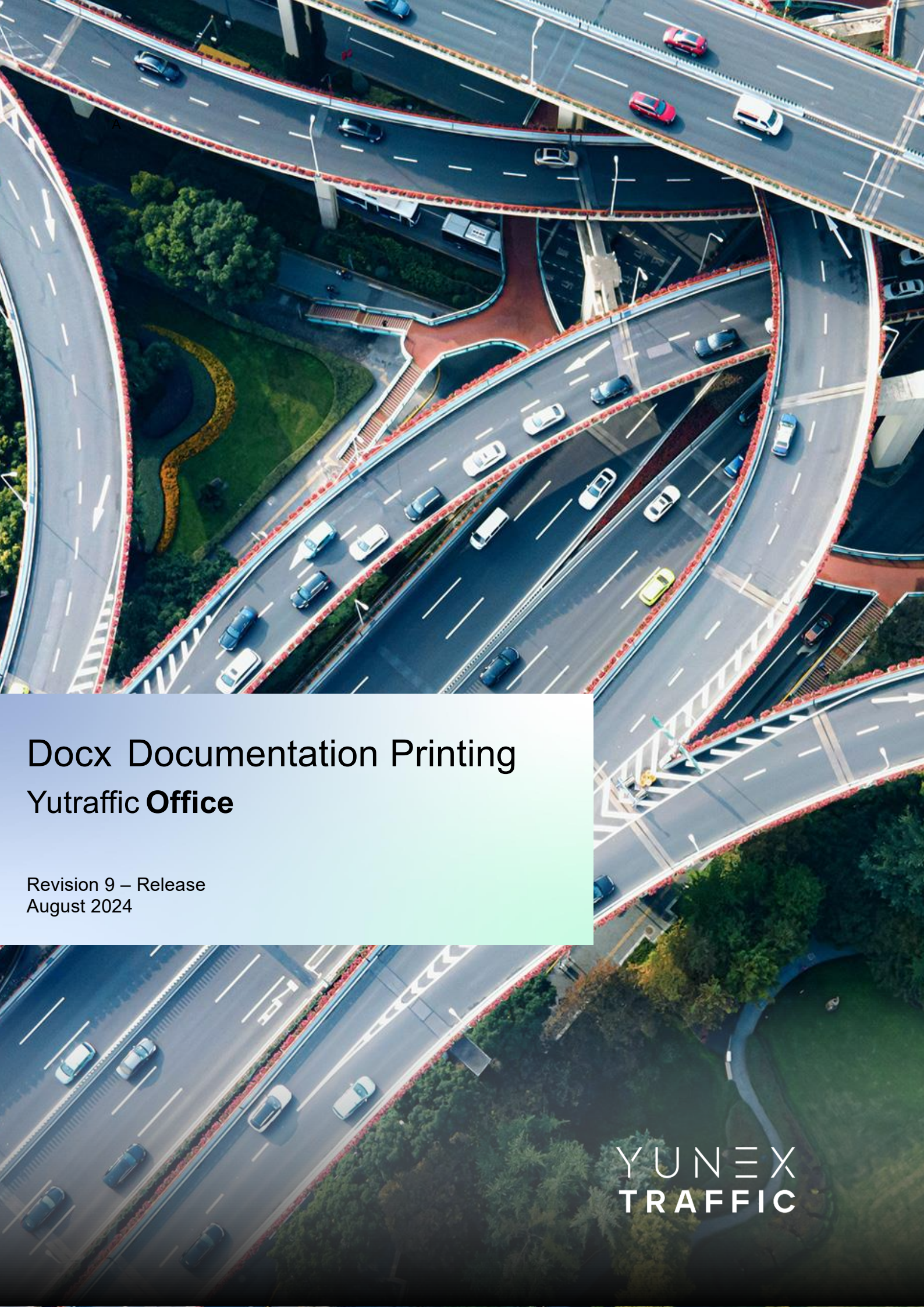

Docx Documentation Printing

Yutraffic **Office**

Revision 9 – Release
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YUNEX TRAFFIC

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1. Document Creation

1.1. Introduction

As of Yutraffic Office 8.1, a documentation printout for Microsoft Word (*.docx) is available in addition to the familiar MDoku documentation printout (*.pdf). Docx printing covers all planning data and has been continuously expanded to include supply data since Office 8.6. This document provides a brief introduction to Docx documentation printing and is intended to enable flexible and efficient use of the functionality. YouTube tutorials are also available.

This description was created for Microsoft® Word for Microsoft 365 MSO (Version 2309 Build 16.0.16827.20278) and Yutraffic Office 8.7.

1.2. Step-by-step instructions

Selecting the menu item “Print” in the main window starts a wizard that guides you through the document creation process.

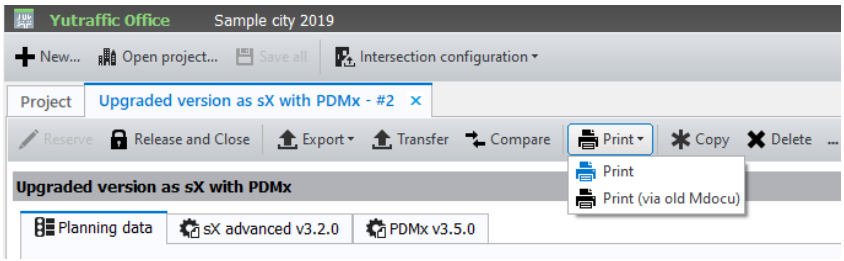


Fig. 1: Menu item for starting Docx printing in the Office main window. The menu item is visible in the “Intersection planning” and “Intersection configuration” perspectives.

Step 1: Starting the Print-Wizard

The start page of the print wizard offers the option of displaying the current manual for Docx documentation printing and a short introductory video.

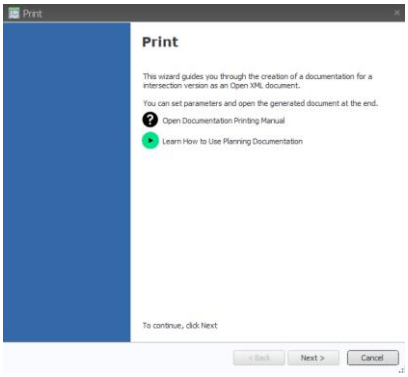


Fig. 2: The start page of the print wizard offers two options to obtain more detailed information on using the print function.

Step 2: Select template and document name

The second step is to define the print template used for document creation and the name of the document to be created:

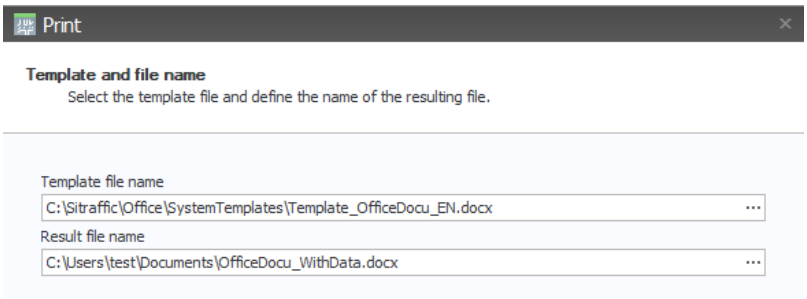


Fig. 3: Print dialog for selecting the template and the document.

Two standard templates are delivered with the Office installation. These are located under *C:\Sitraffic\Office\SystemTemplates* and support the following two use cases:

- Documentation printing: *Template_OfficeDocu_EN.docx*
- Editor preview print: *Template_OfficeDocu_Editor_EN.docx*

In general, the print templates are used to customize the documentation while at the same time reducing the effort required for manual reworking. See chapter 2 for details.

Please note: If one of the two files (template or documentation) has already been opened by another program, this is displayed as an error with a red cross on the user interface.

Step 3: Selecting the objects to be printed

In the third step, the objects to be printed (e.g. signal programs or the annual automatic) and the desired object instances (e.g. SP 1 and 3) are defined. The selection and sequence of objects can be defined using the templates. See chapter 2.1 for details.

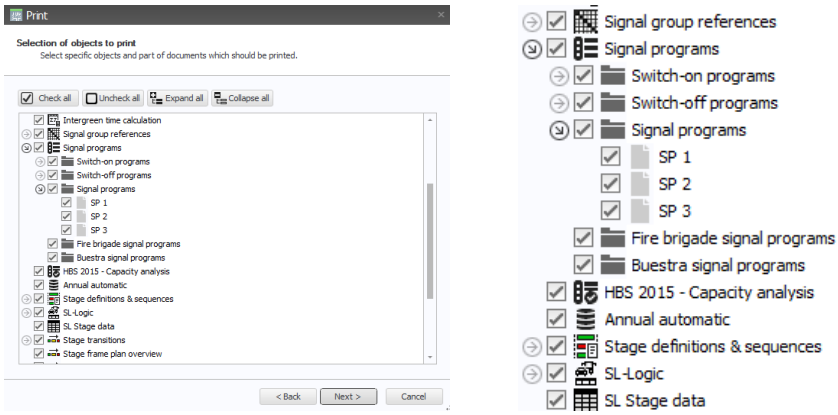


Fig. 4: Print dialog for selecting objects and their instances. Only the selected instances of an object are printed.

Step 4: Customizing the fields to be printed

In the fourth step, the fields to be printed (e.g. node name, Znr, Fnr) can be customized. If no adjustments are made, the values are taken unchanged from the properties of the node version for which the documentation is to be created.

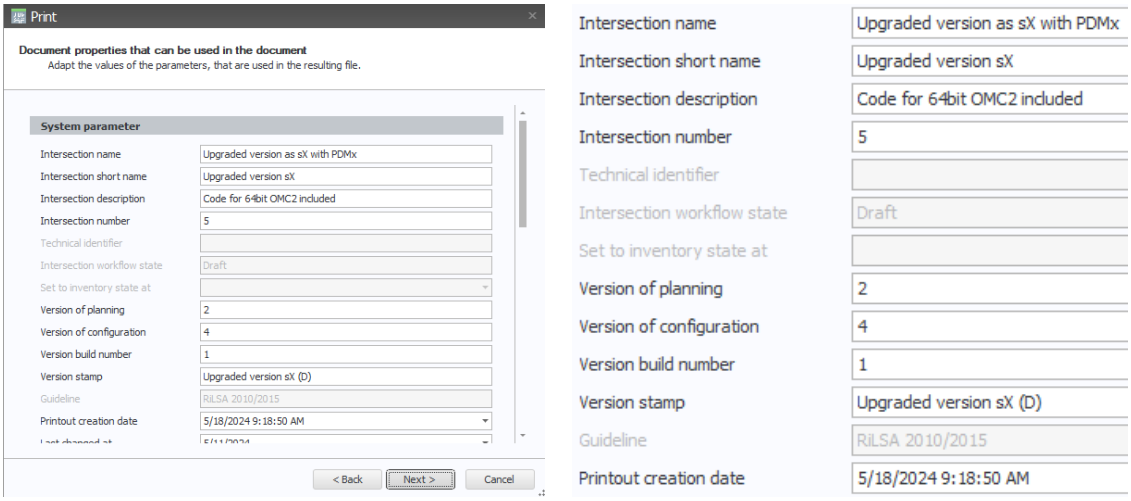


Fig. 5: Print dialog for adjusting the fields with the intersection properties. Without manual adjustments, the data is taken directly from the properties of the intersection version.

Fields in Microsoft Word are variables that can be described by the user. They are used within the print templates and serve to individualize the documentation. See chapter 2.4 for details.

Step 5: Printing options

In the fifth step, the output format of the documentation can be selected. The formats *.docx and *.pdf are currently supported. You can also select whether the documentation should be opened automatically once it has been generated.

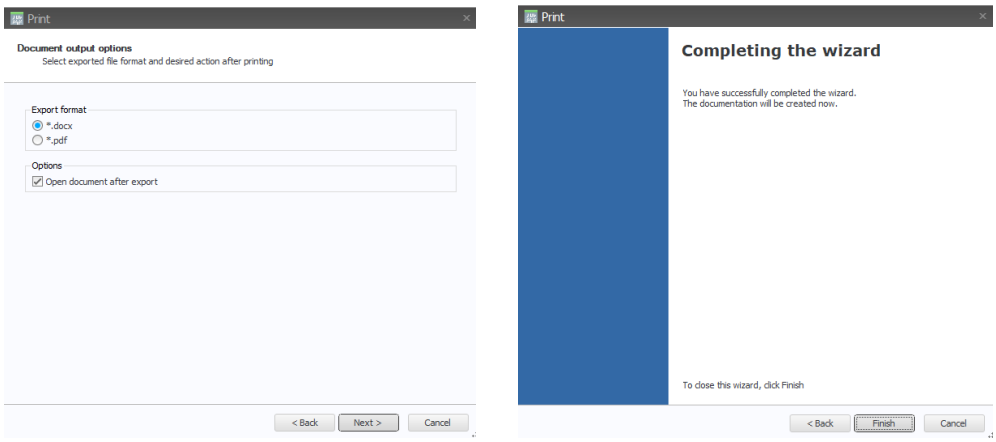


Fig. 6: Print dialog with various options for document creation and automatic opening of the document.

Please note: Regardless of the selected option for the output format, a *.docx document is always created. Optionally, Office can generate a *.pdf directly from this in a subsequent step. In both cases, adjustments to the content and form of the documentation are made in the *.docx format template.

Please note: The *.pdf generation does not require Microsoft Word. However, the fonts used in the document template should also be available on the operating system used. Otherwise there will be differences between the document template and the generated documentation.

Step 6: Starting the printout

In the sixth and final step, the generation of the document is started. By going back to the previous steps, settings made so far can be adjusted again here.

Please note: Depending on the selected scope and the options used, generation may take several minutes. The progress is displayed in a separate dialog.

2. Customizing the Print Template

The standard print templates supplied with Yutraffic Office can be found under *C:\Sitraffic\Office\SystemTemplates* and are used to customize the documentation. There is one template each for German and English for documentation and preview printing:

- Documentation print: *Template_OfficeDocu_EN.docx*
- Editor preview print: *Template_OfficeDocu_Editor_EN.docx*

2.1. Selection and sequence

The templates contain special print markings. These are used to define the selection and sequence of the objects to be printed.

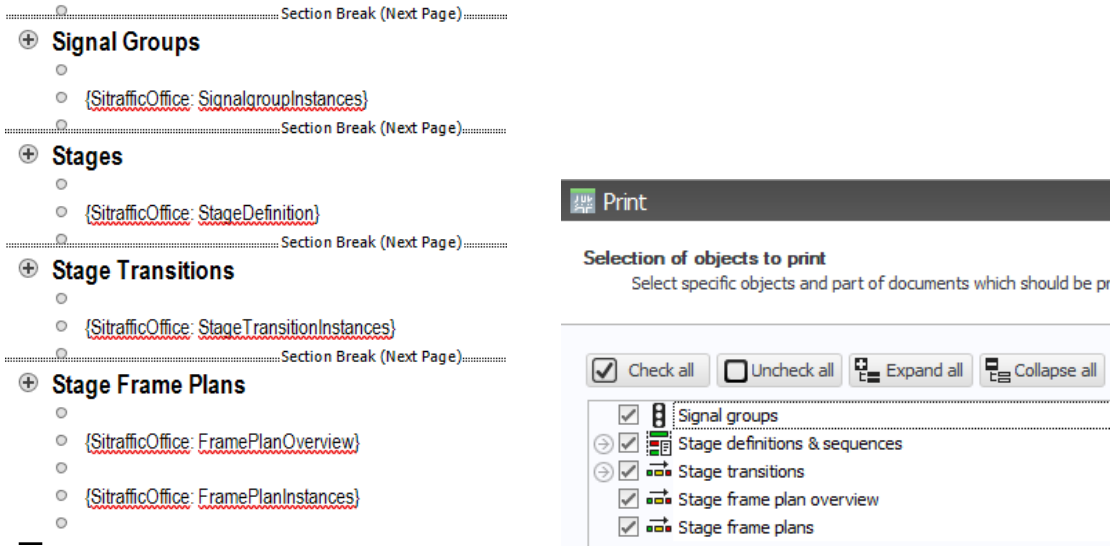


Fig. 7: The illustration on the left shows an example of the print markings of the individual objects in the template (outline view). The right-hand side shows the corresponding object selection in the print dialog.

The standard template contains 28 print markers (e.g. *{SitrafficOffice: StageDefinition.}*). Each marker corresponds to a printable object (see chapter 4.1). In step 2 of the print dialog (see chapter 1), only those objects appear for which there are also markings in the template. The order of the objects displayed in the dialog corresponds to the order of the markings in the template. This sequence is then also found in the finished printout.

Depending on the object, there may be an associated list of instances (e.g. phase transitions). Their sequence is defined as usual in the respective editor. The instances required for the documentation can then be selected in the print dialog. The easiest way to edit the print marks is in the “Outline” view. You can then switch back to the usual view via “Print layout”.

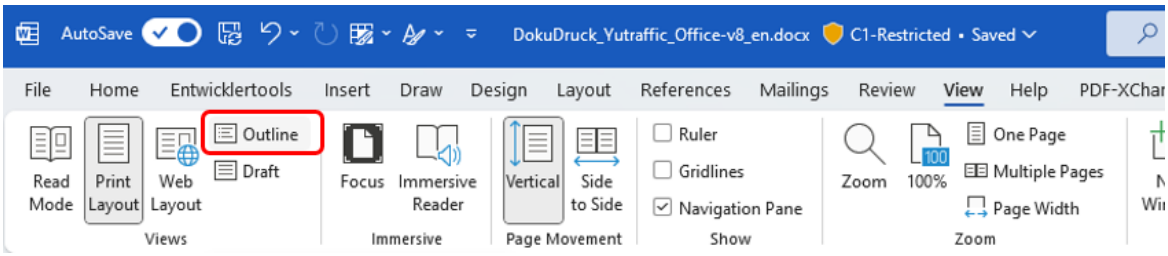


Fig. 8: Microsoft Word main window for switching between outline view and print layout.

For example, standard templates can be created for various applications such as planning or device documentation. The template then only contains the print markings for the desired objects (see also 4.4.5).

2.2. Page layout

Depending on the type of objects, it makes sense to adjust the orientation of the pages (e.g. landscape format for site plans or portrait format for the signal group list). To do this, please select a section in the “Outline” view and then make the appropriate adjustment via *Layout->Alignment*.

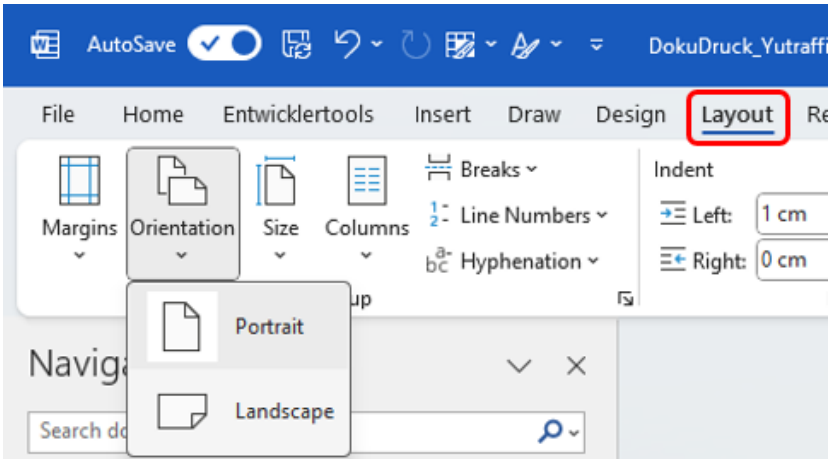


Fig. 9: Microsoft Word main window for setting the page layout.

Please note: The horizontal scaling of the signal programs is printed depending on the available width of the page. That scaling can’t be changed by subsequently changing the page layout. Therefore, when changing from landscape to portrait format, please ensure that the entire duration of the signal program is still visible.

2.3. Page breaks

The page layout settings are always applied to all pages of the same section. In order to have different page layouts for different sections (e.g. signal

programs in landscape format, matrices in portrait format), it can be useful to insert breaks: *Layout-> Breaks*

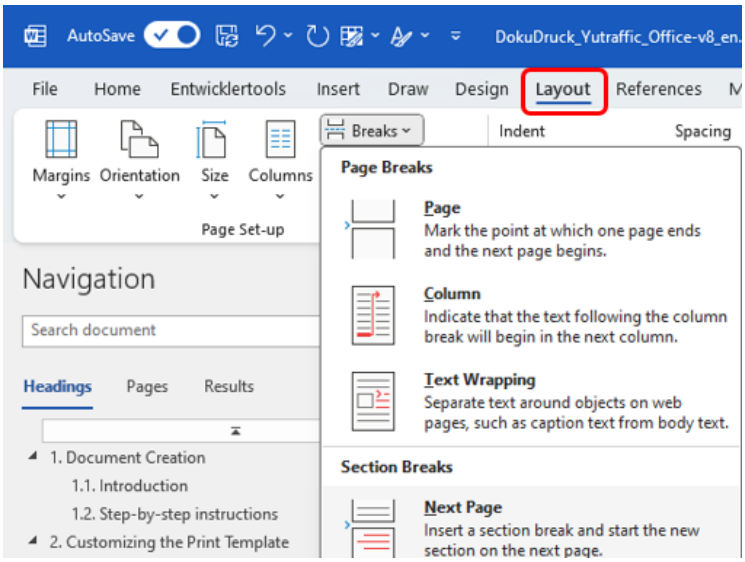


Fig. 10: Microsoft Word main window for inserting page breaks or sections. The page layout can be selected separately for each section.

2.4. Table properties

Each object is assigned an unchangeable table type (e.g. *sitraffic matrix* for IT- or OT matrices). The table type defines various properties, such as the font and font size for displaying the respective entries or the line width for displaying the table itself.

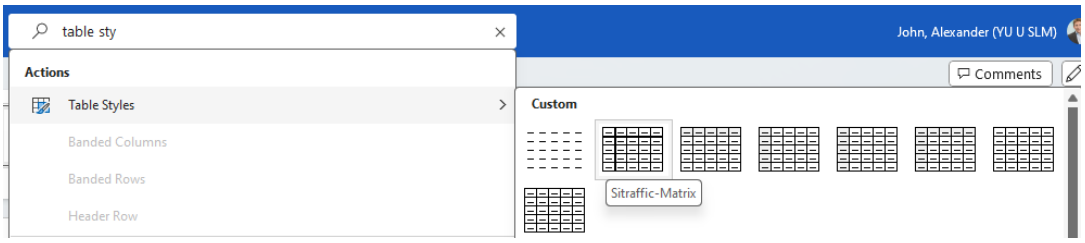


Fig. 11: Microsoft Word main window for customizing the table styles.

To change the properties for a table type, first delete the type and then create a new one with the desired properties. Alternatively, the table properties can also be adjusted in the finished document. It is also somewhat easier to change the table properties in the generated document (see section 3.2).
Please note: The name of the newly created table type must correspond exactly to one of the predefined identifiers. An overview of the table types and the corresponding objects can be found in chapter 4.2.

2.5. Use of fields

By using the so-called fields, various values, such as the short name of the intersection *IntersectionShortName*, can be automatically included and updated in the documentation. For this purpose, the fields are placed at the desired positions in the template and made visible with the ALT + F9 key combination for easier recognition.

{ DOCPROPERTY IntersectionShortName * MERGEFORMAT }

Fig. 12: Display of fields in MS Word documents (ALT + F9).

A selection of the most common fields can be found in the standard template in the “General” chapter. All fields supported in the template are available for selection via *Insert -> Quick modules -> Field -> DocProperty* (see chapter 4.3).

To transfer the specific value of a field to the document to be created, the field must be updated. This is possible in three ways.

2.5.1. Manual update

For manual updating, fields can be selected and updated by pressing F9. This function can also be called up via the context menu *(right mouse button) -> “Update fields”*.

2.5.2. Auto update

As an alternative to manual updating, automatic updating can be used during document generation (see Fig. 13 on the right):
File -> Options ->Display -> “Update fields before printing”
The automatic update offers the advantage that the headers and footers in particular are also covered.

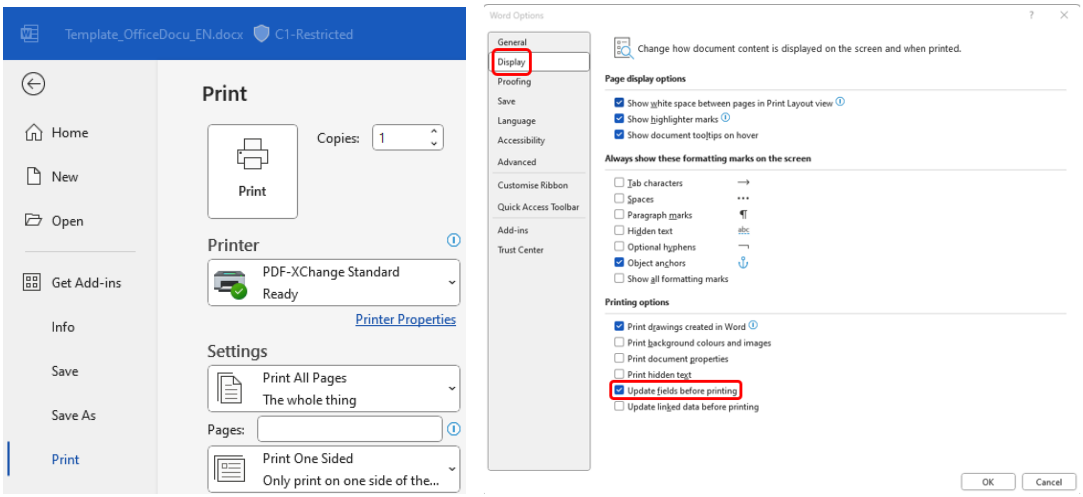


Fig. 13: Microsoft Word main window for customizing the table styles.

2.5.3. Print again

If the fields are to be updated without generating a document, it is sufficient to select the page preview for the printout (see Fig. 13 left). All fields in the document are updated in this way even without printing the documentation (shortcut Ctrl + P).

2.6. Header/footer and page number

Headers and footers can be customized via *Insert -> Header* and *Footer*. Fields with additional information about the document (e.g. Name of intersection or Fnr) can be inserted within the headers and footers, for example. The display of the page number can also be defined in this view.

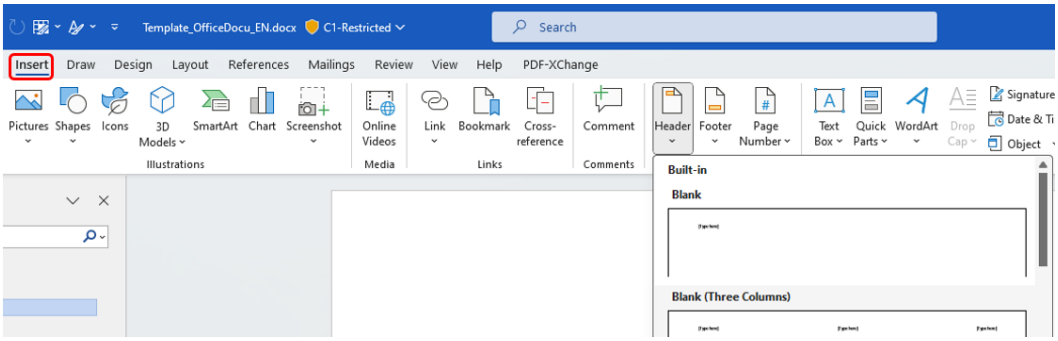


Fig. 14: Microsoft Word main window for creating headers/footers and inserting the page number.

3. Customizing the Documentation

In some cases, it is easier to make adjustments directly in the finished document. This is particularly the case when an existing document needs to be updated with new data (e.g. additional or modified signal programs).

3.1. Update of objects

After printing, there are two ways to update the objects.

3.1.1. Printing again

At the end of the printing process, all print marks are automatically removed from the finished document. If the documentation for an object, e.g. for certain instances of phase transitions, is to be updated subsequently, please proceed as follows:

- remove the old printout of the respective object from the existing documentation
- insert the corresponding marker (e.g. *{SitrafficOffice: StageTransitionInstances}*) into the documentation - see chapter 4.1
- Define the modified document as a template in the print dialog and then generate the documentation updated with the new objects.

3.1.2. Printing a separate document

As an alternative to inserting a print marker and reprinting, the objects to be updated can be printed in a separate document. This is possible, for example, via the page preview print in the respective editor. From there, the updated objects can be inserted into the documentation via copy & paste.

3.2. Updating of fields

After printing, there are two ways to update the fields. Updating means setting the value of a field again based on the data of the node version (e.g. *IntersectionDescription*).

3.2.1. Printing again

When printing the document again, the values of the fields can also be reset manually at the same time (see chapter 1, step 3). It is important that at least one object has also been selected for updating.

3.2.2. Setting the field value again

The value of a field can also be changed directly in the created document. To do this, please call up the following dialog from the main window via *File->Information*:

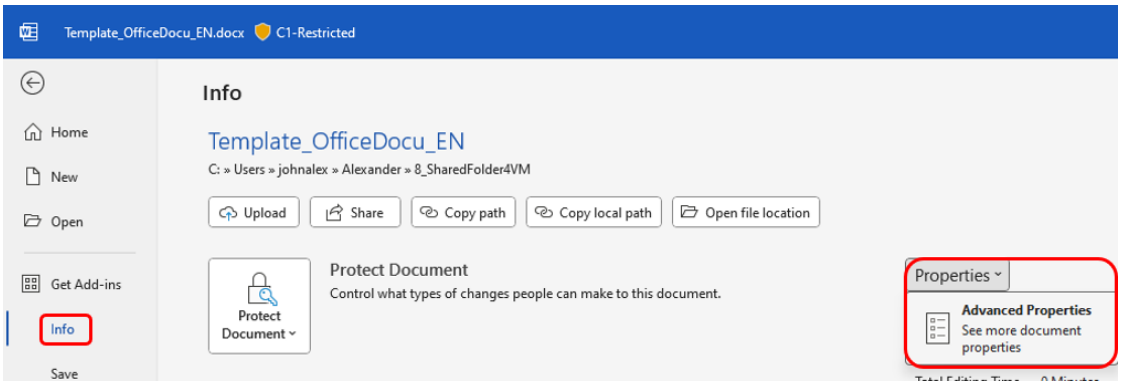


Fig. 15: Dialog to open the extended document properties.

The window that then opens offers a selection of the available fields with the currently set value under “Customize”.

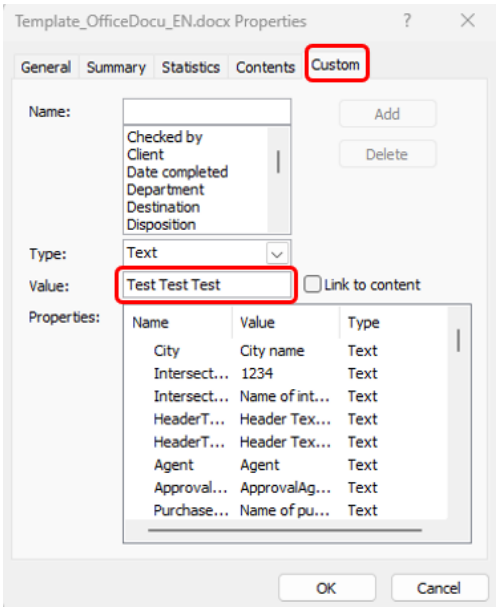
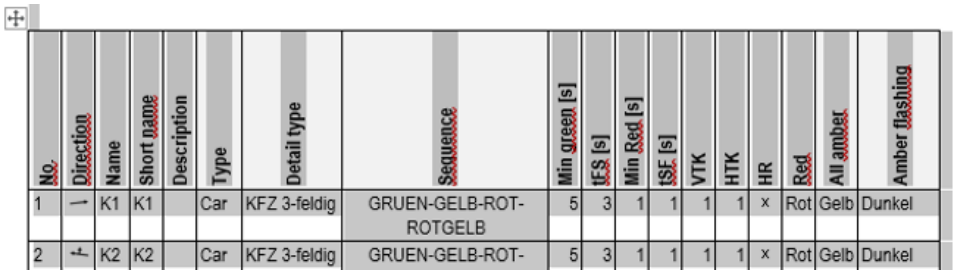


Fig. 16: Dialog for setting the field values in a document.

To apply the new value set here to the entire document, please proceed as described in section 2.5.

3.3. Tables

Tables can be customized individually or collectively for the individual table types. Regardless of the desired changes, the table must first be selected. To do this, please click in the top left-hand corner:



No.	Direction	Name	Short name	Description	Type	Detail type	Sequence	Min green [s]	tFS [s]	Min Red [s]	tSF [s]	VTK	HTK	HR	Red	All amber	Amber flashing
1	↑	K1	K1		Car	KFZ 3-feldig	GRUEN-GELB-ROT-ROTGELB	5	3	1	1	1	1	x	Rot	Gelb	Dunkel
2	↑	K2	K2		Car	KFZ 3-feldig	GRUEN-GELB-ROT-	5	3	1	1	1	1	x	Rot	Gelb	Dunkel

Fig. 17: Selection of a table in a Word document.

3.3.1. Customizing individual tables

The column width can be adjusted via the context menu. The most common options are “Auto fit to content” or “Fit size to window”.

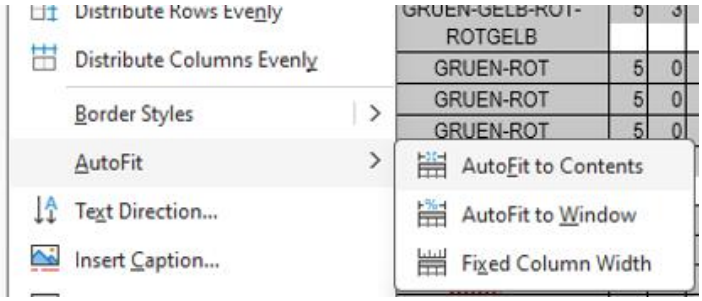


Fig. 18: Options for automatic formatting of tables in the Word document.

3.3.2. Customizing the table format

The format can also be adjusted for all tables of the same type at the same time. The table type (e.g. Sitraffic-Table) is selected in the Word header by double-clicking on the edge of the table. The properties of the type can then be changed via the context menu.

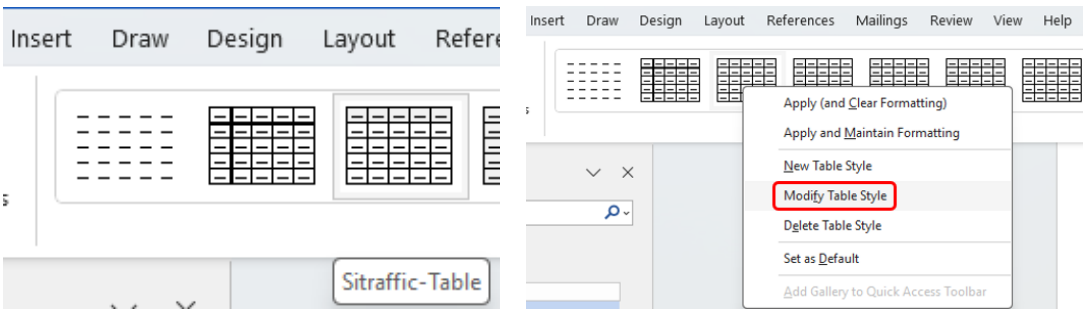


Fig. 19.: Microsoft Word main window for adjusting the table format in the document.

4. Appendix

4.1. Print markings

This overview shows the available print markers.

Name of marker	Object	Office Version
{SitrafficOffice: Description}	User data	from 8.1
{SitrafficOffice: ConflictingPlan}	Layout plan	from 8.1
{SitrafficOffice: VolumeFlowInstances}	Volume flows	from 8.1
{SitrafficOffice: SignalgroupInstances}	Signal group list	from 8.1
{SitrafficOffice: SignalgroupHeadInstances}	Signal heads	from 8.1
{SitrafficOffice: DemandInstances}	Detectors	from 8.1
{SitrafficOffice: DetectorExtendedInstances}	Extended detector parameters	from 8.7
{SitrafficOffice: RequestInstances}	Request instances	from 8.1
{SitrafficOffice: ExtensionInstances}	Extension instances	from 8.1
{SitrafficOffice: ReportingPointInstances}	Reporting point list	from 8.7
{SitrafficOffice: PublicTransportInstances}	PT directions	from 8.1
{SitrafficOffice: IntergreentimeCalculationInstances}	Integreen time calculation	from 8.1
{SitrafficOffice: Matrices}	IT- and OT matrices	from 8.3
{SitrafficOffice: SignalPrograms}	Signal programs	from 8.6
{SitrafficOffice: HBS2015CapacityAnalysis}	HBS 2015	from 8.1
{SitrafficOffice: AnnualAutomaticInstances}	Annual automatic (JAUT)	from 8.1
{SitrafficOffice: StageDefinition}	Stage definition	from 8.2
{SitrafficOffice: StageTransitionInstances}	Stage transitions	from 8.5
{SitrafficOffice: FramePlanOverview}	Stage frame plans - Overview	from 8.1
{SitrafficOffice: FramePlanInstances}	Stage frame plans	from 8.1
{SitrafficOffice: SlLogic}	SL Demand-/extension conditions	from 8.2
{SitrafficOffice: SlStageData}	SL Stage data	from 8.2
{SitrafficOffice: PDMParameter}	TL User parameters – Global	from 8.4
{SitrafficOffice: PDMLogicInstances}	TL User parameters – Instances	from 8.4
{SitrafficOffice: Assignments}	Assignments	from 8.1
{SitrafficOffice: ControllerBasicSupply}	Basic supply of controller	from 8.7
{SitrafficOffice: TaMethod}	Parameters TA method	from 8.7
{SitrafficOffice: TaKernel}	Parameters TA kernel	from 8.7
{SitrafficOffice: SignalMonitoring}	Signal monitoring	from 8.7

Tab. 1: Overview of the print markings supported by Yutraffic Office.

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4.2. Headings and table types

This overview shows the available format types for headings and tables.

Font	Description	Office Version
Standard	normal text	from 8.1
Sitraffic-Heading1	heading 1. Level	from 8.1
Sitraffic-Heading2	heading 2. Level	from 8.1
Sitraffic-Heading3	heading 3. Level	from 8.1
Sitraffic-Heading4	heading 4. Level	from 8.1
Sitraffic-Legend	legend	from 8.1
Table style	**Description**	**Office Version**
Sitraffic-VerticalTable	HBS 2015	from 8.1
Sitraffic-Matrix	all matrices, e.g. signal group dependencies	from 8.1
Sitraffic-Table	all table lists, e.g. signal groups	from 8.1
Sitraffic-Table-Sp	dedicated style for signal programs	from 8.7
Sitraffic-Table-St	dedicated style for stage transitions	from 8.7

Tab. 2: Overview of the fonts and table types supported by Yutraffic Office.

4.3. Word fields

All fields available in the template can be viewed and inserted in the following way: *Insert -> Quick modules -> Field*

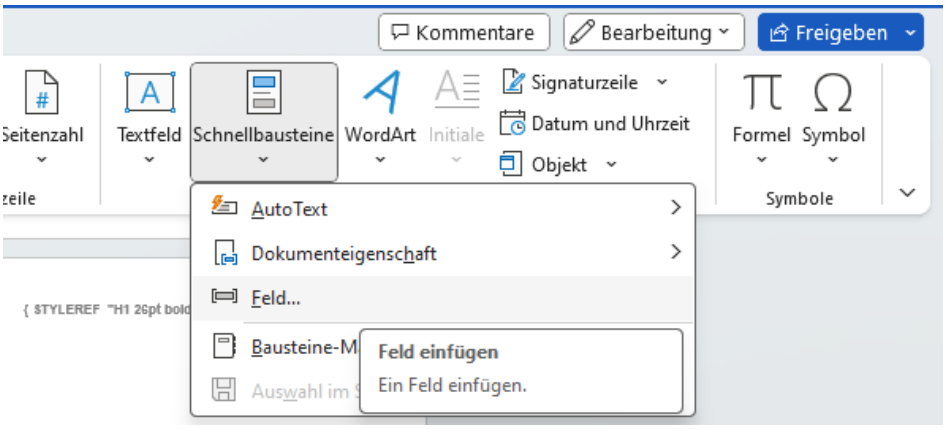

Fig. 20: Microsoft Word main window for using quick blocks.

The available fields are displayed under *Field -> DocProperty* and can be inserted by double-clicking.

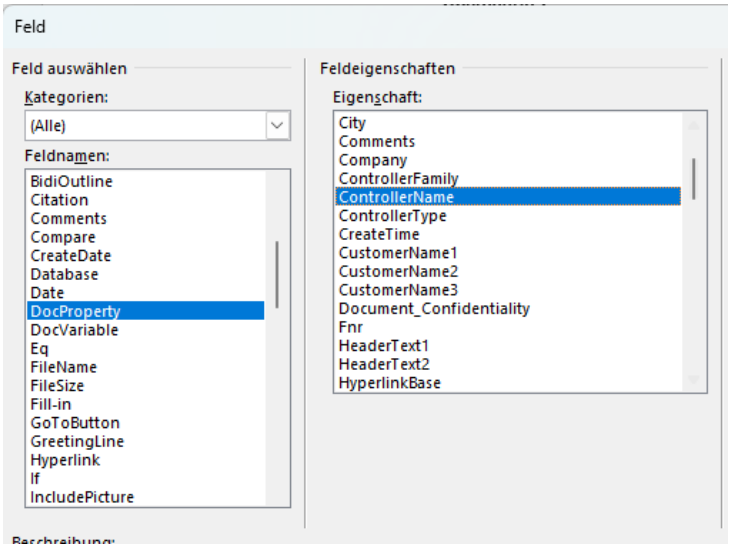

Fig. 21: Dialog for inserting fields into a document.

4.4. Tips & Tricks

4.4.1. Required license

Docx documentation printing is not available in the demo mode of Yutraffic Office.

4.4.2. Word processing program

The docx format is basically independent of the word processing program selected. However, experience has shown that the same *.docx file is interpreted differently by different word processing programs (e.g. Open Office). Therefore, the correct display and editing of documentation created with Yutraffic Office can only be guaranteed for Microsoft Word.

4.4.3. Updating standard print templates

The standard print templates under *C:\Sitraffic\Office\SystemTemplates* are updated with each new Office version. The respective changes compared to the previous version are described in the Office Release Notes. This means that user-defined templates can be specifically updated for new Office versions.

4.4.4. User-defined templates

The standard print templates under *C:\Sitraffic\Office\SystemTemplates* are updated with every new Office version. If you have created your own user-defined templates and these have the name of the standard template (e.g. *Template_OfficeDocu _EN.docx*), these will be overwritten during the installation process of the new Office version and will therefore be lost. Please give user-defined templates also a user-defined name or save them in a different directory.

4.4.5. Empty pages

If an object type (e.g. *signal programs*) is not selected in step 2 of the print dialog, the corresponding object is not inserted in the printout. Depending on the template used, this may result in blank pages. Therefore, please select the desired objects for the printout using the print markers in the template.

4.4.6. Adapting the display

For some editors, the display of the respective objects can be customized. The selected display is also used for the printout.
Please note: The selected display is intersection- and user-specific. It is not part of the supply data.

4.4.6.1. Signal programs and stage transitions

For signal programs and stage transitions (from Office 8.6), the display of the signal program can be defined in the color combination editor. This also applies to the display of special markings (e.g. GSP, manual hold points etc.) or the display of switching points in the tabular section.

4.4.6.2. Intersection layout and topology

The new combined layout- and topology editor (from Office 8.7) offers numerous options for visualizing various objects (e.g. conflict points, lanes). The selected visualization is transferred to the printout.

4.4.7. User Data

Text documents can be created directly in the Office-application itself: intersection *version-> User data*

These text documents are included in the documentation print under *{SitrafficOffice: Description}* (see chapter 4.1).
Please note: The use of user data requires the feature-license *management* (file attachments, user data,...).

4.4.8. Auto-Fit for tables

As of Office 8.7, the width of the tables is automatically adjusted to the content of the cells by default. Alternatively, the width of the table can also be adjusted to the width of the page. To do this, please replace the value “Content” with “Page” in the following file
c:\Sitraffic\Office\Bin\Sitraffic.Common.PrintingX.json

To activate a change, please restart Office.

4.4.9. Known restrictions

- Currently, i.e. with Yutraffic Office 8.7, the documentation printout of the intergreen time calculation for the Polish- and Swiss guidelines is not supported.
- Supply data was integrated into the documentation print with Office 8.6 and optimized for the sX controller family with Office 8.7. There may be deviations from the usual formatting for the Cxx and M controller family.

Contact us

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