

LABELLING AND MARKING



Made by PCSCHMATIC A/S
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INTRODUCTION

This booklet describes how you can make use of diagram data to make labels for your panels and panel equipment. Labels can be for

- Terminals
- Cables
- Wires
- Panel components
- Etc.

Why a booklet on this topic?

When you make documentation for a panel you include a lot of data that can be re-used in other stages of the project. This booklet illustrates how to make use of this data in relation to labelling and marking. Simply by using the already available information.

The booklet guides you through the collection of the data in the Automation project – how to gather the correct information – and shows you how to make use of it in a program dedicated to label design and printing.

Which program for which data?

PC|SCHEMATIC Automation contains all data that can be used in conjunction with labelling and marking, simply because standards demand that the information is available in the schematics.

CLIP PROJECT is used for label printing and can work in various ways:

- You can type in label data as you need it
- You can import a file containing label data, either a csv or an Excel-file
- Or the program can be opened automatically, as structured data is sent to it from another program, ie PC|SCHEMATIC Automation

CLIP PROJECT can control several printers, which makes it possible to print labels on different printers designating for your standards label materials.

Because you need to be familiar with more than one program to ‘do the tricks’ we have made this joint booklet.

Books in the series about Automation:

Quick start

Motor control

Component Wizard

PLC-project

Labelling and Marking

Electrical Installation

Panelbuilder

Automation Service



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BEFORE YOU START

The examples in the book are based on PC|SCHEMATIC Automation and Phoenix Contact's CLIP PROJECT.

If you do not have the programs you can download demo versions of them, in which you can try the functions. The programs can be downloaded for free:

- PC|SCHEMATIC Automation can be downloaded at www.pcschematic.com. This is a free demo-version.
- CLIP PROJECT can be downloaded at www.phoenixcontact.com. Go to Download centre, type 5146040 as order no, which takes you to 'Download of CLIP PROJECT'. Follow the instructions on the screen – mainly 'Next' and 'Ok'.

CLIP PROJECT consists of two part – Planning which is configuration of terminal rows and Marking which is about label-printing. This booklet focuses on Marking.

If you are unfamiliar with the programs you can try them out after download.

Demo-versions have no limitations concerning functionality. However, they have limitations concerning the number of symbols in a project.

Read and learn more about the programs

- Tutorials for PCSCHMATIC Automation
 - Tutorials for Motor Control, Plc Project, House Installation, Panelbuilder can be downloaded from the homepage.
- Tutorials for CLIP PROJECT
 - Part 1: Basics
 - Part 2: Templates

Module for interface between Automation and CLIP PROJECT

To make the two programs communicate you need to download a module. Go to <http://www.pcschematic.com/en/download-menu/other/download-other.htm> and download the module for Marking.

When the module is downloaded you need to install the module:

1. Close both programs – that also means that you need to install both programs before you can install the interface module.
2. Run the exe-file.
3. Follow the instructions on the screen – mainly 'Next' and 'Ok'.

The programs are now ready for interfacing – Automation contains export formats, CLIP PROJECT contains corresponding import formats.

If you are running in a network

PC|SCHEMATIC Automation can be installed as a network installation. If you do that, you need to install the module on your network installation, which is on the server. Your workstation will be automatically updated when you open the program the next time.

(Network installations must be at least 14.06.2 or 15.01.3).

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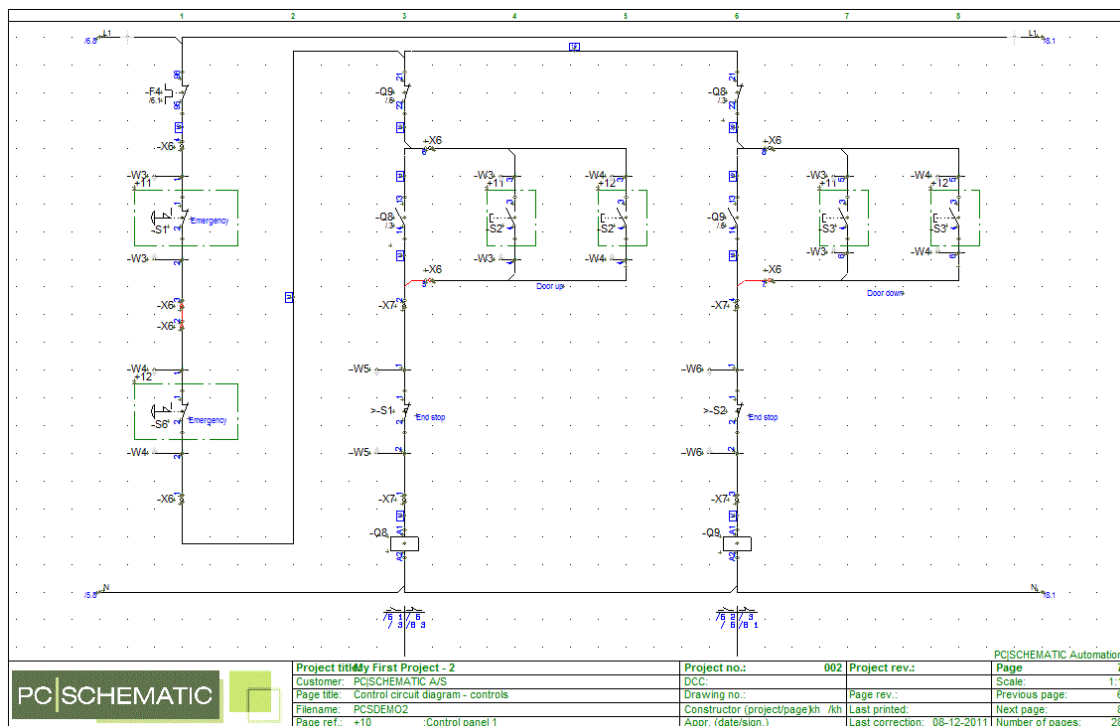


WHICH PARTS OF THE PROJECT CAN I MAKE LABELS FOR

When you have a project with electrical documentation, you have a lot of information in the project already, information that can also be used for labelling and marking.

This can be

- Component names for component labels
- Texts for e.g. push-button labels
- Terminal names for terminal labels
- Cable names for cable labels
- Wire numbers for wire labels



When you look at a diagram like the one above, you see that all the information you need is already present:

- Component names
- Connection terminal names
- Component functions
- Wire numbers
- Cable names
- Terminal block names

All you need to know is a smart way to make use of it ☺

The examples in this booklet are based on demo-projects in PC|SCHEMATIC Automation from version 15. Mainly PCSDEMO2.



LABEL TYPES

In this booklet you will be guided through design of the following types of labels:

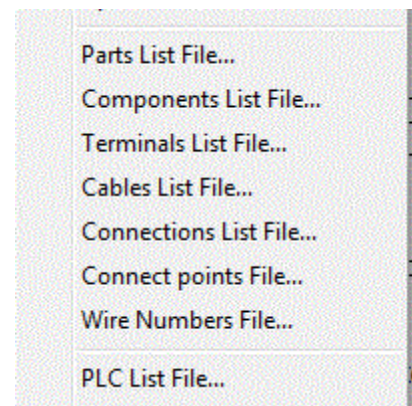
- Component labels
- Cable labels
- Terminal labels
- Labels for wirenumbers
- CE-label for panel

Relevant data for these label types are in (most) projects, to a certain degree. Very simple projects might only contain component and component terminal names, more detailed projects will also contain component article numbers.

The data can be used to automate label printing to get as close as possible to automatic printing of the needed labels for the complete panel, in the correct sequences and quantities and on the correct label material.

In PC|SCHEMATIC you have the option to export a lot of different list types to another file format.

Among the menu items you find these list file options, and in the following you can see how they can be used for labelling and marking purposes.



The following sections contain list setups for each label type.

The selection of datafields are explained as well as consequences of included component article data – or not.

The list setups can be used for production, but – as is also explained later – you might need further data for your purposes.

All explanations here are based on export directly to CLIP PROJECT which will then import the files automatically.

If you are familiar with this program, you might also want to save the lists as excel or csv-files and then manually import them into the program.

Component labels

Component labels are based on data from the component list.

A label for a panel component contains the name of the component. A label for a lamp or a pushbutton will also contain a functional text. You might want different labels for different component types: Relays, lamps and plc's are not entirely the same, and sizes vary too, so you might need ways to sort the data for the different label types.

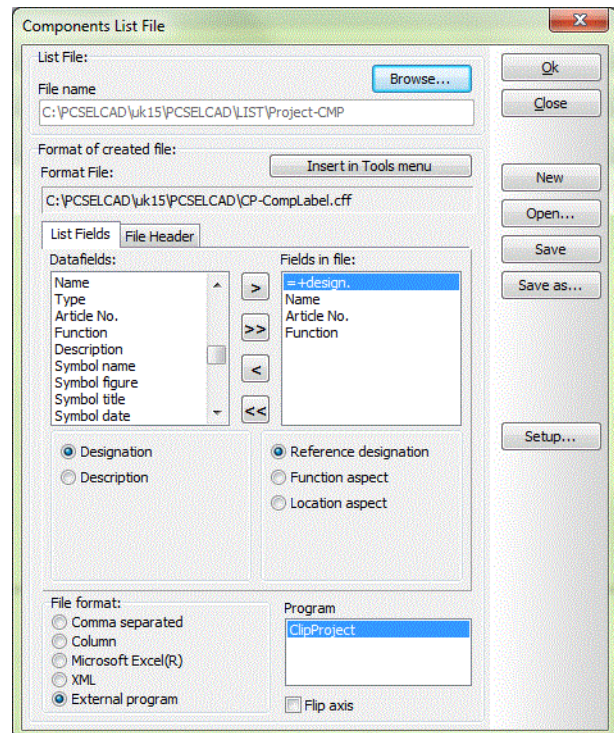
Select the data for your label file

You select the desired data field by pressing the > arrow, which sends the data field to the right.

This formatfile (CP-CompLabel.cff) contains the following datafields:

- +=design. which contains reference designations. Is mainly used for sorting purposes
- Name, which contains the component names
- Article no. which is only – in this context – used for sorting purposes
- Function, which contains the component function, ie 'Start Motor'

All this data – from the current project – can now be exported to the printer program.



There are multiple datafields and many contain further options.

Read about the datafields for parts and components lists on page 32.

File format

When the desired data fields have been selected, you select file format.

The first four formats will generate a file, that you save and use for any application.

The last option – External program – is only available when you have installed an external program – CLIP PROJECT – and the corresponding module as described in page 7.

A project with no component data

The output file contains data in the columns 1, 2 and 4. That means that if you are going to print labels for components – using the same label type – the list is ok. Simply print the contents in column 2. The same, if you need labels for the front lamps and controls: the text can (probably) be found in column 4.

A project with component data

The output file contains the same data as above, and a column with article data. This column can be used to sort data: if you want different component labels for different component types, you can assign label type according to article number.



Cable labels

Cable labels are based on data from the cable list.

Cable labels should contain the cable name, and sometimes also information about connections in both ends.

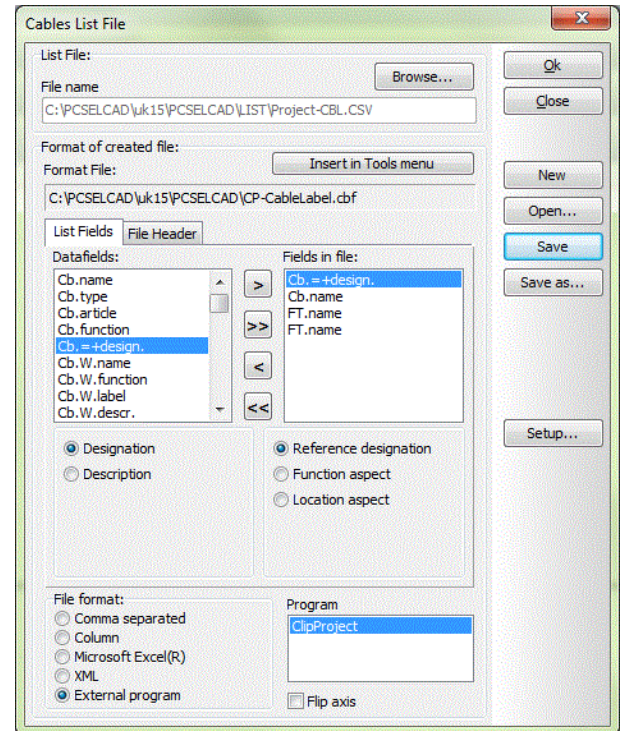
Select the data for your label file

You select the desired data field by pressing the > arrow, which sends the data field to the right.

This formatfile (CP-TermLabel.cff) contains the following datafields:

- Cb.+=design., which contains reference designations for the cable's FROM end. Is mainly used for sorting purposes
- Cb.name, which contains the cable names. This is going to be printed for each cable.
- FT.name, FROM/TO name. Refers to the connected components in the ends of the cable. The data field is listed twice, once for each end.

All this data – from the current project – can now be exported to the printer program.



There are multiple datafields and many contain further options.
Read about the datafields for cable lists on page 34.

File format

See description on page 12.

A project with no component data

This output file has been designed to fit with projects without article data for cables, as many will assign this data in a later stage.

The list file always contains data in the columns 1, 2, 3 and 4, and this is also the label text. Which part of the text to print where is selected in the printer program.

A project with component data

The output file contains the same data as above. If you want further sorting options, eg print on different label types according to different cable types, you need more datafields in the format file.

Terminal labels

Terminal labels are based on data from the terminal list.

Terminals are marked with terminal block name, terminal position or 'contents' like +24V or PE. The size of the labels vary according to terminal type, and the most tricky terminals are in layers, which calls for a method for sorting according to layer.

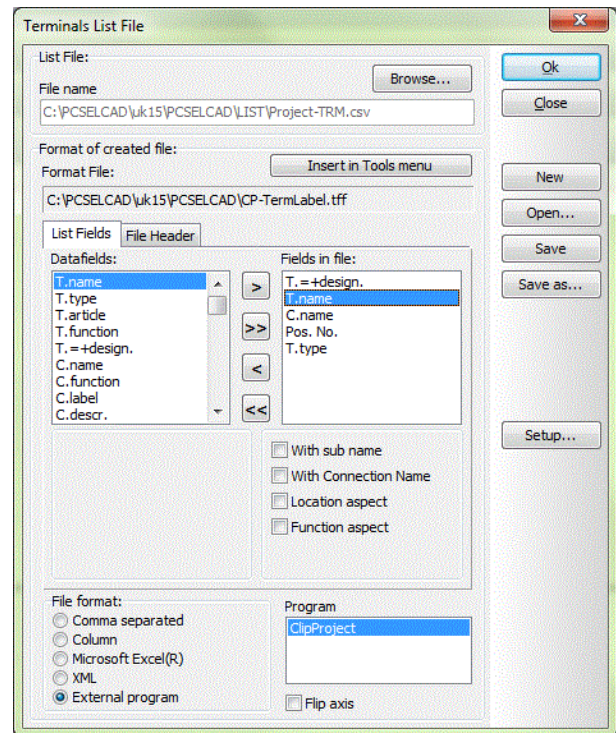
You need to get the right sequence for a complete strip of labels, so you need ways to sort the data correctly.

Select the data for your label file

You select the desired data field by pressing the > arrow, which sends the data field to the right.

This formatfile (CP-TermLabel.cff) contains the following datafields:

- T.name, which contains the terminal (block) names. This is going to be printed once per terminal block
- Pos.no., which contains the layer position. This is used for sorting purposes.
- C.name, which contains the terminals position in the terminal block. This is going to be printed – always.
- T.=+design., which contains reference designations for the terminal block. Is mainly used for sorting purposes
- T.type contains a type for the terminal which can be used for sorting purposes.



All this data – from the current project – can now be exported to the printer program.

There are multiple datafields and many contain further options.

Read about the datafields for terminal lists on page 33.

File format

See description on page 12.

A project with no component data

This output file has been designed to fit with projects without article data for terminals, as many will assign this data in a later stage. The type, however, can be a valid indicator for label-type.

The list file always contains data in the columns 1, 2, 3 and possibly 4 and 5. That means that you have the terminal block name, the terminal position name, the layer number, possibly a reference designation and possibly a type. Print columns 1 and 3, use the other columns for sorting options.

Regarding the layer no: 0 means no layer (through terminals), 1 is layer 1, 2 is layer 2 etc..



A project with component data

The output file contains the same data as above, but the type-column now contains a type that can also be found in a component database.

Labels for wire numbering

Wire numbers can be made in different ways in PC|SCHEMATIC Automation. The method you choose depends on the way you want to mark and label your panel/machinery.

According to IEC 62491 the following methods for marking of cables and conductors exist:

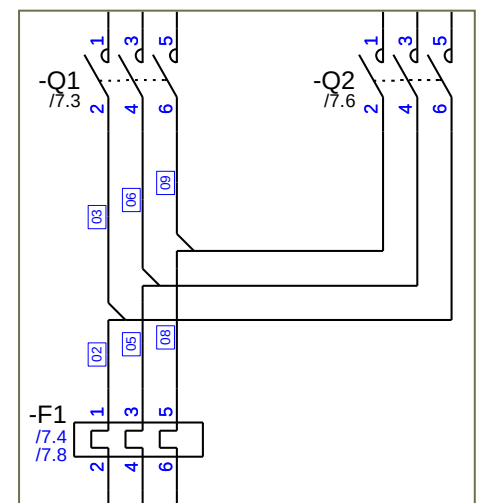
Method	Description	Note
0	No marking	All cables or conductors can be followed visually.
A	Cable producer's marking	Insulation colour or number of the conductor is used.
R	Identification marking	Every single cable and/or conductor can be identified. The wire numbering function can identify the individual conductor, meaning both single conductors and cable conductors. Cables can be identified by means of cable lists or component lists (-W).
CL	Local connection marking	The conductor/cable is marked with the component connection name to which it must be connected.
CR	Remote connection marking	The conductor/cable is marked with the component connection name from which it comes.
CB	Local/remote connection marking	Combination of CL and CR. The conductor/cable is marked with both component connection names to which it is connected.
S	Signal marking	The conductor/cable is marked with the signal it represents.
Combination of 2 or more	Combined marking	If you wish to mark with a combination of conductor ID number, local end and remote end markings.

Labels for marking with all methods can be created and printed from the program. The starting point for all the above is the identification of the individual conductors.

In PC|SCHEMATIC Automation the function Wirenumbering identifies all individual wires and returns numbers in a dedicated wirenumber symbol.

This kind of number can be either a unique number per wire or a unique number per net/potential. In the figure here, each wire has its own unique number. That means that you have the numbers for methods R or S.

The numbers can be exported as a *csv-file with the Wirenumber list function. This export format cannot handle (direct) export to CLIP PROJECT.



However, a lot of other methods for wire numbering can be used, and by using another list, you get the option to design the labels according to the other methods in the list above.

We use the connections list file, which can contain information for all methods.

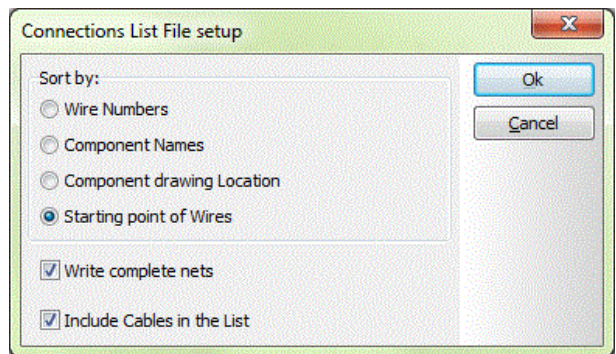
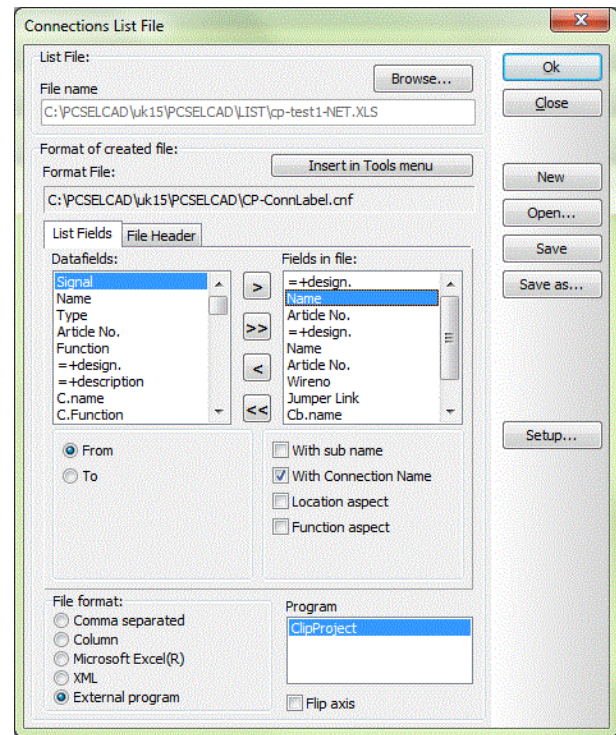
Select the data for your label file

You select the desired data field by pressing the > arrow, which sends the data field to the right.

This formatfile (CP-ConnLabel.cnf) contains the following datafields:

- =+design., which contains the reference designation for the FROM and TO end. The value is used for sorting.
- Name with connection name, which contains the component name for the FROM and TO end. The values are used for methods CL, CR, or CB.
- ArticleNo., which contains the component's article no. for the FROM and TO end. The values are used for sorting.
- Wireno contains the numbers from the wirenumber symbols. The values are used if you want to use methods S or R.
- Jumper Link contains the value 'jumper link' if the connection is a jumperlink.
- Cb.name contains a value if the connection is a cable conductor.
- Signal contains a value if the connection is a signal, ie L1 or 24V.
- Line type, contains a value if you have added data, eg '6 mm'.

All this data – from the current project – can now be exported to the printer program. If you press the Setup... button you get some further options for the label file.



There are multiple datafields and many contain further options.

Read about the datafields for connection lists from page 32

File format

See description on page 12.

A project with no component data

The list file contains no data in the 'Article no' columns but depending on how you have the rest of the drawing you have data in more or all the rest of the columns. The two columns with FROM and TO data have data in all rows, and this data can be used for marking with terminal names.

A project with component data

The output file contains the same data as above, but the article no column now contains a number that can also be found in a component database.

Values in this output file are mostly used for sorting purposes: A specific line type (might) mean a certain labeltype, 'Jumperlink' or 'Cableconductor' means no label, and so on.



IMPORT DATA TO CLIP PROJECT MARKING

Introduction

The idea of this setup is that you don't need to know very much about using the geekier functions of the two programs. We have made two sets of setups, namely the export formats in PC|SCHEMATIC Automation and import setups in CLIP PROJECT Marking.

This will probably be the answer to most of your questions.

However, you might need to change some of the import functions, maybe you need to use another labeltype, or you want to use the more advanced sorting functions.

This chapter takes you on two 'guided tours': the first one takes you through the default label types that have been generated, the second takes you through the setup of one of the label types and shows you how you can make your own filters and selections.

Component labels

Default label

The default label is an endless roll label.

All components get a 'sticky' mark that goes directly onto the component in the panel.

-F4	-Q3	-Q8	-Q9	-P1	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 1
-P2	-P3	-P4	-P5	-P6	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 2
-S1	-S2	-S3	-S4	-S5	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 3
-P1	-P2	-P3	-P4	-P5	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 4
-P6	-S2	-S3	-S4	-S5	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 5
-S6	-M1	-S1	-S2		 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 6

A little change in the import format

A little change to the import format gives you labels for the front of the control units:

1. Some filters have been applied to the original list file, which left all lamps and switches on the control panels and their function texts.
2. The label has been extended with the functional text.

Read more about how make the changes from page 21.

-P1 "Door up"	-P2 "Door down"	-P3 Fault	-P4 "Door up"	-P5 "Door down"	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 1
-P6 Fault	-S1 Emergency	-S2 "Door up"	-S3 "Door down"	-S4 "Door up"	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 2
-S5 "Door down"	-P1 "Door up"	-P2 "Door down"	-P3 Fault	-P4 "Door up"	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 3
-P5 "Door down"	-P6 Fault	-S2 "Door up"	-S3 "Door down"	-S4 "Door up"	 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 4
-S5 "Door down"	-S6 Emergency				 THERMOMARK ROLL EML-HA (15X9)R	WH 0830600 5



Cable labels

Default label

The default label is an endless roll label.

All cables get a 'sleeve' that goes directly onto each cable.

			-W1 +10-Q3+13-M1					WH 0830407 1
			-W2 +10-X5+10-Q3					WH 0830407 2
			-W3 +10-X6+11-S1					WH 0830407 3
			-W4 +10-X6+12-S6					WH 0830407 4
			-W5 +10-X7-S1					WH 0830407 5
			-W6 +10-X7-S2					WH 0830407 6
			-W7 +10-X8+11-P1					WH 0830407 7

A little change in the import format

A little change to the import format could give you another standard label.

Read more about how make the changes from page 21.

Wirenumber labels

Default label

The default label is an endless roll label.

All wires get a 'sleeve' that goes directly onto each wire. The sleeve is marked according to method CB – both ends of the connections is on the label.

																					WH 0817222 1
																					WH 0817222 2
																					WH 0817222 3
																					WH 0817222 4
																					WH 0817222 5

A little change in the import format

A little change to the import format gives you labels with wirenumber according to method R in combination with method CL, that is the wire's id-no and the local connection number:

1. Filters have been applied to the original list file, which left all connections with wirenumbers, thus omitting jumper links, cable wires and phases..
2. On the label, the TO end of the wire has been deleted and the wire no has been added.

Read more about how make the changes from page 21.

			 THERMOMARK ROLL WMT 3,5 (15X5)R	WH 0817222 1
			 THERMOMARK ROLL WMT 3,5 (15X5)R	WH 0817222 2
			 THERMOMARK ROLL WMT 3,5 (15X5)R	WH 0817222 3
			 THERMOMARK ROLL WMT 3,5 (15X5)R	WH 0817222 4
			 THERMOMARK ROLL WMT 3,5 (15X5)R	WH 0817222 5
			 THERMOMARK ROLL WMT 3,5 (15X5)R	WH 0817222 6

Default terminal labels

Default label

The default label is an endless roll label.

All terminals get a 'sticky' mark that goes directly onto the terminals in the panel.

U1	V1	W1	PE1	1	2	3	4	5	6	7	8	1	2	3	4	 THERMOMARK ROLL TMT 100 R-P6	YE 0816618 WH 0816605 1	OG 0816582 BU 0816223 RD 0816595 GN 0816579
1	2	3	4	5	6											 THERMOMARK ROLL TMT 100 R-P6	YE 0816618 WH 0816605 2	OG 0816582 BU 0816223 RD 0816595 GN 0816579

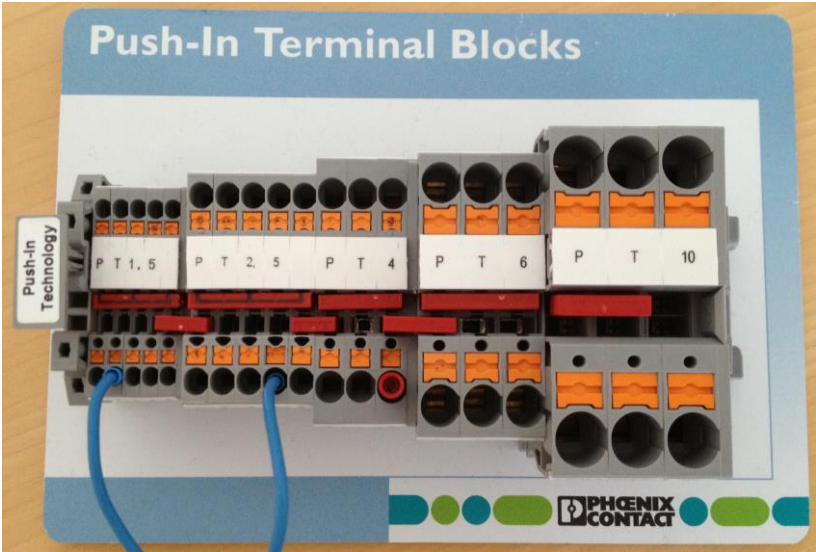
In the following chapter you can see how you can manipulate the terminal list to fit with your requirements.



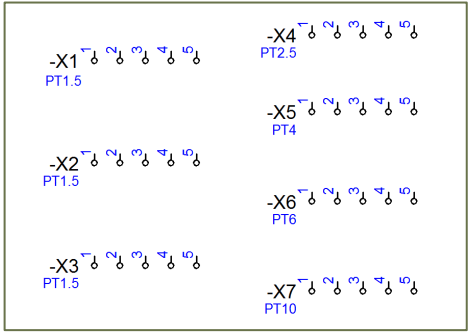
WHICH SETTINGS CAN BE CHANGED IN CLIPROJECT

As you can see in the examples in this chapter you have different ways to make changes to the imported list; small changes that can change the printed label to fit your requirements.

In the following you will be guided through the design of labels to a terminal row, a terminal row that consists of components like this:



We have a few more components in the PC|SCHEMATIC file, simply to have more data to play with 😊



The idea, however, is that show you how the options you have for sorting and using your data in CLIP PROJECT in order to make labels for several terminal types at once, you need to be able to setup conditions to separate the types in a sensible way.

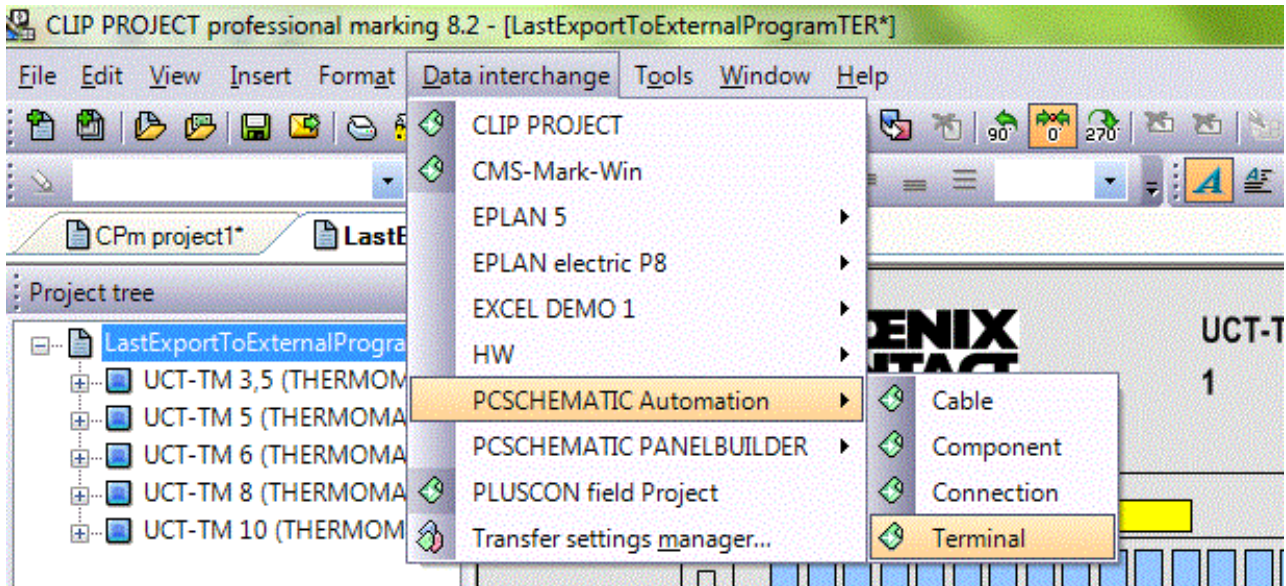
The terminal list export from PC|SCHEMATIC Automation contains the following information:

	A	B	C	D	E
1	T.:=design.	T.name	C.name	Pos.no.	T.type
2		-X1	11	0	PT1.5
3		-X1	12	0	PT1.5
4		-X1	13	0	PT1.5
5		-X1	14	0	PT1.5
6		-X1	15	0	PT1.5
7		-X2	21	0	PT1.5
8		-X2	22	0	PT1.5
9		-X2	23	0	PT1.5
10		-X2	24	0	PT1.5
11		-X2	25	0	PT1.5
12		-X3	31	0	PT1.5
13		-X3	32	0	PT1.5
14		-X3	33	0	PT1.5
15		-X3	34	0	PT1.5
16		-X3	35	0	PT1.5
17		-X4	41	0	PT2.5
18		-X4	42	0	PT2.5
19		-X4	43	0	PT2.5
20		-X4	44	0	PT2.5
21		-X4	45	0	PT2.5
22		-X5	51	0	PT4
23		-X5	52	0	PT4
24		-X5	53	0	PT4
25		-X5	54	0	PT4
26		-X5	55	0	PT4
27		-X6	61	0	PT6
28		-X6	62	0	PT6
29		-X6	63	0	PT6
30		-X6	64	0	PT6
31		-X6	65	0	PT6
32		-X7	71	0	PT10
33		-X7	72	0	PT10
34		-X7	73	0	PT10
35		-X7	74	0	PT10
36		-X7	75	0	PT10
37					

Parameter setup

Go to Data interchange|PCSCHEMATIC Automation|Terminal to open the parameter setup.

... you do not have all the shown options ...



If you have a professional CLIP PROJECT you can make permanent changes to the import formats through the Data Transfer Wizard.

If you have a demo-version of the program, you can make the same changes, but only in the current import.



Source

In this - first tab - in the Data transfer wizard, you can see the name of the import file, you can see that it is a (comma)separated file, you can see that the import starts from the first row, and most important, you can see the actual import at the bottom of the page. You can scroll through the import data to see it all.

On pages 20 and 21 you can see the headlines/contents for each column.

CPM data transfer

Data transfer wizard
Select a file and its type.

Source | Delimiters | Filters and sorting | Logic tree | Condition field | Material mapping | Field assignment

Import file: C:\PCSELCAD\uk15\PCSELCAD\LIST\LastExportToExternalProgramTER.csv

File type
Select the option that describes your file best.

- ☒ Separated - characters such as commas or tabs separate the fields.
- ☐ Fixed width - fields have equal width without any separators between the columns.
- ☐ Excel file Sheet:

Format

*Start import in line: Codepage:

Suppress empty lines in labels and text fields ☐

Data preview

Column 1	Column 2	Column 3	Column 4	Column 5
-X1	11	0	PT1.5	
-X1	12	0	PT1.5	
-X1	13	0	PT1.5	
-X1	14	0	PT1.5	
-X1	15	0	PT1.5	
-X2	21	0	PT1.5	
-X2	22	0	PT1.5	
-X2	23	0	PT1.5	
-X2	24	0	PT1.5	
-X2	25	0	PT1.5	

Rows in file: 35 Rows to import: 30 Columns: 5

Reload import file

Default import action: Create document

< Back Next > **Import** Cancel

Delimiters

In this tab you select the delimiter. In this file it is a semi colon (;). If you try one of the others, you can see how the import data below changes.

The screenshot shows the 'CPM data transfer' window with the 'Data transfer wizard' tab selected. The 'Delimiters' sub-tab is active, showing options for separators and text qualifiers. The 'Data preview' section displays a table with 5 columns and 10 rows of data. The 'Rows in file' is 35, 'Rows to import' is 30, and 'Columns' is 5. The 'Default import action' is 'Create document'. The 'Import' button is highlighted.

Data transfer wizard
Determine the datafield format.

Source **Delimiters** Filters and sorting Logic tree Condition field Material mapping Field assignment

Separators:

☐ Tab ☒ Semicolon ☐ Comma

☐ Space ☐ Other: ...

Text qualifier:

Data preview

Column 1	Column 2	Column 3	Column 4	Column 5
-X1	11	0	PT1.5	
-X1	12	0	PT1.5	
-X1	13	0	PT1.5	
-X1	14	0	PT1.5	
-X1	15	0	PT1.5	
-X2	21	0	PT1.5	
-X2	22	0	PT1.5	
-X2	23	0	PT1.5	
-X2	24	0	PT1.5	
-X2	25	0	PT1.5	

Rows in file: 35 Rows to import: 30 Columns: 5

Reload import file

Default import action: Create document

< Back Next > **Import** Cancel

Filters and sorting

In this tab you can set up filters for each column.

Just to illustrate the function, see what happens when a simple filter is selected.

In the next sections the filter has been deactivated.

CPM data transfer

Data transfer wizard
Determine filters and sorting options for the import.

Source | Delimiters | **Filters and sorting** | Logic tree | Condition field | Material mapping | Field assignment

☒ Filter on

☐ Filter out empty values ☐ Filter out multiple values

Doesn't equal and < off >

-X2 Add Delete Add Delete

Column 1 **Column 2** Column 3 Column 4 Column 5

Data preview

Column 1	Column 2	Column 3	Column 4	Column 5
-X1	11	0	PT1.5	
-X1	12	0	PT1.5	
-X1	13	0	PT1.5	
-X1	14	0	PT1.5	
-X1	15	0	PT1.5	
-X2	21	0	PT1.5	
-X2	22	0	PT1.5	
-X2	23	0	PT1.5	
-X2	24	0	PT1.5	
-X2	25	0	PT1.5	

Rows in file: 35 Rows to import: 30 Columns: 5 Reload import file

Save filter results... Default import action: Create document < Back Next > Import Cancel

Logic tree

If your projects contain a naming logic where each logic level can be exported in its own column, you can use this logic tree to set up another filtering option.

In this example it has not been applied.

The screenshot shows the 'CPM data transfer' window with the 'Data transfer wizard' tab selected. The 'Logic tree' tab is active, showing a table with 10 levels and their corresponding columns. Below the table is a 'Data preview' section showing a sample of the data. At the bottom, there are fields for 'Rows in file: 35', 'Rows to import: 35', and 'Columns: 5'. The 'Import' button is highlighted.

Data transfer wizard
Assign particular columns to particular logic tree nodes levels

Source | Delimiters | Filters and sorting | **Logic tree** | Condition field | Material mapping | Field assignment

☐ Logic tree on

Icon	Level	Column
	Level 1	Column 4
	Level 2	Column 5
	Level 3	Column 1
	Level 4	Column 2
	Level 5	Column 3
	Level 6	None
	Level 7	None
	Level 8	None
	Level 9	None
	Level 10	None

Data preview

☐ Column 1	☐ Column 2	☐ Column 3	☐ Column 4	☐ Column 5
-X1	11	0	PT1.5	
-X1	12	0	PT1.5	
-X1	13	0	PT1.5	
-X1	14	0	PT1.5	
-X1	15	0	PT1.5	
-X2	21	0	PT1.5	
-X2	22	0	PT1.5	
-X2	23	0	PT1.5	
-X2	24	0	PT1.5	
-X2	25	0	PT1.5	

Rows in file: 35 | Rows to import: 35 | Columns: 5

Default import action: Create document

< Back | Next > | **Import** | Cancel

Reload import file

Condition field

On this page you decide which column contains the data that defines which label to use. In this example Column 5 contains a type for the terminals and this type defines which label is going to be used for the terminal row.

That means that when the list contains a new type the output will change to a new material. It is also possible to change to a new section, read more about this later...

CPM data transfer

Data transfer wizard
Condition field description

Source | Delimiters | Filters and sorting | Logic tree | **Condition field** | Material mapping | Field assignment

☒ Condition field on

Condition values

Column content	Activate	Action
Undefined value	☐	New material
PT1.5	☒	New material
PT2.5	☒	New material
PT4	☒	New material
PT6	☒	New material
PT10	☒	New material

☐ Condition value on output

Activate Action

Data preview

☐ Column 1	☐ Column 2	☐ Column 3	☐ Column 4	☒ Column 5
-X1	11	0		PT1.5
-X1	12	0		PT1.5
-X1	13	0		PT1.5
-X1	14	0		PT1.5
-X1	15	0		PT1.5
-X2	21	0		PT1.5
-X2	22	0		PT1.5
-X2	23	0		PT1.5
-X2	24	0		PT1.5
-X2	25	0		PT1.5

Rows in file: 35 Rows to import: 35 Columns: 5

Reload import file

Default import action: Create document

< Back Next > Import Cancel

Material mapping

In this tab you select the material you want for your labels.

In this example you have five different terminals, and if each needs its own type of label material, you must assign a material per type.

If you can use the same material for all type, simply press the 'Enforce default material' button, and all terminals are printed on the same type of material.

Materials are found by clicking the line with the assigned material and then scroll to the preferred material.

The screenshot shows the 'CPM data transfer' window with the 'Data transfer wizard' tab selected. The 'Material mapping' sub-tab is active. The 'Enforce default material' checkbox is checked, and the default material is 'UCT-TM 3.5'. Below this, a table lists column contents and their assigned materials:

Column content	Assigned material
PT1.5	✓ UCT-TM 3, 5
PT2.5	✓ UCT-TM 5
PT4	✓ UCT-TM 6
PT6	✓ UCT-TM 8
PT10	✓ UCT-TM 10

An 'Insertion Center' dialog is open, showing a list of materials on the left and a 'Material selection' list on the right. The 'Material selection' list includes various UCT-EM and UCT-TM materials. The 'Property list' table is empty.

At the bottom of the wizard, the following information is displayed:

- Rows in file: 35
- Rows to import: 35
- Columns: 5
- Default import action: Create document

Navigation buttons at the bottom include '< Back', 'Next >', 'Import', and 'Cancel'.

Field assignment

In this tab you design your labels, ie you drag the relevant data to the position where you want them on the label.

On the selected label below, the blue Group 1 contains the terminals (position) number and the terminal row is printed in the yellow Group 2.

CPM data transfer
Data transfer wizard
Specify data assignment

Source | Delimiters | Filters and sorting | Logic tree | Condition field | Material mapping | **Field assignment**

Field / group selection: **UCT-TM 10 (THERMOMARK CARD)** Clear all

Leading	Name	Section	Content	Number
☒	Group 1		<Column 3>	36
☐	Group 2		<Column 1> <Column 2>	7

Font properties
Default material font
Size: 0.00 mm
Color:
Style: **B** / *I* Reset

Content of label group 1: <Column 3>

Preview
100%
-X7
71 72 73 74

Column for repetition: 1 Repetitions per row: 1 Number of copies: 1

Data preview

Column 1	Column 2	Column 3	Column 4	Column 5
-X5	53	0	PT4	
-X5	54	0	PT4	
-X5	55	0	PT4	
-X6	61	0	PT6	
-X6	62	0	PT6	
-X6	63	0	PT6	
-X6	64	0	PT6	
-X6	65	0	PT6	
-X7	71	0	PT10	
-X7	72	0	PT10	

Rows in file: 35 Rows to import: 35 Columns: 5 Reload import file

Default import action: Create document < Back Next > Import Cancel

Now you only need to import the Terminal list by pressing the Import button, and the labels are ready for printing.

APENDIX – DATAFIELDS IN AUTOMATION

All label exports are made with datafields from the internal lists. Below you find a list with the relevant datafields. Refer the Automation manual for more information.

Datafields shown on this page will only be used very rarely for label purposes.



(All * are user defined datafields. It is possible to create more user defined fields.)

Datafield	Description	Options
System data datafields		
User name	User name	Are not relevant in relation to labels
Date	Date	
Time	Time	
Company name	Company name	
Program type	Program type	
Program path	Program path	
Project data		
Project number (*)	Project	The datafields can be very relevant in relation to CE-label. You might need to add extra datafields; refer to the main manual. Tip: if you have a datasymbol that contains all those datafields, simply place it in your project, and you 'inherit' its datafields, which can then be used to print the label.
Revision (*)	Revision	
Customer name (*)	Customer name	
Subject name (*)	Subject name	
Designer (*)	Designer	
Title	Title	
File name	File name	
File date/time	File date/time	
Reference designation	Reference designations and/or descriptions defined in the project.	Choose between function and/or location aspect, and choose between designations or descriptions.
Logo1 or logo2	The selected logo is inserted.	
Creation date/time	Creation date/time	
Remarks	Remarks from the remarks field	
Last revision	The datafield is used for displaying the most recent revision of the project.	
Page data datafields		
Drawing no	Drawing number	Either from page or from chapter divider page
Approved (*)	Approved by	- do -
Date (*)	Date	- do -
Revision (*)	Revision	- do -
Designer	Designer	- do -
Page index	Page index	
Page number	Page number	- do -
Title	Title	- do -
Remarks	Remarks from the remarks field	
Date for last change	Time and date for last change on the page	Choose between different settings.
Scale factor	Scale factor	Scale is true to measures.
Print scale	Print scale	Shrink to fit to page ...
Table of contents datafields		
Date (*)	Date	
Revision (*)	Revision	
Page index	Page index	Page's index number
Page number	Page number	The assigned page number – can be assigned freely
Title	Title	
Date for last change	Date for last change	
Scale factor	Scale factor	
Print scale	Print scale	
Page designation	Page designation.	This can either be page designation, function aspect or location aspect.
Creation date/time	Creation date/time for the page.	Choose between different settings.
Line number	Line/subject number for the list point.	You can here choose between on all lines and on used lines.
First/last obj	The datafield first/last obj can display the first and/or the last object in the list page.	You can here choose between first and last, first and last.
Revision	The datafield last revision is used for displaying the most recent revision of the project.	There can be created a list of revision datafields in the menus, which can be filled out as the revisions are performed.
Remarks	Remarks from the remarks field.	

Datafields in this section are used for component labels: The name with or without reference designations will be the value for the labels.

The other data fields can be used for sorting purposes.

Apart from the datafields here, you can also use all datafields from the database.

Datafield	Description	Options
Parts/components list datafields		
Name	The name of the component.	Attributes: quantity, location aspect and function aspect.
Type	The type of the component.	
Article no.	The article number of the component	You can choose between 'For component' or 'For subdrawing'. This also makes it possible to let article numbers for sub drawings appear in the list.
Function	The function of the component	
Description	The description of the component can be collected from the database. Depends on the database setup.	
Symbol name	The symbol file name of the component	
Symbol figure	The symbol figure of the component	A small bitmap figure of the symbol
Symbol title	The title of the component	
Symbol date	Time and date for saving the symbol	
Quantity	The quantity of the component.	Choose between quantity ('number of units'), quantity compl. packages (rounded up to the nearest integer), or quantity in packages (specified with decimals).
Unit quantity	The number of components referring to the unit page	
Price1	The price datafield are intended to be used in connection with price estimates: use price1 for list price, it can be connect with a discount datafield (in the database).	Connect to a discount datafield to get 'your' price, eg 20% discount: the discount database field's value is 0.8.
Price2		
Total article price1	The Total article price datafields are quantity * price	You can see examples in the demo parts lists.
Total article price2		
Total price1	The Total price datafields are sums of ALL Total article prices	
Total price2		
Unit name list	Unit name list	List of all components with the unit article number
Name list	List of components having the same article number	
Refpostiton	The page/current path number of the component. Here can be referred to function or location aspect, page and currentpath.	
Mechanical position	The location of the mechanical symbol. Can be either x,y position or field position.	
Mechanical page	The page number for the groundplan page, where the mechanical symbol is placed.	You can here choose whether to add the function and/or the location aspect along with the page number.
=+Design	The function and/or location aspect for the component.	This can either be function and/or location aspect. You also choose whether to show the designation or the description.
Symbol type	The main symbol type for the component.	
Cable wires	Choose between wire count and used wire count.	
EAN13 barcode	Datafield automatically generates an EAN13 barcode for the component.	You can here choose between different standard sizes.
Line number	Line/subject number for the list point.	Choose between on all lines or on used lines.



Symbol file name	The library filename for the symbol.	You can here choose with file path, file name and with file extension. When there are more than one symbol for a component, the datafield inserts the filename for the most significant symbol
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Datafields in this section are used for terminal labels: The terminal name (with or without reference designations) and the connection name contain the values for the labels.

The other data fields can be used for sorting purposes.

Apart from the datafields here, you can also use all datafields from the database.

Datafield	Description	Options
Terminals list datafields		
T.name	The name of the terminal.	Options: with sub-name, connection name, location aspect and function aspect.
T.type	The type of the terminal.	
T.article	The article number of the terminal.	
T.function	The function of the terminal.	
T.=+design	The reference designation of the terminal.	Functional or locational aspect and designation or description.
C.name	The connection name of the terminal.	
C.function.	The connection function of the terminal.	Choose IE side.
C.label	The connection label of the terminal.	Choose IE side.
C.descr.	The connection description of the terminal	Choose IE side.
C.ref	The connection current path of the terminal.	Options: function aspect, location aspect, page and current path.
IE.name **	IE component name.	IE means internal/external, which refers to the connections to the terminals input/output side. For all IE-datafields you can choose between the input and output side. Some of the datafields have further options, with are related to ref.designations and the position of the component in the current project. Datafields with extra options are marked **
IE.type	IE component type.	
IE.article	IE component article number.	
IE.function.	IE component function.	
IE.=+design **	IE component function/location.	
IE.=+description **	Description for the IE component's function/location.	
IE.c.name	IE component's connection name.	
IE.c.function	IE component's connection function.	
IE.c.label	IE component's connection label.	
IE.c.descr.	IE component's 'sconnection description.	
IE.c.ref. **	IE component's connection current path.	
IE.signal **	IE signal name.	
IE.wireno	IE wire number.	
IE.cb.name **	IE cable name.	
IE.cb.type	IE cable type.	
IE.cb.article	IE cable article number.	
IE.cb.function	IE cable function.	
IE.cb.=+design. **	IE cable function/location.	
IE.cb.=+description **	Description for the internal/external cable function/location.	
IE.cb.w.name	IE cable wire name.	
IE.cb.w.function	IE cable wire function.	
IE.cb.w.label	IE cable wire label.	
IE.cb.w.descr.	IE cable wire description.	
IE.cb.w.ref. **	IE cable wire current path.	
Jumper link	Jumper link connection of terminal.	
Pos. No.	The position number.	
Line number	Line/subject number in the resulting list	Choose IE side. This is data referring to the connecting line.
Line-name	Name of the connected line.	
Line-type.	Type of the connected line	
Line-article	Article number of the connected line.	
Line-function	Function of the connected line.	

Datafields in this section are used for cable labels: The cable name (with or without reference designations) contain the values for the labels.

The other data fields can be used for sorting purposes.

Apart from the datafields here, you can also use all datafields from the database.

Datafield	Description	Options
Cable list datafields		
Cb.type	Cable type	
Cb.article	Cable article number	
Cb.function	Cable function	
Cb.=+design.	Cable function and location aspect.	Functional and/or locational aspect and designation or description.
Cb.w.name	Cable wire name	
Cb.w.function	Cable wire type	
Cb.w.label	Cable wire article number	
Cb.w.descr.	Cable wire function	
Cb.w.ref.	Cable wire current path.	Functional or locational aspect, page and current path.
FT.name **	FT component name.	FT means From/To, which refers to the connections in either end of the cable. The cable direction can be seen on the symbol – and can be reversed on the symbol. For all FT-datafields you can choose between the From and To. Some of the datafields have further options, with are related to ref.designations and the position of the component in the current project. Datafields with extra options are marked **
FT.type	FT component type	
FT.article	FT component article number	
FT.function	FT component function	
FT.=+design. **	FT component function and location aspect.	
FT.=+description **	Description for the FT component function and location aspect.	
FT.c.name	FT component connection name	
FT.c.function	FT component connection type	
FT.c.label	FT component connection article number	
FT.c.descr.	FT component connection function	
FT.c.ref. **	FT component connection current path.	
Cb.w.signal **	Cable wire signal name.	You can also select location aspect And function aspect.
Cb.w.wireno	Cable wire wire number	
Cable wires	Choose between wire count and used wire count.	
Line number	Line/subject number for the list point.	Choose on all lines or on used lines.
Line-name	Name of the connected line.	
Line-type	Type of the connected line.	
Line-article	Article number of the connected line.	
Line-function	Function of the connected line.	
Quantity	Quantity.	Choose between: Quantity: 3 (from the quantity field in the dialog box line article data), Quantity compl. packages: 1 (quantity in complete packages; the size of the packages is specified in the database field Unitsperpack) Quantity in packages: 0,6.



Datafields in this section can be used for components and wires connected to plc's.
Apart from the datafields here, you can also use all datafields from the database.

Datafield	Description	Options
PLC list datafields		
Plc name	Plc name.	Options: with sub-name, connection name, location aspect and function aspect.
Plc type	Plc type	
Plc article	Plc article	
Plc function	Plc function	
Plc =+design.	Plc function and location aspect.	Function and/or location aspect and designation or description.
C.name	Connection name of plc	
C.function	Connection function of plc	
C.label	Connection label of plc	
C.descr.	Connection description of plc	
C.ref.	Connection current path of plc.	Function and/or aspect, page and current path.
CC.name **	CC name.	CC means Connected Component, which refers to the connected components to the plc's inputs or outputs. Datafields with extra options are marked ** Options: with sub-name, connection name, location and/or function aspect.
CC.type	CC type	
CC.article	CC article number	
CC.function	CC function	
CC.=+design. **	CC function and location aspect.	Function and/or location aspect and designation or description.
CC.c.name	CC connection name.	
CC.c.function	CC connection function	
CC.c.label	CC connection label	
CC.c.descr.	CC connection description	
CC.c.ref. **	CC connection current path.	Function and/or aspect, page and current path.
C.signal **	Connected signal name.	Function and/or location aspect
C.wireno.	Connected wire number	
Signalpath	Plc signal path through terminals and cables.	Options: with sub-name, connection name, location aspect and function aspect.
Line number	Line/subject number for the list point.	On all lines and on used lines.
Line-name	Name of the connected line.	At plc connection or at connected symbol.
Line-type	Type of the connected line.	
Line-article	Article number of the connected line.	
Line-function	Function of the connected line.	