# How to… Work with macros in Excel 2010

## What is a macro?

A macro is simply a list of commands, which can be run as and when desired. Macros are a feature of most of the Microsoft Office applications – not just Excel.

## When can I use a macro?

Macros can be used when you have a task which involves several (perhaps many) steps which are performed the same each time.

An example might be setting up standard headers and footers on a worksheet, or creating a new worksheet each month, putting the same column headings in place and then formatting them.

## When can't I use a macro?

Macros can do most things. But unless you're prepared to learn a little VBA (the language of macros) they aren't very good at making decisions – they run through the same steps each time.

You should also be aware that macros can be "turned off" for security reasons on some machines, which would make your macro unavailable.

## How do I create a macro?

As mentioned, a macro is just a list of commands to be run as and when needed. You have two choices as to how you create that list:

1.  You could **write the list of commands yourself**. This way gives you the most power and flexibility. If you create a macro this way, it could be used to connect to other applications, such as Word or Outlook and it could make decisions, based on anything from the content of your data to the day of the week. However, to create a macro this way, you need to learn the language of macros – VBA. Whilst VBA is an easy programming language to learn, not everyone either wants or needs to learn to write code.
2.  You can **get Excel to write the list for you** –known as "recording a macro".
    In this way, Excel watches what you do and *it* writes down the commands. This way is definitely the easier way – no programming to learn, so you can get results quickly and easily. Furthermore, because it's Excel writing the list of commands, there's almost no chance of there being a mistake, unlike if you write programming code yourself!
    The downside? Well, firstly, Excel can only write what

you *actually* do, not what you might have done in a different context (if the data had been different, for example). So, macros that you create in this way are not able to make decisions.

Secondly, Excel can only record steps you take within its confines – so it can't record you copying data from a workbook into an email, for example.

Finally, while Excel writes very *accurate* code, it doesn't always write very *efficient* code. So, if you open the Format Cells dialogue box, for example, change one setting and then close it, Excel has to record *every* setting in the dialogue box.

## Finding the macro tools in Excel 2010

In versions of Excel prior to 2007, macros were just *there* – in the Tools menu. In more recent versions of Excel, you'll need to turn on the macro tools, which are on the Developer tab of the ribbon. To do so:

1.  Right-click anywhere on the ribbon, and select "Customize the ribbon"
2.  On the "Main Tabs" section on the right of the dialog box, tick the Developer box
3.  The Developer tab will appear – typically to the right of the View tab.

## A note on macro security

1.  Because macros can be turned off for security reasons, while you will always be able to record a macro, you may not be able to modify or run one if security is to a high level.
2.  To modify the security level, select the Macro Security button on the Developer tab.
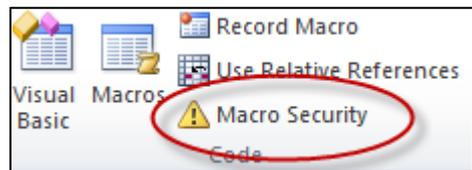


3.  In the Macro security dialog box, you have various choices for enabling and disabling macros, and for notifying you of the presence of macros:



4.  Setting the security to "Disable all macros with notification means that you will see a warning if macros exist, and you will then be able to enable them if you recognise the macros. This is the recommended option if you regularly create macros.

## How to record a macro

To record a macro in Excel 2010, follow these steps:

1. Select the Developer tab on the ribbon.
2. Click the "Record Macro" button.

3. Enter a name in the Macro Name box

4. Set a location in which to store the macro.
   Store the macro in **This Workbook** if the macro you are recording is relevant *only* to the current file. This would be the case if, for example, you are recording a macro which created this month's columns for a sales figures file.
   Store the macro in **Personal Macro Workbook** if you are recording a macro which might be useful to any workbook. This might be the case if, for example, you are recording a macro to set up standard company workbook headers and footers.
5. Add a keyboard shortcut if desired.
6. Click OK to begin recording.
   The Stop Recording button replaces the Record macro button on the ribbon, and anything you now do within Excel is recorded. This includes selecting cells, using the menu system and entering data.
7. When you have finished performing the actions which are to be recorded, click the "Stop Recording" button, either on the ribbon, or on the status bar:

## Modifying a macro

If you want to make significant changes to a macro, the easiest way may be to simply re-record it.

If, however, the changes you want to make are minor, such as correcting typing errors, you may wish to edit the VBA code directly. To do this:

1. On the Developer tab of the ribbon, click "Macros"
2. Select the macro to be edited from the list.
3. Click Edit - the code window will open, with the selected macro visible.

```
Sub SetHeaders()
'
' SetHeaders Macro
' Macro recorded 8/15/2010 by The IT Service
'
'
    ActiveSheet.PageSetup.RightHeaderPicture.Filename = _
        "C:\WINDOWS\Blue Lace 16.bmp"
    With ActiveSheet.PageSetup
        .PrintTitleRows = ""
        .PrintTitleColumns = ""
    End With
    ActiveSheet.PageSetup.PrintArea = ""
    With ActiveSheet.PageSetup
        .LeftHeader = ""
```

In the area highlighted above, the picture to display in the right section of the header is specified. You could choose a different file here.

4. Make changes as needed, then save and close this window to return to Excel.

**Note:** if you want to modify a macro stored in the "Personal Macro Workbook" you will first need to unhide this file, by clicking "Unhide" on the View tab of the ribbon. The macro can then be edited as above, and the file re-hidden by clicking "Unhide" from the ribbon.

## How to assign your macro to a ribbon button

**Note:** You should only assign your macro to a ribbon button if it is stored in the Personal Macro Workbook, and so is available to all workbooks. Buttons can only be added to custom groups on the ribbon, not existing ones.

1. Right-click anywhere on the ribbon, and select "Customize the ribbon"
2. On the right, under "Main tabs", click the [+] symbol to expand the tab on which you want to add a button
3. Click on the group after which you want your group to appear, then click the "New group" button below.
4. At the top of the dialog box, towards the left, under "Choose commands from" select Macros.

5. Click on your macro from the list, then click **Add >>**
6. Right-click on your macro on the right side, select "Rename", then select a name and image for your button.
7. Click OK to close the customise dialog box.