

News

CADKON+ 2023



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CADKON+ 2023 News

CADKON+ 2023 contains a number of new features and minor improvements based on requests from you, users. The main common news that can be found in all CADKON+ modules are **dynamic tables** (that can be formatted in a similar way as tables in Excel) or **Multileaders** that you can easily edit using node points, add leaders to them, align them or group them under one leader.

We have also improved **layer management** where you can now easily merge layers into one or remove overrides of viewport layers. You can now drag **layout** tabs to a different location using Drag and Drop, simply add another layout or export the layout content into a new drawing with a new command. The brand new command DWGPROPS enables you to **enter user data to a drawing** (e.g. project name, author, comments etc.) and link this data within attributes (e.g. to a corner stamp). All users will for sure enjoy the option to **export settings and library contents** and import them on another PC.

Construction designers using CADKON+ Architecture will be pleased with the long-requested functionality for creating **multilayer structures** of all kinds. You can now create, for example, sandwich walls in plan view or roof, ceiling, floor, communication sections etc. **Door and window openings can now trim structures** in which they are drawn into, including sandwich walls. Based on your frequent suggestions, we have implemented the option to **itemize and report steel structures**. And, not only for Slovak users, we have added the insertion of **E type plots** of the Slovak Land Registry.

CADKON+ RC brings new features for **welded mesh reinforcement** (under the CADKON+ RC Ultimate license package), new functions for mesh cutting optimization with **cutting schemes** and **full mesh reporting**.

The area of bonded reinforcement now brings a new **Distribution of partially identical bars** feature which allows you to reinforce oblique parts of a structure with groups of the same bar instead of variable length item.

Furthermore, the existing functions for **copying reinforcement** (Copy from section to section and Copy 3D+2D) have been improved by adding the option to copy a reinforced element using the clipboard into another drawing.

The existing option to draw steel profiles in 2D has been extended with features **for itemizing and reporting steel structure elements**. To better support the creation of shape drawings, **length dimensioning** tools were expanded in CADKON+ RC.

This document serves as a detailed overview of new features, improvements and lists CADKON+ 2023 fixes of CADKON+ 2022.

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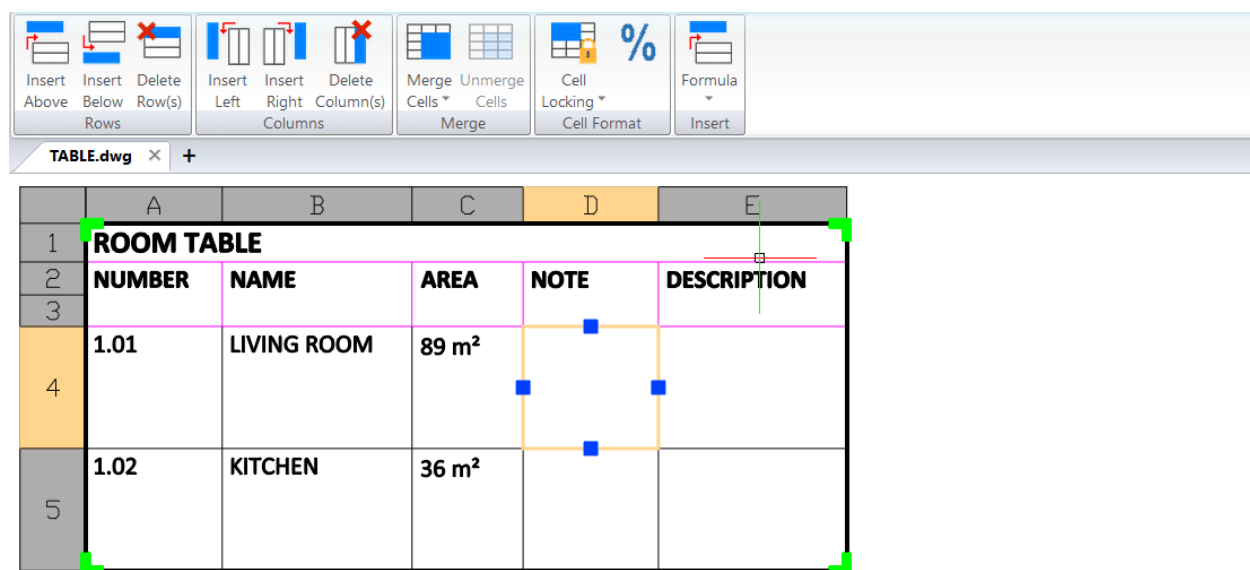
News for CADKON+ ARCHITECTURE, CADKON+ RC and CADKON+ BASIC

Settings and libraries export/import between PC

You will now find tools for exporting/importing CADKON+ settings and libraries under the Start menu (Windows). You can thus easily export settings and library contents on one PC and import them on another PC. The transfer package is a classic ZIP file that contains everything necessary for the transfer. You can also use the export to back up your current settings, e.g. before reinstalling CADKON+. Settings and library contents can only be transferred between the same versions of the program.

Dynamic tables

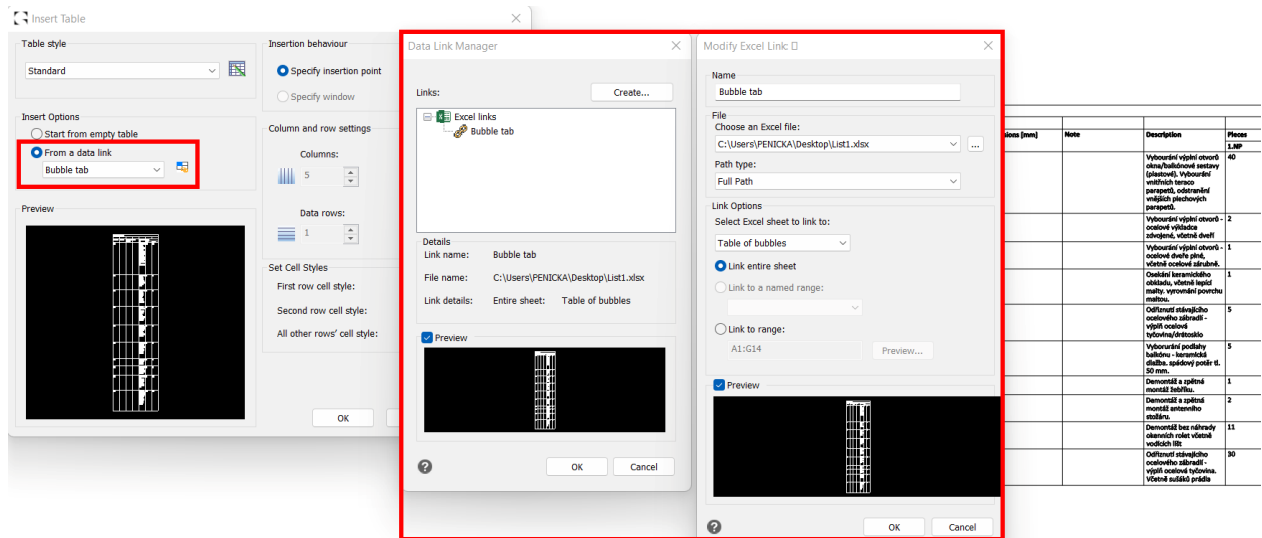
CADKON+ 2023 includes new general dynamic tables. You can edit these tables very quickly and easily using node points (change the size of individual rows or columns, change the height of all rows, the width of all columns, etc.). Using the menus in the corresponding ribbon, you can add or remove rows/columns, change the formatting of individual cells in similar way to Excel.



Pict. Dynamic table and formatting options.

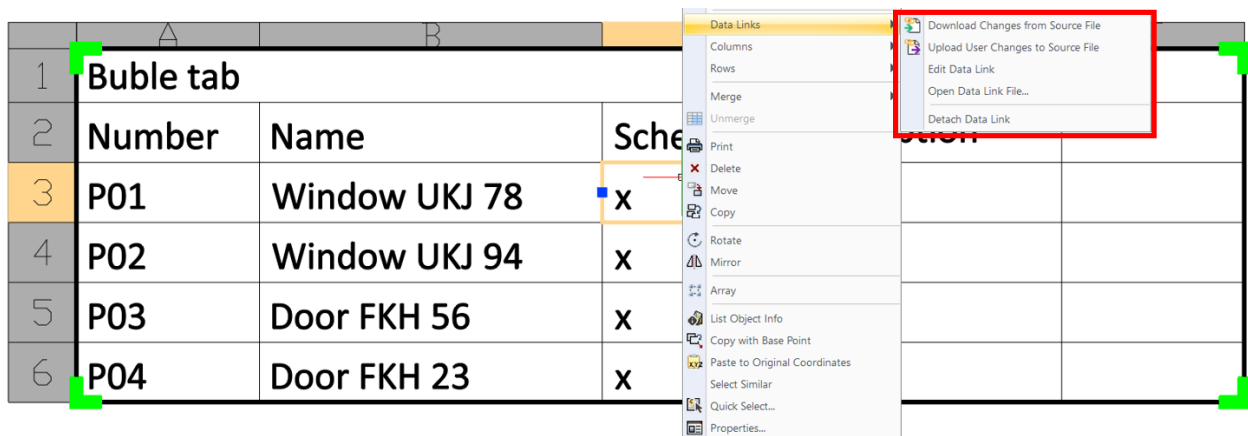
V All table settings regarding formatting, alignment, borders, text styles, etc. can be accessed via Properties (CTRL+1) or from the right-click context menu.

With these new tables, you can also create so-called Data Links directly to Excel files, where the contents of the Excel document is directly linked to the table in the drawing. You can attach an entire Excel sheet or individual cell ranges.



Pict. Example of data link to Excel spreadsheet.

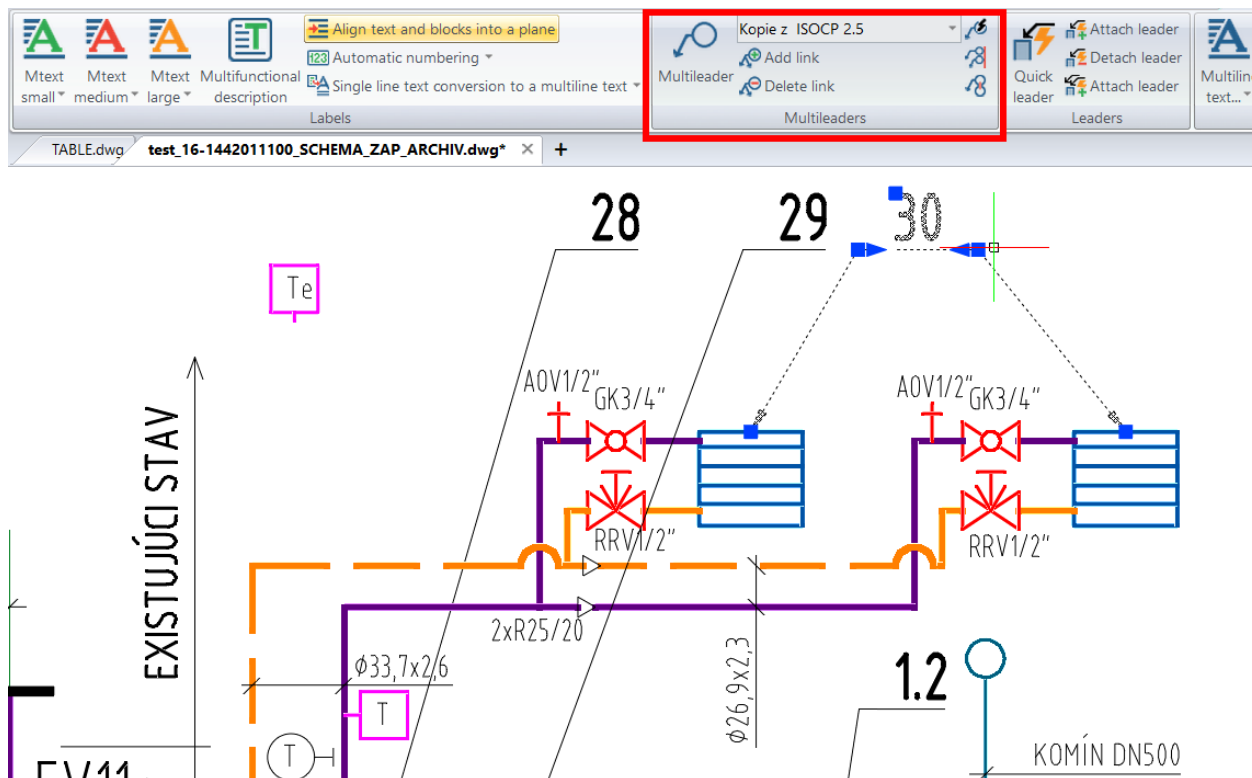
If the data in Excel is changed, the table and data can be easily updated. It can also be done the other way around. Data, which you change manually in the table, can be easily written to the Excel source file. All these options are available in the right-click context menu. It is also possible to detach to Excel data at any time and continue working with the data without linking.



Pict. Context menu with data link options.

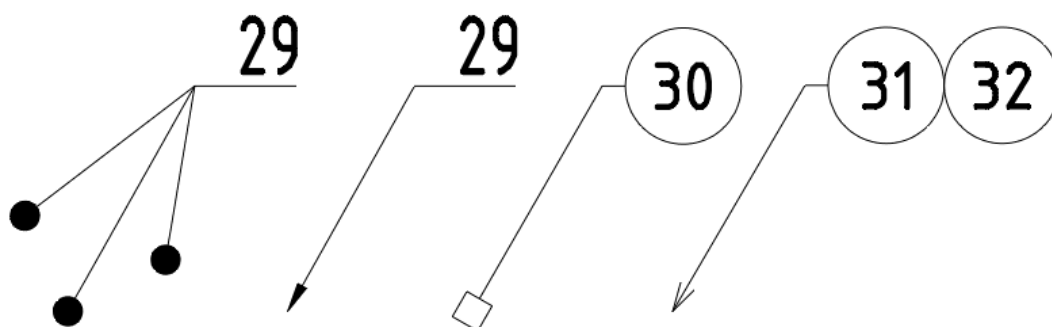
Multileaders

Another new feature in the 2023 version is Multileaders. These are intelligent leaders that can be easily edited using node points (change the leader or text position, stretch the horizontal extension of the leader, etc.).



Pict. New ribbon to work with Multileaders.

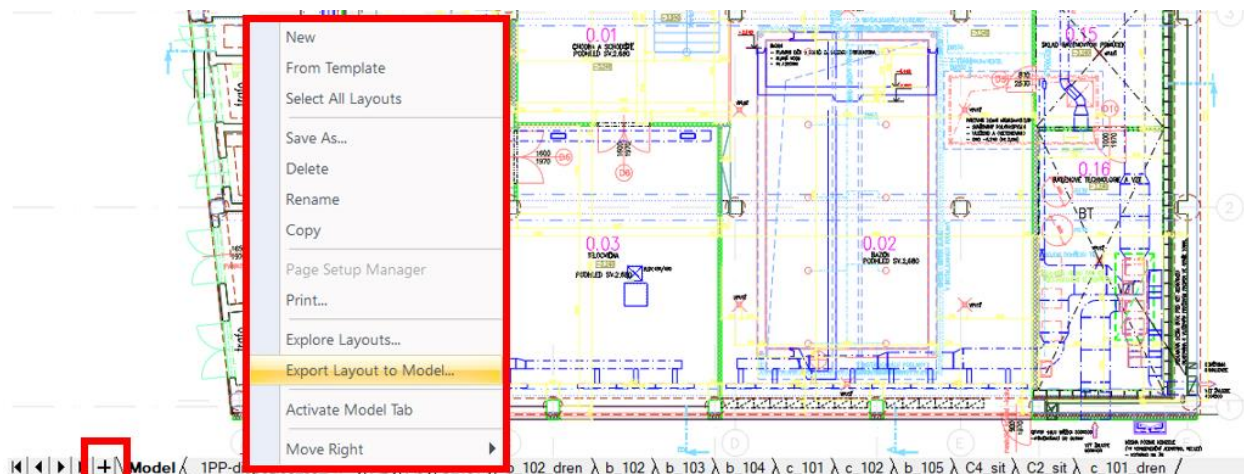
You can easily add or remove individual links to Multileaders, you can align them into one plane, you can group multiple Multileaders under one leader etc. The content of a Multileader can be a text or any block with attributes.



Pict. Example of different Multileader styles.

Managing layouts

We have simplified the work with layout tabs. Individual layout tabs can now be moved using the mouse (Drag and Drop method). There is now a plus button directly on the layout bar to add a new layout.

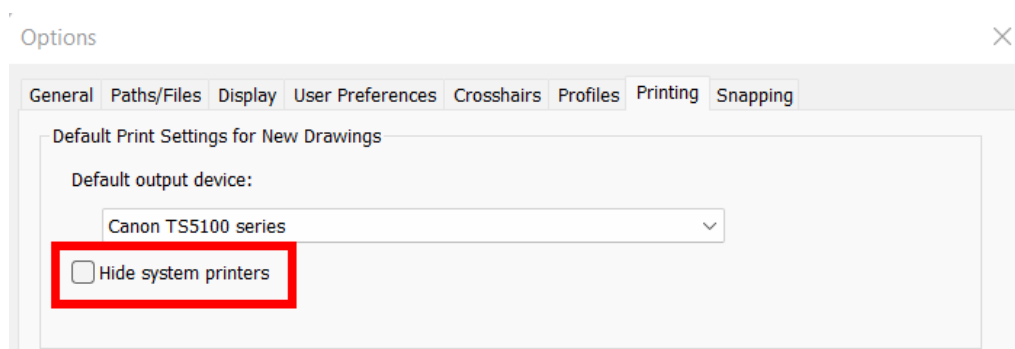


Pict. New control item for adding layouts and extended right-click context menu.

In the right-click context menu there is a new option to create a layout from a template. With this option you can select any existing drawing and import the layout settings from it. You will also find a new "Export layout to Model" command in the menu. This command creates a new drawing from the current layout and exports the layout data to the model space (including color, layers etc. settings of the layout).

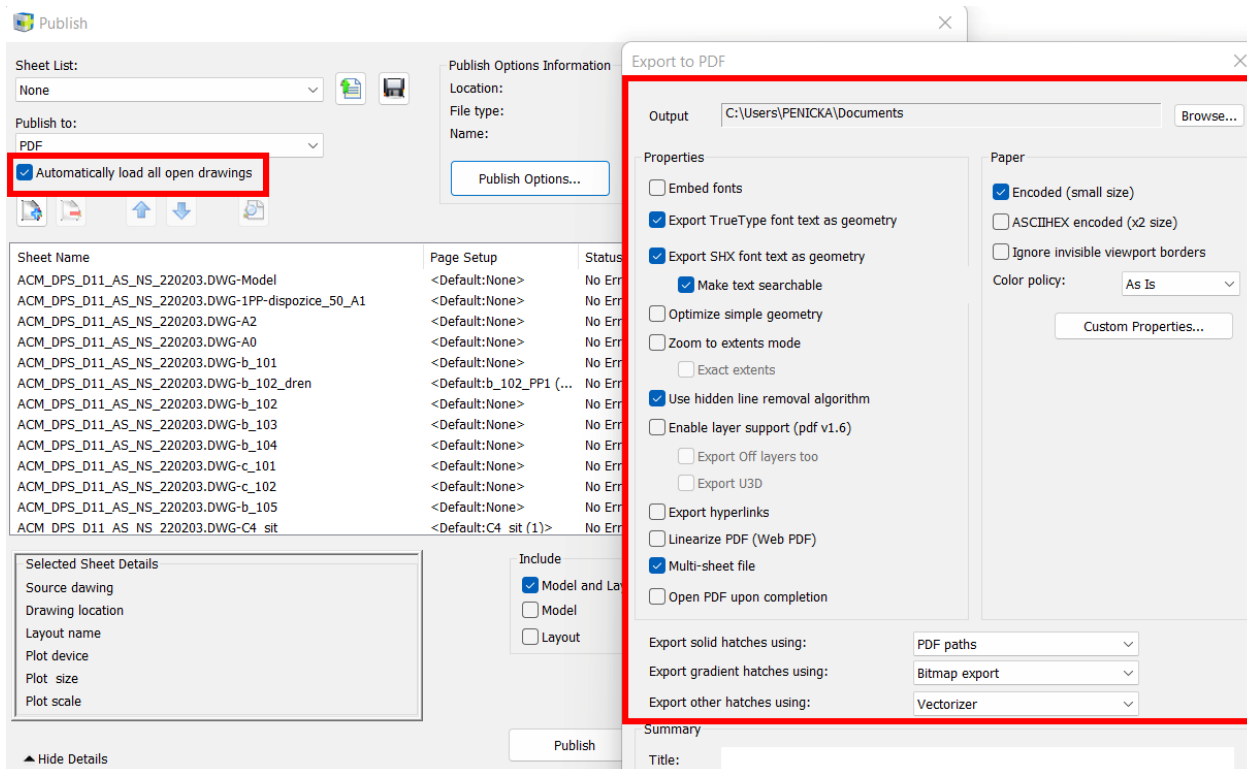
Rendering and publishing

There are a number of improvements in this area as well. For example, if you mainly use PC3 files, you can now turn off the display of system printers in the list of available printers. This new setting is available in the Options dialog.



Pict. New settings to hide system printers.

The Publish command now automatically loads all open drawings and their layouts. There are also significant changes in the output to PDF. The PDF output has a number of new settings regarding output quality, font handling, solids and gradients.



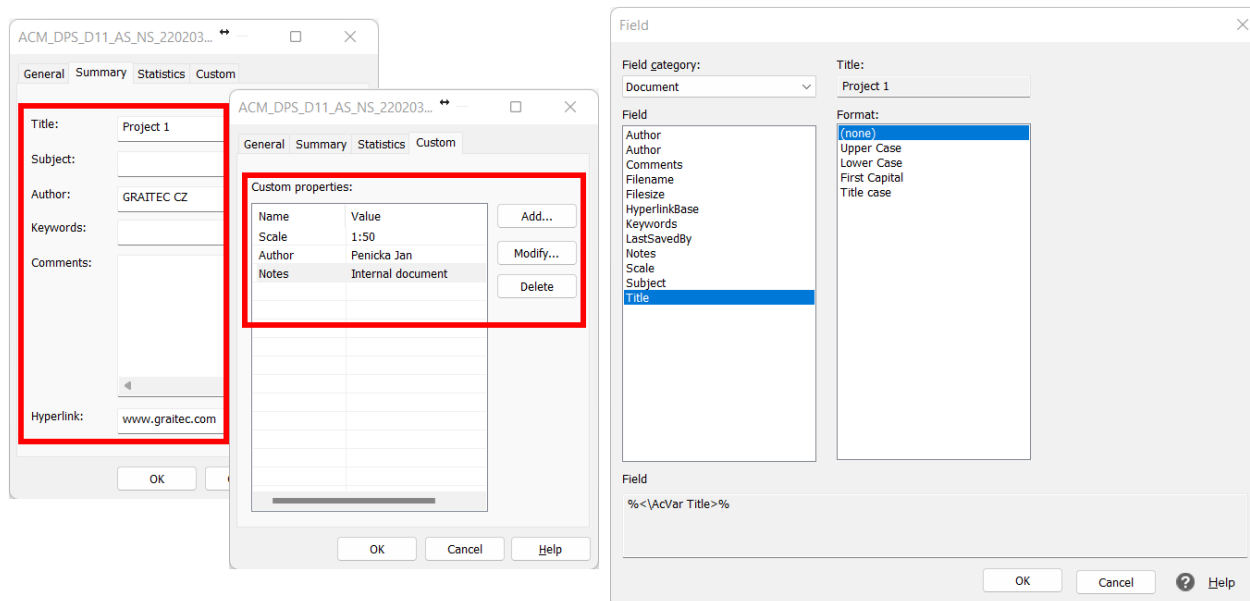
Pict. Example of new settings in Publish command.

Publish can now process the texts in such a way that the text content in the resulting PDF can be searched in the PDF viewer.

PDF output has been better optimized, with some types of drawings (with attached Xrefs and images) resulting in PDF that are up to several times smaller.

Dynamic text field

We have implemented a new command "DWGPROPS". With this command you can define basic data about the project in the drawing - e.g. Project name, Subject, link to the website or any custom data value. This data can then be used within text fields that can be part of e.g. corner stamps.



Pict. Example of data definition within DWGPROPS and selection of this data within the text field.

Drawing and modification

The Copy command ("_COPY") now has an Array option, which allows you to specify the number of elements to be copied and a copy method (total length of all copied elements or spacing between elements). The Copy command now also has an Undo option, which allows you to undo individual copy steps within the active command.

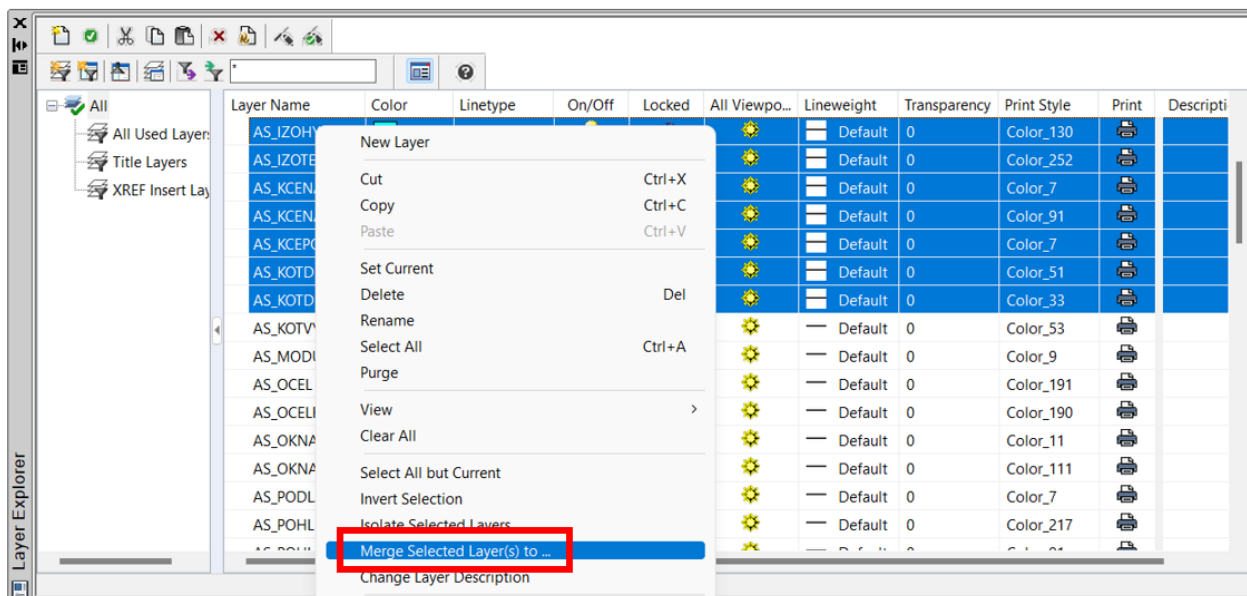
The Rotate command ("_ROTATE") has the possibility to specify a reference angle using points for the Reference option. This means that if you do not know the exact angle at which you want to rotate the selected object, you can define this angle by points in the drawing.

The command Length ("_LENGTHEN") can now work with polyline object (polyline was not supported in the previous version).

For an easier access to the point filter functionality, these options have been implemented in the context menu CTRL+right mouse button.

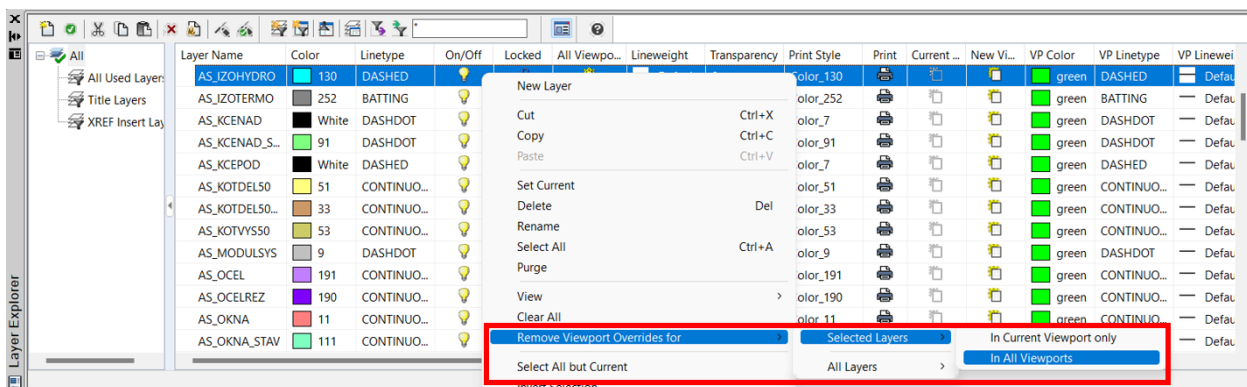
Layer management

You have now the option to simply merge selected layers under one level in the Layer Explorer. For example, you need to simplify the list of layers and merge all layers into one. Just select the layers and choose Merge Selected Layer(s) in the context menu. Then select the target layer and all selected layers and objects of these layers will be inserted into the corresponding layer. The merged layers are automatically deleted from the drawing.



Pict. New option for merging layers.

If you have defined overrides of viewport layer properties (colors, linetypes, line thickness) in viewports and you need to remove these overrides, you will find new options for removing them in the context menu of the Layer Explorer. It is possible to remove overrides of the current viewport or all viewports, etc.



Pict. New options for removing viewport layer overrides.

The last minor change in the area of layers is in the Isolate Levels ("_LAYISO") command. This command will now set the current level according to the first selected object.

Other

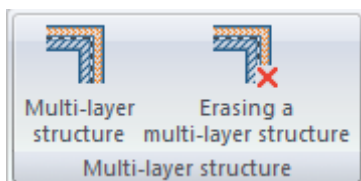
- New options for grid behavior have been implemented in the grid settings, for example options for displaying the grid, zooming in the drawing, etc.
- The Join function works better with arc objects and takes over all basic properties from the first selected object.
- When editing an attribute, the first attribute value is automatically selected and the attribute can be overwritten more quickly.

- The Continue dimension function (command „_DIMCONTINUE“) now draws the dimension into the layer according to the selected source dimension.
- The Mtext editor has been implemented for editing the dimension text and the dimension value is now edited exactly at the location of the text, not in the dialog box. This gives you a better overview of the formatting of the dimension text.
- Hatches have now an improved mechanism for detecting too dense hatches. The program optimizes the scale of the hatches better when you select the appropriate option within the dense hatch warning.

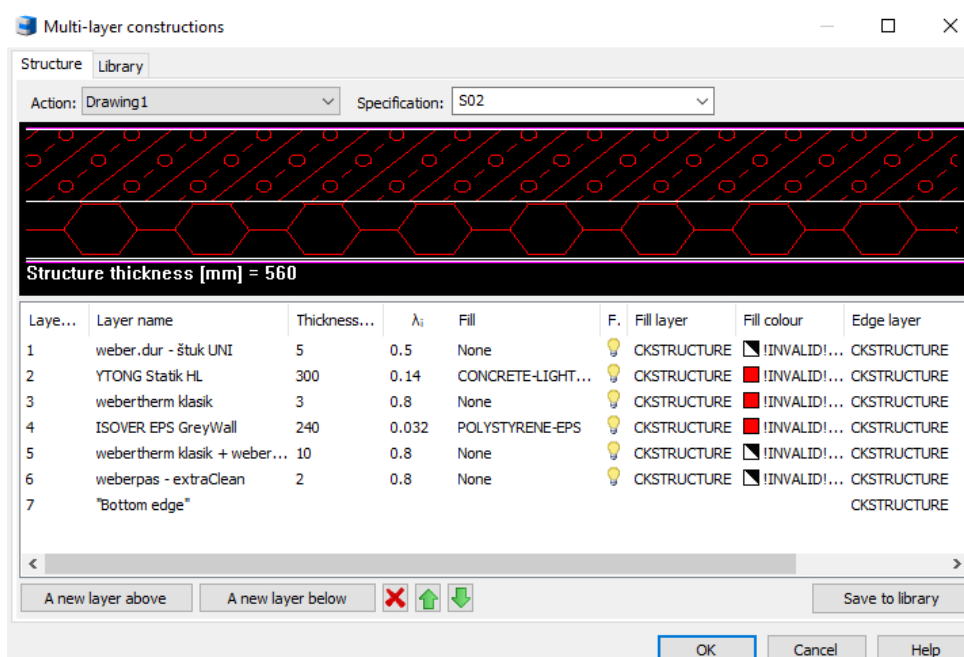
CADKON+ ARCHITECTURE News

Multi-layer structures

Based on the requests of you, users, we have prepared a completely new function for drawing different types of multi-layer (complex) constructions. You can use this functionality for drawing floor plans of e.g. sandwich walls, but also for drawing sections of e.g. roof, floor, ceiling structures or walls in section, etc. Thanks to the connection to the DEKSOFT Online catalogue, you have at your disposal several thousand structures of various types of structures used in practice.

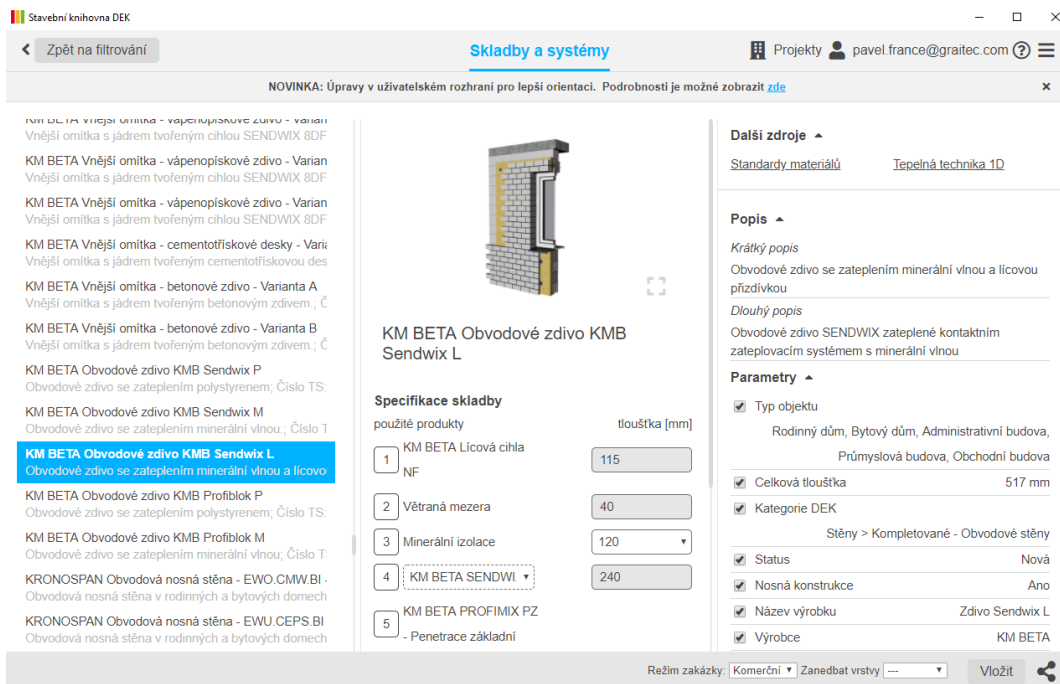


- You can define the desired structure of the multi-layer structure within the multi-layer structure library. For each layer within the structure, you can define a name, layer thickness, layer fill, layer color and many other parameters.



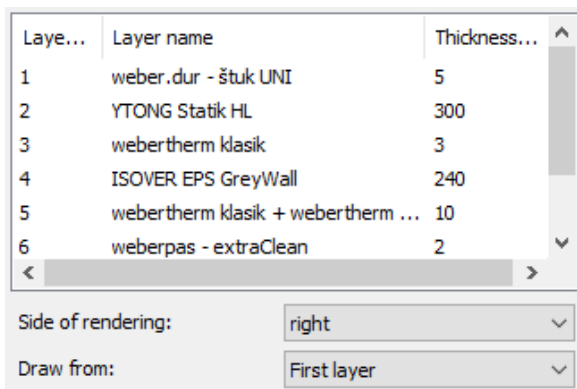
Pict. Library of multi-layer constructions for structure definition.

- The created structure can be saved into the library and use it anytime later, for example in other projects.
- Thanks to the link to the DEKSOFT On-line Catalogue, you can draw from a comprehensive catalogue of various types of multi-layer constructions used in practice, such as walls, ceilings, roofs, soffits, floors, communications, understructure insulation, etc. Once inserted, all layers, their thicknesses and other parameters are automatically loaded. The structure can be edited at any time and saved in the library.



Pict. Preview of the DEKSOFT Online Catalogue for loading a multi-layer construction.

- The loaded structure can also be edited in the Multi-layer constructions dialog. This includes the option to change the thicknesses of individual layers, the option to modify the side of the structure and the option to specify whether the structure is drawn from the first or the last layer. These parameters can be changed also during drawing the structure in the drawing.



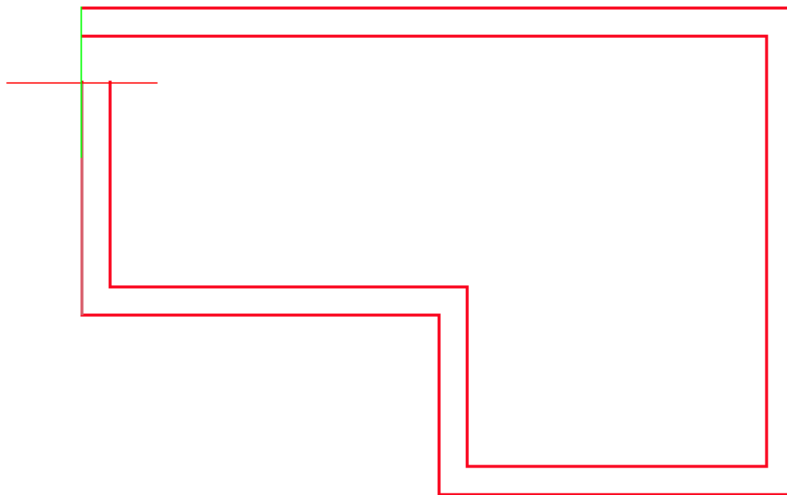
Pict. Settings of rendering side, order and layer thickness directly in the dialog.

- The option to specify whether the specified boundary or the opposite one is drawn and to which layer can be used especially in situations where you want to draw the structure into already drawn construction.
- The option to specify whether or not end closing is drawn and to which layer can be used in, for example, floating segments or in sections.

Specified boundary:	Yes
Specified boundary layer:	According to the libra
Opposite border:	Yes
Opposite boundary layer:	According to the libra
Closing the ends:	Yes
Closing ends layer:	Along a specified boui

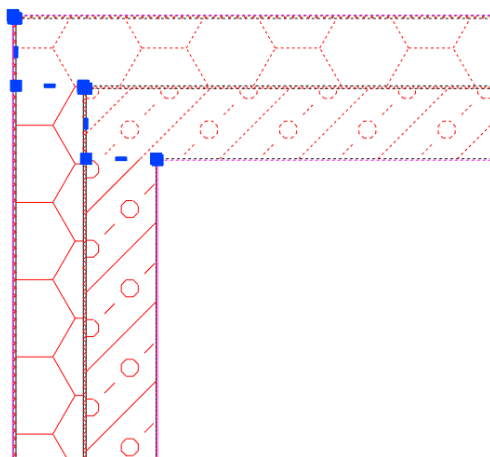
Pict. Setting the drawing of outer borders and closing the ends of segments.

- You can draw the specified multi-layer structure by entering points in the drawing. Similar to the wall function, you can use the joining and closing options.
- A glyph (highlighted) is displayed during the drawing process for a better overview of the location of the structure being created.



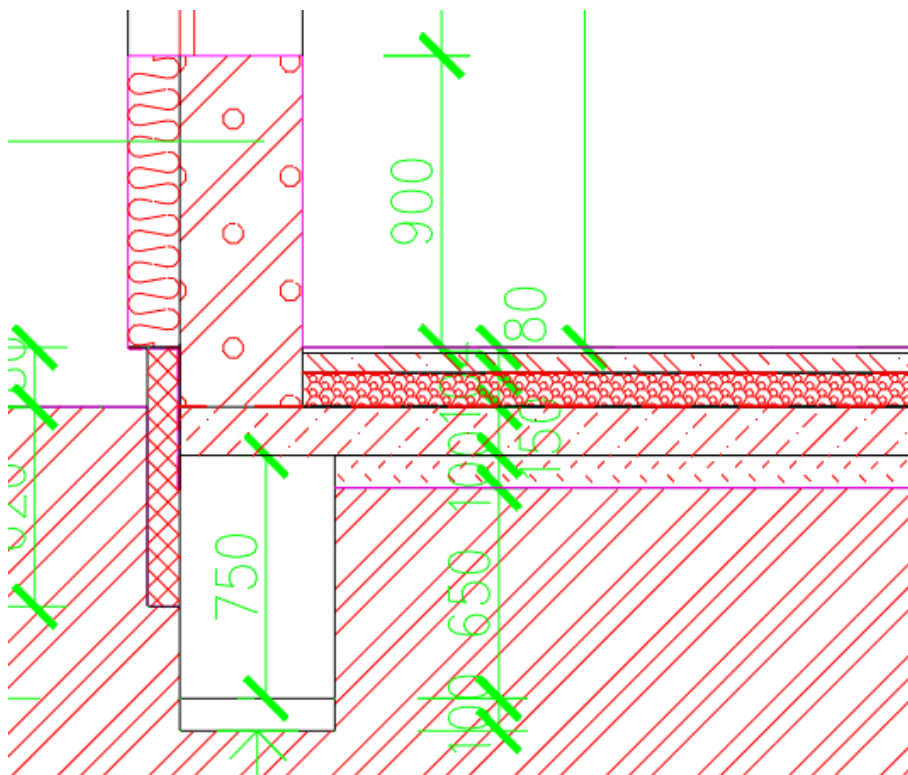
Pict. A glyph displayed when drawing a multi-layer structure in a drawing.

- The rendered multi-layered structure is drawn using basic entities such as lines, hatches and blocks.
- Automatic resolve of the continuity of individual entities in the corners. Each segment and each layer is created separately to allow user edit them if necessary.



Pict. Automatic resolve of continuity in corners.

- The rendered multilayer structures can be loaded from the drawing and all parameters can be edited. You can retrospectively modify the parameters of the individual layers, the layer drawing order or the rendering side.
- For faster loading of already drawn structures or their parameters, you can load the entire structure including all parameters directly from the drawing. This can be especially useful, for example, if you have several multi-layer structures drawn in your drawing and want to create another one of the same type.
- The multi-layer delete function automatically detects entities drawn with the multi-layer function and deletes them. This makes the selection significantly easier for the user, as it ignores all other entities.

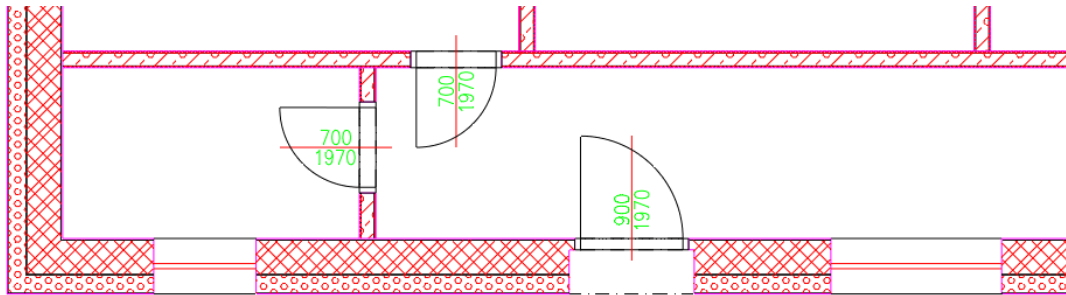


Pict. Example of floor and walls in section drawing using multi-layer constructions.

Structure trimming with a door or window opening

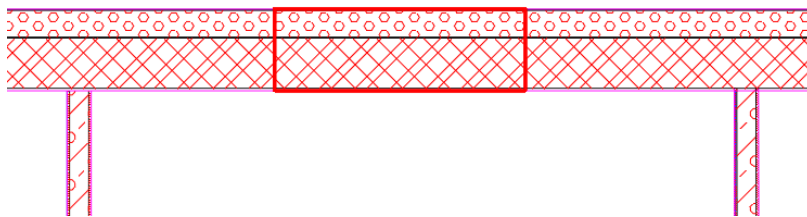
Drawing door or window openings has been a popular feature for many years. We are now enhancing it with the option to trim entities below an opening including trimming multi-layered structures. So, for example, if you draw a sandwich wall, you can draw an opening with door or window in it and the sandwich wall will be automatically trimmed.

- Window or door openings can now trim standard CAD entities for drawings where sandwich walls are already drawn.
- Window or door openings automatically trim walls created using the multi-layer feature. This eliminates the need to trim the individual structures back after the opening has been drawn.



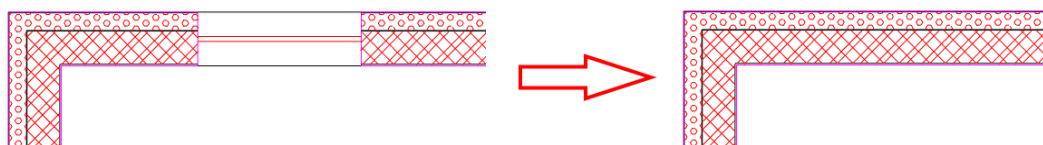
Pict. Example of trimming of sandwich wall drawn using multi-layer structure with door and window opening.

- Structure trimming by window or door opening can be turned off/on by running the opening creation function in the command line.
- When creating a window or door opening, a preview of the opening location is now displayed. This gives you a much better overview of the future location of the opening.



Pict. Preview of door or window opening placing.

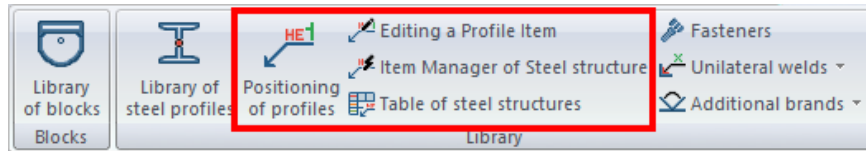
- Drawn window or door openings can be later edited using standard methods. Modifications that affect the size of the opening, the shape of the lining or even the location of the opening will automatically redraw the multi-layer construction.
- When a window or door opening is removed, the multi-layer construction is automatically sealed.



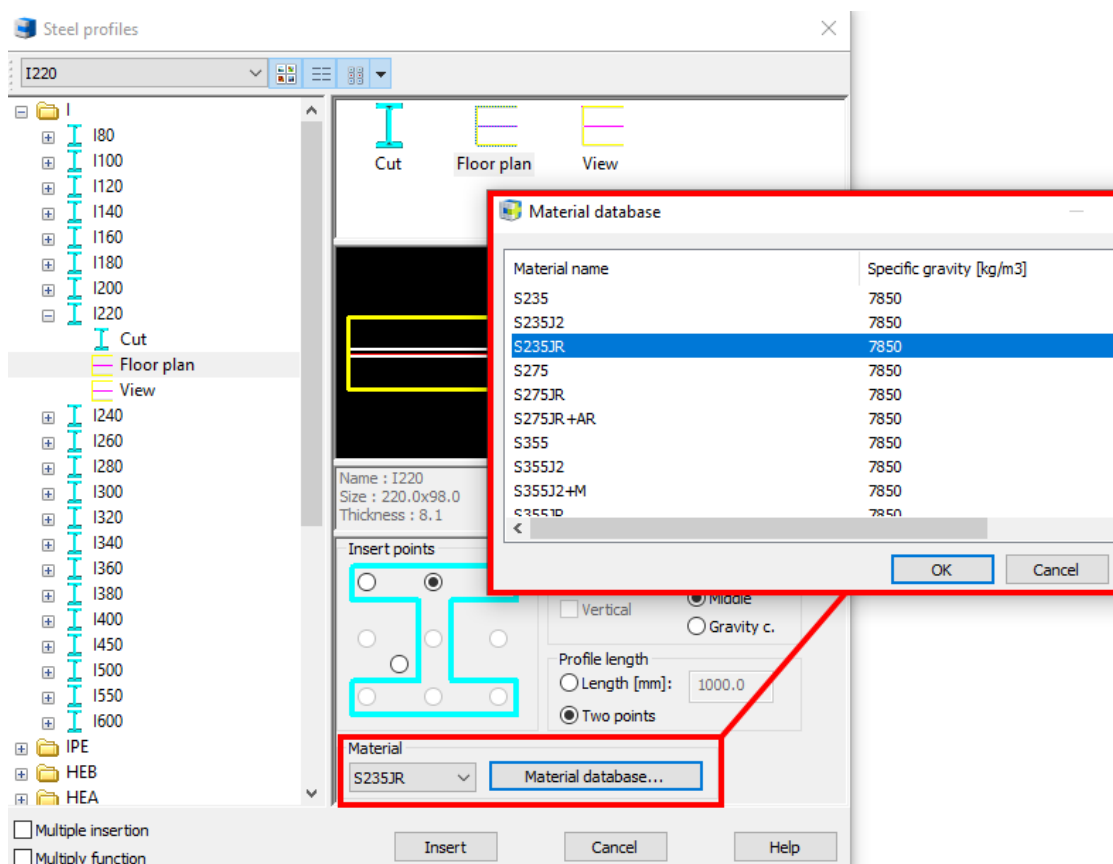
Pict. Sealing of the multi-layer construction when removing a window or door opening.

Positioning and reporting of steel structures

CADKON+ Architecture has contained a database of steel profiles for many years. You can now enter and report steel profiles in tables. You can position not only steel profiles but also metal sheets.

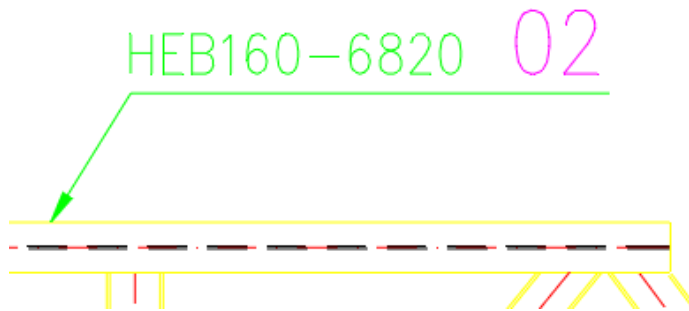


- Within the steel profile library, the option to specify the steel profile material has been added.
- Users can access the material database and has the option to define custom materials.



Pict. Steel profile library enables you to set a material.

- The Profile positioning function is intended for creating a profile or sheet description item definition.



Pict. Example of rendering of steel profile description item.

- Within the steel profile item definition, you can load parameters directly from the drawing from a profile inserted from the steel profile library, or load them from the drawing using loading points, or enter parameters manually.
- When defining a steel sheet item, you can enter the length, width, and thickness parameters manually or load them from the drawing using loading points.
- The name format allows you to specify the format in which the item name will appear in the report.
- Common parameters are used to define parameters common to both sheets and profiles. You can define material, number of pieces to report, level and weight of 1pc. The weight is automatically calculated based on the dimensions and the selected material when Auto. is marked.

Description
☒ Profile
☐ Plate

Load profile parameters from drawing <

Profile name: HEA220 ...

Length: 6372 <

Name format: &N v <<

Name: HEA220

Common parameters

Material: S235JR v ...

Weight 1 pc [kg]: 321.63 ☒ Auto.

Number of pieces to: 1

Level: 1 v

Description
☐ Profile
☒ Plate

Length: 400 <

Width [mm]: 200 <

Thickness [mm]: 12 <

Name format: &Tx&W-&L v <<

Name: 12x200-400

Common parameters

Material: S235JR v ...

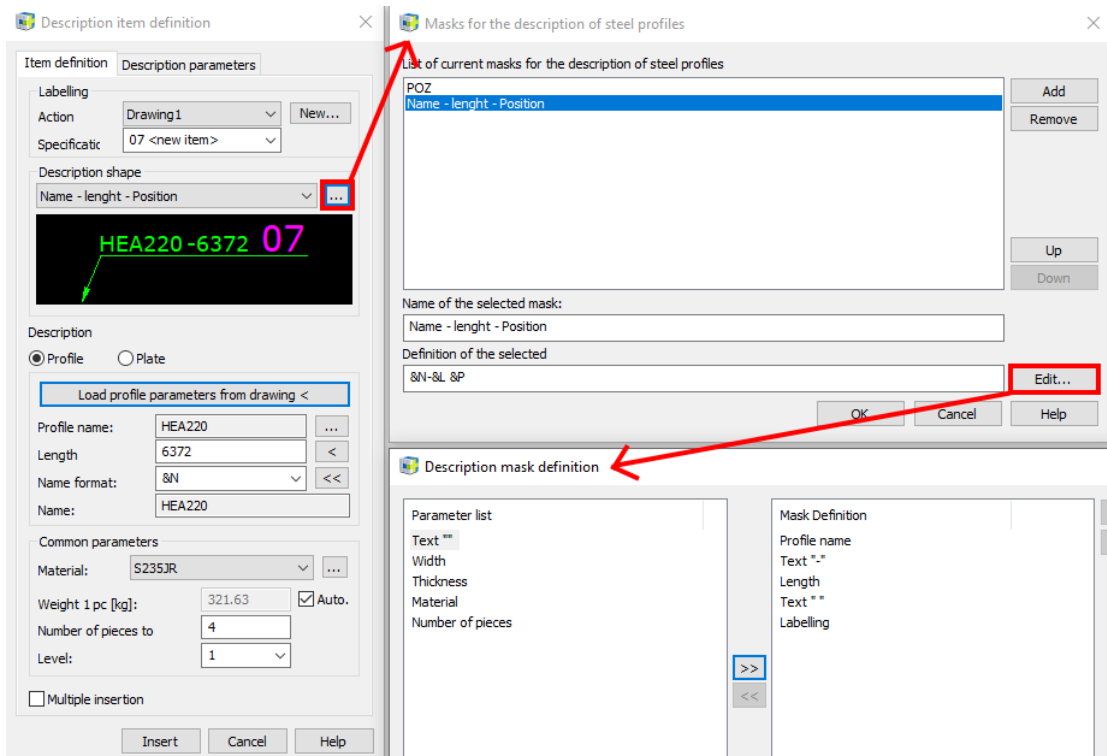
Weight 1 pc [kg]: 7.536 ☒ Auto.

Number of pieces to: 4

Level: 1 v

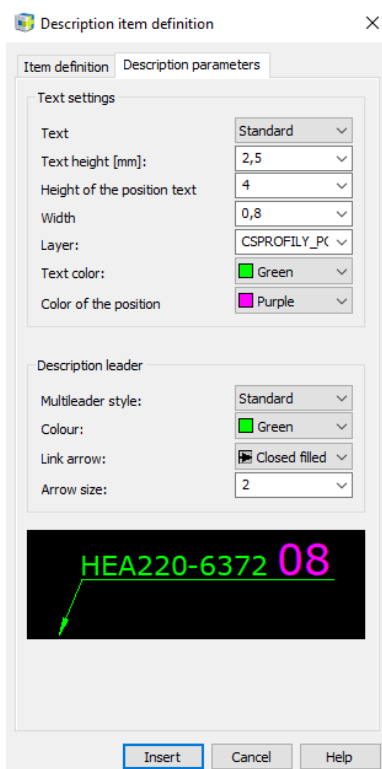
Pict. Settings of steel profile or steel sheet description parameters.

- The description shape allows you to define the format of the description item. It specifies the format in which, or with what information, the description item will be inserted into the drawing.
- You can define and save the description shapes yourself. This allows you to create description items with different appearances that you can change as needed.
- The description shapes are designed separately for steel profiles and steel sheets.



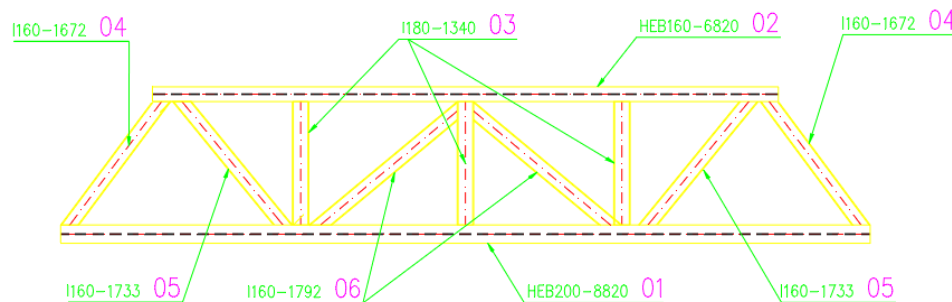
Pict. Description shape settings.

- In the Description parameters tab, you can change the text and leader parameters settings.
- The parameters of the label text can be changed separately, as it is often required in practice to distinguish the label text by colour and size.



Pict. Description display parameter settings.

- The resulting item description is inserted into the drawing as a multileader. You can add or remove leaders using the multileader functions.



Pict. Example of steel construction positioning

- You can edit the drawn description items individually using item editing or bulk edit multiple items using the description item manager. You can change all parameters of description items in bulk.
- Within the description item manager, you can switch between a item total view, where all items of the same label are displayed as the sum of the number of pieces of that label, or a single item view, where each item of the same label is displayed individually.
- The description item manager, like the other managers, allows you to change parameters in bulk, search for items in the drawing, renumber items, merge items, etc.

Steel element descriptions manager

Action: Drawing1 View: Individual items

Labelling	Description shape	Profile name	Length	Width	Thickness	Material name	Weight	Floor	Name format	Number of pieces
01	Name - lenght - Position	I240	3625			S235JR	131.183		8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	2
03	Name - lenght - Position	HEA200	4204			S235JR	177.548	1	8N	4
03	Name - lenght - Position	HEA200	4204			S235JR	177.548	1	8N	2
04	Name - lenght - Position	HEA220	6372			S235JR	321.63	1	8N	1
05	PL Thick - pos	Plate	300	200	12	S235JR	5.652	1	8Tx8W-8L	1
06	PL Thick - pos	Plate	200	200	12	S235JR	3.768	1	8Tx8W-8L	1
07	PL Thick - pos	Plate	400	200	12	S235JR	7.536	1	8Tx8W-8L	4

Steel element descriptions manager

Action: Drawing1 View: Item totals

Labelling	Description shape	Profile name	Length	Width	Thickness	Material name	Weight	Floor	Name format	Number of pieces
01	Name - lenght - Position	I240	3625			S235JR	131.183		8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	4
03	Name - lenght - Position	HEA200	4204			S235JR	177.548	1	8N	6
04	Name - lenght - Position	HEA220	6372			S235JR	321.63	1	8N	1
05	PL Thick - pos	Plate	300	200	12	S235JR	5.652	1	8Tx8W-8L	1
06	PL Thick - pos	Plate	200	200	12	S235JR	3.768	1	8Tx8W-8L	1
07	PL Thick - pos	Plate	400	200	12	S235JR	7.536	1	8Tx8W-8L	4

Pict. Display of description manager in single item and item totals view.

- The description items can be reported in the profile table.
- The percentage addition for welds and joints can be set in the profile table.

Steel table

Label	Name	Lenght [mm]	Total lenght [mm]	Šírka [mm]	Thickness [mm]	Material	Number of pieces	Weight 1pc [kg]	Total weight [kg]
01	I240	3625	3625	106	8,7	S235JR	1	131,18	131,18
02	I220	8147	32588	98	8,1	S235JR	4	252,62	1010,47
03	HEA200	4204	25224	200	6,5	S235JR	6	177,55	1065,29
04	HEA220	6372	6372	220	7	S235JR	1	321,63	321,63
05	12x200-300	300	300	200	12	S235JR	1	5,65	5,65
06	12x200-200	200	200	200	12	S235JR	1	3,77	3,77
07	12x200-400	400	1600	200	12	S235JR	4	7,54	30,14

Pict. Example of steel profile table rendering

Dynamic tables for construction element report

CADKON+ 2023 contains new dynamic tables. The option to create dynamic tables is now implemented in all CADKON+ Architecture tables.

- The CADKON table output menu has been extended to include the possibility of drawing into a dynamic table in the drawing.
- You can quickly and easily edit dynamic tables using node points (change the size of individual rows or columns, change the height of all rows, width of all columns etc.).
- Using the options in the respective ribbon, you can add or remove rows/columns, change the formatting of individual cells in similar way to Excel.

Table of rooms

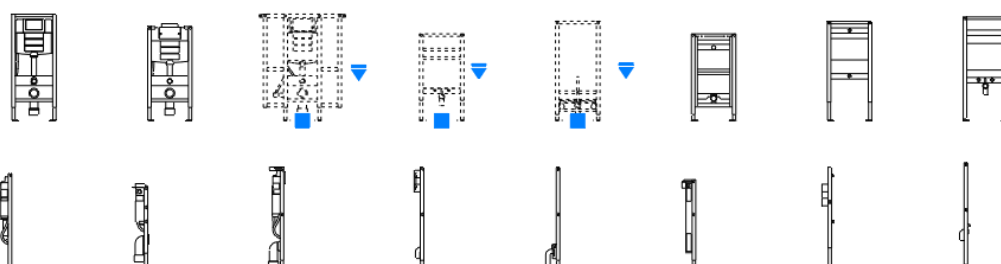
	A	B	C	D	E	F
1	Number	Name	Area [m ²]	Flooring	Walls	Ceiling
2	1.01	LIVING ROOM	34,52	CERAMIC TILING	WHITEWASH PAINT	LIME RENDER
3	1.02	BEDROOM	14,44	CERAMIC TILING	WHITEWASH PAINT	PAINT
4	1.03	BEDROOM	16,98	CERAMIC TILING	WHITEWASH PAINT	PAINT
5	1.04	HALL	8,12	TERACO	WHITEWASH PAINT	LIME STUCCO RENDER
6	1.05	BATHROOM	8,12	CERAMIC TILING	WHITEWASH PAINT	TILING
7	1.06	DINING ROOM	12,74	STONE TILING	WALL PAPER	LIME RENDER
8	Total area [m2]: 94,92					

Pict. Example of room dynamic table rendering.

Extention and database update

As every year, we expanded and updated the CADKON+ Architecture databases

- New blocks of floor plan and view displays of GEBERIT pre-wall systems have been added to the Block Library/Floor Plans/Bathroom/Pre-wall systems GEBERIT.dwg and Block Library/Views/Bathroom/Pre-wall systems GEBERIT_BČ-dwg.



Pict. Pre-wall systems GEBERIT

- Updating the database of roof windows: Velux, Roto, Fakro.
- Updating the database of chimney bodies: BS Group, Schiedel, Verebex.
- Blocks of door view schemes in Sapeli_BČ.dwg, Solodoor_BČ.dwg, Wipro_Ext_BČ.dwg and Wipro_Int_BČ.dwg were updated in Block Library/Views/Construction elements/Opening fillings/.

Other

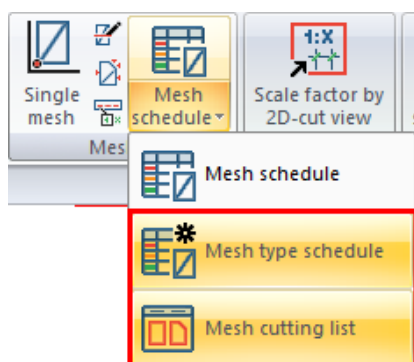
- The ribbon menu has been rearranged to make it clearer for the user and to reduce automatic minimization of ribbons on lower resolution monitors.

CADKON+ RC News

Optimization of mesh cutting with cutting lists and mesh type schedule

The previous version of CADKON+ 2022 RC has already been extended with tools for welded mesh reinforcement. These tools were the Single mesh placement, Mesh cutting, Mesh item list and Mesh description in section.

As type mesh are usually used for reinforcement - CADKON+ RC offers a user-expandable library - it is necessary to know the mesh quantity to order from the supplier. Therefore, the new version of CADKON+ 2023 extends the existing tools with the option to **optimize mesh cutting with cutting list and mesh type schedule**.

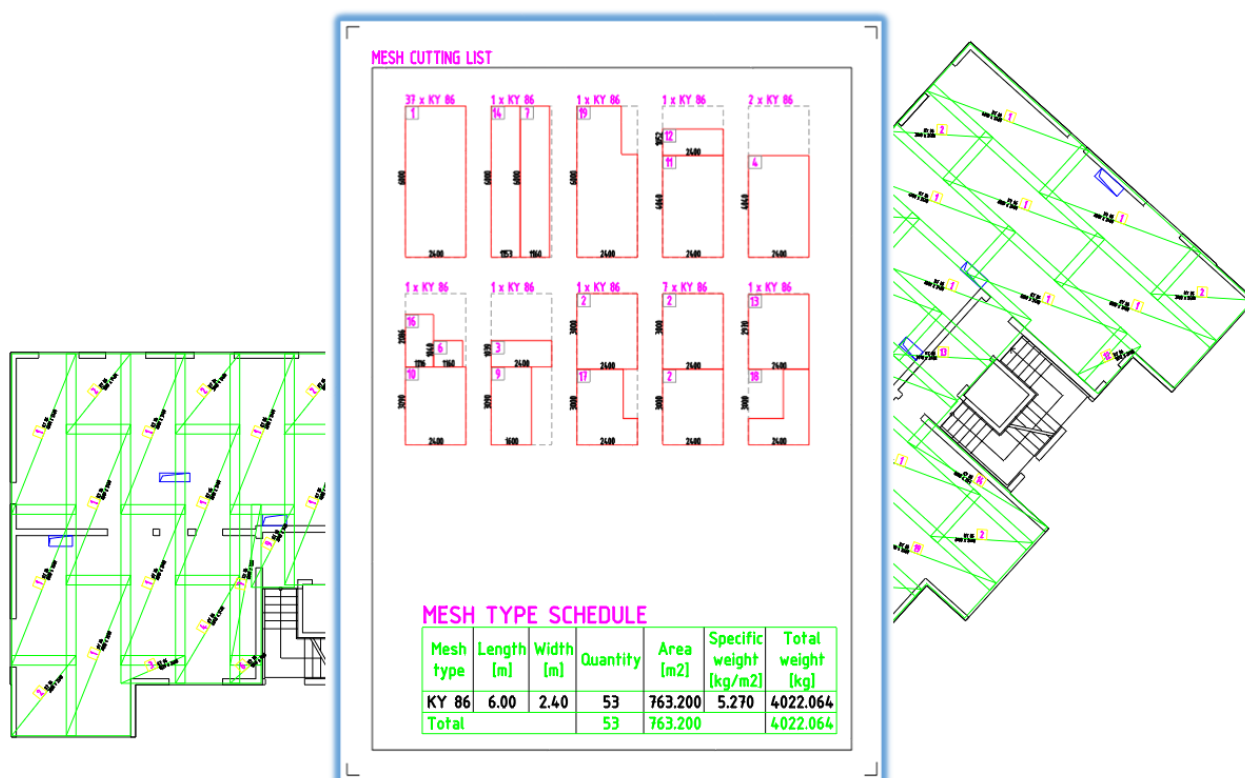


Pict. All functions for mesh reporting are aggregated under the Mesh schedule button.

The optimization performs an automatic calculation of the mesh item of the same type assembly into the whole type dimension so that the total number of whole meshes is minimal.

The cutting list is a graphic representation of the optimization in the form of a table. At present, the maximum dimensions of the individual mesh items are considered for the optimization calculation, i.e. the diagonal cuts are neglected.

The mesh type schedule creates a table with the total number of standard dimension mesh.



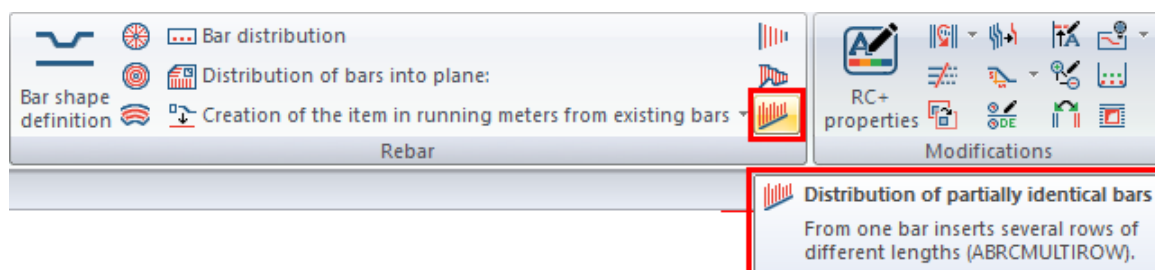
Pict. Example of Mesh cutting list and Mesh type schedule.

Both the Mesh cutting list and the schedule are automatically updated when any changes are made to the drawing, just like all other tables in CADKON+ RC.

Note:

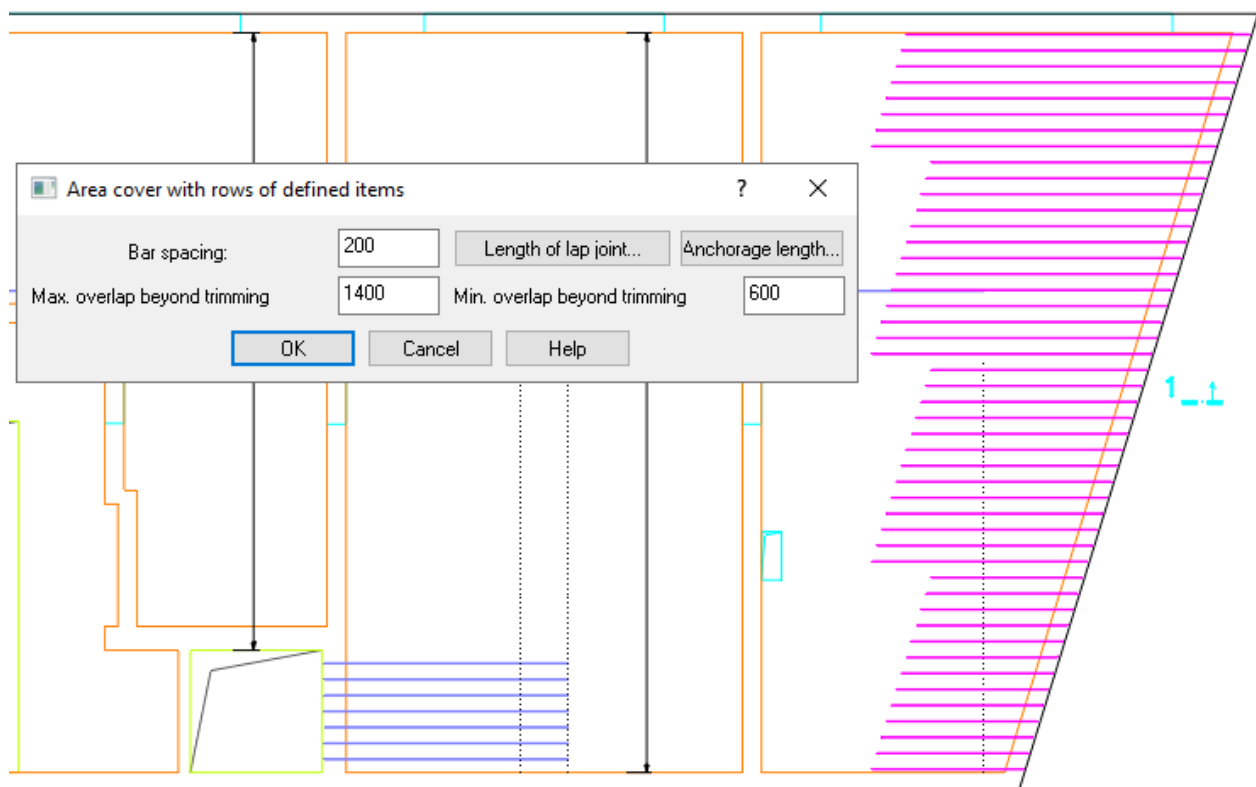
To use the mesh reinforcement tools, a CADKON+ RC Ultimate license is required, which includes both the mesh reinforcement tools and the other bonded reinforcement tools.

Distribution of partially identical bars



Pict. Function Distribution of partially identical bars can be found on the Rebar panel.

This function is intended for distributing rebars in diagonal or curve-ended formwork sections wherever a variable length item should not be used. CADKON generates individual rows of identical bars according to the specified minimum and maximum overlap.



Pict. Example of area reinforced using the Distribution of partially identical bars function.

Warning:

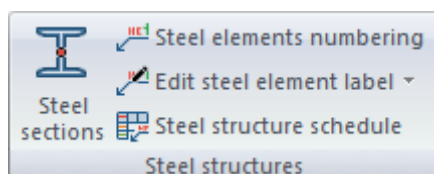
CADKON renders the individual bars according to the selected bar, specified distribution curve for that bar and specified trimming curve. This means that before running this program, you must have a bar inserted at the location where the reinforcement will be placed.

Warning:

The trimming line must always intersect the selected bar. If no straight bar is selected, the intersection of the trimming line with the bar determines which sections of the bar will be modified.

Numbering and reporting of steel structures

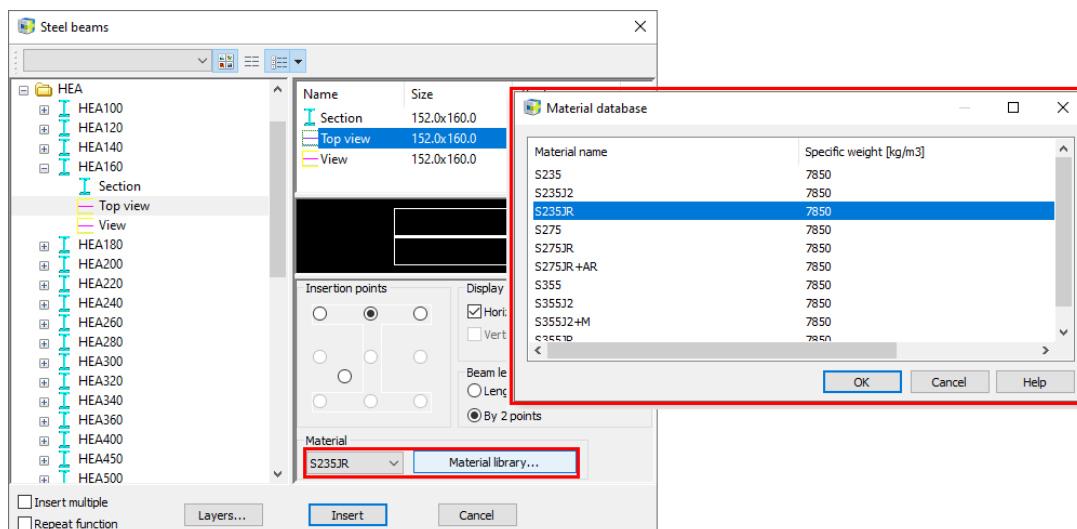
Previous CADKON+ RC versions already contain a database of steel profiles for drawing steel structures in 2D. You can now number steel profiles and report them in tables. Both steel profiles and sheets can be numbered.



Pict. Functions for steel structures in the Reinforcement ribbon.

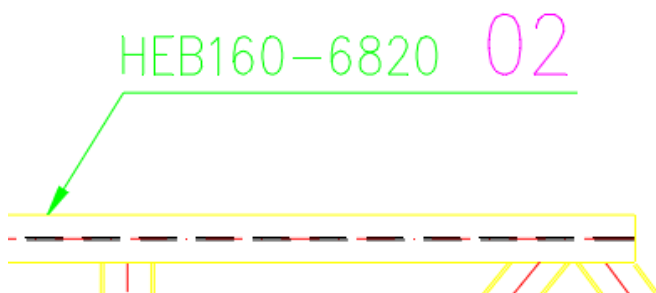
- Within the steel profile library, the option to specify the steel profile material has been added.

- Users can access the material database and has the option to define custom materials.



Pict. Steel profile library enables you to set a material.

- The Profile positioning function is intended for creating a profile or sheet description item definition.



Pict. Example of rendering of steel profile description item.

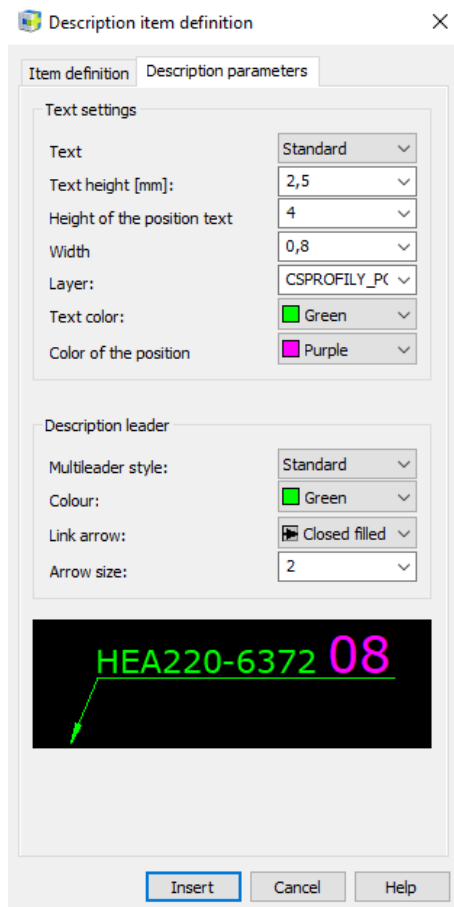
- Within the steel profile item definition, you can load parameters directly from the drawing from a profile inserted from the steel profile library, or load them from the drawing using loading points, or enter parameters manually.
- When defining a steel sheet item, you can enter the length, width, and thickness parameters manually or load them from the drawing using loading points.
- The name format allows you to specify the format in which the item name will appear in the report.
- Common parameters are used to define parameters common to both sheets and profiles. You can define material, number of pieces to report, level and weight of 1pc. The weight is automatically calculated based on the dimensions and the selected material when Auto. is marked.

Pict. Settings of steel profile or steel sheet description parameters.

- The description shape allows you to define the format of the description item. It specifies the format in which, or with what information, the description item will be inserted into the drawing.
- You can define and save the description shapes yourself. This allows you to create description items with different appearances that you can change as needed.
- The description shapes are designed separately for steel profiles and steel sheets.

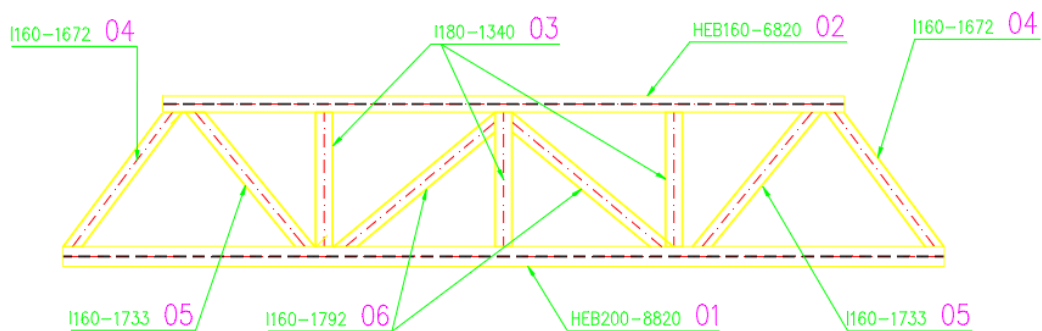
Pict. Description shape settings.

- In the Description parameters tab, you can change the text and leader parameters settings.
- The parameters of the label text can be changed separately, as it is often required in practice to distinguish the label text by colour and size.



Pict. Description display parameter settings.

- The resulting item description is inserted into the drawing as a multileader. You can add or remove leaders using the multileader functions.



Pict. Example of steel construction positioning.

- You can edit the drawn description items individually using item editing or bulk edit multiple items using the description item manager. You can change all parameters of description items in bulk.
- Within the description item manager, you can switch between a item total view, where all items of the same label are displayed as the sum of the number of pieces of that label, or a single item view, where each item of the same label is displayed individually.

- The description item manager, like the other managers, allows you to change parameters in bulk, search for items in the drawing, renumber items, merge items, etc.

Steel element descriptions manager

Action: Drawing1 View: Individual items

Labelling	Description shape	Profile name	Length	Width	Thickness	Material name	Weight	Floor	Name format	Number of pieces
01	Name - lenght - Position	I240	3625			S235JR	131.183		8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	2
03	Name - lenght - Position	HEA200	4204			S235JR	177.548	1	8N	4
03	Name - lenght - Position	HEA200	4204			S235JR	177.548	1	8N	2
04	Name - lenght - Position	HEA220	6372			S235JR	321.63	1	8N	1
05	PL Thick - pos	Plate	300	200	12	S235JR	5.652	1	8Tx8W-8L	1
06	PL Thick - pos	Plate	200	200	12	S235JR	3.768	1	8Tx8W-8L	1
07	PL Thick - pos	Plate	400	200	12	S235JR	7.536	1	8Tx8W-8L	4

Steel element descriptions manager

Action: Drawing1 View: Item totals

Labelling	Description shape	Profile name	Length	Width	Thickness	Material name	Weight	Floor	Name format	Number of pieces
01	Name - lenght - Position	I240	3625			S235JR	131.183		8N	1
02	Name - lenght - Position	I220	8147			S235JR	252.618	1	8N	4
03	Name - lenght - Position	HEA200	4204			S235JR	177.548	1	8N	6
04	Name - lenght - Position	HEA220	6372			S235JR	321.63	1	8N	1
05	PL Thick - pos	Plate	300	200	12	S235JR	5.652	1	8Tx8W-8L	1
06	PL Thick - pos	Plate	200	200	12	S235JR	3.768	1	8Tx8W-8L	1
07	PL Thick - pos	Plate	400	200	12	S235JR	7.536	1	8Tx8W-8L	4

Pict. Display of description manager in single item and item totals view.

- Description items can be reported in the steel structure report.
- The percentage addition for welds and joints can be set in the table settings.
- The table automatically reports all items in the drawing and it is automatically updated when any changes are made to the drawing (addition of a new item, copying a description, deleting a description etc.)

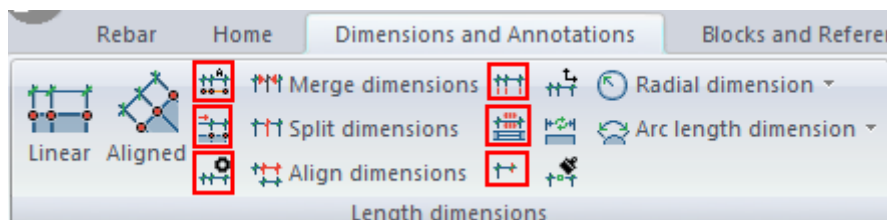
STEEL STRUCTURE BILL OF MATERIAL

Mark	Quantity	Name	Length [mm]	Width [mm]	Material	Weight for 1 piece [kg/piece]	Weight [kg]
01	1	HEA160	2440	160	S235JR	74.3	74.3
02	2	PL10x158-296	296	158	S235JR	3.7	7.3
03	4	PL20x182-282	282	182	S235JR	8.1	32.2
04	2	PL20x182-180	180	182	S235JR	5.1	10.3
05	1	HEA160	2750	160	S235JR	83.8	83.8
06	3	PL20x100-143	143	100	S235JR	2.2	6.7
07	1	HEA160	143	100	S235JR	4.4	4.4
08	1	HEA160	1000	160	S235JR	30.5	30.5
09	1	L80X8	1968	80	S235JR	19.0	19.0
Total weight [kg]							268.5
Total weight including 5% addition for welds and joints [kg]							281.9

Pict. Example of drawing a steel structure table.

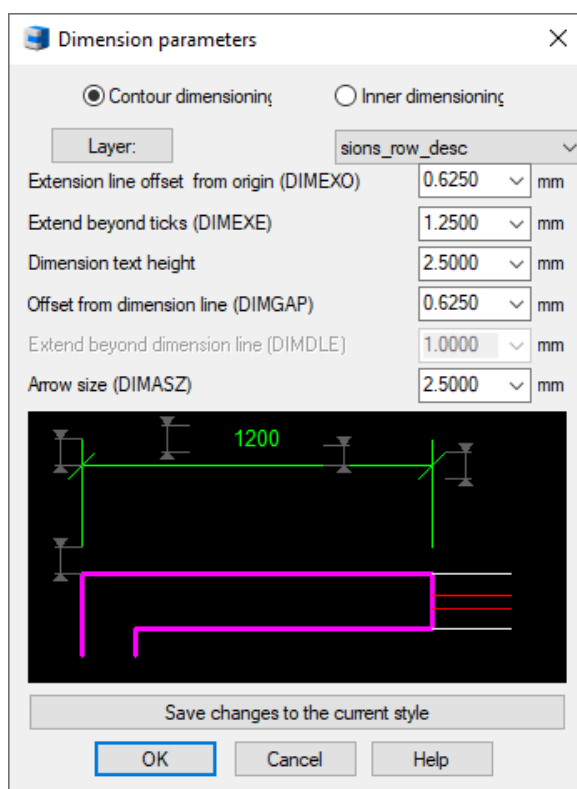
New tools for length dimensions

The previous CADKON+ RC 2022 version has already brought more support for drawing construction drawings in the form of dimensioning tools such as elevation dimensions and functions for splitting/joining/aligning dimensions. Version 2023 will continue in this and therefore we are preparing following new tools which can be found in the Length dimensions panel in ribbon Dimensions and Annotations:



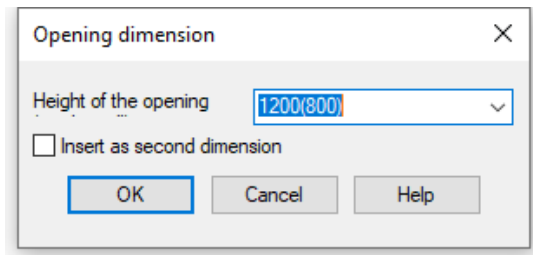
Pict. New functions in the Length dimensions panel are marked in red.

- **Automatic dimensioning** automatically dimensions objects that are intersected by a specified line. This defining line can also be a polyline. The function works on basic cad objects, not on formwork or bar objects created with CADKON+ RC.
- **Continue dimension** is used to join to already drawn dimension and continue the dimensioning.
- **Dimension parameter** settings are used for user settings of the most important parameters in a dialog box.



Pict. Dialog enables the user to set the most important dimension parameters

- **Change extension line length** sets the same extension line length for selected dimensions. This length is measured from the dimensions line and it is entered in mm of the drawing, so it is dependent on the drawing scale.
- **Opening dimensioning** is used to dimension of an opening with the option to specify height of the opening and the sill.

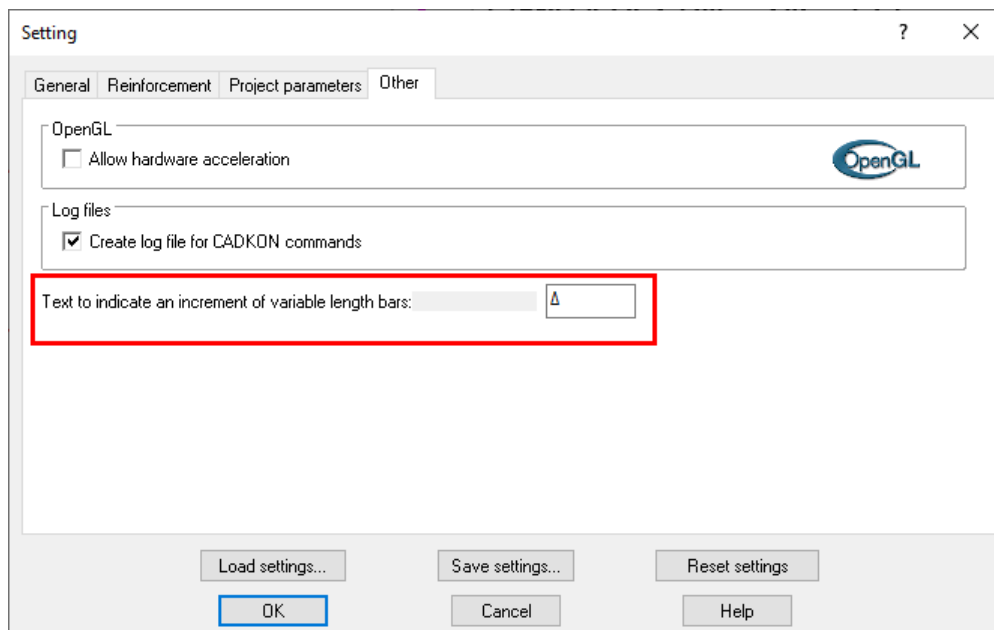


The „Insert as second dimension“ option determines whether the opening dimension will be created as an overwrite of the original dimension (the opening width and height dimensions will be one dimension and it will behave as a whole) or whether the opening height dimension will be created independently on the width dimension. The option of creating a second dimension is suitable, for example, for further copying only the height dimension of the opening.

- **Outline – internal dimension** is intended to change the outline dimension to an internal dimension (i.e. without extension lines).

Variable length item increment marking

An independent function to launch Settings for mesh has been added.



Pict. New option for user-defined text to indicate the increment of variable length bars.

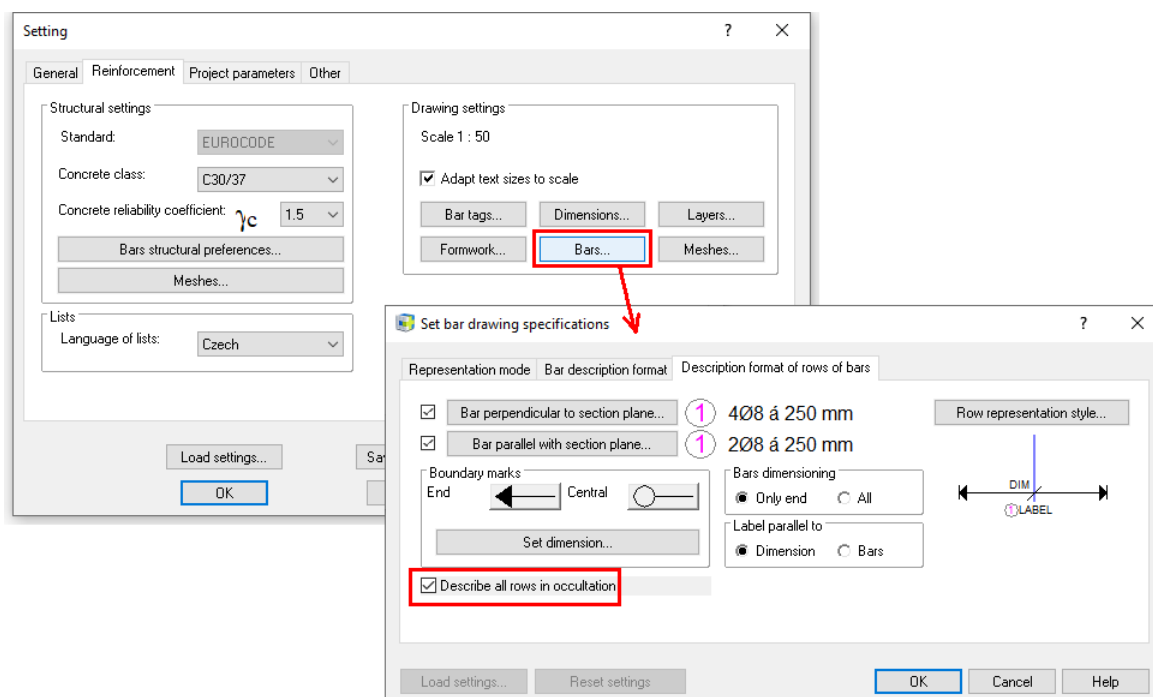
3540-6370(Δ60)

6 47Ø10/3540-6370(Δ60)

Pict. New setting is reflected in the bending detail of straight bars of variable length items, their length increment is a constant.

Bar rows description with the option not to describe rows in occultation

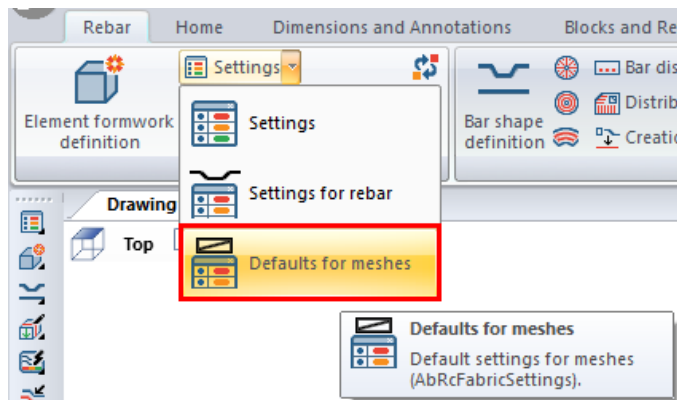
An option not to describe bars in occultation has been added to the bar row description settings. The bars in occultation were previously described at all times automatically. This option takes into account specific situations where the bars in occultation need to be described individually.



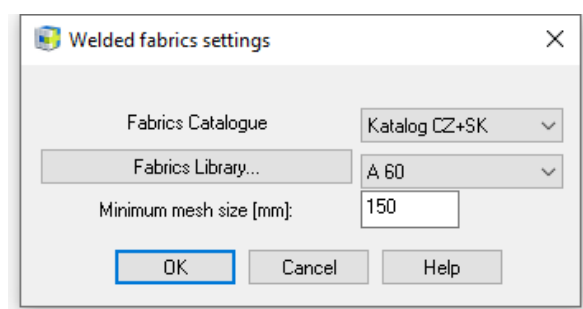
Pict. New option in the bar row description settings

Mesh settings

A new separate function for launching Settings for mesh has been added.



Pict. In Fromwork panel you can find the quick access feature in the default mesh settings.



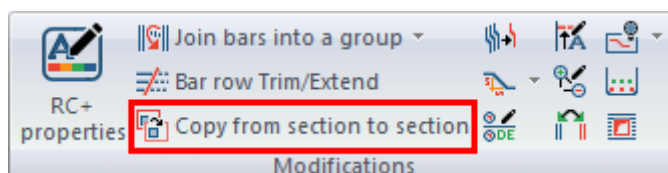
Pict. In Settings dialog for mesh, you can find access to the Fabric library.

Copying of the reinforced element using the Clipboard into another drawing

Since version 2023, the classic copying of objects via the Windows clipboard (CTRL+C, CTRL+V) allows you to copy a reinforced 3D element to another DWG drawing. The inserted bars will automatically get a new item number. If the bars are identical, it is possible to unite their numbers using the Unite Item Numbers function. This option only applies to the 3D element with reinforcement, not to the 2D drawing.

Copy from section to section

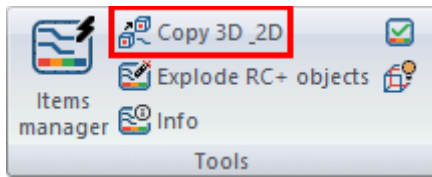
This feature allows you to copy bar and, from version 2023, also mesh from one 2D section to another 2D section; these 2D sections can be in different elements. Therefore, it is also used to transfer reinforcement to another element. As of version 2023, this function also copies embedded meshes.



Pict. The „Copy from section to section“ function can be found on the Modifications panel.

Copy 3D+2D

This feature allows you to make a copy of an entire 3D reinforced element including 2D sections (i.e. 2D drawing) within a single DWG file. The copy is made by selecting one of the element 2D sections which you want to copy. As of version 2023, this function also copies embedded meshes.



Pict. The „Copy 3D+2D“ function can be found on the Tools panel.

Solved problems common for CADKON+ ARCHITECTURE, CADKON+ RC and CADKON+ BASIC

Drawing and modification

- Objects drawn with „SPLINE“ cannot be stretched.
- „Invalid Input“ error on active Extend grip on specific objects.
- The program does not respond when trying to rotate the entire contents of a specific drawing.
- Slow reference point entry and copying of objects in some types of drawings.
- Program failure when editing vertices of specific curves.
- Active dynamic entry creates small inaccuracies when creating objects.
- The Find function incorrectly zooms in on selected objects in a drawing with USS.

Dimensioning

- Horizontal dimensions read incorrectly the value on Y-axis.
- Program failure when changing the background color of the dimension text.

Layout

- If the layout name is short, the tab cannot be activated with a mouse click.
- Incorrectly working command line prompts within the "_LAYOUT" command (non-functional options e.g. SAve, Template, etc.)

Rendering

- The default rendering style setting is not working for new drawings (No default style is always assigned regardless of the default setting).
- Program failure when publishing specific drawings.
- When printing to external printers, Xref cropping is ignored if the Xref contains an image.
- Publish ignores specifically rotated images, the images are not published.

Hatches

- Program failure when trying to crop a specific hatch.
- After specifying a region boundary point directly on an object, the program stops responding.
- Duplicate object boundaries are created when hatches are created by selection.
- Borders are not detected when creating hatch by point if the Create separate hatch option is enabled.

Annotations

- Incorrect Mtext formatting when editing text with bottom alignment.
- The Mtext editing window jumps to a different place in the drawing when editing text with bottom alignment.
- The Mtext window does not preview some specifically formatted text correctly.

PDF Import

- Program failure when trying to import a specific PDF.

Problems solved in CADKON+ ARCHITECTURE

Floor structures

- In drawings where CADKON+ is launched with the setting "retain linetype scale", the isolations in the floor structures are drawn too large.
- Items in the structure library are always moved to the end of the folder when scrolled.

Room descriptions

- The room by floor table is crossed out when changes in the room manager are made but their subsequent cancellation.

Openings

- After editing a door or window opening, the wall lining is inserted into layer 0 in specific cases.

Lintels

- When creating a custom lintel in lintel database, the new item is duplicated.

Other

- After installing SP, Help is not launched in specific cases.

Problems solved in CADKON+ RC

Item shape

- If objects used to create an item shape from a 2D drawing do not have the ByLayer color, they will change color.

Modification

- Trim/Extend a bar row using two parallel lines moves the bars.
- Entering an item number in the numbering gap causes a crash.
- Editing rebar item dimension cancels the overwriting of the number of pieces.

Mesh reinforcement

- Non-functional mesh cutting on 3D solid element.
- Mesh reorder and adding a new mesh does not work correctly in the mesh library.
- After moving a mesh, there are incorrect snap points on it.

Drawing

- 2D section move will corrupt bar description.
- Incorrect dimensions of U-shaped bar with arms that are not perpendicular to the middle segment.
- Bar description reports an unexpected exception in one user drawing.
- BVBS export crashes on a specific drawing.
- The bending mandrel diameter in BVBS Export (the "s" parameter in the file header) is generated incorrectly based on the bar settings. The actual bar diameter is used.
- Creating or editing any reinforcement table fails in one user drawing.

Tools

- Copy 3D+2D crashes on a specific drawing.
- The Info function dialog can now be reduced in size similar to CADKON RCD.
- In one user drawing, the entered value for overwriting the pieces is not retained after entering any number – number 0 reappears.

Other

- When mirroring a dimension around the horizontal axis, the dimension value is incorrect.
- Setting the dimension scale by the 2D section sets wrong DIMSCALE and DIMLFAC variables for a drawing in meters.
- If a drawing contains RC objects (bars etc.) and the PUBLISH command is launched without a drawing loaded, the icad.exe file crashes when the layouts are loaded.

Technical support

In case of technical issues with CADKON+ installation or functionality, please contact us via our Helpdesk.

Signing in: <http://helpdesk.cadkon.eu/>

Registration <http://helpdesk.cadkon.eu/Registration/Index>

Request a forgotten password: <http://helpdesk.cadkon.eu/Account/ForgotPassword>

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