Subject: Re: Beginner Question: PlotS rasterization info? Posted by David Fanning on Wed, 07 Nov 2001 17:10:00 GMT View Forum Message <> Reply to Message

Ted (sehgal@oasis.rad.upenn.edu) writes:

- > When PlotS or Plot rasterizes straight lines between endpoints/vertices.
- > what's the best way to get the coordinates of all the points
- > interpolated? Surely this information is stored somewhere. Can I get
- > these coordinates without actually plotting anything to the screen? I
- > tried a Bresenham algorithm, but it doesn't return exactly the same
- > interpolated points as PlotS--there appears to be some sort of roundoff
- > difference. Any help would be appreciated, since currently I'm
- > resorting to the roundabout and no doubt inefficient method of plotting
- > to a pixmap, TVRD-ing, and then WHERE-ing the screen-dumped array....

Given the points (x1,y1) and (x2,y2), I think something like this should work:

```
nPoints = ABS(x2-x1+1) > ABS(y2-y1+1)

xloc = x1 + (x2 - x1) * Findgen(nPoints) / (nPoints - 1)

yloc = y1 + (y2 - y1) * Findgen(nPoints) / (nPoints - 1)
```

You might have to ROUND the locations, but this should get you pretty close, I think.

Cheers,

David

--

David W. Fanning, Ph.D. Fanning Software Consulting

Phone: 970-221-0438, E-mail: david@dfanning.com

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

Toll-Free IDL Book Orders: 1-888-461-0155