

Streamlining your code

Chapter 6 - Remove radio buttons

[StPendl](#) *Oct 29, 2011*

This step now gets rid of the radio buttons, which are now obsolete due to the implemented color pick selection.

We only have to remove all the definitions for the radio buttons and consolidate the mouse and radio button event handlers into one.

To consolidate the event handlers we replace:

```
SUB MouseClick Handle$, PosX, PosY
    RBhandle$ = Left$(Handle$, Len(Handle$)-1); "r"; Right$(
Handle$, 1)

    #RBhandle$ "set"

    call SetBandValue RBhandle$
END SUB

SUB SetBandValue Handle$
    ' parse handle of calling control
    Band = val(Right$(Handle$, 1))
    ColorName$ = Mid$(Handle$, 4, Len(Handle$)-5)

    ' get position of color
    FOR i = 1 to 10
        if Colors$(i,1) = ColorName$ then exit for
        if i < 4 then if Tolerances$(i,1) = ColorName$ then exit for
    NEXT
```

With the version to parse the graphics box handle:

```
SUB MouseClick Handle$, PosX, PosY
    ' parse handle of calling control
    Band = val(Right$(Handle$, 1))
    ColorName$ = Mid$(Handle$, 4, Len(Handle$)-4)

    ' get position of color
    FOR i = 1 to 10
```

```
        if Colors$(i,1) = ColorName$ then exit for
        if i < 4 then if Tolerances$(i,1) = ColorName$ then exit for
NEXT
```

The complete code now looks like this.

```
'Resistor Calculator.bas
'Author: salaion Yahoo! Group
'Date: 27.11.10
'
' List of Colors at http://en.wikipedia.org/wiki/List\_of\_colors
'
' 27.11.10 00:18:50 - Initial as posted

' 27.11.10 00:21:40 - added array for colors and reduced redundant code
for color boxes

' 27.11.10 00:34:07 - replaced duplicate command strings by variables
' 27.11.10 02:22:16 - consolidated event handler
'
' always take the time for some sleep or you will make things worse ;-
)
'
' 27.11.10 10:56:24 - removed radio buttons

nomainwin
WindowWidth = 820:WindowHeight = 600
UpperLeftX=int( (DisplayWidth- WindowWidth) /2)
UpperLeftY=int( (DisplayHeight- WindowHeight) /2)
BackgroundColor$ = "green"

GLOBAL Band1value, Band2value, Band3value, Band4value

dim Colors$(10,2), Tolerances$(3,2)

[Colors]
DATA "Black",    "  0  0  0"
DATA "Brown",    "170 100 20"
DATA "Red",       "255  0  0"
DATA "Orange",   "255 180  0"
DATA "Yellow",   "255 255  0"
DATA "Green",     " 45 157 40"
DATA "Blue",     "  0  0 255"
```

```
DATA "Violet", "170  0 180"  
DATA "Gray",   "127 127 127"  
DATA "White",  "255 255 255"
```

```
[Tolerances]
```

```
DATA "Gold",   "212 175  55"  
DATA "Silver", "200 200 250"  
DATA "None",   " 21 228 255"
```

```
'Fill the arrays  
RESTORE [Colors]
```

```
FOR i = 1 to 10  
    READ ColorName$, ColorValue$  
    Colors$(i,1) = ColorName$  
    Colors$(i,2) = ColorValue$  
NEXT
```

```
RESTORE [Tolerances]
```

```
FOR i = 1 to 3  
    READ ColorName$, ColorValue$  
    Tolerances$(i,1) = ColorName$  
    Tolerances$(i,2) = ColorValue$  
NEXT
```

```
STATICTEXT #w.Ohm, "" , 500, 200, 300, 20  
STATICTEXT #w.Tole, "" , 500, 230, 300, 20
```

```
STATICTEXT #w,Colors$( 1,1), 10, 42, 50, 20  
STATICTEXT #w,Colors$( 2,1), 10, 82, 50, 20  
STATICTEXT #w,Colors$( 3,1), 10, 122, 50, 20  
STATICTEXT #w,Colors$( 4,1), 10, 162, 50, 20  
STATICTEXT #w,Colors$( 5,1), 10, 202, 50, 20  
STATICTEXT #w,Colors$( 6,1), 10, 242, 50, 20  
STATICTEXT #w,Colors$( 7,1), 10, 282, 50, 20  
STATICTEXT #w,Colors$( 8,1), 10, 322, 50, 20  
STATICTEXT #w,Colors$( 9,1), 10, 362, 50, 20  
STATICTEXT #w,Colors$(10,1), 10, 402, 50, 20
```

```
STATICTEXT #w,Tolerances$(1,1), 420, 42, 50, 20  
STATICTEXT #w,Tolerances$(2,1), 420, 82, 50, 20  
STATICTEXT #w,Tolerances$(3,1), 420, 122, 50, 20
```

```
STATICTEXT #w,"K=Kilo " , 470, 300,100, 20  
STATICTEXT #w,"M=Mega " , 470, 330,100, 20
```

```
    STATICTEXT #w,  
"Light Blue is The Default Color of Resistance " , 470, 360,400, 20
```

```
'Band1
```

```
STATICTEXT #w, "First Digit", 70, 8, 80, 20  
groupbox #w, "", 70, 20, 70,420  
graphicbox #w.Black1 , 90, 40, 30, 30  
graphicbox #w.Brown1 , 90, 80, 30, 30  
graphicbox #w.Red1 , 90,120, 30, 30  
graphicbox #w.Orange1, 90,160, 30, 30  
graphicbox #w.Yellow1, 90,200, 30, 30  
graphicbox #w.Green1 , 90,240, 30, 30  
graphicbox #w.Blue1 , 90,280, 30, 30  
graphicbox #w.Violet1, 90,320, 30, 30  
graphicbox #w.Gray1 , 90,360, 30, 30  
graphicbox #w.White1 , 90,400, 30, 30
```

```
'Band2
```

```
STATICTEXT #w, "Second Digit", 150, 8, 90, 20  
groupbox #w, "", 160, 20, 70,420  
graphicbox #w.Black2 , 180, 40, 30, 30  
graphicbox #w.Brown2 , 180, 80, 30, 30  
graphicbox #w.Red2 , 180,120, 30, 30  
graphicbox #w.Orange2, 180,160, 30, 30  
graphicbox #w.Yellow2, 180,200, 30, 30  
graphicbox #w.Green2 , 180,240, 30, 30  
graphicbox #w.Blue2 , 180,280, 30, 30  
graphicbox #w.Violet2, 180,320, 30, 30  
graphicbox #w.Gray2 , 180,360, 30, 30  
graphicbox #w.White2 , 180,400, 30, 30
```

```
'Band3
```

```
STATICTEXT #w, "Multiplier", 250, 8, 80, 20  
groupbox #w, "", 250, 20, 70,420  
graphicbox #w.Black3 , 270, 40, 30, 30  
graphicbox #w.Brown3 , 270, 80, 30, 30  
graphicbox #w.Red3 , 270,120, 30, 30  
graphicbox #w.Orange3, 270,160, 30, 30  
graphicbox #w.Yellow3, 270,200, 30, 30  
graphicbox #w.Green3 , 270,240, 30, 30  
graphicbox #w.Blue3 , 270,280, 30, 30  
graphicbox #w.Violet3, 270,320, 30, 30  
graphicbox #w.Gray3 , 270,360, 30, 30  
graphicbox #w.White3 , 270,400, 30, 30
```

```
'Band4
```

```
STATICTEXT #w, "Tolerance",      340,  8, 80, 20
groupbox   #w, "",                340, 20, 70, 420
graphicbox #w.Gold4,              360, 40, 30, 30
graphicbox #w.Silver4,            360, 80, 30, 30
graphicbox #w.None4,              360,120, 30, 30

'Fram
graphicbox #w.title, 488,53,306,44
stylebits  #w.title, 0,_WS_BORDER, 0,0

'Selected Bands of Body Resistance
graphicbox #w.Band1, 155,470,15,35
graphicbox #w.Band2, 185,470,15,35
graphicbox #w.Band3, 215,470,15,35
graphicbox #w.Band4, 255,470,15,35

stylebits #w.Band1, 0,_WS_BORDER,0,0
stylebits #w.Band2, 0,_WS_BORDER,0,0
stylebits #w.Band3, 0,_WS_BORDER,0,0
stylebits #w.Band4, 0,_WS_BORDER,0,0

'General Body Resistance
graphicbox #w.37, 130,470,168,35
stylebits  #w.37, 0,_WS_BORDER,0,0

'Terminal Wires
graphicbox #w.42,  80,485,50,5
graphicbox #w.43, 300,485,50,5

open "Resistor Calculator" for window_nf as #w
#w "trapclose [quit]"
#w "font Times_New_Roman 13"

#w.title
"cls;down;color blue;backcolor yellow;size 15;place 0 0;boxfilled 306
44"
#w.title "font Times_New_Roman 16 bold;color red"
#w.title "place 13 28;\Resistor Color Code of 4 Bands"
#w.title "flush"

FOR Band = 1 to 3
  FOR Color = 1 to 10
    Handle$ = "#w."; Colors$(Color,1); Band

    #Handle$ "cls;down;fill "; Colors$(Color,2); ";flush"
    #Handle$ "when leftButtonUp MouseClick"
```

```
        NEXT
NEXT

FOR Tolerance = 1 to 3
    Handle$ = "#w."; Tolerances$(Tolerance,1); 4

    #Handle$ "cls;down;fill "; Tolerances$(Tolerance,2); ";flush"
    #Handle$ "when leftButtonUp MouseClick"
NEXT

'Color of Terminal Wires
CommandString$ = "cls; down; fill 127 127 127;flush"
#w.42 CommandString$
#w.43 CommandString$

'General Body Resistance Color
CommandString$ = "cls; down; fill 21 228 255;flush" 'light blue
#w.37 CommandString$

#w.Band1 CommandString$
#w.Band2 CommandString$
#w.Band3 CommandString$
#w.Band4 CommandString$

' apply initial settings
call MouseClick "#w.Black1", 0, 0
call MouseClick "#w.Black2", 0, 0
call MouseClick "#w.Black3", 0, 0
call MouseClick "#w.None4", 0, 0

[none]
    WAIT

[quit]
    close #w
    END

SUB MouseClick Handle$, PosX, PosY
    ' parse handle of calling control
    Band = val(Right$(Handle$, 1))
    ColorName$ = Mid$(Handle$, 4, Len(Handle$)-4)

    ' get position of color
    FOR i = 1 to 10
        if Colors$(i,1) = ColorName$ then exit for
        if i < 4 then if Tolerances$(i,1) = ColorName$ then exit for
```

```
NEXT
```

```
' if we had no match exit
```

```
If i = 11 Then Exit Sub
```

```
Select Case Band
```

```
Case 1
```

```
Band1value = (i-1) * 10
```

```
Case 2
```

```
Band2value = i-1
```

```
Case 3
```

```
Band3value = 10 ^ (i-1)
```

```
Case 4
```

```
Band4value = i*5
```

```
if Band4value = 15 then Band4value = 20
```

```
Case Else
```

```
Exit Sub
```

```
End Select
```

```
Select Case Band
```

```
Case 1, 2, 3
```

```
ColorValue$ = Colors$(i,2)
```

```
Case 4
```

```
ColorValue$ = Tolerances$(i,2)
```

```
Case Else
```

```
Exit Sub
```

```
End Select
```

```
GBhandle$ = "#w.Band"; Band
```

```
#GBhandle$ "cls;down;fill "; ColorValue$; ";flush"
```

```
vv=(Band1value+Band2value)*Band3value
```

```
Select Case
```

```
Case vv>=10000000
```

```
#w.0hm "Resistance Value=";vv/1000000;" M Ohm"
```

```
Case vv>=1000
```

```
#w.0hm "Resistance Value=";vv/1000;" K Ohm"
```

```
Case Else
#w.Ohm "Resistance Value=";vv;" Ohm"
End Select
```

```
if Band4value>0 then #w.Tole
"Tolerance Value =";" +/- ";Band4value;"%"
END SUB
```

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