**Calculate Area**

**Parameters – 3D array (coordinates)**

**Return – double (area)**

Sum = (x[1] + x[0]) \* (y[1] – y[0])

While (x[i] != x[0] and y[i] != y[0])

Sum += (x[i+1] + x[i]) \* (y[i+1] – y[1])

Return .5 \* abs(sum)

**Get Coordinates**

**Parameters – 3D array (coordinates), filestream (input), row index**

**Returns – nothing**

While not end of line

Read x-coordinate into array ([row][col][0])

Read y-coordinate into array ([row][col][1])

Increment col

**Main**

Open input file

Open output file

If input file opens properly

While not EOF

Read pilot name

Get coordinates

Calculate area

Output name and area

Close files