

Excel Macros

What is a Macro?

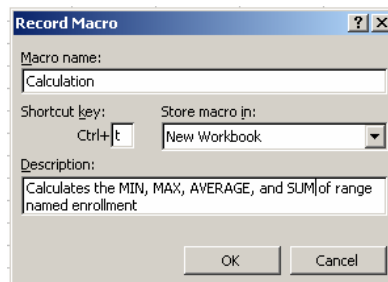
A macro is a series of instructions that you perform with a single keystroke or click of the mouse. If you perform repetitious or complex tasks, a macro can automate the process.

Planning a Macro

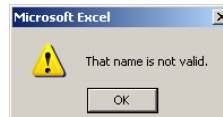
Among the many tasks you can record in a macro are each menu and cell selection, formula creation, and column and row insertions. The recording is done in the exact sequence in which you perform the steps. Although it is possible to edit a macro, it is much easier for a beginner macro user to plan a macro before recording it.

Creating a New Macro

1. From the **Tools** menu, select **Macro**, and **Record New Macro...** The **Record Macro** window will appear.



2. Give your macro a descriptive name. The first character of a macro name must be a letter. Other characters can be letters, numbers or underscore characters. If you attempt to use spaces, dashes (hyphens) or other special characters in your macro name, you will get an error message.

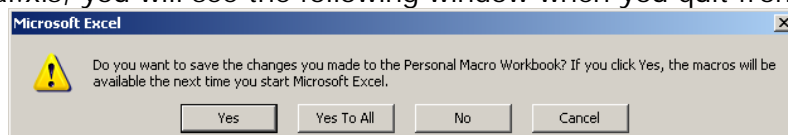


3. Assign a shortcut key to the macro (optional). Click in the box to the right of *Ctrl +* and type a letter. The shortcut key is case sensitive. If you want to use an uppercase letter, hit SHIFT and the letter. You cannot use numbers or special characters. If you do not want to use a shortcut key, leave the box blank.

NOTE: Some keys are already assigned to perform other actions within Excel, e.g. CTRL+c = copy, CTRL+x = paste. Here are a few keys that, by default, are not assigned: (**Win:** CTRL+e, CTRL+j, CTRL+m, CTRL+t. **Mac:** OPTION+CMD+a, OPTION+CMD+b, OPTION+CMD+c.

4. Click the down arrow under *Store macro in:* to select a location to store the macro. *This Workbook* - will attach this macro to the current workbook, and it will only be accessible when this workbook is open.

Personal Macro Workbook – will make the macro available from any Excel workbook you open on the computer. The first time you save a macro to Personal Macro Workbook also called personal.xls, you will see the following window when you quit from Excel.



New Workbook – will attach the macro to a new workbook file (will not contain any data, only the macro). Use this option if you need to share the macro with another person or need to use it on more than one computer.

5. To begin recording your macro, Click on **OK** in the **Record Macro** window.

Recording a Macro

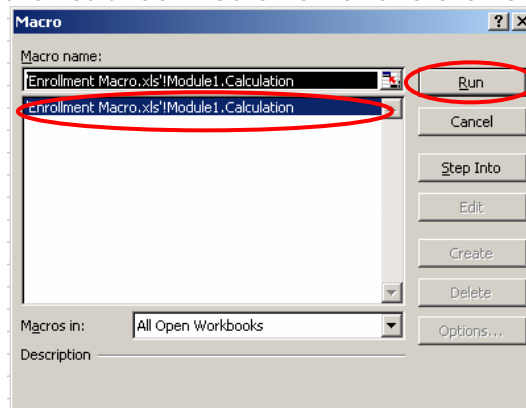
1. When the Record Macro window closes, you will see your spreadsheet with a small **Macro Recording** toolbar floating off to the side. You can move the toolbar without affecting the macro. There are two buttons on the toolbar, **Stop** and **Use Relative Reference**.



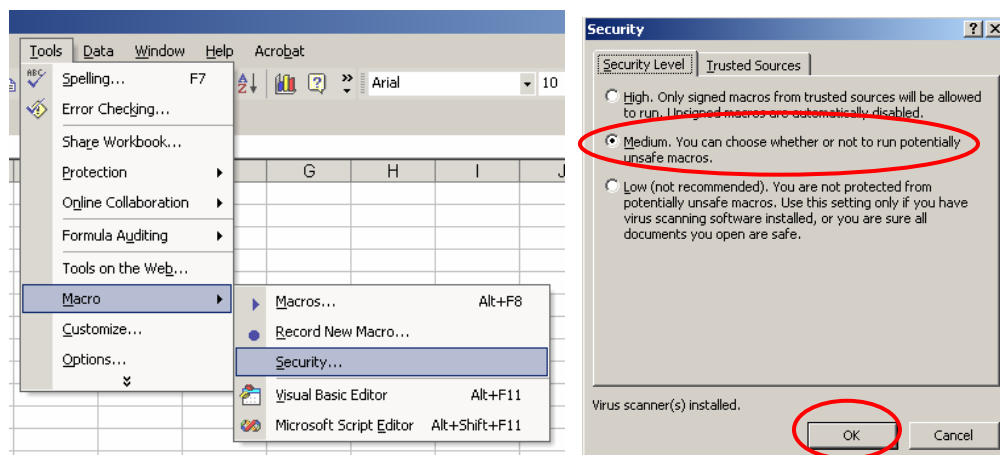
2. If you click the **X** to close this toolbar, Excel will stop recording the macro. You can also stop recording by clicking **Stop**.
3. The **Use Relative Reference** button determines whether the macro recorder uses relative or absolute references to the cells on a worksheet. By default, the button is set to *Absolute*. This means that the macro will select the same cells regardless of the position of the active cell when you run the macro. If you click on the **Use Relative Reference** button, Excel will record the macro relative to where you start (e.g. if you want to insert a row or column at the active cell). You can switch between modes while recording your macro.
4. Next, select, format, create formulas, etc. that you want to be contained in the macro.
5. Click on the **Stop** icon on the **Macro Recording** toolbar.

Running a Macro

1. From the **Tools** menu, select **Macro** and then **Macros...** If the macro is contained in another workbook, open that workbook before attempting to run the macro.
2. Choose the macro from the list under *Macro name:* and click on **Run**.



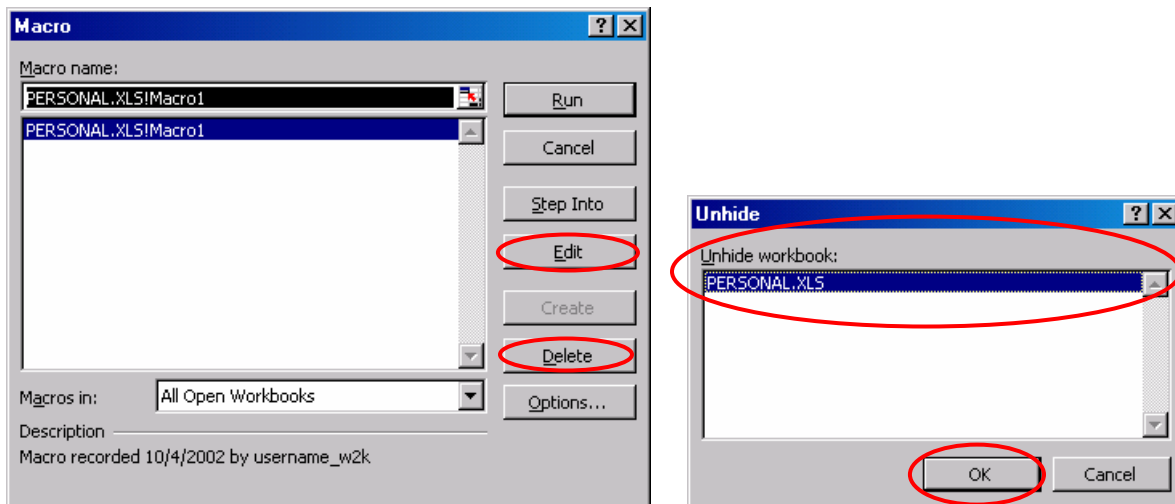
3. If after you save a workbook that contains a macro and try, unsuccessfully, at a later date to run it, you may need to change the security settings within Excel. From the **Tools** menu, select **Macro** and then **Security**. (Mac: From the **Excel** menu, choose **Preferences** and then click on the **General** tab. Select the *Macro virus protection* check box.)
4. Click on **Medium** and then click on **OK**.



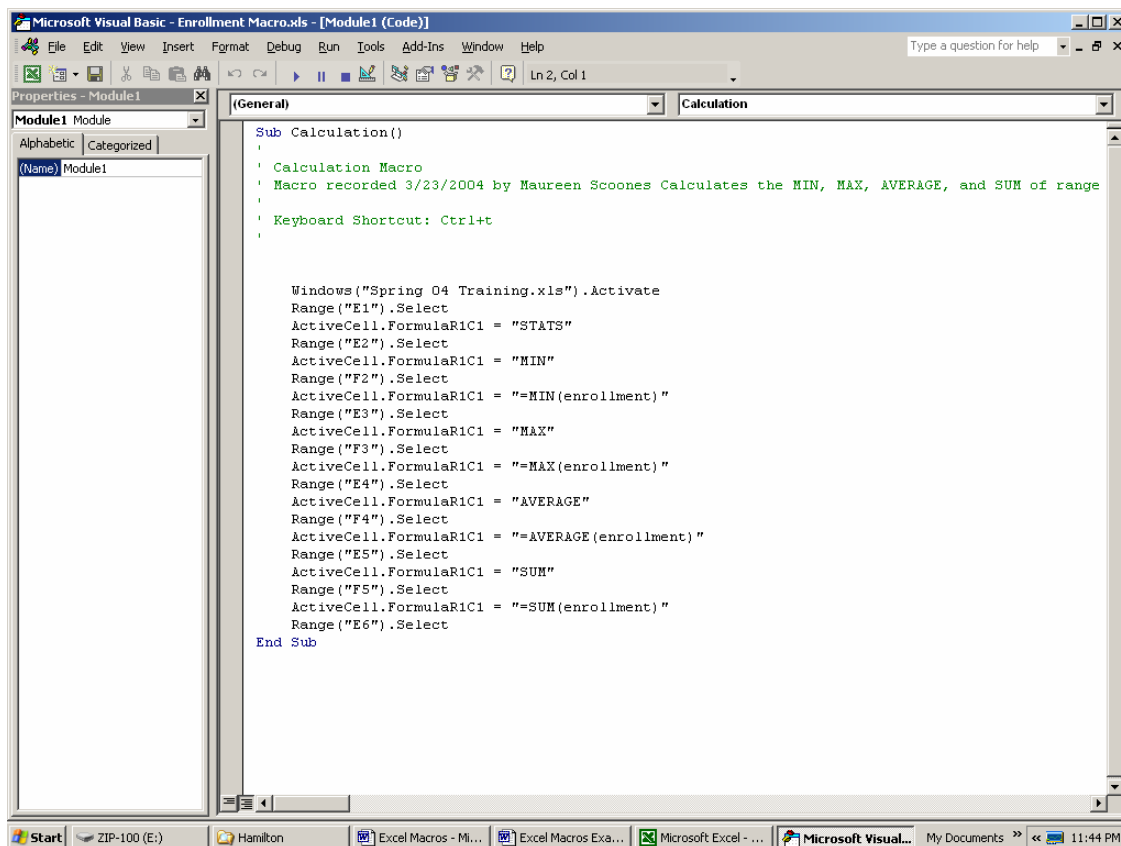
Editing/Deleting a Macro

In order to edit a macro, you need to edit the actual visual basic code.

1. From the **Tools** menu, select **Macro** and then **Macros....**
2. Select a macro from the list and then click on **Edit** or **Delete**.

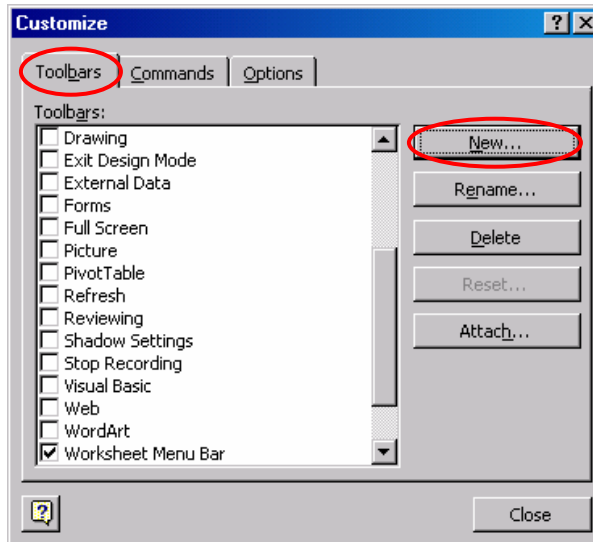


NOTE: If you have saved your macro in the PERSONAL.XLS as the macro show above was, then you will not be able to edit or delete the macro yet, you will have to *unhide* the personal workbook. From the **Window** menu, select **Unhide**. Click on **PERSONAL.XLS** and then click on **OK**. This worksheet should be hidden again when you are done editing or deleting macros in it. When you are in the PERSONAL.XLS worksheet, from the **Window** menu, select **Hide**.

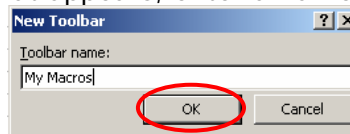


Assigning a Macro to a Toolbar

1. Create a Toolbar.
 - a. From the **Tools** menu, select **Customize**.
 - b. To add a toolbar, click on the **Toolbars** tab and then click on the **New** button.



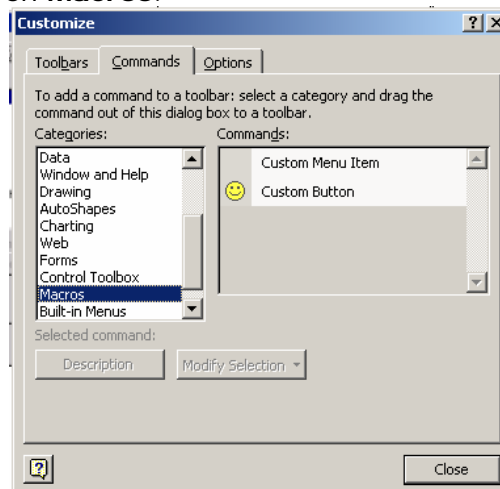
- c. In the New Toolbar window that appears, enter a name for your custom toolbar.



- d. Click on OK.
 - e. A very small box will appear that represents your new toolbar.



2. Add Buttons to the Toolbar.
 - a. In the **Customize** window, click on the **Commands** tab.
 - b. Under *Categories*, click on **Macros**.

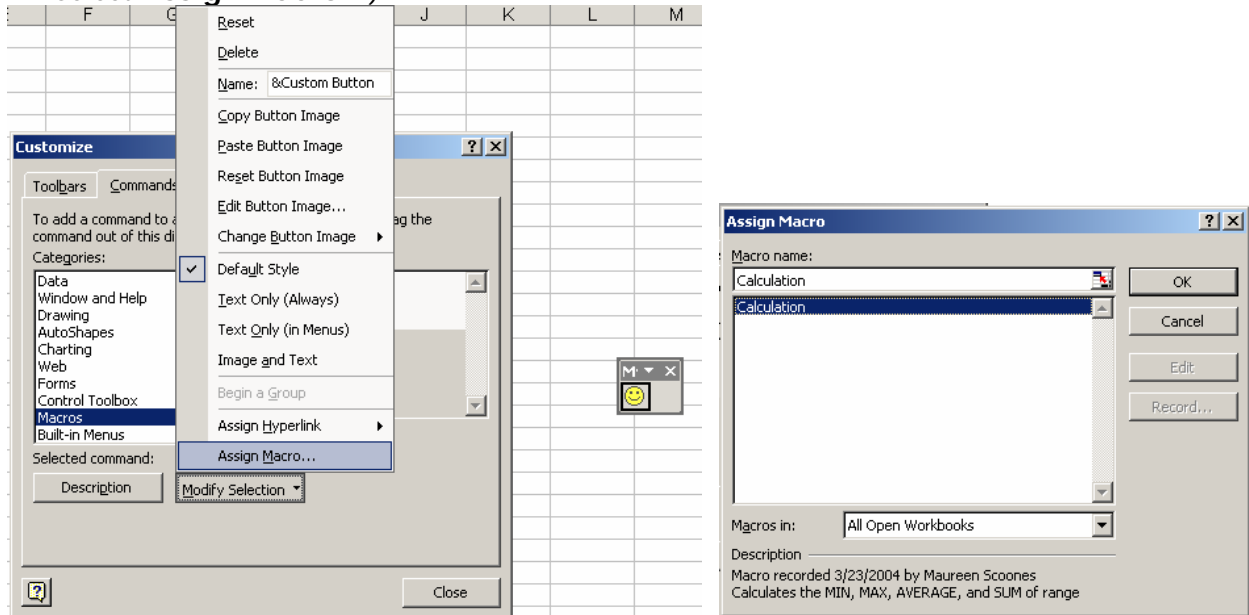


NOTE: A macro button can also be added to a menu by dragging the icon to a menu.

- c. Click and drag the Custom Button icon (yellow happy face) to your toolbar. You will see an I-beam on the toolbar to indicate the button's placement.

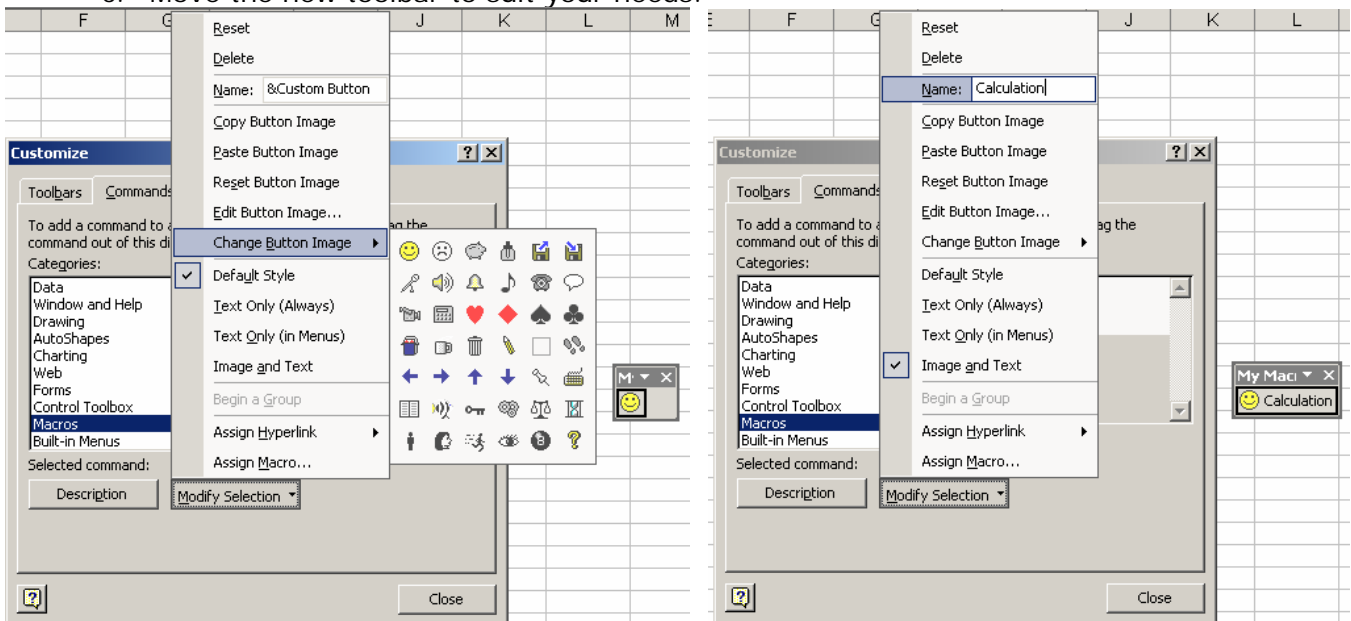


- d. Make sure the button is highlighted, as shown above (it has the box around it). From the **Customize** window, choose **Modify Selection** and then select **Assign Macro...**, Select the macro you want for this button, and click **OK**. (Mac: CTRL+click on the button and select **Assign Macro...**)



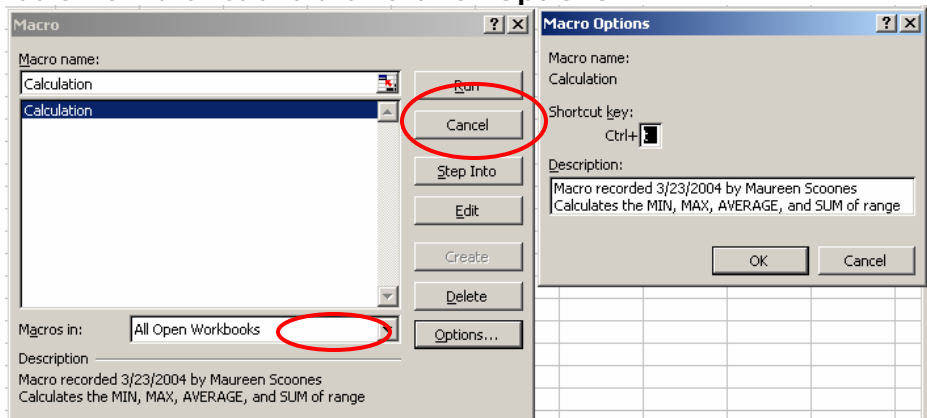
3. Change the Look of the Buttons

- a. To change the way the button looks (otherwise you will have all happy faces), click on the **Modify Selection** button again. (Mac: double click on the button to open the **Command Properties** window.) You can **Change Button Image**, or give the button an appropriate **Name** and tell Excel to use **Text Only (Always)** or **Image and Text**.
- b. Click on **Close**.
- c. Move the new toolbar to suit your needs.



Reassigning a Shortcut Key

1. From the **Tools** menu, choose **Macro** and then **Macros....**
2. Select a macro from the list and then click on **Options**.



3. In the **Macro Options** window, you can change the *Shortcut key* or change the *Description*.
4. Click on **OK**.

For questions or comments regarding this document, please e-mail docxteam@hamilton.edu.