Subject: Re: Beginner Question: PlotS rasterization info?
Posted by sandy on Wed, 07 Nov 2001 22:20:10 GMT
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> Greetings Ted (Sandy?)--
>
> If it's really important to you to have exactly the same pixels on the
> screen and in your array, then probably your pixmap/WHERE approach is
> the most reliable.
>
> If you already have the Bresenham algorithm coded, then what reason is
> there to use PLOTS? In other words, why not plot the pixel values you
> determined from the Bresenham, and then you can be sure you know them
> exactly?
>
> Craig
>

Thanks David and Craig,

It's Ted--Sandy is just the default name on this computer.

It is important to have the same pixels on the screen. I'm using a modified CW_DefRoi function to draw multiple regions of interests on multiple frames of QuickTime movies. The modified function only returns the vertices of the region of interest (instead of the subscripts of the interior). These ROIs may overlap one another, but I want to be able to select and erase one or some of them without erasing any pixels of the others from the screen. So I can't just use Device, Copy, the way I understand it. I also need to extract data from the frames at the pixel coordinates of the boundaries in order to analyze them, not just to replace/erase the ROI data with the original image data.

I've thought about just plotting everything with the Bresenham like Craig suggests, but that would require further modifications to the CW_DefRoi function, since it almost surely uses the IDL Plot algorithm. It would also mean that for the sake of consistency future versions of the program could not use IDL's plot function either, and I'm not comfortable with that, since IDL's Plot is certainly much more reliable than my 15 lines of Bresenham code. I haven't actually overplotted results from David's approach on a PlotS line yet, but I'm thinking this technique will probably have the same roundoff problems as the Bresenham--I'll check on it. But what algorithm is IDL using to plot lines, anyway?

I don't have that strong computer programming background--LabVIEW and one C programming course. I get the feeling I'm re-inventing the wheel. Now that I've described the program in greater detail, is there a better way?

Thanks,

Ted