The difference between formulas and pseudo-fields

The XperiDo template design add-in gives you the possibility of using calculations/text editing functions in your templates. There are 2 ways of doing this:

- By using a Formula
- By using a Pseudo-field

Both these features allow the same calculations, but there are a few differences that you should know about.

Properties

**Formulas** are intended to provide a fast means for calculating something. They offer the same powerful expressions and functions as pseudo-fields, but they are a bit easier to insert. **Pseudo-fields**, on the other hand, are newly created fields in your data set, which can then be referred to later on. Setting them up takes a bit longer than setting up a formula, but because you define a field, you can use that in other calculations, or use it multiple times in your template.

**Advantages**

- **Formulas** are fast to set up.
- You can map pseudo-fields in different places in your document.
- You can sort your loops on pseudo-fields that are defined in that loop.
- You can refer to previously created pseudo-fields in further calculations.

Especially the last bit here is important: being able to refer to previously created pseudo-fields allows chain calculations, such as the following example:

- Use multiple pseudo-fields to calculate multiple subtotals,
- Calculate the sum of all those pseudo-fields in a new pseudo-field,
- Subtract a customer discount from that sum and show it as the grand total by using another pseudo-field.

This is just one example that shows why pseudo-fields are useful, since you can’t do this with formulas without defining the same calculations multiple times.

**Suggested use**

- Use **formulas** when you only require one calculation that you won’t need anywhere else - be it in your template or further calculations.
- Use **pseudo-fields** when you want to re-use the calculated value in further calculations or when you want to use the calculated value in multiple places in your document.

How to use them

**Inserting a formula**

- Place your cursor where you want to insert the formula,
- Click the `formula` button in the XperiDo ribbon,
- Type in your expression or use the expression wizard,
- Set your formula’s formatting,
- Click `OK` to finalize everything.

**Inserting a pseudo-field**

- In the XperiDo pane’s `datasource` tab, select the pseudo-field’s parent field (the pseudo-field will be created as a child element of this field),
- Click the `Add pseudo-field` button in the XperiDo pane’s `datasource` tab,
- Set your pseudo-field’s settings, such as the name, the type and most importantly: the calculations,
- Click `OK`. A new field has now been created under the selected parent field,
- Place your cursor where you want to insert the pseudo-field,
- Double-click the field in the XperiDo pane’s `datasource` tab to insert the field in your template.

**Editing a formula**

- In the XperiDo pane’s `mapping` tab, double-click the formula you want to edit. A window will pop up,
- In this window, in the Field Selection section, hover over the value and click the `pencil` that appears,
- This opens the expression editor where you can change your formula.

**Editing a pseudo-field**

- In the XperiDo pane’s `datasource` tab, select the pseudo-field you want to edit,
- Click the `Edit pseudo-field` button in the XperiDo pane’s `datasource` tab,
- This opens the pseudo-field window which includes the expression editor where you can change your formula.