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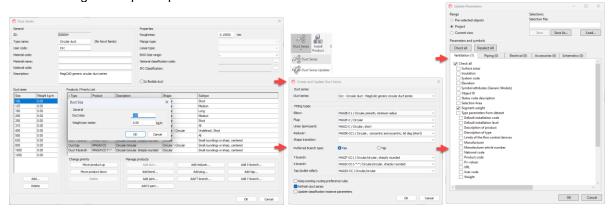
1 New features

1.1 Common

New properties to segment and insulation series

Segment series has been improved with new properties. It's now possible define series name for all segment and insulation series. New property can be used to identify the series and the fittings which belong to it as the information is written to fittings as well. In addition to fitting related updated, description value has been included in the fitting data dialog.

MagiCAD weight data has been expanded from the products to segment series, it's now possible to define weight per meter information for sizes in dataset. Data is used to calculate the segment material weight via update parameters feature.



Find and replace to include parameter selection

Find and replace - tool now contains parameter selection, in which it's possible to define which shared parameter values are copied from the selected item to the new replacement. Data transfer requires that both items to share the same parameter.

IFC Export improvements

MagiCAD supports the IFC 4.3.2.0 schema, ensuring compliance with the latest BIM requirements. In addition, IFC Export allows users to write ifcExportAs and ifcExportType information to model elements during the export to enable better checking of IFC definitions by MagiCAD. The IFC export of switchboards, air handling units and heating and cooling plants has also been updated. These product classes are now imported as individual geometry objects, improving the level of detail and data in coordination models.

Provision for voids to include information of fire rated penetration

New parameter named "*MC Fire Rated*" is now included in the provision to hold the information if the provision for void is located in a fire rated wall. Automated BWO will automatically manage the parameter value, but it's also possible to manage through edit provisions if the information cannot be read directly from the reference wall. Automatic BWO now also contains selection set to save used configuration settings for more efficient workflow.



Revit built-in parameters added to Bill of Materials

MagiCAD Bill of Materials now supports the following Revit built-in parameters: "Lamp", "Luminous Flux", "IfcGUID", "Supply From", "Location", "Pipe Size", "Duct Size" and "Initial Color Temperature".

Tag Tool image preview update

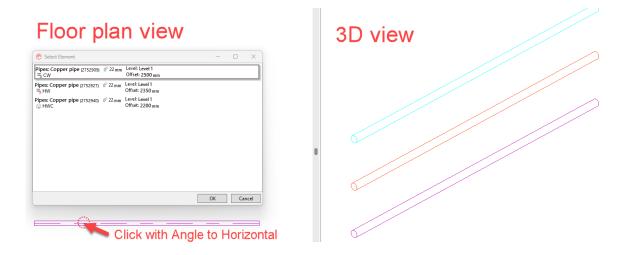
Tag tool has been improved to show better visual preview of the tags.

Legend Updater Tool

The legend tool automatically creates reports of products in the project according to your configuration. The tool now includes an update functionality, reducing the need for manual work when design changes occur. Legends can now be updated according to the current project or template data using their original configuration settings. Users can simply select a legend on the list of current legends and update it. This removes the need for manual editing when properties are added or removed, and users no longer need to remember the original legend configurations to recreate them.

Angle to Horizontal to help in situation when segments are on top of each other

Angle to Horizontal -tool can be now used for segments which are on top of each and then starting draw function with 0 angle. This make it easier to pick correct segment from the stack as tool will give the list of those segments.



Revit system zones support

Revit system zones are now supported in "VAV area" to select devices, as a category in "tag tool", Merge parameters category, IFC exporter, Object ID format as parameters and Spreadsheet export.

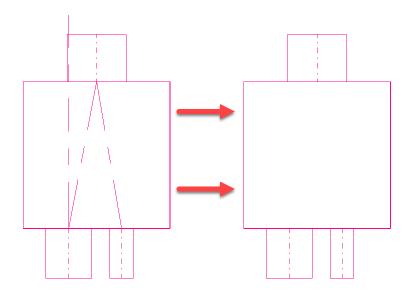
Accessories discipline now support direct access to MagiCAD create from dataset

Support for Accessories discipline products is now available in MagiCAD create. Create can be accessed directly from product dataset properties dialog, "Open in MagiCAD Create".



Improved generic Distribution Box -tool

In some scenarios connection lines appeared to distribution box which was made with Distribution Box -tool. Distribution box is now improved so that it will not show connecting lines anymore and maintains visual look.



Running index improvement

Logics has been improved in automatic mode. When installing running index in automatic mode, running index will not be overwritten for elements inside the current selection with existing RI values, unless "Reset existing..." option is selected.

1.2 Ventilation and Piping

Machine learning algorithm for automatic routing of underfloor heating circuits

The Auto-Routing Underfloor Heating function employs a machine learning algorithm to produce optimized underfloor heating layout suggestions for users. The function considers room shapes, obstacles, and cold walls, aims to minimize the temperature gradient inside the room and places the pipes accordingly.

The available settings include the spacing of the pipes and distance from the walls. The entry and exit points for circuits can be freely defined by the user.

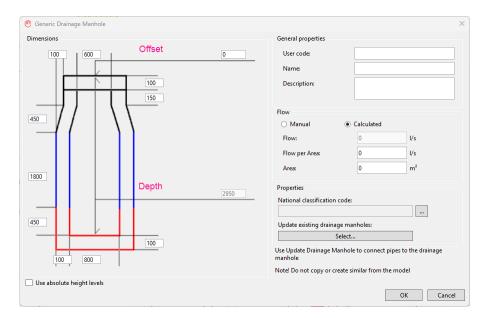
Automatic routing allows users to easily test different layout suggestions by adjusting the settings. Once a suitable layout has been generated users can install it to the selected space. The design can be further modified using standard MagiCAD functions.

New Under floor heating -tool is more advanced version of the previous one. Now the routing is more capable to support complex space shapes for row and spiral pattern. Routing also contains totally new features for row pattern, it is now possible to define spacing for cold wall area near the exterior walls and routing around obstacles. Underfloor heating routing is utilizing MagiCADs own Machine learning engine to produce multiple possible routing options from where the most suitable can be selected.



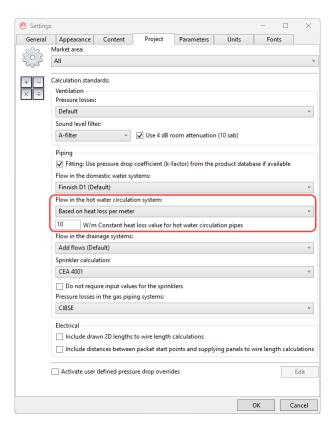
Generic Manhole improvement

Generic Manhole -tool has been improved. Tool provides now new fields to set User Code, Name, Description and flow for the generic manhole. Generic Manhole can also be used for copying existing generic manhole dimensions by selecting existing manhole and then using Generic Manhole -tool.



Calculating circulation flow according to W/m value

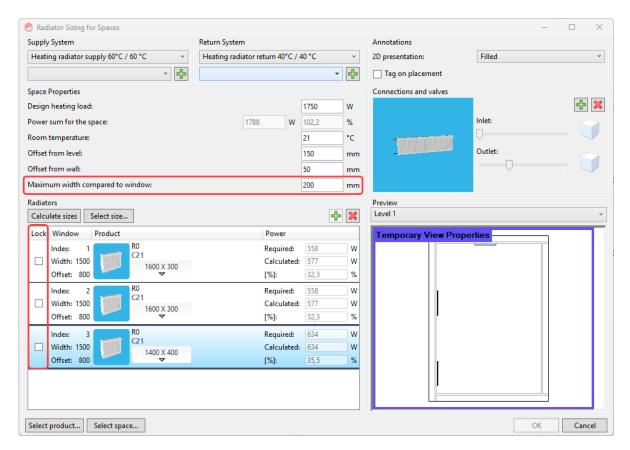
New calculation method added to calculate hot water circulation system.





Enhanced radiator to space installation function

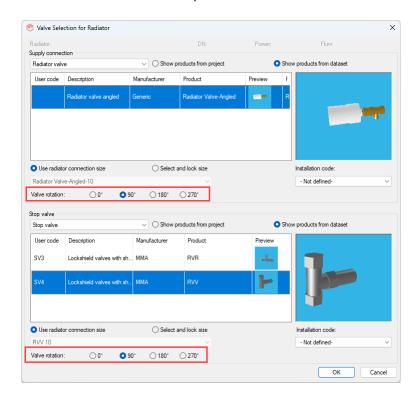
The Install to space tool for radiator installation includes many new additions for easy and efficient radiator installation. It is now possible for the radiator width to exceed the window width up to a set amount and radiator sizes can be locked. Radiator product and size selection allows multiple options to be selected and it is now easier to change products to new types or sizes. The improvements provide users with more flexibility during radiator installation.





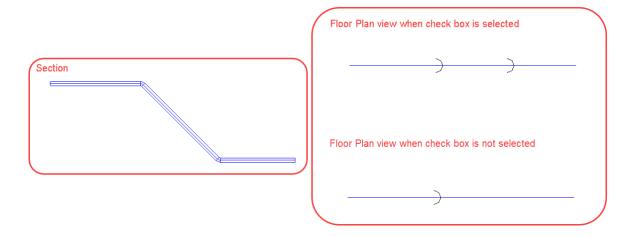
Installation of radiator - choose default orientation of valves

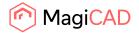
Rotation for the valves can now be set in Valve Tool. Possible options for rotation are 0°, 90°, 180° and 270°. This makes installation process faster as user won't need to rotate valves one by one from the model in case there are special needs for valve rotation.



Add bend symbols -tool improvement

Additional check box option is added for Add Bend Symbols -tool. "Add symbol to start and end" lets user to choose if symbol should be added also to the lower bend where pipe elevation change ends. If the check box is not selected, then it will add symbol only to the bend where pipe elevation change starts downwards.



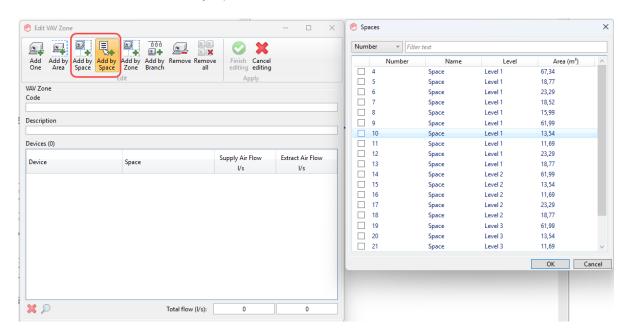


Support for constant flow fan

Calculation now supports constant air flow fans. Constant flow fans uses operation area instead of fixed curves. Operation point can be anywhere in the area, otherwise calculation gives a warning.

More flexibility for device selection with VAV zones

To make device selection for VAV zones easier, new selection methods has been added. With new "Add by Space" methods it is now possible to select space from the model and related devices are added to VAV zone. Additionally, spaces can be selected from the list.



1.3 Electrical

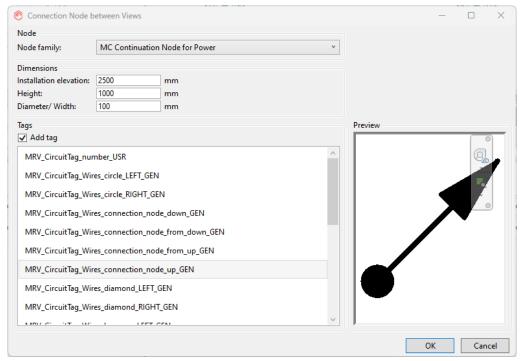
Connection node between views

Now it is possible to continue wire drawing in another view (floor above or below). When drawing from an element, continuation node button becomes available.

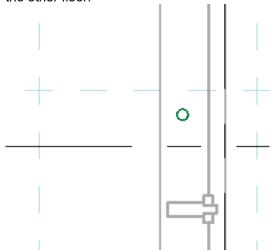


Pressing it will open a new dialogue where you can define for what kind of system the node is, installation elevation, height (which will make the symbol size height/2 both upward and downward) and diameter of the symbol. If you want to add a tag to it, it can be defined here.





After pressing OK, it will create the continuation node family and if defined correctly, it will be shown in the other floor.



You can then continue wiring from the node.

NOTE! Node is automatically added to the circuit which you were drawing if elements from which you draw belong to a circuit.

Improvements for Connection to Mechanical

Now Connections to Mechanical function works properly with different coordination systems, also when moving model or linked model.

Packet connection work even though there is no wire/cable type set into circuit

If a circuit doesn't have wire/cable type defined, making a cable packet connection will set default cable/wire type to the circuit.



Number of parallel cables (CN) converted wrong into symbols

Now symbol conversion uses correct datatype, integer, for Number of parallel cables (CN) tag.

Update Parameters no longer resets system, installation and system class

Update Parameters no longer resets system, installation and system class parameters if in the Dataset there aren't any definition for those parameters or the definition is "not defined" for the property.

1.4 Supports & Hangers

Batch install S&H -tool network selection improvement

Batch Install S&H -tool network selection has been made easier. In old versions it was possible to select only end part of the network. Now it is possible to select any segment which is part of the network. In addition, "Ignore distance to start point and use S&H placement settings" was added to dialog. It will ignore segment start point and use S&H placement setting instead.



2 Resolved issues

2.1 Common

"Move/copy branch "and "Branch calculation" does not take the air terminal into account

Network range in calculation did not give system inconsistency error even though air terminal and duct had different system classification. Ventilation calculation with network range now checks if the connected connectors of two neighbours have the same system classification. If not, an error is given.

Splash screen update

Dialog texts were too long for the dialog when "About" was used from the Magicad ribbons. This issue happened with some window scaling settings.

IFC Batch Export fails if project is linked

IFC Batch Export caused an unexpected error if a project that contains the used export configuration, is linked to another project that is opened in Revit at the same time. This was because Revit doesn't allow separately opening projects which are linked to opened documents.

Now an exception is not thrown if the document can't be opened, and instead the export is stopped, and in case of the Batch IFC Export the report is saved in the log file.

Crash when click "Show" after problematic Find & replace

Find & Replace -tool caused Revit crash if Revit warning message was shown in Find & Replace dialog and then "Show" was used for some element.

Wall profile may affect provision creation

Provision for Builderswork -tool created two separate provisions instead of one in some scenarios if wall profile was edited.

Spreadsheet export does not show parameters from electric circuit

Export to Spreadsheet -tool did not show all parameters if Electrical Circuits, Piping Systems or Ventilation Systems were selected. This could happen if elements had different system or electrical circuit parameters. In this case, only parameters of specific element were shown in the list. Issue has been corrected so that all parameters are now visible on the list.

Project Wizard says new spaces added when not adding spaces

Project Wizard showed incorrect notification "1 new spaces were added." if user copied spaces from linked model and then answered "No" to dialog where was a question "1 spaces already exist.

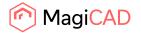
Override existing (Yes) or don't copy existing spaces (No).".

Tag Tool preview is not showing

Tag preview was not shown if the Tag Tool dialog was reopened.

Crash case while reading in damaged IFC file (MCREV)

MagiCAD for Revit crashed when damaged IFC files were imported. Now a message will be displayed about the issue instead of the program crashing.



Unexpected parameter prevents PSet Manager from starting

Issues with parameters in families prevented the Property Set Manager from starting. Now exceptions from these parameters are prevented and the Property Set Manager starts as it should.

MagiCAD for Revit, cannot create plumbing fixture from Tapwell.

One Tapwell product couldn't be created.

National Classification additional properties disappear

National classification codes additional properties were lost if additional properties were assigned to the new classification code structure and "OK" was not applied in between. Additional properties were lost also in case if national classification code structure which had additional properties assigned was copied. Third case when additional properties were lost was if the national classification structure which had additional properties assigned was exported and then imported.

Create User Symbol - Converting texts

"Create user symbol" text alignment was not exactly in the position as expected with some of the text alignment settings. Adjustments has been made to better meet the expectations of the text location. Also, the size of the text was sometimes slightly smaller than should.

Merge dataset shows description instead of the usercode for schematics

Merge dataset was showing description in code field with schematic objects in case the source dataset had objects which didn't exist in destination dataset.

Crash: Clearance analysis report -> update report

Clearance analysis report update crashed Revit.

Selection area one time upgrade with R2026

Selection Area tool upgraded template family to R26 version.

Revit error with Merge Parameters' configuration containing a formula

Merge parameters caused exception in some scenarios where formula was used in merge parameters configuration.

2.2 Ventilation and Piping

X-cross in MC installation with different connector size don't work

X-Branch installation was not working with products which had non-equal connector sizes.

Change Properties - sorting order for Insulation

Issue where it was hard to find correct insulation serie if there was many of them. Sorting is now done based on the code instead of description when using Change Properties.

Sizing criteria flow value returns incorrect

Sizing criteria was calculating flow based on the diameter and velocity values as normal, but when the dialog was closed, then values from diameter and velocity was saved and used for calculating the flow. This lead into issue when reopening the dialog, then flow was calculated based on the rounded



velocity value which may have led slightly different flow value than originally set in the flow field. It is now corrected so that exact velocity is saved and used, but still the rounded value is shown in the dialog.

Multi sprinkler connection - Revit Crash

Revit crashed if Sprinkler Connection -tool was used to connect sprinklers to a pipe which didn't have any system defined. Pipe selection is now restricted to pipes which system classification is "Fire Protection Wet".

Riser creation fails with create similar using undefined system

Issue where riser creation failed. This occurred in scenario where user used create similar for a duct which had undefined system and then tried to create riser with it.

Drainage bend converter removes insulation

Issue where Drainage Bend Converter -tool removed insulation after the conversion.

Drainage components losing system classification

Single connection pipe components part type has been changed to "End Cap". This was done to prevent losing system classification information in scenarios where pipe network was modified.

Sprinkler connection tool creating double piping

Issue where both rigid and flex pipe were created if both of them were selected in UI. This happened in specific scenario where sprinkler device was aligned with the pipe and then Sprinkler Connection - tool was used and flex pipe option was selected.

Device connection error: Round air device to rectangular duct

Revit crashed when there was fitting missing from duct series and Device Connection -tool was used to connect round air terminal device and rectangular duct.

Swiss (SES) sprinkler calculation handling of reducers

Reducer equivalent length in SES standard calculation had incorrect multiplication if reducer nominal size was reduced from 20 to smaller ones.

Impossible to use DHWR Circulation Point if Revits "Enable analysis for closed loop hydronic piping network" setting in turned on

DHWR Circulation Point couldn't be used if "Enable analysis for closed loop hydronic piping network" option was selected in Revit Mechanical Settings.

Setting installation code in dataset for drainage discipline is not working

Default installation code couldn't be set for drainage devices or components in dataset.

System type cannot be used because fluid temperature cannot be found...

"System type cannot be used because fluid temperature could not be found..." occurred in some cases when temperature didn't match exactly.



2.3 Electrical

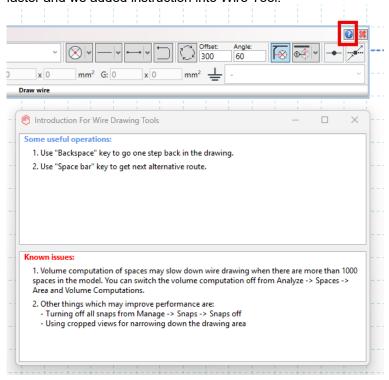
Wire tool crashes if user clicks the wrong place

When drawing with wire tool and you found a spot where no preview of the wire appeared and then clicked the spot, wire tool crashed.

Now wire tool no longer crashes, it gives you an error that "Could no draw wire to selected point". Then you can start drawing a wire again.

Wire tool is very slow in larger project, instruction message

If a project has over 1000 spaces, it starts to make Wire Tool rather slow. It is possible to make it faster and we added instruction into Wire Tool.



Options what to try:

- 1. Volume computation of spaces from Volume to Area
- 2. Other things which may improve performance are:
- Turning off all snaps from Manage -> Snaps -> Snaps off
- Using crop regions in main printout views of separate dependent (working) views for narrowing down the drawing area

Wire connection broken after find&replace

When using Find&Replace to change a product which has wires connected to it, it now moves the wire ends to the new symbol. Edge adjustment cuts the wire better.

Unhandled exception when making packet connection to conduits between back boxes

When making a Packet connection to a conduit which goes between back boxes, an unhandled exception came.

Now a warning, "Back boxes are not supported in cable packet systems", will be given.



Recongnize upper/lower case letters separately

In Set Circuit Properties dialog, text search in all text fields are now case sensitive, meaning that if you have a circuit which has description Lighting and you start writing with lower case "I", it will not find anything.

Now MagiCAD doesn't try to suggest same word that have been written with upper/lower case letter if you use the other.

Cannot import Dialux Evo 13.1 luminaires from IFC

Dialux is using newer IFC version in Dialux Evo 13.1 and so importing IFC file from Dialux to MagiCAD failed. Dialux Import have been corrected with newer IFC mappings and now the import works again.

2.4 Schematics

Multi-connector elements now supported in riser diagrams

When creating riser diagram and some elements had multiple connectors caused an unhandled exception.

Now riser diagrams can handle multi-connector elements. Element will be added to the riser diagram of it's primary connector. When an element would be needed to be created in a riser diagram from secondary connector, only a line will be drawn but no symbol.

Schematics unexpected error in synchronise parameters feature with linked project

Unexpected error occurred if linked project was not opened but loaded as reference and synchronize parameters was used. Synchronize parameters cannot be used with linked projects. Therefore, proper error message is now shown in this case.

Mark linked status doesn't return filtered colors

Mark unlinked status did change colors to red, but mark linked status and hide markings changed colors to purple.

Schematic symbols lose parameters

Schematic symbols lost their parameters if user code was changed by right clicking the column and then closing and reopening the dataset again.

2.5 Supports & Hangers

Text have strange characters

Some product names had unintended characters in S&H installation dialog.

Part numbering S&H does triggers Revit error if existing objects have ,.;:

Part numbering crashed during the numbering process due to unexpected characters in existing hangers part number fields.

Some S&H models cause error in install dialog

Two S&H models in installation dialog gave error when those was selected saying connection points are wrong.