Subject: Re: draw spheres in 3D space
Posted by penteado on Mon, 06 Jun 2011 23:15:29 GMT
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On Jun 6, 4:19 pm, David Fanning <n...@idlcoyote.com> wrote:
> Paulo Penteado writes:
>> xyz=[[0,0,0],[2,0,0],[-2,0,0],[0,2,0],[0,-2,0],[0,0,2],[0,0, -2]]
>> p=plot3d(xyz[0,*],xyz[1,*],xyz[2,*],sym_object=orb(),/
>> undocumented,linestyle='none')
>
> I admit that's pretty cool. But what does a "radius
> of one" mean in this context? For example, here are
> orb objects with a radius of 5, but clearly this
> radius has nothing whatsoever to do with the axes:
>
> p=plot3d(xyz[0,*],xyz[1,*],xyz[2,*], $
> sym_object=orb(radius=5),/ undocumented,$
> linestyle='none')

Yes, I had not noticed that a "hard" radius was intended. Those sizes are unrelated to the data space because the spheres are taken as plot symbols, and as such have "soft" sizes. You can see that if you change the size of the window: the symbols will remain the same size, while the axes will change.

Borrowing from Mike's example, this could be done with iplot (similarly with plot3d()) by making a bunch o spheres with the proper sizes and positions in a model, then putting that model into the plot's data space:

```
 xyz=[[0,0,0],[2,0,0],[-2,0,0],[0,2,0],[0,-2,0],[0,0,2],[0,0, -2]]
model = obj_new('IDLgrModel')
for i=0,6 do model-
> add,obj_new('orb',pos=xyz[*,i],radius=1.,color=[255, 215, 0])
iplot,xyz,/scale_isotropic,/scatter,sym_index=0
id=itgetcurrent(tool=ot)
oplot3d=ot->getbyidentifier(ot->findidentifiers('*/PLOT3D',/
visualization))
oplot3d->add,model
```