

```
1 #Region Project Attributes
2 ' Application B4A développée par Marc DANIEL - Avril 2022 - Animation d'une case créole
  ARDUINO
3
4 ' B4A application developed by Marc DANIEL - April 2022 - Animation of an ARDUINO Creole
  "Case"
5 ' the French word "Case" can be translated as hut, cabin, small house ...
6
7 ' NB - Cette application peut fonctionner seule mais ne servira à rien - Elle est conçue
  pour transmettre des commandes à une seconde application B4R
8 ' installée dans une carte MEGA2560 ARDUINO ou compatible Arduino - Un module Bluetooth
  HC-05 sert d'intermédiaire entre le Smartphone et la Case Créole connectée.
9
10 'NB - This application can work alone but will not serve any purpose - It is designed to
  transmit commands to a second B4R application
11 ' installed in a MEGA2560 ARDUINO board or Arduino compatible - A Bluetooth HC-05 module
  serves as an intermediary between the Smartphone and the connected "Creole Case".
12
13     #ApplicationLabel: NewCaseCreole
14     #VersionCode: 1
15     #VersionName:
16     'SupportedOrientations possible values: unspecified, landscape or portrait.
17     #SupportedOrientait: portrait
18     #CanInstallToExternalStorage: False
19 #End Region
20
21 #Region Activity Attributes
22     #FullScreen: False
23     #IncludeTitle: False
24 #End Region
25
26 Sub Process_Globals
27     Public xui As XUI
28     Public rp As RuntimePermissions
29     Dim MusicBoxPlayer As MediaPlayer
30 End Sub
31
32 Sub Globals
33     Private BTA As BluetoothAsynchStream
34     Private BtnConnect, Sortie As Button
35     Private lblStatus, Pilotage As Label
36     Private pnlMain As B4XView
37     Private Lampe1, Lampe2, Sonnerie, Fenetre, Porte As ImageView 'Boutons de commande -
  Command Buttons
38     Private ProgressBar1 As ProgressBar
39     Private DeviceName = "HC-05" As String
40     Private Connected As Boolean
41     Private x=3, y=3 As Int 'Valeurs de x et y
42     Private BLT As ImageView 'Logo Bluetooth
43     Private Maisoncreole As ImageView
44     Public FO, PO, LA1, LA2 As Boolean
45 End Sub
46
47 Sub Activity_Create(FirstTime As Boolean)
48     Activity.LoadLayout("Main")
49     BTA.Initialize(Me, "BTA", lblStatus, ProgressBar1)
50     Pilotage.Text=" Bienvenue à bord du " & CRLF & " poste de commande Bluetooth " & CRLF
```

```
& " de la case créole !"
51   Pilotage.Text=Pilotage.Text & CRLF & " Les commandes apparaîtront " & CRLF & " dès que ↵
la connexion sera " & CRLF & " établie avec la Case Créole."
52   Pilotage.Text=Pilotage.Text & CRLF & " Appuyez sur la touche verte " & CRLF & " ↵
CONNEXION !"
53   Porte.Bitmap = LoadBitmap(File.DirAssets,"Portef.jpg")
54   Fenetre.Bitmap = LoadBitmap(File.DirAssets,"Fenetref.jpg")
55   LA1=False
56   LA2=False
57   FO=False
58   PO=False
59   If FirstTime Then
60       MusicBoxPlayer.Initialize()
61   End If
62 End Sub
63
64 Sub Activity_Resume
65
66 End Sub
67
68 Sub Activity_Pause (UserClosed As Boolean)
69   If UserClosed = True And Connected = True Then
70       BTA.SendBytes(Array As Byte(127, 127))
71       BTA.Disconnect
72   End If
73 End Sub
74
75 Private Sub Activity_PermissionResult (Permission As String, Result As Boolean)
76
77 End Sub
78
79 Sub BtnConnect_Click
80   ' Action sur le bouton de connexion Bluetooth
81   rp.CheckAndRequest(rp.PERMISSION_ACCESS_FINE_LOCATION)
82   Wait For Activity_PermissionResult (Permission As String, Result As Boolean)
83   If Result = False Then
84       lblStatus.Text = "Statut: Permission refusée..."
85   Else
86       BTA.Connect(DeviceName)
87   End If
88 End Sub
89
90 Sub Sonnerie_Click
91   'Valeurs (3,3) déclenchant le son de la cloche, de la sonnerie ou du buzzer pendant 2 ↵
secondes
92   'NB - Une sonnerie retentira également sur le Smartphone pendant 2 secondes
93
94   'Values (3,3) triggering the bell, ringtone or buzzer for 2 seconds
95   'NB - A ringtone will also ring on the Smartphone for 2 seconds
96   x=3
97   y=3
98   BTA.SendBytes(Array As Byte(x,y))
99   Sonnerie.Bitmap = LoadBitmap(File.DirAssets,"ClocheS.jpg")
100  MusicBoxPlayer.Load(File.DirAssets,"Sonnette.mp3")
101  MusicBoxPlayer.Play
102  Sleep(2000)
```

```
103     Sonnerie.Bitmap = LoadBitmap(File.DirAssets,"Cloche.jpg")
104     MusicBoxPlayer.Stop
105 End Sub
106
107 Sub Lampe1_Click
108     'Valeurs (4,4) allumant les lumières connectées à "Lampe1"
109     'Values (4,4) turning on lights connected to "Lampe1"
110     If LA1=False Then
111         Lampe1.Bitmap = LoadBitmap(File.DirAssets,"lampea.jpg")
112         LA1=True
113         x=4
114         y=4
115         BTA.SendBytes(Array As Byte(x,y))
116     else if LA1=True Then
117         'Valeurs (5,5) éteignant les lumières connectées à "Lampe1"
118         'Values (5,5) turning off the lights connected to "Lampe1"
119         Lampe1.Bitmap = LoadBitmap(File.DirAssets,"lampe.jpg")
120         LA1=False
121         x=5
122         y=5
123         BTA.SendBytes(Array As Byte(x,y))
124     End If
125 End Sub
126
127
128
129 Sub Lampe2_Click
130     'Valeurs (6,6) allumant les lumières connectées à "Lampe2"
131     'Values (6,6) turning on lights connected to "Lampe2"
132     If LA2=False Then
133         Lampe2.Bitmap = LoadBitmap(File.DirAssets,"lampea2.jpg")
134         LA2=True
135         x=6
136         y=6
137         BTA.SendBytes(Array As Byte(x,y))
138     else if LA2=True Then
139         'Valeurs (7,7) éteignant les lumières connectées à "Lampe2"
140         'Values (7,7) turning off lights connected to "Lampe2"
141         Lampe2.Bitmap = LoadBitmap(File.DirAssets,"lampe.jpg")
142         LA2=False
143         x=7
144         y=7
145         BTA.SendBytes(Array As Byte(x,y))
146     End If
147 End Sub
148
149
150 Sub Porte_Click
151     'Valeurs (8,8) déclenchant l'ouverture d'une porte reliée au servomoteur n°1
152     'Values (8,8) triggering the opening of a door connected to servo motor n°1
153     If PO=False Then
154         Porte.Bitmap = LoadBitmap(File.DirAssets,"porteo.jpg")
155         PO=True
156         x=8
157         y=8
158         BTA.SendBytes(Array As Byte(x, y))
159     else if PO=True Then
```

```
160     'Valeurs (9,9) déclenchant la fermeture d'une porte reliée au servomoteur n°1
161     'Values (9,9) triggering the closing of a door connected to servo motor n°1
162     Porte.Bitmap = LoadBitmap(File.DirAssets,"portef.jpg")
163     PO=False
164     x=9
165     y=9
166     BTA.SendBytes(Array As Byte(x, y))
167 End If
168 End Sub
169
170 Sub Fenetre_Click
171     'Valeurs (10,10) déclenchant l'ouverture d'une 2ème porte ou d'une fenêtre reliée au
172     servomoteur n°2
173     'Values (10,10) triggering the opening of a 2nd door or window connected to servo
174     motor n°2
175     If FO=False Then
176         Fenetre.Bitmap = LoadBitmap(File.DirAssets,"fenetreo.jpg")
177         FO=True
178         x=10
179         y=10
180         BTA.SendBytes(Array As Byte(x, y))
181     else if FO=True Then
182         ' Valeurs (11,11) déclenchant la fermeture d'une 2ème porte ou d'une fenêtre
183         reliée au servomoteur n°2
184         ' Values (11,11) triggering the closure of a 2nd door or window connected to servo
185         motor n°2
186         Fenetre.Bitmap = LoadBitmap(File.DirAssets,"fenetref.jpg")
187         FO=False
188         x=11
189         y=11
190         BTA.SendBytes(Array As Byte(x, y))
191     End If
192 End Sub
193
194 Private Sub BTA_Connected (Success As Boolean)
195     'Actions lancées si la connexion Bluetooth a été réussie
196     'Actions initiated if the Bluetooth connection was successful
197     If Success = True Then
198         Connected = Success
199         BtnConnect.Visible=False
200         BLT.Visible=True
201         Sortie.Visible=True
202         Pilotage.Visible=False
203         Lampe1.Visible=True
204         Lampe2.Visible=True
205         Porte.Visible=True
206         Fenetre.Visible=True
207         Sonnerie.Visible=True
208     End If
209 End Sub
210
211 Private Sub BTA_StateChanged (State As String)
212     ' Actions impossibles (accès aux boutons de commande) si la connexion Bluetooth a
213     échoué
214     ' Impossible actions (access to command buttons) if Bluetooth connection failed
215     If State <> "" Then
```

```
212     Connected = False
213     BtnConnect.Visible=True
214     BLT.Visible=False
215     Sortie.Visible=False
216     Pilotage.Visible=True
217     Lampe1.Visible=False
218     Lampe2.Visible=False
219     Sonnerie.Visible=False
220     Porte.Visible=False
221     Fenetre.Visible=False
222 End If
223 End Sub
224
225
226 Sub Sortie_Click
227     ' Fermeture volontaire de l'application et actions conséquentes
228     ' Voluntary closure of the application and consequent actions
229     MsgBox2Async("Voulez-vous vraiment quitter la gestion de la case
créole ?", "Quitter ?", "Oui", "", "Non", Null, True)
230     Wait For MsgBox_Result (Result As Int)
231     If Result=DialogResponse.POSITIVE Then
232         BTA.SendBytes(Array As Byte(5, 5)) 'Extinction Lampes1
233         Lampe1.Bitmap = LoadBitmap(File.DirAssets,"lampe.jpg")
234         BTA.SendBytes(Array As Byte(7, 7)) 'Extinction Lampes2
235         Lampe2.Bitmap = LoadBitmap(File.DirAssets,"lampe.jpg")
236         BTA.SendBytes(Array As Byte(9, 9)) 'Fermeture portes - Door closures
237         Porte.Bitmap = LoadBitmap(File.DirAssets,"portef.jpg")
238         BTA.SendBytes(Array As Byte(11, 11)) 'Fermeture fenêtres - Windows closure
239         Fenetre.Bitmap = LoadBitmap(File.DirAssets,"fenetref.jpg")
240         If MusicBoxPlayer.IsPlaying Then MusicBoxPlayer.Stop
241         Sonnerie.Bitmap = LoadBitmap(File.DirAssets,"Cloche.jpg")
242         Activity.Finish
243     End If
244 End Sub
245
246 Sub Activity_KeyPress (KeyCode As Int) As Boolean
247     'Utilisation de la touche Back de votre Smartphone pour quitter l'application
248     'Using the Back button on your Smartphone to exit the app
249     If KeyCode = KeyCodes.KEYCODE_BACK Then openMsgBox
250         Return True
251 End Sub
252
253 Sub openMsgBox
254     ' Fermeture volontaire de l'application à l'aide de la touche Back du Smartphone
255     ' Voluntary closure of the application using the Back key of the Smartphone
256     MsgBox2Async("Voulez-vous vraiment quitter la gestion de la case
créole ?", "Quitter ?", "Oui", "", "Non", Null, True)
257     Wait For MsgBox_Result (Result As Int)
258     If Result=DialogResponse.POSITIVE Then
259         BTA.SendBytes(Array As Byte(5, 5)) 'Extinction Lampes1
260         Lampe1.Bitmap = LoadBitmap(File.DirAssets,"lampe.jpg")
261         BTA.SendBytes(Array As Byte(7, 7)) 'Extinction Lampes2
262         Lampe2.Bitmap = LoadBitmap(File.DirAssets,"lampe.jpg")
263         BTA.SendBytes(Array As Byte(9, 9)) 'Fermeture portes - Door closures
264         Porte.Bitmap = LoadBitmap(File.DirAssets,"portef.jpg")
265         BTA.SendBytes(Array As Byte(11, 11)) 'Fermeture fenêtres - Windows closure
```

```
266 Fenetre.Bitmap = LoadBitmap(File.DirAssets,"fenetref.jpg")
267 If MusicBoxPlayer.IsPlaying Then MusicBoxPlayer.Stop
268 Sonnerie.Bitmap = LoadBitmap(File.DirAssets,"Cloche.jpg")
269 Activity.Finish
270 End If
271 End Sub
272
```