${\sf ExcelDropDown}$

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ExcelMouseWheelSupport.bas adds mouse wheel scrolling support to Microsoft Excel ActiveX Controls (e.g.

Functions

Sub StartMouseWheelHook (ByVal Obj As Object)

Starts the hook to make the specified object scrollable with mouse wheel.

• Sub StopMouseWheelHook (ByVal Obj As Object)

Stops the hook if the hook was started with the specified object.

Variables

• Const SCROLL SPEED = 2

Scroll speed (number of rows to scroll at once).

Const MAINWINDOW CLASSNAME = "XLMAIN"

Class name of the Excel main window. May changes in further Excel versions.

3.1.1 Detailed Description

ExcelMouseWheelSupport.bas adds mouse wheel scrolling support to Microsoft Excel ActiveX Controls (e.g. the ComboBox). This is achieved by low level mouse event capturing via message hook.

Version

1.0.1

Author

MarcoWue (GitHub)

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Dependencies

None.

Usage

Note

ExcelMouseWheelSupport needs activated macros to work!

Call StartMouseWheelHook() when the specified control gets the focus. This will start the mouse event capturing. Call StopMouseWheelHook() after the control has lost focus.

Note

After you started the hook, be sure to call StopMouseWheelHook() whenever the Worksheet, Workbook or Window is being deactivated.

Credits

Thanks to Jaafar Tribak on whose work this code is based on. See here.

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Version History

- 1.0.1 (2013-09-18) MarcoWue
 - Ported to Doxygen code documentation.
- 1.0.0 (2013-09-03) MarcoWue
 - Initial release.

3.1.2 Function Documentation

3.1.2.1 Sub ExcelMousewheelSupport::StartMouseWheelHook (ByVal Obj As Object)

Starts the hook to make the specified object scrollable with mouse wheel.

Parameters

in	Obj	The object to be made scrollable.

3.1.2.2 Sub ExcelMousewheelSupport::StopMouseWheelHook (ByVal Obj As Object)

Stops the hook if the hook was started with the specified object.

Parameters

in	Obj	The object on which the hook was started.
----	-----	---

3.1.3 Variable Documentation

3.1.3.1 Const SCROLL_SPEED = 2

Scroll speed (number of rows to scroll at once).

This constant can be changed to adjust the scrolling behaviour.

4 Class Documentation

4.1 ExcelDropDown Class Reference

4.1.1 Detailed Description

ExcelDropDown.cls provides a versatile drop down functionality for Microsoft Excel worksheets using VBA.

Version

1.0.1

Author

MarcoWue (GitHub)

Copyright

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Dependencies

- ExcelMouseWheelSupport.bas
- Microsoft Forms 2.0 Object Library (Menu Tools > References)

Usage

Note

ExcelDropDown needs activated macros to work!

Do the following to use ExcelDropDown in your Excel workbook. These steps are only required once per workbook.

- 1. Define data validation for the desired cells (*Data* > *Data Validation*).
 - · Choose List as validation criteria.
 - Choose a data source. You can also specify a name via "=MyName" (e.g. in order to use data on other
 worksheets). To define and and manage names, have a look at Formula > Name Manager in the Excel
 main window.
 - Uncheck In-cell dropdown.
 - You presumably want to deactivate Input Message and Error Alert.
- 2. Activate the *Developer Tab* in the Excel Settings (How-To).
- 3. Press Alt+F11 to run the VBA editor.
 - Add a reference (Menu *Tools* > *References*) to "Microsoft Forms 2.0 Object Library".
 - Import ExcelDropDown.cls and ExcelMouseWheelSupport.bas into the VBA project of your Excel workbook (Menu File > Import File...)
 - Put the following code into ThisWorkbook (replace occurrences of Table 1 with desired table name)

```
Dim WithEvents Table1DropDown As New ExcelDropDown
Private Sub Workbook_Open()
   Set Table1DropDown = New ExcelDropDown
   '' Set desired options here
   Table1DropDown.ListScrollable = False
   '' At last set the target worksheet
   Table1DropDown.Worksheet = Worksheets("Table1")
End Sub
```

- If you want to support multiple sheets in your workbook, create a separate ExcelDropDown object for each sheet like shown above.
- · Save and reopen the workbook.

Version History

- 1.0.1 (2013-09-18) MarcoWue
 - Ported to Doxygen code documentation.
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 - Initial release.

Public Member Functions

Event ValidateDropDown (ByVal Target As Range, ByRef Cancel As Boolean)

Is raised to validate if drop down should be shown in a specific cell.

Event BeforeDropDown (ByVal Target As Range, ByRef Cancel As Boolean)

Is raised immediately before drop down is shown.

Event AfterDropDown (ByVal Target As Range)

Is raised immediately after drop down is shown.

Event ExitDropDown (ByVal Target As Range)

Is raised immediately after drop down is hidden.

Property Get Worksheet () As Worksheet

The worksheet ExcelDropDown is assigned to.

• Property Get ComboBoxControl () As ComboBox

The ComboBox control ExcelDropDown uses (read-only).

• Property Get CurrentCell () As Range

The cell the drop down is currently shown in (read-only).

Property Get AutoShow () As Boolean

Determines whether the drop down should be shown automatically.

Property Get AutoDropDown () As Boolean

Determines whether the drop down should expanded automatically.

· Property Get ButtonInsideCell () As Boolean

Determines the drop down button position.

Property Get ListFixed () As Boolean

Determines the drop down behaviour.

Property Get ListRowCount () As Long

Determines the length of the shown drop down list.

Property Get ListScrollable () As Boolean

Determines mouse wheel scrolling support of the drop down list.

· Property Get ItemsFastProcessing () As Boolean

Determines if advanced list item processing is active.

Property Get ItemsSort () As Boolean

Determines whether list items should be sorted alphabetically.

• Property Get ItemsRemoveDuplicate () As Boolean

 $\label{thm:linear} \textit{Determines whether duplicate list items should not be shown.}$

• Property Get ItemsDuplicateCompare () As VbCompareMethod

Determines whether ItemsRemoveDuplicate should be case sensitive.

• Property Get ItemsRemoveBlank () As Boolean

Determines whether empty list items should not be shown.

Property Get ItemsAddFirstBlank () As Boolean

Determines whether a first blank item should be added to the drop down list.

• Property Get ItemsTrim () As Boolean

Determines whether leading and trailing spaces should be removed from items.

• Function Show (ByVal Target As Range, Optional ByVal NoAutoDropDown As Boolean=False) As Boolean Shows the drop down at the specified target cell.

• Sub Hide ()

Hides the currently shown drop down.

4.1.2 Member Function Documentation

4.1.2.1 Event ValidateDropDown (ByVal Target As Range, ByRef Cancel As Boolean)

Is raised to validate if drop down should be shown in a specific cell.

Parameters

in	Target	The new target cell where the drop down is going to be shown.	
out	Cancel	Set to True to prevent the drop down from being shown.	

4.1.2.2 Event BeforeDropDown (ByVal Target As Range, ByRef Cancel As Boolean)

Is raised immediately before drop down is shown.

If desired you can modify ComboBoxControl appearance or content here.

Parameters

in	Target	The new target cell where the drop down is going to be shown.	
out	Cancel	Set to True to prevent the drop down from being shown.	

4.1.2.3 Event AfterDropDown (ByVal Target As Range)

Is raised immediately after drop down is shown.

Parameters

in	Target	The cell where the drop down is currently shown at.
----	--------	---

4.1.2.4 Event ExitDropDown (ByVal Target As Range)

Is raised immediately after drop down is hidden.

Parameters

in	Target	The cell where the drop down was shown at.

4.1.2.5 Property Get Worksheet ()

The worksheet ExcelDropDown is assigned to.

Setting this property causes initialization of the ComboBox control.

To handle multiple worksheets, create a separate ExcelDropDown object for each desired sheet.

4.1.2.6 Property Get ComboBoxControl ()

The ComboBox control ExcelDropDown uses (read-only).

You may want to change its appearance or content utilizing the BeforeDropDown event.

Is Nothing before property Worksheet is set.

4.1.2.7 Property Get CurrentCell ()

The cell the drop down is currently shown in (read-only).

Is Nothing when no drop down is displayed at the moment.

4.1.2.8 Property Get AutoShow ()

Determines whether the drop down should be shown automatically.

If True, the drop down box is shown automatically whenever an appropriate cell is selected in the worksheet.

4.1.2.9 Property Get AutoDropDown ()

Determines whether the drop down should expanded automatically.

If True, it is is expanded automatically every time the drop down is shown.

4.1.2.10 Property Get ButtonInsideCell ()

Determines the drop down button position.

If True, the drop down button is shown inside the target cell.

If False, it is shown besides of the cell.

```
4.1.2.11 Property Get ListFixed ( )
```

Determines the drop down behaviour.

If True, the user can only choose between the shown list items and is not able to enter text into the drop down field.

4.1.2.12 Property Get ListRowCount ()

Determines the length of the shown drop down list.

Is expressed as number of rows.

```
4.1.2.13 Property Get ListScrollable ( )
```

Determines mouse wheel scrolling support of the drop down list.

If True, mouse wheel support is enabled by utilizing a so called hook callback function which captures mouse activity on a low level basis.

Note

If you are encountering strange behaviour set this option to False.

4.1.2.14 Property Get ItemsFastProcessing ()

Determines if advanced list item processing is active.

If True, the drop down list items are displayed solely by faster internal Excel routines utilizing the ListFillRange property of the ComboBox control.

If False, additional processing of the items is done which may takes some time with larger data amounts.

Note

Please set to False if you want to customize list items in the BeforeDropDown event or if you have set one of the following properties to True:

- ItemsSort
- · ItemsRemoveDuplicate
- ItemsRemoveBlank
- ItemsAddFirstBlank

4.1.2.15 Property Get ItemsAddFirstBlank ()

Determines whether a first blank item should be added to the drop down list.

If True, a first blank item will be added to the drop down list regardless of the ItemsRemoveBlank property.

4.1.2.16 Function Show (ByVal Target As Range, Optional ByVal NoAutoDropDown As Boolean = False)

Shows the drop down at the specified target cell.

This method usually has not to be called if AutoShow is set to ${\tt True}.$

Call this method to show the drop down manually. Please note that the target cell must always have data validation enabled with a valid 'List' criteria.

Parameters

in Target The cell the drop down should be shown at.		The cell the drop down should be shown at.	
ĺ	in	NoAutoDrop-	If True, the AutoDropDown property will be ignored
		Down	

Returns

 ${\tt True} \ \text{if the drop down could be shown successfully, } {\tt False} \ \text{otherwise}.$

4.1.2.17 Sub Hide ()

Hides the currently shown drop down.

This method usually has not to be called by the user as the drop down is always hidden automatically e.g. when the cell selection is changing.

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