
Subject: Object graphics polygons

Posted by [Steven Chetelat \(CS\)](#) on Fri, 14 Apr 2000 07:00:00 GMT

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Greetings, all. I'm slowly delving my way into object graphics, and I'm having some pretty serious problems with my lighting. Specifically, I have a set of polygons representing an isosurface of a solid. I generated them using `shade_volume`. In direct graphics, I used them as input to `polyshade`, like this:

```
shade_volume, new, .5, vert, poly, /low
shade_volume, new, 1, lvert, lpoly, /low
scale3, xrange=[0,xr], yrange=[0,yr], zrange=[0,zr], ax=xa, az=za
tv, bytscl(polyshade(vert, poly, /t3d)) + bytscl(polyshade(lvert, lpoly, /t3d))
```

I didn't specify any lighting. When I try to get a decent display of the polygons using object graphics like this:

```
shade_volume, full, .5, vert, poly, /low
mypol = OBJ_NEW('IDLgrPolygon', vert, polygons = poly)
mypol -> SetProperty, XCOORD_CONV=[-1.0, 1.0/170.0]
mypol -> SetProperty, YCOORD_CONV=[-1.0, 1.0/79.0]
mypol -> SetProperty, ZCOORD_CONV=[-1.0, 1.0/49.0]
mywindow = OBJ_NEW('IDLgrWindow', DIMENSIONS=[340,158])
myview = OBJ_NEW('IDLgrView', VIEWPLANE_RECT=[-1,-1,1,1], ZCLIP=[1,-1])
mymodel = OBJ_NEW('IDLgrModel')
myview -> Add, mymodel
mymodel -> Add, mypol
mywindow -> Draw, myview
```

The view completely lacks definition. When I add lights, very small sections light up, but I can't seem to position the lights to illuminate the whole object. How can I reproduce the lighting model used by `polyshade` in direct graphics, or at least get enough intensity out of light objects to suit my purposes?

K-Bye,
STEVE! (chetelat@csee.usf.edu)(steve@moffitt.usf.edu)
