
Subject: Re: Updates to Markwardt Library
Posted by [David Fanning](#) on Thu, 22 Dec 2011 03:16:00 GMT
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Craig Markwardt writes:

> These days I don't promote my IDL library of software on the news
> group much any more, but seeing David put out some update notices got
> me motivated. I added a bunch of new routines that people might find
> interesting. For newer readers who don't know me very well, I
> specialize in the numerical and astronomical, but also in getting IDL
> to do interesting tricks. Here are some of the new ones:

Fabulous programs! But, Craig, dear Craig, it's the 21st
century. *Everyone* is using square bracket subscripting now! ;-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Updates to Markwardt Library
Posted by [Craig Markwardt](#) on Thu, 22 Dec 2011 03:35:23 GMT
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On Dec 21, 10:16 pm, David Fanning <n...@dfanning.com> wrote:

> Craig Markwardt writes:
>> These days I don't promote my IDL library of software on the news
>> group much any more, but seeing David put out some update notices got
>> me motivated. I added a bunch of new routines that people might find
>> interesting. For newer readers who don't know me very well, I
>> specialize in the numerical and astronomical, but also in getting IDL
>> to do interesting tricks. Here are some of the new ones:
>
> Fabulous programs! But, Craig, dear Craig, it's the 21st
> century. *Everyone* is using square bracket subscripting now! ;-)

Dang, it's a tough crowd in here tonight :-)

Subject: Re: Updates to Markwardt Library
Posted by [David Fanning](#) on Thu, 22 Dec 2011 03:56:56 GMT
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Craig Markwardt writes:

> Dang, it's a tough crowd in here tonight :-)

I guess! :-)

I was curious about your PXPERFECT routine, because I've had my own struggles getting PostScript output to look like what is on the display. I just ran a test.

I compared the output of this command:

```
cgplot, cgdemodata(1), xtitle='Time (Seconds)',  
ytitle='Signal Strength', $  
position=[0.125, 0.125, 0.95, 0.85], $  
title='Experiment 10A3B', output='test.ps'
```

With this (I think I did this correctly):

```
thisDevice = !D.Name  
ps_extra = pxperfect(/landscape, thick_factor=tf)  
set_plot, 'ps'  
device, _extra=ps_extra  
cgplot, cgdemodata(1), xtitle='Time (Seconds)',  
ytitle='Signal Strength', $  
position=[0.125, 0.125, 0.95, 0.85], $  
title='Experiment 10A3B', thick=tf  
device, /close  
set_plot, thisDevice
```

These commands should be duplicating what I would see in a normal 640 by 512 graphics window:

```
cgDisplay, 640, 512
```

I see almost no difference in the character size, interestingly enough. But I do notice that your plot is a different size than mine is.

If I print and measure my plot, it is 20x14cm. Your plot is 18.5x13. These ratios are 0.7 and 0.702. The ratio of the window is $512/640 = 0.8$. Are we both wrong? :-)

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: Updates to Markwardt Library

Posted by [David Fanning](#) on Thu, 22 Dec 2011 04:04:57 GMT

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David Fanning writes:

- > If I print and measure my plot, it is 20x14cm. Your
- > plot is 18.5x13. These ratios are 0.7 and 0.702.
- > The ratio of the window is 512/640 = 0.8. Are we
- > both wrong? :-)

Well, let's see, I should be measuring the axes lengths in the display window, which should be, given their position in the window:

$$(512 - (512 * 0.15)) / (640 - (640 * 0.13))$$

$$435 \quad / \quad 557 = 0.781$$

Humm. Weird. :-(

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

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Subject: Re: Updates to Markwardt Library

Posted by [Craig Markwardt](#) on Thu, 22 Dec 2011 04:50:20 GMT

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On Dec 21, 10:56 pm, David Fanning <n...@dfanning.com> wrote:

```

> Craig Markwardt writes:
>> Dang, it's a tough crowd in here tonight :-)
>
> I guess! :-)
>
> I was curious about your PXPERFECT routine, because
> I've had my own struggles getting PostScript output
> to look like what is on the display. I just ran a
> test.
>
> I compared the output of this command:
>
>   cgplot, cgdemodata(1), xtitle='Time (Seconds)',
>     ytitle='Signal Strength', $
>     position=[0.125, 0.125, 0.95, 0.85], $
>     title='Experiment 10A3B', output='test.ps'
>
> With this (I think I did this correctly):
>
>   thisDevice = !D.Name
>   ps_extra = pxperfect(/landscape, thick_factor=tf)
>   set_plot, 'ps'
>   device, _extra=ps_extra
>   cgplot, cgdemodata(1), xtitle='Time (Seconds)',
>     ytitle='Signal Strength', $
>     position=[0.125, 0.125, 0.95, 0.85], $
>     title='Experiment 10A3B', thick=tf
>   device, /close
>   set_plot, thisDevice
>
> These commands should be duplicating what I would see
> in a normal 640 by 512 graphics window:
>
>   cgDisplay, 640, 512
>
> I see almost no difference in the character size,
> interestingly enough. But I do notice that your
> plot is a different size than mine is.
>
> If I print and measure my plot, it is 20x14cm. Your
> plot is 18.5x13. These ratios are 0.7 and 0.702.
> The ratio of the window is 512/640 = 0.8. Are we
> both wrong? :-)

```

David, sometime in the late unpleasantness, IDL started to defaulting to 640x389 for plot window dimensions. I think you are seeing this ratio.

If I explicitly make a window 640x512, then PXPREFECT and your CGPLOT both make Postscript graphic pages of the right size ratios.

Craig

Subject: Re: Updates to Markwardt Library
Posted by [David Fanning](#) on Thu, 22 Dec 2011 04:55:27 GMT
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Craig Markwardt writes:

> David, sometime in the late unpleasantness, IDL started to defaulting
> to 640x389 for plot window dimensions. I think you are seeing this
> ratio.

Really!? Somehow this doesn't surprise me as much
as I thought it might!

Anyway, too late to worry about it tonight. Thanks
for the programs. They are terrific, as always. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
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Subject: Re: Updates to Markwardt Library
Posted by [Craig Markwardt](#) on Thu, 22 Dec 2011 04:58:23 GMT
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On Dec 21, 11:55 pm, David Fanning <n...@dfanning.com> wrote:

> Craig Markwardt writes:
>> David, sometime in the late unpleasantness, IDL started to defaulting
>> to 640x389 for plot window dimensions. I think you are seeing this
>> ratio.
>
> Really!? Somehow this doesn't surprise me as much
> as I thought it might!

I think it's IDL's way of looking more "high definition." :-)

Craig
