How to add equation numbers and referring to them in Word

Benedikt Heid

16 June 2020

What this document explains

This document explains how to add an equation number to an equation in Word (Version Microsoft Office Professional Plus 2019).[1] For Latex users, it explains how to recreate the functionality offered by \label{eqlabelname} and \eqref{eqlabelname}.

Latex offers automatic equation numbering and referencing. Therefore, Latex is convenient for documents with lots of equations. However, sometimes, we have to create a document in Word, be it because we are collaborating with a non-Latex user, or because of formatting requirements which are imposed on us. Frustratingly, online documentations of word seem to offer only clunky or contradictory solutions to things like equation numbering and referencing which are very simple in Latex.

My solution fulfils the following criteria which are crucial for scientific writing:

- Equation numbers are right-aligned in the same line as the equation appears.

- Equation numbers automatically adjust when rearranging equations.

- You can reference the equation, such that you can mention the equation number in written text and also this reference will automatically update if you change the order of equations.

---

[1] This solution should also work in older versions of Word, but I did not try it as I do not have access to older versions.

How to do it

1. Add an equation to a document by clicking on the ribbon Insert > Equation. Alternatively, you can use the shortcut ALT + =.

2. Write the equation. You can now write Latex commands directly into Word: Just click on Latex in the equation ribbon (If you do not see it, you can click on the little arrow at the bottom-right corner of the frame which surrounds the equation.)

3. Once you are done writing the equation, write #(.

4. Click on Insert > Quick Parts > Field and choose Seq. This introduces a field which contains an automatically increasing number. Give this sequence a sensible name, e.g., SEQ Eq., see the screenshot below.
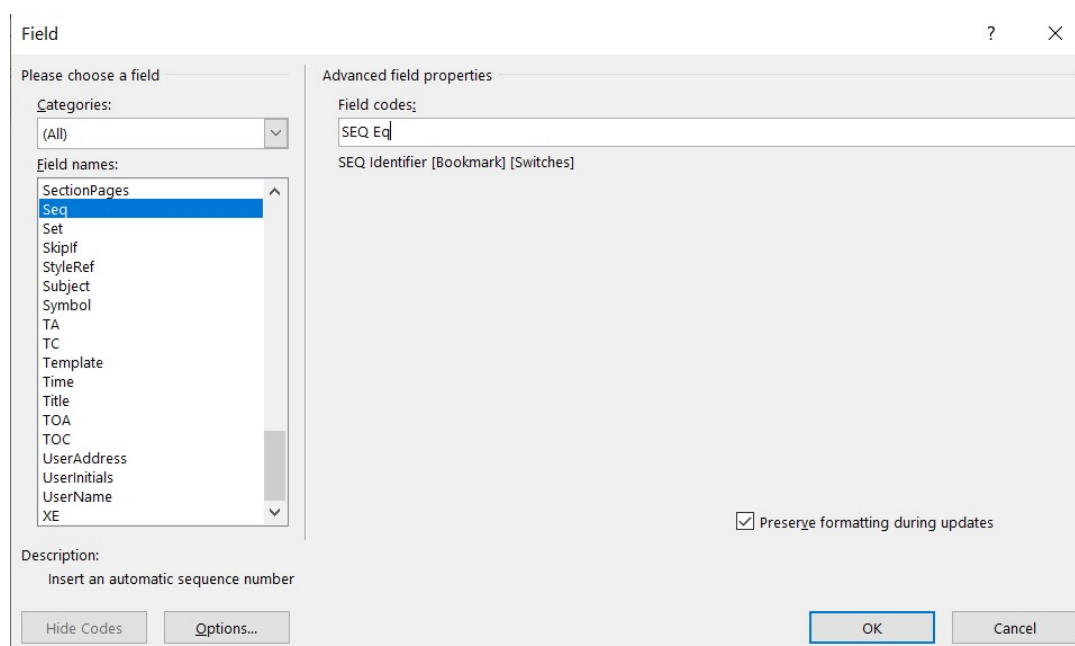
5. Click on OK and hit ENTER.

6. The equation number now has right-aligned itself.

7. Add the closing bracket.

8. Mark only the equation number and click on Insert > Bookmark, and give a name to the equation (in Latex, this would be the label of the equation).

9. In the text, write the sentence which refers to the equation but instead of explicitly writing the number, click on Insert > Cross-reference, then choose "Reference Type" Bookmark and "Insert Reference to bookmark text" and click OK. The number should now appear in your text.

10. In all subsequent equations you add, instead of clicking on Insert > Quick Parts ..., simply write: #(and then press CTRL+F9 and write SEQ Eq * MERGEFORMAT and the closing).

CTRL+F9 is the shortcut for adding a field. Add as many equations as you wish and do not forget to bookmark those which you want to reference within your text.

Fields, equation numbers and references to equations do not automatically update if you change their ordering. To get the correct numbers and references, select all the text (CTRL+A) and hit F9. Voilà!