

***C:\Users\Tony Lewis\AppData\Roaming\Microsoft\Word\STARTUP\FindEvents.dotm***

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**Macros**

AutoExec	LoadEventHandler	3	Load the find/replace event handler when the template is opened
AutoExit	LoadEventHandler	3	Unload the find/replace event handler when the template is closed

## LoadEventHandler

Option Explicit

```
' =====  
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' under the terms of the GNU General Public License as published by the  
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' option) any later version.  
' =====  
' Provide the event handler with access to the Windows 32 API  
Private Declare Function EnumWindows Lib "user32" _  
    (ByVal lpEnumFunc As Long, ByVal lParam As Long) As Boolean  
Private Declare Function GetCurrentProcessId Lib "kernel32" _  
    () As Long  
Private Declare Function GetWindowText Lib "user32" Alias "GetWindowTextA" _  
    (ByVal hWnd As Long, ByVal lpString As String, ByVal cch As Long) As Long  
Private Declare Function GetWindowTextLength Lib "user32" Alias "GetWindowTextLengthA" _  
    (ByVal hWnd As Long) As Long  
Private Declare Function GetWindowThreadProcessId Lib "user32" _  
    (ByVal hWnd As Long, lpdwProcessId As Long) As Long  
  
Private evHandler As eventHandler  
Dim theCaption As String  
Dim thePID As Long  
Dim theHWnd As Long  
  
' =====  
' Load the find/replace event handler when the template is opened  
Sub AutoExec()  
    Set evHandler = New eventHandler  
End Sub  
  
' Unload the find/replace event handler when the template is closed  
Sub AutoExit()  
    Set evHandler = Nothing  
End Sub  
  
' =====  
' Find a window with a specific caption  
Function cbFindCaption(ByVal hWnd As Long, ByVal lParam As Long) As Boolean  
    Dim PID As Long  
    Dim textLen As Long  
    Dim windowText As String  
  
    GetWindowThreadProcessId hWnd, PID  
    If PID = thePID Then  
        textLen = GetWindowTextLength(hWnd)  
        windowText = Space(textLen)  
        GetWindowText hWnd, windowText, textLen + 1  
        If windowText = theCaption Then  
            theHWnd = hWnd  
        End If  
    End If  
    cbFindCaption = True  
End Function  
  
Public Function GetHWndFromCaption(caption As String) As Long  
    thePID = GetCurrentProcessId()  
    theHWnd = -1  
    theCaption = caption
```

```
EnumWindows AddressOf cbFindCaption, ByVal 0&  
GetHWndFromCaption = theHWnd  
End Function
```

## eventHandler

Option Explicit

```
' =====
' Event handler - captures changes to the selection caused by the
' Find and Replace dialog and adjusts the position of the result on the
' screen.
Private Type apiRect
    left As Long
    top As Long
    right As Long
    bottom As Long
End Type

Private Declare Function GetWindowRect Lib "user32" _
    (ByVal hWnd As Long, lpRect As apiRect) As Long

Const debugEvents = False
Private WithEvents app As Word.Application
Private isMoving As Boolean
Private ptHeight As Long
Private ptLeft As Long
Private ptTop As Long
Private ptWidth As Long

Private Sub app_WindowSelectionChange(ByVal Sel As Selection)
    Dim hWndFind As Long
    Dim rect As apiRect
    Dim rng As Range

    If isMoving Then Exit Sub
    hWndFind = GetHWndFromCaption("Find and Replace")
    ' If the Find and Replace dialog is not found, then don't reposition the text on the screen
    If hWndFind = -1 Then Exit Sub

    If debugEvents Then MsgBox "SelectionChange: scroll surrounding paragraphs into view."
    isMoving = True
    If Selection.StoryType = wdTextFrameStory Then
        ' Try to fit the entire text box on the visible part of the screen
        ScrollRange hWndFind, Selection.ShapeRange(1).TextFrame.TextRange
        ' but, if it doesn't fit then scroll the selection onto the screen
        Set rng = Selection.Range
        ActiveWindow.ScrollIntoView rng, True
    ElseIf Selection.StoryType = wdEndnotesStory _
    Or Selection.StoryType = wdFootnotesStory Then
        GetWindowRect hWndFind, rect
        Set rng = Selection.Range
        If RangeAbove(rect, rng) Then
            ' Make sure the selection is below the Find/Replace dialog
            ActiveWindow.SmallScroll up:=5
        End If
    Else
        ' Try to get the previous and next paragraphs on the screen
        Set rng = Selection.Range
        Selection.SetRange rng.Start, rng.Start
        Selection.MoveUp Unit:=wdParagraph, Count:=IIf(Selection.Paragraphs(1).Range.Start < rng.Start, 2, 1)
        ActiveWindow.ScrollIntoView Selection.Range, True
        Selection.MoveDown Unit:=wdParagraph, Count:=2
        Selection.SetRange Selection.Paragraphs(1).Range.End - 1, Selection.Paragraphs(1).Range.End - 1
        Selection.MoveRight
        ActiveWindow.ScrollIntoView Selection.Range, True
        Selection.SetRange rng.Start, rng.End
    End Sub
```

```

        ActiveWindow.ScrollIntoView Selection.Range, True
    End If

    ' Finally, try to fit the selection in the visible part of the screen
    ScrollRange hWndFind, rng
    ActiveWindow.ScrollIntoView Selection.Range, True
    isMoving = False
End Sub

Private Function RangeAbove(rect As apiRect, rng As Range) As Boolean
    RangeAbove = False
    ActiveWindow.GetPoint ptLeft, ptTop, ptWidth, ptHeight, rng
    If ptTop + ptHeight < rect.bottom Then
        RangeAbove = True
    End If
End Function

Private Function RangeOverlaps(rect As apiRect, rng As Range) As Boolean
    RangeOverlaps = False
    ActiveWindow.GetPoint ptLeft, ptTop, ptWidth, ptHeight, rng
    If (rect.top < ptTop And rect.bottom > ptTop _
        Or rect.top < ptTop + ptHeight And rect.bottom > ptTop + ptHeight) Then
        RangeOverlaps = True
    End If
End Function

Private Sub ScrollRange(hWnd As Long, rng As Range)
    Dim rect As apiRect
    Dim lastTop As Long
    Dim overlaps As Boolean

    ActiveWindow.ScrollIntoView rng, True
    GetWindowRect hWnd, rect
    lastTop = -1
    Do
        overlaps = False
        If RangeOverlaps(rect, rng) Then
            ' Don't keep trying if the last attempt didn't make a difference
            If lastTop <> ptTop Then
                overlaps = True
                ActiveWindow.SmallScroll up:=1
            End If
        End If
        lastTop = ptTop
    Loop Until Not overlaps
End Sub

Private Sub Class_Initialize()
    If debugEvents Then MsgBox "Load event handler"
    Set app = Word.Application
    isMoving = False
End Sub

Private Sub Class_Terminate()
    If debugEvents Then MsgBox "Unload event handler"
    Set app = Nothing
End Sub

```