Subject: Re: display question
Posted by davidf on Fri, 06 Mar 1998 08:00:00 GMT
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Joseph Scott Stuart (nospam@ll.mit.edu) writes:

> I have a sensor to calibrate in which the pixels are not laid out in a
> simple grid. I can construct an array that gives the X-Y coordinates
> (relative to some point on the focal plane) of the centers of each
> pixel, and I know the shape of each pixel. When taking calibration
> data from the sensor, I'll have an array that gives the intensity that
> each pixel is measuring. What I would like to do is make a display
> that shows a little box for each pixel, of the right size, in the
> right location with the measured intensity, and then be able to zoom
> in using the mouse cursor to select a box.
>
> I can probably get something to work by using convert_coord to get the
> device coordinates of each pixel corner, then constructing an array of
> the appropriate number of pixels, and using tv to display. But, there
> are over 15,000 pixels, and I fear that this will be much too slow.
> Are there any better ways to display a bunch of little boxes each with
> its own color at its own specified data coordinates?

I presume that many of these boxes will be the same size
and shape. One of the things I've done is make my own
plot symbol (using USERSYM) that is the correct shape for
what I want to plot. Then I just set up a plot (with or
without axes) and simply plot the pixels into the data
space with the Plot command and PSYM set to 8. This saves
having to go into device coordinate space.

Cheers,

David

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Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: display question
Posted by nospam on Mon, 09 Mar 1998 08:00:00 GMT
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In article <MPG.f6a02cf8e3f5b6698973d@news.frii.com> davidf@dfanning.com (David Fanning) writes:

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> space with the Plot command and PSYM set to 8. This saves
> having to go into device coordinate space.

I tried that, but there doesn't seem to be any good way to control the size of the symbol that you get out. You can use xyouts to get the size of a character, and the plotting routine sets the plotted size of the character to be "about" the size of a character. But, there doesn't seem to be a way to control accurately the size of the symbol.

I thought of what will probably be a better solution. I'll use plot with /NODATA to set up the axes and data space, then get the number of pixels in the display area and the data range, then create an array as big as the display area, fill it with my little boxes of different sizes and colors, and then tv it once.

scott

--
Scott Stuart
stuart at ll mit edu

Subject: Re: display question
Posted by Martin Schultz on Mon, 09 Mar 1998 08:00:00 GMT
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Joseph Scott Stuart wrote:
>
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> Are there any better ways to display a bunch of little boxes each with
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>
> Thanks for any help!
>
> scott
>
> --
> Scott Stuart
> stuart at ll mit edu

if your boxes are very irregularily shaped, you may want to try the POLYFILL command. I use this e.g. to fill 3D model grid boxes on any map projection. Usually, 6 polygon point sare sufficient. But I am only dealing with otoo 300 "pixels", so it may well be that 15000 will make this approach too slow.

I guess the solution to your problem depends to a large extent on (A) how different your pixels are, (B) how complicated their shape is, and (C) whether you set your priority on a high resolution output (e.g. postscript) or a fast screen output.

Martin.

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