

Scheme Editor 6.3

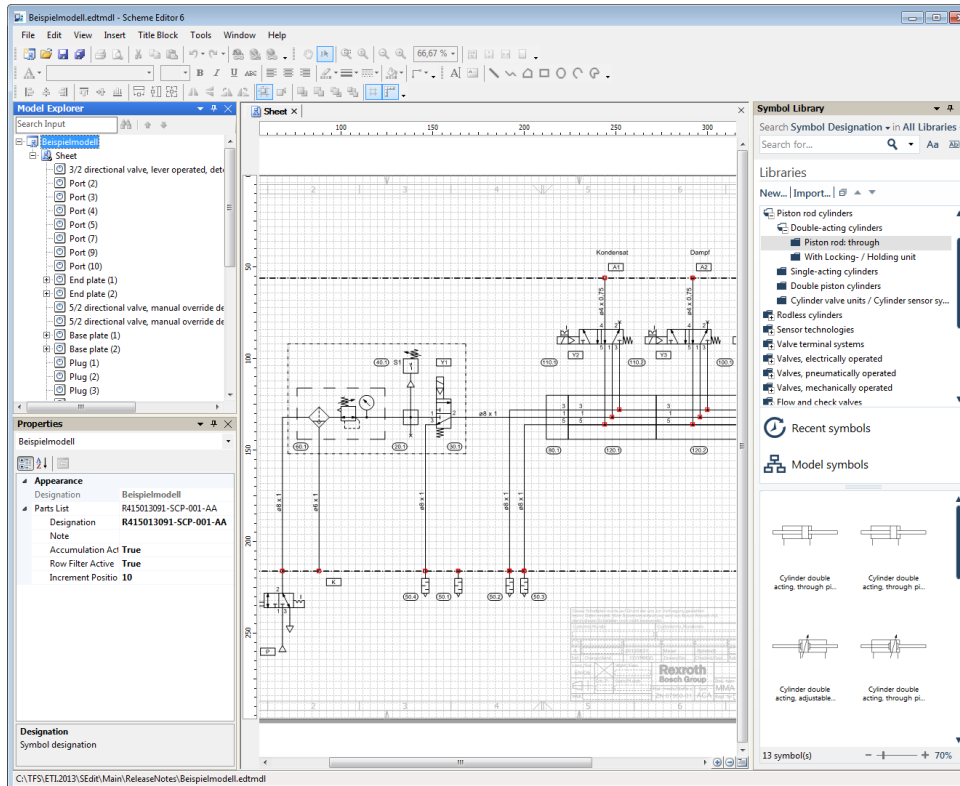


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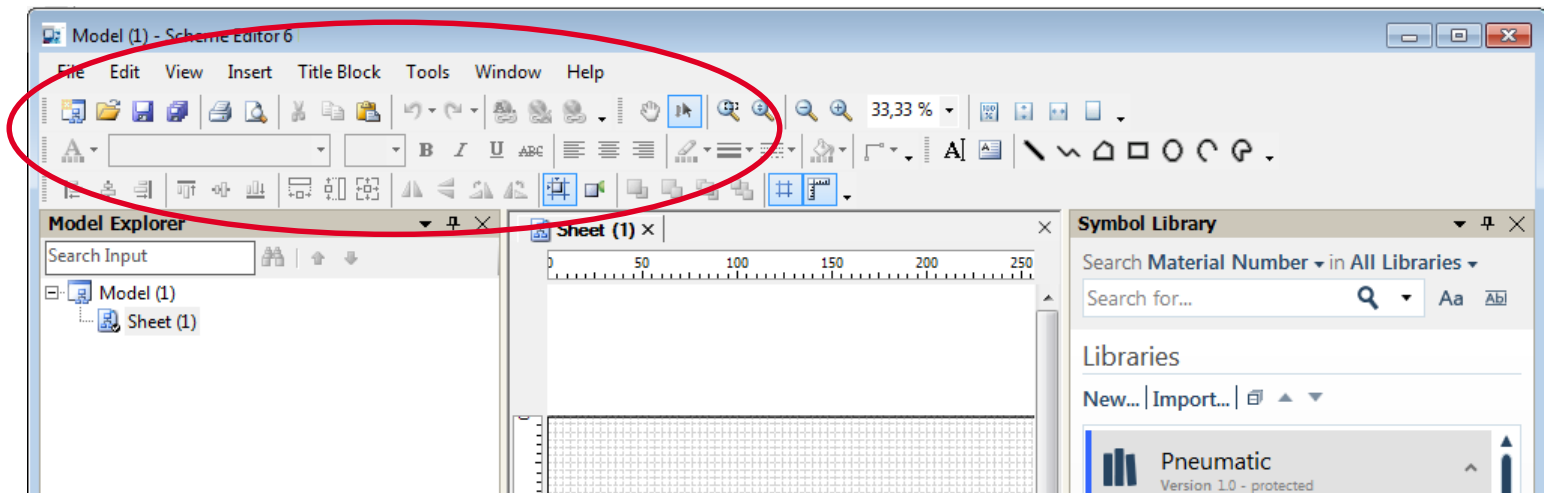
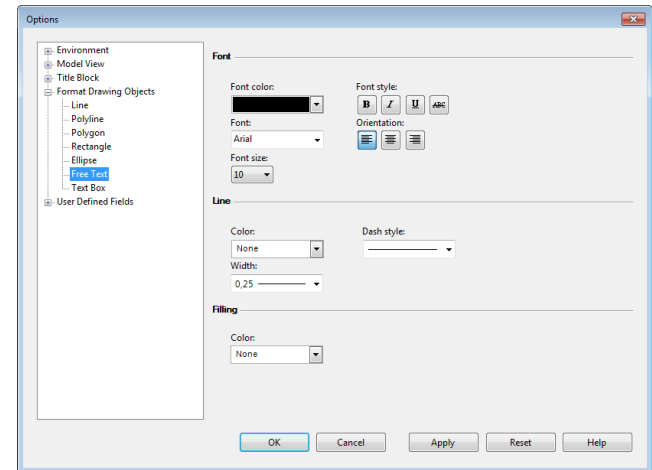
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Software Features

- Easy to use software to create pneumatic diagrams for communication with customers
 - For free
 - No CAD license needed
 - Windows look & feel
 - Easy to use
- Download from internet
- Languages: de, en
- Documentation: Online help and PDF
- Operating systems: Windows 7

Desktop (Windows look & feel)

- Main menu and toolbars
- Tool- and document windows
- Online help
- Options dialog
- AboutBox



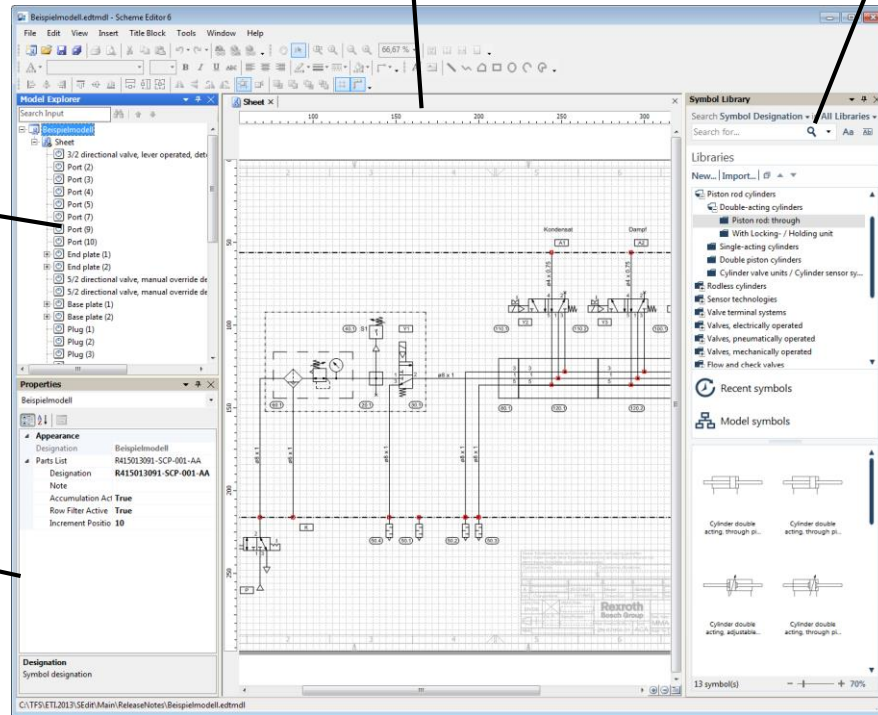
Tool- and Document Windows

Model Explorer

Properties

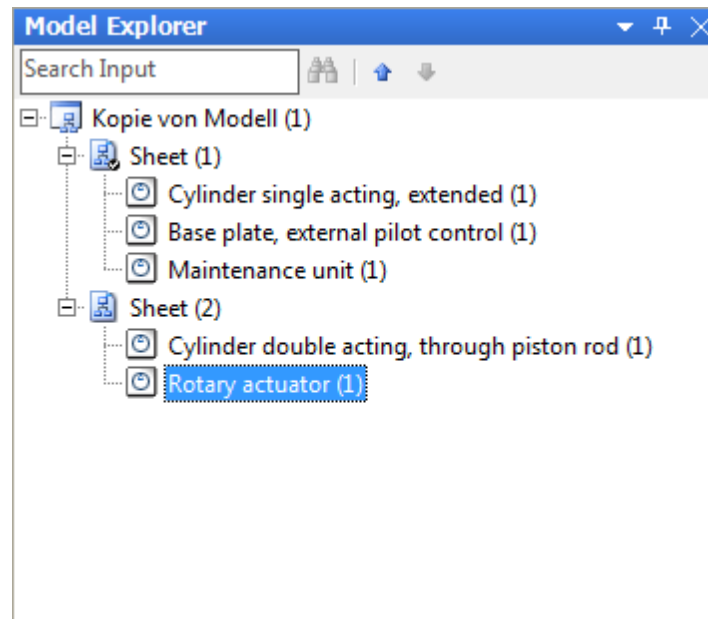
Sheet

Library



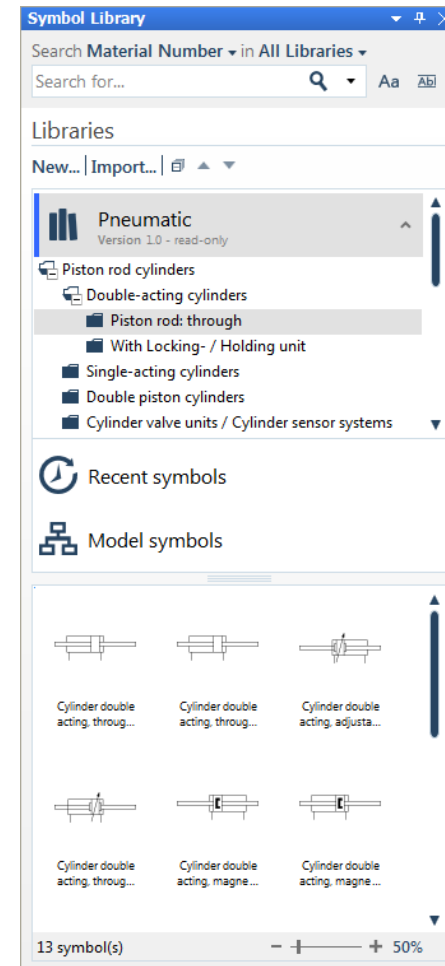
Model Explorer

- Working with multiple sheets
- Drag & Drop mechanism



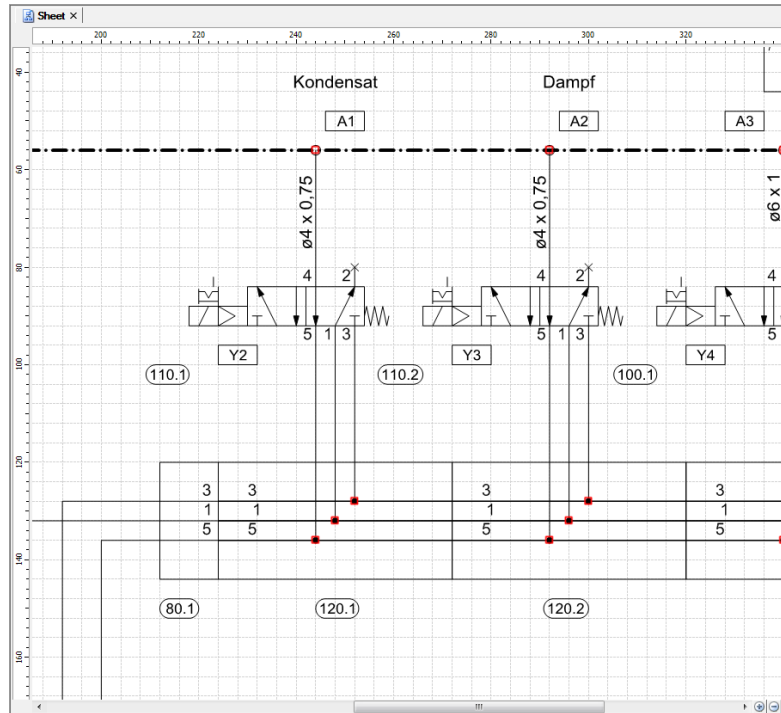
Library

- All symbols of pneumatics
- Create your own libraries
- Most recently used symbols
- Overview of all symbols used
- Integrated search



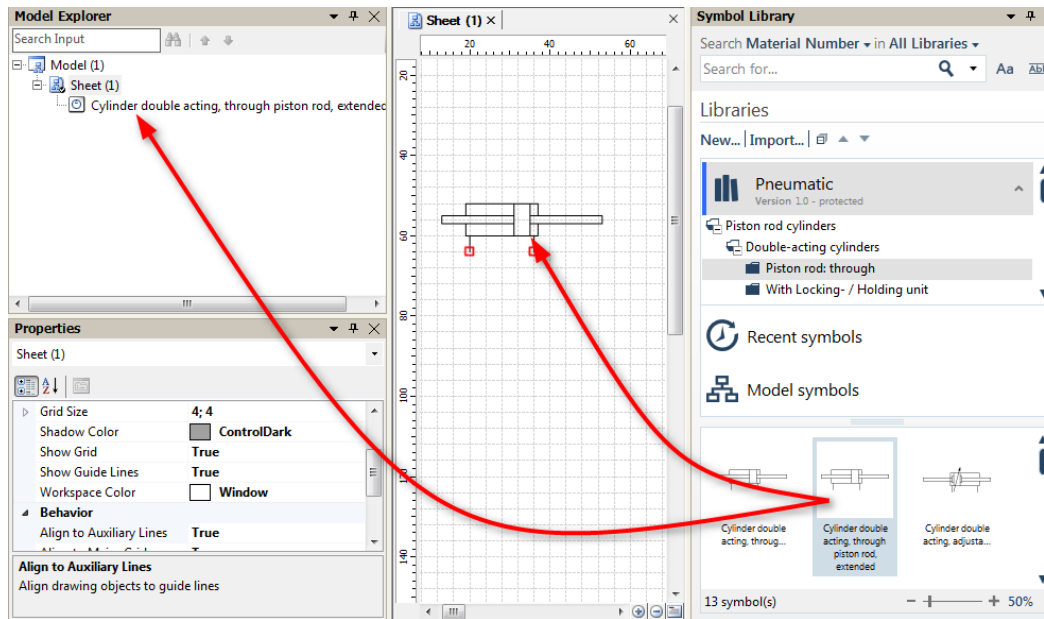
Sheet

- Represents the pneumatic diagram



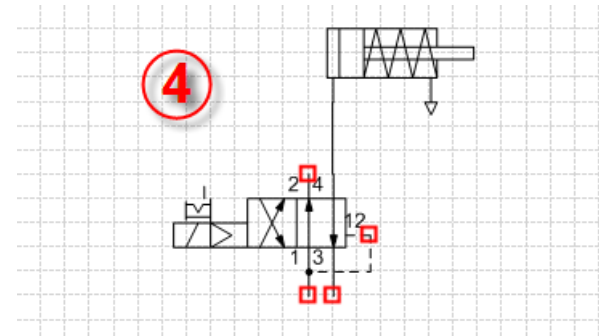
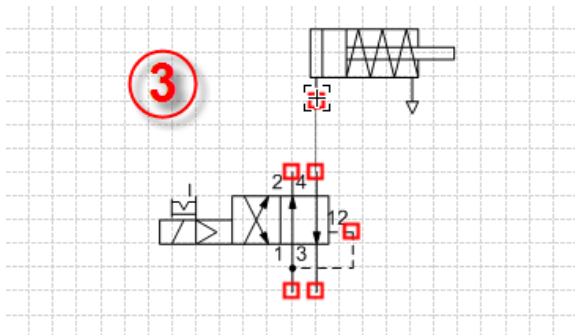
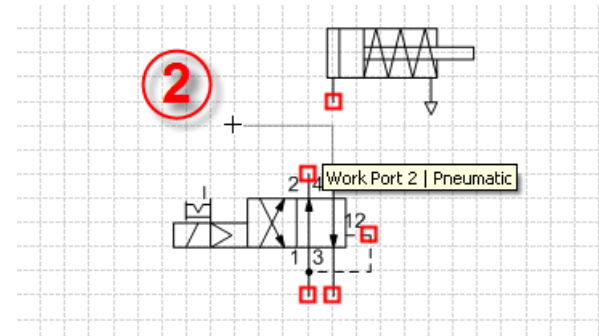
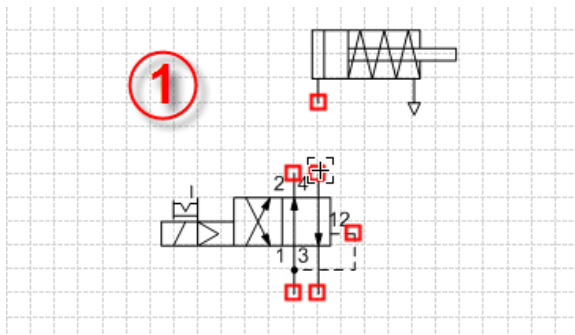
Drag & Drop

- Symbols can per Drag & Drop be placed on sheet or in model explorer.
- Via multi selection, multiple symbols can be inserted with one Drag & Drop step.



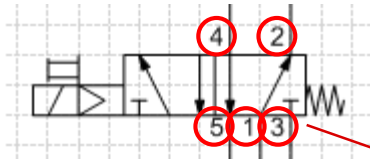
Connections

- With very few mouse clicks symbols can be inserted from the library and be connected to a complete pneumatic diagram.

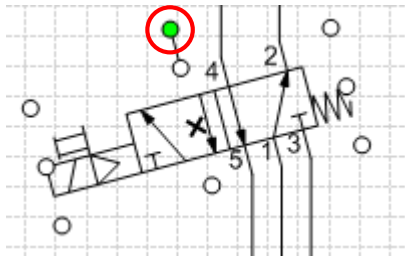


Additional Features

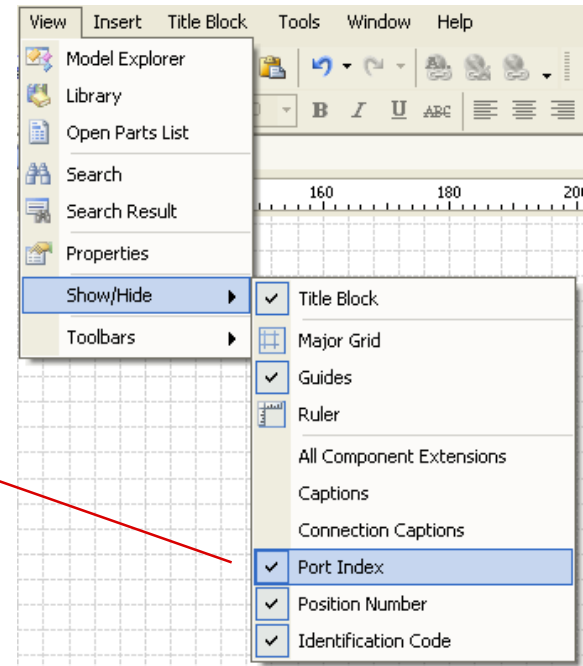
- Show / hide, e.g. port index



- Rotate symbols
in 15 degree steps

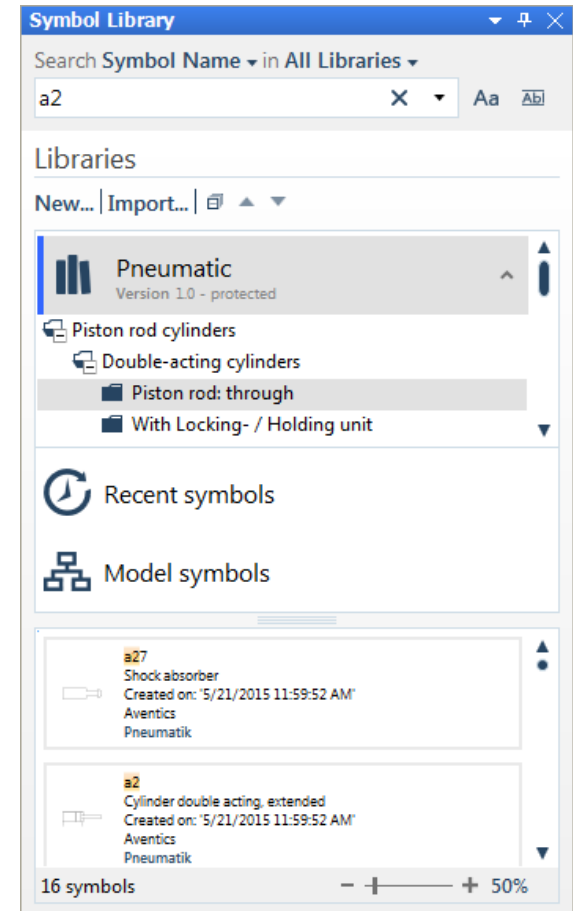


- Align symbols to grid, that the ports get aligned



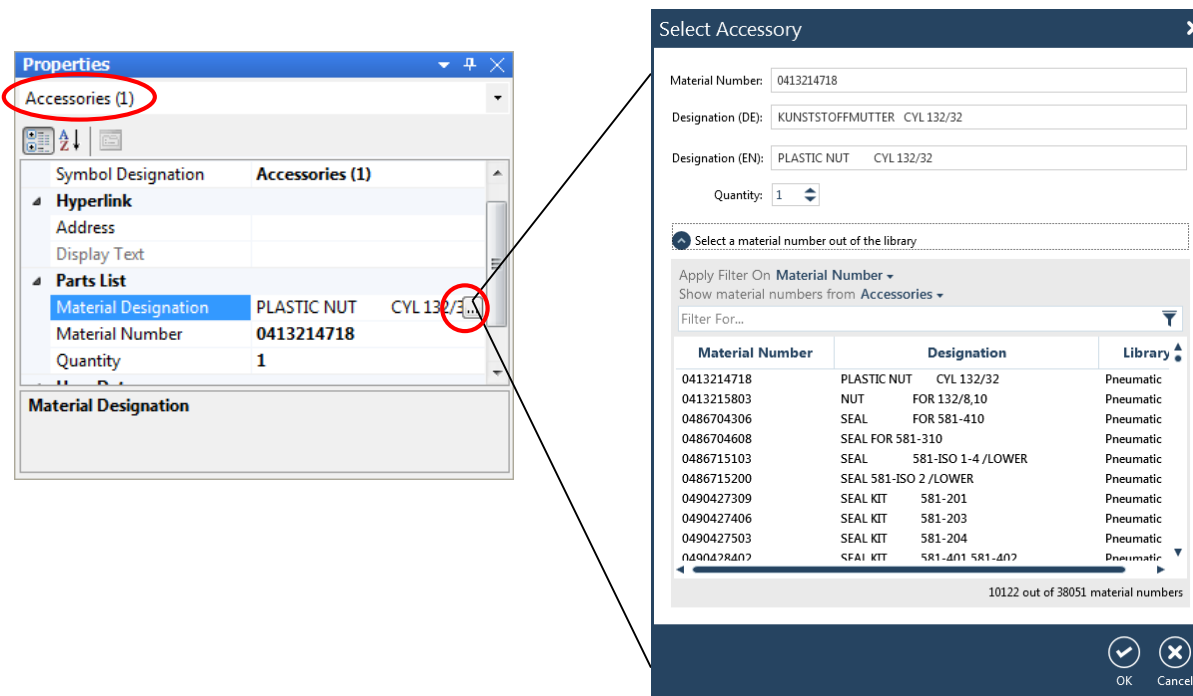
Search for Symbols

- In the library
 - Symbol Name
 - Symbol Designation
 - Material Number
 - Material Designation



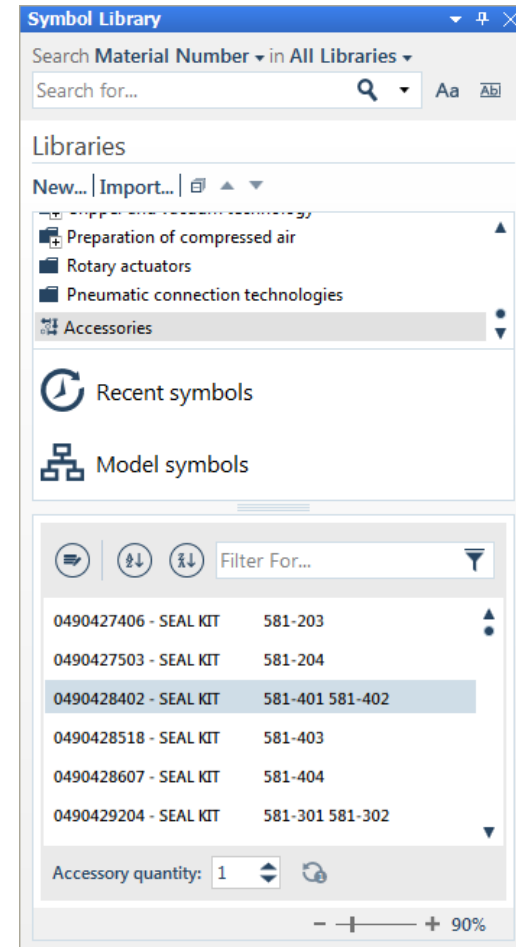
Search for Accessories

- All products without pneumatic symbol, e.g. fittings, brackets
- Search via material number (or part of it), or description
- Open accessories search dialog via properties dialog



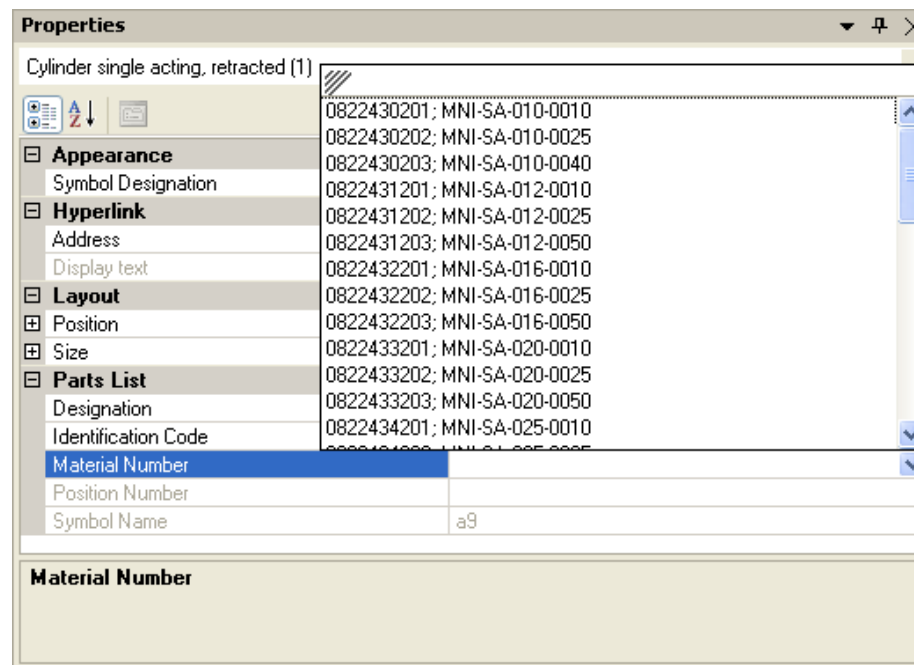
Accessories in the library

- Accessories in the libraries
- List all accessories
- Filter the accessories
- Set the quantity



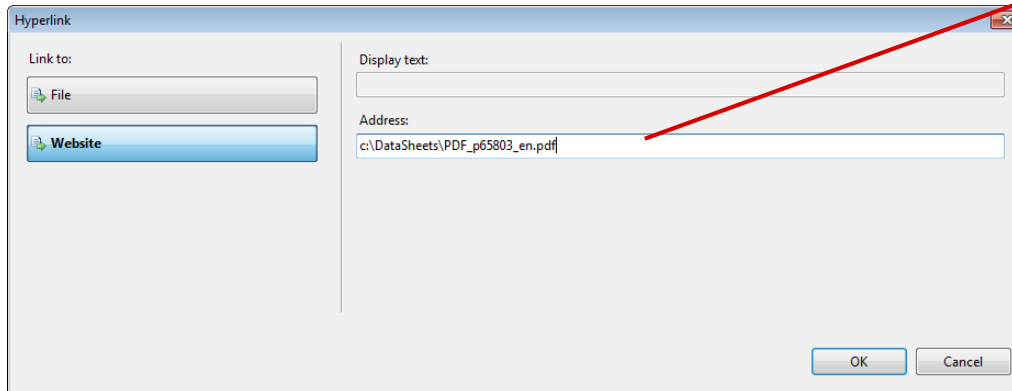
Properties dialog

- Selection of material number and description (can also be edited manually)
- Edit position number and/or identification code



Properties dialog


- Insert/add hyperlink
e.g. to PDF data sheet or to online catalog



Bosch Rexroth AG | Pneumatics 1

Kolbenstangenzyylinder → Kurzhub- und Kompaktyylinder

Serie KHZ
► Ø 12 - 63 mm ► Anschlüsse: M5 - G 1/8 ► doppelwirkend ► Dämpfung: elastisch



Umgebungstemperatur min./max. -25°C / +80°C
Mediumentemperatur min./max. -25°C / +80°C
max. Partikelgröße 50 µm
Ölgehalt der Druckluft 0 mg/m³ - 5 mg/m³
Druck zur Bestimmung der Kolbenkräfte 6,3 bar

Werkstoffe:
Zylinderrohr Aluminium, eloxiert
Kolbenstange Nichtrostender Stahl
Kolben Nitril-Kautschuk
Deckel hinten Aluminium
Abstreifer Polyurethan

Technische Bemerkungen:
 ■ Der Drucktaupunkt muss mindestens 15 °C unter der Umgebungs- und Mediumentemperatur liegen und darf max. 3 °C betragen.
 ■ Der Ölgehalt der Druckluft muss über die gesamte Lebensdauer konstant bleiben.
 ■ Verwenden Sie ausschließlich von Bosch Rexroth zugelassene Öle, siehe Kapitel „Technische Informationen“.

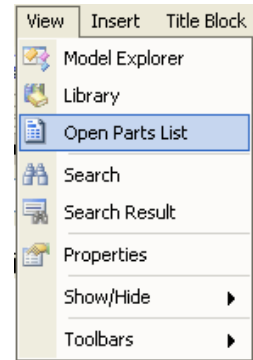
Kolben-Ø	[mm]	12	16	20	25	32
Kolbenkraft einfahrend	[N]	53	95	148	260	425
Kolbenkraft ausfahrend	[N]	71	127	198	309	507
Auflageenergie	[J]	0,04	0,06	0,08	0,1	0,16
Gewicht 0 mm Hub	[kg]	0,038	0,063	0,082	0,164	0,199
+10 mm Hub	[kg]	0,048	0,085	0,108	0,198	0,246
Beitriebsdruck min./max.	[bar]	1 - 10	1 - 10	1 - 10	1 - 10	0,6 - 10
Bem.		1)	1)	1)	1)	2)

Kolben-Ø	[mm]	40	50	63
Kolbenkraft einfahrend	[N]	720	1110	1837
Kolbenkraft ausfahrend	[N]	792	1237	1964
Auflageenergie	[J]	0,24	0,32	0,38
Gewicht 0 mm Hub	[kg]	0,285	0,388	0,536
+10 mm Hub	[kg]	0,337	0,456	0,726
Beitriebsdruck min./max.	[bar]	0,6 - 10	0,6 - 10	0,6 - 10
Bem.		2)	2)	2)

1) Werkstoff Deckel: Messing
2) Werkstoff Deckel: Aluminium

Parts List

- with position- and material numbers
- with accessories
- can be printed
- can be exported or be copied into other applications



Pneumatik_FRL-step8_Ende [Parts List] ×

Model:
Pneumatik_FRL

Note:

Pos.	Material Number	Designation	Qty.
	N.N.	Druckluftquelle (1)	1
	N.N.	Anschluss (6)	1
	N.N.	Kopie von Anschluss (6)	1
	N.N.	Kopie (2) von Anschluss (6)	1
10	R412007261	AS3-BAV-G012-MAN	1
20	R412007223	AS3-FRE-G012-GAN-100-PBP-AC-40.00	1
30	R412007017	AS3-FLS-G012-SSS-AC-05,00	1
40	R412007251	AS3-DIS-G012-NC3	1
60	R412007053	AS3-FLC-G012-SSS-AC-00,01	1
70	R412004416	PG1-ROB-G014-SAS-D50P(0-6)	2
80	2122010120	QR1-S-RVT-G012-DA10	2
90	2122010380	QR1-S-RVT-G038-DA10	2
100	2122010140	QR1-S-RVT-G014-DA10	1
110	8639001200	FPT-S-RBI-G012	1
120	R412004417	PG1-ROB-G014-SAS-D50P(0-10)	1
130	R412004416	PG1-ROB-G014-SAS-D50P(0-6)	2
140	1827000003	SCHALLDAEMPFER	1

Parts List

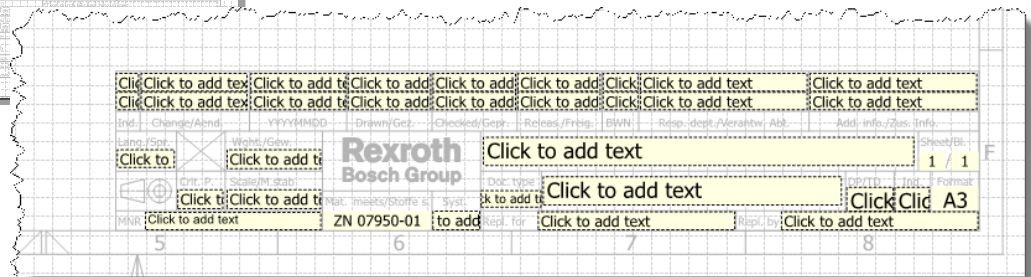
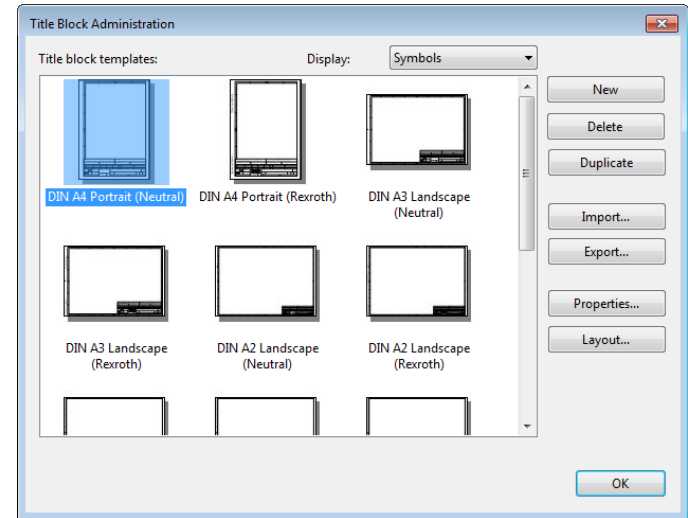
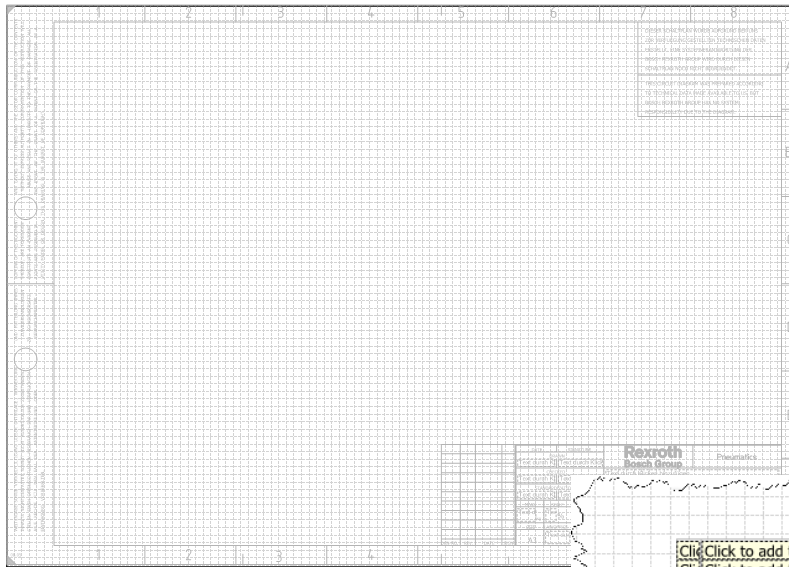
Model:
Pneumatik_FRL

Print Preview

Pos.	Material Number	Designation	Qty.	QU
	N.N.	Druckluftquelle (1)	1	ST
	N.N.	Anschluss (6)	1	ST
	N.N.	Kopie von Anschluss (6)	1	ST
	N.N.	Kopie (2) von Anschluss (6)	1	ST
10	R412007261	AS3-BAV-G012-MAN	1	ST
20	R412007223	AS3-FRE-G012-GAN-100-PBP-AC-40.00	1	ST
30	R412007017	AS3-FLS-G012-SSS-AC-05,00	1	ST
40	R412007251	AS3-DIS-G012-NC3	1	ST
60	R412007053	AS3-FLC-G012-SSS-AC-00,01	1	ST
70	R412004416	PG1-ROB-G014-SAS-D50P(0-6)	2	ST
80	2122010120	QR1-S-RVT-G012-DA10	2	ST
90	2122010380	QR1-S-RVT-G038-DA10	2	ST
100	2122010140	QR1-S-RVT-G014-DA10	1	ST
110	8639001200	FPT-S-RBI-G012	1	ST
120	R412004417	PG1-ROB-G014-SAS-D50P(0-10)	1	ST
130	R412004416	PG1-ROB-G014-SAS-D50P(0-6)	2	ST
140	1827000003	SCHALLDAEMPFER	1	ST

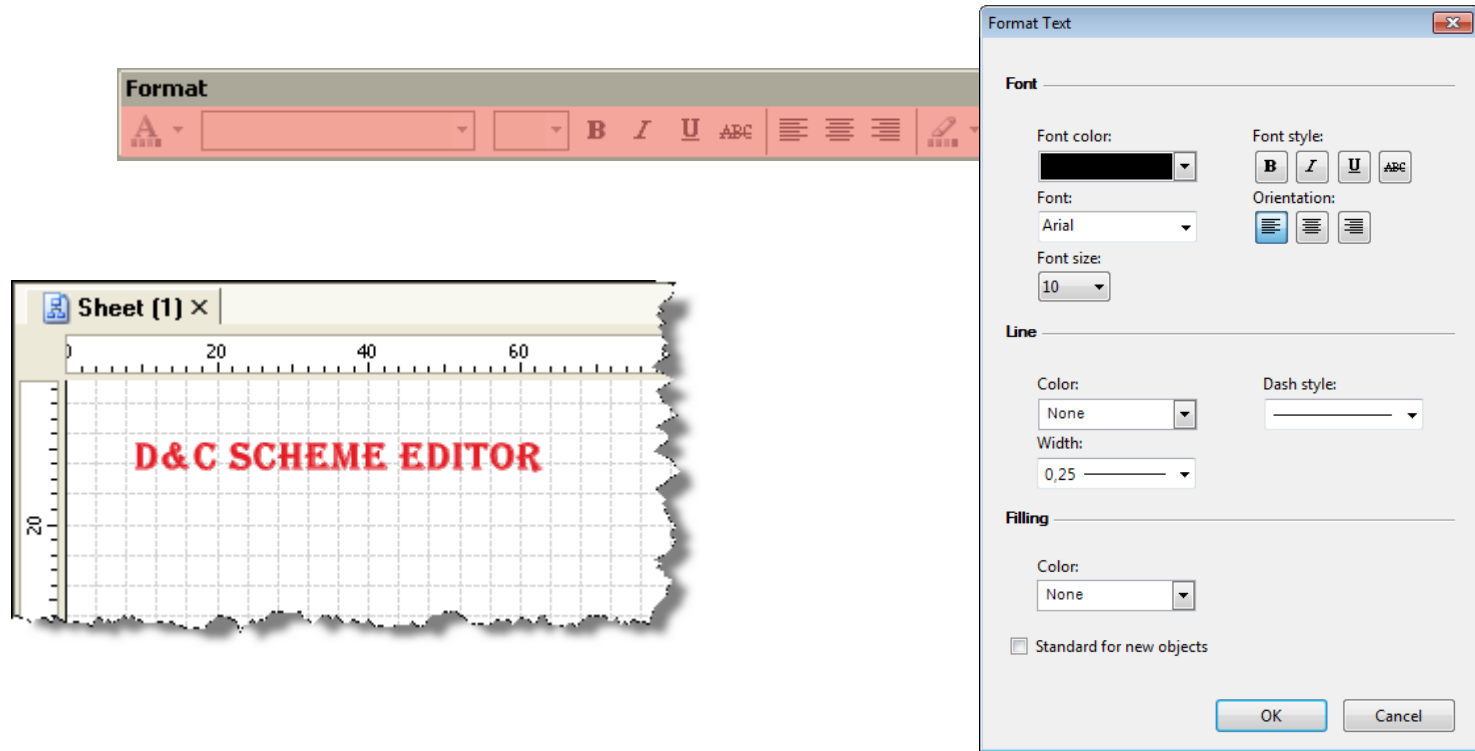
Title Block

- Title Block administration
- dwg import is possible



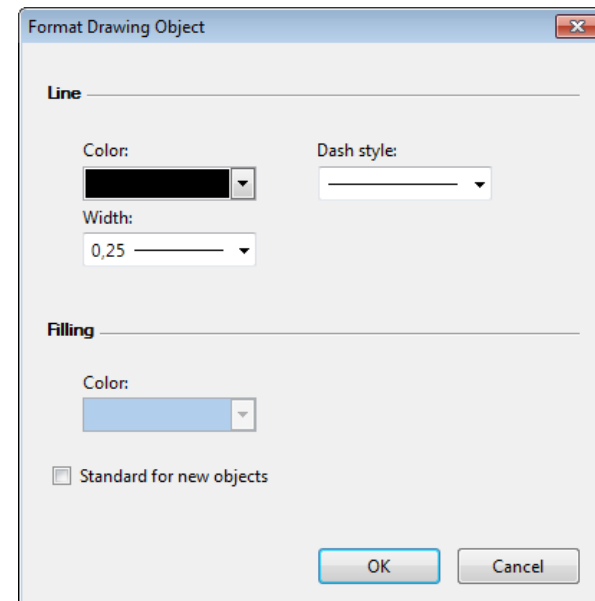
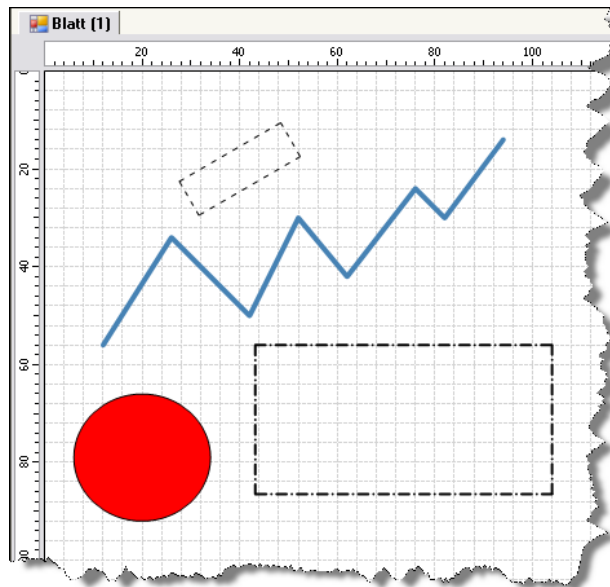
Text

- Text and text field including formatting
 - With this entry fields or dialogs for title blocks can be created



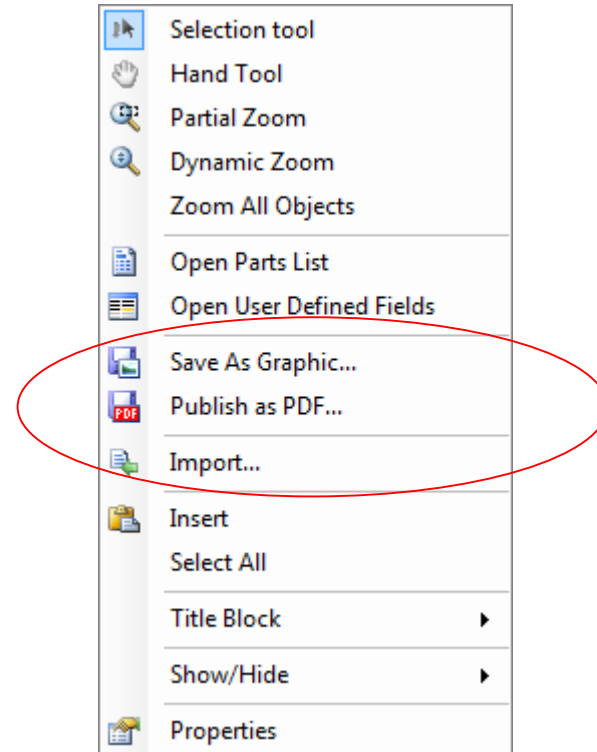
Graphical Elements

- Graphical elements (circle, square, lines) including formatting
 - Possibility to draw aggregate lines



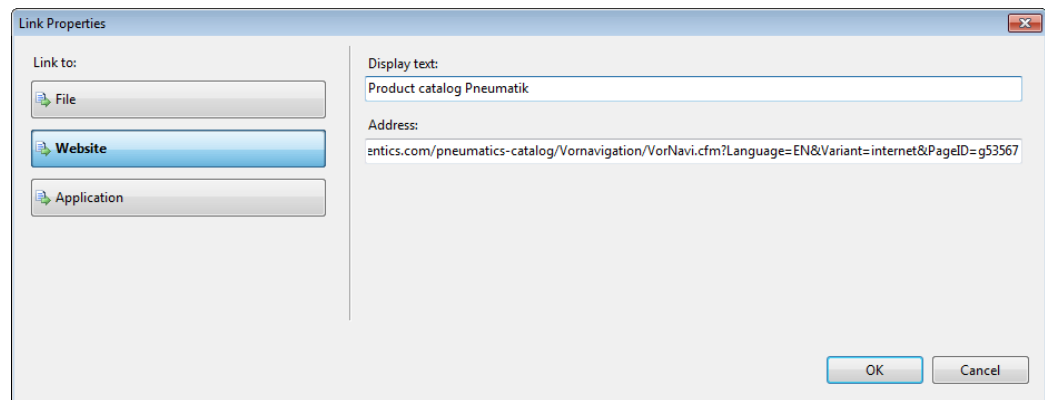
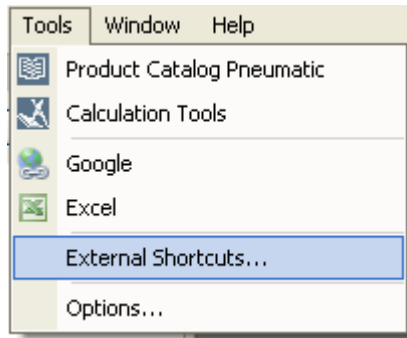
Import into Sheet / Export from Sheet

- Import / Export functions for numerous of data formats
 - CAD Formats: dxf, dwg
 - PDF for documentation purposes
 - Image formats: jpg, tif, usw.



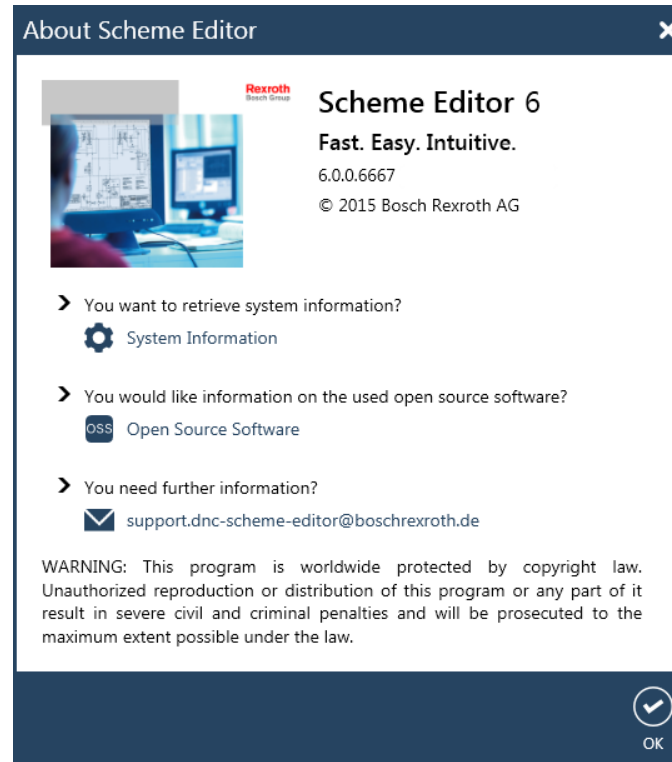
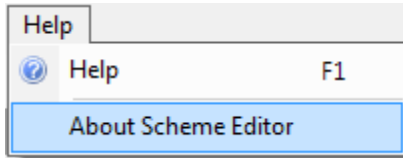
Call of External Programs

- Configurable menu, for executing external programs
- The links to the online catalog and the startpage of the calculation programs are included by default.



Email addresses for support / bugreport

- support.dnc-scheme-editor@boschrexroth.de

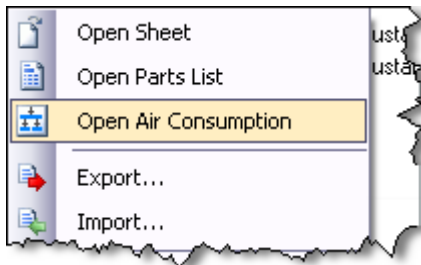


New Features in Version 3

- Air Consumption ([up to Version 5.2](#))
- Sheet Formats added
- Interface from Product Catalog to D&C Scheme Editor
- Search for Symbols
- Graphical Elements added

Air Consumption (up to Version 5.2)

- For the component type cylinder the amount of air consumption is calculated with user-modified parameters and user-created flow chart



The screenshot shows the 'Model [1] [Air consumption]' window. It contains several sections for configuring and viewing air consumption data.

Model Information:

- Model: Model (1)
- Note:

Flow Chart Table:

ID	Description	Component	Action	Duration (s)	Predecessor	Air demand (l)
#1		Rodless cylinder, with integrated guide, adjustable cushioning (1)	Extend	1		11.11
#2		Rodless cylinder, with integrated guide	Retract	1	#1	6.36

Summary:

- Cycle time: 2.00 s
- Air demand: 17.47 l

Settings:

- Cycles/hour: 1800
- Days/week: 5
- Hours/day: 8
- Weeks/year: 52
- Temperature: 20 °C
- Air pressure: 1013 mbar
- Energy demand air production: 0.005 kWh/m³

Air Consumption:

- per cycle: 17.47 l
- per hour: 31.44 m³
- per day: 251.52 m³
- per week: 1257.6 m³
- per year: 6.54e+4 m³

Energy Demand Air Consumption:

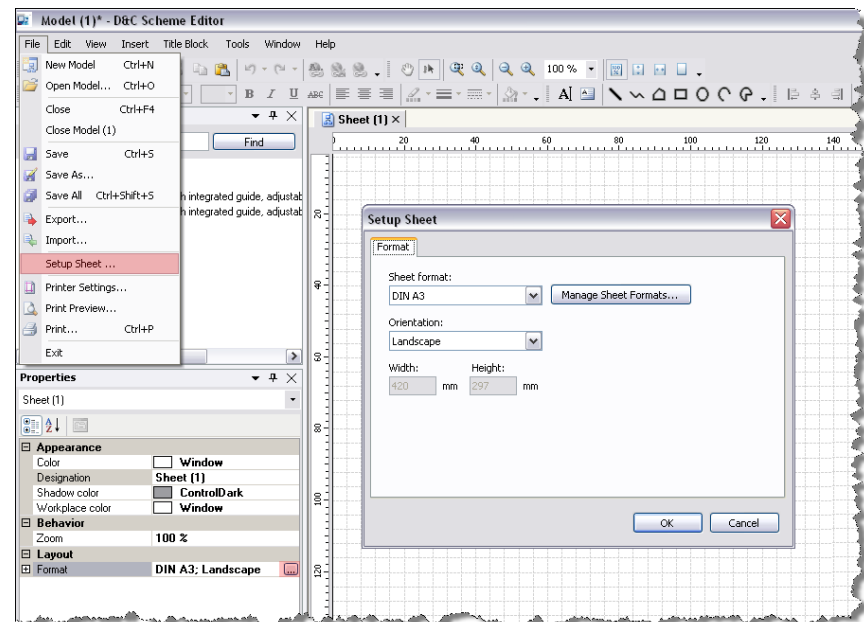
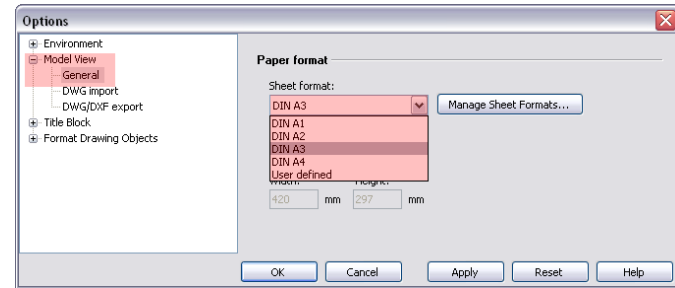
- per cycle: 8.733e-5 kWh
- per hour: 0.16 kWh
- per day: 1.26 kWh
- per week: 6.29 kWh
- per year: 326.99 kWh

Parameters:

Component	Value	Unit
Rodless cylinder, with integrated guide, adjustable cushioning (1)		
Cylinder diameter	100	mm
Cylinder stroke	200	mm
Inner pipe diameter	12	mm
Pipe length	0.3	m
Supply pressure stroke	6	bar
Supply pressure return stroke	3	bar

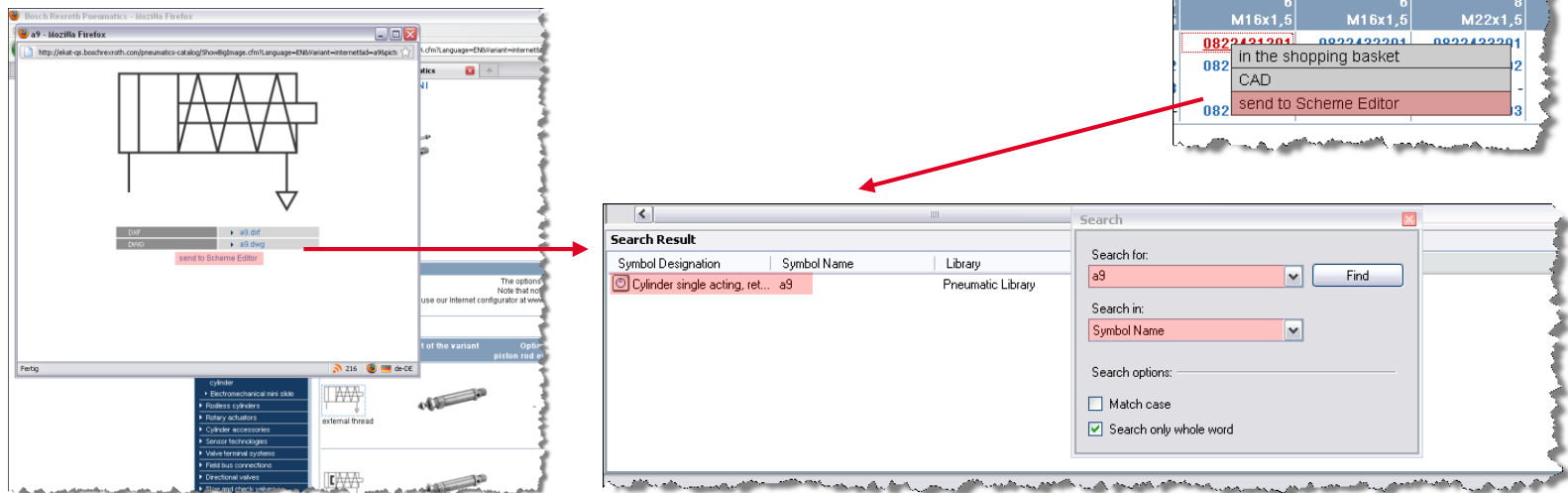
Sheet Formats added

- The default sheet format can be set via options
- For each sheet, the format can be changed subsequently via File ► Setup Sheet
- Title Block formats are available from ISO A1 to ISO A4



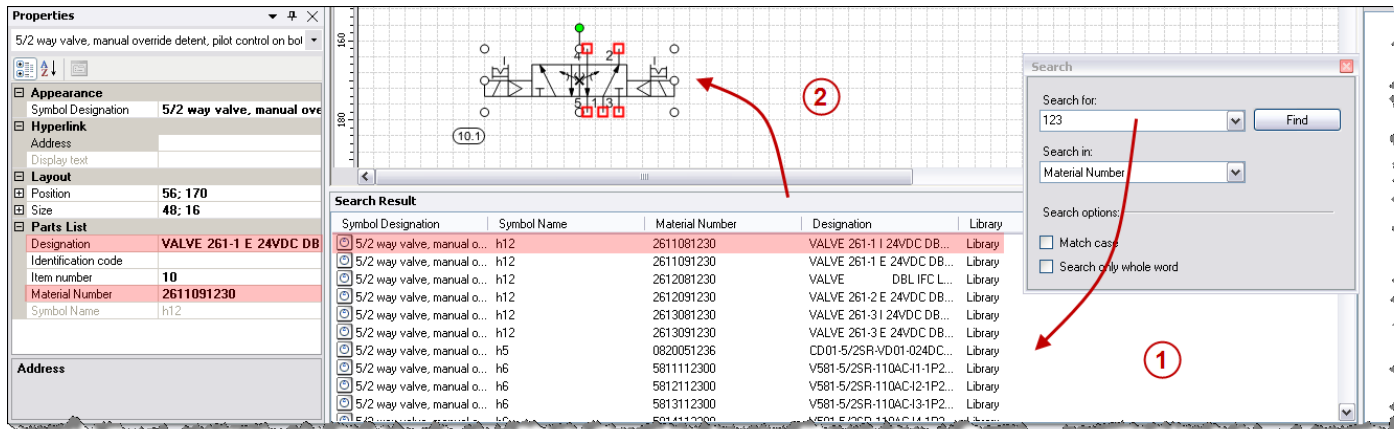
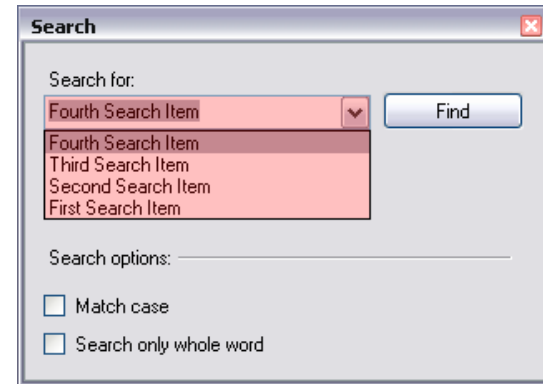
Interface from Product Catalog to D&C Scheme Editor

- Symbols or material numbers are assigned directly from the product catalog into the D&C Scheme Editor
- From search result, the symbol can be inserted into the sheet directly via drag & drop
- While material number's handover, the material number and the designation are assumed



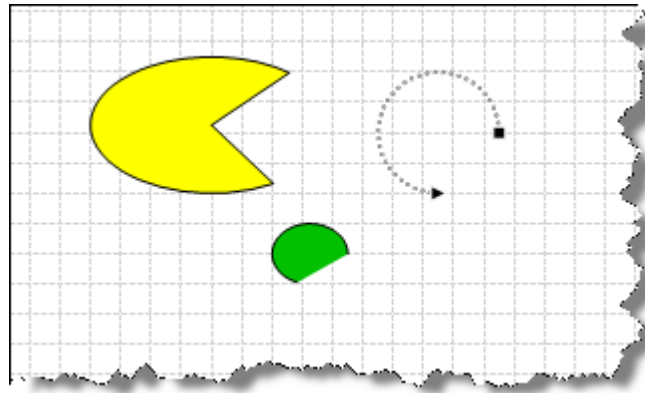
Search for Symbols

- Included search item history in the search dialog
- If a search result is transferred into a sheet, its material number and designation are assumed into the properties



Graphical Elements added

- Elliptical arc
- Elliptical sector

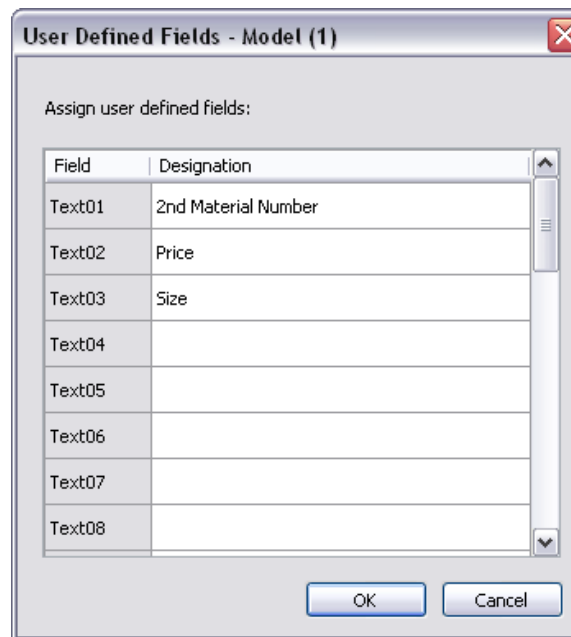
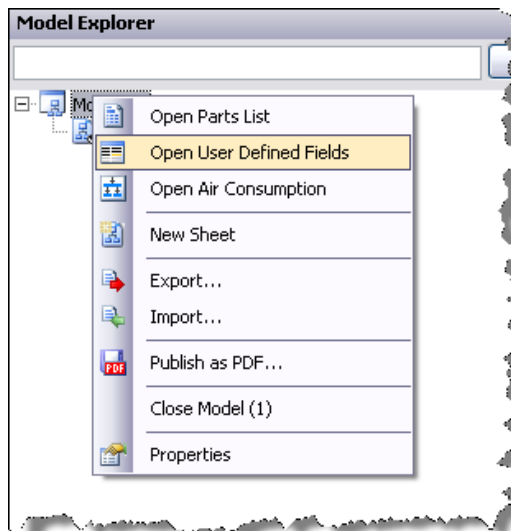


New Features in Version 4

- User Defined Fields
- Row and Column Configuration in Parts List
- ICS Configurator
- Print all / Publish as PDF
- Context-sensitive Help
- Library Layout
- Insert Graphic

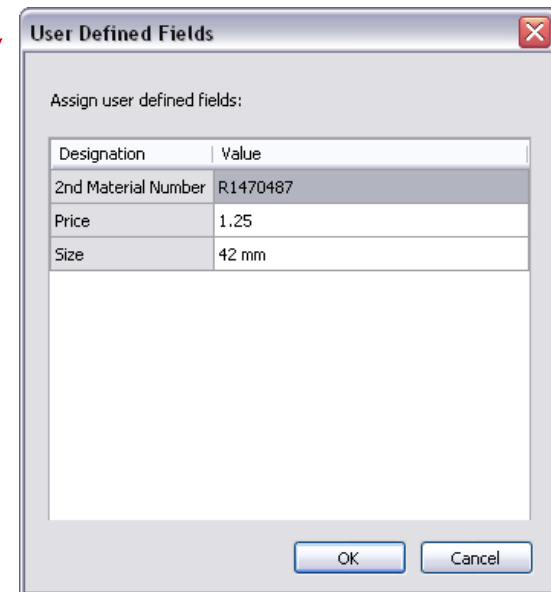
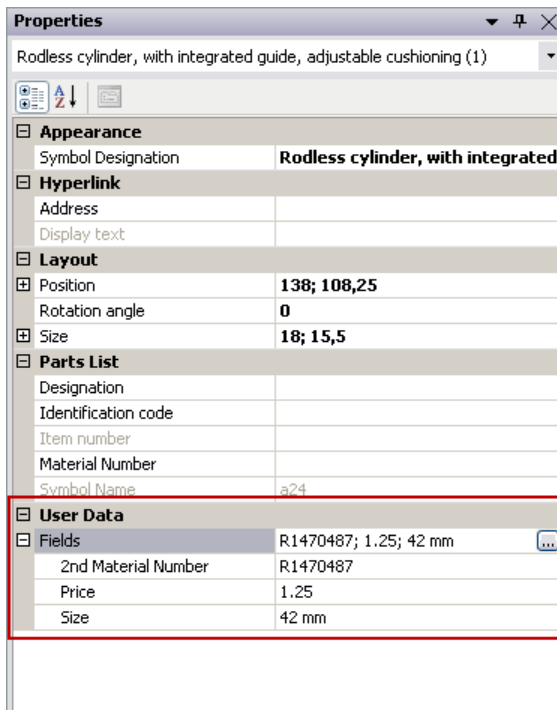
User Defined Fields

- 30 user defined fields per model
- Can be edited individually for each model
- Predefined set for new models can be defined in the options dialog



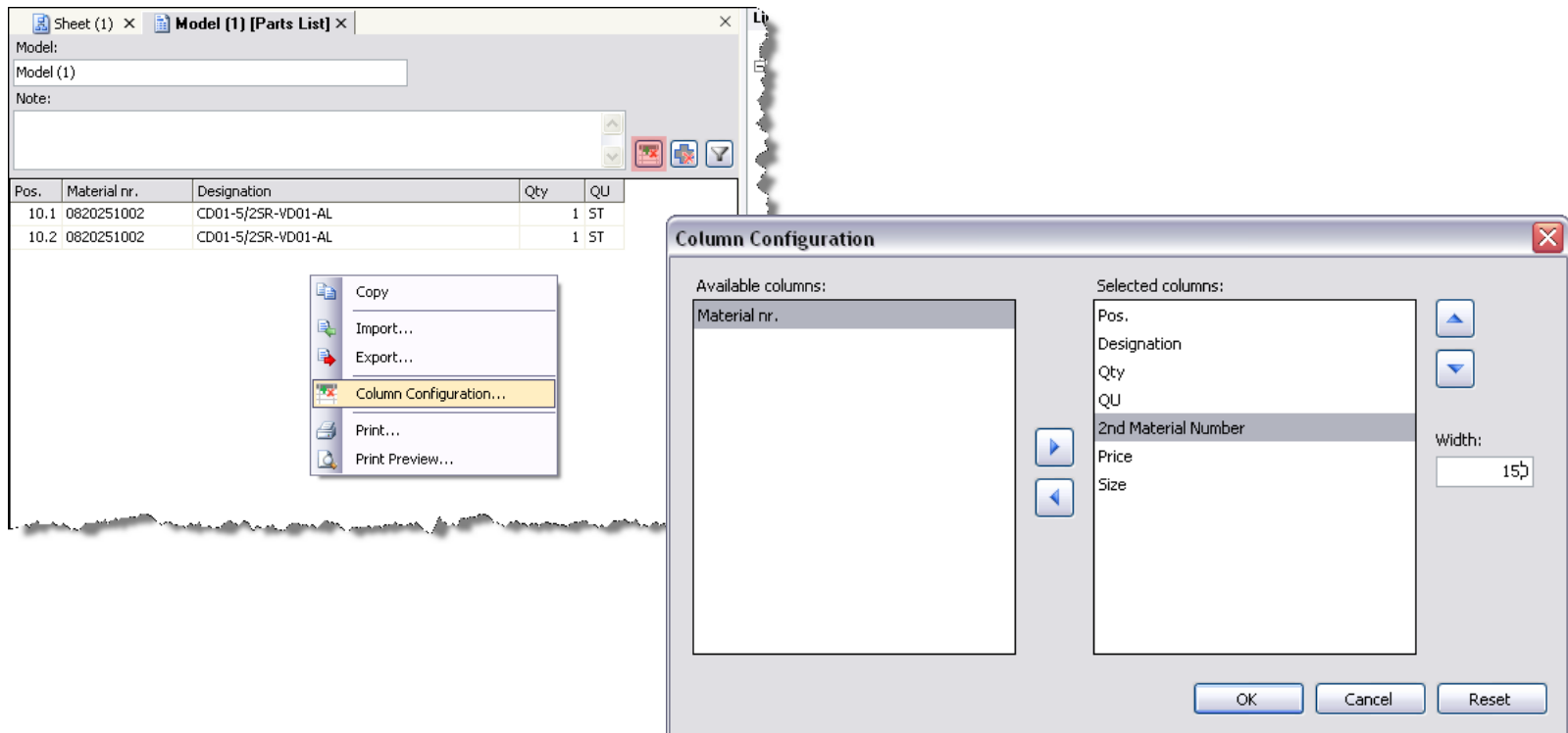
User Defined Fields

- With user defined fields it is possible to set individual informations to the symbols
- This information is visible in the parts list



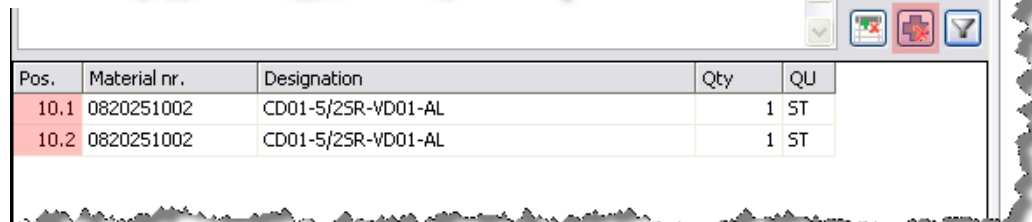
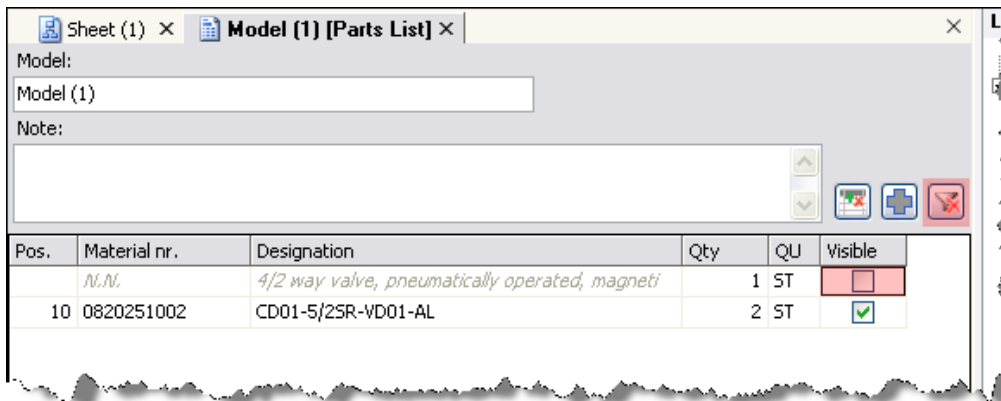
Row and Column Configuration in Parts List

- Order, visibility and width for parts list columns can be configured



Row and Column Configuration in Parts List

- Visibility of rows can be configured and applied through a filter
- Accumulation of symbols with the same material number and designation can be switched on and off



ICS Configurator

- Circuit diagrams for valve terminal systems, maintenance units and so other systems composed with the ICS Configurator can be transferred to D&C Scheme Editor

Language | Imprint | Legal information

Electric Drives and Controls | Hydraulics | Linear Motion and Assembly Technologies | Pneumatics | Service

Search | Contact | Addresses | Sitemap | Shopping basket | Log on

Rexroth
Bosch Group

Product information

- Description
- Technical data
- Product data sheet
- Circuit diagram**
- Dimensional drawing
- Position drawing
- 2D CAD
- 3D CAD

Project

- New
- Use as template
- Open
- Import
- Save

Configuration

- Series: AS2
- Function: ACC
- Basic settings
- Thread connection: G014
- Version
- Pressure range: ≤10 bar
- Air supply: left
- Mounting

Component 1

Component 2

Component 3

Note
To configure the components, please click on the desired symbol in the Block diagram or on the corresponding reference in the configuration at right.

FRL maintenance units
AS2-ACC-G014

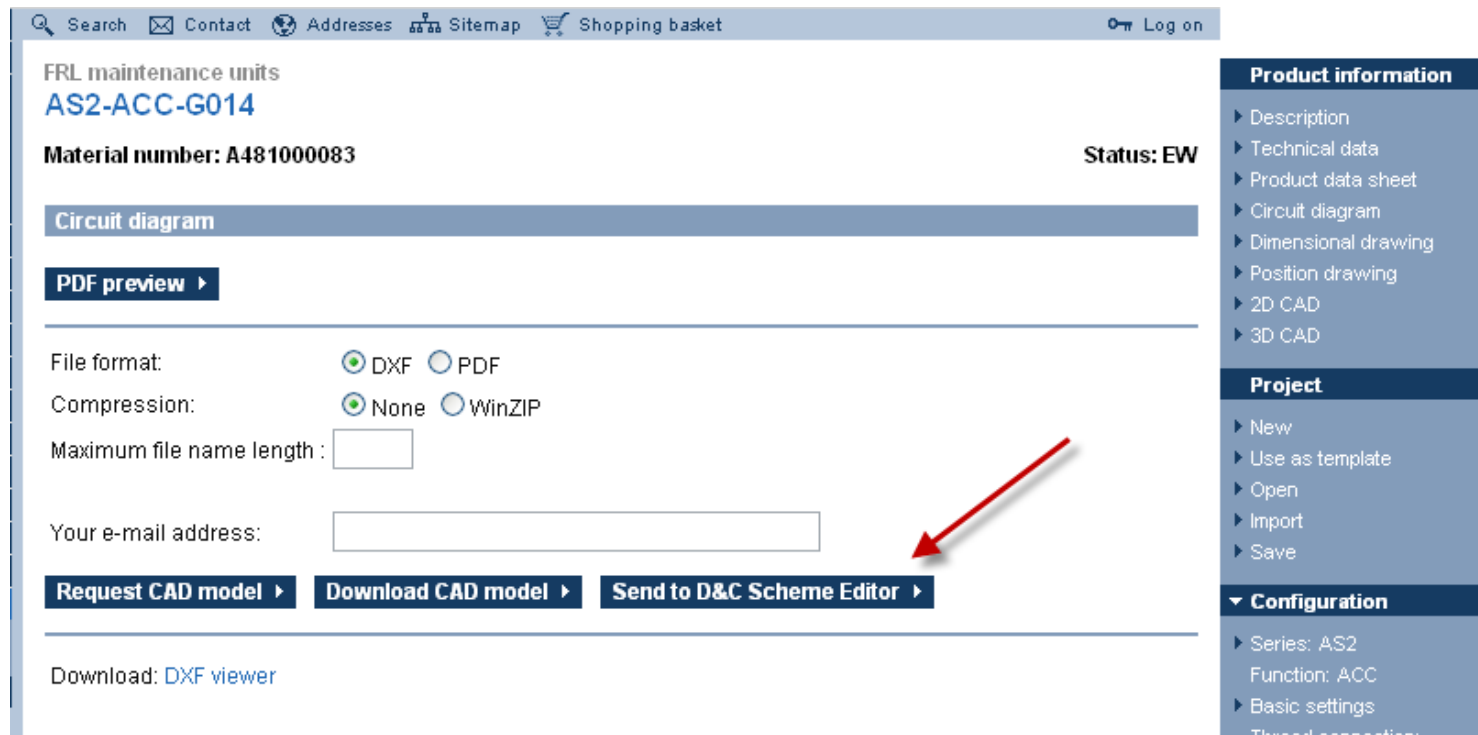
Material number: A481000083 **Status:** EW

List price: Testpreis für R410100005 EUR

Description		
Series	AS2	Thread connections 1/4 or 3/8 Nominal flow up to 2700 Nl/min
Function	ACC	Maintenance unit configured
Thread connection	G014	Thread connection G1/4
Version		Standard version
Pressure range	≤10 bar	
Air supply	left	

ICS Configurator

- Transfer from ICS Configurator is similar to transfer components from product catalog



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FRL maintenance units
AS2-ACC-G014

Material number: A481000083 Status: EW

Circuit diagram

PDF preview

File format: ☒ DXF ☐ PDF
Compression: ☒ None ☐ WinZIP
Maximum file name length :
Your e-mail address:
Request CAD model **Download CAD model** **Send to D&C Scheme Editor**
Download: [DXF viewer](#)

Product information

- ▶ Description
- ▶ Technical data
- ▶ Product data sheet
- ▶ Circuit diagram
- ▶ Dimensional drawing
- ▶ Position drawing
- ▶ 2D CAD
- ▶ 3D CAD

Project

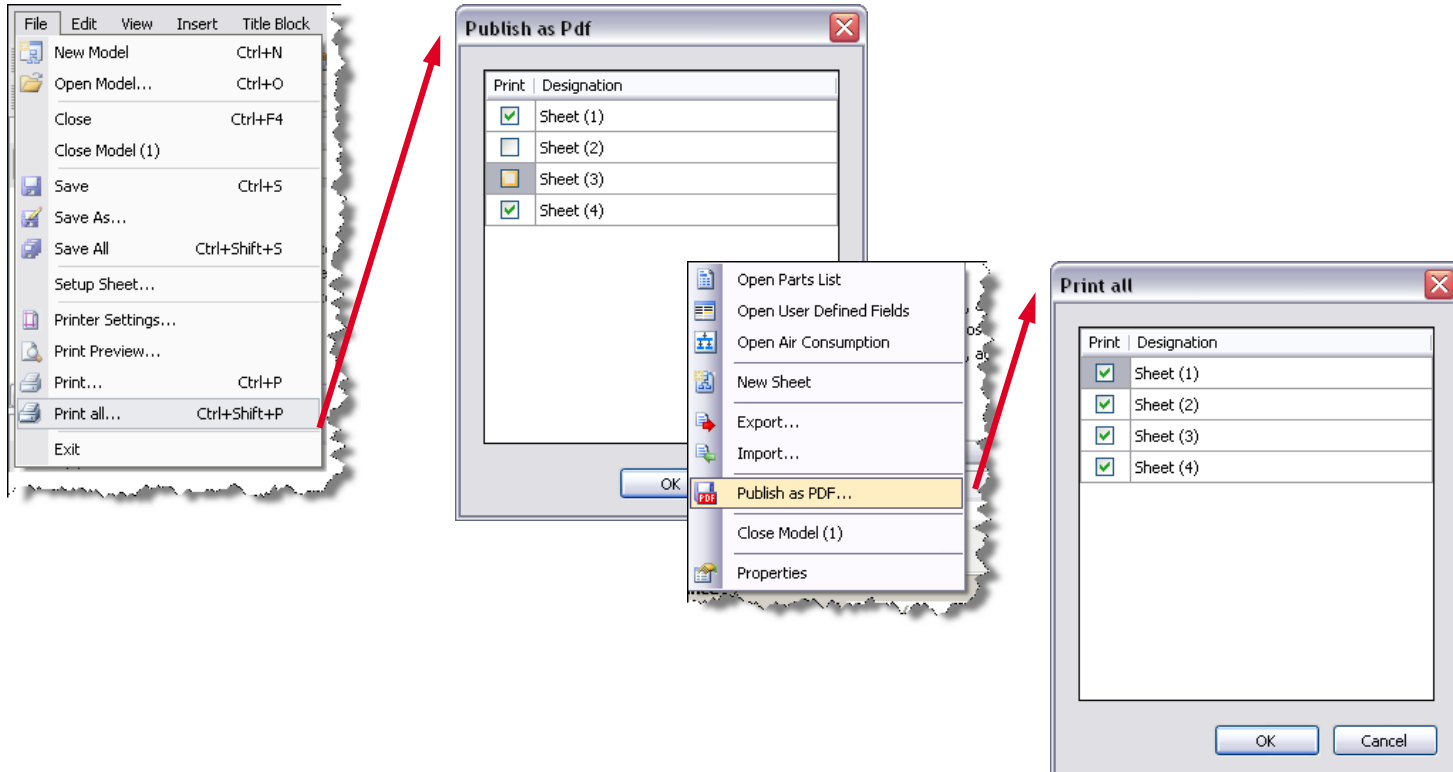
- ▶ New
- ▶ Use as template
- ▶ Open
- ▶ Import
- ▶ Save

Configuration

- ▶ Series: AS2
- ▶ Function: ACC
- ▶ Basic settings
- ▶ Thread connection

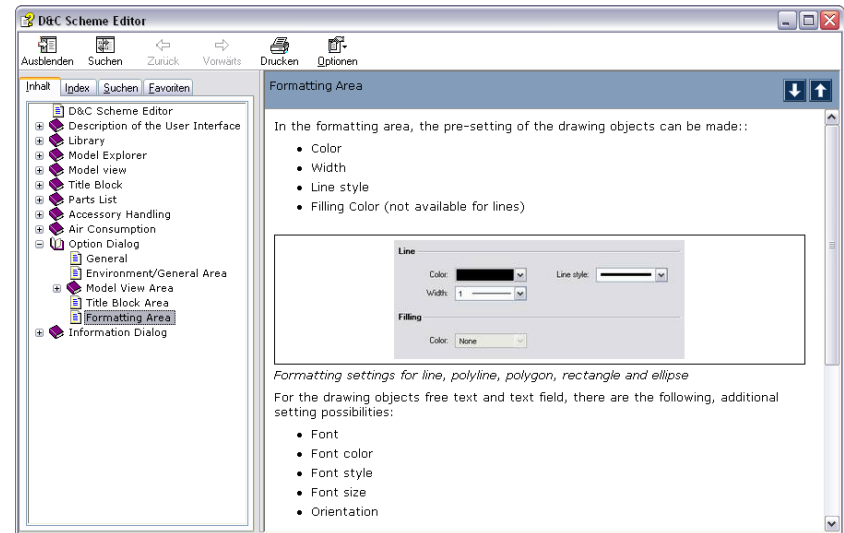
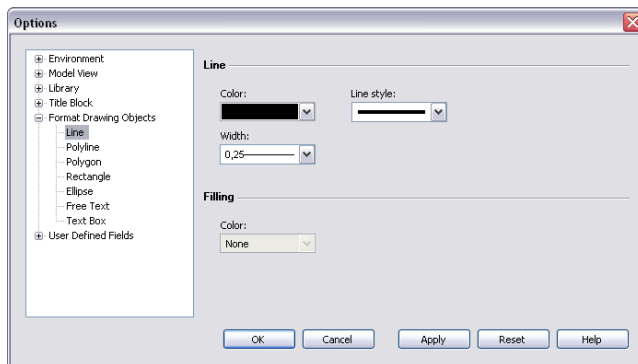
Print All / Publish as PDF

- All sheets of a model can be printed or published as PDF at once



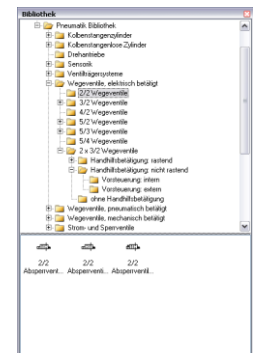
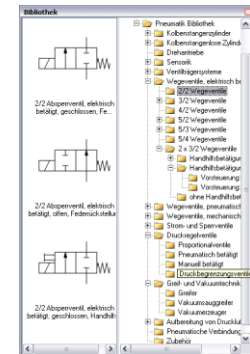
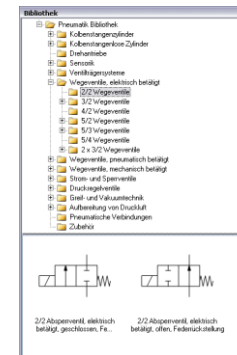
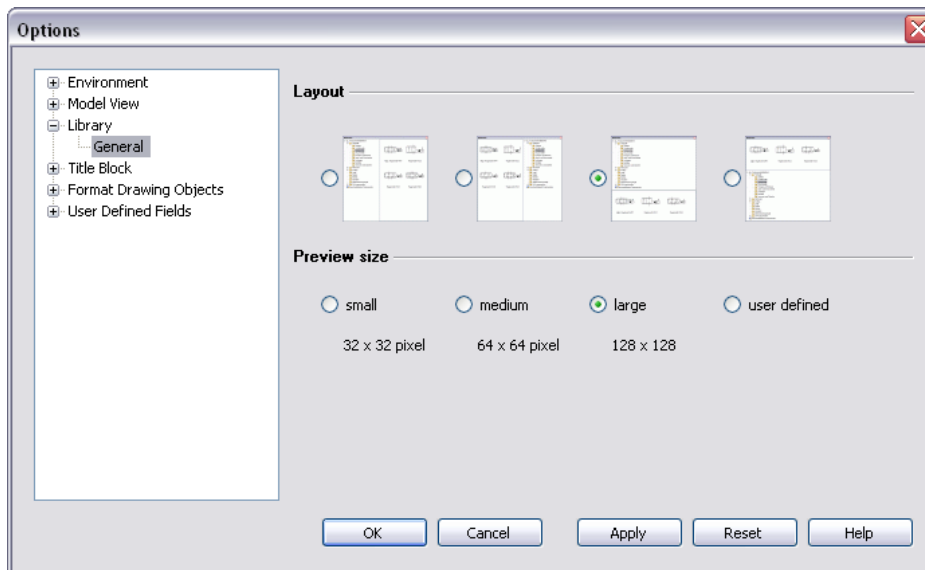
Context-sensitive Help

- For the active window it's possible to show the context-sensitive online help with F1
- Sample:



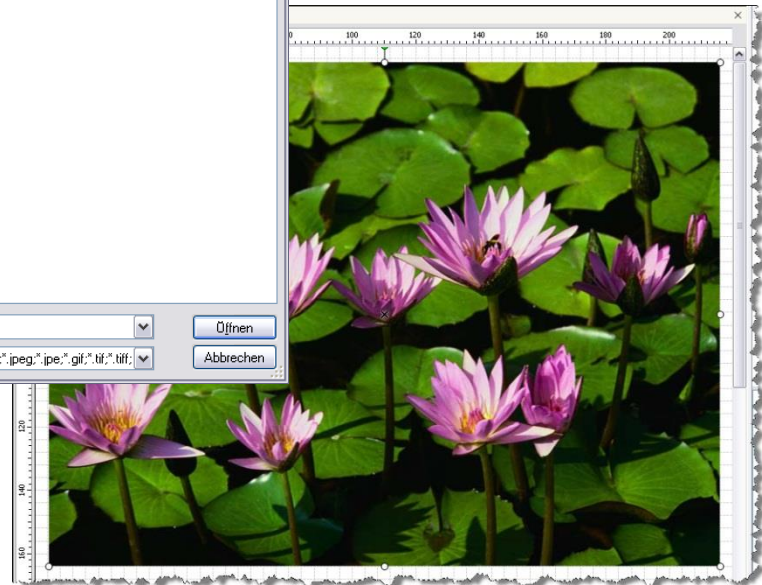
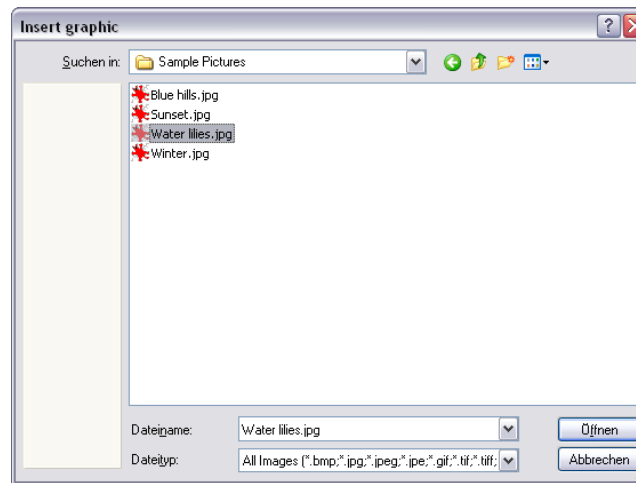
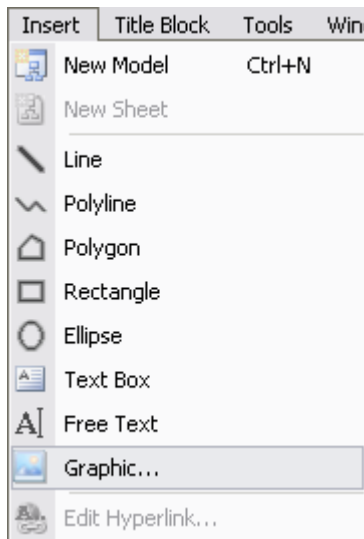
Library Layout

- The arrangement of the library elements and the preview size of the icons can be set through the options



Insert Graphic

- In addition to the clipboard it's possible to insert images with menuitem Insert ► Graphics... and a file selection dialog

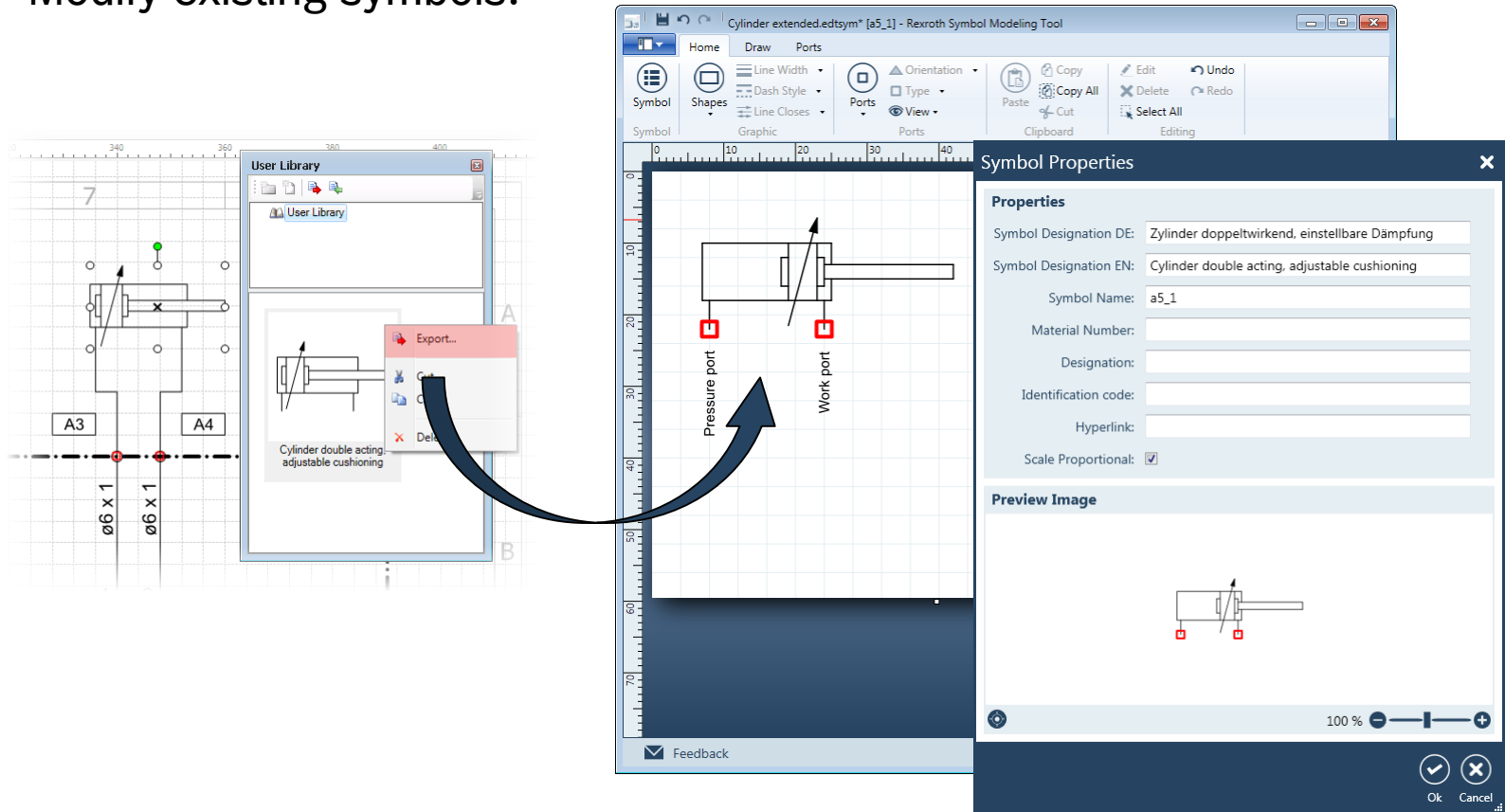


New Features in Version 5

- **Generate new Symbols with Rexroth Symbol Modeling Tool (SMT)**
- **User Library to generate own libraries** ([up to Version 6](#))
- Change Connection Line Type
- Create new Connection Line Types
- Change Element Order in Model Explorer
- Publish as PDF / Print Air Consumption ([up to Version 5.2](#))

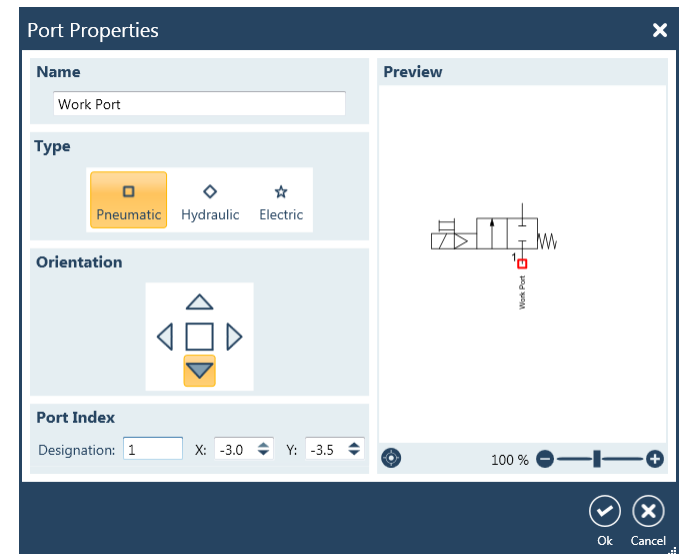
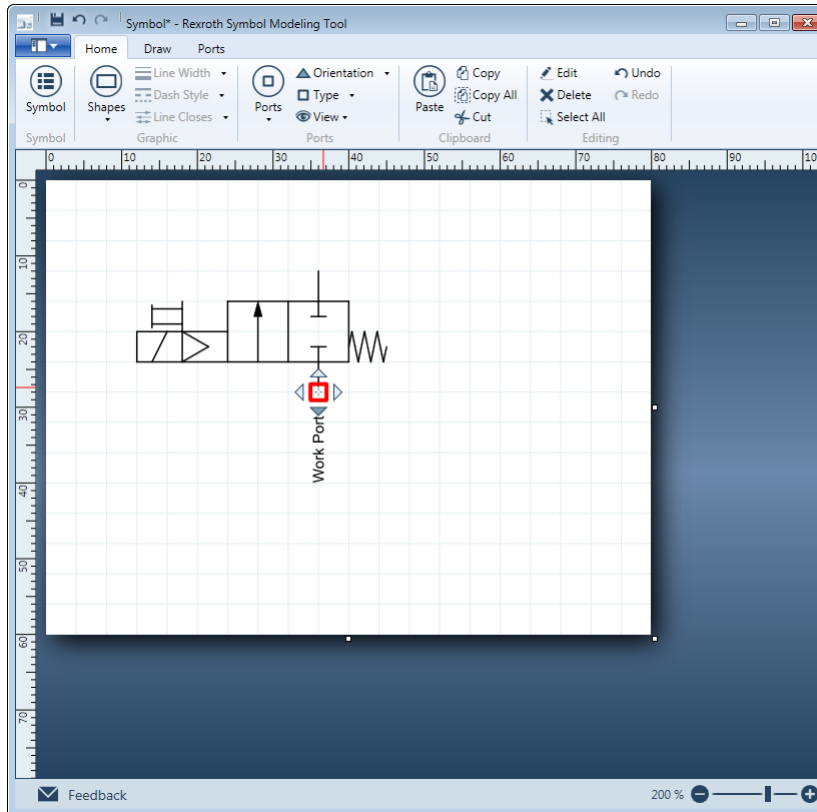
Rexroth Symbol Modeling Tool (SMT)

- Modify existing symbols.



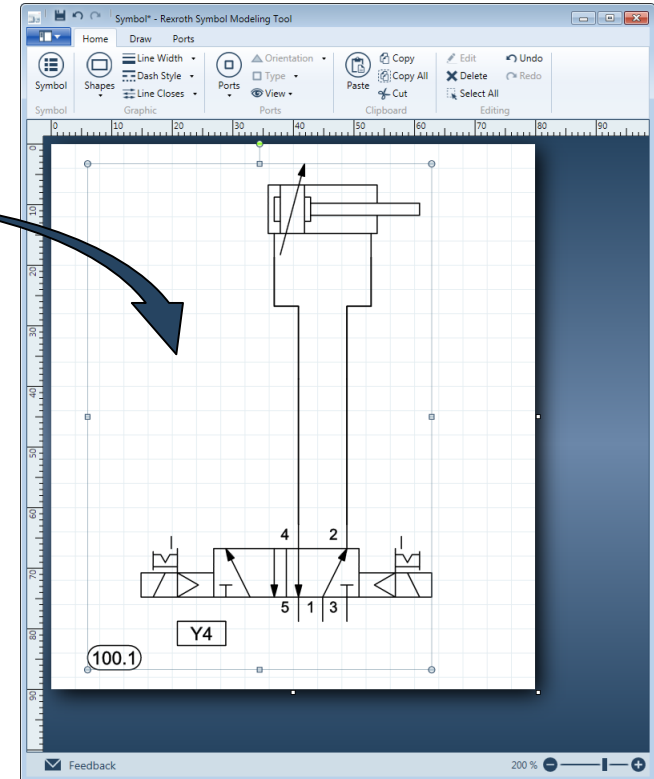
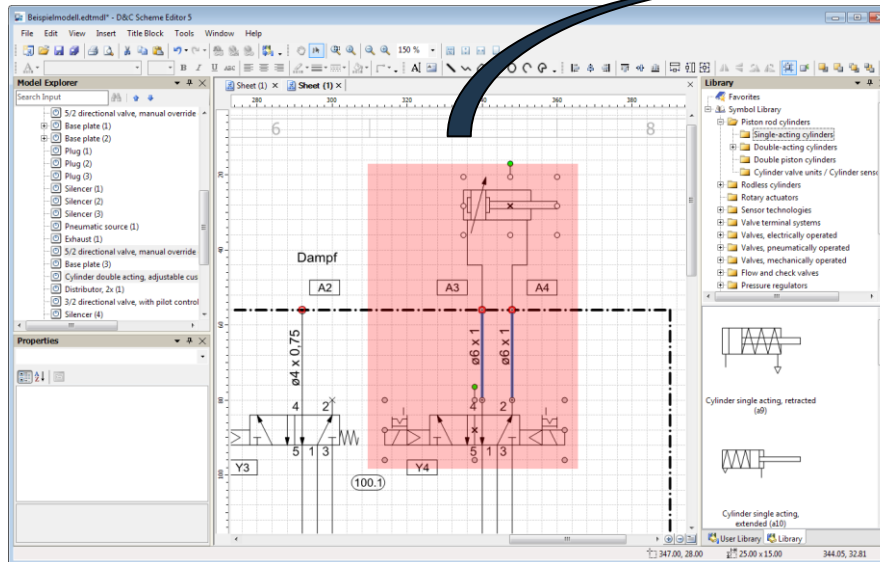
Rexroth Symbol Modeling Tool (SMT)

- Create new symbols and insert ports.



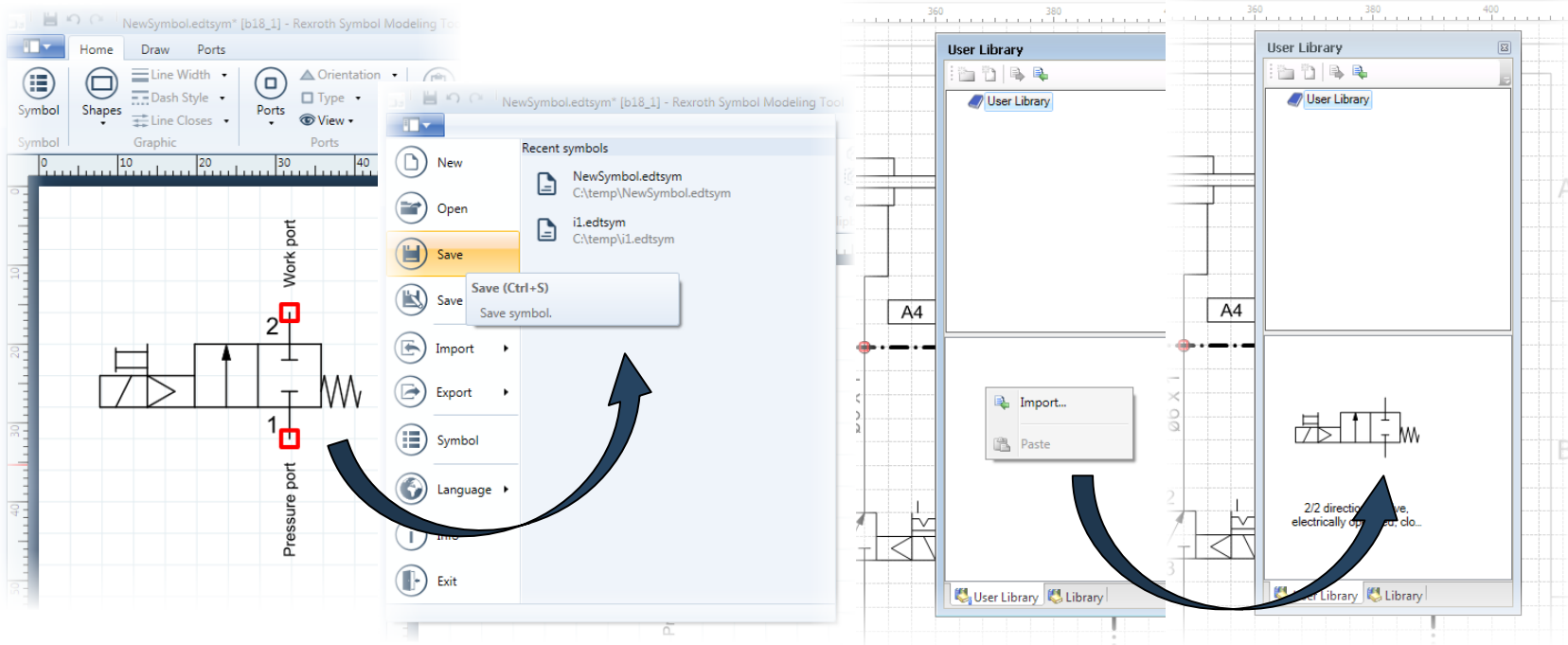
Rexroth Symbol Modeling Tool (SMT)

- Create new symbols from models via Copy&Paste.



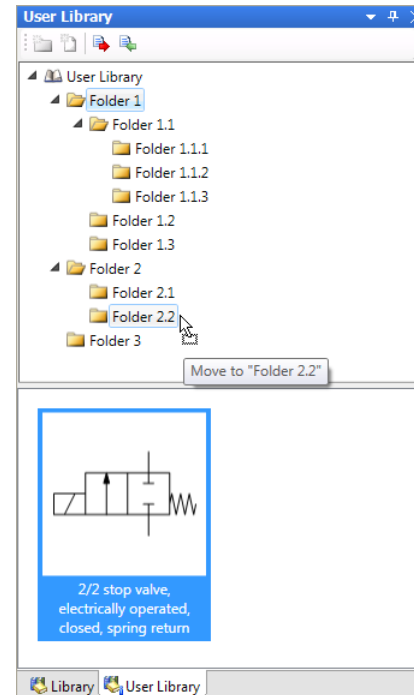
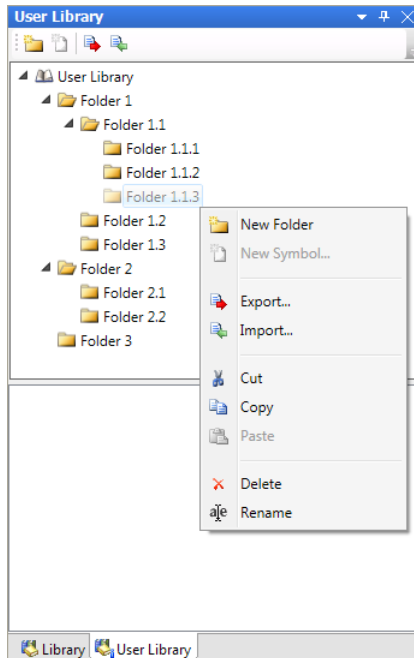
Rexroth Symbol Modeling Tool (SMT)

- Use new or modified symbols in D&C Scheme Editor.



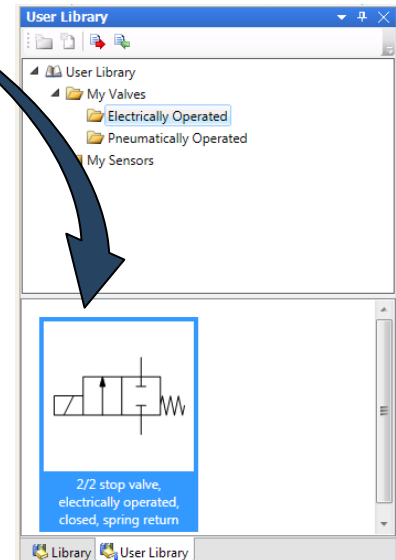
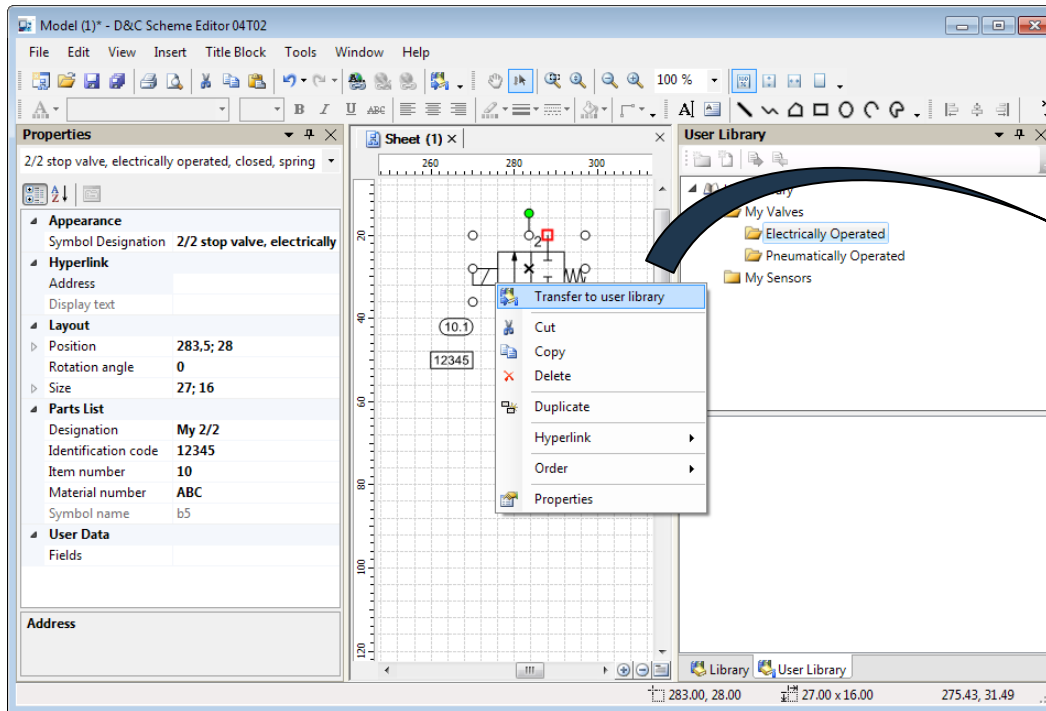
User Library (up to Version 6)

- Create individual folder structure.
- Rearrange symbols with Drag&Drop in user library.



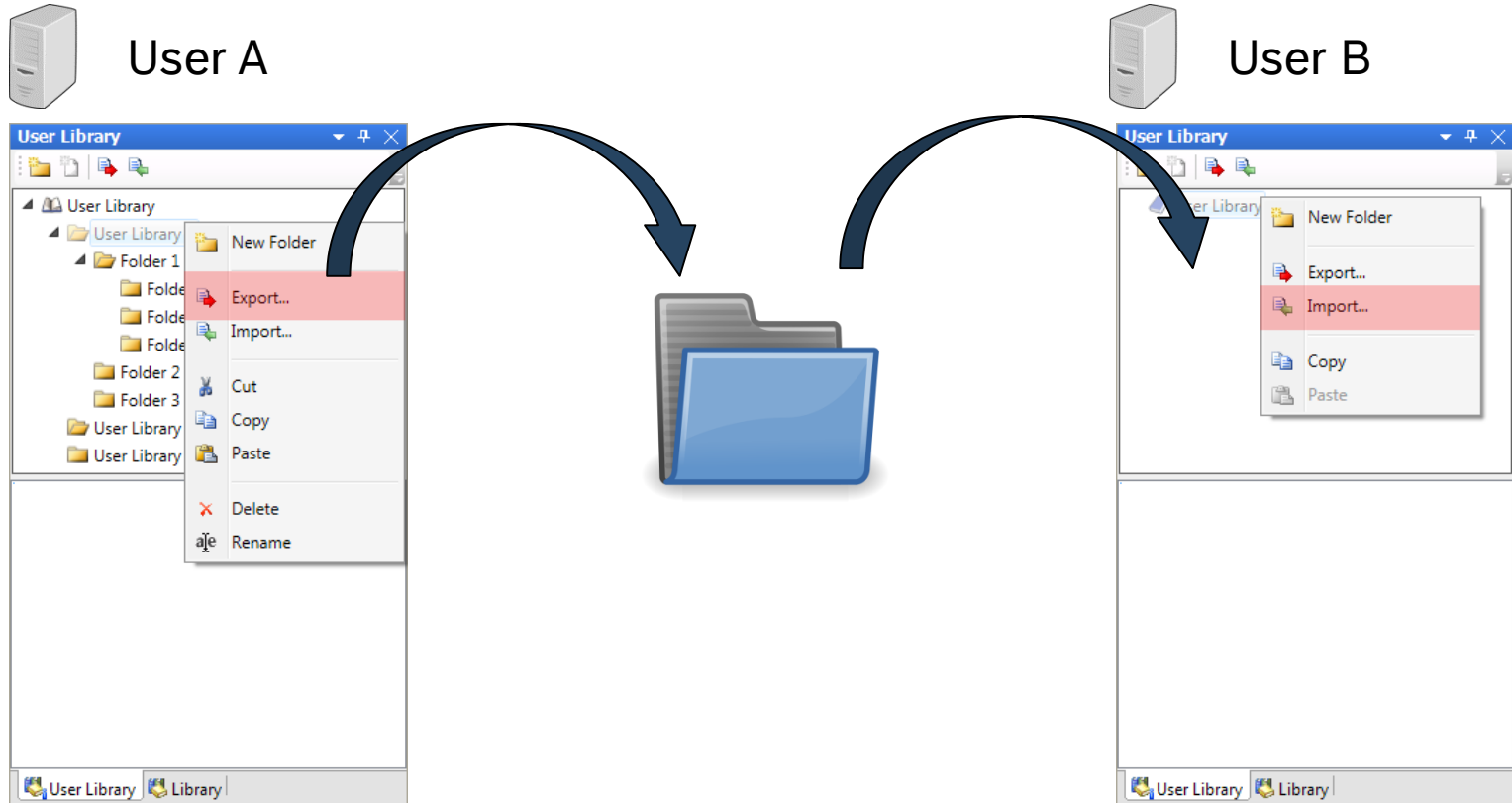
User Library (up to Version 6)

- Transfer parameterized symbols to user library via context menu.



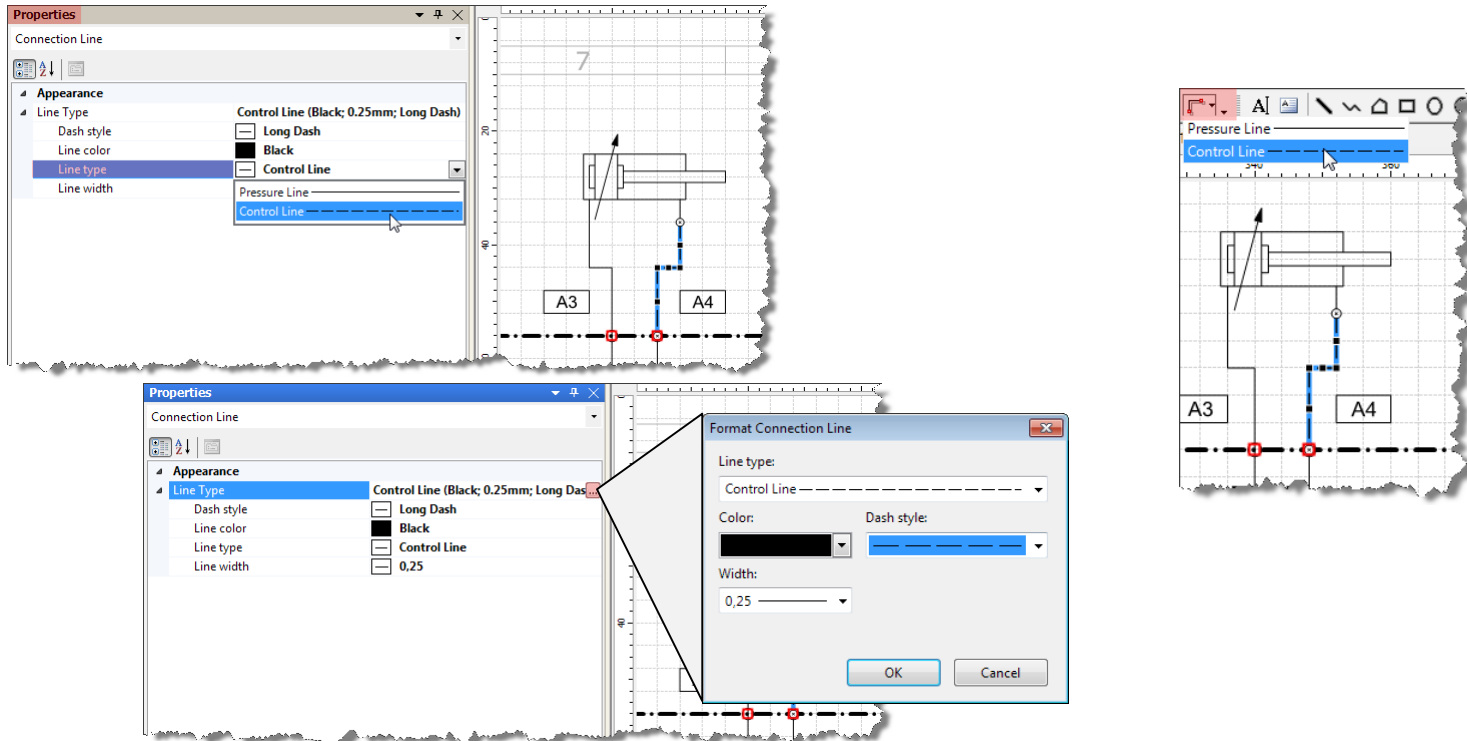
User Library (up to Version 6)

- Exchange user libraries via export / import.



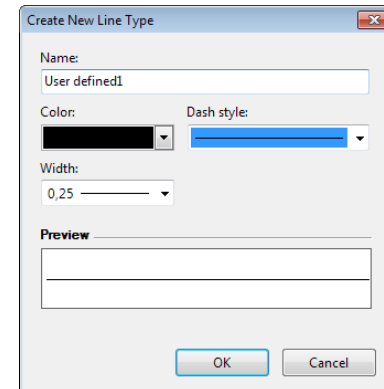
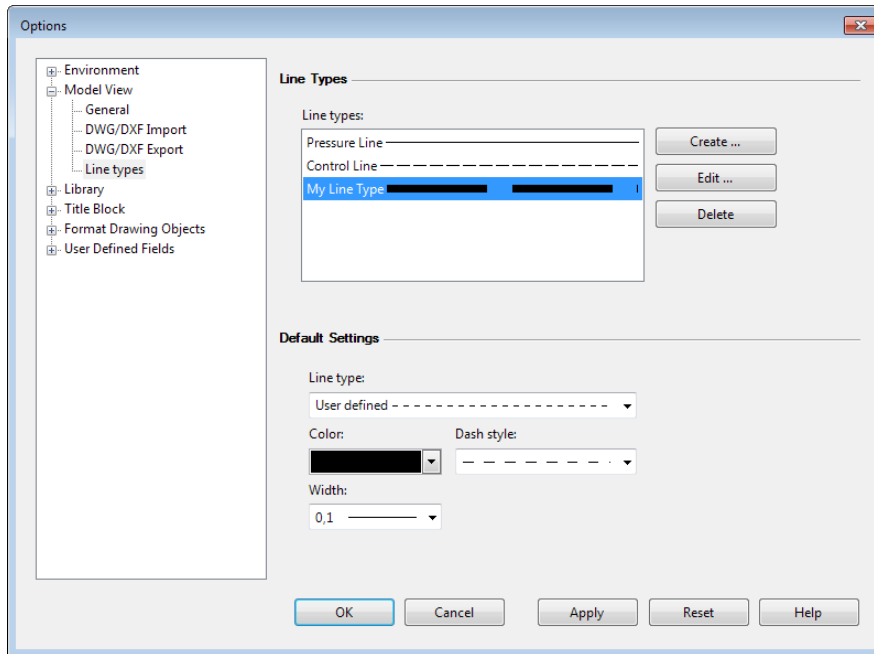
Change Connection Line Type

- To assign predefined line types use properties (direct or “Format” dialog) or use button “Line Type” in toolbar “Format” .



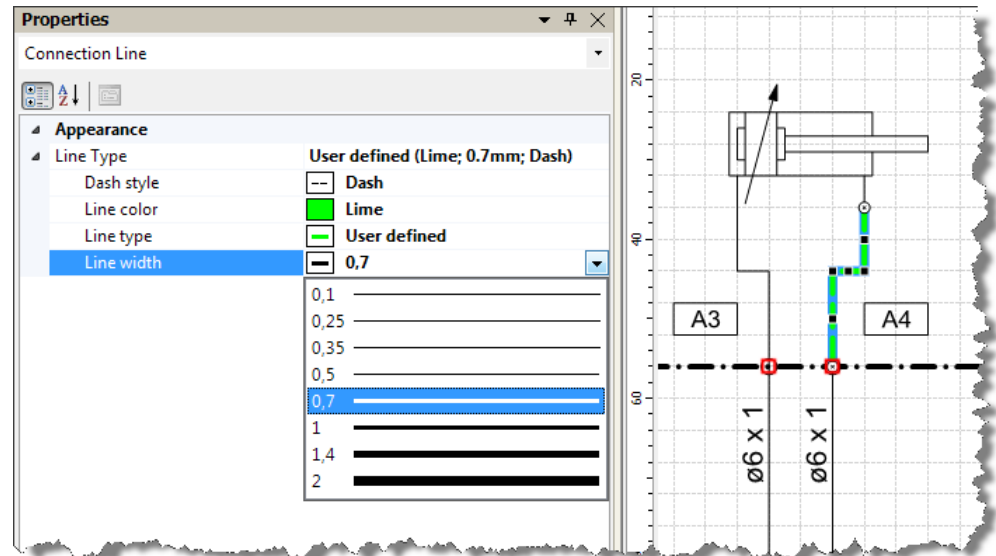
Create new Connection Line Types

- To create, edit and delete line types use “Tools -> Options -> Line Types”.
- The format settings for a new connection line are defined in the
- “Default Settings”.



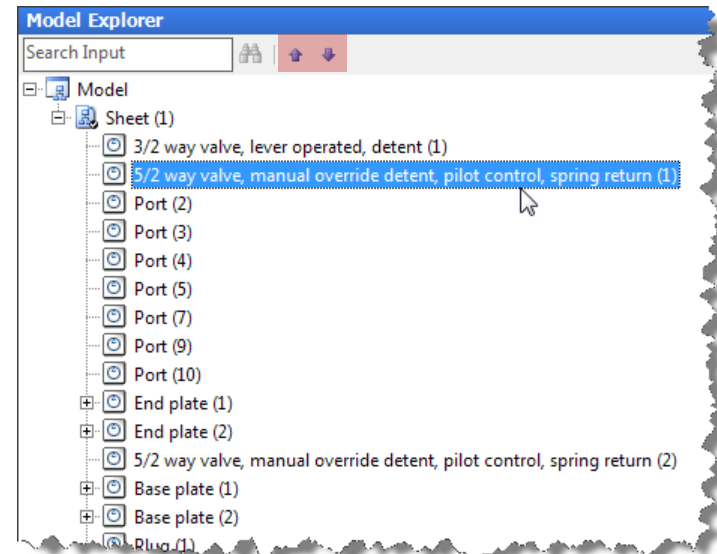
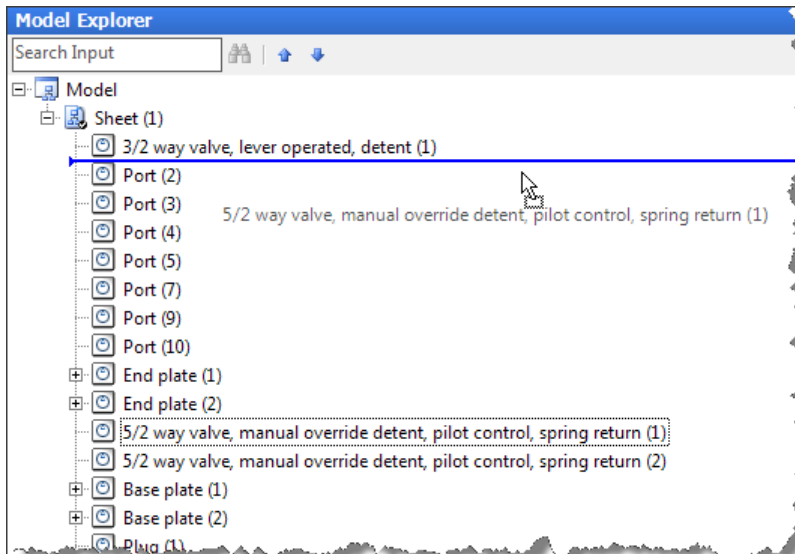
Create new Connection Line Types

- To format a connection line use buttons “Line Color”, “Line Width” and “Dash Style” in toolbar “Format” or use properties.

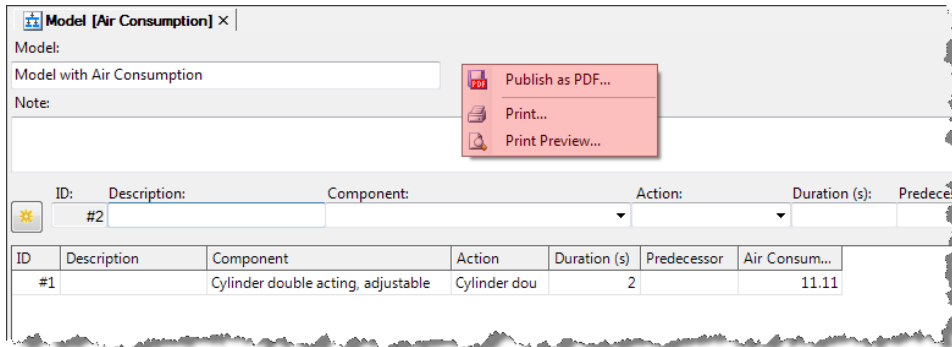


Change Element Order in Model Explorer

- The order of models, sheets and symbols can be changed by Drag&Drop or buttons in the toolbar.



Publish as PDF / Print Air Consumption



Air Consumption

Model:
Model with Air Consumption

Results:
Cycle time: 2.00 s
Air consumption: 11.11 l

Flow chart:

ID	Description	Component	Action	Duration (s)	Predecessor	Air Consumption (l)
#1		Cylinder double acting, adjustable cushioning (1)	Cylinder double acting, adjustable cushioning	2		11.11

Settings:

Cycles/hour:	1800	Days/week:	5	Temperature:	20 °C
Hours/day:	8	Weeks/year:	52	Air pressure:	1013 mbar
				Energy demand:	0.005 kWh/m³

Air Consumption:

per cycle:	11.11 l	per hour:	20.00 m³	per day:	159.98 m³
		per week:	799.89 m³	per year:	4.16e+4 m³

Energy Demand Air Production:

per cycle:	5.5548e-5 kWh	per hour:	0.10 kWh	per day:	0.80 kWh
		per week:	4.00 kWh	per year:	207.97 kWh

New Features 5.2

- The Air Consumption has been completely removed.
Use the online version if required.

New Features 6

Scheme Editor 6.0

- New library
- New search
- New accessory handling

Symbol Modeling Tool 2

- Add a material number list to a Symbol

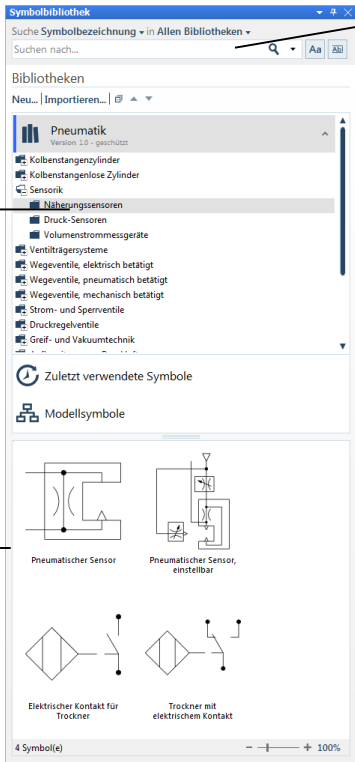
New library

Standard and user library were merged. The search and search results were integrated. The appearance of accessories was also changed.

Library management

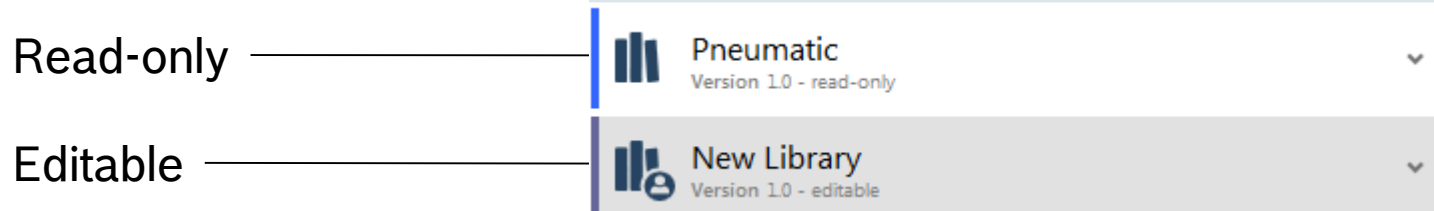
Search mask

Symbol preview, or search results, or accessories



New library

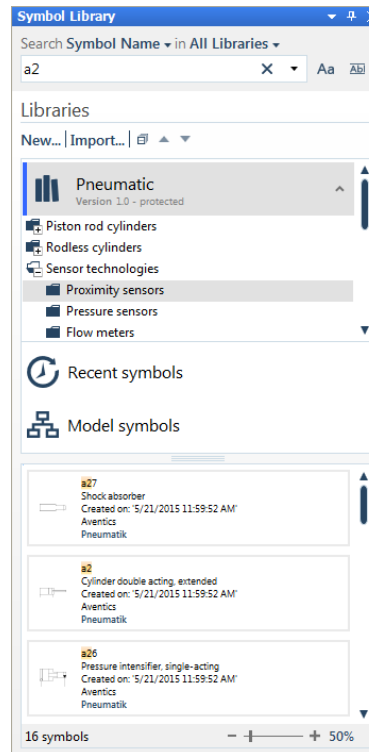
Libraries can be read-only or editable. In read-only mode libraries can not be modified. In editable mode the structure, the symbols and the accessories can be changed.



New Search

Symbols can be searched by the symbol name, symbol designation, the material number or the material designation. The location can be restricted to "All libraries", "Selected library" or "Selected library folder".

Search in
„All libraries“,
for all symbol names
which include „a2“ .

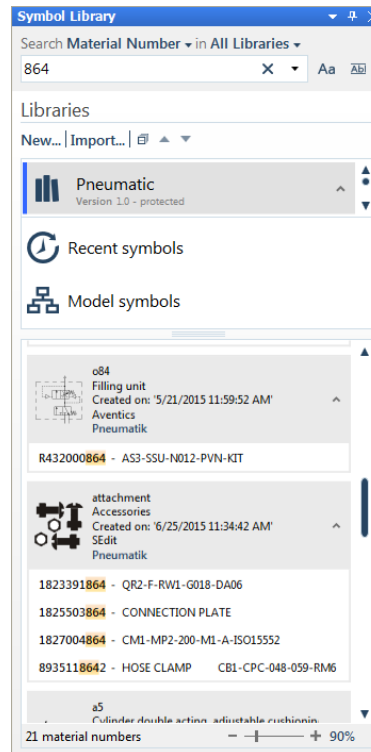


Search results

New Search

Symbols can be searched by the symbol name, symbol designation, the material number or the material designation. The location can be restricted to "All libraries", "Selected library" or "Selected library folder".

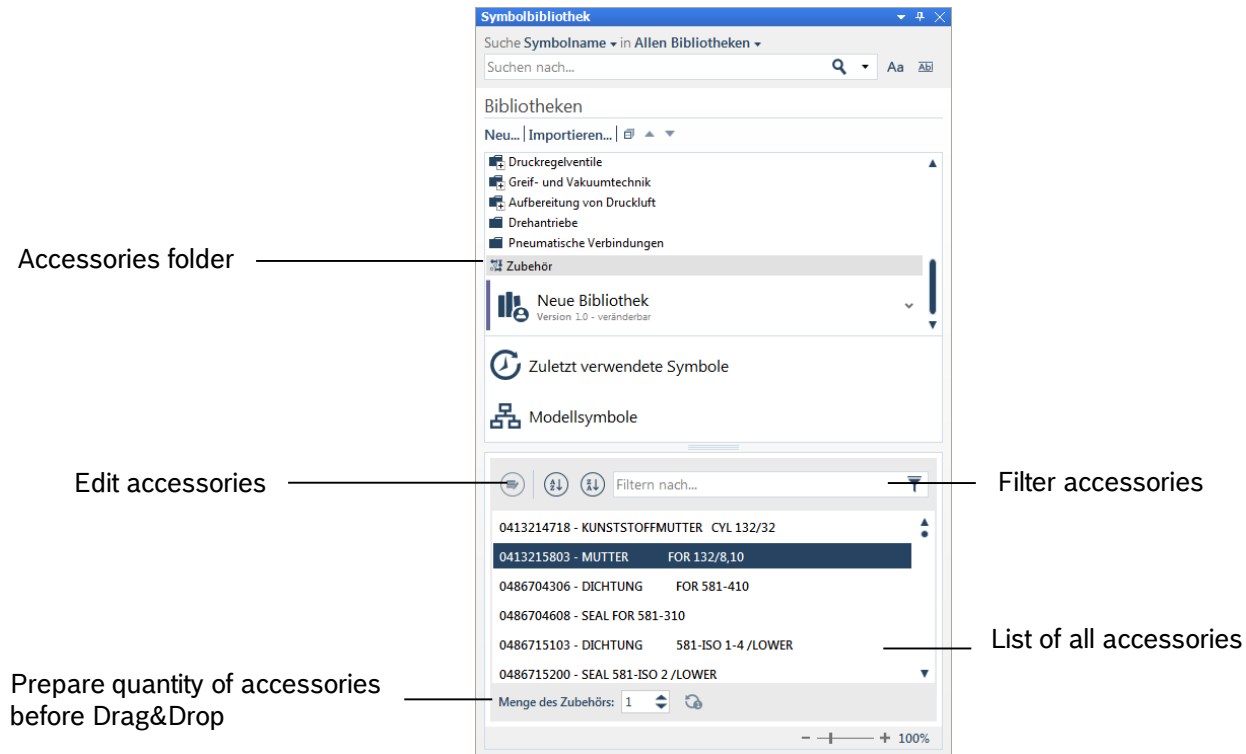
Search in
„All libraries“,
for all material
numbers which
include
„864“



Search results

New Accessory Handling

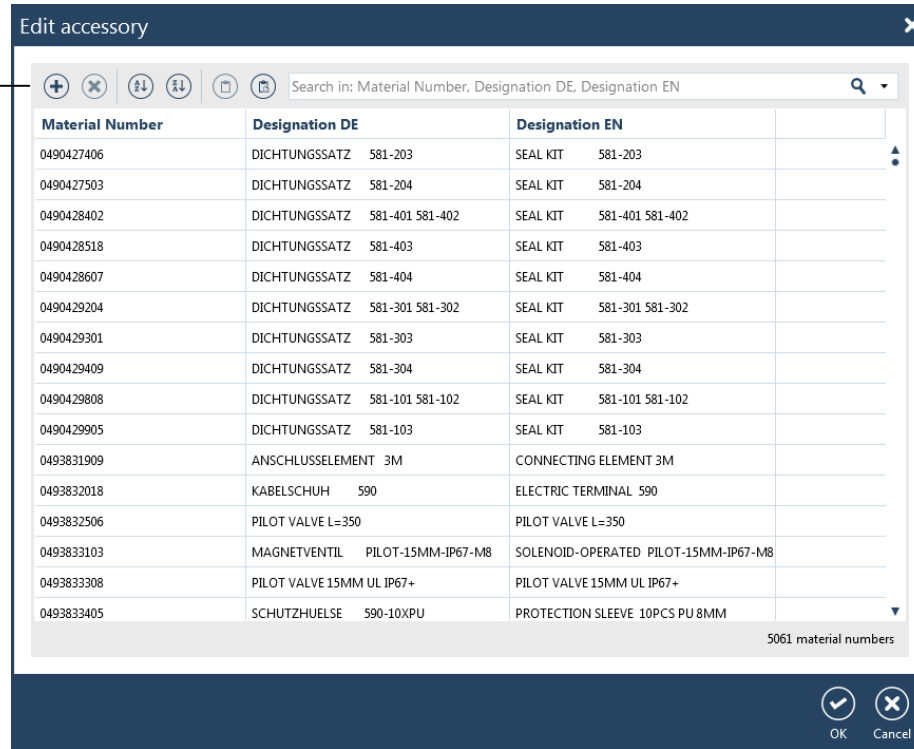
All accessory items are listed. The accessories can be edited.



New Accessory Handling

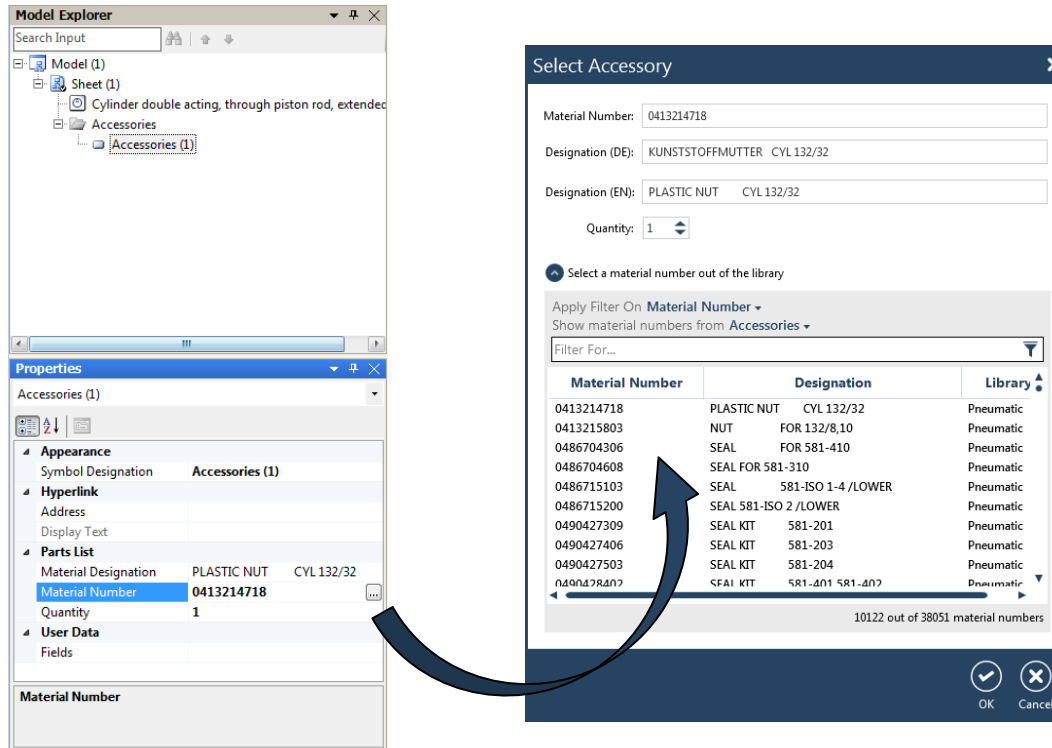
New accessories can be added. Existing elements can be edited or deleted.

Add accessories,
Delete ...



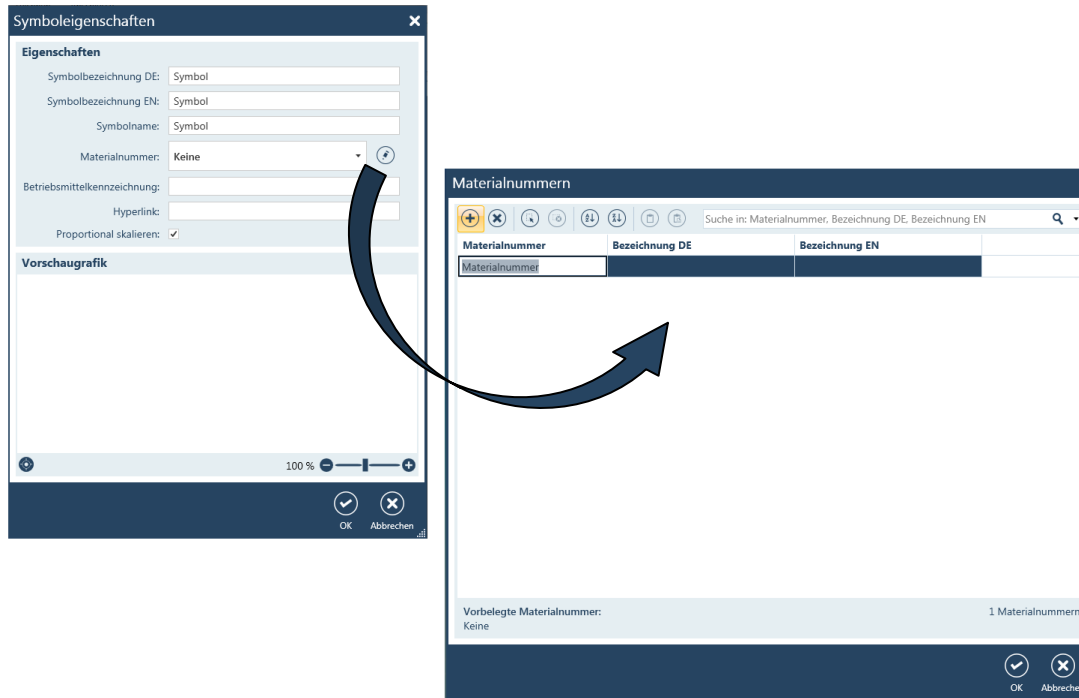
New Accessory Handling

A linked accessory can be changed later.



Symbol Modeling Tool 2

- Add a material number list to a Symbol



New Features 6.1

Scheme Editor 6.1

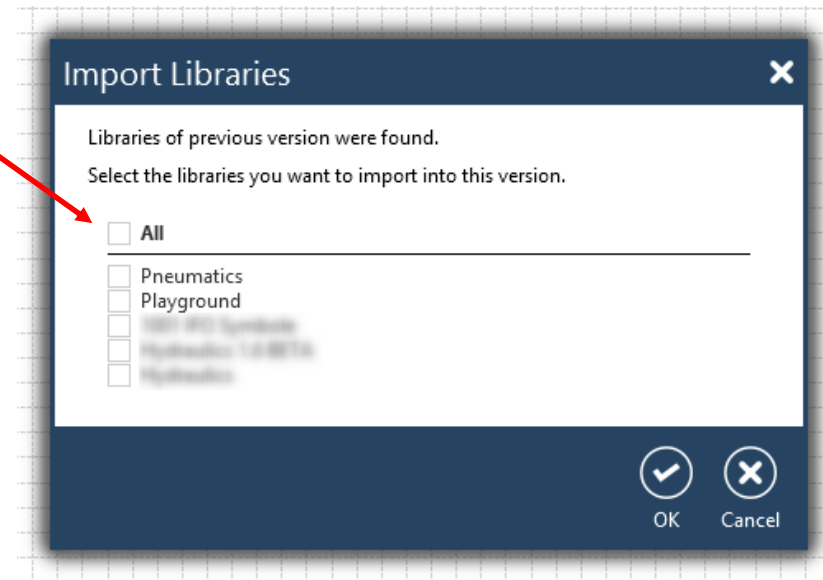
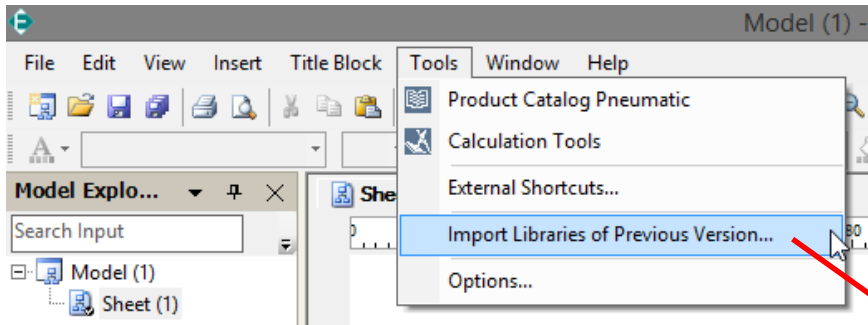
- New feature to transfer libraries of previous version after update
- Bug fixes

Symbol Modeling Tool 2.1

- Symbol name now can contain ‘-‘ as valid character
- Bug fixes

Import Libraries of Previous Version

- Libraries of the previous version (starting with libraries of Scheme Editor 6) can be transferred into the updated version



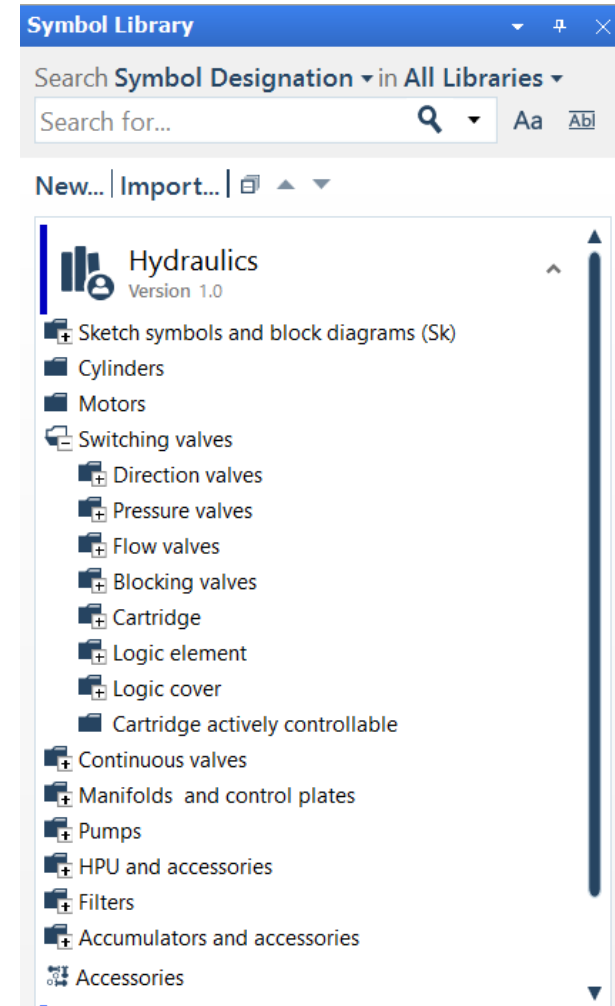
New Features 6.2

Rexroth Hydraulic Library

~ 1500 symbols

~ 70.000 material numbers

Set of scheme symbols for quick schemes



New Features 6.3

Extended Rexroth Hydraulic 1.1 Library

Set of scheme symbols for quick schemes

