Subject: Re: iTools: lines too thick to publish?
Posted by David Fanning on Tue, 07 Nov 2006 17:28:42 GMT
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Dave writes:

> I've just received some feedback from a journal that the figures I
> created with iTools has lines that are simply too thick for
> publication. I saved the figure as a vector-based .eps file so this
> isn't a low-res bitmap.

Actually, what iTools prefer to save is NOT a "low-res"
bitmap, but a very "high-res" bitmap. I wouldn't be
surprised to find it is exactly what you had in mind.
Have you tried it? It will be big, but it will probably
be more accurate than the "low-res" vector output. :-)

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: iTools: lines too thick to publish?
Posted by K. Bowman on Tue, 07 Nov 2006 19:00:12 GMT
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In article <1162919511.906667.235500@i42g2000cwa.googlegroups.com>,
 "Dave" <Confused.Scientist@gmail.com> wrote:

> Hello,
>
> I've just received some feedback from a journal that the figures I
> created with iTools has lines that are simply too thick for
> publication. I saved the figure as a vector-based .eps file so this
> isn't a low-res bitmap. The figure has quite a few lines on it
> (contours, vectors and trajectories) and I recall trying to make the
> lines thinner when I originally created the figure. A co-worker opened
> the file in CorelDraw 12 and was able to change all of the 1 px lines
> to 0.25 - 0.50 px which should satisfy the journal. Nevertheless, I'd
> very much like a way to get thinner lines when using iMap/iPlot. I
> fiddled for a few hours this morning to get fractional line widths into
> the iPlot dialog boxes but to no avail. Adding a few fractional
> thicknesses in the drop-down menu would be great (i.e. 0.25, 0.5, 0.75)

> but I don't really understand why the thickness cannot be varied to any
> decimal value? My older routines using map_set and contour gave .eps
> plots with much thinner lines but I would hate to go back to
> non-interactive graphics with what I'm working on at the moment.
>
> Thanks.
> Dave

This is amusing because our journals require no lines *smaller*
than 1 pt. :-)

With direct graphics PS files Iusually find it simplest to open the
file in Illustrator, click on a representative line and then from the
Select menu choose ... Same stroke weight. Change to 1 pt and save the file.

Cheers, Ken Bowman

Subject: Re: iTools: lines too thick to publish?
Posted by Dave[3] on Wed, 08 Nov 2006 14:10:04 GMT
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> With direct graphics PS files Iusually find it simplest to open the
> file in Illustrator, click on a representative line and then from the
> Select menu choose ... Same stroke weight. Change to 1 pt and save the file.

My original message confused the issue slightly as I intended to write
'1 pt' but wrote '1 px' instead. Anyways, below is the comment I
received from the publisher:

"Regarding figures 2, 3 and 6, the line thickness in each panel should
be changed for clarity. Thin lines should have a thickness of 0.5 pt.
While thicker lines may be used for emphasis, I recommend the lines be
no thicker than 2 pt."

The author instructions specify:

"Line graphs should be sent as EPS files, with a preferred line width
of 0.5 pt (0.2 mm). If this is not possible, bitmap TIFF files with a
minimum resolution of 1200 dpi may be accepted. Pictures, photographs
and micrographs should be sent as Grayscale TIFF files with a minimum
resolution of 300 dpi without lettering, and 500 dpi with lettering.
Color images should be sent as CMYK-encoded TIFF images. RGB-encoded
color images will be difficult to match for color..."

I can generate a TIFF file using iMap but it isn't obvious how I can
set the resolution to 1200 dpi or what the width/height of the figure
should be in pixels. In general, I much prefer EPS files for

line-based drawings. Changing the line widths in CorelDraw 12 was
quite simple but I still wish I could avoid this step in the future.

Dave

Subject: Re: iTools: lines too thick to publish?
Posted by K. Bowman on Wed, 08 Nov 2006 14:48:14 GMT
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In article <1162995004.698259.125340@k70g2000cwa.googlegroups.com>,
 "Dave" <Confused.Scientist@gmail.com> wrote:

> "Regarding figures 2, 3 and 6, the line thickness in each panel should
> be changed for clarity. Thin lines should have a thickness of 0.5 pt.
> While thicker lines may be used for emphasis, I recommend the lines be
> no thicker than 2 pt."

Different journals have different standards. Yours must use a higher
quality printer than ours, as 0.25 and 0.5 pt lines can be hard to see in
some of our printed journals. (Who said AGU?)

> I can generate a TIFF file using iMap but it isn't obvious how I can
> set the resolution to 1200 dpi or what the width/height of the figure
> should be in pixels. In general, I much prefer EPS files for
> line-based drawings. Changing the line widths in CorelDraw 12 was
> quite simple but I still wish I could avoid this step in the future.

I agree wholeheartedly. The price we pay for screaming fast, 3-D, bitmapped
graphics on our computer displays is ... bitmapped graphics in our printed
output. :-|

I find Illustrator to be indispensable for graphics because it can save
IDL PS output as PDF (for presentations and embedding into TeX documents) and
EPS (for submission to journals). I generally convert PS to PDF for
manuscript preparation and graphics tweaking, then at the very last step,
when the publisher wants final figures, save each figure as EPS and submit.
CorelDraw may do this just as well, but there hasn't been a Mac version in a
long time.

Ken Bowman

Subject: Re: iTools: lines too thick to publish?
Posted by Benjamin Hornberger on Wed, 08 Nov 2006 15:59:35 GMT
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Dave wrote:
> Hello,
>
> I've just received some feedback from a journal that the figures I
> created with iTools has lines that are simply too thick for
> publication. I saved the figure as a vector-based .eps file so this
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> plots with much thinner lines but I would hate to go back to
> non-interactive graphics with what I'm working on at the moment.
>
> Thanks.
> Dave
>

The documentation for iPlot says that the line thickness (THICK keyword)
can be 1.0 to 10.0 pt. I just tried setting it to <1.0 -- it doesn't
complain but just sets it back to 1.0. It looks like that's all you can
get. You can set it to fractional values between 1.0 and 10.0 though.

Using direct graphics, the units seem to be different. A thickness of
1.0 (the PLOT documentation doesn't mention any units here) turns out as
0.28 pt in Illustrator, and it actually can be set to <1.0 in IDL.

It looks like this is a (major) limitation of iTools or probably object
graphics in general.

As a side note, I have also found it annoying that in the iTools
interface one can't set the line width to any fractional value between
1.0 and 10.0 even though this is possible in principle (by using the
THICK keyword when the data is first plotted, or by controlling the
iTools from the command line as described in Appendix A of the iTools
Developer's Guide).

Benjamin