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Subject: Re: good way to subdivide line segments?

Posted by [btt](#) on Fri, 09 Jul 2004 13:55:40 GMT

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boncat41 wrote:

> right now i have sensor plates defined by 6 pts connected by line segments  
> (7 pts, so it closes on itself--rectangle). what i'd like to do is  
> 'segmentize' the line segments to get a better resolution and to simplify  
> future calculations. any ideas? Thanks in advance.

Hi,

I think you mean subdividing each line into smaller line segments. Any straight line can be subdivided by using a trick that David Fanning describes for interpolating along an image profile.

[http://www.dfanning.com/ip\\_tips/image\\_profile.html](http://www.dfanning.com/ip_tips/image_profile.html)

The following starts with just 2 points and finds interpolates between the pair.

Ben

```
x = [8.0, 10.0]
y = [3.0, 15.0]
```

```
Plot, x,y, psym = -6
```

```
;y = a + bx
b = (y[1] - y[0]) / (x[1] - x[0])
a = (y[0]) - (b * x[0])
```

```
print, 'a = ', a
print, 'b = ', b
```

```
nInterps = 4
xx = (FindGen(nInterps)/(nInterps-1) * (x[1]-x[0]) )+ x[0]
yy = a + b * xx
```

```
oPlot, xx, yy, psym = 4, symsize = 2
```

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