

# Highlighting Text in a RichTextBox

Adapted from several web links:

<http://support.microsoft.com/kb/154884>

<http://www.vb-tips.com/HighLightWords.aspx>



1) I started a project called highlightText and saved it in a folder with the same name

2) all control names and the form name are defaulted for easier demonstration.

3) I took the code from the following web site and altered it slightly to see if you could highlight multiple words in the same text box:

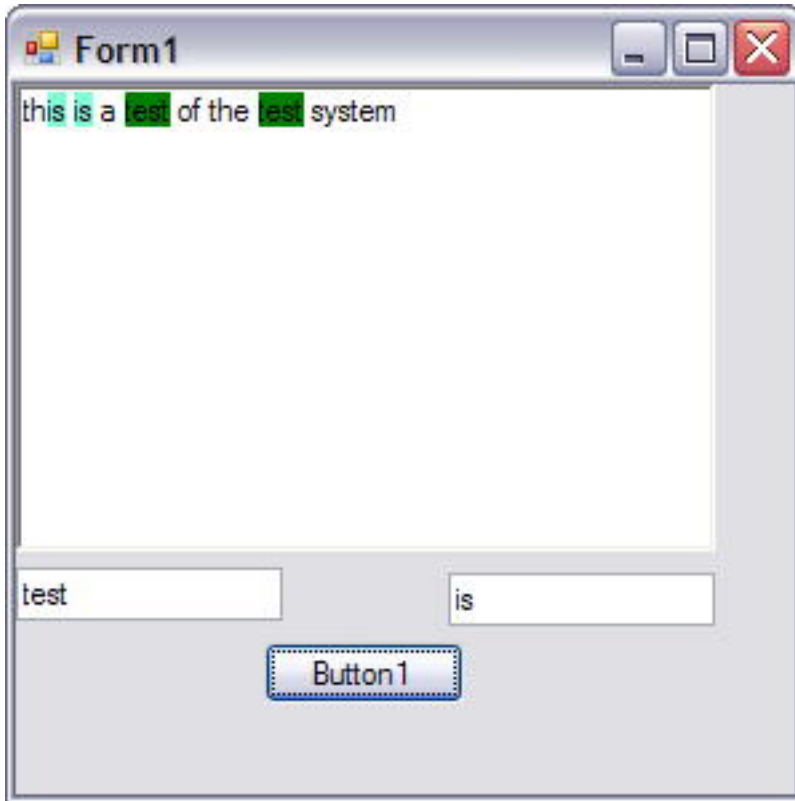
<http://www.vb-tips.com/HighLightWords.aspx>

the code:

```

1 Option Explicit On
2 Public Class Form1
3
4     Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As
5 System.EventArgs) Handles MyBase.Load
6         Me.RichTextBox1.Text = "this is a test of the test system"
7     End Sub
8
9     Function HighlightWords(ByVal rtb As RichTextBox, ByVal sFindString As
10 String, ByVal lColor As System.Drawing.Color) As Integer
11
12         Dim iFoundPos As Integer 'Position of first character of match
13         Dim iFindLength As Integer 'Length of string to find
14         Dim iOriginalSelStart As Integer
15         Dim iOriginalSelLength As Integer
16         Dim iMatchCount As Integer 'Number of matches
17
18         'Save the insertion points current location and length
19         iOriginalSelStart = rtb.SelectionStart
20         iOriginalSelLength = rtb.SelectionLength
21
22         'Cache the length of the string to find
23         iFindLength = Len(sFindString)
24
25         'Attempt to find the first match
26         iFoundPos = rtb.Find(sFindString, 0, RichTextBoxFinds.NoHighlight)
27         While iFoundPos > 0
28             iMatchCount = iMatchCount + 1
29
30             rtb.SelectionStart = iFoundPos
31             'The SelLength property is set to 0 as soon as you change SelStart
32             rtb.SelectionLength = iFindLength
33             rtb.SelectionBackColor = lColor
34
35             'Attempt to find the next match
36             iFoundPos = rtb.Find(sFindString, iFoundPos + iFindLength,
37 RichTextBoxFinds.NoHighlight)
38         End While
39
40         'Restore the insertion point to its original location and length
41         rtb.SelectionStart = iOriginalSelStart
42         rtb.SelectionLength = iOriginalSelLength
43
44         'Return the number of matches
45         HighlightWords = iMatchCount
46     End Function
47
48
49     Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
50 System.EventArgs) Handles Button1.Click
51         Dim icountMatch As Integer = 0
52         icountMatch = HighlightWords(RichTextBox1, TextBox1.Text,
53 System.Drawing.Color.Green)
54         'MessageBox.Show(icountMatch.ToString & " matches Found")
55         Dim icountMatch2 As Integer = 0
56         icountMatch2 = HighlightWords(RichTextBox1, TextBox2.Text,
57 System.Drawing.Color.Aquamarine)
58         'MessageBox.Show(icountMatch2.ToString & " matches Found")
59     End Sub
60 End Class

```



**NOTICE:**

There are some items to fix in this code:

- 1) it highlights portions of words that contain the text in question
- 2) if I go back and put another word in either textbox and click button1, the original highlights do not go away
- 3) etc...

I tried the following:

- 1) added the highlight code to the form load – that works
- 2) tried 5 different highlights – that works
- 3) tried both the button click and the load – that hangs
- 4) tried to set the entire selection to highlight white – that hangs

```
Option Explicit On  
Public Class Form1
```

```
    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles MyBase.Load  
        Me.TextBox1.Text = "test"  
        Me.TextBox2.Text = "is"  
  
        Me.RichTextBox1.Text = "this is a test of the test system"  
        Dim icountMatch As Integer = 0  
        icountMatch = HighlightWords(RichTextBox1, TextBox1.Text,  
System.Drawing.Color.Green)  
        'MessageBox.Show(icountMatch.ToString & " matches Found")  
        Dim icountMatch2 As Integer = 0
```

```

        icountMatch2 = HighlightWords(RichTextBox1, TextBox2.Text,
System.Drawing.Color.Aquamarine)
        'MessageBox.Show(icountMatch2.ToString & " matches Found")
        Dim icountMatch3 As Integer = 0
        icountMatch3 = HighlightWords(RichTextBox1, "this",
System.Drawing.Color.Blue)
        Dim icountMatch4 As Integer = 0
        icountMatch4 = HighlightWords(RichTextBox1, "a",
System.Drawing.Color.Brown)
        Dim icountMatch5 As Integer = 0
        icountMatch5 = HighlightWords(RichTextBox1, "of",
System.Drawing.Color.Gainsboro)
    End Sub

    Function HighlightWords(ByVal rtb As RichTextBox, ByVal sFindString As
String, ByVal lColor As System.Drawing.Color) As Integer

        Dim iFoundPos As Integer 'Position of first character of match
        Dim iFindLength As Integer 'Length of string to find
        Dim iOriginalSelStart As Integer
        Dim iOriginalSelLength As Integer
        Dim iMatchCount As Integer 'Number of matches

        'Save the insertion points current location and length
        iOriginalSelStart = rtb.SelectionStart
        iOriginalSelLength = rtb.SelectionLength

        'Cache the length of the string to find
        iFindLength = Len(sFindString)

        'Attempt to find the first match
        iFoundPos = rtb.Find(sFindString, 0, RichTextBoxFinds.NoHighlight)
        While iFoundPos > 0
            iMatchCount = iMatchCount + 1

            rtb.SelectionStart = iFoundPos
            'The SelLength property is set to 0 as soon as you change SelStart
            rtb.SelectionLength = iFindLength
            rtb.SelectionBackColor = lColor

            'Attempt to find the next match
            iFoundPos = rtb.Find(sFindString, iFoundPos + iFindLength,
RichTextBoxFinds.NoHighlight)
        End While

        'Restore the insertion point to its original location and length
        rtb.SelectionStart = iOriginalSelStart
        rtb.SelectionLength = iOriginalSelLength

        'Return the number of matches
        HighlightWords = iMatchCount
    End Function

    'Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        ' This line of code makes the program hang
        ' HighlightWords(RichTextBox1, RichTextBox1.Text,
System.Drawing.Color.White)

        Dim icountMatch As Integer = 0
        icountMatch = HighlightWords(RichTextBox1, TextBox1.Text,
System.Drawing.Color.Green)

```

```
        '    'MessageBox.Show(icountMatch.ToString & " matches Found")
        '    Dim icountMatch2 As Integer = 0
        '    icountMatch2 = HighlightWords(RichTextBox1, TextBox2.Text,
System.Drawing.Color.Aquamarine)
        '    'MessageBox.Show(icountMatch2.ToString & " matches Found")
        'End Sub
End Class
```

HIGHLIGHTWORDS is finnickky,  
What other functions are similar:

If you go to System.Drawing in the MSDN site you can do  
other things to text in a similar way:

<http://msdn.microsoft.com/en-us/library/system.drawing.aspx>