
Subject: Re: 3D Scatter plot

Posted by [David Borland](#) on Wed, 23 Dec 1998 08:00:00 GMT

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Hellu,

An easy way of doing this is to include the `psym` keyword in the `plot_3dbox` call. If you include this command with a positive integer between 1 and 7 you will get just the points drawn, if you use a negative integer between -1 and -7, you will get the points and the lines drawn.

One way of getting a surface plot from x,y,z coordinates is to call `triangulate`, which will give you a set of triangles for the object, and then send that output to `trigrd`, which does something else to the data, and then take that output and do a surface plot to it.

```
le. triangulate,image_x,image_y,angles
    griddata=trigrd(image_x,image_y,image_z,angles)
    surface,griddata
```

`angles` is where `triangulate` stores its results.

If you want to see what `triangulate` has done, try this set of commands and it will draw out the triangles for you.

```
triangulate,image_x,image_y,angles
for j=0,n_elements(angles[0,*])-1 do begin
t = [angles[* ,j],angles[0,j]]
plots,image_x[t],image_y[t],image_z[t],/t3d,color='ff0000'x
```

A problem with this method is that if you are trying this on a 3D shape, you will get lines that cross through the shape and make the surface plot look wrong. I have not figured out how to fix this with built in IDL routines, so I'm trying to write my own. If anyone knows a better way of doing this part, I'd love to hear it.

--

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"Patrick V. Ford" wrote:

```
> I want a 3D display of a set of data point that I have imported from a
> SYLK file. I have extracted from the SYLK structure the X, Y and Z
> coordinates, where each is an array of 117 float. I get close to what I
> want with a plot-3dbox function, but because of the way it is formatted it
> looks like a series of switch-back paths. What I would really like is a
> surface plot, but I failed at my attempt to use these functions. It is
> also obvious that I don't have a clue on how to set the exponential
```

> parameter in KRIG2D. I know there must be some trivial method to do this
> in IDL.
>
> Thanks in advance.
>
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