
Subject: Re: positioning a TV image within plotting region
Posted by [David Fanning](#) on Fri, 30 Sep 2011 15:34:16 GMT
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Matthew writes:

```
> position = [x0, y0, x1, y1]           ;position in normal
> coordinates
> position[0] = floor(position[0] * !d.x_vsize)
> position[1] = floor(position[1] * !d.y_vsize)
> position[2] = floor(position[2] * !d.x_vsize)
> position[3] = floor(position[3] * !d.y_vsize)
> xsize = (position[2] - position[0]) - 1
> ysize = (position[3] - position[1]) - 1
> xstart = position[0] + 1
> ystart = position[1] + 1
```

I think these two lines:

```
> position[2] = floor(position[2] * !d.x_vsize)
> position[3] = floor(position[3] * !d.y_vsize)
```

should use CEIL instead of FLOOR.

But, I think this is essentially correct. I've changed the way I calculate the image size and start positions in `cgImage` this morning to this, and I like the results very much.

```
; Calculate the image size and start locations.
xsize = Ceil((position[2] - position[0]) * !D.X_VSIZE)-1
ysize = Ceil((position[3] - position[1]) * !D.Y_VSIZE)-1
xstart = Round(position[0] * !D.X_VSIZE)+1
ystart = Round(position[1] * !D.Y_VSIZE)+1
```

You can test the "fit" by typing these commands and resizing the window:

```
Loadct, 0, NColors=20
cgImage, BytScl(Dist(20), TOP=19), /Axes, /Keep, $
      Background='sky blue', /Erase, /Window
```

Cheers,

David

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David Fanning, Ph.D.

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