



CADprofi 9

Summary of main changes made to the program since the CADprofi 8.01 version.

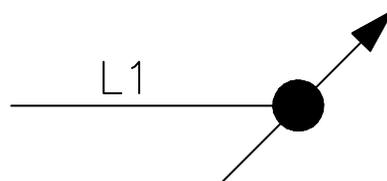
✓ Extended content in the CADprofi Electrical module

New command with symbols of measurement and industrial automation apparatus. This command allows to design schemes of industrial automation processes using multivariant symbols, such as measurement points, sensors, transmitters, controllers etc.

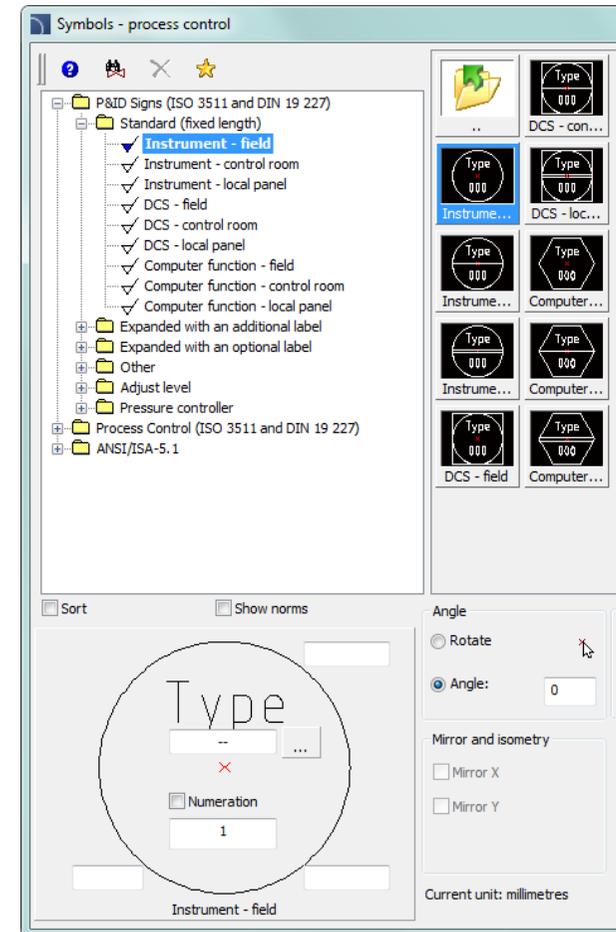
A special feature is the automatic numbering system of the individual measurement points.

New symbols - „vertical lines”. These symbols show vertical lines that run in places such as between floors. These symbols are being included in specifications as lines with a specified type and length.

Additional symbols of various equipment such as: electric heaters, air conditioners and more.

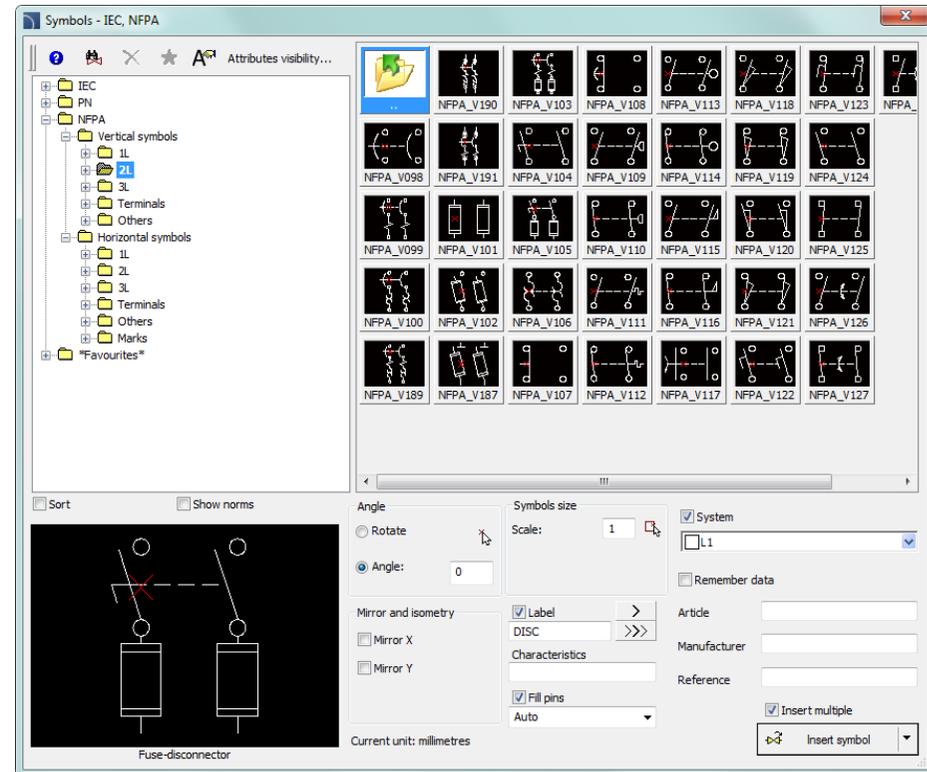
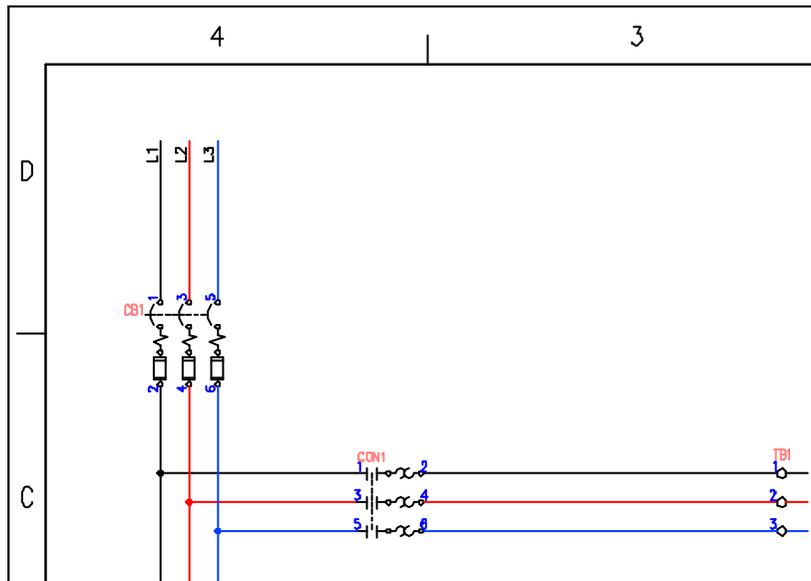


Addition of PLC controllers in menu and toolbars. This command allows to insert controllers with any defined number of inputs/outputs.



✓ CADprofi Electrical – designing with ANSI / NFPA standards

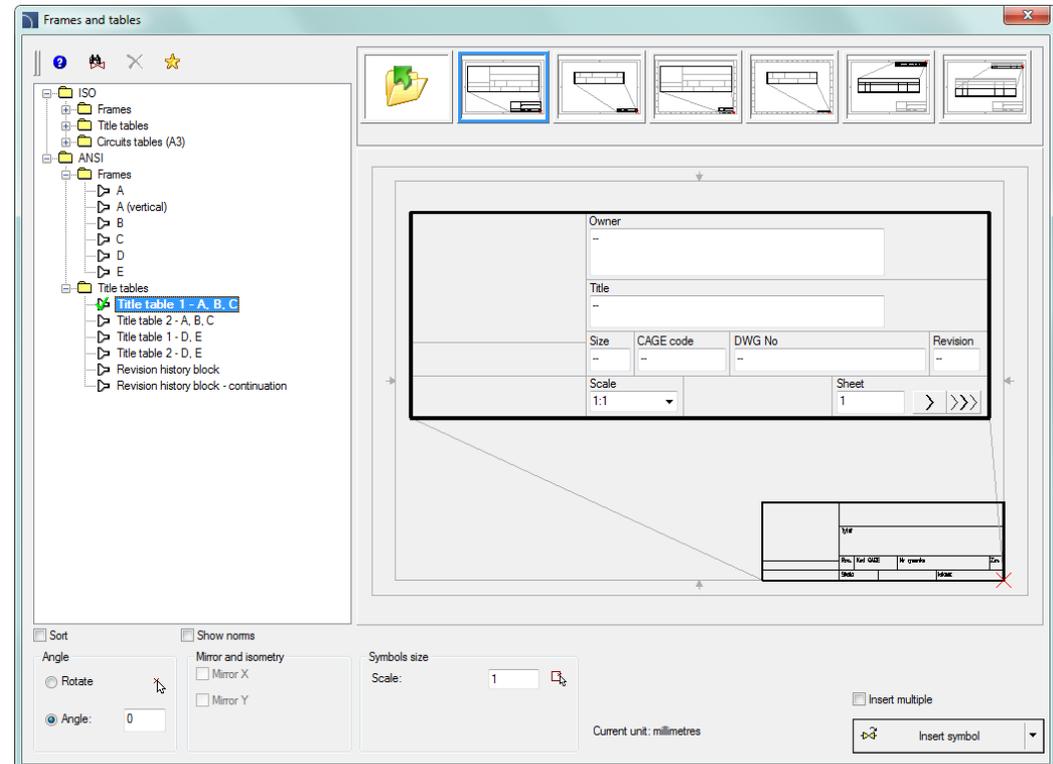
Program has been adapted to create projects according to ANSI / NFPA standards. A set of NFPA symbols have been added to the program (hundreds of new symbols). Additional electrical lines have been added according to the ANSI standards as well as typical templates and already made line templates and circuit lines according to ANSI standards. It is also possible to directly design in inches units.





✓ CADprofi Electrical – scheme templates

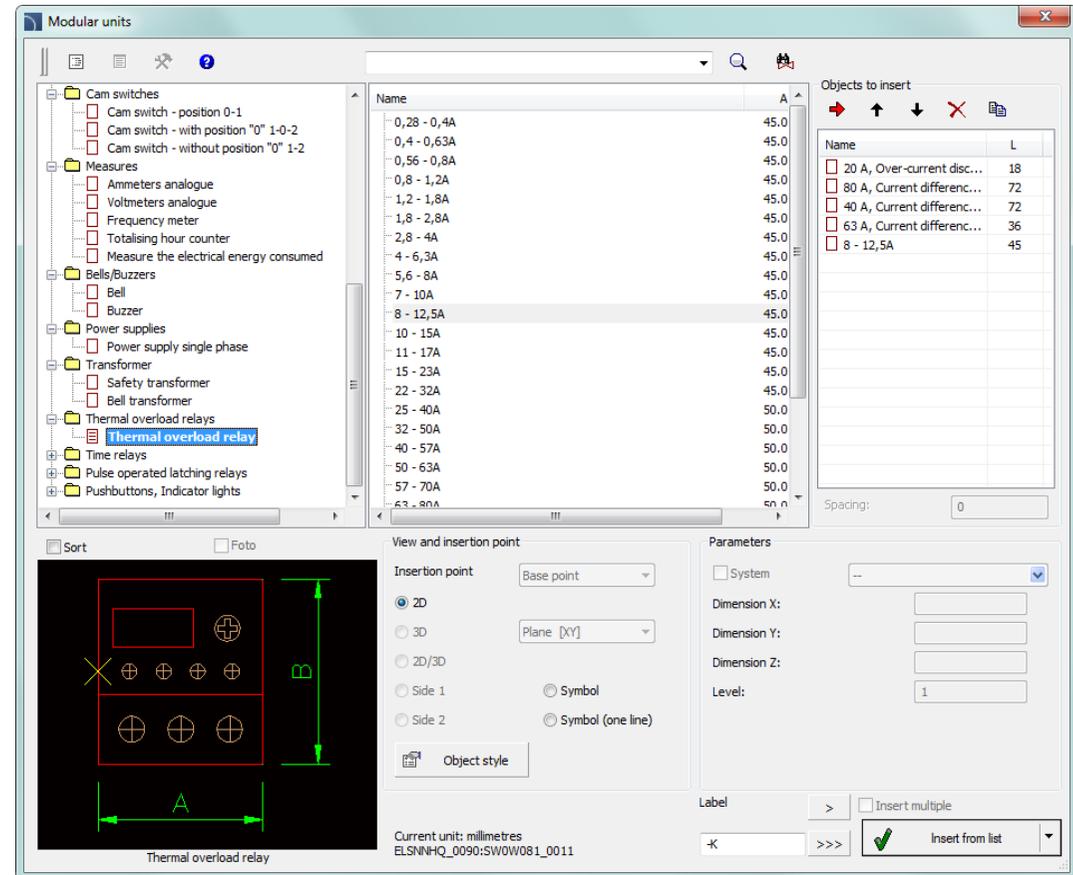
Changes in the command that contains typical design tables and frame templates. Frames and tables according to ANSI/ASME Y14.1 have been added to this command. Typical schemes have been transferred to the „Scheme templates” command. In this command you can also find additional schemes and typical line templates and circuit lines adopted to the ISO (A3) and ANSI (A-E) standards.



✓ CADprofi Electrical – modular units

Extended content and functionality in the „Modular units” command. All devices apparatus are connected with appropriate symbols thanks to which it is easy to draw schemes, as well as switchgears view. Many new apparatus have been added to the program:

- Motor protection circuit breakers;
- Switch disconnectors;
- Main disconnectors;
- Fuse-switch disconnectors;
- Switches;
- Modular contactors; motor
- Cam switches;
- Measures;
- Bells/Buzzers;
- Power supplies;
- Transformers;
- Relays (thermal, time, pulse operated);
- Pushbuttons (buttons, indicators lights).

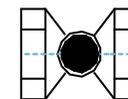
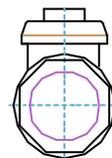
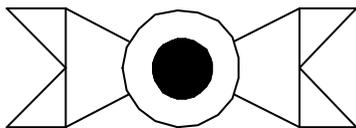
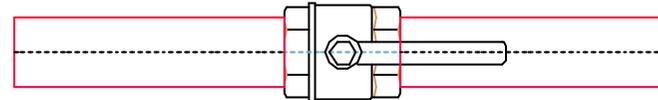
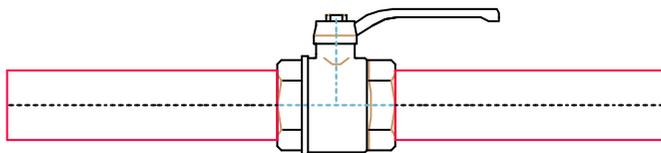
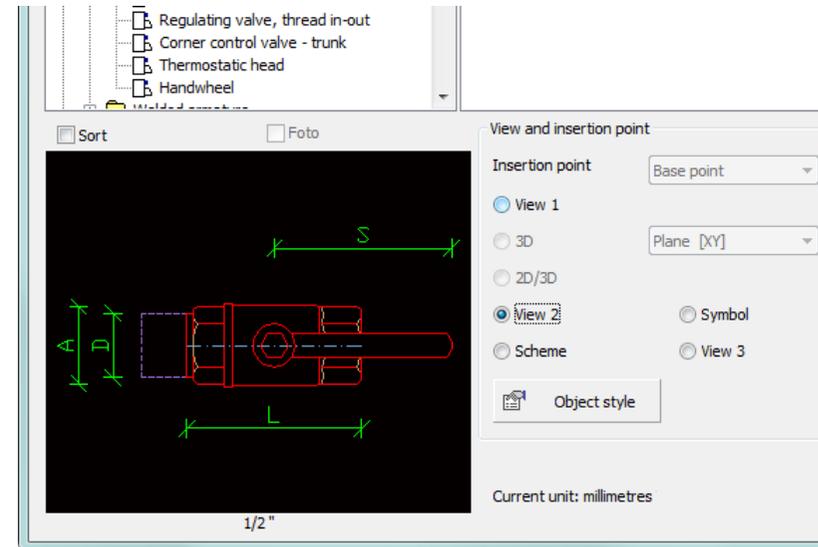


✓ CADprofi HVAC & Piping – parametrical armature

In the „Parametrical armature” command we have added additional views (projections, sections and detailed installation views) for many devices. Individual elements are also linked to schematic views and with typical symbols. The following categories has been updated:

- threaded armature
- welded armature
- regulating valves
- actuators for regulating valves
- angular armature.

Additional typical elements of threaded installations have been added to the command: nipples, sockets, reductions. Thanks to this it is possible to draw detailed installation views, in particular when designing installations of areas with limited space.



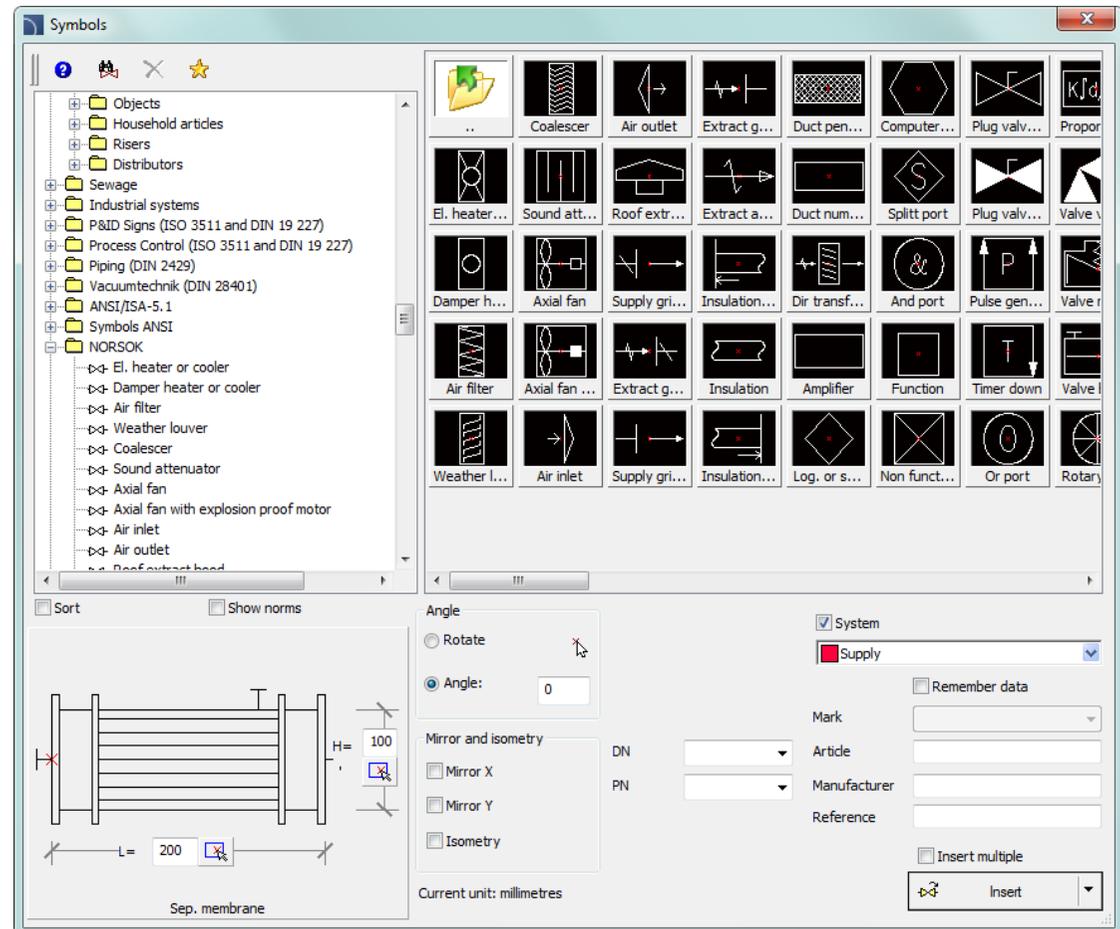
✓ CADprofi HVAC & Piping – symbols library

We have added several hundreds of additional symbols according to international standards.

Many of these symbols have been prepared as parametrical symbols for which it is possible to select many variants and technical data.

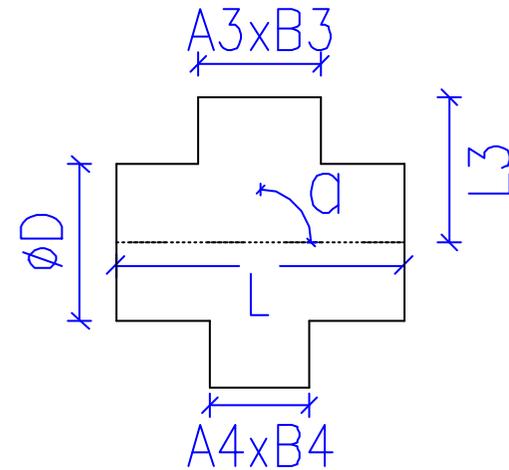
All CADprofi symbols can be edited using the „Quick edit” command.

What’s new in the symbols libraries is the possibility to add different elements to the favourite category.

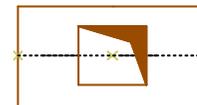


✓ CADprofi HVAC & Piping – ventilation fittings

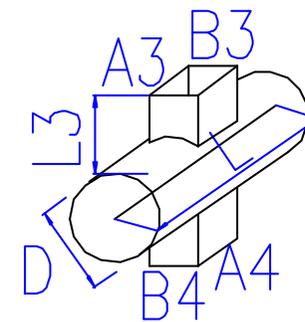
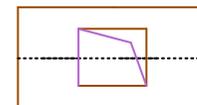
A new type of ventilation fittings – cross rectangle round
 – was added in both 2D and Z+/Z- view.



Z+



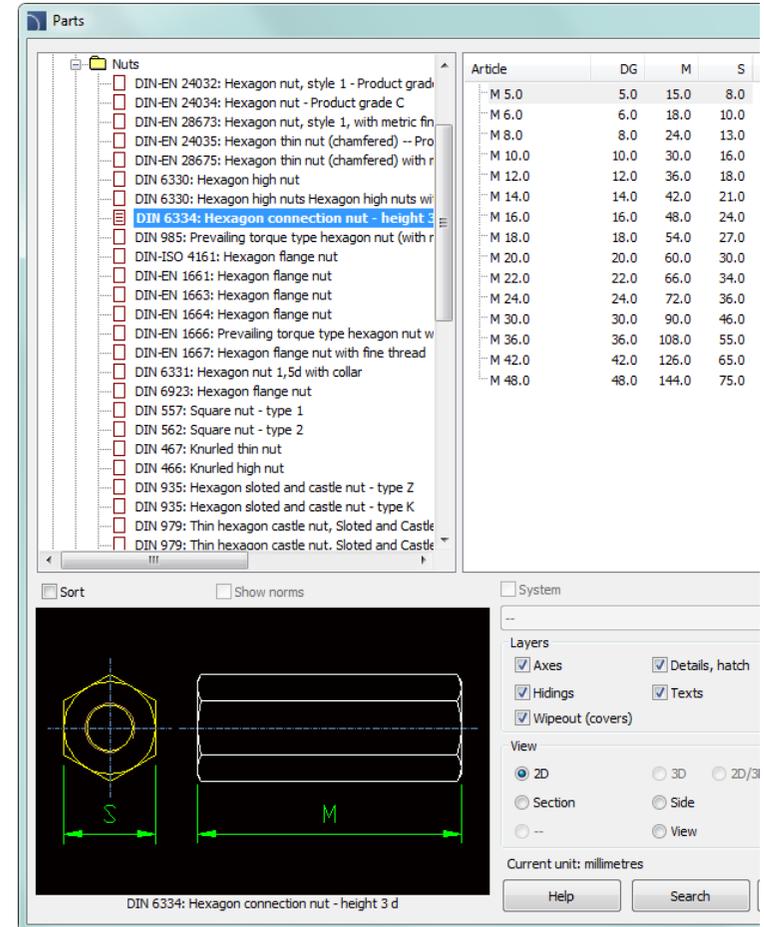
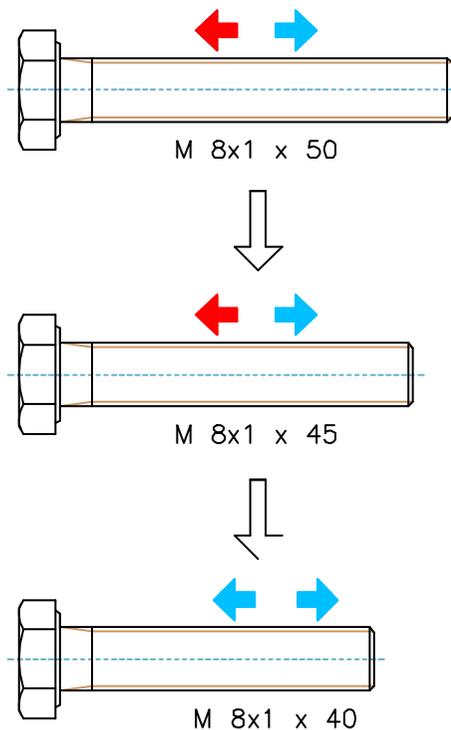
Z-



✓ Extended content in CADprofi Mechanical module

Additional standards PN, EN, DIN and GOST were added in the CADprofi Mechanical module.

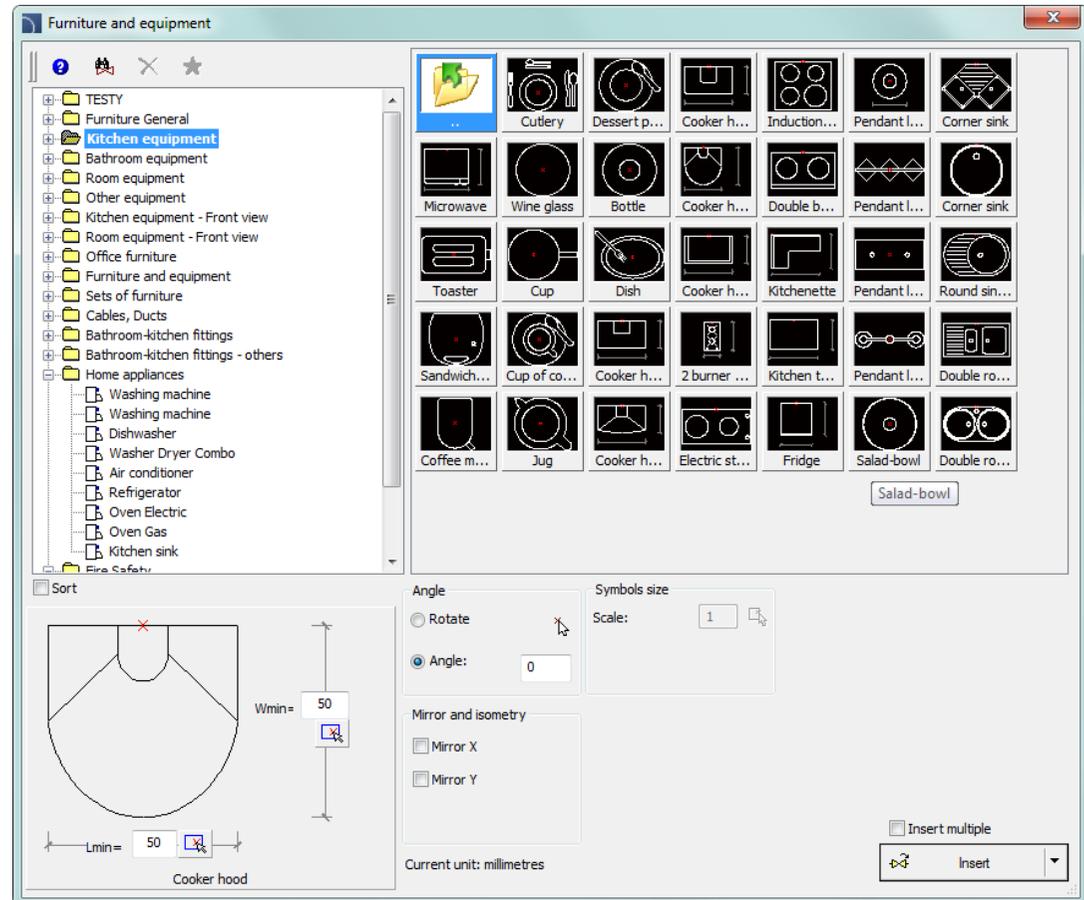
Many standardized parts can be now dynamically scaled directly in the drawing. This feature greatly simplifies and speeds up projects edition.



✓ Extended content in CADprofi Architectural module

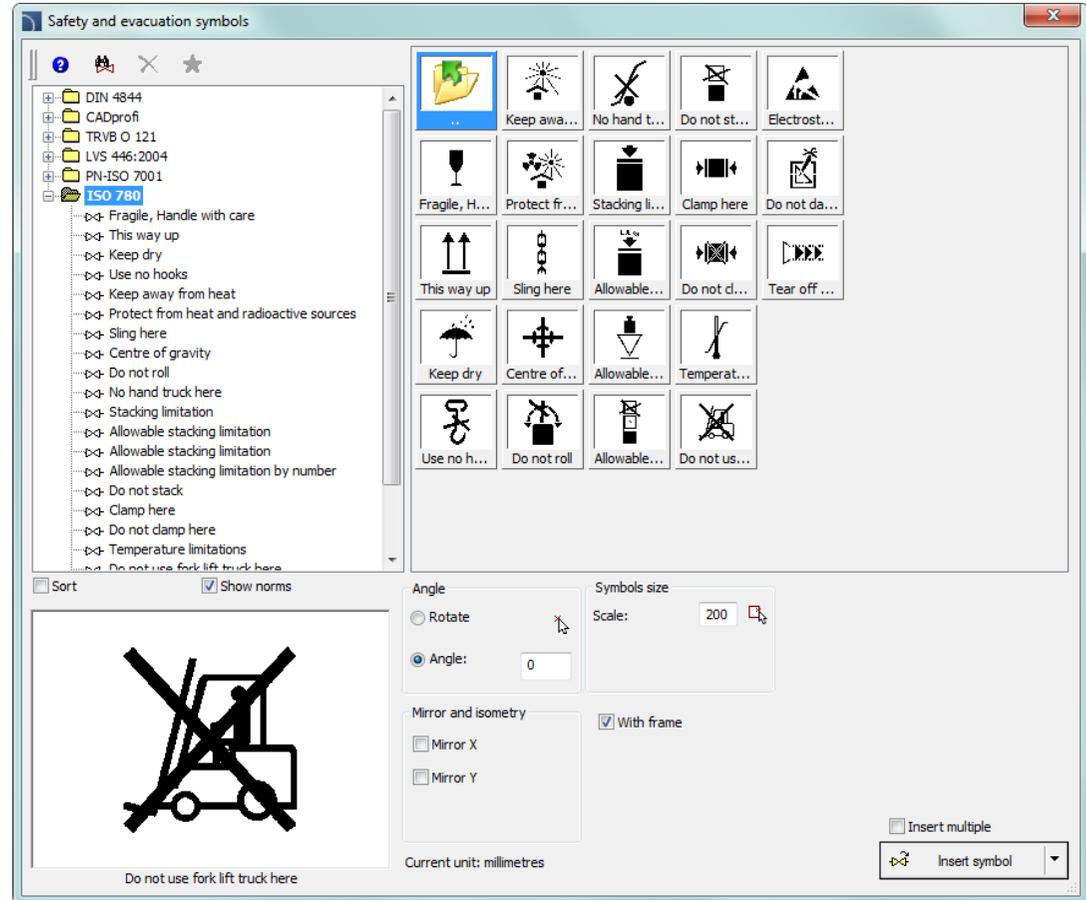
In CADprofi 9 the library of furniture and equipment has been greatly extended. Currently elements from this library are parametrical objects, thanks to which it is possible to change their dimensions. It is also possible to easily edit objects after they have been inserted into the drawing. Edition of dimensions and other parameters in the dialog box or dynamic edition directly in the drawing is available.

Additional markings such as terrain slope, building entrance markings and others.



✓ CADprofi Architectural – ISO 780 standard

Extended library of evacuation, fire protection, safety symbols. We have introduced both public information symbols and „ pictorial marking for handling of goods” according to the ISO 780 standard.





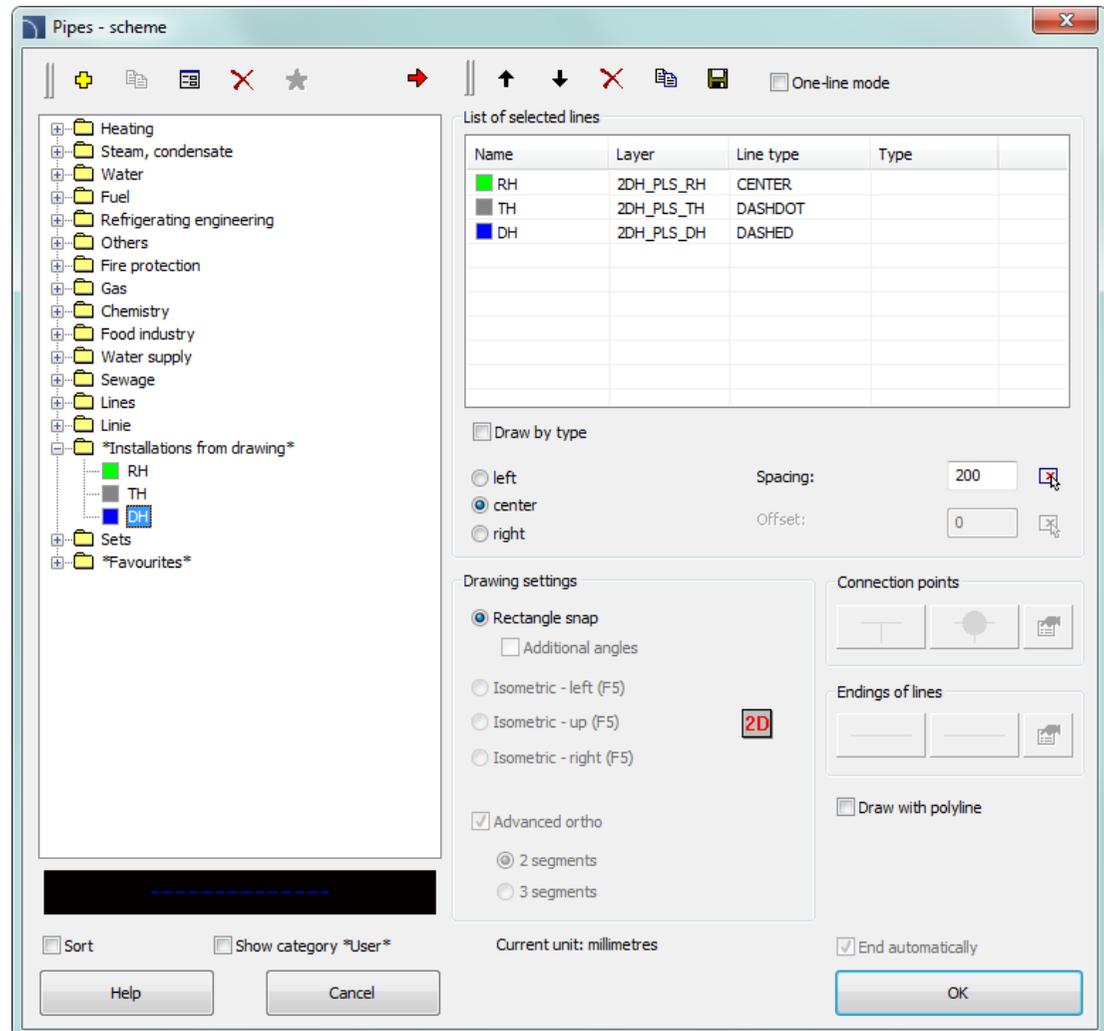
CADprofi

✓ „Temporary” installations and lines

Ability to work with „temporary” installations and lines.

In the case of co-operation of several designers upon one project, it is possible that some of them use their own type of lines or installations in CADprofi program. After transferring the project to another designer these lines and installations will be automatically detected and added as ‘temporary’ elements to CADprofi. It allows to keep full control over all installations in the drawing.

Temporary lines may be permanently transferred to CADprofi database.



✓ Creating the „favourites” category

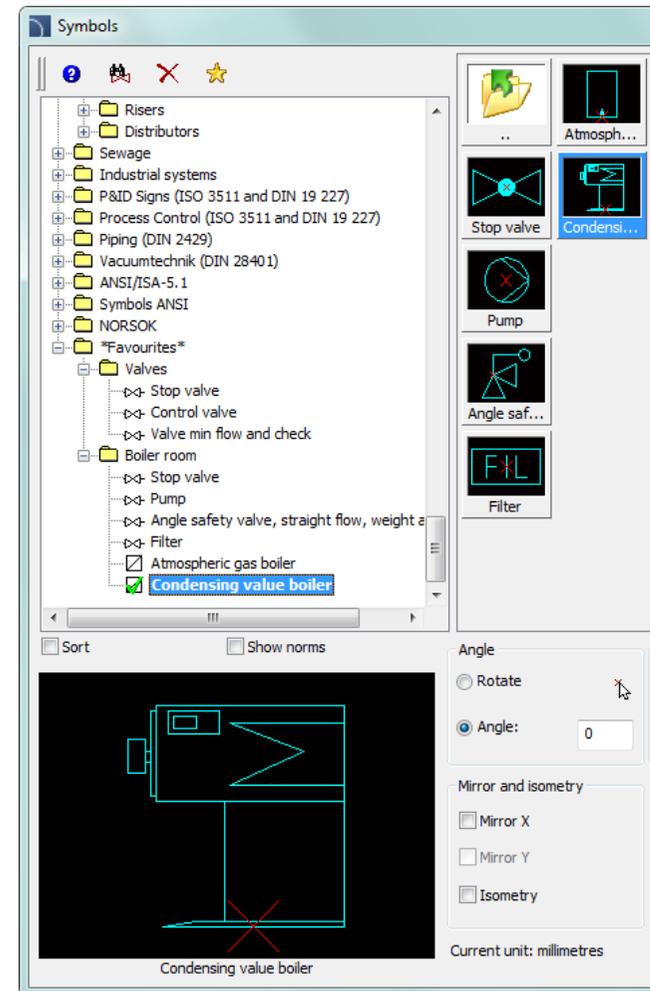
We have added a possibility to add objects to „favourites” in many commands and libraries.

There are thousands of symbols, lines and other elements in CADprofi program. With such a large number of elements it may be sometimes hard to find the right symbol. On the other hand, when working on a particular project mostly no more than a dozen of symbols are needed. In the new version of CADprofi software designers can add selected elements to the „favourites” category, thanks to which they will have a quicker access to them.

It is possible to create your own subcategories that correspond to a specific theme, for example a separate category for plumbing or boilers in HVAC & Piping module or a category for switchgear in Electrical module. What is more, one element may be added to several subcategories.

For elements placed in the „favourites” category it is possible to change their names, thanks to which in specifications, legends and descriptions designers may use their own terminology. This feature can be also used to „translate” for example symbols from international standards that are not in our native language.

„Favourites” category is a very useful mechanism that vastly accelerates designing.

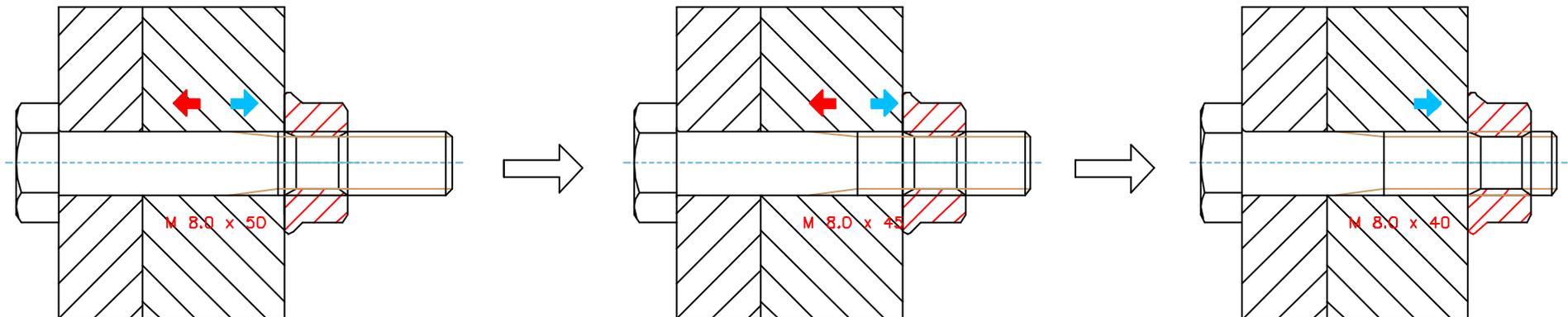


✓ Dynamic „extension” of objects

For many standardized parts we have added an ability to „extend” them, and more specifically choose another (longer and shorter) parts of the category.

After choosing the „Quick edit” command and selecting the right part an edition handle will appear.

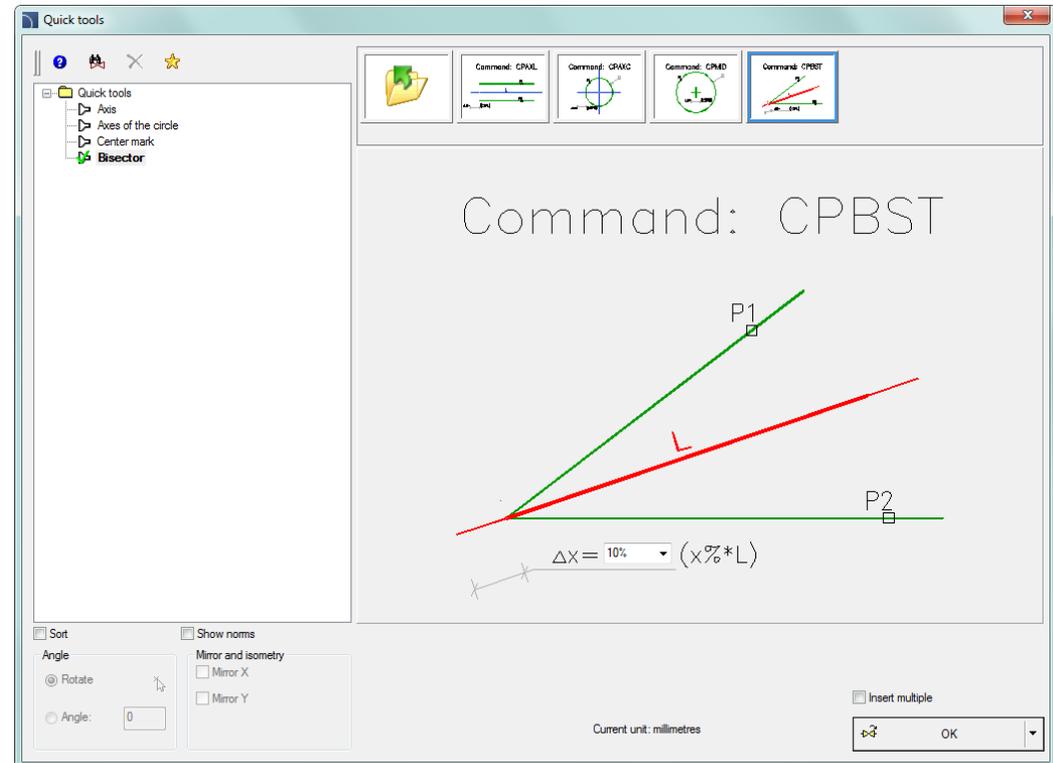
Dynamic extension is at the moment only available in the Mechanical module. This will be also implemented for many other objects in other CADprofi modules.



✓ Polylines operated by drawing tools

In drawing tools we have added a possibility to draw axis and bisection between lines and polylines.

We have also added a possibility to determine bisection between crossed lines or polylines.





CADprofi

✓ Update of manufacturers' libraries





CADprofi

✓ Adjustments made with ARES Commander Edition

Program CADprofi is now available for ARES Commander Edition – program that is being developed by a German company Gräbert GmbH.

Program ARES Commander Edition uses a native dwg format and may be used to design in many branches. With the ability to load CADprofi applications it can be easier and faster to work in ARES environment.





CADprofi

✓ Adjustment to many base CAD programs

CADprofi 9 has been adjusted to work with many CAD programs including: including AutoCAD/LT (since the 2000 version), BricsCAD, GstarCAD, IntelliCAD, progeCAD, ZWCAD, ARES Commander Edition and others.

The logo for AutoCAD, featuring the word 'AutoCAD' in a bold, red, sans-serif font with a registered trademark symbol.

The logo for ZWCAD, featuring the word 'ZWCAD' in a blue, sans-serif font with a green plus sign to the right.

The logo for GstarCAD, featuring the word 'GstarCAD' in a blue and yellow, sans-serif font, with the tagline 'An Alternative CAD System' below it.

The logo for BRICSCAD, featuring a stylized blue 'B' shape above the word 'BRICSCAD' in a bold, black, sans-serif font.

The logo for progeSOFT, featuring a blue globe with a yellow 'I' shape above the word 'progeSOFT' in a blue, sans-serif font.

The logo for IntelliCAD, featuring a purple diamond shape with a yellow 'I' shape above the word 'IntelliCAD' in a purple, sans-serif font.



CADprofi

✓ Windows 8

Current CADprofi version has been tested in the latest Windows 8 operating system.

Users who plan to move to the latest Microsoft system can do it without any fear of working with CADprofi.

CADprofi 9 application can also work in the previous both 32 and 64 versions of, Windows XP, Windows Vista, Windows 7 operating systems.

Tested on



Windows® 8



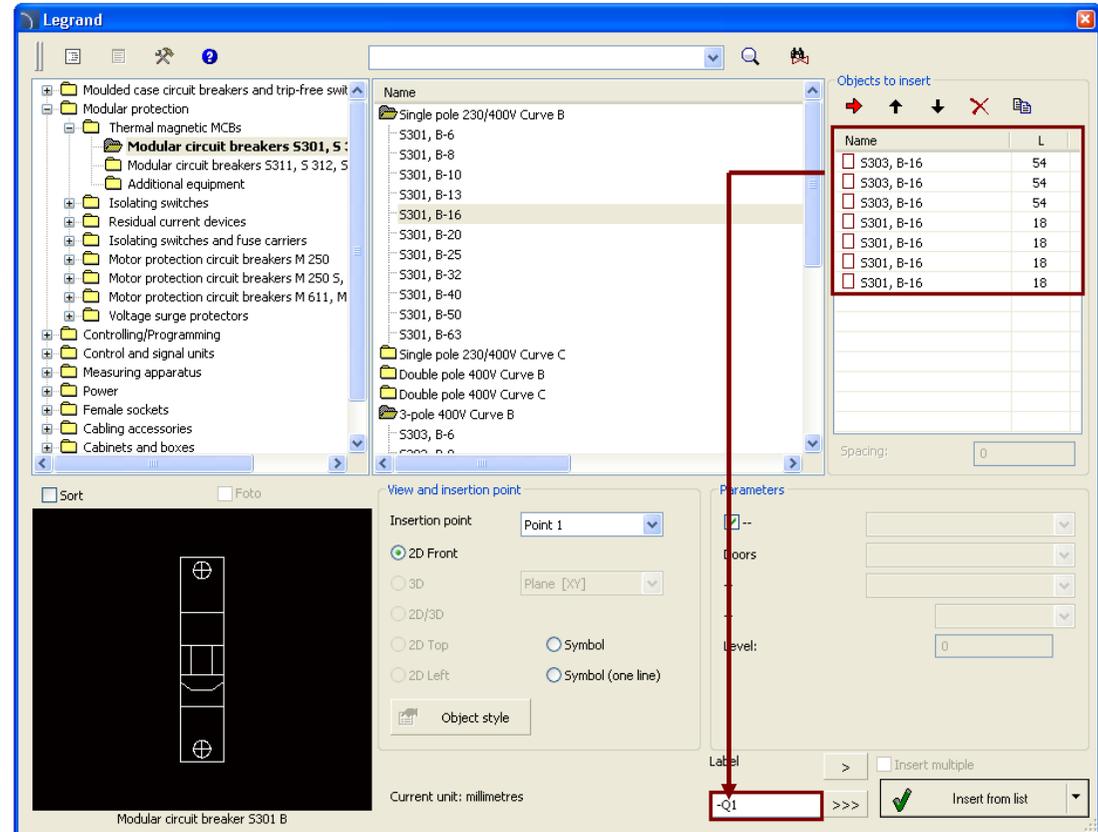
CADprofi

Changes in CADprofi 8.03 – 8.21

✓ Change with apparatus numbering

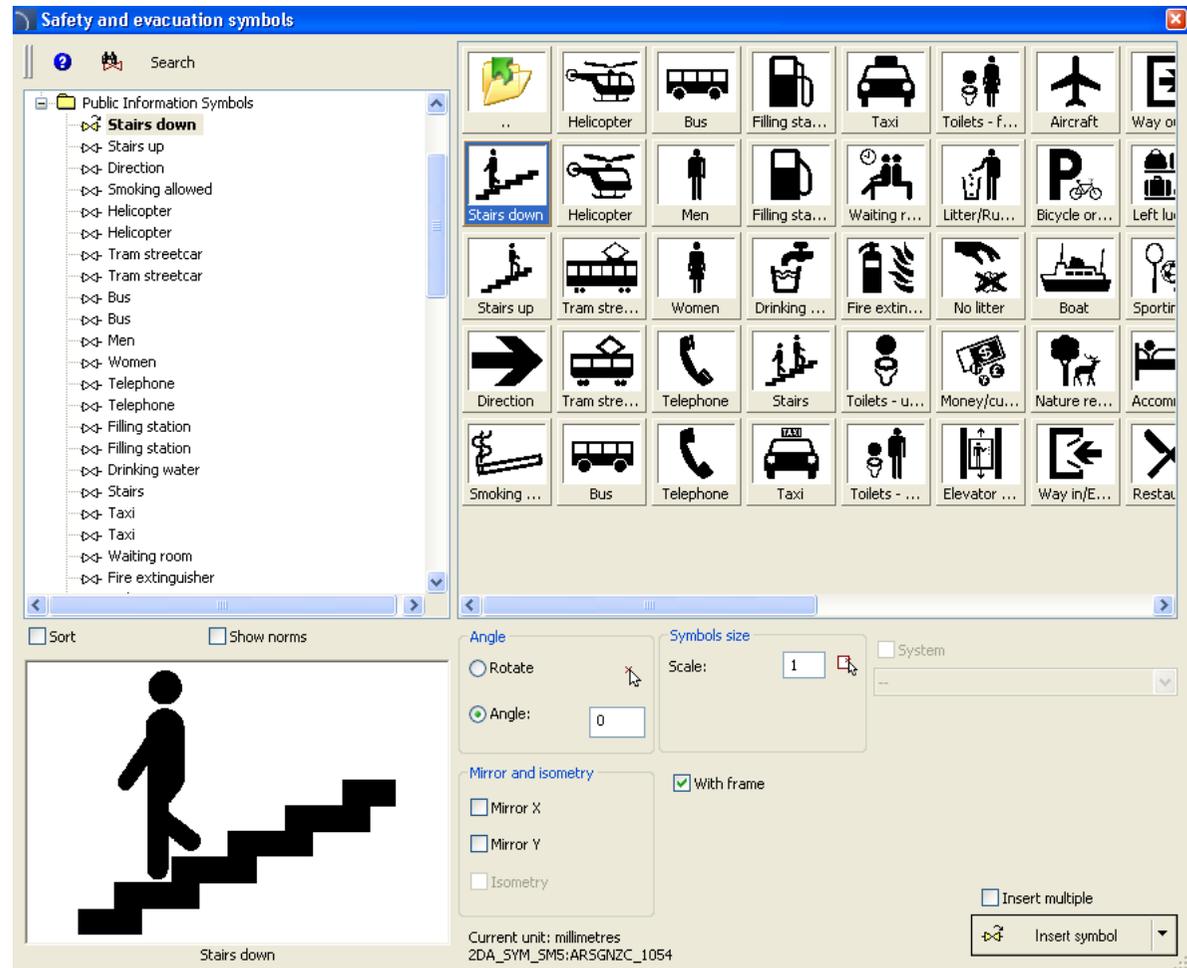
In earlier program versions while inserting multiple apparatus program was numbering them in accordance with default settings, meaning that user had no control over them. In the current version the numbering process is being made according to user settings.

Dialog window with apparatus



✓ Public information symbols – CADprofi Architectural

We have added a new standard of public information symbols in the „*Safety and evacuation symbols*” command.





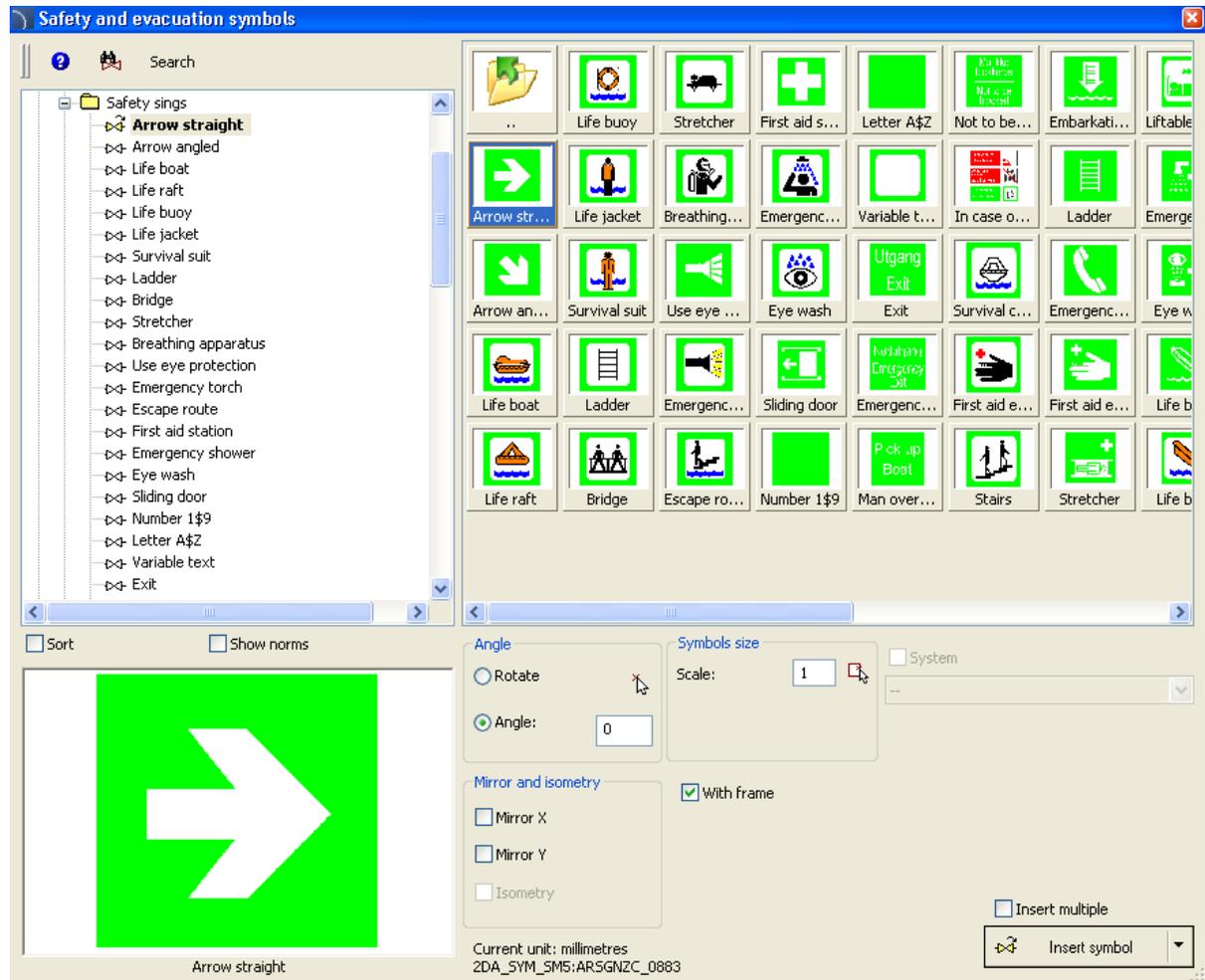
CADprofi



CADprofi

✓ Norsok symbols

We have added Norsok symbols, (which are widely used worldwide) to CADprofi program.





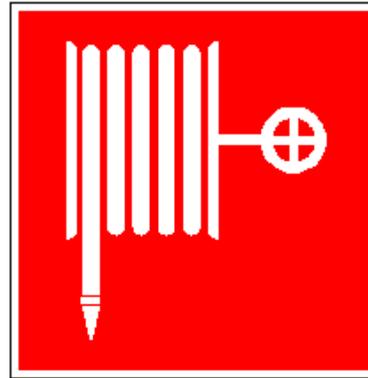
CADprofi

✓ Usage of frames in some symbols

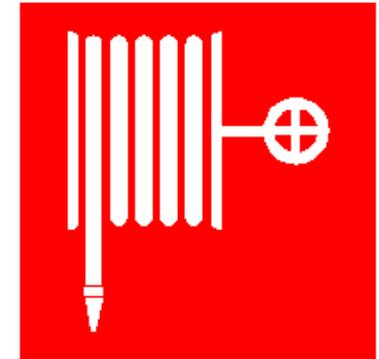
We have introduced a new feature in the new CADprofi version. You can now turn on or turn off frames in symbols located in the *“Safety and evacuation symbols”* command.

Thanks to the usage of frames, projects are now easier to read when symbols are used on a background of a colored or hatched area.

With frame



With frame



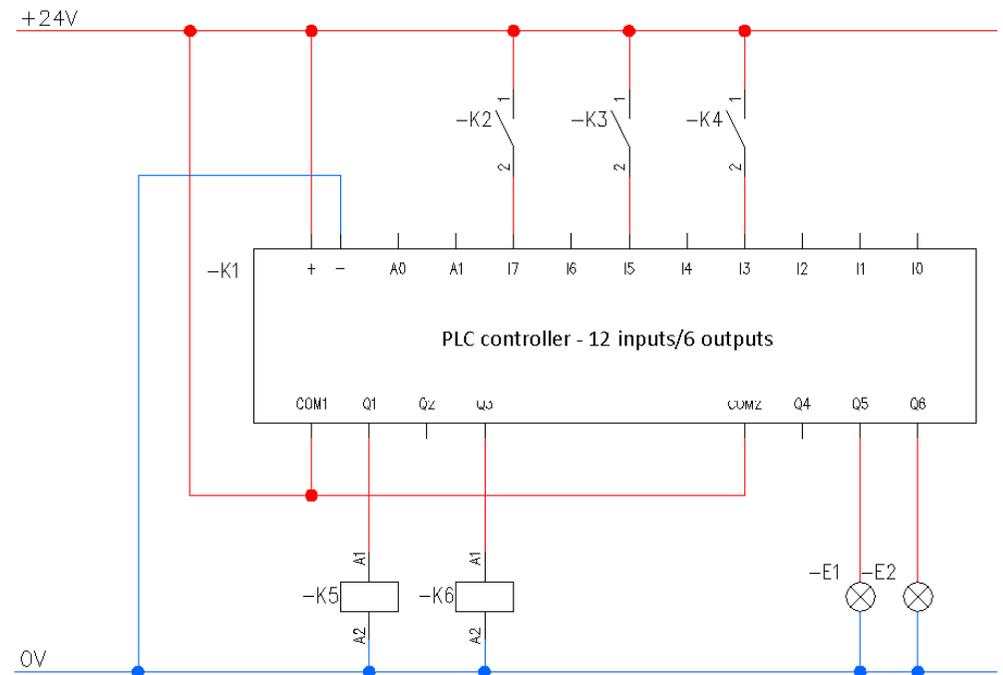
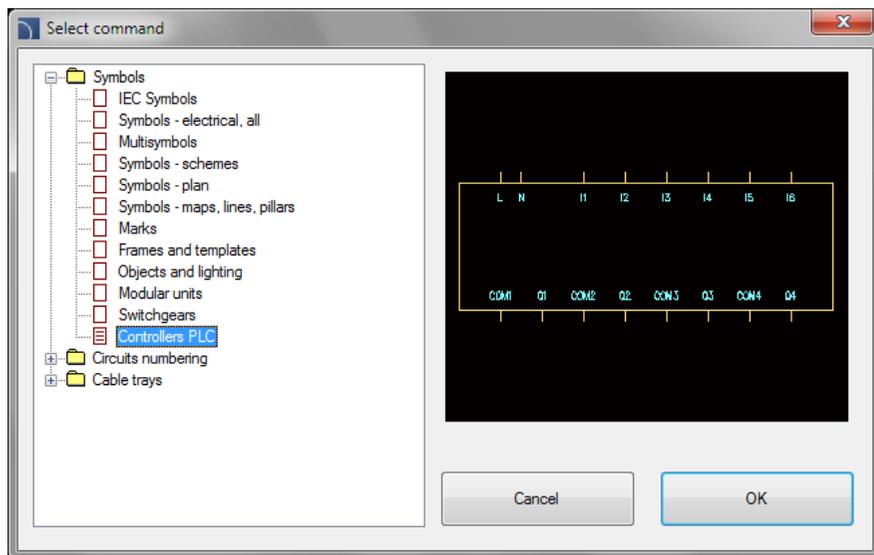
Without frame

✓ Designing PLC controllers

The „*Controllers PLC*” command allows to insert PLC controllers into the project with any configuration type.

This command allows to define any type of input/outputs, their number and addresses (numbering).

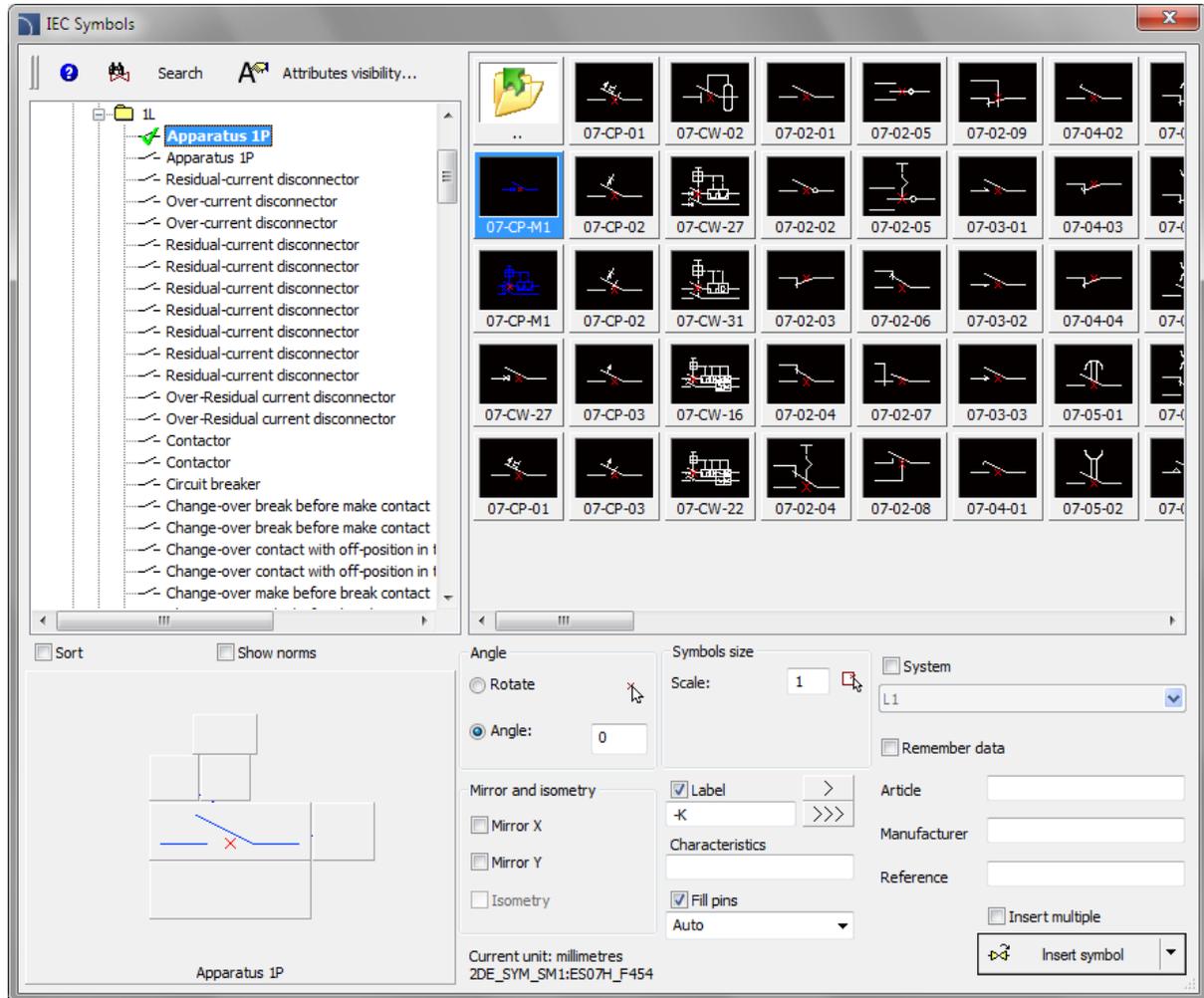
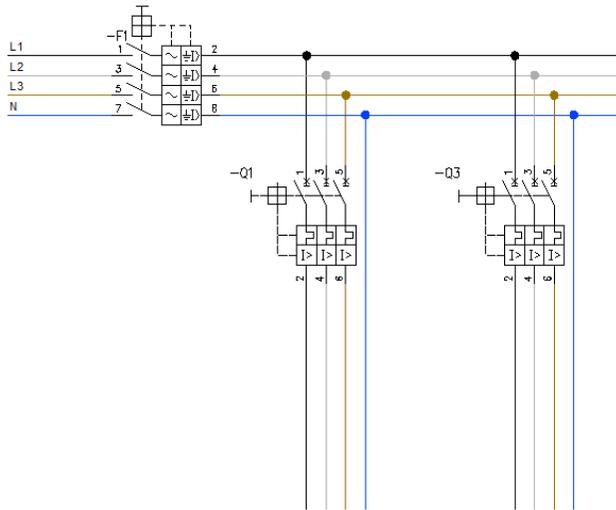
PLC controllers may be freely modified with the “*Edit symbols*” command.



✓ Horizontal symbols – CADprofi Electrical

We have added horizontal symbols in the „IEC symbols” command. Those symbols are adapted for insertion in horizontal lines of electrical circuits.

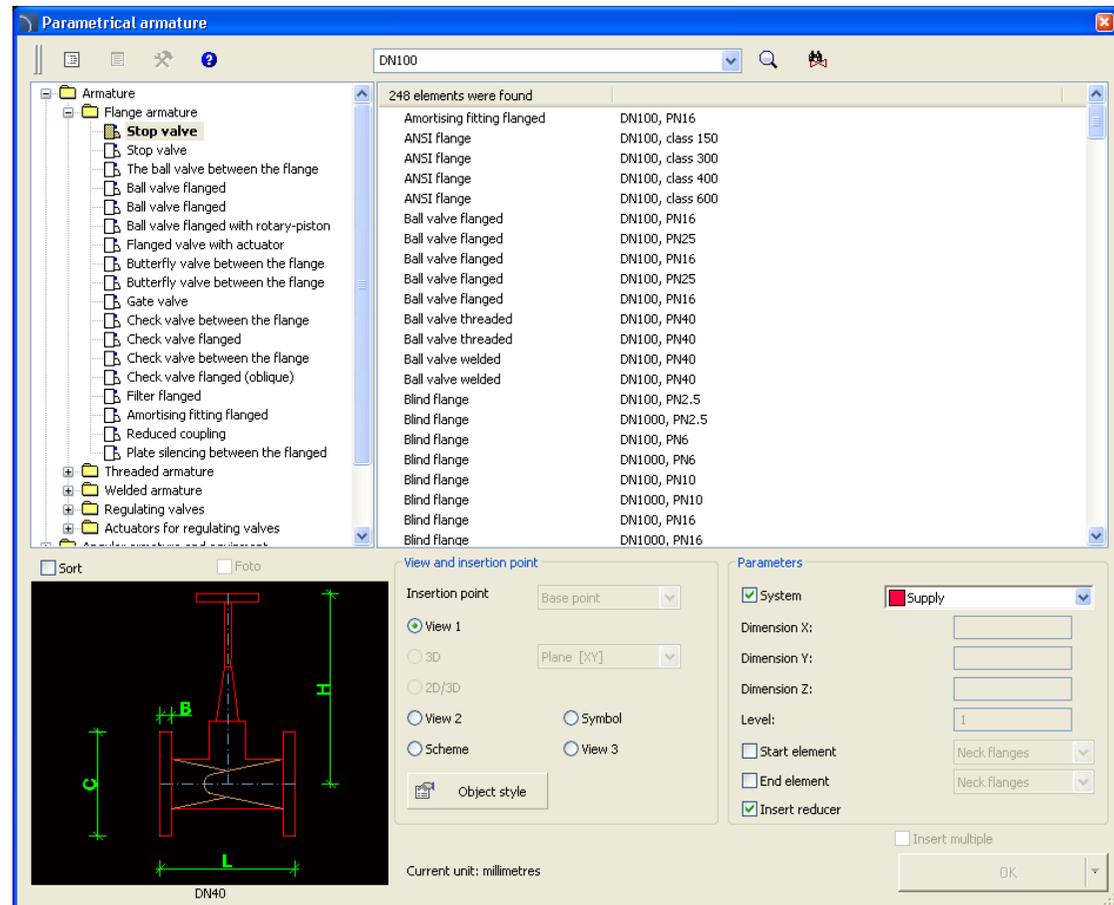
Thanks to the “Edit symbols” command user has a possibility to replace the horizontal symbol into a vertical or vice versa.



✓ A new type of products search system in the databases

Currently, in most libraries you can fully search for items in product databases. It is possible to search products in the whole database (🔍 button) or only in a chosen branch (📁 button).

List of all founded products is displayed directly in the dialog box.



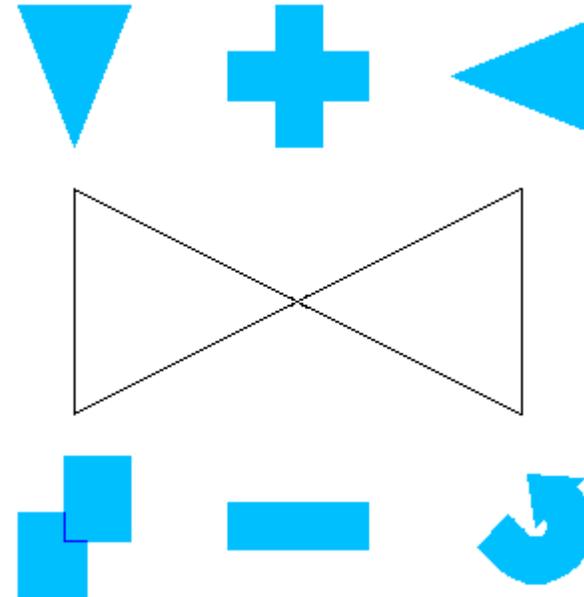


CADprofi

✓ Improvements in many commands

CADprofi 8.19 brings many improvements in already existing commands including:

- improvements in defining sets of cables schematics,
- improved user's definition of cables (installations).
- improved insertion of reduction when drawing 2D lines,
- modified drawing of 2D flex cables
- improvement of the "Quick edit" command,
- many other minor improvements made at the user's request.



✓ Block schemes

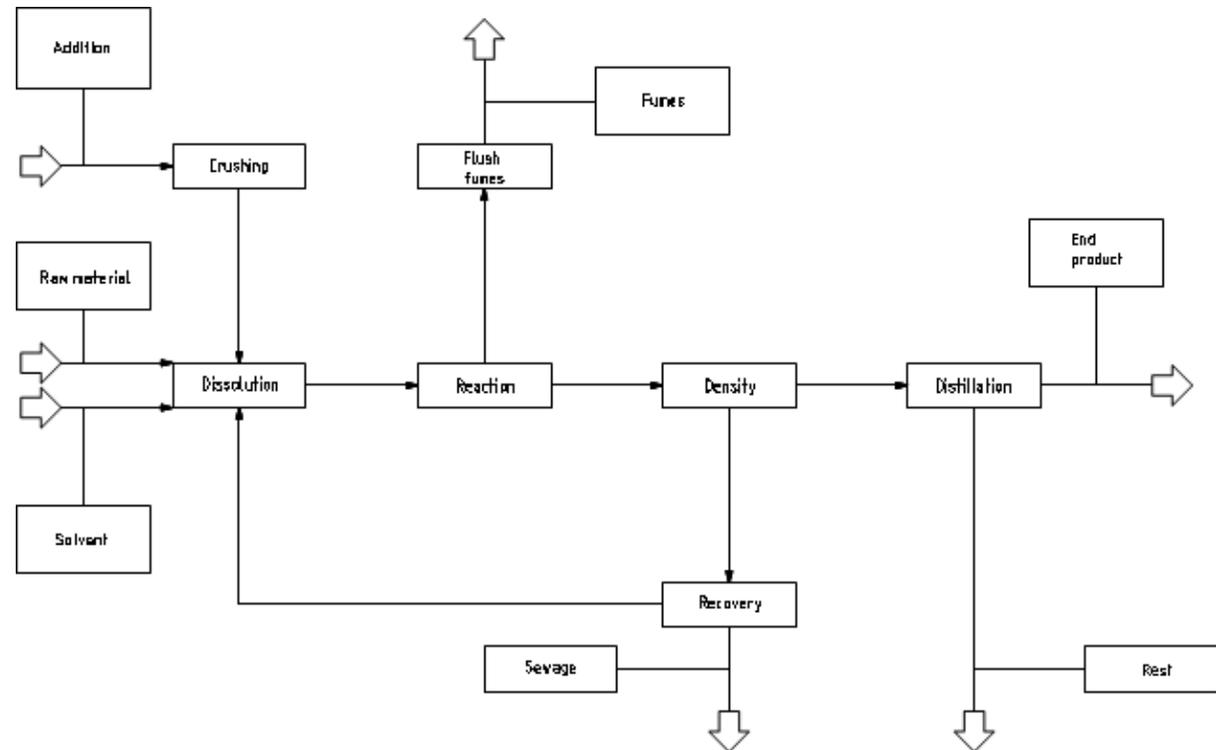


We have introduced a new command „Scheme and algorithms” that is used to draw block schemes, diagrams, algorithms, flowcharts etc.

One of the areas where you can use this new command is to draw any type of block and technological schemes.

All symbols will automatically adjust its size to the amount of entered text. It is also possible to specify fixed dimensions for each element.

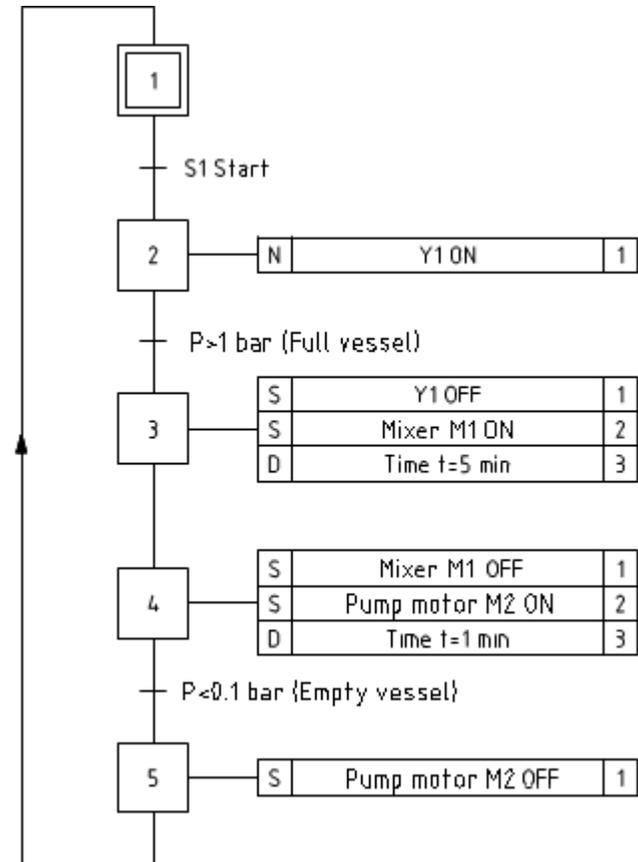
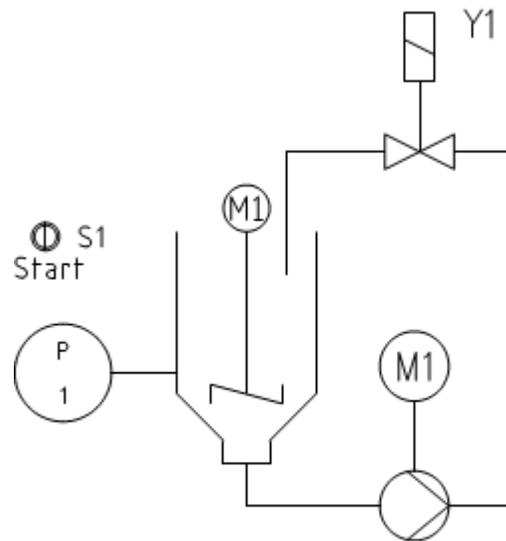
The drawing on the right shows an example industrial installation block scheme.



✓ Functional schemes – EN 60848



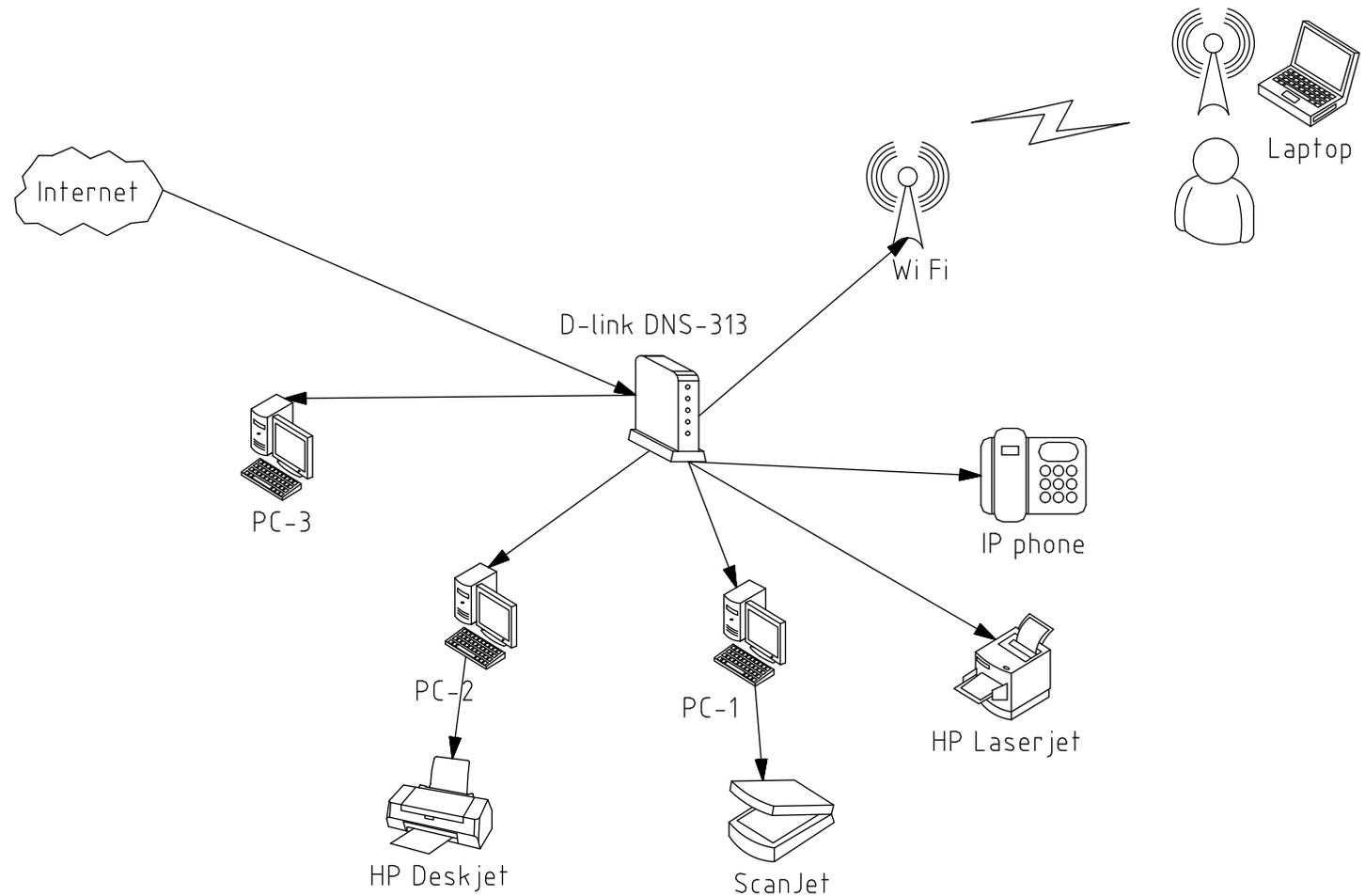
Another area where we can use the „Scheme and algorithms” command is to draw functional schemes according to the EN 60848 norm.



✓ Infrastructure and computer network schemes



Creating computer network and infrastructure schemes.

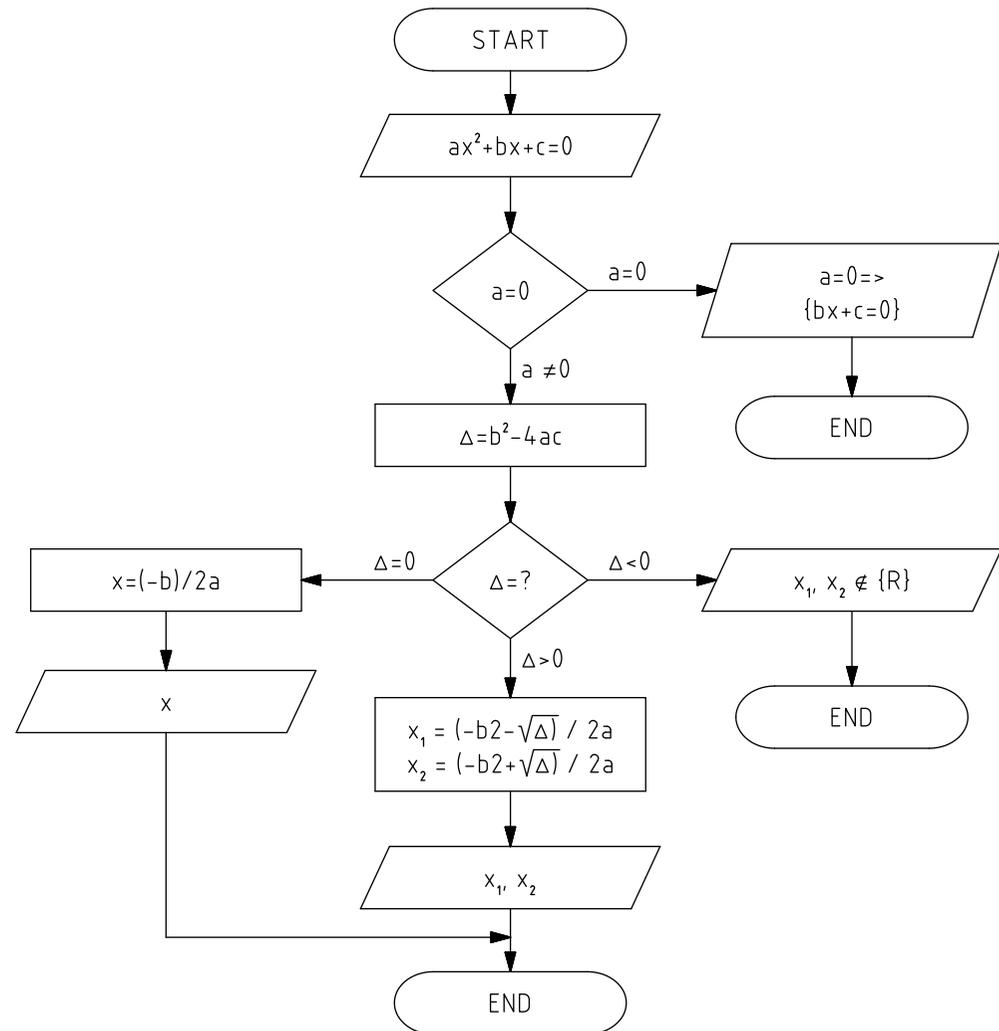


✓ Flowcharts, algorithms etc.



Possibility to draw flowcharts, organization charts, algorithms etc.

The drawing on the right shows an example algorithm of square root calculation.



✓ BPMN schemes (Business Process Modeling Notation)

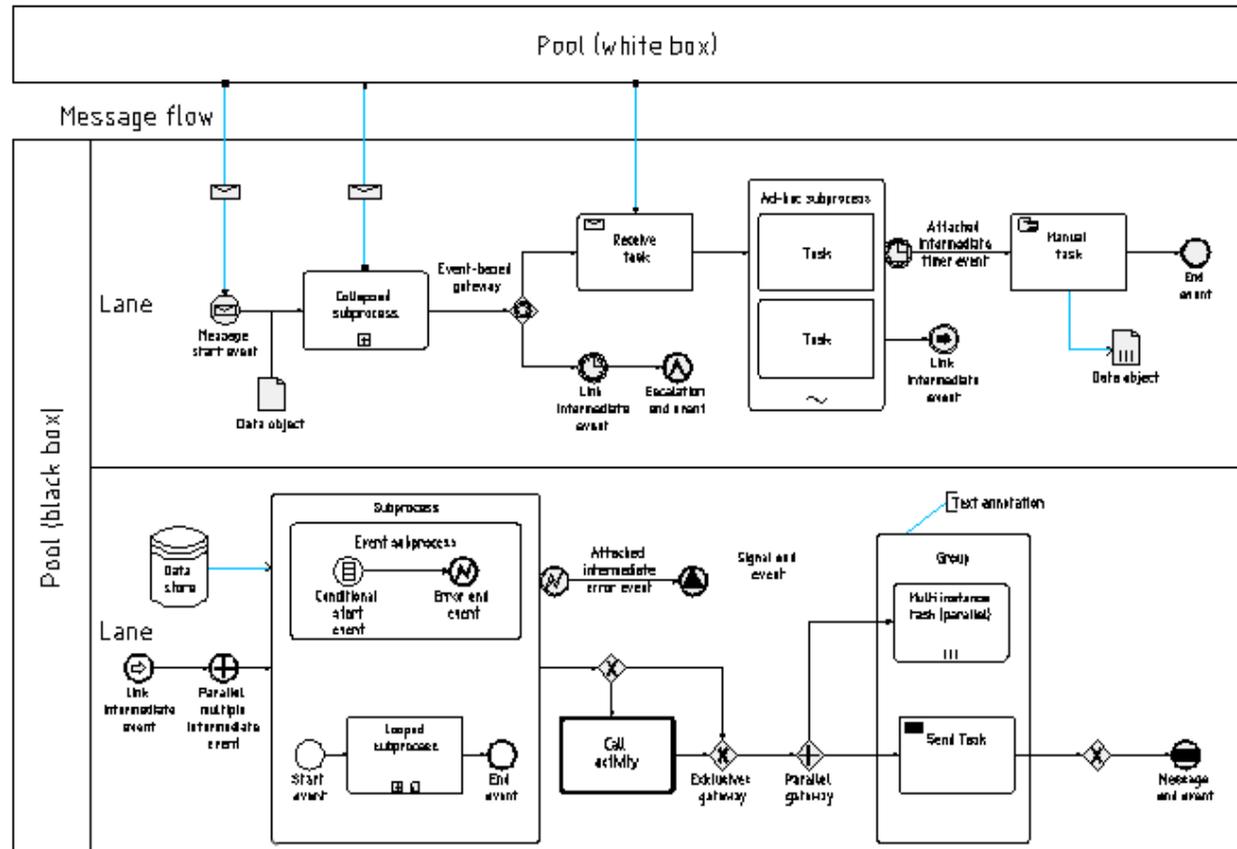


Possibility to draw BPMN schemes. Business Process Modeling Notation is a graphical method of showing business processes. BPMN describes three basic processes types:

- internal process
- public process
- global process

In CADprofi program you can find the following categories of graphical elements:

- flow objects
- connecting objects
- swim lanes
- artifacts that are used to add additional information (data, annotations and groups).

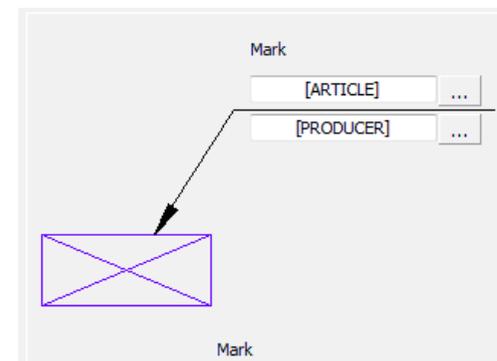
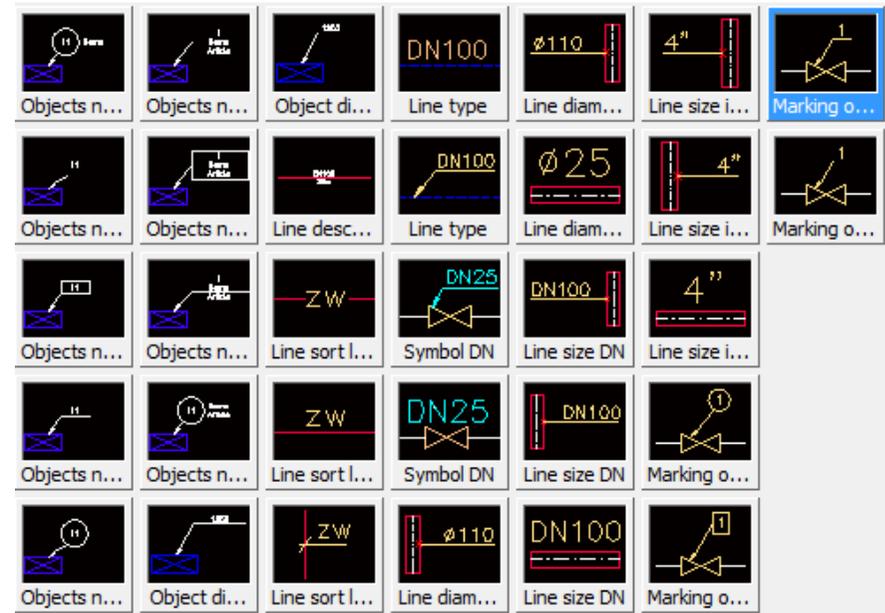
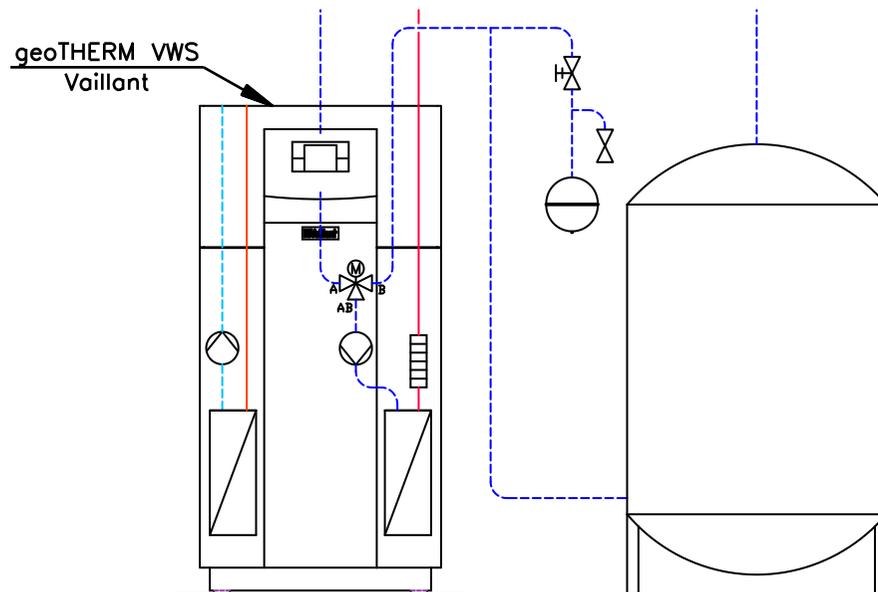


✓ New marking symbols



We have introduced new universal marking symbols, which can retrieve any kind of data from the described objects. Marking symbols include fields, which are used to retrieve attributes, technical specifications, dimensions etc. from objects.

*Example of marking symbols with two fields:
Type and Producer (attributes [ARTICLE] and [PRODUCER])*



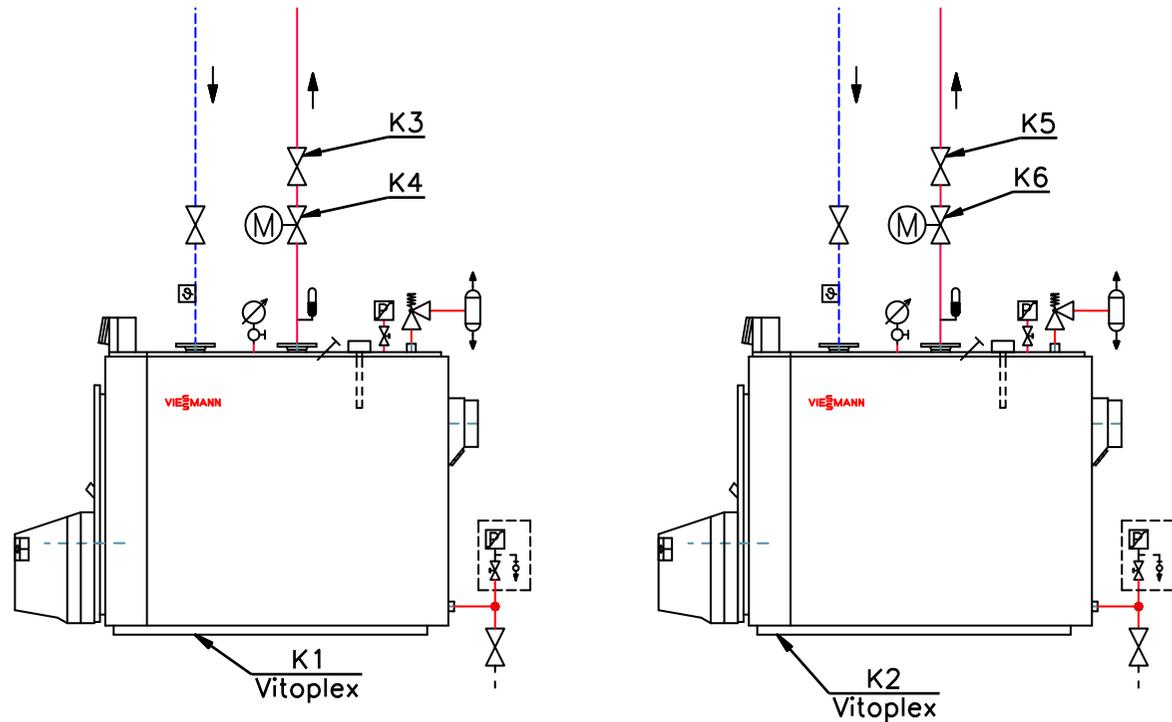
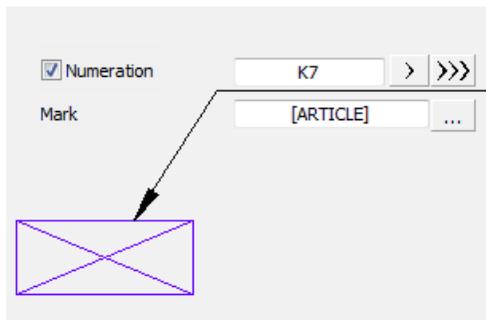
✓ New way of objects numbering



We have introduced a new object numbering system with use of special marking symbols. Separate numbering sequences are available for piping, ventilation, electrical and mechanical installations.

Still it is possible to use already existing ways of numbering:

- command „Numbering”,
- circuits numbering,
- numbering of symbols labels and electrical objects.



Example of K1 – K6 numbers added with marking symbols

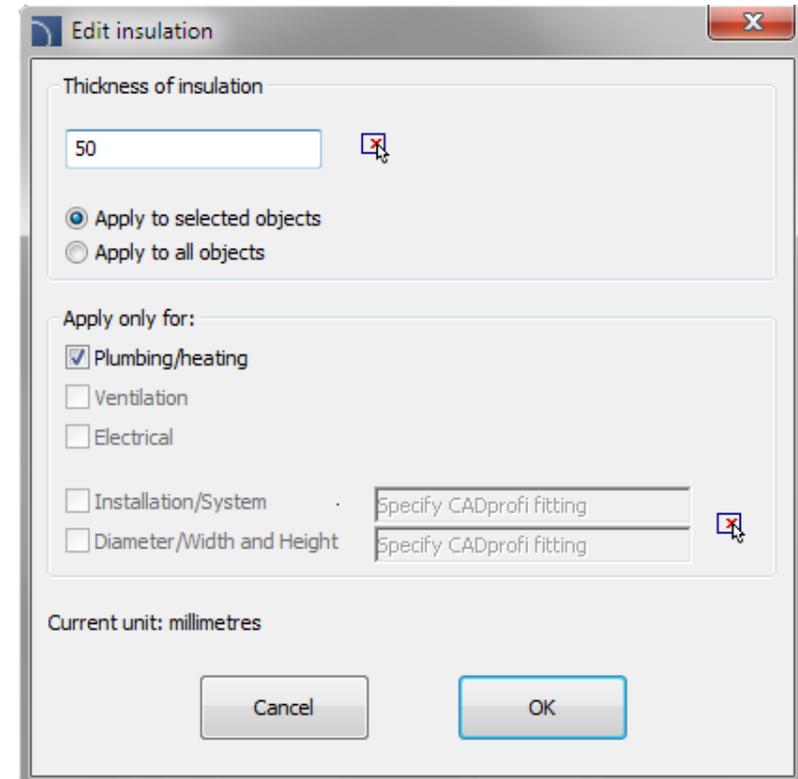
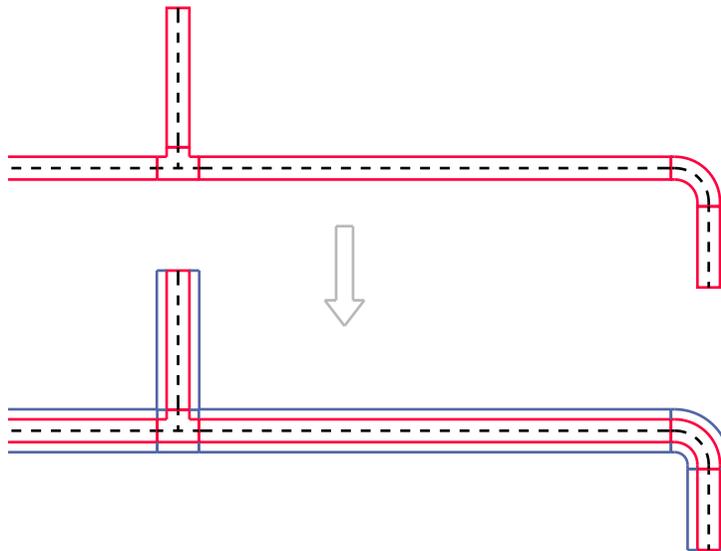


✓ New command: „Insulation”



This command allows to quickly insulate or change insulation parameters for many types of pipes, ducts and fittings.

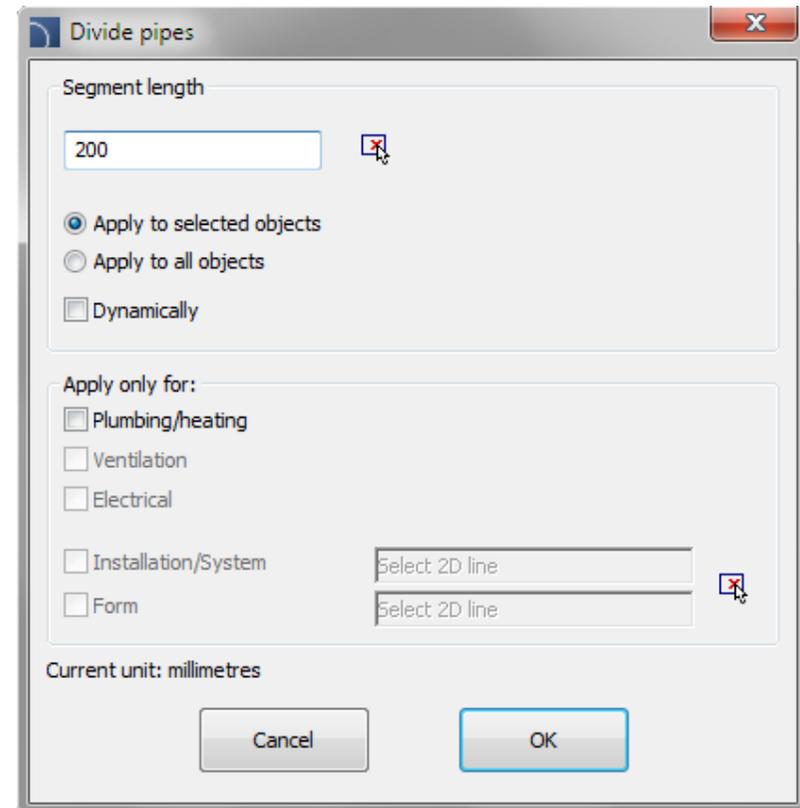
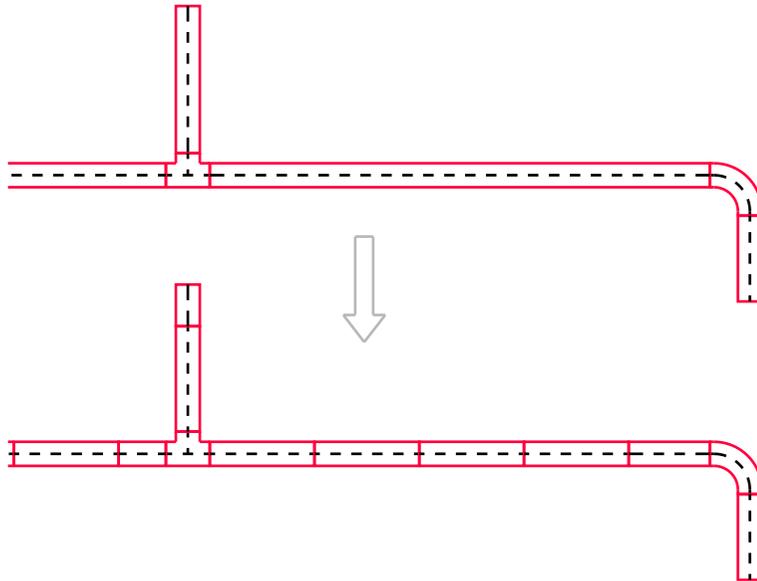
Many types of filters makes it easier and quicker to choose the right insulation type (for example only the selected type of installation or all specific pipes type).



✓ Changes in „Divide pipes/ducts” command



We have added an additional dialog window that allows user to easily select filters when determining which lines or pipes he would like to divide.



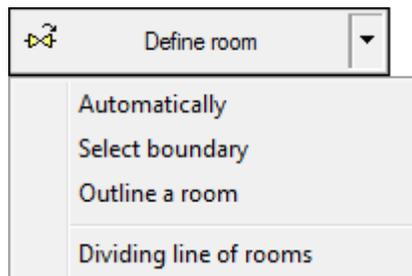
✓ Automatic room description – CADprofi Architectural



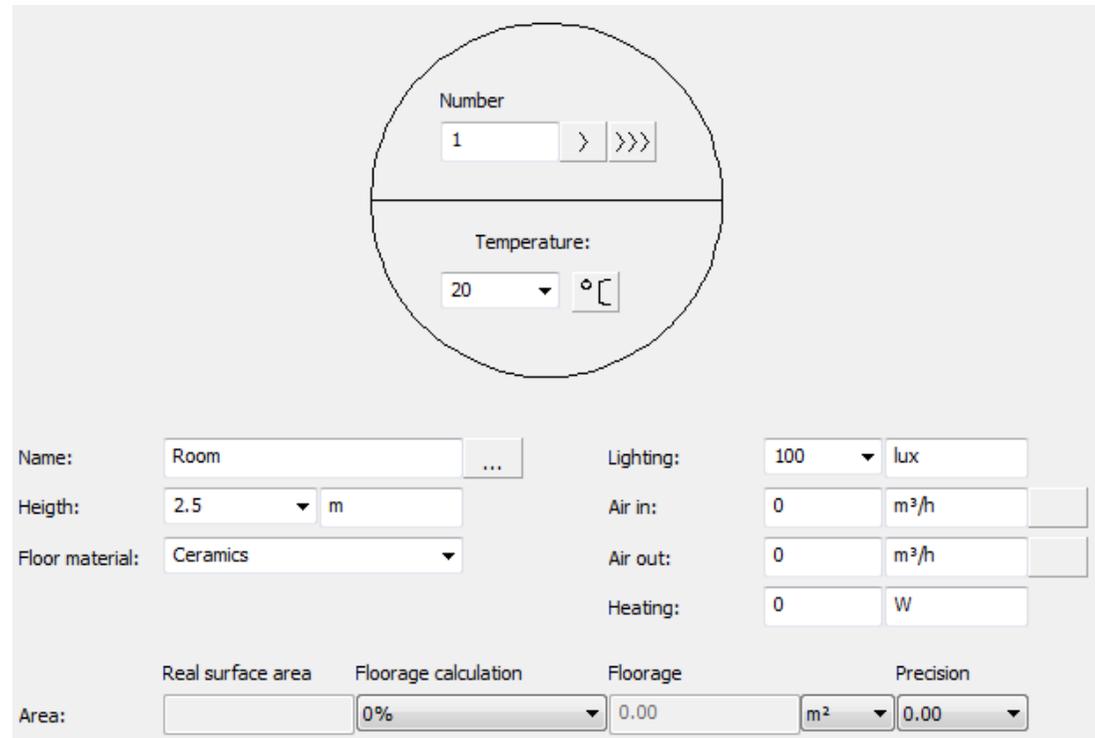
We have created a new command that is used to define rooms with automatic calculation of the surface area.

If the project has been made with CADprofi Architectural walls then it is possible to determine the rooms outline. In other cases it is possible to acquire the outline or the area boundaries which will be treated as rooms.

We have also introduced a possibility to draw rooms division with use of logical lines.



When changing the boundaries, program will automatically calculate and update the room area.



Number		Temperature:	
1		20 °C	
Name:	Room	Lighting:	100 lux
Height:	2.5 m	Air in:	0 m³/h
Floor material:	Ceramics	Air out:	0 m³/h
		Heating:	0 W
Area:	Real surface area	Floorage calculation	Floorage
		0%	0.00 m²
			Precision
			0.00

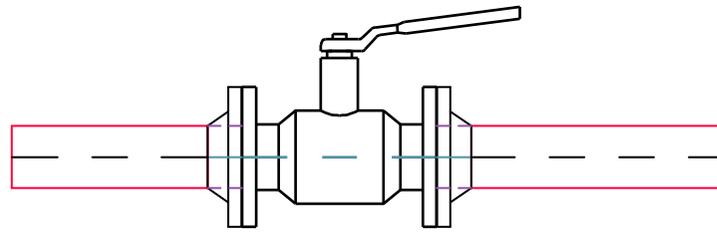
✓ Additional views for flange valves – CADprofi HVAC & Piping



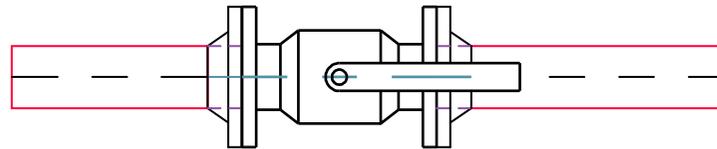
For flanged valves we have added additional views: top view, front view, schematic view (simplified), side view.

One of the new program's features is a possibility to insert symbols used in schemes directly from the flanged valves library. These symbols possess full information about both the type and size of the product used in the project.

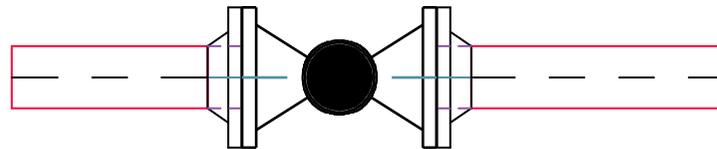
The „Create alternative view” command allows to easily get different views of chosen object. It can be used when creating cross-sections, projections and schemes for installations.



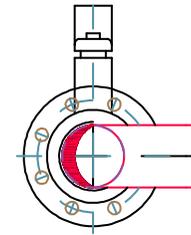
View 1 (2D)



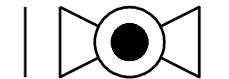
View 2



Schematic view



View 3



Symbol

✓ Multi-variant symbols in CADprofi Electrical

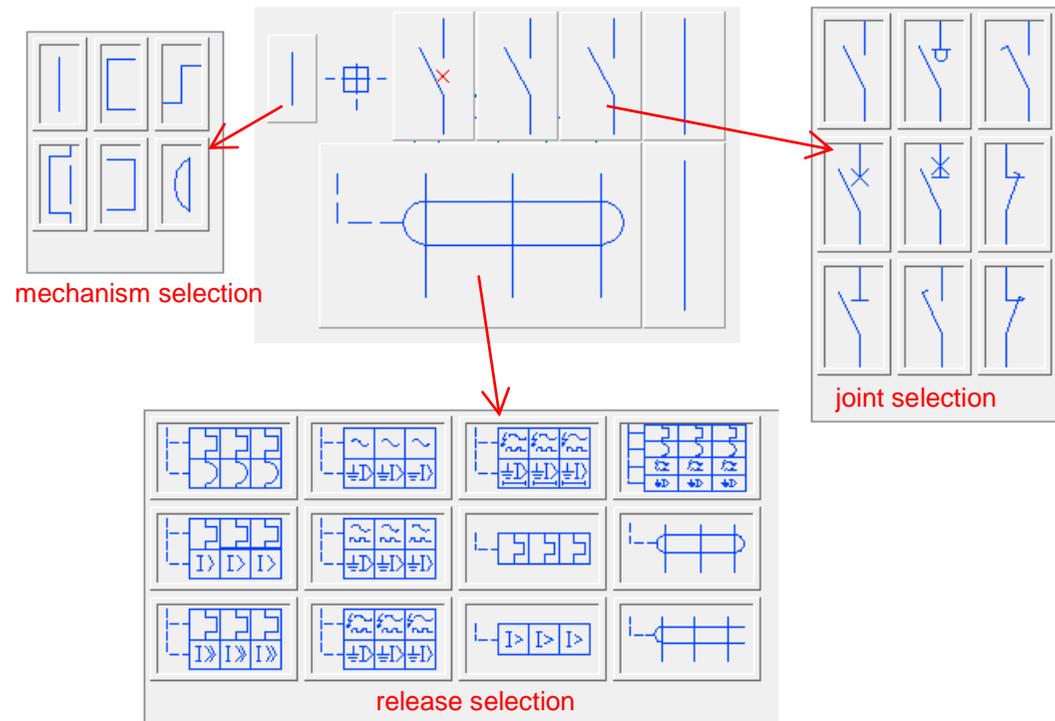


We have included additional apparatus, connectors and sockets symbols to CADprofi Electrical that have a different option choices of joints, actuators, releases etc. Thanks to these multi-variant symbols user can insert apparatus that contain any kind of contactors or other elements configuration type.

One multi-variant symbol can replace many „traditional” ones. Until now, when user needed to insert some unusual symbols he had to define a new symbol on his own. Currently this task has been made a lot easier because user can choose the right apparatus elements.

Multi-variant symbols can be freely modified with the use of „Edit symbols” command.

Apart from multi-variant symbols we have also added many other symbols such as clips, complex apparatus and passive components according to the 60617-4 standard.



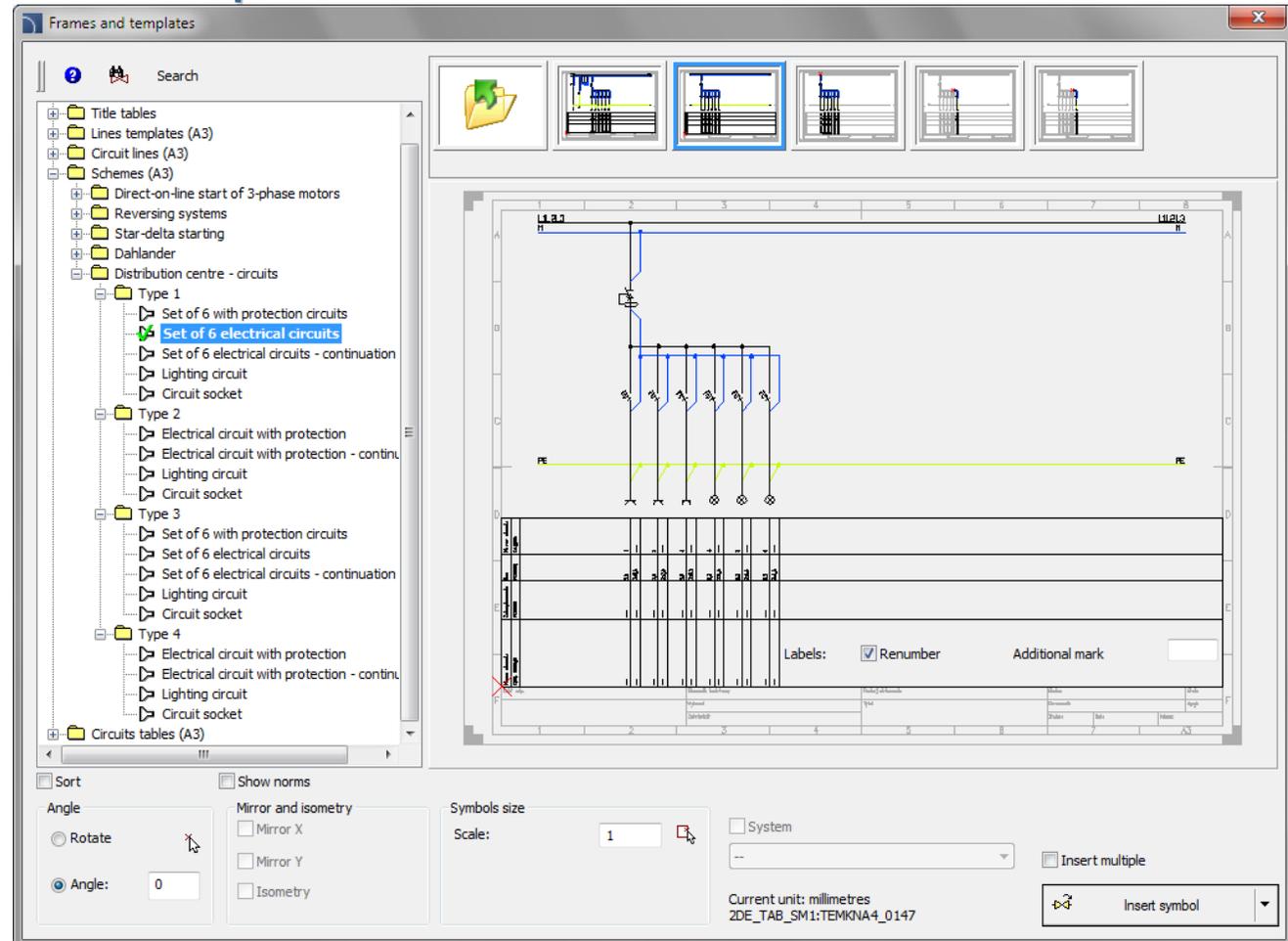
Example of a multi-variant symbol

✓ Distribution centre circuits – CADprofi Electrical



We have added distribution centre circuits to the „Frames and templates” command in CADprofi Electrical. There are both full sets as well as single circuits available. Thanks to this it is possible to quickly create a large variety of switchboard schemes.

When inserting new additional elements it is possible to renumber them as well as it is possible to add additional markings to them.



The screenshot shows the 'Frames and templates' dialog box in CADprofi Electrical. The left pane contains a tree view of templates, with 'Set of 6 electrical circuits' selected under 'Type 1' in the 'Distribution centre - circuits' folder. The center pane shows a preview of a circuit diagram with a busbar, six circuit breakers, and a PE line. The bottom pane contains configuration options: 'Sort', 'Show norms', 'Angle' (Rotate, Angle: 0), 'Mirror and isometry' (Mirror X, Mirror Y, Isometry), 'Symbols size' (Scale: 1), 'System', 'Insert multiple', and 'Current unit: millimetres' (2DE_TAB_SM1:TEMKNA4_0147). There is also an 'Insert symbol' button.

✓ Apparatus modules – CADprofi Electrical

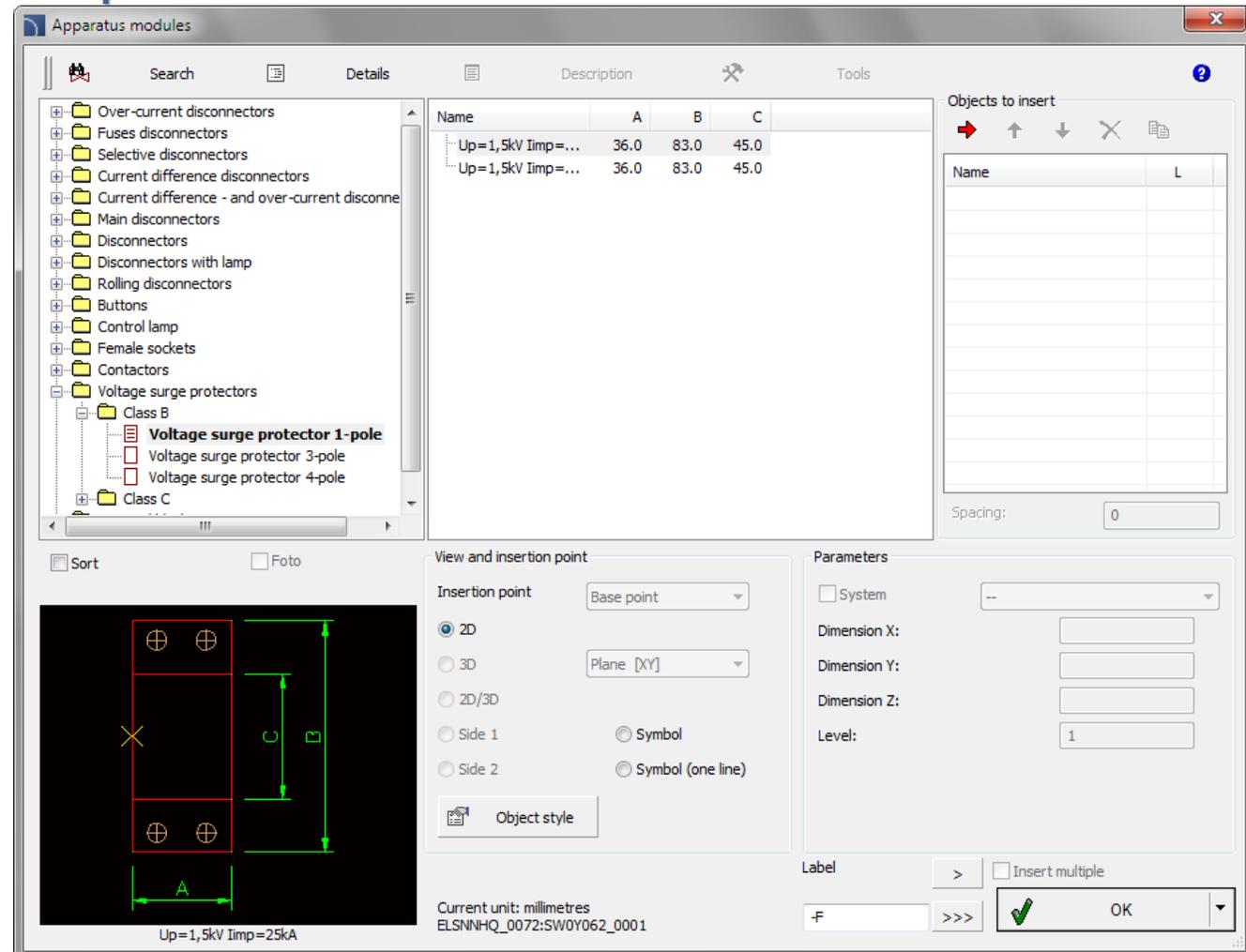


We have prepared a new command that contains apparatus modules (previously you could find apparatus modules in the „Switchgears” command).

Additionally it is possible for apparatus modules to insert several apparatus at once.

For all apparatus it is possible to insert symbols and one line symbols that are used on schemes.

We have also added voltage surge protectors and terminal blocks to the program.



The screenshot shows the 'Apparatus modules' dialog box in the CADprofi Electrical software. The dialog is divided into several sections:

- Tree View:** A hierarchical list of apparatus modules. The selected item is 'Voltage surge protector 1-pole' under 'Class B'.
- Table:** A table with columns 'Name', 'A', 'B', and 'C'. It contains two rows of data:

Name	A	B	C
Up=1,5kV Iimp=...	36.0	83.0	45.0
Up=1,5kV Iimp=...	36.0	83.0	45.0
- Objects to insert:** A table with columns 'Name' and 'L'.
- Parameters:** A section for configuring the insertion point and dimensions. It includes options for '2D', '3D', '2D/3D', 'Side 1', and 'Side 2'. The '2D' option is selected. There are also options for 'Symbol' and 'Symbol (one line)'. The 'Level' is set to '1'.
- Preview:** A window showing a schematic symbol for a voltage surge protector. The symbol is a rectangle with two circles at the top and two at the bottom. Dimensions A, B, and C are indicated with green arrows. Below the preview, the text 'Up=1,5kV Iimp=25kA' is displayed.
- Buttons:** 'Sort', 'Foto', 'Object style', 'Label', 'Insert multiple', and 'OK' buttons are visible.

✓ Update of CADprofi Mechanical standards



We have added and updated many standards in the Mechanical module, including:

ISO 2491, DIN 6885, PN-M-85005, PN-M-85001, PN-M-85002, ISO R 773, ISO R 774, ISO 2492, DIN 6886, DIN 6887, DIN 6883, DIN 6889, PN-M-85031, PN 85035, PN 85034, PN 85037, PN 85036, GOST 24068-80, GOST P 50536-93.

We have also added new marking symbols, that makes it easier to describe and number objects.

