```
1  using System;
2  using System.Collections.Generic;
3  using System.Text;
4
5  namespace TG2_RFID
6  {
7      public class Transition
8      {
9          /// <summary>
10         /// Holds the ambients the transition connects
11         /// </summary>
12         protected Ambient ambient1, ambient2;
13
14         /// <summary>
15         /// Holds the antennas that make the transition
16         /// </summary>
17         protected Tuple<string, ushort> antenna1, antenna2;
18
19         /// <summary>
20         /// Setter for the Ambients of the transition.
21         /// </summary>
22         public void SetAmbients2Transition(Ambient amb1, Ambient amb2)
23         {
24             ambient1 = amb1;
25             ambient2 = amb2;
26         }
27
28         /// <summary>
29         /// Setter for the Antennas of the transition.
30         /// </summary>
31         public void SetAntennas2Transition(string firstReader, ushort
             firstAntenna, string secndReader, ushort secndAntenna)
32         {
33             Tuple.Create<string, ushort>(firstReader, firstAntenna);
34             Tuple.Create<string, ushort>(secndReader, secndAntenna);
35         }
36
37         /// <summary>
38         /// Getter for first Ambient and Antenna
39         /// </summary>
40         public Tuple<Ambient, Tuple<string, ushort>> GetAtributes1stAmb()
41         {
42             return Tuple.Create<Ambient, Tuple<string, ushort>>(ambient1,
                 antenna1);
43         }
44
45         /// <summary>
46         /// Getter for second Ambient and Antenna
47         /// </summary>
48         public Tuple<Ambient, Tuple<string, ushort>> GetAtributes2ndAmb()
49         {
50             return Tuple.Create<Ambient, Tuple<string, ushort>>(ambient2,
                 antenna2);
51         }
52
53         /// <summary>
```

```
54          /// Setter for transition
55          /// </summary>
56          public Transition (Ambient amb1, string reader1, ushort ant1, Ambient
              amb2, string reader2, ushort ant2)
57          {
58              antenna1 = Tuple.Create<string, ushort>(reader1, ant1);
59              antenna2 = Tuple.Create<string, ushort>(reader2, ant2);
60              ambient1 = amb1;
61              ambient2 = amb2;
62          }
63
64          /// <summary>
65          /// Gets the second antenna, given the first one
66          /// </summary>
67          public Tuple<string, ushort> GetOtherAntenna(Tuple <string, ushort>
              givenAntenna)
68          {
69              if (antenna1.Item1 == givenAntenna.Item1 && antenna1.Item2 ==
                  givenAntenna.Item2)
70              //if (antenna1.Equals(givenAntenna))
71              {
72                  return antenna2;
73              }
74              else
75              {
76                  return antenna1;
77              }
78          }
79
80
81          /// <summary>
82          /// Getter for Ambient related to antenna
83          /// </summary>
84          public Ambient GetAmb4GivenAntenna(Tuple <string, ushort> ant)
85          {
86              if (ant.Item1 == antenna1.Item1 && ant.Item2 == antenna1.Item2)
87              {
88                  return ambient1;
89              } else if (ant.Item1 == antenna2.Item1 && ant.Item2 ==
                    antenna2.Item2)
90              {
91                  return ambient2;
92              } else
93              {
94                  throw new Exception ();
95              }
96          }
97
98      }
99  }
100
```