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Subject: Re: Poscript Component Selection

Posted by [Mark Hadfield](#) on Tue, 13 Sep 2005 22:11:18 GMT

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IDLmastertobe wrote:

> Thanks Mark. I have a whole bunch of 3D data to visualize in IDL. I can  
> now visualize them, rotate them in any direction I want. It is like a  
> real time display of the 3D object. Now I am trying to save the 3D object  
> in a postscript format such that I can select certain axis, labels, etc and  
> modify them for say presentation or other purposes. I was able to save the  
> 3D object in ps, but it is like a jpeg image and I can't modify any  
> component of the image. After getting help from a lot of people, I can  
> now save it in ps format with the ability of selecting and modifying some  
> component, but the 3D image now appear to be a while plane that has no  
> color at all. I am trying to figure out if it is possible to even have  
> what I want implemented. Thanks for your reply.

If you want vector Postscript output from object graphics then you are going to have to live with or work around its limitations. These are listed in the IDL documentation under the heading...

Programmer's Guides  
Object Programming  
Displaying, Copying and Printing Objects  
Bitmap and Vector Graphics

One of these limitations is that texture mapped images are omitted from vector output; there are other significant ones, eg shaded lighting effects.

Texture mapped images are not the only way to display numeric data as a colour plot in Object Graphics. Surfaces can also be coloured, as can polygons. There are examples of this in the Motley library:

<http://www.dfanning.com/hadfield/idl/README.html>

Once you've got the library installed and working (contact me if you need help) run the command "mgh\_example\_density" with various values of the option argument. You can try various output options (image files, Postscript files, printer) and see how they look.

But if you get past this obstacle, you may still find that vector Postscript just can't represent 3D object graphics well enough. Bitmap output, in a format like PNG, represents the plot much better, doesn't have to look too grainy (if the resolution is high enough) and can be annotated in some graphics editor (but the axes and lines aren't entities, just collections of pixels).

Another option is to use the IDL Itools and do your annotation and

editing in IDL. I can't really comment on this because I haven't got to grips with Itools.

Or do what I do: do all my annotation with IDL code, running the commands repeatedly until I'm satisfied. This can be time-consuming but has the advantage that the plot can then be generated again without any manual steps.

Or use Tecplot?

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Mark Hadfield        "Kei puwaha te tai nei, Hoesa tahi tatou"  
m.hadfield@niwa.co.nz  
National Institute for Water and Atmospheric Research (NIWA)

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