

Macros & Mail Merge

Introduction

Today we'll be covering two large, somewhat challenging topics that can be applied in several office programs. Both learning to use macros and properly using mail merge have been asked about pretty much since I started teaching classes on Office. For this reason we're going to take the entire class to learn these topics as thoroughly as possible. As I said above, both of these topics can incorporate many different Office programs; however, most of what we do today will be done in MS Word. I do this for the same reason that I teach how to edit toolbars in Word and suggest in the almanac that students interested in taking my Office classes have taken Introduction to Word first; because I think Word is probably the most familiar and natural of the Office programs for most users and when introducing something new that might be confusing for most it's best to be very clear on the basics. This is not to say that I expect you to know everything about Word, if you have any questions about anything we go over today please let me know right away. I appreciate all of your interest in this class and don't want to lose anybody because they were afraid their question was too simple. We're just covering two subjects today so there's lots of time for questions.

Macros

What is a macro?

Before we get started learning how to create and use macros it's important to understand what they are. A macro is a time saving device. It is designed to perform operations that usually take you several steps. This can be just about anything that you do in an Office program, whether it's creating a formula in Excel or formatting a sentence in Word. The applications of this tool are almost limitless. We'll thoroughly explore the creation of these timesavers and learn how we can use macros to make our Office experiences more pleasant.

General Macro Ideas

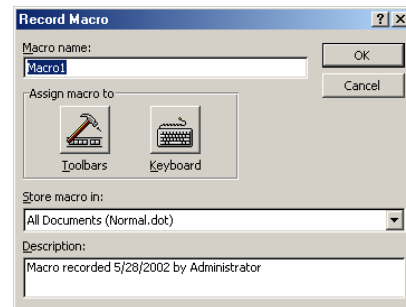
I can't stress enough how important it is to understand what the macro is really doing if you want to get it to work correctly. One recurring theme in recording and using these devices is to remember they work best when the commands are most general. How often does it come up that you need to change the text size and color of a 7 letter word? Probably not too often. On the other hand how often do you change the spacing and text size of your entire document? Or underline and center the title of your document? I can't speak for everyone but I do that very frequently. By making the rules of the macro general you can apply it in more situations, this will often call for some creative thinking to come up with the exact way to enter the commands so they can be reusable but this is all part of learning to work with macros. Other thing to understand with macros is their limitations. As much as it might seem like it sometimes the macro table is not a magic

solution to all problems, all it can do is execute the same commands and functions that you can do; just much faster.

Recording Macros

The easiest way to create a macro is by using the recording feature. This avoids the complexities of actual programming often associated with macro design. The concept behind recording a macro is almost like telling the computer “watch what I do” then telling it when to repeat your exact actions. Using this feature you can create another item in Word's macros list, assign specific keyboard commands (hotkeys) to perform the macro, and even create toolbar buttons. To create a macro of your choice follow these steps:

1. Before beginning it's very important to be clear on what it is that you want to do and exactly how you're going to do it. Normally Office allows us the freedom to explore and experiment with few consequences, but errant clicks and back-stepping can make your macro inefficient and will usually result in having to start the recording process over again.
2. Place the cursor exactly where you will want the change to occur. Because of the nature of macros any relocating of the cursor during the recording process would make using your macro very confusing.
3. Left-click the “View” menu and select “Macro → Record New Macro...” from the ribbon. This screen will appear:



4. Name your macro: in the section “Macro name:” you need to enter a name describing what this macro will be for. You want this name to be easily recognizable since this is all you will see when you want to use this macro in the future.
5. Where to store your macro: the section “Store macro in:” determines whether this will be a local macro or universal. This means you can either use this macro in this document alone or you can make it available to anyone using Word on the computer you're using. This is determined by the pull down menu seen below. The majority of the time you're going to want the macro to be universal for all documents to increase it's usefulness. The only exception I can see is if you were using a public computer to work on a specific document and wanted to take the macro with you when you left the public computer to work somewhere else.
6. Description: whatever you type in this section will appear when selecting macros from you list to use (you'll see more of this later). So once you recognize the name of a macro you can click on it and the description will appear; which, if properly written, could confirm that the macro does what you want it to do. Simply type in a fitting description, perhaps including your name and when you

created the macro if this is a computer used by more than one person, and that's all you need to do for the description.

7. Assign Macro to: this is the big one. What you determine here is how you can make the macro more easily accessible. No matter what you do here (or even if you ignore this step completely) you'll be able to use the macros menu, however, if this is something you'll be doing a lot of you often want to simplify things even further. For this reason we're allowed to assign either keyboard commands or buttons on the toolbar to macros. For class today we'll be using the keyboard assignment for the simple reason that the toolbar assignment won't work on every computer (differences in settings). To perform the Keyboard assign:
 - i. left-click on the keyboard icon.
 - ii. Left-click in the space underneath "Press new shortcut key:"
 - iii. Press a combination of keys, usually involving the ctrl key or some other function key, that you want to be assigned to your macro.
 - iv. It will say underneath the box where you type your keys whether that combination is currently assigned to anything else. Ideally we'd want something currently unassigned but that isn't always practical so sometimes you need to just overwrite a previous hotkey.
 - v. Left-click "Assign"
 - vi. Confirm that your key assignment has moved into the "Current Keys" box then left-click "Close". You can assign multiple key combinations to the same macro but I don't recommend it.

What you've done is essentially created your own hotkey.

8. The second you clicked "Close" you began the recording stage of your macro. Careful now and no stray keystrokes or mouse actions. Everything you click or type will be remembered now until you press the stop button on the Recording toolbar which has popped open. I'll give you specific in class instructions as to what we should do for our first macro but a rule to remember is to make everything you do as general as possible. I'll explain more about this in class.
9. After you finished making whatever change desired click the stop button on the recording toolbar. You'll notice that there is no message telling you the recording was successful or alerting you to the creation of a new macro. You simply return to using the document as normal. However your macro has been created and is ready to be used and reused.

Using and Managing Macros

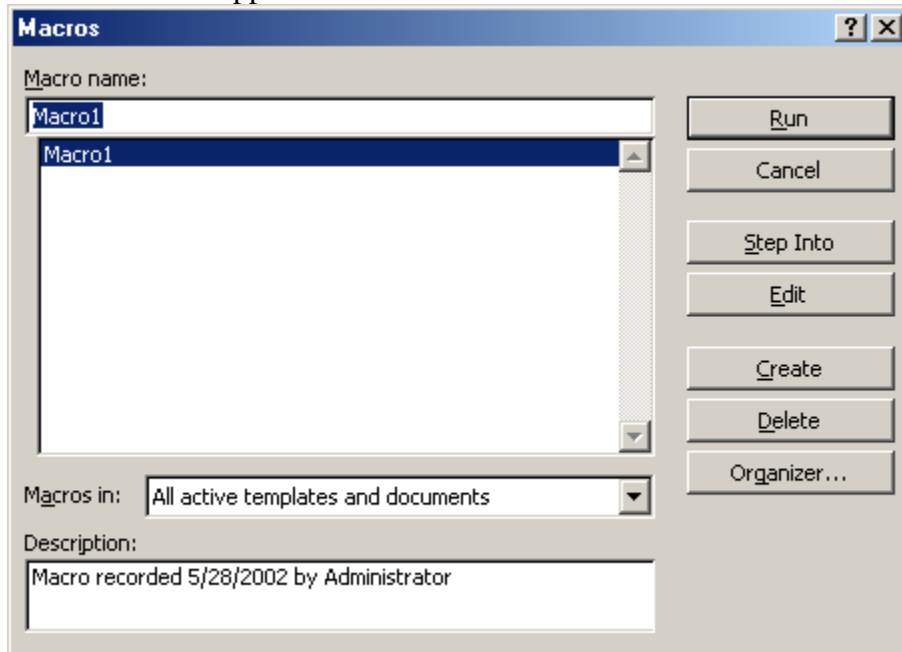
So far we've created a macro and stored it in our computer. Next thing we need to know is what exactly we're to do with this creation. Actually using the macro is fairly straightforward, follow these steps and you should be fine:

1. When the situation arises again were you'd like Word to perform the changes you've made a part of your macro the first thing you need to do is line up the cursor exactly as it was when you created the macro. What I mean by this is if it should be in front of the word/sentence/paragraph that you're changing then put it

- in front. If it should be at the end then put it at the end. Just make sure that you have everything set as it was during the creation. It's easy to get caught up in the more complex elements of macros and forget something simple like putting the cursor in the right spot.
2. Press the hotkeys you assigned to the macro.
 3. Finished! You should have seen some blinking then all your changes taking effect.

What's that you say? Forgot the hotkeys or didn't assign them in the first place? No problem, we've got another, slightly slower method of using our macros.

1. Again you need to align the cursor correctly.
2. Open the "View" ribbon.
3. Choose "Macro→View Macros..." from the menu, you'll notice that "Alt+F8" will work the same as going through these menus.
4. This screen will appear:



5. Left-click on the macro from the list (there's just 1 in this case) that you want to use.
6. Left-click the "Run" button.
7. Finished! This will work exactly the same as having clicked the keyboard commands (or toolbar commands if you experiment on your own and create some of those).

So that's how you run a macro. You may have noticed that there are a few other things in that Macros window to do. We'll examine those here:

-Cancel: If you decide you don't want to be in the Macros window anymore click this one.

Step Into, Edit, and Create

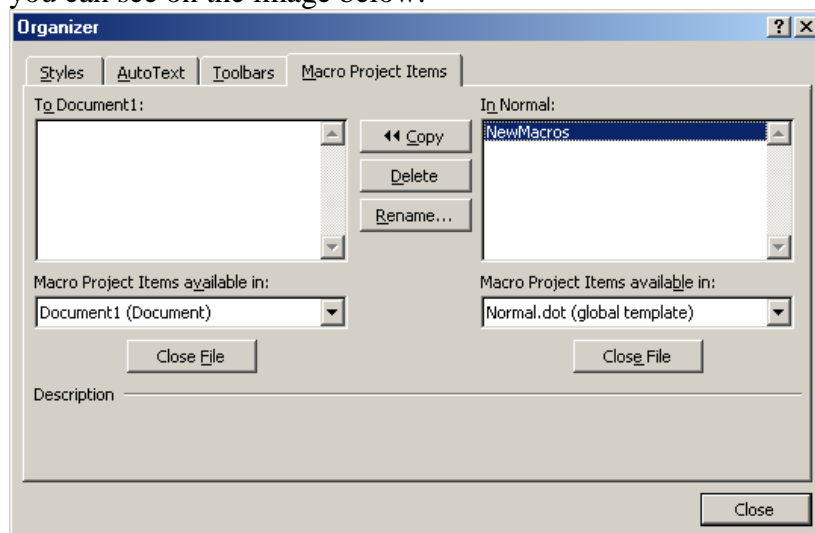
-Step Into: The first of the three buttons that I've singled out. The reason that I've separated them all is because they are very similar in many regards. One of their biggest similarities is that I'm not going to teach you how to use them. All three of these buttons will open up what's called an editor or debugger, allowing you to write, and edit the actual programming behind the macros. This language is a version of visual basic designed especially for Office applications and I would only encourage you to look into using this if you have a programming background or are willing to dedicate a large amount of time to developing one. For those of you whom match this description, "Step Into" allows you to perform the common debugging technique of performing the lines of code one at a time, thereby finding out what each line does as it does it. Using this debugger and learning this language don't deserve a class all their own, they'd require more along the lines of 16 weeks of classes.

-Edit: Unlike "Step Into" the "Edit" button will simply open up the editor with the code there before you to be changed as you see fit. That's not to say that there's anything simple about using Edit.

-Create: This is for those who don't want to use the record feature to create their new macros. Instead you can have all the fun of extensive typing and looking up obscure command names by using the Create feature and entering in the Visual Basic code yourself. Best of luck to you.

-Delete: Back to things you will probably actually use. Delete is for removing unwanted macros, as you may have guessed. This is nice for when you screw up some part of the recording process and want to make a correct macro using the name you used in the failed one. Simply left-click on the macro you want to get rid of then left-click on the "Delete" button.

-Organizer... : This is a tool you may never have to use but it's nice to have there. As you can see on the image below:

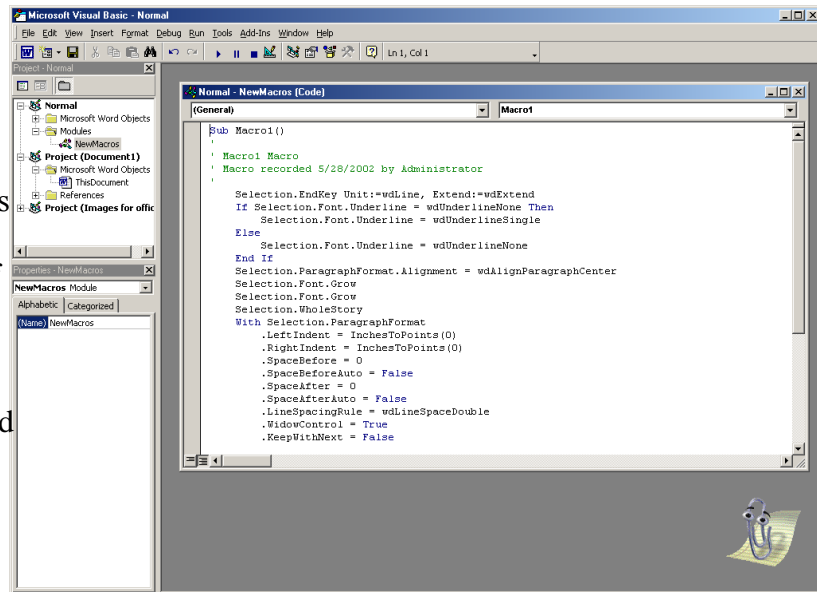


the organizer does not just apply to macros. What it's used for is moving objects such as macros and toolbars from one specific document to the files that control all Word documents. It can also be used for deleting and renaming Macros and other objects.

Writing and Editing Macros

We discussed briefly the options you have for writing and editing macros using the script editor provided by Microsoft Office. I'd like to give a little more detail about that here.

The window shown here is what will appear when you choose any of those three functions. You can see that it is rather text intensive, meaning there's very little pointing and clicking and quite a bit of entering in specific commands. You'll also see that there are rules here that must be followed just as there are for any programming language. Hopefully seeing the environment you'd be required to work in will



solidify the impression that creating or editing macros using these techniques is both difficult and time consuming. My recommendation is still to use the record macro feature unless absolutely necessary.

Mail Merge

About Mail Merge

Well we made it to topic 2. Mail Merge, although it has many different features and possible uses, serves a much more specific purpose than the macros we were just discussing. In the simplest sense a mail-merge operation is the bringing together of two parts, a database and a document. The database can be just about anything (we'll use names and addresses since that's the most common use), and the document can also be in almost any form (form letter, envelope, catalog, telephone book, time log, label, etc.). Although Word can't perform the extensive merging operations of a real database manager it's certainly the easiest tool to use when you want to generate a document or series of documents based on data in a reasonably clean list.

We will cover how Mail merge allows you to:

1. Sort and/or filter incoming data
2. Print envelopes or mailing labels
3. Force the merge process to pause at each record to allow you to customize the information going in.

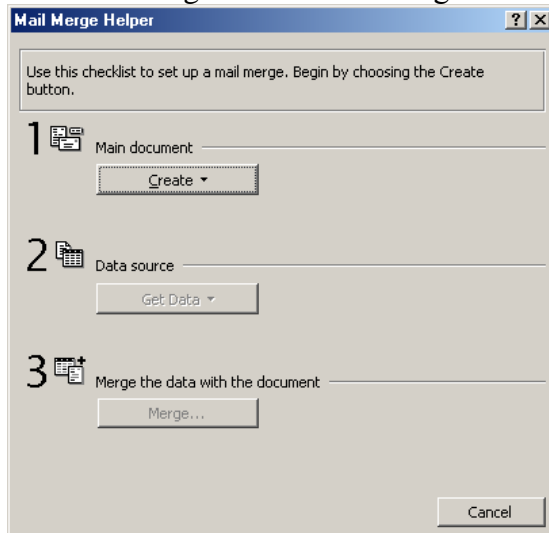
Creating Form Letters With Mail Merge

Although I just listed several different applications of mail merge this remains the most common. For that reason we're going to go through a mail merge procedure step by step creating a form letter.

This process is much less confusing if we take it a step at a time and try to identify all the problem areas. Remember we have two different parts that need to be created. First the document you want the data merged into then the data table itself.

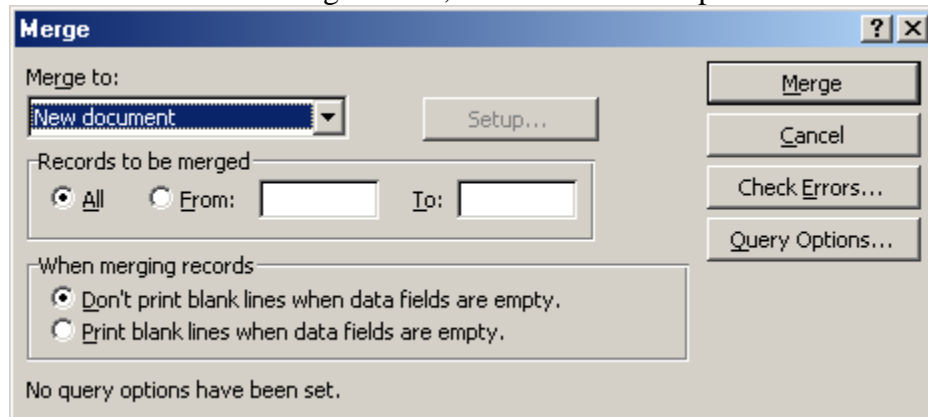
Follow these steps:

1. Create a new document
2. Enter in all the static information that you want to be the same for all the letters
3. Enter all the information you want into the database, use either a Word Table, Excel spreadsheet, Access table, or Outlook Address book.
4. Click "Mailings→Start Mail Merge" and this window should open:

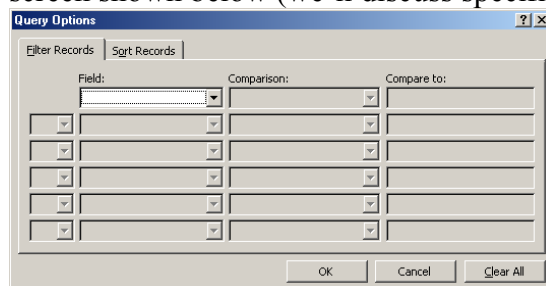


5. This outlines the three things we need to do, identify the main document, identify the data source, and merge the two together.
6. Click on "Create"
7. This will give you a list of items which you can create. Choose "Form Letters..."
8. Mail Merge Helper will give you the choice of using your current window or creating a new document, choose "Active Window"
9. Now we need to determine where we want the data to come from, so click "Get Data"
10. To save time I've created the data source already so choose "Open Data Source"
11. Find the file on the desktop. Open the file you want the data to come from.
12. The Mail Merge Helper will notify you that you don't have any data fields listed in your document and will ask if you want to add them. Say yes and the screen will return to your document.
13. Notice that there's a new toolbar at the top of the screen.
14. Position mouse where you want a data field to go
15. Click on "Insert Merge Field" and choose the field you want
16. Repeat until the form letter is as you want it.

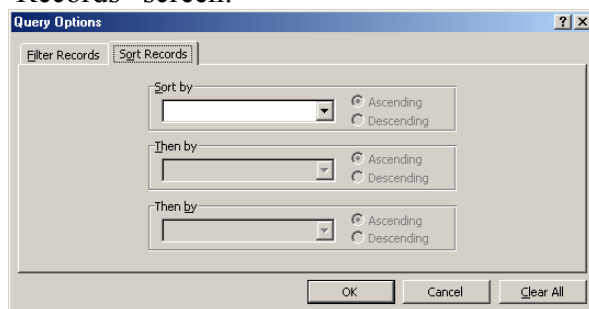
17. Click the Preview button to see how the data will look when merged into the document.
18. If satisfied click the Merge button, this window will open:



19. We want to merge to a new document but you'll see if you pull down the menu the option is there to go directly to the printer or to E-mail
20. You can also control how many records are entered in with the "Records to be merged" frame
21. Another major option available is determining whether you should print blank lines when the data field is empty. This is important for situations like allowing for two address lines. Some people will need to have a space for an apartment number, others won't. Don't need to have an empty line messing up the appearance.
22. If you want more specific controls over what information is entered, say you only wanted to enter only people from Illinois, you can use the "Query Options..."
23. To control the files that are entered into your document use the "Filter Options" screen shown below (we'll discuss specifics in class):



24. To control the order that the records are entered into the form use the "Sort Records" screen:



25. When you've performed all the specifications click "Merge". A new document will have been created

A lot of little steps but your document should now be completed. Each of those forms gets it's own page for easier printing.

Creating Mailing Labels with Mail Merge

This will be very similar to the above procedure so I'll just explain the little differences.

1. Of course when you choose what you want to create choose Mailing Labels not Form letter
2. After you select the data source you won't be told that you need to enter the merge fields into the form letter, you'll be told that word needs to set up the main document; do so.
3. A screen will open up asking you what kind of labels you're using, this is very important, make sure that you choose the correct make and model. This allows word to space everything correctly so all the labels will line up when printed.
4. After you select a label you will be asked to set up the sample label. Here you're doing the same thing you did with the form letter, determining what information goes where. We'll go over this thoroughly in class.
5. Then click Merge. We'll discuss everything that pops up here in class.