Subject: Re: "Color vectors" & shading
Posted by Karl Schultz on Wed, 21 Jan 2004 00:54:47 GMT
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"Neil" <nasalmon@onetel.net.uk> wrote in message
news:74039481.0401201339.d26efa4@posting.google.com...
> Does anyone know how i correctly implement "color vectors" in
> "setProperty" to give each polygon of an object its own predetermined
> intensity level or colour? It should be that setting "shading" = 0 in
> "setProperty" should make it so that the colour of each polygon is
> defined by the "colour vertex" of the first vertex of the polygon
> connectivity. However, generally the number of "first vertices" of a
> polygon of an object is actually less than the number of polygons.
> That means you cant use this method to give each polygon of an object
> a predetermined different colour - or have i missed something? It
> seems to me that what is really needed is a colour vector for the
> polygons not the vertices.

There's no way to do this today if you have vertices that are shared between polygons. There isn't a polygon color vector.

What you could do is make a vertex list and a connectivity list that creates a set of independent polygons and then set the color of all the vertices belonging to each polygon to the same color. Actually, you would only need to set the first vertex of a polygon to an actual color; the rest are ignored if you are doing flat shading.

Obviously, if you have many polygons that used to share vertices, this will require more space.

For example, if you have 4 vertices, A, B, C, D, that form 2 triangles with a shared edge, the triangles might be ABC, and DCB. If the vertices are in the vertex list as ABCD, the conn list would be 3 0 1 2 3 3 2 1. To make them independent triangles, your vertex list would be ABCDCB and the conn list 3 0 1 2 3 3 4 5. You would set the color of vert A (at 0) to the desired color and the color of vert D (at 3) to the desired color. The rest of the vertex colors list can be left uninitialized.

It isn't very efficient, but would work well if you don't have that many polygons.

Karl