

```
1 using System;
2 using System.Diagnostics;
3 using System.Drawing;
4 using System.IO;
5 using System.Windows.Forms;
6
7 namespace WindowsBar
8 {
9     public partial class Form1 : Form
10     {
11         //Mouse position
12         private int xPos;
13         private int yPos;
14
15         private Rectangle[] buttonOriginalRect;
16         private Size formOriginalSize;
17         private Button[] bt;
18         private Random rand;
19         private string[] imgTypes = new string[5];
20         private int qdtButton;
21
22         public Form1()
23         {
24             InitializeComponent();
25         }
26
27         //create Button and add properties
28         private void CreateBt(int qtd)
29         {
30             for (int i = 0; i < qtd; i++)
31             {
32                 bt[i] = new Button();
33                 bt[i].AllowDrop = true;
34                 bt[i].FlatStyle = FlatStyle.Flat;
35                 bt[i].BackgroundImageLayout = ImageLayout.Stretch;
36                 bt[i].Size = new Size(65,65);
37                 bt[i].Name = "";
38                 bt[i].Location = new Point(rand.Next(10, (this.Width - (bt
39                     [i].Size.Width +10))), rand.Next(10, (this.Height - (bt
40                     [i].Size.Height +10))));
41                 buttonOriginalRect[i] = new Rectangle(bt[i].Location.X, bt
42                     [i].Location.Y, bt[i].Width, bt[i].Height);
43                 AddEventBt(bt[i]);
44                 this.Controls.Add(bt[i]);
45             }
46         }
47         //add event to button created
48         private void AddEventBt(Button bt)
49         {
50             bt.Click += btClick;
51             bt.DragEnter += btDragEnter;
52             bt.DragDrop += btDragDrop;
53             bt.MouseDown += btMouseDown;
54             bt.MouseMove += btMouseMove;
55             bt.MouseUp += btMouseUp;
```

```
54
55     #region Drag Drop itens
56     private void btDragEnter(object sender, DragEventArgs e)
57     {
58         if(e.Data.GetDataPresent(DataFormats.FileDrop, false) == true)
59         {
60             e.Effect = DragDropEffects.All;
61         }
62     }
63
64     private void btDragDrop(object sender, DragEventArgs e)
65     {
66         Button bt = sender as Button;
67
68         string[] droppedFiles = (string[])e.Data.GetData           ↗
            (DataFormats.FileDrop);
69
70         foreach (string file in droppedFiles)
71         {
72             string fileName = getFileName(file);
73             textBox1.Text = file;
74             bt.FlatAppearance.BorderSize = 0;
75             bt.Text = fileName;
76             bt.Name = file;
77
78             for (int i = 0; i < 5; i++)
79             {
80                 if(file.Contains(imgTypes[i]))
81                 {
82
83                     bt.BackgroundImage = Image.FromFile(file);
84                     break;
85                 }
86                 else if(i == 4)
87                 {
88                     if(file.Contains("."))
89                     {
90                         Icon IEIcon = Icon.ExtractAssociatedIcon(file);
91                         Image im = IEIcon.ToBitmap();
92                         bt.BackgroundImage = im;
93                     }
94                     else
95                     {
96                         bt.BackgroundImage = Image.FromFile           ↗
                            (Directory.GetParent(@"..\..\..\").FullName + "\           ↗
                                \folderIcon.png");
97
98                     }
99
100             }
101         }
102
103     }
104 }
105 #endregion
106
```

```
107
108     //Get filename
109     private string getFileName(string path)
110     {
111         return Path.GetFileNameWithoutExtension(path);
112     }
113
114     #region Mouse events
115     private void btClick(object sender, EventArgs e)
116     {
117         Button bt = sender as Button;
118         if (bt.Name != "")
119         {
120             Process.Start(bt.Name);
121         }
122     }
123
124     private void btMouseDown(object sender, MouseEventArgs e)
125     {
126
127         if (e.Button == MouseButtons.Right)
128         {
129             xPos = e.X;
130             yPos = e.Y;
131         }
132     }
133
134     private void btMouseMove(object sender, MouseEventArgs e)
135     {
136         Button b = sender as Button;
137         if (b != null)
138         {
139             if (e.Button == MouseButtons.Right)
140             {
141                 b.Top += (e.Y - yPos);
142                 b.Left += (e.X - xPos);
143             }
144         }
145     }
146     private void btMouseUp(object sender, MouseEventArgs e)
147     {
148         for(int i = 0; i < qdtButton; i++)
149         {
150             buttonOriginalRect[i] = new Rectangle(bt[i].Location.X, bt
151                 [i].Location.Y, buttonOriginalRect[i].Width,
152                 buttonOriginalRect[i].Height);
153         }
154     }
155     #endregion
156
157     //start initial properties
158     private void Form1_Load(object sender, EventArgs e)
159     {
160         //img types compatibles
161         imgTypes[0] = ".jpg";
162         imgTypes[1] = ".jpeg";
```

```
161         imgTypes[2] = ".png";
162         imgTypes[3] = ".bmp";
163         imgTypes[4] = ".gif";
164
165         formOriginalSize = this.Size;
166     }
167
168     #region Resize itens form
169     private void resizeChildrenControls()
170     {
171         for (int i = 0; i < qdtButton; i++)
172         {
173             resizeControl(buttonOriginalRect[i], bt[i]);
174         }
175     }
176
177     private void resizeControl(Rectangle originalControlRect, Control control)
178     {
179         float xRatio = (float)(this.Width) / (float)
180             (formOriginalSize.Width);
181         float yRatio = (float)(this.Height) / (float)
182             (formOriginalSize.Height);
183
184         int newX = (int)(originalControlRect.X * xRatio);
185         int newY = (int)(originalControlRect.Y * yRatio);
186         int newWidth = (int)(originalControlRect.Width * xRatio);
187         int newHeight = (int)(originalControlRect.Height * yRatio);
188
189         control.Location = new Point(newX, newY);
190         control.Size = new Size(newWidth, newHeight);
191     }
192
193     private void Form1_Resize(object sender, EventArgs e)
194     {
195         resizeChildrenControls();
196     }
197     #endregion
198
199     private void textBox1_KeyDown(object sender, KeyEventArgs e)
200     {
201
202         if (e.KeyCode == Keys.Enter)
203         {
204             qdtButton = Int32.Parse(textBox1.Text);
205         }
206
207         bt = new Button[qdtButton];
208         rand = new Random(qdtButton);
209         buttonOriginalRect = new Rectangle[qdtButton];
210         CreateBt(qdtButton);
211     }
212 }
213 }
```

214 }

215