Subject: Re: positioning a TV image within plotting region
Posted by Matthew on Thu, 29 Sep 2011 19:19:00 GMT
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> When I do this, I plot the image first and then the axes.

This just draws the axes on top of the image and hides the fact that the image is in the wrong spot.

> One more thing - I would use device coordinates for the plot instead of normal, because you can't size your image in normal coordinates. Otherwise, you might sometimes get a 1-pixel mismatch at the edges.

Thanks! You made me realize that I was positioning the plot with fractions of a pixel, which does not work too well. I still have the same problem, but now it is a fixed offset, not a varying one. It seems as though the PLOT procedure draws the bottom and left axes within the plotting window (defined by !x.window and !y.window), whereas the top and right axes are outside the plotting window.

In the code below, I used the floor function to truncate any partial pixels from the plot position, reduce the x- and y-size of the image by 1-pixel (the apparent width of the axes), and shifted it up and to the right by 1 pixel. This works for the display window and for all plot sizes that I have tried so far. Now to try postscripts...

```
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

loadct, 13
plot, time, freq, position=position, /device, /nodata, /noerase
tvscl, congrid(alog(transpose(E_pwr_dens)), xsize, ysize), xstart,
ystart
```