
Subject: Re: 3D point cloud visualization

Posted by [Dick Jackson](#) on Wed, 29 Apr 2015 02:55:54 GMT

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Hi Nuno,

Sounds fascinating! I have time for only a quick reply now: If you're looking to quickly visualize this, Object Graphics is pretty handy, and you have all the data in exactly the right form!:

; Assumes 'rgba' is (4,N) byte array of RGBA values (0-255 for alpha as well)

```
o = Obj_New('IDLgrPolygon', v, Polygons=p, Vert_Colors=rgba, Style=2)
XObjView, o
```

You may want to look at other IDLgrPolygon Properties in Online Help, and options to XObjView.

The IDL 8.0 "function graphics" routine POLYGON() is another possibility you might try. Write back if you'd like to know more.

--

Cheers,
-Dick

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Nuno Ferreira wrote on 2015-04-28 8:31am:

```
> Hi,
>
> I am trying to visualize a 3D point cloud that was captured with a Kinect
> camera. I have "v", a (3,N) array of the xyz coordinates of N vertices and
> "p", a (4,M) array of M polygons (all triangles). Each polygon contains the
> number of vertices (always 3) and indices to 3 vertices in array "v". For
> each vertex I also have the color, given as RGB components and alpha.
>
>
> I have two questions:
>
> 1 - I would like to use POLYSHADE with the SHADES keyword and the RGB
> information, but the manual says "When using the SHADES keyword on TrueColor
> devices, we recommend that decomposed color support be turned off by setting
> DECOMPOSED=0". However, using decomposed=0 limits the number of simultaneous
> colors to only 256... Isn't it possible to use the SHADES keyword with true
```

> color (RGB components)?
>
> 2 - I am also using PLOTS to draw all the vertices in 3D as dots, with a
> command such as:
>
> plots, v[0,*], v[1,*], v[2,*], color=quantized_colors_256, /T3D, psym=3
>
> How can I increase the size of the dots with PLOTS? Apparently keyword
> SYMSIZE does not serve this purpose...
>
> Any help would be greatly appreciated. Thanks,
>
> Nuno
>
