Subject: Re: Tagging DXF entiries/facets with refractive index
Posted by Rick Towler on Thu, 14 Oct 2004 16:22:46 GMT
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Neil wrote:
> Anyone have any ideas about how i might tag a DXF entity (or facet)
> with a material property such as refractive index? I'd like to use one
> of the software packages (OpenFX for example) to build up 3D scenes,
> tagging each of the objects with refractive indices, then read the
> complete scene in to IDL, using the DXF format and operate on the
> individual objects in the scene.

I am pretty sure you can't store refractive indices in .dxf files.
If you can, it doesn't look like IDL can read them.

Off the top of my head, you could use color or layers to encode your indices. Although color is an integer in the IDL_DXF_* structs it looks like the format is limited to byte values so you would be limited to 255 levels (0 and 256 are reserved). With layers you could place objects with the same indices in the same layer and encode the index into the layer name.

You should be able to do both in openFX.

> I dont even know if i can tag objects with refrative index using
> OpenFX, so would anyone know which 3D editor could do this?

3ds-max can. But again, If that data is exported in the .dxf file IDL can't read it.

I am pretty sure that openFX doesn't export color data to .dxf properly.

> Furthermore, i dont even know whether the DXF format can hold
> refractive index, for each of the entities; it's not apparent from the
> IDL Help that this can be done. If DXF cant hold this data, does
> anyone know which common useable graphics format can hold this
> information?

And is easily readable by IDL? You may want to look into the old 3ds-max format ".max". It isn't readable by IDL but if it can store the refractive index (and you can afford 3ds-max to use as your authoring tool) then you can use code published on the web to dump the contents and go from there.

If that isn't an option then I would either try encoding it in the color or layer name or create my own format where I import the geometry from

.dxf and assign the refractive indices then.

Good luck.

-Rick
