
Subject: Re: PRINTER device, TV, and image position
Posted by [David Fanning](#) on Tue, 27 Nov 2001 15:05:09 GMT
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Ray Muzic (muzic@uhrad.com) writes:

> Is it just me or does 'PRINTER' device ignore (x,y)
> position specified in the TV command?
> : TV, Image [, X, Y [, Channel]]
>
> I am trying to put three images next to each other on a page.
> Of course I could make a single array with the composite
> image but that seems unnecessary as the 'PS' device honored
> the "x,y,/centimeters", arguments specified in TV.
> It seems to be more than the 'PRINTER' device just ignoring
> /centimerers since I tried x position of 600 (dots) on a
> 600 dpi printer and the image position was not altered.

Lot's of things don't work right in the PRINTER device. :-)

I'd do something like this to get three images centered
on a landscape page of output:

```
thisDevice = !D.Name
keywords = PSWindow(/Printer, /Landscape, Fudge=0.25)
Set_Plot, 'PRINTER'
Device, Landscape = keywords.landscape
Device, _Extra=keywords
!P.Multi=[0,3,1]
TVImage, image1, /Keep_Aspect
TVImage, image2, /Keep_Aspect
TVImage, image3, /Keep_Aspect
!P.Multi = 0
Set_Plot, thisDevice
```

You can learn more about how the PRINTER device works
from this article:

<http://www.dfanning.com/tips/sendtoprinter.html>

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438, E-mail: david@dfanning.com

Subject: Re: PRINTER device, TV, and image position
Posted by [David Fanning](#) on Tue, 27 Nov 2001 15:14:29 GMT
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David Fanning (david@dfanning.com) writes:

```
> I'd do something like this to get three images centered
> on a landscape page of output:
>
>   thisDevice = !D.Name
>   keywords = PSWindow(/Printer, /Landscape, Fudge=0.25)
>   Set_Plot, 'PRINTER'
>   Device, Landscape = keywords.landscape
>   Device, _Extra=keywords
>   !P.Multi=[0,3,1]
>   TVImage, image1, /Keep_Aspect
>   TVImage, image2, /Keep_Aspect
>   TVImage, image3, /Keep_Aspect
>   !P.Multi = 0
>   Set_Plot, thisDevice
```

Whoops! Of course, there would be a CLOSE_DOCUMENT
in there somewhere. :-)

```
thisDevice = !D.Name
keywords = PSWindow(/Printer, /Landscape, Fudge=0.25)
Set_Plot, 'PRINTER'
Device, Landscape = keywords.landscape
Device, _Extra=keywords
!P.Multi=[0,3,1]
TVImage, image1, /Keep_Aspect
TVImage, image2, /Keep_Aspect
TVImage, image3, /Keep_Aspect
!P.Multi = 0
Device, /Close_Document
Set_Plot, thisDevice
```

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting

Subject: Re: PRINTER device, TV, and image position
Posted by [Liam E. Gumley](#) on Tue, 27 Nov 2001 15:15:02 GMT
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Ray Muzic wrote:

- > Is it just me or does 'PRINTER' device ignore (x,y)
- > position specified in the TV command?
- > : TV, Image [, X, Y [, Channel]]
- >
- > I am trying to put three images next to each other on a page.
- > Of course I could make a single array with the composite
- > image but that seems unnecessary as the 'PS' device honored
- > the "x,y,/centimeters", arguments specified in TV.
- > It seems to be more than the 'PRINTER' device just ignoring
- > /centimeters since I tried x position of 600 (dots) on a
- > 600 dpi printer and the image position was not altered.
- >
- > Comments?
- > Workarounds?

I'd use a program such as IMDISP:

http://www.gumley.com/PIP/Free_Software.html

that allows the image position to be specified by a POSITION vector or
the system variable !P.MULTI, e.g.,

```
entry_device = !d.name
set_plot, 'PRINTER'
!p.multi = [0, 3, 1, 0, 0]
imdisp, dist(256)
imdisp, dist(256)
imdisp, dist(256)
device, /close_document
set_plot, entry_device
```

IMDISP has other advantages as well:

- Supports WIN, MAC, X, CGM, PCL, PRINTER, PS, and Z graphics devices,
- Image is automatically byte-scaled (can be disabled),
- Custom byte-scaling of Pseudo color images via the RANGE keyword,
- Pseudo (indexed) color and True color images are handled automatically,

- 8-bit and 24-bit graphics devices are handled automatically,
- Decomposed color settings are handled automatically,
- Image is automatically sized to fit the display (can be disabled),
- Color table splitting via the BOTTOM and NCOLORS keywords,
- Image aspect ratio customization via the ASPECT keyword,
- Resized images can be resampled (default) or interpolated,
- Top down image display via the ORDER keyword (!ORDER is ignored),
- Selectable display channel (R/G/B) via the CHANNEL keyword,
- Background can be set to a specified color via the BACKGROUND keyword,
- Screen can be erased prior to image display via the ERASE keyword,
- Plot axes can be drawn on the image via the AXIS keyword,
- Photographic negative images can be displayed via the NEGATIVE keyword.

Cheers,

Liam.

Practical IDL Programming

<http://www.gumley.com/>

Subject: Re: PRINTER device, TV, and image position

Posted by nobody@nowhere.com (S) on Tue, 27 Nov 2001 16:08:54 GMT

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On 27 Nov 2001 06:48:09 -0800, Ray Muzic <muzic@uhrad.com> wrote:

- > Is it just me or does 'PRINTER' device ignore (x,y)
- > position specified in the TV command?
- > : TV, Image [, X, Y [, Channel]]
- >
- > I am trying to put three images next to each other on a page.
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- > It seems to be more than the 'PRINTER' device just ignoring
- > /centimeters since I tried x position of 600 (dots) on a
- > 600 dpi printer and the image position was not altered.
- >
- > Comments?
- > Workarounds?
- >
- > Ray Muzic

I do exactly what you mention, overlaying 1,2 or 3 images on a graph page using tv and the ps device. You do set the !p.multi correctly? Here's what I do (some of the commands are other procedures I've written):

```
;this is the procedure to put an image into the graph window:
;first, you add [1,0,0,0,0] to !p.multi, forcing it not to erase the window
```

```
;on the second plot command. then, you use the x,y,xsize=,ysize=, /inches
;keywords to specify that you want the image in a certain place and a certain
;size on the plot window.
,,,,,,,,,,,,,CAN YOU BELIEVE IT? I ACTUALLY DOCUMENTED SOMETHING!!!!!!;;
pro graphpic,edata,graphdata,imagedata
back=!p.multi
!p.multi=back+[1,0,0,0,0] ;this disables clearing plot window.
pgsize, 15 ;this size seems good (in mm, square image).
plot, edata,graphdata,xtitle='Energy (eV)',ytitle='Counts',$
xstyle=1,yrange=[0,1000]
tvsc1, rebin(imagedata,186,186),3.7,3.7,xsize=1.8,ysize=1.8,/inches
arrow, 1.8548,550,1.8567,850,/data,/solid
psoff
!p.multi=back
end

--
Steve S.
```

steve@NOSPAMmailaps.org
remove NOSPAM before replying

Subject: Re: PRINTER device, TV, and image position
Posted by [muzic](#) on Wed, 28 Nov 2001 14:54:06 GMT
[View Forum Message](#) <> [Reply to Message](#)

Steve,

I can do it with the 'PS' device. I am now trying
to add 'PRINTER' device support.

nobody@nowhere.com (Steve Smith<steven_smith>) wrote in message
news:<slrna07f0a.84g.nobody@pooh.nrel.gov>...

> On 27 Nov 2001 06:48:09 -0800, Ray Muzic <muzic@uhrad.com> wrote:
>> Is it just me or does 'PRINTER' device ignore (x,y)
>> position specified in the TV command?
>> : TV, Image [, X, Y [, Channel]]
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>> 600 dpi printer and the image position was not altered.
>>
>> Comments?

```
>> Workarounds?
>>
>> Ray Muzic
>
> I do exactly what you mention, overlaying 1,2 or 3 images on a graph page
> using tv and the ps device. You do set the !p.multi correctly? Here's what
> I do (some of the commands are other procedures I've written):
>
> ;this is the procedure to put an image into the graph window:
> ;first, you add [1,0,0,0,0] to !p.multi, forcing it not to erase the window
> ;on the second plot command. then, you use the x,y,xsize=,ysize=, /inches
> ;keywords to specify that you want the image in a certain place and a certain
> ;size on the plot window.
> .....CAN YOU BELIEVE IT? I ACTUALLY DOCUMENTED SOMETHING!!!!!!;;
> pro graphpic,edata,graphdata,imagedata
> back=!p.multi
> !p.multi=back+[1,0,0,0,0] ;this disables clearing plot window.
> pgsz, 15 ;this size seems good (in mm, square image).
> plot, edata,graphdata,xtitle='Energy (eV)',ytitle='Counts',$
> xstyle=1,yrange=[0,1000]
> tvscl, rebin(imagedata,186,186),3.7,3.7,xsize=1.8,ysize=1.8,/inches
> arrow, 1.8548,550,1.8567,850,/data,/solid
> psoff
> !p.multi=back
> end
```
