Subject: Transparent series of images with axis using cgImage
Posted by Petros Syntelis on Fri, 21 Mar 2014 13:01:23 GMT
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Hi everybody,

I am trying create three images with axis in a row, and overplot above them a transparent image.
I have a code like this that works fine in the 'X' window case

```
 cgimage, im1 , xr=[..],yr=[..],/axis, /keep ,pos=pos
 loadct,3
 cgimage, im2 , xr=[..],yr=[..],/axis, /axis, transparent=transparent, /over,pos=pos
...
```

and is followed by two other similar sets of plots with different position vectors.

When i want to print this to ps. according to the instructions here
https://www.idlcoyote.com/ip_tips/transparentpng.php
, I have to provide a background image.

Now, if i do the trick described in the documentation, and write the code as

```
cgDisplay, /Pixmap
 cgimage, im1 , xr=[..],yr=[..],/axis, /keep ,pos=pos
 bgimage1 = cgSnapshot()
 WDelete
...
```

for all three cases, and pass the bgimages to AlphaBackgroundImage, like

```
cgps_open ...
  cgimage, im1 , xr=[..],yr=[..],/axis, /keep ,pos=pos
  loadct,3
  cgimage, im2 , xr=[..],yr=[..],/axis, /axis, transparent=transparent, /over,pos=pos,
AlphaBackgroundImage=bgimage1
...
cgps_close
```

I have the following problems:
a) The background images does not match the size of the transparent images in the ps file.
b) The characters in the axis are different
which both of them arise i think from the fact that the window size does not match the ps window file.

Has anybody tried to create transparent images with axis and done it correctly?

Regards,

Petros

Subject: Re: Transparent series of images with axis using cgImage
Posted by Petros Syntelis on Fri, 21 Mar 2014 13:07:18 GMT
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I upload this file to show you what the problem looks like
https://www.dropbox.com/s/kgkrm9mwlxwnrt5/211_0_0026.png

In this file I have plotted the first image as transparent and the others as not to see the difference.

Cheers,
Petros

Subject: Re: Transparent series of images with axis using cgImage
Posted by David Fanning on Fri, 21 Mar 2014 14:41:35 GMT
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Petros Syntelis writes:

> Has anybody tried to create transparent images with axis and done it correctly?

Not this way, no. :-)

Too much going on here for the hacking that has to take place in direct
graphics. I would do this a completely different way. I would write the
program like this:

```
;*****************************************************
PRO Example, PS=ps

; Fake images.
im1 = cgDemoData(7)
im2 = cgDemoData(21)
im3 = cgDemoData(22)
im4 = cgDemoData(5)

; Build composite images.
cgDisplay, 400, 500, WID=2, /Pixmap
cgimage, im1
cgimage, im4, ctindex=33, $
   AlphaFGPos=[0.0,0.25,1.0,0.75], transparent=50
snap1 = cgSnapShot()

cgimage, im2
```

```
cgimage, im4, ctindex=33, $
   AlphaFGPos=[0.0, 0.25, 1.0, 0.75], transparent=50
snap2 = cgSnapShot()

cgimage, im3
cgimage, im4, ctindex=33, $
   AlphaFGPos=[0.0, 0.25, 1.0, 0.75], transparent=50
snap3 = cgSnapShot()

; Delete the Pixmap.
WDelete, 2

; Set multimargin and character size values.
mm = 12
cs = 2.25

; Need a PostScript file?
IF Keyword_Set(ps) THEN BEGIN
   cgPS_Open, 'example.ps'
   mm = 8
   cs = 1.75
ENDIF

; Display them.
cgDisplay, 1200, 500

!P.Multi=[0,3,1]
cgimage, snap1, multimargin=mm, /axes, $
   OPosition=opos, axkey={charsize:cs}
yrange = opos[3] - opos[1]
p1 = opos[1] + yrange*0.25
p3 = opos[3] - yrange*0.25
cgPlot, [1], /NoData, /NoErase, Charsize=cs, $
   Position=[opos[0], p1, opos[2], p3], AxisColor='red'

cgimage, snap2, multimargin=mm, /axes, $
   OPosition=opos, axkey={charsize:cs}
yrange = opos[3] - opos[1]
p1 = opos[1] + yrange*0.25
p3 = opos[3] - yrange*0.25
cgPlot, [1], /NoData, /NoErase, Charsize=cs, $
   Position=[opos[0], p1, opos[2], p3], AxisColor='red'

cgimage, snap3, multimargin=mm, /axes, OPosition=opos, $
   axkey={charsize:cs}
yrange = opos[3] - opos[1]
p1 = opos[1] + yrange*0.25
p3 = opos[3] - yrange*0.25
```

```
cgPlot, [1], /NoData, /NoErase, Charsize=cs, $
   Position=[opos[0], p1, opos[2], p3], AxisColor='red'

!P.Multi=0

IF Keyword_Set(PS) THEN BEGIN
   cgPS_Close, /PNG
ENDIF

END
;*****************************************************
```

To see it on the display:

```
 IDL> Example
```

To see it in a PostScript and PNG file:

```
 IDL> Example, /PS
```

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Transparent series of images with axis using cgImage
Posted by Petros Syntelis on Fri, 21 Mar 2014 16:41:34 GMT
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Thx David!
I'll study your example to sort it out!

Cheers,
Petros

On Friday, March 21, 2014 2:41:35 PM UTC, David Fanning wrote:
> Petros Syntelis writes:
>
>
>
>> Has anybody tried to create transparent images with axis and done it correctly?
>

>
>
> Not this way, no. :-)
>
>
>
> Too much going on here for the hacking that has to take place in direct
>
> graphics. I would do this a completely different way. I would write the
>
> program like this:
>
>
>
> ;**
>
> PRO Example, PS=ps
>
>
>
> ; Fake images.
>
> im1 = cgDemoData(7)
>
> im2 = cgDemoData(21)
>
> im3 = cgDemoData(22)
>
> im4 = cgDemoData(5)
>
>
>
> ; Build composite images.
>
> cgDisplay, 400, 500, WID=2, /Pixmap
>
> cgimage, im1
>
> cgimage, im4, ctindex=33, $
>
>   AlphaFGPos=[0.0,0.25,1.0,0.75], transparent=50
>
> snap1 = cgSnapShot()
>
>
>
> cgimage, im2
>

```
>  cgimage, im4, ctindex=33, $
>
>     AlphaFGPos=[0.0, 0.25, 1.0, 0.75], transparent=50
>
>  snap2 = cgSnapShot()
>
>
>
>  cgimage, im3
>
>  cgimage, im4, ctindex=33, $
>
>     AlphaFGPos=[0.0, 0.25, 1.0, 0.75], transparent=50
>
>  snap3 = cgSnapShot()
>
>
>
>  ; Delete the Pixmap.
>
>  WDelete, 2
>
>
>
>  ; Set multimargin and character size values.
>
>  mm = 12
>
>  cs = 2.25
>
>
>
>  ; Need a PostScript file?
>
>  IF Keyword_Set(ps) THEN BEGIN
>
>     cgPS_Open, 'example.ps'
>
>     mm = 8
>
>     cs = 1.75
>
>  ENDIF
>
>
>
>  ; Display them.
>
```

```
> cgDisplay, 1200, 500
>
>
>
> !P.Multi=[0,3,1]
>
> cgimage, snap1, multimargin=mm, /axes, $
>
>    OPosition=opos, axkey={charsize:cs}
>
> yrange = opos[3] - opos[1]
>
> p1 = opos[1] + yrange*0.25
>
> p3 = opos[3] - yrange*0.25
>
> cgPlot, [1], /NoData, /NoErase, Charsize=cs, $
>
>    Position=[opos[0], p1, opos[2], p3], AxisColor='red'
>
>
>
> cgimage, snap2, multimargin=mm, /axes, $
>
>    OPosition=opos, axkey={charsize:cs}
>
> yrange = opos[3] - opos[1]
>
> p1 = opos[1] + yrange*0.25
>
> p3 = opos[3] - yrange*0.25
>
> cgPlot, [1], /NoData, /NoErase, Charsize=cs, $
>
>    Position=[opos[0], p1, opos[2], p3], AxisColor='red'
>
>
>
> cgimage, snap3, multimargin=mm, /axes, OPosition=opos, $
>
>    axkey={charsize:cs}
>
> yrange = opos[3] - opos[1]
>
> p1 = opos[1] + yrange*0.25
>
> p3 = opos[3] - yrange*0.25
>
```

```
> cgPlot, [1], /NoData, /NoErase, Charsize=cs, $
>
>    Position=[opos[0], p1, opos[2], p3], AxisColor='red'
>
>
>
> !P.Multi=0
>
>
>
> IF Keyword_Set(PS) THEN BEGIN
>
>    cgPS_Close, /PNG
>
> ENDIF
>
>
>
> END
>
> ;*************************************************
>
>
>
> To see it on the display:
>
>
>
>  IDL> Example
>
>
>
> To see it in a PostScript and PNG file:
>
>
>
>  IDL> Example, /PS
>
>
>
> Cheers,
>
>
>
> David
>
>
>
```

> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")
