# **MagiCAD for Revit**

Release notes for version 2022.1

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# 1 Resolved issues

# 1.1 Common

### Pipe connection UI not fully visible in Russian language

"Use absolute height levels" text in pipe connection UI is now used text wrapping.

### MagiCAD crashed at startup due to missing Windows font

The initial startup failed in case Windows was missing the Arial font, due to the starting screen dialog utilizing that font. Now this does no longer cause a crash if the font is missing and the screen is not shown.



# **1.2 IFC-related**

#### IFC location export issue related to the project's export origin

Due to an issue, building's elevation was calculated twice, meaning that the elevation was set to double what it actually was, when using any other "Origin"-option than "Internal coordinates". This meant that for example if the elevation was set to 25 meters in the project, the elevation written to the IFC-file was 50 meters. This issue is fixed in MagiCAD 2022.1

# **IFC4** certification improvements

A number of improvements have been done in accordance with the IFC4 certification to support its demands.

Connected ports are now set correctly according to calculated flow direction with the first port connection being "SINK" and the second port connection being "SOURCE".

Objects exported as IfcCableSegmentType do now belong to IfcDistributionCircuit and objects exported as IfcElectricDistributionBoardType do now belong to IfcDistributionSystem.



Support for the angle unit 'degrees' has been added to the IFC-file.

Space geometry was earlier exported as solids, but due to slanting sides in the space geometry this wasn't always correct. Now IfcSpace geometry is exported as faces.

Earlier MagiCAD skipped storeys which didn't contain any objects, even if they were selected in the project, but now does MagiCAD also export these storeys to the IFC-file:



# Improved "Do not export empty properties"-option in IFC Export

Earlier it was possible to leave empty properties from being exported if the type of property was a text. Numerical properties were however exported even if they didn't have any values. This meant that some objects in the IFC potentially had a large number of unnecessary empty properties listed. This has now been improved and empty numerical properties aren't exported either, if the "Do not export empty properties"-option is selected in the IFC Export dialog.

-		Range		
Create separate f	iles (using level names)	Entire project		
Create new file (a	l levels to one file)	O Pre-selected objects		
Append to existing		O Current view		
EC file selection	,	O Select view		
		3D Camera Dining Room		
C: \ProgramData Ma	giCAD-RS\2022_r2020\Demoproject\MagiCAD for Revit_HVAC_E.ifc	SU Camera Dining Ro	m	
Configurations		Storey mapping		
		Read IFC data from file		
Eldata (cost )		Revit levels	IFC storeys	
✓ Ifc4 (Electric		1. floor	1. floor	
MagiCAD Pro		2. floor	2. floor	
✓ NS3420		3. floor	3. floor	
Provision for	voids	4. floor	4. floor	
		Parking	Parking	
Drigin:	Current shared coordinates V			
Use true north Export port definit Do not export emp Export nested fan Export cables	sty properties III y instances separately geometry separately try			
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# **Fittings were not exported if their IFC-type was set as GeographicElementType** MagiCAD failed to export fittings which IFC-type was set as GeographicElementType.



# **1.3 Ventilation and Piping**

#### Pick Heating Load from Space in Radiator selection not working

Using "Pick reference space from the project to copy the design heating load" when selecting radiator for installation didn't copy the heat load value from the space to the selection tool.

### Drainage connection tool didn't find solution to connect horizontal pipe to vertical pipe

Drainage connection tool didn't manage to connect a horizontal pipe to a vertical pipe.

### Placing Domestic Hot Water Return circulation point didn't change pipe's system

When placing a DHWR circulation point, MagiCAD didn't change pipe's system into circulation return system as it should. Instead, whole segment remained as part of hot water flow system.

#### Selecting radiator valve to dataset didn't work via valve tool

It wasn't possible to add radiator valve to dataset via right click in Select Valves/Valve Tool and select new, stop valve worked fine.

Product Installation			×			
Alignment: 450.0 150.0 Use absolute height level Offset onnection locations	Free Array	Select Product	Create Similar			
onnection locations						
🔊 Valve Selection for Radiator					×	
Radiator: Radiator 1-312 Valves to install		DN: 15	Power: 1.000 kW	Row: 0.0121/s		
Radiator valve		Stop valve				
Radiator valve O Show products from project		ow products from dataset				
User code Description	Product	Manufacturer	Preview			
TRV-01 Thermostatic rat	New New/copy of selec	tronic Eng	ineering	AND D		
TRV-02 Thermostatic rat	Da t properties. Product properties	dronic Eng	ineering			
roduct variables				Product		
2v-1: 2v-2:						
·v-2: 2v-3:						
v-4:		Magi	CAD ×			
Pv-5:		Part	class not supported			
lefaults		_		-		
Device installation level:	0	mm Additional p	OK	J		
nstallation code:	No	t defined-	~			
WO Size range:						
WO Product offsets:						
		Open in MagiC	AD Create	Browser	.  •	Properties
Use limits from the balancing r	nethod			RFA in Revit project		
Limits of the pressure drop:			Pa	RFA name:	2_54_95_W	aterValves_RadiatorTR



#### "Underfloor Heating"-function error

In some cases was the "Underfloor Heating"-function interrupted by an unexpected error when the user tried to draw the underfloor heating loops using the "Rectangle"-option. This issue has now been fixed.

