California State University
**Northridge**

Information Technology

Excel 2007
User Guide

# Excel 2007

## Macro Basics

**IT Training & Development**

**(818) 677-1700**

**training@csun.edu**

**www.csun.edu/it/training**

# Table of Contents

# MACRO BASICS

## *Introduction*

Find out what a macro can do for you. Save time, energy and keystrokes. Learn how macros can help you perform frequently repeated tasks quickly and easily.

This guide will take you through the process of:

- Understanding what macros are and what they can do for you.
- Recording macros.
- Running macros.
- Deleting macros.
- Assigning frequently used macros to an icon button.

## WHAT ARE MACROS?

### *What is a Macro?*

Macros are bits of code stored in the workbook that can automate repetitive tasks and quickly get your data in order.

### *What Can Macros Do For Me?*

Macros are used to automate tedious or frequently repeated tasks.  How many times in a day do you have to type in a standard page heading for your department or put a standard footer on your document?

A macro carries this sequence of actions out quickly. For example, you can create a macro that enters your department name, address, phone number, etc. in one row or cell in your worksheet, centers the date in the cell, and then applies a color and border format to the row or cell.

Any task that you find yourself repeatedly performing in Excel, can be done automatically by recording a macro for it. Once recorded, all you have to do is press a combination of two or three keys. That's it!

### *Where is My Macro Stored?*

When you record a macro, you have the option of storing it in several places:

1. This Workbook
2. Personal Macro Workbook

Macros that are stored in **This Workbook** can only be accessed when that particular workbook containing the macro is open.   As long as that workbook is open, the macro you recorded and stored in that workbook is available to you to use in other workbook documents.   Macros stored in the **Personal Macro Workbook** can be accessed from any Excel workbook whenever your Excel application is open.

Once you have recorded your initial macro, you can run the macro to perform the task again. The overall process for recording a macro consists of three steps.  First, you start the macro recorder and supply a name for the macro.  Next, you perform the actions you want to record, such as choosing menu commands, selecting cells, and entering data.  Finally, you stop the macro recorder.

## RECORD A MACRO

When you record a macro, the macro recorder records all the steps required to complete the actions that you want your macro to perform. Navigation on the **Ribbon** is not included in the recorded steps.

**Note**: It is important to plan the macro and test the sequence <u>before</u> you begin recording. Every keystroke or step is recorded, even errors or typo correction.

1. Display the **Developer** tab.
   a. Select the **Microsoft Office** button, and then select **Excel Options**.
   b. In the **Popular** category, under the section **Top options for working with Excel**, select the **Show Developer** tab in the **Ribbon** checkbox.
   c. Select the **OK** button.
2. Set the security level to temporarily enable all macros.
   a. On the **Developer** tab, in the **Code** group, select **Macro Security** (see Figure 1).

Figure 1 – Macro Security
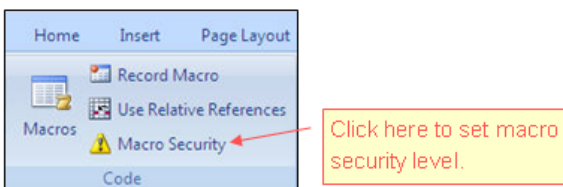
b. Under **Macro Settings**, select **Enable all macros** (not recommended as a permanent setting, potentially dangerous code can run), and then select **OK**.

Figure 2 – Macro Settings
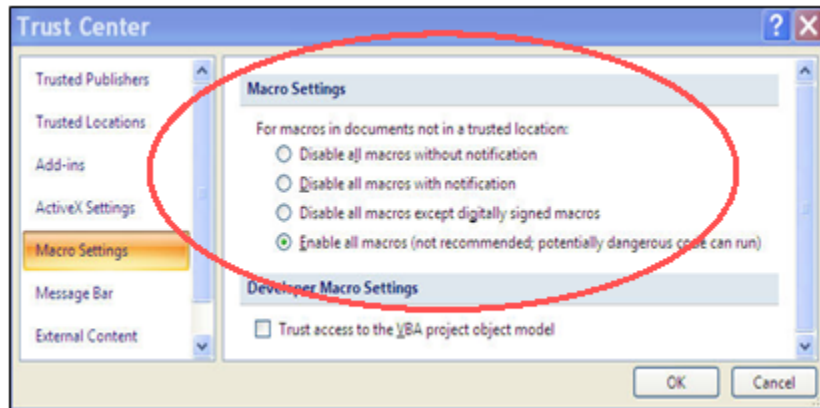


**Note**: To prevent potentially dangerous code from running, it is recommended that after you finish your work with macros, that you restore your settings to reflect that all macros are disabled.

## *Absolute vs. Relative Reference Macro*

Before you begin recording a macro, you will need to determine whether the cell references will be absolute or relative.

### Absolute Reference

An **Absolute Reference** refers to a specific cell address such as A1.  For example, when you record your macro using this setting, if you input data in cell D5, Excel will place the data in the D5 position each time the macro is executed.

### Relative Reference

A **Relative Reference** on the other hand, refers to a cell's position relative to other cells, rather than a specific cell address.  For example, if you want the macro to begin in a position relative to the cell in which you click, click on the **Use Relative Reference** command button on the **Developer** tab in the **Code** group.

### *Creating and Recording an Absolute Reference Macro*

1. From the **Developer** tab, in the **Code** group, select the **Record Macro** command button.
2. The **Record Macro** dialog box displays (see Figure 3).

Figure 3 – Record Macro Dialog Box
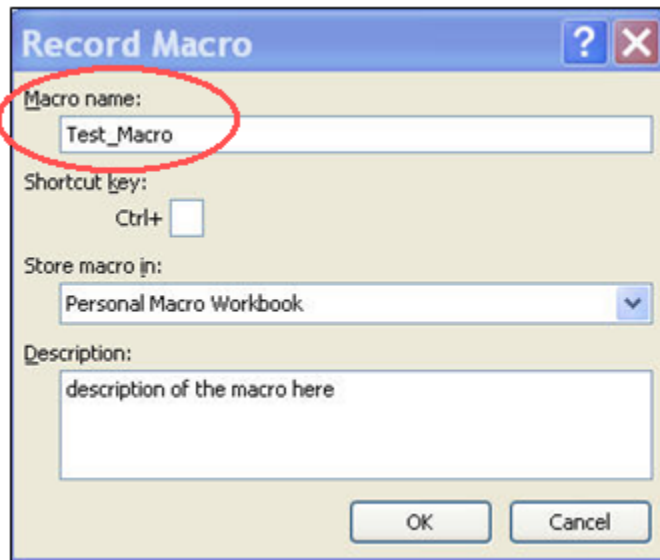


3. In the **Macro name** field, enter a name for the macro.

**Note**: The first character of the macro name must be a letter. Subsequent characters can be letters, numbers, or underscore characters. Spaces cannot be used in a macro name; instead, use an underscore (_) character.

4. To assign a CTRL combination shortcut key to run the macro, in the **Shortcut key** box, type any lower or uppercase letter that you want to use (see Figure 4).

**Note**: The shortcut key will override any equivalent default Excel shortcut key, while the workbook that contains the macro is open.

5. In the **Store macro in** list, select the workbook where you want to store the macro, or if you want a macro to be available whenever you use Excel, select **Personal Macro Workbook**.

Figure 4 – Record Macro (Shortcut Key, Store Macro In, etc)
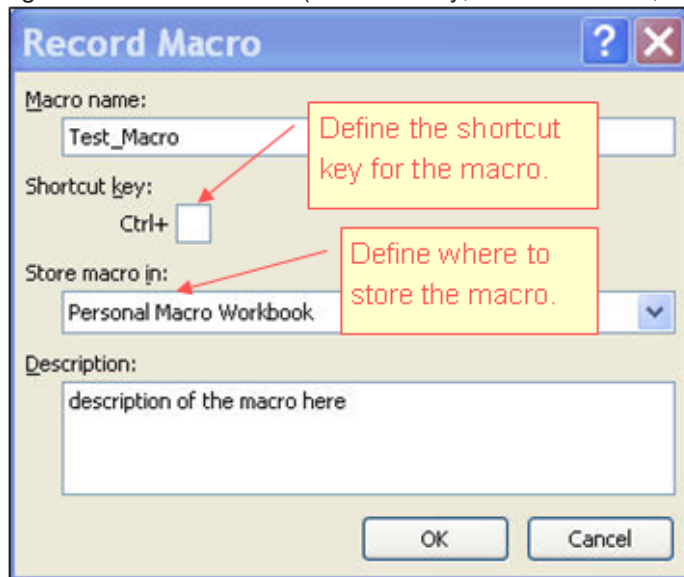


6. In the **Description** box, enter a description for the macro.
7. Select **OK** to start recording.
8. Perform the action that you need to record.
9. On the **Developer** tab, in the **Code** group, select the **Stop Recording** command button.

## *Creating and Recording a Relative Reference Macro*

The process for recording a **Relative Reference** macro is very similar to recording an absolute macro with just one small change.

1. From the **Developer** tab, in the **Code** group, select **Use Relative References** command button.
2. Select the **Record Macro** command button.
3. Follow steps 2-9 on pages 4-5 (of this document).

## MACRO SECURITY

### *Why is Macro Security Important?*

It is a fact that, while most macros are both harmless and helpful, macros are an important security issue. When created with malicious intent, macros can contain destructive code that causes harm to your documents or your system.

To protect your system and your files, do not enable macros from unknown sources. In order to have the option to enable or disable macros, but still have access to any macros you want to

use, set macro security in your Office programs to medium. This will provide you with the option to enable or disable macros anytime you open a file that contains a macro.

### Setting Macro Security

To set macro security in any Office program that offers VBA macros:

1. From the **Developer** tab, in the **Code** group, select **Macro Security**.
2. The **Trust Center** dialog box displays (see Figure 1).

Figure 1 – Trust Center Dialog Box
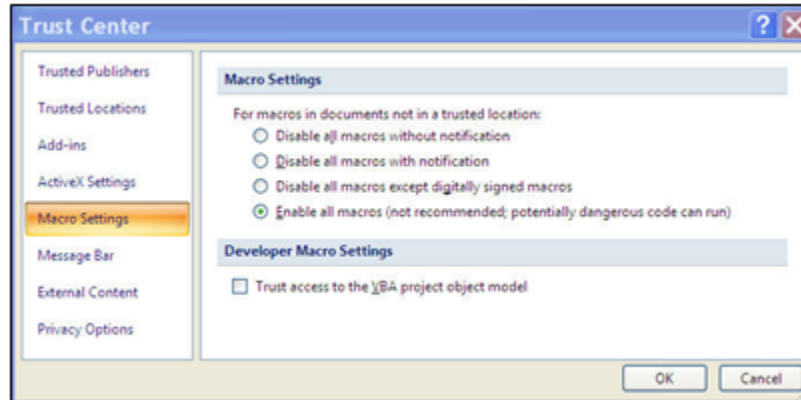


3. In the **Macro Settings** section, select your preferred security level.
4. Select the **OK** button.

**Note**: To prevent potentially dangerous code from running, it is recommended that you do not use the **Enable all macros** option.
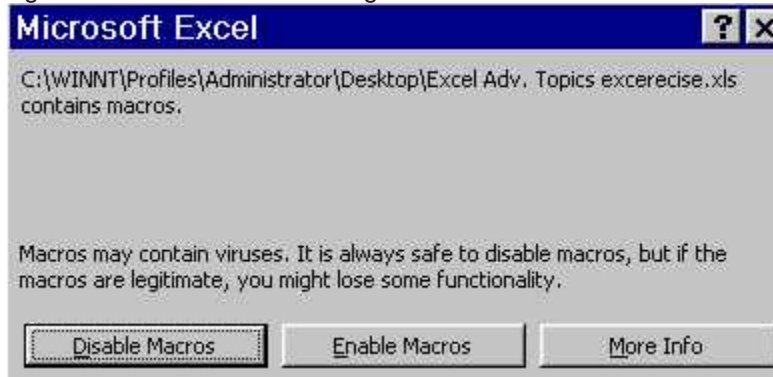

## RUNNING MACROS


### *Running Macros*

Since the purpose of creating a macro is to simplify lengthy procedures by automating them, running a macro is quick and easy.  Begin the macro by selecting the appropriate active cell.

When you open a workbook containing a macro, Excel may display the following dialog box: (See Figure 1).

Figure 1 – Macro Virus Warning



The purpose of this dialog box is to offer protection from a computer virus that may be attached to a macro.  It is important that you have confidence in the source of the macro before you enable it.   If you want to display the source of the macro before running it, select **Display Macros**.

If you are confident that the Macro does not contain a virus, select **Enable Macros**.  If you believe the macro contains a virus, select **Disable Macros** or Do Not Open**.**

## To Run a Macro

1. Open the workbook that you want to run the macro on.
2. Select the active cell in the worksheet for the macro (if appropriate).
3. Do either:
    a. Enter the shortcut key combination assigned to the macro when you created it, or…
    b. Select the **Developer** tab, in the **Code** group, select the **Macros** command button. This displays the **Macro** dialog box for you to select the macro you want to run (see Figure 2).

Figure 2 – Macro Dialog Box
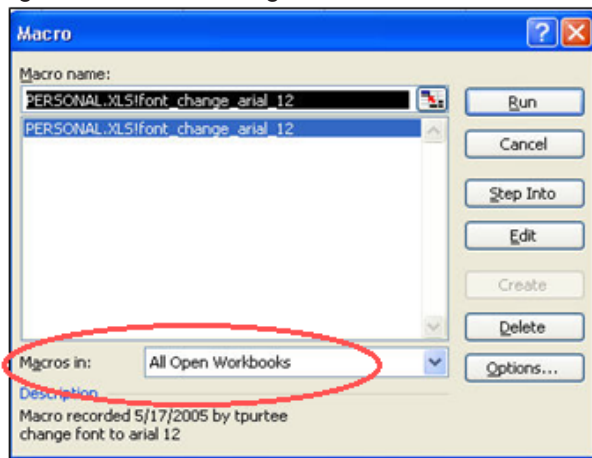
4. Select the macro you want from the **Macro name** list.
5. If the macro you want does not appear in the **Macro name** list, select the location in the **Macros in** list at the bottom of the window.

**Note**: If you cannot locate the macro you want through the macro dialog box, select **Cancel**, open the workbook containing the macro, and begin again at step 2.

6. Select **Run**.

Excel executes the macro procedures you selected.

If the commands that you recorded are not correct, simply delete the macro from the **Macro** dialog box and record a new one.  You can delete the macro by following the steps under **Deleting Macros** on page 10.

## QUICK ACCESS TO YOUR MACRO

### Assigning Macros to the Quick Access Toolbar

Excel allows you to add a macro command button to the quick access toolbar for those macros that you access frequently.

*Once you have created the macro it can be assigned to the quick access toolbar as a command button.*
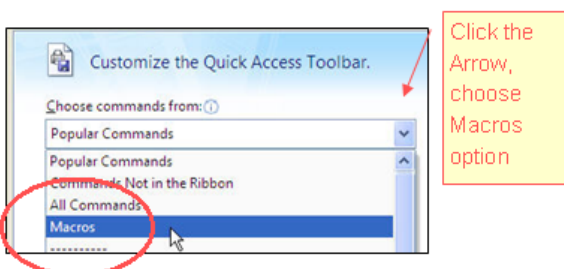
1. Select the **Customize Quick Access** toolbar arrow (see Figure 1).
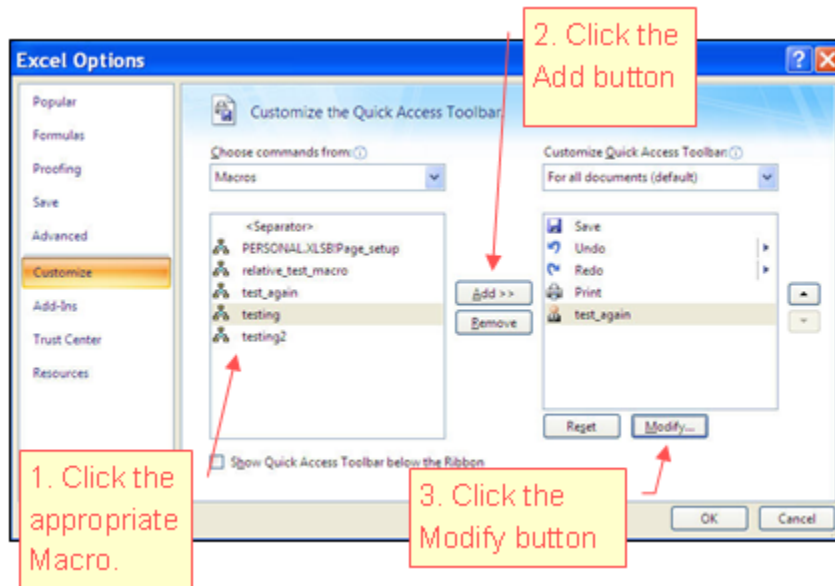
Figure 1 – Quick Access Toolbar



2. Select the **More Commands** option from the sub-menu.
3. In the **Choose Commands from** field, select the down arrow to the right of the field (see Figure 2).

Figure 2 – More Commands Dialog Box

4. Select **Macros** from the **Categories** list box.
5. Select the appropriate macro from the left, side menu (see Figure 3).

Figure 3 – Excel Options Dialog Box



6. The macro should now appear in the right, side menu which means that is now on the **Quick Access** toolbar.
7. Customize the **Command** button by selecting the macro you want to add from the right, side menu.
8. Select **Modify**.
9. The **Modify Button** dialog box displays (see Figure 4).

Figure 4 – Modify Button Dialog Box
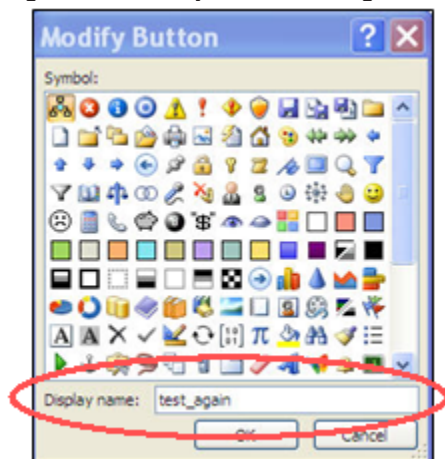


10. Select the symbol that you want to assign it to the macro on the **Quick Access** toolbar.

11. Verify the macro name by selecting the **Display Name** field (see Figure 4).
12. Select the **OK** button.
13. Select the **OK** button on the **Excel Options** window.
14. The new macro with the button symbol chosen appears in the **Quick Access** toolbar (see Figure 5).

Figure 5 – Quick Access Toolbar – New Macro Button Added
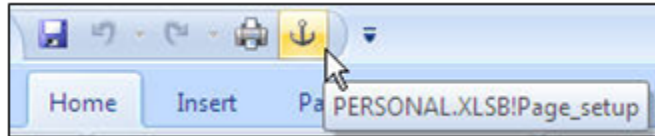


## DELTING A MACRO

When a macro is no longer needed, you can delete it from the **Macros** dialog box.

Do one of the following:

1. Open the workbook that contains the macro you want to delete.

**Note**: If the macro that you want to delete is stored in the personal macro workbook (Personal.xlsb), and this workbook is hidden, do the following to unhide the workbook:

    a. In the **View** tab, in the **Window** group, select **Unhide**.
    b. Under **Unhide** workbooks, select **PERSONAL**, and then select **OK**.

2. Display the **Developer** tab by doing the following:

    a. Select the **Microsoft Office** button and then select **Excel Options**.
    b. From the **Popular** category, under **Top** options for working with Excel, select the **Show Developer** tab in the **Ribbon** checkbox, and then select the **OK** button.

3. On the **Developer** tab, in the **Code** group, select **Macros** (see Figure 1).

Figure 1 – Code Group on the Developer Tab
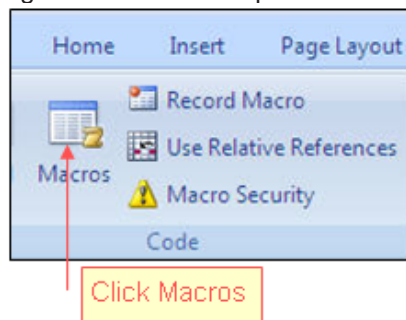
4. In the **Macros** in list, select the workbook that contains the macro you want to delete. For example, select **This Workbook**.
5. In the **Macro name** box, select the name of the macro that you want to delete.
6. Select **Delete**.
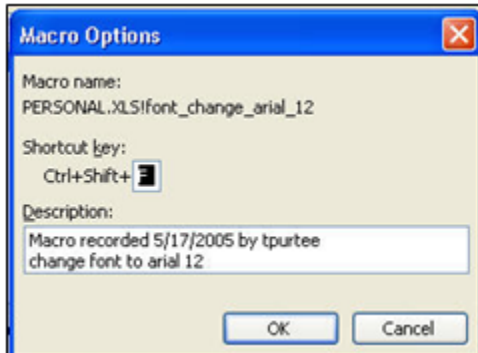
## VIEWING MACRO OPTIONS

1. From the **Developer** tab, in the **Code** group on the **Ribbon**, select the **Macros Command** button.
2. Excel will display the **Macro** window (see Figure1, below).

Figure 1 – Macro Window
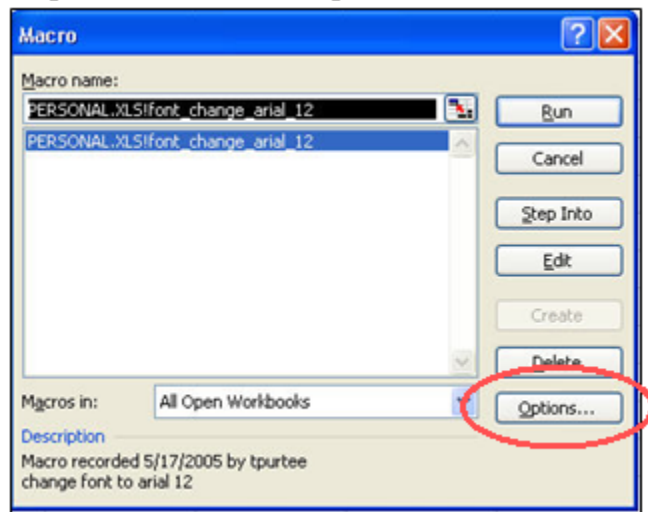


3. Select the macro you wish to view.
4. Select the **Options** button.
5. The **Macro Options** window displays (see Figure 2).

Figure 2 – Macro Options Window

In the **Macro Options** dialog box (see Figure 2), you can view your macro's name, short-cut key, and description (if any) that you wrote for this macro.

6. Select **OK**.

## TRAINING AND SUPPORT

### *IT Training*

**Contact Us:**
IT Training & Development
Phone: (818) 677-1700 or x1700 (on campus)
Email: training@csun.edu

**Troubleshooting and Support**
If you experience problems getting started with Office 2007 contact the Help Center at x1400 or helpcenter@csun.edu.