Subject: Re: axis
Posted by davidf on Tue, 05 Sep 2000 13:52:18 GMT
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Mirko (loeh@my-deja.com) writes:

> I have a small problem using the axis procedure.
> I don't know why my third y-axis appears as
> log-axis without setting the /ylog keyword.
> It probably comes from the /ylog keyword
> in the second y-axis.
> Is there a clean solution for this problem apart from
> switching the code for the 2nd and 3rd axis?

Humm. Weird.

I don't have any idea what is happening. But I
can fix the problem by doing a plot into a pixmap
window, then going back to the drawing window.

Here is the code in my fix:

```
;==========3. y-axis    log y-axis ???
win=!D.Window
window, /free, /pixmap, xsize=!D.X_Size, ysize=!D.Y_Size
plot,blende,pzu,xstyle=1,/xlog,color=0,background=255$
 ,yrange=[0.22,0.38],ystyle=9,position=[0.15,0.15,0.75,0.95], $
ytitle='FWHM',charsize=1.1,xrange=[0.03,3.0],psym=-5,$
xtitle='Detektorblende [mm]' ,yticks=8,yminor=2
wdelete, !D.Window
WSet, win

axis,8,yaxis=1,yrange=[4,14],/save,ystyle=1, color=180$
 ,ytitle='Peak/Untergrund ',charsize=1.1, ylog=0
oplot,blende,pzu,color=180,psym=-5
```

Very strange. I thought at first that it had something
to do with fields in the !P, !X, or !Y system variables.
But I saved these after the first plot and restored them
after the second plot, and it didn't do any good. This
is the best I can do. Chalk it up to the Mystery, I guess. :-)

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting

Subject: Re: axis
Posted by Martin Schultz on Tue, 05 Sep 2000 14:30:22 GMT
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loeh@my-deja.com wrote:
>
Oh, this is a looooooong-standing "feature" of IDL (David, how could you forget?). Just set !y.type to 0 before the 3rd axis command, and you will get a linear axis.

Cheers,
Martin

> Hi
>
> I have a small problem using the axis procedure.
> I don't know why my third y-axis appears as
> log-axis without setting the /ylog keyword.
> It probably comes from the /ylog keyword
> in the second y-axis.
> Is there a clean solution for this problem apart from
> switching the code for the 2nd and 3rd axis?
>
> Thank you
>
> Mirko
>
> pro aufloesung
> device,decomposed=0
> loadct,12
>
> blende=
> fwhm=
> Int=
> pzu=
>
> plot,blende,fwhm,xstyle=1,/xlog,color=0,background=255$
> ,yrange=,ystyle=9,position=,$
> ytitle='FWHM',charsize=1.1,xrange=,psym=-5,$
> xtitle='Detektorblende ' ,yticks=8,yminor=2
>
> ;======2. y-axis

> axis,yaxis=1,yrange=,/save,ystyle=1,/ylog, color=18$
> ,ytitle='Peakintensitï¿½t ',charsize=1.1
> oplot,blende,int,color=18,psym=-4
> print, blende
>
> ;==========3. y-axis log y-axis ???

!Y.Type = 0 ;; <=============== H E R E
=====================

> axis,8,yaxis=1,yrange=,/save,ystyle=1, color=180$
> ,ytitle='Peak/Untergrund ',charsize=1.1
> oplot,blende,pzu,color=180,psym=-5
>
> end
>
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--
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[[Dr. Martin Schultz Max-Planck-Institut fuer Meteorologie
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[[Bundesstr. 55, 20146 Hamburg
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[[phone: +49 40 41173-308
[[
[[fax: +49 40 41173-298
[[
[[martin.schultz@dkrz.de
[[
[[[[[[[[[

Subject: Re: axis
Posted by davidf on Tue, 05 Sep 2000 14:38:38 GMT
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Martin Schultz (martin.schultz@dkrz.de) writes:
> Oh, this is a loooooong-standing "feature" of IDL (David, how
> could you forget?). Just set !y.type to 0 before the 3rd axis
> command, and you will get a linear axis.

Oh, now that you mention it....

I did try ALOG=0 first off. I had forgotten about !Y.Type=0.
Of course. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: axis labels
Posted by Mirko Vukovic on Tue, 05 Sep 2000 16:23:50 GMT
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Hi again,

I have a plot of x vs. y. I would like before hand to know
what tick-values of x IDL will put. One way is to create a dummy
plot and obtain the tick values.

Is there some more direct way? I thought IDL had a routine for that
but could not find it.

Thanks,

Mirko (Vukovic)

NB: this post is unrelated to the previous one by a fellow
of identical name.

Subject: Re: axis labels
Posted by Ben Tupper on Tue, 05 Sep 2000 18:56:41 GMT
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Hello,

The plot procedure accepts the [xyz]Tick_Get keyword. I think that you
MUST plot somewhere to get the values... perhaps the Zbuffer or PixMap?

Ben

Mirko Vukovic wrote:

> Hi again,
>
> I have a plot of x vs. y. I would like before hand to know
> what tick-values of x IDL will put. One way is to create a dummy
> plot and obtain the tick values.
>
> Is there some more direct way? I thought IDL had a routine for that
> but could not find it.
>
> Thanks,
>
> Mirko (Vukovic)
>
> NB: this post is unrelated to the previous one by a fellow
> of identical name.
>
> Sent via Deja.com http://www.deja.com/
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--
Ben Tupper
Bigelow Laboratory for Ocean Science
West Boothbay Harbor, Maine
btupper@bigelow.org
note: email address new as of 25JULY2000

Subject: Re: axis labels
Posted by R.Bauer on Wed, 06 Sep 2000 05:52:49 GMT
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Mirko Vukovic wrote:
>
> Hi again,
>
> I have a plot of x vs. y. I would like before hand to know
> what tick-values of x IDL will put. One way is to create a dummy
> plot and obtain the tick values.
>
> Is there some more direct way? I thought IDL had a routine for that
> but could not find it.
>
> Thanks,
>

> Mirko (Vukovic)

Dear Mirko,

I like to hear a bit more why you like to know the axis values.

Would you like to format the labels?

regards
Reimar

Subject: Re: axis labels
Posted by Mirko Vukovic on Wed, 06 Sep 2000 15:31:42 GMT
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In article <39B5DBB1.172B0CAC@fz-juelich.de>,
"r.bauer" <r.bauer@fz-juelich.de> wrote:
>
>
> Mirko Vukovic wrote:
>>
>> Hi again,
>>
>> I have a plot of x vs. y. I would like before hand to know
>> what tick-values of x IDL will put. One way is to create a dummy
>> plot and obtain the tick values.
>>
>> Is there some more direct way? I thought IDL had a routine for that
>> but could not find it.
>>
>> Thanks,
>>
>> Mirko (Vukovic)
>
> Dear Mirko,
>
> I like to hear a bit more why you like to know the axis values.
>
> Would you like to format the labels?
>
> regards
> Reimar
>
You see, I have this gorgeous piece of software. And I really mean it.
And it should be shared with the rest of the IDL world (but see later).

It is the ultimate plot routine, based on _direct_ graphics and completely oop-ed, that can plot, replot, print, save to ps, zoom, etc.

But the gem is that it is completely _extedable_ with the user not having to deal with its internals whatsoever (within reason). To add another type of plot (polar say), one has to write several objects, and modify the _caller_ to the plot routine, so that it can accept a \polar keyword.

So, it started as me writing it for a prof. from east coast. Since then it has evolved some, to accept polar plots, contours, (polar too), smith charts, and now time series, where the axis is time in hours, minutes, seconds, days, etc).

I am therefore writing the code how to display the ticks for the time axis. I want it to be general in the sense that I plot the data:

> cplot, time, data,/time_series

where the time axis is displayed in seconds, say. But than, I may want to modify the axis to be displayed in days (suppose my series lasts over several days). I would then do

> modframe,xaxis='days',

and it would replot the stuff, with the axis now in days.

So, this is the origin of the question. I am working on this axis display, and the plot will allways be vs. seconds (internally), but then, using the axis procedure, I will put the tick marks on minutes, days, hours, whatever I specify.

Oh, and why do I not share the gem? Time, Time, as said Bilbo Baggins. It is currently a mess of some 50+ routines (I guess), and has still rough edges. If I had two weeks off to do it, I would try to put it on a web site. But for now, it remains buried.

Mirko

Subject: Re: axis labels
Posted by davidf on Wed, 06 Sep 2000 16:00:23 GMT
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Mirko Vukovic (mvukovic@taz.telusa.com) writes:

> Oh, and why do I not share the gem? Time, Time, as said Bilbo Baggins.
> It is currently a mess of some 50+ routines (I guess), and has still
> rough edges. If I had two weeks off to do it, I would try to put it on
> a web site. But for now, it remains buried.

"And documentation," Frodo said. "Don't, for the love
of Smaug, forget the documentation!"

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: axis labels
Posted by Mirko Vukovic on Wed, 06 Sep 2000 18:00:40 GMT
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In article <MPG.142018063759867298 9c22@news.frii.com>,
davidf@dfanning.com (David Fanning) wrote:
> Mirko Vukovic (mvukovic@taz.telusa.com) writes:
>
>> Oh, and why do I not share the gem? Time, Time, as said Bilbo
Baggins.
>> It is currently a mess of some 50+ routines (I guess), and has still
>> rough edges. If I had two weeks off to do it, I would try to put it
on
>> a web site. But for now, it remains buried.
>
> "And documentation," Frodo said. "Don't, for the love
> of Smaug, forget the documentation!"
>
> Cheers,
>
> David
>

yep,

Gloom,

Mirko

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Subject: Re: Axis labels
Posted by promashkin on Tue, 12 Sep 2000 19:41:23 GMT
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Did you set RECOMPUTE_DIMENSIONS keyword to the axis text objects to 2?
Something like this:

```
x_axis -> getProperty, ticktext=x_tick_labels
x_tick_labels -> setProperty, recompute=2
x_title = obj_new('IDLgrText', 'X title', recompute=2)
x_axis -> setProperty, title=x_title, tickformat='(G0.1)'
```

Hope this helps.
Cheers,
Pavel

Ed Vigmond wrote:
>
> I am trying to label an axis but I encounter a problem that I can't
> figure out. The font on the y-axis label comes out in different aspect
> ratios depending on the y range. Sometimes the font is totally
> unreadable and the rest of the time it is just ugly. Here is the code
> and sorry if it's a simple probblem but I was following the example in
> the on-line help.
>
> graph -> SetProperty, DATAX=x, DATAY=y
> graph -> GetProperty, XRANGE=xr, YRANGE=yr
> graph -> SetProperty, XCOORD_CONV=norm_coord(xr),
> YCOORD_CONV=norm_coord(yr)
> xaxis -> SetProperty, RANGE=xr, XCOORD_CONV=norm_coord(xr)
> yaxis -> SetProperty, RANGE=yr, YCOORD_CONV=norm_coord(yr)
>
> Thanks
>
> ========================
> Dr. Edward Vigmond
> Department of Biomedical Engineering
> Tulane University

Subject: Re: Axis labels
Posted by Mark Hadfield on Tue, 12 Sep 2000 21:19:04 GMT
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"Ed Vigmond" <evigmon@tulane.edu> wrote in message
news:39BE83BA.B1985EBC@tulane.edu...
>
> I am trying to label an axis but I encounter a problem that I can't
> figure out. The font on the y-axis label comes out in different aspect
> ratios depending on the y range. Sometimes the font is totally
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> graph -> GetProperty, XRANGE=xr, YRANGE=yr
> graph -> SetProperty, XCOORD_CONV=norm_coord(xr),
> YCOORD_CONV=norm_coord(yr)
> xaxis -> SetProperty, RANGE=xr, XCOORD_CONV=norm_coord(xr)
> yaxis -> SetProperty, RANGE=yr, YCOORD_CONV=norm_coord(yr)

The labels are OK when the axis is being created but they get squashed up
when it is re-scaled.

There are two ways to solve the problem:

1. Create the axes with the right scaling

```
xaxis = obj_new('IDLgrAxis', RANGE=xr, XCOORD_CONV=norm_coord(xr), ...)
yaxis = obj_new('IDLgrAxis', RANGE=yr, YCOORD_CONV=norm_coord(yr), ...)
```

2. Set the RECOMPUTE_DIMENSIONS property of all text objects associated with
the axis to 2 (look up IDL documentation for IDLgrText to see what this
means):

```
axis->GetProperty, TICKTEXT=oticktext, TITLE=otitle
if obj_valid(otitle) then begin
   otitle->SetProperty, RECOMPUTE_DIMENSIONS=2
endif
for i=0,n_elements(oticktext)-1 do begin
   if obj_valid(oticktext[i]) then begin
      oticktext[i]->SetProperty, RECOMPUTE_DIMENSIONS=2
   endif
endfor
```

Mark Hadfield
m.hadfield@niwa.cri.nz http://katipo.niwa.cri.nz/~hadfield/
National Institute for Water and Atmospheric Research

PO Box 14-901, Wellington, New Zealand

Subject: Re: Axis labels
Posted by Ben Tupper on Wed, 13 Sep 2000 14:58:05 GMT
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Hello,

You might consider using David's NORMALIZE function instead of NORM_COORD. It handles non-float values and you can specify the position of the axis (if you don't want to scale it from 0 to 1.) If you forget to make you range argument a floating point vector, NORM_COORD will perfom a divide-by-integer, yielding unexpected results. Check out www.dfanning.com.

By the way, the RECOMPUTE_DIMENSIONS keyword is one that I always set so rescaling is automatic. I have always wished that the default was to rescale and to prevent rescaling I had to set a keyword.

Ben

Ed Vigmond wrote:

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> figure out. The font on the y-axis label comes out in different aspect
> ratios depending on the y range. Sometimes the font is totally
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> graph -> SetProperty, XCOORD_CONV=norm_coord(xr),
> YCOORD_CONV=norm_coord(yr)
> xaxis -> SetProperty, RANGE=xr, XCOORD_CONV=norm_coord(xr)
> yaxis -> SetProperty, RANGE=yr, YCOORD_CONV=norm_coord(yr)
>
> Thanks
>
> ==========
> Dr. Edward Vigmond
> Department of Biomedical Engineering
> Tulane University

--

Ben Tupper
Bigelow Laboratory for Ocean Science
West Boothbay Harbor, Maine
btupper@bigelow.org
note: email address new as of 25JULY2000