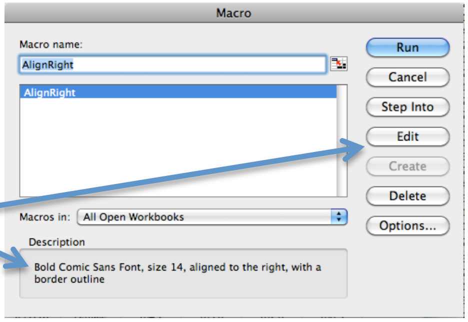
Welcome to the third, and final, portion of this introduction to Excel series. To begin this week, find and open the data set titled, “1 More Macros” and carry out the steps below. When it opens, do choose to *enable macros*, as we will be modifying our existing macro.

More with Macros:

There are many formatting things that macros will not record. One thing in particular that frustrates me is that we cannot use a macro to change a font color or a fill color. To do this, we are going to need to modify the code of the program itself.

DON’T WORRY! I am not going to go all “computer-sciency” on you.

Rather, I’m going to be resourceful, and allow someone else’s programing skills do most of the work for me. One very important thing we should know in order for this approach to be successful is that the programming language used for macros is called “Visual Basic.”



Macro name: AlignRight

AlignRight

Macros in: All Open Workbooks

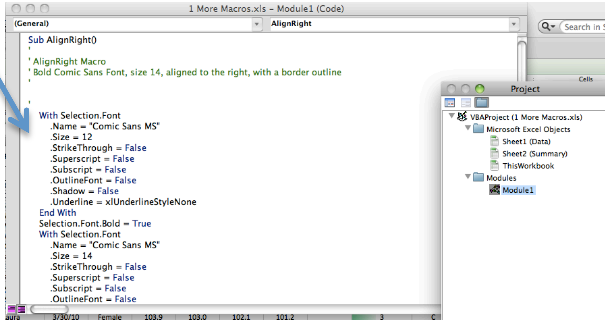
Description

Bold Comic Sans Font, size 14, aligned to the right, with a border outline

First, lets take a look at our old macro, “AlignRight” by navigating to *Tools* in the top menu, choosing *Macro* and then clicking *Macros…* Because it is the only macro we have recorded in this document, it is automatically selected, and we can see the description we created, which may be a good refresher for what it does.

Notice this macro does nothing to the font color, nor the background fill color. To take a closer look at the actual computer code of our macro we recorded, click *Edit*.

I am going to assume that reading the code of our macro is about as about as appealing as the thought of painting the outside of your house in the middle of July. I personally do not enjoy computer coding, and thanks to the wonders of Google, and other people out there who do like to code, we can just use a little copy and pasting to modify the code to incorporate other characteristics which recording macros will not pick up on.



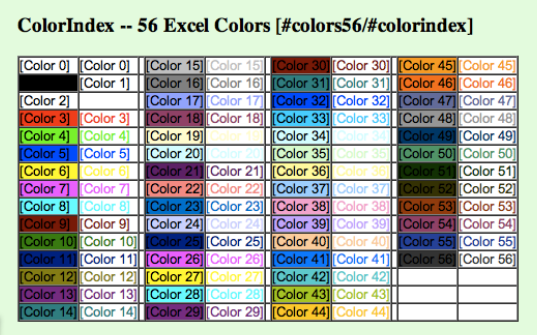
```
Sub AlignRight()
'
' AlignRight Macro
' Bold Comic Sans Font, size 14, aligned to the right, with a border outline
'

'
    With Selection.Font
        .Name = "Comic Sans MS"
        .Size = 12
        .StrikeThrough = False
        .Superscript = False
        .Subscript = False
        .OutlineFont = False
        .Shadow = False
        .Underline = xlUnderlineStyleNone
    End With
    Selection.Font.Bold = True
    With Selection.Font
        .Name = "Comic Sans MS"
        .Size = 14
        .StrikeThrough = False
        .Superscript = False
        .Subscript = False
        .OutlineFont = False
```

Changing the Font and Fill Colors:

To find the code required to I Googled: “Visual Basic code for changing font color.” Many things came up, and with little effort, I found the following code for changing the font color for a selected cell:

Selection.Font.ColorIndex = Color Value

This person also instructed I should determine which value to put on the right side of the equal sign based off the following color pallet:



ColorIndex -- 56 Excel Colors [#colors56/#colorindex]

[Color 0]	[Color 0]	[Color 15]	[Color 15]	[Color 30]	[Color 30]	[Color 45]	[Color 45]
	[Color 1]	[Color 16]	[Color 16]	[Color 31]	[Color 31]	[Color 46]	[Color 46]
[Color 2]		[Color 17]	[Color 17]	[Color 32]	[Color 32]	[Color 47]	[Color 47]
[Color 3]	[Color 3]	[Color 18]	[Color 18]	[Color 33]	[Color 33]	[Color 48]	[Color 48]
[Color 4]	[Color 4]	[Color 19]	[Color 19]	[Color 34]	[Color 34]	[Color 49]	[Color 49]
[Color 5]	[Color 5]	[Color 20]	[Color 20]	[Color 35]	[Color 35]	[Color 50]	[Color 50]
[Color 6]	[Color 6]	[Color 21]	[Color 21]	[Color 36]	[Color 36]	[Color 51]	[Color 51]
[Color 7]	[Color 7]	[Color 22]	[Color 22]	[Color 37]	[Color 37]	[Color 52]	[Color 52]
[Color 8]	[Color 8]	[Color 23]	[Color 23]	[Color 38]	[Color 38]	[Color 53]	[Color 53]
[Color 9]	[Color 9]	[Color 24]	[Color 24]	[Color 39]	[Color 39]	[Color 54]	[Color 54]
[Color 10]	[Color 10]	[Color 25]	[Color 25]	[Color 40]	[Color 40]	[Color 55]	[Color 55]
[Color 11]	[Color 11]	[Color 26]	[Color 26]	[Color 41]	[Color 41]	[Color 56]	[Color 56]
[Color 12]	[Color 12]	[Color 27]	[Color 27]	[Color 42]	[Color 42]		
[Color 13]	[Color 13]	[Color 28]	[Color 28]	[Color 43]	[Color 43]		
[Color 14]	[Color 14]	[Color 29]	[Color 29]	[Color 44]	[Color 44]		

I’m a big Broncos fan, so I’m going to choose to use an orange font color, so color number 46 looks good to me. Therefore, I am going to add the line of code

Selection.Font.ColorIndex = 46

which will change the font to the orange color (number 46).

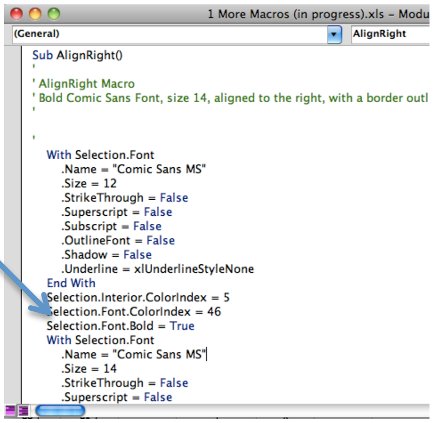
Now I really hit the jackpot with my Google search, as this individual also had instructed how to change the fill color (I expected to have to run a separate Google search: “Visual Basic code for changing fill color”). The code is similar:

Selection.Interior.ColorIndex = Color Value

Again, the value of the color is determined by the same color pallet. To stick with my Broncos theme, lest give it a blue background fill, so while I’m adding code, I’ll add:

Selection.Interior.ColorIndex = 5

Adding the code does take a very rough understanding of how programming works. The reason is, we need to find a reasonable break in tasks to insert our new instructions. My suggestion is find something that looks similar to what we're doing, and add it there. I see here is where it is where our macro is taking our selected cell and making it bold, so I have inserted our two new lines of code directly above it.

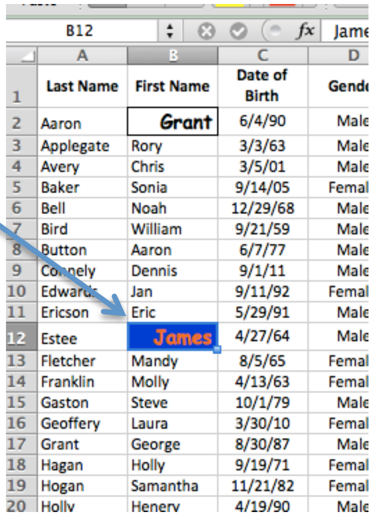


```
Sub AlignRight()
'
' AlignRight Macro
' Bold Comic Sans Font, size 14, aligned to the right, with a border outl
'


'
    With Selection.Font
        .Name = "Comic Sans MS"
        .Size = 12
        .StrikeThrough = False
        .Superscript = False
        .Subscript = False
        .OutlineFont = False
        .Shadow = False
        .Underline = xlUnderlineStyleNone
    End With
    Selection.Interior.ColorIndex = 5
    Selection.Font.ColorIndex = 46
    Selection.Font.Bold = True
    With Selection.Font
        .Name = "Comic Sans MS"
        .Size = 14
        .StrikeThrough = False
        .Superscript = False
```

Now for the moment of truth. As long as I have found someone who knows what they're doing, our macro should do everything it has done before, as well as fill it with a blue background, and the font should be orange (go Broncos!).

Note: If you are somewhat familiar with computer code, you may notice that this is a fairly inefficient program. That is because Excel it was created one step at a time, as we recorded our macro.

Before we can use our new macro I am going to save my new code and close the window, then I am going to save the worksheet. Perhaps James is another fellow Bronco fan, so I'm going to apply this new formatting by selecting his cell (B12) and running our AlignRight macro. Hurray! Our addition to the code has allowed this macro to also modify the fill color and font color.



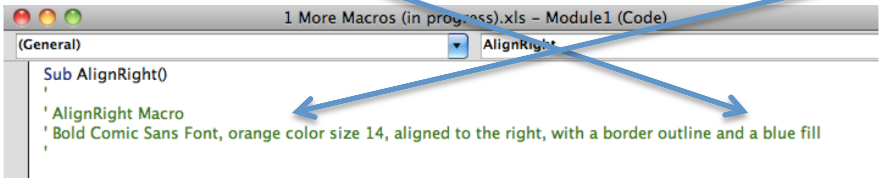
	A	B	C	D
1	Last Name	First Name	Date of Birth	Gend
2	Aaron	Grant	6/4/90	Male
3	Applegate	Rory	3/3/63	Male
4	Avery	Chris	3/5/01	Male
5	Baker	Sonia	9/14/05	Femal
6	Bell	Noah	12/29/68	Male
7	Bird	William	9/21/59	Male
8	Button	Aaron	6/7/77	Male
9	Connely	Dennis	9/1/11	Male
10	Edwards	Jan	9/11/92	Femal
11	Ericson	Eric	5/29/91	Male
12	Estee	James	4/27/64	Male
13	Fletcher	Mandy	8/5/65	Femal
14	Franklin	Molly	4/13/63	Femal
15	Gaston	Steve	10/1/79	Male
16	Geoffery	Laura	3/30/10	Femal
17	Grant	George	8/30/87	Male
18	Hagan	Holly	9/19/71	Femal
19	Hogan	Samantha	11/21/82	Femal
20	Holly	Henery	4/19/90	Male

Note: This process can be used for so many aspects of what can be done in Excel, other than just fill and font colors. However you would like to alter the code of your macro, all you need is Google!

Modifying the Description:

Now that we have modified what our macro does, perhaps we should adjust the description of what it does so we'll remember the next time we want to use it. To do this, we'll need to go back to the code to modify the description, however, this time we won't need Google.

You may have already noticed where the description is, because it shows up in green in our code. So we can just go to this portion of the code, and add in that it also changes the font color to orange, and fills the cell with a blue background.

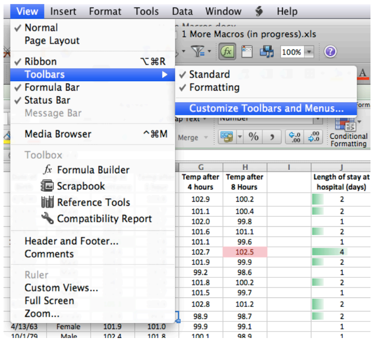


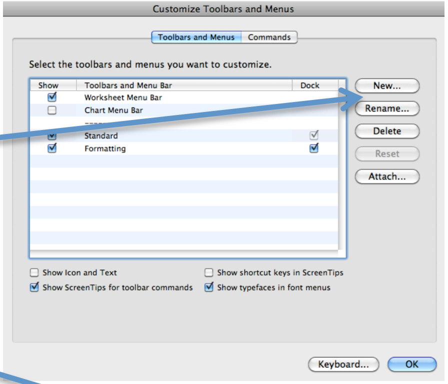
```
Sub AlignRight()
'
' AlignRight Macro
' Bold Comic Sans Font, orange color size 14, aligned to the right, with a border outline and a blue fill
'
```

Customizing the Toolbar:

I have already mentioned (last time) if you have macros that you do use frequently, you can save keyboard shortcuts for running them. The tricky part to that is remembering the shortcut. An alternative to that is customizing the toolbar to have a button you can press there which will run the macro.

To do this, go to *View* in the top menu, then to *Toolbars* and click *Customize Toolbars and Menus…*

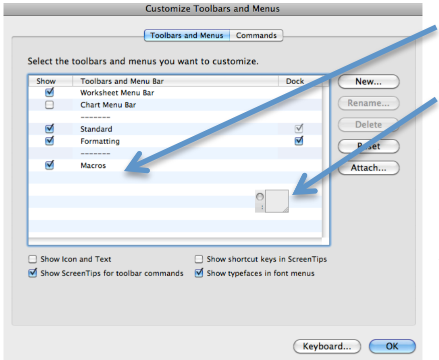




Show	Toolbars and Menu Bar	Dock
☑	Worksheet Menu Bar	
□	Chart Menu Bar	

☑	Standard	☑
☑	Formatting	☑

□ Show Icon and Text □ Show shortcut keys in ScreenTips
☑ Show ScreenTips for toolbar commands ☑ Show typefaces in font menus



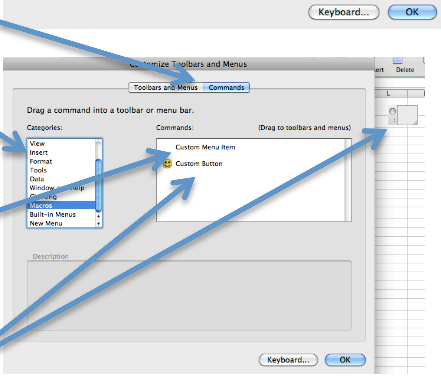
Show	Toolbars and Menu Bar	Dock
☑	Worksheet Menu Bar	
□	Chart Menu Bar	

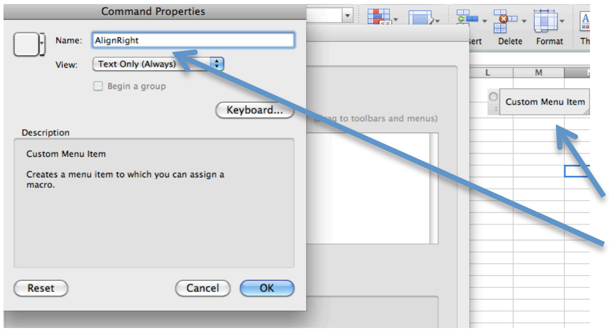
☑	Standard	☑
☑	Formatting	☑

☑	Macros	

□ Show Icon and Text □ Show shortcut keys in ScreenTips
☑ Show ScreenTips for toolbar commands ☑ Show typefaces in font menus

This will open a menu which will allow you to modify existing toolbars, or create your own new toolbar. To make a new toolbar for macros, click *New* and call the toolbar "Macros." Once you click Ok, you should notice your newly created Toolbar in the list. You should also notice this goofy little bar popped up somewhere, which is empty at the moment. We need to pick something to go in our new bar. The options are under the *Commands* tab. There are many categories to choose from, for various tasks you could include in our new tool bar (I suppose we could have called our toolbar 'Frequently used stuff' and put things other than macros in it). If you choose Macros there are two options, either a menu item (text) or a button which we can assign to a particular macro. I would suggest the menu item, because we can name this menu item the exact same as our macro name, which will be less confusing. Whichever option you choose, click and drag it from the commands box, to your empty toolbar (wherever it is). Now, you'll notice the current text is "Custom Menu Item" however, we may change that to whatever we want by double clicking the new button (again I encourage you to name this the same as your macro title you are going to tie it to).



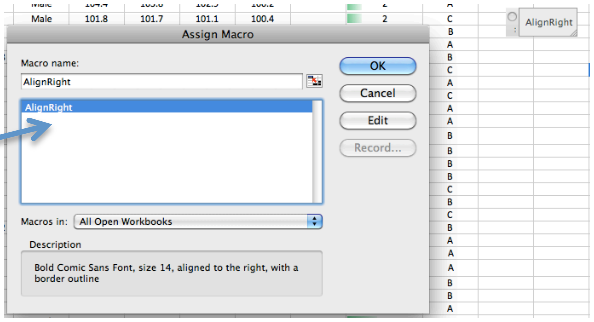


Name: AlignRight
View: Text Only (Always)

Custom Menu Item

Creates a menu item to which you can assign a macro.

Once we click Ok, the customize toolbar menu will go away, and we'll be back at our workbook. We need to click this new menu item (now called AlignRight – just like our macro) one more time so we can tell Excel which macro to tie this button to. It will pull up the list of any macros you have and we can click to select the macro we want, and then click Ok. Now, if we have a cell highlighted, we can just click this button, rather than going through the menu to find it as we had to before.



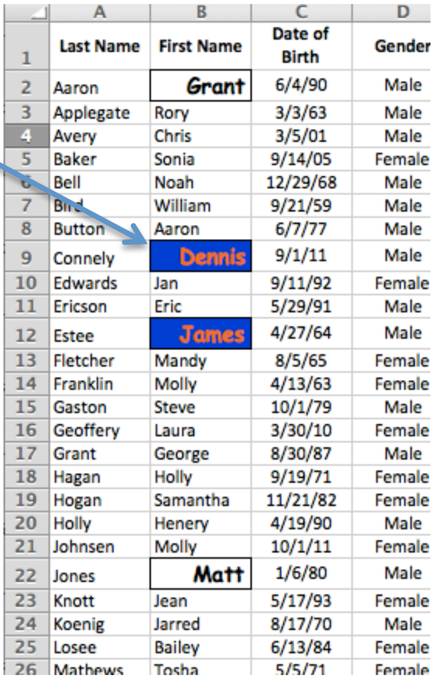
Macro name: AlignRight

AlignRight

Macros in: All Open Workbooks

Bold Comic Sans Font, size 14, aligned to the right, with a border outline

To test it out, lets make Dennis (cell B9) a Broncos fan by simply selecting his cell, and then clicking our new button.



	A	B	C	D
1	Last Name	First Name	Date of Birth	Gender
2	Aaron	Grant	6/4/90	Male
3	Applegate	Rory	3/3/63	Male
4	Avery	Chris	3/5/01	Male
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9	Connely	Dennis	9/1/11	Male
10	Edwards	Jan	9/11/92	Female
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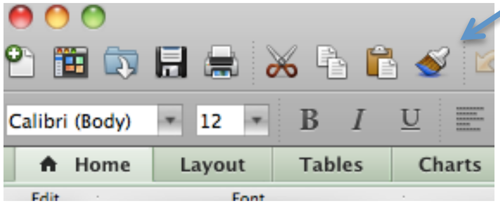
14	Franklin	Molly	4/13/63	Female
15	Gaston	Steve	10/1/79	Male
16	Geoffery	Laura	3/30/10	Female
17	Grant	George	8/30/87	Male
18	Hagan	Holly	9/19/71	Female
19	Hogan	Samantha	11/21/82	Female
20	Holly	Henery	4/19/90	Male
21	Johnsen	Molly	10/1/11	Female
22	Jones	Matt	1/6/80	Male
23	Knott	Jean	5/17/93	Female
24	Koenig	Jarred	8/17/70	Male
25	Losee	Bailey	6/13/84	Female
26	Mathews	Tosha	5/5/71	Female

Note: If you ever have a need for a quick formatting adjustment, there is a tool built into the toolbar (the formatting brush). It looks like a paintbrush with a little blue on the tip. If you would like to copy just the formatting of a cell, but do not wish to do a copy and special paste, this can save you a little time, as it will only copy the formatting and paste it onto a cell. So another way we could make Bronco fans, is to select one of the existing cells with the blue and orange formatting, click the brush, and then click the cell we wish to be formatted the same way.


Calibri (Body)
12
B
I
U
Home
Layout
Tables
Charts
Edit
Font