
Subject: Re: Scientific Notation on Log Plots
Posted by [safier](#) on Tue, 06 Feb 1996 08:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

>>>> > "jonathan" == jonathan boswell <boswell@pinet.aip.org> writes:

jonathan> I've got a bizarre formatting problem going on with IDL
jonathan> V4.0.1 on an Alpha VMS machine. When I make a plot with
jonathan> the /ylog keyword, my plot comes out with neatly
jonathan> labelled scientific notation on the y axis. The
jonathan> notation actually has a number, followed by an asterisk,
jonathan> followed by a 10, and finally with an actual superscript
jonathan> number for the exponent. But I need to take control of
jonathan> the format using, for example, the ytickformat keyword.
jonathan> Only problem: the format reverts to normal FORTRAN-style
jonathan> formatting, with a nn.nE+mm style. In other words, the
jonathan> default neat exponential format goes away.

jonathan> Is there any way to control the formatting of the
jonathan> default scientific notation?

jonathan> Jonathan Boswell FDA/CDRH

I do not know whether you can control scientific notation, but you
can specify the labels by using ytickname. I usually use the defaults,
and if I do not like the format, I force the labels with ytickname.

Cheers,

Pedro

--

Pedro N. Safier | "God offers to everyone his
Department of Astronomy | choice between truth and repose.
U. of Maryland at College Park | Take which you please--you can
phone: 301-405-1531; fax: 301-314-9067 | never have both." R. W. Emerson

Subject: Re: Scientific Notation on Log Plots
Posted by [zawodny](#) on Wed, 07 Feb 1996 08:00:00 GMT
[View Forum Message](#) <> [Reply to Message](#)

In article <1996Feb6.190450.24847@pinet.aip.org> boswell@pinet.aip.org (jonathan_boswell)
writes:

>

> I've got a bizarre formatting problem going on with IDL V4.0.1 on an Alpha
> VMS machine. When I make a plot with the /ylog keyword, my plot comes out
> with neatly labelled scientific notation on the y axis. The notation actually
> has a number, followed by an asterisk, followed by a 10, and finally with an

> actual superscript number for the exponent. But I need to take control of
> the format using, for example, the ytickformat keyword. Only problem: the
> format reverts to normal FORTRAN-style formatting, with a nn.nE+mm style.
> In other words, the default neat exponential format goes away.
>
> Is there any way to control the formatting of the default scientific notation?
>
> Jonathan Boswell
> FDA/CDRH

Try using some variant of this function with YTICKFORMAT. I use this to
get "even" powers of ten, but you can hack it to give 2.3×10^3 or whatever.

```
function LOGTICK,axis,index,value
; This function will provide tick labels which are powers of 10
exponent = alog10(value)
if((exponent mod 1.) ne 0.) then begin
  print,!msg_prefix+'Tickmark value not an integer power of 10.'
  print,!msg_prefix+'Routine LOGTICK'
  pref = '~'
endif else pref = ''
return,pref+'10!U'+strtrim(fix(exponent),2)+'!N'
end
```

--

Dr. Joseph M. Zawodny	KO4LW	NASA Langley Research Center
E-mail: J.M.Zawodny@LaRC.NASA.gov		MS-475, Hampton VA, 23681-0001
