30 USEFUL EXCEL MACRO EXAMPLES

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Topics Covered in the Ebook

Using the Code from Excel Macro Examples

Here are the steps you need to follow to use the code from any of the examples:

- Open the Workbook in which you want to use the macro.
- Hold the ALT key and press F11. This opens the VB Editor.
- Right-click on any of the objects in the project explorer.
- Go to Insert --> Module.
- Copy and Paste the code in the Module Code Window.

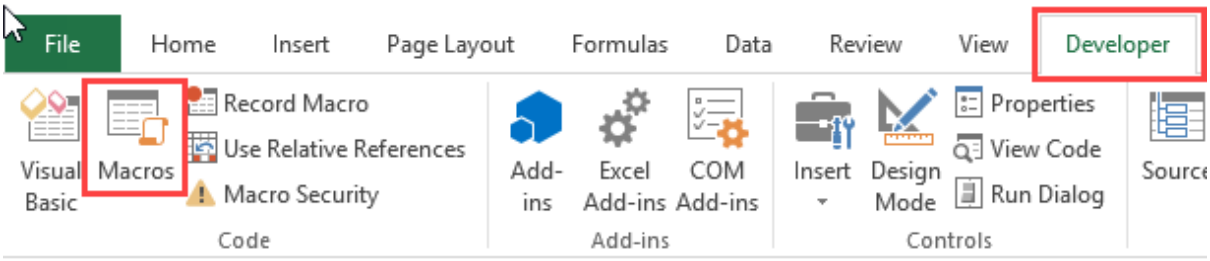
In case the example says that you need to paste the code in the worksheet code window, double click on the worksheet object and copy paste the code in the code window.

Once you have inserted the code in a workbook, you need to save it with a .XLSM or .XLS extension.

How to Run a Macro

Once you have copied the code in the VB Editor, here are the steps to run the macro:

- Go to the Developer tab.
- Click on Macros.



- In the Macro dialog box, select the macro you want to run.
- Click on Run button.

In case you can't find the developer tab in the ribbon, read this tutorial to learn how to get it.

In case the code is pasted in the worksheet code window, you don't need to worry about running the code. It will automatically run when the specified action occurs.

Now, let's get into the useful macro examples that can help you automate work and save time.

Note: You will find many instances of an apostrophe (') followed by a line or two. These are comments that are ignored while running the code and are placed as notes for self/reader.

Excel Macro Examples

1. Unhide All Worksheets at One Go

If you are working in a workbook that has multiple hidden sheets, you need to unhide these sheets one by one. This could take some time in case there are many hidden sheets.

Here is the code that will unhide all the worksheets in the workbook.

```
'This code will unhide all sheets in the workbook

Sub UnhideAllWoksheets()

Dim ws As Worksheet

For Each ws In ActiveWorkbook.Worksheets

ws.Visible = xlSheetVisible

Next ws

End Sub
```

2. Hide All Worksheets Except the Active Sheet

If you're working on a report or dashboard and you want to hide all the worksheet except the one that has the report/dashboard, you can use this macro code.

```
'This macro will hide all the worksheet except the active sheet

Sub HideAllExcetActiveSheet()

Dim ws As Worksheet

For Each ws In ThisWorkbook.Worksheets

If ws.Name <> ActiveSheet.Name Then ws.Visible = xlSheetHidden

Next ws

End Sub
```

3. Sort Worksheets Alphabetically Using VBA

If you have a workbook with many worksheets and you want to sort these alphabetically, this macro code can come in handy. This could be the case if you have sheet names as years or employee names or product names.

```
'This code will sort the worksheets alphabetically

Sub SortSheetsTabName()

Application.ScreenUpdating = False

Dim ShCount As Integer, i As Integer, j As Integer

ShCount = Sheets.Count

For i = 1 To ShCount - 1

For j = i + 1 To ShCount

If Sheets(j).Name < Sheets(i).Name Then

Sheets(j).Move before:=Sheets(i)

End If

Next j

Next i

Application.ScreenUpdating = True

End Sub
```

4. Protect All Worksheets At One Go

If you have a lot of worksheets in a workbook and you want to protect all the sheets, you can use this macro code.

It allows you to specify the password within the code. You will need this password to unprotect the worksheet.

```
'This code will protect all the sheets at one go

Sub ProtectAllSheets()

Dim ws As Worksheet

Dim password As String

password = "Test123" 'replace Test123 with the password you want

For Each ws In Worksheets

   ws.Protect password:=password

Next ws

End Sub
```

5. Unprotect All Worksheets At One Go

If you have some or all of the worksheets protected, you can just use a slight modification of the code used to protect sheets to unprotect it.

```
'This code will protect all the sheets at one go

Sub ProtectAllSheets()

Dim ws As Worksheet

Dim password As String

password = "Test123" 'replace Test123 with the password you want

For Each ws In Worksheets

ws.Unprotect password:=password

Next ws

End Sub
```

Note that the password needs to the same that has been used to lock the worksheets. If it's not, you will see an error.

6. Unhide All Rows and Columns

This macro code will unhide all the hidden rows and columns.

This could be really helpful if you get a file from someone else and want to be sure there are no hidden rows/columns.

```
'This code will unhide all the rows and columns in the Worksheet

Sub UnhideRowsColumns()

Columns.EntireColumn.Hidden = False

Rows.EntireRow.Hidden = False

End Sub
```

7. Unmerge All Merged Cells

It's a common practice to merge cells to make it one. While it does the work, when cells are merged you will not be able to sort the data.

In case you are working with a worksheet with merged cells, use the code below to unmerge all the merged cells at one go.

```
'This code will unmerge all the merged cells

Sub UnmergeAllCells()

ActiveSheet.Cells.UnMerge

End Sub
```

Note that instead of Merge and Center, I recommend using Centre Across Selection option.

8. Save Workbook With TimeStamp in Its Name

A lot of time, you may need to create versions of your work. These are quite helpful in long projects where you work with a file over time.

A good practice is to save the file with timestamps.

Using timestamps will allow you to go back to a certain file to see what changes were made or what data was used.

Here is the code that will automatically save the workbook in the specified folder and add a timestamp whenever it's saved.

```
'This code will Save the File With a Timestamp in its name

Sub SaveWorkbookWithTimeStamp()

Dim timestamp As String

timestamp = Format(Date, "dd-mm-yyyy") & "_" & Format(Time, "hh-
ss")

ThisWorkbook.SaveAs "C:UsersUsernameDesktopWorkbookName" &
timestamp

End Sub
```

You need to specify the folder location and the file name.

In the above code, "C:UsersUsernameDesktop is the folder location I have used. You need to specify the folder location where you want to save the file. Also, I have used a generic name "WorkbookName" as the filename prefix. You can specify something related to your project or company.

9. Save Each Worksheet as a Separate PDF

If you work with data for different years or divisions or products, you may have the need to save different worksheets as PDF files.

While it could be a time-consuming process if done manually, VBA can really speed it up.

Here is a VBA code that will save each worksheet as a separate PDF.

```
'This code will save each worsheet as a separate PDF

Sub SaveWorkshetAsPDF()

Dim ws As Worksheet

For Each ws In Worksheets

ws.ExportAsFixedFormat xlTypePDF, "C:UsersSumitDesktopTest" &
ws.Name & ".pdf"

Next ws

End Sub
```

In the above code, I have specified the address of the folder location in which I want to save the PDFs. Also, each PDF will get the same name as that of the worksheet. You will have to modify this folder location (unless your name is also Sumit and you're saving it in a test folder on the desktop).

Note that this code works for worksheets only (and not chart sheets).

10. Save Each Worksheet as a Separate PDF

Here is the code that will save your entire workbook as a PDF in the specified folder.

```
'This code will save the entire workbook as PDF

Sub SaveWorkshetAsPDF()

ThisWorkbook.ExportAsFixedFormat xlTypePDF,
"C:UsersSumitDesktopTest" & ThisWorkbook.Name & ".pdf"

End Sub
```

You will have to change the folder location to use this code.

11. Convert All Formulas into Values

Use this code when you have a worksheet that contains a lot of formulas and you want to convert these formulas to values.

```
'This code will convert all formulas into values

Sub ConvertToValues()

With ActiveSheet.UsedRange

.Value = .Value

End With

End Sub
```

This code automatically identifies cells are used and convert it into values.

12. Protect/Lock Cells with Formulas

You may want to lock cells with formulas when you have a lot of calculations and you don't want to accidentally delete it or change it.

Here is the code that will lock all the cells that have formulas, while all the other cells are not locked.

```
'This macro code will lock all the cells with formulas

Sub LockCellsWithFormulas()

With ActiveSheet

   .Unprotect

   .Cells.Locked = False

   .Cells.SpecialCells(xlCellTypeFormulas).Locked = True

   .Protect AllowDeletingRows:=True

End With

End Sub
```

13. Protect All Worksheets in the Workbook

Use the below code to protect all the worksheets in a workbook at one go.

```
'This code will protect all sheets in the workbook

Sub ProtectAllSheets()

Dim ws As Worksheet

For Each ws In Worksheets

ws.Protect

Next ws

End Sub
```

This code will go through all the worksheets one by one and protect it.

In case you want to unprotect all the worksheets, use ws.Unprotect instead of ws.Protect in the code.

14. Insert A Row After Every Other Row in the Selection

Use this code when you want to insert a blank row after every row in the selected range.

```
'This code will insert a row after every row in the selection

Sub InsertAlternateRows()

Dim rng As Range

Dim CountRow As Integer

Dim i As Integer

Set rng = Selection

CountRow = rng.EntireRow.Count

For i = 1 To CountRow

ActiveCell.EntireRow.Insert

ActiveCell.Offset(2, 0).Select

Next i

End Sub
```

Similarly, you can modify this code to insert a blank column after every column in the selected range.

15. Automatically Insert Date & Timestamp in the Adjacent Cell

A timestamp is something you use when you want to track activities.

Use this code to insert a date and time stamp in the adjacent cell when an entry is made or the existing contents are edited.

```
'This code will insert a timestamp in the adjacent cell

Private Sub Worksheet_Change(ByVal Target As Range)

On Error GoTo Handler

If Target.Column = 1 And Target.Value <> "" Then

Application.EnableEvents = False

Target.Offset(0, 1) = Format(Now(), "dd-mm-yyyy hh:mm:ss")

Application.EnableEvents = True

End If

Handler:

End Sub
```

Note that you need to insert this code in the worksheet code window (and not the in module code window as we have done in other Excel macro examples so far). To do this, in the VB Editor, double click on the sheet name on which you want this functionality. Then copy and paste this code in that sheet's code window.

Also, this code is made to work when the data entry is done in Column A (note that the code has the line Target.Column = 1). You can change this accordingly.

16. Highlight Alternate Rows in the Selection

Highlighting alternate rows can increase the readability of your data tremendously. This can be useful when you need to take a print out and go through the data.

Here is a code that will instantly highlight alternate rows in the selection.

```
'This code would highlight alternate rows in the selection

Sub HighlightAlternateRows()

Dim Myrange As Range

Dim Myrow As Range

Set Myrange = Selection

For Each Myrow In Myrange.Rows

   If Myrow.Row Mod 2 = 1 Then

      Myrow.Interior.Color = vbCyan

   End If

Next Myrow

End Sub
```

Note that I have specified the color as vbCyan in the code. You can specify other colors as well (such as vbRed, vbGreen, vbBlue).

17. Highlight Cells with Misspelled Words

Excel doesn't have a spell check as it has in Word or PowerPoint. While you can run the spell check by hitting the F7 key, there is no visual cue when there is a spelling mistake.

Use this code to instantly highlight all the cells that have a spelling mistake in it.

```
'This code will highlight the cells that have misspelled words

Sub HighlightMisspelledCells()

Dim cl As Range

For Each cl In ActiveSheet.UsedRange

If Not Application.CheckSpelling(word:=cl.Text) Then

cl.Interior.Color = vbRed

End If

Next cl

End Sub
```

Note that the cells that are highlighted are those that have text that Excel considers as a spelling error. In many cases, it would also highlight names or brand terms that it doesn't understand.

18. Refresh All Pivot Tables in the Workbook

If you have more than one Pivot Table in the workbook, you can use this code to refresh all these Pivot tables at once.

```
'This code will refresh all the Pivot Table in the Workbook

Sub RefreshAllPivotTables()

Dim PT As PivotTable

For Each PT In ActiveSheet.PivotTables

PT.RefreshTable

Next PT

End Sub
```

You can read more about refreshing Pivot Tables here.

19. Change the Letter Case of Selected Cells to Upper Case

While Excel has the formulas to change the letter case of the text, it makes you do that in another set of cells.

Use this code to instantly change the letter case of the text in the selected text.

```
'This code will change the Selection to Upper Case

Sub ChangeCase()

Dim Rng As Range

For Each Rng In Selection.Cells

    If Rng.HasFormula = False Then

      Rng.Value = UCase(Rng.Value)

    End If

Next Rng

End Sub
```

Note that in this case, I have used UCase to make the text case Upper. You can use LCase for lower case.

20. Highlight All Cells With Comments

Use the below code to highlight all the cells that have comments in it.

```
'This code will highlight cells that have comments

Sub HighlightCellsWithComments()

ActiveSheet.Cells.SpecialCells(xlCellTypeComments).Interior.Color
= vbBlue

End Sub
```

In this case, I have used vbBlue to give a blue color to the cells. You can change this to other colors if you want.

21. Highlight Blank Cell in the Selected Dataset

While you can highlight blank cell with conditional formatting or using the Go to Special dialog box, if you have to do it quite often, it's better to use a macro.

Once created, you can have this macro in the Quick Access Toolbar or save it in your personal macro workbook.

Here is the code:

```
'This code will highlight all the blank cells in the dataset

Sub HighlightBlankCells()

Dim Dataset As Range

Set Dataset = Selection

Dataset.SpecialCells(xlCellTypeBlanks).Interior.Color = vbRed

End Sub
```

In this code, I have specified the blank cells to be highlighted in the red color. You can choose other colors such as blue, yellow, cyan, etc.

22. Sort Data by Single Column

You can use the below code to sort data by the specified column.

```
'This code will sort the data based on values in column A

Sub SortDataHeader()

Range("DataRange").Sort Key1:=Range("A1"), Order1:=xlAscending,

Header:=xlYes

End Sub
```

Note that the I have created a named range with the name 'DataRange' and have used it instead of the cell references.

Also there are three key parameters that are used here:

- Key1 - This is the on which you want to sort the data set. In the above example code, the data will be sorted based on the values in column A.
- Order- Here you need to specify whether you want to sort the data in ascending or descending order.
- Header - Here you need to specify whether your data has headers or not.

23. Sort Data by Multiple Columns

Below is the code that will sort the data based on multiple columns (column A followed by column B):

```
'This code will sort the data based on values in column A

Sub SortMultipleColumns()

With ActiveSheet.Sort

  .SortFields.Add Key:=Range("A1"), Order:=xlAscending

  .SortFields.Add Key:=Range("B1"), Order:=xlAscending

  .SetRange Range("A1:C13")

  .Header = xlYes

  .Apply

End With
End Sub
```

Note that here I have specified to first sort based on column A and then based on column B.

24. How to Get Only the Numeric Part from a String

If you want extract only the numeric part or only the text part from a string, you can create a custom function in VBA.

You can then use this VBA function in the worksheet (just like regular Excel functions) and it will extract only the numeric or text part from the string.

Below is the VBA code that will create a function to extract numeric part from a string:

```
'This VBA code will create a function to get the numeric part
from a string

Function GetNumeric(CellRef As String)

Dim StringLength As Integer

StringLength = Len(CellRef)

For i = 1 To StringLength

If IsNumeric(Mid(CellRef, i, 1)) Then Result = Result &
Mid(CellRef, i, 1)

Next i

GetNumeric = Result

End Function
```

You need place in code in a module, and then you can use the function **=GetNumeric** in the worksheet.

This function will take only one argument, which is the cell reference of the cell from which you want to get the numeric part.

25. Always Open Workbook with Specific Tab Activated

If you want to create a workbook where it always opens with a specific tab activated, then you can use the below code.

This would come in handy when you want the dashboard or the summary sheet to be activated when the workbook is open.

```
'This code will always open Sheet1 when the workbook is open

Private Sub Workbook_Open()

Sheets("Sheet1").Select

End Sub
```

Note that this code needs to be placed in the code window of ThisWorkbook object.

This means that when you're in the VB Editor, you need to double click on the ThisWorkbook object and copy paste the code in it.

26. Save and Close All Workbooks at Once

If you have a lot of workbooks open and you want to save and close these workbooks, you need to manually go and save each workbook and then close it.

Here is a VBA code that will close all the workbooks and save it when closing it.

```
'This code will save and then close all the workbooks

Sub CloseAllWorkbooks()

Dim wb As Workbook

For Each wb In Workbooks

wb.Close SaveChanges:=True

Next wb

End Sub
```

Note that the code would work only for those workbooks that have been saved earlier. If there are new workbooks, then you will have to specify the name and location of the folder where you want to save it.

27. Limit Cursor Movement in a Specific Area

If you want to limit the scroll area in a worksheet, you can do this using the below code:

```
'This code will limit the cursor movement in the worksheet

Private Sub Worksheet_Open()

Sheets("Sheet1").ScrollArea = "A1:M17"

End Sub
```

Note that you need to put this code in the worksheet in which you want to limit the scrolling.

28. Copy Filtered Data into a New Workbook

If you are working with a huge dataset and filters are useful in segmenting the data.

Sometimes, you may have the need to only analyse a part of the dataset.

In such cases, you can use the below code to quickly copy the filtered data into a new worksheet.

```
'This code will copy filtered data into a new workbook

Sub CopyFilteredData()

If ActiveSheet.AutoFilterMode = False Then

Exit Sub

End If

ActiveSheet.AutoFilter.Range.Copy

Workbooks.Add.Worksheets(1).Paste

Cells.EntireColumn.AutoFit

End Sub
```

This code first checks if there are any filtered data or not. If there is no filtered data, the code stops.

Else, it copies the filtered data, inserts a new workbook, and paste the data in it.

29. Convert All Formula into Values in Selected Dataset

If you want to quickly convert all the cells with formulas into values, you can use the below code:

```
'This code will convert formulas to values in the selected cells

Sub ConvertFormulastoValues()

Dim MyRange As Range

Dim MyCell As Range

Set MyRange = Selection

For Each MyCell In MyRange

If MyCell.HasFormula Then

MyCell.Formula = MyCell.Value

End If

Next MyCell

End Sub
```

Note that this change is irreversible. You will not be able to bring back the formulas. So make sure you have a copy of the workbook.

Alternatively, you can also code a message box that shows a warning that the formulas would be lost. This can prevent the user from accidently running this macro.

Message boxes are covered in detail in the Excel VBA Course.

30. Get Multiple Lookup Values in a Single Cell

If you want to lookup for a value in a table and get all the matching results in a the same cell, you need to create a custom function using VBA.

Below is a code that created a formula just like VLOOKUP.

```
'This code creates a function to get multiple matching values for a lookup value in a single cell

Function GetMultipleLookupValues(Lookupvalue As String, LookupRange As Range, ColumnNumber As Integer)

  Dim i As Long

  Dim Result As String

  For i = 1 To LookupRange.Columns(1).Cells.Count

  If LookupRange.Cells(i, 1) = Lookupvalue Then

  Result = Result & " " & LookupRange.Cells(i, ColumnNumber) & ","

  End If

  Next i

  GetMultipleLookupValues = Left(Result, Len(Result) - 1)

  End Function
```

Note that this function takes three arguments:

- LookupValue – the value that you're looking for
- LookupRange – the table array in which you're looking up the value
- ColumnNumber – the column number from which you want to fetch the result.

You need to copy paste this code in the Module and then you will be able to use the function **=GetMultipleLookupValues** in the worksheet.

Checkout the Excel VBA JETPACK Course

by Sumit Bansal (Excel MVP)