Subject: Rasterize an image
Posted by Dave[3] on Fri, 26 Jan 2007 21:39:35 GMT
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Hi all,

I suspect this is trivial (an IDL 2-liner) and I'm struggling on a Friday... I am trying to model what an image from a known object will look like using a low-res CCD detector. I can define the shape of the object being imaged in a simple equation and I know its radiant flux/color as a function of the radius. The trivial example below draws a circle and an ellipse using vectors. What I would like to know is what these would look like if I used a 256x256 array to image them. All tips, hints and examples greatly appreciated!

Have a great weekend,
Dave

Example:

```
np = 101
grd = 2*findgen(np)/(np-1) - 1.0

; circle
o = [-1.0, -4.0]   ; offset
r = 10.0         ; radius
xc = r * grd
yc = sqrt(r^2 - xc^2)

xc_im = [xc[0:np-1],reverse(   xc[0:np-1])] + o[0] ; make the half
circle whole
yc_im = [yc[0:np-1],reverse(-1*yc[0:np-1])] + o[1]

; elipse
o = [2.0, 3.0]   ; offset
a = 11.0         ; x semi-axis
b = 8.0          ; y semi-axis
xe = a * grd
ye = b/a * sqrt(a^2 - xe^2)

xe_im = [xe[0:np-1],reverse(   xe[0:np-1])] + o[0] ; make the half
elipse whole
ye_im = [ye[0:np-1],reverse(-1*ye[0:np-1])] + o[1]

window, 0, xsize=600, ysize=600
plot, xc_im, yc_im, xrange=[-15,15], yrange=[-15,15], /xstyle, /ystyle
oplot, xe_im, ye_im
```

end