

NEWS IN PC|AUTOMATION VERSION 23



This document describes new features of the PC|Automation version 23.
The document displays a * for news, which is also found in version 22.

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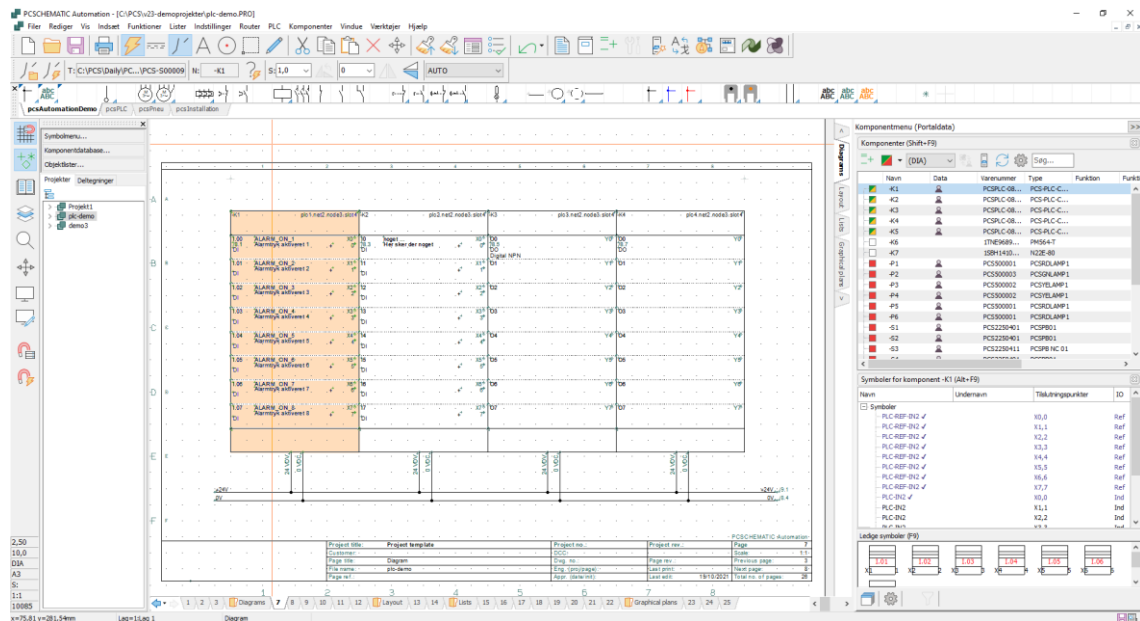


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THE PROGRAM HAS HAD A MAJOR 'MAKE-OVER'

The program now comes in version 23, which graphically looks a lot different from previous versions. Using the program has not changed, beyond what new functions entail, but the appearance has changed significantly.



Graphic changes

The graphical changes are primarily in these areas:

- New icons
 - All icons have been switched to a newer 'look' – and it can be seen on all screen dumps in the document
- New symbols
 - In particular, the folders with 60617 and PLC symbols have changed: the IEC60617 symbols have changed their name so that they now follow the naming of the standard, and all texts are default in Arial. The PLC symbols have changed. This is both an extended functionality and a simplification. There is a description later in the document of how the symbols work and how the components are built.

The database structure is changed

The biggest change from version 22 to version 23 consists of the database being changed. From version 23, the Automation Program requires the database fields with which we have created the database, but you can – of course – still add your own fields. The reason for this is that in the future you download desired components in a Component Portal and not using a file per make. And should this work, there are requirements for the program's built-in database.

On the other hand, all the functions that have to do with the database work immediately, i.e. you do not have to set anything yourself, except for any own item number – 'Navisionnumber.'

Version 23 must be installed

Version 23 must be *installed*, i.e. you *cannot* update your current installation. The reason for this is primarily the new database format.

- One installer – many languages
 - Until now, we have actually run with two programs from here, which has led to a lot of extra work and the rather illogical in that not all users have been presented with the same content.
- New folder names
 - Folder names have been changed to align more with the content
- The included database contains only demo components
 - In the future, one can easily retrieve the components used in the portal; therefore, there is no need to have a large database on the system when installing it.

Of other new things that are interesting to new users are:

- New installation folder: PCAutomation replaces PCSELCAD
- New examples
 - All examples are now made with new symbols and components

There is an in-depth review of the new database, what it contains and how to retrieve components of the portal.

Conversion of old projects

Because you're going to start over when you transition to version 23, this document includes a walkthrough of how to proceed with what you have:

- Conversion of old projects
- Importing selected old components
- Transfer of old settings (brand new function, see page 65)

The document also includes a description of the new features, which are also included this time in a new version, including a large review of the new plc symbols and functions.

Only software license is supported

As of version 23, we only support software licenses.

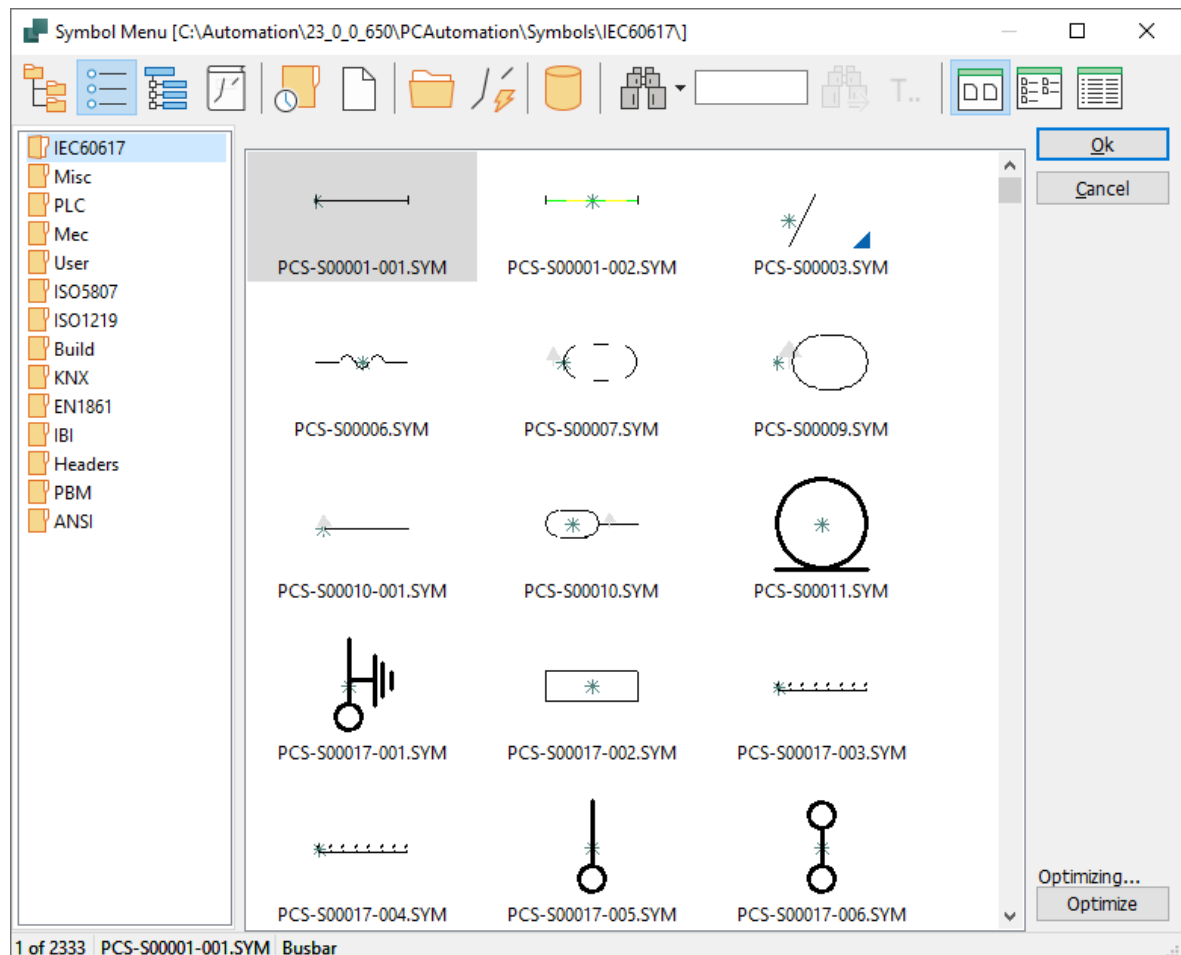


UPDATED SYMBOLS

Some of the Alias names are changed, e.g. Flow symbols are made according to ISO5807, and therefore Alias is now also called ISO5807.

The EIB is no longer called EIB but KNX, therefore the symbols have been updated and Alias changed.

The Mec folder contains only a few symbols, as you download the necessary symbols via the Portal or your own old database.



Changes to the 60617 folder

The folder with 60617 symbols has been given an update:

- All symbols are now named after the symbol's name in the standard
 - PCS-Symbol Name-variant (if any)
- A symbol cannot change the symbol type along the way
 - Therefore, many of the 'old' terminals are now divided into many symbols
 - A terminal is defined as 'a potential with at least two connections of the same name'.
- All texts in the right position in ht standard
- All texts are Arial 2.5mm

New plc symbols

All 'old' plc symbols are not included in version 23. If you want to continue working with these, you take a copy of the folder and use it.

The plc symbols of the program are located in the PLC folder, and in it there is a selection of symbols, which are discussed below; both graphically and functionally.

New graphic look for the symbols

The IO symbols themselves and the other symbols in the 'field' have been given a uniform appearance:

-K1	-K1	-K1	-K1	-K1
.00 /.3	I .01 /.3	AO .02 0-20mA /.3	O /.3	
Plc1.Net2.Node3.Slot4	Plc1.Net2.Node3.Slot4	Plc1.Net2.Node3.Slot4	Plc1.Net2.Node3.Slot4	Plc1.Net2.Node3.Slot4
Label - Input	Label - output	Label		
Description. By default, we display an 'I' for inputs	Description for the output. Signal type is displayed, too	Output with five connections (large ref.symbol)	Symbol for the plc's communication	Symbol for supply (no cross reference to ref.symbol)

- The width is 1 current path (40 mm)
- All connections point downwards
- New symbol data field – PlcID (composed of Plc.Net.Node.Slot) – on all symbols
- Space for label and description
- Space for description on connections
- All texts in Arial, 2.5 mm

The reference symbols have also changed appearance:

- Width is 2 current paths (80 mm), meaning you can have 4 columns on a page
- 15/30 mm high per address
- Common top, common bottom which is automatically grouped together with the symbols per address
- All texts in Arial, 2.5 mm

-K1		Plc1.Net2.Node3.Slot4
.00 /.2 I	Label - Input Description. By default, we display an 'I' for inputs	1
.01 /.3 AO 0-20mA	Label - output Description for the output. Signal type is displayed, too	2 3
.02 /.3 O	Label Output with five connections (large ref. symbol)	4 5 6 7 8
CH0 /.5	Symbol for the plc's communication	9



Overview of the new symbols – Inputs and Outputs

14 sets of symbols have been made for inputs and outputs:

- PLC-In1 .. PLC-In7 – symbols with 1 to 7 pins for PLC inputs
- PLC-Ref-In1 .. PLC-Ref-In7 – symbols with 1 to 7 pins for PLC reference symbols for inputs
- PLC-Out1 .. PLC-Out7 - symbols with 1 to 7 pins for PLC outputs
- PLC-Ref-Out1 .. PLC-Ref-Out7 – symbols with 1 to 7 pins for PLC reference symbols for outputs

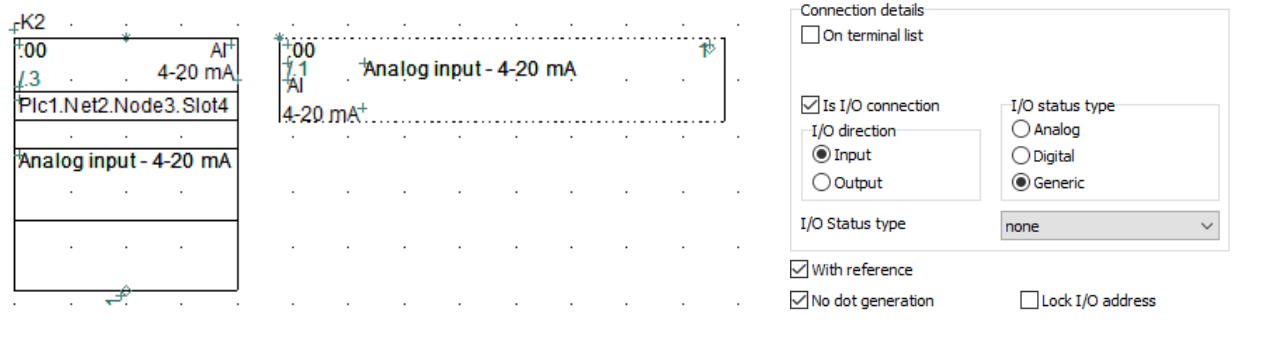
These symbols fit together in pairs: PLC-ref-In1 fits with PLC-In1, etc.

There is Input status and With reference on the first pin of all the symbols.

All symbols have a new data field for PlcID (consisting of Plc.Net.Node.Slot), which shows where the plc fits into the plc network.

All symbols have a new data field – PLCSignalType – which can show the selected signal type. As a starting point, I or O is displayed when nothing is selected on the connection. If e.g. Digital Input is selected, it will be displayed in the field as DI.

A list of different signal types has been created, which you can choose from if you want to specialize further, e.g. AI 4-20 mA. You can create your own signal types in the list, and these can also be used when creating components in the database.



Overview of new symbols – PLC top and bottom symbols

Four symbols have been made for the top and bottom, where they can cover 1-4 columns.

The top shows the Component Name, and the plc's ID in the form of Plc.Net.Node.Slot.

The bottom contains 10 connection points, which can be used for e.g. supply. The bottom can also just be a neat graphic ending.

Overview of new symbols – PLC Comm symbols

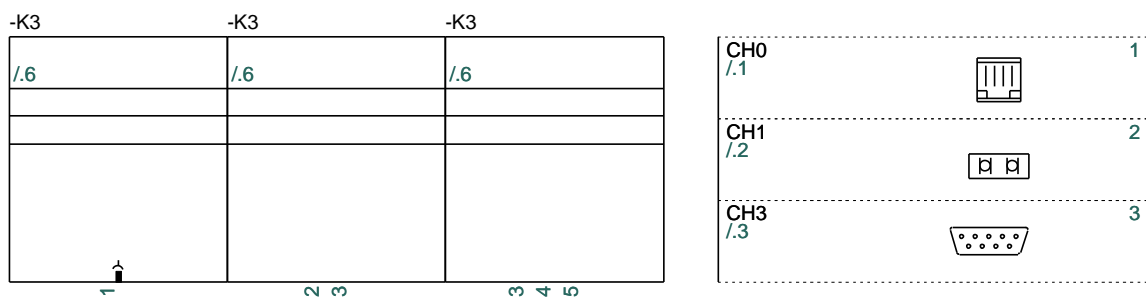
A set of symbols has been made for use in PLC communication:

- PLC-Comm1 .. PLC-Comm7 – symbols with 1 to 7 pins for connections to PLC communication
- PLC-Ref-Comm – reference symbol (with modes) with 1 pin, which fits all PLC-Comm symbols (formerly IO-Link)

All PLC-Comm symbols refer to PLC-Ref-Comm. The first pin on PLC-CommX symbols has With Reference.

The PLC-Comm symbols are a simplified version of PLC-In/Out.

PLC-Ref-Comm has modes so that you can display the current type of connector/connection on the ref symbol. Currently it has six modes, but we can expand that if the need arises. And at that time, we will then send this symbol along from the portal.



Overview of new symbols – PLC Aux symbols

A set of Aux symbols has been made in the same series, which can be used for e.g. supply:

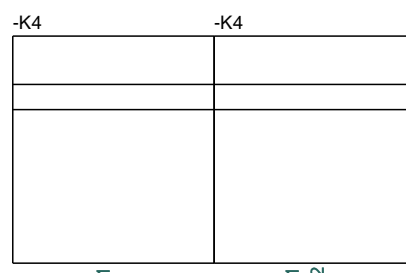
- PLC-Aux1 .. PLC-Aux7 – symbols with 1 to 7 pins for PLC aux connections, e.g. supply.

These symbols have no reference card, and therefore there is no reference on pins either.

They are simplified symbols, and are simply made so that one can have a uniformity to all plc functions.

Alternatively, you can use the connections found in the PLC-Bottom symbols.

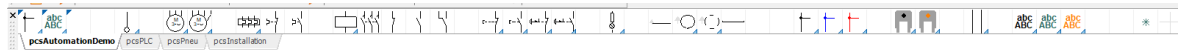
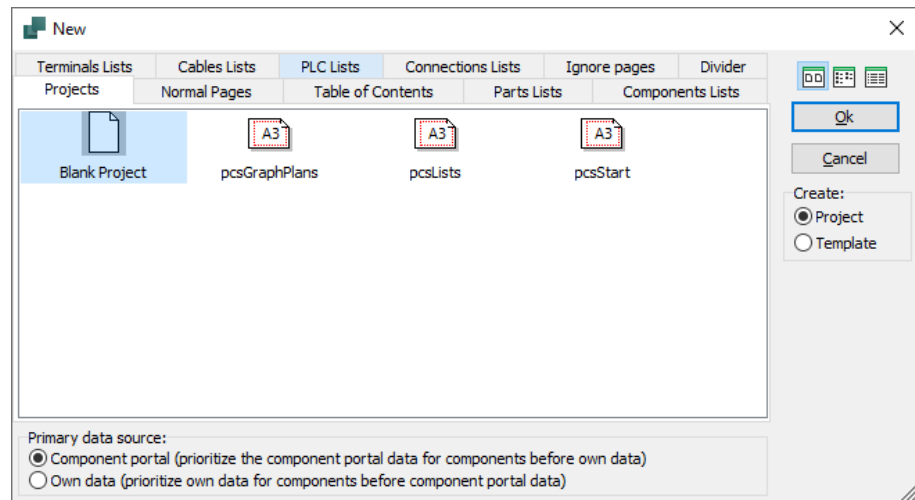
The plc components on the portal are created with these symbols.



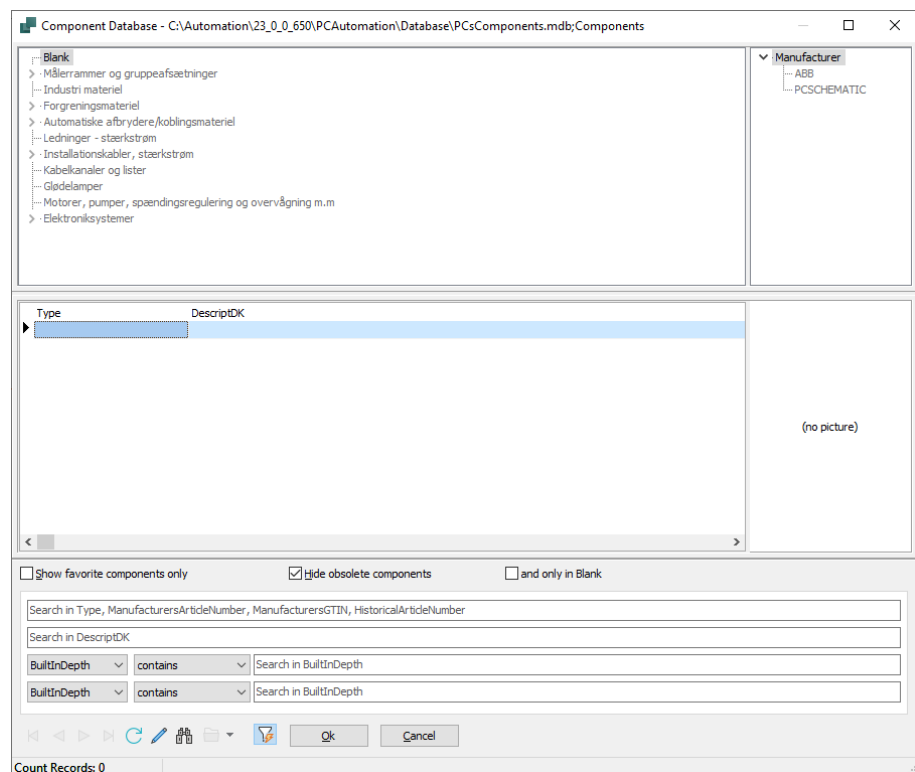
NEW TEMPLATES, DEMO EXAMPLES ETC

New templates, demo files, pickmenus and other examples have been created for version 23.

All new examples are made with new symbols and component data, which can also be found in the updated Demo Database.



When the program is installed, the database contains only demo components, and then you download relevant components from the portal and from old projects.



Manuals etc

Our manual is not updated to version 23 and is therefore not part of the installation. Instead, we are in the process of updating the small booklets, which show concrete examples of using the program.

A guide that briefly describes various 'rhyme rules' etc. comes in place of the manual.

NEW COMPONENT DATABASE

In order for you to retrieve data from the portal and use it in your projects, there are requirements for the structure of the associated database.

We supply PcsComponents.mdb, which contains the minimum fields that must be in the database in the future.

From the outset, this database contains only a few demo components, so you can work with the demo projects, and you subsequently add your own components into this database, either from the portal (read more from page 38), from your old database (read more from page 44) or by creating new components yourself (read more from page 60).

Why have we created a new database

Through several program versions, we have expanded the functionality using the database, and this has required expansion of the existing structure in order to use the new functionality:

- Accessories can only be used if there are dedicated datafields in the database
- The component wizard requires a lot of fields to function optimally
- There are customers who want to use symbols other than our suggestions
- Some components must be able to appear in many diagram types, e.g. both in electric and pneumatic diagrams
- In addition, pin and pcs-files have taken up a lot of space for customers when creating complex components
- Etc.

The support department spends quite a lot of time on this and there are still many frustrated users on this basis. Therefore, we have chosen that the structure in the future is more locked. However, you can still expand with your own fields, for example ERP number.

In addition, we ourselves have wanted to have only one database for all languages and for all program parts, such as Panelbuilder and (soon) Cabledim.

Database requirements

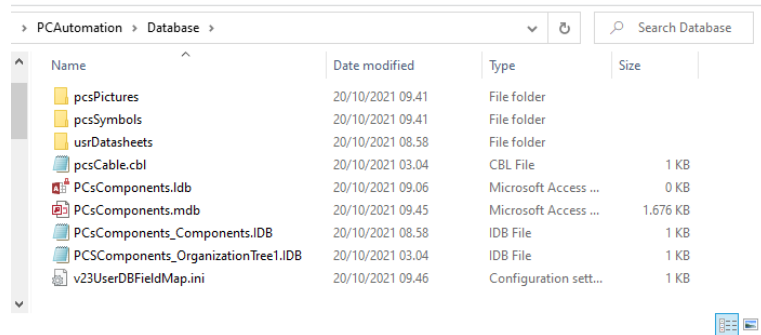
The big difference between the new and the old database format is

- Fixed field names of required fields
- A non-compliant database cannot be connected at all!
- All field names are in English
- All pin, PCS, cbl- mm files are contained in the database and not as separate files
- There is only one database, i.e. Panelbuilder data etc. is also part of the database
- The different country databases are part of the common database
- The database contains PCS data: data that comes from the portal and USR data, i.e. user data that comes from self-created components and imports from previous database.
- PCS data is read-only
- You choose whether you want to apply our suggestions or create your own symbol selection; read more about how, later.
- You can choose to have the database in MSAccess format (few users) or in SQL-format (many users)-



Location of the database and related folders

The database is located in the PCAutomation\Database folder – as before. The new name is PcsComponents.mdb. In the folder are also a few other folders.



Notice that all pin and pcs files are gone (in a new installation) – all data is in the database now.

The folder may reside on a network drive.

Idb-filer

Along with the database is an idb file, which contains the setup of the database. They were also there in the past, and you don't have to do anything about it.

pcsPictures

When downloading components from the database, images from the components are loaded into the pcsPictures folder, and all images are named as Manufacturer_ManufacturersArticleNumber.jpg. They are not part of the database because of the file size.

pcsSymbols

All components come with updated symbols, which are loaded into PCSSymbols. The mechanical symbols are named in the same way as the images; the electrical symbols may be up to date, and come from here out to all users. It is only the portal that puts symbols here, not the user!

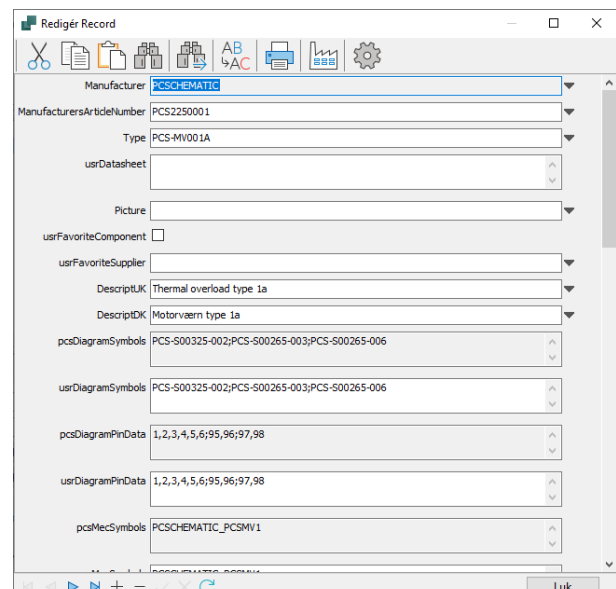
usrDatasheet

You can put datasheets into the usrDatasheets folder yourself, so everyone benefits from the same data sheets.

Read-only fields

When you scroll down through a record, you can see that the PCs fields are dimmed and you can't write in them.

The old pin and PCS files are part of the database, and data is now in the appropriate fields.



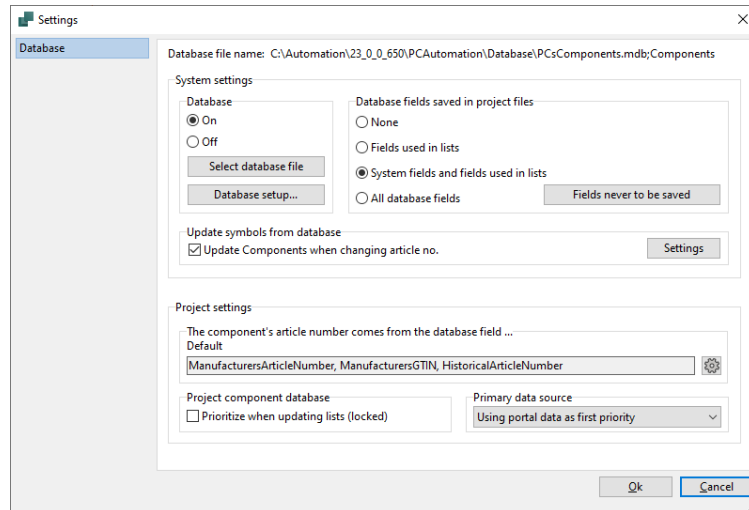
DATABASE SETTINGS

Database settings have been moved around a bit, but most of the content is as before. Below is a walkthrough of the settings.

First tab

The dialog has been divided into System Settings and Project Settings; this hasn't been apparent in the past.

System settings apply to *all* projects (the system), and project settings apply only to the *current* project.



The new project settings - the project's item number system

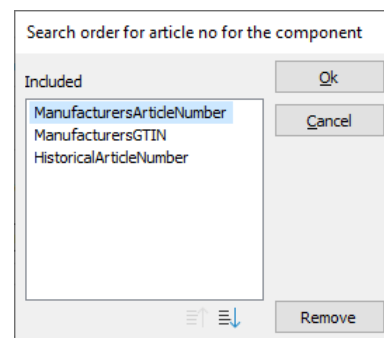
Components' item number is on various lists, and therefore it is important to know which item number is used.

For new projects, you look down into the database.

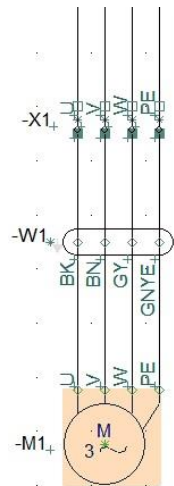
For old projects, it should initially be the old item number, which we call HistoricalArticleNumber. And in most cases, that will be the number that was in the old database's EANNUMBER.

You can choose that all (three) systems are in the project – the priority of the order is chosen here – and on the individual component you can switch. If desired.

A possible own item number can also be included in the list, see page 18.



The item number that is selected is the number that appears in the piece and component list.



Project component database

The function is as before, but we have changed the text so that it clearly tells how the function is: The Project database can be used to update the lists, even with components that are not in the database. Convenient when exchanging files between customers and suppliers.

Which fields are saved are selected under System Preferences. As before.

Primary data source

Here you can switch between primary and secondary data source. As a starting point, new projects could use portal data (pcs fields) and old projects should use own data (usr fields). Here you can switch at the project level.

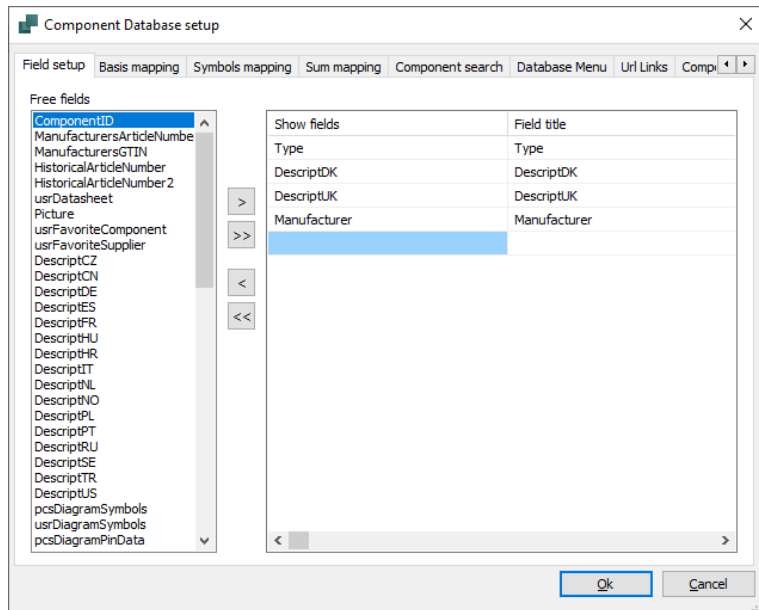
Database settings

Below are some other database settings, as some of the screens have changed a little.

Visible fields

On the first tab, you can select which fields you want to see when you press the Component Database [D] button.

You can change the headings of the columns in here, as before.



Component data

On these two tabs we map fields from the database to the program's data fields.

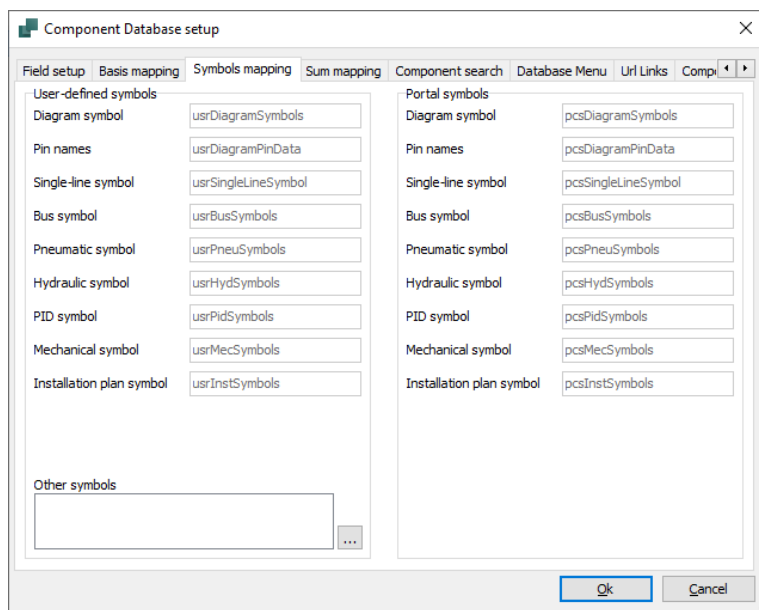
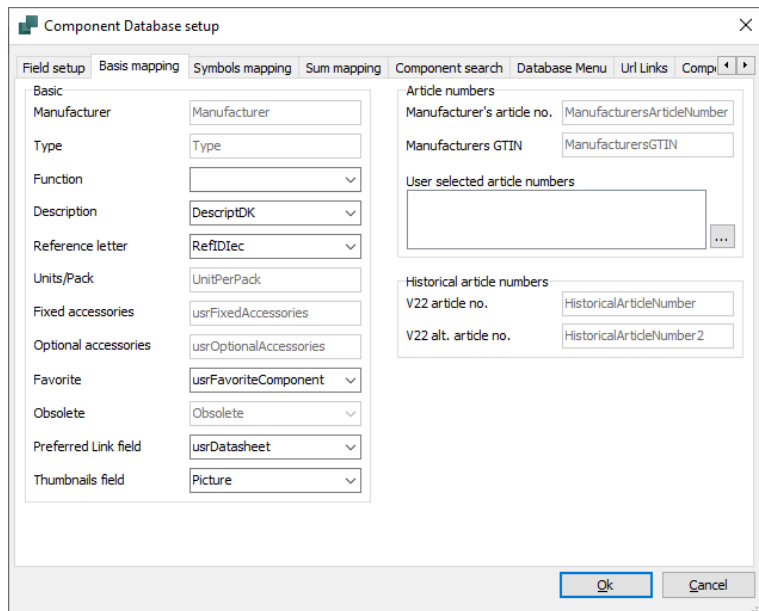
On the first tab you have the opportunity to select e.g. description field from the database, and not least you can choose the field for a possible own item number.

The second tab shows how the various symbol fields from the database are firmly mapped to symbol types and possibly chart types in the program.

In the past, it has been possible to have special pages for e.g. one-line diagrams, but you have had to set it up yourself. This is now done from the start.

There are two columns for User Data and Portal Data, respectively.

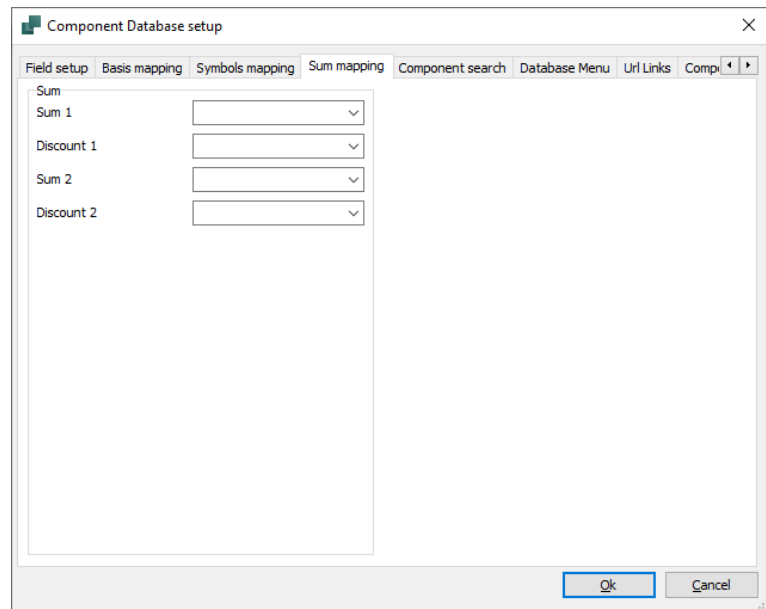
One can choose other symbol fields if they exist.



Sum fields

In the old database, one could map for price fields in the database.

Now the fields are made generic, so you can 'sum' prices, kg or kW. With or without discount 😊

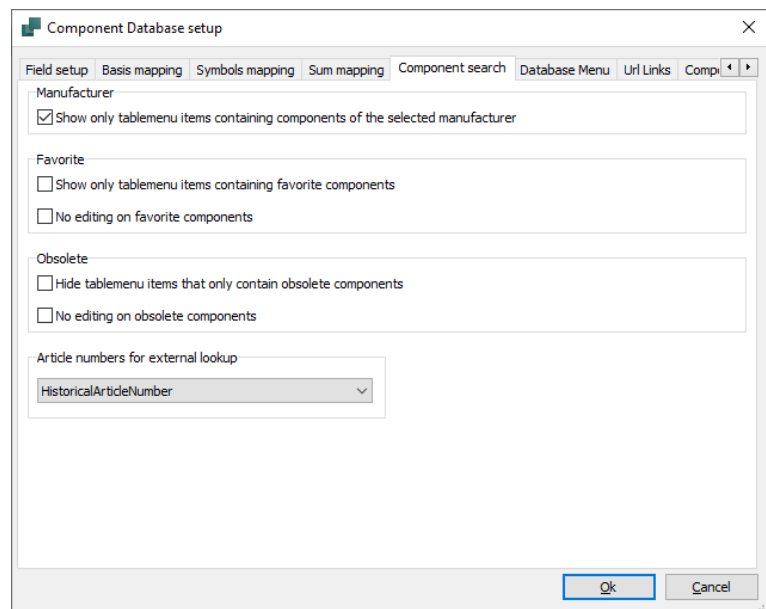


Component search

Here we choose how the database dialog itself behaves when searching for components.

The Approved feature has changed its name to Favorite, and works as before.

You can have several Favorites, or rather you can have a favorite field for, for example, different customers. Therefore, the field doesn't have a fixed 'mapping' on the first tab.



You can still decide for yourself whether you want to allow you to change whether components are Favorites or Obsolete (only the checkmark can be changed, not other data – as before).

In addition, the item number in the database is selected that contains the key when importing (old) lists, e.g. BOM, component list, IO list and project generator.

Database menu

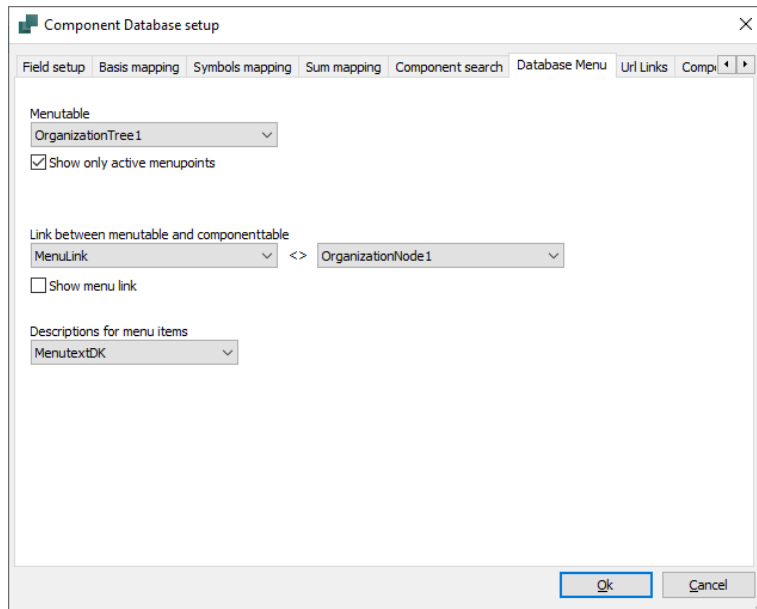
We have changed a lot on this page, so it should now be easier to understand.

First, menu table selection. The one shown corresponds to the old menu table.

After that, the link between the menu table and the component table is selected, and the displayed corresponds to the old selection.

Finally, choose the language for the menutabel's descriptions.

If a component does not have a value that corresponds to the selected sort, the component is put in a 'miscellaneous' folder. Earlier known as Blank.

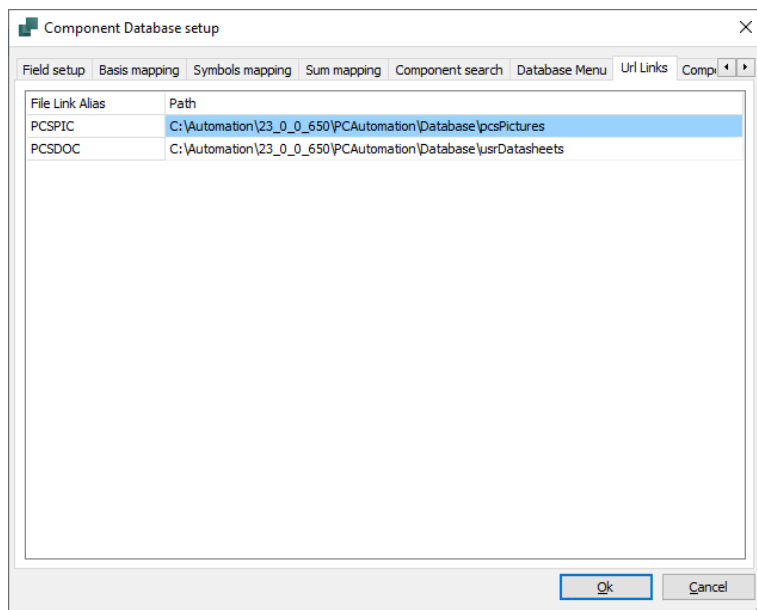


URL Links

Here there is now only a list of links.

Selection of fields is done on the first tab.

The new links point to the new database fields; old aliases need to be imported, see page 65.

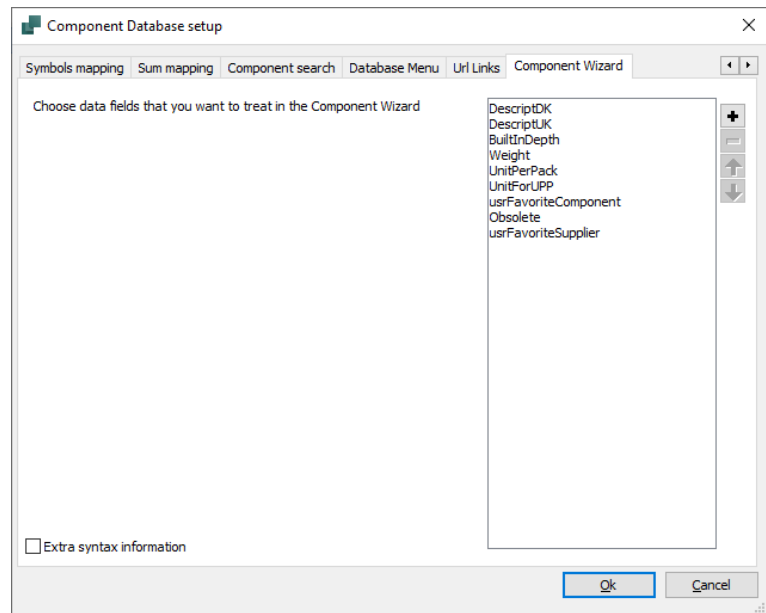


Component Wizard

On the last tab you can select extra fields that you want to process in the Component Wizard.

All fields that are mapped are automatically included. So on this page it is probably mostly e.g. descriptions in other languages and own item number that should be selected.

The Component Wizard has also been adapted to the new structure, as you can see from page 60.



Fields in the PCSComponents database.mdb

Names	Type	What should the field be used for?
ComponentID*	Short text # 36 (UUID)	<p>Unique ID of the component. Generated value, which 'just' has to be unique.</p> <p>Components that are imported into the database from the portal get their PCSComponentID into this field during import.</p> <p>For 'old' components that we have created in PCSDB_DK we have created this one so that the components are recognized.</p> <p>As of version 23, it is the lookup ID for components, and not EANnr as before.</p>
Manufacturer*	Short text # 100	<p>Manufacturer. The manufacturer can be found in a separate table.</p> <p>You can add your own manufacturers to the list when you are in the database engine itself.</p>
ManufacturersArticleNumber*	Short text # 100	<p>Manufacturer's order number.</p> <p>The combination of Manufacturer and Order Number must be unique!</p> <p>If this is filled in (correctly), importing components from the portal can later update each component.</p>
ManufacturersGTIN	Short text # 13	<p>Manufacturer's GTIN number (former EAN number).</p> <p>The field is empty unless we have verified that a barcode comes from the manufacturer.</p>
HistoricalArticleNumber HistoricalArticleNumber2	Short text # 100	<p>When importing from old database, previous key fields, i.e. the fields mapped to Article Number and Alt. Article Number, are transferred to these two fields. In this way, old components are recognized and they can appear with 'old' item number(s) in new projects.</p>
Type*	Short text 100	<p>As a starting point, it is the manufacturer's type designation. Can be overwritten by user.</p>
usrDatasheet	Memo	<p>To be filled in by the user.</p> <p>May contain a link to www or to a specific document using the following format: %alias%/xxx.pdf.</p> <p>If a pdf is pointed to, the project's related documents can be zipped later.</p>
Picture	Short text # 100	<p>Image of the component. When the image comes from the portal, it is named as Manufacturer_ManufacturersArticleNumber.jpg.</p> <p>As a user, you can also link to your own images, but only one image per component. The following format is used: %alias%/xxx.jpg.</p>
usrFavoriteComponent	Yes/No	<p>User's favorite component (replacing the previously Approved, the functionality is the same).</p>
usrFavoriteSupplier	Short text 100	<p>The user can enter preferred supplier.</p>
DescriptUK	Short text 200	<p>Description of the component. UK is mandatory on the portal and default value if the desired language does not exist.</p> <p>The user can change and add – however, will be overwritten when/if the component is updated from the portal.</p>
DescriptDK	Short text 200	<p>Description of the component. UK is mandatory on the portal and default value if the desired language does not exist.</p> <p>The user can change and add – however, will be overwritten when/if the component is updated from the portal.</p>
DescriptXX	Short text 200	<p>Descriptions in all other languages available in the program. May not be filled in on the portal (CZ, CN, DE, ES, FR, HU, HR, NL, NO, PL, PT, RU, SE, TR, US). Need for more languages?</p> <p>The user can create their own languages, but it is most effective that component descriptions come from us, i.e. from the manufacturers.</p>

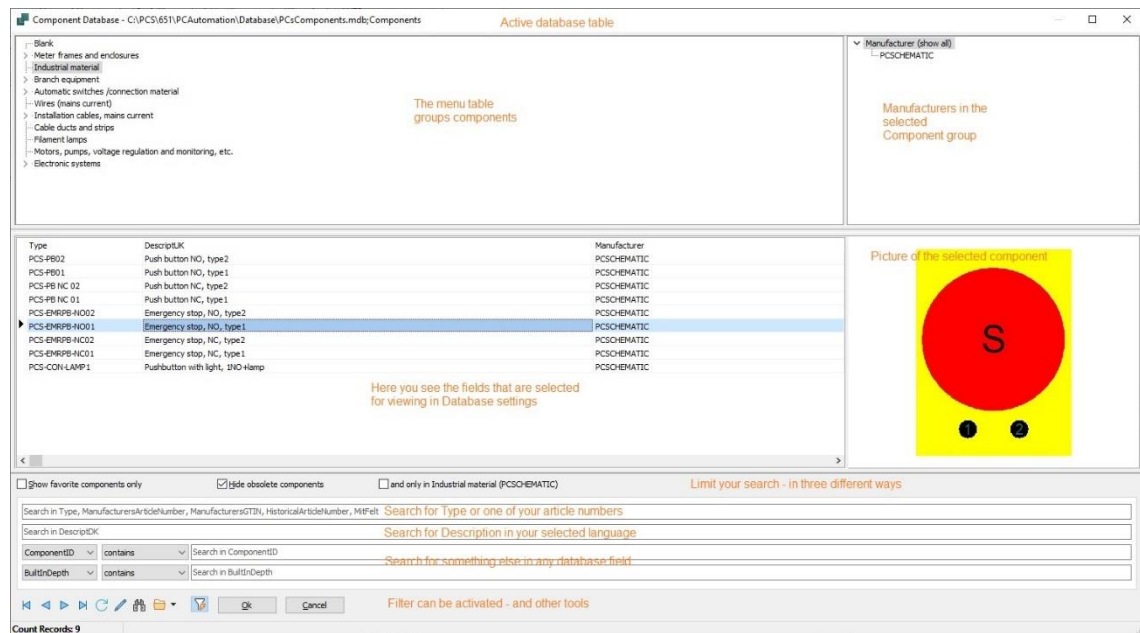


Names	Type	What should the field be used for?
pcs/usrDiagramSymbols	Memo	Diagram symbols for the component, for Portal and user created components, respectively. All previous functions regarding symbols still exist, e.g. there may be many symbols for a component; there may be alternative symbol selection; symbol types can be changed via the database; symbols may have references between them; connections may appear on the terminal list, etc. All symbols are listed in the field, i.e. no pcs-files!
pcs/usrDiagramPinData	Memo	Connection name for the symbols in the corresponding DiagramSymbols field. All connection names are in the data field, i.e. no pin-files!
pcs/usrSingleLineSymbol	Memo	Symbol for the one-bar chart for the component.
pcs/usrInstSymbols	Memo	Symbols for use in installation diagrams.
pcs/usrBusSymbols	Memo	Symbols for bus/communication
pcs/usrPneuSymbols	Memo	Symbols for use in pneumatics
pcs/usrHydSymbols	Memo	Symbols for use in hydraulics
pcs/usrPidSymbols	Memo	Symbols for P&ID
pcs/usrConplanSymbol	Memo	Symbol to use for the connection plan (can be selected during Connection plan setup)
pcs/usrMecSymbols	Memo	Mechanical symbol for the component. The symbol MUST have the right dimension (XY). For it to work with the Panelrouter, it must have the right connection points. Any Z dimension can be found in the BuiltInDepth datafield. Additional and/or alternate symbols may have been created for the component. Mechanical symbols from the portal are named as Manufacturer_ManufacturersArticleNumber.sym.
pcs/usrOptionalAccessories	Memo	Optional accessories (both electrical, mechanical, etc.). The individual accessories are listed using their UUID.
pcs/usrFixedAccessories	Memo	Fixed accessories. The individual accessories are listed using their UUID. For both types of accessories: The user is presented with a distinct list of fixed/optional created accessories. If there is any doubt about the number of fixed accessories, the user's choice applies.
PCS/usrPBSymbol	Memo *	Symbol for Panelbuilder, when a symbol is made for the component, Most symbols are automatically selected. As a user, you have the opportunity to create your own symbol that the Panel Builder can use. Remember design rules!
pcsPBData	Memo #	Panel uilder data. From the portal
pcsCdimData	Memo #	Data for Cabledim. From the portal. Not implemented in first edition
TechProperties	Memo #	Various teknic data from the portal, e.g. temperature range for temperature sensors. Not implemented in the first edition.
BuiltInDepth	Number	Recess depth in m for the component. Used with the Panelrouter. The field is called 'depth', as this is the name in various catalogs. The zero point for mechanical symbols is the lower left corner, towards the board. That way, all goals/coordinates have positive values.
Weight	Number #	Weight per unit in kg
UnitPerPack	Number #	Number of units per package

Names	Type	What should the field be used for?
UnitForUPP	Short text # 20	UnitPerPack unit (pcs/package/roll/m etc)
CwCode	Memo	Code to be used by the Component Wizard. Provides access to various tabs in the Component Wizard that correspond to the component type. Only the CW and the portal can type in the field.
OrganizationNode1	Short Text #3 36	The portal's default component organization – 'The old – VELTEK'
OrganizationNode2	Short text # 36	The portal's default component organization - 81346
OrganizationNode3	Short text # 36	The portal's default component organization – Ecl@ss?
usrOrganizationNode1 - 3	Short text 36	User-defined component organization 1-3
RefIDIec	Short text 10	ReferenceID according to IEC 81346-2
RefIDAnsi	Short text 10	RefID according to ANSI standards
RefIDCustom	Short text 10	Own RefID
pcsComponentID *	Short text *#*#* 36	<p>Unique ID (UUID)for components from the portal.</p> <p>When a valid value is listed in this field, it means that it is a portal component.</p> <p>The field is read-only , but can be cleared. Components with a UUID are 'valid' components from the portal.</p> <p>If this field is cleared, the ## fields are also cleared, i.e. the component can no longer be recognized as a portal component, i.e. components without PCSComponentID are by definition usr-components.</p> <p>If you clear a portal component's UUID, symbol definitions are retained so that you can copy them.</p>
pcsComponentVersion	Talk * ##	<p>Version of the component from the portal. If the portal version > your version, your edition of the component can be updated from the portal</p> <p>The value is cleared if pcsComponentID is cleared</p>
pcsComponentsLastUpdate	Date and time * ##	<p>Latest update of the component from the portal - date and time.</p> <p>The value is cleared if pcsComponentID is cleared</p>
pcsChecksum	Short text * ## 50	<p>Checksum, which indicates that the data in the record is correct, that is, with portal values.</p> <p>The value is cleared if pcsComponentID is cleared</p>
InternalCheckedStatus	Talk * ##	<p>Numbers used to indicate our internal status</p> <p>The value is cleared if pcsComponentID is cleared</p>
Obsolete	Yes/No #	Obsolete, discontinued – updated from the manufacturer/portal, and the user can update their own components.
pcsSys1-10	5 x short text (255) * 5 x Memo *	<p>We have created 10 additional fields that we can use if/when we need extra functionality.</p> <p>They're all read-only!</p>

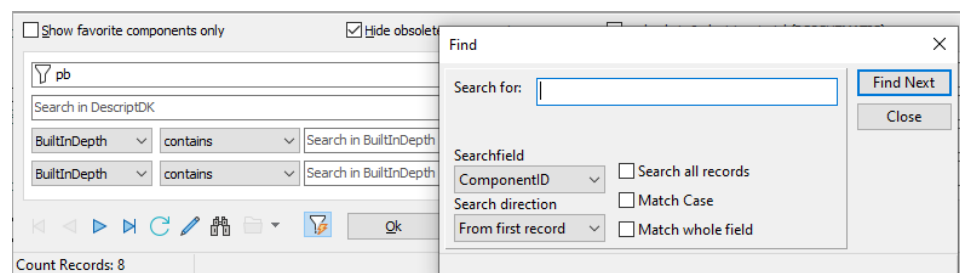


SEARCH FOR COMPONENTS OF THE DATABASE



Summary of the changes

- 'Approved' has changed its name to 'Favorite', but the feature is the same. The word 'Approved' has given rise to a number of questions – who has approved?, approved according to what standard? etc - that's why it's changed. By default, the field is mapped to 'usrFavoriteComponent'.
- Hide obsolete (same function as before) and it is fixed mapped to 'Obsolete'.
- The 'Search only in current product group' field is now tied together with 'Selected manufacturer'.
- There is now only one search tab, i.e. the old search keys 1 and 2 have been moved on the front page, so you always have a full overview of your search criteria.
- The top search bar searches all mapped type and item number fields, i.e. type and ManufacturersOrderNo, OtherOrderNo and usrCustomOrderNo, i.e. you do not have to know where the number comes from.
- The next line searches the mapped Description field.
- Two identical lines of selectable search boxes, similar to the 'old' search keys 1 and 2
- When the 'filter-with-lightning icon' is active, it is automatically searched when entering a field, and only for the value in the selected field and any checkmarks in the top line. Notice the Filter icon that appears in the selected search box: It appears only when the search box is active.
- When you use the 'binoculars' you can search the result already found. As before.



A little more about the Database window

You can now scroll in the database window 😊

All fields have hints.

Record Editor

ComponentID: 14FA713A-782A-4420-A6CD-E8EDC695536E

Manufacturer: PCSHEMATIC

ManufacturersArticleNumber: PCS2250402

ManufacturersGTIN:

HistoricalArticleNumber: PCS2250402

HistoricalArticleNumber2:

Type: PCS-PB02

usrDatasheet:

Picture:

usrFavoriteComponent: ☐

usrFavoriteSupplier:

DescriptUK: Push button NO, type2

DescriptDK: Trykknapp slutte, type2

DescriptCZ:

DescriptCN:

You can hide fields that are not interesting

In the new database there are MANY fields, and you may want to limit the display of not – immediately – relevant fields.

Go to Settings and for each group you can select all/none and/or selected fields.

Record Editor

ComponentID: 14FA713A-782A-4420-A6CD-E8EDC695536E

Manufacturer: PCSHEMATIC

ManufacturersArticleNumber: PCS2250402

ManufacturersGTIN:

HistoricalArticleNumber: PCS2250402

HistoricalArticleNumber2:

Type: PCS-PB02

usrDatasheet:

Picture:

usrFavoriteComponent: ☐

usrFavoriteSupplier:

DescriptUK: Push button NO, type2

DescriptDK: Trykknapp slutte, type2

pcsDiagramSymbols: PCS-S00254

Descriptions

- Symbols
- Organisation
- Misc. and ordrenumbers
- Accessory
- Technical data
- Div. portal data

Show all

- ☒ DescriptUK
- ☒ DescriptDK
- ☐ DescriptCZ
- ☐ DescriptCN
- ☐ DescriptDE
- ☐ DescriptES
- ☐ DescriptFR
- ☐ DescriptHU
- ☐ DescriptHR
- ☐ DescriptIT
- ☐ DescriptNL
- ☐ DescriptNO
- ☐ DescriptPL
- ☐ DescriptPT
- ☐ DescriptRU
- ☐ DescriptSE
- ☐ DescriptTR
- ☐ DescriptUS

Add own manufacturers to the list

By clicking on the Factory, you can create your own manufacturers in the database. Keep in mind that when new manufacturers arrive on the Portal, these are also included in your local database for import.

Record Editor

ComponentID: 14FA713A-782A-4420-A6CD-E8EDC695536E

Manufacturer: PCSHEMATIC

ManufacturersArticleNumber: PCS2250402

ManufacturersGTIN:

HistoricalArticleNumber: PCS2250402

HistoricalArticleNumber2:

Type: PCS-PB02

usrDatasheet:

Picture:

usrFavoriteComponent: ☐

usrFavoriteSupplier:

DescriptUK: Push button NO, type2

DescriptDK: Trykknapp slutte, type2

pcsDiagramSymbols: PCS-S00254

Manufacturer...

- ABB
- AEG
- Balluff
- Beckhoff Automation
- Beijer Electronics
- Benedict
- Bihl+Wiedemann
- Brodersen Controls
- Carlo Gavazzi
- Cenla
- Citel
- Continental
- Contrinex
- Crevis
- Crouzet
- Cubic
- Danfoss
- Dehn
- DEIF
- Desitek
- duelo
- Eaton
- elkro
- Eltako
- Eltwin
- ENSTO
- eta
- eht

New Rename Delete



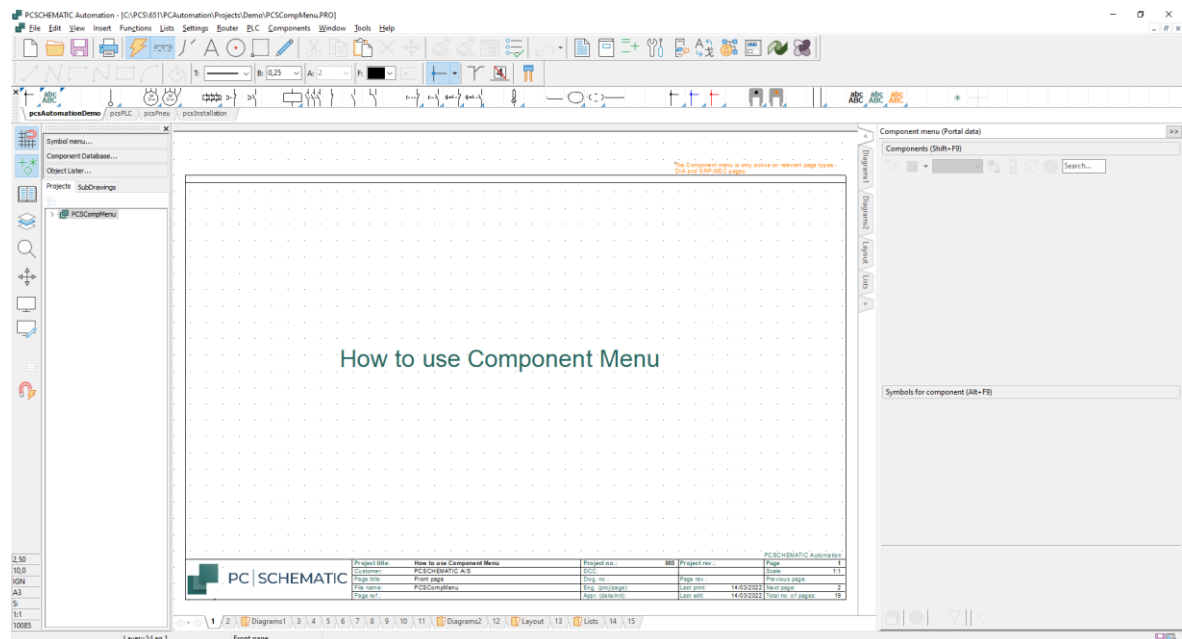
THE COMPONENT MENU – WHAT DOES IT SHOW

There have also been a few changes to the Component menu, hence a review of what it shows. As a starting point, the Component menu displays data from the database, and since the database has changed, it also causes changes here.

A Demo file has been created, which shows functions in the Component menu – it is recommended reading 😊

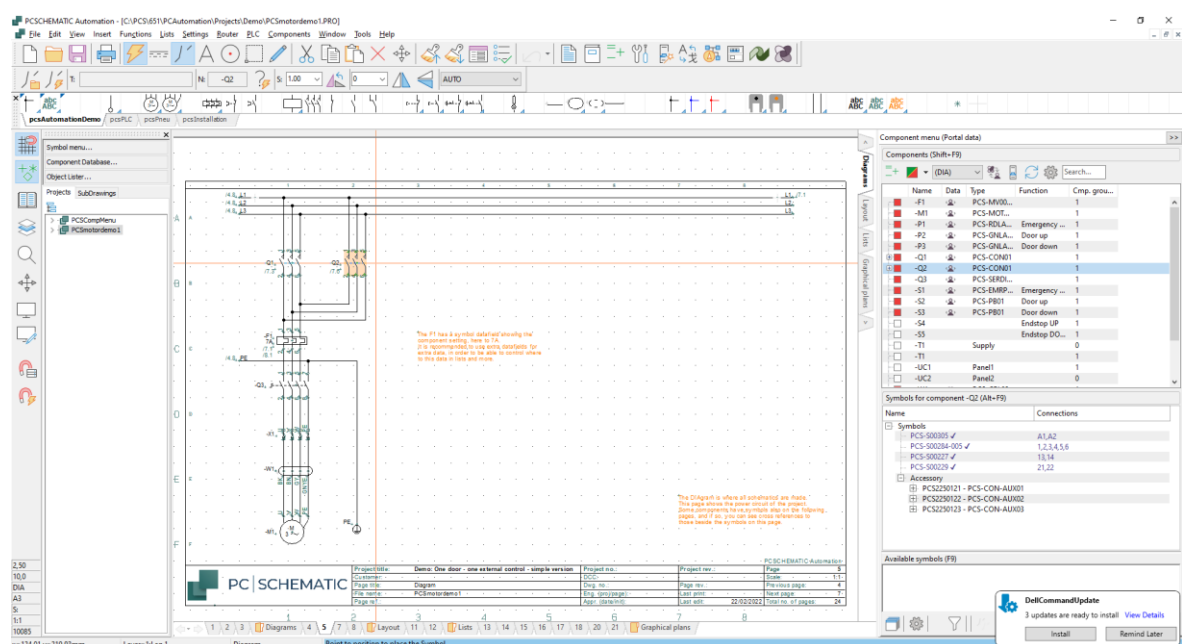
The component menu of the IGN page, lists and graphical plans *

On an IGN page, it's empty – don't work with components! The same is true on divider pages, all lists and graphical plans.



The component menu on DIA pages *

The component menu is used on pages with components/symbols, i.e. on DIA and GRP pages. On the next pages, you can see more details about what appears in the list.

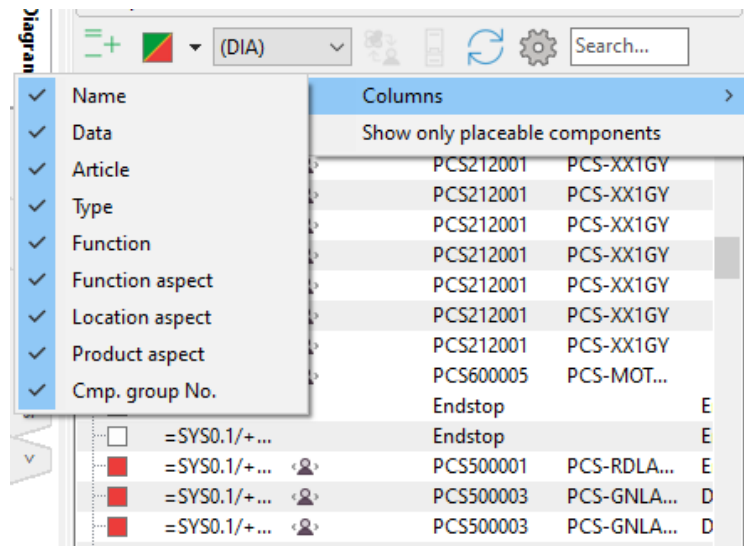


What columns do I see *

By pressing the Settings button (the gear button), you can choose which columns are displayed.

You can also choose to show only components that have a symbol for the current page.

Name includes reference aspects.



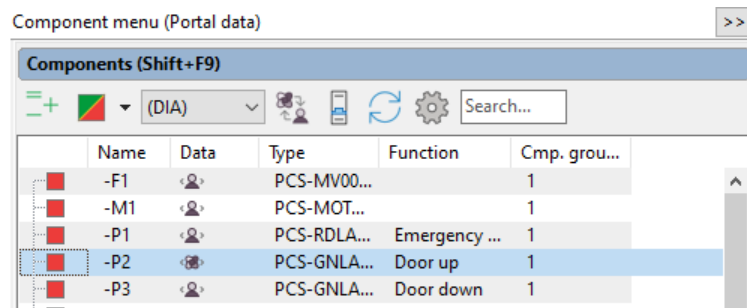
Show only placeable components *

If you select 'Show only placeable components' you will not see lines for components without a symbol that match the page's data field. Here, for example, nothing will appear if PCS/usrDiagramSymbols is empty.

Where does the data come from?

Data in the project is always found on the individual symbols; either entered directly on the symbol or retrieved from the associated database.

The component can have data that either comes from the portal or pure local data.



In the component menu you can directly see where the data for the individual comes from, and in the event that there are two possible sets of data for the component, you can switch using the icon in the toolbar.

In the Component menu's caption, you can see what the project is set up for. Here it is set to Portal data, in old imported projects it is User data.

Available symbols

The red/yellow/green view has been expanded with a white square, which appears when a component is not in the database. Previously, such a one was shown with a red square, but this was mostly wrong.

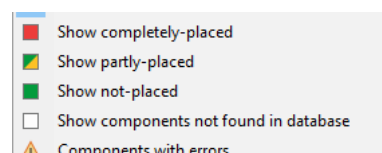


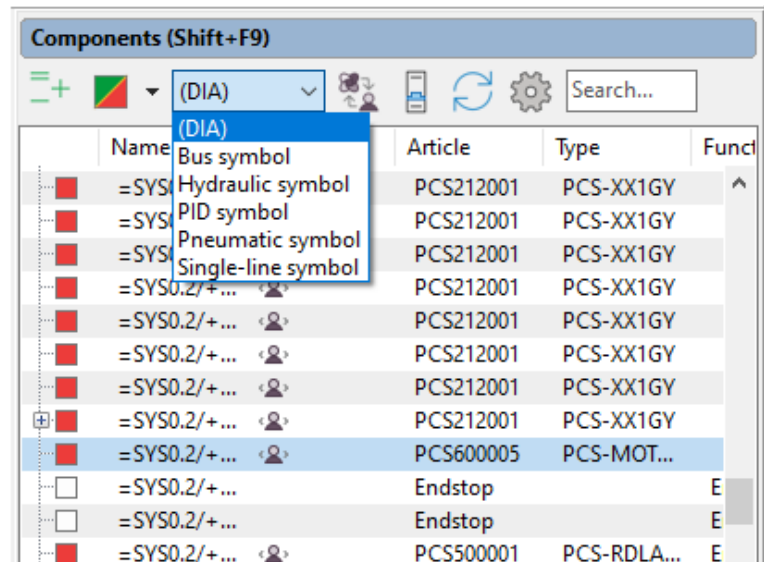
Diagram type *

You can choose to draw different types of diagrams in the project, and components have/can have different symbols associated with this in the database.

Here you can see the different options, all of which are set up from the start.

Using this function means that only symbols from the database that fit the selected diagram type are displayed: for example, you can create pneumatic components so that the pneu symbols are in the pneu field in the database and any electrical symbol is in the field for electric diagram symbols.

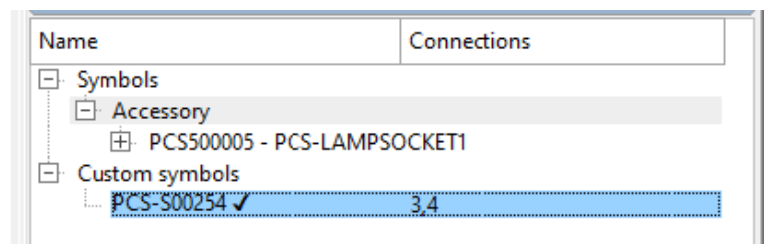
By default for DIA, symbols are retrieved in the DiagramSymbols field, and for GRP, symbols are retrieved in the MecSymbols field.



Displayed symbols

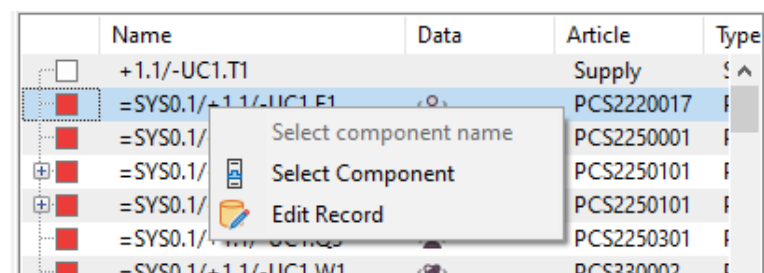
If you have placed diagram symbols from several different chart types – see above – the symbols are ok as long as they are part of the definition of the component, i.e. you will not get any errors of any kind if you draw e.g. electricity and pneumatics on the same page.

But... if an 'unknown' symbol is inserted, it will appear under Custom Symbols.



Edit Record Shortcut in the Database Dialog

Components that are in the database can be edited. By right-clicking on the component in the menu, there is a shortcut to the Database dialog.



Components with accessories

Fixed accessories *

Here you see the symbol window for a component with both subnames and fixed accessories.

The accessory can be seen both here and on the Accessory tab in Component Data.

Symbols for component =SYS0.1/+1.1/-UC1.X1 (Alt+F9)	
Name	Connections
<input checked="" type="checkbox"/> Symbols	
PCS-S00017 ✓	U
<input checked="" type="checkbox"/> Accessory	
PCS217001 - PCS-XXSK1	
PCS217002 - PCS-XXEN1	
PCS212501 - PCS-XXM1	

Optional accessories *

Here is the symbol window of Q1, which is partly placed: symbols with checkmarks are already in the diagram, the others are seen below.

In addition, the component has optional accessory in the form of three different auxiliary blocks. They are selected from here, and are afterwards seen as 'branches' on the main component.

In the popup you get descriptions for each type of accessory.

Symbols for component -Q1 (Alt+F9)	
Name	Connections
<input checked="" type="checkbox"/> Symbols	
PCS-S00305 ✓	A1,A2
PCS-S00284-005	1,2,3,4,5,6
PCS-S00227	13,14
PCS-S00229 ✓	21,22
<input checked="" type="checkbox"/> Accessory	
PCS2250121 - PCS-CON-AUX01	
PCS2250122 - PCS-CON-AUX02	
PCS2250123 - PCS-CON-AUX03	
PCS-S00227	63,64
PCS-S00229	71,72

Available symbols (F9)	
1 3 5	13
2 4 6	14

Info about plc's *

You can choose which columns see by using the settings wheel

You can also choose – for all components – the height of symbols.

Symbols for component -K1 (Alt+F9)			
Name	PLC addr	Description	Connector
<input checked="" type="checkbox"/> Symbols			
PLC-REF-I...	I.00	Alarm button activated 1	X0
PLC-REF-I...	I.01	Alarm button activated 2	X1
PLC-REF-I...	I.02	Alarm button activated 3	X2
PLC-REF-I...	I.03	Alarm button activated 4	X3
PLC-REF-I...	I.04	Alarm button activated 5	X4
PLC-REF-I...	I.05	Alarm button activated 6	X5
P		Alarm button activated 7	X6
P		Alarm button activated 8	X7
P		Alarm button activated 1	X0
P		Alarm button activated 2	X1
<input checked="" type="checkbox"/> Available			
I.00			
X0			
I.05			

Available symbols (F9)	
I.03	I.04
X3	X4



Mismatch on component symbols *

You may experience a red line in the component menu. This indicates that there is a mismatch in the component.

Here it has arisen from the fact that symbols with different comp.group numbers have been component grouped into the same component.

And it does not work!!

-Q4

-Q5

-Q6

PCS2250113

PCS2250113

PCS2250113

PCS-CON13

PCS-CON13

PCS-CON13

Name: -Q5

Group Number: 1

Completely placed

Article: PCS2250113

Type: PCS-CON13

Function:

Error in component grouping: two article numbers on the same component grou

Component Grouping

-Q2

Double click/Shift-Double click to count Up/Down

Cmp. group No.	Conns.	Type	Article	Symbol	Page No.	Path	P
1	21,22	PCS-CON06	PCS2250106,PCS2250124	PCS-S00229	1	/,8	x
1	31,32	PCS-CON06	PCS2250106,PCS2250124	PCS-S00229	1	/,8	x
1	A1,A2	PCS-CON06	PCS2250106,PCS2250124	PCS-S00305	1	/,5	x
1	73,74	PCS-CON-AUX04	PCS2250106,PCS2250124	PCS-S00227	1	/,6	x

Group Number:

1

Ok

Cancel

'Straighten up' on terminals

If there are (still) terminal rows in component group 0, the Component menu can correct these.

The lack of functionality means, for example, that no accessory can be selected.

-X4:1

-X4:2

-X4:3

-X4:4

-X4:5

-X4:6

PCS212001

PCS212001

PCS212001

PCS212001

PCS212001

PCS212001

PCS-XX1GY

PCS-XX1GY

PCS-XX1GY

PCS-XX1GY

PCS-XX1GY

PCS-XX1GY

Symbols for component -X4 (Alt+F9)

Name	Connections
------	-------------

This windows functionality is not available for terminals with component group number 0

Change

If there is no connection to the database ...

In the Components menu, this function is located. If you must/can use it, you will be warned.

Remap the components of the project

If the project was previously used with another component database, it may be neccessary to remap the components. This is dont using the article numbers of the components

Search for article numbers

☒ Manufacturer's article number

☒ User defined article numbers (ManufacturersArticleNumber, ManufacturersGTIN, HistoricalArticleNumber)

☒ Historical article number

☐ Include components that have not previously been looked up

Ok

Cancel

CHANGES IN THE DATABASE PROGRAM

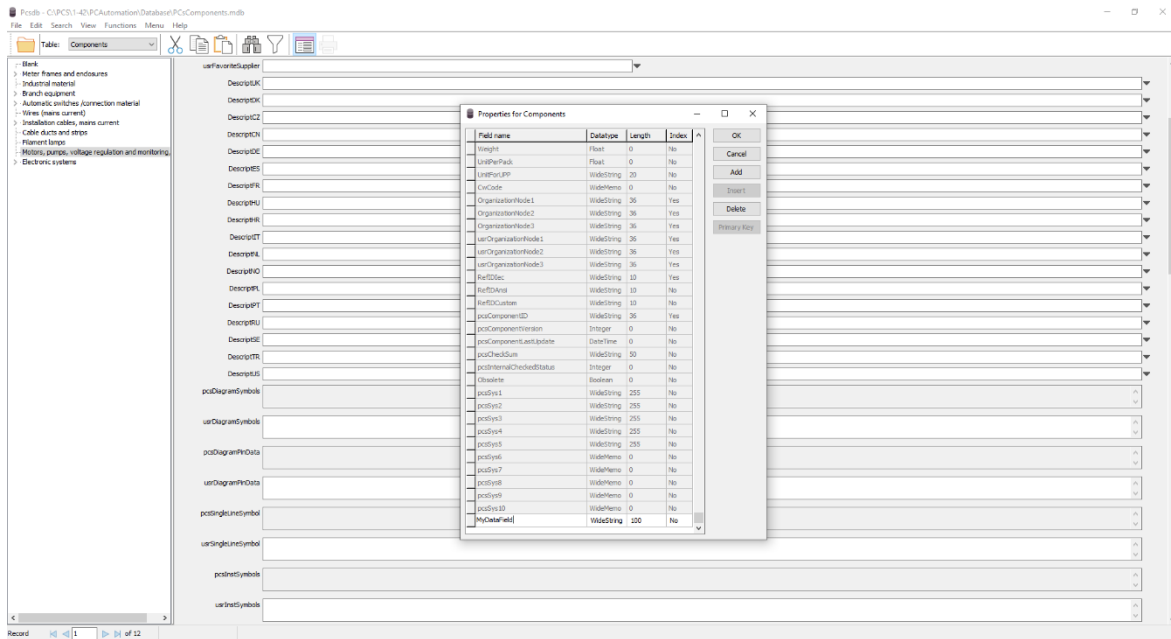
The changes that have been made in relation to write protect some of the fixed fields also take effect in the database program.

As can be seen in the picture, there are gray - read-only - fields in the individual records.

You can - of course - still add your own fields to the database, and those fields are fully accessible to you. All user created fields will be at the bottom of the list.

The properties dialog itself can now be resized and you can scroll through it.

You can still import large amounts of data here, but only to the usr-fields.



SQL database script

Our default database is made in Microsoft Access, which works fine when you are only one or a few users. For multiple users, it is advantageous to move to a SQL database instead.

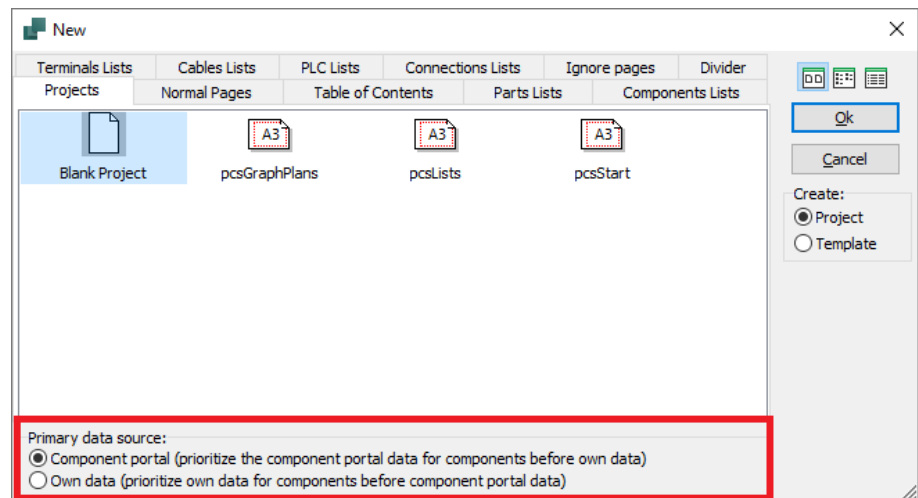
We have created a script that can generate a SQL database with our format. Simply ask support@support.com.



START A NEW PROJECT

When you start version 23, the program starts by opening a new, empty project. At the same time, you must answer whether you want to prioritize Component portal Data (pcsData) over Own data (usrData).

The question is only relevant, when both usr and pcs data exist on a component. Once this is done, you start by selecting components and place their symbols as before 😊



The value is remembered for the next new project.

WORK ON AN EXISTING PROJECT

Everyone wants to continue working in and with old, existing projects.

When we convert old files, we change the format of article numbers and replace them everywhere in the old project. Once that has happened, you can no longer use the old database, but in addition, you simply work on as before.

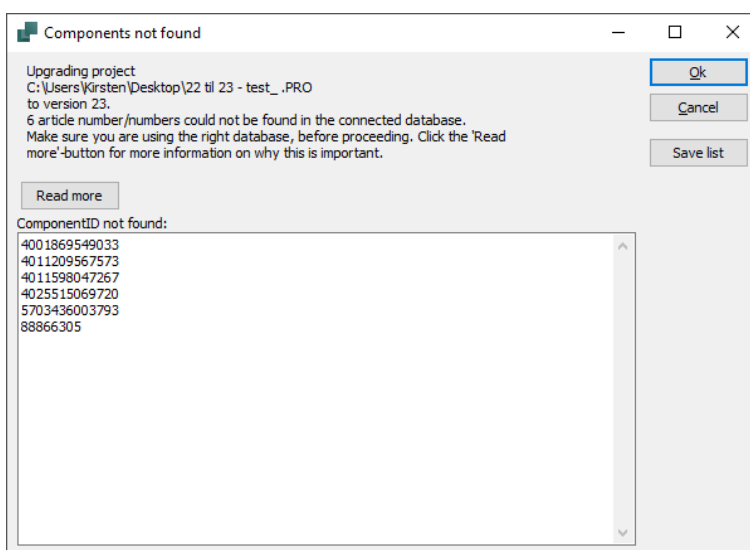
Open your old project

Start by opening your old project. If all components already are in your new database, you just keep working – all is well 😊

Components do not exist in the associated database

In this project, I have these components that are not in my version 23 database.

If all components in the project were already in my associated database, this page wouldn't appear.



Save list

You would like to retrieve these components in the old database, so 1) save the list and 2) press Cancel.

Retrieve old components of the old database

See how you can import 'old' components from page 44.

Project component database

When loading old files in version 23, we unlock any locked project database. Types and article numbers are still in the project, but if the components are not in the associated database, they will come up in the list above.

If you need to have an 'old' list, you can export the Project component database in version 22.

After the project is converted, you can lock the project database again.

What if I have a Navision number?

If your loaded 'old' project used a Navision number as the item number, then it will also have it now if you chose to include it in the conversion of the database.

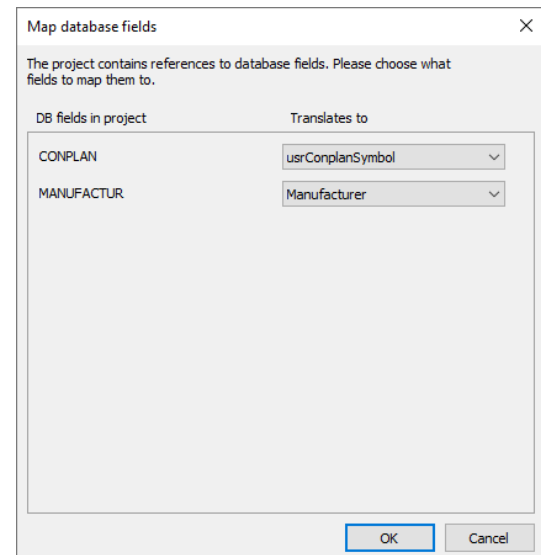


Database fields in the project

If the project file/template contains data fields from the old database, e.g. manufacturer name – and it does so e.g. in the BOM – the program 'maps' the old data field to the new Manufacturer field:

In the old database there was info about the manufacturer in the data field MANUFACTUR. The program will map this field to data field Manufacturer.

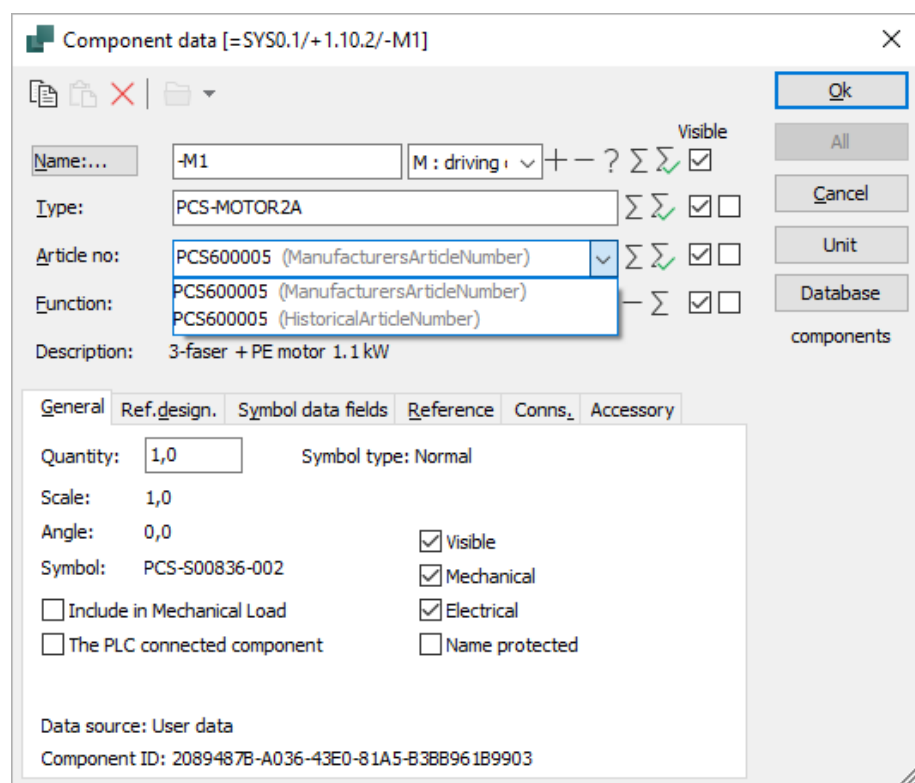
Similarly, I have a Connection List in my old project, and there I have chosen to get the symbol from the CONPLAN field.



Press ok and you're ready to keep working,(almost) as before.

Component Article Number

In the old 'new' project, the component's item is now in a drop-down box. Here, both the imported item and the manufacturer's item no. (and yes, here they are identical). The selected content in this field is the same content that appears in the lists.

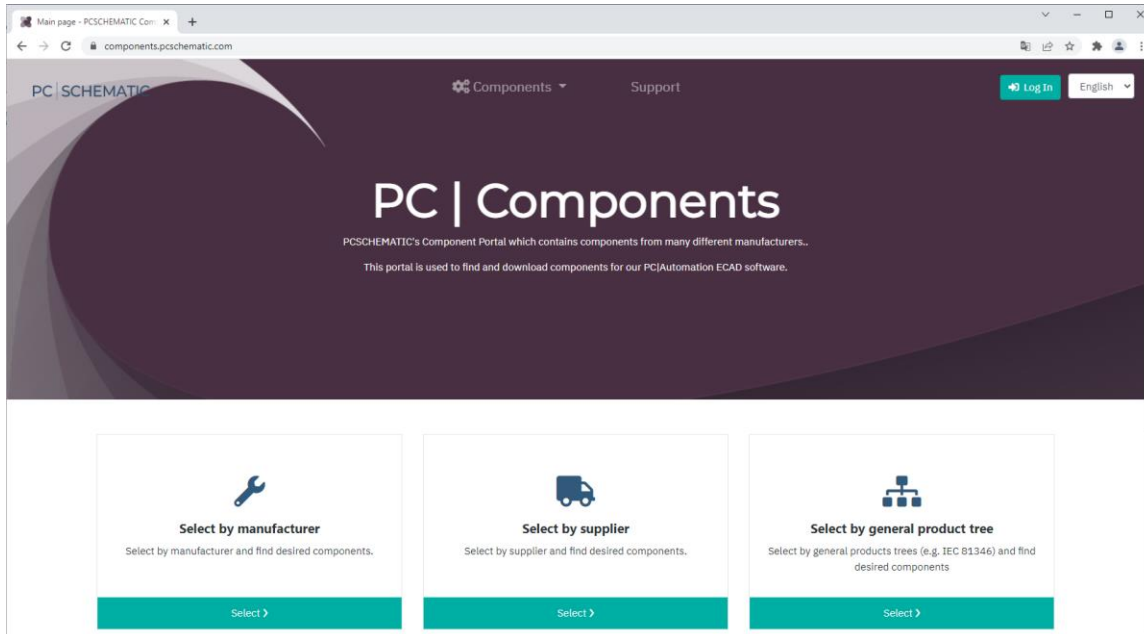


Existing projects always use 'old' data, i.e. they use user data from the database.

PCSCHEMATIC'S COMPONENT PORTAL

You can find the portal on <https://components.pcschematic.com/> or – more easily – via the portal icon in PC| Automation.

You can *look* at the portal and its content without being logged in.



What is the component portal

Basically, the Component Portal is just a new, web-based database from which you can download one or more components to your local database.

The portal is currently in English, Danish and Polish, and will later appear in more languages.

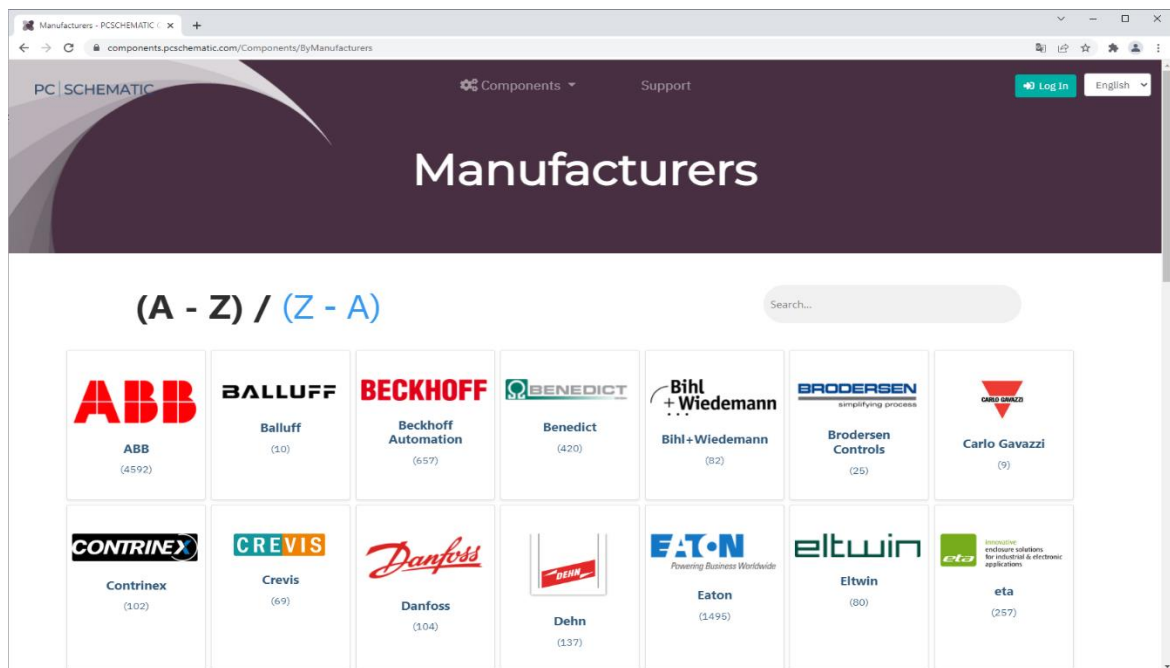
Compared to previous options for retrieving new components from 'us' to your own database, the difference is that you select to download only the components you want, and not all components from a given manufacturer.

Download and use components from the portal

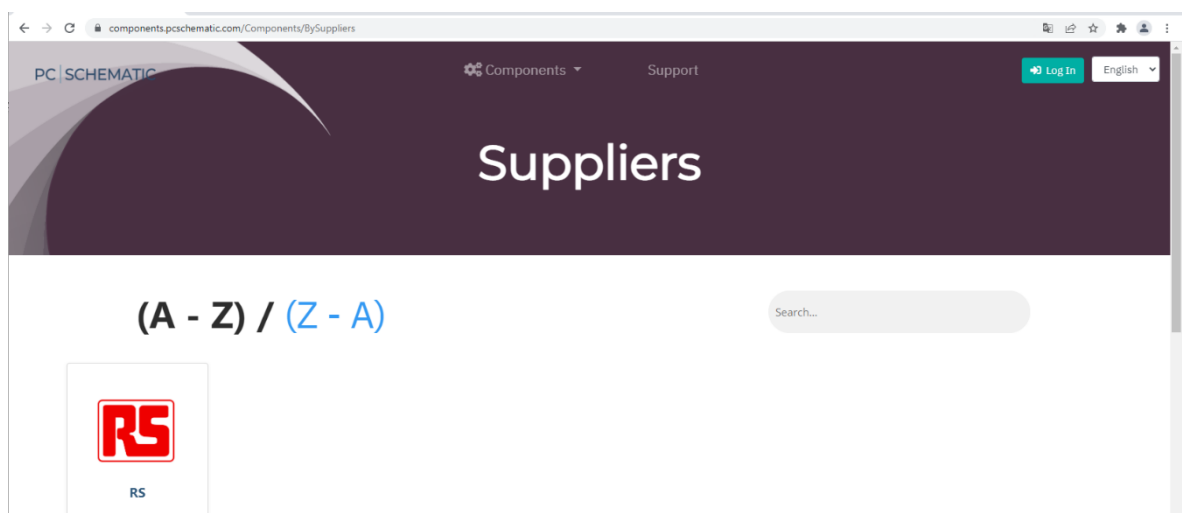
- You must be created as a user before you can use the portal – see later
- Search options
 - Make/Manufacturer
 - Supplier (currently one supplier)
 - Classification codes, e.g. 81346, PCSCHEMATIC's 'old' structure or ...
 - Under the individual manufacturer there is free text search in type, description etc.
- Select the component(s) you want to use
 - Drag a single component directly into the project – it's loaded directly into your database and ready to use right away.
 - Select several components and add them to the 'basket' which can be retrieved and imported into your database

Search options

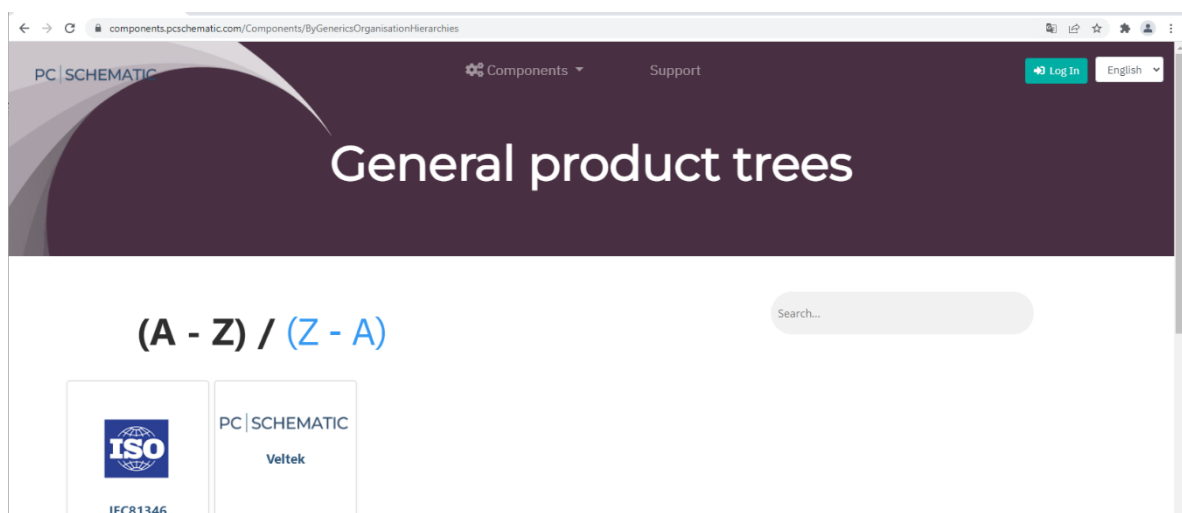
There are many manufacturers represented, and more are on the way:



However, only a few supplier - yet



And get different product trees



Get one component from the component portal

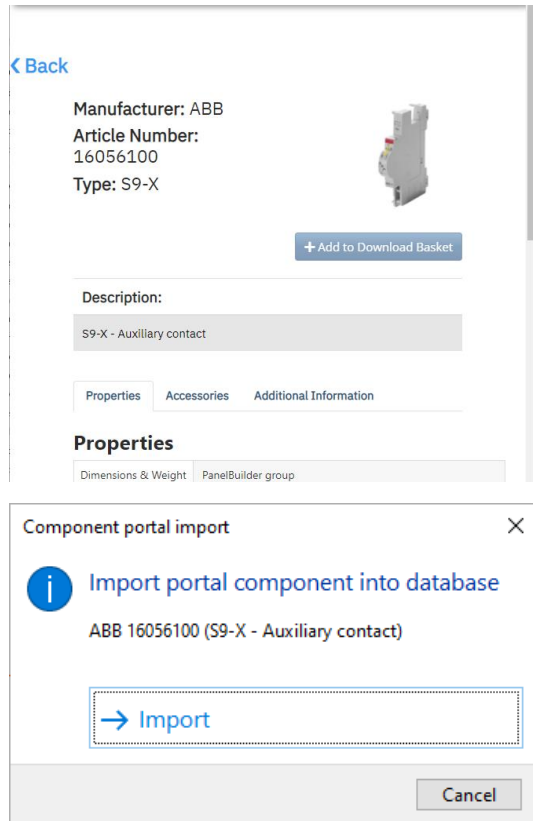
After finding the desired component, you can select it and see its details on the different tabs.

If it is the right one, then you can drag the image into the active project.

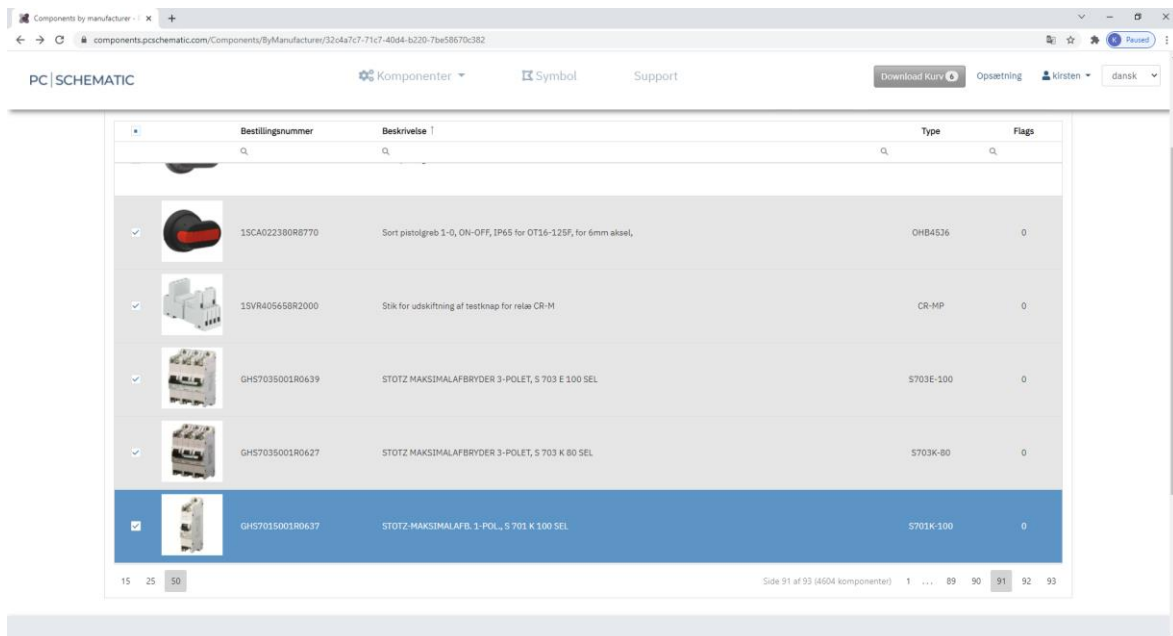
When it gets over there, the program comes up and asks if you want to import the component.

And yes, you will.

When the import is complete, the component is ready for use – either directly in the crosshairs, or in the Symbols window. As before.



Get more components in the component portal



Once you've found components that are interesting, set ✓ to put them into the basket.

After loading components to the basket, you can download them:

Download Basket 5

Afterwards, import the components into your database, by simply dragging the zip-file into the project.

If you are offline, see page 41.



How to find a component - known manufacturer

Go to the appropriate manufacturer, where you can search order number, description, and Type.

For each category, you can search the value, which can either 'Starts with' or 'Contains' your entry.

If you search in multiple columns, all criteria must be met.

Type

pcskon

Contains

Does not contain

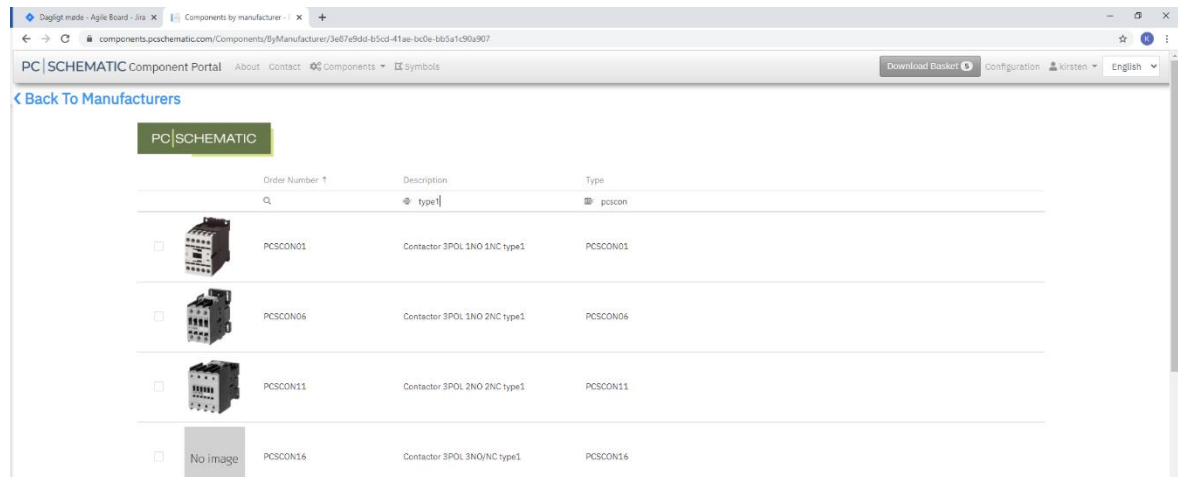
Starts with

Ends with

Equals

Does not equal

Reset



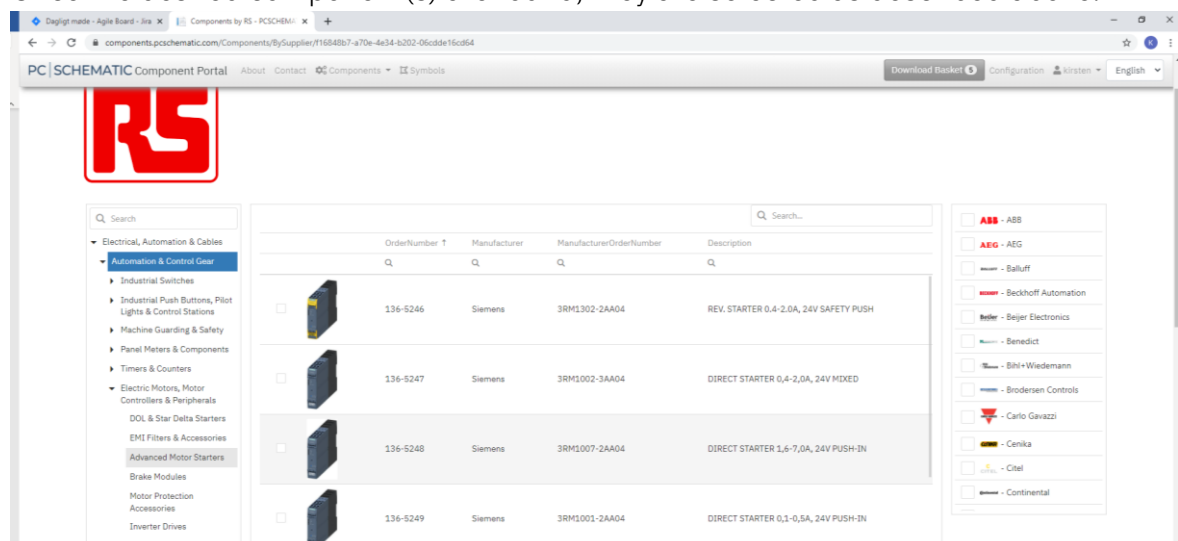
Once the component(s) are found, you can download them as described above.

How to find a component – known supplier

Different suppliers may each have their own sorting order on components.

Here the structure of RS is shown, where it is possible to go to different subgroupings, where you can also choose one or more makes.

Once the desired component(s) are found, they are selected as described above.



How to find a component – in a generic structure

There are currently two generic structures:

The 'old' PCSCHEMATIC menu:

The screenshot shows the PCSCHEMATIC Component Portal interface. The top navigation bar includes 'About', 'Contact', 'Components', and 'Symbols'. The main content area displays a list of components under the 'VELTEK' brand. The table has columns for 'Order Number', 'Manufacturer', 'Description', and 'Type'. The components listed are:

Order Number	Manufacturer	Description	Type
PCSCON01	PCSHEMATIC	Contactor 3POL 1NO 1NC type1	PCSCON01
PCSCON02	PCSHEMATIC	Contactor 3POL 1NO 1NC type2	PCSCON02
PCSCON03	PCSHEMATIC	Contactor 3POL 1NO 1NC type3	PCSCON03
PCSCON04	PCSHEMATIC	Contactor 3POL 1NO 1NC type4	PCSCON04
PCSCON05	PCSHEMATIC	Contactor 3POL 1NO 1NC type5	PCSCON05

The left sidebar shows a search bar and a list of categories. The right sidebar shows a list of manufacturers, with 'PCSHEMATIC' selected.

You can also search using the ISO/IEC 81346 structure:

The screenshot shows the PCSCHEMATIC Component Portal interface. The top navigation bar includes 'About', 'Contact', 'Components', and 'Symbols'. The main content area displays a list of components under the 'ISO/IEC 81346' structure. The table has columns for 'Order Number', 'Manufacturer', 'Description', and 'Type'. The components listed are:

Order Number	Manufacturer	Description	Type
PCSCON-LAMP1	PCSHEMATIC	Pushbutton with light 1NO+1NC	PCSCON-LAMP1
PCSLAMP	PCSHEMATIC	Lamp outlet	PCSLAMP
PCSPB NC 01	PCSHEMATIC	Push button NC	PCSPB NC 01
PCSPB NC 02	PCSHEMATIC	Push button NC	PCSPB NC 02
PCSPB01	PCSHEMATIC	Push button NO	PCSPB01

The left sidebar shows a search bar and a list of categories. The right sidebar shows a list of manufacturers, with 'PCSHEMATIC' selected.

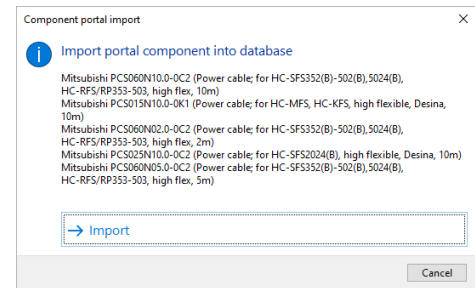
More structures will be added when/if we get relevant data. Among other things, it will be possible to search the manufacturer's own 'normal' structure.



Load components from the portal basket

When you download the 'basket' from the Component Portal, a zipped file will appear in your download folder.

The easiest way to import the components is by dragging the entire zip file into the project. Then a list comes up where you can see all the components, after which you press Import to get them into the database.



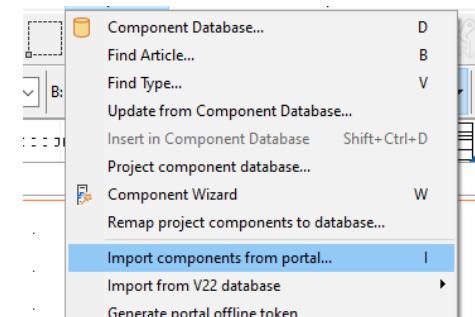
If you don't have write access to the database

In many companies, there is a limitation as to who can add data to the database.

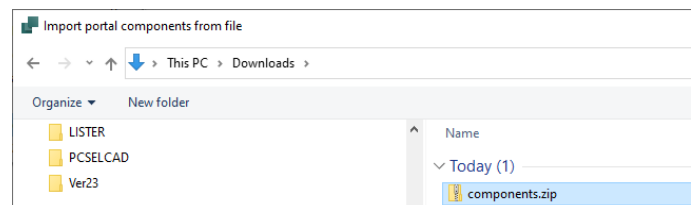
If you download 'baskets' on the portal, these zip files can be stored in a common folder, and can then be imported into the database by a user with write rights.

To bring the components into the database, do the following:

Go to Components | Import components from portal.

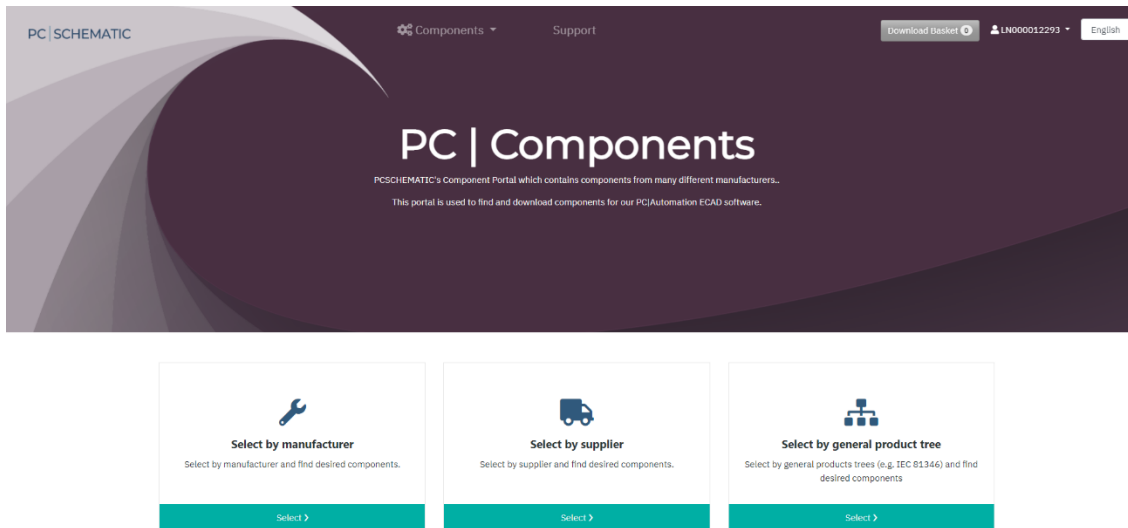


Download the file, possibly in the download folder.



You will get an overview of which components are in the file – as above. Press Import and the components are in the database.

Log in to the portal – via PC| Automation



If you have a valid Maintenance Agreement (VHA) license for PC| Automation, you are automatically logged in when you tap the icon. Technically, the program generates a token, which is used for login.

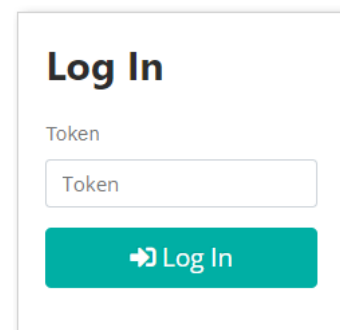
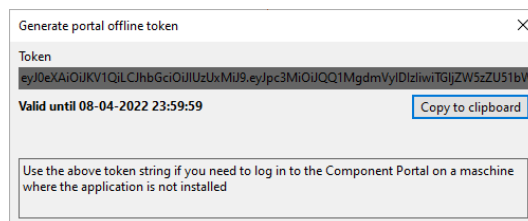
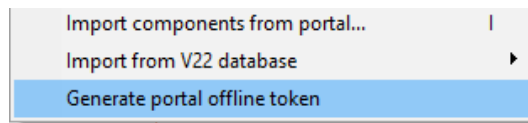
The picture above is logged in with license 12293, and it is also seen in the username – LN000012293. Therefore, you do not have to do anything yourself when using the function of the program.

Log in to the portal – via the website

If you don't have internet access on your PC, you can generate a token through the Components menu which allows you to log in from another PC.

The token itself must be copied and pasted onto the front.

If you are offline, you must retrieve components via the 'basket' and then import them as described in the section Load components from the portal basket on page 41.



User settings

Tap the username button and you'll see how you're created:

You are automatically created with the license number as username, and at the top you can see the status of your license. The user shown expires in a number of days, but automatically renews as long as there is a Maintenance Agreement.

Language settings, i.e. which language is displayed in the Component Portal, are automatically created based on how the PC|Automation is running – currently I am running in English. This has no bearing on what components and what descriptions I download.

Finally, I can choose whether I work with SI units (kg, m, etc) or Imperial units (lb, inch, etc). Drawing standard is currently always IEC standard.

Component Portal access expires on 2023-01-31 (YYYY-MM-DD)
0 portal component(s) has been downloaded.

The screenshot shows a user settings form with the following fields and values:

Field	Value
User id: *	LN000012293
Role:	User
Language: *	English
Engineering units:	<input checked="" type="radio"/> Imperial <input type="radio"/> SI
Drawing Standard: *	IEC standard

At the bottom of the form is a green button with a checkmark icon and the text "Save Changes".

IMPORT COMPONENTS FROM VER 22 DATABASE

Once you have installed ver 23, the new database contains only demo components. All other components must be imported from the portal and/or your old ver 22 database.

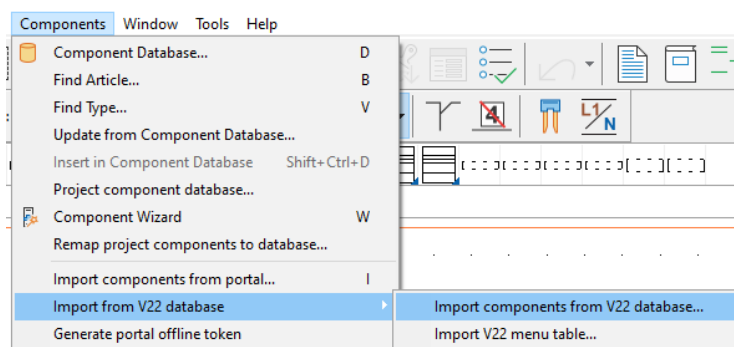
This means that when you open an old project, the components are NOT in the connected database unless you imported them from the old one. See page 34.

In this section, you can see how to retrieve components from your old database, but remember: Garbage in, Garbage out... So, a good piece of advice is that you only import what you need!

The menu Components

You can access import to the database through the new Components menu.

You should NOT go to the database program to import, since *the conversion* to the new format itself is done only here and not in the database program.

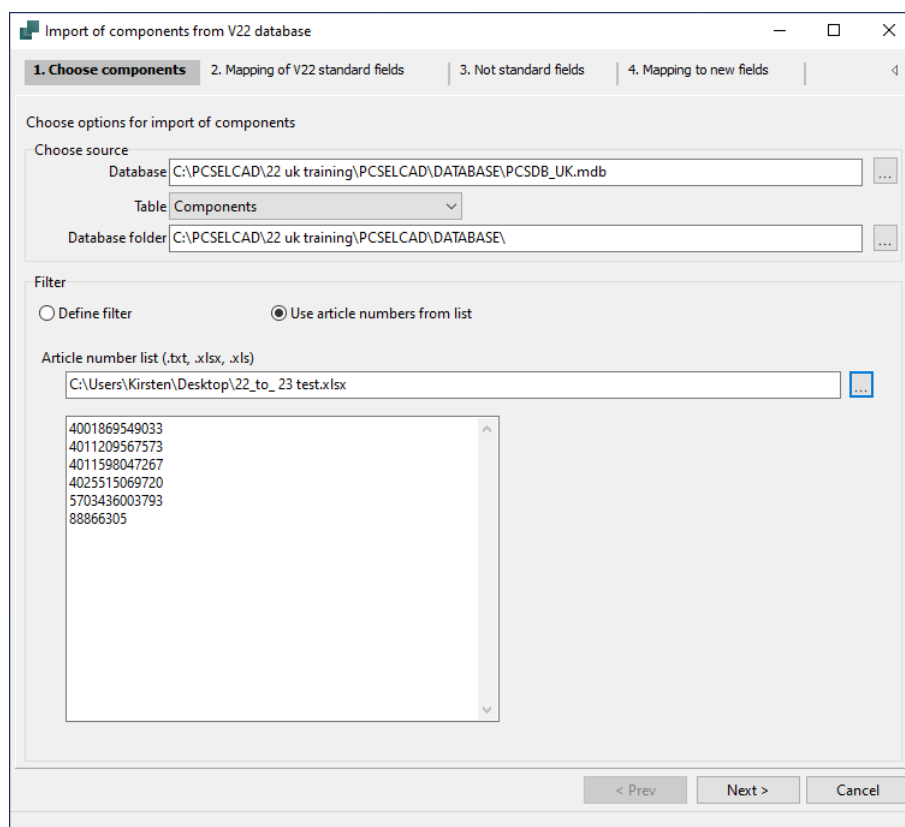


Select which components to import

Start by selecting the database that contains the desired components.

You must select database, table and folder to get hold of all pin and pcs-files.

The *smartest* way to import components, is to use the list from page 34, simply because it limits the import to components used in projects.



Alternatively, you can set up filters, e.g. Surge Protective devices (SPD) from Legrand:

Any accessories are included automatically.

You must choose one of the two filters, simply because you don't want to import all components from the old database.

Import of components from V22 database

1. Choose components | 2. Mapping of V22 standard fields | 3. Not standard fields | 4. Mapping to new fields

Choose options for import of components

Choose source

Database: C:\PCSELCAD\22 uk training\PCSELCAD\DATABASE\PCSDb_UK.mdb

Table: Components

Database folder: C:\PCSELCAD\22 uk training\PCSELCAD\DATABASE\

Filter

☒ Define filter ☐ Use article numbers from list

Column	Filter operation	Value	A <> a	+	-
DESCRIP	Contains	protective	<input type="checkbox"/>	+	-
And					
MANUFACTUR	Contains	legrand	<input type="checkbox"/>	+	-

Mapping V22 fields

Here are all existing mappings in the old database:

They are read from the idb file that is on the system already, so nothing is supposed to be changed here.

The contents in these fields are automatically included in the import.

Notice that all sorts of accessories – both electrical and mechanical – will be in the same field in the future.

Import of components from V22 database

1. Choose components | 2. Mapping of V22 standard fields | 3. Not standard fields | 4. Mapping to new fields

Below are previously used mappings of fields. Check that the mappings are correct so that data is transferred correctly

Component data			
Article	EANNUMBER	Symbol	PCSType
Alt. article		SLD symbol	SINGLELINESYMBOL
Type	TYPE	Symbol ref.	REFID
Function		Connections	PINDATA
Description	DESCRIP	Mec. symbol	MECTYPE
Units/Pack	UNITPRPACK		
Manufacturer	MANUFACTUR	Thumbnail	PICTURE
Approved	APPROVED	Menu link	TABLECODE
Obsolete	OBSOLETE	Preferred Link field	CATALOGUE
Fixed accessory	ACCESSORY		
Optional accessories			
Electrical	OPT_ADDON		
Mechanical	OPT_ACCESSORY		

< Prev Next > Cancel

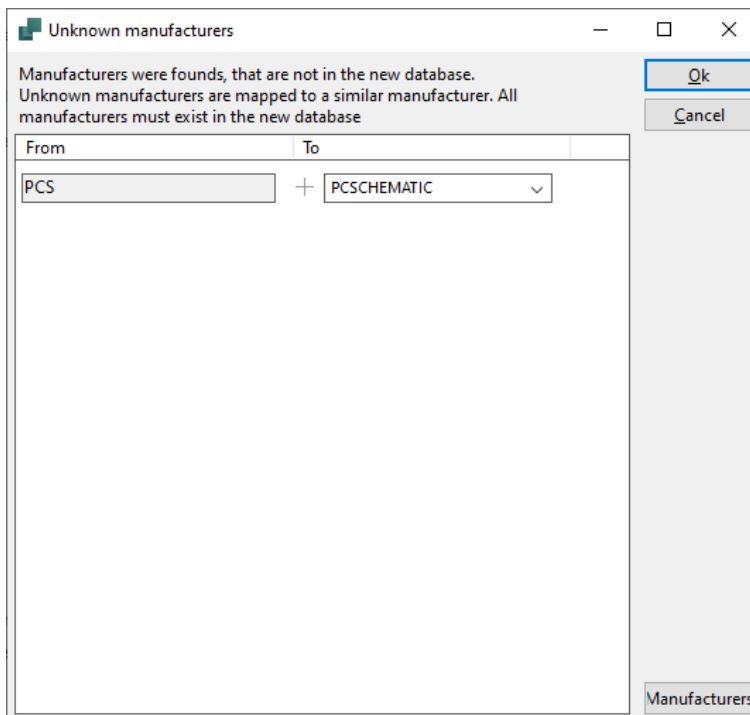
14 components found

Cleanup of manufacturers

In connection with the new database, we are doing a cleanup of manufacturer names:

You get a list of missing makes so that they can be created and a list of which makes are added together into what.

If the manufacturer is not in the list, you can either select UNKNOWN or create a new one by pressing the Manufacturers button at the bottom.

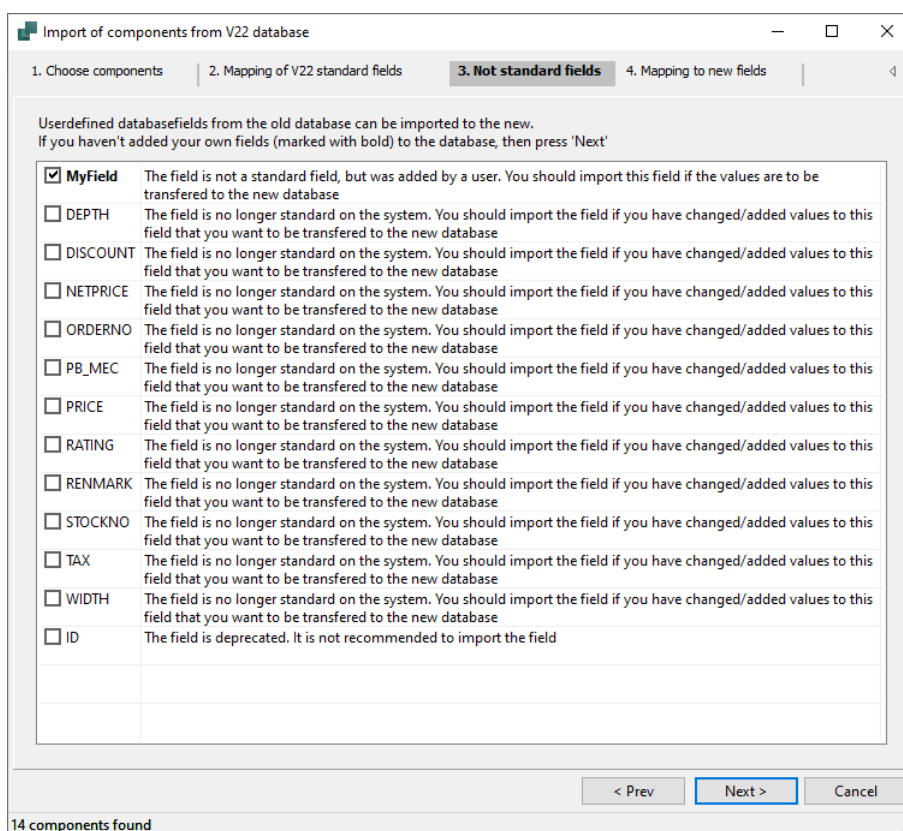


Non-standard fields

On this tab you can see what is not imported.

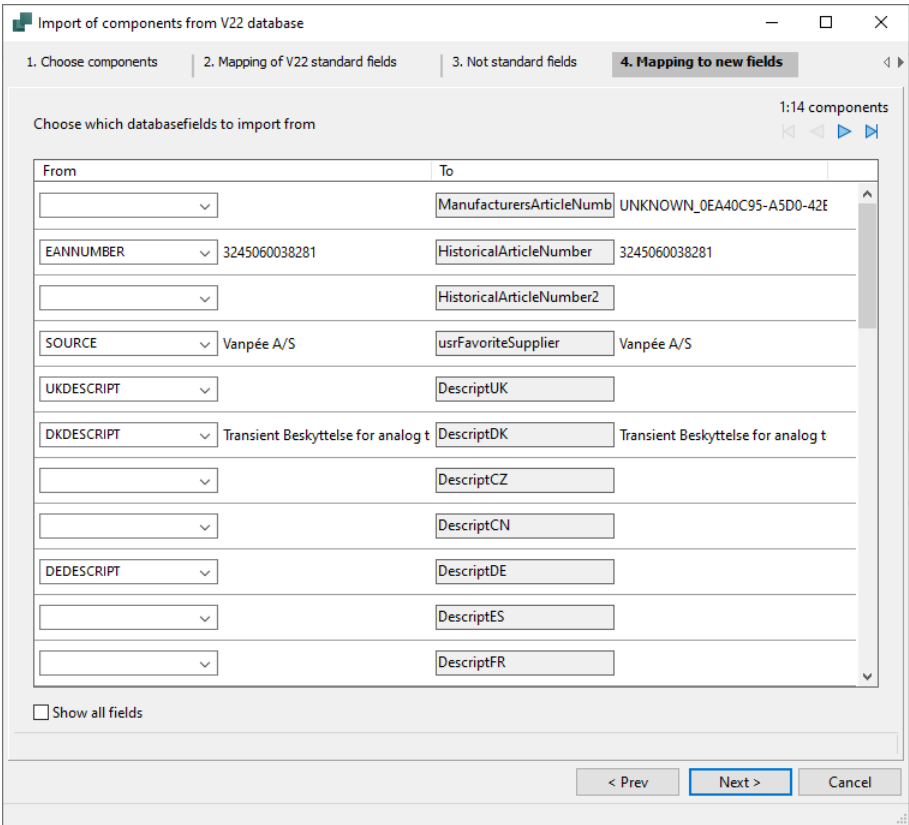
If you created fields in the database yourself, they are highlighted in the list, and if you want to use this data, the data field should be imported.

The rest of the datafields should not be imported.



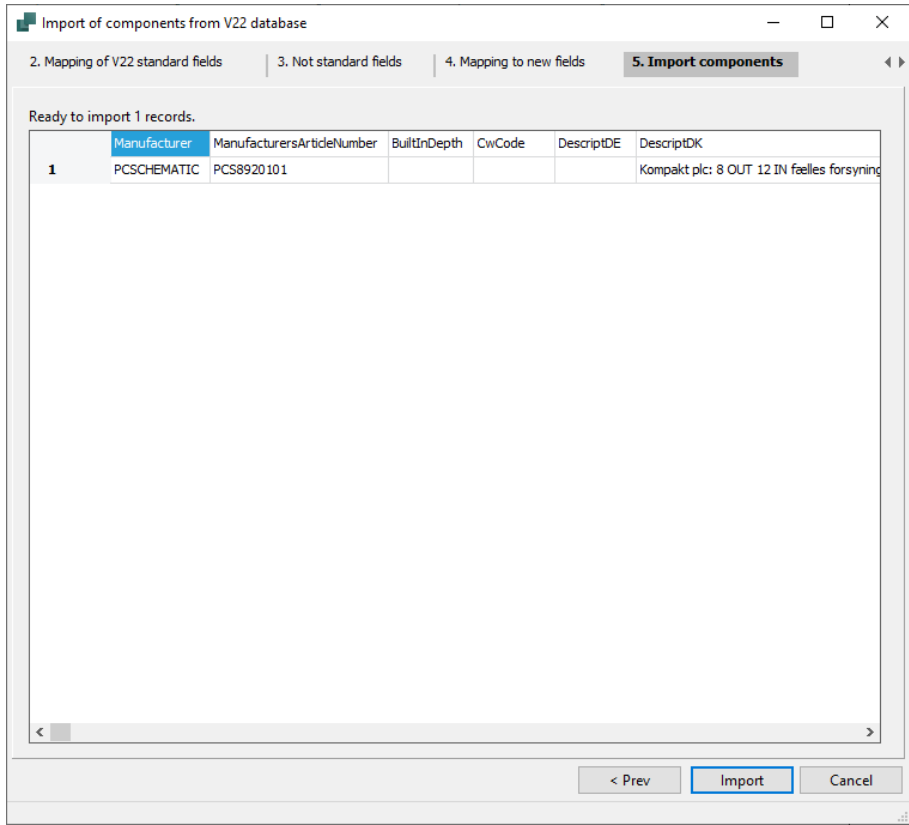
Mapping to new fields

On the next tab, you can see how the old data is moved to the new database. You can browse between the selected components on the blue arrows at the top to view data.



Ready to import

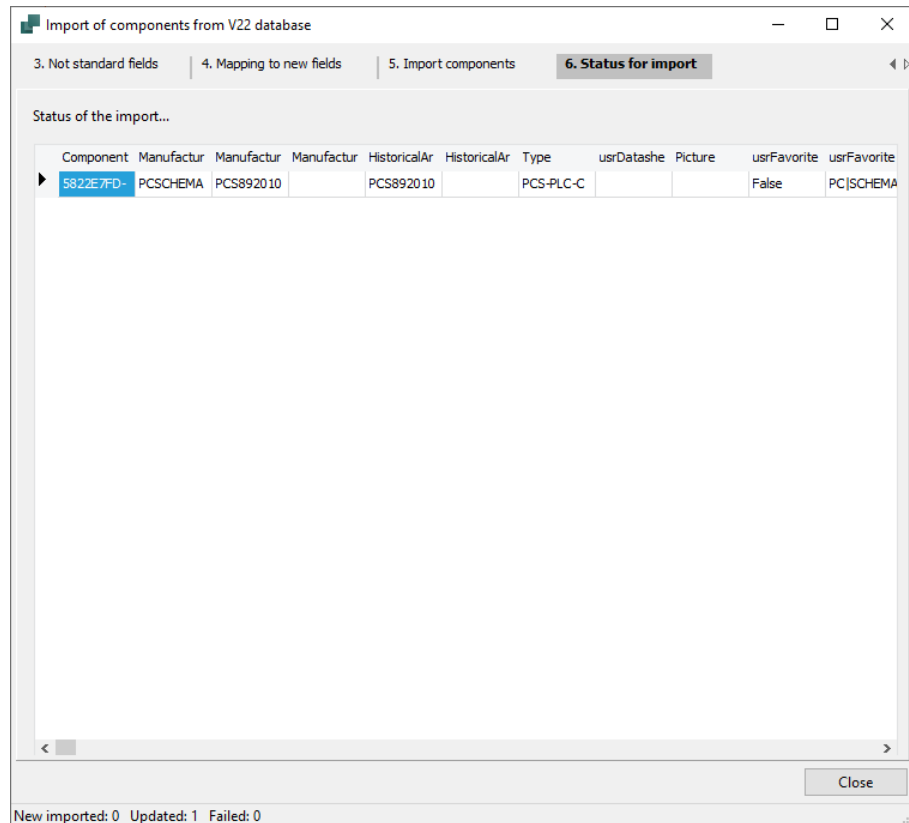
Now the selected components are ready for import. They have all been given a Component ID, which is unique, and it will be the future key to the database.



And it went well

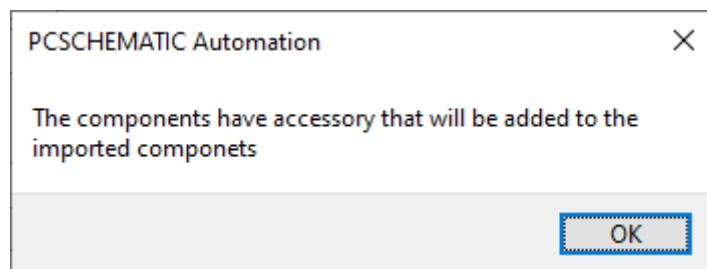


If the components already exist in the database, they will be updated.

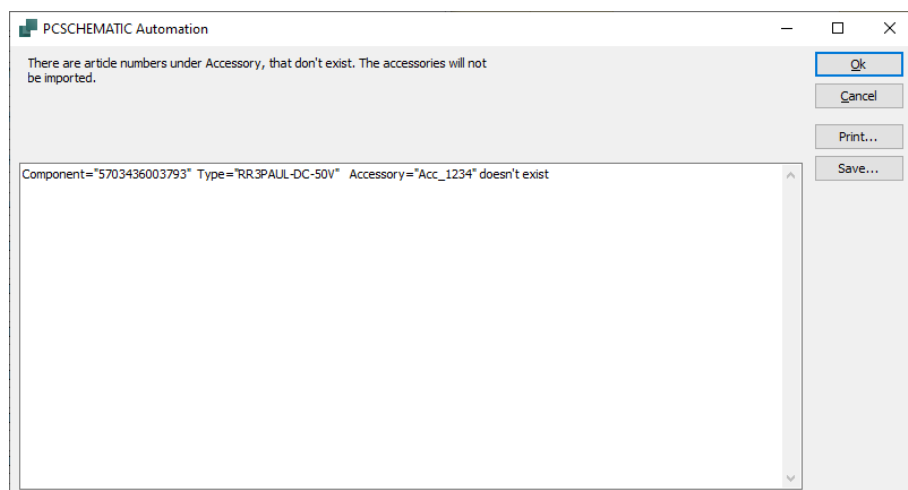


Importing accessories

Accessories are automatically added to the import and given appropriate componentIDs.



If the old database contained references to accessories that were not in the database, an error list will come up.



MOUNTING ASSISTANT

The mounting assistant has also been given more functions. News in the Mounting Assistant does not quite follow the main program's news, but comes gradually when (really) good ideas come from you.

New Tab – Arrangement *

When a switchboard or a machine needs to be mounted, you start by getting the components in place in the switchboard and/or on the machine itself.

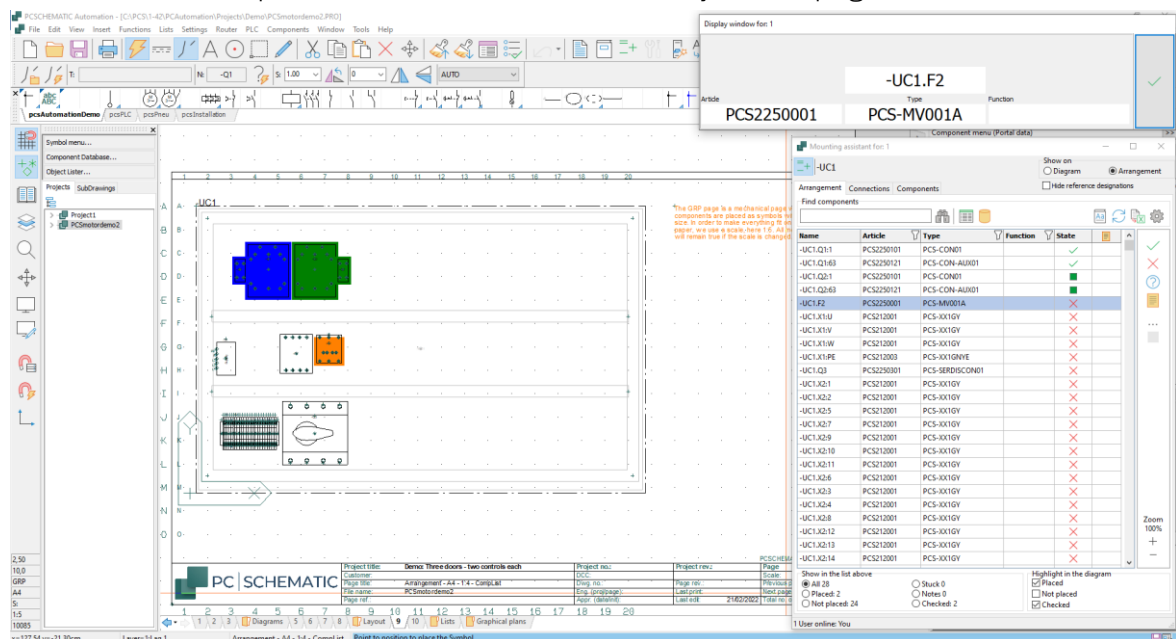
In the Mounting Assistant there is now a tab – Arrangement – where you can keep track of this:

In the picture below, the ref. designation UC1 is first selected, so that only the components that belong on the selected page are displayed.

- The checkmark selects Mounted, and it can be displayed with BLUE marking on the mounted components, both on this page and in the diagram.
- When the component is Mounted, it can be checked – the box in Mounting Assistant switches to the green square when a Mounted component is selected. A Controlled Component can be marked in GREEN on this page and in the chart.
- The selected component in the list is ORANGE on the page.

You choose whether you want to see this on the actual event page or in the diagram – all components do not have to be in the board (sensors are outside the board, for example), and there are users who do not make arrangement drawings. The color markings appear in both places.

You choose a component either in the list or directly on the page.



Features and filters on the Connections tab *

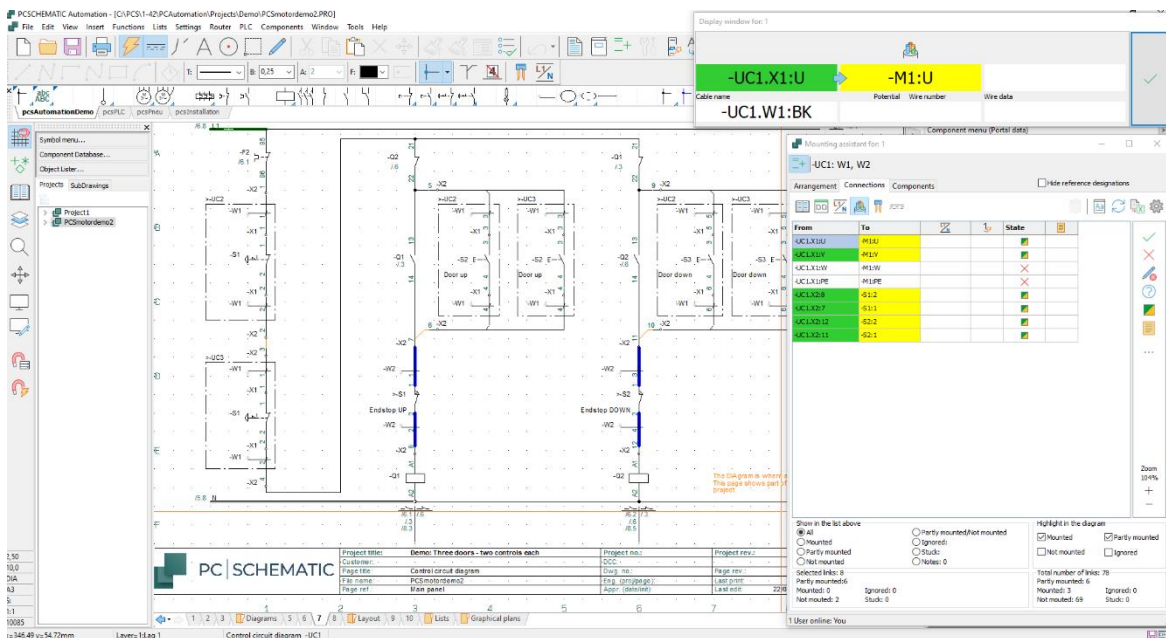
On the Connections tab, all connections in the project are displayed, i.e. the same information that is in the Connection List.

As a starting point, all connections are displayed, but you can choose to make a filter so that, for example, you only see potentials or cables – as below.

That way, only the selected connections appear in the list, and you can then choose to sign for them – or anything else – in the summary window or the list itself.

- In the overview window (and in the list), you can choose to acknowledge only one end (Partially Mounted). The mounted end turns GREEN, the other becomes YELLOW
- The check mark selects Mounted at both ends

You will also be able to choose a connection directly on the page, however, be aware that you can only choose something that the filter allows.



Multiple users on a project *

At the bottom of the list, you can see how many active users there are on the project. If there is only 'myself', it simply says '1 active user'. If there is one more, you will get a message about this, where the username will also appear. Other usernames appear at the bottom of the list.

The list doesn't update automatically (yet), so remember to update regularly.



OTHER VERSION 23 NEWS

In addition to the 'big' news, there is also a collection of smaller news that comes in this section.

All dialogues are (almost) scalable *

Now you can change the size and position of (almost) all dialog boxes, and they keep their shape and size. For the record, position also applies to the choice of monitor.

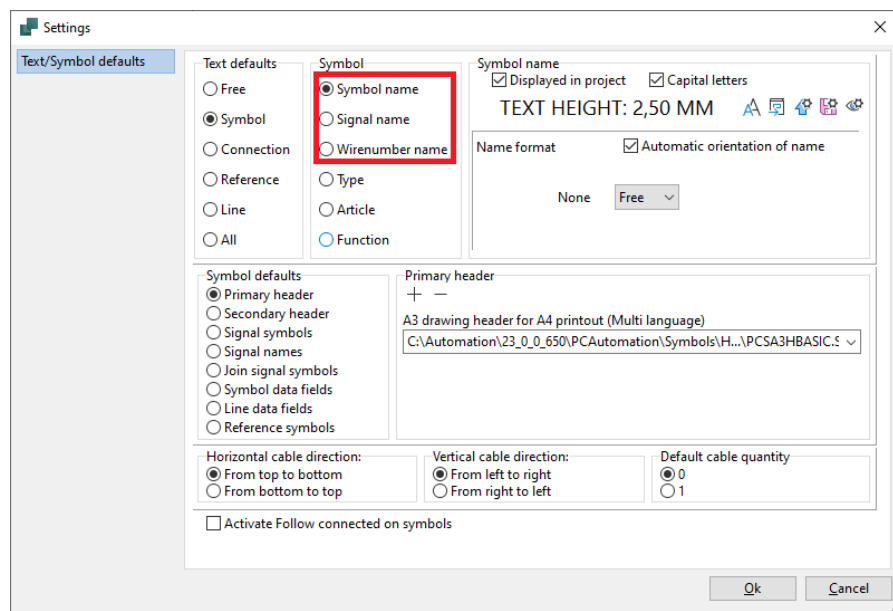
The program is supported on 4K monitors

All dialogues are made ready for 4K. On that occasion, the non-active icons are made more dimmed, the lines shown are neat on large screens... here are perhaps mostly new icons.



Separate text properties for Symbols, Signals, and Wire No*

Text properties for signals and wire numbers have previously been the same as for regular symbols. The previous method didn't work when you wanted to use the same text properties across projects in an easy way using the All function.



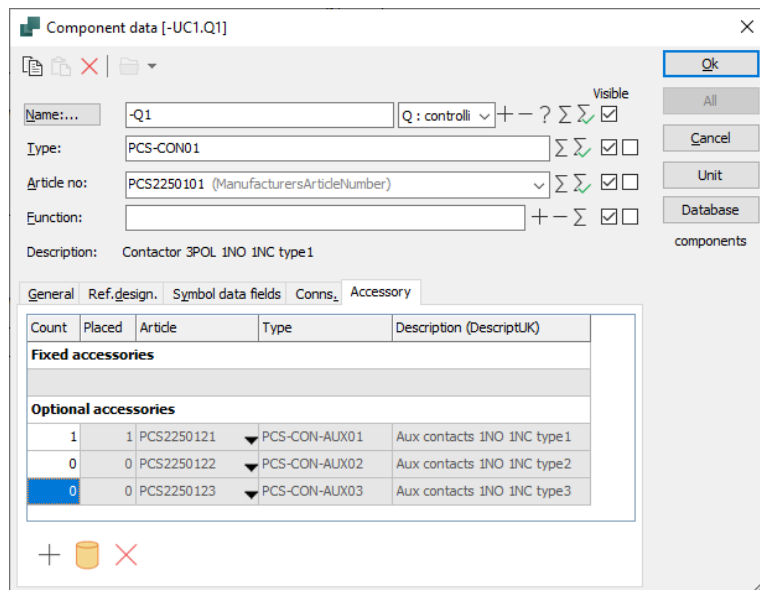
Accessory

Accessories are divided into Fixed and Optional Accessories: Fixed acc. always come with the main component – it's fixed; whereas Optional acc. can be selected gradually.

The two lists are composed of the contents of the pcs- and usr part of the database, i.e. you can add accessories yourself without compromising any accessories from the manufacturer.

Optional accessories replace the 'old' Electrical and Mechanical accessories.

The small drop-down on the article number shows that there are several article numbers for the component.



There is a small toolbar at the bottom of the dialog, with icons for the functions you have in the window.

Rules for terminals – mechanical terminal symbols *

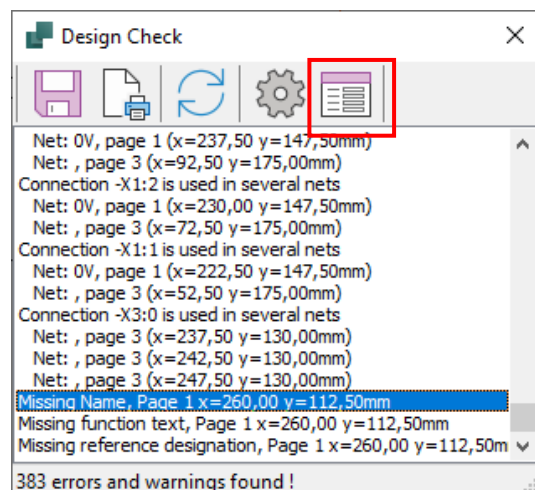
Terminal symbol rules

- The symbol has at least 2 connections
- All connections have the same name = same potential
- There are at least 1 side 1 (internal) and 1 side 2 (external) connections.

If you want a mechanical symbol for terminals, then the rules cause problems in connection with multilayer terminals. This is solved in this way: make the mechanical symbols on mechanical pages (GRP pages)! Then you are allowed to overrule the rules!

Design check with Object Data


When you select a row in the error list, you can view any object data by pressing the button in the toolbar.

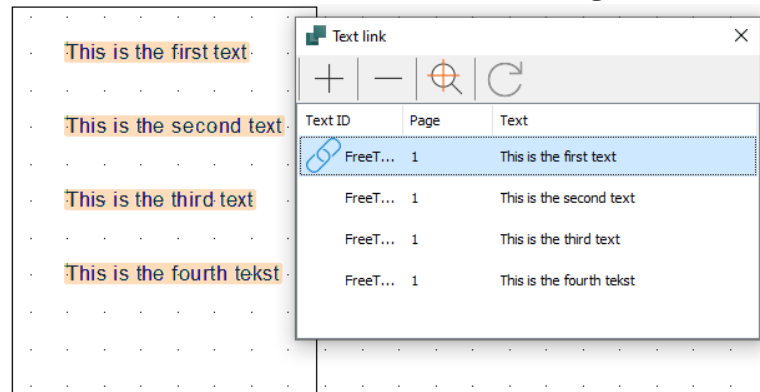


Text links – multi select

You can mark several texts on one time and put them on a common text link (chain). When you then subsequently write a text in one of the texts, all texts change simultaneously.

Tip: texts on text chain have a small arrow on top of the cross.

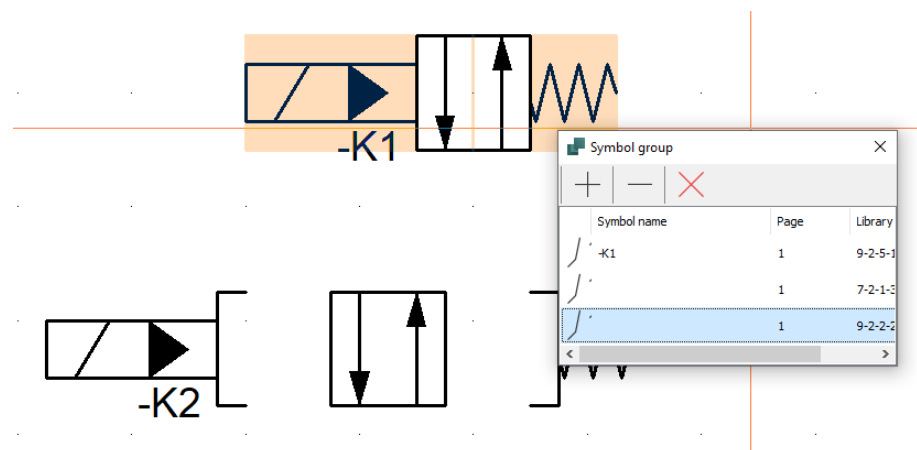
 This is the first text



Symbol group

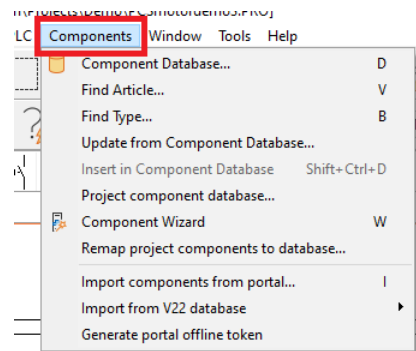
Symbol group is a new feature that can group multiple symbols into one symbol in the project, which can thus be used as a unit.

We use the function in connection with the new plc reference symbols and in connection with pneumatics.



New Menu – Components

All component functions, including access to the database, have been moved to the new Components menu.

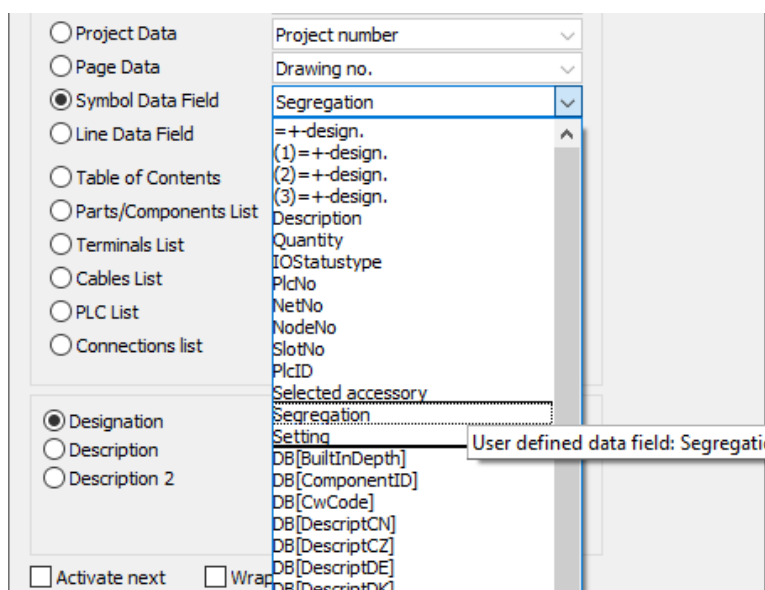


New symbol data fields

Symbol data fields have been grouped for clarity. At the same time, all fields have been given hint text. New fixed symbol data fields have appeared:

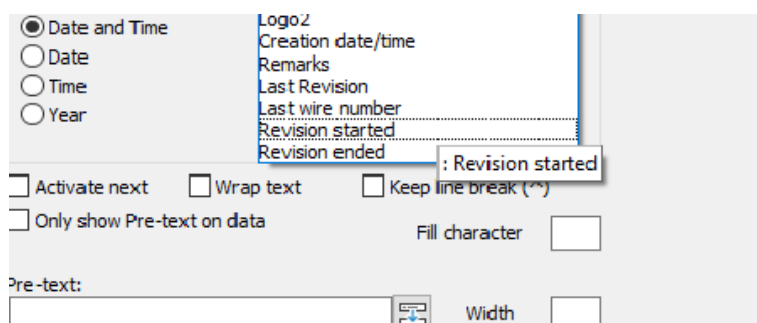
Ref.betegn. is now available in four editions. In this way, one can have – at the same time – a common designation, and a field for each aspect.

In addition, new fields have been added that are only relevant to plcs.



New project datafields

In project data, there are now two data fields for Revision started and for Revision ended, respectively.



Reference crosses can be deselected *

You can skip showing reference crosses on Relay symbols, and instead choose to show cross references.

Component data [-UC1.Q1]

Name: -Q1 | Q : controlli | Visible: ☒

Type: PCS-CON01 | ☒

Article no: PCS2250101 (ManufacturersArticleNumber) | ☒

Function: | ☒

Description: Contactor 3POL 1NO 1NC type1

General | Ref.design. | Symbol data fields | Conns. | Accessory

Quantity: 1,0 | Symbol type: Relay

Scale: 1,0 | ☐ Skip reference cross

Angle: 0,0 | ☒ Visible

Symbol: PCS-S00305 | ☒ Mechanical

☒ Include in Mechanical Load | ☒ Electrical

☐ The PLC connected component | ☐ Name protected

Data source: User data

Component ID: 1C1CA1E7-F3A0-49BE-AF4F-54460435634A

Buttons: Ok, All, Cancel, Unit, Database components

Exporting dwg/dxf *

When exporting to dwg/dxf with one page per file, you can add page number to the file name.

DWG/DXF Export

File name: C:\...\Projects\Demo\PCSmotordemo3.DWG

File names: "PCSmotordemo301" to "PCSmotordemo352"

Codepage: ansi_1252 | Latin 1 (US, Western Europe)

Select version: AutoCAD version 13

Select save option:

- ☒ 1 page pr. file. Number of files: 52
- ☐ 1 page pr. layer. One file only
- ☐ Only page 21
- ☐ Page 21. Layer Lag 0
- ☐ Layer (Lag 0) on page 21, exploded.
- ☐ All pages placed on one page in the same file
- ☐ Create ZIP-file

☐ Last used page active

☒ Add pagenumber to filename

First filename: PCSmotordemo32_1

Second filename: PCSmotordemo352_48

Map file: acad.map

Buttons: Show layer settings, Ok, Cancel

A little about lists

Once again, news for lists.

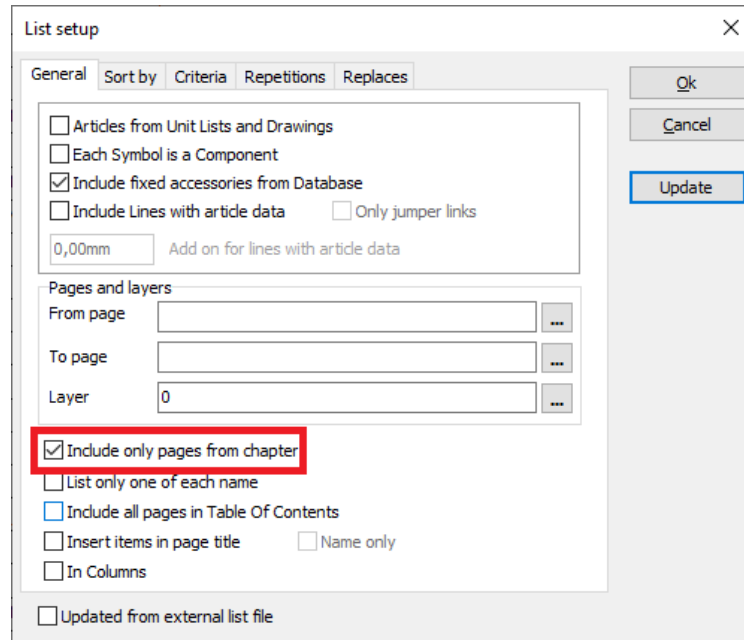
New criteria for Parts and Component Lists

All symbol data fields can be used as criteria on parts and component lists.

Extended list functions

As of version 23, it is possible for lists to include only parts from the current chapter.

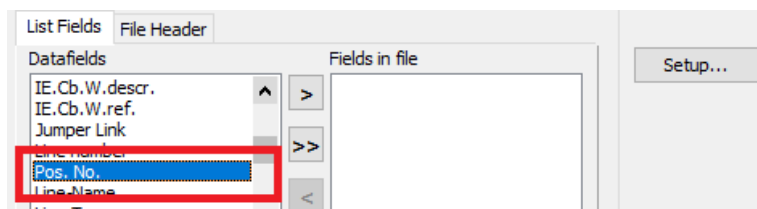
It has always been possible in Tables of Content, now it is also possible in the other list types.



The 'List setup' dialog box is shown with the 'General' tab selected. It contains several sections of options. The 'Include only pages from chapter' checkbox is checked and highlighted with a red rectangle. Other options include 'Articles from Unit Lists and Drawings', 'Each Symbol is a Component', 'Include fixed accessories from Database', 'Include Lines with article data', 'Only jumper links', 'Pages and layers' (From page, To page, Layer), 'List only one of each name', 'Include all pages in Table Of Contents', 'Insert items in page title', 'Name only', 'In Columns', and 'Updated from external list file'.

New data field on terminal lists *

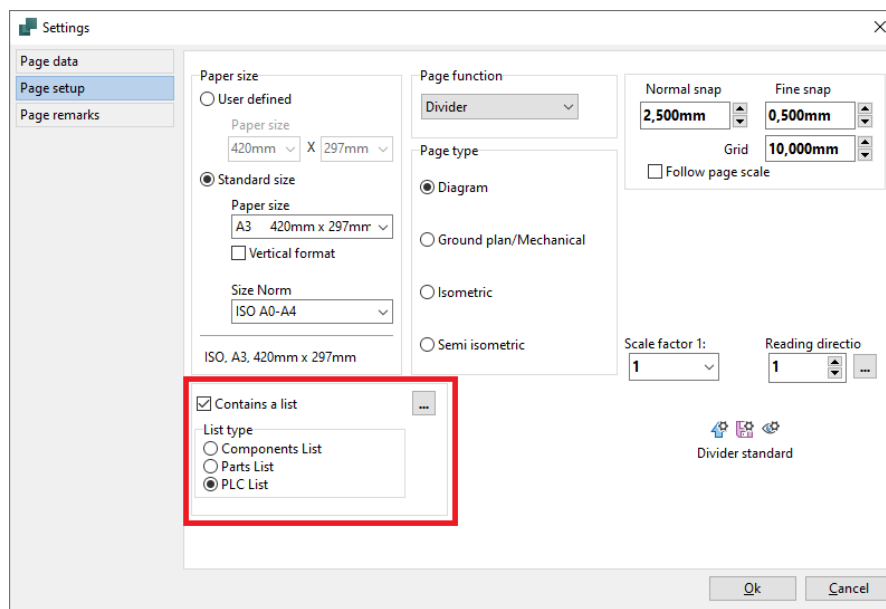
Now you can get the Component Groups in the terminal list, both in the project's terminal list and when exporting the terminal list to file.



The 'List Fields' dialog box is shown with the 'Datafields' tab selected. It contains a list of data fields on the left and a 'Fields in file' list on the right. The 'Pos. No.' field is highlighted with a red rectangle. Other fields include 'IE.Cb.W.descr.', 'IE.Cb.W.ref.', 'Jumper Link', 'Line Number', 'Line Name', and 'Line Type'.

Lists on a page

List on the current page can now also be a plc list.



The 'Settings' dialog box is shown with the 'Page setup' tab selected. It contains several sections of options. The 'Contains a list' checkbox is checked and highlighted with a red rectangle. Below it, the 'List type' section shows 'PLC List' selected. Other options include 'Paper size' (User defined, Standard size), 'Page function' (Divider), 'Page type' (Diagram, Ground plan/Mechanical, Isometric, Semi isometric), 'Normal snap' (2,500mm), 'Fine snap' (0,500mm), 'Grid' (10,000mm), 'Follow page scale', 'Scale factor 1' (1), 'Reading direction' (1), and 'Divider standard'.



Connection list to file *

When you make a 'Connection list to file' you can choose under Settings to get only one of each terminal number.

Connect points List setup

General Criteria Repetitions Replaces

☐ Include only pages from chapter

Minor sort:
C..Name

Pages and layers
From page
To page
Layer 0

☒ List only one of each terminal number

Ok Cancel

Mechanical load

Mechanical load can also search by type.

Mechanical load

☐ Load all

☐ Load by name

☒ Load by type

☐ Manual placement from list

Name search text:

Type search text:

Database symbol field
pcsMecSymbols

☐ Place only symbols not placed on other mechanical pages

☐ Place symbol as boxes

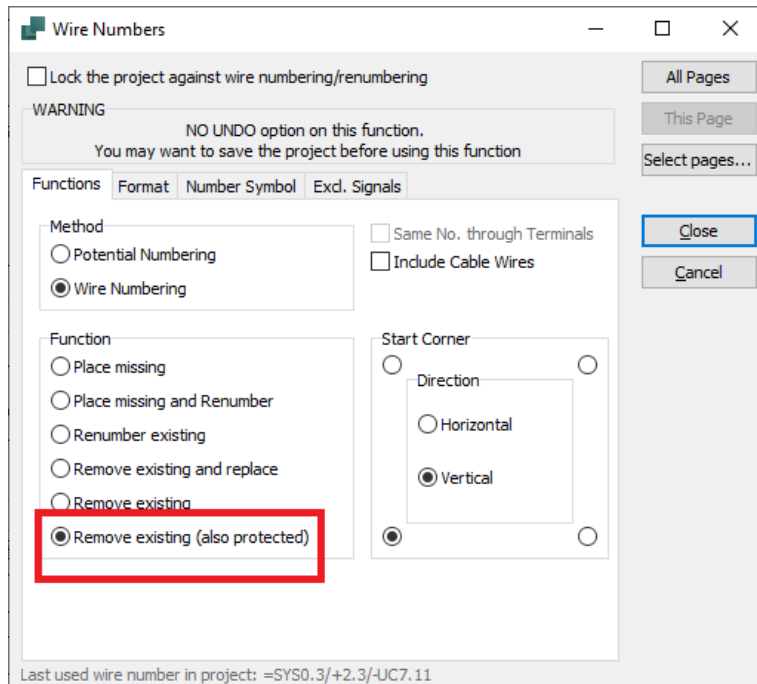
☐ Space symbols and align

☐ Update all symbols from the component database

Ok Cancel

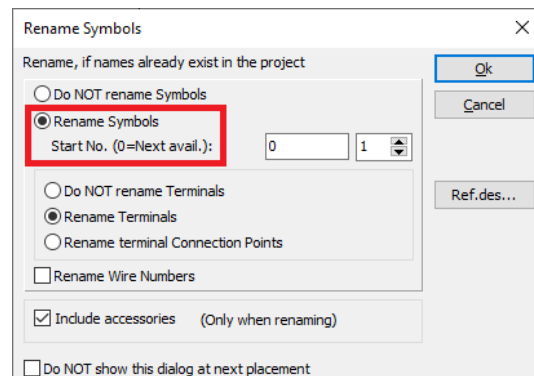
Wire numbers can be reset

One can delete wire numbers throughout the project, and now also the locked ones.



Rename/renumber symbols

When you insert an area and are asked for the next available number, you can now choose a counting value.



Magnetic snap

The Magnetic Snap button is also visible on diagram pages.



The list of letter codes is now always visible

The list of Letter codes is now always visible directly after the name, so it is easy to check whether the name is correct according to ISO/IEC 81346-2.

Previously, the list was only on the hidden tab under the Name button:...

Transfer plc addresses

When the function here is used, it is often done on parts of the project.

Therefore, there is now the possibility of locking addresses, so that any later transfers do not destroy already finished sections.

THE COMPONENT WIZARD AND VERSION 23

The component wizard is adapted to the new database, so some windows look a little different. The help texts have been updated to match what is shown.

And not least, there have been improved plc functions in version 23.

Component ID, Manufacturer and Manufacturer's Article Number

The new component ID of the database is unique, and this is the primary key to finding the component of the database.

Combining the Manufacturer and the Manufacturer's part number should also be unique, and is probably a little easier to relate to.

The front page of the Component Wizard is corrected for this.

Components *must* have a Manufacturer. If it is not known, you can choose 'Unknown'.

You can also press the Edit button and add more manufacturers, see page 26.

The screenshot shows the 'Component Wizard' window, specifically the '2. Basic component data' tab. The window title is 'Component Wizard // Database=PCComponents.mdb Table=Components'. The tab bar at the top shows steps 1 through 9, with '2. Basic component data' selected. The main area contains several input fields: 'Component ID' (with a unique value), 'Manufacturer' (a dropdown menu), 'Manufacturer's article number', 'Manufacturer's GTIN number', 'User defined article numbers' (a text area), 'V22 article number', 'V22 alt. article number', 'Type', 'Table code' (with a button to open a list), and 'Component kind' (a dropdown menu). On the right side, there is a help panel with text explaining the 'ComponentID, Manufacturer, Manufacturer's article no and Type' and 'Table code' fields. At the bottom, there are 'Previous' and 'Next' buttons, and a status bar indicating 'Mode = New'.

Create a normal component

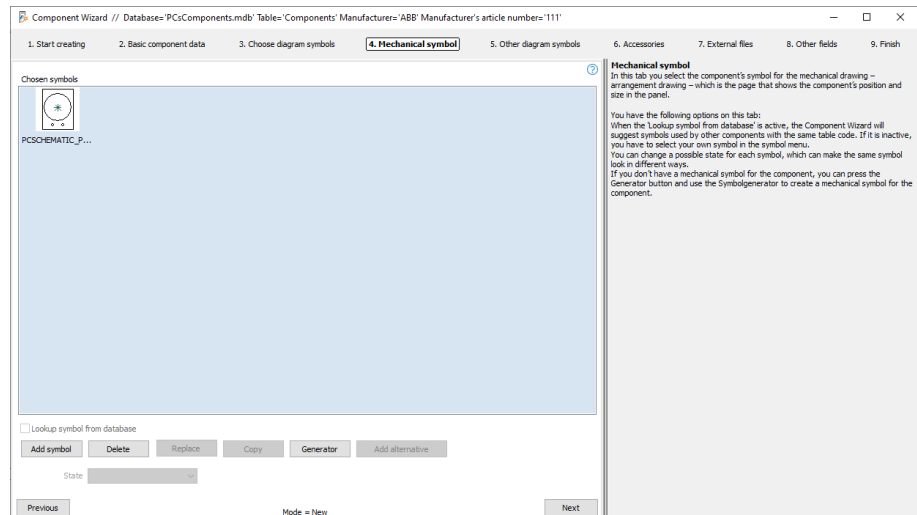
Here you can – as before – select different symbol types, use cross references, mode, connection on the terminal list, alternatives etc. This because component determines the symbol function of the project.

The screenshot shows the 'Component Wizard' window, specifically the '3. Choose diagram symbols' tab. The window title is 'Component Wizard // Database=PCComponents.mdb Table=Components Manufacturer=ABB Manufacturer's article number=111'. The tab bar at the top shows steps 1 through 9, with '3. Choose diagram symbols' selected. The main area contains a 'Ref ID' field, a 'View of standard Ref ID' dropdown, and a 'Chosen symbols' section with a grid of symbols. Below this, there are buttons for 'Add symbol', 'Delete', 'Replace', 'Copy', and 'Add alternative'. A 'Symbol subtype' dropdown menu is open, showing options like 'Normal', 'Relay', 'Open', 'Close', 'Switch', 'Terminal', and 'PLC reference'. To the right of the dropdown, there are radio buttons for 'No reference', 'With reference', and 'Master reference'. Below these, there is a table with columns 'Name' and 'Function', and a 'Connection details' section with checkboxes for 'On list', 'No status', and 'On list'. At the bottom, there are 'Previous' and 'Next' buttons, and a status bar indicating 'Mode = New'.



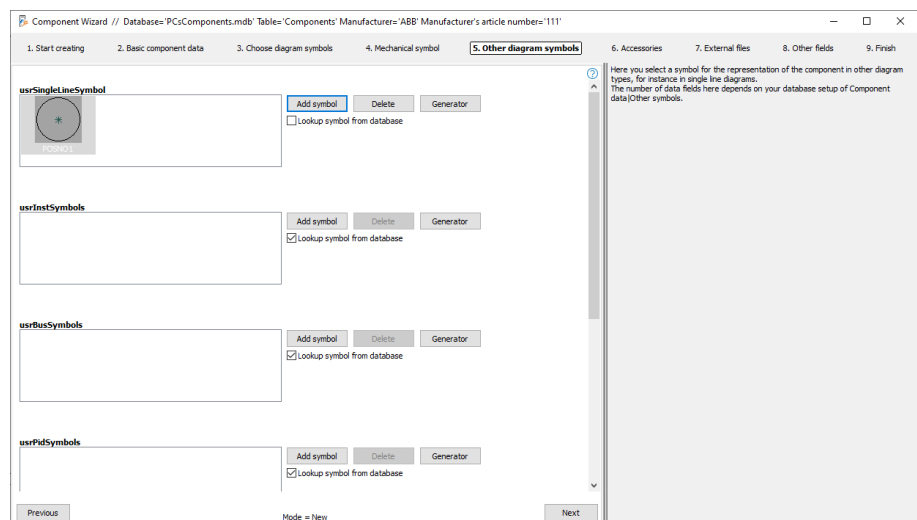
Mechanical symbols

When mechanical symbols are chosen, you can have several symbols, e.g. front, top, bottom for panel, and you can make alternatives.



Other diagram symbols

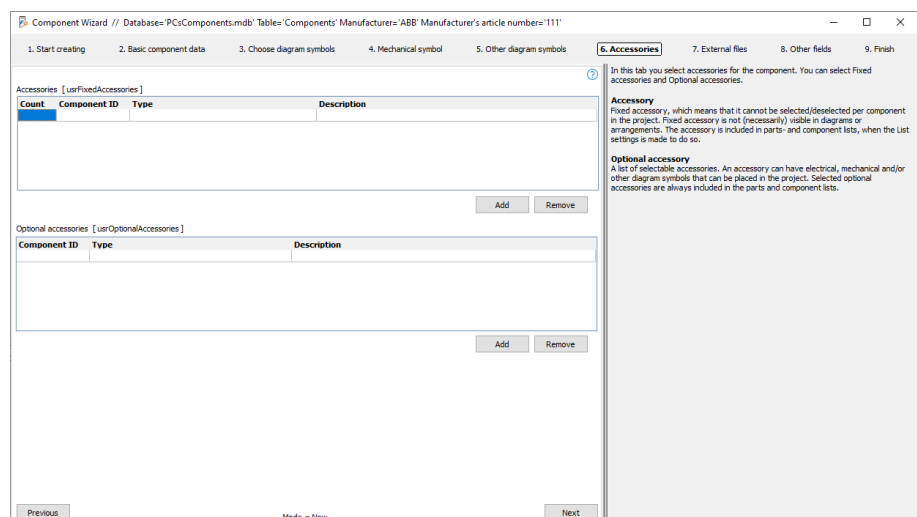
On the Other diagram symbols tab, you can select appropriate symbols for other diagram types.



Accessory

Accessories can be selected in two categories – fixed and optional.

They are added with ComponentId, i.e. it is easiest to use the wizard when adding accessories.



Create plc

When creating plcs, the old 'total' is gone.

You simply add channels to the list, including whether they should be with different IO status types.

The screenshot shows the '3. PLC' tab of the Component Wizard. It features a table for configuring channels with columns for Variants, Channels, IO Status, and IO Status Type. The table contains four rows of configuration options, each with 'Remove series' and 'Add series' buttons. To the right, there is a 'How to create a PLC in the database' section with instructions. At the bottom, there is a 'Path to PLC-Directory' field and an 'Include subfolders' checkbox.

Variants	Channels	IO Status	IO Status Type		
[Ia] 1	4	Input	AI~4-20mA	Remove series	Add series
[Ib] 1	4	Input	AI~Temp	Remove series	Add series
[Ic] 1	6	Output	DO~Relay	Remove series	Add series
[Id] 1	2	Other	None	Remove series	Add series

It's easy to choose symbols when the new ones are used 😊

You select symbols for top and bottom in the Other symbols tab .

The screenshot shows the '4. PLC' tab of the Component Wizard. It displays a 'Select reference symbol' dialog box with a grid for selecting symbols. The dialog box has 'Ok' and 'Cancel' buttons. To the right, there is a 'Diagram symbols for the PLC' section with instructions. Below the dialog box, there is a table for 'Name' and 'Function'.

Name	Function
1	1

Edit plc

If the plc is created using the Component Wizard, it can be edited by the Component Wizard.

If you want to edit 'our' new plc's, you can use the Wizard for that, too.

Many old plcs can also be edited in version 23, but not all, unfortunately. Instead, consider creating the component in the new version instead.

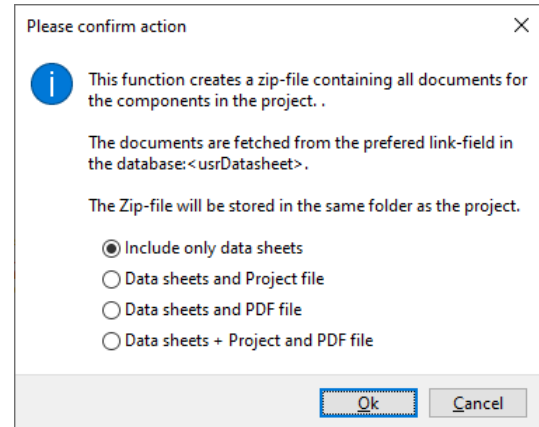


LINKED DATA SHEETS CAN BE ZIPPED

The zip function, which can create a zip file with associated datasheets, has gained additional functionality, being able to zip both datasheets and the project file in different editions.

The zip file is stored in the same folder as the project itself and is called the same as the pro file, e.g. PCSDEMO3_documents.zip.

A warning will come if the folder is read-only.



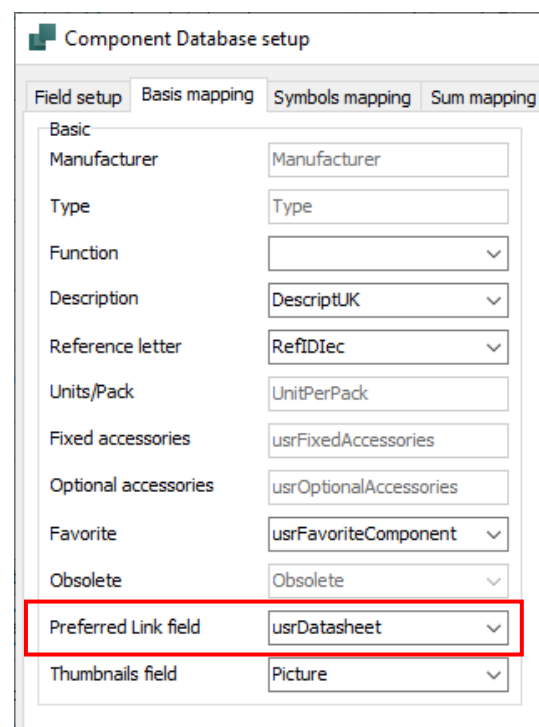
Zip also projekt and pdf files *

The project file – x.pro – and the pdf file of the same must be in the same folder in order to be packed with.

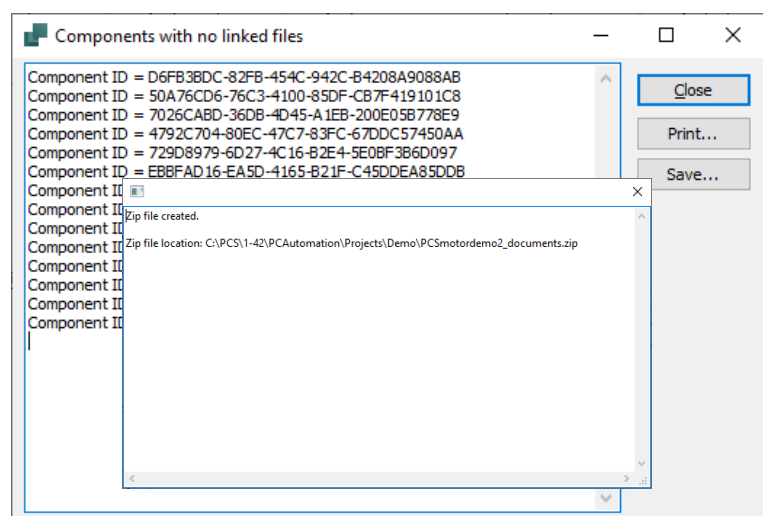
Datasheets

The tool retrieves the files that are perceived as data sheets for the project's components.

If there is a link to a datasheet in the Preferred Link field – usrDatasheets – it is selected for the zip file.



When you use the zip function, you get a list of the components that do not have an associated data sheet.

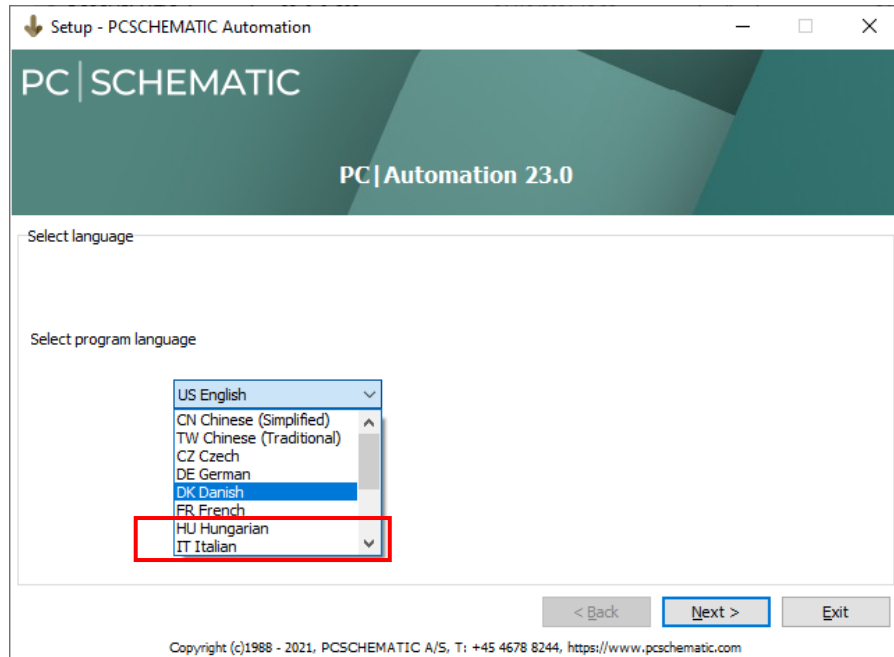


ONE INSTALLER AND OTHER LANGUAGE ISSUES

Something we at PCSCHMATIC are very much looking forward to is that in the future there will only be one program and one installer, i.e. you choose the language/country during installation – of course, it can still be changed in the program. This is possible because now there is only one database.

Today there is only one installer for Automation Viewer and for Automation Service, too.

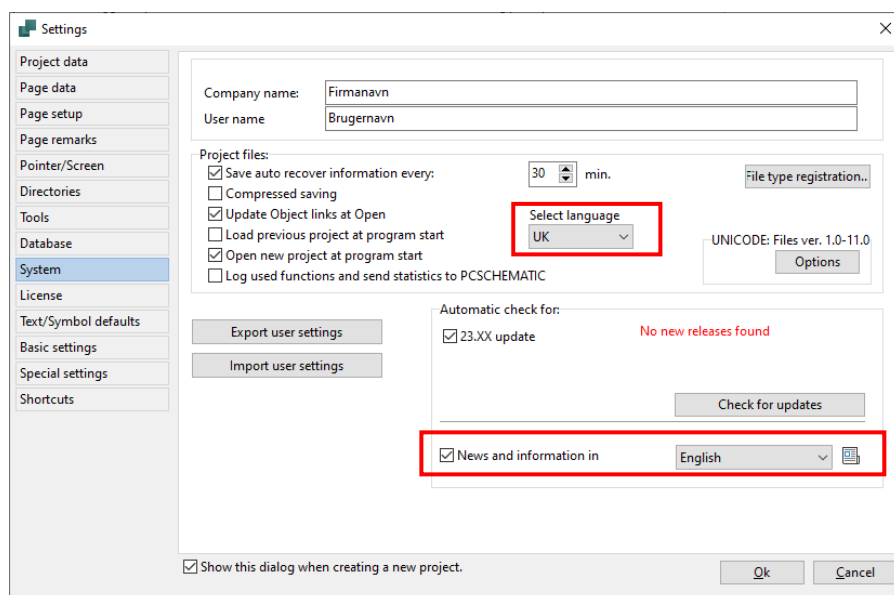
If a selected language misses a text, it will be displayed in English in the present, and so it is now.



In Settings|System, you can change your program language, and the choice will change the user interface.

However, in some dialogs only after restarting the program.

You also choose the language in which you get your news and other information.

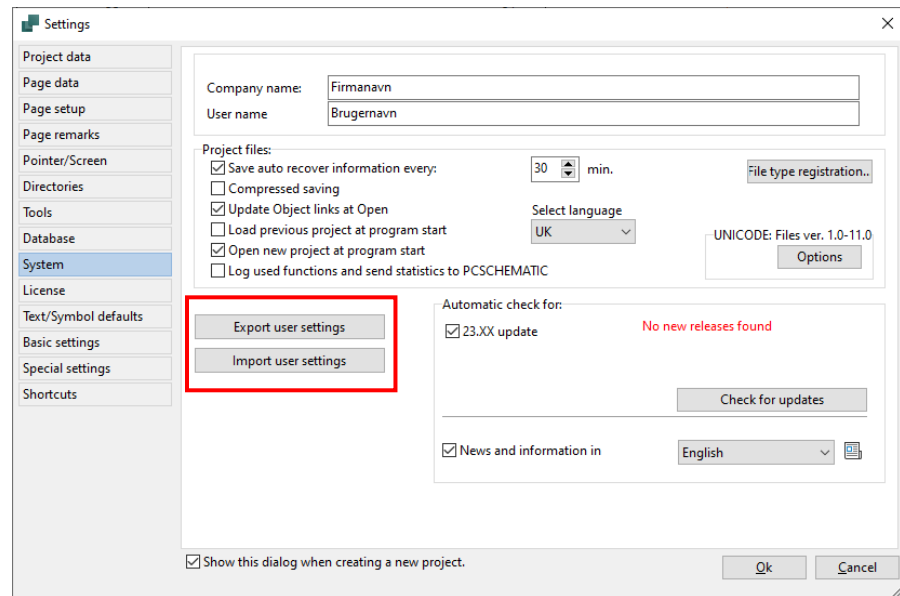


Export * / Import user settings

From the latest version 22, you can also export your own settings, which can be imported from version 23.

In version 23, one can import these settings.

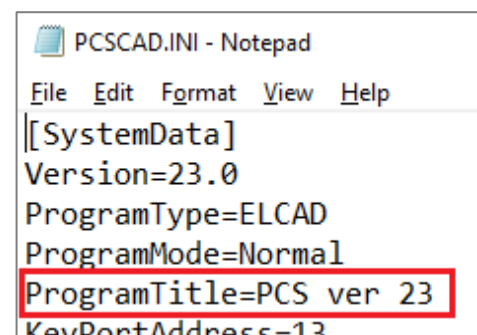
There is a detailed Help for the feature.



Possible to have two Automation programs opened simultaneously

You can have more than one version of the program open at the same time. However, it requires a small addition in PCSCAD.ini.

You only use one license on your machine; in turn, you *cannot* copy between the programs.



Follow connected is default disabled

After many prompts, Follow Connected is now default disabled.

Follow Connected is the function that makes 'red lines give red symbols'. The option is located at the bottom of text/Symbol defaults.



