
Subject: Multi-page graphics in IDL 8

Posted by [Kenneth P. Bowman](#) on Thu, 02 Sep 2010 20:33:42 GMT

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We frequently use direct graphics and !P.MULTI to generate graphics output where there are multiple plots on multiple pages. It is not hard to make this work either to the display or to a PS file. When drawing to the display you can wait for a <cr> before moving to the next page. When creating PS, you just draw all the plots to a single file. The PS file can then be easily converted to a multi-page PDF file.

With the new Graphics system, I can see how to draw multiple plots in a single window, but not how to create multi-page graphics. Is the concept of multi-page graphics not part of the new Graphics system?

I can see that it could be done by keeping track of the number of plots in a window and saving the window to a graphics file when full, etc., but the result is then multiple PDF files rather than a single file.

Am I missing something? Is there an easy way to do what I need with the New Graphics system, or do I need to stay with Classic Graphics.

Thanks, Ken Bowman

Subject: Re: Multi-page graphics in IDL 8

Posted by [chris_torrence@NOSPAM](#) on Tue, 07 Sep 2010 15:59:00 GMT

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On Sep 7, 7:34 am, Paul van Delst <paul.vande...@noaa.gov> wrote:

> Kenneth P. Bowman wrote:

>> In article

>> <8a5d65d5-be94-4b27-9e97-9ffff6cfe...@u5g2000prn.googlegroups.com> ,

>> Mark Piper <mpi...@ittvis.com> wrote:

>

>>> Spawning a call to ImageMagick's 'convert' program will join several

>>> PS files into a single PDF file:

>

>>> infiles = ['plot1.eps', 'plot2.eps']

>>> infiles = strjoin(infiles, ' ')

>>> outfile = 'plots.pdf'

>>> cmd = 'convert -density 300 ' + infiles + ' -quality 100 ' + outfile

>>> spawn, cmd

>

>> Thanks. I'm aware of several ways to concatenate PDF files, but if New

>> Graphics can't make multi-page documents, it will be a significant loss

>> of convenience. In fact, I think we will have to stay with Old Graphics

>> for most purposes.

>
> Yeah, no kidding. But, just to clarify (since I don't create PDF files directly from IDL), are you saying that the
> creation of multi-page postscript files is no longer possible with IDL8 New Graphics?
>
> cheers,
>
> paulv

Hi Paul & Ken,

In IDL 8.0, multi-page postscript files still work fine, just as they did before.

For the new graphics, we added support for PDF output, but we ran out of time to do multi-page output. I have some prototype code that adds this feature, if you're interested in trying it out.

Cheers,
Chris
ITTVIS

Subject: Re: Multi-page graphics in IDL 8
Posted by [Kenneth P. Bowman](#) on Tue, 07 Sep 2010 16:33:38 GMT
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In article <i65f0q\$ecm\$1@speranza.aioe.org>,
Paul van Delst <paul.vandelst@noaa.gov> wrote:

> Yeah, no kidding. But, just to clarify (since I don't create PDF files directly from IDL), are you saying that the
> creation of multi-page postscript files is no longer possible with IDL8 New Graphics?
>
>
> cheers,
>
> paulv

It may be, but I can't see how. The LAYOUT keyword works similarly to !P.MULTI, but as far as I can tell it only works for a single window.

If you want to create multi-page PS or PDF documents you will have to create each page in a separate window, save to the appropriate file type, and then concatenate the files/pages using SPAWN or something similar.

Or use Old Graphics (direct graphics).

I would be happy to be corrected if this is wrong.

Ken

Subject: Re: Multi-page graphics in IDL 8

Posted by [Kenneth P. Bowman](#) on Tue, 07 Sep 2010 16:40:21 GMT

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In article

<f5fdd207-0529-4098-b2ca-a699728e0df7@b34g2000yqm.googlegroups.com>,
Chris Torrence <gorthmog@gmail.com> wrote:

> In IDL 8.0, multi-page postscript files still work fine, just as they
> did before.
>
> For the new graphics, we added support for PDF output, but we ran out
> of time to do multi-page output. I have some prototype code that adds
> this feature, if you're interested in trying it out.
>
> Cheers,
> Chris
> ITTVIS

I can continue to use direct graphics for now and wait for an
official release. I'm sure it will take some time to get my
brain to convert to using New Graphics. :-)

Cheers, Ken

Subject: Re: Multi-page graphics in IDL 8

Posted by [Paul Van Delst\[1\]](#) on Tue, 07 Sep 2010 18:37:13 GMT

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Chris Torrence wrote:

> On Sep 7, 7:34 am, Paul van Delst <paul.vande...@noaa.gov> wrote:
>> Kenneth P. Bowman wrote:
>>> In article
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>>> of convenience. In fact, I think we will have to stay with Old Graphics
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>> Yeah, no kidding. But, just to clarify (since I don't create PDF files directly from IDL), are you
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>> creation of multi-page postscript files is no longer possible with IDL8 New Graphics?
>>
> Hi Paul & Ken,
>
> In IDL 8.0, multi-page postscript files still work fine, just as they
> did before.
```

Phewph! :o)

cheers,

paulv

Subject: Re: Multi-page graphics in IDL 8
Posted by [Teddy Allen](#) on Mon, 18 Oct 2010 04:09:53 GMT
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On Sep 2, 4:33 pm, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:

```
> We frequently use direct graphics and !P.MULTI to generate graphics output
> where there are multiple plots on multiple pages. It is not hard to make
> this work either to the display or to a PS file. When drawing to the display
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> PDF files rather than a single file.
>
> Am I missing something? Is there an easy way to do what I need with the New
> Graphics system, or do I need to stay with Classic Graphics.
>
> Thanks, Ken Bowman
```

Ken,

I am having trouble creating MULTI-PLOT images in the same window with IDL8.0 . From above, you mention that you can produce multiple plots on one image with the new 8.0 . Personally, I am struggling to accomplish this. IDL help menu shows how to do !p.multi using older releases of IDL, NOT with the newest 8.0 version. It makes no sense to me to start using a new release, but have to depend on previous releases to make progress, especially when the things I am trying to do have been updated in 8.0. For example, you probably noticed the new method in 8.0 to produce plots `p = PLOT(xxxxxxxxxx)` and then we can save the plot by typing `P.SAVE`this to me is VERY easy. But, to use !p.multi it seems like I need to issue plot commands from earlier IDL releases. Bummer!

How did you find out to create multi plots on one window in 8.0?

Thank you very much for your time.

cheers,

teddy allen

Subject: Re: Multi-page graphics in IDL 8

Posted by [David Fanning](#) on Mon, 18 Oct 2010 04:24:18 GMT

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Teddy Allen writes:

> I am having trouble creating MULTI-PLOT images in the same window with
> IDL8.0 . From above, you mention that you can produce multiple plots
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> use !p.multi it seems like I need to issue plot commands from earlier
> IDL releases. Bummer!

You want to use the LAYOUT keyword in conjunction with
the CURRENT keyword.

```
IDL> p = plot(loaddata(17), layout=[2,2,1])
IDL> p = plot(loaddata(17), layout=[2,2,2], /current)
IDL> p = plot(loaddata(17), layout=[2,2,3], /current)
IDL> p = plot(loaddata(17), layout=[2,2,4], /current)
```

> How did you find out to create multi plots on one window in 8.0?

I looked up one of the multiple plot examples in the on-line help. Then, I mucked around until I figured it out. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Multi-page graphics in IDL 8

Posted by [Kenneth P. Bowman](#) on Mon, 18 Oct 2010 15:54:26 GMT

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In article <MPG.272579e1c02a14859897c0@news.giganews.com>, David Fanning <news@dfanning.com> wrote:

> Teddy Allen writes:

>

>> I am having trouble creating MULTI-PLOT images in the same window with
>> IDL8.0 . From above, you mention that you can produce multiple plots
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>

> I looked up one of the multiple plot examples
> in the on-line help. Then, I mucked around
> until I figured it out. :-)
>
> Cheers,
>
> David

Thanks, David. :-)

Ken

Subject: Re: Multi-page graphics in IDL 8
Posted by [penteado](#) on Mon, 18 Oct 2010 16:43:02 GMT
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On Oct 18, 2:09 am, Teddy Allen <teddy.ie...@gmail.com> wrote:
> How did you find out to create multi plots on one window in 8.0?
> Thank you very much for your time.

Besides what David mentioned above, note that you can combine different layout grids to make non-rectangular multiplots, as show in one of the examples of the last webinar:

http://groups.google.com/group/comp.lang.idl-pvwave/browse_thread/thread/a44a227fb6d32cf7/

Also, I am finishing writing a class to provide in the new graphics functionality like IDLAstro's multiplot does for direct graphics. It is more flexible than multiplot, allowing to have lines/columns of different heights/widths, and providing synchronization of axes properties. It will be out probably sometime this week.