Systemair

DESIGN plugin for Revit \ MagiCAD for Revit

User guide

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MagiCAD

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1 General

1.1 About this document

This document contains instructions on using Systemair DESIGN Revit \ MagiCAD for Revit plugin. Systemair DESIGN Revit plugin integrates Systemair DESIGN selection- and visualization tool into Revit \ MagiCAD for Revit. It allows user to find and insert systemair air distribution, and fire/smoke damper products into Revit project. In addition, plugin integrates room visualization functionality in Systemair DESIGN into Revit MEP spaces, allowing user to export / import spaces between Systemair DESIGN and Revit.

1.2 Installing the software

1.2.1 Required third-party software

Systemair DESIGN plugin works with the following Revit and MagiCAD for Revit versions:

- Revit 2021 - 2024
- MagiCAD for Revit 2023 with Revit 2021 - 2023
- MagiCAD for Revit 2024 with Revit 2021 - 2024

1.2.2 Installation

Administrator privileges are recommended for installation.

1. Ensure that you have required Revit version installed on your computer.

2. Install Systemair Revit plugin. Installation package can be downloaded from here:
https://portal.magicad.com/download/ProductSearch?searchStr=Systemair&categoryId=3

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1.3 Starting the program

The plugin is automatically loaded and is ready to be used once Revit is started next time after the plugin is installed. If you installed the plugin with MagiCAD plugin manager, the plugin is ready to be used without restarting Revit \ MagiCAD for Revit.

Systemair DESIGN plugin ribbon panel can be found from Add-ins tab:

2 Functions

2.1 Insert Product

This command opens Systemair DESIGN for selecting suitable Systemair products into Revit project. User can choose from available air distribution- and fire/smoke damper -products. User can either choose product from the catalog or use the product selector functionality.

2.1.1 Detailed description of insert product command (Plain Revit)

Follow these steps to insert product from Systemair DESIGN into Revit project:

1. Click the “Insert Product” -button from the Systemair DESIGN ribbon panel (Add-ins tab). Once the operation is started the plugin opens Systemair DESIGN:

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2. Proceed by selecting the wanted product category. Optionally you can click product selector - tab at the top of the view.

3. DESIGN shows available sub-categories from the selected category. Proceed by choosing the wanted sub-category:

4. Under the sub-category (valves in this case), choose the wanted product series:

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5. From product view, user can for example define the wanted product size and working point:

Once the product is configured, user can continue by clicking “Add to Revit” -button”.

6. Plugin opens following dialog:

From the view, user can choose the system and height level for the selected product. After that user proceeds by clicking the insert -button, which initiates the insert operation to active Revit view. User can freely place the product into wanted position:

Notice that the working point defined in the DESIGN is set to instance placed to the drawing. Also the pressure drop is set and it's dependent on the defined airflow. If airflow is changed, the product should be inserted again in order to have correct pressure drop value for calculations.

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2.1.2 Detailed description of insert product command (MagiCAD for Revit)

The insert product command workflow differs little bit if MagiCAD for Revit is installed on top of Revit. The steps are identical to plain Revit steps until step 6.

1. After the product is chosen in Systemair DESIGN and “Add to Revit” -button is clicked, plugin loads MagiCAD Dataset dialog:

From the dataset properties dialog you can define for example 2D symbols for the product and for airflow arrows. Once ready, proceed by clicking OK -button.

2. MagiCAD Insert product view is opened. Notice that the working point should be defined in this dialog. Once ready, start the insert operation by clicking the OK -button:

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3. User places the product to the project with MagiCADs product installation feature:

2.2 DESIGN Rooms

Design Rooms command allows user to select the MEP spaces in Revit and export the space geometries to Systemair DESIGN. User can add products to the space in DESIGN and take advantage of room visualization functionality. Once the ventilation design for the space is ready, user can import the products to Revit project.

2.2.1 Detailed description of Design Rooms command

Follow these steps to use Design Rooms command:

1. Click the Design Rooms -button from Systemair DESIGN plugin ribbon panel.
2. Plugin asks user to select the space(s) to be exported to Systemair DESIGN:

3. Once wanted spaces have been selected and accepted, Systemair DESIGN is opened by the plugin:

User can choose to continue as guest or login to DESIGN.

4. Systemair DESIGN automatically creates temporary project and includes the selected Revit spaces to the project:

5. Proceed by adding wanted products to room from product catalog:

6. Once wanted products have been added to the project, return to project view by clicking “Go to project” -button. Position the products in the room and use available room visualization features.

7. Once all wanted products are in place, proceed by clicking the Add to Revit -button, located on top left corner of the view.

From Add to Revit -view, check the spaces to be imported back to Revit. Click Add to Revit -button in order send the products and spaces back to Revit. DESIGN window is closed, and plugin loads following view:

8. Insert Products -view lists the products that were inserted into space(s) in Systemair DESIGN. Only one space (Office 125) was exported, in this example case. If multiple spaces have been exported, the placement of each device can be seen from the Space -column. User can make the system selection for the product from the System -column. Optionally System selection can be defined later inside Revit. Airflow and the height level values have been defined already in DESIGN.

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9. Click insert -button in order to automatically place the products to Revit project.

10. Plugin automatically places the products into Revit project to the locations defined inside Systemair DESIGN:

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2.3 Edit Room

Edit Room command allows you to select one MEP space in Revit and start editing the space in Systemair DESIGN. The difference to Design Rooms command is that, edit room is meant to be used after you have first inserted Systemair products to space with DESIGN Rooms command. Edit Room command not only exports the dimensions of the space to Systemair DESIGN, but also exports the already existing Systemair DESIGN products inside the space. Once the room is exported into DESIGN, you can add new products to the space or move around the existing products etc. Once you have finished editing the room you can send the changes back to Revit.

2.3.1 Detailed description of Edit Room command

Follow these steps to use Edit Room command:

1. Click the Edit Room -button from Systemair DESIGN plugin ribbon panel.
2. Plugin asks you to select the space to be edited in Systemair DESIGN. Select a space that includes Systemair DESIGN products:

3. After selecting the space, plugin opens Systemair DESIGN and you can proceed as guest or login to DESIGN. After that Systemair DESIGN loads the project and the selected space:

4. You can proceed for example by moving or deleting the existing product(s) or by adding new ones. In this example case, the supply device is moved little bit, and extract device is added to the room:

5. Once finished, you can send the changes back to Revit by clicking Add to Revit -button, which opens the Add to Revit -view:

And from there you are able to send the space back to Revit by clicking Add to Revit -button.

6. Plugin loads the following view:

Notice the operation -column, which informs what kind of operation is going to be done for each product. In this example case, TSO-125 product has been updated (moved), and TSF is a new product to be inserted to the space. You can proceed by clicking the Insert -button, which initiates the process of placing the products to the space:

2.4 Electrical connector support for ventilation devices

Systemair DESIGN plugin supports also electrical connectors for the ventilation devices.

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