Release notes

MagiCAD 2019 UR-1.1 for Revit

progman

MagiCAD

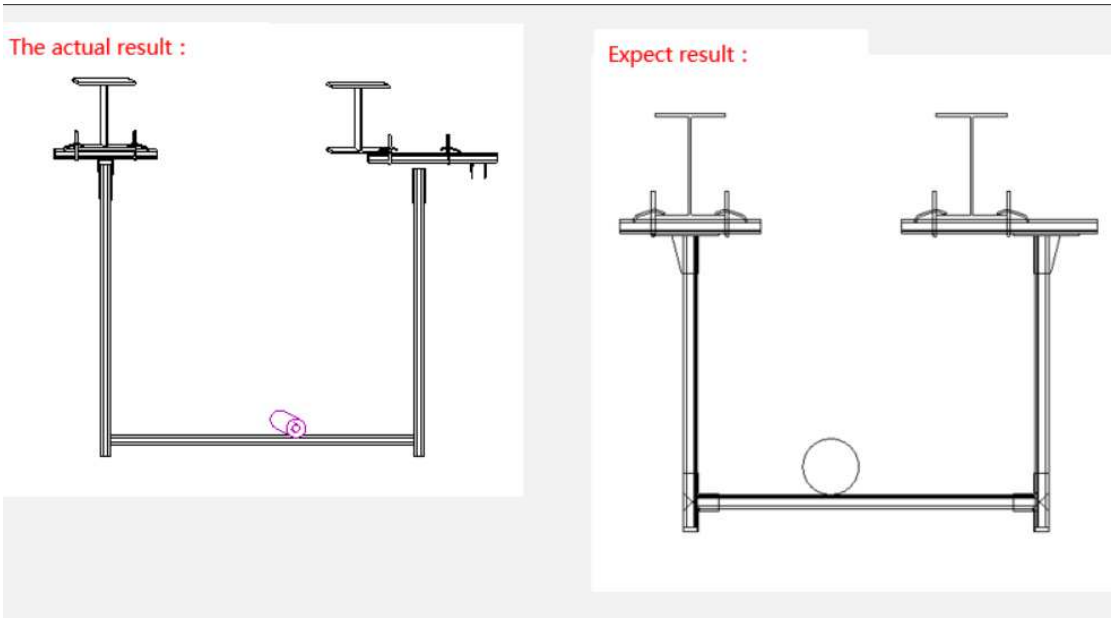
RESOLVED ISSUES

MagiCAD for Revit 2019 UR-1.1

SUPPORTS & HANGERS

When users changed the geometry parameters of VT or RT in order to create a customized shape reflecting the actual installation conditions for a support and hanger, there was a failure in rooting the support and hanger to the steel beam.

Installing the MagiCAD S&H 2019 UR-1.1 patch fixes this issue. Supports and hangers will now remain rooted in the steel beam even if users set custom VT or RT geometry parameters.



NEW FEATURES

MagiCAD for Revit 2019 UR-1

Note: MagiCAD 2019 Update Release 1 (UR-1) resolves the compatibility issue with the Autodesk Revit update package 2019.1. The recent Revit 2019.1 update package included several internal changes to the Autodesk Revit platform which affected the functionality of MagiCAD software components. To resolve this issue, download and install MagiCAD 2019 UR-1 from the MagiCAD Download Portal. MagiCAD 2019 UR-1 is compatible with Revit versions 2017-2019 and does not require the Revit update package 2019.1.

COMMON ISSUES

Improvements to the provisions for builderwork openings

When the automatic BWO is used, there are now two options for selecting the MEP elements - one for selecting the elements from the current model, another for selecting the elements from the linked models. User-defined size ranges to specify the offsets for BWO can be set to the separately for the ducts, pipes, cable trays or conduit segments as well as for fire dampers.

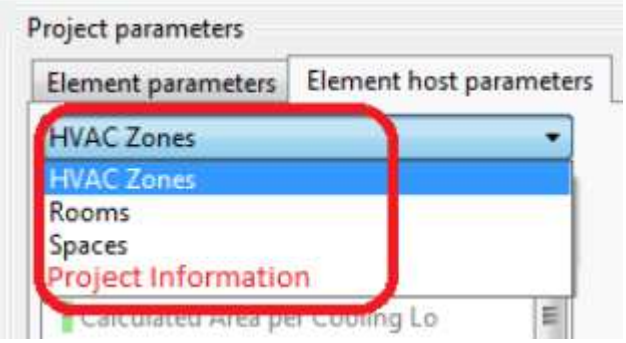
More accurate and flexible IFCType and PredefinedType support
The purpose for this functionality is to provide the tools to override MagiCAD own native IFC-type definitions and set the definitions for the Revit families which are exported.
It is possible to set IFC type to any family either in the dataset or with a separate function.
Now it is also possible to bind an IFC type to any native type in the Property Set Manager.

Add user parameters to Revit products with MagiCAD
The additional properties functionality allows the users to associate their own parameters to the products, which are used in MagiCAD.

Clean-up & deliver improvement
Structural / engineering plan views are included for the export
View templates are included for the export

Support for PDF and Excel export in the BCF manager
MagiCAD now supports export to PDF and Excel files in the BCF manager.
PDF, Excel and Print export added to BCF-manager
Image support is added to clash report.
Topics are now shown always with 4 rows.
Component's IFC guid is removed from the component list and it is replaced with the category. If element is not found from the project then the IFC guid is used in the name column.

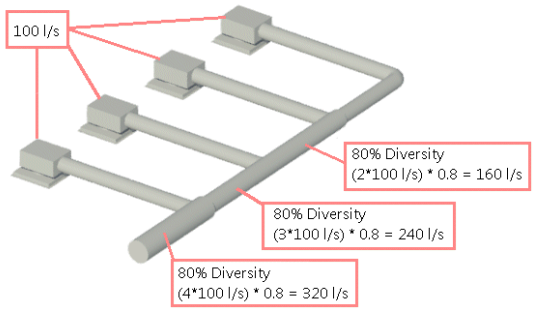
Merge parameters: The project information is now available in the host parameters list
Added project information parameters under "Element host parameters"



VENTILATION AND PIPING

Diversity Calculations for Ventilation Systems, MCREV

It is now possible to set the diversity factor to the ventilation ducts. If the diversity factor is given, the flow is multiplied with the diversity factor and duct sizing is done according to the diversified flow.



The functional area can now be set to the types
It is now possible to define product specific throttling limits for adjustable air devices, flow dampers, radiator valves and zone valves. The limits can be set in the dataset.

Continuous flow device
MagiCAD calculation supports now the continuous flow devices. The continuous flow device is a device whose flow is added "as is" to the diversified flow (dimensioning flow). The possible continuous flow is shown in a separate column in the printout.

Better error handling in MagiCAD's ventilation sizing and production model updater
When the sizing is done and the results are updated to the project, there can be Revit errors like "The family is connected in a network and can no longer keep the connectivity. Disconnect the family from the network". The only thing to do has been to Cancel the update process in Revit. It has also been difficult to find the erroneous places afterwards.

To improve the situation MagiCAD now creates now a BCF report where it collects the errors. The BCF report can be closed and reopened from MagiCAD's BCF manager.

Explanations to the calculation report columns
The texts have been added in the columns in order to give explanations in the report. Hold the cursor on top of the column title to see the explanations.

Added support for the flexible duct and pipe drawing
It has been possible to add both the flexcible ducts and pipes to the dataset eartlier, but now MagiCAD's drawing tools supports drawing with them.
Angle to horizontal, install Y- and S-piece are disabled if the flexible ducts are drawn.

"Out of dp range" text in balancing has been changed to "Branch is not in balance"

Re-calculate floorheating loop length using "Update parameters"
Parameter for floor heating loop length can be updated with "Update Parameters".

Easier to assign a fire hydrant to a design area
Added similar method for assigning the fire hydrants in the design area that is used in MagiCAD for AutoCAD.

Additional standards for sprinkler calculations
Three new standards have been added to the sprinkler calculation.
Malaysian MS 1910:2006
Singaporean CP 52:2006
Australian AS:2118

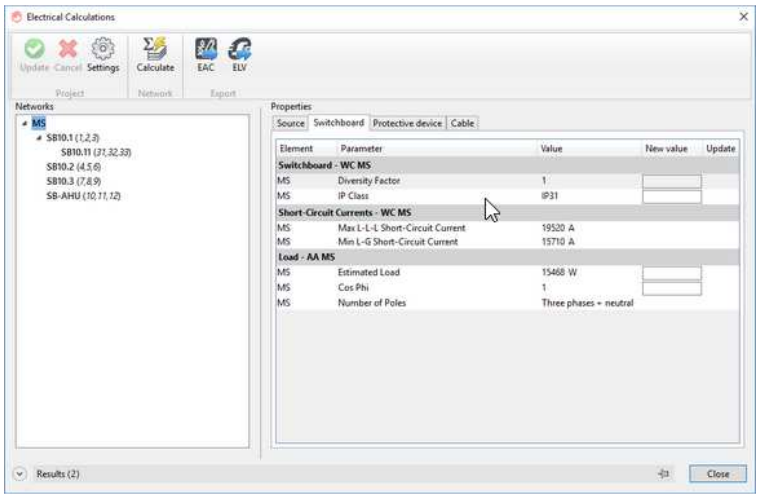
Connection of multiple radiators has been improved
It has not been possible to connect the radiators in case they were not aligned on the same line.
Now also this situation works and all the radiators are connected.

Improvement to duct series dialog
More detailed information about fitting types are shown in the duct series dialog.
When removing the product, its product code is now shown.

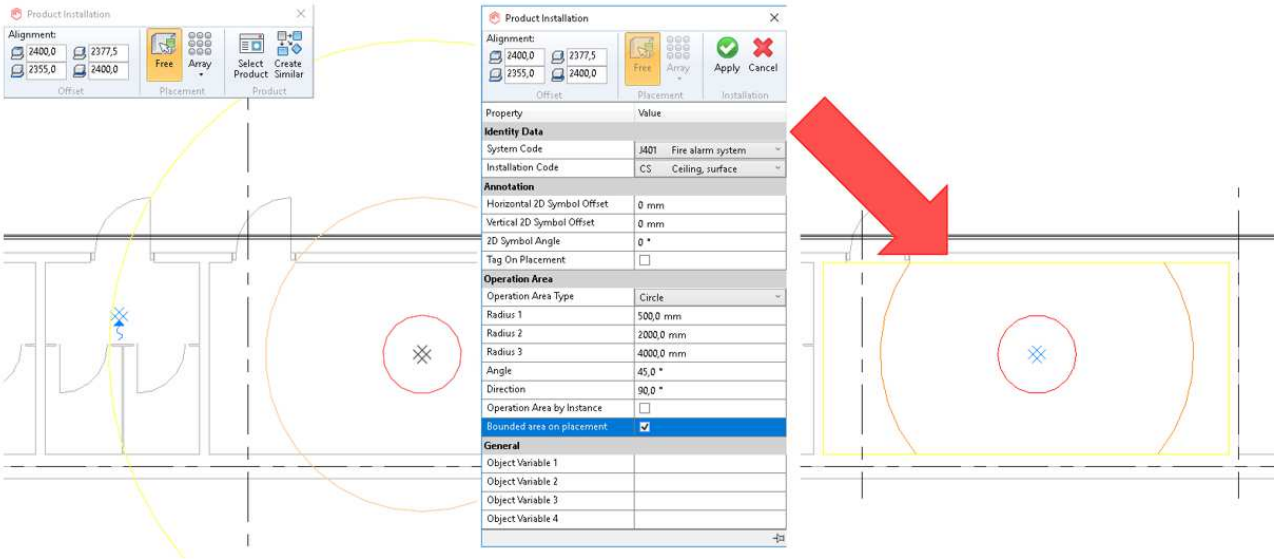
Tag tool: Separate categories for rectangular and circular shapes
It is now possible to configure the tags separately for the rectangular and round ducts as well as for the rectangular and round provisions for builderswork openings.

ELECTRICAL

Perform electrical calculations using Revit technology/Connection to Schneider Electric Ecodial
You can now perform integrated electrical calculations on Revit technology, complete with bidirectional flow of data between the calculations and the Revit project. MagiCAD for Revit now includes the Schneider Electric Ecodial calculation engine, enabling a wide range of electrical calculations, such as cable sizing, voltage drop, and short-circuit calculations, as well as the use of protective devices directly via the Revit project. MagiCAD automatically gathers all the relevant data from the Revit project, which means that you only need to use a single interface for entering or editing the data. All of the calculation data can be accessed from MagiCAD's Electrical Calculations dialog, where you can modify the data and update the results to the Revit parameters quickly and easily. It is also possible to export the project to Schneider Electric Ecodial Desktop software for further fine-tuning.

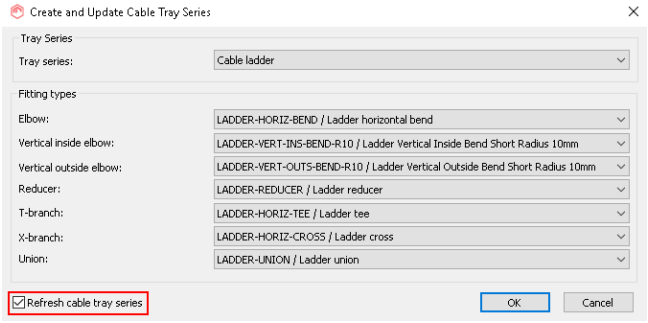


Space bounded operation areas
Now the operation areas of electrical and communication/data/BA devices can be bounded to the outer limits of spaces. When placing a device you will still see the unbounded areas, but after you have installed the device, the unbounded areas are switched off and the bounded areas are drawn into the view (if you set so from the installation options). There are also separate functions for showing / hiding the space bounded area lines afterwards. The used line types are added into the Revit project when needed for the first time. After that they can be modified/customized from Revit's "Manage" tab -> "Additional Settings" -> "Line Styles".



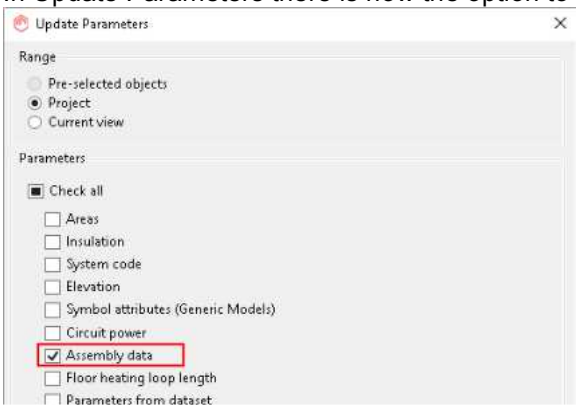
Updating cable tray and conduit series

Now you can update/refresh the cable tray and conduit series in your project. This means that fitting families are reloaded.



Updating IDs in combination boxes

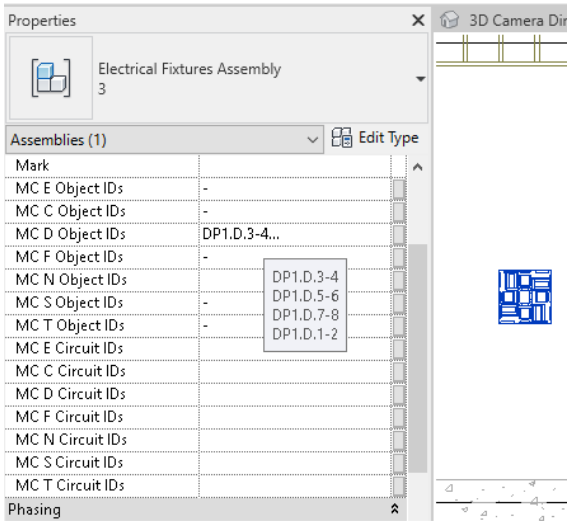
In Update Parameters there is now the option to update "Assembly data".



This means that from the objects inside an assembly, all the MC Object ID and MC Circuit ID parameter values are "summarised" to corresponding ID parameters in the assembly. This way you can tag the IDs directly from the assemblies that you have visible in your view, no matter which of the internal devices are shown/hidden.

The following parameters are added into assemblies for "summarising" IDs:

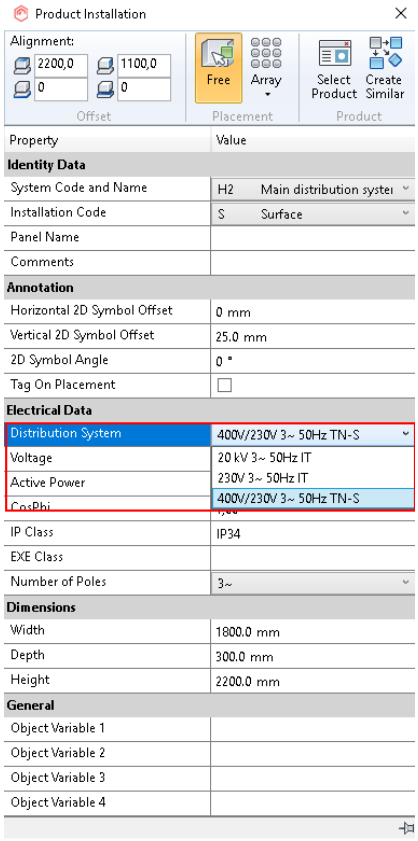
Parameter	Description
MC C Circuit IDs	Summarising circuit IDs from devices that have a communication connector
MC C Object IDs	Summarising object IDs from devices that have a communication connector
MC D Circuit IDs	Summarising circuit IDs from devices that have a data connector
MC D Object IDs	Summarising object IDs from devices that have a data connector
MC E Circuit IDs	Summarising circuit IDs from devices that have a power connector
MC E Object IDs	Summarising object IDs from devices that have a power connector
MC F Circuit IDs	Summarising circuit IDs from devices that have a fire connector
MC F Object IDs	Summarising object IDs from devices that have a fire connector
MC N Circuit IDs	Summarising circuit IDs from devices that have a nurse call connector
MC N Object IDs	Summarising object IDs from devices that have a nurse call connector
MC S Circuit IDs	Summarising circuit IDs from devices that have a security connector
MC S Object IDs	Summarising object IDs from devices that have a security connector
MC T Circuit IDs	Summarising circuit IDs from devices that have a telephone connector
MC T Object IDs	Summarising object IDs from devices that have a telephone connector



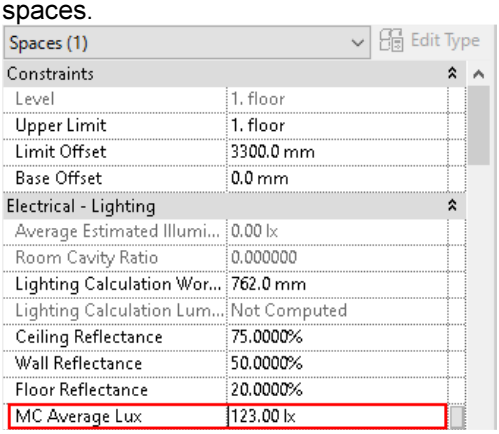
NOTE! The same ID will not be shown twice if there for some reason is duplicates

Distribution system selectable when placing a switchboard

Distribution system can now be selected for a switchboard during installation.



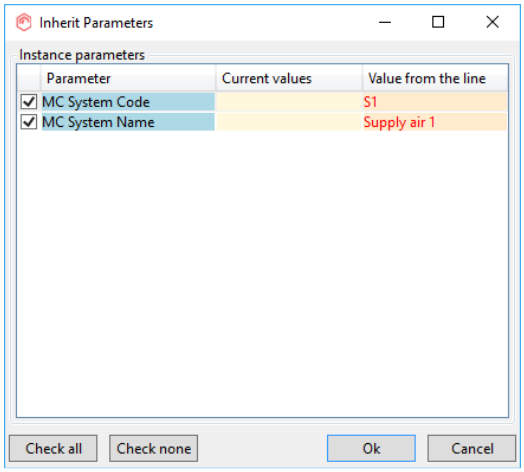
DiaLUX Import
The Dialux Import function will now import also the average lux values of the selected spaces from an imported .STF file (when available). The data is stored to a new shared parameter MC Average Lux in spaces.



Schematics

Decide whether installed symbols in schematic design inherit values from lines

When you install a symbol to an existing line in the schematic drawing, the MagiCAD symbol installation tool now checks automatically the matching parameters between the line and the symbol. You can then select whether you want the symbol to inherit the parameter values from the line. In this way, the information defined for the lines can be automatically added to the symbols instead of defining the same data all over again. This streamlines the process by reducing unnecessary repetition and at the same time makes the process less prone to human error.



RESOLVED ISSUES

COMMON ISSUES

Angle to horizontal
When the user was drawing a cable tray or a conduit and pushed the "Angle to Horizontal" button, the draw command ended if only the electrical tab was loaded. This works correctly now.
When such an angle to horizontal is chosen that isn't possible to create due to limits in height, an unexpected error was shown. This is now handled with Revit's own error message.

Production Model Updater did not work correctly with all the products
The problem occurred e.g. with Uponor UVS duct series. When the production model updater was run, the bends and fittings generated a "Product not available" -message.
This has been corrected.

Worksharing caused "No access" error when parameters were updated
Corrected so that the work sharing access failures are reported in a message box.
Show/hide/reset node numbers
Update circuit numbers
Show/Hide operation area
Update wire data

Clean and Deliver
Warning message is shown if project is detached and not saved. Earlier several erros could occur if the file was detached and not saved before Clean & deliver command.
Improved Clean & deliver stability when project document contains element(s) that are some how in invalid state.

IFC Property Set import did not merge properties
When the propertysets were imported from another configuration file, the properties were not merged. The configurations and propertysets were simply copied from the other file,
which lead into duplicate propertysets with the same id. Now the imported items are assigned a new configuration and property set IDs.

Clash are shown after they are moved
When a clash element was moved and the "Real time clash" mode was on, the clashes were updated incorrectly leaving the clash before moving visible.
This hass been corrected.

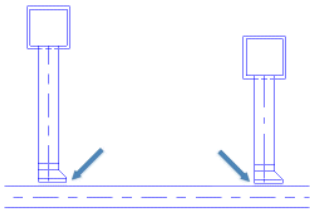
BCF Manager and Revit not responding after Clash detection update.
Random Revit stuck problem has been corrected.
If the sorting was done when the user was adding a new topic, then Revit crashed. It is now forbidden to click the sort button when topic is being added. Other buttons are also disabled in this case.

Array installation: invalid values in array options do not disable the apply button
When the array installation is used for the first time in the Revit session, there are no problems. But when the dialog is opened for the second time, invalid values in array options do not disable the apply button correctly.
The array installation works correctly now.

VENTILATION AND PIPING

Heating/Cooling sizing/balancing the branch was canceled without any notice to the user
An error message is now shown to the user if there is an open end in the branch selection. Earlier the sizing/balancing was interrupted and nothing was shown the user.
This could happen in case that the supply and return networks contains different amount terminals (e.g. radiators).

Gaps between the ducts and taps after sizing
In some cases gaps gaps emerged between the branch duct and the tap.
This error is corrected.



Time to reach hot water design temperature correction
MagiCAD calculated the time based on the dimensiong (diversified) flow which resulted too short waiting times. The waiting time is now claculated according to national standards in the following way.
Finnish D1, Norwegian, Italian UNI 9182, French DTU 60.11, UK BS 8558, UK CIPHE
Waiting time is now calculated based on nominal flow for each tap.
Danish Sbi Instruction 235, Swedish VVS 2000:
Waiting time is now calculated based on flowrate 0,2 l/s to each tap

MagiCAD does not give "High flow warning" when using EN 806 standard
Earlier it was possible to enter the high flow limit when using EN 806 standard, however no warning was shown. Since the high flow limit is not defined in EN 806 standard, it is no more possibility to enter the high flow limit.

Find and replace could not change the pipe component if the pipe type contains a flange.
Find and replace can now correctly handle the flanges when replacing the pipe components, sprinklers, and cooling beams.

Error in sprinkler connection when antenna method is used
There were some problems with the antenna connection. The tee branch was not created in some cases
This error has been corrected.

ELECTRICAL

Issues with cable packets and wire drawing
The following issues have been fixed related to cable packets and wire drawing:
- Using "Create Cable Packet Connection" in a 3D view resulted in an unexpected error.
- Could not use more than one conduit type as a cable packet. Unions could not be added for other types.
- Unexpected error was given when trying to connect to a too short cable packet.
- When making a packet connection to a vertical segment you got an unexpected error.
- Guide line grid during wire drawing caused errors in workshared projects if two persons were drawing wire at the same time.

DiaLUX Export
Previously the DiaLUX Epxort function was not able to export windows and doors when the upper limit of a space was bounded to the level above. This issue has now been fixed.

Combination boxes in Find&Replace
Previously a combination box object/frame that was replaced with an assembly which original copy was located in another level (than the combination box object/frame) got the original assembly's reference level set active, which meant that the calcualted offset was either really high or really low (on negative side). Now the reference level and offset are set correctly based on the level where the replaced combination box object/frame was located.

Crossing
Previously crossing functions gave unexpected errors when trying to modify tray types which did not have vertical bends.

Manage Circuits
The Manage Circuits function falsely showed a symbol preview picture even though a symbol selection was removed with Set Properties. The error however was cleared when switching between tabs so the problem was only about refreshing the preview images at propert times.

Converting generic model symbols
Converted generic model symbols were not created properly so that the ang2D_ver parameter did not have any effect. The parameter should rotate the symbol back to top view orientation after a device has been installed on a vertical face. The issue has been fixed now.

Schematics

Schematics symbols conversion
There has been a problem with schematic symbols when they are converted to Revit. The masking regions are created between the connections and there was a problem if all connectors are on same side and along same line.
This error has been corrected.