Subject: Re: Object boundaries Posted by Rick Towler on Mon, 02 Aug 2004 21:38:57 GMT View Forum Message <> Reply to Message

## Michael Wallace wrote:

- >>> While this works, is there any way to remove the call to xobiview?
- >>> When I remove that call and try the code, I get back 0.0 for all of
- >>> the tick text ranges. Is this because IDL doesn't know where it is
- >>> before it's drawn?

>>

>> >>

- >> Probably. The text objects really don't know how big they are
- >> until their dimensions are computed. I presume this occurs just
- >> before they are displayed the first time.

>

>

- > It seems to me that it should be a fairly common problem then... you
- > want to do some smart positioning of text objects. You have text object
- > 1 which is placed somewhere. It needs to get drawn, and then text
- > object 2 can be placed smartly (since text object one now has correct
- > dimension numbers). Now, to see text object 2, you have to draw again.
- > So, in order to get everything positioned just right, it appears that
- > you have to go through multiple draw operations.

>

- > Maybe there's something preventing this from being done, but why
- > couldn't the text object at least calculate ahead of time where it falls
- > on the view plane? Of course, I'd want that calculation to be lazy so
- > that it doesn't get called every time you apply a transformation or
- > twiddle some parameter, but there could be a method which would
- > calculate those numbers given the current setup of the view. In essence
- > this would be a Draw command, except nothing would really get drawn and
- > it'd only apply to the text object (and any related object such as an
- > axis that it's a property of). Then whenever I need to know those
- > numbers. I could just call that method on the object and then get the
- > [XYZ]RANGE properties which will now be filled in correctly.

>

> That's enough IDL theory for now. Time to get back to making pretty plots.

You're almost there... Don't be afraid to experiment.

Destination devices have a Draw method, but so does every atom. RSI doesn't provide us with the calling sequence but that is easy enough to figure out:

IDL> odest=obj new('idlgrwindow')

; The reason you are reading this...

IDL> oaxis->draw, odest, oview

IDL> ott->getproperty, xrange=xr, yrange=yr, zrange=zr IDL> print, xr,yr,zr

-0.033318131 1.0333181 -0.076304187 -0.018814731 0.00000000 0.00000000

So you can do exactly what you want to do. And don't worry, calling an atom's draw method will not actually cause it to be drawn in the destination device.

-Rick