Subject: Re: Plot 3-D markers in iPlot
Posted by K. Bowman on Fri, 10 Nov 2006 19:10:08 GMT
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In article <MPG.1fbe5b8c54f63e1d989db1@news.frii.com>,
David Fanning <news@dfanning.com> wrote:

> I'm not sure you will be any more enlightened when Ronn's
> book arrives, at least with respect to how to do this with
> an iTool. It's fairly straightforward to do it with object
> graphics, however. In fact, we were having this discussion
> just a day or so ago in a thread entitled "3D plotting".
> The example I showed used a Rick Towler object named
> RHTgrPSolid to produce a 3D tetrahedron that I used
> as symbols in that scatterplot.

Yes, I had already found that, but was not clear on how to get
a symbol object into an iTool. A lot of trial and error led to
this, which will work for me:

```
x = [0.0, 10.0]                                          ;Make some test data
y = x
z = x

iPlot, x, y, z, /NO_SAVEPROMPT                                  ;iPlot the data
itool_id = itGetCurrent(TOOL = itool_obj)                       ;Get the iTool object identifier

orb_obj      = OBJ_NEW('orb', COLOR=[240,0,0], STYLE=1, DENSITY=3.0)          ;Make an orb
object
orb_obj      -> Scale, 1.0, 1.0, 1.0/0.7                        ;Undo default 3-D scaling (z = 70%)
symbol_obj   = OBJ_NEW('IDLgrSymbol', orb_obj, Size=[0.25, 0.25, 0.25])       ;Make a symbol
object
polyline_obj = OBJ_NEW('IDLgrPolyline', [4.0, 5.0], [4.0, 5.0], [4.0, 5.0], $    ;Create a polyline
object with symbols
   LINESTYLE = 6, SYMBOL = symbol_obj)

data_space_id  = itool_obj -> FindIdentifiers('*DATA SPACE', /VISUALIZATIONS)    ;Find the data
space id
data_space_obj = itool_obj -> GetByIdentifier(data_space_id)                ;Find the data space
object reference
data_space_obj -> Add, polyline_obj                             ;Add the polyline to the data
space
```

So, I can create an orb object and use that to make a symbol object.

A symbol object cannot be plotted directly (as best I can see), but
it can be used as the marker for a polyline. The polyline can be added into

the iTool's data space.

Since a polyline has to have at least two points, it is not possible
to plot a single symbol. Of course, the end points can be the same point.
This seems slightly silly to me, but there you go.

Ken
