

 Office Doc



MS-OFFICE 2016 - EXCEL

English version

Customize - Automate

© **Office Doc**

CPlace Longemale 2B – CH-1262 Eysins - www.office-doc.ch

Terms and conditions of sale or use : the purchased files can be freely printed with no restriction in terms of quantity and time but only for the company's internal use. The files can also be installed on the company's Intranet. Buying does not allow to distribute - even free - or sell to third parties. Only internal use is permitted. You may use touchup tools to slightly modify the PDF files (adding a logo for instance) but only if such changes do not significantly alter the source text and do not lead to removing the name of the company and the author.

Modifying the source .docx files is permitted. You may reorganize the chapters order, add or remove contents, insert screen captures specific to your company's environment. Nevertheless, such changes must not lead to removing the name of the company and the author or significantly alter the source text.

Table of contents

TEMPLATES3

1	Default location for documents, picture files	5
1.1	Standard workbooks.....	5
1.2	Picture files	5
2	Templates.....	5
2.1	A standard « .xlsx » workbook used as a « template »	5
2.2	The .xltx - .xltm files.....	6
2.3	Default templates.....	7
2.3.1	<i>Storage path for the default and Office.com templates</i>	<i>8</i>
2.4	User custom templates.....	8
2.4.1	<i>Creating the template</i>	<i>9</i>
2.4.2	<i>Creating a new workbook based on a template</i>	<i>9</i>
2.4.3	<i>I want to set my own folder</i>	<i>9</i>
2.5	« Corporate » templates (your company's templates)	10
3	The other files related to customization	10
3.1	The workbook used when Excel is run.....	10
3.2	Creating a corporate theme (the company's theme)	11
3.2.1	<i>User assigned as responsible for corporate templates</i>	<i>11</i>
3.2.2	<i>The other users or « end-users »</i>	<i>11</i>
3.2.3	<i>Saving a custom theme</i>	<i>12</i>
3.2.4	<i>If you wish to add extra access to the colors/fonts scheme in order to modify them</i>	<i>12</i>
4	Customizing the QUICK ACCESS toolbar.....	13
4.1	Keyboard shortcuts.....	13
4.2	Buttons displayed only in a given workbook or template	14
4.3	Buttons running macros.....	14
5	Customizing the ribbon.....	15

CONTENT OF A TEMPLATE (IT IS OFTEN CALLED A « FORM »).....17

1	A Word or an Excel form ?.....	19
2	Content.....	19
2.1	Simple contents : empty formulas, comments, validation, protection and macros	19
2.2	Form controls.....	24
2.2.1	<i>The controls</i>	<i>25</i>
2.2.2	<i>Creating</i>	<i>26</i>
2.2.3	<i>Selecting</i>	<i>26</i>
2.2.4	<i>Managing</i>	<i>26</i>
2.2.5	<i>Specific to lists and spinner : defining the list entries and the spinner start number</i>	<i>26</i>
2.2.6	<i>Linking controls (dialog box CONTROL FORMAT).....</i>	<i>27</i>
2.2.7	<i>What can be done to help retrieving the returned values.....</i>	<i>29</i>
2.2.8	<i>Retrieving the returned values.....</i>	<i>29</i>
2.2.9	<i>Printing the controls</i>	<i>30</i>
3	Hiding a worksheet or a workbook.....	30

AUTOMATE (MACRO-INSTRUCTIONS).....31

1	Introduction to macro instructions	33
1.1	Viewing the DEVELOPER Tab.....	33
1.2	Recording a simple macro.....	33
1.3	Saving the file containing the macro	34
1.4	Storing macros into the Personal Macro Workbook.....	34
1.5	Managing macros : run, delete etc.....	35
1.6	Custom button for a macro	36
1.7	Creating a new workbook : will the macros be copied ?	36
1.8	Macro security	36

SECURITY AND PROTECTION37

1	Unsaved files	39
2	Background security saving.....	39
3	Security settings.....	40
3.1	PROTECTED VIEW for files opened from Outlook or Notes or from the Internet	40
3.2	Anti-virus protection for files containing active code (macros, ActiveX ...)	41
4	Protection.....	43
4.1	Protecting the access to a workbook.....	43
4.2	The Mark as Final command.....	43
4.3	Internal protection : worksheets, workbook.....	44
4.3.1	<i>Assigning the proper status when you need to protect or free just a few cells</i>	<i>44</i>
4.3.2	<i>Protecting the worksheet but giving access to specific functionalities</i>	<i>45</i>
4.4	Protection that Microsoft associate to sharing and reviewing	46
4.4.1	<i>Protecting the workbook</i>	<i>46</i>
4.4.2	<i>Setting ranges of cells that can be left free when the worksheet is in active protection.....</i>	<i>47</i>

TEMPLATES

1 Default location for documents, picture files ...

1.1 Standard workbooks

- FILE - OPTIONS – SAVE Category – SAVE WORKBOOKS Topic - DEFAULT FILE LOCATION Option

Save to Computer by default

Default local file location:	C:\Users\Jael\Documents
Default personal templates location:	C:\Users\Jael\Documents\Custom Office Templates\

When you install Office, the default folder for opening or saving Excel workbooks will be the DOCUMENTS folder (sub-folder in your user profile, created when installing Windows). You can select any other folder.

 What you set in Excel has no influence in Word or PowerPoint.

1.2 Picture files

Contrary to Word, there is not default folder you can set for picture files. When you insert a picture, Excel opens the last used folder.

2 Templates

2.1 A standard « .xlsx » workbook used as a « template »

A standard workbook can word as a *template*. You will retrieve the content : a table with no data, "empty" formulas returning a 0 value for the moment, any format, the page layout etc ...

This is particularly appropriate for *custom templates or shared by a team (usually a small team)*.

Save as a template

Save the workbook as usual but it may be advisable to give a name that explicitly points to using it as a template.

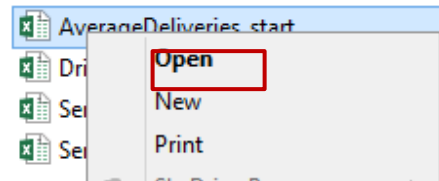
Advice : add to it a *read-only* attribute. This will prevent accidental overwriting.

Create a new workbook using the template

Up to the 2010 release, Excel but also Word, PowerPoint ... provided an option *New from existing* in the templates category of the FILE – NEW dialog box. For an unknown reason, Office 2013-2016 no longer does so.

Now you must go through the Windows Explorer :

Right click the workbook you want to use as a template



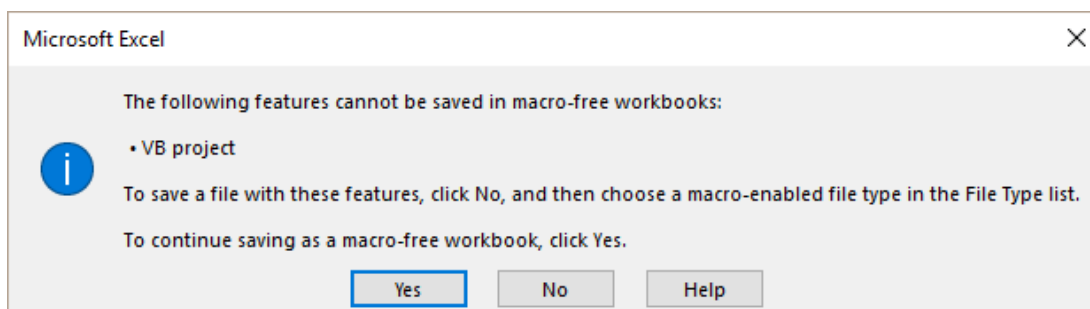
Advantages	<p>You work with standard workbooks. The destination folder is free.</p> <p><i>Note : contrary to Word, macros contained inside the source file (.xlm) will be copied into the new file.</i></p>
Weaknesses	<p>A simple OPEN will edit the source document. Dangerous.</p> <p>You can add a <i>password to modify</i> to the source file. When someone tries to open it, a dialog box will prompt the user for the password. This will provide direct access for a password holder and only a read-only access for the others. When you will create a new workbook based onto this protected file, no password will be asked. A good solution.</p>

2.2 The .xltx - .xltm files

.xltx	Excel template with no macro
.xltm	Excel template with macros / (ActiveX not affected)


Caution : the presence of a macro FORCES you to save the file with the correct extension. It is not a question of personal choice.

If you try to force saving the file with the .xltx extension instead of the .xltm one, the following dialog box will warn about the consequences :



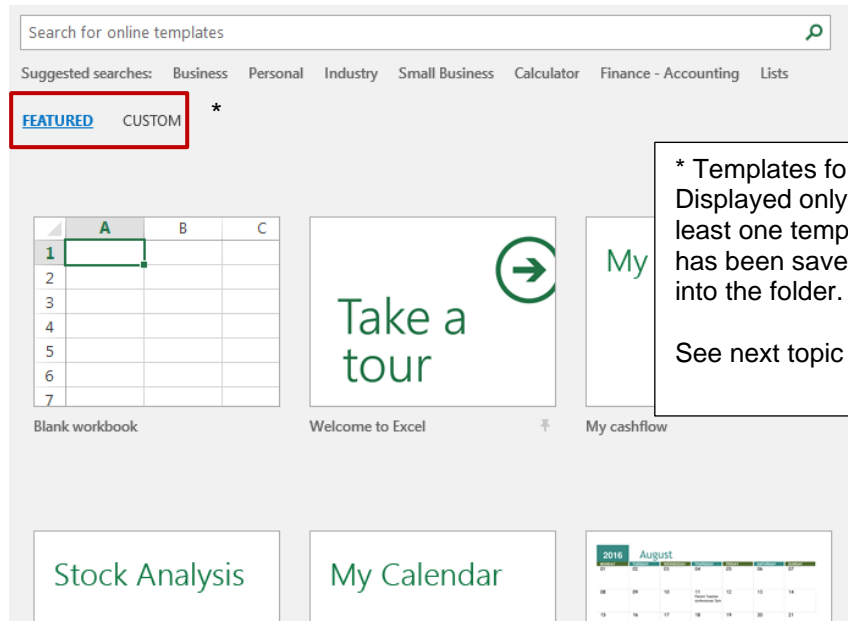
NO : back to the workbook – now save again using the correct extension

YES : the workbook remains a normal template with no macro. Until you close the file, the macros are still visible. When you open the file again, you will see that all macros have been removed.

 The same warning box will be displayed if you try to save a standard workbook containing macros by using the .xlsx extension instead of the .xlsm one. *See page 34.*

2.3 Default templates

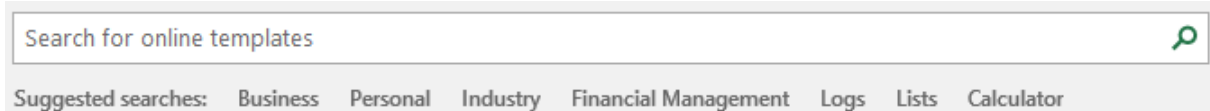
The Microsoft templates – suggested or recently downloaded from their website – will be displayed when you run the program or select FILE - NEW



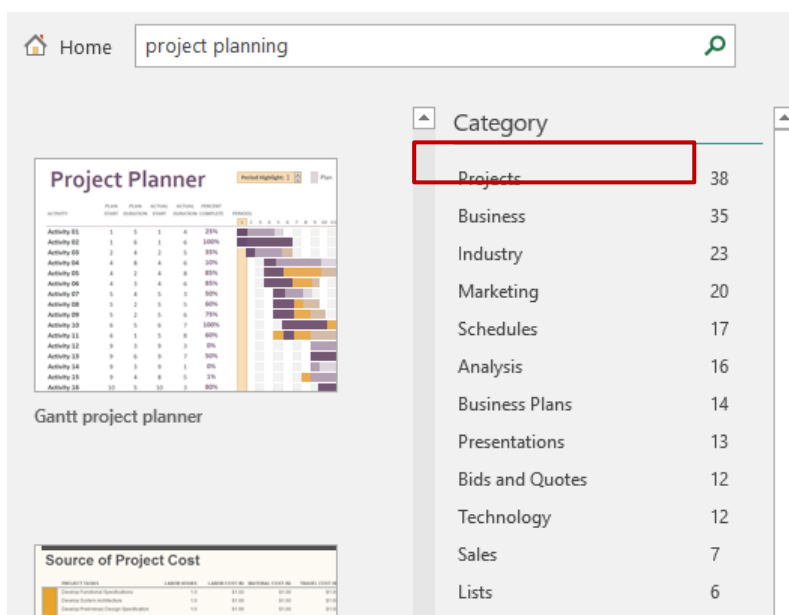
The first two templates are always displayed

The other templates correspond to online templates (Office.com). The list displays a list of default suggestions but it will progressively show the templates you have used or searched online.

Online search :



Office.com can provide thousands of templates.



The templates that the search returns are divided in smaller categories ... *Caution, the result is not limited to Excel*

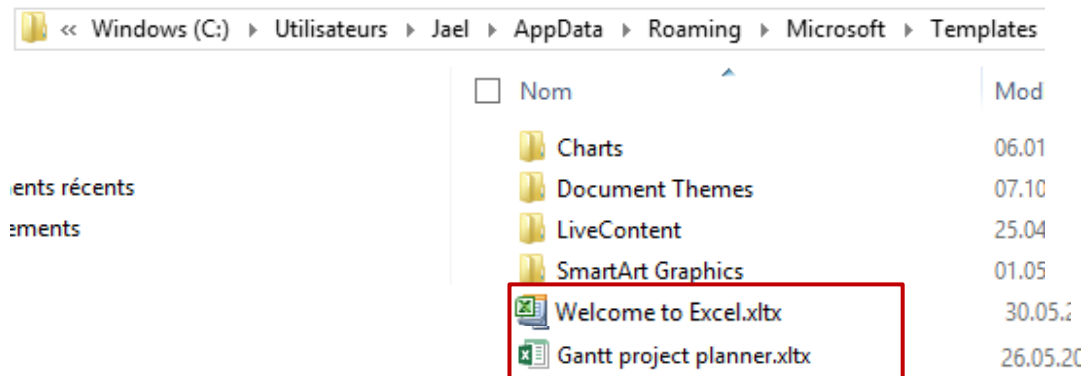
Example : the *Projects* 38 templates include only 5 Excel templates and the others are listed at the bottom of the pane

Search results from your other Office applications

- > PowerPoint: 13
- > Project: 14
- > Word: 6
- > Access: 1

2.3.1 Storage path for the default and Office.com templates

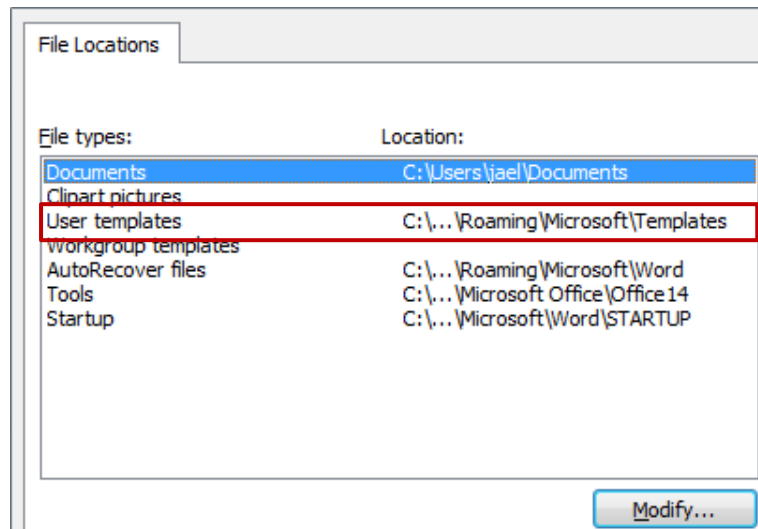
Some templates are part of the Office 2013 installation (in red)
The other are stored onto the hard disk when you download them (in blue)



Note : The AppData folder is a hidden folder. To display the hidden folders (and files) : ORGANIZE Button – FOLDER AND SEARCH OPTIONS Option – VIEW Tab.

This path can be checked – and modified **in Word. It is defined in Word but the path is applied by default to Office in general.**

- FILE – OPTIONS – ADVANCED Category – At the bottom of the list : GENERAL section - FILE LOCATIONS Button



2.4 User custom templates

True to say users seldom need to create their own templates. Most of the time they simply re-use existing standard files. They use .xltx ou .xltm templates – sometimes not even knowing it – when using the company (corporate) templates.

Here after some guides to create and use custom templates

2.4.1 Creating the template

Save your file – the folder you will first select is totally indifferent (Documents will do fine for instance). *But most important : specify the template extension (.xltx .xltxm).* Then the following folder will be automatically selected **and created** :

Windows (C:) > Users > Jael > My Documents > Custom Office Templates

You can create as many subfolders as required to “sort out” your templates.

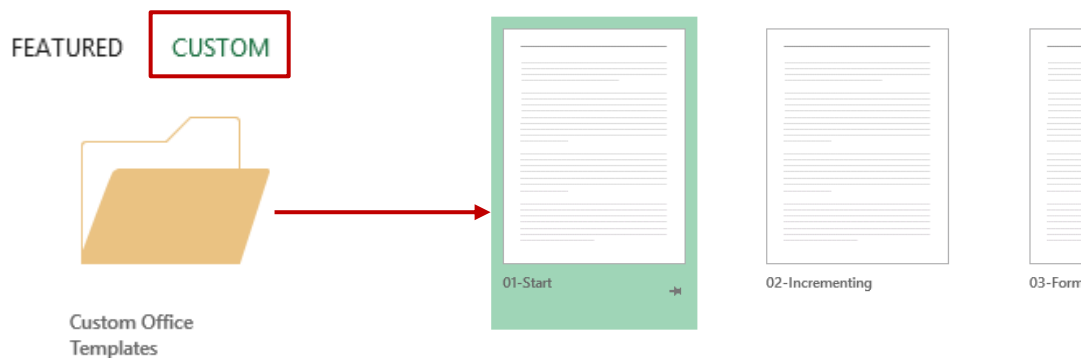
✎ True to say : once the folder has been created, you can even save standard files into this folder (.xlsx .xlsm) and it will work the same

2.4.2 Creating a new workbook based on a template

- Excel will display the folder when run or with a File – New, provided the template folder contains one file minimum :

FEATURED corresponds to the usual Office templates

CUSTOM corresponds to the files saved into the Custom Office Templates folder



Select the required template

A new unsaved workbook is created with the content and the settings of the template.

2.4.3 I want to set my own folder

- FILE – OPTIONS – SAVE Category

Default local file location: C:\Users\Jael\Documents
Default personal templates location: C:\Users\Jael\Documents\Custom Office Templates\

Give the path. *A new path will only affect the current program.* But if the Custom Office Templates folder has been created at least for one Office program, it will still be displayed and its content will be available.

2.5 « Corporate » templates (your company's templates)

It is the path set **in Word** : FILE – OPTIONS – ADVANCED Category – At the bottom of the list : GENERAL section – FILE LOCATIONS Button - WORKGROUP TEMPLATES Row

Usually the path refers to a *network protected folder*. Only authorized people can access to edit and modify the templates.

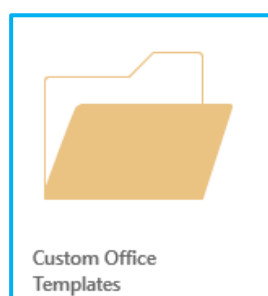
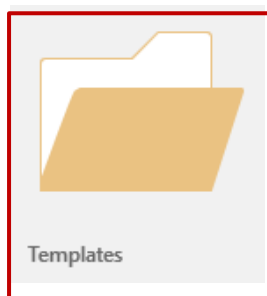
But although the folder is protected, every user can create a new workbook based on one of its templates (the protection is only for editing commands)

How to access those templates

When you run Excel or with a FILE – NEW

The folder will be displayed if you click on the CUSTOM option (next to Custom Office Templates or any other folder defined as custom).

FEATURED CUSTOM



In red : the corporate folder (that the company named TEMPLATES)

In blue: the default custom folder (left to the default one)

3 The other files related to customization

3.1 The workbook used when Excel is run

There one Excel folder – named XLSTART – you can use to run any file (whatever the extension – no need for a template) you want to be opened at startup. Simply place it in this folder at the following address :

Windows (C:) ▶ Utilisateurs ▶ Jael ▶ AppData ▶ Roaming ▶ Microsoft ▶ Excel ▶

If you don't like this folder – true to say its address is horrific ! – you can set one of your choice in the Excel options : FILE - OPTIONS – ADVANCED Category – GENERAL Section – AT STARTUP, OPEN ALL FILES IN Option.

But let us be honest ... no one puts any file in such folders ...Because it is much to heavy.

How to change the startup workbook ? Well, it is no really more user-friendly !

- Create an empty workbook – into which you apply the required new settings such as the company's theme, special number formats, macros etc ...
- Name it **Book.xltn** and place it in the Excel XLSTART folder or its personal one **but you also will have to turn off the following option :**

FILE - OPTIONS – GENERAL Category – START UP OPTIONS Section – SHOW THE START SCREEN WHEN THIS APPLICATION STARTS Option.

Otherwise, this workbook will not replace Excel default settings And caution, this procedure has implications. Yes Excel will automatically create new workbooks with the required settings but will no longer display the startup pane (with search options for online templates, access to custom templates, recent docs ...). These options will have to be accessed through FILE – NEW / OPEN.

3.2 Creating a corporate theme (the company's theme)

3.2.1 User assigned as responsible for corporate templates

This person will create a *colors and fonts scheme*. An .xml file will be created for each scheme. The whole set (colors-fonts-effects) will be saved as a theme (a .thmx file). **All of this should be done from PowerPoint** because the theme will include many items from the Master.

All these files will be stored on the user's local hard drive. Then the theme will be applied to all the Office company's templates (Word, Excel, etc ...).

Finally, the theme will be either *installed* on each user's workstation or *sent* to each user with instructions on how to install the theme and make it available to any Office file.

3.2.2 The other users or « end-users »

The theme has been saved onto the local hard drive

It is displayed in the themes gallery and is available to any Office file.

No theme file on the hard drive

The theme is not displayed in the themes gallery and is not available to any Office file.

How to retrieve the theme ? If you receive a file from the outside but containing the theme, it will be present when you edit the file. If your company has a PowerPoint template, the theme has certainly been applied to it. *Indeed the theme is incorporated into the file – but this is invisible. To check it : create an item using an automatic sequence of colors – you will see that the theme colors have been applied automatically.*

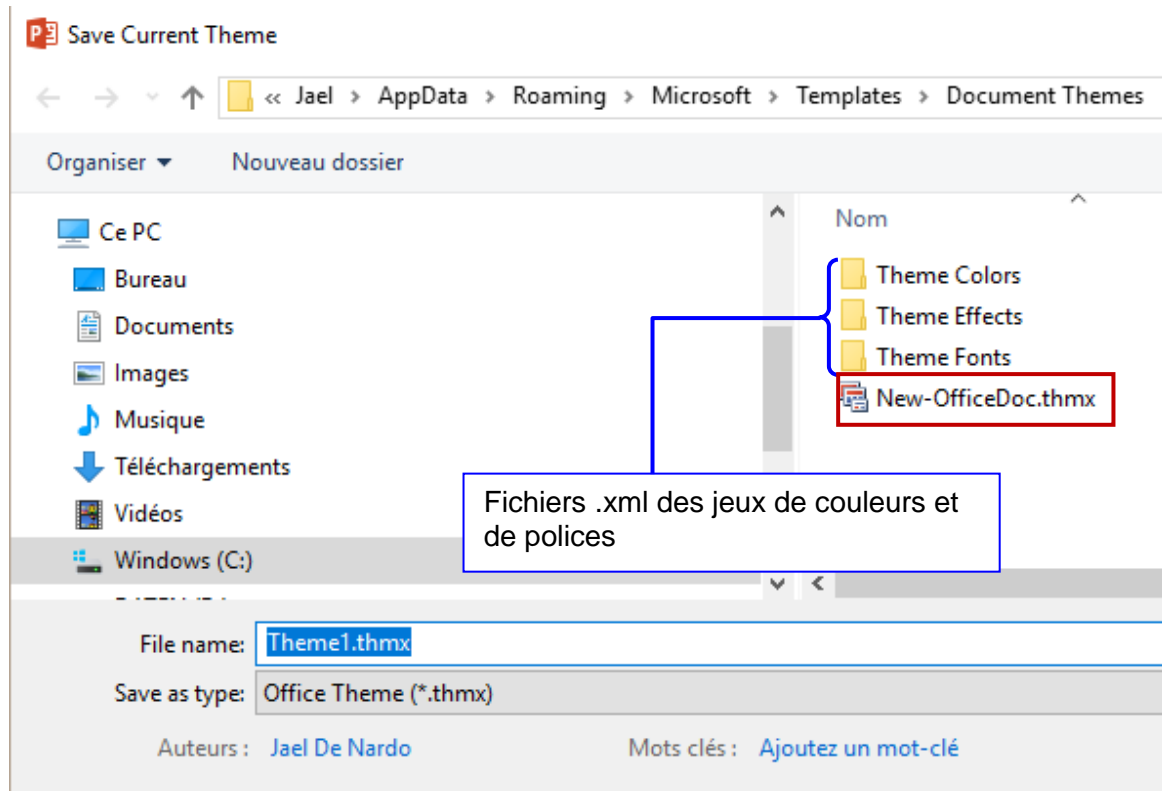
Open the file that contains the theme (preferably the PowerPoint one)

Save the current theme onto the hard disk (option at the bottom of the themes gallery). And if you also want to change something in the colors/fonts schemes, then click on the CREATE NEW THEME COLORS / FONTS ... option and save the files.

Explained here below :

3.2.3 Saving a custom theme

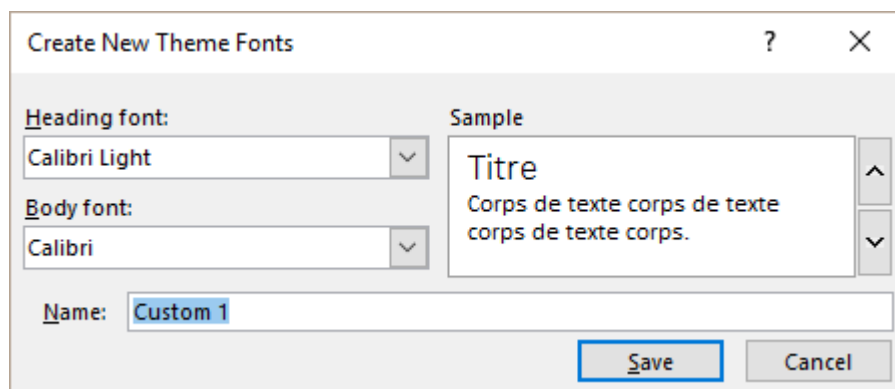
- Themes gallery : SAVE CURRENT THEME

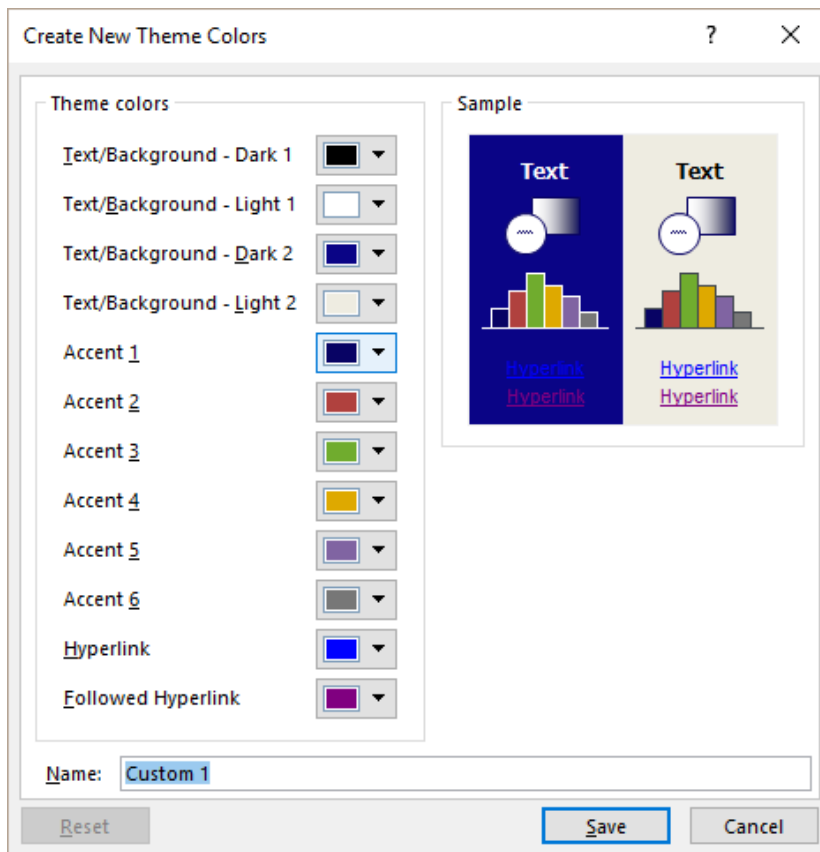


Note : The AppData folder is a hidden folder. To display the hidden folders (and files) : ORGANIZE Button – FOLDER AND SEARCH OPTIONS Option – VIEW Tab.

3.2.4 If you wish to add extra access to the colors/fonts scheme in order to modify them

- VARIANTS gallery
- At the bottom of the colors or fonts set galleries, click on the CUSTOMIZE COLORS / FONTS option
- Change as necessary and save **THE SCHEME**





Do not leave the name on the default *Custom 1*

The colors or fonts scheme is saved as an .xml file and stored in one subfolders or the main THEMES folder (see previous screen capture)

It is not possible to save the effects scheme (although the corresponding subfolder does exist)

4 Customizing the QUICK ACCESS toolbar

You certainly master the first "level" of this customization : adding buttons to the bar, placing the bar above or below the ribbon. *Reminder on how to add a button to the toolbar : right click any button or command and click on ADD TO QUICK ACCESS TOOLBAR.*

Customizing can go far deeper :

- Special buttons for a given file
- Buttons running macros

FILE – OPTIONS – QUICK ACCESS TOOLBAR *or*
Right click a button – CUSTOMIZE QUICK ACCESS TOOLBAR

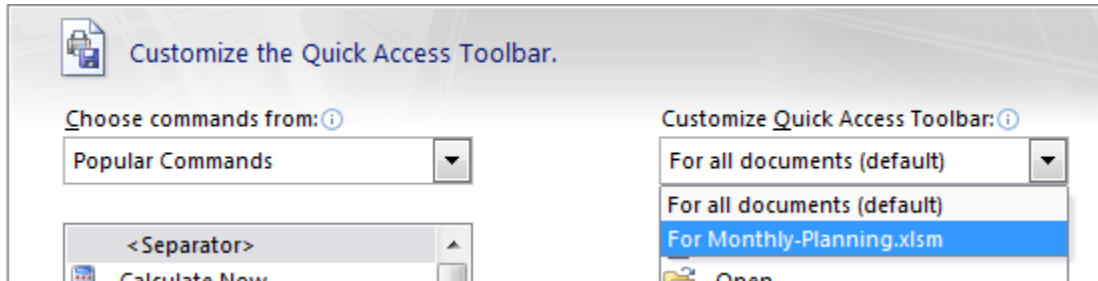
4.1 Keyboard shortcuts

Contrary to Word, no CUSTOMIZE button for modifying an Excel keyboard shortcut.

4.2 Buttons displayed only in a given workbook or template

It is possible to set buttons for commands, macros ... **that will be displayed only in the workbook/template itself or in any new workbook created on this workbook/template.**

Simply specify so in the customize dialog box :

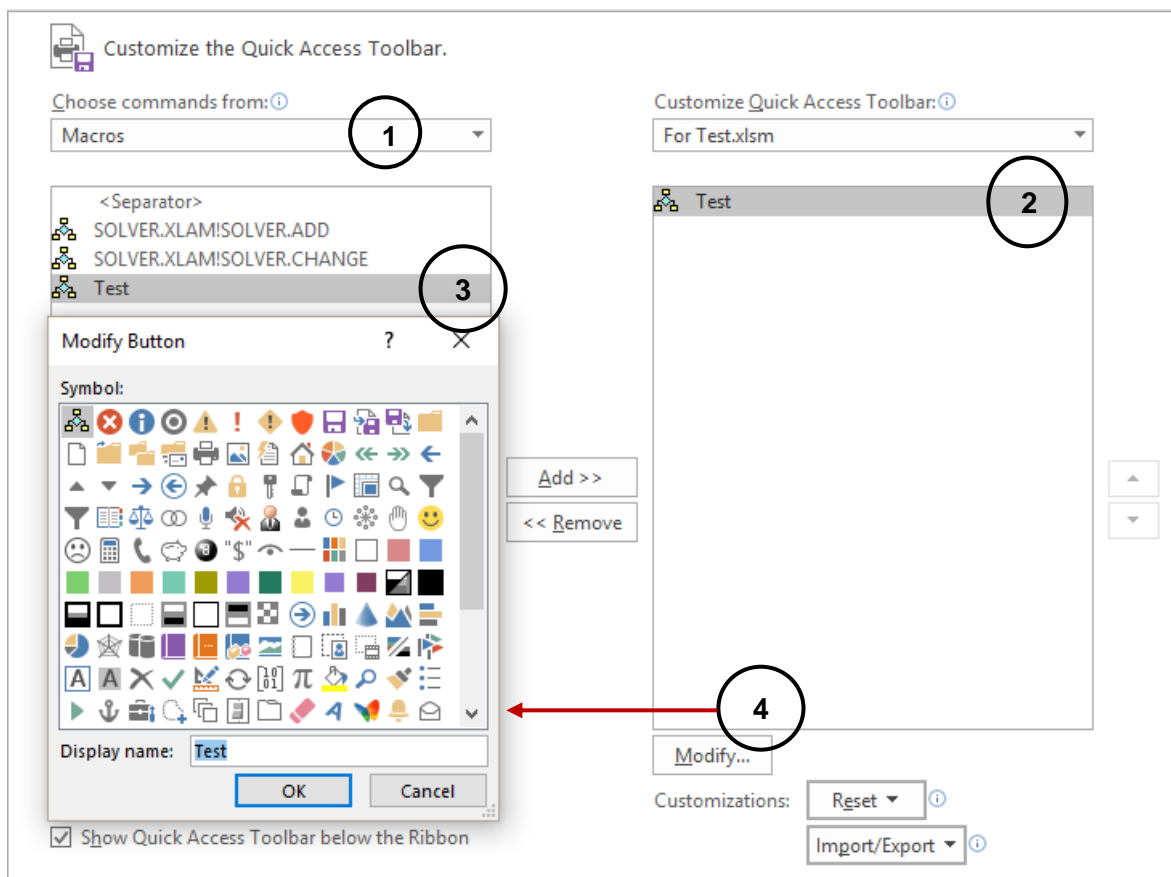


Once you have indicated the required file (workbook or template), the commands that you add will be added to THIS file only and will be displayed at the right end of the Quick Access toolbar.

4.3 Buttons running macros

It is not possible to modify the buttons assigned to Excel preset commands. But you may assign custom buttons to macros

Do as follows :



- ❶ Choose the *macros* category in the drop-down list
- ❷ Select the required workbook or template
- ❸ Select the macro and click on the ADD button
- ❹ Select the macro shortcut and click on the MODIFY button (has now become available) : select the button

Symbol Choose the button from the displayed gallery but please not that you cannot edit and modify its "look" or create a custom button.

Display name You can modify the button label

- ☛ Make sure to assign the macro button to a specific workbook/template. Or the button will be systematically displayed on the toolbar, whatever the active file.

Note : when you add a macro button for a specific file, the quick access toolbar will display :

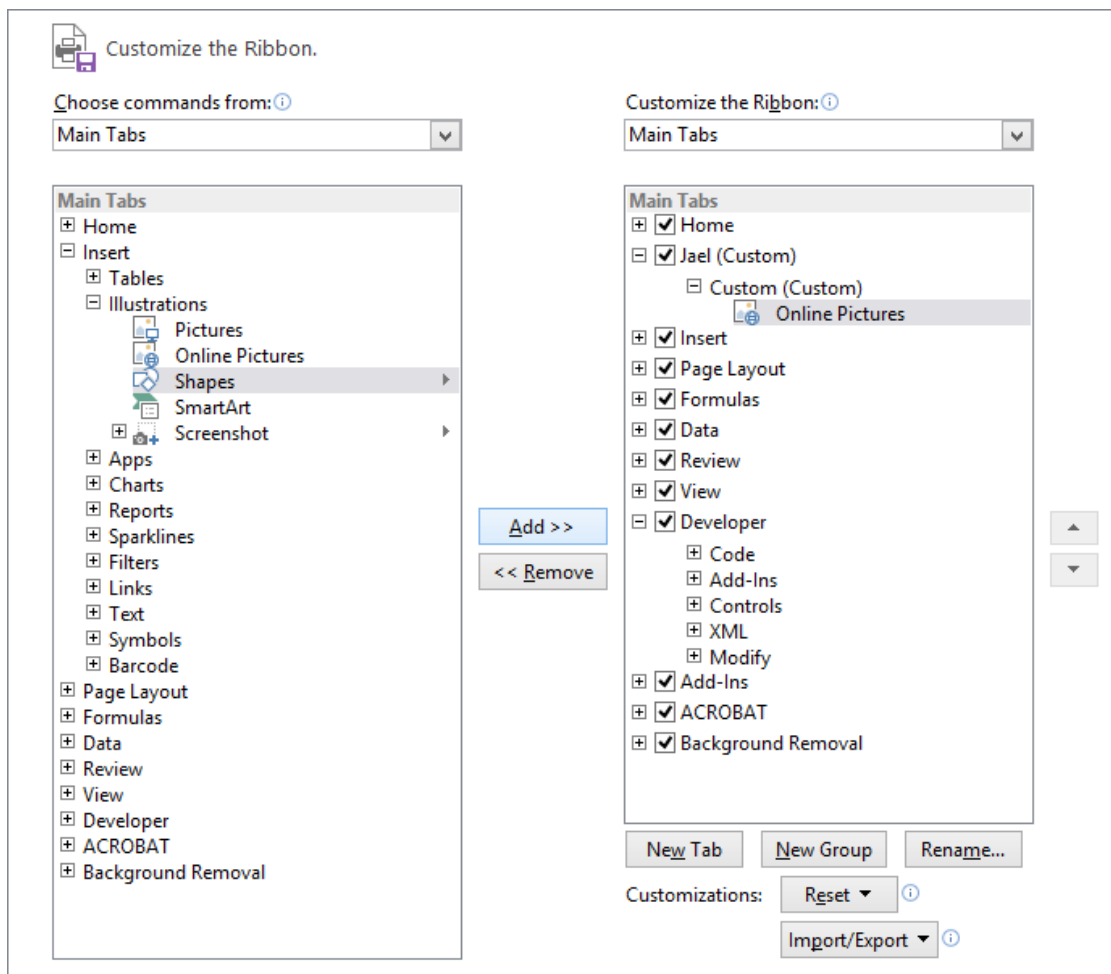
the usual buttons + the macro buttons

(although in the Customize dialog box, the right pane gets « empty »).

5 Customizing the ribbon

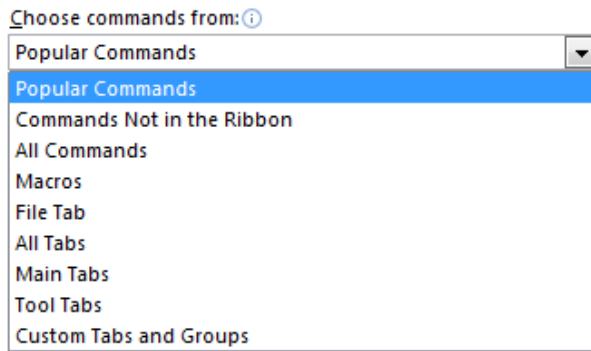
FILE – OPTIONS – CUSTOMIZE RIBBON

Right click any button – CUSTOMIZE THE RIBBON



Search for the command

The pull-down list offers various possibilities



Destination

The preset buttons cannot be renamed or deleted.

Create a new tab

Select the tab AFTER WHICH the new tab will be inserted.

Create a group

Select the group AFTER WHICH the new group will be inserted.

Delete

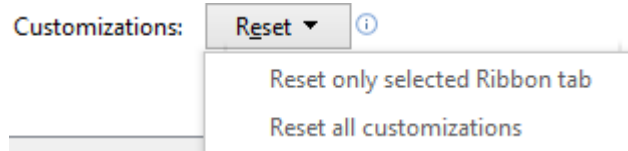
Select the item and click on the REMOVE button

Rename

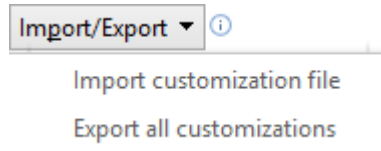
Select the item and click on the RENAME button

Reset

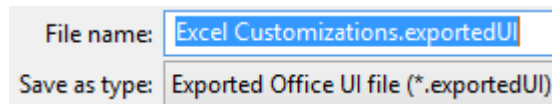
Two possibilities :



Export



Saving dialog box showing an unusual file extension :



Important : both the RIBBON **and** the QUICK ACCESS TOOLBAR are saved

Destination : up to your choice (hard disk, USB key ...)

Import

IMPORT CUSTOMIZATION FILE.

You are prompted to confirm

Customization replaces both the Ribbon and the Quick Access Toolbar

CONTENT OF A TEMPLATE
(It is often called a « form »)

1 A Word or an Excel form ?

Word is really the program to choose if your form includes a rather complex setup : a lot of text with various text or paragraph formatting, pictures, incorporated objects and so on. **The form controls are limited (only text box, checkbox and combo box)**. Caution, as soon as calculating is required, problems will start

Excel forms offer a much wider choice of controls. Moreover, the power of Excel in terms of calculations, functions ... can be used if you link the controls to specific linked cells. But caution : if you wish to use this linked cells to return data and fill in a database ... **then you will quickly need more powerful tools, i.e. VBA ...**

2 Content

A form can contain :

- Pre-set formulas/functions
- Comments
- Help on input entry through data validation
- Cell protection
- Sheet protection (setting commands that should be left free)
- Simple macros
(with buttons calling these macros)

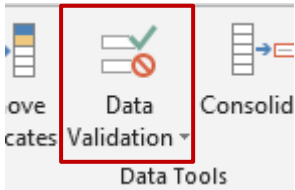
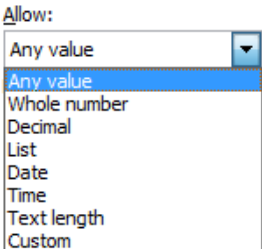
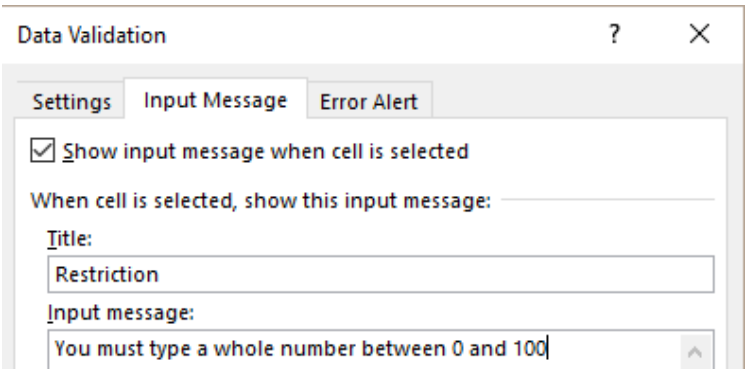
- Form controls

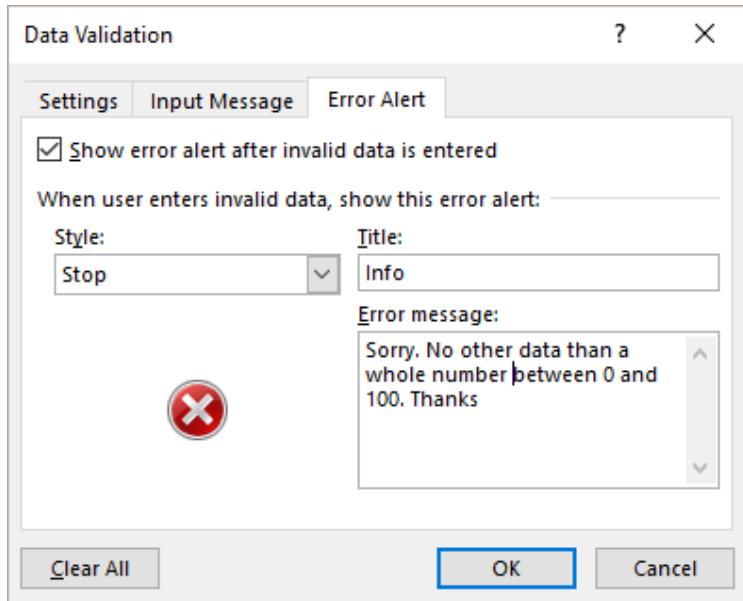
2.1 Simple contents : empty formulas, comments, validation, protection and macros

Formulas working on empty cells	Simply create the formulas/functions. They will return 0
Hide the zero values produced for the formulas	<i>For the active worksheet only :</i> FILE – OPTIONS – ADVANCED Category – DISPLAY OPTIONS FOR THIS WORKSHEET Topic – SHOW A ZERO IN CELLS THAT HAVE A ZERO VALUE Option

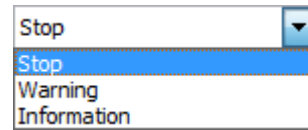
Comments	To provide useful information to the user
Insert a comment	Right click the cell and INSERT COMMENT
View/Hide ALL comments	REVIEW Tab – COMMENTS Group – SHOW ALL COMMENTS Option (switch)

View/Hide THIS comment	REVIEW Tab – COMMENTS Group – SHOW/HIDE COMMENT Button (or right click and same option)
Print comments	PAGE LAYOUT Tab – Dialog box launcher – SHEET Tab – COMMENTS Option (<i>None</i> by default – <i>At end of sheet</i> and the most common one : <i>As displayed on sheet</i>)

Validation	Help to fill in a form through input restrictions
<p>Set the required restrictions DATA Tab – DATA TOOLS Group – Drop-down list of the following button</p> 	<p>OPTIONS Option Here after the possible restrictions :</p>  <p><u>An interesting choice : List</u> It is possible to create a list of entries to avoid typing. Choose the LIST option from the drop-down list and indicate below the corresponding range of cells. (the data must be on the same sheet if you wish to select cells directly (=$\\$K\\$2:\\$K\\27 for ex.) but you may indicate an external sheet provided the corresponding range of cells has been named (=<i>depts</i>. for ex)). You may also type the list items manually (with the list separator). Drawback : you need to type manually. Advantage : there is not "external" list.</p> <p><u>Another interesting choice : Decimal</u> Choose <i>Decimal</i> from the drop-down list and set that the number of decimals must be <i>comprised between 0 and 2</i> if you wish to limit the data entering to numbers with no or maximum 2 decimals.</p>
<p>Input Message</p>	<p>The information message will be displayed when you click on the cell.</p>  <p>If the user tries to enter invalid data, a <i>stop, warning or information message</i> will appear</p>

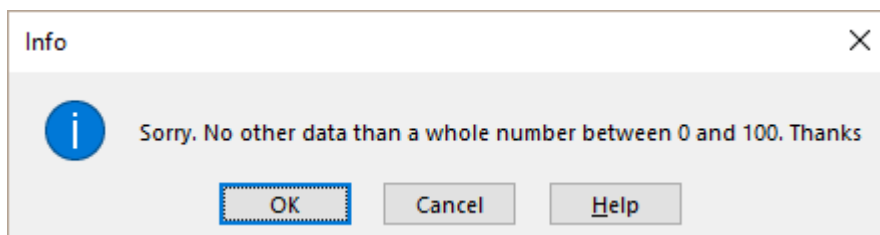


Other possibilities .

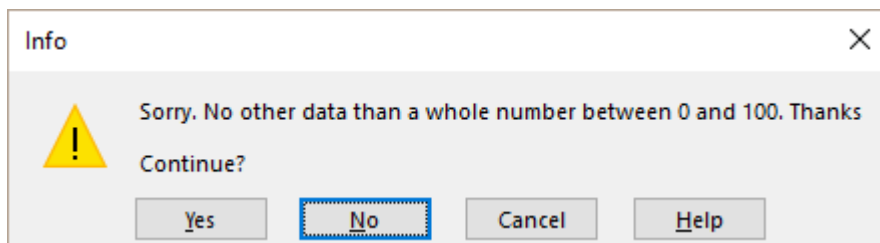


Examples :

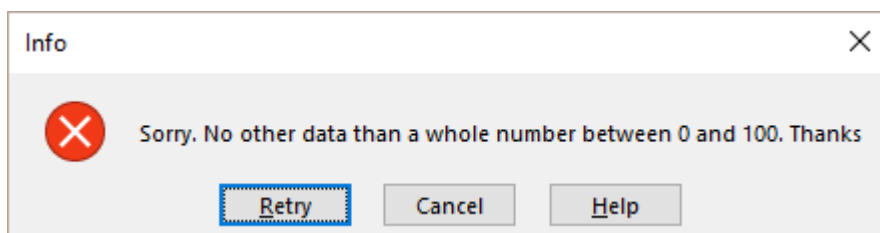
Stop



Warning




Information



If the message is not a stop message, the user can ignore the information or the alert, and type what he wants. If the error generates a stop message, the user is prompted to "retry" until the entry matches the set restrictions, but this is not a 100% security. Indeed a simple COPY-PASTE can bypass this stop message.

Protection	To prevent any unwanted modification To prevent any command other than authorized ones
Through the cell status	Select the required cells HOME Tab – CELLS Group – Drop-down menu of the FORMAT Button – FORMAT CELLS Option – PROTECTION Tab Check on/off the LOCKED option <i>Then click on the PROTECT SHEET command (drop-down menu). With or without password.</i> <u>Weak points</u> No visual indication on which cells are locked and which are left free.
By protecting commands	HOME Tab – CELLS Group – Drop-down menu of the FORMAT Button – PROTECT SHEET Option Set which command to leave access-free. Caution : some commands require that the cells be set on <i>unlocked</i> . <i>Note : select locked/Select unlocked cells are on by default</i>



Command	Condition
Select locked / unlocked cells	By default, if you can select, you can also copy-paste into another workbook.
Format cells	None
Format columns / rows (autofit, hide ...)	None
Insert columns / rows	Inserting is possible with no special condition. But if you wish to type data into the new cells, it is necessary to check that the whole row or column located <u>top or left</u> has been unlocked through FORMAT – CELLS – PROTECTION Tab
Insert hyperlinks	The cell must have been unlocked through FORMAT – CELLS – PROTECTION Tab
Delete columns / rows	All cells must have been unlocked through FORMAT – CELLS – PROTECTION Tab
Sort	All <u>rows</u> and <u>columns</u> must have been unlocked through FORMAT – CELLS – PROTECTION Tab Or The range of cells must have been set as a free range through : REVIEW Tab – CHANGES Group – ALLOW USERS TO EDIT RANGES Button.  Caution : the cells content can now be freely modified

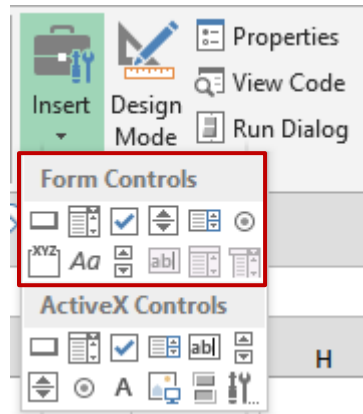
Use AutoFilter	The autofilter mode must be active
Use PivotTable reports	You must have created the pivot table. Then the user can use it
Edit objects	None
Edit scenarios	You may <i>modify</i> them. If the option is left unchecked you can simply <i>show</i> a given scenario.

Access to free cells by pressing the TAB key.

Through free ranges of cells	<p>Microsoft associate the part of protection to the concept of « Reviewing » and the commands are consequently located on the REVIEW Tab – CHANGES Group</p> <ul style="list-style-type: none"> • Select the required ranges (optional but more comfortable) • ALLOW USERS TO EDIT RANGES Button • In the dialog box : click on the NEW button. The selected range is automatically retrieved (if there is no selection, you can now select directly in the worksheet) • Name this range. You are not allowed to use characters such as a space or a dash but may use the underscore. • The range(s) are saved. You can later on modify or delete them as required. You can also set access rights for other users on your network. You may print a list of the ranges. <p><u>Strong points</u></p> <p>It is possible to <u>list, print ...</u> the free ranges Access rights can be set</p>
Protect the workbook	<p>Not directly related to cell protection. You may protect :</p> <p><u>Structure</u> The worksheets can no longer be copied, moved, deleted ...</p> <p><u>Window</u> The windows buttons (minimize, full scree ...) are removed</p> <p><i>All the rest is available</i></p>
Macros	<p>To automate given tasks</p> <p>Explained in a previous chapter (page 33)</p>

2.2 Form controls

- DEVELOPER Tab – CONTROLS Group



- ActiveX Controls are not explained in this documentation because they belong to the VBA (Visual Basic for Applications) language. These controls are mainly used for online forms or controls that run « events » (running a given macro depending on the user choice in a drop-down list for instance).

Example of a form :

	Evaluation questionnaire		PRINT
1			
2			
3	First name :	<input type="text" value="Johanna"/>	
4			
5	Last name :	<input type="text" value="Smith"/>	
6			
7	Company :	<input type="text" value="COMPUTERS SA"/>	
8			
9	New client :	<input checked="" type="radio"/> Yes <input type="radio"/> No	
10			
11			
12	Program :	<input type="text" value="PowerPoint"/>	
13			
14			
15	Your level :	<input type="text" value="Basic"/>	
16			
17			
18			
19	Environment	<input checked="" type="radio"/> Satisfied <input type="radio"/> Unsatisfied	
21		Reason : <input type="text"/>	
22			
23	Training quality	<input checked="" type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Unsatisfactory	
24			
25			
26	Training book	<input checked="" type="radio"/> Exhaustive <input type="radio"/> Well structured <input type="radio"/> Confused	
27			
28			
29	Do you wish to attend other courses ?	<input checked="" type="checkbox"/> Word <input type="checkbox"/> Excel <input type="checkbox"/> PowerPoint <input type="checkbox"/> Outlook	
30		<input checked="" type="checkbox"/> Other <input type="text" value="Illustrator"/>	
31			

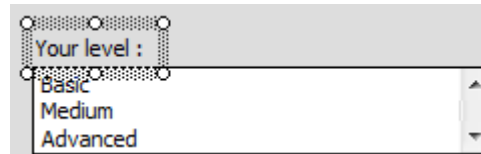
2.2.1 The controls

Aa

To create the *label* that will go with your control. But most often you can simply use a cell and type in the label

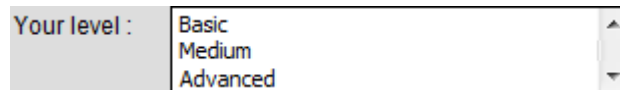
Label

Label as a form control :



A form control consisting of a label 'Your level :', a text input field, and a list box containing 'Basic', 'Medium', and 'Advanced'.

Cell used as label :



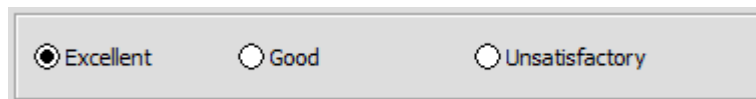
A form control where the label 'Your level :' is placed in a separate cell to the left of the text input field and list box.



Group Box

This control is used to group other controls. Its purpose can be only esthetic

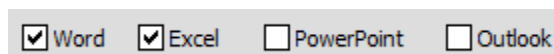
In some cases – grouping check boxes – its purpose is not esthetic at all : it groups the check boxes to prevent interaction with other controls.



A group box containing three radio buttons labeled 'Excellent', 'Good', and 'Unsatisfactory'.



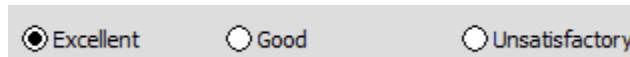
Check Box



A group box containing four check boxes labeled 'Word', 'Excel', 'PowerPoint', and 'Outlook'.



Option Button



A group box containing three radio buttons labeled 'Excellent', 'Good', and 'Unsatisfactory'.



List Box

To create a list of possible entries. The list is pre-set and cannot be modified.



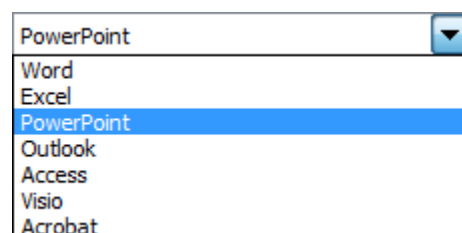
A list box containing the pre-set entries 'Basic', 'Medium', and 'Advanced'.



Combo Box

This list is also pre-set and cannot be modified.

After the user choice :



A combo box with a dropdown menu open, showing a list of application names: 'PowerPoint', 'Word', 'Excel', 'PowerPoint', 'Outlook', 'Access', 'Visio', and 'Acrobat'.

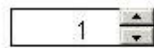


A combo box with the text 'PowerPoint' displayed in the input field.

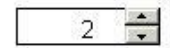


To increment a cell value.

Spin Button



click on the control :



Macro button.

Once you have drawn the macro button onto the worksheet, a dialog box prompts you to indicate which macro should be assigned to the button. Then you may modify the button label.

Note : you may assign a macro to any graphical object such as a shape, a picture etc ...



Not available in standard Excel workbooks. This control is used to work with old Excel 5.0 sheets

2.2.2 Creating

- Click on the required control
- Click onto the sheet for a standard size and click and drag to set the size
- Click outside the control : it is automatically active

2.2.3 Selecting

- Click = run the control / Right click = select the button
- To enable selection using a simple click, you need to be in the *object selecting mode* : HOME Tab – EDITING Group – Drop-down menu of the FIND & SELECT Button – SELECT OBJECTS Option.

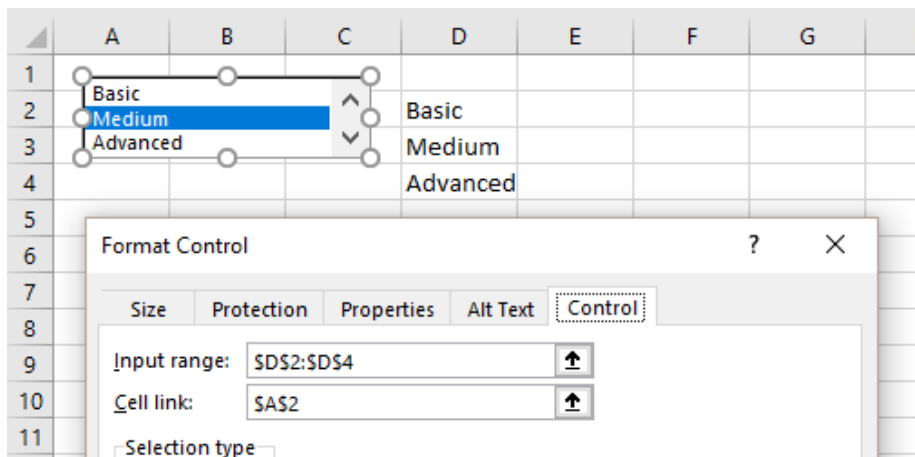
2.2.4 Managing

- Right click the control, then click the border line : now you can move, size it.
- Right click the control, then EDIT TEXT
- Right click the control, then FORMAT CONTROL
The tabs displayed in the dialog box offer various options such as sizing, properties and other such as : should the control be pre-activated ? 3D view ? Link cell ?

2.2.5 Specific to lists and spinner : defining the list entries and the spinner start number

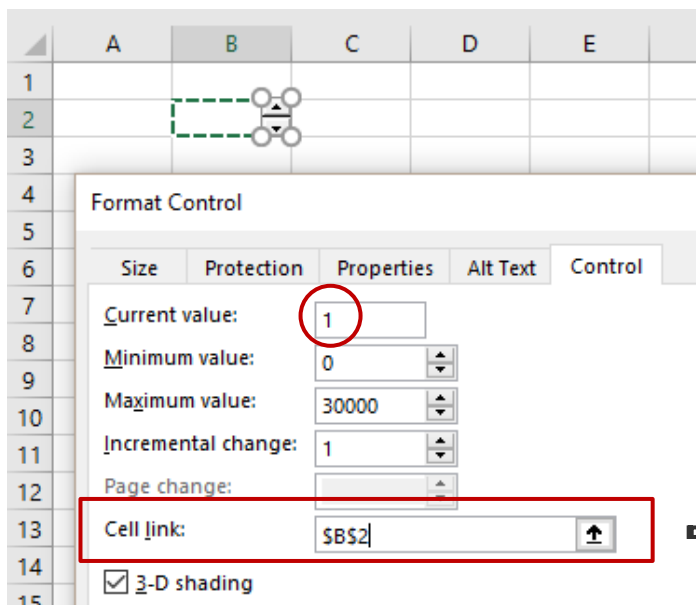
If your form only includes some check boxes, option buttons, your work can be considered as finished. All you will have to do is print your form. But if you wish to add drop-down lists or spinner, then you will need to create the list entries, set the spinner start number and required interval ...

- Create the control
- Display the format dialog box (right click and CONTROL FORMAT)

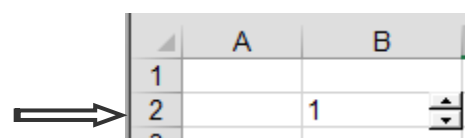


If you do not create a list entries, your control will display an empty list. Where should you create the list ? Outside the form so that users cannot delete it by mistake. A good idea is to choose a location quite far away from the form and to hide the corresponding columns. You can even add cell protection. You may also type the list onto an external sheet. Up to you.

The spinner can be managed differently. Usually the cell linked to the spinner is the one right next to the control :



To display the number, simply choose a left alignment. You may even set in the PROPERTIES Tab that you wish *not to print* the control. Very handy for an invoice number : you choose the number through the spinner control but you print only the number.



If no other special control is required, your form is ready to be printed or sent.

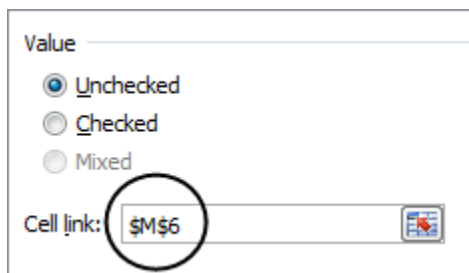
2.2.6 [Linking controls \(dialog box CONTROL FORMAT\)](#)

Important to tell you right from the very beginning : linking controls will require that you are at ease with formulas and functions. Worse : very quickly, specific needs will need VBA commands.

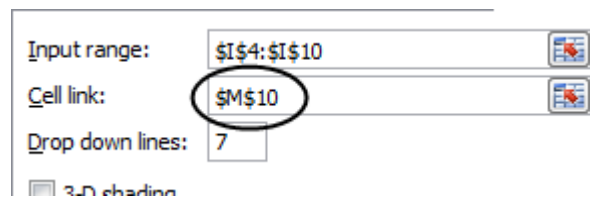
The role of the linked cell

The link cell "memorizes" the user choice (which check box was turned on, which list entry and so on). The required cell is indicated in the CONTROL Tab

Check box or option button



List box or combo box



Some examples. Each control has its own way to "return" the choice :

Check boxes return TRUE if turned on and FALSE if not

29	Do you wish to attend other courses ?			
30	<input checked="" type="checkbox"/> Word	<input type="checkbox"/> Excel	<input type="checkbox"/> PowerPoint	<input type="checkbox"/> Outlook
31	<input checked="" type="checkbox"/> Other <input type="text" value="Illustrator"/>			
32				
33				
34	Other courses ?	Word	TRUE	1
35		Excel	FALSE	0
36		PowerPoint	FALSE	0
37		Outlook	FALSE	0
38		Other	TRUE	1

Option buttons (grouped into a box group) return the number of the turned on button

Training quality		<input checked="" type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Unsatisfactory
Training quality	1=Excellent			1
	2=Good			
	3=Peu satisfaisante			

 **Reminder :** if you need to prepare several groups of option buttons, it is necessary to "isolate" each group into a group box.

For lists, the linked cell returns the number of the entry :

12				
13	Program :	<div style="border: 1px solid gray; padding: 2px;"> PowerPoint Word Excel PowerPoint Outlook Access Visio Acrobat </div>		
14				
15				
16				
17				
18				
19				
20	Program	1 Word		3
21		2 Excel		
22		3 PowerPoint		
23		4 Outlook		
24		5 Access		
25		6 Visio		
26		7 Acrobat		
27				

2.2.7 What can be done to help retrieving the returned values

As you can well guess from the above screen captures, it is not possible to retrieve the return values with no other "treatment". Indeed : What can you do with a TRUE, a 2 value without knowing what it corresponds to ? How to retrieve the "text" chosen by the user (True = Word, 2 = Excel) and copy it into a separate sheet for instance ?

Some hints :

Whatever the control, we usually type the corresponding labels next to the linked cell.
For check boxes and option buttons returning the TRUE or FALSE logical values, we convert them into 1 for TRUE and 0 for false, because this will be easier to test with an IF function.
To convert, use the =N(cell) function :

Form Label	Logical Value	Converted Value (N)
Word	TRUE	1
Excel	FALSE	0
PowerPoint	FALSE	0
Outlook	FALSE	0
Other	TRUE	1

For lists, we usually create a table showing the label corresponding to each number :

Number	Program Label
1	Word
2	Excel
3	PowerPoint
4	Outlook
5	Access
6	Visio
7	Acrobat

Then it will be easy to retrieve the label through a VLOOKUP function.

2.2.8 Retrieving the returned values

Simply use links, tests with an IF function, the VLOOKUP function and so on

Here below the user choices for a given form (pasted as a record in order to create a little "data base") :

	A	B	C	D	E	F	G	H	I	XI
1	Company	Name	New client	Workshop	Level	Environment	Training quality	Training book	WD	
2	COMPUTERS S	Smith Johanna	Yes	PowerPoint	Basics	Satisfied	Excellent	Exhaustive	Yes	
3										
4										
5			=Questionnaire-linked-cells!B8							=IF("Questionnaire-linked-cells!M6=1,"Yes","No")
6										
7										
8										
9						=VLOOKUP("Questionnaire-linked-cells!M10,"Questionnaire-linked-cells!K10:L16,2,FALSE)				
10										
11										=IF("Questionnaire-linked-cells!M26=1,"Excellent",IF("Questionnaire-linked-cells!M27=1,"Good","Fair"))
12										

What should follow is quite easy to guess : when someone fills in the form, a macro (as a macro button for example) would copy the user choices and paste them into an Excel list (preferably into a another workbook).

It is quite simple to create a macro that will copy the row 2 and paste it into an Excel database.

But when the form is used a second time, this row will be overwritten by the coming values because an automatic macro does not specify that it must find the first empty row before pasting. A very small problem, but that can only be solved through a VBA command.

2.2.9 Printing the controls

By default the controls are printed, which is obvious for checkboxes, option buttons but maybe not for a drop-down list, a button running a macro and so on.

Control « Group box » used to include option buttons, button running a macro : right click the control - FORMAT CONTROL – PROPERTIES Tab – Tick off PRINT OBJECT. Only the option buttons will remain.

Drop-down list : if you right click and choose not to print the object (like what is explained just above), it is the whole control that will be missing ! If possible opt for a *data validation drop-down list (DATA Tab)*.

3 Hiding a worksheet or a workbook

When you need to automate you work in Excel, it can prove handy to hide a worksheet (for instance the sheet where you have typed the list of items for form combobox).

- Right click the required worksheet and option HIDE

Less common because used mostly by developers : hiding a workbook

- VIEW Tab – WINDOW Group – HIDE Button

Unhiding : the UNHIDE command in both cases.

AUTOMATE
(macro-instructions)

1 Introduction to macro instructions

You can automate some of your work using macro-instructions. A *macro* is a series of commands and other instructions that you can *run* to perform a given task. It can be a good idea to replace repetitive actions with macros

1.1 Viewing the DEVELOPER Tab

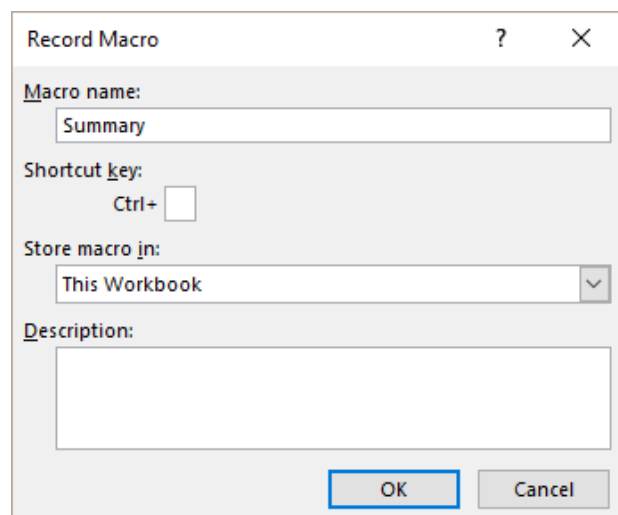
It is the Tab containing commands for so-called « super-user ». The commands include macros and macro security, form controls and XML tools.

How to display this tab : FILE – OPTIONS – CUSTOMIZE RIBBON – Tick on the tab.

1.2 Recording a simple macro

You perform the commands as usual and the macro recorder will convert them into VBA (Visual Basic Edition for Application) lines.

- DEVELOPER Tab – CODE Group – RECORD MACRO Button



Macro name

The name cannot include a space or a dash

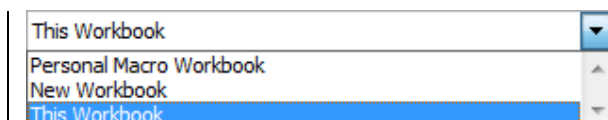
- Do not give an existing name such as FileClose because your macro could replace the Excel pre-set one

Shortcut key

To assign a keyboard shortcut key to the macro. If the chosen shortcut is not available, Excel automatically converts it into a free one (usually by adding the SHIFT key to it)

Store macro in

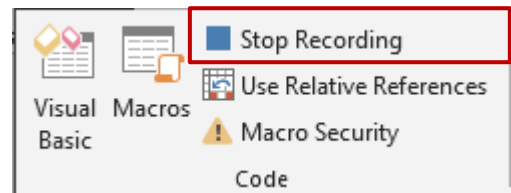
Macros can be stored in :



- Choose to save the macro into *This Workbook* or into a *New Workbook* (the Personal Macro Workbook is explained later on)

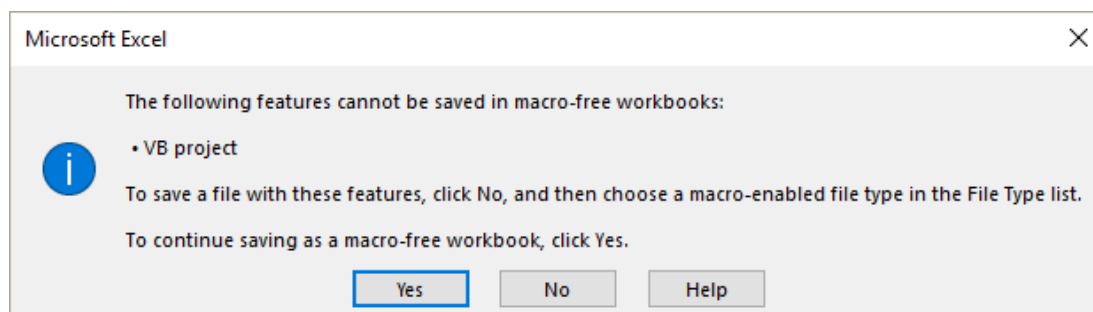
- OK to confirm
- Perform the commands to be turned into a macro.

When you have finished : click on the STOP RECORDING button.



1.3 Saving the file containing the macro

Impossible to assign a "normal" extension such as (.xlsx). You must save the file using the *Macro-Enabled* format, that is the .xlsm or .xltm extension. If you try to force saving the file with the .xlsx extension, the following message will be displayed :



NO : back to the workbook and this time save correctly (.xlsm or .xltm)

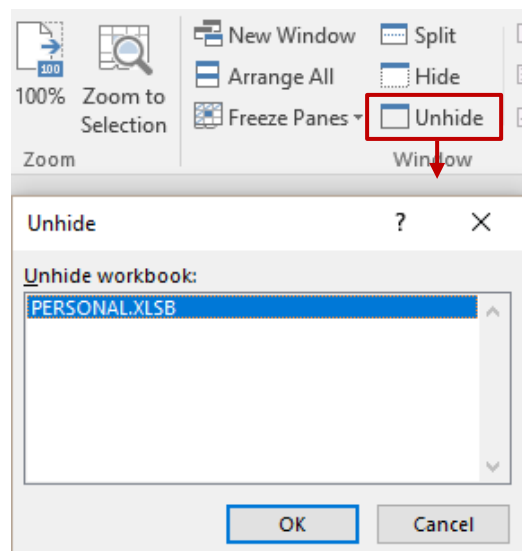
YES : the file will have the .xlsx extension. Provided you do not close the workbook, you will still see the macros. But when the file is closed and opened again : no more macros.

1.4 Storing macros into the Personal Macro Workbook

The real name of this workbook is PERSONAL.XLSB.

Provided it contains a minimum of one macro, it will be automatically active when you run Excel. All its macros will be available in Excel, whatever the file.

But caution, it is hidden. If you need to modify, delete ... one of its macros, you will first have to unhide it through the VIEW Tab :



But do not forget to hide it again once you have finished (click on the HIDE button)

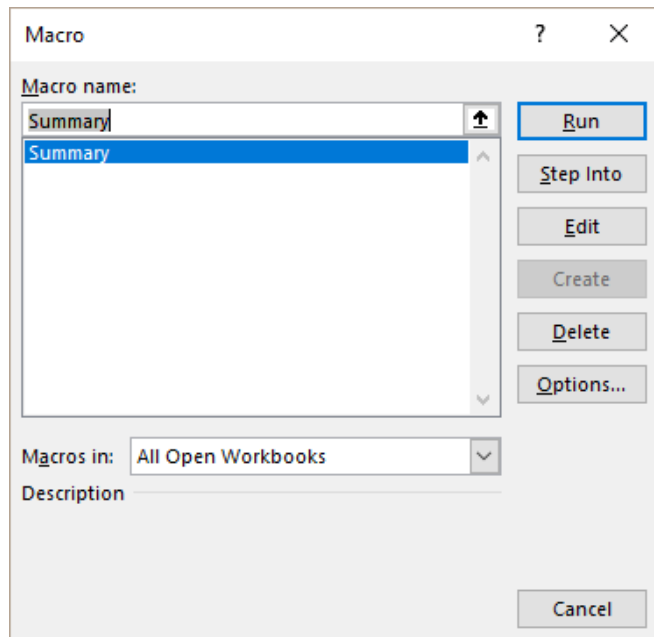
When you exit Excel, you will be prompted to save the PERSONAL.XLSB file (if you have modified it) : answer YES.

How to delete this file : make sure that Excel is fully closed then run the Explorer and delete it. It is stored in the XLSTART folder :

Windows (C:) > Utilisateurs > Jael > AppData > Roaming > Microsoft > Excel > XLSTART

1.5 Managing macros : run, delete etc...

- DEVELOPER Tab – CODE Group
– MACROS Button



Run

To run or *execute* the macro

Note : if you have set a button or a keyboard shortcut, they can also be used to run the macro

Step Into

Running the VBA editor. Select the command one by one by pressing the F8 key. *Good knowledge of the VBA language required*

Edit

Running the VBA editor to edit the selected macro

Any user can make simple modifications but for the rest a good knowledge of the VBA language is required.

It is not possible to edit a macro stored into the Personal Macro Workbook from another file. You must first unhide it.

Create

Running the VBA editor to create a macro, line by line.

Good knowledge of the VBA language required

Delete

To delete the selected macro

It is not possible to delete a macro stored into the Personal Macro Workbook from another file. You must first unhide it.

Options

You can add a keyboard shortcut to the macro as well as a short description of it – interesting if you have forgotten to set it in the Record Macro dialog box.

- There is no RENAME command. To rename a macro, you need to run the VBA editor (use the EDIT button for instance) and rename directly in the code.

```
(General)
Sub Summary()
'
' Summary Macro
|
Range("D7").Select
ActiveCell.FormulaR1C1 =
```

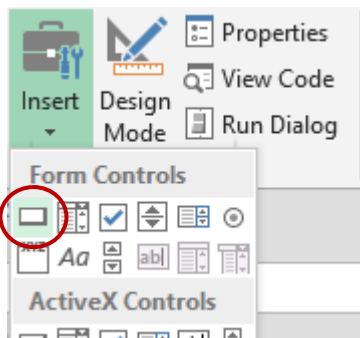
1.6 Custom button for a macro

You may assign a macro to any object such as a drawn shape, a picture etc ...

- Right click the object and select the option ASSIGN MACRO
- The dialog box lists the available macros : select the required one
- Provided the graphic object is selected, you can modify it : text, size, color ...

As soon as you click into the worksheet, the button becomes *active*. To revert to managing the button itself : right click.

You can also use the MACRO button that is located in the form controls tear-off (DEVELOPER Tab) :



As soon as you have finished drawing the button, a dialog box will be displayed to select the required macro to assign to it.

Modify the button label so that it relates to the macro.

1.7 Creating a new workbook : will the macros be copied ?

Yes they are, whatever the extension .xlsm or .xltn
Therefore make sure to choose a "macro-enabled" extension when you save the new file

1.8 Macro security

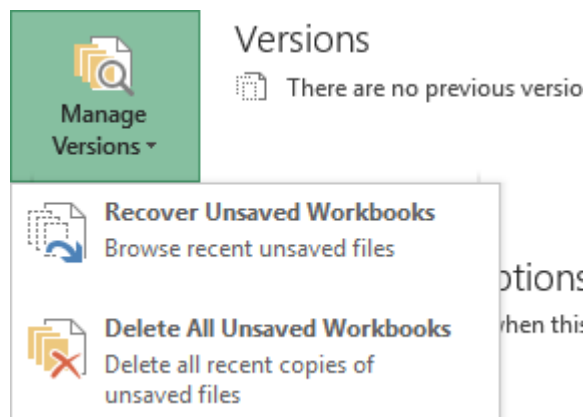
Macros and computer security are linked as macros can contain viruses. File protection has been nicely improved in the 2010 release. This is explained in the next chapter.


SECURITY AND PROTECTION




1 Unsaved files

New files that you have worked a minimum of 10 minutes and closed without saving are memorized in the computer during **4 days**.

- FILE - INFO



 The command to delete is displayed only when you access the Backstage view from a new blank document.

 Book1((Unsaved-303718870709557119)).xlsb	15.05.2014 11:16	Microsoft
 Book2((Unsaved-303718983188641713)).xlsb	15.05.2014 12:39	Microsoft
 Classeur1((Unsaved-303720590484414843)).xlsb	16.05.2014 07:47	Microsoft

Double-click on one file and it is opened in Word ...

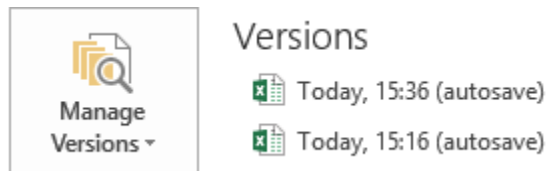
2 Background security saving

As you may know, Word, Excel or PowerPoint, save your work every 10 minutes (or according to what you may have set). Temporary files are created, that will be closed when you save and close the active document. In case of a breakdown those files are not closed and are used as recovery files when you re-run the crashed program. Office 2013 does not change this but it now gives you access to those security files

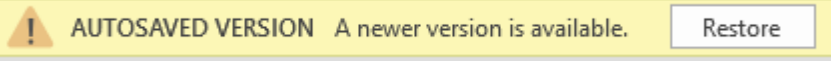
Example :

I have been working the present file for less than one hour. Two security files (*versions*) have been automatically created :

I can check thins in FILE – INFO :



The versions will be automatically closed when I will save *and close* the current document. In the meantime I can open those versions and here below the possibilities :



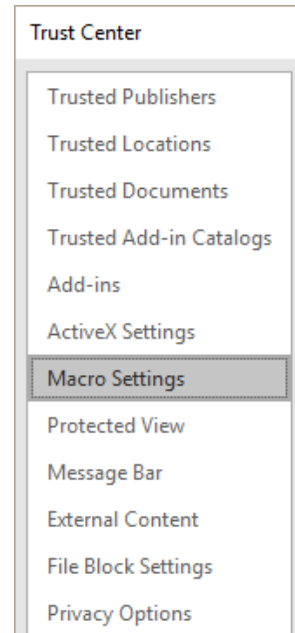
Restore You will be prompted to confirm *going back*

3 Security settings

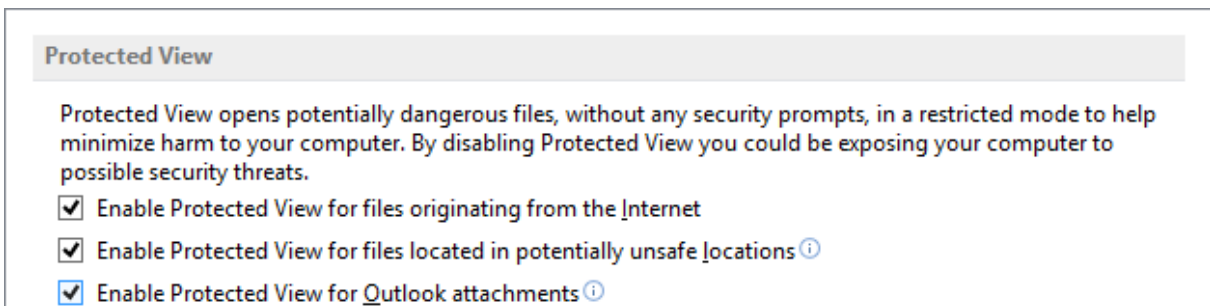
- FILE – OPTIONS – TRUST CENTER – TRUST CENTER SETTINGS Button

Two levels in terms of security

- *Protected View* : protection against editing
then
- *Macros or other active content* : anti-virus protection

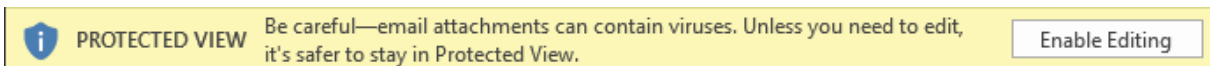


3.1 PROTECTED VIEW for files opened from Outlook or Notes or from the Internet

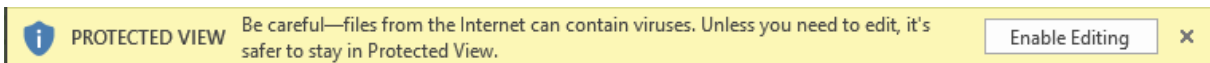


The file is momentarily « blocked », you cannot edit and modify. Here below the warning message that is displayed below the Ribbon :

(opened from an Outlook message)



(opened from an internet site)



3.2 Anti-virus protection for files containing active code (macros, ActiveX ...)

The philosophy uses the notion of « Trusted » locations, documents etc ...

Trusted Publishers

Macros are signed

Trusted Locations

Trusted folders. The macros and other active content are automatically enabled.

The startup and the templates folders are automatically set as trusted locations (by default)

Trusted Locations

Warning: All these locations are treated as trusted sources for opening files. If you change or add a location, make sure that the new location is secure.

Path	Description	Date Modified
User Locations		
D:\@-Ateliers thématiques\		10.01.2014 09:34
		23.10.2013 07:04
		29.05.2013 06:37
		29.05.2013 06:37
C:\...rosoft Office 15\Root\Office15\XLSTART\	Excel 2013 default location: Excel StartUp	
C:\...iles\Microsoft Office 15\Root\Templates\	Excel 2013 default location: Application Tem...	
C:\...ppData\Roaming\Microsoft\Templates\	Excel 2013 default location: User Templates	
C:\...Data\Roaming\Microsoft\Excel\XLSTART\	Excel 2013 default location: User StartUp	
C:\...rosoft Office 15\Root\Office15\STARTUP\	Excel 2013 default location: Office StartUp	
C:\...icrosoft Office 15\Root\Office15\Library\	Excel 2013 default location: Add-ins	
Policy Locations		

Path: D:\@-Ateliers thématiques\
Description:
Date Modified: 10.01.2014 09:34
Sub Folders: Allowed

Allow Trusted Locations on my network (not recommended)
 Disable all Trusted Locations

ADD NEW LOCATION : to add a custom folder (and its sub-folders). ⚠ it is dangerous – although technically possible – to add a full drive (such as D:/ - P:/.)
Locations are set by program and not for all Office programs

ALLOW TRUSTED LOCATION ON MY NETWORK

Turn on this option to be able to add a network drive as a trusted location. If you have added network folders and turn this option off, the network lines turn greyed out.

On

Path	Descr
User Locations	
\\office\models\	
C:\...ication Data\Microsoft\Templates\	Word

Off

Path	Descr
User Locations	
\\office\models\	
C:\...ication Data\Microsoft\Templates\	Word

DISABLE ALL TRUSTED LOCATIONS
To momentarily turn off all trusted locations

Trusted documents

Trusted Documents

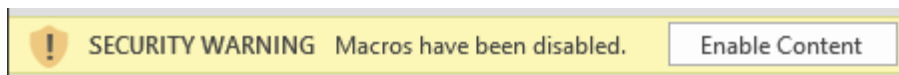
Warning: Trusted Documents open without any security prompts for macros, ActiveX controls and other types of active content in the document. For a Trusted Document, you will not be prompted the next time you open the document, even if new active content was added to the document or changes were made to existing active content. Therefore, you should only trust documents if you trust the source.

- Allow documents on a network to be trusted
 Disable Trusted Documents

Clear all Trusted Documents so that they are no longer trusted

Clear

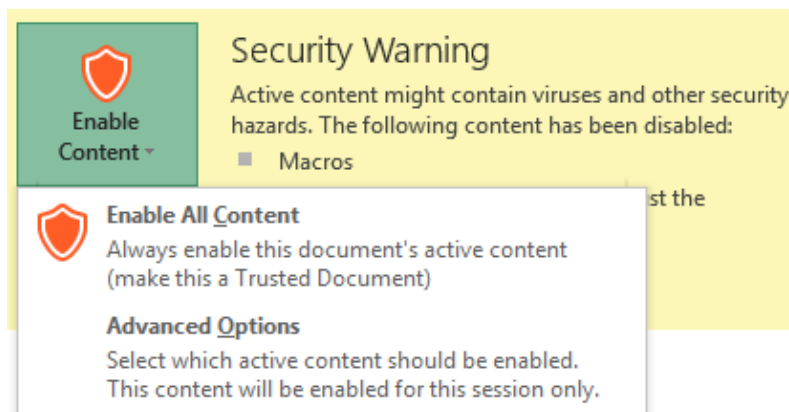
When you open a file containing programming code, the following warning message will be displayed below the Ribbon :



ENABLE CONTENT : **the file is considered as a trusted document and the next time it is opened there will be no warning message.** This file will cease to be trusted only if you *move it, open it from another workstation or if you restore all trusted documents into standards documents.*

- FILE – INFO

You can choose between a permanent activation (first option) or only for the active session (second option).



ActiveX, Macro ... Settings

By default, macros and ActiveX are disabled with a notification

Message Bar

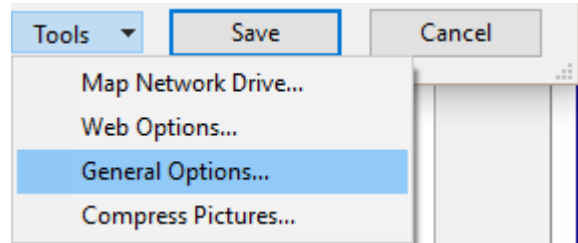
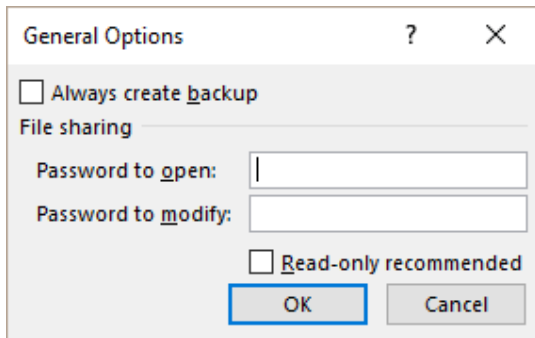
Should the warning bar be displayed or not ?

4 Protection

4.1 Protecting the access to a workbook

This is set when you save the workbook :

Click on the TOOLS button, located at the bottom of the saving dialog box :



Password to open

Only the user who knows the password can open and work into the workbook

Password to modify

Only the user who knows the password can work into the workbook but anyone can create a copy of the workbook that will be renamed and saved as required

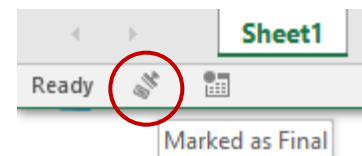
Read-only recommended

Nothing more than a simple advice given to the user. No real protection.

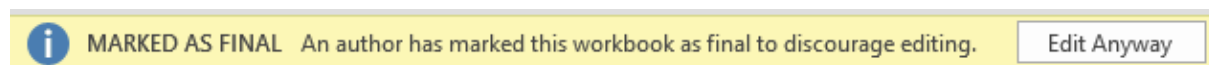
4.2 The Mark as Final command

The workbook can be opened, saved ... but all editing options are disabled. It is a *forced* read-only mode.

- **FILE – INFO – PROTECT WORKBOOK- MARK AS FINAL**
- Excel warns you that the workbook will be first saved. Accept
- A dialog box warns you that all editing options will be disabled
- The corresponding icon is displayed in the Status Bar



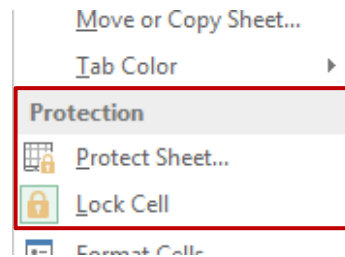
And the message also informs you about it :



Caution : a simple EDIT ANYWAY is sufficient to bypass this “protection”. Consequently it is not a real security command..

4.3 Internal protection : worksheets, workbook

The options are located in the HOME Tab – CELLS Group – Drop-down list of the FORMAT Button :



4.3.1 Assigning the proper status when you need to protect or free just a few cells

Make a difference between the cell status and the active protection !

1. The cell status.

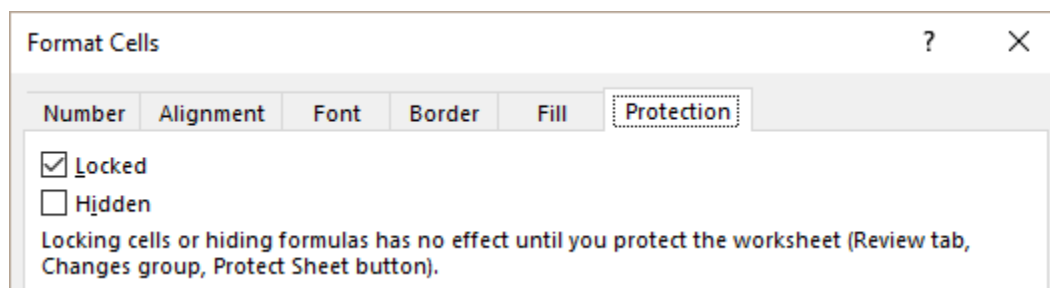
When you protect the sheet you simply validate the cell status. By default the status is *locked*. As long as there is no *active* protection, you or anyone else can freely work on the sheet.

2. The active protection

The protection validates the prepared status.

Steps

- Select the required cells to lock / unlock and option FORMAT CELLS



Hidden : caution, this only hides what is displayed in the formula bar

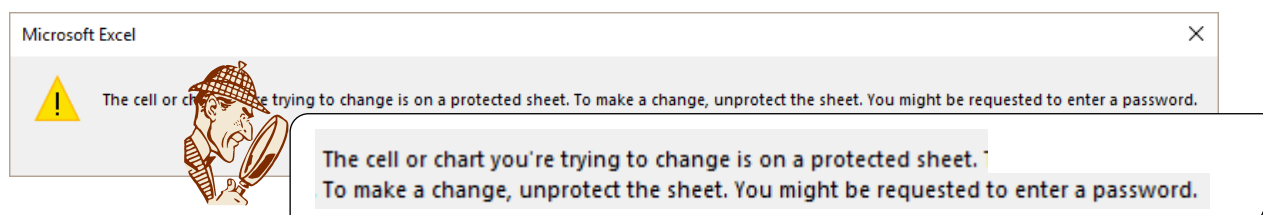
Or turn on / off LOCK CELL

- Option PROTECT SHEET – With or without a password – Validate without changing the other default settings.

Navigation

Access to free cells through the TAB key

Here below the warning message displayed if you attempt to modify a protected cell :



Removing the protection

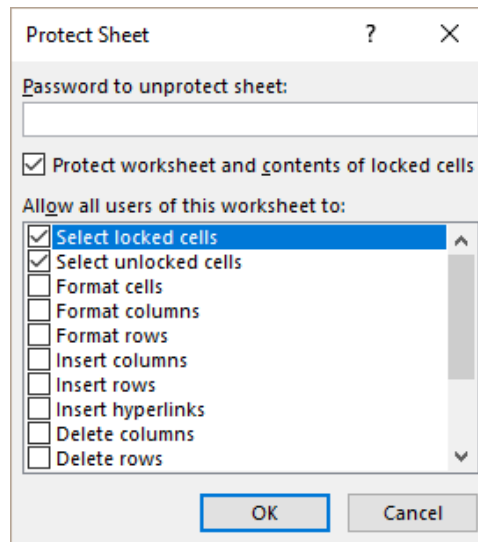
The option turns into UNPROTECT SHEET. (password if necessary)

Week points

No visual indication other than the option LOCK CELL to check which cell is locked and which is unlocked. No command to print a list of locked cells.

4.3.2 Protecting the worksheet but giving access to specific functionalities

- Option PROTECT SHEET



Check the **commands** you need to give access to.

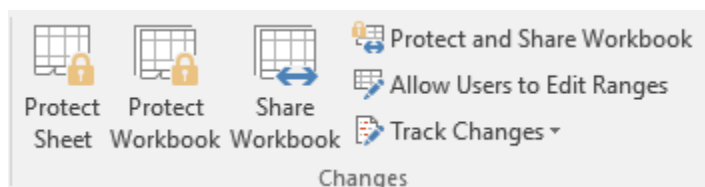
Command	Condition
Select locked / unlocked cells	By default, if you can select, you can also copy-paste into another workbook. Unchecking both commands is similar to turning on the preventing selecting and copying command in an Acrobat PDF file. Acrobat was the only one to provide this possibility. Excel does the same since the 2003 release.
Format cells	None
Format columns / rows (autofit, hide ...)	None
Insert columns / rows	Inserting is possible with no special condition. But if you wish to type data into the new cells, it is necessary to check that the whole row or column located <u>top or left</u> has been unlocked through FORMAT – CELLS – PROTECTION Tab

Insert hyperlinks	The cell must have been unlocked through FORMAT – CELLS – PROTECTION Tab
Delete columns / rows	All cells must have been unlocked through FORMAT – CELLS – PROTECTION Tab
Sort	All <u>rows</u> and <u>columns</u> must have been unlocked through FORMAT – CELLS – PROTECTION Tab <i>Or</i> The range of cells must have been set as a free range through : REVIEW Tab – CHANGES Group – ALLOW USERS TO EDIT RANGES Button. ⚠ Caution : the cells content can now be freely modified
Use AutoFilter	The autofilter mode must be active
Use PivotTable reports	You must have created the pivot table. Then the user can use it
Edit objects	None
Edit scenarios	You may <i>modify</i> them. If the option is left unchecked you can simply <i>show</i> a given scenario.

Access to free cells by pressing the TAB key.

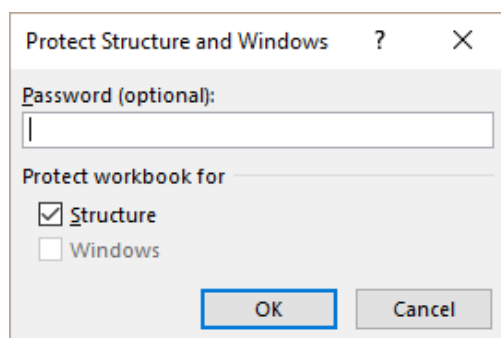
4.4 Protection that Microsoft associate to sharing and reviewing

- REVIEW Tab – CHANGES Group



Some of the above options can be used for a "simple" protection.

4.4.1 Protecting the workbook



Structure

The sheets cannot be copied, moved, deleted, renamed, inserted and unhidden (when one worksheet is hidden). On the other hand the sheets can be copied or moved into a *new workbook*.

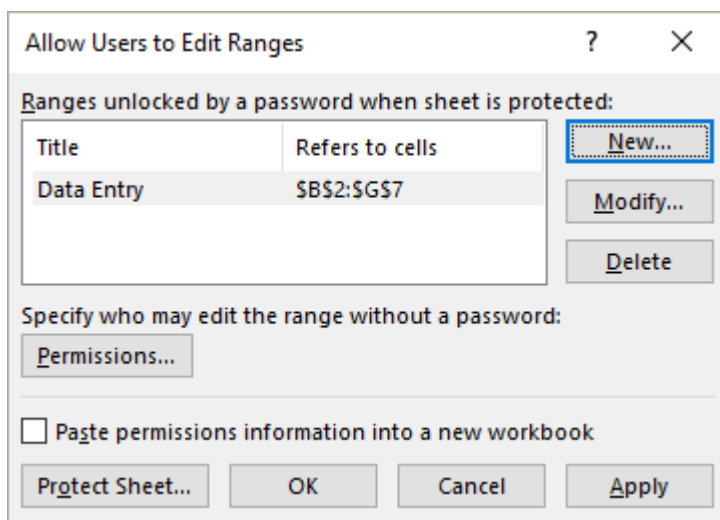
Windows

It is not possible to change the size, the position of the windows when the workbook is active as well as move or close them.

The rest is available

4.4.2 Setting ranges of cells that can be left free when the worksheet is in active protection

- Select the range(s) of cells (optional but more comfortable)
- ALLOW USERS TO EDIT RANGES Button



- Click on the NEW button. The selected range is automatically displayed. In case of no prior selection, click in the sheet to manually highlight the range now.

Do not forget to name the range. You are not allowed to use the space or the dash but underscore is permitted.

The range(s) is memorized. You may modify, delete ... as you need.

Permissions ...

For network users. Select the users.

Paste permissions ...

A new workbook is created, it indicates the free range(s) of cells, the permissions granted to this user or this group of network users. You may save this file and distribute it to every user from the list.

	A	B	C	D
1	Permissions for	[Data.xlsx]Sheet1		
2				
3	Range Title	Range of Cells	Password Protected	Users and Groups
4	Data entry	=\$B\$2:\$G\$7	No	-
5				

Good points about this functionality

You can list, print ...the free range(s).

You may grant permissions to specific users.