CHEMNUMBERING TUTORIAL

Disclaimer: ChemNumbering was design by a chemist and not a professional developer, therefore the numbering might be a little slow and the program might not be perfect. Also, some features such as ChemDraw scheme numbering are very experimental.

1. Install ChemNumbering (*CNg*)?

a. Global Template

CNg can be installed as a "Global template". Meaning that the *CNg* custom ribbon and functionalities appears every time Word is open. To do so:

- Step 1: download the last version of CNg from the GitHub repository.
- Step 2: copy the template document to:
  "C:\Users\UserName\AppData\Roaming\Microsoft\Word\STARTUP" – For Windows 10.

b. Local Template

A local template means that by double clicking on the *CNg* template (.dotm extension), it will create a new document which will contain the *CNg* ribbon and *CNg* functionalities.

Cautions: The created document (.docx) will be linked to the *CNg* template document (.dotm). In other terms the original template document (.dotm) will be lock in place, meaning that any change (i.e.: moving to another folder, renaming) to the template document (.dotm) will result in breaking the dependency to all created document and lose the *CNg* ribbon and functionalities for all documents.

Example: You put your template in 'C:\Users\Vincent\Documents\ChemNumbering.dotm' and start creating document from there. Then for some reasons, you decide to move the template to 'C:\Users\Vincent\Documents\Chemistry\ChemNumbering.dotm'. All document created form the previous location will lose the ribbon and functionalities. To restore the functionalities you will need to use "Global template".

2. Create reference in Word text and ChemDraw scheme.

a. \cmpd{....} for word.

LaTeX users will not be lost as *CNg* is widely inspired from it.

In order for the program to know where are the reference are in the document, I will use \cmpd{} as tag. You need to use in your text the tag *\cmpd{ref}* where the ref is the name of your reference (e.g. \cmpd{toluene}, \cmpd{tol-12}).

I do **strongly** advise <u>not</u> to use any space or special characters besides underscore and dash.

CNg also works with multi-reference (e.g. \cmpd{tol-10, toluene, TNT, tol-12}). It's mostly functional but might give some weird output.

The numbering will be as such for \cmpd{tol-10, toluene, TNT, tol-12}:

- 1-4 if none of them have been cited before.
- 1,3-5 if one reference was cited before and none of the others.
- 1,2,4,5 if two reference already cited and then two consecutives

Tips: To not disturb too much the writing flow, especially for non-QWERTY keyboard, I added the shortcut 'CTL+Shift+X' to quickly create a reference.

Caution: The label of the reference is case sensitive. Meaning that \cmpd{EtOAc} will give a different number than \cmpd{EtOAC}.
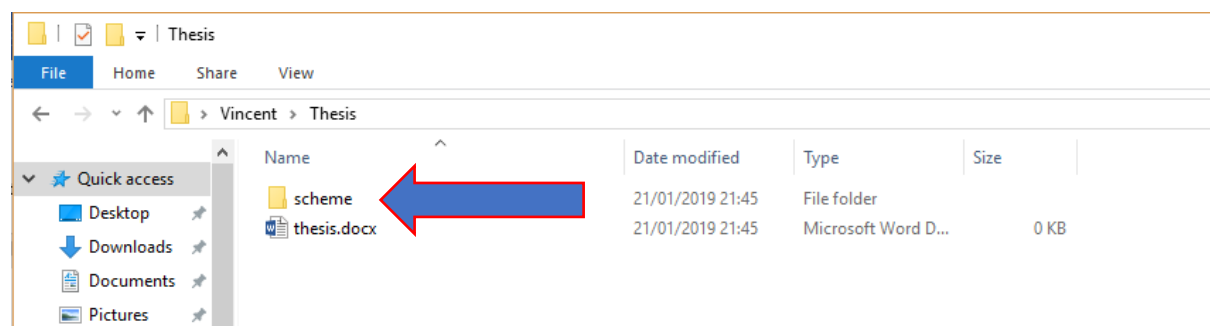
b. \{...} for ChemDraw.

Prerequisite: The word document must be saved to a specific folder such as
(e.g. C:\Users\Vincent\Documents\Thesis\thesis.docx)

- Step 1: Create your scheme and add the label of the reference with the tag '\{}'.

trinitrotoluene (\{TNT})
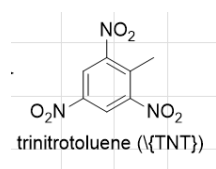
- Step 2: Save the scheme from ChemDraw as a ".CDXML" file in a folder named "scheme" in the directory of the word document.

- Step 3: Insert the created scheme as a linked object. To do so, click the 'Insert Scheme' button that will open a dialogue from which you can choose the scheme to insert. You can also do it manually by clicking Insert->Object->Create From File->Link to File.

Caution: As the scheme is created as a linked object and that Microsoft only handle absolute path, if you decide to move the folder the link will be broken. To solve this issue, the program checks the link at start-up and update them if necessary. As a result, when you move your document make sure that you also move the scheme folder.

3. Convert references to numbers

a. In Word

- Step 1: Use the button 'To Number'.

b. In the scheme

I **strongly** advise to do this step at the very end of your thesis. The last thing before printing.

- Step 1: Use the button 'To Number' in the numbering section and make sure the checkbox 'Create CSV' is ticked.
- Step 2: Click the button 'To Number' in the ChemDraw section and choose the newly created ".csv" document. Et voila!
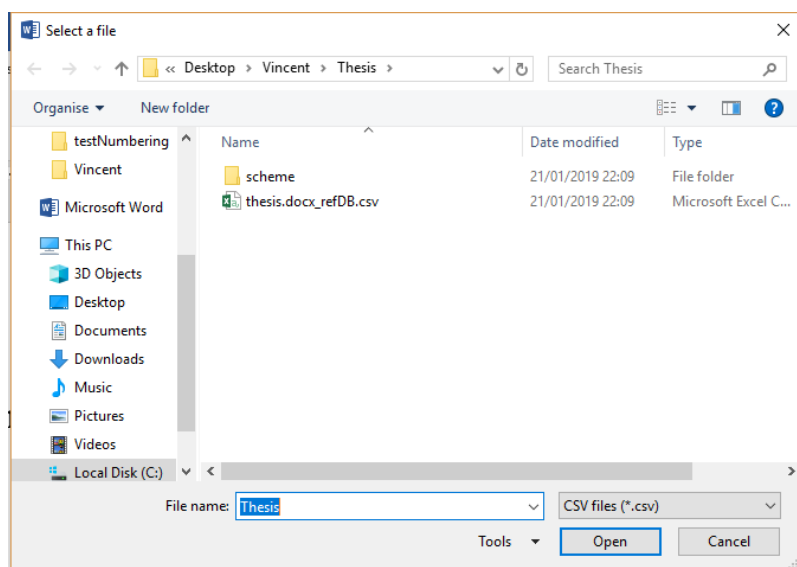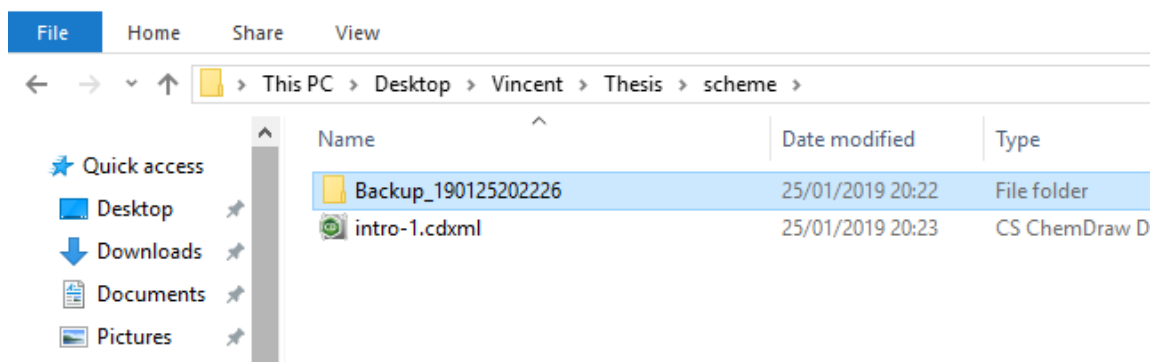

4. Return to the references

a. In Word

- Step 1: Use the button 'To Reference'

b. In the scheme

Well there it is a little bit more complicated.

First a little backstory. When the program writes the scheme file, it create a copy of the originals and place them in a "Backup+timestamp" folder in the "scheme" folder.

To restore the scheme:

- Step 1: Copy all the backed-up files
- Step 2: Paste them in the "Scheme" folder
- Step 3: Click yes to overwrite the existing files
- Step 4: Click the "Refresh" button on the *CNg* ribbon.

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