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Subject: Re: 3D UserSym?

Posted by [penteado](#) on Mon, 10 Aug 2009 19:46:32 GMT

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On Aug 10, 10:22 am, Brian Daniel <Daniels...@yahoo.com> wrote:

> 3) This is a less important issue, but still worth mentioning. I have  
> a lot of data to plot, and it looks like a big cloud of points. There  
> are 3 data points that are important to see in the context of the  
> whole data set. Using direct graphics, I could just over plot the 3  
> points and always be able to see them. How can you do that in object  
> graphics? Is there a way to set my full data set to be partially  
> transparent?

You can do it either way (making them always appear, or making the others transparent). You need to create a new orb object to be used for those special points, and overplot those with the new object.

Returning to the example I gave above, to make the special points show over the others:

```
x=randomu(seed,100) & y=randomu(seed,100) & z=randomu(seed,100)
sel=[1,3,5,7] ;indexes of the points to make special
osph=obj_new('orb') ;sphere object for the regular points
s_osph=obj_new('orb') ;sphere object for the special points
osph->setproperty,color=[255,255,0],radius=2.0
s_osph->setproperty,color=[255,0,0],radius=3.0
iplot,x,y,z,/scatter,sym_object=osph;plot the regular points
iplot,x[sel],y[sel],z[sel],/scatter,sym_object=s_osph,/over; plot the
special points
s_osph->setProperty,depth_test_function=8;make the special points
always appear over the others
```

The property `depth_test_function` is also inherited from `IDLgrModel`, see the documentation for more details.

You can make the regular spheres transparent, but this makes drawing much slower, (probably too slow if you have a cloud of points) since instead of just figuring out which object goes on top, it is necessary to calculate the result of seeing one through the other. Anyway, it is done changing the `alpha_channel` of the orbs, which they inherit from `IDLgrPolygon`, and defaults to 1.0 (opaque):

```
iplot,x[sel],y[sel],z[sel],/scatter,sym_object=s_osph;plot the special
points
iplot,x,y,z,/scatter,sym_object=osph,/over;plot the regular points
osph->setproperty,alpha_channel=0.5;make the regular points
semitransparent
```