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Subject: Object graphic and direct graphics

Posted by [Thomas Launey](#) on Tue, 21 Nov 2000 07:55:03 GMT

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Hello,

I am using object graphics in a Direct graphic program because I need the alpha channel for some fancy image manipulation. Basically, I grab (TVRD(true=3)) the image from a direct graphic window, put it in an IDLgrImage, do some processing, draw it in a IDLgrBuffer, grab it from the buffer and TV it to the Direct graphic (Widget\_draw). It work fine for most images but I recently discovered that some particular image dimensions induce a shift of the image (vertical and/or horizontal). For me, image dimensions that are roughly multiples of 15 produce the problem. I wonder if there is a rational explanation for this behavior and if this can be reproduced on different system, with different IDL version.

I am using 5.2 on Win95.

Any comment greatly appreciated, I learn more from this newsgroup than from any documentation. At least until I buy DF's new book ;-)

Thomas Launey

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e-mail: [t\\_launey@brain.riken.go.jp](mailto:t_launey@brain.riken.go.jp)

Below is a simple program that show this strange behavior

```
; NAME: Test_bug
;
; PURPOSE: Test display problem when moving RGB data between
; Object graphic (OG) and Direct graphics (DG)
; RGB image is grabbed from a DG window, Drawn in IDLgrBuffer
; Then grabbed from buffer and TV-ed back in the DG window.
; Both the original and the grabbed image are displayed.
;
; KEYWORDS: Xsize, Ysize: as it says
; Verbose: display information about objects and RGB images
; OBSERVATIONS:
; For SOME image size, the image is shifted after each grab-paste.
; This shift is observed for values Xsize and/or Ysize of
; [13:15],30,60,[119:126],[238:241],480
;
; IDL Version 5.2 (Win32 x86). Research Systems, Inc.
```

Pro Test\_bug, Xsize=Xsize, ysize=ysize, verbose=verbose

Device, Get\_Screen\_Size=screenSize

If keyword\_set(Xsize) then ImageXsize=Xsize>2 Else

ImageXsize=ScreenSize[0]/10

If keyword\_set(Ysize) then ImageYsize=Ysize>2 Else ImageYsize=ImageXsize

obuffer = OBJ\_NEW('IDLgrBuffer', DIMENSIONS=[ImageXsize,ImageYsize],  
quality=2)

oview = OBJ\_NEW('IDLgrView', viewplane\_rect=[0,0,ImageXsize,ImageYsize],\$  
dimensions=[ImageXsize,ImageYsize])

omodel = OBJ\_NEW('IDLgrModel')

oimage = OBJ\_NEW('IDLgrImage', INTERLEAVE=2)

omodel -> Add, oimage

oview -> Add, omodel

oContainer = Obj\_New('IDL\_Container')

oContainer->Add, oBuffer

oContainer->Add, oView

oContainer->Add, oModel

oContainer->Add, oimage

loadct,5, /silent ; give some color to the image

savewin=!D.window

Window, /free, xsize=ImageXsize, ysize=ImageYsize, title="original image"

image= BESELJ(SHIFT(DIST(ImageXsize), ImageXsize/2, \$  
ImageYsize/2)/2, 0)\*256

TV, image

Window, /free, xsize=ImageXsize, ysize=ImageYsize, title="test window"

testwin=!d.window

TV, image

Direct\_grabbed = TVRD(true=3)

;  
;\*\*\* load the grayscale LUT, otherwise strange things happen when TV-ing  
; the RGB image.

loadct,0, /silent

For i=0,30 do Begin

;  
;\*\*\* set grabbed image as the data in oimage

oimage -> SetProperty, data=Direct\_grabbed

oBuffer -> Draw, oview ;\*\*\* Draw image into oBuffer

;  
;\*\*\* grab image from the graphic buffer object

oBuffer -> GetProperty, image\_data=Object\_grabbed

;  
;\*\*\* true=1 since Object\_grabbed is [3,Xsize,Ysize]

tv, Object\_grabbed, true=1

;  
;\*\*\* grab image from the direct graphic window

Direct\_grabbed = TVRD(true=3)

EndFor

If keyword\_set(verbose) then begin

Help, Direct\_grabbed

```
Help, Object_grabbed
oview -> GetProperty, All=all
Print, string(10B), "IDLgrView properties"
print, "dimensions: ",all.dimensions
print, "location: ",all.location
print, "view_rect: ",all.VIEWPLANE_RECT,string(10B)
obuffer -> GetProperty, All=all
Print, "IDLgrbuffer properties"
print, "dimensions: ",all.dimensions
print, "screen dim: ",all.SCREEN_DIMENSIONS
print, "resolution: ",all.resolution
EndIf
obj_destroy, oContainer
wset, savewin
End
```

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Subject: Re: Object graphic and direct graphics  
Posted by [davidf](#) on Tue, 21 Nov 2000 08:00:00 GMT  
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Rikagaku (t\_launey@brain.riken.go.jp) writes:

> Thanks for testing the program. I did more testing and it does not seem  
> to be related to the screen resolution setting... More about this later.  
> By the way, since it seems that this problem and several others have been  
> fixed in new IDL version, I am gradually coming to the idea of updating  
> (5.2 ->5.4). However, several post in this group concerning stability,  
> new bugs, licensing problems... make me wonder if its really worth the  
> the paperworks I will have to do for this.  
> Anyone willing to share his/her experience about updating?

Yes, always update. It's always worth it. ... Really. :-)

I don't mean to suggest you should be the first on your block to update, but I have never, ever thought I would be better off with an older version of IDL, ever. As a rule the IDL X.X.1 versions are about as stable as you are likely to get.

Yes, there are bugs and problems with new versions.  
But, most of the time, old bugs are fixed, too.  
And that is the *\*real\** value in updating.

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting  
Phone: 970-221-0438 E-Mail: davidf@dfanning.com  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Whatever this problem is, it appears to have disappeared  
in IDL 5.3.1 on WinNT 4.0. The program appears to work  
normally. :-)

Cheers,

David

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Posted by [Thomas Launey](#) on Wed, 22 Nov 2000 01:00:14 GMT  
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Thomas Launey

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Saitama, Japan

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