
Subject: Re: Beginner Question: PlotS rasterization info?
Posted by [David Fanning](#) on Wed, 07 Nov 2001 17:10:00 GMT
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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

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