

Document generation based on .docx templates

imc Learning Suite

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Author(s): Lia Ghiță

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1 Introduction

The LMS provides the possibility to generate different documents such as participant lists, course or course templates lists and even course certificates based on templates prepared in a .docx format.

This document covers instructions about the different available functions and instructions on how to prepare and validate templates to ensure that the documents can be generated by the system in the desired layout.

2 Export templates

An export template manager is available where export templates for participant and course lists can be created.

A list of placeholders can also be downloaded, to be later used when composing the template. When creating a new export template in the LMS, the system will ask for the .docx file to be uploaded and will provide 4 different generation types:

- Template and CSV – this option is available for participant list generation and, when used, will generate the unaltered template together with a csv export of all the participant information which can then be manually merged using MS Word functionality for serial letter
- One page per entry – allows the possibility to generate, based on the provided template, one page for each entity included in the export. This option is supported both for participant export and also for courses and course templates
- One document per entry - allows the possibility to generate, based on the provided template, one separate document for each entity included in the export. This option is supported both for participant export and also for courses and course templates
- List of entries in one document – this option is available for participant list generation and, when used, will generate a list of course participants based on a table format header

The templates used for participant and course lists rely on the mergefield functionality provided by MS Word. Detailed instructions on how to include merge fields in your template are provided in a dedicated chapter.

3 Adding mergefields via MS Word

3.1 Create a Mergefield

When creating the export template document, for each placeholder where it is needed that the system replaces the value, a Mergefield must be included.

In order to do so via MS Word, navigate to the Insert tab -> Quick parts -> Field

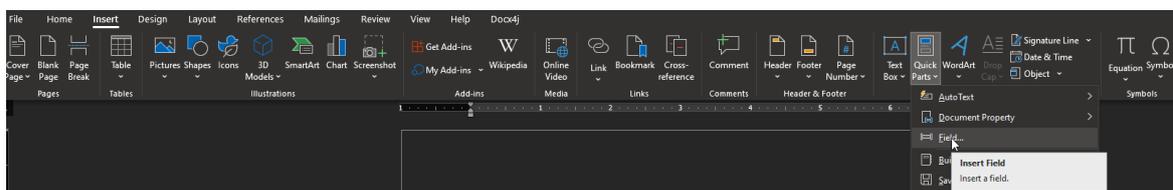


Fig. 3.1: „Insert Field“ in the Ribbon Bar of MS Word.

In the window that opens, search for Mergefield and provide the placeholder key as the mergefield name:

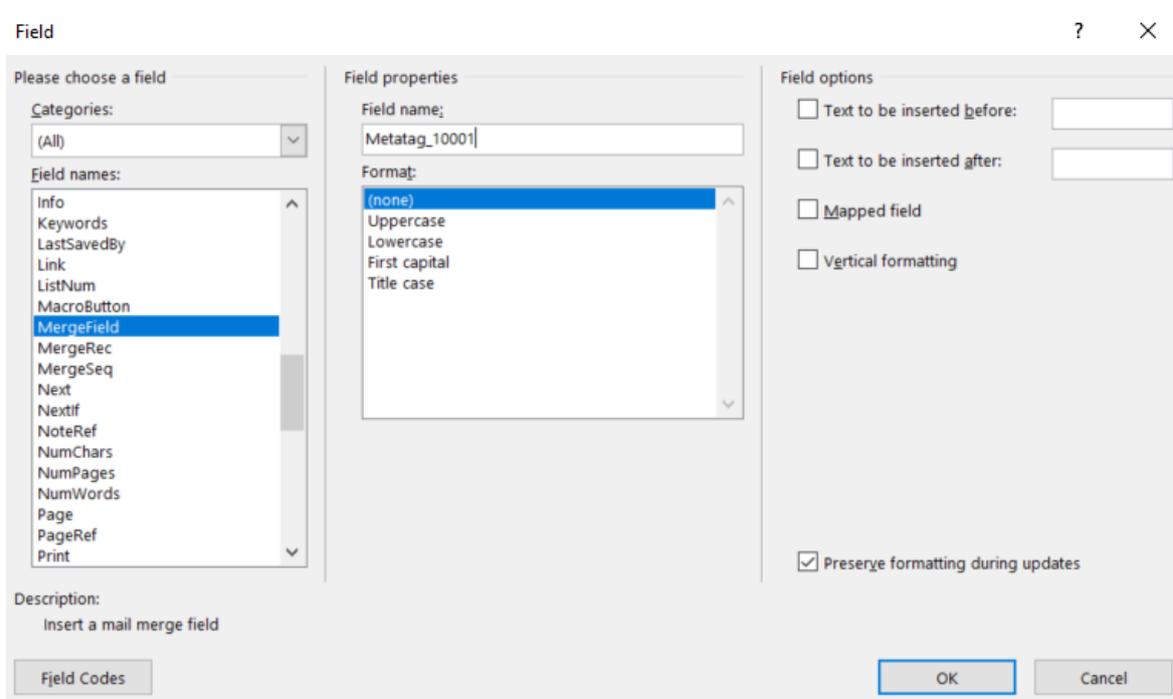


Fig. 3.2: „Field“ dialog in MS Word.

Please note that Mergefields can not be copied. They always need to be inserted via the insert process at the desired spot.

3.2 Link Mergefields

For the course and course template export, it is possible to provide also Links in the template document, following that the system will replace the link address based on the meta tag used as placeholder.

Before starting, please select Alt+F9 to switch to the code view for Mergefields, to be able to follow the structure presented in the steps included in this tutorial.

In order to create a link Mergefield, we first need to create a Bookmark. To do this, navigate o the Insert tab and in the Links section, pick Bookmark.

In the window that opens, provide a name for the bookmark and click: Add

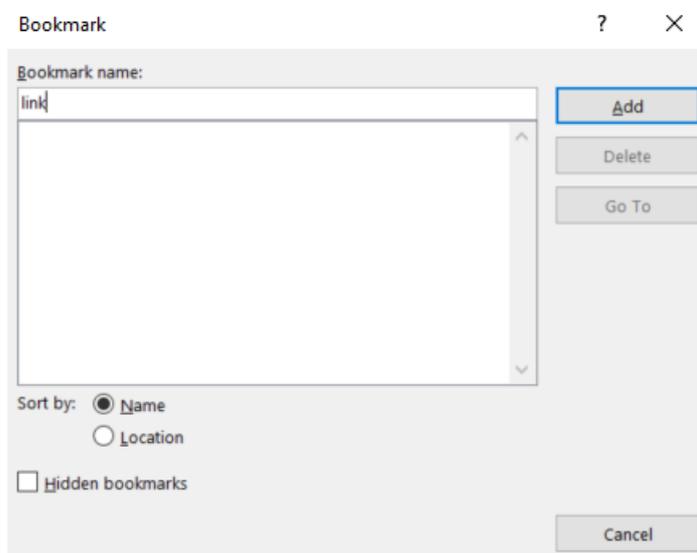


Fig. 3.3: „Bookmark“ dialog in MS Word.

Afterwards, navigate to Insert-> Quick Parts and in the field names list, search for Hyperlink:

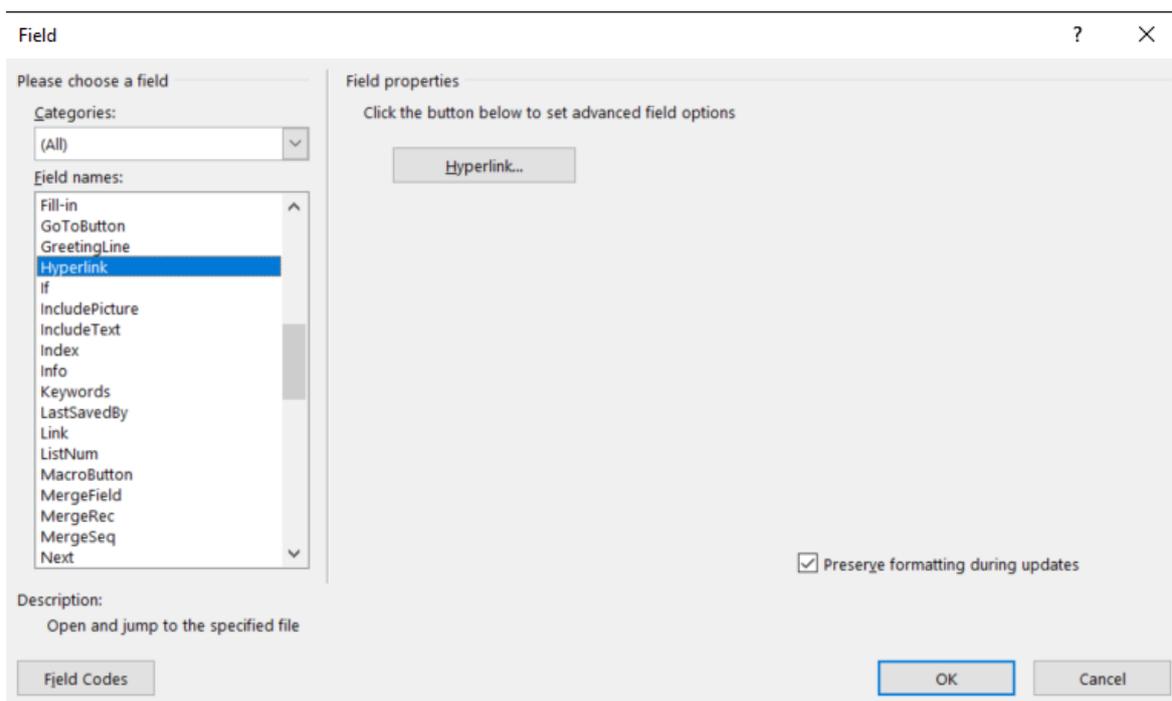


Fig. 3.4: Search for „Hyperlink“ in „Fields“ dialog in MS Word.

In the right pane, select the Hyperlink button, and in the “Text to display” field, add a text and in the Address field type e.g. Replace.
 The result will be as seen here:

```
{ HYPERLINK "REPLACE" }
```

Remove the text between the quotation marks to get to an entry looking like this:

```
{ HYPERLINK "" }
```

Position your cursor in between the quotation marks and navigate once again to Insert-> Quick Parts and select MergeField and add a mergefield pointing to the desired placeholder key.
 This should result in the following input:

```
{ HYPERLINK "{ MERGEFIELD LINK_URL \* MERGEFORMAT }" }
```

Position the cursor before the last quotation mark. (It should already be there after the Mergefield was added).
 Navigate to Insert-> Quick parts and this time we need to select an input of type: Set Here we can find our bookmark and select it.

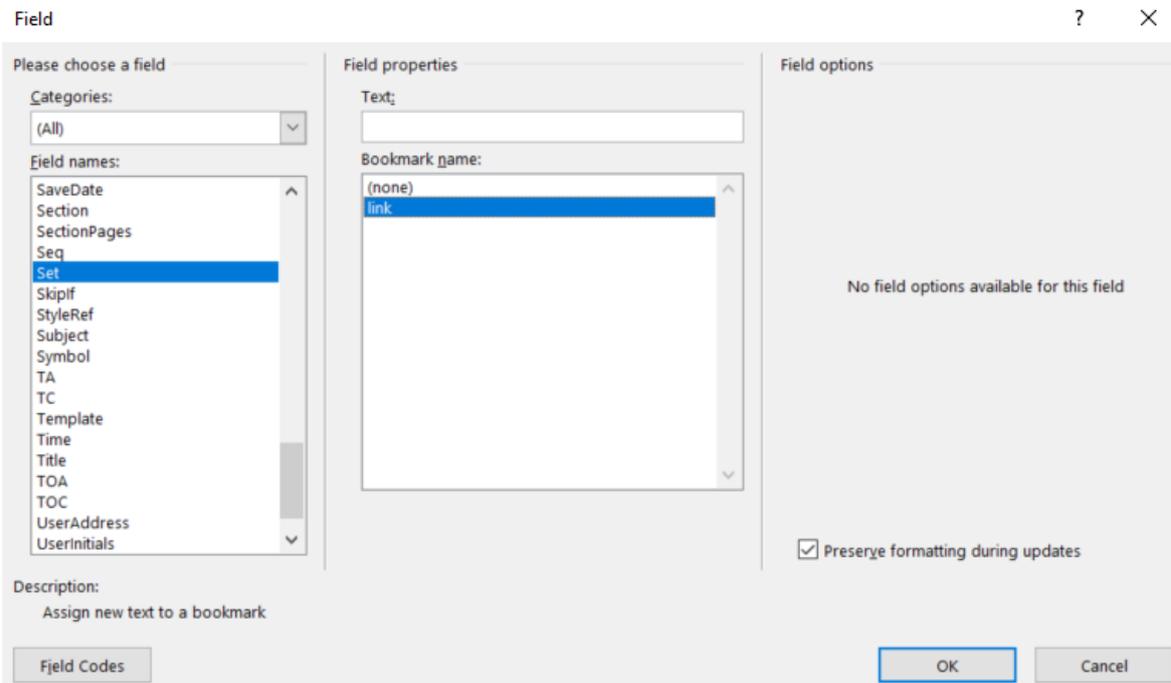


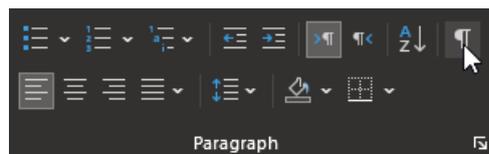
Fig. 3.5: Set bookmark in „Fields“ dialog in MS Word.

Click Ok.

The input should now look as seen below:

```
{ HYPERLINK "{ MERGEFIELD LINK_URL \* MERGEFORMAT } { SET link \* MERGEFORMAT }" }
```

Now, before moving forward, activate the paragraph marks by navigating to Home-> Paragraph



The input should look now as follows:

```
{ HYPERLINK "{ MERGEFIELD LINK_URL \* MERGEFORMAT } { SET linktest \* MERGEFORMAT }" }
```

Save your document and close it.

Finally, remove the set and the extra dots surrounding the placeholder name. The final version should look like this:

```
{ HYPERLINK "{ MERGEFIELD LINK_URL \* MERGEFORMAT }" }
```

You can now disable paragraph mode and press once more Alt+F9 to return to the normal view and the formatted hyperlink should now be final.

3.3 Specify whether HTML formatting should be kept

For course and course template exports, it is possible to define via the placeholder key, whether the HTML formatting provided as value for the meta tag in the LMS should be kept or not.

When it is desired to keep the formatting defined in the LMS, the placeholder key must be prefixed by adding "HTML_" in front of the placeholder key. E.g: HTML_METATAG_10001

When this additional prefix is not added, the system will remove the formatting of the meta tag content and will provide the resulting value as plain text into the exported document.

3.4 Adding a list of courses from the course template

When it is desired to generate a document containing information about the course template and in addition also a list containing information about each course created from the given template, a specific Mergefield type must be provided.

First, create a table in your docx file. The table should have at least one row besides the table header.

In the first row, provide the following information:

- In the first cell, provide a Mergefield with the text: TableStart:Courses
- Right after this field, add in the same column the Mergefield for the information you need to map in that table column.
- Add the needed Mergefields in the other column based on the information you need mapped there
- In the last column, after providing the Mergefield for the meta tag, add another Mergefield right after it, with the text: TableEnd:Courses

The result should look like this:

«TableStart:Courses»«USERDEFINED_ID»	«METATAG_10000»	«METATAG_10001»	«METATAG_10001»	«METATAG_10001»«TableEnd:Courses»
--------------------------------------	-----------------	-----------------	-----------------	-----------------------------------

Note: Please do not copy the table above as mergefields can not be copied and need to be created only via the Insert function as described above.

Note: This type of handling for lists is only valid for course templates, when it is desired to generate the corresponding list of courses. For participant list export, please use the dedicated merge type option available for the export template in the export template manager.

4 Generating the documents

After setting up the export template in the export templates manager, the documents can be exported as follows:

- Courses and Course templates can be exported based on the template by navigating to the corresponding Course or Course templates manager and using the Export function via the dedicated action in the toolbar. This action is available based on the access rights defined for the given navigation menu
- Participant export can be performed by navigating to a concrete course and opening the Participant administration menu. Here, the export option is available under the Data export – Message template action in the toolbar.

5 Course certificates based on .docx templates

Course certificates can be created based on .docx templates and generated either as a protected docx file or as PDF.

The placeholder handling is not based on mergefields for this type of document. In this case, the placeholder can be provided manually in the template field by following the pattern:

`${USERFIRSTNAME}`

The special characters `${placeholderKey}` must be used to identify the placeholder area.

When working with the template, it is important that the resulting content is valid, therefore special attention must be paid to not formatting only parts of a placeholder, as this will result in the placeholder not being recognized anymore.

A tool for checking the validity of the content of the docx file can be found at <https://docx4java.org/docx4j>. Here you can find an .exe file which will allow installing the plugin for MS Word. This add-on can be installed and is then available as part of MS Word to be used after selecting a certain portion of text. This tool can help identify if any placeholders have been impacted by the formatting.

An improperly formatted placeholder will be split in the xml structure and will no longer be recognized.

Note: imc does not guarantee the availability of this tool and does not assume responsibility for its usage.

Custom fonts

For custom fonts to be recognized, they need to be available on the server in the path:
data/printdesign/fonts

6 **Out-of-Scope**

For the documents that can be generated based on .dox templates, there is a limitation to meta tags and attributes that can be reasonably converted to plain text, or for which html can be enabled. Images or other special type of output is not supported as part of the document generation.

7 **Effects on other components**

No effects on other components.

8 **Data migration**

No data migration necessary.

9 **Data protection and security**

No impact on data protection and security