
Subject: IDL postscript graphics

Posted by [IDLmastertobe](#) on Fri, 07 Oct 2005 22:42:09 GMT

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hi everyone,

i am trying to print a 3D image in postscript format. I used to get the image and print the image into ps just the way i would print it as jpeg. but i found the quality is not good at all. Dr. Fanning suggested to use IDLgrClipboard and i am using the following code (most of the code were continued on from previous programmer):

```
name=getinput('Enter File Name')
file=dialog_pickfile(title='please select a directory',/directory)
IF file EQ " THEN RETURN

; Reconstruct the color table:
TVLCT, r,g,b, /GET

filename = file + name + '.ps'

!P.FONT=0

; Set the plotting device to PostScript:
SET_PLOT, 'ps'

DEVICE, /TIMES, FONT_INDEX=3
DEVICE, /SYMBOL, FONT_INDEX=7

DEVICE, file=filename, BITS_PER_PIXEL=8, /COLOR

LOADCT, 0

clipboard = Obj_New("IDLgrClipboard", Dimensions=[4,3], Units=1, $
    Resolution=[2.54/300., 2.54/300.])
clipboard->Draw, sState.oView, Filename=filename, /PostScript, /Vector
Obj_Destroy, clipboard

; Close the file:
DEVICE, /CLOSE
set_plot,'win'
```

however i found in the resulting ps file, the image is a white plane. there is no color at all. i tried to play with the colortable and found no solution. does anyone know why? I appreciate your time and patience.

Subject: Re: IDL postscript graphics

Posted by [Mark Hadfield](#) on Mon, 10 Oct 2005 02:16:48 GMT

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IDLmastertobe wrote:

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> SET_PLOT, 'ps'
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> DEVICE, /SYMBOL, FONT_INDEX=7
>
> DEVICE, file=filename, BITS_PER_PIXEL=8, /COLOR
>
> LOADCT, 0
>
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>   Resolution=[2.54/300., 2.54/300.])
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> Obj_Destroy, clipboard
>
> ; Close the file:
> DEVICE, /CLOSE
> set_plot,'win'
>
> however i found in the resulting ps file, the image is a white plane.
> there is no color at all. i tried to play with the colortable and found no
> solution. does anyone know why? I appreciate your time and patience.
```

The problem is that you are using two completely different graphics systems (Direct Graphics and Object Graphics) to write to the same file.

Not a good idea.

A second, minor, issue is that your code for selecting the file name is a little klunky. The IDL function `DIALOG_PICKFILE` lets the user select the file name and directory in one operation

Try replacing the above with

```
filename = dialog_pickfile(/WRITE, FILTER='*.eps')
if strlen(filename) gt 0 then begin
  clipboard = Obj_New("IDLgrClipboard", Dimensions=[4,3], Units=1, $
    Resolution=[2.54/300., 2.54/300.])
  clipboard->Draw, sState.oView, Filename=filename, $
    /PostScript, /Vector
  Obj_Destroy, clipboard
endif
```

I don't guarantee this will work, because I can't vouch for the code written by the "previous programmer", but at least it *could* work, which is an improvement :-)

--

Mark Hadfield "Kei puwaha te tai nei, Hoesa tahi tatou"
m.hadfield@niwa.co.nz
National Institute for Water and Atmospheric Research (NIWA)

Subject: Re: IDL postscript graphics
Posted by [IDLmastertobe](#) on Mon, 10 Oct 2005 05:35:02 GMT
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Thanks for your reply mark, i changed the code to yours. It it a lot cleaner, but it is still a white plane without any color like before. i am not sure if it is because something wrong with `sState.oView`, but i have not found any obvious errors yet. Is there anything that is potentially blocking the image from porting out?

Subject: Re: IDL postscript graphics
Posted by [David Fanning](#) on Mon, 10 Oct 2005 13:16:58 GMT
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IDLmastertobe writes:

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- > not found any obvious errors yet. Is there anything that is potentially
- > blocking the image from porting out?

Given that we now have everything over into object graphics, I think the problem isn't that the image is not being displayed, but that it is being displayed too well. Most of the time, in object graphics, one's first attempt at displaying an image results in a black window. This is not an empty window, it is a single image pixel, blown up very, very large. The problem is that the user forgot to scale the image object into the coordinate system of the view object. (If you haven't learned this yet, the object graphics system is VERY low level. You have to do *everything* yourself.)

When Mark said that the code "could work", he knew as well as I did that the chances were very, very small, given what we know about your specific problem. But, at the very least you are going to have to match the DIMENSIONS and UNITS of your view object in the clipboard object if you are going to see output that looks anything like what you see in your display window.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: IDL postscript graphics

Posted by [Karl Schultz](#) on Mon, 10 Oct 2005 15:32:40 GMT

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On Mon, 10 Oct 2005 01:35:02 -0400, IDLmastertobe wrote:

- > Thanks for your reply mark, i changed the code to yours. It it a lot
- > cleaner, but it is still a white plane without any color like before. i
- > am not sure if it is because something wrong with sState.oView, but i have
- > not found any obvious errors yet. Is there anything that is potentially
- > blocking the image from porting out?

I hope that I'm not missing something or am being too obvious, but is there actually anything in sState.oView? Unless there is a lot of code behind the scenes someplace that is creating an IDLgrView along with the rest of the scene objects and putting the IDLgrView object reference in

sState.oView, then IDL is just going to draw an empty scene!!!
