

clsSearchableDropdown\_v1.6\_20230403\_1352.cls

```
CLASS
BEGIN
    MultiUse = -1    'True
END
Attribute VB_Name = "clsSearchableDropdown"
Attribute VB_GlobalNameSpace = False
Attribute VB_Creatable = False
Attribute VB_PredeclaredId = False
Attribute VB_Exposed = False
Option Explicit

'clsSearchableDropdown    - 2023-03-01
'
'Author:  Paul Kelly - https://ExcelMacroMastery.com/
'Version: 2.1 Updated 30-01-2023
'YouTube video: https://youtu.be/gkLB-xu_JTU

'Description:  Searchable Dropdown list
'              The code in this class allows the user to
'              create a searchable dropdown list of items.
'
'HOW TO USE - See READ ME File - 2023-03-01
'
'LICENSE ETC.
'  You can use this code free in any of your software applications and
distribute as you wish.
'  Please do not alter or remove the authors name or website.

Private Const m_conMaxRows As Long = 10

'Configurable Settings
Private m_compareMethod As VbCompareMethod    'Determines case sensitivity in the
search
Private m_listOfItems As Variant                'This is the array of items that is
filtered
Private m_maxRows As Long                      'The number of rows to be displayed
in the listbox.
Private m_startText As String                  'Start text in the textbox
Private m_showAllMatches As Boolean             'True: shows all matches. False show
the number of rows specified by m_MaxRows

'This is used to prevent events running when changes are being made
Private m_UpdateControl As Boolean

Private m_textboxStartingState As Boolean    'Used to decide when to remove the
starting text

Private WithEvents myListBox As MSForms.ListBox
Attribute myListBox.VB_VarHelpID = -1
Private WithEvents myTextBox As MSForms.TextBox
Attribute myTextBox.VB_VarHelpID = -1

'----- PROPERTIES
```

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```
    m_compareMethod = value
    Call FilterListBox

End Property

Public Property Get SelectedItem() As String

    SelectedItem = IIf(m_textboxStartingState = True, "", myTextBox.value)

End Property

Public Property Let List(ByVal value As Variant)

    m_listOfItems = value

End Property

'The number of rows that will be visible in the listbox
Public Property Let MaxRows(ByVal value As Long)

    m_maxRows = value
    Call FilterListBox

End Property

'Set the text to be displayed in the textbox before the search
Public Property Let StartText(ByVal text As String)

    m_startText = text
    SetTextboxValue (m_startText)

End Property

'If true include all matches in the listbox. If false only show the rows
'specified by m_MaxRows
Public Property Let ShowAllMatches(ByVal state As Boolean)

    m_showAllMatches = state
    Call FilterListBox

End Property

Public Property Set SearchListBox(ByVal oListBox As MSForms.listbox)

    Set myListBox = oListBox
    Call InitializeListBox

End Property

Public Property Set SearchTextBox(ByVal oTextBox As MSForms.TextBox)

    Set myTextBox = oTextBox
    Call InitializeTextBox
```

```
'----- CLASS EVENTS
```

```
'Description: Set the defaults
```

```
Private Sub Class_Initialize()
```

```
    m_compareMethod = vbTextCompare
```

```
    m_maxRows = m_conMaxRows
```

```
    m_startText = "Saisir le nom de la compagnie que vous recherchez"
```

```
    m_showAllMatches = False 'False - 2023-03-01 - RMV
```

```
End Sub
```

```
'----- LISTBOX EVENTS
```

```
Private Sub myListBox_DblClick(ByVal Cancel As MSForms.ReturnBoolean)
```

```
    'If the user doubleclicks or presses enter, place the selected value in the  
    'textbox
```

```
    If m_UpdateControl = False Then
```

```
        SetTextboxValue myListBox.value
```

```
        Call ShowListbox(False)
```

```
    End If
```

```
End Sub
```

```
Private Sub myListBox_KeyDown(ByVal KeyCode As MSForms.ReturnInteger, ByVal  
Shift As Integer)
```

```
    'When the key is down in the listbox turn on
```

```
    'm_UpdateControl to prevent the click event occurring
```

```
    If KeyCode = vbKeyDown Then
```

```
        m_UpdateControl = True
```

```
    ElseIf KeyCode = vbKeyUp Then
```

```
        m_UpdateControl = True
```

```
        CheckListBoxFirstItem
```

```
    ElseIf KeyCode = vbKeyReturn Then
```

```
        'swallow the enter keycode as it passes on to the ok button
```

```
        KeyCode = 0
```

```
        SetTextboxValue myListBox.value
```

```
        Call ShowListbox(False)
```

```
    End If
```

```
End Sub
```

```
Private Sub myListBox_KeyUp(ByVal KeyCode As MSForms.ReturnInteger, ByVal Shift  
As Integer)
```

```
    'Turn update control off - turned on in KeyDown
```

```
    If KeyCode = vbKeyDown Then
```

```
        m_UpdateControl = False
```

```
    ElseIf KeyCode = vbKeyUp Then
```

```
        m_UpdateControl = False
```

```
    End If
```

```
Private Sub List_MoveDown()
```

```

    m_UpdateControl = True
    If m_textboxStartingState = False Then
        With myListBox
            .SetFocus
            If .ListIndex < .ListCount - 1 Then
                .ListIndex = .ListIndex + 1
                .Selected(.ListIndex) = True
            End If
        End With
    End If
    m_UpdateControl = False

```

```
End Sub
```

```
'----- LISTBOX SUBS
```

```
Private Sub UpdateListbox(items As Variant)
```

```

    With myListBox

        'Reload listbox
        .Clear
        .ForeColor = rgbBlack

        'Set the listbox size
        If IsEmpty(items) Then
            'No items found
            .List = Array("Je n'ai rien trouvé!")
            .ForeColor = rgbRed
        Else
            'items found
            .List = items
            .ListIndex = 0
        End If

        'Resize the listbox
        Call SetListboxPosition

        'If show all matches then have a scrollbar
        If m_showAllMatches = True Then
            Call MakeAllMatchesAvailable
        Else
            .Height = ResizeListbox(myListBox, 11)
        End If

    End With

```

```
End Sub
```

```
Private Sub MakeAllMatchesAvailable()
```

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```
'To get the scrollbar working correctly it is necessary to  
'turn IntegralHeight off and on  
.IntegralHeight = False  
.Height = ResizeListbox(myListBox, myTextBox.Font.Size)  
.IntegralHeight = True
```

```
'List index will not highlight to first unless the second one is  
'highlighted first. It might be to do with the resizing from the  
'Integral height  
If .ListCount > 1 Then .ListIndex = 1  
.ListIndex = 0
```

End With

End Sub

Private Sub InitializeListBox()

```
'Remove any automatic resizing of the listbox  
myListBox.IntegralHeight = False
```

End Sub

Public Sub CheckListBoxFirstItem()

```
If myListBox.ListIndex = 0 Then  
    m_UpdateControl = False  
    SelectTextBox  
End If
```

End Sub

Private Function ShowListbox(Optional ByVal show As Boolean = True)

```
If rmv_state = rmv_modeInitial Or rmv_state = rmv_modeAffichage Then  
    show = False  
End If
```

```
myListBox.Visible = show
```

End Function

Private Function SetListboxPosition()

```
With myListBox  
    .Left = myTextBox.Left  
    .Top = myTextBox.Top + (myTextBox.Height)  
    .Width = myTextBox.Width  
    Call ShowListbox(True)  
End With
```

End Function

Private Function ResizeListbox(myListBox As MSForms.listbox, fontSize As Double)

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```
'Set listbox font to the same size as the textbox
myListBox.Font.Size = fontSize

Dim ItemCount As Long
ItemCount = IIf(myListBox.ListCount > m_maxRows, m_maxRows, myListBox.
ListCount)

Dim itemSize As Double
'the font size is itself plus a quarter for the space between rows
itemSize = myListBox.Font.Size + (myListBox.Font.Size / 4)

ResizeListbox = (itemSize * ItemCount) + 5

End Function

'----- TEXTBOX EVENTS

Private Sub myTextBox_Change()

    If m_UpdateControl = False Then
        If Trim(myTextBox.value) = "" Then
            Call InitializeTextBox
        Else
            If m_textboxStartingState = True Then
                m_textboxStartingState = False
                'Call RemoveStartingText
            End If
            Call FilterListBox
        End If
    End If

End Sub

Private Sub myTextBox_KeyDown(ByVal KeyCode As MSForms.ReturnInteger, ByVal
Shift As Integer)

    'If the user presses keyup/down or enter while in the textbox
    If KeyCode = vbKeyDown Then
        List_MoveDown
    ElseIf KeyCode = vbKeyReturn Then
        'Swallow the enter keycode as it passes on to the ok button
        KeyCode = 0
        If IsNull(myListBox.value) = False And m_textboxStartingState = False
Then
            SetTextboxValue myListBox.value
        End If
        Call ShowListbox(False)
    ElseIf KeyCode = vbKeyEscape Then
        'swallow the esc keycode
        Call InitializeTextBox
        KeyCode = 0
    End If

End Sub
```

```
Private Sub SetTextboxValue(ByVal text As String)

    If m_UpdateControl = False Then

        With myListBox
            m_UpdateControl = True
            'Set the listbox selected value to the textbox
            'and hide the listbox
            myTextBox.value = text

            Call SelectTextBox

            m_UpdateControl = False
        End With
    End If

End Sub

Private Sub InitializeTextBox()

    'Set the starting text and position
    m_textboxStartingState = True

    If m_UpdateControl = True Then
        SetTextboxValue m_startText
    End If
    myTextBox.SelStart = 0
    'myTextBox.ForeColor = rgbBlue

    Call ShowListbox(False)

End Sub

'Description: Replace the default starting text with the letter the user has
typed.
'           This will work if the user types at any position in the starting
text.
Private Sub RemoveStartingText()

    m_UpdateControl = True

    With myTextBox
        .text = Mid(.value, .SelStart, 1)
        '.ForeColor = rgbBlack
    End With

    m_UpdateControl = False

End Sub

Private Function SelectTextBox()
```

```

        'SelStart = 0
        .SetFocus
    End With

End Function

'-----
GENERAL SUBS

'Filters the Listbox
Public Sub FilterListBox()

    'In case a setting like MaxRows is used before the range is set
    If IsEmpty(m_listOfItems) Then Exit Sub

    m_UpdateControl = True

    Dim items As Variant
    items = FilterData

    Call UpdateListbox(items)

    m_UpdateControl = False

End Sub

Private Function FilterData() As Variant

    Dim textPattern As String
    textPattern = myTextBox.value
    If textPattern = "" Then
        Exit Function
    End If

    'Create an array to store the filtered items
    Dim filteredItems() As String
    ReDim filteredItems(0 To m_maxRows - 1)

    'Read through all the items in the full list
    Dim i As Long
    Dim count As Long: count = 0
    For i = LBound(m_listOfItems) To UBound(m_listOfItems)
        'Using Instr instead of Like so we can set the case sensitivity
        If Instr(1, m_listOfItems(i, 1), textPattern, m_compareMethod) > 0 Then
            filteredItems(count) = m_listOfItems(i, 1)
            count = count + 1
            If m_showAllMatches = False Then
                'Only show the max number of rows
                If count >= m_maxRows Then Exit For
            End If
        End If
    Next

    'Use variant so we can check later if the array is empty
    Dim finalItems As Variant

```



```
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    For i = 0 To count - 1  
        finalItems(i) = filteredItems(i)  
    Next i  
End If  
  
FilterData = finalItems  
  
End Function
```