



MagiCAD for AutoCAD

Release notes for version 2020.1

20/08/2019

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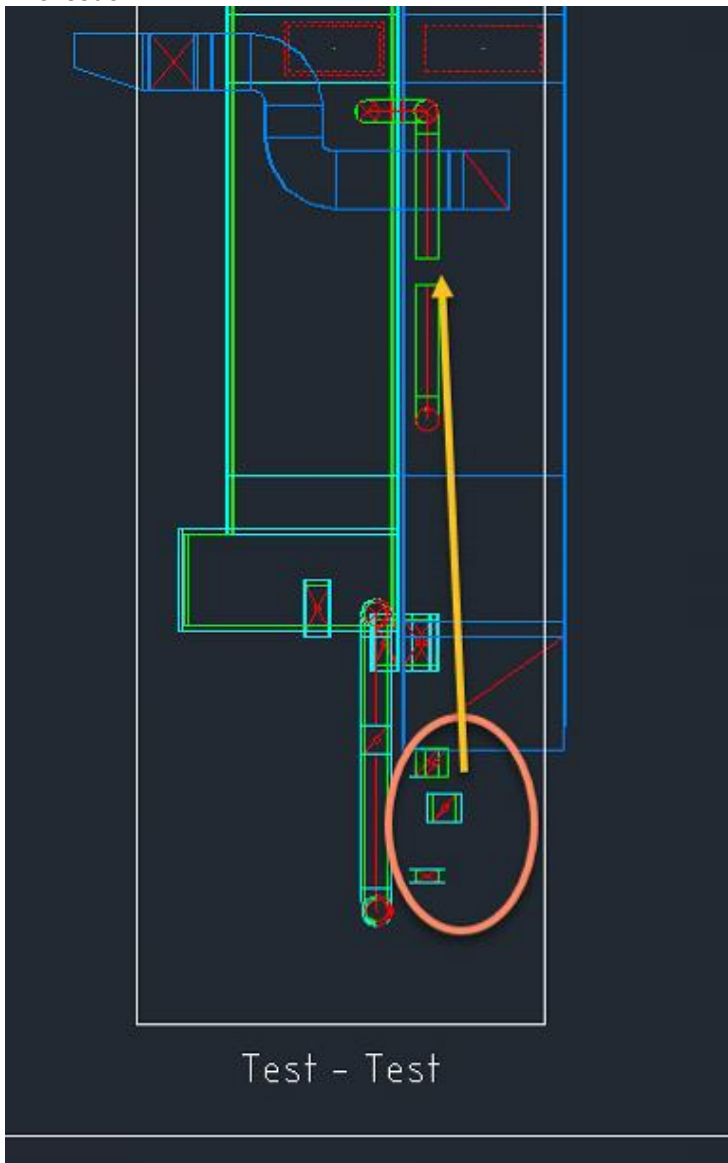
1 Resolved issues

1.1 Ventilaion and Piping

Duct components are not drawn to correct elevation in the sections

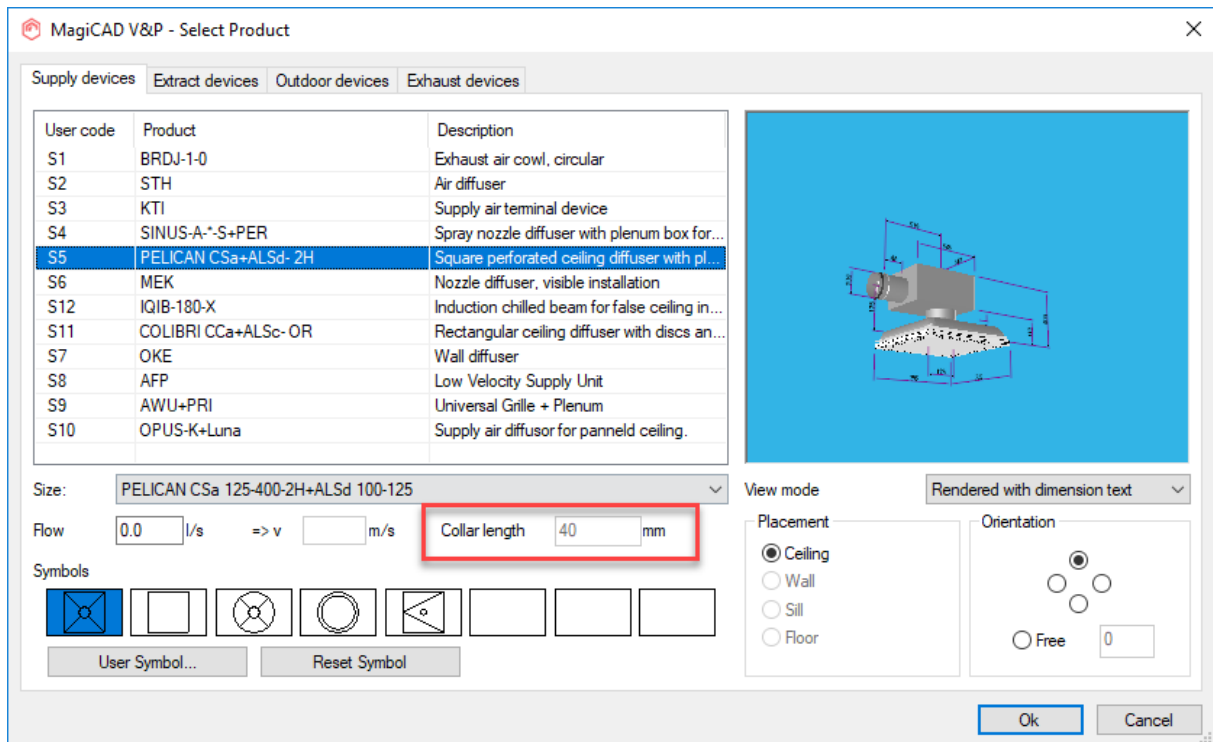
When opening a drawing which includes section views with multiple storeys, the duct component symbols e.g. flow damper, fire damper and silencer symbols are not drawn to a correct height level. This applies only to the duct component symbols in the ventilation module. All the other components and devices are drawn correctly in the sections. Also symbols in the section views created within one drawing are drawn correctly.

The issue:



Issues with air device collar length

Air device collar length cannot be defined in the product installation, but only afterwards with Change Properties functionality or by using Part Properties. The MagiCAD 2020.1 patch resolves the issue by enabling the collar length field properly in the air device product selection dialog for the devices which it is applicable.



1.2 Electrical

Switchboard areas in version 2019 UR-2

The switchboard areas made/edited in 2019 UR-2 were not compatible with 2019 UR-1 and older. This issue has been fixed, and the areas are backwards compatible again. However, editing with 2019 UR-2 will make them incompatible again.

MagiCAD-E - Update Circuits

Update	Plan dwg	Cable/Circuit numbe	Cable/Circuit numbe	Warning
	..\E_Floor1	/ 1	/ 1	
	..\E_Floor1	/ 2	/ 2	
	..\E_Floor1	/ 3	/ 3	
	..\E_Floor1	/ 4	/ 4	
	..\E_Floor1	/ 5	/ 5	
	..\E_Floor1	/ 6	/ 6	
	..\E_Floor1	/ 7	/ 7	
	..\E_Floor1	/ 8	/ 8	
	..\E_Floor1	/ 9	/ 9	
	..\E_Floor1	/ 10	/ 10	
	..\E_Floor1	/ 11	/ 11	
	..\E_Floor1	/ 13	/ 13	
	..\E_Floor1	/ 14	/ 14	

Properties:

- Cable
- Cable number
- Cable object ID
- Circuit number
- Circuit type
- Description-1
- Description-2
- Description-3
- Earthing
- Fault current protection
- Longest load circuit branch [m]
- Number of elements
- Overload protection
- Phases
- Power values
- Total cable length [m]
- Worst case correction factor
- Worst case installation method

Update empty circuit numbers

Select all Zoom to center Update Cancel

MagiCAD-E - Update Devices

Update	Plan dwg	Device type	ID in plan	ID in system s	Warning
	..\E_Floor1.dwg	Cables/E			
	..\E_Floor1.dwg	Switchboards	SB10.1	SB10.1	

Properties:

- O10
- O11
- O12
- O13
- O14
- O15

Switchboards

- Description
- IP class
- EXE class
- Power inputs
- Single phase short circuit values
- Three phase short circuit values
- Voltage drop values

Cables

- Cable number

Devices

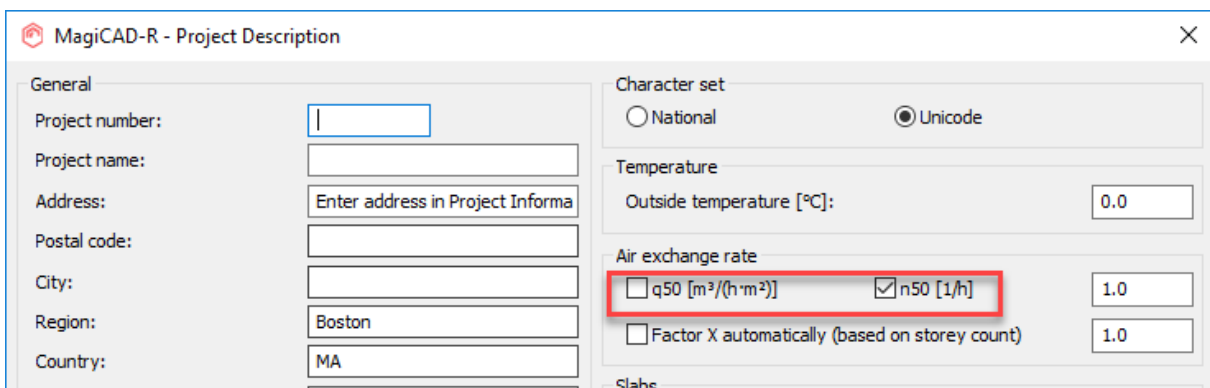
- Active power and cos phi

Select all Zoom to center Update Cancel

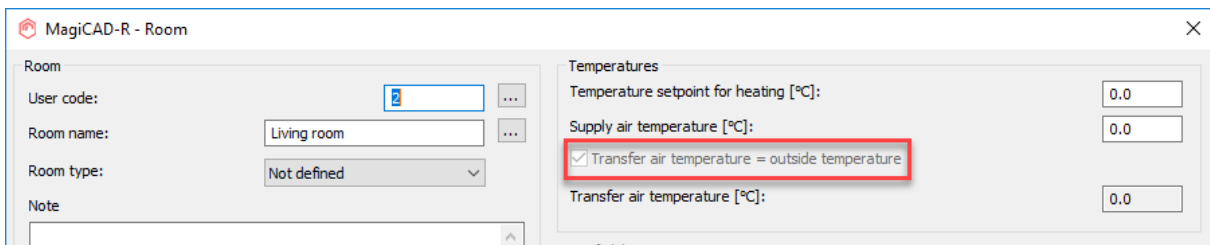
1.3 Room

Using q50 or n50 value disables the transfer air temperature setting

In MagiCAD for AutoCAD 2020 version using the project specific q50 or n50 value for defining the building infiltration rate, incorrectly disabled the transfer air temperature setting in each room and set the temperature to outside temperature. This caused issues when calculating the heat losses for the rooms where the supply and extract air flows were not in balance, and transfer air should have been taken from the adjacent room.



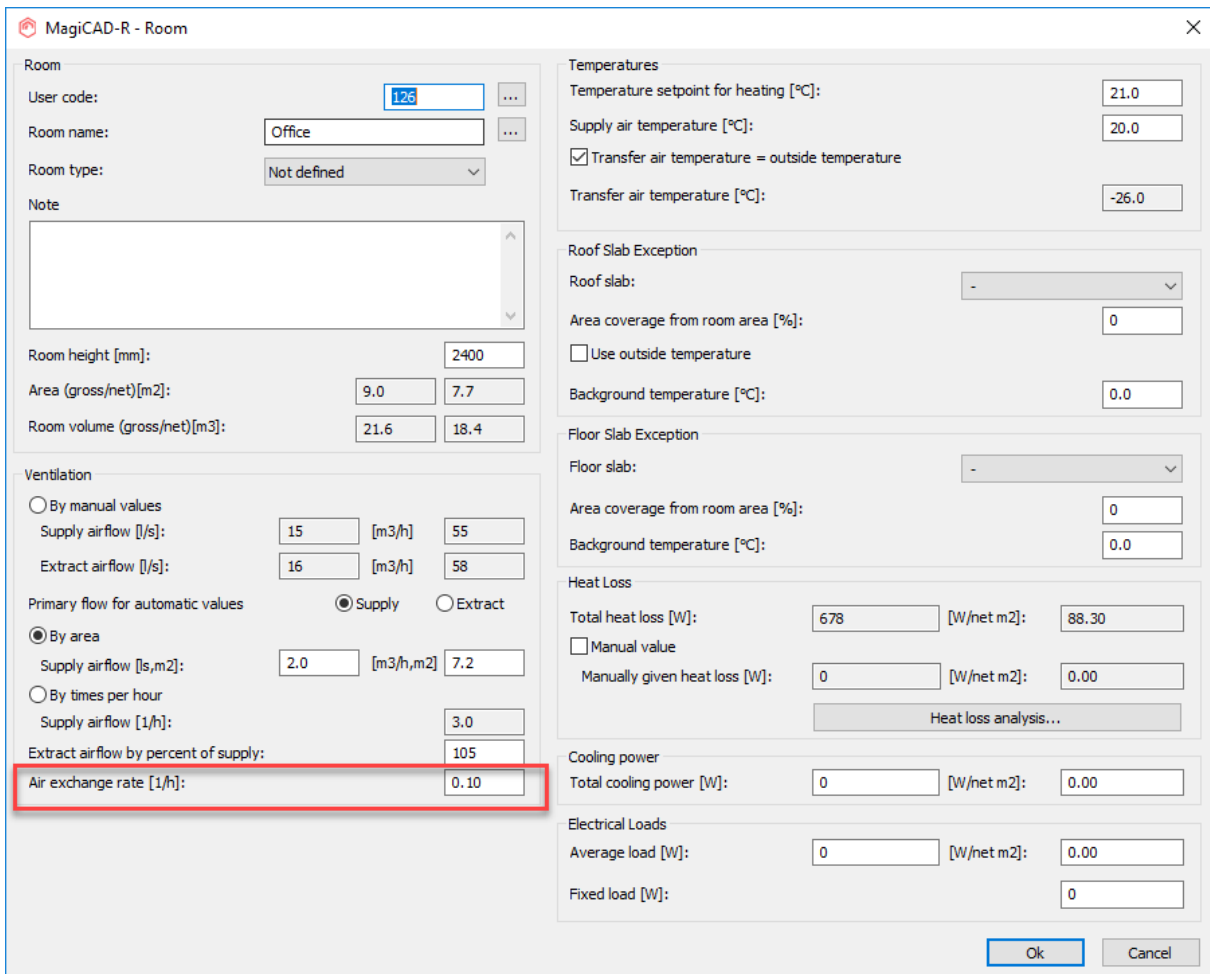
The screenshot shows the 'MagiCAD-R - Project Description' dialog box. The 'General' section contains fields for Project number, Project name, Address, Postal code, City, Region (Boston), and Country (MA). The 'Character set' section has 'Unicode' selected. The 'Temperature' section has 'Outside temperature [°C]' set to 0.0. The 'Air exchange rate' section has 'n50 [1/h]' checked and 'q50 [m³/(h·m²)]' unchecked. The 'Factor X automatically (based on storey count)' is also checked and set to 1.0.



The screenshot shows the 'MagiCAD-R - Room' dialog box. The 'Room' section contains fields for User code (2), Room name (Living room), Room type (Not defined), and Note. The 'Temperatures' section has 'Temperature setpoint for heating [°C]' set to 0.0, 'Supply air temperature [°C]' set to 0.0, and 'Transfer air temperature = outside temperature' checked. The 'Transfer air temperature [°C]' is also set to 0.0.

Performing Save, Calculate and Update Texts functionality resets the air exchange rates

In MagiCAD 2020 version there was an issue with room air exchange rate values. If user runs Save, Calculate and Update Texts functionality to update the project, it will reset all the air exchange rate values to 0,1 1/h to all the rooms in the project. Regardless of whether user has defined different air exchange value for the rooms or not.



The screenshot shows the 'MagiCAD-R - Room' dialog box with the following settings:

- Room:**
 - User code: 126
 - Room name: Office
 - Room type: Not defined
 - Note: (Empty text area)
 - Room height [mm]: 2400
 - Area (gross/net)[m²]: 9.0 / 7.7
 - Room volume (gross/net)[m³]: 21.6 / 18.4
- Ventilation:**
 - By manual values:
 - Supply airflow [l/s]: 15 [m³/h] 55
 - Extract airflow [l/s]: 16 [m³/h] 58
 - Primary flow for automatic values: Supply Extract
 - By area:
 - Supply airflow [l/s,m²]: 2.0 [m³/h,m²] 7.2
 - By times per hour:
 - Supply airflow [1/h]: 3.0
 - Extract airflow by percent of supply: 105
 - Air exchange rate [1/h]: 0.10** (highlighted with a red box)
- Temperatures:**
 - Temperature setpoint for heating [°C]: 21.0
 - Supply air temperature [°C]: 20.0
 - Transfer air temperature = outside temperature
 - Transfer air temperature [°C]: -26.0
- Roof Slab Exception:**
 - Roof slab: -
 - Area coverage from room area [%]: 0
 - Use outside temperature
 - Background temperature [°C]: 0.0
- Floor Slab Exception:**
 - Floor slab: -
 - Area coverage from room area [%]: 0
 - Background temperature [°C]: 0.0
- Heat Loss:**
 - Total heat loss [W]: 678 [W/net m²]: 88.30
 - Manual value
 - Manually given heat loss [W]: 0 [W/net m²]: 0.00
 - Heat loss analysis...
- Cooling power:**
 - Total cooling power [W]: 0 [W/net m²]: 0.00
- Electrical Loads:**
 - Average load [W]: 0 [W/net m²]: 0.00
 - Fixed load [W]: 0