Subject: Re: IDLgrPolygon semi opaque / transperent polygons
Posted by Rick Towler on Fri, 12 Dec 2003 18:15:40 GMT
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"Neil" wrote in message...
> Is there any capability in IDL for making polygons semi-opaque? There
> you would set no hidden facet and be able to see one polygon through
> another polygon. This would be a useful facility for some spectral
> imaging wavebands where materials are semitransparent.

This has been covered in depth in previous posts. In general, you texture map your IDLgrPolygon with an texture containing an alpha channel. From the docs:

"Setting TEXTURE_MAP to the object reference of an IDLgrImage that contains an alpha channel allows you to create a transparent IDLgrPolygon object. If an alpha channel is present in the IDLgrImage object, IDL blends the texture using the blend function src=alpha and dst=1 - alpha, which corresponds to a BLEND_FUNCTION of (3,4) as described for the IDLgrImage object."

For transparent polygons to render properly in IDL you have to pay keen attention to the order in which they are drawn. Order, both in relation to other atoms in the scene and in relation to itself, needs to be back to front. The order in which atoms are drawn depends on the order in which they were placed in the view and the order they were placed in the model(s). The order within an individual atom depends on how the connectivity list is constructed.

For example, if you draw a transparent sphere and then a solid sphere behind it, you will not see the solid sphere thru the transparent one because when the transparent object was drawn nothing existed behind it. Reverse the drawing order and you are golden.

Taking just the sphere, if it is constructed (as defined by the connectivity array) from front to back, you will not see the back side of the sphere thru the front because at the time the front polygons were drawn the back did not exist. If you reverse the drawing order you'll see the back side of the sphere.

I suspect this is enough to get you going :)

As you run into problems google this group. There is a lot of good info out there.

-Rick