

# AUTOMATION

DESCRIPTION OF NEW FUNCTIONS Version 17.0

This document describes new functions in Automation version 17. Description of Component Wizard, Software License, PCISCHEMATIC Panelrouter and PCISCHEMATIC Service are in separate booklets. Last revision: February 2015



Description of new functions

## PC SCHEMATIC

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3.7 3.8 4 The E 4.1 4.2 4.3 4.3 4.3 4.4 5 Upda 6 Comp 6.1 6.1.1 6.1.2 6.1.3 6.1.4	You can use the Symbol generator to create diagram symbols Access to SQL in multi-edit in database function	12 
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## 1 The Settings menu

This year also reveals small changes and expansions to the Settings menu. See all changes and explanations for them below.

### 1.1 Delete unused data fields in Project data and Page data

You can delete unused data fields in Project data and Page Data by using a new rightclick command.

Add datafield Edit datafield Remove datafield Values		<sup>*</sup> <sup>**</sup>
Telephone no.		-
<ul> <li>Automatic renumbering o Relay Reference Type</li> <li>Reference cross</li> </ul>	f pages Revision	Reference designations
Contact mirror	Mounting correct drawing	Bend: 2,5 mm ▼
Show this dialog when creat	ting a new project	Ok Close

### 1.2 Pointer/Screen – Reference points

We have 'tidied up' the Pointer/Screen tab. Read more in the paragraph Readability from page 7.

### 1.3 Database settings, changes and new positions

See the changes in Database settings and explanations in the paragraph The Database from page 13.

## 1.4 The Basic settings menu

It is now possible to set Text properties for Measurements in this tab.

Directories			<u> </u>
Tools	Reference trame, cloud and measurement texts     Reference designations		
Database	Functional aspect, Description		
System	C Locational aspect, Description	Text height: 2,50 mm	* 💞 🖻 🛛
License	Product aspect, Description     Cloud description		
Text/Symbol defaults	Measurement		
Basic settings			Assign

#### 1.4.1 Colors

Color settings have moved to this menu from their previous position on the Pointer/Screen menu.

Shortauts Custom	

#### 1.4.2 System colors

You find the 'old' color setting when pressing this button. This is where you decide the color for your drawing area, your pointer, cross hairs etc.. You see nothing new in this box.



#### 1.4.3 Custom colors

Here you define your own colors to the program.

*Either,* you select a new color by choosing a color in one of the two windows (remember to move the bar at the far right, if the color is too dark, ie black), *or* you type a RGB value.

Your custom colors are placed in the Custom color band and you can see them in all dialog with color options.

The color band can contain 16 colors, which means that a new color will replace an old one.

olor		ysterie A			
Basic colors:	Contraction of the local division of the loc	BENZ I		(in sector	
					28
Qustom colors:					18
		Hue	204	Red:	0
		1.00	172	100.	0
	LUC-LL	Sat:	1/3	Green:	U
Define Custom Colors >>	loriSolid	Lum:	0	Blue:	0

#### 1.4.4 Using Basic colors, Custom colors or Other colors

When you choose colors from a larger selecting from version 17.

This goes for colors on lines, texts, circles/arcs and elsewhere you select colors in the program, ie symbol design and various settings.

#### 1.4.4.1 Basic colors

The first color band contains basic colors, which are the 16 'old' colors, including the NP (not-print or invisible). This band is fixed and cannot be changed.

#### 1.4.4.2 Custom colors

In this band, you find the custom colors that you can define. See how to do that in paragraph 1.4.3.

#### 1.4.4.3 Other colors / More colors

At the bottom, you see 'Other colors', which are additional colors that you have chosen in the project.

If you want other colors, simply click the More colors button and select a color. You can use this color, and the selection is saved on your pc, and if other users of the project want to use the color, they can tranfers settings – as always – and use it on other objects.



### 2 Readability

We have worked on making improved readability in this version. Below you can read about the measures we have made so far.

### 2.1 Reference points and their visibility

The intention of having the reference points is to give you a little on-line and on-screen help. However, when you have a full screen view, the same reference points are 'noisy' and make it difficult to read e.g. connection names. For that reason, it is an idea only to make the ref.points visible, when you zoom in on details on the page. This is possible when you select the 'Auto' option.

It is possible to adjust to the desired zoom level.<sup>i</sup>

Basic settings	♥ Ortho 45°	Flat buttons	Printer help frame
Special settings	Cross hairs line displayed right angled	Gradient toolbars	Symbol pickmenu
Shortcuts	V Cross hairs figure with shap V Net Router Middle mousebutton Pan Mouse wheel Scroll	Gradient Pickmenu     Transparent windows	V Auto
			Qk Gancel

#### 2.1.1 Ref.points in the toolbar

You can toggle visibility of reference points by using the new button in the vertical toolbar.

*≎	

#### 2.1.2 Shortcut to view Reference points

You can also find the command in the View menu.

You can make a short cut to the function through Settingsl Shortcuts.



#### 2.1.3 Thin lines on mechanical pages

Symbol lines are now thin by default. This is also

Settings for page type Ground plane/Mechanical Show lines in symbols as thin lines

part of enhancing readability. If this does not help you in the actual project, you can disable the Show lines in symbols as thin lines in Settings/Special settings.

#### 2.1.4 Grid dots

The small grid dots become almost invisible, when you have a screen with high resolution. The grid dot size now follows the zoom level.

#### 2.1.5 Marking of terminal's external side

The external side connection point is now below the symbol itself, which enhances readability.

You can also select other colors (system colors) for ref.points etc..





### 3 Component wizard

The component guide's functionality has been enhanced with this version.

The guide assists you when you create components in the database, and it can now create

- Jumpers
- Wires
- Wire trays
- Cables

You can read more about the Component Wizard in a small booklet – with the same name –, which takes you through all functions. You find the booklet on our homepage, togehter with other manuals and booklets.

Below you see the most important window for each component type.

#### 3.1 Component kind

When you start creating a component, you select a component kind.

As for now, you can select component kinds for some special components; all other components are set as 'normal'.

When you select a component kind, the guide goes to tabs that are special for the specific component kind.

🕼 Component Wizard	// Database='P	CSDB_UK.MDB' Table='Compone	nts'			
1. Start creating	2. Article	3. Choose symbols/component	4. Mectype	5	. Other fields	6. Finish
Article number (EANNUM	BER)			۲	Enter EAN-num component you create.	ber for the wish to
1212		***				
Type (TYPE)						
		***				
Table code						
Component kind						
Normal	-					
Jumper Link						
Cable Wire						
Wiretray						
Previous		Mode = New	Next			



#### 3.2 Create jumper

When you create jumpers in the database, you select (and show) the number of connections for the jumper as well as the distance between each connection.<sup>ii</sup>

1. Start cr	eating 2. Article	3. Choose symbols/component	4. Mectype	5. Other fields 6. Finish
Ref ID:	View of standard R	ef ID: 🔹	0	If the jumperlink connects 3 terminals (2 connections), then enter the number 2 in
ymbol		Number of links		Number of links
	-	Distance between connections		

#### 3.3 Create wire

When you create wires in the database, you must type the wire's diameter (mm or '') and the number of meters per reel/drum.  $^{\mbox{\tiny III}}$ 

The diameter is used for calculating wire tray loads in the Panelrouter.

1. Start cr	eating 2. Ar	tide	3. Choose symbols/component	4. Mectype	5. Other fields 6. Finish
Ref ID:	View of stand	ard Ref I	D: 🔻	0	Type in the diameter of the wire. The diameter must include the insulation
ymbol		Dia	meter		insulation.
		2	mm 🔻		
		Me	ters per reel/drum		
		10	ol		

#### 3.4 Create wire tray

When you create wire trays in the database, you must type the tray width and length (mm or ").

The size is used for calculating wire tray load in the Panelrouter.

1. Start creating	2. Article	3. Choose sy	mbols/component	4. Mectype		5. Other fields	6. Finish
Ref ID: View	v of standard Ref	ID: 👻			۲	Type in height ar the wire tray. Type in the lengt	nd width of th per wire
11	н	eight	Width			uay.	
////	2	0	30	mm 🔻			
2V	Le	ength (m)					
	0	,7					



#### 3.5 Create cable

When you create cables, you must select a cable symbol, either directly in the symbol library or by using the database lookup function. The wizard will only accept a symbol of the cable type!!

You must type the cable's diameter (mm or '') and the number of meters per reel/drum. The diameter is used for calculating wire tray loads in the Panelrouter.

You must also type the number of conductors and select how you want to mark the individual conductors.

At the right side of the window, you can see standard color codes.<sup>iv</sup>

1. Start creating 2. A	rtide 3. Choose symbols/component 4. Mectype		5. Other fields 6. Finish
Ref ID: W View of stan Symbol 03-01-09 Choose symbol from datab Choose symbol Delet Number of conductors 3	dard Ref ID:   Diameter  Meters per reel/drum  ase	0	Type om the diameter of the cable. The diameter must include the insulation. Type in the number of conductors. Select colors or numbers to identify conductors. Conductor colors: BK: Black BN: Brown GY: Grey BU: Blue WH: White RD: Red VT: Violet YK: Pink
Cable conductors	Conductor color/number	-	GN: Green
Numbers	BK	]	OG: Orange
Texts	BN		GNYE: Green yellow
O TENES	GY	3	
		0.55	

#### 3.5.1 Cable accessories

A small repetition about cable accessories. You type accessories in the ACCESSORY datafield, which you find in the Other fields tab.

You can create accessories that come with every meter of the cable, eg 5 clips (article number CLIPS1234) per meter: Type CLIPS1234#5.

You can create accessories that come with each cable, eg 2 plugs per cable; one for each end (article number: PLUG1234): Type PLUG1234##2.

If you have two different plugs, type each article number followed by ##1 and separate with ; (semicolon).

### 3.6 You can enter data/edit all selected data fields

When you work with the Component guide, you work with the data fields that are mapped in Database settings.

You might need to type information into other data fields than those mapped in the Component data tab. This is now possible, see how on page 14.

### 3.7 You can use the Symbol generator to create diagram symbols

You can make your own symbol with the symbol generator.

Lookup symbol fr	om database				
Choose symbol	Delete	Replace	Copy symbol	Generator	
Symbol subname			Symboltype		

### 3.8 Access to SQL in multi-edit in database function

The component guide also allows multi-edit in the database.

You enter this function by clicking Ctrl+Edit.

When you select the components you want to edit, you can use the Advanced button to help you set up a filter. The normal filter that you use is a pure AND filter, which means that all components must meet Filter1 AND Filter2 AND ...

The Advanced function is a possibility to see the query as a SQL sentence, where you can write a complete query yourself or simply replace an AND with an OR thus setting up another filter. If the query is incorrect, it will not run.

Alternatively, the database program itself has a SQL function, where you can set up queries and functions using SQL.

Filter settings	1. Start cre	ating 2. Article	3. Choose symb	ols/component	4. Mectype	•	5. Other fields 6. Finish
MANUFACTUR       ▶ begins with       ▶ pcs         "TYPE" equal "p"       Delete filter         MANUFACTUR begins with "pcs"       Delete filter         Add filter       Add filter         Apply filter       ((MANUFACTUR LIKE 'pcs%) S(TYPE = 'p'))	Filter setting	)s				0	Add or modify filter settings, to select those records you
TYPE" equal "p" "MANUFACTUR" begins with "pcs"       Delete filter         ✓ Advanced Apply filter       ((MANUFACTUR LIKE 'pcs%) * (TYPE = 'p'))       ▲         ✓ Poply filter       ((MANUFACTUR LIKE 'pcs%) * (TYPE = 'p'))       ▲         ✓ Poply filter       (************************************	MANUFACT	JR 👻 begins	with +	pcs			wish to edit
Advanced       ((MANUFACTUR LIKE 'pcs%) ™(TYPE = 'p'))         Apply filter       ((MANUFACTUR LIKE 'pcs%) ™(TYPE = 'p'))         ID       EANNUMBER       STOCKNO       ORDERNO         Y 93155       900573887513       U3-32-0,18       ■         93156       9005738872128       U3-32-0,27       ■         93157       9005738872135       U3-32-0,4       ■         93158       9005738872159       U3-32-0,6       ■         93159       9005738872159       U3-32-0,9       ■         93150       9005738872173       U3-32-1,2       ■         93161       9005738872173       U3-32-1,8       ■         93162       900573887241       U3-32-11       ■         93163       900573887241       U3-32-14       ▼	"TYPE" equa	l "p" UR" begins with "pcs"			Delete	filter	
Advanced       ((MANUFACTUR LIKE 'pcs%') ** (TYPE = 'p'))         Apply filter       ************************************					Add fi	ter	
Apply filter         Image: Constraint of the constr	Advanced	((MANUFACTUR LIK	E 'pcs%') 🚮 (TYPE =	'p'))		*	
ID       EANNUMBER       STOCKNO       ORDERNO       TYPE         93155       900573887213       U3-32-0,18       ■         93155       9005738872135       U3-32-0,27       ■         93157       9005738872135       U3-32-0,4       ■         93158       9005738872142       U3-32-0,6       ■         93159       9005738872159       U3-32-0,6       ■         93159       9005738872159       U3-32-0,9       ■         93150       9005738872160       U3-32-1,2       ■         93161       9005738872173       U3-32-1,8       ■         93162       900573887241       U3-32-11       ■         93163       900573887288       U3-32-14       ➡	Apply filter					-	
ID       EANNUMBER       STOCKNO       ORDERNO       TYPE       ▲         93155       900573867513       U3-32-0,18       ■       ■         93156       9005738872128       U3-32-0,27       ■       ■         93157       9005738872135       U3-32-0,4       ■       ■         93158       9005738872142       U3-32-0,6       ■       ■         93159       9005738872159       U3-32-0,9       ■       ■         93150       9005738872166       U3-32-1,2       ■       ■         93161       9005738872173       U3-32-1,8       ■       ■         93162       900573887241       U3-32-11       ■       ■         93163       9005738867988       U3-32-14       ▼	25 records m	atching filter.	1		Lances	(Second	
93155       9005738867513       U3-32-0,18         93156       9005738872128       U3-32-0,27         93157       9005738872135       U3-32-0,4         93158       9005738872142       U3-32-0,6         93159       903573872159       U3-32-0,9         93160       9005738872159       U3-32-1,2         93161       9005738872173       U3-32-1,8         93162       9005738872241       U3-32-11         93163       9005738867988       U3-32-14	ID	EANNUMBER	STOCKNO	ORDERNO	TYPE	_	
93155 900573872128 U3-32-0,27 93157 900573872135 U3-32-0,4 93158 900573872142 U3-32-0,6 93159 900573872159 U3-32-0,9 93160 900573872166 U3-32-1,2 93161 900573872173 U3-32-1,8 93162 900573872241 U3-32-11 93163 9005738867988 U3-32-14 ~	931	55 9005738867513	U3-32-0,18			E	
93157 9005738872135 03-32-0,4 93158 9005738872142 U3-32-0,6 93159 9005738872159 U3-32-0,9 93160 9005738872166 U3-32-1,2 93161 9005738872173 U3-32-1,8 93162 9005738872241 U3-32-11 93163 9005738867988 U3-32-14 ~	931	56 9005738872128	U3-32-0,27				
93153       9005738872142       03-32-0,6         93159       9005738872159       U3-32-0,9         93160       9005738872166       U3-32-1,2         93161       9005738872173       U3-32-1,8         93162       9005738872241       U3-32-11         93163       9005738867988       U3-32-14	931	57 9005738872135	03-32-0,4			- 3	
93163       9005738872166       U3-32-1,2         93161       9005738872173       U3-32-1,8         93162       9005738872241       U3-32-11         93163       9005738867988       U3-32-14	931	50 9005/388/2142	112-32-0.0			-125	
93161         9005738872173         U3-32-1,8           93162         9005738872241         U3-32-11           93163         9005738867988         U3-32-14	931	60 9005738872166	113-32-1 2			-22	
93162 9005738872241 U3-32-11 93163 9005738867988 U3-32-14	931	61 9005738872173	113-32-1.8			-125	
93163 9005738867988 U3-32-14 -	931	62 9005738872241	U3-32-11			-18	
	931	63 9005738867988	U3-32-14			-	
*	•					•	

#### 4 The Database

The standard database contains more datafields, because new programs and functions makes it possible to use further component data.

In version 17, new functions and requirements come mainly from the Component Wizard and the Panelrouter.

#### 4.1 New data fields

CWCODE: this is a code, which the component wizard uses to differ between cables, wires, jumper etc. See how to use it on page 9. The datafield is a system field and it is only used by the program.

OPT\_ADDON: electrical accessories for components, ie auxilliary contacts for relais.

HEIGHT: average height for a component's connection terminals. Type value in mm, omit unit. The Panelrouter uses this datafield.

#### 4.2 New syntaxes for typing in the database

Wire trays: Type #x30mmy40mm in MECTYPE: the tray will have a width of 30 mm (Xvalue) and height of 40 mm (Y-value). The two values are used to calculate wire tray load and capacity in the Panelrouter.

Wires and cables: #R0,5mm in MECTYPE means a diameter incl insulation of 1 mm.

Jumpers: #X5mm in MECTYPE means 5 mm between connections. The Panelrouter checks this value with the placed jumpers' dimensions. #2 in PINDATA means that the jumper has two connections, and the value will influence the number of jumpers in the parts lists (BOM).

The Component Wizard creates the syntaxes automatically.

#### 4.3 Database settings - Accessories in separate tab

a separate	ield setup	Component o	data	Component Add	tionals	Component search	Database Menu	Url Links
nore about ories from	Permaner	nt additionals additionals	ACC	ESSORY	•			
	Mechcani Electical	cal	OPT	ACCESSORY	•			

x

.

11

#### 4.4 Database settings - other fields in the Component Wizard

This tab shows all data fields that you	Component Database se	etup				
can treat in the 'Other fields' tab in the Component Wizard. You can add or	Component Additionals Choose data fields that	Component search	Database Menu	Url Links Wizard	Component Wizard MANUFACTUR DESCRIPT UKDESCRIPT REMARKS CATALOGUE PICTURE	
database fields when you click the + key (and delete some with the – key) and change the sequence with the arrows.					UNITPRPACK HEIGHT ACCESSORY OPT_ACCESSORY OPT_ADDON APPROVED OBSOLETE SOURCE	
					Qk	Cancel

#### 4.5 Search components in the database

The first tab in the component database has the following changes:

- TYPE is not 'contains' instead of 'begins with' and
- DESCRIPTION, which 'contains' is now placed on the first search tab.

However, it is still a good idea to make 'approved' components or to place the most commonly used components in the pickmenu ;-)  $^{\scriptscriptstyle \vee}$ 

EANNUMBER TYPE PCS500003 PCSGNLAMP1	UKDESCRIPT A Green lamp with bu	ilt-in resistor	
•			(no picture)
Show approved components only		e components	Show Picture
Count <u>R</u> ecords:	Item No. / Type / Desc. 1. Se	earchkey 2. Searchkey	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
			T
	UKDESCRIPT contains	green la	

#### 4.6 Automatic import of database updates

For future database updates, the installer automatically prompts you to import the updates.

## 5 Update symbols on mechanical page

It has always been possible to place either 'real' mechanical symbols or generated 'boxes' with the correct dimensions.

However, many 'real' mechanical symbols are #XY boxes, which means that they lack functionality in relation to the components. You could make a new 'real' mechanical symbol for the component, change it, one by one (article number) but you needed to treat each component (article number) individually.

O Load all			Qk
	Name search text:		Cancel
Doad selected	+2*	Σ	Zancer
	Database symbol field		
	MECTYPE	-	
Manual placement f	from list		
Manual placement f	from list		
Manual placement f     Place only symbols	from list not placed on other mechanical pages		
Manual placement f     Place only symbols     Place symbol as box	from list not placed on other mechanical pages <b>xes</b>		

The new function 'Update all symbols from the database' enables you to update/replace all symbols on a given page in one operation.

The function also allows you to change to boxes instead; simply, make your choice in the dialog.





**BEFORE:** 

AFTER:

or is it vice versa 😊

## 6 Component accessories

The component accessories function is extended compared to version 16, because it is now possible that the database contains information about 'approved' accessories for each component, fixed as well as mechanical and electrical accessories.

Below you see the options you have for accessories in the program and how to use them.

### 6.1 Accessories come in three categories

- Fixed accessories
- Optional mechanical accessories
- Optional electrical accessories

#### 6.1.1 Fixed accessories

Article number(s) for this is in the ACCESSORY datafield.

You can only see this type of accessory in parts and component lists. It has the same name as the component, to which it belongs. This kind of accessory can be sockets for lamps or contactors.

In the list setting, you select to include fixed accessories.

#### 6.1.2 Optional mechanical accessories

Article number(s) for this is in the OPT\_ACCESSORY datafield.

Previously, you would add this kind of accessory by using the Support symbol, ie for end plates and dividers for terminal rows.

This kind of accessory also belongs on the mechanical pages, in the Show available list and in Mechanical placement.

#### 6.1.3 Optional electrical accessories

Article number(s) for this is in the OPT\_ADDON datafield.

Previously, you would add this kind of accessory by using separate electrical symbols, ie auxiliary contacts with the same names as the main component. In this way, all related components come together in the lists and on the mechanical pages.

You can select electrical accessory in the right click menu when you select a symbol.

This kind of accessory also is in the Show available on diagram pages and it belongs on the mechanical pages, in the Show available list and in Mechanical placement.

#### 6.1.4 Syntax for accessories in the database

In all three datafields you type the EANNUMBER (or the number from the datafield, you mapped as primary datafield) for accessory.

More EANNUMBERS are separated by ; (semicolon).

Many *independent* EANNUMBERS can be found in an external file, which is linked with FILE=xxx.acc. In this file, linefeed means the same as semicolon. The file must be in the same folder as the database.

### 6.2 Add accessory to a component

Select a symbol in the component, right click and select either mechanical or electrical accessory.



#### 6.2.1 Add mechanical accessory

Do as in version 16:

Enter the command either via the right click menu or by using the tab Mech.accessory in the component data dialog.

In the component data dialog, you enter this window when you click the Edit button.

If the component has fixed accessory, you can see it in the top row with *italic letters.* 

#	Vare nr	Туре	Beskrivelse	Tilføj fra
1	5703436004073	SR3P-05C	Relæsokkel 11pol.	Database
1	PCS500004	PCSWHLAMP1	Hvid lampe med formodstand	Manuelt
				Fjern
				1 - S 1 (1) (1)
				Anvend

You add mechanical accessory in one of two ways:

Use the Database button, which takes you to the database. If there are EANNUMBERS in the OPT\_ACCESSORY datafield, you can select between those

EANNUMBERS/components, else you simply look up the desired component.vi

Alternatively, you can type the article number and type for another component that you want to add as accessory.

Accessories are included in the parts list with number and other data from the database and in the components list together with its main component.

#### 6.2.2 Mechanical accessories on mechanical pages

Mechanical accessories are also available to place on the mechanical page.

#### 6.2.3 If the accessory has accessories

Accessory lab,	Count	Article no	Type	Function	Description (from database)	Add from
you can make	1	PCS500005	PCSLAMPSOCKET		Socket for PCS-lamps	Database
automatic	1	PCS500001	PCSRDLAMP1		Red lamp with built-in resistor	Manually
lookup in the	-			1		- Maindally
database for all		D Showing acc	essory for: "PCS500001"			Remove
changes on an		The selected acc	essory (PCS500001) also l	nas accessory.		Edit
article number.		Select the access	sory to be included:			
When you tick		PCS500005	(1) TYPE=PCSLAM	PSOCKET, DESCR	RIPTION=Socket for PCS-lamps	
this field, the						
program will						
automatically						
correct all					Cancel Ok	
entries for an						
accessory,	۲ 📄				•	Apply
meaning that it	When	"Article no" change	d: Get Type and Function	nformation from	database	Cancel
picks all info						

It also checks for accessories on the accessory. You can include this in the lists.

#### 6.2.4 Add electrical accessory

from the database.

When you want to add electrical accessorry you go directly to the database, where you can choose from a list of optional add-on or – if such a list isnt' made – search for the accessory the same way you search for other components in the database.

If you select a component with more than one symbol, the remaining symbols are found in the 'Show available' window.

#### 6.2.5 Electrical accessory on mechanical page

Electrical accessory, eg an auxilliary block, is also available to place on mechanical page.

If the component has a mechanical symbol, you can see it in the 'Show available' window in the mech. page or you find it with the Mechanical placement command.



#### 6.2.6 Extended list criteria

Selection criteria on parts and components also apply for accessories.

eneral Sort b	Criteria Repetitions Replaces	Qk
# Field	Operator Text	A<>a Cancel
1.	• • • •	
2.	• •	Update
Accessory Include all a Only include	ccessories for components accessories fulfilling the criteria	
Add	Only one Criterion needs to be fulfil	ed

## 7 Reference designations

Reference designations are extended with a real Product Aspect.

Until this version, there has been a Function Aspect (=) and a Location Aspect (+); now comes the Product Aspect (-).

This makes it possibel to create and use all three aspects as stated in EN81346. The aspect has been added to all functions in the program where reference designations are applied.

## 7.1 See all reference designations in the project

The window in which you can see reference designations in the project is extended, so it can show the product aspect designations.

At the same time we have tidied up in icons and buttons. The icon for used aspects is changed.

			Close
Project	Top node (Function aspect)		
=W1	Control proces 1		
— =W2	Control proces 2		
— =W3	Control proces 3		
=W4	Control proces 4		
Project	Top node (Location aspect)		
▷ · +A1	Floor 1		10000000
▷ · +A2	Floor 2		
- +A3	Floor 3		No. AND THE
- +A4	Floor 4		
Project	Top pade (Bradust separt)	Page 6	
A KI	Control papel 1	A Poget o	
	Control panel 1 section 1		
2	Control panel 1 section 2	E	
3	Control panel 1 section 3		
.4	Control panel 1 section 4		
Þ K2	Control panel 2	100	
	Control panel 3	-	
2 6			and the second state of th

### 7.2 How to use reference designations

You use the new aspect in the same way as you use the 'old' aspects. That means that you still draw with symbols and give the symbol/component an aspect.

You can also import a components list into the project with full reference designations to all components, or you can make your drawing first, and add reference designations to the placed symbols, edit either individual symbols, use reference frames or use the Object Lister.

Description of new functions

## PC SCHEMATIC

#### 7.2.1 Settings

You enter the Settings when you press the button in the tool bar.

In the first tab you see the general settings. The tab is unchanged compared to earlier versions.

In this tab you decide – and see – how you want to show the reference designations.

This tab is also unchanged compared to earlier versions.

tup	
General View Levels	Qk
Insert Locational designation on Cables	Cancel
Insert Reference designation on Signals	
Insert Reference designation on Wire numbers	CONTRACTOR STATE
	100.000
	Sug-1

eneral View Levels		Qk
General order	ect	Gancel
Format for components in schematic pages	-G1+A1-K1	
Product aspect (name) first New line after first aspect	-GITAI-KI	
New line after second aspect		
Use full exclude of concatenation		
Format at other locations	finees were out	
Draduct accept (asma) first	$=G1+\Delta1-K1$	

This tab is new.

Here you set up how the program should treat levelling when you import reference designations from an excel sheet. The set up also applies for the reference designations you create in the program.<sup>vii</sup>

neral View Levels	Qk
✓ Letter followed by number ✓ Dot	Cancel

button.

#### 7.3 Create reference designations

You can create reference designations directly in the project by manual typing in the large window or you can import a list from eg Excel. See below.

#### 7.3.1 Add extra aspects

The window	Reference designations	where the second s	
shows only used		*= X O	Glose
project. You add extra aspects by	PCSDEMO2     II -+1     I -+10     II -+11	Eunction aspect ±t) ✓ Location aspect Product aspect	
clicking the +=-	□ -+12 □ -+13	Outdoor control unit 1 Motor's location 1	

+ = 1 @

#### 7.3.2 Type new designations

You can – as earlier – create new designations by typing directly in this window.

Press on of the buttons in each part of window

or use the shortcut [Insert]. You can see all short cuts when you right click.

When you create new designations, you create on a level *below* the one you are placed on.

Settings for new ref.designations are used here: if you selected that 'FULL STOP' means new levet, the program adds a new level itself, if you didn't select the 'FULL STOP' the program adds the aspect's prefix.

#### 7.3.3 Import reference designations

You can import an (Excel) list with reference designations. The various aspects must e created as texts (as in earlier versions) and they are automatically imported into the correct aspects by using their prefixes (=, +, -).

You can see an example of all apects in the attached demo file (refdesignations\_uk.xlsx).

Standard setting – see the lower picture in paragraph 7.2.1 – are, that the program sees a new designation as belonging to a new level, when the designation contains one or more (capital) letters followed by a number:

- A1, BB2, ABC3 belongs to level 1.
- A1BB2 belongs to level 2, but notice that A1 is not created autoimatically by the program; you must do that manually or in the import file.vii

Standard settings are that a 'FULL STOP' is a level separator:

- 1, A, 112 are level 1
- A.B, 1.A, 1.12 are level 2. And again, notice that the program does *not* create level 1.

The prefix itself, which are =,+,- always means a new level, meaning that -A1-A2-A3 is level 3. But here, too, you must create -A1 and -A1-A2.

This means, that if you have a list as the one in the picture, you have three levels in A, B and C when you use the standard settings.

Designation	Description	Ok
+ =A1		Canad
+ =A1.A2		Gancer
+ =A1.A2.A3		
+ +81		
+ +B1.B2		
+ +81.82.83		
+ -C1		
+ -C1.C2		
+ -C1.C2.C3		

### 7.4 The tree structure

The program creates a tree structure based on used reference designations in the program; just as in earlier versions.

All aspects are seen in the tree.



#### 7.4.1 Show component

You can also go the other way: select a symbol in the project and click the symbol in the upper left corner. This takes you to the symbol's position in the tree structure.

#### 7.5 The Select Options module

The Select	Select Options	
Options	Reference designations Layout settings	
module	Set visibility on location- and functionaspects in the entire project.	
shows another way	Function aspect	Description
ofusing		
reference		
designations.		
The module	Location aspect	Description
can generate	∀ +1     10	Supply panel
a new project		Indoor control unit 1
by de-	V +12 V +13	Motor's location 1
/selecting		
options by		
reference		
designations.	Update lists	Close

The module lists all used reference designations in a project, and you can select or deselect an option as long as you can identify the option by reference designation.

The module can generate an overview of selected options and insert a list in the project.

Enabled		Locat	ion	aspect		Description		
<b>V</b> .	Q.	+1.	72	34	22	Supply panel	ά.	- 12
$\checkmark$		+10				Control panel 1		
<b>V</b> .		+11	<i></i>		•	Indoor control unit 1		
		+12				Outdoor control unit 1		
	1	+13	83	11	131	Motor's location 1	87 - E	- 17

## 8 New function in Export to dwg format

When you export to dwg or dxf-format, it is now possible to put all pages onto a single page in the exported file.



## 9 New Installer for installation and updates

We have simplified the installation and update routines. In the future, there is only one installer, which means that you need not consider making a network installation or a standard installation.

This means that regardless of the kind of installation you have, Automation can update it automatically.

The program automatically generates workstations when it starts if

- you have a terminal server session (also ver 15 and 16)
- Automation is installed in Program Files (also ver 16)
- Automation is installed on a network drive (new in ver 17)

It is still possible to make 'old-fashioned' workstation; however, this is only relevant if you want different settings for eg different customers.

### 10 Software license

More and more choose to have a virtual server environment. This means an increasing demand for software based license servers.

We have released a software solution in connection with version 16. We have gone further with this solution, and today it is a full solution with the same functionality as in the hardware license keys, including the borrow-functions.

You can download an English manual for the Software license server solution from our homepage.

The software license server solution is the new default license type.



### 11 Bits and pieces

Subjects in this chapter is inspired from input to Info@pcschematic.com.

However, we reserve our right to selectivity ;-)

### 11.1 Ver 17 is not tested on Windows XP

Microsoft does not support Windows XP anynmore, which means that we cannot guarantee any functionality on this platform. Version 17 is *not* tested on XP.

#### 11.2 Direct access to Edit symbol from the Symbol generator

You can start creating a new symbol from the Symbol generator: make the symbol

outline here,	Symbol Generator [#x	20mmy10mmn(A)e]				
select	Rectangular	Width (mm)	Height (mm)	355555273	3	
connection	Circular	20	10			
points with	l la suda				Δ	
names and	Line color				1 <sup>+</sup>	
positions and		E Filled				*
go directly to	Connections at top	p		None		*
Edit Symbol where you can	Connections at bo	ttom		None		
finish the	Connections at lef	't side		None		
symbol and add					Design. char	
Symbol and add	Connections at rig	ht side		None	A	Mechanical symbol
auxillliary						
symbols. <sup>ix</sup>						
- ,						
	Edit Symbol					OK Cancel

#### 11.3 More options in printer dialog\*\*

There a two new options in the printer dialog:

- print all non-list pages
- print all pages without states

Furthermore, you get a warning before lists are updated.

Current page     Actual chapter	All pages     Even pages		
Chapter dividers	Odd pages		
Not list pages	No states		
Exclude dividers	Dividers NOT duplex		

### 11.4 Data list is added to Divider pages

We have added a data list	Divider	
Here you can make a list of	Enter Divider Name	Ok
typical divider titles.	Divider	Cancel
	Lists Graphical plans	Values

### 11.5 Active layer and Grouping of layers

The datafield Active layer, which is found in the Page data group, shows the current and active layer.

If you selected to show a Layer group, the datafield shows the group name here.

We have made a new datafield – Group of layers –, which shows the layers in the current group.

If you want to include this data field in the drawing header, it is a good idea to set the pretext visible, only when the datafield contains data.

Active layer: New group Group of layers: 1,2,3

Data hara			NSI-MERICE	
Data type				Qk
Drawing no.				Cancel
🔿 System Data	User name	*		
Project Data	Project number	*		
Page Data	Drawing no.	-		
Symbol Datafields	Drawing no. Approved			
Table of Contents	Revision			
Parts/Components List	Constructor			
Terminals List	Approved by: Approved date:			
Cables List	DCC			
O PLC List	Page index			
<ul> <li>● From Page</li> <li>○ From Chapter</li> </ul>	Page number Remarks Title Date for last change Scale factor Print scale Text corner First used page Last used page			
🗖 Activate next 🛛 🕅 Wra	Previous used page		c (^)	
Only show Pre-text on da	tUsed pages		er	
Pre-text:	Page designation Picture		-	
	Creation date/time Last Revision First/last obj			1
	Active layer Group of layers			



All lines v data are

#### 11.6 Select name - now also in the Line command

You can now use the Select Name command with lines.

The function is exactly as in with symbols, the only difference is that here you select all lines with a given name.

•	Show Net	
•	Highlight Net	·
	Insert Line Point	1
	Trim line/Extend line	
	Join signal	·
•	Select Name	·
	Invisible	1

#### Lines with data in the Objectlister \*\* 11.7

All lines with	Object Lister							
the Objekt listeren (F7). ×	Signals V	VireNumbers	Cables T	er <u>m</u> inals   PL	CI/O PLCI/	0 (ref.)   <u>T</u> exts	Reference f	
	Name	Туре	Article	Function	Page No. /			
		asdf			1			
	2 33	asdf			1			
	123	asdf			1			
	23	asdf			1			
	144	asdf			1			
	100	qwer			1			
	and the second s	gwer			1			

#### 11.8 Show current paths in Edit symbol

It is possible to see current paths in the Symbol editor, which makes it easier to see how the symbol fits on a page.

## 11.9 Set User Home view

This setting – found in the View menu – used to have a hard-coded shortcut:

If you clicked the <Ctrl>-button in a zoom, the selected zoom would be the User Home view.

We deleted this shortcut, as we experienced user problems.

Note: you can Ctrl+0 which gives you full drawing area.

## 11.10 Join signal is in the right click menu

EditlJoin signal (on a wide line) is now available in the right click menu.^xi





## 11.11 Extra option for label print from Panelbuilder

In relation with label print from the Panelbuilder, it is now possible to select AVERY Laser L7165 sheets. The size fits with the CE-label.<sup>xii</sup>



## 12 New products from PCISCHEMATIC A/S

### 12.1 PCISCHEMATIC Service

Our customers have wished for a better viewer, in particular for service and maintenance purposes. This new product is called PCISCHEMATIC Service.

The program has the following main features:

- Possible to look for specific components just as in Automation and the Viewer
- Netnavigator that is full overview of all potentionals, through terminals, cables and busbars
- Print selected pages
- Export of list, eg wire numbers
- Create your own shortcuts

### 12.2 PCISCHEMATIC Panelrouter

The PCISCHEMATIC Panelrouter is a program that can suggest a routing of all wires, jumpers and cables in the mechanical layout.

The program makes intelligent use of component database data as well as data from the diagram, among it connection class options.

The program can be fully integrated with PCISCHEMATIC Automation from version 17 and is released at the same time as version 17.

## 13 My notes



## 13 My notes

## 13 My notes