
Subject: Interpolation problem in 'cgimage.pro' while having set_plot='ps'

Posted by [jacobsvensmark](#) on Sat, 30 Nov 2013 16:26:18 GMT

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So I execute the following code displaying 3 colored 7x7 array images, and the .eps file that is created has its displayed data smoothed/interpolated, even though I specify interpolate=0. If I set_plot,'X' and comment out the device commands, the displayed image is not interpolated and is thus fine. I wish to not have interpolation - am I doing something wrong or am I seeing a bug?

EXAMPLE using set_plot,'ps':

<http://imgur.com/LpzRVmD>

EXAMPLE using set_plot,'X' and no device commands

<http://imgur.com/s8c8uX6>

CODE EXAMPLE:

```
pro test
set_plot,'ps'
```

```
; Example data
```

```
data_1 = findgen(7,7)
```

```
data_2 = findgen(7,7)+2
```

```
data_3 = findgen(7,7)+3
```

```
device,filename='plot5.eps',/encapsul,/color
```

```
cgDisplay
```

```
maxdensity = max([data_1,data_2,data_3])
```

```
mindensity = min([data_1,data_2,data_3])
```

```
!p.multi=[0,3,1]
```

```
cgloadct, 33
```

```
tvlct, rr, gg, bb, /get
```

```
palette = [ [rr], [gg], [bb] ]
```

```
axes_settings = {xticks:6,xtickname:['0','15','30','45','60','75','90'],xtic kv:[0,15,30,45,60,75,90],$
                yticks:6,ytickname:['0','15','30','45','60','75','90'],ytick v:[0,15,30,45,60,75,90]}
```

```
; PLOT 1
```

```
ff = data_1
```

```
scaleddensity = bytscl(ff, min=mindensity, max=maxdensity)
```

```
; display the density plot.
```

```
cgimage, scaleddensity, /axes, palette=palette, axkeywords=axes_settings, $
```

```

    xtitle='Theta', ytitle='Phi', title = 'Bias at 1 Rvir', xrange=[-7.5,97.5],yrange=[-7.5,97.5],$
    position=[0.125, 0.125, 0.9, 0.7],color=cgcolor('black'),interpolate=0
cgcontour, ff, levels=(max(ff)-min(ff))*(findgen(6)+1.)/6.+min(ff), /onimage, $
    c_colors=['black'], $
    c_thick=thick, c_charthick=thick

; PLOT 2
    ff = data_2
    scaleddensity = bytscl(ff, min=mindensity, max=maxdensity)
; display the density plot.
    cgimage, scaleddensity, /axes, palette=palette,axkeywords=axes_settings, $
        xtitle='Theta', ytitle='Phi', title = 'Bias at 2 Rvir', xrange=[-7.5,97.5],yrange=[-7.5,97.5],$
        position=[0.125, 0.125, 0.9, 0.7],color=cgcolor('black'),interpolate=0

    cgcontour, ff, levels=(max(ff)-min(ff))*(findgen(6)+1.)/6.+min(ff), /onimage, $
        c_colors=['black'], $
        c_thick=thick, c_charthick=thick

; PLOT 3
    ff = data_3
    scaleddensity = bytscl(ff, min=mindensity, max=maxdensity)
; display the density plot.
    cgimage, scaleddensity, /axes, palette=palette, axkeywords=axes_settings, $
        xtitle='Theta', ytitle='Phi', title = 'Bias at 3 Rvir', xrange=[-7.5,97.5],yrange=[-7.5,97.5], $
        position=[0.125, 0.125, 0.9, 0.7],color=cgcolor('black'),interpolate=0
    cgcontour, ff, levels=(max(ff)-min(ff))*(findgen(6)+1.)/6.+min(ff), /onimage, $
        c_colors=['black'], $
        c_thick=thick, c_charthick=thick

; PLOT COLORBAR
    cgColorbar, Position=[0.125, 0.85, 0.9, 0.925], Title='M!dellipsoid!n(<R)/M!drandom!n(<R)', $
        Range=[mindensity, maxDensity], NColors=254, Bottom=1, OOB_Low='gray', $
        TLocation='Top',color=cgcolor('black')

device,/close
end

```
