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Subject: Re: problems w/PS images

Posted by [thompson](#) on Fri, 09 Jun 1995 07:00:00 GMT

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"R. Marc Kippen" <rmkippen@unh.edu> writes:

> Hi,

> I'm having problems producing postscript images with the TV/TVSCL  
> command. The following command should produce a scaled version of IMAGE  
> that fits inside the region given by XSIZE, YSIZE in normal coordinates:

>> TVSCL, IMAGE, XSIZE=0.5, YSIZE=0.5, /NORMAL

> The problem is that the PS files always contain an extra vertical column  
> of pixels at the far right whose color is set to 255. This happens both  
> in IDL and PV~WAVE. Is this a bug in the scalable pixels of the  
> postscript device??

> --Marc Kippen

I think I know what's causing your problem. It's bitten me many a time. Window display never use all 256 colors because some of them are reserved by the window manager or other applications. When one uses TVSCL in a window, the image is scaled to some color index smaller than 256, let's say 230 as an example, and the color tables are also scaled to match. When one then selects the PostScript device and uses TVSCL again, the image is now scaled to the full range of 256, but the color table, which the PostScript device manages to pick up from the windowing system, still only goes up to 230. The color indices higher than that end up being set to some default greyscale.

There are two ways around this. What I generally do is to just make sure to reload the color table I want immediately after selecting the PostScript device.

Another way to get around this problem is to forego using TVSCL and use the BYTSCL routine instead with the TOP keyword. That way you can use the same value of TOP for both the window display and the PostScript device. For example, you can say

```
TOP = !D.N_COLORS - 1
TV, BYTSCL(IMAGE, TOP=TOP)
SET_PLOT,'PS'
DEVICE, /COLOR, FILENAME=...
TV, BYTSCL(IMAGE, TOP=TOP), XSIZE=0.5, YSIZE=0.5, /NORMAL
```

Bill Thompson

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Subject: Re: problems w/PS images  
Posted by [gurman](#) on Thu, 15 Jun 1995 07:00:00 GMT  
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In article <DA81nw.AuE@hpl.hp.com>, peter@hpl.hp.com (Peter Webb) wrote:

> William Thompson (thompson@orpheus.nascom.nasa.gov) wrote:  
>  
> : range of 256, but the color table, which the PostScript device manages  
to pick  
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> : higher than that end up being set to some default greyscale.  
>  
> : Bill Thompson  
>  
>  
> Bill, does the color table always get picked up, or only when you  
> specify the /COLOR keyword to DEVICE? It has always seemed to me  
> that for grayscale postscript, you need to use top=255, while for  
> screen display you need to use some smaller value to leave room for  
> the window manager.

In general, you should refer to !d.n\_color - 1, rather than a  
hardwired value, regardless of the device. This should also render your  
code more portable among display devices.

Joe Gurman

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| somebody else's. |

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Subject: Re: problems w/PS images  
Posted by [peter](#) on Thu, 15 Jun 1995 07:00:00 GMT  
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William Thompson (thompson@orpheus.nascom.nasa.gov) wrote:

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Peter

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