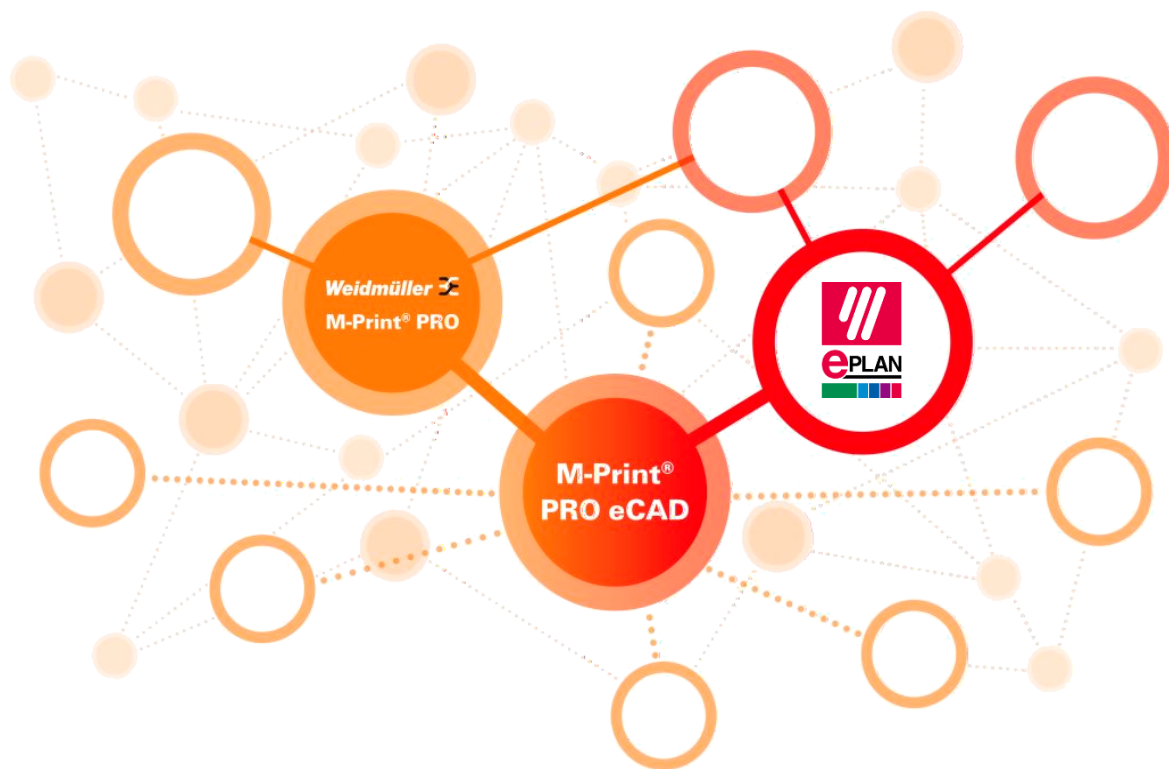


M-Print® PRO eCAD

eCAD Interface as AddOn in EPLAN Electric P8 and Pro Panel

Short Guide



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1. Description

A well-planned marking system helps to identify the various components in the enclosure more quickly. With M-Print® PRO eCAD, technicians can work faster and increase their efficiency, thereby avoiding errors. The Weidmüller interface connects your eCAD software with our marking software and guarantees a continuous data flow.



Function of the interface:

- The export data specified in EPLAN is transferred to M-Print® PRO via the M-Print® PRO eCAD interface in accordance with the previously defined specifications.
- Depending on the report type, the format elements to be exported and the file format are defined in a labelling scheme and the export file is generated as an example for further processing.
- This export file must once be imported manually into M-Print® PRO to save the import steps in an import script.
- The labelling scheme and import script are then linked to a relation via the interface.
- The relations are then printed directly, opened in M-Print® PRO or saved for later processing.

2. Preconditions

2.1. System Requirements

EPLAN Version:

- EPLAN Pro Panel ≥ v2.4
- EPLAN Electric P8 ≥ v2.4
- EPLAN Electric P8 Professional
- EPLAN Electric P8 Compact
- EPLAN Electric P8 Select

M-Print® PRO Version:

- M-Print® PRO ≥ v6.5

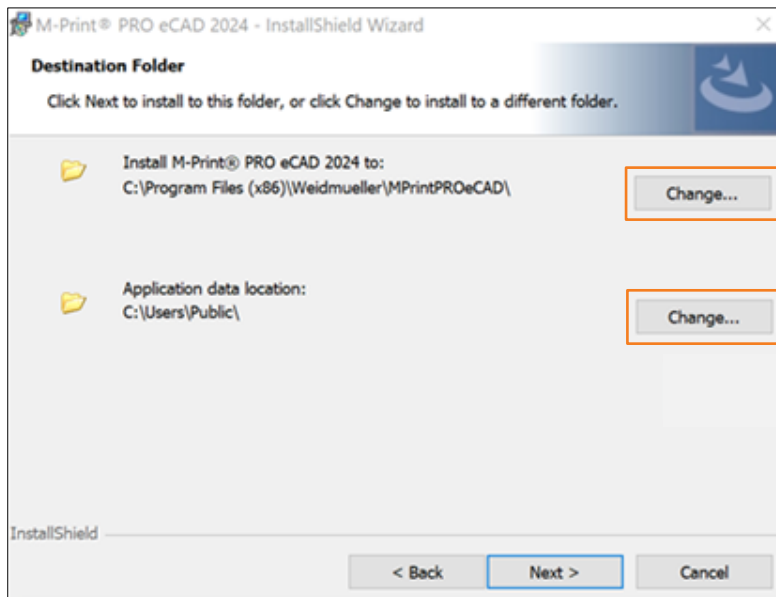
Operating System:

- 64-Bit Versions of Microsoft Windows 10 and Windows 11.

3. Installation und Commissioning

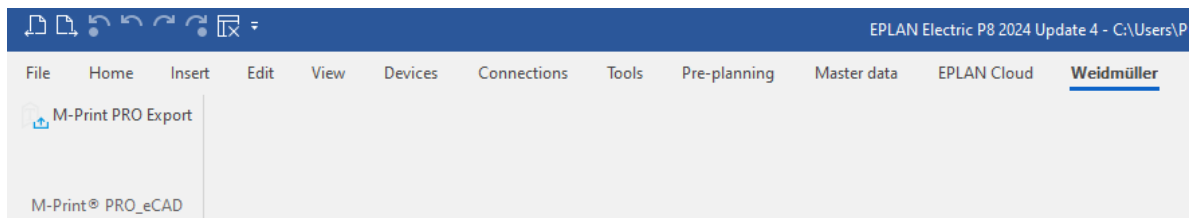
3.1. Installation of the Interface M-Print® PRO eCAD

1. Execute the setup
2. Assign the destination folders or confirm the default settings



3. Follow the installation steps

After installation, the 'Weidmüller' item with the M-Print® PRO eCAD tool for marker export is available in the EPLAN main menu.



3.2. Configuration

Data is transferred from EPLAN to M-Print® PRO via a command line call. Therefore, directory paths to relevant files must be specified in configuration files.

- Editing the configuration files in the directory
(default installation: C:\Users\Public\EPLAN\M-Print_PRO_eCAD\ConfigurationFiles)
- Check the paths to the labelling scheme files, import scripts and the call of M-Print® PRO
- Adaptation of the paths if necessary

Notice:

M-Print® PRO can be installed in different directories during planning and production (apart from a network installation). The paths to mprintpro.exe must therefore be entered accordingly.

Example:

Planning:

- M-Print_PRO_eCAD_localConfiguration.xml: PathToMPrintPro

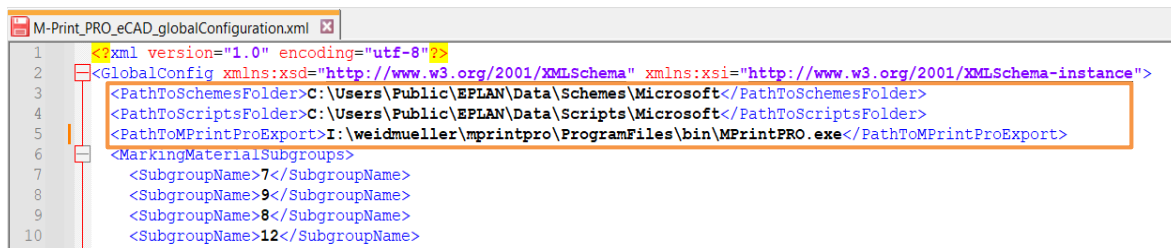


```

1  <?xml version="1.0" encoding="utf-8"?>
2  <LocalConfig xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
3    <PathToGlobalConfig>C:\Users\Public\EPLAN\M-Print_PRO_eCAD\2024.0\ConfigurationFiles\</PathToGlobalConfig>
4    <PathToMPrintPro>C:\Program Files (x86)\weidmueller\mprintpro\bin\MPrintPRO.exe</PathToMPrintPro>
5    <PathForSaveExportFile />
6    <LastUsedExportMode>OpenExportFile</LastUsedExportMode>
7    <QualityChecks>false</QualityChecks>
8    <HeightOfDialog>641</HeightOfDialog>
9    <WidthOfDialog>1101</WidthOfDialog>
10   <PositionOfDialog>
11     <X>-1738</X>
12     <Y>178</Y>
13   </PositionOfDialog>
14 </LocalConfig>
  
```

Production:

- M-Print_PRO_eCAD_globalConfiguration.xml: PathToMPrintProExport

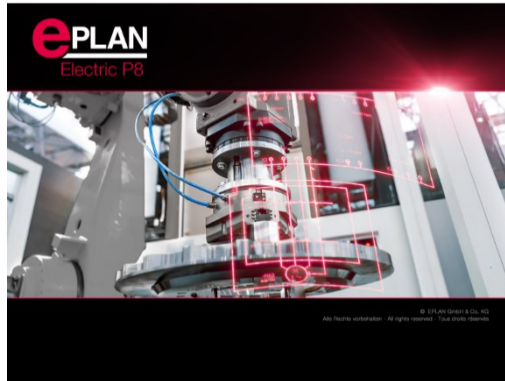


```

1  <?xml version="1.0" encoding="utf-8"?>
2  <GlobalConfig xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
3    <PathToSchemesFolder>C:\Users\Public\EPLAN\Data\Schemes\Microsoft</PathToSchemesFolder>
4    <PathToScriptsFolder>C:\Users\Public\EPLAN\Data\Scripts\Microsoft</PathToScriptsFolder>
5    <PathToMPrintProExport>I:\weidmueller\mprintpro\ProgramFiles\bin\MPrintPRO.exe</PathToMPrintProExport>
6    <MarkingMaterialSubgroups>
7      <SubgroupName>7</SubgroupName>
8      <SubgroupName>9</SubgroupName>
9      <SubgroupName>8</SubgroupName>
10     <SubgroupName>12</SubgroupName>
  
```

4. Preparation in EPLAN – Data Export

1. Start EPLAN Electric P8 or EPLAN ProPanel



2. Open or create a project

Important: During planning / design, define the property (format element) that is to be used to reference the appropriate marker type. Ideally, the article numbers of the markers are already maintained on the components in the EPLAN project so that they can be used for the export/import.

Properties (components): Terminal *

Terminal Display Symbol / function data Parts

	Part number	Number of units / quantity
1	WEI.1521690000	1
2	WEI.1609860000	...
3		0
4		0
5		0
6		0
7		0
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0

Data source: Default

Category: Parts data

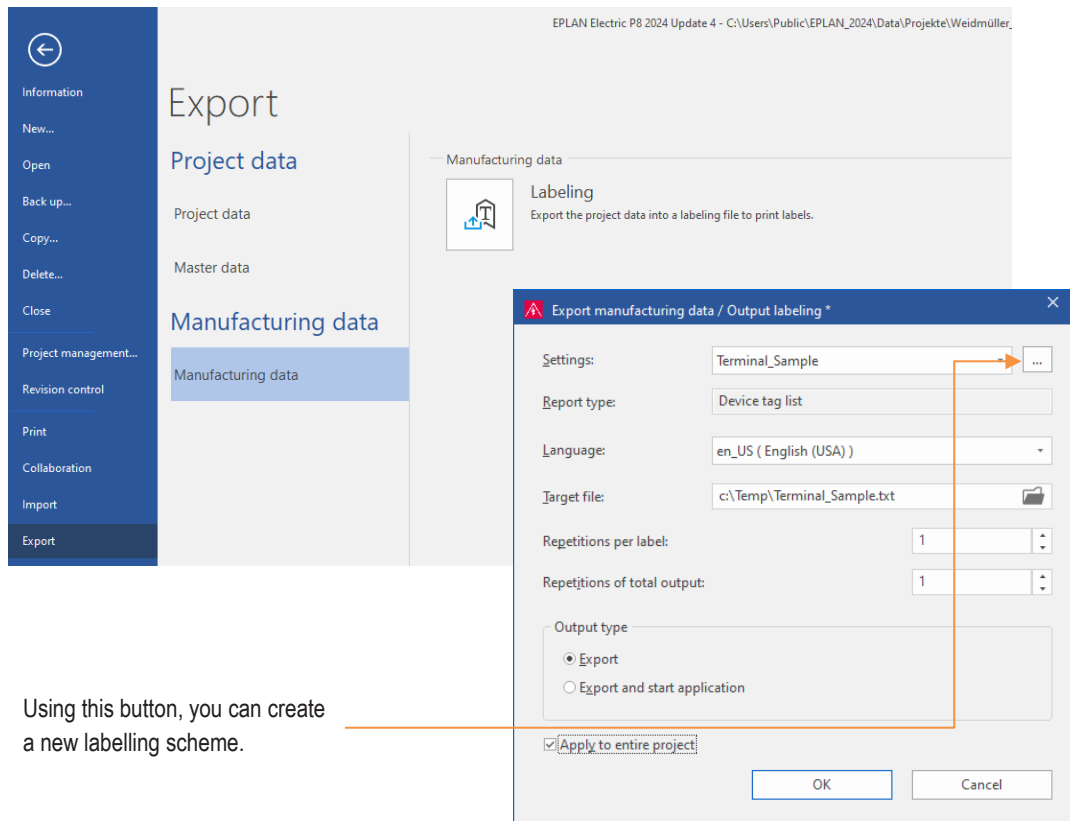
Property name	Value
Part number	WEI.1609860000
Type number	WS 12/5 MC NE WS
Order number	1609860000
Part: Designation 1	Labeling for terminal block
Part: Designation 2	Terminal marking, Pitch in mm: 5,00, ...
Manufacturer	WEI
Description	Marker for labelling terminals. The ma...
Graphical macro	\$(MD_MACROS)\Weidmueller\160986...
Height	12,00 mm
Width	4,85 mm
Depth	3,14 mm
Record type	Component
Variant	1
Product subgroup	Terminal label
Product group	Terminals
Quantity unit	piece
Image file	Weidmueller\16098600009999.jpg
Weight	0,00 kg
Space requirement	58,20 mm ²
Color	white
Quantity/packaging	1
Trade 'Electrical engineering'	<input checked="" type="checkbox"/>
Generic product group	Electrical engineering
Free properties: Displayed name [90]	ECLASS
Free properties: Value [90]	27281101

Settings Device selection

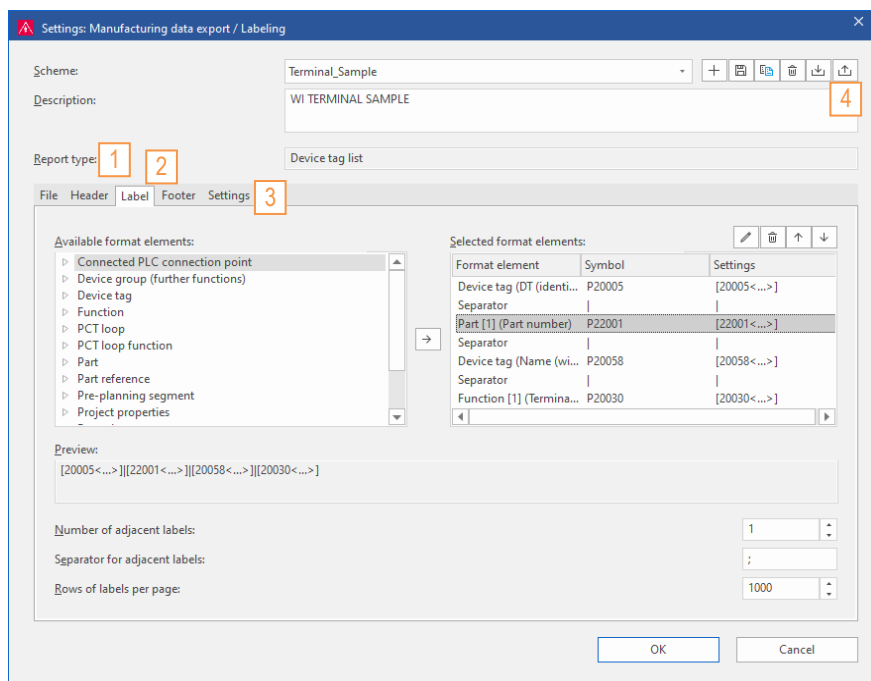
OK Cancel Apply

4.1. Create Labelling Scheme

The data to be exported is specified via 'File' > 'Export' > 'Manufacturing data' > 'Labeling' and can then be saved in a target file.

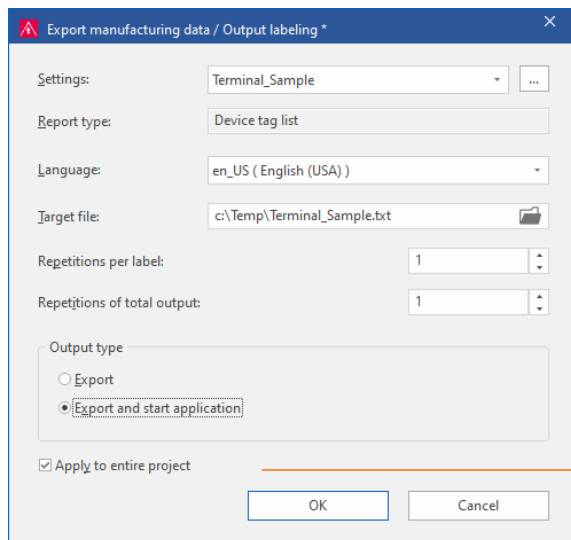


Using this button, you can create a new labelling scheme.



Define the properties to be exported and the data format:

1. **Report type**
2. **Label**
with required format elements
3. **Settings** for Filter und Parts
4. **Export** the scheme (*.xml) for later use of the interface



- Define, if this export type should be applied to the entire project.
- Export the target file.

Important: The exported file is required in the next step to create the import script in M-Print® PRO.

4.2. Define Target Marker Type

Depending on requirements, a specific marker type can be used for the import, or an exported characteristic can be used to reference different markers.

For wire markers, for example, the wire cross-section can be used as a format element from EPLAN for assignment to the different marker sizes. To do this, a reference file must be created using the reference file editor in M-Print® PRO (see section 5.1 'Creating a reference file (optional)').

If marker part numbers have already been maintained on the components in the EPLAN project, these can be used directly for the data import.

Example of an exported file with marker part numbers:

 Terminal - Editor

Datei Bearbeiten Format Ansicht ?

```
=EB3+ET2-X1|WEI.1020200000|WEI.1906000000|X1:6|6
=EB3+ET2-X1|WEI.1020200000|WEI.1906000000|X1:7|7
=EB3+ET2-X1|WEI.1020200000|WEI.1906000000|X1:8|8
=EB3+ET2-X1|WEI.7910180000|WEI.1818400000|X1:9|9
=EB3+ET2-X1|WEI.1010200000|WEI.1906000000|X1:PE|PE
=EB3+ET2-X1|WEI.1010200000|WEI.1906000000|X1:PE|PE
=EB3+ET2-X1|WEI.1608510000|WEI.9540000000|X1:12|12
=EB3+ET2-X1|WEI.1608510000|WEI.9540000000|X1:13|13
=EB3+ET2-X1|WEI.1608510000|WEI.9540000000|X1:14|14
=EB3+ET2-X1|WEI.1608640000|WEI.1854490000|X1:PE|PE
```

- Device tag information
- WEI.-No. of the marker
- WEI.-No. of the terminal block
- Project information

Example of an exported file with reference characteristic (wire cross section):

Source:	=M+CAB1-XD0:1:2	1,5
Target:	=M+CAB1-XD0:2:1	1,5
Source:	=M+CAB1-XD0:1:1	2,5
Target:	=M+CAB1-XD01:L	2,5
Source:	=M+CAB1-TB1:N(-)	1,5
Target:	=M+CAB1-XD0:3:2	1,5
Source:	=M+CAB1-XD0:3:1	2,5
Target:	=M+CAB1-XD01:N	2,5
Source:	=M+CAB1-TB1:PE	1,5

- 
- Wire cross section
 - Target connection label

5. Preparation in M-Print® PRO

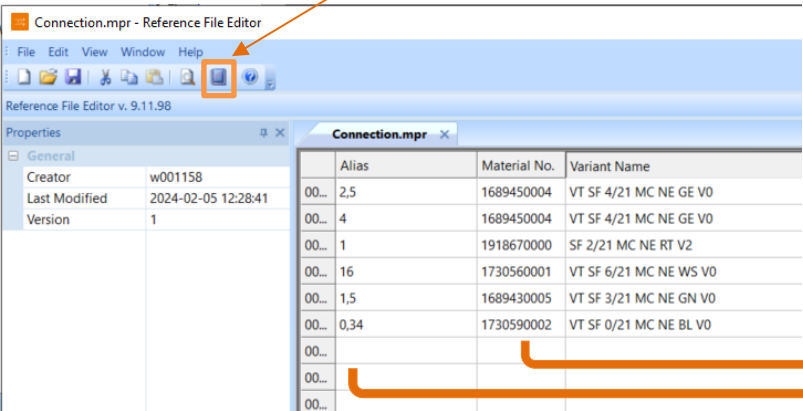
5.1. Creating a Reference File (optional)


Start M-Print® PRO



M-Print® PRO

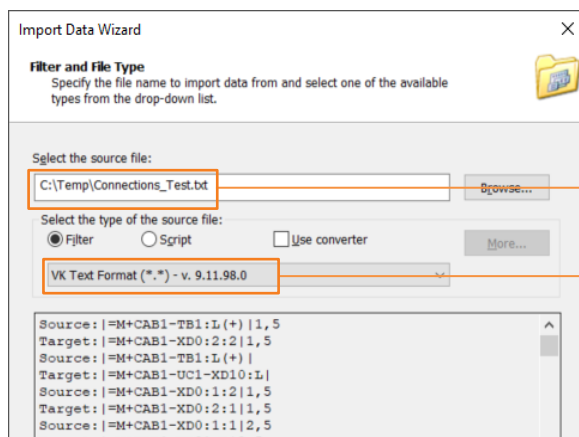
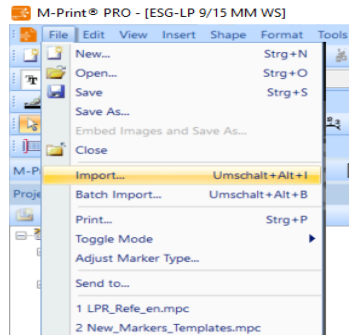
In M-Print® PRO, you can access the 'Reference file editor' via the 'Tools' menu item. Here you can create your individual reference files (*.mpr). Enter the reference feature in the 'Alias' column. Then click in the column for the material number of the marker type and enter the data or select the correct marker using the icon for the product catalogue.



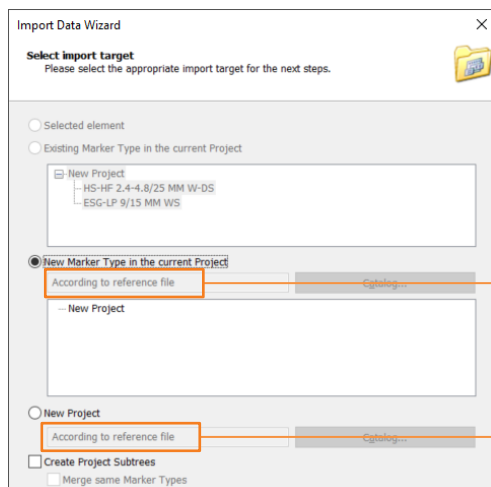
- 
- Material number of the marker type
 - Characteristic for referencing e.g. cross section

5.2. Create Import Script

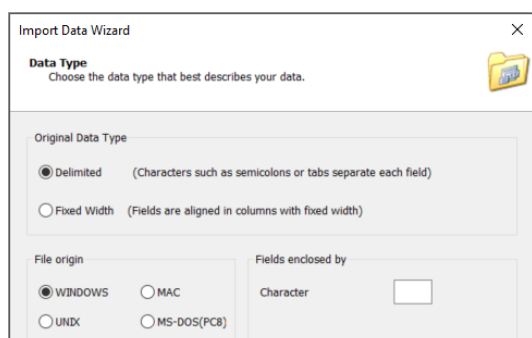
Open the Import Data Wizard via the menu item 'File' > 'Import'.



- Map the import source file, which has been created via the EPLAN scheme.
- Confirm or select the filter to be used e.g. "VK Text Format" (this enables simultaneous import to different marker types).



After assigning the 'VK Text Format' filter, the import target 'According to reference file' is displayed. Otherwise, the name of the assigned marker type appears here.



Define or confirm the data format here.

In the next step, you define the separator(s) to be considered or place the lines for the field widths and, if necessary, limit the first and last import line and specify optionally a *Caption Line*.

Field Width

This screen lets you set the field width.

Tip
Lines with arrow signify a column break.
To CREATE a break line, click at the desired position.
To DELETE a break line, click on the line.

Caption Line:

Ignore Lines
First Import Line:
Last Import Line:

Data Type

This screen lets you set the delimiters your data contain.
You can see how your text is affected in the preview below.

Delimiters
☐ Semicolon ☐ Tab
☐ Space ☐ Comma
☒ Other:
☐ Keep 'Other' Delimiters

Caption Line:

Ignore Lines
First Import Line:
Last Import Line:

< Zurück Weiter > Fertig stellen Abbrechen Hilfe

Column Separation:

Import Data Wizard

Data Type

This screen lets you set the delimiters your data contain.
You can see how your text is affected in the preview below.

Delimiters
☐ Semicolon ☐ Tab
☐ Space ☐ Comma
☒ Other:
☐ Keep 'Other' Delimiters

Caption Line:

Ignore Lines
First Import Line:
Last Import Line:

Pos	Column 1	Column 2	C...
1	Source: =M+CAB1-TB1:L(+)		1,5
2	Target: =M+CAB1-XD0:2:2		1,5
3	Source: =M+CAB1-TB1:L(+)		
4	Target: =M+CAB1-UC1-XD10:L		
5	Source: =M+CAB1-XD0:1:2		1,5
6	Target: =M+CAB1-XD0:2:1		1,5
7	Source: =M+CAB1-XD0:1:1		2,5
8	Target: =M+CAB1-XD0:1:L		2,5
9	Source: =M+CAB1-TB1:N(-)		1,5
10	Target: =M+CAB1-XD0:3:2		1,5
11	Source: =M+CAB1-TB1:N(-)		
12	Target: =M+CAB1-UC1-XD10:N		
13	Source: =M+CAB1-XD0:3:1		2,5

< Zurück Weiter > Fertig stellen Abbrechen Hilfe

Proceed as follows:

Import Data Wizard

Assignment

First select the counter column and the reference column and then select the reference file.

Counter Column:

Reference Column:

☐ Reference Column contains Material numbers
☒ Use Reference File:

☐ In order of appearance ☒ In order of Marker Type

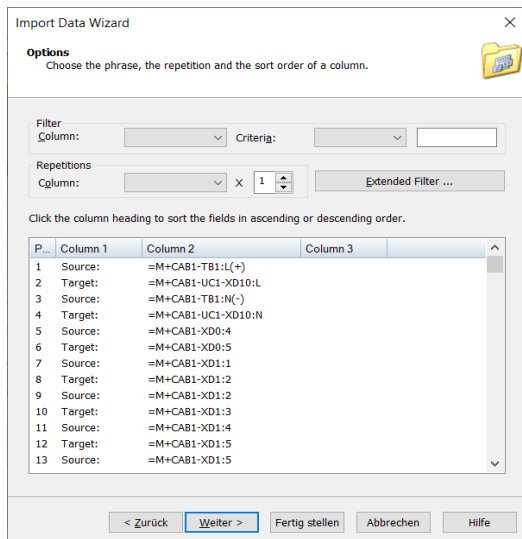
Column 1	Column 2	C...
Source: =M+CAB1-TB1:L(+)		1,5
Target: =M+CAB1-XD0:2:2		1,5
Source: =M+CAB1-TB1:L(+)		
Target: =M+CAB1-UC1-XD10:L		
Source: =M+CAB1-XD0:1:2		1,5
Target: =M+CAB1-XD0:2:1		1,5
Source: =M+CAB1-XD0:1:1		2,5
Target: =M+CAB1-XD0:1:L		2,5
Source: =M+CAB1-TB1:N(-)		1,5
Target: =M+CAB1-XD0:3:2		1,5
Source: =M+CAB1-TB1:N(-)		

< Zurück Weiter > Fertig stellen Abbrechen Hilfe

- Here, you address the column as reference column, which contains the information about the marker to be used
- Select the reference file

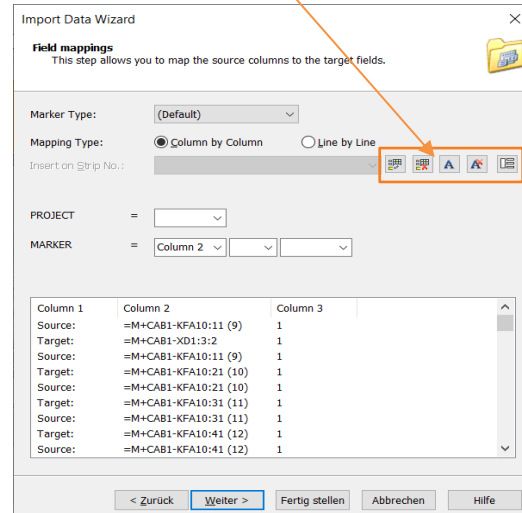
Important: If the reference column already contains the Weidmüller material numbers of the marker types, you can import without a reference file. To do this, select the option 'The Reference Column contains Material numbers'.

You can now filter or sort your data in the individual columns.

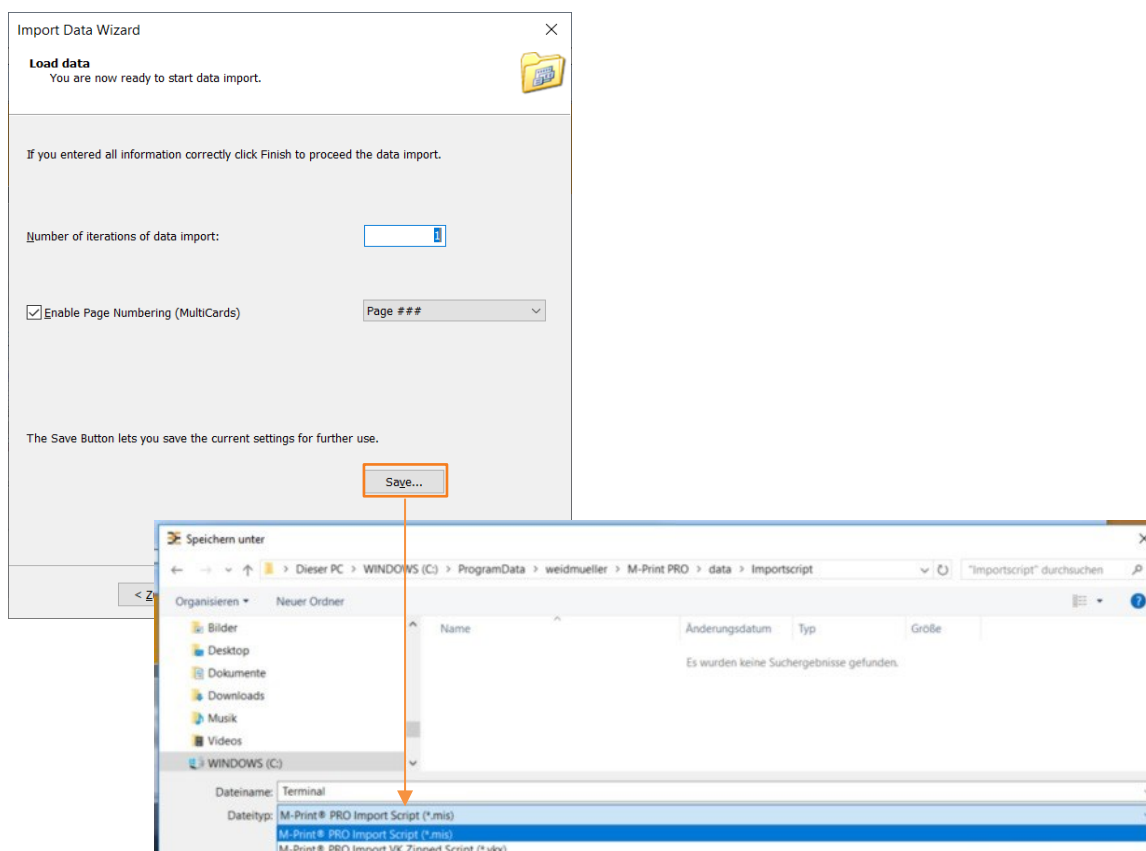


Please make the field assignments here.
Which data is relevant for the marker or the project information area?

You can assign **additional attributes** for the fields.



In the last step of the Import Data Wizard, you have to save the import steps into an **Import Script** file.



Important:

If a reference file is used for the import, you should save a **vkx-format**. This format saves the import steps and integrates the reference file.

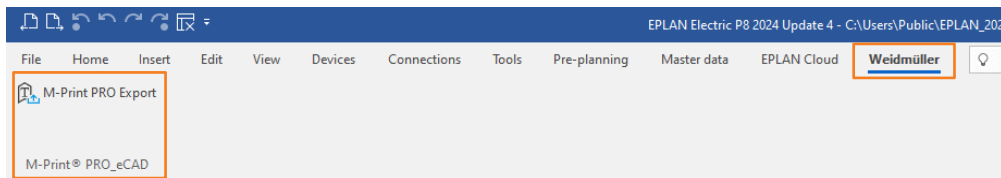
If you want to import without a reference file, the storage format is ***.mis**.

6. Preparation of the M-Print® PRO eCAD Interface

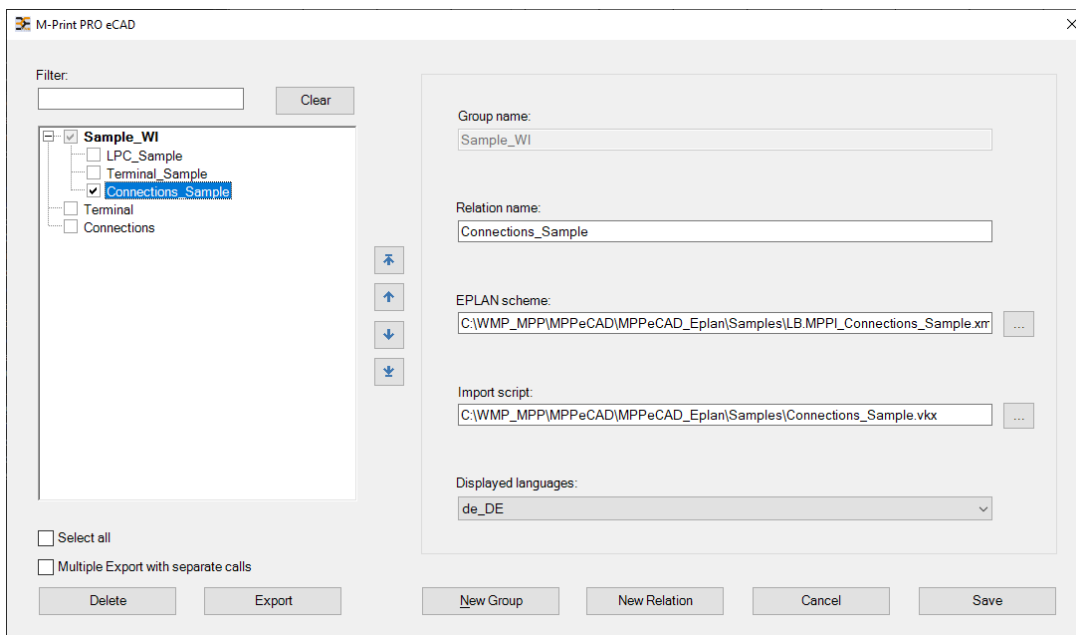
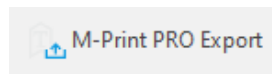
The export data indicated in EPLAN is transferred to M-Print® PRO via the M-Print® PRO eCAD interface in accordance with the previously defined specifications.

6.1. Create Relation

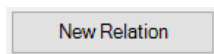
- Call M-Print® PRO eCAD via the menu item "Weidmüller".



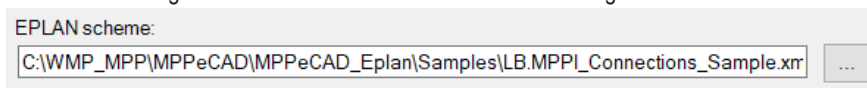
- Open M-Print® PRO eCAD



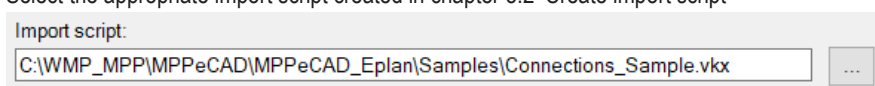
- Create a new relation



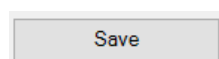
- Select the labelling scheme created in section 4.1 'Create labelling scheme'



- Select the appropriate import script created in chapter 5.2 'Create import script'



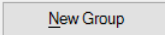
- Save the relation

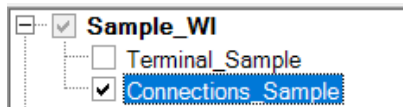


You can create any number of different relations for all labelling requirements.

6.2. Create Group

For a better overview, relations can be added to a group, sorted, or filtered accordingly.

- Create a new group 
- Combine relations to a group



6.3. Filter and Sorting Options

- You can filter your relations



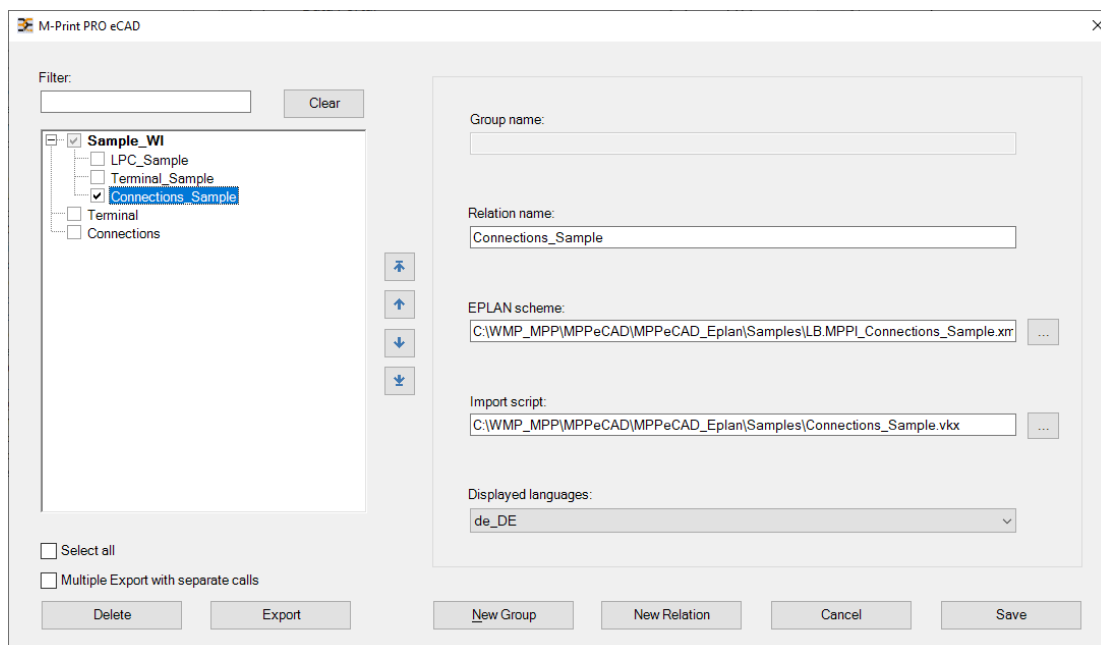
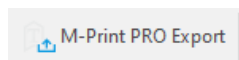
- Sorting options for the export relations are available for a better overview.



7. Execution (Export with M-Print® PRO eCAD)

7.1. Open, Save or Print the Export

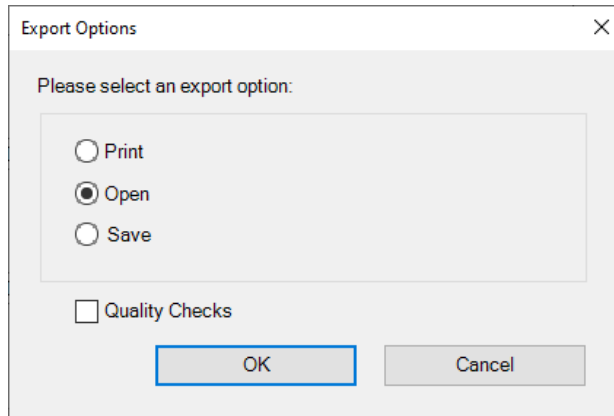
- Start M-Print® PRO eCAD



- Execute the export

Export

For the export, you can use the export options Print, Open, Save.



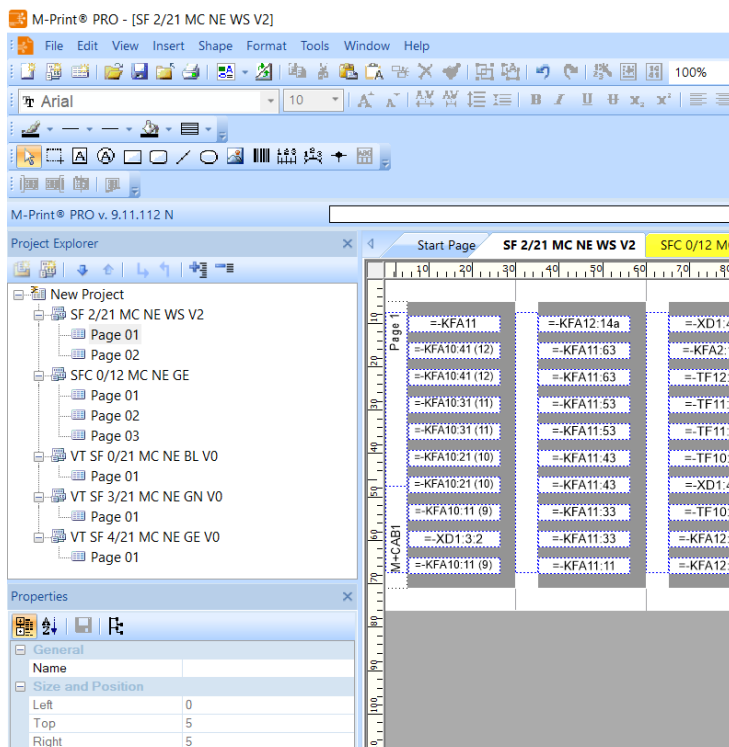
- 'Print' directly sends the printjob to the mapped printer(s).

Notice:

For this option, please ensure that the correct marker material has been placed in the printer and that the printer is ready.

- 'Open' starts the M-Print® PRO and transfers the exported data by considering the import script.
- 'Save' saves the relation in a container, which can then be called up via a batch file. This starts M-Print® PRO and imports the data.

7.2. Result in M-Print® PRO



- Appropriate marker types depending on the component
- Different marker types in one project