

```
1 using System;
2 using System.Collections.Generic;
3 using System.Text;
4 using System.IO;
5
6 namespace TG2_RFID
7 {
8     public class FileHandler
9     {
10
11         protected string filePath;
12
13         public void SetFileHandler()
14         {
15             filePath = @Environment.GetFolderPath
16                 (Environment.SpecialFolder.Desktop) + "\\log_" +
17                 DateTime.Now.ToString("yyyyMMdd_HH-mm-ss") + ".csv";
18
19         }
20
21         public void WriteToFile(Cardholder person, string epc, string reader,
22             ushort ant)
23         {
24             // Set File parameters
25             string csvSeperator = ";";
26             StringBuilder streamOutput = new StringBuilder();
27
28             var antenna = Tuple.Create<string,ushort> (reader,ant);
29             var strRSSIcurve = person.GetPowerCurve(antenna).GetCurveIndexY
30                 (0).ToString() + ";" +
31                 person.GetPowerCurve(antenna).GetCurveIndexY
32                 (1).ToString() + ";" +
33                 person.GetPowerCurve(antenna).GetCurveIndexY
34                 (2).ToString() + ";" +
35                 person.GetPowerCurve(antenna).GetCurveIndexY
36                 (3).ToString() + ";" +
37                 person.GetPowerCurve(antenna).GetCurveIndexY
38                 (4).ToString() + ";" +
39                 person.GetPowerCurve(antenna).GetCurveIndexY
40                 (5).ToString() + ";" +
41                 person.GetPowerCurve(antenna).GetCurveIndexY
42                 (6).ToString() + ";" +
43                 person.GetPowerCurve(antenna).GetCurveIndexY
44                 (7).ToString() + ";" +
45                 person.GetPowerCurve(antenna).GetCurveIndexY
46                 (8).ToString() + ";" +
47                 person.GetPowerCurve(antenna).GetCurveIndexY
48                 (9).ToString() + ";" +
49                 person.GetPowerCurve(antenna).GetCurveIndexY
50                 (10).ToString() + ";" +
51                 ;
52
53             var strRSSItime = person.GetPowerCurve(antenna).GetCurveIndexX
54                 (0).ToString() + ";" +
55                 person.GetPowerCurve(antenna).GetCurveIndexX
56                 (1).ToString() + ";" +
```

```
41         person.GetPowerCurve(antenna).GetCurveIndexX
           (2).ToString() + ";" +
42         person.GetPowerCurve(antenna).GetCurveIndexX
           (3).ToString() + ";" +
43         person.GetPowerCurve(antenna).GetCurveIndexX
           (4).ToString() + ";" +
44         person.GetPowerCurve(antenna).GetCurveIndexX
           (5).ToString() + ";" +
45         person.GetPowerCurve(antenna).GetCurveIndexX
           (6).ToString() + ";" +
46         person.GetPowerCurve(antenna).GetCurveIndexX
           (7).ToString() + ";" +
47         person.GetPowerCurve(antenna).GetCurveIndexX
           (8).ToString() + ";" +
48         person.GetPowerCurve(antenna).GetCurveIndexX
           (9).ToString() + ";" +
49         person.GetPowerCurve(antenna).GetCurveIndexX
           (10).ToString() + ";"
50         ;
51
52     var strDopplercurve = person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(0).ToString() + ";" +
53         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(1).ToString() + ";" +
54         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(2).ToString() + ";" +
55         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(3).ToString() + ";" +
56         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(4).ToString() + ";" +
57         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(5).ToString() + ";" +
58         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(6).ToString() + ";" +
59         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(7).ToString() + ";" +
60         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(8).ToString() + ";" +
61         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(9).ToString() + ";" +
62         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexY(10).ToString()
63         ;
64
65     var strDopplertime = person.GetDopplerEffectCurve
           (antenna).GetCurveIndexX(0).ToString() + ";" +
66         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexX(1).ToString() + ";" +
67         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexX(2).ToString() + ";" +
68         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexX(3).ToString() + ";" +
69         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexX(4).ToString() + ";" +
70         person.GetDopplerEffectCurve
           (antenna).GetCurveIndexX(5).ToString() + ";" +
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71         person.GetDopplerEffectCurve  ↗
            (antenna).GetCurveIndexX(6).ToString() + ";" +
72         person.GetDopplerEffectCurve  ↗
            (antenna).GetCurveIndexX(7).ToString() + ";" +
73         person.GetDopplerEffectCurve  ↗
            (antenna).GetCurveIndexX(8).ToString() + ";" +
74         person.GetDopplerEffectCurve  ↗
            (antenna).GetCurveIndexX(9).ToString() + ";" +
75         person.GetDopplerEffectCurve  ↗
            (antenna).GetCurveIndexX(10).ToString()
76         ;
77
78         string[][] dataOutput = new string[][]{
79             new string[] {person.GetName(), epc,  ↗
                reader, ant.ToString(), DateTime.Now.ToString("dd/MM/yyyy;  ↗
                HH:mm:ss:ffff"), person.GetCurAmbient().GetName(), ";",  ↗
                strRSSIcurve, strRSSItime, strDopplercurve, ";",  ↗
                strDopplertime, ";", person.GetAmbient(0).GetName(),  ↗
                person.GetAmbient(2).GetName(), person.GetAmbient  ↗
                (3).GetName(), person.GetAmbient(4).GetName(),  ↗
                person.GetAmbient(5).GetName(), person.GetAmbient  ↗
                (6).GetName() }
80         };
81         int length = dataOutput.GetLength(0);
82         for (int i = 0; i < length; i++)
83             streamOutput.AppendLine(string.Join(csvSeparator, dataOutput  ↗
                [i]));
84
85         // Appends more lines to the csv file
86         File.AppendAllText(filePath, streamOutput.ToString());
87     }
88
89     public void CreateFile()
90     {
91         // Set File parameters
92         string csvSeparator = ";";
93         StringBuilder streamOutput = new StringBuilder();
94
95         string[][] dataOutput = new string[][]{
96             new string[] { "Nome", "EPC", "Leitora",  ↗
                "Antena", "Data", "Horario", "Ambiente Correto", ";",  ↗
                "Curva RSSI", ";;;;;;;;;;", ";", "Tempo RSSI", ";;;;;;;;;;",  ↗
                ";", "Curva Doppler", ";;;;;;;;;;", ";", "Tempo Doppler",  ↗
                ";;;;;;;;;;", ";", "Ambiente-LAST-RSSI-PEAK-TIME",  ↗
                "Ambiente-RSSI-Last-value", "Ambiente-RSSI-Mean",  ↗
                "Ambiente-RSSI-Median", "Ambiente-Doppler" ,  ↗
                "DopplerAndRSSI" }
97         };
98         int length = dataOutput.GetLength(0);
99         for (int i = 0; i < length; i++)
100             streamOutput.AppendLine(string.Join(csvSeparator, dataOutput  ↗
                [i]));
101
102         // Create and write the csv file
103         File.WriteAllText(filePath, streamOutput.ToString());
104     }

```

105

106

107 }

108 }

109