
Subject: How to Get Started with the Z-Buffer

Posted by [Ryan](#) on Tue, 19 Dec 2006 16:30:37 GMT

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Dear All,

I have a routine that plots about 15 plots and saves it to a postscript file. I want to automate this routine and put it into the cron but because I can't use graphics windows there I'm trying to modify my code to use the Z-buffer. I've read that all you have to do is set the Z-buffer (using SET_PLOT, 'Z') and plot normally. After plotting all my graphs, I read the image (a = TVRD()), set the PS device (SET_PLOT, 'PS'), and display the image (TV, a), but all I get is a large black box in the output. Is there anything I am missing? The IDL help on the Z-buffer is not very insightful on what it could be.

My code is too long to include here but I have put relevant sections (at least I think they are relevant) to show what I'm doing. I'm not sure the resolution of a typical letter-sized page, so I have just guessed values it to be 10000x7500.

Also, i included an intermediate step of switching to the X device and plotting then switching back to the Z device , but all I get is a black window. Does the Z buffer use different color defaults than X? Like say, the background color?

Here are the relevant sections of my routine:

```
myDevice=!D.NAME
IF DEBUG THEN PRINT, 'Setting Z device'
set_plot, 'Z'
DEVICE, SET_RESOLUTION=[10000, 7500], Z_BUFFER=0

;Setting the background to White and Plotting color to black
tvlct, 255, 255, 255, !p.background
tvlct, 0, 0, 0, !p.color

;Storing the current configuration to be restored later
thisMulti = !P.MULTI
!P.MULTI = [0, 1, n_plots, 0, 0]

;ploting (call plot command up to 15 times)
;...
;after the first plot I issue the following command to
;see if i can display it on the screen
IF DEBUG THEN BEGIN
  aa = TVRD()
  SET_PLOT,'X', /COPY
```

```
TV, aa
SET_PLOT, 'Z', /COPY
TV, aa
ENDIF
;
```

```
;Restore the previous configuration
!P.MULTI = thisMulti
```

```
xyouts, 12000, 19500, title_string, alignment=0.5, /device
xyouts, 15000, 0, 'Created: '+systime(), alignment=0.5, /device
```

```
;Read the image
IF DEBUG THEN PRINT, 'Reading Image'
a = TVRD()
```

```
;Setting up the postscript file
DEVICE, Z_BUFFER=1
IF DEBUG THEN PRINT, 'Setting Postscript Device'
SET_PLOT, 'PS'
plotfilename = 'plots.ps'
```

```
;Configuring the Postscript device
device, FILENAME=plotfilename, XSIZE=9.25, YSIZE=7, /INCHES, $
/HELVETICA
pageInfo = PSWindow(PAGESIZE=paper, XFUDGE=xfudge, $
YFUDGE=yfudge, /LANDSCAPE)
device, _Extra=pageInfo
```

```
;Sending the image to the ps file
IF DEBUG THEN PRINT, 'Sending Image to Postscript file'
TV, a
```

```
;Closing the file and device so that it gets outputted
device, /close_file
device, /close
set_plot, myDevice
```

Thank you in advance,
Ryan.
