Subject: Re: EPS to PDF contour plots
Posted by David Fanning on Mon, 04 Apr 2011 20:26:24 GMT
View Forum Message <> Reply to Message

Matt writes:

> Maybe I misunderstood David's previous post... You want to see what
> comes up in a plotting window? I'd never actually done that before
> for this plot, since I almost always plot straight to PS. Anyway,
> here's a screen-shot of what comes up just with ps_start commented
> out: http://dl.dropbox.com/u/13779929/IDL_screen_shot.png. Clearly
> some issues with the background color that I need to think about, but
> otherwise it's stripe-less. Also, if I use /fill, rather than /
> cell_fill, the plots look fine where there aren't missing values. I'm
> certain it's not something in the data.

Well now, this is MOST interesting!

I happen to be writing an article today about a problem
that came up doing filled contour plots on a map projection.
This is a problem with gridding, but in playing around with it
just a moment ago, I saw all these scratch-like marks in the PostScript
file I created to generate a PNG file for my web page. There were
no scratch marks in the PNG file. This is the first time I have
ever seen scratch marks in the PostScript file!

On closer inspection, these marks are *exactly* the outlines of
the triangles I was using to grid the data! Now, here is the interesting
thing. Matt's mention of the problem disappearing with the use of
the FILL keyword instead of the CELL_FILL keyword caused me to
try the (totally INCORRECT!!!) FILL keyword on this map projection.
He is right, the scratches (triangle outlines) completely disappear!
Of course, now the colors are completely wrong, but, heck, we seem
to be making progress here. :-)

So, there is something about CELL_FILL on a map projection that is
causing a problem. It really looks like a rounding problem to me,
where the triangles are just not always coming completely and seamlessly
together.

> I've just given Ken's routines a try and it looks like they might
> solve the problem! I'll need to play around with it a bit to get a
> better feel for it.
>
> It does seem like a shame not to use contour for this. As Ken says,
> it's much simpler!

I typically use images instead of filled contours, too, in these situations, but I am very curious now to see the commands you used to create this PostScript file. I think it is a combination of a filled contour on a map projection that is causing the problem.

I am curious to see if my solution to the gridding problem I am working on is also a solution to Matt's problem.

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.")
