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Subject: Re: Tagging DXF entiries/facets with refractive index

Posted by [nasalmon](#) on Fri, 15 Oct 2004 18:40:29 GMT

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Rick Towler <[rtowler@xxx.u.washington.edu](mailto:rtowler@xxx.u.washington.edu)> wrote in message  
news:<[ckm93n\\$slg\\$1@gnus01.u.washington.edu](mailto:ckm93n$slg$1@gnus01.u.washington.edu)>...

> 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

Many thanks for those tips, Neil

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