

Custom Excel Shortcuts

Making Excel More Efficient

MBA 614 – Cory Steffen

4/11/2012

Executive Summary

Background

Prior to attending the BYU MBA program I worked at a management consulting firm in Salt Lake City. Being able to work quickly in Excel is a vital skill for an Analyst in the consulting industry. The firm that I worked for developed a proprietary Excel productivity add-in that contained custom tools and shortcuts to enable their analysts to work more efficiently.

Problem Description

In May of this year I will be joining Intel's finance department and performing similar financial analyses and model building using Excel. Custom shortcuts can greatly reduce the time required to perform routine actions, such as cell formatting or cleaning messy data. Unfortunately as mentioned above, the Excel add-in I enjoyed at my previous firm is unavailable to me. This could result in me not being as effective as possible when building models and formatting financial spreadsheets at my new job.

Overview of Solution

Recalling some of my favorite custom shortcuts, I decided to make an attempt to rebuild their functionality from ground up. This will enable me to save time when working in Excel and maximize my job performance. To create a professional look and feel, I added my own custom menu to the Excel toolbar using the CommandBar object, as well as custom keyboard shortcuts for some macros.

The custom shortcuts contained in this add-in are as follows:

Shortcut Name	Key Stroke	Description
Reverse Text	Ctrl T	Switches color format of text & background
Trim	N/A (access via menu)	Removes spaces preceding and following the text
Format as Header	Ctrl Q	Centers and bolds text
Comma Style	Ctrl Shift M	Comma format no decimal
Currency Style	Ctrl Shift D	Dollar format no decimal
Center Across Bold	Ctrl J	Center across selection and bold
Toggle Gridlines	Ctrl Alt G	Toggle the gridlines
If Is Error	Ctrl E	Replaces errors with "" (blank)
Copy as Picture	Ctrl G	Copies selection as a picture
Save & Close	Ctrl Shift W	Saves and closes the workbook

To use this add-in download the "CustomShortcuts.xla" file and place it in the following directory:
C:\Users\YOURUSERNAME\AppData\Roaming\Microsoft\AddIns

The last step is to open the office menu, select Excel Options, click the Add-Ins item in the list of the left, make sure the Manage dropdown list at the bottom shows Excel Add-Ins, and then press the Go button. Finally this brings up the add-ins dialog box. Simply click the checkbox next to "Custom Shortcuts" and the add-in will be enabled.

Implementation Documentation

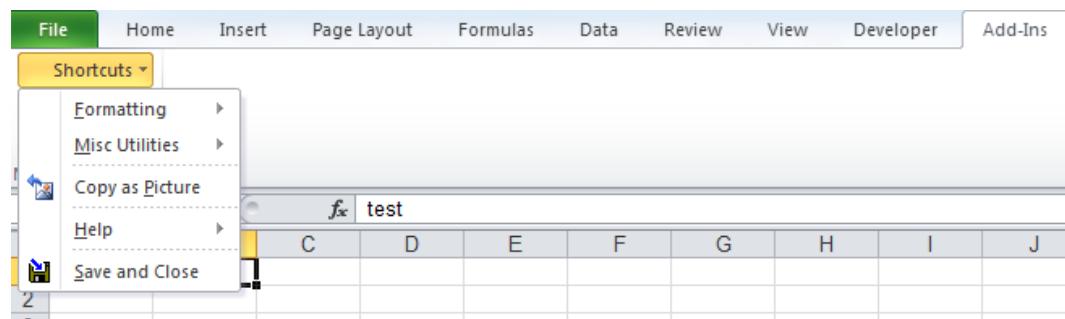
Custom Menus & Shortcuts

Using the CommandBar objects I created a custom menu to house my macros. This was a complex coding process and luckily I was able to find some starter code online which I heavily customized to fit my particular menu. The program runs in this order:

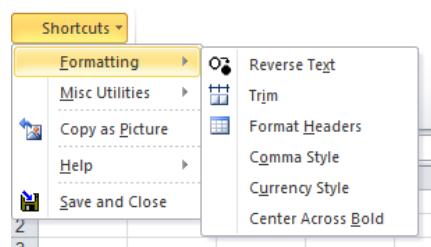
- The CreateMenu() sub executes when the workbook is opened
- A worksheet called MenuSheet contains the menu data
- DeleteMenu() is called to make sure menus aren't duplicated
- The program adds the menus, menu items and submenu items using data stored on the MenuSheet using multiple case statements

Custom shortcuts were created using the Application.OnKey commands in the "ThisWorkbook" VBA Excel object. The hotkeys are assigned when the workbook is opened.

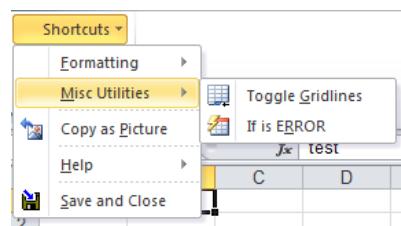
Menu Screenshot #1



Menu Screenshot #2



Menu Screenshot #3



Menu Screenshot #4 (worksheet housing the menu data)

A	B	C	D	E
Level	Caption	Position/Macro	Divider	FaceID
1	1 &Shortcuts	10		
2	2 &Formatting			
3	3 Reverse Te&xt	ReverseText.ReverseTextFormat	742	
5	3 Tr&im	Trimlt.Trimlt	2067	
6	3 Format &Headers	Header.Header	8	
7	3 C&omma Style	CommaStyle.CommaStyle		
8	3 C&urrency Style	CurrencyStyle.CurrencyStyle		
9	3 Center Across &Bold	CntrAcross.CntrAcross		
10	2 &Misc Utilities			
11	3 Toggle &Gridlines	ToggleGridlines.ToggleGridlines	852	
12	3 If is E&RROR	Error.IF_ISERROR	107	
13	2 Copy as &Picture	CopyAsPicture.CopyMetaFile	TRUE	1362
14	2 &Help		TRUE	
15	3 &Help Contents	Helpfile.Shortcut		983
16	2 &Save and Close	sve.sve	TRUE	271

Reverse Text (Ctrl T)

This macro switches the formatting of the text and the background. It is very useful for highlighting a key number in a table when you're trying to draw the audience's attention to that particular number.

To code this program I first input the CURRENT selection font color and interior color into variables. I switched those variables and made the selection font color equal to the previous interior color and vise versa.

Finally, I wrote an IF statement to **bold** the text if the font color was white and the un-bold the text otherwise.

	Sales Reps	Sales Dollars
East	3	\$ 200,000
West	5	\$ 400,000
South	1	\$ 500,000
North	2	\$ 50,000



Trim

Why, you might ask, did I code a Trim function when Excel already HAS a trim function? The answer is that trim in Excel also removes INTERNAL spaces. As a consultant I often worked with *very* messy databases that were riddled with extra spaces. However, often I needed to remove only the extra spaces preceding and following the actual text. Take for example, a name: “ John White ”. When cleaning the name field in the database I might want to preserve the internal space between first and last name but remove the extra spaces before and after. That is the beauty of this custom trim function.

Format as Header (Ctrl Q)

When building tables for presentations a custom shortcut to format headers can save lots of time. This shortcut will center and bold the text, as well as create a bottom border. In the screenshot below, the first header “Sales Reps” is unformatted, and the second header “Sales Dollars” has been formatted with the Ctrl Q shortcut. Pressing Ctrl Q again will then undo the formatting.

Sales Rep:	Sales Dollars		
East	3	\$	200,000
West	5	\$	400,000
South	1	\$	500,000
North	2	\$	50,000



Comma Style (Ctrl Shift M)

This shortcut simply formats a number in the comma style with no decimals. Using an IF statement, it will format the selection as “General” if the current format is the comma style, ELSE it will format the number in the comma style. An error handler is included (On Error GoTo) which will simply format the selection as “General” if called.

Currency Style (Ctrl Shift D)

Another relatively simple shortcut that will format the selection with a dollar sign and no decimals. As with the comma style shortcut, it will revert the selection to “General” if pressed again.

Center Across Bold (Ctrl J)

Most Excel users will merge cells when they need to center a header across a selection of cells. This can cause a variety of problems when building financial models and should be avoided whenever possible. A better solution is to center the text across the selection using horizontal alignment, but it is awkward to access this using traditional Excel menus.

This macro uses an IF statement to set horizontal alignment to general if the selection is already centered across a selection, else it will center it across the selection and set font style to bold.

Toggle Gridlines (Ctrl Alt G)

The default Excel shortcut to toggle gridlines is Alt W VG. This custom shortcut requires just one combined keystroke instead of three steps.

If Is Error (Ctrl E)

For each cell in the selection, this macro will read the cell formula into a String variable. If there is no formula it will display a message box indicating as such. Otherwise it will use parse the formula and utilize ISERROR to replace #REF and other error messages with blanks. For example the following error created by attempting to divide by 0 will be replaced with "" (blank cell).

#DIV/0!	->	=IF(ISERROR(5/0), "", (5/0))
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Copy as Picture (Ctrl G)

When creating presentations it is often desirable to paste Excel tables as pictures. This shortcut makes the process easier by copying the selection as a picture and making it ready to paste with the normal Ctrl V command. It was quite easy to code and makes use of the “Format:=xlPicture” property.

Save & Close (Ctrl Shift W)

Finally, how many times is Excel going to ask me if I want to save my workbook before I close it??? Of course I want to save and close! So this shortcut will do just that: save and close.

Discussion of Learning & Difficulties

Learning how to utilize CommandBar functionality and actually create the custom menu was a challenge. It took lots of trial and error to understand how to feed the menu data through a number of case statements and loops to create the custom add-in menu. Another difficulty was choosing appropriate custom shortcut keystrokes to ensure they did not conflict with default Excel keystrokes.

Error handlers were very useful in dealing with unanticipated errors in my programs. For example, if the Currency Style macro encounters an error when dealing with a cell that it can't parse correctly, it simply sets the number format to "General." The inclusion of error handlers ensures a streamlined experience for the users of these shortcuts.

Assistance on the Project

I received no assistance from class members, the TA or the professor on this project. I did utilize web resources and built upon existing code in some cases. However even the existing code had to be substantially modified to fit into my program.