# MagiCAD for AutoCAD

Release notes for version 2023

23/05/2022





# Content

1	NEW FEATURES	3
1.1	Common	3
1.2	Ventilation and Piping	6
1.3	Electrical	10
1.4	Circuit designer	13
1.5	Schematics	15
2	RESOLVED ISSUES	16
2.1	Common	16
2.2	Ventilaion and Piping	18
2.3	Electrical	25
2.4	Circuit designer	27
2.5	Room	28
2.6	Schematics	29



# **1** New features

#### 1.1 Common

#### MagiCAD supports AutoCAD 2023, Windows 11 and Navisworks 2023

MagiCAD MEP 2023 is compatible with the new Autodesk AutoCAD 2023, as well as with the previous four AutoCAD versions 2019-2022, including the verticals AutoCAD MEP and AutoCAD Architecture. <u>The new MagiCAD MEP 2023 release is also compatible</u> with Microsoft Windows 11.



Support for Navisworks 2023 has also been included.

#### Property sets according to National Classification Codes

An option to add property sets according to the National Classification Codes implemented in MagiCAD for AutoCAD 2022 UR-2 has been added.

This adds more flexibility to the property sets as this is not only specified by the ifc-types, but the user gets more flexibility to create either their own standards, which can be bound to property sets, or use national classification standards, based on which the property sets can be added.

This is done by creating new property sets using the "Add National Classification Code IFC Property set"-option:

eneral				
Context	IFC export	~		
Discipline	V&P	~		
roperty sets				
Filter				
Name	Description		Туре	
NS3420	Classification reference		IFC classification reference	
Pset_ProvisionForVoid	Property set for provision	for voids	IFC Property set	
MagiCAD Pset_Duct	MagiCAD's own property:	set for ducts	IFC Property set	
MagiCAD Pset_CustomPart	MagiCAD's own property:	set for custom parts	IFC Property set	
MagiCAD Pset_AirDevice	MagiCAD's own property	eat for air davicae	IEC Property set	
MagiCAD Pset_Outlet/tap	MagiCAD's own prope	Add IFC property	r set	
MagiCAD Pset_Elbow	MagiCAD's own prope	Add IFC classifica	ation reference	
MagiCAD Pset_Joint	MagiCAD's own prope	Add IFC quantity	set	
MagiCAD Pset_TBranch	MagiCAD's own prope		assification Code IFC Property set	
MagiCAD Pset_XBranch	MagiCAD's own prope		issuication code inc Property set	
MagiCAD Pset_Reduction	MagiCAD's own prope	Copy selected		
MagiCAD Pset_Drainage	MagiCAD's own prope	Edit		
MagiCAD Pset_SprinklerPipe	MagiCAD's own prope	Delete		



#### Using native units when exporting Property sets

Now it is possible to set the values to use the native units from MagiCAD when creating an IFC file. This means that the values from the property sets are turned into IfcText-types to maintain the value set. This as the values of the numerical types otherwise use the default values set in the IFC-file (which can be seen from the first lines in the IFC-file when opening it as a text file, as well as in some IFC Viewers).

Selection set				
	<ul> <li>Save</li> <li>Save</li> </ul>	as Delete Rename		
Action		Storey mapping		
Create separate files (uses model dwg names / IFC	Cfile names)	Use Model drawing Storey in project	t Hostorey MCL	.00
Create new file (all to one file)		Viping/P_Floor1.dwg Floor1 Viping/P_Floor2.dwg Floor2		OD 300
Append to existing file				OD 300 OD 300
FC file to create		\PipinglP_Floor3.dwg Floor3 \PipinglP_Parking.dwg Parking		.OD 300
				OD 300
		Ventilation/V_Floor1 Floor1 Ventilation/V_Floor2 Floor2		OD 300
higin		.\Ventilation\V_Floor3 Floor 3		OD 300
Storey		Ventilation/V_Parkin. Parking		.OD 300
Use MCR origin if present		Nveniaion/v_HourdHour	NOOI NO L	00 300
wcs				
Oucs				
Use storey coordinates in ifc storey				
toperty settings	Object selection			
Export custom properties	Object selection			
		Options		
N\$3420	Predefined selection			
MagiCAD property sets Provision for voids	Predefined selection - Model drawings: 1	Schema name	IFC4	
MagiCAD property sets Provision for voids		Schema name	IFC4	
MagiCAD property sets Provision for voids		Schema name Update drawing data selection set	FC4	
MagiCAD property sets Provision for voids		Schema name Update drawing data selection set Use extruded ducts/pipes	IFC4 .	
MagiCAD property sets Provision for voids		Schema name Update drawing data selection set Use astruided ducts/pipes Export port definitions	IFG4 -	
MagiCAD property sets Provision for voids		Schema name Update drawing data selection set Use extruded data[pipes Export port definitions Create unique identifiers when needed	IFC4 -	
MagiCAD property sets Provision for voids		Schema name Update drawing data selection set Use astrudied ducth/pipes Epot port dentifiers Create unique identifiers when needed O not export tocceptured of Taylors	FC4	
MagiCAD property sets Provision for voids		Schema name Updete drawing data selection set Use astraded datatypipes Depote datatypipes Constantion of datatypical Create unique identifiers when needed Do not asport becautured of Tayars Depote only provider wheth here 2D Symbol	FC4	
NS1400 Microfold proteins ante Previous for voids effic 2x3		Schema name Update daving data selection set Update daving data selection set Update daving data selection set Do composed daving data Do not export tracelulared of tray or Disport only product which have 3D fymbol Do not only product advingth	FC4 .	
MagiCAD property sets Provision for voids		Schema name Updete drawing data selection set Use astraded datatypipes Depote datatypipes Constantion of datatypical Create unique identifiers when needed Do not asport becautured of Tayars Depote only provider wheth here 2D Symbol	FC4 -	

If 'Use native units' is set, then all properties (except IfcLabel) are exported as IfcText.

#### **MagiCAD Linked properties**

MagiCAD Cloud does often contain additional information about the products, like ETIM data and links to the manufacturer's homepage, and it is now possible to access these properties directly via Part Properties in the products or via the products list in the project:



Project Demo/template project	^	UserCode	Mar	nufacturer	Product	Produ	Nation	Install	Nation	Hyper	lfcExp	lfcType	P1	P2	P3	P4	P5	P6	Sy
<ul> <li>Project settings</li> <li>Model drawings</li> </ul>		S1	Bev	ent Rasch	BRDJ-1-0			Not sel	QMC.2		lfcAirTe.	NOTDEFINED							
- Schematic drawings - Storeys		S2	Fläk	tGroup	STQA-C			Not sel.	QMC.1	https://	lfcAirTe.	NOTDEFINED							
Ventilation		S3	Fläk	t Woods	кті			Not sel	QMC.2		lfcAirTe.	NOTDEFINED							
- Systems Parts		S4	Syst	temair	SINUS-A-*-S+PER			Not sel.	QMC.2		lfcAirTe.	NOTDEFINED							
<ul> <li>Outdoor devices</li> <li>Supply devices</li> </ul>		S5	Sure	Properties	PELICANI CS2+AI			Noteol	QMC.2		lfcAirTe.	NOTDEFINED							
Extract devices		S6	c	Linked proper	ties				QMC.2		lfcAirTe.	NOTDEFINED							
Flow damper		S7	¢	Edit				Enter	QMC.1		lfcAirTe.	NOTDEFINED							
Fire damper Silencer		S8	F	Delete				Del	QMC.1		lfcAirTe.	NOTDEFINED							
<ul> <li>Other component</li> <li>Air handling equipment</li> </ul>		S9	F.	Select produc	ts to project				QMC.1		lfcAirTe.	NOTDEFINED							
- Access panel - Climate beam		S10	1	Select produc	ts to project from Ma	giCAD C	loud		QMC.2		lfcAirTe.	NOTDEFINED							
⊕-Fittings		S11	5	Change "Man	ufacturer"				QMC.2		lfcAirTe.	NOTDEFINED							
Layers		\$12	Flak	shooWt	IOIB-180-X			Not sel	OMC 2		<b>IfcAirTe</b>	NOTDEFINED							



If the product is not available in the Cloud, due to for example being an outdated product, then the "Linked properties"-button won't open to the Cloud and instead the normal properties dialog will be shown.

The reason the Linked properties aren't shown could be:

- The product does no longer exist in MagiCAD's database.
- The product is an electrical product which has been selected to the project before the 2023 release, in which case the electrical products didn't have the needed data connection created, when inserted to the project, to connect to the Cloud via a feature like this. The electrical products need to be reselected to the project in case this feature is needed.
- The product has been created using MagiCAD Create and is therefore not an official product available in the database.
- The product is actually an AutoCAD Object which has been turned into a MagiCAD Object using MagiCAD's "Set MagiCAD data to AutoCAD Object"-function.

#### MagiCAD Cloud shows what products are available in the project

MagiCAD Cloud does now show what products are already available in the project, when opening MagiCAD Cloud via the the project management dialog or the product installation dialog:





# **1.2 Ventilation and Piping**

#### Calculate the area of the insulation for fittings

The insulation area of the fittings in both ducts and pipes is now calculated

🔊 MagiCAD V&P -	Report					
ile Edit						
System name	Туре	Product code	Size	Lengt	Count	Surface area of insulation
Supply 1	Duct	BAKK-1-020-010-0	200×100	19.6		
Supply 1	Bend-90	BAKB-1-020-010-0	200x100		4	
	Insulation/Bend-90		200x100		1	
	Insulation/Duct		200x100	1	1	18 m <sup>2</sup>

🕙 MagiCAD V&P - Re	port					
ile Edit						
System name	Туре	Product code	Size	Length	Count	Surface area of insulation
Supply 1	Duct	BAKK-1-020-010-0	200x100	21.3		
Supply 1	Bend-90	BAKB-1-020-010-0	200×100		4	
	Insulation/Bend-90		200×100		1	1.7 m <sup>2</sup>
	Insulation/Duct		200×100		1	19.6 m <sup>2</sup>

#### Support for measuring units to serve constant pressure dampers in ventilation

The purpose is to support constant pressure dampers in ventilation calculations. The constant pressure dampers uses a sensor placed downstream in the network to maintain a pre-set static or total pressure in the network. Any product in the "Other duct components"-category can be a measuring unit.



#### Heat loss calculation in domestic water

It is now possible to set the domestic water system to be sized according to the heat losses. By setting the option in the Project settings window the calculation will instead use the temperatures of the water, the ambient temperature and the pipe and insulation material to calculate the pipe sizes:

🕙 MagiCAD V&P - Project sett	ings		×
Market area		Al	~
Backup project files in drawing			
Save viewport defaults to: Project			
O Drawing			
Save shaded viewport options to			
Project     Orawing			
Character set			
National     Onicode			
Flow in the domestic systems			
Finnish D1			~
Flow in circulation water system			
Automatic circulation flow calcula	tion		~
IFC configuration file			
C:\WORK\2023 releases\2023 M	fain\MCACA-2956 I	provements to radiator	connection sets
Sound calculation			
Sound filter			
Afiter 🗸 🗸	Use 4dB room atter	uation (10 sab)	
		Ok	Cancel

Note: The support is only for return joints and not water radiators.



#### Water mixing valves for domestic water systems

Water mixing values are now available in MagiCAD for AutoCAD as a new product category. They are used in domestic water networks for mixing cold and hot water in order to ensure a safe water temperature, for example, in showers.

The addition of water mixing valves means that it is now possible to model an entire domestic water network in detail from the boiler to the last shower head.





#### Radiator connection set and related Find & Replace improvements

Find and replace now works for radiators, their valves and the radiator connection set. Please note that the "From"-option does not offer further filtering options, like setting a specific radiator with a specific valve only to be replaced. This is difficult to handle in the program and to be more straightforward the radiator and everything included is changed from one unit, based on the selected radiator.

The "To"-option does however offer a wide range of options:





oduct: Size	TER1	TermoDesign 11	Radiator with sing $\vee$			Preview	Properties	Heating power	
size Height: Length:			mm Install	lves	O Radiator connection set				
.engm: Connection size: Select Size		10 Rotate	mm Produc mm Size: DN:	or valve t: 10	ANR-22 ANR-MTW-0-22 V ANR-10-MTW-0-22 V Properties		200	- <u>631</u> - <u>7</u> 2	
			Stop vi Produc		MY Free MY ~	View mo		Rendered with dimen	ision text 🖂
			Size: DN:	15	Freee MY DN15 ~	<	Inlet	> < Outlet	> /

To be more logical and utilize the data in from the product with the data, the balancing limits are now read from the attached valve, if the radiator connection set is of a type without data, so the options are disabled:

General		Product variables		
UserCode:	NONE-V	Property	Value	
Product:	H-valve	Product variable		
Object ID format:	· · · · · ·	National code		
Object ID Tofmat.	· · · ·	Installation code	Not selected	$\sim$
Running index amount:	1 ~	National classification		
2D symbol:		HyperLink		
		lfcExportAs	IfcValveType (IFC2X3, IFC4)	$\sim$
Select	Not selected	lfcType	NOTDEFINED (IFC2X3, IFC4)	$\sim$
Erase		P1		
Lidse		P2		
		P3		
		P4		
		P5		
Attached product		P6		
Product:	INTEG 013G0483 - RA-U ~	P7		
		P8		
Balancing limits		P9		
Use limits from the bala	ancing method	P10		
for the pressure drop:	0 - 999999 Pa	P11		
		P12		
for the throttling:	0 - 100 %	P13		

#### **Generic manhole**

It is now possible to create generic manholes, which allow to connect drainage pipes more freely to a manhole.

The generic manhole function allows the user to modify the dimensions as they wish and the drainage pipes can be flexibly connected to the manhole, which allows for faster and easier design of drainage

networks. © MagiCAD V&P - Select ma	anhole & roof drain				×	
Product Generic						
Dimensions			#Preview			
Property Draw cover Cover thickness [rm] Cover diameter [rm] Colar length [rm] Colar dameter [rm] Botton indumeter [rm]	Value 20.0 500.0 200.0 200.0 250.0 600.0 450.0			7		
Flow data Manual value Calculated value	Flow: Flow per area:	0.0000 V/s				
0	Area:	0.0 m <sup>2</sup>	View mode	Rendered	×	
Symbols	Reset Symbol			nter nuelted	¥	
					Ok Cancel	



Property	Value	^
Part type	Drainage device	
System	D1 "Drainage 1"	
Storey	Storey 1	
Storey variable 1		
Storey variable 2		
Top of part	H = 0.0	
Connection level	H = -92.0	
Product	FD2 "ACO EG 150 DN 50 HORIZONTAL"	
Manufacturer	ACO Drain	
Connection size	50	
Flow	1.21/s	
Status	Not defined	
Installation code	F Floor	
Description		
UserVar 1		
UserVar 2		
UserVar 3		
UserVar 4		
UserVar 5		
UserVar 6		
UserVar 7		
UserVar 8		
UserVar 9		
UserVar 10		
UserVar 11		
UserVar 12		
UserVar 13		
UserVar 14		~
FLOW		
Flow 1.2000	I/s Is continuous flow	
Object ID		
		Override
L		
		-
Properties (MagiCAD Cloud) 🔽	Pick from schematics Change	RI

#### Constant flow for the sewer flow summation

You can now set this option on in drainage devices if they have a continuous flow:

When a system with both the continuous and normal flow is calculated, two new columns are visible. Qsum-column shows the sum of the normal flows, and a Qc-column shows the sum of the continuous flows:

ation	Level	Node	System	Туре	Series	Product	Size	L [m]	Insulation		Q sum [l/s]	Qc [l/s]	Q tot [l/s]	Warnings			Ŕ
	Storey 1	1	D1	ROOT NO						1.20	2,40	2,400	4.80				(In)
	Storey 1		D1	PIPE	PP		50 (FL)	0,5		1,20	2,40	2,400	4,80				-4Ke
	Storey 1	2	D1	BRANCH	PP		50/50 (FL)			1,20	2,40	2,400	4,80				
	Storey 1		D1	PIPE	PP		50 (FL)	1,8				1,200	1,20				
<	Storey 1		D1	BEND-45	PP		50 (FL)					1,200	1,20				
	Storey 1		D1	PIPE	PP		50 (FL)	1,6				1,200	1,20				
Ō.	Storey 1	3	D1	DRAINAG		ACO EG 1	5 50 (L)					1,200	1,20				-
	Storey 1		D1	PIPE	PP		50 (FL)	0,8		1,20	2,40	1,200	3,60				
	Storey 1	4	D1	BRANCH	PP		50/50 (FL)			1,20	2,40	1,200	3,60				
	Storey 1		D1	PIPE	PP		50 (FL)	0,8		1,20	1,20		1,20				
<	Storey 1		D1		PP		50 (FL)			1,20	1,20		1,20				
	Storey 1		D1	PIPE	PP		50 (FL)	1,4		1,20	1,20		1,20			¥	
Ō.	Storey 1		D1	DRAINAG		ACO EG 1				1,20	1,20		1,20			¥~	
	Storey 1	_	D1	PIPE	PP		50 (FL)	0,3		1,20	1,20	1,200				¥.	
	Storey 1	6	D1	BRANCH	PP		50/50 (FL)			1,20	1,20	1,200	2,40			5	*
	Storey 1		D1	PIPE	PP		50 (FL)	0,8		1,20	1,20		1,20				
<u> </u>	Storey 1		D1	BEND-45	PP		50 (FL)			1,20	1,20		1,20				
	Storey 1		D1	PIPE	PP		50 (FL)	1,0		1,20	1,20		1,20				
0	Storey 1	_	D1	DRAINAG		ACO EG 1				1,20	1,20		1,20				
	Storey 1	_	D1	PIPE	PP		50 (FL)	1,6				1,200	1,20				
	Storey 1	8	D1	DRAINAG		ACO EG 1	5 50 (L)					1,200	1,20				
															•		



## **1.3 Electrical**

#### National classification codes - stage 2

National classification codes were missing from LED-stripes, lighting tracks, cables/E, cables/C,D,BA, conduits and combination boxes. Now they also can be assigned with one.

#### Layer codes of Connection nodes

Previously connection nodes of LED-stripes and cable packets didn't inherit layer codes from the segments they were connected to. Now they do. Also dimension texts of cable packet connection nodes now get product variables shown correctly.

#### **Connections to Master DWG improvement**

Previously the Connections to Master DWG wasn't able to copy circuit symbols properly in case they were referencing to a switchboard/host located in the same drawing. Now switchboard and host references of circuits are maintained properly.

#### Extra offset selection in electrical

Now you can use the left and right alignment options with an offset from the alignment line to the edge of the segment when drawing cable trays, conduits, lighting tracks and LED- stripes. This way you can e.g. show the wall line which needs to be followed but have the segment drawn to a certain offset from it.

Alignment	•	Ortho: 3200.000 < 0.00°

#### Vertical cable tray bends in reports

Now vertical cable tray bends are separated in reports/BOM from horizontal ones. In addition, inside and outside bends are separated from each other.

#### **Connection between Circuit Designer and Electrical**

Now you can define a template Circuit Designer drawing for each circuit type in a MagiCAD Electrical project.

MagiCAD-E - Power Circuit Types		×
Circuit name	Default Schematic Symbol	
Lighting		
Default Descriptions	_~	
Lighting group		
	MAGI853FIN_01_EK532	
	Select	No symbol
Report Data		
Report Data	Order sort no:	1
		1
Sum up similar circuit types		
Sum up similar circuit types	nall.dwg	
Sum up similar circuit types Circuit Designer\GEN\Demo-3-lighting-P Protection Default family:	- not defined -	
Sum up similar circuit types Circuit Designer (SEN/Demo-3-lighting -P Protection Default family: Default size [A]:	- not defined -	
Sum up similar circuit types	- not defined - - not defined - - not defined - 10A	

When using such circuit types in power circuits and creating switchboard schematic drawings from them, the circuit schematic templates are automatically stored/imported to the circuits in the drawings.



General			
Circuit number:	5		
Circuit type:	Lighting		`
Description 1:	Lighting group 6		
Description 2:			
Description 3:			
Number of elements:		9	

The templates can also be manually changed/assigned in switchboard schematics with the Edit Circuit function.

No	Is and Symbols Description		Trip In [A] Ircd	P [kW] S [kWA] I [A]	Cable		Phases Earthing dV [%]	
	Lighting group 3		c	0.82	NHJ 3x1,55		13	
3			10	0.83			N,PE	
				3.59	13.1		0.61	
eferred C	ircuit Symbol							
Property Value		A Plan ci	innection:		Connect	Read		
Circuit nu	mber:	3				Disconnect circu	ouit reference	
Circuit type: Lighting		System	System schematic connection:		Connect	Read		
Descriptio	one:	Lighting group 3						
			Ter	nplate:	Circuit Designer (GEN	Demo-3-lighting-hall.dwg	3	
Cable nur	nber:				Watukan/IPCACA 3	CORPORATION AT Design	(\$8 10. 1. dyg	
Cable obj				e numbers:				
Cable typ		3x1,5 S MMJ 3x1,5 S	100	pe numbers:				
Cable len	gth (m):	13.1	_					
Worst car	se installation:	A1						
Correctio	n factor:	1.00	_					
Active po	wer [kW]:	0.82						
Cos phi:		0.99						
	power [ki/A]:	0.83						
	t current [A]:	3.99						
	e power (kW):	0.38						
Max cos p		1.00						
	erent power [kVA]:	0.38						
Мах арра	arent current [A]:	1.63						

After this it is possible to create a new Circuit Designer drawing from a switchboard schematic by utilising the predefined templates stored into the circuits in the single line diagram.

If in a Circuit Designer template drawing you had the "Use Circuit ID from Switchboard Schematic" tickbox active for a mother part, it will get the Circuit ID from the circuit number defined in the switchboard schematic drawing.



**Note!** Connected child parts cannot have "Use Circuit ID from Switchboard Schematic" active since they get their Circuit ID from the mother part.

Circuit numbers are linked between the switchboard schematic and the circuit schematic drawings. They can be automatically updated to the circuit schematic pages, and from there to mother parts and their child parts. You can manage your links between a switchboard schematic and a circuit schematic from both of the drawings with a new Link Manager function.



12 (30) 23/05/2022 Public

itchboard schematic			Circuit designer		
(Jamajogo (DreDr	HagCAD Group DyDealth	PhotosofPCACA 2027(bet)	C Sterrings OreDr.	ie - MagCAD Group Dy/Dealing	PhutokerPCACA 2027(2H)
Circuit number	Page numbers	Warnings	Page number	Circuit number	Warnings
			01	13	
	03		02	5	
			03	2	
	02				
)					
3					
, 9					
	01				
	••				
+					
4 5					
4 5 7					
3 4 6 7 1					
4 6 7					
4 5 7					
4 5 7			0		



# **1.4 Circuit designer**

#### **Connection between Circuit Designer and Electrical**

Now you can define a template Circuit Designer drawing for each circuit type in a MagiCAD Electrical project.

MagiCAD-E - Power Circuit Types		
Circuit name	Default Schematic Symbol	
Lighting		
Default Descriptions		
Lighting group		
	MAGI853FIN_01_EK532	
		No symbol
Report Data Sum up similar circuit types	Select Order sort no:	
	Order sort no:	
Sum up similar circuit types Circuit Designer/GEN/Demo-3-lighting-h Protection	Order sort no:	1
Sum up similar circuit types	Order sort no:	1
Sum up similar circuit types Circuit Designer/GEN/Demo-3-lighting-h Protection	Order sort no:	1
Sum up similar circuit types Circuit Designer \GEN\Demo-3-lighting-h Protection Default family:	Order sort no: all.dwg - not defined -	1
Sum up similar circuit types Circuit Designer\GEN\Demo-3-lighting-h Protection Default family: Default size [A]:	Order sort no: all.dwg - not defined - - not defined -	1

When using such circuit types in power circuits and creating switchboard schematic drawings from them, the circuit schematic templates are automatically stored/imported to the circuits in the drawings.

General		
Circuit number:	3	
Circuit type:	Lighting	~
Description 1:	Lighting group 6	
Description 2:		
Description 3:		
Number of elements:	9	
Allow to add wipeou	ut frame	

The templates can also be manually changed/assigned in switchboard schematics with the Edit Circuit function.

No	Description			Trip In [A] Ircd	P [kW] S [kVA] I [A]	Cable		Phases Earthing dV [%]
	Lighting group 3	1		С	0.82	MMJ 3x1,5 S		L3
3				10	0.83			N,PE
					3.59	13.1		0.61
eferred C	Circuit Symbol							
Property Value		^	Plan connecti	on:		Connect	Read	
Circuit nu	mber:	3	_				Disconnect cir	cuit reference
Circuit type: Lighting		Lighting	System schematic connection:			Connect	Read	
Descriptio	ons:	Lighting group 3						
				Template:		Circuit Designer/GEN	Demo-3-lighting-hall.dwg	
			- 8	remploter				
Cable nur			- 8			washinger provide a	127 Bectroal (Droat Desig	\SB10.1.d
Cable obj Cable typ			- 11	Page num	bers:			
Cable typ Cable len		3x1,5 S MMJ 3x1,5 S 13,1	- 8					
	gen (m): se installation:	13.1 A1	- 8					
Correction		1.00	- 11					
	wer [kW]:	0.82						
Cos phi:	and fourt	0.99						
	power [kVA]:	0.83						
	current [A]:	3.59						
	e power [kW]:	0.38						
Max cos p		1.00						
	arent power [kVA]:	0.38						
	arent current [A]:	1.63						
			~					



After this it is possible to create a new Circuit Designer drawing from a switchboard schematic by utilising the predefined templates stored into the circuits in the single line diagram.

If in a Circuit Designer template drawing you had the "Use Circuit ID from Switchboard Schematic" tickbox active for a mother part, it will get the Circuit ID from the circuit number defined in the switchboard schematic drawing.



**Note!** Connected child parts cannot have "Use Circuit ID from Switchboard Schematic" active since they get their Circuit ID from the mother part.

Circuit numbers are linked between the switchboard schematic and the circuit schematic drawings. They can be automatically updated to the circuit schematic pages, and from there to mother parts and their child parts. You can manage your links between a switchboard schematic and a circuit schematic from both of the drawings with a new Link Manager function.

			Circuit designer			
Lawy you DreDr	e - MagCAD Group Dy Dealtha	PhushamPCACA 327(best	C. Liters (reps) (DelDr	ie - NegCAD Group Dy Dealths	Photosian PCACA 30701-0	
Dircuit number	Page numbers	Warnings	Page number	Circuit number	Warnings	
			01	13		
	03		02	5		
			03	2		
	02					
	02					
.0						
8						
19						
3	01					
4						
i6						
7						
1						
51			0			
2						
1			0			



# **1.5 Schematics**

#### Change properties for text in Schematics

It is now possible to change the color, height, style and wipeout frame settings of the text objects Text, Property Text and Multi-line Notes inMagiCAD Schematics:

MagiCAD Sch	ematics - Set Propertie	es				×
Object Groups to S	iet	Options				
Devices and co	mponents	Fill from definition set				
Ducts		V&P System		Not defined		
Pipes		V&P System type		- Not defined -		$\sim$
Power cables						
Text and property texts		Line width [wcs]:				
		Color 8		By Layer		~
		Text height:	3	2.0		
		Text style:				
		Text wipeout frame	15	Allow to ad	d wipeout frame	
		Properties				-
Properties Remove all oth Name	er properties from object	15	Value		Unit	_
Switchboard	Switchboard					
Add	Remove				1	

The Text and Property Text Objects have also been updated to include color and style:





# 2 Resolved issues

#### 2.1 Common

#### Slowness in MagiCAD when selecting objects

Selecting objects caused slowness, especially if many objects were selected. This issue has now been fixed by applying some internal changes to how the data is handled, but this does also mean that an earlier improvement no longer works (IFC Export process improvement in 2022 UR-1).

This benefit can be achieved in batch exports if the user makes changes to the registry in "HKEY\_CURRENT\_USER\SOFTWARE\Progman Oy\MagiCAD" and creates a DWORD value "UseNonComProperties" and sets it to "1".

In that case won't MagiCAD open the drawings during the IFC Batch export process.

**Note**: Any changes to the registry should be done only by users who are aware of the possible risks involved.

## Layout and Selection area options in the IFC's Object selection set created an empty IFC

If you selected selection areas or layouts in the object selection for the IFC Export, the result was an empty IFC.



This has now been fixed and the following selection areas work in their respective disciplines:

"Layouts", (Common)

"Selection areas", (Common)

"Switchboard areas" (MCE),

"Host areas" (MCE).

#### It wasn't possible to add the same attribute to dimension more than once

Now it is possible to add same attribute a several times to dimension texts.

eneral lame:	Usercode+size			Preview	Duct/Pipe Autom. Text Settings
		e-mow (¢/a)			Show dimension changes
yle:	STANDARD		By project	XXX- 123	min D: 0 max D: 9999
ot height:	125		By project	20079 200002	min L: 0
ext color:	By project		By project		
mension text object specific layer stable (TV):				Reference Line	Text Direction
ignment:	OLet	Center	ORight	None	O Parallel to object edge line
atables valable			Selected	O First part O All parts	Parallel to object centerline     dx: 400
Connection size final / main / brand Connection size final / main / brand Connection type code Connection type code Secretaria Jeanoption Secretaria Jeanoption (Size desortption) bot Size difference actual/requested Size sum with sign	nj with arawn phi		DerCole     "	Pef. Ine symbol     Une only     Target line     Anow     Dot     Symbol scale:     1.00     Baseline	dy: 400
ow sum without sign ow with sign stallation code sulation / P1			0	None     First row	
				All rows     O Rectangle	
Add ne					



#### Manual selection issue

The manual selection option did not work if the project had files attached to it which didn't exist with the project file.

The functions showed a warning, "One or more files cannot be opened..." if this option was used.



#### Revision clouds disappeared if you created them in the Layout-tab

The revision clouds weren't created if they were drawn in the Layout-tabs as they could only be created in the Model-tab (the revision clouds created in the Model-tab did however also show up in the Layout-tabs).

This has been fixed and the revision clouds can now be created when drawn in the Layout-tab as well.

#### Drawing with selection areas was very slow

Due to how data was handled, the drawing of selection areas did cause slowness, when an XREF or a MagiCAD Room project was attached to the drawing.

This has now been improved to make the function faster.

#### Objects that were part of the OTHER\_OBJECT's layer didn't get a color if IFC

AutoCAD Objects which had been turned into MagiCAD objects were white in the IFC unless they had a status color set to them.

This was due to these objects aren't available in the layer settings.

Now the color of the system is used in case no status color is set to them.



# 2.2 Ventilaion and Piping

# All categories in the National Classification Codes were shown and not only the mapped categories in segments

When adding a National Classification Code to a duct or pipes series via the duct or pipe serie's dialog, only the correctly mapped categories were shown:



But if added directly via the columns in the project dialog, then all categories were shown:

Project Mallprojekti     A     Project settings	UserCode LINDAR REKT	Description Locials Relat	National classification code
- Model drawings	LINDAB REKT	Undab Rekt	
<ul> <li>Schematic drawings</li> </ul>	Pyórea	Drosp Sare	
- Storeys	Suorak. 🕑 I	MagiCAD V&P - National classification	codes X
- Systems	Uponor Fitter		
Laters Laters Anapping constants areas In Anapping constants Anapping constants Barry anthouse Laters L		TATE THE DOUBLISTO WAR 27 (Goad) (VAR) LATTERT VAR) LATTERT VAR) LATTERT VAR) VAR	INTA
C Active Storey			
Instal storey origin (0.0.0)		apped to part type(s)	
Active storey Keros 1		is additional properties	$\sim$
Project			Select none Ok Canoe

This has now been fixed so that categories mapped to other device types aren't shown.

#### Create similar did not work after using Find & Replace

After using Find & Replace there were issues with using create similar on some duct and pipe components.



This has now been fixed and create similar works on the components after using Find & Replace.



#### Properties were blank after adding product

The properties in the installation dialog did in some cases go blank:

C magicho i	or - Failp precion					
UserCode	Product	¥cExportAs	Preview	Properties	Diagram	
P2 TEST1	CENTRIFUGAL-PUMP-BASEPLATE SOLAR **	fcPumpType fcPumpType	Property			Value
P3	K_3265	#cPumpType				
P1	ALPHA2 L **	#cPump Type				

This has been fixed and the values are always visible.

#### Adding products to the installation dialog mixed up the product list and preview picture

The last product in a sorted installation dialog showed the product information from a newly added product instead of its own data. This has now been fixed so that all products maintain the correct information after sorting and adding products.

#### **Object selection preview issues**

Some accessories weren't shown in the preview of the Object Selection function. This has now been fixed.

Drawing name	System	System type	Fat Class	Fostion
Uben'ges kigevaner/On			Desenation line	2665, -1718, 0
Children yon kigsuanen On	Supply 1	Supply air	Open end/linspec.	5070, -8537, 2000
C \Users'orn hissoerer'On			Orientation line	1006. (9311.0
C'Ubers'yori kişevahen'ıDn	Supply 1	Supply air	Dust	4751, 48337, 2000
C \Users'goni hitsevaluen \On	Supply 1	Supply an	Other component.	6053, 3037, 2000
C \User'gnikitevaher'On	Supply 1	Supply at	Dut	7978, -8837, 2000
C Manager Asternation (Dr		Supply at	Fieldow/Equator	5453, 9637, 2000
C1/Lises/joni.ki@evailven1/Dn	Supply 1	Supply air	Reducer/Expander	6653, -9837, 2000
C. 'Users' joni kiljavahen' On	Supply 1	Supply at	Connection part	\$228, 9837, 2000
C \Usen'goni higavainen' On	Supply 1	Supply air	Connection pat	6878, -9837, 2000
	Supply 1	Supply at	Connection part	5678, 9837, 2000
C 'Lines' you kigauainen' On	Supply 1	Supply air	Connection part	5228, -3837, 2000
C. \litera'ges hisevaken \On	Supply 1	Supply an	Connection part	6428, 9837, 2000
C 'Usen'you kigevahen' On	Supply 1	Supply air	Connection part	6878, 4837, 2000
C \Lleon'grikisevanon\On	Supply 1	Supply an	Open and/Unapec.	4275, 9837, 2000
C1/Liters (pri Nitruanen) On	Scooly 1	Supply air	Open end/linipec.	15326 -9837 2000
C.Usen/gon/vigevation/Dn	Supply 1	Supply an	Dat	11007, 9837, 2000
C1Lises/goni kigeusinen/iOn	Supply 1	Supply air	Other component	12009, -9837, 2000
C \Users'ges higevaluer\On	Supply 1	Supply an	Duct	14230, 9837, 2000
Children yon kitzeutenen (On	Siccly 1	Supply MI	Fieldster/Tigander	11709 -3337 2000
C. Uberalyzes Angeoratives VDn	Supply 1	Supply an	Reduces/Expander	12909, 9837, 2003
C 'Uses' (on kitsushen' On	Sceely 1	Sopply air	Open end/Snapec	10531, -9837, 2000

#### Viewport option "Follow main viewport" didn't work in V&P

The "Follow main viewport"-option didn't work properly and the settings had to be set for all the viewports individually.

This has now been fixed and the option works again.

#### COM returned only the 39 first characters of the ProductCode

The full product code was not shown and was trimmed down to 39 characters. Now "/project/qpdclass[]/part[]/productcode" and "/project/qpdclass[]/part[]/usercode" return values as they are, without trimming.

#### Possibility to present sound calculation with different filtering (dB/dBA/dBC/NR)

Earlier the program only showed the decibel level of the devices, but no indication of what the filter was. The program now shows the sound filter which is in use:





#### AHU " Edit connections" dialog broke when expanding it

The "Edit connections"-dialog did break (image the furthest to the right) when starting to expand it. This dialog is available in some Air handling units.

This has now been fixed so that it is working like other dialogs which the user can expand:







#### Issue with flexible ducts in the report

Two issues with the object selection for the reports have been fixed:

Even if only circular ducts were selected in Object Selection filter, then flexible ducts were also selected.

If bends were not selected in Object Selection filter, flexible bends were not selected, even though those should be handled as ducts. Now they are always selected if the flexible duct is selected.

Example of the issue with the flexible duct in the report:

With the bends selected (9.0 m) compared to without (8.4 m).

	900 100 100 100 100 100 100 100 100 100							10101000000000000			
🖲 MagiCAD V&P - Report File Edit		•			×	🕙 MagiCAD V&P - Report File Edit					×
System name Supply 1	Type Duct	Product code Flexibel duct	5an 125	Length (m) 9.0	Count	System name Type Product code Size Lang Supply 1 Duct Penderlikut 225 8.4				Length (n) 8.4	Count
Zoom				E	Gose	Zoom					gose

#### Find and replace did not show all suitable silencers

Not all suitable silencers were shown in the From/To dropdowns in the Find & Replace dialog. As an example the dropdown menu to the right shows only two of the six available products

MagiCAD V&P - Find and Repla	ice			🕙 MagiCAD V&P - Find and Repla	ce	
Configuration	✓ Save Save As	Delete Renarce		Configuration	✓ Save Save As	Delete Rename
Change objects	From	То		Change objects	From	То
Filter	<ul> <li>✓ SI5 FROM C PVA 50-600</li> <li>✓ Øg</li> <li>S11</li> <li>80ER 30-600</li> <li>S12</li> <li>80ER 40-000</li> <li>S13</li> <li>8.10 1200</li> </ul>	Do not change connection pipes	~ 8h	Filter	SI5 FROM C PVA 50.600 Signal Sizes	SI5 FROM C PVA 50-600 SI5 FROM C PVA 50-600 SI6 FROMC PVA 50-600
Oradioor devices     Supply devices     Extract devices     Extract devices     Plow damper     Fire damper     Silencer	SI4 CADENZA 1017/tergth= 650m SI5 FROM C PVA 55400 SI6 FROM C KVAP-600-5	To PVA 160 600 50	X	Outdoor devices     Supply devices     Extract devices     Extract devices     Fine damper     Silencer	From PVA 160 600 50	To PVA 160 600 50

This has now been fixed and the dialog correctly identifies all suitable silencers in the project:

#### Ventilation Index run was not displaying in view or calculation report

An issue with the index run not showing up when selecting it in the report for a network with an AHU as the calculation engine didn't always find the correct root.

This has now been fixed an the index run can be selected in the report without issues.



# If a pipe was first moved manually and then multi-pipe drawing was started from it the angle wasn't drawn correctly on the first attempt

When moving drawn pipes and then starting multi-pipe drawing from them, the function created unwanted angles, which can for example be seen here when attempting to draw down in the Z-direction from the main pipes:



This has now been fixed and the angles are drawn in the correct way.

#### Drawing Supply/Return pipe at same time didn't work with Height Difference

It was no longer possible to draw pipes from main pipes with the pipes going towards the side at different elevations and next to each other. Instead were the settings immediately automatically reset to be on top of each other, when starting to draw:



#### Calculation report did show double the pressure drop

Calculation report did show double the pressure drop per device when only one system was calculated using Branch-calculation.



This has now been fixed and the correct pressure loss is shown.



#### Domestic water device cold and hot water flow were missing

The CW and HW columns were missing and have now been added back.



#### Radiator connection function reset the elevation of pipe

If the user had changed the elevation of some main pipes that they wanted to connect the radiators to, using MagiCAD's radiator connection function, the pipes reset to their initial height when selecting them with the function.

This has now been fixed and the pipes stay at their set elevation.

#### Find & Replace issue with radiator's product code

Part of the product code in the dimension text disappeared after replacing radiators using the new Find & Replace function.

This has now been fixed and the product code updates correctly as well.

#### Fixes to radiator connection sets

A number of fixes and improvements have now been done for the radiator connection sets: The default IfcExportAs type, when adding a new radiator connection set to the project, was IfcPipeFittingTypebut has now been changed to IfcValveType:

General				Product variables		
UserCode:				Property	Value	
Product:	H-valve+thermostat			Product variable		
Object ID format:			~	National code	Not selected	
object to toimat.	-		· ·	Installation code		
Running index amount:		1	$\sim$	National classification		
		_		HyperLink		
zo symbol.				IfcExportAs	IfcPipeFittingType (IFC2X3, IFC4)	$\sim$
Select	Not selected			lfcType	NOTDEFINED (IFC2X3, IFC4)	$\sim$
Erase				P1		
Erase				P2		

The dptot and kv-value were not shown in the dimension texts for the integrated valve in a radiator connection set:

	🖲 MagiCAD V&P - Part Proper	is	×
Adj: 2,3	Property Bottom of part Prediant Nanu/fecturer Comrection size	Value H = 88.9 NORE-X"74-salve DN10.CCAPED" Genetic 10	^
kv: 0,00	Box detect pear Adouterst	0.0003/v 4kPa 4kPa 23 0 15	- 1
dptot: 0,000	kv Othus Polipoths VcType Descition	N 15 0 Net derived Rotative Type NOTOERNED	
ptot: 4,491	UserVer 1 UserVer 2 UserVer 3 UserVer 4		
		NH 22 NH MTW 622 ANI MITW 622	~



dptot was summed in Part Properties, if the radiator connection set had data, even if it was shown correctly in dimension texts:

A	C MediCAD 189 - Part Prope	rbes	~
Adj: 1,4	Frepety	Tokun	~
7 (og. 1, 1	Partition	Rediator connection set	
	System	H1expty "liesting 1"	
	Slowy	Rose 1	
kv: 0,14	Slorey variable 1		
KV. U. 14	Storry variable 2		
	Center of part	H-1750	
	Bottom of part	H = 155.0	
-l-t-t- 4 700	Product	UATA-SIGE2 "Radiator coupling-themostat BC DN10 CC250"	_
dptot: 4,703	Manufacturer	Generic	
aptot. +, 700	Connection size	10	
	For	0.00831/6	
	dotet	4.703+4.703+9.437492a	
Interty O.CCC	ptot	8.995 kPa	
ptot: 8.666	Adjustment	1.4	
	lor	0.14	
	Siztus	Not defined	
	fc6ipot/a	To talvo Type	
	ROW		
	is a measuring valve		
	lack dp		

The dptot and kv-value didn't work in IFC Properties for the integrated valve in a radiator connection set.

The kv-value didn't work in Reports

Adding valves didn't work properly as a valve which was previously added to a radiator connection set which was missing data, did also show up for example in the calculations for radiator connection sets which already had their own data (and hence didn't have a separate valve), and also in radiator connection sets which deliberately were installed without a valve:

Below an example of a radiator connection set which already has its own data, but still another valve shows up in the calculations:

Supply				◯ General results																
OReturn																				
Location	Level	Node	System	Туре	Setes	Product	Size	L	Insulat	P [W]	qv [/s]	v [m/s]	T [C]	Q [W]	dp/L [Pa/m]	dpt [kPa]	pt [kPa]	ad).	Warnings	
	Roor 1	1	H1	ROOT NODE						1000	0.0083			_			15,121			
	Roor 1		H1	PIPE	Cu		10	0,9		1000	0.0083	0,15	70,0	13,7	62,3	0.054	15,121			
<	Floor 1		H1	BEND-90	Cu		10				0.0083	0,15					15,067			
	Floor 1		H1	PIPE	Cu		10	0.0			0.0083	0,15	69,6	0,4			15,062			
10	Roor 1		H1	CONNECTION SET		H-valve-t	10 (L)			1000	0.0083					10.000	15,061	2.0		
- 20	Roor 1		H1	RADIATOR VALVE		ANR-10-N					0.0083					5.000	5,061	2.2		
	Floor 1	2	H1	HEATING: RADIATOR		TermoDes	10 (L)			1000	0.0083		69,6				0.061			

#### Some properties were reset in Part Properties

Some properties, for example kv and dptot, were reset and disappeared from Part Properties when the dialog was opened and closed.

This has now been fixed and the properties stay put.

#### Issue while using an alignment in drainage pipes and drawing

When the alignment-setting was set to something else than center, the drawing of the drainage pipes didn't work correctly, and as can be seen in the image below the whole setup started working itself upwards, even if the selection was "Downward":



This has now been fixed and drawing with alignment ON works properly as well.



# Open end not showing up when using part property lines, after having replaced drainage device with unsuitable connectors

If a drainage device was replaced by another one, which didn't have comparable connectors to the replaced one, then the connection did break, which was expected, but an issue occurred where the now open end of the pipe was no longer recognized as an open end, as shown here with the red arrow. It recognized the other open end of the pipe, as well as the device, which here has been moved slightly aside for demonstration purposes:



This has now been fixed and open ends of pipes are also recognized correctly in cases like these.

#### Some Manhole elevation-properties were wrong in Dimension text and Part Property Line

The Dimension text and Part Property Line values shown in the project were not always correct for the property values indicating the elevation in of the connections.

The elevation was always calculated as if the manhole was installed to the connection elevation 0.



This has now been fixed and the elevations are correctly calculated in relation to the elevation the manhole has actually been installed to.



# 2.3 Electrical

#### MECHPB froze when using it to a new empty project

Previously, when running the batch process of the Change Project function (MECHPB) to an empty target project, MagiCAD froze totally. The issue has now been fixed.

#### MCE storey origin/move issue

The Move Origin function in Storey Properties now remembers the previous coordinates. Earlier it reset them to zeros if a MagiCAD Room project was not active, so you had no way of knowing what the previous origin actually was.

#### Running Index issue in Electrical where LV and ELV devices are in the same network

The beTween option in Insert Running Index didn't work properly anymore when having LV and ELV devices connected to each other with cables. You got only the LV or ELV devices numbered after selecting the corresponding system. Now MagiCAD doesn't ask for the system, and numbers all devices along the path.

#### Create Switchboard Schematic didn't work properly with switchboard areas

If you had switchboard areas with higher priority inside other switchboard areas with lower priority, the Create Schematic function wasn't able to take the priorities into account properly for circuits which belonged to the areas with higher priority. Previously it added those circuits also to the switchboard schematics of switchboard owning the lower priority areas. The issue has now been fixed and priorities are handled properly.

#### Change properties didn't work properly with conduits

Properties under "\* \*" now work with conduits.

Property	
Filter	~
* 	

#### Report didn't work properly with combination boxes

Products inside combination box were not shown in report if combination box itself was not selected. This is now fixed.



#### Grip move didn't work anymore after returning 2Dsymbol/3Dmodel back to the other's location

Moving 2D and 3D symbols to different location and then returning them back together made it unable move the symbol with grip move. Now grip move works also after moving 2D and 3D symbols back together.

#### Set Properties gave an error in switchboard schematics

When only the header of a switchboard schematic had been made and you tried to use Set Properties to change data of the circuits, an error appeared about not finding some non-existing drawing. This has now been fixed.

#### MCE used incorrect viewport options in layouts

Fixed an issue with incorrect viewport settings in layouts.

#### Drawing with selection areas are very slow

When a drawing which has selection areas drawn have been added to xref, opening layout view took a long time. Now selection areas no longer slow the drawing.

#### Very slow running index installation when project is on server

When installing running indexes to objects, it took few seconds after each click before you could click another. Now Running Index no longer checks any other drawing if "Check indexes from other models" is not selected and works without any delays.

#### Fixes to COM function

Adding a luminaire or LED stripe product, MC returned an error. Now adding those products work again.

When adding a new LED stripe product and not defining ID for the product, it always got ID 1. Now it gets the next free ID.

When adding a 2D symbol for a product, an error came. Now adding 2D symbol works properly.

#### "Image bitmap" in Legend causes error

When using "Image bitmap" in Legend template and you create a legend using that template causes fatal error.

This has been fixed.



# 2.4 Circuit designer

## Adding connection points to terminal block problem

When manually adding connection points to existing terminal block, all the added connection points were linked to the first connection point found from the terminal block. This has been fixed.



#### 2.5 Room

#### Heat loss analysis worked incorrectly

Running "Heat loss analysis..." from room dialog gave different results than after the "Save, Calculate and Update Texts" command.

This has now been corrected and "Heat loss analysis..." from room dialog now gives the same result as the "Save, Calculate and Update Texts" command.

#### Negative heat loss in XML from Room

The program subtracted the heat losses in the project's system lists, but in the Excel these negative heat values had parenthesis and were as such not summed directly using Excel's SUM-function.

An example with the output summed as it is compared to when the parenthesis have been removed:

U	V			
Heat loss	Heat loss			
[W]	[W]			
92	92			
(-339)	-339			
60	60			
72	72			
41				
46	46			
41	41			
37	37			
133	133			
45	45			
567	228			

#### For the system these heat losses were subtracted:

~	Property	Value
	Name	AHU 101, Supply
	User code	AHU 101, S
	Color	
	Total supply airflow [l/s]	0
	Total extract airflow [l/s]	0
	Total heat loss [W]	228
	Total cooling power [W]	0
	Total electrical power [W]	0
	Total net area [m2]	130
		User code Color Total supply airflow [/s] Total extract airflow [/s] Total heat loss [W] Total cooling power [W] Total electrical power [W]

Now in MagiCAD 2023 the negative heat losses aren't subtracted in the system lists:

🙆 MagiCAD-R - Project Management -		×
⊡ · Project:	Property	Value
- Storeys	Name	AHU 101, Supply
Storey 2     Storey 1     Storey 0	User code	AHU 101, S
	Color	
All rooms	Total supply airflow [l/s]	0
- Zones	Total extract airflow [l/s]	0
	Total heat loss [W]	567
AHU 101, Supply	Total cooling power [W]	0
Rooms	Total electrical power [W]	0
AHU 101, Extract ⊕ Roof Fan 120	Total net area [m2]	130



## 2.6 Schematics

#### Schematics BA block went to the wrong page

The issue was that when adding new pages next to each other, with BA-blocks, that the newly added pages' BA-blocks weren't added correctly to their respective pages and instead to the drawings furthest to the left:



This issue was seen with BA-blocks where the P\_LTOP and P\_LBOT points of the frames' template were set at the very boundary, instead of like here within the page's boundaries, so in this example if P\_LBOT would have been set down to the left, where the arrow is pointing, then this issue would have occurred:





This has now been improved and even if the points are set at the boundaries the blocks are added correctly when adding the pages.

•	-		ot always ma		match the	ir ovet	om tvpo:	
n some cases the systems from a c MagiCAD Schematics - Duct			JIIIEGIEU VAF	×		n syste	en type.	
Definition set: V&P System V&P System type Presentation Linetype: ByLayer	- none - [3 3 Ex Supply air	haust v Line width [wcs]: 2.0	Color: By Layer	~				
JserCode	Name		Туре	Linetype		Color	SV 1	SV 2
	1 Supply		Supply air				S1	10
2	2 Extract		Extract air				E2	20
1	3 Exhaust		Exhaust air				EH3	30
4	4 Outdoor		Outdoor air				04	40

This has now been fixed and the systems now correctly match their system type in Schematics.

#### Schematic file changed to automatic save file after using Link Manager

When linking objects between drawing and then updating the information via Link Manager, the drawing was switched to AutoCAD's automatically saved backup version.

Home Insert Annotate Parametric	View 1	Aanage	Output	Add-in	ns
Pages Design Update DWG PDF Export	Map Properties	Bill Link	Link Manager	Ctange Faths	R
General 👻	V&P Connection Tools				
	m 2688_83c96d5d.sv\$* × +				

Now we have made sure MagiCAD retrieves the drawing file path name correctly everywhere and does not user the temporary autosave file path.