
Subject: Re: logarithmic axis lables

Posted by [Haje Korth](#) on Wed, 28 Nov 2007 12:30:43 GMT

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Paul, saver of my life, thank you! Haje

"Paul van Delst" <Paul.vanDelst@noaa.gov> wrote in message
news:fii53h\$skj\$1@news.nems.noaa.gov...

> Haje Korth wrote:

>> Hi,

>> Is there a way to convince IDL to use axis lables like 10^{-1} ($10!U-1!N$ in
>> hershey language) instead of 0.1? Plot sets this automatically to the
>> former format if for very small and very large numbers, but is there a
>> way to always force this format?

>>

>> Hints highly appreciated!

>>

>> Thanks,

>> Haje

> ;+

> ;

> ; (C) Cooperative Institute for Meteorological Satellite Studies, 2000

> ;

> ; NAME:

> ; logticks_exp

> ;

> ; PURPOSE:

> ; Function to print logarithmic axis tickmarks with exponential
> ; output.

> ;

> ; CATEGORY:

> ; Graphics

> ;

> ; LANGUAGE:

> ; IDL v5

> ;

> ; CALLING SEQUENCE:

> ; PLOT, x, y, /YLOG, YICKFORMAT = 'logticks_exp'

> ;

> ; INPUTS:

> ; axis: the axis number. 0 for X axis, 1 for Y axis, 2 for Z axis.

> ; index: the tick mark index which starts at 0.

> ; value: the default tick mark value (a floating-point number);

> ;

> ; OUTPUTS:

> ; Function returns a string containing the tick mark labels.

> ;

```
> ; CREATION HISTORY:
> ;   Written by:   Paul van Delst, CIMSS/SSEC, 08-Nov-2000
> ;               paul.vandelst@ssec.wisc.edu
> ;
> ;-
> FUNCTION logticks_exp, axis, index, value
> ; Determine the base-10 exponent
> exponent = LONG( ALOG10( value ) )
> ; Construct the tickmark string based on the exponent
> tickmark = '10!E' + STRTRIM( STRING( exponent ), 2 ) + '!N'
> ; Return the formatted tickmark string
> RETURN, tickmark
> END
>
>
>
> Use it thusly:
>
> IDL> x=dindgen(1000)+1.0d0
> IDL> y=x^2
> IDL> plot, x, y, /ylog,ytickformat='logticks_exp',charsize=2
>
>
> cheers,
>
> paulv
```
