
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
>
>
:+
:
;

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; 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
