Subject: good way to subdivide line segments?
Posted by boncat41 on Wed, 07 Jul 2004 14:13:19 GMT
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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
'segmetize' the line segments to get a better resolution and to simplify
future calculations. any ideas? Thanks in advance.

cat

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:
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> (7 pts, so it closes on itself--rectangle). what i'd like to do is
> 'segmetize' 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

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
```