
Subject: Re: Color Printer limitations - Postscript resolution

Posted by [landers](#) on Fri, 13 May 1994 13:49:01 GMT

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I have also had problems with long color PS printing time (from PV-WAVE).

In my case, the plots are large color images. I discovered that I could reduce the print time by reducing the resolution of the PS image. This did not degrade my plots because of the nature of my data. I think that the default PS image output is at around 300dpi, but this is just a guess. Reducing this by 1/3 (to what I guess is 100 - close to what I see on my screen) makes the files almost 1/9 the size, and reduces PS processing time accordingly.

You could do this by taking a 'snapshot' of the screen, but this 'pixelizes' any text and lines in the plot, and can really get ugly if you resize it. I prefer to do the re-scaling straight to the PS file from PV-WAVE.

To do this in PV-WAVE, I do:

```
scale = 3. ; the scale reduction factor
xsize = 6. ; the final x,y sizes of the plot (inches in this case)
ysize = 6.
SET_PLOT, 'PS'
DEVICE, /Color, Bits_Per_Pixel=8, Xsize=xsize/scale, Ysize=ysize/scale, $
    /Inches, Scale_Factor=scale
!P.Charsize = 1./scale ; set character sizes - Scale_Factor doesn't affect them

< plot commands >
DEVICE, /Close
!P.Charsize = 1. ; reset it back to normal
SET_PLOT, 'X' ; or whatever
```

Make sure that if you use Charsize keywords in your plot commands, to use them relative to !P.Charsize or scale. Otherwise they'll turn out much too large.

Also, there is no !P.Symsize, so if you use plot symbols, you'll need to set Symsize keywords relative to !P.Charsize, too.

Even if you want high resolution finals, you can use this for small, quick previews.

I figured all this out by playing with DEVICE and PS and stuff. If I am going about this the hard way, somebody let me know. There really ought to be a Resolution keyword for the PS device to make this easier.

David Landers
M/S 8019
Texas Instruments
2501 W. University
McKinney, TX 75070

(214) 952-3910

landers@tsunami.dseg.ti.com
