
Subject: Re: plot label help

Posted by [R. Bauer](#) on Thu, 09 Oct 1997 07:00:00 GMT

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Rick McDaniel wrote:

>
> I'm using IDL to plot a curve on a log-log scale. I want the y axis
> labels to be in powers of 10 (i.e. 10^0 , 10^1 , 10^2 , ect). Some times the
> yxis is labeled the way i want, other times the axis reads 1.0, 10.0,
> 10.0, ect. Is there a way to always have the y axis labels the way i
> need. Thanks for any help!
>
> Rick McDaniel
> rickeym@hubcap.clemson.edu

you can write a function which will be called by axes
xtickformat='my_numberformat'

There is an example on page 65 reference guide idl5

--

R.Bauer

Institut fuer Stratosphaerische Chemie (ICG-1)
Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de

Subject: Re: plot label help

Posted by [Martin Schultz](#) on Fri, 10 Oct 1997 07:00:00 GMT

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Rick McDaniel wrote:

>
> Here's the one I wrote. It's not a thing of beauty. It works great but
> has one flaw. Instead of printing 10^0 , it justs prints 10. The other
> exponents print out fine. Again any help appreciated.
>
> FUNCTION LOGTICKS, axis, index, value
>
> IF value/10.0^9 EQ 1.0 THEN n = 9
> IF value/10.0^8 EQ 1.0 THEN n = 8
> IF value/10.0^7 EQ 1.0 THEN n = 7
[cut]

This indeed looks weird! Try the following:

```
IDL> x = 10^(findgen(20)-8)
```

```
IDL> print,fix(aalog10(x))
```

-8	-7	-6	-5	-4	-3	-2	-1	0
1	2	3	4	5	6	7	8	9
10	11							

You can also use something like `ceil(alog10(val))` in order to get integer exponents for values ne 10, 100, 1000, etc.

```
>
> RETURN, STRING(n, $
>     FORMAT="('10!E',i2.0)")
> END
>
```

If you use `format=i2` instead of `i2.0`, the 0 will be printed ! Also, to improve the look of you numbers you may want to try `return, strcompress( string(n, format="('10!E',i2)")) , /remove_all)` This eliminates the blanks in e.g. `10!E 4`.

Cheers,
Martin.

-----Dr.
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Subject: Re: plot label help
Posted by [rickeym](#) on Fri, 10 Oct 1997 07:00:00 GMT
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```
FUNCTION LOGTICKS, axis, index, value
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```
IF value/10.0^9 EQ 1.0 THEN n = 9
```

```

IF value/10.0^8 EQ 1.0 THEN n = 8
IF value/10.0^7 EQ 1.0 THEN n = 7
IF value/10.0^6 EQ 1.0 THEN n = 6
IF value/10.0^5 EQ 1.0 THEN n = 5
IF value/10.0^4 EQ 1.0 THEN n = 4
IF value/10.0^3 EQ 1.0 THEN n = 3
IF value/100 EQ 1.0 THEN n = 2
IF value/10.0 EQ 1.0 THEN n = 1
IF value EQ 1.0 THEN n = 0
IF value*10.0 EQ 1.0 THEN n = -1
IF value*100 EQ 1.0 THEN n = -2
IF value*10.0^3 EQ 1.0 THEN n = -3
IF value*10.0^4 EQ 1.0 THEN n = -4
IF value*10.0^5 EQ 1.0 THEN n = -5
IF value*10.0^6 EQ 1.0 THEN n = -6
IF value*10.0^7 EQ 1.0 THEN n = -7
IF value*10.0^8 EQ 1.0 THEN n = -8
IF value*10.0^9 EQ 1.0 THEN n = -9

```

```

RETURN, STRING(n, $
    FORMAT="('10!E',i2.0)")
END

```

Rick McDaniel
Clemson University

In article <343D09D4.2781@fz-juelich.de>, "R. Bauer"
<r.bauer@fz-juelich.de> wrote:

```

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> --
> R.Bauer
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> email: R.Bauer@fz-juelich.de
