Subject: Re: IDL 8, EPS vs. PS graphics
Posted by chris_torrence@NOSPAM on Fri, 07 Jan 2011 17:00:16 GMT
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On Jan 7, 9:16 am, Marc Buie <ec...@olblue.net> wrote:
> Folks -
>
> I just got around to trying to use the new plot functions on the creation of publication quality graphics. I've long thought this would help me in many ways. One of my needs is to save the careful crafted graphic in a variety of formats. I have always saved such graphics in both encapsulated (EPS) and regular postscript (PS). I need both flavors at different times in the publication process. I just ran this in the obvious way and find that '.ps' and '.eps' files are absolutely identical and it is my understand that this cannot be correct. One telling sign is that there is a "showpage" at the end of both. I thought encapsulated files were not allowed to have a showpage.
>
> Am I missing some subtle control on the save method for PLOT? Am I missing something else entirely? Or, is this yet another problem with IDL 8?
>
> Cheers,
> Marc

Hi Marc,

Not sure what other problems with IDL 8 you are referring to, but this
is more of a limitation of IDL object graphics. It has never had the
ability to output to PS files, but has only done EPS files. Usually,
this is okay because you can simply import the EPS into whatever
program you are using (MSWord, LaTeX, etc.) or just send it to a
printer. Unfortunately, it sounds like in your case you really need
the PS files. For now, I'm wondering if you could either use PDF for
the "full-page" files, or use something like "eps2ps" to convert the
files.

In the meantime, we can definitely consider adding support for PS
files to object graphics. Thanks for the feedback!

Cheers,
Chris
ITTVIS

Subject: Re: IDL 8, EPS vs. PS graphics
Posted by Norbert Hahn on Fri, 07 Jan 2011 17:24:53 GMT
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Marc Buie <ecom1@olblue.net> wrote:

> Folks -
>
> I just got around to trying to use the new plot functions on the creation of publication quality graphics. I've long thought this would help me in many ways. One of my needs is to save the careful crafted graphic in a variety of formats. I have always saved such graphics in both encapsulated (EPS) and regular postscript (PS). I need both flavors at different times in the publication process. I just ran this in the obvious way and find that '.ps' and '.eps' files are absolutely identical and it is my understand that this cannot be correct. One telling sign is that there is a "showpage" at the end of both. I thought encapsulated files were not allowed to have a showpage.

The early specification of EPS did not allow showpage. The latest spec, which dates back to 1996 (+-2 years), does allow showpage. I haven't found Adobe Technical Note #5002, "Encapsulated PostScript File Format Specification" online.

BTW: The latest changes to PS date back to 1999:
http://www.adobe.com/products/postscript/pdfs/PLRM.pdf
contains an ealier but free version of "PostScript Language Reference Manual, Adobe Systems Addison-Wesley, 1999; ISBN 0201379228".

Norbert

Subject: Re: IDL 8, EPS vs. PS graphics
Posted by Marc Buie on Fri, 07 Jan 2011 17:31:57 GMT
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Chris -

Well, to me, when I see "ps" and "eps" listed in the documentation for the possible output formats, that means it is supposed to be supported. I definitely don't expect it to produce identical output. For reference, the direct graphics output is definitely different with and without the /ENCAPSULATE flag.

Sounds like this was just a quickie thing stated in the documentation that isn't really covered by what's implemented. For the record, though, if a postscript file contains "showpage" it is non-encapsulated. At least that's my reading of the postscript language manual. This means that the new plot functions do not support encapsulated and that seems to be the opposite of the conclusion you have drawn.

I applaud your consideration for getting this fixed. It is, after all, a very important capability.

One final note, this particular figure involves plotting more than 200,000 points (I'm using a "dot" with no lines). In the new plot function, this is noticeably slower than with direct graphics in creating the plot. Not, too bad, perhaps it takes 1 second to plot while direct graphics appears to be instantaeous. However, the big surprise comes when saving the graphic as a postscript file. Doing this in direct graphics is just as fast but with plot.save,"file.eps" it takes a couple of minutes

to generate the file.

--Marc

Subject: Re: IDL 8, EPS vs. PS graphics
Posted by Marc Buie on Fri, 07 Jan 2011 17:42:26 GMT
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Norbert -

Aha, I bet that is what's covered by the preamble in the output file:

%!PS-Adobe-3.0 EPSF-3.0

I tried including my new graphic in my LaTeX master document without change and it does indeed work just fine. I learned postscript pretty well back in the early 90's and haven't bothered to update my manuals or my knowledge. Sounds like PS and EPS are pretty much redundant names for the same thing now days.

Thanks,
Marc