MagiCAD for Revit

Release notes for version 2025

07/06/2024

MagiCAD

Content

1 New features

1.1 Common

Support for Revit 2025
MagiCAD now supports Revit 2025. Due to incompatibility issues with Revit 2025, S&H module has been excluded from Revit 2025 version.

Support for Revit dark theme
Added support for Revit dark theme in modules MagiCAD Common, MagiCAD Ventilation, MagiCAD Piping, MagiCAD Electrical and MagiCAD Schematics. If original ribbon images were not shown properly with dark theme, then more suitable icon colors will now be used when dark theme is in use.

Real time clash view filter
Running real-time clash checking can slow down Revit project performance. MagiCAD now includes a view selection for real-time clash checking. Running clash checking only in selected views helps improve performance and the overall modelling experience.

Project Wizard copy and monitor functionality
New worklow of establishing monitoring between elements has been added for levels and grids. It's possible to start "Revits copy and monitor link" feature from the Project Wizard copy dialogs. Monitoring is useful tool when the project needs collaboration with other teams, this way the changes in linked elements are reported to the designer.
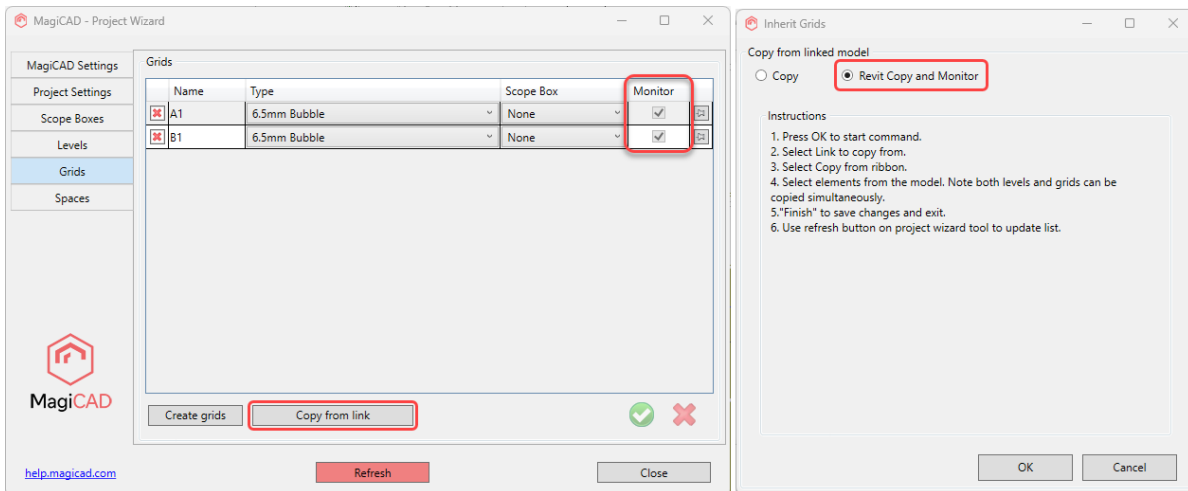
Project Wizard Spaces improvement - Support IFC in space creation
Since IFC's are well used format of changing information, the support of IFC as reference model has been added to Project Wizard spaces functionality. When selecting suitable spaces form the list, user has the possibility to add parameter to list which can be used for better filtering the actual rooms and spaces. The selected spaces are then created into the model, and for better quality the space outlines are created as space separator lines, to handle the cases where the reference geometry quality is not sufficient enough to create enclosed areas.
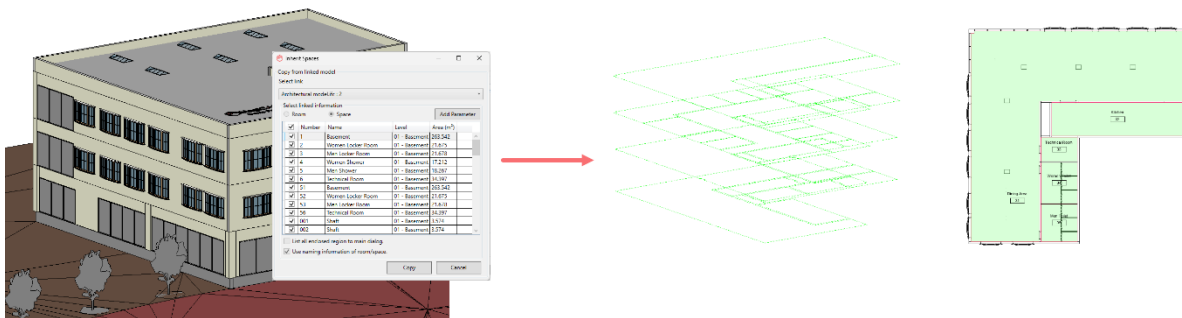
Duplicate topics option added to National- and System classification codes
Added possibility to duplicate topics in National classification codes and System classification codes - dialogs.
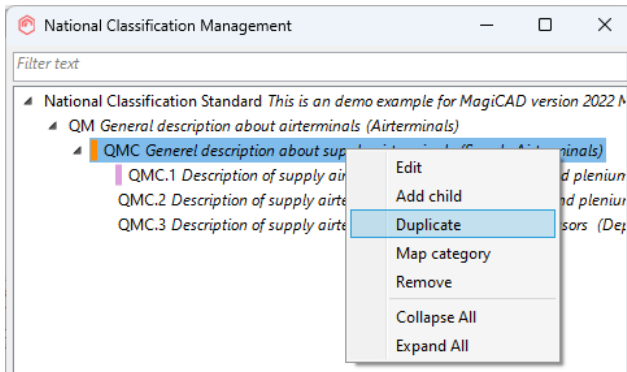
Performance improvement for Update Parameters
Performance has been significantly improved when updating piping product code instance parameter with Update Parameters -tool.

1.2 Common/IFC related

IFCAPPLICATION and IFCORGANIZATION in IFC4
IFCAPPLICATION and IFCORGANIZATION have both been added to the IFC-file.

1.3   Ventilation and Piping

Support for dry sprinkler calculation

Dry sprinkler calculation is now supported. Dry sprinkler systems are used when part of the sprinkler network is situated in conditions below the freezing point or above the boiling point of the sprinkler fluid. The dry part of the network is filled with air or nitrogen and separated from the rest of the network with a dry pipe valve. When the sprinklers operate in case of a fire, the pressure in the dry system decreases and the dry valve opens filling the section with water. An accelerator may also be used to speed up the release of air from the pipes.
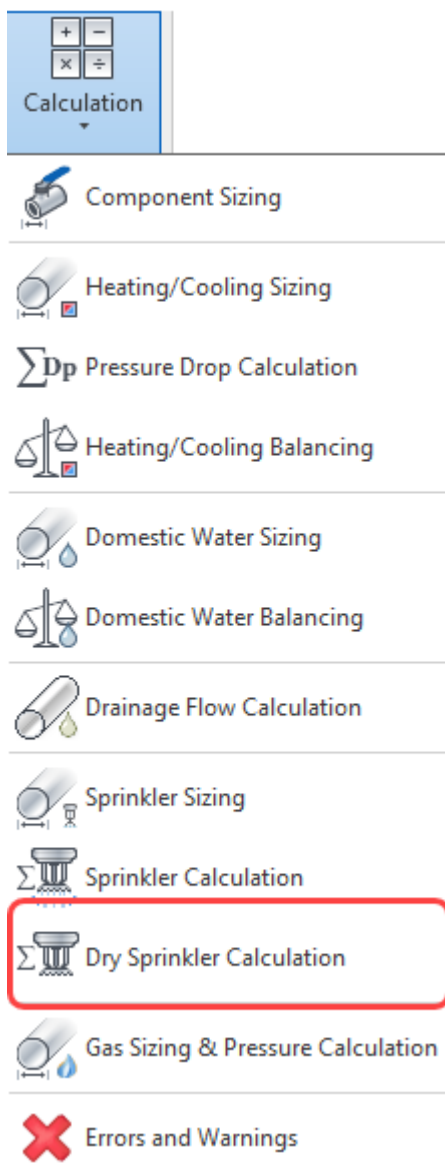
Component sizing

New feature to efficiently resize ventilation and piping components to match connected segment size. This is especially useful if the segments sizes are changed manually and component is wanted to match the segment size.
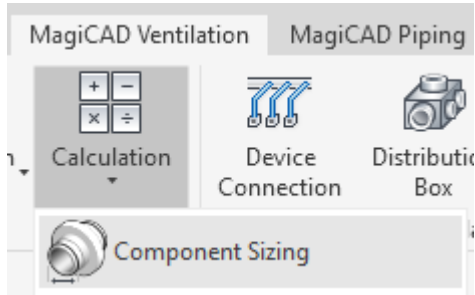
Smart installation option for the angled components

Added smart installation option for "Other Component" and "Stop Valve" category products if product has two 90 degree angled connectors. Smart installation is used to replace existing 90 degree bend with the selected product. For example, wall boxes can now be installed faster than before.
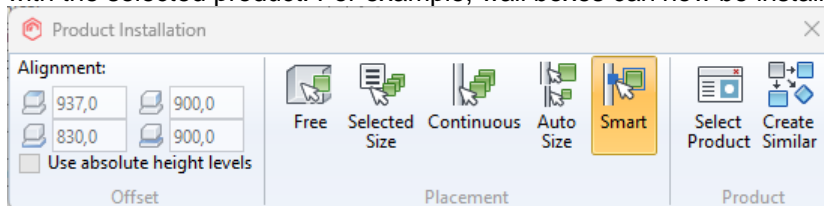

Angle to Horizontal now supports sloped pipes

Angle to Horizontal has been improved to work with sloped pipes. This makes modelling of the pipe elevation changes a lot easier as you have all the Angle to Horizontal definitions available when the network already contains slope.

Ignore sound attenuation in distribution boxes
Added possibility to ignore sound attenuation in distribution boxes.
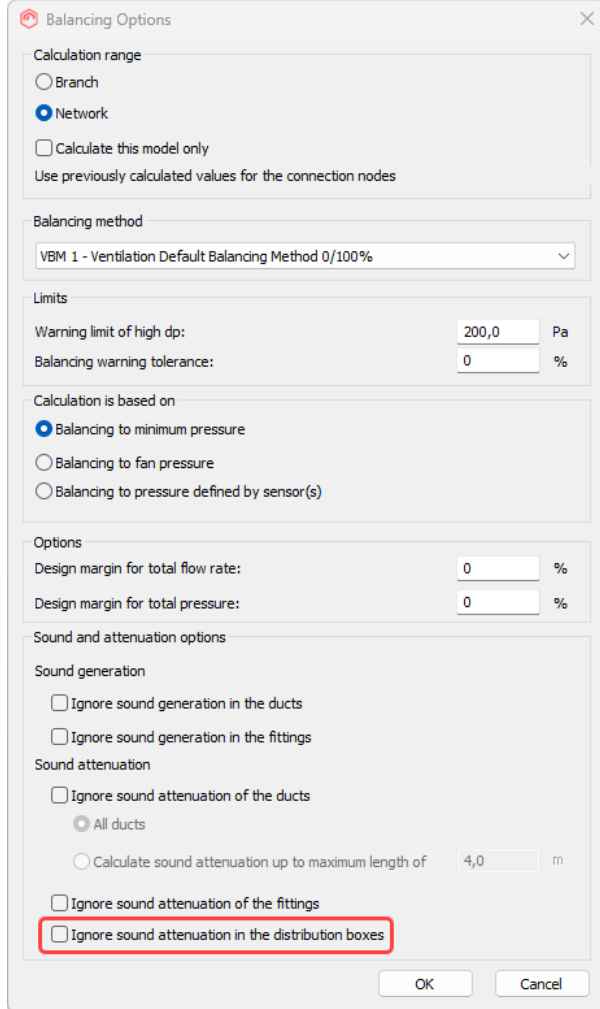
Better calculation warning when sprinkler network starts with valve
Added better warning text to sprinkler network calculation reports if the network starts with valve.

Saving the sprinkler input values when OK is pressed in the calculation dialog
Input values in "Sprinkler Calculation Options" -dialog are now saved for the session if "OK" is selected. Furthermore, input values are saved to the project if "Ok - Update to model" is used in the report window and the calculation was successful.

Add pipes temperature in a specific parameter
Added calculated "MC Piping Fluid Temperature" -parameter and value for supply hydronic segments.

Maximum drainage flow (qww max) needs to be shown in pipes
Added "MC Piping Max Drainage Flow" -parameter for sewer segments. Use sewer calculation to get value for elements.

Adjustment value information of valves is now stored in radiator

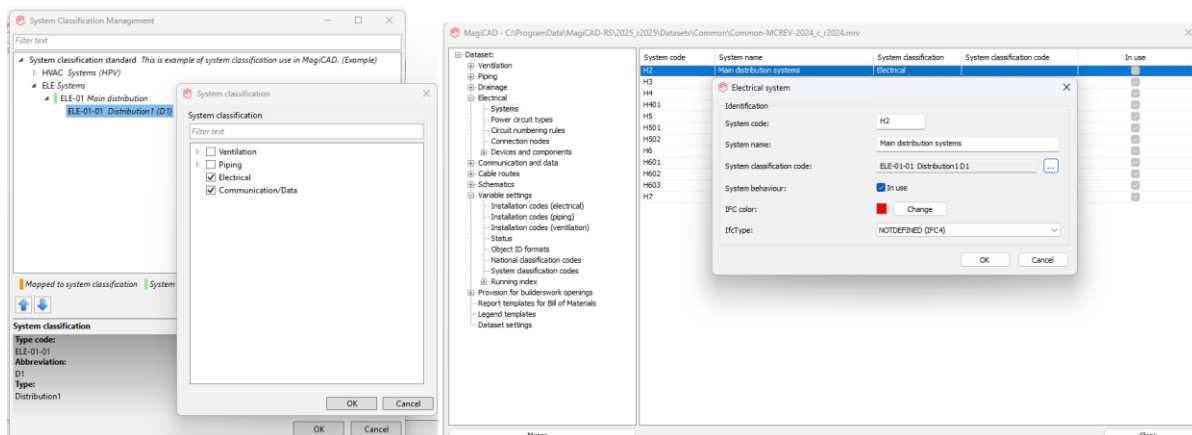Adjustment value of the connected valve will now be saved to a radiator when balancing is run.

Improved guide vane behavior with calculation

If there were more than 3 guide vanes, they were calculated as there were no guide vanes. Now data for 3 guide vanes are used in such situations and a warning is given.

1.4 Electrical

System classification codes for electrical, communication and data

System classification codes are now extended to support electrical, communication and data systems. Codes can now be mapped to electrical, communication and data systems and then applied to the systems after. System classification codes will be written differently for electrical, communcation and data systems than those are written to ventilation and piping systems.
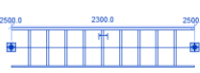
Running indexes for switchboards

Switchboards are now added to the running index validity list and you can give a single running index to a switchboard.

2 Resolved issues

2.1 Common

Product selection dialog 3D view issues
Product selection dialog 3D view was not showing some products correctly.

"Clean-Up & Deliver" stops in error
Direct shapes were causing unexpected error when using "Clean-Up & Deliver" - function.

Project Wizard spaces freezes
Revit froze when using "Project Wizard" -tool and project contained more than one space without name and/or number.

Image modification doesn't work in BCF Manager -tool
Edit button didn't open image editor in some scenarios. Another issue was that if image editor was opened, then modifications were not saved to the BCF Manager.

Selecting NCC in BWO settings crashes Revit
Revit crashed if user was trying to apply national classification code for Builderswork Openings, but there were no national classifications defined in the dataset.

2.2 IFC-related

Unexpected error when running IFC Batch Export for detached ACC / BIM360 model
There were issues with IFC Export throwing an exception when exporting unsaved detached project, or if Batch IFC Export contained an unsaved detached project.
This has now been corrected so that it works with detached projects as well.

Project base point and survey point elevation problem
There were issues with exporting the IFCs according to the Project base point and Survey point, with MagiCAD's IFC Export, where the IFC models ended up at different locations than expected.
This has now been changed and now MagiCAD IFC Export exports same elevations as Revit IFC Export

2.3 Ventilation and Piping

System not found
"System not found" was given if there were domestic water system connected to a heating and a cooling plant and there was also a hydronic system connected to the same plant.

Elements from another project cannot be shown from calculation report
If calculation network spread into multiple documents and user selected a row which contained information of an element which was located in another project than the active one, then project was not changed so that the element could be shown for the user.

Rectangular connectors in Generic AHU in wrong direction
"Generic AHU" -tool created connectors in wrong direction.

Internal error when updating product code instance parameter to piping plugs
"Update parameters" -tool gave internal error if user was trying to update product code instance parameter for an object which was connected to a manifold and didn't have a system.

Certain bends broke in Domestic Water Sizing
Water sizing lead to disconnecting bends if there was a T-branch which was connected to different pipe series.

Change System not possible when Connection Node Link has been used
Change System was not possible if Connection Node Link was used.

Sprinkler Connection bounding box does not take into account flexible pipe
Flex pipes were not taken into account in Sprinkler Connection preview.

dp/m is calculated using incorrect length
dp/m was calculated incorrectly in sprinkler report.

MC Installation Elevation value incorrect with work plane based elements.
Work plane based elements got incorrect MC Installation Elevation.

Bend silencer issue with smart installation, width and height are not matching
Duct bend silencer width and height were not matching to duct width and height when smart installation was used.

Production Model Updater selected objects
Production Model Updater gave connection error message if there were no objects selected before opening the tool and then "Selected objects" was selected in UI. After that user picked bend which needed updating, but got connection error message.

Create Similar from fancoil gives error
Create Similar gave exception for fan coil units, radiators, climate beams and other pipe devices if domestic water standard was UNE 149201

Domestic water sizing calculation crash when branch selection used, cold & hot picked and there is circulation water point in network
Domestic water sizing crashed when branch selection was used. It happened when some of the automatic circulation water flow standards was used and only hot and cold were selected in branch calculation.

2.4 Electrical

Setting tick marks - off was reset after restarting Revit
Wire settings are now properly saved and they are loaded also when opening Revit next time.

Create Printouts was not working if there are more than one info sheets
If switchboard schematics has more than one info sheet, the Create Printouts tool now creates the printouts correctly regardless of the amount of info sheets.

Unhandled exception when updating parameters and there was a packet union which wasn't connected to any circuit
If a device, which was currently not belonging to a circuit anymore, had been connected to a cable packet and Update Parameters was run, you got an unhandled exception.
This is now fixed so that cable packet connections which do not belong to any circuits will be discarded. Also the cables from these connections are discarded.

Exception occurred during wire drawing
When a project had a lot of links and you would zoom far out, the wire tool gave an unhandled exception. This has now been fixed.

Revit crashed with the Wire tool
When wires were drawn in a worksharing project and users were modifying the same view, after the other one had synchronized with the central file, the wire tool crashed Revit in the other user's machine.
The Wire tool no longer causes crashing in worksharing projects.

Electrical calculations in Revit 2025
Due to changes in Revit 2025, electrical calculations are not working at the moment with Revit 2025. Electrical calculation buttons have been removed.
Calculations are working normally with MagiCAD 2025 for Revit 2024 and Revit 2023.

2.5 Supports & Hangers

Supported Revit versions for MagiCAD 2025 S&H module
Due to incompatibility issues with Revit 2025, S&H module has been excluded from Revit 2025 version. Supported Revit versions for MagiCAD 2025 S&H module are Revit 2023.1 and Revit 2024.