
Subject: Re: Polyshade and Postscript (beginner)

Posted by [David Fanning](#) on Tue, 10 Dec 2002 20:36:07 GMT

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Simon de Vet (sdevet@is2.dal.ca) writes:

```
> I have some nice volumetric data, which I am currently visualizing as a
> 3-d scatter plot, with each point colour determined by its value. It
> works ok, but it's not easy to see trends.
>
> I'd like to do some volume visualization on this, but need all my
> outputs in postscript format (nothing displayed to screen, nothing
> interactive).
>
> I can generate the surfaces (I think), with:
>
> Surface, Dist(5), XRange=[0, 25], YRange=[0, 25], $
>       ZRange=[0,25], XStyle=1, YStyle=1, ZStyle=1, $
> /NoData, /Save
>
> shade_volume, nrat3d, 2.0, v, p
>
> volume = polyshade(v, p, /t3d)
>
>
> But then I don't know how to output this to a plot.
```

What you have in "volume" right now is a 2D image array.
You want to TV that into a PostScript file. Things can
get a LOT more elaborate than this, but this should get
you started:

```
thisDevice = !D.Name
Set_Plot, 'PS'
Device, XSize=6.5, YSize=6.5, /Inches, XOffset=1.0, $
  YOffset=2.25, Color=1, Bits_Per_Pixel=8, $
  Portrait = 1, Filename='myvolume.ps'
TV, volume
Device, /Close_File
Set_Plot, thisDevice
```

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.

Subject: Re: Polyshade and Postscript (beginner)
Posted by [Simon de Vet](#) on Wed, 11 Dec 2002 16:06:46 GMT
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David Fanning wrote:

```
> What you have in "volume" right now is a 2D image array.  
> You want to TV that into a PostScript file. Things can  
> get a LOT more elaborate than this, but this should get  
> you started:  
>  
> thisDevice = !D.Name  
> Set_Plot, 'PS'  
> Device, XSize=6.5, YSize=6.5, /Inches, XOffset=1.0, $  
>   YOffset=2.25, Color=1, Bits_Per_Pixel=8, $  
>   Portrait = 1, Filename='myvolume.ps'  
> TV, volume  
> Device, /Close_File  
> Set_Plot, thisDevice
```

This runs without error and generates the 'myvolume.ps' file, but the file is empty - no plot.

On second glance, the file probably isn't empty - it's listed at 208 Mb, so it's probably breaking my viewer.

Any tips on making this a bit smaller? (my data set is 20x20x20)

-- Simon

Subject: Re: Polyshade and Postscript (beginner)
Posted by [David Fanning](#) on Wed, 11 Dec 2002 16:22:39 GMT
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Simon de Vet (sdevet@is2.dal.ca) writes:

```
> This runs without error and generates the 'myvolume.ps' file, but the  
> file is empty - no plot.  
>  
> On second glance, the file probably isn't empty - it's listed at 208 Mb,  
> so it's probably breaking my viewer.
```

I'm pretty sure that is not MBytes. KBytes, maybe. An image of 300 by 300 on my machine produces a PostScript file of about 262 KBytes.

If it really is MBytes, you better tell us more about your IDL version, machine, and the size of your image. :-)

> Any tips on making this a bit smaller? (my data set is 20x20x20)

Your data set doesn't have anything to do with it. What you want to know is how big your image is. This will be a reflection of the size of your current graphics window (or, if none is open, the default size of the graphics window) when you run your SCALE3 command.

(You did run everything *outside* the PostScript device, didn't you? Only going into the PostScript device to display the image, as I indicated in my code? If you try to produce the display inside the PostScript device it could, I suppose, be 208 MBytes! Those PostScript device coordinates are about 25 times smaller than display coordinates, which will make your file about 25 times larger!)

Cheers,

David

--

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