
Subject: Question about polygons in object graphics
Posted by [bowman](#) on Mon, 23 Feb 1998 08:00:00 GMT
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I am trying to convert some direct graphics 3-D rendering programs to object graphics, and I am very low on the object graphics learning curve.

For simplicity in my education at this point I generate a set of triangles that form a 3-D surface mesh. The data consists of 3 lists of the x, y, and z-coordinates of each vertex, and a (4 x n_triangles) array 'tri' of indices that define the triangles. These are set up in the manner used by POLYSHADE, and I can successfully plot the surface, i.e.

```
image3 = POLYSHADE(x, y, z, tri, /T3D)
```

after setting up the 3-D transform, etc.

The documentation for the IDLgrPolygon object gives the impression that it takes polygon data in the same format, i.e.,

```
surface = OBJ_NEW('IDLgrPolygon', x, y, z, POLYGONS = tri)
```

However, when I try to render the surface, I get a blank (white) window.

I have tried adding triangles one at a time omitting the POLYGONS keyword. This works only when I transpose the coordinate array from what the documentation indicates, which then renders an incorrect (black) triangle.

The possible explanations that I have come up with for this behavior (in order of highest to lowest probability) are:

1. I'm doing something wrong.
 - a. Colors all set to white?
 - b. Vertices in wrong order?
 - c. I don't have a clue what I'm doing and will never understand object graphics.
2. Documentation is incorrect.
3. There's a bug somewhere.

Any help here would be greatly appreciated. I have tried a large number of possible permutations of parameters, etc. to no avail. I have not screamed in frustration yet, but I'm getting ready to.

E-mail responses appreciated. Replace the AT in my e-mail address with the symbol of the same name.

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Thanks, Ken Bowman
