Subject: the sky is falling down again
Posted by R.Bauer on Tue, 30 Jan 2007 13:20:46 GMT
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Hi all

here is another example which is very funny if you see it the first time

```
a=indgen(10)*1D-7
b=a
plot,a,b,psym=1
oplot,[0,10],[0,10]
```

because the coordination system is defined by plot it could be a bug too
and not only a question about precisions

Any idea what is happen here?

Cheers
Reimar

--
Reimar Bauer

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---------- -------
a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro. html
========== =======

Subject: Re: the sky is falling down again
Posted by Kenneth Bowman on Wed, 31 Jan 2007 21:56:50 GMT
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In article <pan.2007.01.31.20.17.22.400474@as.arizona.edu>,
JD Smith <jdsmith@as.arizona.edu> wrote:

> On Wed, 31 Jan 2007 11:30:57 -0700, David Fanning wrote:
>
>> Where else can people go when they want
>> to count angles on the head of a pin? :^)
>

> I prefer counting them in radians, because !RADEG is single precision
> floating point.

Thanks for chaffing David, JD. I refrained. ;-)

IDL has a built-in double precision value of Pi, so I include

DEFSYSV, '!DDTOR', !DPI/180.0D, 1
DEFSYSV, '!DRADEG', 180.0D/!DPI, 1

in my startup.pro.

Ken

Subject: Re: the sky is falling down again
Posted by news.qwest.net on Thu, 01 Feb 2007 19:06:29 GMT
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<meinel@aero.org> wrote in message
news:1170356284.063756.259710@a75g2000cwd.googlegroups.com.. .
> But in this case, all I did was change the x- and y-style on the plot:
>
> a=indgen(10)*1D-7
> b=a
> plot,a,b,psym=1, xstyle=2, ystyle=3
>
> No overplotting of relatively large values here. Why does that give me
> a bad plot?

what's wrong with this plot?

Subject: Re: the sky is falling down again
Posted by JD Smith on Thu, 01 Feb 2007 19:10:01 GMT
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On Wed, 31 Jan 2007 15:56:50 -0600, Kenneth Bowman wrote:

> In article <pan.2007.01.31.20.17.22.400474@as.arizona.edu>,
> JD Smith <jdsmith@as.arizona.edu> wrote:
>
>> On Wed, 31 Jan 2007 11:30:57 -0700, David Fanning wrote:
>>
>>> Where else can people go when they want
>>> to count angles on the head of a pin? :^)

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>> I prefer counting them in radians, because !RADEG is single precision
>> floating point.
>
> Thanks for chaffing David, JD. I refrained. ;-)
>
> IDL has a built-in double precision value of Pi, so I include
>
> DEFSYSV, '!DDTOR', !DPI/180.0D, 1
> DEFSYSV, '!DRADEG', 180.0D/!DPI, 1
>
> in my startup.pro.

Good idea. I'm always starting programs with RADEG=180.D/!DPI, but a SYSVAR is a better idea. Come to think of it, why don't you suggest to ITTVIS to add those? It's a rare coordinate calculation in astronomy that doesn't require double float precision in radians.

JD

Subject: Re: the sky is falling down again
Posted by Kenneth Bowman on Thu, 01 Feb 2007 20:13:59 GMT
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In article <pan.2007.02.01.19.10.01.382641@as.arizona.edu>,
JD Smith <jdsmith@as.arizona.edu> wrote:

>> IDL has a built-in double precision value of Pi, so I include
>>
>> DEFSYSV, '!DDTOR', !DPI/180.0D, 1
>> DEFSYSV, '!DRADEG', 180.0D/!DPI, 1
>>
>> in my startup.pro.
>
>
> Good idea. I'm always starting programs with RADEG=180.D/!DPI, but a
> SYSVAR is a better idea. Come to think of it, why don't you suggest
> to ITTVIS to add those? It's a rare coordinate calculation in
> astronomy that doesn't require double float precision in radians.
>
> JD

It hadn't occurred to me because it has been in my startup.pro since I first learned about system variables, which was way before I would have thought of asking RSI (I mean IITVIS) to change (gasp!) IDL.

I'll submit a feature request. Additional requests from out there in userland might well improve the probability of success. ;-)

Ken
