Subject: Re: zoom capability in IDL object graphics?
Posted by Struan Gray on Wed, 16 Dec 1998 08:00:00 GMT
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Fred Knight, knight@ll.mit.edu writes:

> 	I'd like to hear whether IDL users have developed object
> graphics with mouse-based zoom capability, e.g.,
> click-and-drag selection of region of interest on 2-D plots
> and images. The larger question is how RSI will add this
> capability. Comments?

    There are two ways. You can either manipulate the transform matrix
of the model that is being displayed, thus increasing and decreasing
it's size in relation to a fixed-size viewport, or you can manipulate
the viewport's viewplane rectangle, thus increasing and decreasing the
magnification of the view of a fixed-size object.

    I prefer the latter, since it makes it easier to display the same
object in multiple windows. It also makes it easier to reset angular
and translate/zoom manipulations independently. The only problem is
that it is rather easy to distort aspect ratios if you get the
viewplane rectangle numbers wrong.

    The Trackball object (in the lib directory) will handle
translations for you, but it's a pain to keep track of the parameters
for any individual trackball if you're manipulating the scene with
multiple widgets. The new IDLexRotator objects are much easier to use
but simply disable the ability to translate. Ho Hum.

    Re-writing the basic trackball to be more object-like is one of my
post-turkey projects this Christmas.

Struan