Subject: Re: Plotting lines between two polygons
Posted by David Foster on Mon, 24 Aug 1998 07:00:00 GMT
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<snip>
>
> Can anybody tell me how to retrieve/compute the new
> coordinates for the line after a rotation/translation
> of the polygon?
>

Marco:

I'm not sure exactly what you're after, but here is a general
method for computing the new coordinates for the lines after
rotation and translation, for R2:

```
xcoors = [x1,x2,x3,...,xN]     ; Vector of X coordinates for vertices
ycoors = [y1,y2,y3,...,yN]     ; Vector of Y coordinates

p = fltarr(N,4)
p[*,0] = xcoors[*]
p[*,1] = ycoors[*]
p[*,3] = 1.0

save_pt = !p.t          ; Compute matrix for affine transformations
t3d, /reset
t3d, rotate = [0.0, yrot, 0.0]            ; Apply rotations
t3d, rotate = [xrot, 0.0, 0.0]
t3d, translate = [dx, dy, 0.0]             ; Apply translation
t3d, scale = [scalex, scaley, 1.0]         ; Apply scaling

p_new = p[*,*] # !p.t[*,*]                ; Compute new coordinates
!p.t = save_pt
```

Hope this helps.

Dave
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