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Subject: log axis again ...

Posted by [Martin Schultz](#) on Tue, 21 Jul 1998 07:00:00 GMT

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Hi all,

I just checked my old mailbox, and, yes, it was almost exactly one year ago, when I asked a similar question. Now it popped up again, and the trick from last year does not seem to work:

Goal: create a plot with three different x axis;

- \* normal one on the bottom,
- \* log axis on the top,
- \* another normal one below the first one.

Program that is supposed to do this:  
see attachment below

Things that don't work:

draw a log axis. If you spare the !x.type statements by setting the /OK keyword, you will see the axis (but not as a log axis). If you use !x.type, you get the data drawn correctly, but no axis shows up on the plot.

Alternatives:

Use the /XLOG keyword in the axis command (did not work either) You can try it setting the /XLOG keyword.

Advice from last year:

use the !y.type parameter. (last year I wanted to add a linear scale y axis to a plot with a log scale y axis, and it turned out to be a bug in IDL 4 that the type parameter wasn't reset correctly.)

IDL version used:

IDL Version 5.0.2 (AIX ibmr2)

Time spent on this problem:

> 1 hour

Degree of frustration:

**\*\* EXTREME \*\*** (I have to leave for Germany tomorrow, and now I will have to handdraw a log axis on this plot!!)

Request to RSINC:

Hands off objects! Consolidate the basic plotting first !!

Good night,  
Martin.

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```
pro logtest,ok=ok,xlog=xlog
```

```
  ; test for several x axis  
  ; set color index for black  
  BLACK = 1
```

```
  ; create bogus data  
  y = findgen(120)*0.1
```

```
  x0 = sin(y*!PI/9.)  
  x1 = y*0.5  
  x2 = cos(y*!PI/18.)+1.
```

```
  !p.position=[ 0.3, 0.3, 0.8, 0.9 ]
```

```
  ; draw coordinate system  
  plot,x0,y,/nodata,color=BLACK, $  
    xstyle=8,xtitle='O!L3!N & CO [ppb]', $  
    yrange=[0.,12.],ystyle=1,ytitle='altitude [km]'
```

```
  ; overlay 1st curve  
  oplot,x0,y,color=BLACK
```

```
; draw log x axis on top
; ***** PROBLEM SECTION *****
if (not keyword_set(ok)) then $
  !x.type=1 ; set plot type to log.
  axis,0.,12.,XAXIS=1,/save,color=1, $
    xtitle='H!L2!NO [g/kg]', $
    xrange = [ 0.05, 100.],xstyle=1,xlog=xlog
  oplot,x1,y,color=BLACK,line=2
if (not keyword_set(ok)) then $
  !x.type=0 ; reset plot type to lin
. *****
;
; draw second x axis for NO
axis,0.,-2.,XAXIS=0,/save,color=1, $
  xrange = [ 0., 2. ],xtitle='NO [ppt]',xminor=2
  oplot,x2,y,color=BLACK,line=3,thick=0.8*!p.thick,min_val=0.

!p.position = 0

return
end
```

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## File Attachments

1) [logtest.pro](#), downloaded 78 times

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