wanted), and you could even plot a second line. Here is some sample code:

```

loc = 10*findgen(11)
hist = 0.2*randomu(seed,11)
plt = barplot(loc,hist,bottom_values=hist, $
xrange=[0,100],yrange=[0,0.2], $
color='black',linestyle='solid',thick=2.5, $
xtitle='AC Count',ytitle='N',$
axis_style=1,margin=[0.15,0.15,0.15,0.15])

```

```

; Create a new plot coordinate system
newDS = plot([0,100],[0,1],/current, /nodata, $
margin=[0.15,0.15,0.15,0.15], axis_style=0)
axs=axis('Y',location=[100,0],title='Cum. Probability', $
target=newDS, $

```

```
color='red',tickdir=0,textpos=1)
```

Note the /nodata in the PLOT call.

Hope this helps.

Cheers,
Chris
ITTVIS

Subject: Re: save axis
Posted by [Haje Korth](#) on Wed, 04 Aug 2010 13:05:35 GMT
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Chris,
thanks for helping me out. I considered Option 1 and then dismissed it for lack of elegance. :-) Option 2 makes sense, not as simple as I had hoped for, but at least it works.

I still think that the plot title moving as a result of the `axs.yrange=[0,1]` command is a bug. I thought we had a similar exchange a while ago, but I am not entirely sure that this was the same issue. It may have been on moving x/y titles instead.

Cheers,
Haje

On Aug 3, 5:55 pm, Chris Torrence <gorth...@gmail.com> wrote:
> On Aug 3, 12:35 pm, Haje Korth <hajeko...@gmail.com> wrote:
>
>> one more quirk. the full plot code I use is
>
>> plt=plot(loc,hist,/
>> histogram,xrange=[0,100],yrange=[0,0.2],color='black',linestyle='solid',thick=2.5,\$
>> xtitle='AC
>> Count',ytitle='N',title=region_a[i],axis_style=1,margin=[0.1 5,0.15,0.15,0.15])
>> axs=axis('Y',location=[100,0],title='Cum.
>> Probability',color='red',tickdir=0,textpos=1)
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>
> Hi Haje,

```

>
> The new AXIS function works a bit differently than the direct graphics
> procedure. With the new graphics, the AXIS function cannot be used to
> change the plot range (i.e. there is no equivalent to the SAVE
> keyword).
>
> Instead, you have two different routes you can take.
>
> 1. You can embed the new axis in the existing plot (like you were
> doing). To make this work, you will need to force the tick names to
> match the desired range. For example:
> axs=axis('Y',location=[100,0],title='Cum. Probability', $
>   color='red',tickdir=0,textpos=1, $
>   tickvalues=[0,0.1,0.2], $
>   tickname=['0', '0.5', '1.0'])
> Obviously this gets trickier when you have a varying Y range (not just
> hardcoded to 0 - 0.2).
>
> 2. The better way is to create a new plot coordinate system. This way
> you could have a new X and Y range (if you wanted), and you could even
> plot a second line. Here is some sample code:
>
> loc = 10*findgen(11)
> hist = 0.2*randomu(seed,11)
> plt = barplot(loc,hist,bottom_values=hist, $
>   xrange=[0,100],yrange=[0,0.2], $
>   color='black',linestyle='solid',thick=2.5, $
>   xtitle='AC Count',ytitle='N',$
>   axis_style=1,margin=[0.15,0.15,0.15,0.15])
>
> ; Create a new plot coordinate system
> newDS = plot([0,100],[0,1],/current, /nodata, $
>   margin=[0.15,0.15,0.15,0.15], axis_style=0)
> axs=axis('Y',location=[100,0],title='Cum. Probability', $
>   target=newDS, $
>   color='red',tickdir=0,textpos=1)
>
> Note the /nodata in the PLOT call.
>
> Hope this helps.
>
> Cheers,
> Chris
> ITTVIS

```
