



# MagiCAD for BricsCAD

Release notes for version 2024 UR-1

16/10/2023

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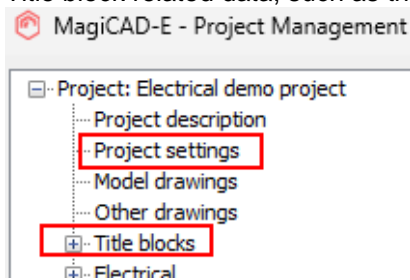
# 1 New features

## 1.1 Common

### Title block handling to MCACA

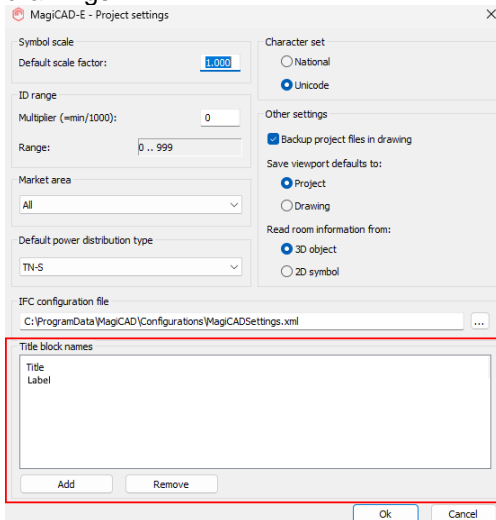
You can now configure the properties used in the title blocks of different MagiCAD drawings and fill the wanted information from a dialog showing the list of all found title blocks. You can also make different kind of reports from the title blocks and their properties. NOTE! Each property should have the same attribute name in all the used title blocks for most fluent usage, so updating of drawing templates is highly recommended.

Title block related data, such as the used properties and blocknames, are all defined in the project.



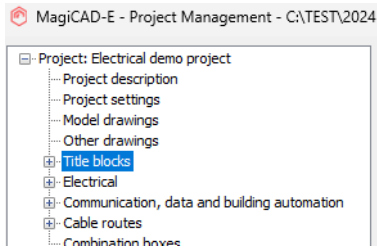
### PROJECT SETTINGS

In "project settings" you define the strings which should be found from the title blocks used in different drawings.



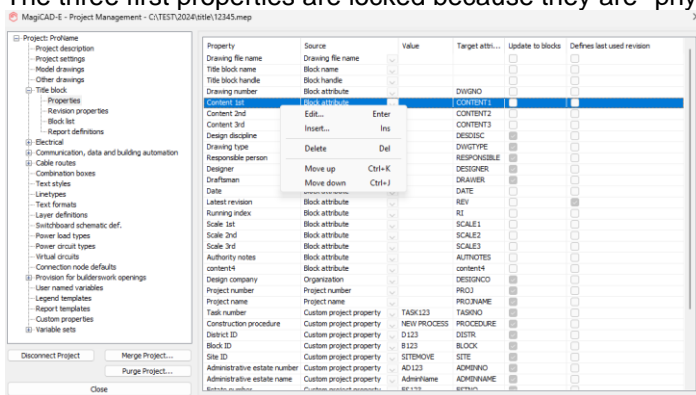
### TITLE BLOCKS

Under "title blocks" you define the used properties, revision properties, report definitions and you can also access all the blocks from there.

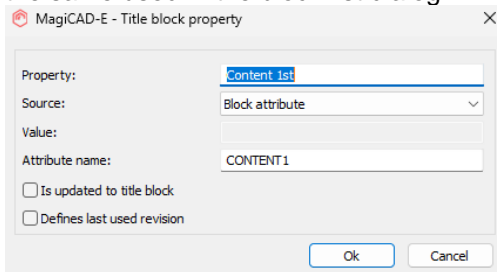


## Properties

Under properties you define all properties which are searched from the title blocks. For each property you can decide its source and whether it is also written back to the block from the title block list. Note! The three first properties are locked because they are "physical properties" of the blocks.



Use the right-click menu for adding and editing properties or for changing the property order which is the same used in the block list dialog. When adding/editing a property, you get the following dialog.



Here you can name the property, select its source (either block attribute, custom project property or some other project property found from "project description"), define a value for it (when xthe source is "custom project property") and define the attribute from which it is searched and to which it is written in the title blocks. With the checkboxes you can select whether the property is updated to title blocks (read/write) or not (read-only) and if the specific property defines the last used revision of a printout. Note! Only one property can be marked to tell the last used revision.

## Revision properties

In "Revision properties" you in a similar way define from which title block attributes all revision details are searched and read. Note that the order is more important here than with regular properties because it is the chronological order of the revisions in the whole project.

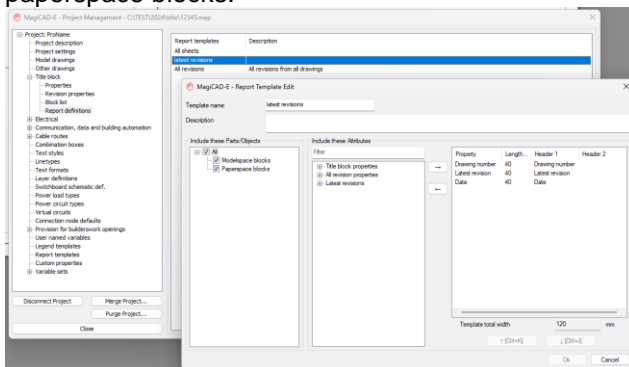
ID	Revision ID	Revision date	Name/Initials	Description	Details
1	REV1	REVDATE1	REVNAME1	REVDESC1	REVDTAILS1
2	REV2	REVDATE2	REVNAME2	REVDESC2	REVDTAILS2
3	REV3	REVDATE3	REVNAME3	REVDESC3	REVDTAILS3
4	REV4	REVDATE4	REVNAME4	REVDESC4	REVDTAILS4
5	REV5	REVDATE5	REVNAME5	REVDESC5	REVDTAILS5
6	REV6	REVDATE6	REVNAME6	REVDESC6	REVDTAILS6
7	REV7	REVDATE7	REVNAME7	REVDESC7	REVDTAILS7
8	REV8	REVDATE8	REVNAME8	REVDESC8	REVDTAILS8
9	REV9	REVDATE9	REVNAME9	REVDESC9	REVDTAILS9
10	REV10	REVDATE10	REVNAME10	REVDESC10	REVDTAILS10
11	REV11	REVDATE11	REVNAME11	REVDESC11	REVDTAILS11
12	REV12	REVDATE12	REVNAME12	REVDESC12	REVDTAILS12
13	REV13	REVDATE13	REVNAME13	REVDESC13	REVDTAILS13
14	REV14	REVDATE14	REVNAME14	REVDESC14	REVDTAILS14
15	REV15	REVDATE15	REVNAME15	REVDESC15	REVDTAILS15
16	REV16	REVDATE16	REVNAME16	REVDESC16	REVDTAILS16
17	REV17	REVDATE17	REVNAME17	REVDESC17	REVDTAILS17
18	REV18	REVDATE18	REVNAME18	REVDESC18	REVDTAILS18
19	REV19	REVDATE19	REVNAME19	REVDESC19	REVDTAILS19
20	REV20	REVDATE20	REVNAME20	REVDESC20	REVDTAILS20
21	REV21	REVDATE21	REVNAME21	REVDESC21	REVDTAILS21
22	REV22	REVDATE22	REVNAME22	REVDESC22	REVDTAILS22
23	REV23	REVDATE23	REVNAME23	REVDESC23	REVDTAILS23
24	REV24	REVDATE24	REVNAME24	REVDESC24	REVDTAILS24
25	REV25	REVDATE25	REVNAME25	REVDESC25	REVDTAILS25
26	REV26	REVDATE26	REVNAME26	REVDESC26	REVDTAILS26
27	REV27	REVDATE27	REVNAME27	REVDESC27	REVDTAILS27
28	REV28	REVDATE28	REVNAME28	REVDESC28	REVDTAILS28
29	REV29	REVDATE29	REVNAME29	REVDESC29	REVDTAILS29
30	REV30	REVDATE30	REVNAME30	REVDESC30	REVDTAILS30

Use the right-click menu to add/edit/remove revision properties.

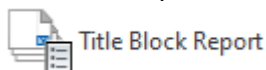
Note! These properties should be among the attributes of the title blocks in a similar way as regular attributes.

### Report definitions

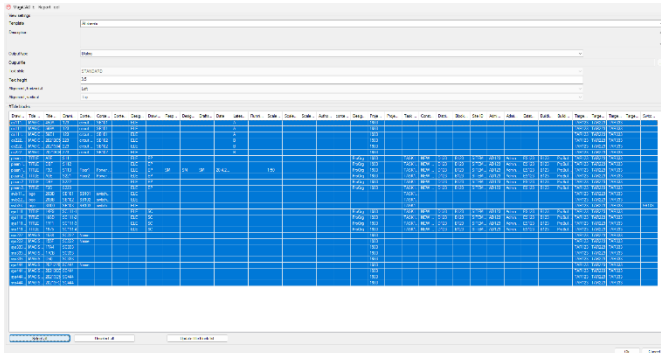
In "Report definitions" you define all different kind of reports you want to take out from the title blocks. Creating a report template is similar to regular reports. You just have the title block and revision properties among the selected properties, and part types are limited to model space blocks and paperspace blocks.



The actual reports are made with a new Title Block Report function.



These are similar to the regular reports, but in this report dialog you need to select all the title blocks from which you want to generate the report.

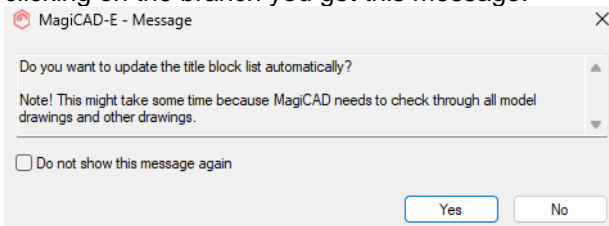


A report block can be updated with the new Update Title Block Report button.



### Block list

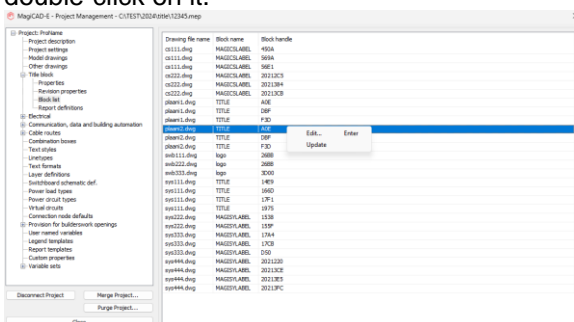
Finally, under "Block list", you can access all the title blocks in the drawings of your project. When clicking on the branch you get this message.



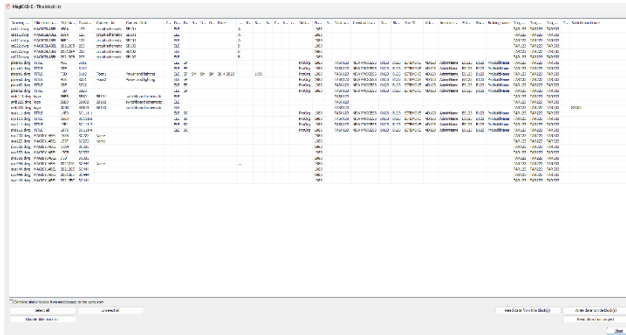
Click yes to update the list. Use the checkbox in case you don't want to see the message again. The update mode can be changed from User Preferences.

The list is updated and you can see all the title blocks found from all model and other drawings.

This list is just an overview of what is found from the drawings. For a more detailed list, right-click or double-click on it.



In the more detailed list you can see all the title blocks and the title block properties defined in the project (revision properties excluded). Here you can read, edit (when applicable) and write data to the blocks. The "read data from project" will fetch all project specific data from the project to the selected rows. When you're ready, you can write all the data from the dialog to the selected title block with the "write data to title block(s)" button.



Note! You need to select all the blocks from the list from/to which you want to read/write data.

### Connection node "None" logic updates in V&P and new Connection Node Report filtering options

In V&P connection node "None" worked in different ways in the different disciplines related to the *Connection node ID* which did cause confusion and even user issues in some cases:

Ventilation: It was not possible to set or show it when the node was created, but it was by default set to 0 and could be shown using Part Property Line and it was visible in the Connection Node Report.

Heating & Cooling: Showed it in node dialog when it was created, but it was not editable, it did not show with Part Property Line and it was hidden in Connection Node Report.

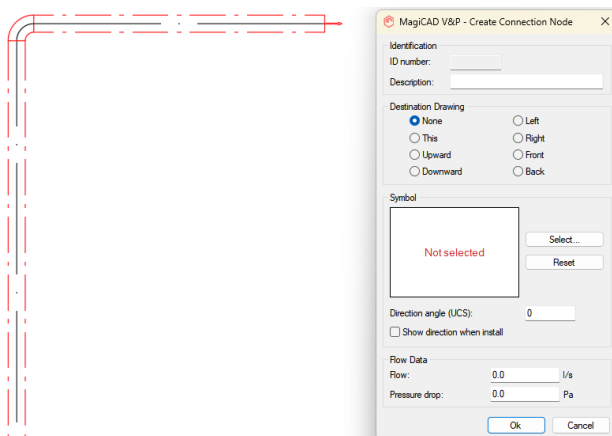
Domestic water, drainage and sprinkler: Showed it in node dialog and it is editable, it showed the number with Part Property Line and it was visible in the Connection Node Report.

Now this has been streamlined so that it is like it was in Ventilation in all disciplines:

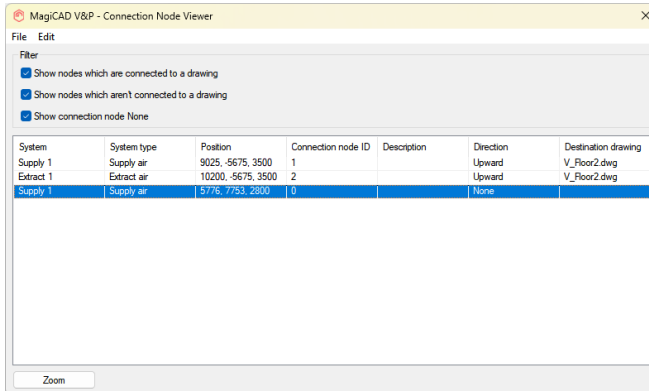
It isn't shown or editable in the connection node dialog when it is created, but it is by default set to 0.

**Note:** Nodes in old drawings keep their old value. This to avoid any possible issues or misconnections when updating, so this change does only take place with new connection node "Nones" which are created.

It is shown using Part Property Line and in the Connection Node Report.

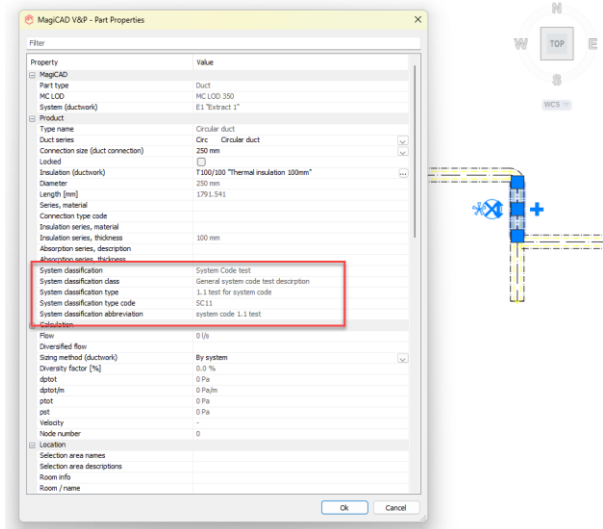


In addition the Connection Node Report has been updated with filters to show or hide nodes which are or aren't connected to another drawing, or which are connection nodes of the type "None":

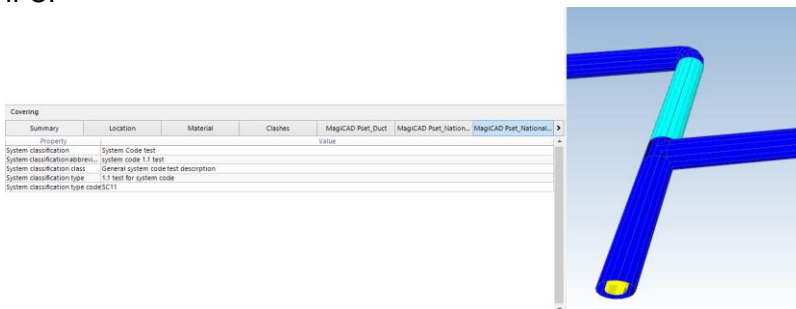


### System classification has been added to insulation

System classification has been added to insulation. *In IFC2x3 also IfcSystem has been added to insulation.*



Can be seen here that the System Classification added above is also available in the insulation in the IFC:

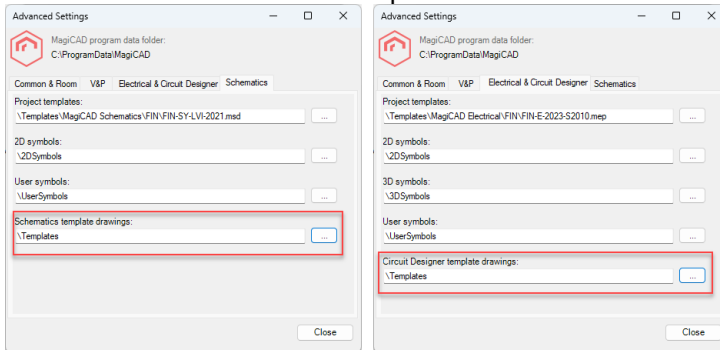




## Drawing template path to User settings in Circuit Designer and Schematics

From MagiCAD User Settings application you can define the default paths where template drawings for Circuit Designer and Schematics can be found.

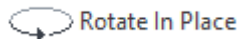
This also means that the default paths can be set for all users when installing MagiCAD.



## Rotate in place

The old function has been converted into a more intelligent MagiCAD function. The function rotates objects from their individual installation points.

Run the function from the same ribbon button as before.

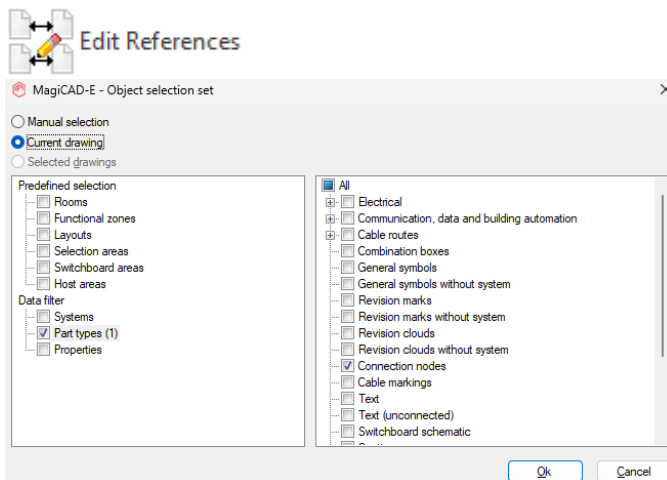


After the command is run, the function asks for an angle and then to select the objects which should be rotated. Note that this rotates an individual object around its own insertion point, so it might not be safe to use it in all occasions, e.g. when rotating objects which are connected to different kind of segments.

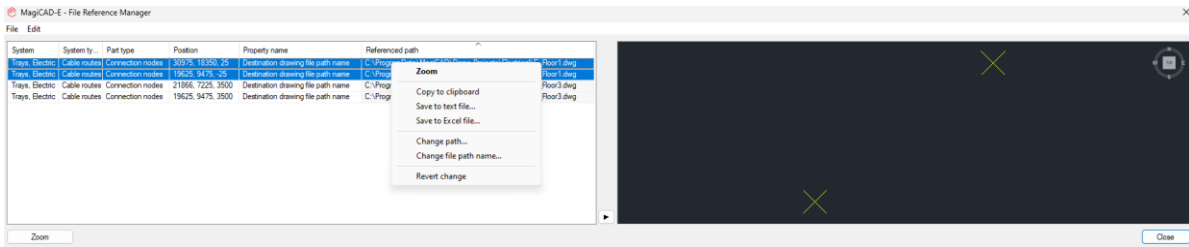
## Update external MagiCAD dwg references in a dwg

With this new function you can update the DWG paths referred from the current drawing.

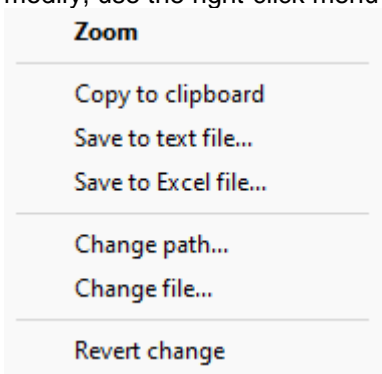
Start the function and select the objects which are gone through.



Another dialog opens where you see all the objects which have references.



You can sort the list e.g. according to the referred path. After you have selected the rows you want to modify, use the right-click menu for performing the desired action.



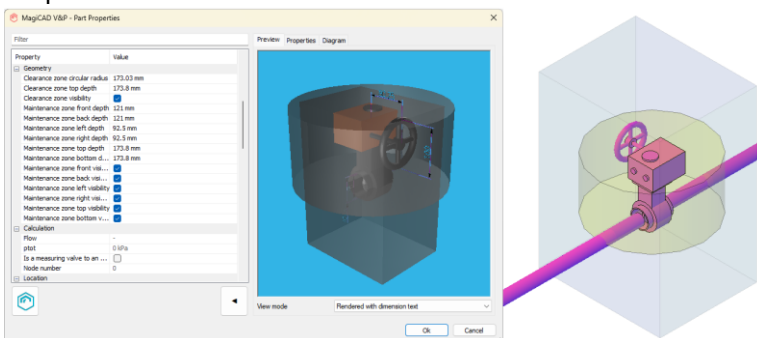
"Change path" and "Change file" can be used to change the paths and/or filenames.

### Clearance and Maintenance zones for products in MagiCAD for BricsCAD

To help the users properly assess the space around installed products to allow for maintenance and safety we have added Clearance and Maintenance zones. When these are set on it is possible to use these zones in the collision checks between products as well.

These are available MagiCAD products, but not all, as these are gradually updated to the various products.

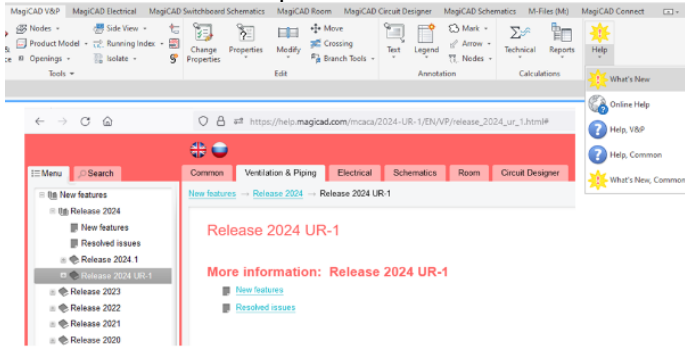
The zones can be set on, in the products which have them in the MagiCAD database, via Part Properties:



**Note:** In electrical there are restrictions to how the transparency currently works. Please see [Read this first](#).

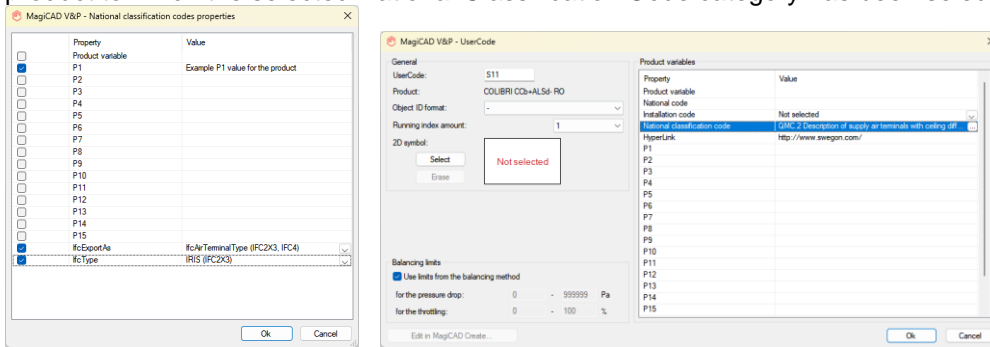
### What's new button for MagiCAD

New buttons have been added to the Help-section in MagiCAD for BricsCAD to better guide the users to see what the latest updates are in the software and know where to access this information.



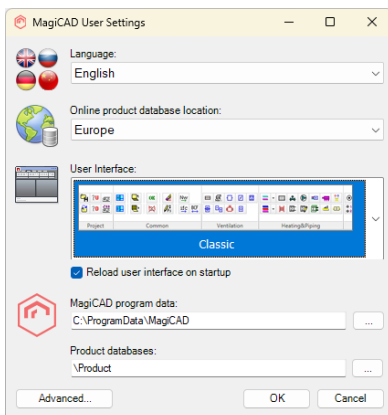
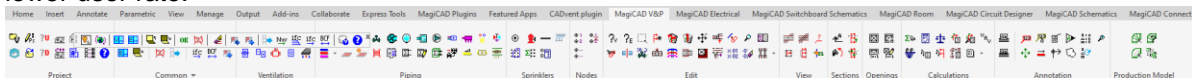
### IFC entity according to national classification codes

Now it is possible to set IFC type to National Classification Codes. This will then be used in the product to which the selected National Classification Code category has been selected.



### MagiCAD's classical ribbons have been removed

The classical ribbons have been removed. This is much due to maintenance of separate ribbons and a lower user rate.



### **Wider range for Side View**

We adjusted the Side View's limit to width from 50m to 1000m to give the users more flexibility.

### **"Use native units" improvement**

Now if user checked "Use native units" in IFC Export, the following measures are not converted to

IfcText:

IfcBoolean

IfcComplexNumber

IfcIdentifier

IfcInteger

IfcLabel

IfcLogical

IfcParameterValue

IfcReal

A correction to the feature which has been implemented as well:

If the user checked "Add unit name" in IFC Export, incorrect text "[]" was appended to some property names.

### **IFC export checks write access of the folder to which it should be saved**

Now the file is checked for write access before IFC Export is started to avoid any issues due to not being able to save the file.

## **1.2 Ventilation and Piping**

### **Common**

#### **Split functions will now inherit values for segments for certain variables**

Now duct and pipe segments will inherit the following values of the original segments when split:

Description

User variables

Labels

Earlier this information was cleared.

The functions which this regards:

Joint part

Split segments

Split

Crossing

Note that it is only the segments which keep the values in the crossing function. Fittings don't.

## Ventilation

### Continuation of VAV calculations

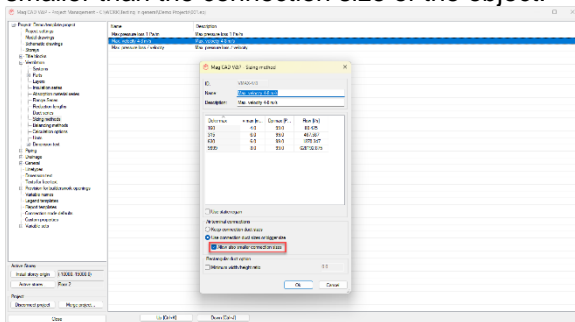
It is now possible to define flow dampers to be VAV controllers.

If a flow damper is defined as a VAV damper, the adjustment of the air terminals remain the same with all the calculated schedules/zones. The adjustment is done with a VAV damper.

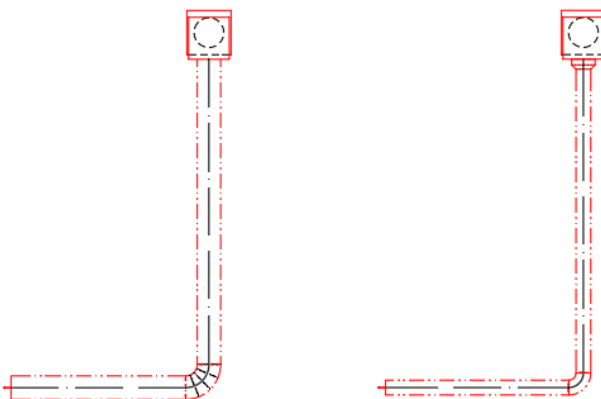
Property	Value
Open ends	
Calculation	
Lock dp	<input type="checkbox"/>
Dp set	0 Pa
Is VAV controller	<input checked="" type="checkbox"/>
Flow	-
Diversified flow	
Damperpos	0.000
Adjustment	0.000
dptot	0 Pa
ptot	0 Pa
Velocity	-
Node number	0
Location	
Selection area names	
Selection area descriptions	
Room info	236 Lobby
Room / name	Lobby
Room / user code	236
Room / type	Not defined
Storey	Floor 2
Storey variable 1	

### Ventilation sizing now supports smaller dimensions than the connector of the object

It is now possible to have a setting in ventilation sizing which allows for the connected ducts to be smaller than the connection size of the object:



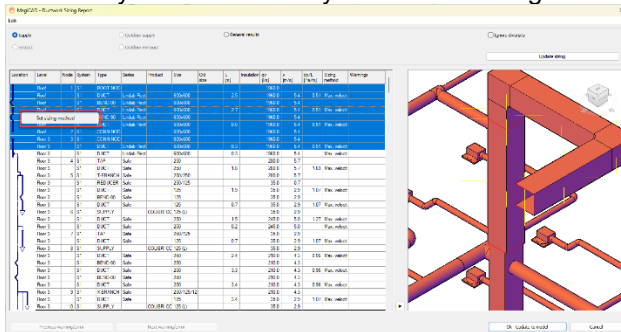
To the left sizing done without the set option and to the left with it active:



## Edit the sizing methods within the calculation report MCACA

It is now possible to change the sizing method in the sizing report of Ventilation systems and then "Update sizing".

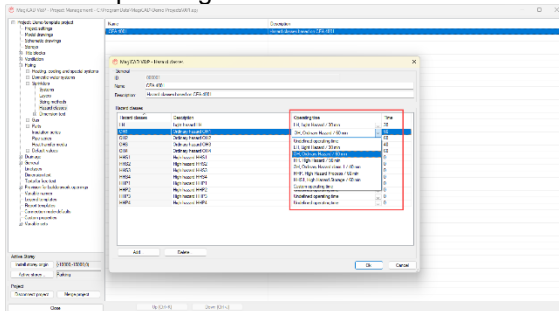
Note: Only for Ventilation systems at this stage.



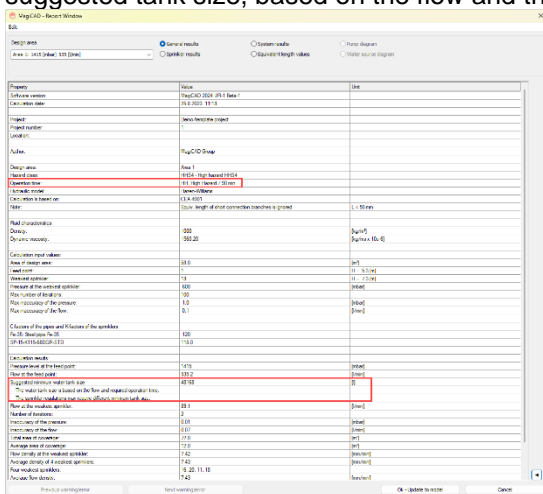
## Sprinkler

### "Suggested minimum water tank size" size has been added to sprinkler calculations

Added support for "Suggested minimum water tank size" in Sprinkler calculations. Now it is possible to add the operating time for the different hazard classes in the project:

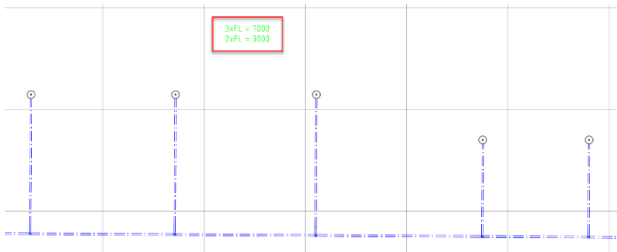
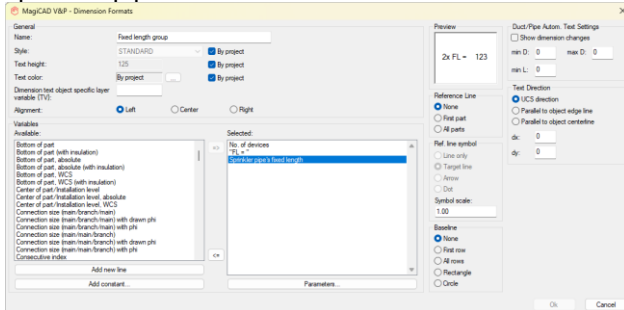


When the sprinkler calculations are run the report will show the selected Operating time as well as the suggested tank size, based on the flow and the operating time:



### "Sprinkler pipe's fixed length" parameter added to dimension text

"Sprinkler pipe's fixed length" parameter added, and it is also possible to use "number of devices" in sprinkler pipes now:



### Dates added to the top of the sprinkler report

Dates have been added to the top of the sprinkler report to indicate when the calculations were run:

**General results: Area 1**

Property	Value	Unit
Software version:	MagiCAD 2024 UR-1 Beta-2	
Calculation date:	5.9.2023 11:59	
Project:	Demo/template project	
Project number:	1	
Location:		
Author:	MagiCAD Group	
Design area:	Area 1	
Hazard class:	GH2 - Ordinary hazard GH2	

## 1.3 Electrical

### Title block handling

Title block handling is introduced as a common feature in MagiCAD. Please see the Common user guide for details.

### Edit drawing references in model drawings

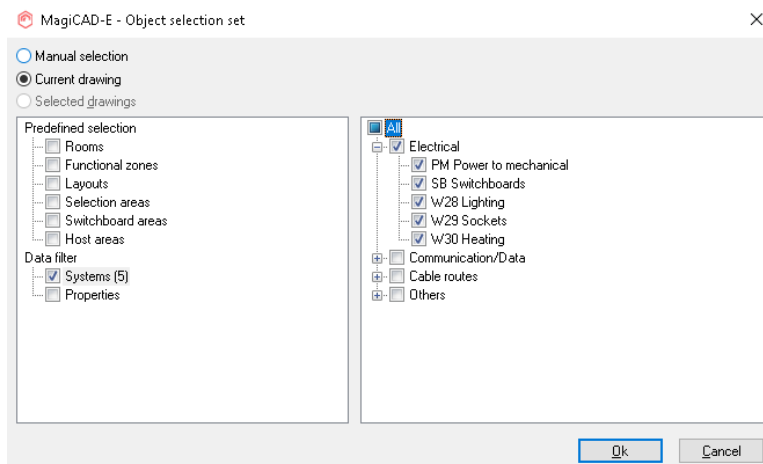
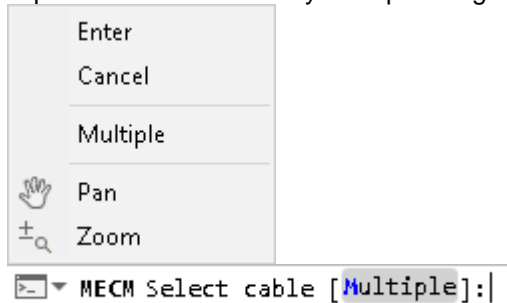
Now you can edit the file names and paths to which objects are referring in model drawings in case the filenames and/or paths are changed during a project's lifetime. Please see the Common user guide for details.

### Maintenance zones

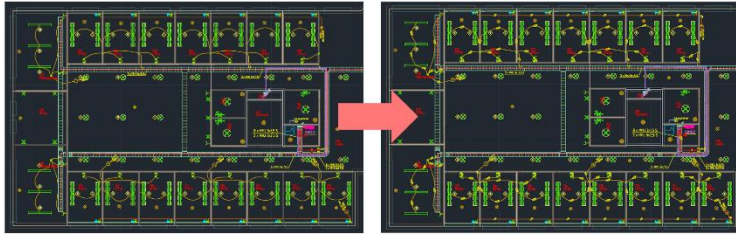
Maintenance and clearance zones are now supported in MagiCAD. Please see the Common user guide for details.

### Cable marking for all cables

Now it is possible to add cable markings for multiple cables simultaneously. Select several cables and mark them all automatically so that MagiCAD places the cable marks into the middle of the cable lines shown in 2D top view. This is done by first using the "Multiple" option from the right-click menu or command line. After that, you decide if you want to select the cables manually from the current drawing (remember to hit enter/space after selecting the desired cable objects) or use the object selection filters for selecting cables automatically from the current drawing. In the latter case, marking is performed automatically after pressing Ok in the dialogue.







### Pre-manufactured cable products

Now you can utilize pre-manufactured cable products in MagiCAD.

Define a fixed length for a cable in the project.

General	
ID:	657
User code:	
Cable code:	5x1,5 S
Type name:	MMJ
Description:	MMJ 5x1,5 S 5m FIXED
Manufacturer:	
Product code:	MMJ 5x1,5 S 5m FIXED
Properties	
Diameter [mm]:	11
Weight [kg/m]:	0.180
Fixed length [mm] (0 = not used):	5000.000
Cable Mark	

The fixed length is used in the drawings and calculations, no matter how you draw the cable.

When the drawn length is exceeding the fixed length, the length parameter is colored with red in Part Properties.

Property	Value
Part type:	Cables
System type:	Electrical
Product description:	5x1,5 S
Type name:	MMJ
Product description:	MMJ 5x1,5 S 5m FIXED
Manufacturer:	
Product code:	MMJ 5x1,5 S 5m FIXED
Diameter:	11 mm
Start points:	42426, 23465, 2500
Endpoints:	46225, 23526, 2500
Length:	5000 mm
User type:	SoftProject
Object type (if Product):	IS: CableSegmentType
IS Type:	CABLESEGMENT
Labels:	
Connected to:	...

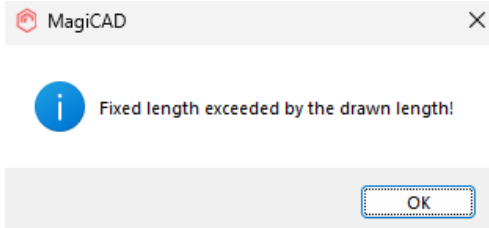
Product...      Corners...  
 Installation...      Change RI...

Object ID:   Override

Cable number:  Next free      Cable length: 5,00 m

Ok      Cancel

You also get a message about exceeded length after drawing a longer cable than what the fixed length was.



### Release cable data info to COM interface

Added support for /Part/Host/ID and /Part/Switchboard/ID COM attributes to get host Acad handles when object has "Host by area" or "Switchboard by area" flags set, even when they are not connected by cables.

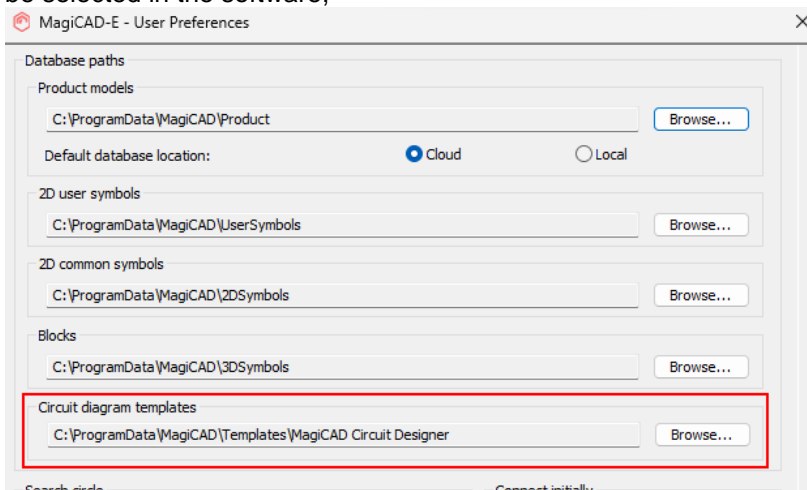
## 1.4 Circuit designer

### Title block handling

Title block handling is introduced as a common feature in MagiCAD. Please see the Common user guide for details.

### Template drawings

In MagiCAD Electrical you can now set the template path from which circuit schematic templates can be selected in the software,

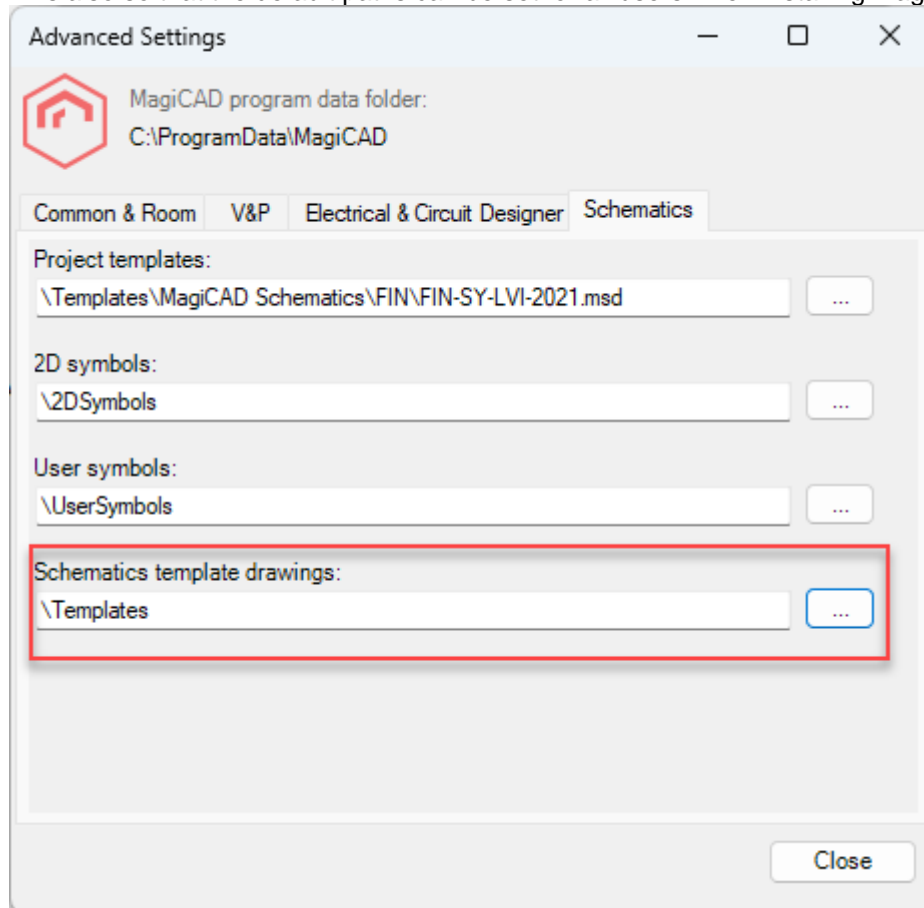


## 1.5 Schematics

### Drawing template path to User settings

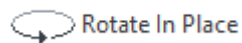
From MagiCAD User Settings application you can define the default path where template drawings for Schematics can be found.

This also so that the default paths can be set for all users when installing MagiCAD.



### Rotate in place

Command has been implemented for the rotation of objects.



After the command is run, the function asks for an angle and then to select the objects which should be rotated.

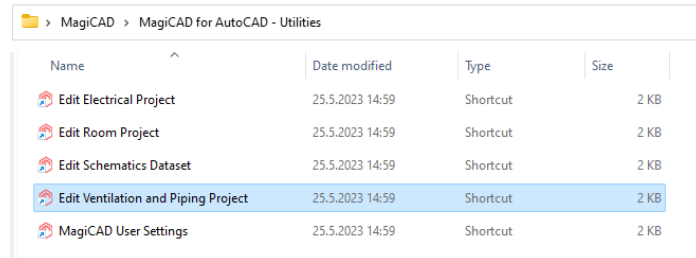
Note that this rotates an individual object around its own insertion point, so it might not be safe to use it in all occasions, e.g. when rotating objects which are connected to different kind of segments.

## 2 Resolved issues

### 2.1 Common

#### Project managers will now open the last used folder

Now when editing projects using the project managers, the last used folder will be opened if such is in memory, instead of as earlier defaulting to MagiCAD's program data folder.

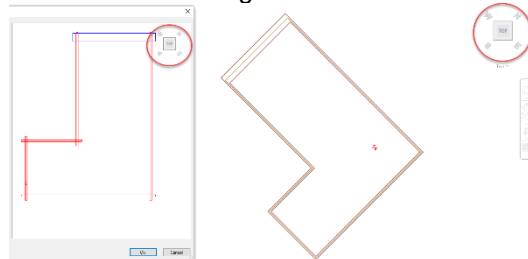


Name	Date modified	Type	Size
Edit Electrical Project	25.5.2023 14:59	Shortcut	2 KB
Edit Room Project	25.5.2023 14:59	Shortcut	2 KB
Edit Schematics Dataset	25.5.2023 14:59	Shortcut	2 KB
Edit Ventilation and Piping Project	25.5.2023 14:59	Shortcut	2 KB
MagiCAD User Settings	25.5.2023 14:59	Shortcut	2 KB

This update has been made to make it more likely for the users to faster find the correct files as it is assumed that the editing will take place related to the previously used folders, or others which directories are in the same place.

#### Preview viewcube was not correctly aligned

The viewcube in MagiCAD's previews was not correctly aligned in relation to the object in the preview, as set in the drawing:



#### Find & Replace crashing in some cases

A crash issue has been fixed in Find & Replace.

#### Changing the "Offset from storey origin" in "Floor Offset Area" didn't work in the new Part Properties dialog

The value was reset to what it was when the user tried to change the value. Now it is updated correctly and works.

#### Transmit Project did not bind XREFs which existed only in layouts-view

Now XREFs in paper space are added to transmittal. Earlier they weren't so for example logos, from images used in paper space weren't included.

### Command line prompt issues

Some command line prompts were wrong, for example MAGISEL having the "Options" shown even if it should have been disabled, and have been updated to show the correct prompts.

### Name, Layer and System missing from Provisions in IFC in V&P

Earlier information for Name, Layer and System were missing completely in the IFC file in from V&P. Now when the information has been added in V&P it is also written to the IFC:

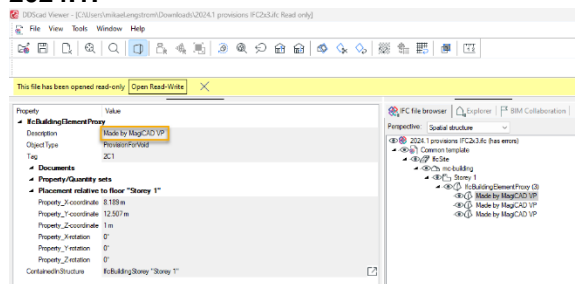
In IFC 2x3 all are added:

- Name
- System
- Layer

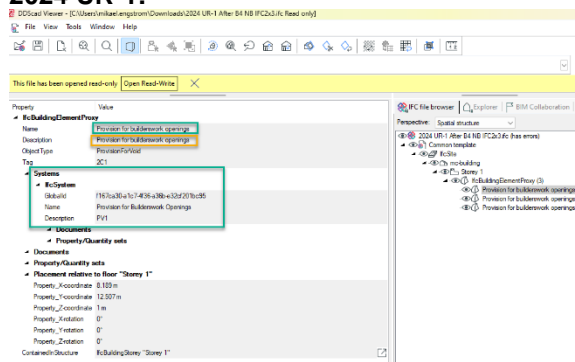
In IFC4 the System isn't added due to how IFC4 is structured, but Name and Layer are.

Example when selecting a provision in the IFC2x3 in DDScad Viewer, the changes:

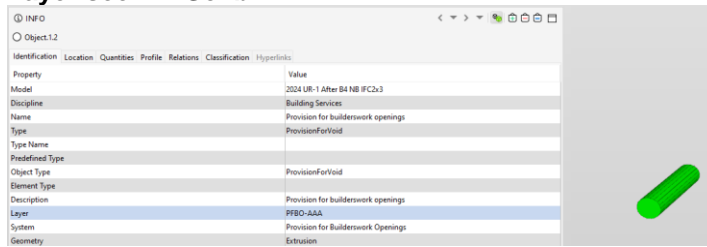
#### 2024.1:



#### 2024 UR-1:



### Layer seen in Solibri:



Property	Value
Model	2024 UR-1 After B4 NB IFC2x3
Discipline	Building Services
Name	Provision for builderswork openings
Type	ProvisionForVoid
Type Name	
Predefined Type	
Object Type	ProvisionForVoid
Element Type	
Description	Provision for builderswork openings
Layer	PFBO-AAA
System	Provision for Builderswork Openings
Geometry	Extrusion

### IfcDistributionChamber was missing from Ifc types

Added support for IfcDistributionChamberElementType.

### IFC quantity set did not appear when using "Use native units" in IFC Export

Now "Use native units" option in IFC Export is not used for IFC classification reference and IFC quantity set. This means that in both of these the export is done but the default units are used and not what is set in MagiCAD.

## 2.2 Ventilaion and Piping

### Common

#### Merged Variable names weren't saved in project file

Merged variabe names weren't saved. After opening the project again they had been reset.

Now the names are saved.

Project settings	UserVar 1	Default	Default
Model drawings	UserVar 2	Default	Default
Schematic drawings	UserVar 3	Default	Default
Storeys	UserVar 4	Default	Default
Ventilation	UserVar 5	Default	Default
Piping	UserVar 6	Default	Default
Drainage	UserVar 7	Default	Default
General	UserVar 8	Default	Default
Linetypes	UserVar 9	Default	Default
Dimension text	UserVar 10	Default	Default
Texts for free text	UserVar 11	Default	Default
Provision for builderswork openings	UserVar 12	Default	Default
Variable names	UserVar 13	Default	Default
Legend templates	UserVar 14	Default	Default
Report templates	UserVar 15	Default	Default
Connection node defaults	Description	Default	Default
Custom properties	National code	Default	Default
Variable sets	SV1	MERGE	MERGE
	SV2	MERGE	MERGE
	SV3	Default	Default
	SV4	Default	Default
	SV5	Default	Default
	SV6	Default	Default

Project settings	UserVar 1	Default	Default
Model drawings	UserVar 2	Default	Default
Schematic drawings	UserVar 3	Default	Default
Storeys	UserVar 4	Default	Default
Ventilation	UserVar 5	Default	Default
Piping	UserVar 6	Default	Default
Drainage	UserVar 7	Default	Default
General	UserVar 8	Default	Default
Linetypes	UserVar 9	Default	Default
Dimension text	UserVar 10	Default	Default
Texts for free text	UserVar 11	Default	Default
Provision for builderswork openings	UserVar 12	Default	Default
Variable names	UserVar 13	Default	Default
Legend templates	UserVar 14	Default	Default
Report templates	UserVar 15	Default	Default
Connection node defaults	Description	Default	Default
Custom properties	National code	Default	Default
Variable sets	SV1	Default	Default
	SV2	Default	Default
	SV3	Default	Default
	SV4	Default	Default
	SV5	Default	Default
	SV6	Default	Default

#### UCS changed to "Unnamed" when installing a product or using the MagiCAD text functions

The name of the UCS changed to "Unnamed" when installing a product or using the MagiCAD text functions. This issue has been corrected and the set name stays put.

#### Insulation series didn't work correctly for fittings in some cases

The wrong thickness was sometimes selected for fittings. Now the correct thickness is selected for all fittings.

#### Dimension text row spacing changed when dwg used as an XREF

The row spacing for dimension texts changed when the drawing was used as an XREF. The original row spacing in dimension texts is now maintained for the XREFs as well.

### Using create similar maintained the original object's running index

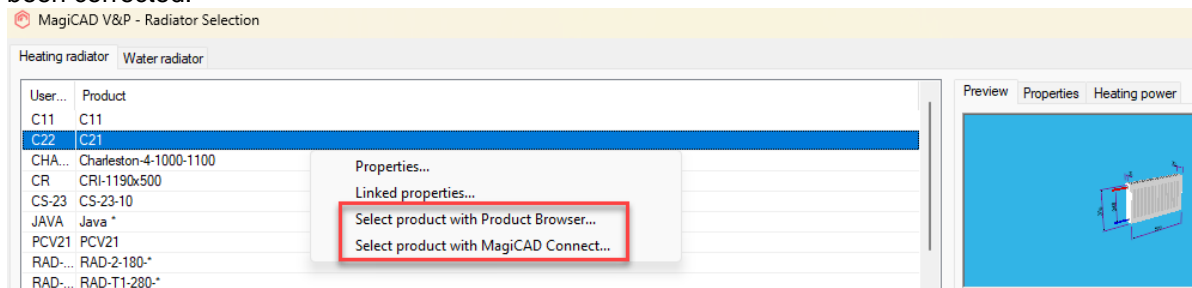
The running index of the original object was maintained in the new object which was created using the "Create similar"-command. Now the running index will be removed in these cases.

### Problem with hatched part in 2D symbol using "Hide"

When using "Hide" on 2D symbol that has hatched parts in it, those hatched parts did not follow the "Hide"-color. This has been fixed and the proper color is used in cases like this.

### Product browser and Connect opening twice

When using either of these options for the both radiator types the dialog was opened twice. This has been corrected.



## Ventilation

### No. of devices for air devices didn't work

"No. of devices" dimension text attribute didn't work. This has been corrected and it works properly again

### Issue while changing Air flow via the classic Part properties dialog

An issue occurred when using the classical Part Properties dialogs and changing the air flow and a warning message was shown. This issue has been corrected.

## Piping

### It wasn't possible to edit domestic water None-node flow properties with Change Properties

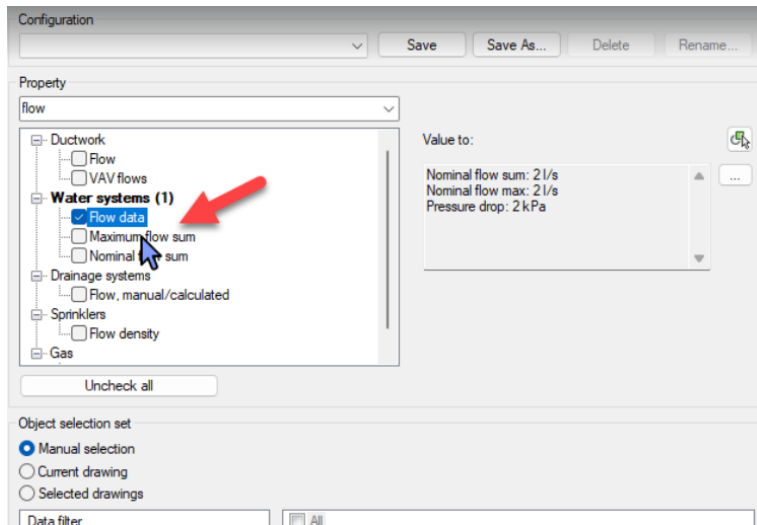
Both of these issues have been corrected:

It was not possible to change "Flow data" of connection code "None" in Change Properties if connected segment was not connected.

Getting flow data from reference part failed if selection was empty.

Option seen in Change Properties:





### **Velocity was not showing in new Part Properties for domestic water**

We added the missing property "Velocity" to water pipes, bends and joint part.

### **Wrong dp in pipe segments when Simultaneity was used**

Pressure drop in domestic water pipes was calculated incorrectly when Simultaneity was used.

### **"Draw valve"-option was not working in Find & Replace**

When a radiator was replaced the "Draw valve" option was not set on in the replaced radiator, even if it should have been. This has now been corrected and the "Draw valve"-option works correctly when using Find & Replace.

## **Sprinkler**

### **When using flexible connection to the sprinkler, the connection was made with rigid pipes**

Rigid pipes were used for the connections to the sprinklers, instead of the selected flexible pipes. This has now been corrected and the correct types of pipes are selected according to what the user selected.

### **Flexible pipes were shown multiple times in the Sprinkler report**

Fixed a minor bug where flexible pipes were shown multiple times in the report under "Equivalent length values".

### **Sprinkler calculation calculated tees incorrectly**

Some tees were left out from the calculation. This has been corrected.

## 2.3 Electrical

### Spreadsheet import to use GUIDs/IDs instead of English names

Now when importing spreadsheet to switchboard schematics, columns are identified by GUIDs (if they are set).

### Linked properties link did not get updated when product was changed to another one

Family and size IDs were not updated when selecting different product for existing one in the project. Now linked properties should show the data of the changed product.

### Linetypes were not following in xrefs

Dashed linetype were shown with continuous line when the drawing was xreffed to another drawing. This issue is now fixed.

### IFC Export of project with long file path name resulted to empty Storey Mapping list

If file path was longer than 151 characters, it resulted an empty Storey Mapping list. Now file path length can be over 150 characters.

### Total length of similar was not working properly

The report attribute "Total length of similar" didn't summarise length of segments when also "Number of similar" attribute was in the report. Now it summarises all segments even though "Number of similar" is also in the report.

Also, unnecessary cable multipliers have been removed from the "Product description" attribute in reports and dimensions texts.

### Placement/surface is not updated when mirroring 3D models upside down

Now, when upside down mirroring is enabled for a product and you mirror it upside down, the placement is changed to floor/ceiling in case the original placement was opposite (ceiling/floor) so that it corresponds with the new orientation of the 3D model. This way it is easy to change it back to the original placement if needed, and there will be no mismatch between normal and mirrored 3D models' orientations. Wall placed work as before because their placement doesn't change.

### Cable packet connections were lost when connecting branches

Previously, cable packet connections between packets didn't work correctly. The connections of branch packets were lost when running Update DWG or Part Properties, and you had to re-connect over and over again to make them work again. Stretching an end point on top of the main packet's centerline fixed the connections permanently, so that could be used as a workaround. The issue is now fixed and connections work properly again.

### Manual hide caused unnecessary regen

Now when user runs the hide or unhide functions, drawing is regenerated only if something was changed.

### "OK" button's text was missing from array installation

When installing devices and using the array option, the OK button's text was missing. Now correct text is shown in the dialogue again.

## **2.4 Circuit designer**

No resolved issues in this version.

## **2.5 Schematics**

### **Linking/unlinking multiple objects failed in Schematics**

When linking and unlinking multiple objects in the dialog, only saved the linking for the last object. This meant that the dialog had to be opened and closed for each linking/unlinking.

Now multiple objects can be linked/unlinked without any issues.