5,-5

5,0

0,0

10,-5

1. Draw line 0,0 to 5,0 to 5,-5 to 10,-5

**Initial GeoJSON with just line**

{

"type": "FeatureCollection",

"features": [

{

"type": "Feature",

"properties": {},

"geometry": {

"type": "LineString",

"coordinates": [

[ 0, 0 ],

[ 5, 0 ],

[ 5,-5 ],

[-10,-5]

]

}

}

}

5,-5

0

**33**

**66**

100

0,0

5,0

10,-5

1. Assign Cable and calculate calibration points according to beginning of segments
   1. 0,0 = 0 from section data
   2. 10,-5 = 100 from section data
   3. 5,0 and 5,-5 calculated from secLength \* (segment length / line length)
      1. Where line length is 15 and each segment length is 5 above for easy math
   4. Add subSegment to keep track of geoJSON drawing object v calibration data application object
   5. Blue Above = Calculated calibration

**Initial GeoJSON with cable assigne, no calibration**

{

"type": "FeatureCollection",

"features": [

{

"type": "Feature",

"properties": {

“NameID”:”section1”

“secLenght”:100,

“calibrationPoints”:[0,33,66],

"subSegments": [

[ 0, 0 ],

[ 5, 0 ],

[ 5,-5 ],

[-10,-5]

},

"geometry": {

"type": "LineString",

"coordinates": [

[ 0, 0 ],

[ 5, 0 ],

[ 5,-5 ],

[-10,-5]

]

}

**66**

**33**

5,-5

5,-3

0

**13**

**27**

**53**

**86**

100

0,0

5,0

10,-5

2,0

4,0

8,-5

1. Add Calibration Points and insert as segments into calibration data and subSegments
   1. Automatically calculate at placement
   2. Calculation should be made from two nearest points
   3. Eg:
      1. point place at 5,-3 is distance of 3 on a nearest segment of 5
      2. this is 66% of the segment with has calibration length of 33
      3. point 6,-3 is then 52.8 ~ 53 or 33 + (66-33) \* 3/5
   4. Blue = Calculated values above

**Initial GeoJSON with just line**

{

"type": "FeatureCollection",

"features": [

{

"type": "Feature",

"properties": {

“NameID”:”section1”

“secLenght”:100,

“calibrationPoints”:[0,13,27,33,53,66,86]

“subSegments”:[

[ 0, 0 ],

[2, 0 ],

[4, 0 ],

[ 5, 0 ],

[5, -3 ],

[ 5,-5 ],

[8, -5 ],

[-10,-5]

},

"geometry": {

"type": "LineString",

"coordinates": [

[ 0, 0 ],

[ 5, 0 ],

[ 5,-5 ],

[-10,-5]

]

}

**59**

**23**

5,-5

5,-3

0

**10**

**20**

**45**

**80**

100

0,0

5,0

10,-5

2,0

4,0

8,-5

1. Add Calibration Points and insert as segments into calibration data and line segments
   1. Logic so we don’t’ continually recalculate or if additional points are set down
      1. Calculate calibrationPoint according to two nearest points when calibration point is placed
      2. On recalculation, If point is part of “coordinates” and “subSegments” section (i.e. geoJSON drawing engine) calculate calibration value. Exception 1st and last points
      3. If point is part of subSegments only, don’t calculate leave at value unless changed by user.
      4. First calibration point and secLength hard set
   2. Recalculate other calibration points as points are edited
      1. RED = Edited point above
      2. BLUE = Calculated Point Above

**Initial GeoJSON with just line**

{

"type": "FeatureCollection",

"features": [

{

"type": "Feature",

"properties": {

“NameID”:”section1”

“secLenght”:100,

“calibrationPoints”:[0,10,20,23,45,59,80],

“subSegments”:[

[ 0, 0 ],

[2, 0 ],

[4, 0 ],

[ 5, 0 ],

[5, -3 ],

[ 5,-5 ],

[8, -5 ],

[-10,-5]

}

},

"geometry": {

"type": "LineString",

"coordinates": [

[ 0, 0 ],

[ 5, 0 ],

[ 5,-5 ],

[-10,-5]

]

}