Subject: Re: POLYSHADE-like object graphics?
Posted by David Fanning on Thu, 12 Dec 2002 14:14:45 GMT
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Sebastian Loebbert (sebaaihb@peach.zrz.TU-Berlin.DE) writes:

> I have a set of vertices and polygons created by SHADE_VOLUME.
> If I simply display them using POLYSHADE, I get a nicely shaded surface.
>
> I tried to display the same polygons and vertices using object graphics
> (created a polygon, added directional light) but the surface looks rather
> flat.
> I played around with the lights, but the image didn't improve much.
> Is there any way to know what lights POLYSHADE uses?
> Is there something like a "default setting" for IDLgrPolygon that mimicks
> POLYSHADE?

Have a look at the lights in FSC_SURFACE.

  http://www.dfanning.com/programs/fsc_surface.pro

I paid a lighting engineer $1000 to design that lighting
system! :-)

You need some combination of ambient, directional, and
fill lighting to get the scene to light up correctly.
Most people forget the ambient light when they first
start working with this business.

Cheers,

David

P.S. Let's just say that every scientist who ignored
the theater arts in college is probably regretting it
now.

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David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: POLYSHADE-like object graphics?
Posted by Sebastian Loebbert on Fri, 13 Dec 2002 16:30:17 GMT

Hi David,

thanks for the tip.
Just in case somebody will run across this problem in the future: Together
with some old postings on this ng I found a usable "standard" setting:
a) Set COLOR=[255,255,255] in the IDLgrPolygon(s)
b) Use two lights, one ambient and one directional:

```
ambLgt = OBJ_NEW('IDLgrLight', TYPE=0, INTENSITY=0.2)
dirLgt = OBJ_NEW('IDLgrLight' $
           , DIRECTION=[-0.5,-0.5,-0.5] $
           , TYPE=2 $
           ,LOCATION=[0.5,0.5,2.0]$
           ,INTENSITY=0.7 $
          )
```

(the polygons coordinates have been transformed into a unit cube
centered at [0,0,0] using coordinate convolution)

c) Put both lights into a non-rotating model.

Best regards,

Sebastian