Subject: Windows PostScript Preview Image
Posted by davidf on Tue, 16 Nov 1999 08:00:00 GMT
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Hi Folks,

There has been some discussion on this newsgroup lately
of how to produce a decent PostScript preview image, so
you could import the image into a Word or Powerpoint
document and see something reasonable. I've written
an article on this topic that might shed some light on
the subject, at least for those of you working on Windows
machines. (Ninety percent of you, if my recent figures from
Microsoft are any indication. :-)

http://www.dfanning.com/tips/postscript_preview.html

Note that the page may be a bit slow to load. The images
are larger than I like them to be, but I didn't use image
compression because I wanted the quality of the output
(or, frankly, absolute lack of it in the case of IDL's
preview image) to be apparent between the three different
methods I illustrate.

The first method is IDL's own, using the Preview keyword.
The second involves using Ghostview, as suggested on this
newsgroup by Liam Gumley, and the third method uses Adobe
Acrobat and was suggested to me by Larry Ashim.

I'll let you decide which method you prefer. :-)

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Windows PostScript Preview Image
Posted by Laurent Chardon on Tue, 16 Nov 1999 08:00:00 GMT
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On a similar topic, I'd like to offer the following information. I wanted to
be able to include plots generated by IDL to my word documents. Screen dumps

of the display window were out of the question as well as GIFs, TIFFs, etc... because their resolution is too crude. I couldn't import PostScript files either because I don't have a Postscript printer. I found that the best way was to generate postscript files and to import them into Corel Draw 9. Once there every single part of the graph is an individual object, which is useful if you have extra manipulations to perform. You could delete the title of an axis, for example, if that's something you needed to do. But the real usefullness is that you can select an arbitrary area of the PostScript page and copy it to the clipboard.
The advantage to me is that I can select one plot with its titles from a multiplot ps file and copy it in the clipboard, go to word and paste it in a table cell. Then I go get another plot and paste it in another cell, etc...
This method is very flexible because I can change the layout of the plots on my word document without having to go back to IDL and generate a new PostScript file.
Best of all the printed output looks very good on my 600dpi printer, specially when using true type fonts.

Laurent

--

Remove NOT_THIS in the email address to reply.

Subject: Re: Windows PostScript Preview Image
Posted by Liam Gumley on Tue, 16 Nov 1999 08:00:00 GMT
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David Fanning wrote:
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David, thanks for the nice write up.

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I've found GSView to be an indispensable tool for checking that my IDL Postscript output really looks the way I intended it to look, without having to print a darn thing. And it adds nice preview images as well! Check out
http://www.cs.wisc.edu/~ghost/

Cheers,
Liam.

--
Liam E. Gumley
Space Science and Engineering Center, UW-Madison
http://cimss.ssec.wisc.edu/~gumley

Subject: Re: Windows PostScript Preview Image
Posted by wgallery on Wed, 17 Nov 1999 08:00:00 GMT
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Some additional notes from my experience in using GhostView to add a preview. I am running IDL on a Sun Ultra, Solaris 2.7 and running Ghostview and Office 97 on an NT 4.0.

You can control the resolution of the preview: under Media: Display Settings, set Resolution. I have found that 150 (dpi) provides a preview image that displays quit well on screen, e.g. in a Powerpoint presentation.

Ghostview offers the following preview format options:
interchange: preview does not display
tiff 4: preview in black and white only,
tiff 6: preview in color
tiff 6 packbits: preview in color
Windows metafile: preview in color

The size of the epsi file may be many times that of the original ps file. However, when inserted into a Word97 or Powerpoint document, the increase in the size of the file is quite modest (apparently the preview is compressed upon insertion.)

Here are the relative sizes for a simple line plot in color:

```
-rw-r--r--   1 rs         7167 Nov 19  1999 fig.ps
-rw-rw-rw-   1 rs       202213 Nov 18  1999 fig_inter.epsi
-rw-rw-rw-   1 rs       752345 Nov 17  1999 fig_meta.epsi
-rw-rw-rw-   1 rs       104847 Nov 17  1999 fig_tiff4.epsi
-rw-rw-rw-   1 rs       740973 Nov 17  1999 fig_tiff6.epsi
-rw-rw-rw-   1 rs        52336 Nov 17  1999 fig_tiff6_pack.epsi
```

Be aware that for all except the interchange preview (which is worthless
anyway), Ghostview adds some binary data at the beginning of the file so
that it can no longer be displayed by ghostscript or be sent to a
postscript printer. Also, the previews are binary.

In article <3831AEC1.3BBA2762@ssec.wisc.edu>,
  Liam Gumley <Liam.Gumley@ssec.wisc.edu> wrote:
> David Fanning wrote:
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> Cheers,
> Liam.
>
> --
> Liam E. Gumley
> Space Science and Engineering Center, UW-Madison
> http://cimss.ssec.wisc.edu/~gumley
>

Cheers,
Bill Gallery

--

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Cambridge, MA 02139
www.aer.com

Subject: Re: Windows PostScript Preview Image
Posted by davidf on Wed, 17 Nov 1999 08:00:00 GMT
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Martin Schultz (m218003@modell3.dkrz.de) writes:

> Nice article! Only one little bit of info missing: what's the file
> size for the various versions? I remember some examples when a
> preview image would blow up the eps file considerably - and one
> could be tempted to conceive that the wonderful TIFF image is somewhat
> larger than the others.

Yes, the file size information might be helpful.

As you might expect, the IDL preview method doesn't create a very big file, since it apparently throws away most of the information you care about. :-(The resulting EPS file is 53 KB in size.

Interestingly, the GSView method, when you create a Windows metafile preview, is even smaller, although the preview image looks reasonably good in Microsoft Word. That file is only 41 KB. But, remember, this is a file that Framemaker couldn't load. The EPS file with the TIFF preview image is bigger, of course, but not terribly so. It is 254 KB in size.

The Acrobat method was somewhere in the middle. It created an EPS preview file of 157 KB. Since this was a Level 1 PostScript ASCII file, I also tried a Level 2 PostScript binary file. That file is 141 KB and the preview quality is the same.

If I get a minute I'll add the numbers to the article.

Cheers,

David
--
David Fanning, Ph.D.
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Subject: Re: Windows PostScript Preview Image
Posted by m218003 on Wed, 17 Nov 1999 08:00:00 GMT
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In article <MPG.129b25fdfb87c7cf989967@news.frii.com>,
davidf@dfanning.com (David Fanning) writes:
> Hi Folks,
>
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> machines. (Ninety percent of you, if my recent figures from
> Microsoft are any indication. :-)
you may want to get your numbers from RSI rather than Mirosoft ;-)

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Nice article! Only one little bit of info missing: what's the file
size for the various versions? I remember some examples when a
preview image would blow up the eps file considerably - and one
could be tempted to conceive that the wonderful TIFF image is somewhat
larger than the others.

I know, I know: GB/$ is a monotonously increasing function - yet, there
are still some dinosaurs who may want to send files on floppies or who
have steam-powered computers ...

Cheers,
Martin

--
[[[[[[[[[[
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[[Bundesstr. 55, 20146 Hamburg [[
[[phone: +49 40 41173-308 [[
[[fax: +49 40 41173-298 [[
[[martin.schultz@dkrz.de [[
[[[[[[[[[

Subject: Re: Windows PostScript Preview Image
Posted by Mark Hadfield on Wed, 17 Nov 1999 08:00:00 GMT
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David Fanning <davidf@dfanning.com> wrote in message
news:MPG.129b25fdfb87c7cf989967@news.frii.com...
> ...
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> newsgroup by Liam Gumley, and the third method uses Adobe
> Acrobat and was suggested to me by Larry Ashim.

For those who prefer a command-line tool, Russell Lang, the author of GsView has written epstool (see http://www.cs.wisc.edu/~ghost/gsview/epstool.html). Once you sort out the right command-line options, its a lot quicker than going through the sequence of menu selections required with GsView.

Mark Hadfield
m.hadfield@niwa.cri.nz http://katipo.niwa.cri.nz/~hadfield/
National Institute for Water and Atmospheric Research
PO Box 14-901, Wellington, New Zealand

Subject: Re: Windows PostScript Preview Image
Posted by Mark Hadfield on Thu, 18 Nov 1999 08:00:00 GMT
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Martin Schultz <m218003@modell3.dkrz.de> wrote in message
news:80tr2m$9p6$1@rzsun03.rrz.uni-hamburg.de...
> In article <MPG.129b25fdfb87c7cf989967@news.frii.com>,
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> size for the various versions? I remember some examples when a
> preview image would blow up the eps file considerably - and one
> could be tempted to conceive that the wonderful TIFF image is somewhat
> larger than the others.

A good question, but it's probably a bit much to ask David to address it in
his summary, as the answer is rather complicated.

The main variables are the resolution & colour depth of the preview image,
of course. Some of the methods that David describes let you control these
variables, in which case the answer to your question is "how large do you
want the file to be?". I mentioned epstool in a previous post and I have
volunteered to contribute some text about it to add to David's summary--when
I get around to it :-). This lets you control resolution, colour depth and
format of the preview image via command-line switches. I may do some
experiments and report the results--when I get around to it.

Mark Hadfield
m.hadfield@niwa.cri.nz http://katipo.niwa.cri.nz/~hadfield/
National Institute for Water and Atmospheric Research
PO Box 14-901, Wellington, New Zealand