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Subject: Re: logarithmic axis lables

Posted by [Paul Van Delst\[1\]](#) on Tue, 27 Nov 2007 22:18:24 GMT

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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

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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:  
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> ;+  
> ;  
> ; (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:
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> ;   axis: the axis number. 0 for X axis, 1 for Y axis, 2 for Z axis.
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> ; CREATION HISTORY:
> ;   Written by:  Paul van Delst, CIMSS/SSEC, 08-Nov-2000
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```

> cheers,  
>  
> paulv

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**Subject:** Re: logarithmic axis lables  
Posted by [srh.caltech](#) on Sun, 05 Mar 2017 06:27:12 GMT  
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Thanks!

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