
Subject: Re: Object Graphics newbie question
Posted by [davidf](#) on Fri, 25 May 2001 15:50:57 GMT
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Arend Sluis (sluis@physics.rutgers.edu) writes:

> I want to make a 2D plot of, say, 10k data points, and each data point
> has associated with it a specific color and a set of secondary data
> points (an emission line spectrum). Since I want to be able to zoom in
> on and move around the data in order to make selection of individual
> data points easier, I thought that Object Graphics would be the way to
> go. However, it is 10k data points, so I clearly need to be careful in
> order to have efficient code.

Unless you have one of those new wall-size monitors from Sony, I would be a bit careful in visualizing 10K data points! In fact, I think I would spend just a bit more time contemplating the difference between analyzing the data and visualizing it. In this case, I'm pretty sure I might choose a different method for visualizing 10K points than I would for visualizing, say, 100 of those 10K points. In fact, I might even do it in two separate windows: an "overview" and a "zoom" window, for example.

> My first question is: should I be using Object Graphics? I have no feel
> for how complicated it would be to implement the
> zoom/translate/selection features in Direct Graphics.

Selection might possibly be easier in object graphics, but everything else is likely to be MUCH harder, depending upon how familiar you are with it. Zooming and translating are pretty much the same in either system.

> My second question is: Suppose I should use Object Graphics, should I
> use IDLgrPolygon for each data point, or should I try to do this using
> IDLgrPlot with a self-defined IDLgrSymbol (I want a filled symbol in
> order to see its color clearly). The "Objects and Object Graphics" IDL
> manual gives both as a possibility, but I am unclear on the relative
> merits of each.

I think I would use a symbol rather than a polygon, but just because the infrastructure is already in place to handle symbols. I'm pretty sure a symbol *is* a polygon to the object graphics system, so I doubt you will take a performance hit. I doubt you will need 10K symbols, however. Try to limit the number of things you build, so you don't take all day to render it. :-)

Cheers,

David

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