



SORT MARK

RENUMBER, RECALCULATE
ELEMENTS IN DIFFERENT WAYS

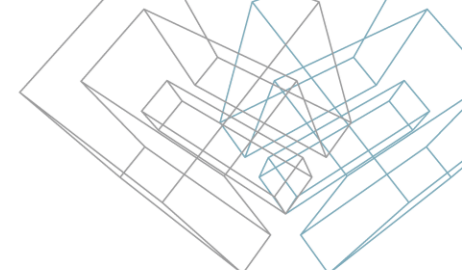


BUILDING BIM TOGETHER | WWW.AGA-CAD.LT

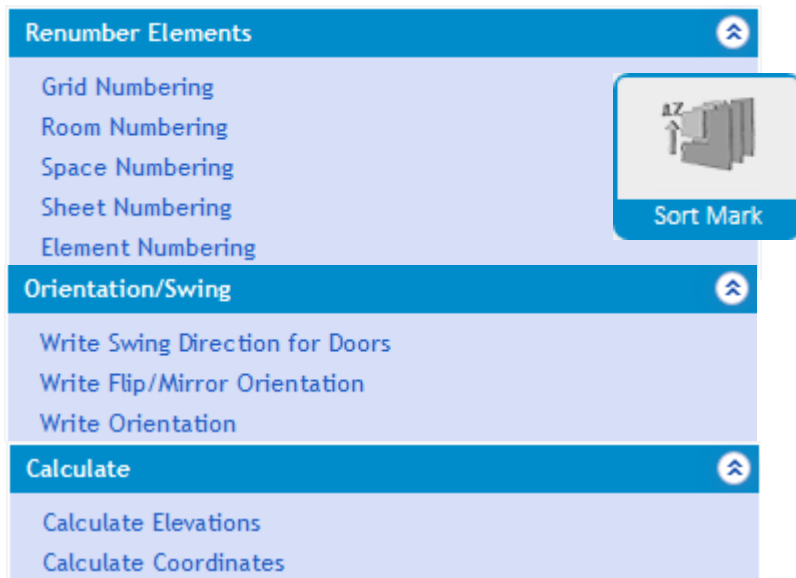


OVERVIEW

Sort Mark



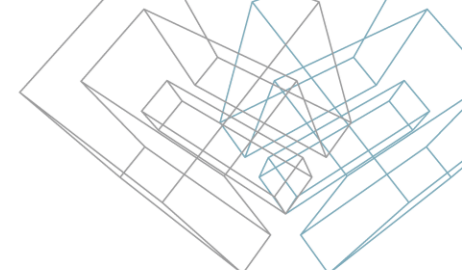
Flexible Element and Grid Renumbering



Sort Mark extension allows users to sort/renumber Revit Elements in various ways and to add additional information to any selected elements.

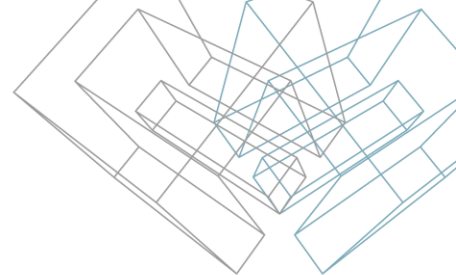
Sort Mark automatically sorts graphical, architectural and structural elements. The tool allows users to save specific localized sort and mark configuration settings for later use in the current or future projects.

Compatible with BIM software Autodesk® Revit®, Autodesk® Revit® Architecture, Revit® Structure, Revit® MEP.



Frequently Asked Questions

- Do I need to rename grids manually?
- How to define the swing direction of doors?
- How to define the orientation of walls, windows, doors?
- How can I renumber or sort elements according to my preferences?
- How to define the shared/project elevation or coordinates of my created elements in the project?



Powerful Features

- **Detects grid geometry** and rennumbers them.
- **Rennumbers grids automatically** after they have been changed in the project.
- Powerful and flexible functions allow users to **renumber any Revit element** (Doors, Windows, Beams, Columns, Pipes, etc.) in a number of different ways.
- **Writes swing direction** of the doors into the door's properties.
- **Writes flip/mirror orientation** for the selected elements.
- **Recalculates shared X, Y, Z coordinates.**
- **Creates new shared parameters** and many more functions.
- Possibility to save numbering settings under separate names.
- Possibility to sort elements in **Ascending/Descending** order.

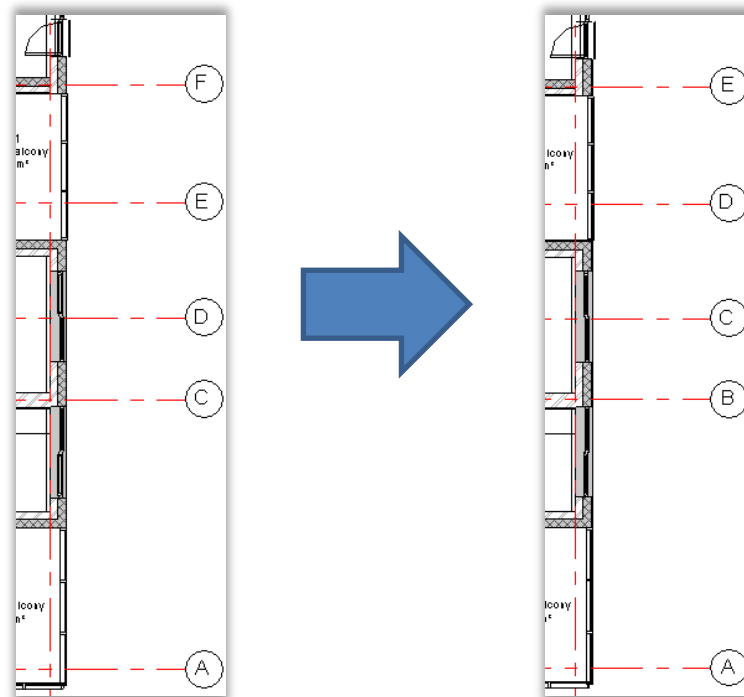
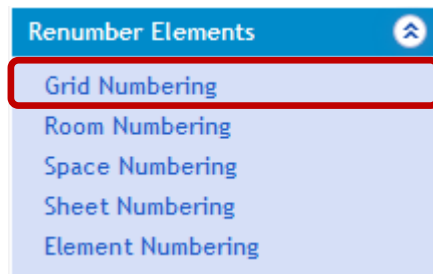


GETTING STARTED

Sort Mark

Grid Numbering

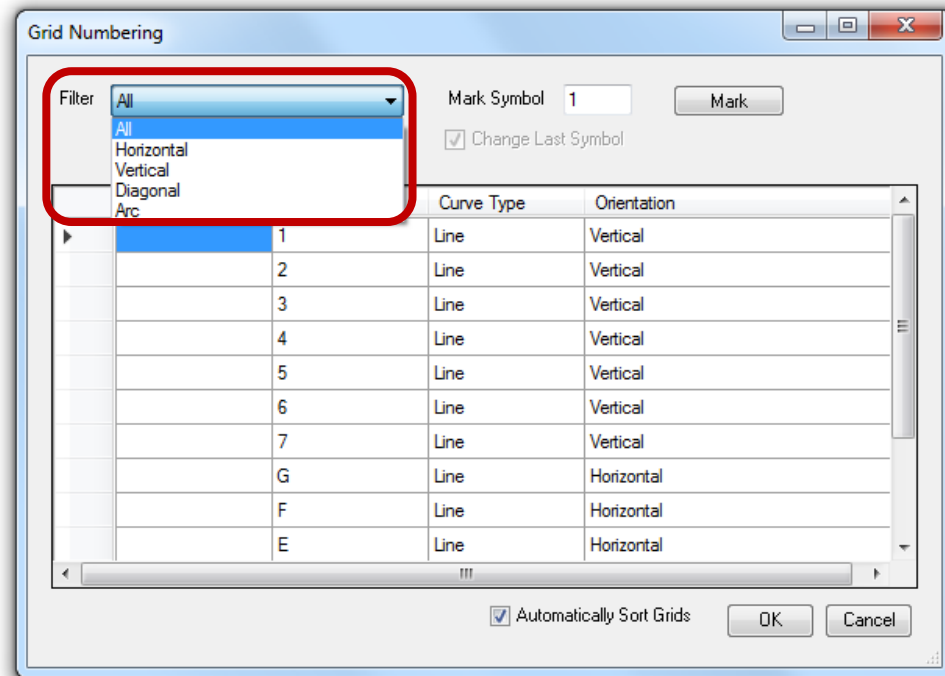
Renames vertical, horizontal, arc, or diagonal grids depending on the settings.



Sort Mark

Grid Numbering

Filter – grids can be filtered by the following parameters:
All, Vertical, Horizontal, Diagonal, or Arc.

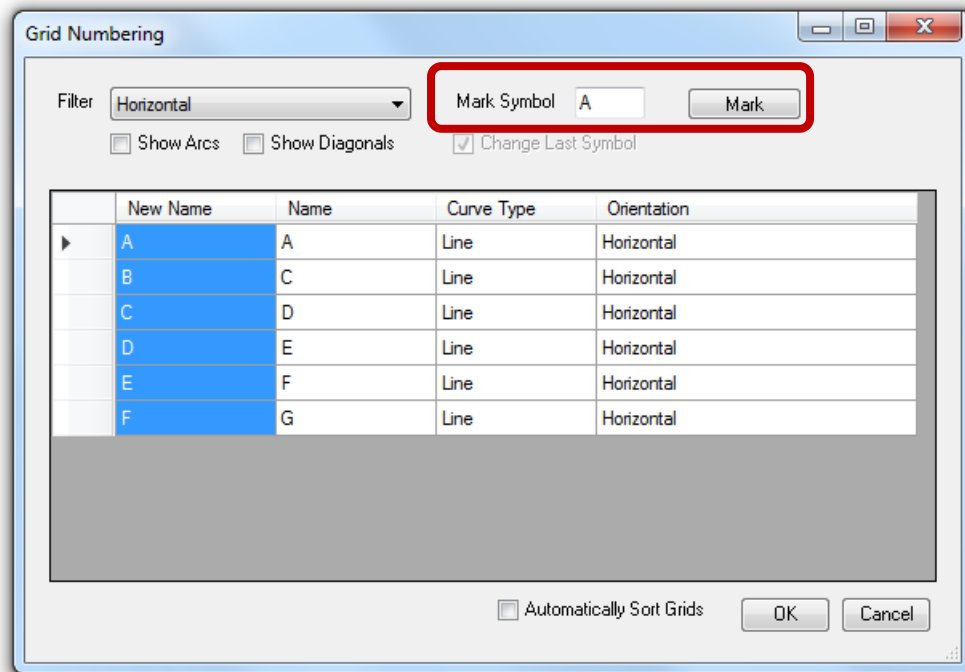


Sort Mark

Grid Numbering

Mark Symbol – the first mark symbol for the active or selected grids below. The names of the grids can be changed manually if needed;

Mark – enters new grid names in “New Name” column.



Sort Mark Grid Numbering

Change Last Symbol – changes last symbol in “New Name” column according to entered “Mark Symbol” value .

For example:

Mark Symbol

☒ Change Last Symbol

Mark Symbol

☐ Change Last Symbol

New Name
AA
AB
AC
AD
AE
AF
AG
AH

New Name
AA
BB
CC
DD
EE
FF
GG
HH

Grid Numbering

Filter

Mark Symbol

Mark

☐ Show Arcs ☐ Show Diagonals ☒ Change Last Symbol

	New Name	Name	Curve Type	Orientation
▶	AA	A	Line	Horizontal
	AB	C	Line	Horizontal
	AC	D	Line	Horizontal
	AD	E	Line	Horizontal
	AE	F	Line	Horizontal
	AF	G	Line	Horizontal

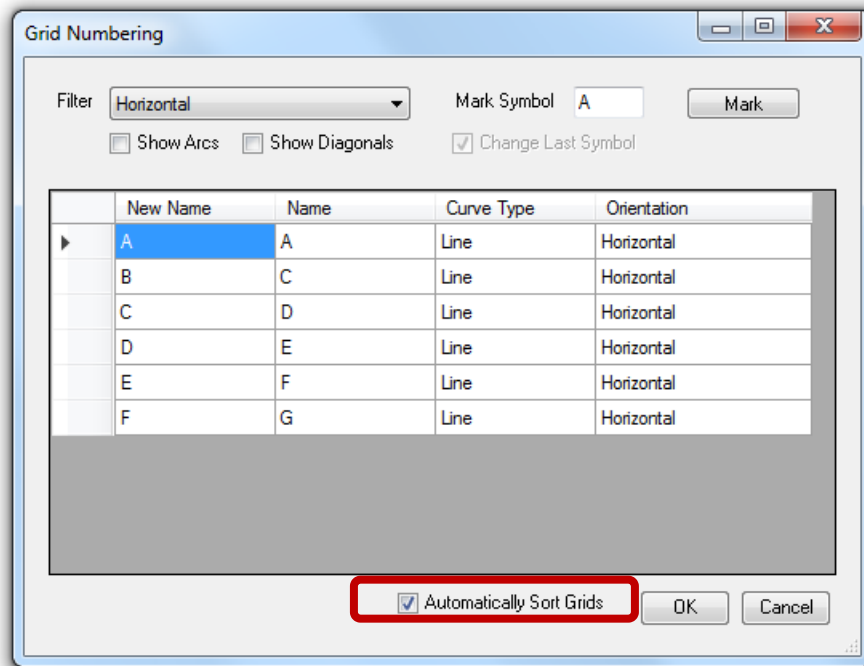
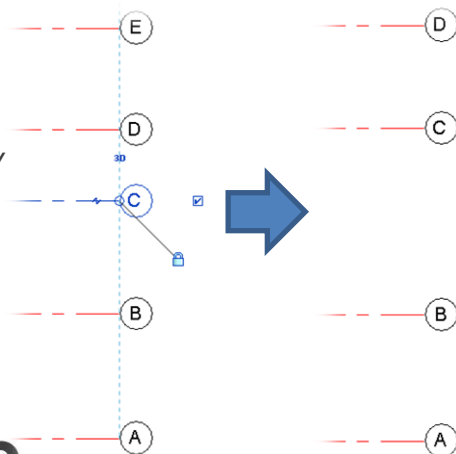
☐ Automatically Sort Grids

OK Cancel

Sort Mark Grid Numbering

Automatically Sort Grids – automatically changes the names of grids when user makes any changes in a project.

For example, user deletes “C” grid from the project – other grids are automatically renamed accordingly:

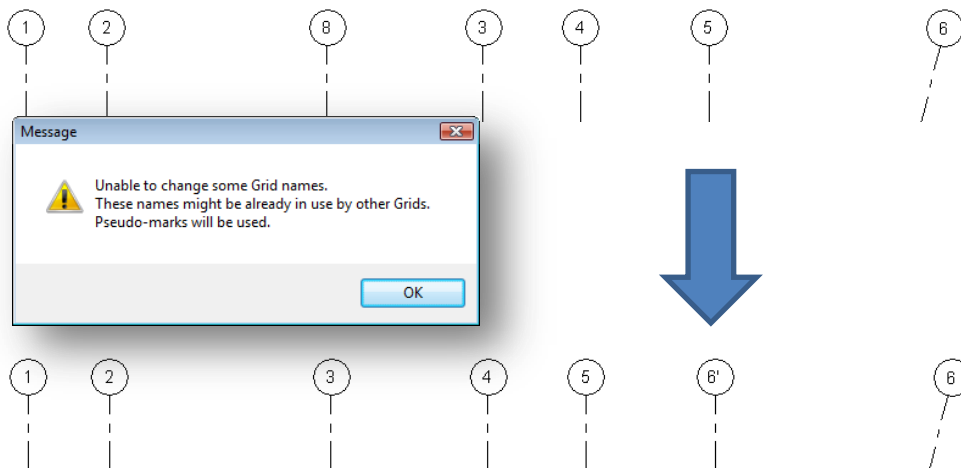
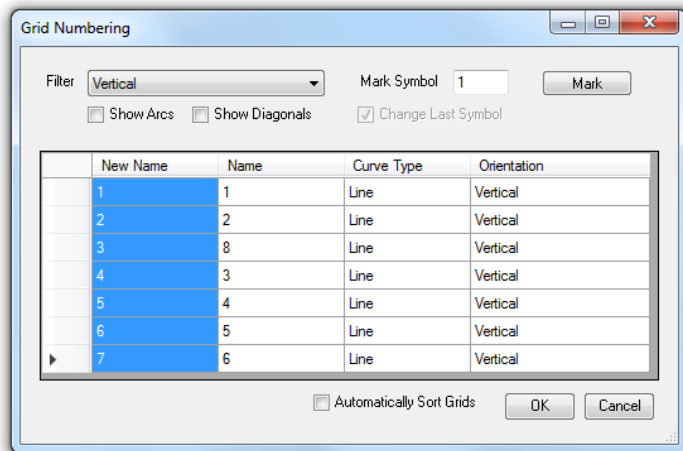


Sort Mark

Grid Numbering

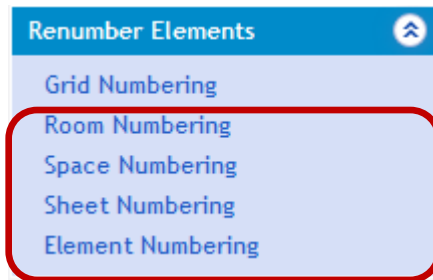
Revit creates pseudo marks for repetitive grids.

For example, grid number 8 has been inserted between grids 2 and 3. After Mark process, all vertical grids are renamed with numbers from 1 to 6. When the user selects OK a warning window pops-up, because a diagonal grid with name 6 already exists. Revit does not allow grid names to be identical, so Sort Mark creates pseudo-marks for the repetitive grid.



Sort Mark

Room, Space, Sheet, Element Numbering



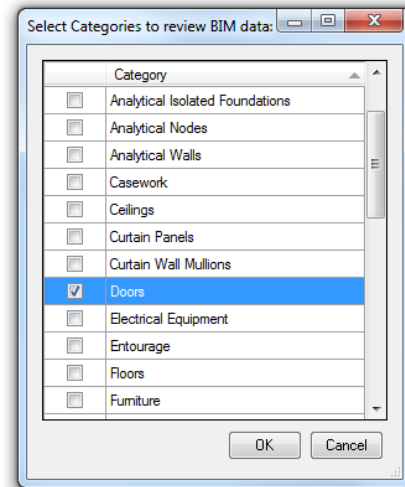
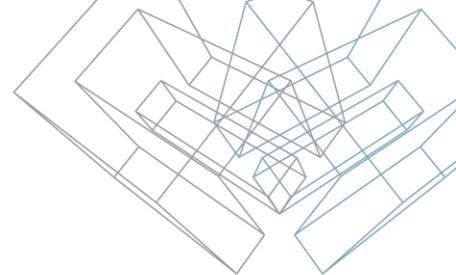
Room Numbering – opens numbering dialog for Room category;

Space Numbering – opens numbering dialog for Space category;

Sheet Numbering – opens numbering dialog for Sheet category;

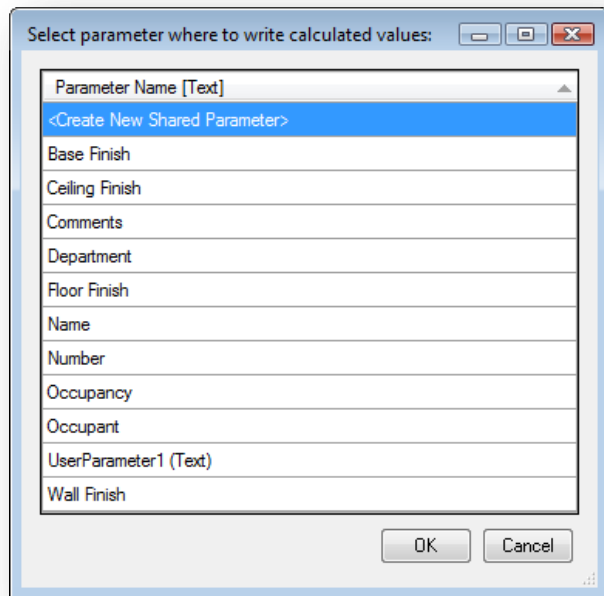
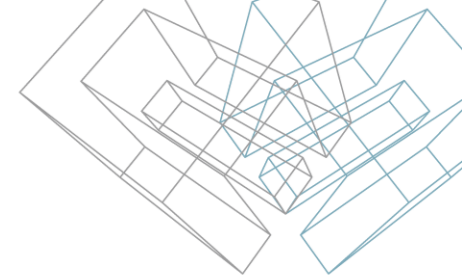
Element Numbering – opens numbering dialog for selected category. The category can be selected in two ways:

- from the model. Select any element from the desired category on the current project;
- from the list. Select any element from a list of available categories based on the current project.



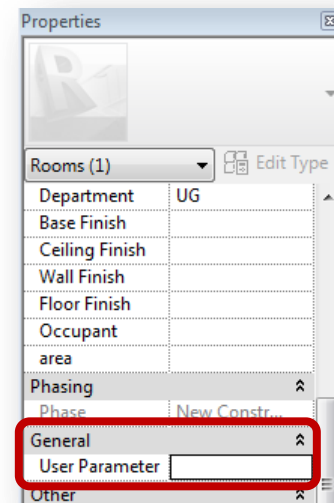
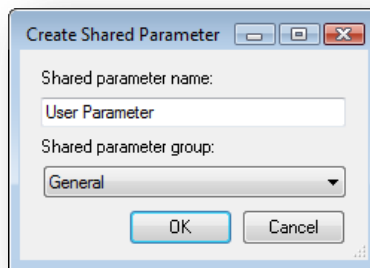
Sort Mark

Sort and Mark Elements



First step – select any text instance parameter where the calculated values will be entered. The tool will show a list of all possible parameters that are created under selected category.

The user can use existing parameters or create new ones. Create New Shared Parameter – creates a new shared parameter as a part of selected category:



Sort Mark

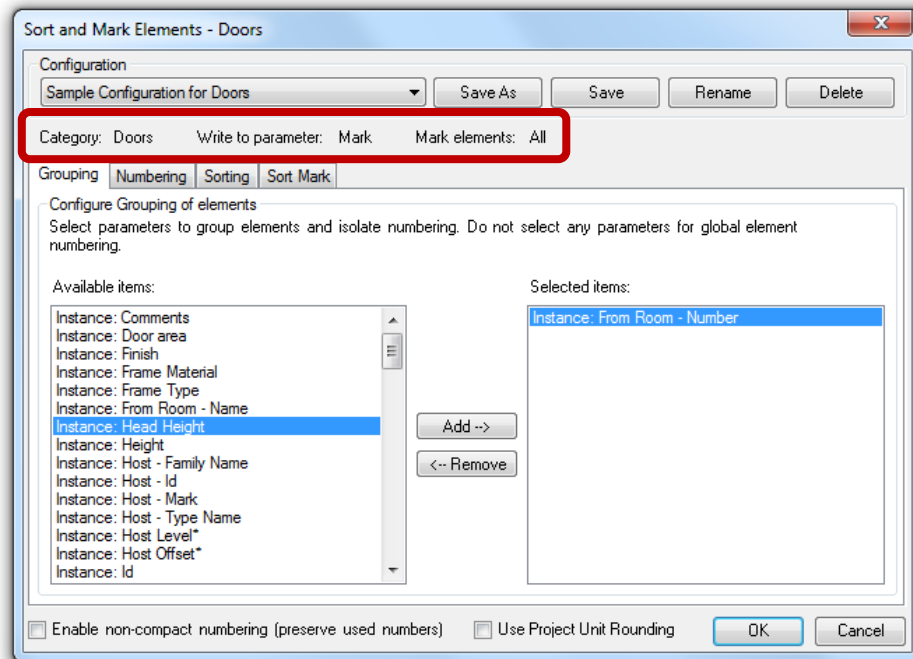
Example with Doors

Sort and Mark Elements

Category – displays the name of a category that will be numbered (Doors);

Write to parameter – displays the name of a parameter that values will be changed with new number values (Mark);

Mark elements – shows the amount of selected elements that will be renumbered. If none or only one element is selected, then all elements will be renumbered (All).



Sort Mark

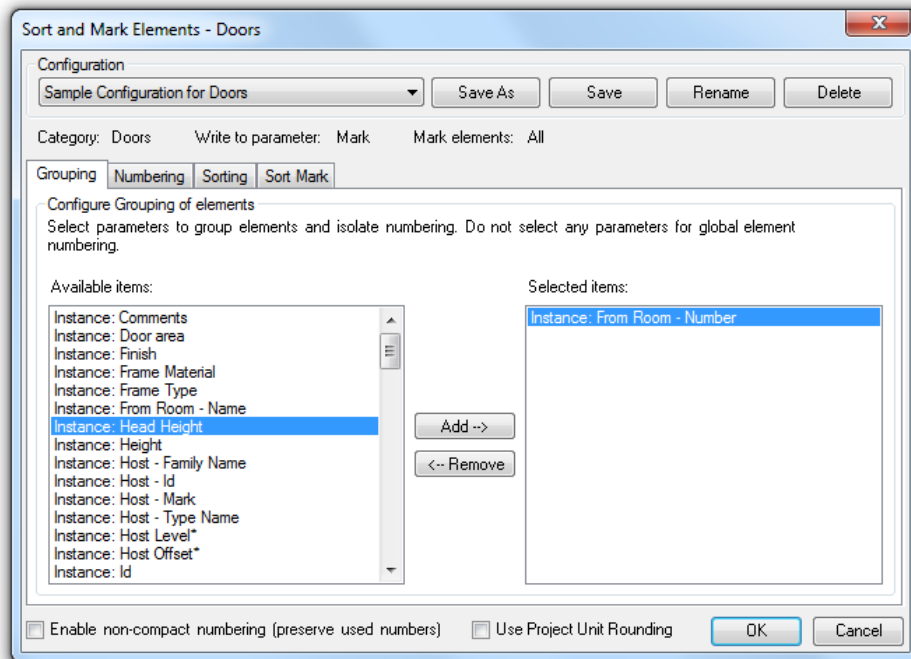
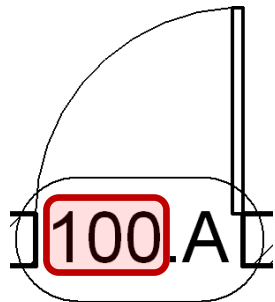
Example with Doors

Sort and Mark Elements – Grouping

Grouping – the user has to select parameters for grouping and isolate the elements for numbering. If none of the parameters are selected, then all elements will be numbered globally.

Task: the door number must consist of the room number (into which the door opens) and the running letter of the door.

In this case, Instance: From Room – Number parameter should be selected to group the doors.



Sort Mark

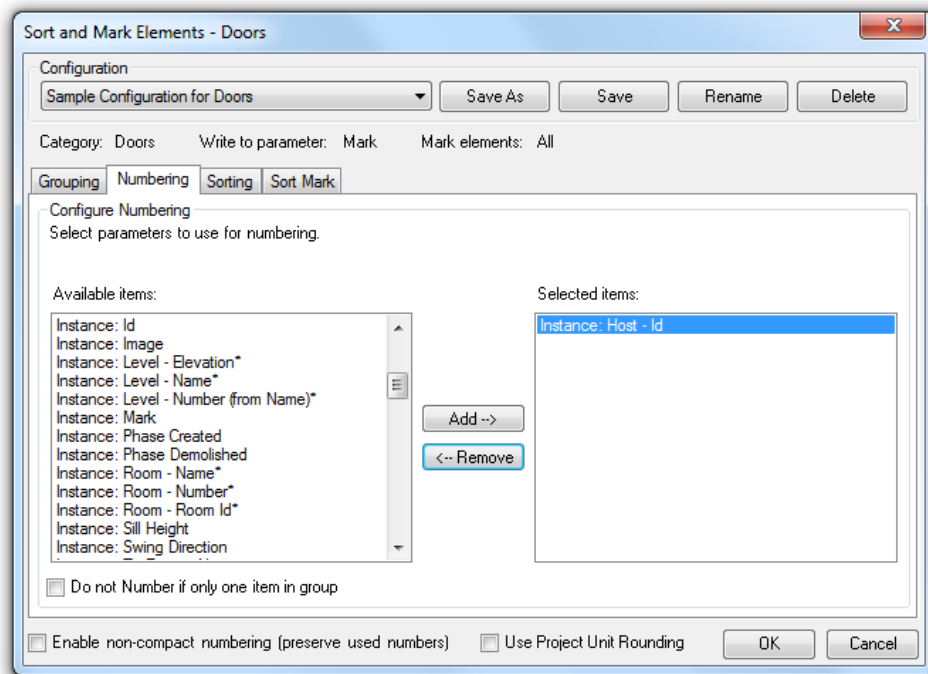
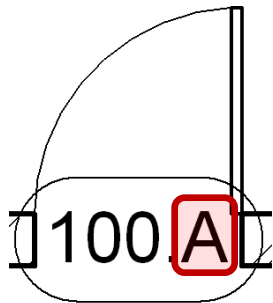
Example with Doors

Sort and Mark Elements – Numbering

Numbering – the user has to select parameters for element numbering.

Task: the door number must consist of the room number (into which the door opens) and the running letter of the door.

In this case, Instance: Host - ID parameter should be selected for numbering.



Sort Mark

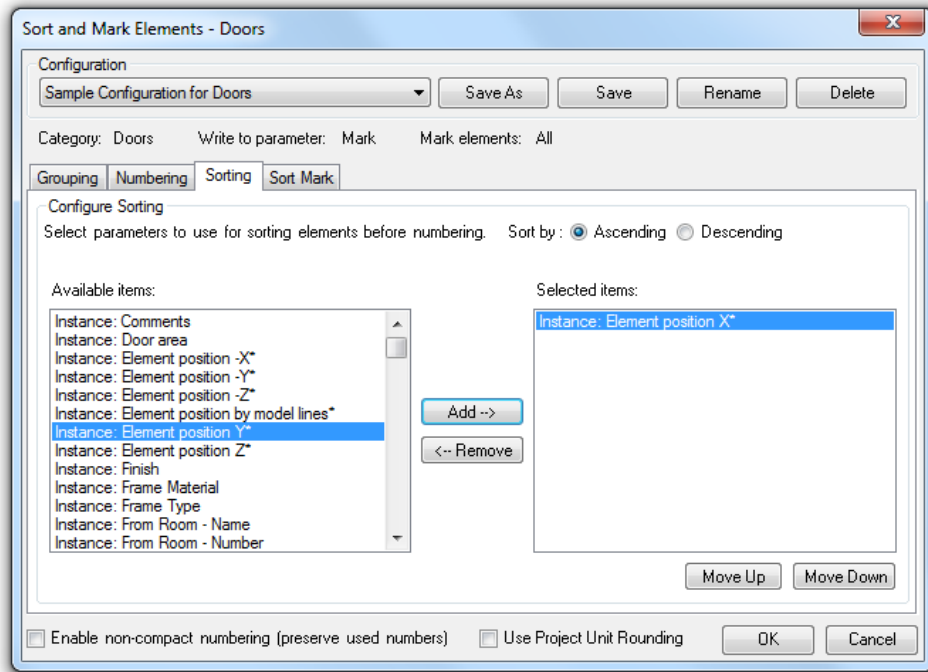
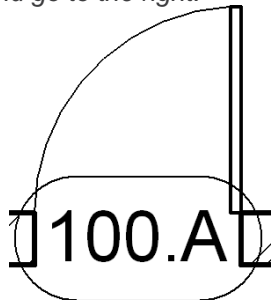
Example with Doors

Sort and Mark Elements – Sorting

Sorting – the user has to select parameters for the sorting order of the elements.

Task: the door number must consist of the room number (into which the door opens) and the running letter of the door.

In this case, Instance: Element position X parameter should be selected if it's required to first set number to those elements that are on the left side and go to the right.



Sort Mark

Example with Doors

Sort and Mark Elements – Sort Mark

Sort Mark – the place where the user has to set values that will be in the new number.

Available parameters – all available parameters from the grouping, numbering and additional “Calculated: Sort Mark Number” parameter where user will find a result.

Task: the door number must consist of the room number (into which the door opens) and the running letter of the door.

In this case Instance: From Room – Number and Calculated: Sort Mark Number should be selected. Instance: From Room – Number value must end with a dot, therefore in the Suffix column a dot should be entered. In this case, Sort Mark numbers must be letters, so checkbox Letters must be ticked.

Sort and Mark Elements - Doors

Configuration

Sample Configuration for Doors

Save As Save Rename Delete

Category: Doors Write to parameter: Mark Mark elements: All

Grouping Numbering Sorting Sort Mark

Configure Sort Mark

Build Sort Mark value.

Available parameters:

- Calculated: Sort Mark Number*
- Instance: Element position X*
- Instance: From Room - Number
- Instance: Host - Id

Mark =

	Parameter Name	Letters	Digits	Start Nr	Prefix	Suffix
1	Instance: From Room - Number	<input type="checkbox"/>	0	1		-
2	Calculated: Sort Mark Number*	<input checked="" type="checkbox"/>	0	1		

Add --> <-- Remove

☐ Show all parameters

Move Up Move Down

☐ Enable non-compact numbering (preserve used numbers) ☐ Use Project Unit Rounding

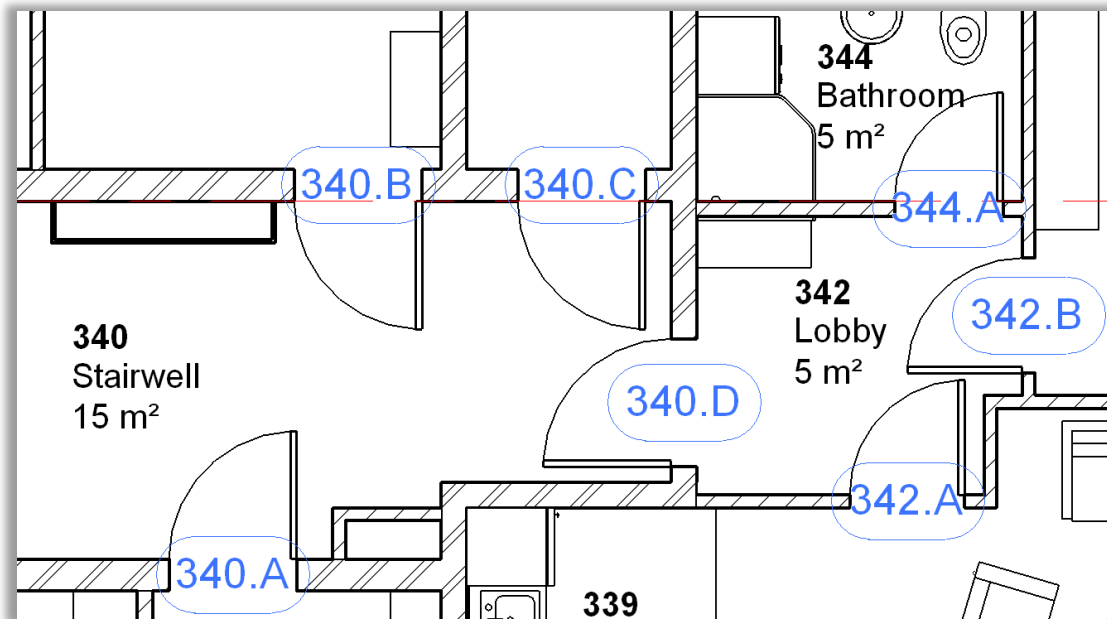
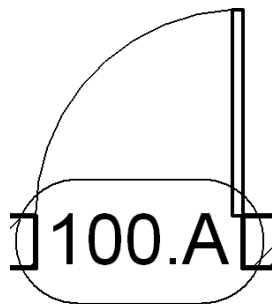
OK Cancel

Sort Mark

Example with Doors

Sort and Mark Elements – Result

Task: the door number must consist of the room number (into which the door opens) and the running letter of the door.

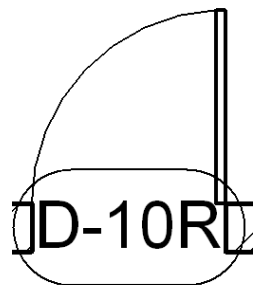


Sort Mark

Sort and Mark Elements

Another Example with Doors

Task: the door must be numbered by type and consist a swing direction value.



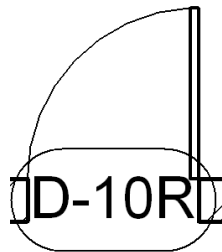
The screenshot shows the 'Sort Mark' dialog box in the AGA-CAD software. The dialog has four tabs: 'Grouping', 'Numbering', 'Sorting', and 'Sort Mark'. The 'Sort Mark' tab is selected. The dialog is divided into two sections: 'Configure Numbering' and 'Configure Sorting'. The 'Configure Numbering' section is active, showing a list of 'Available items' on the left and a list of 'Selected items' on the right. The 'Available items' list includes 'Instance: Comments', 'Instance: Finish', 'Instance: Frame Material', and 'Instance: Frame Type'. The 'Selected items' list includes 'Type: Type Name'. The 'Configure Sorting' section is also visible, showing a list of 'Available items' on the left and a list of 'Selected items' on the right. The 'Available items' list includes 'Instance: Comments', 'Instance: Element position Y', and 'Instance: Element position X'. The 'Selected items' list includes 'Type: Type Name'. The 'Move Up' and 'Move Down' buttons are located at the bottom right of the dialog.

Sort Mark

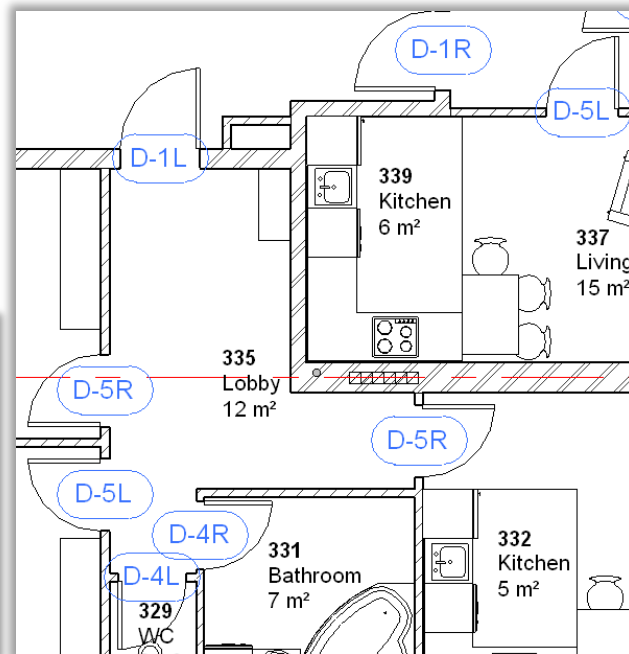
Sort and Mark Elements

Another Example with Doors

Task: the door must be numbered by type and consist a swing direction value.



Result:



Grouping | Numbering | Sorting | Sort Mark

Configure Sort Mark
Build Sort Mark value.

Available parameters:

- Instance: From Room - Number
- Instance: FromRoom
- Instance: Head Height
- Instance: Host - Family Name
- Instance: Host - Id
- Instance: Host - Mark

Add --> <-- Remove

Mark =

	Parameter Name	Letters	Digits	Start Nr	Prefix	Suffix
1	Calculated: Sort Mark Number	<input type="checkbox"/>	0	1	D-	
2	Instance: SwingDirection	<input type="checkbox"/>	0	1		

Move Up Move Down

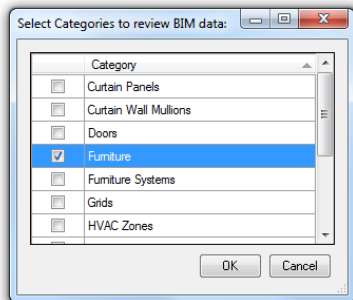
☒ Show all parameters

Sort Mark

Example with Furniture

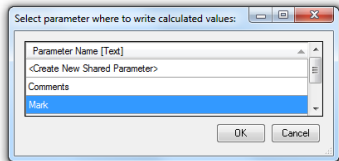
Sort and Mark Elements – Sorting by Model Line

Another available option of sorting the elements is by Model Line. This way of sorting is especially convenient when the elements are aligned by a diagonal direction, as opposed to x or y directions.



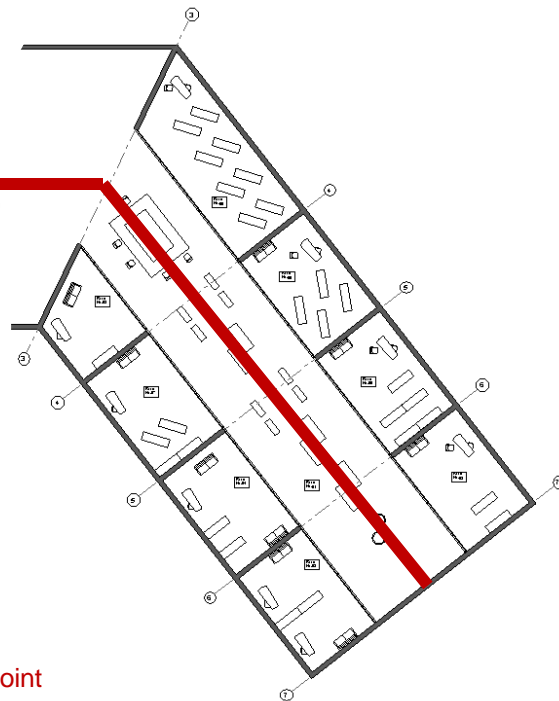
Task: furniture Mark has to consist of a Level Number, Room Number, and its number in the Room.

Before creating the mark, a Model Line that follows a desired future mark direction has to be drawn.



Also, it has to be drawn in a specific order (in this case - from the bottom to the top) in which the elements have to be marked.

3 point
2 point
1 point



Sort Mark

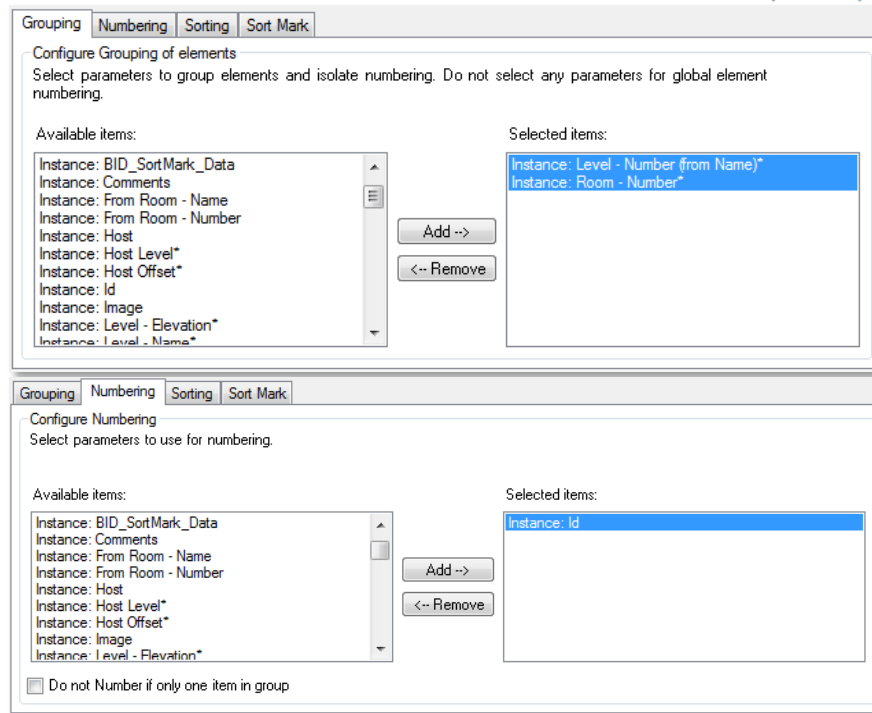
Example with Furniture

Sort and Mark Elements – Sorting by Model Line

Task: furniture Mark has to consist of a Level Number, Room Number, and its number in the Room.

For “Grouping”, Level Number and Room Number have to be selected:

For “Numbering”, Instance: Id has to be selected:



The image displays two screenshots of the AGACAD software interface, specifically the 'Sort Mark' dialog box. The top screenshot shows the 'Grouping' tab, where the 'Configure Grouping of elements' section is active. It lists 'Available items' on the left and 'Selected items' on the right. The 'Selected items' list contains 'Instance: Level - Number (from Name)*' and 'Instance: Room - Number*'. The bottom screenshot shows the 'Numbering' tab, where the 'Configure Numbering' section is active. It lists 'Available items' on the left and 'Selected items' on the right. The 'Selected items' list contains 'Instance: Id'. Both screenshots include 'Add -->' and '<-- Remove' buttons between the lists.

Sort Mark

Example with Furniture

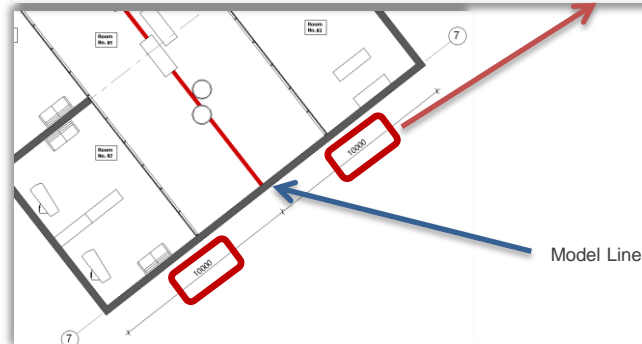
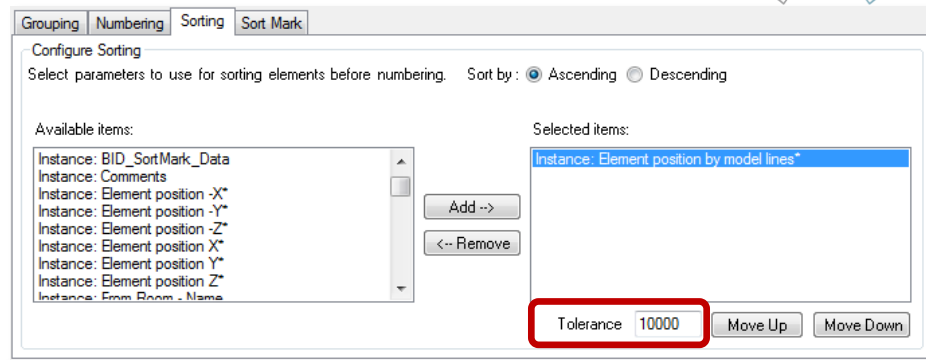
Sort and Mark Elements – Sorting by Model Line

Task: furniture Mark has to consist of a Level Number, Room Number, and its number in the Room.

For “Sorting”, Element position by model lines has to be selected:

In the “Sorting” dialog, an option for “Tolerance” is available. It determines the offset from the drawn Model Line in which the elements will be marked.

In this case, all of the Furniture elements have to be marked by model lines, so 10000 mm is chosen for “Tolerance”.



Sort Mark

Example with Furniture

Sort and Mark Elements – Sorting by Model Line

Task: furniture Mark has to consist of a Level Number, Room Number, and its number in the Room.

For “Sort Mark”, Level Number, Room Number and the Calculated value for the Sort Mark Number have to be selected:

After clicking OK, the drawn Model Line has to be selected. The selection is closed by hitting Escape button on the keyboard.

Sort and Mark Elements - Furniture

Configuration
Sort and Mark_Furniture [Save As] [Save] [Rename] [Delete]

Category: Furniture Write to parameter: Mark Mark elements: All

Grouping [Numbering] [Sorting] Sort Mark

Configure Sort Mark
Build Sort Mark value.

Available parameters:

- Calculated: Sort Mark Number*
- Instance: Element position by model lines*
- Instance: Id
- Instance: Level - Number (from Name)*
- Instance: Room - Number*

Mark =

	Parameter Name	Letters	Digits	Start Nr	Prefix	Suffix
1	Instance: Level - Number (from Name)*	<input type="checkbox"/>	0	1		
2	Instance: Room - Number*	<input type="checkbox"/>	0	1		.
3	Calculated: Sort Mark Number*	<input type="checkbox"/>	0	1		

[Add ->] [-> Remove]

☐ Show all parameters

[Move Up] [Move Down]

☐ Enable non-compact numbering (preserve used numbers) ☐ Use Project Unit Rounding

[OK] [Cancel]

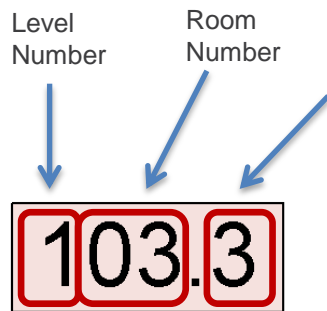
Sort Mark

Sort and Mark Elements – Sorting by Model Line

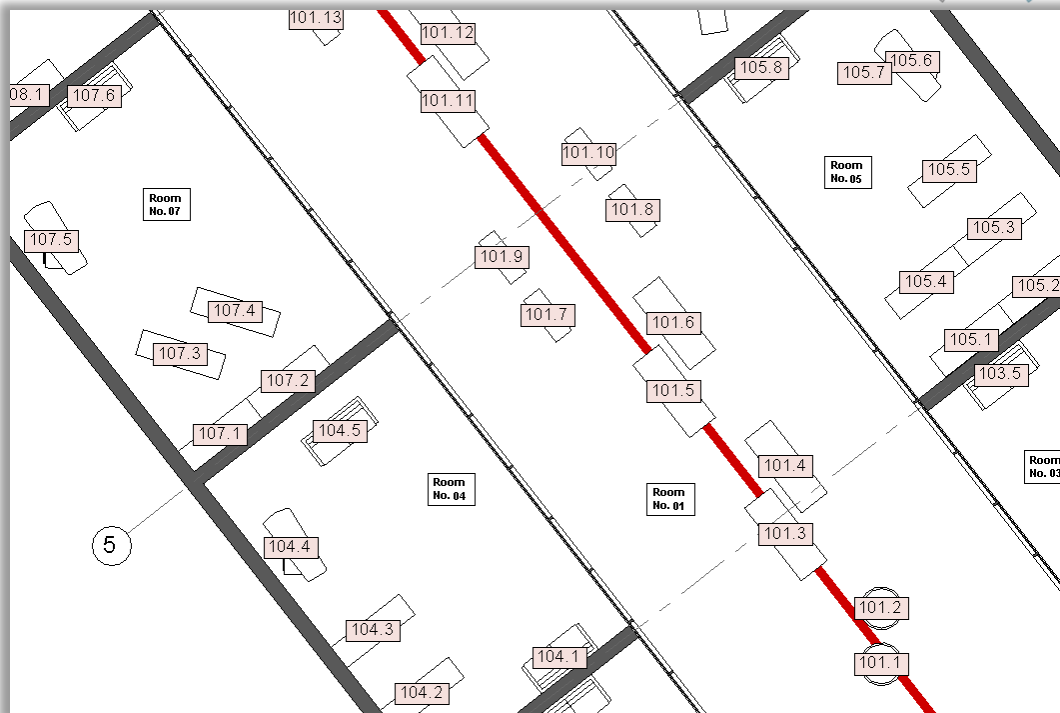
Example with Furniture

Task: furniture Mark has to consist of a Level Number, Room Number, and its number in the Room.

Result:



Furniture Element's Number in the Room, which value depends on the direction of the drawn Model Line.



Sort Mark

Example with Furniture

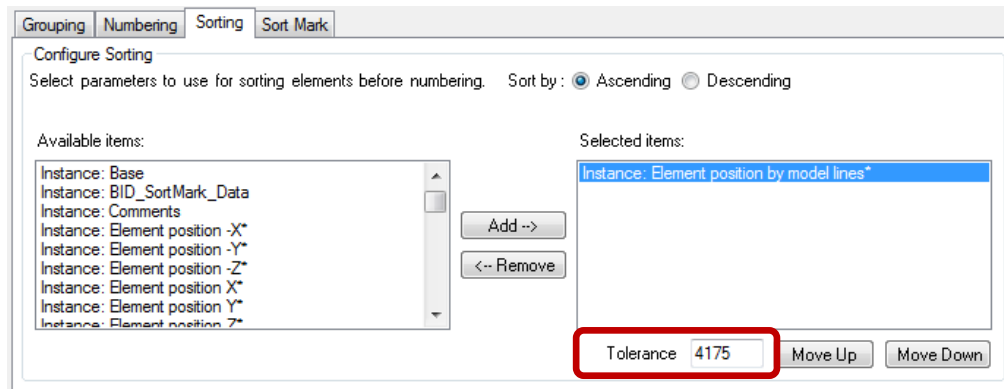
Sort and Mark Elements – Sorting by Model Line

Task: furniture Mark has to consist of a Level Number, Room Number, and its number in the Room.

By changing the value of “Tolerance”, we can sort by Model Line only those elements, that are located in a specific area around the Model Line.



Let's say, the Furniture was already Marked and Sorted by Type and only some of the Mark values need to be sorted by diagonal direction.

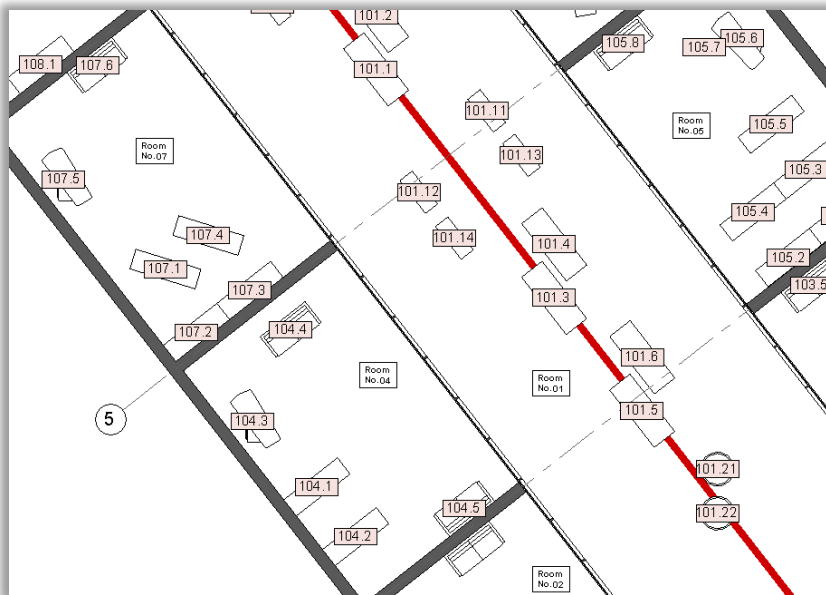


Sort Mark

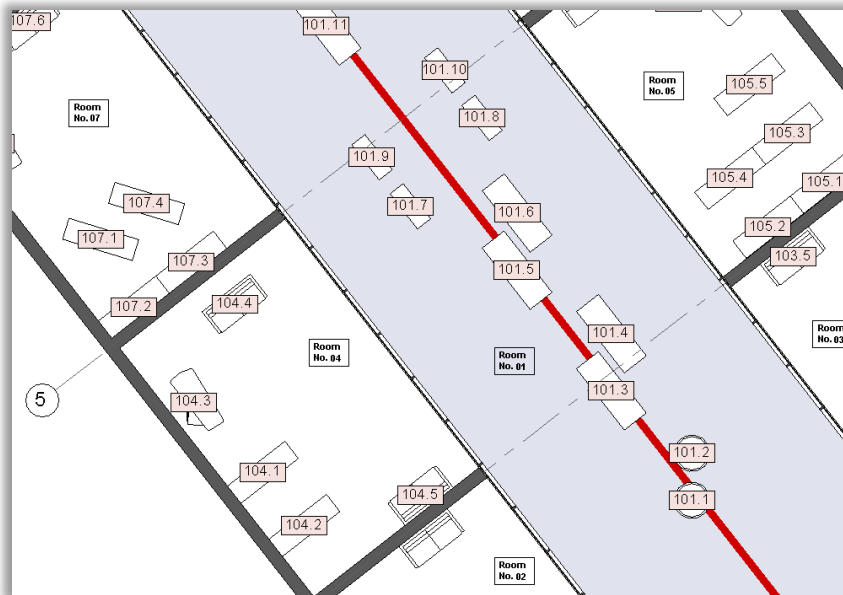
Example with Furniture

Sort and Mark Elements – Sorting by Model Line

Before (All elements are sorted by Type):

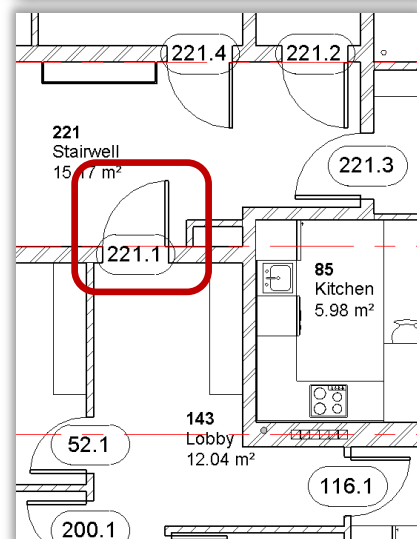


After (Elements that are 4175 mm or less from Model Line (blue background) are sorted by Model Line, others remain the same):



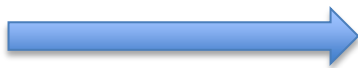
Sort Mark

Enable non-compact numbering

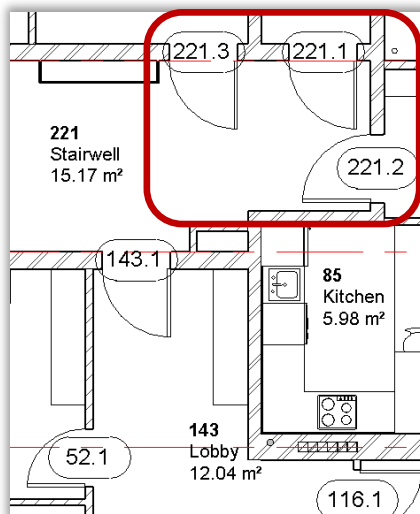


If “Enable non-compact numbering” is not ticked, then all elements in the project will be renumbered after changes have been made.

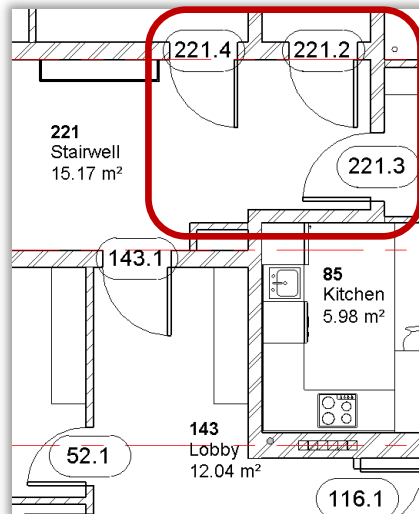
If “Enable non-compact numbering” is ticked, then current numbers will stay the same after changes have been made.



Enable non-compact is not ticked:



Enable non-compact is ticked:



Sort Mark

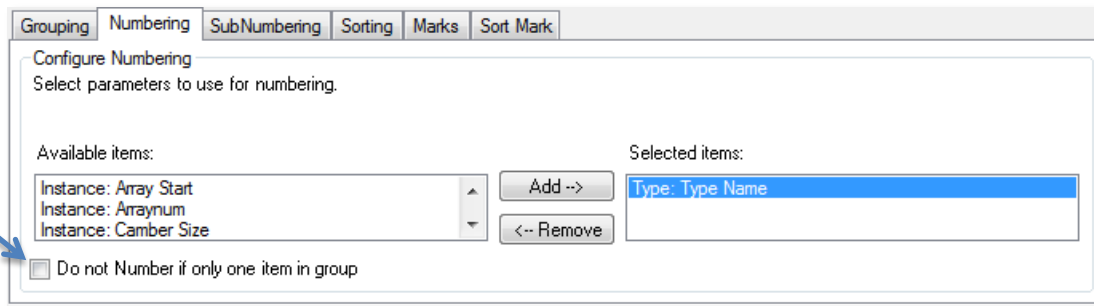
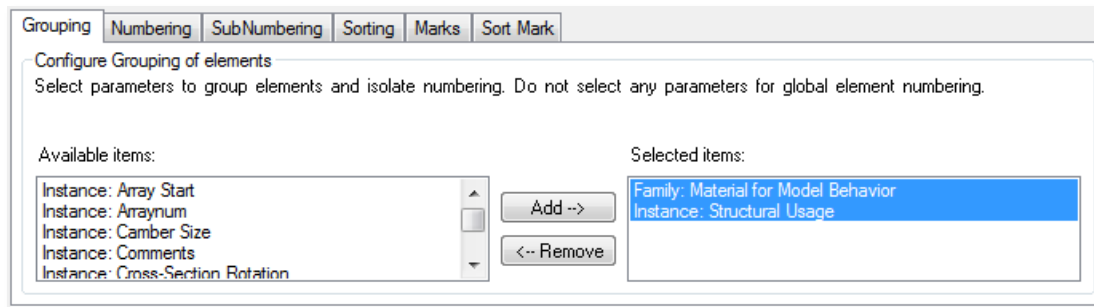
Example with Structural Framing

Sort and Mark Elements

Task: the beam must be numbered by the structural material type, structural usage, type name and sub-numbered by length.

SG4.10

For Numbering and Sub Numbering, “Do not Number if only one item in group” option can be ticked below.



Sort Mark

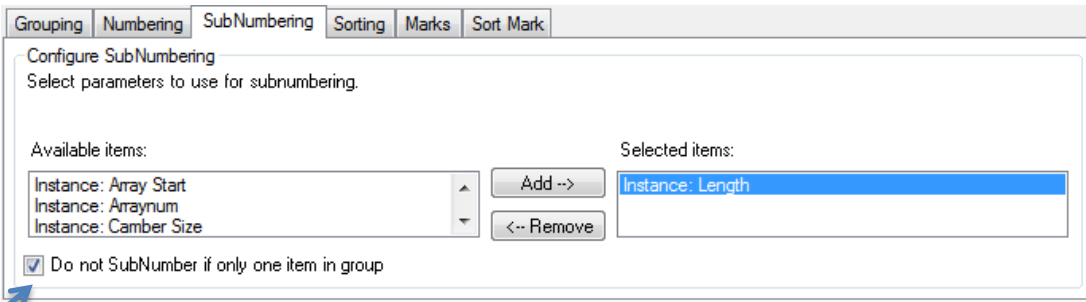
Example with Structural Framing

Sort and Mark Elements

Task: the beam must be numbered by the structural material type, structural usage, type name and sub-numbered by length.

SG4.10

For Numbering and Sub Numbering, “Do not Number if there is only one item in group” option can be ticked below.



Grouping | Numbering | SubNumbering | Sorting | Marks | Sort Mark

Configure SubNumbering
Select parameters to use for subnumbering.

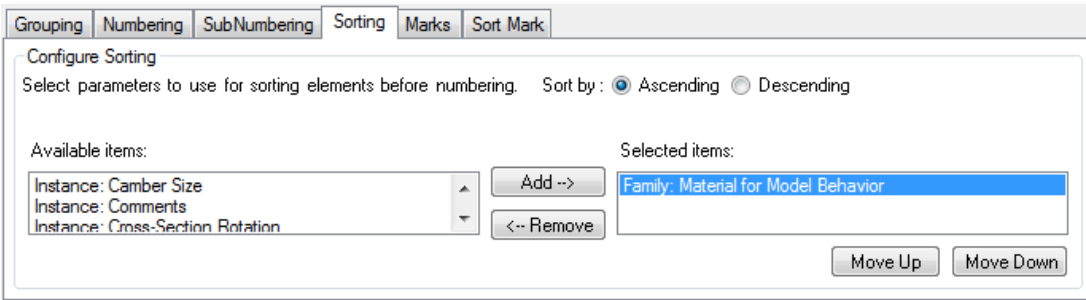
Available items:

- Instance: Array Start
- Instance: Arraynum
- Instance: Camber Size

Selected items:

- Instance: Length

☒ Do not SubNumber if only one item in group



Grouping | Numbering | SubNumbering | Sorting | Marks | Sort Mark

Configure Sorting
Select parameters to use for sorting elements before numbering. Sort by: ☒ Ascending ☐ Descending

Available items:

- Instance: Camber Size
- Instance: Comments
- Instance: Cross-Section Rotation

Selected items:

- Family: Material for Model Behavior

Move Up Move Down

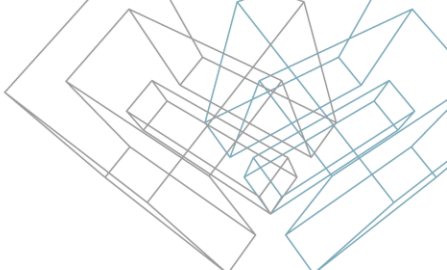
Sort Mark

Example with Structural Framing

Sort and Mark Elements

Task: the beam must be numbered by the structural material type, structural usage, type name and sub-numbered by length.

SG4.10



Grouping | Numbering | SubNumbering | Sorting | Marks | Sort Mark

Configure Marks
Fill marks to be used for configurable parameters.

Parameters:

Family: Material for Model Behavior
Instance: Structural Usage

Marks:

Value	Mark
Steel	S
Concrete	C
Wood	W
Precast Concrete	PC
Other	O

Grouping | Numbering | SubNumbering | Sorting | Marks | Sort Mark

Configure Sort Mark
Build Sort Mark value.

Available parameters:

Calculated: Sort Mark Number*
Calculated: Sort Mark SubNumber*
Family: Material for Model Behavior
Instance: Length
Instance: Structural Usage
Instance: Structural Usage
Type: Type Name

Add -->
<-- Remove

Mark =

	Parameter Name	Letters	Digits	Start Nr	Prefix	Suffix
1	Family: Material fo ...	<input type="checkbox"/>	0	1		
2	Instance: Structur...	<input type="checkbox"/>	0	1		
3	Calculated: Sort ...	<input type="checkbox"/>	0	1		
4	Calculated: Sort ...	<input type="checkbox"/>	0	1	.	

☐ Show all parameters

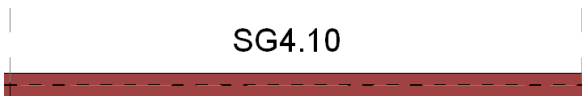
Move Up | Move Down

Sort Mark

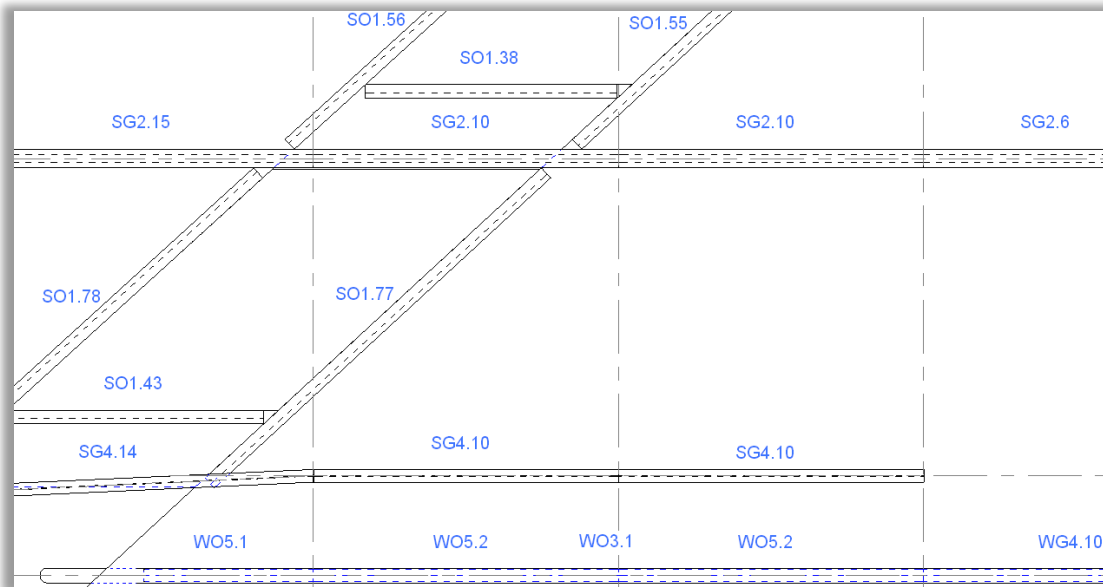
Example with Structural Framing

Sort and Mark Elements

Task: the beam must be numbered by the structural material type, structural usage, type name and sub-numbered by length.



Result:



Sort Mark

Example with Structural Framing

Use Project Unit Rounding

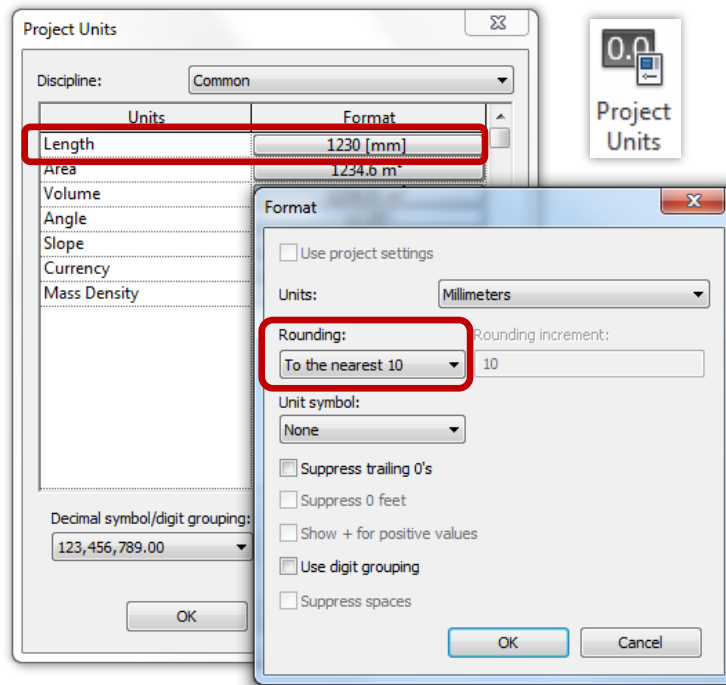


If “Use Project Unit Rounding” is not ticked, then parameter values in the element’s Mark, that can be controlled in “Project Units” dialog, will not use any rounding.

If “Use Project Unit Rounding” is ticked, then parameter values in the element’s Mark, that can be controlled in “Project Units” dialog, will use the same rounding as set in the “Project Units” → “Format” dialog.

Task: a mark for beams, that numbers them by Type Name and Length parameters , needs to be created.

In the “Project Units” → “Format” dialog, “To the nearest 10” has been selected for “Rounding”.



Sort Mark

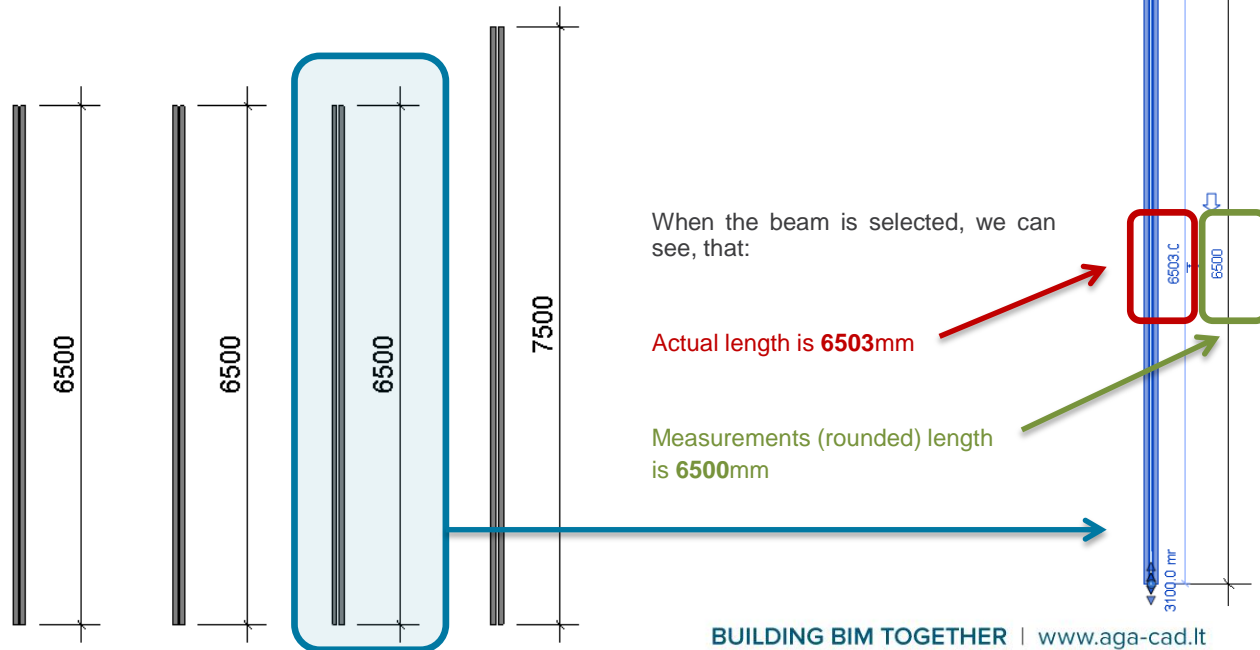
Example with Structural Framing

Use Project Unit Rounding

Task: a mark for beams, that numbers them by Type Name and Length parameters, needs to be created.

Three of the created beams are of 6500mm in length, and one of them is 7500mm in length.

However, one of the three beams is actually of 6503mm in length, but the measurement shows 6500mm, because in the “Project Units” → “Format” dialog, “To the nearest 10” has been selected for “Rounding”.



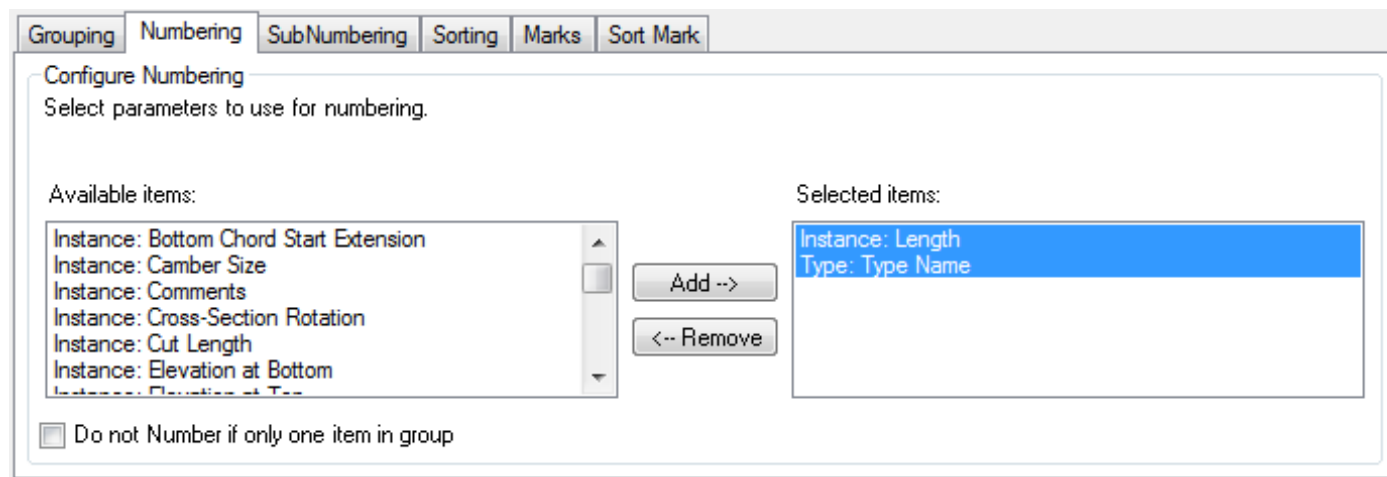
Sort Mark

Example with Structural Framing

Use Project Unit Rounding

Task: a mark for beams, that numbers them by Type Name and Length parameters, needs to be created.

The beams will be numbered by Length and Type Name parameters:



The screenshot shows the 'Sort Mark' dialog box with the 'Numbering' tab selected. The dialog has a title bar with tabs: Grouping, Numbering, SubNumbering, Sorting, Marks, and Sort Mark. The 'Numbering' tab is active, showing a 'Configure Numbering' section with the instruction 'Select parameters to use for numbering.' Below this, there are two list boxes: 'Available items:' on the left and 'Selected items:' on the right. The 'Available items' list contains: Instance: Bottom Chord Start Extension, Instance: Camber Size, Instance: Comments, Instance: Cross-Section Rotation, Instance: Cut Length, Instance: Elevation at Bottom, and Instance: Elevation at Top. The 'Selected items' list contains: Instance: Length and Type: Type Name. Between the lists are two buttons: 'Add -->' and '<-- Remove'. At the bottom of the dialog, there is a checkbox labeled 'Do not Number if only one item in group' which is currently unchecked.

Grouping Numbering SubNumbering Sorting Marks Sort Mark

Configure Numbering
Select parameters to use for numbering.

Available items:

- Instance: Bottom Chord Start Extension
- Instance: Camber Size
- Instance: Comments
- Instance: Cross-Section Rotation
- Instance: Cut Length
- Instance: Elevation at Bottom
- Instance: Elevation at Top

Selected items:

- Instance: Length
- Type: Type Name

Add -->

<-- Remove

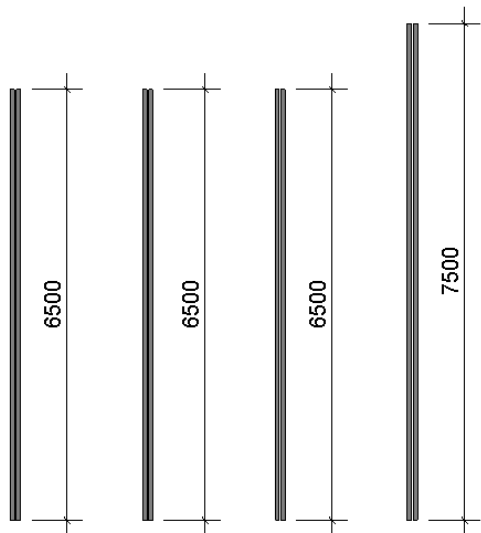
☐ Do not Number if only one item in group

Sort Mark

Example with Structural Framing

Use Project Unit Rounding

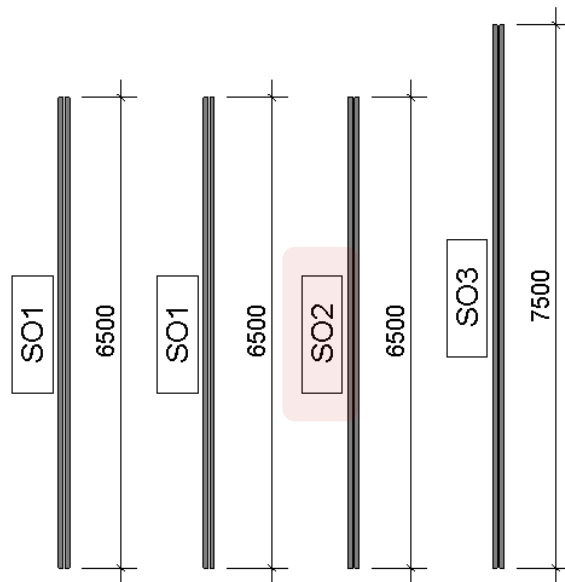
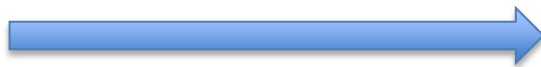
Task: a mark for beams, that numbers them by Type Name and Length parameters, needs to be created.



“Use Project Unit Rounding” is not ticked so the parameter values in the elements do not use any rounding.

As a result, a separate Sort Mark Number – SO2 has been created for the third beam.

☐ Use Project Unit Rounding

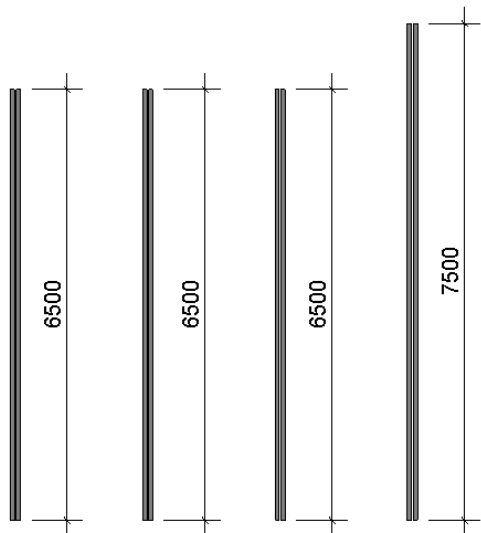


Sort Mark

Example with Structural Framing

Use Project Unit Rounding

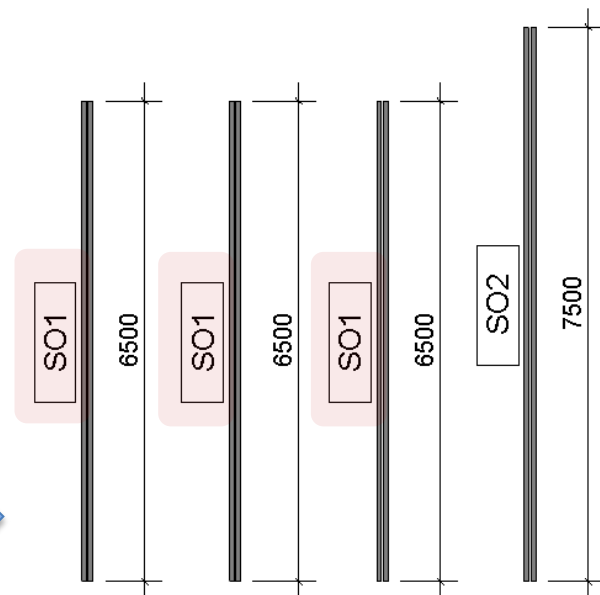
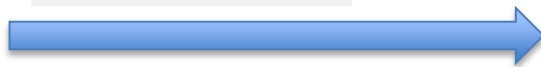
Task: a mark for beams, that numbers them by Type Name and Length parameters, needs to be created.



“Use Project Unit Rounding” is ticked so the parameter values in the elements Mark use the “Rounding” that was set in “Project Units” → “Format” dialog - “To the nearest 10”.

As a result, a single Sort Mark Number – SO1 has been created for all three beams, that share a rounded length of 6500 mm.

☒ Use Project Unit Rounding



Sort Mark

Example with Rooms

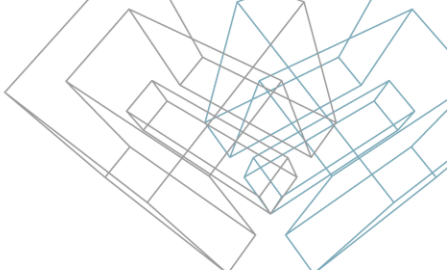
Sort and Mark Elements

351

Living Room

13 m²

Task: room number should consist of three digits: first one should represent level number, the other two – a unique number of a room.



Grouping | Numbering | Sorting | Sort Mark

Configure Grouping of elements
Select parameters to group elements and isolate numbering. Do not select any parameters for global element numbering.

Available items:

- Instance: Base Finish
- Instance: Base Offset
- Instance: Ceiling Finish
- Instance: Comments
- Instance: Computation Height
- Instance: Department

Add -->

-- Remove

Selected items:

- Instance: Level - Number (from Name)*

Grouping | Numbering | Sorting | Sort Mark

Configure Numbering
Select parameters to use for numbering.

Available items:

- Instance: Base Finish
- Instance: Base Offset
- Instance: Ceiling Finish
- Instance: Comments

Add -->

-- Remove

☐ Do not Number if only one item in group

Selected items:

- Instance: Id

Sort Mark

Example with Rooms

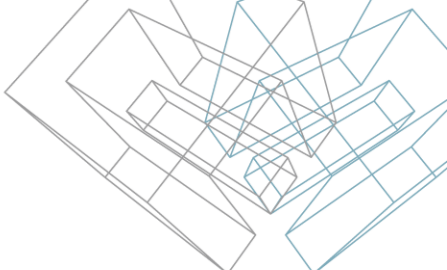
Sort and Mark Elements

351

Living Room

13 m²

Task: room number should consist of three digits: first one should represent level number, the other two – a unique number of a room.



Grouping | Numbering | Sorting | Sort Mark

Configure Sorting

Select parameters to use for sorting elements before numbering. Sort by: ☒ Ascending ☐ Descending

Available items:

- Instance: Element position -X*
- Instance: Element position -Y*
- Instance: Element position -Z*
- Instance: Element position by model lines*

Selected items:

- Instance: Element position Y*

Buttons: Add -->, <-- Remove, Move Up, Move Down

Grouping | Numbering | Sorting | Sort Mark

Configure Sort Mark

Build Sort Mark value.

Available parameters:

- Calculated: Sort Mark Number*
- Instance: Element position Y*
- Instance: Id
- Instance: Level - Number (from Name)*

Buttons: Add -->, <-- Remove

Number =

	Parameter Name	Letters	Digits	Start Nr	Prefix	Suffix
1	Instance: Level - Numbe...	<input type="checkbox"/>	0	1		
2	Calculated: Sort Mark N...	<input type="checkbox"/>	2	1		

☐ Show all parameters

Buttons: Move Up, Move Down

Sort Mark

Example with Rooms

Sort and Mark Elements

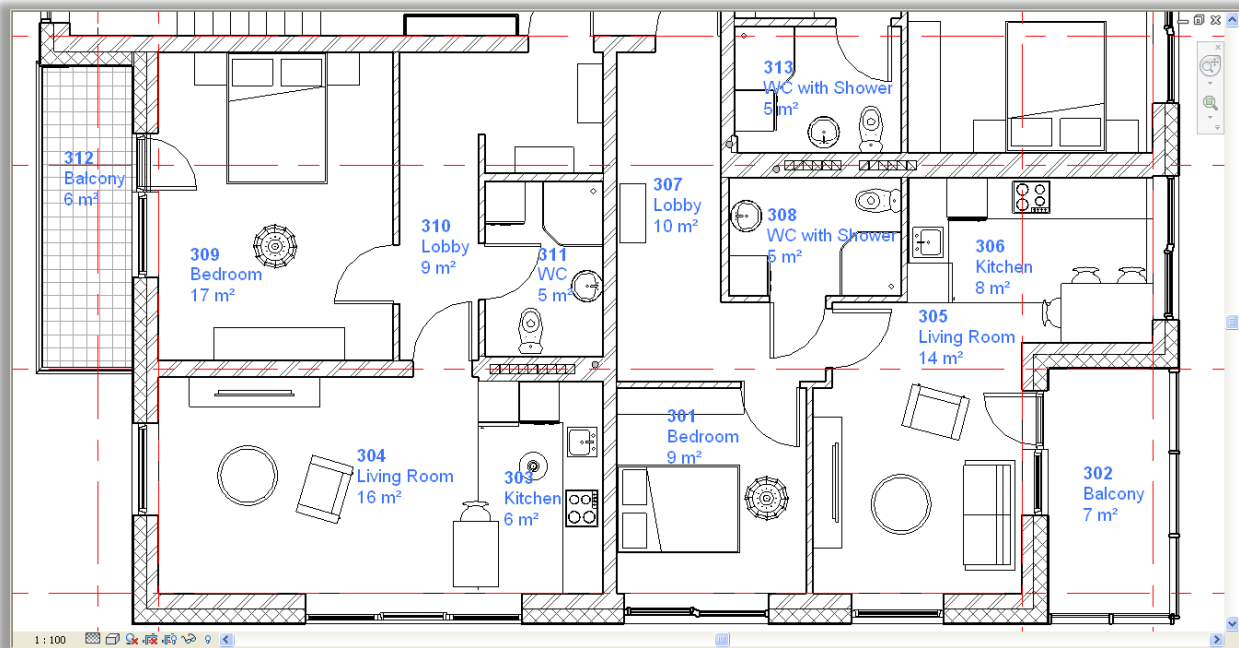
351

Living Room

13 m²

Result:

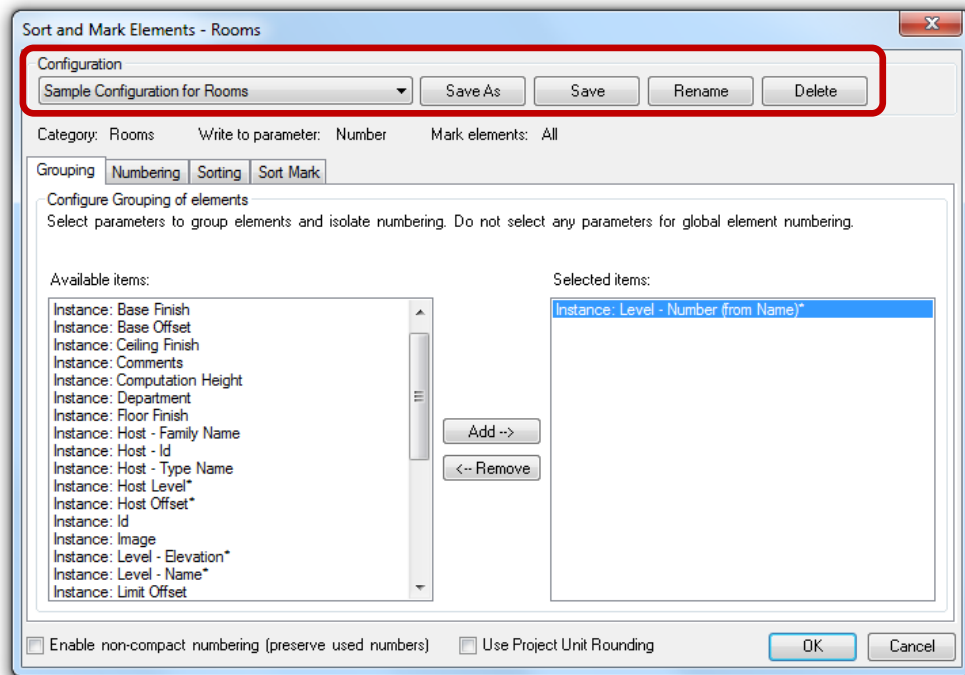
Task: room number should consist of three digits: first one should represent level number, the other two – a unique number of a room.



Sort Mark Configuration

Configuration – all settings can be saved under a separate name.

Sample configurations will be automatically loaded into the categories, like Doors, Windows, Rooms, Spaces, Ducts, Pipes, Structural Columns, Structural Frames, and Sheets.

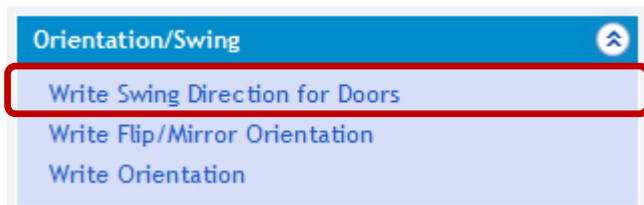


Sort Mark

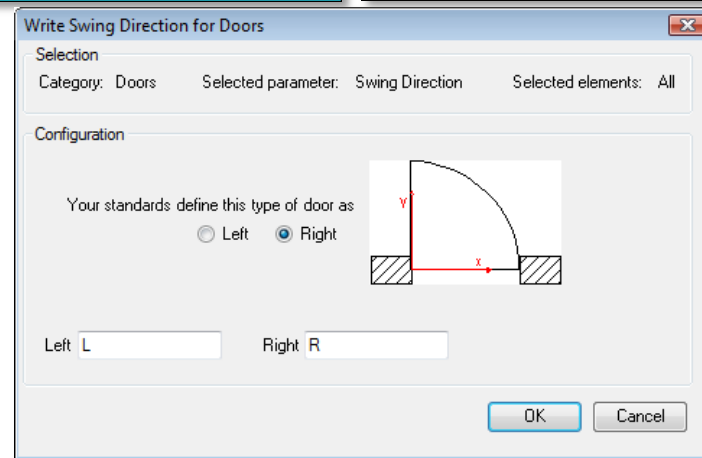
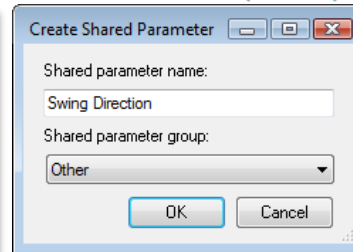
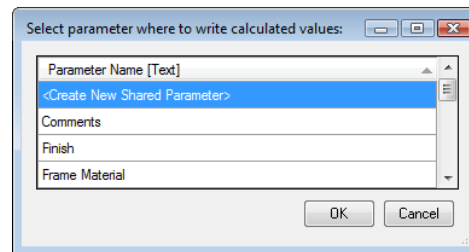
Write Swing Direction for Doors



Writes door swing direction to the user created or selected instance text parameter.

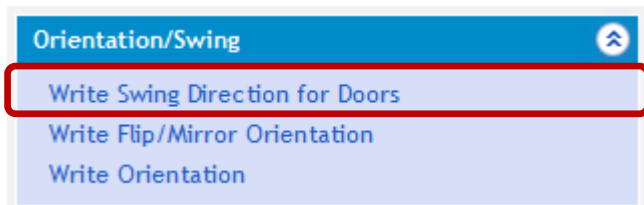


A standard door type according to the picture has to be defined in the configuration form.

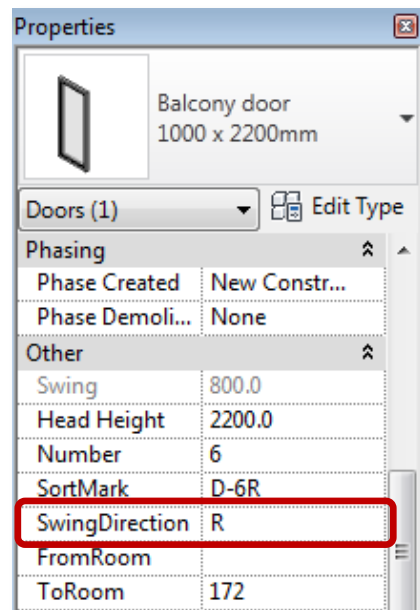


Sort Mark

Write Swing Direction for Doors



Result:



Newly created parameter is shared, so it can be used in tags or schedules:

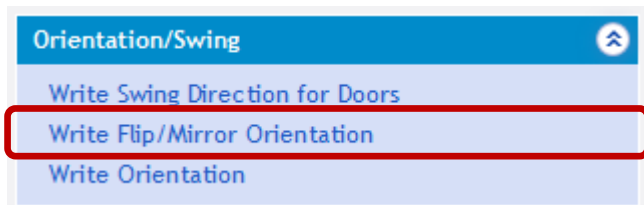
Door Schedule			
Level	Family	Type	Swing Direction
1 Level	Simple1	900 x 2100mm	L
1 Level	Simple1	900 x 2100mm	L
1 Level	Simple1	850 x 2100mm	L
1 Level	Simple1	850 x 2100mm	L
1 Level	Single	1000 x 2100mm	L
1 Level	Simple1	900 x 2100mm	L
1 Level	Single	1000 x 2100mm	R
1 Level	Single	1000 x 2100mm	R
1 Level	Simple1	900 x 2100mm	L
1 Level	Simple1	900 x 2100mm	R
1 Level	Simple1	900 x 2100mm	R
1 Level	Simple1	900 x 2100mm	L
1 Level	Simple1	900 x 2100mm	L
1 Level	Simple1	850 x 2100mm	L
1 Level	Simple1	850 x 2100mm	R
2 test	Simple1	900 x 2100mm	L
2 test	Single	1000 x 2100mm	L
2 test	Simple1	900 x 2100mm	R

Sort Mark

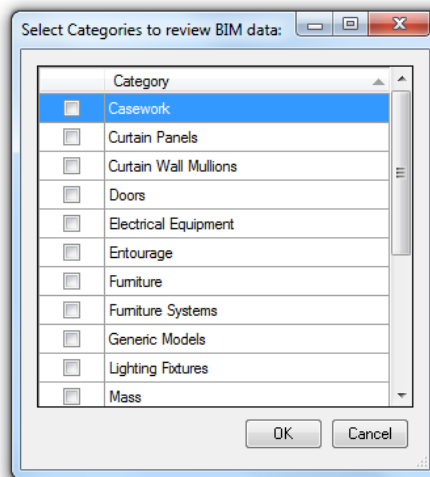
Write Flip/Mirror Orientation



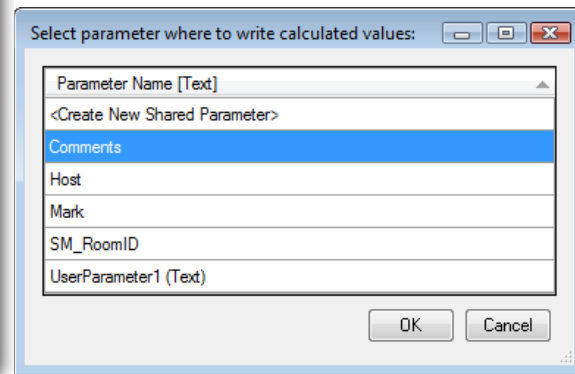
Writes flip/mirror orientation of selected element to selected user created or existing instance text parameter.



Firstly, a category has to be selected:

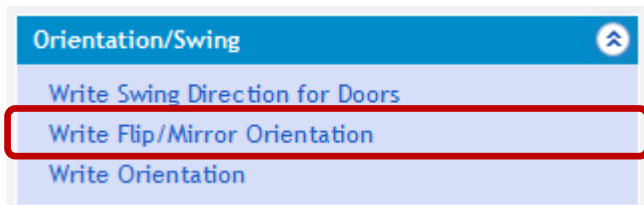


Secondly, a parameter that represents orientation value has to be selected or created:

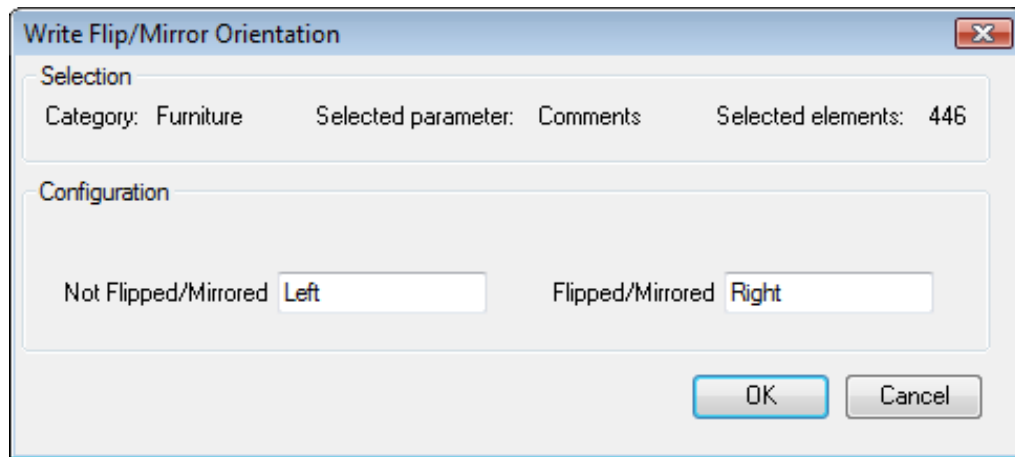


Sort Mark

Write Flip/Mirror Orientation



The values for not flipped/mirrored and for flipped/mirrored elements are defined in the configuration form:



Write Flip/Mirror Orientation

Selection

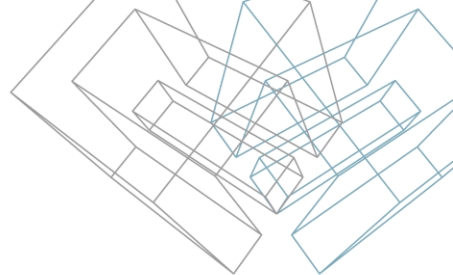
Category: Furniture Selected parameter: Comments Selected elements: 446

Configuration

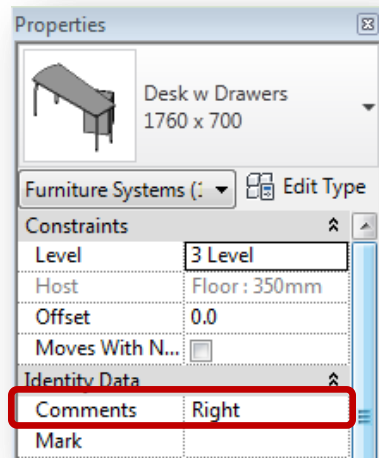
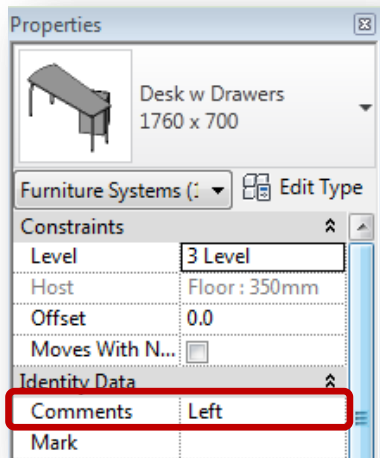
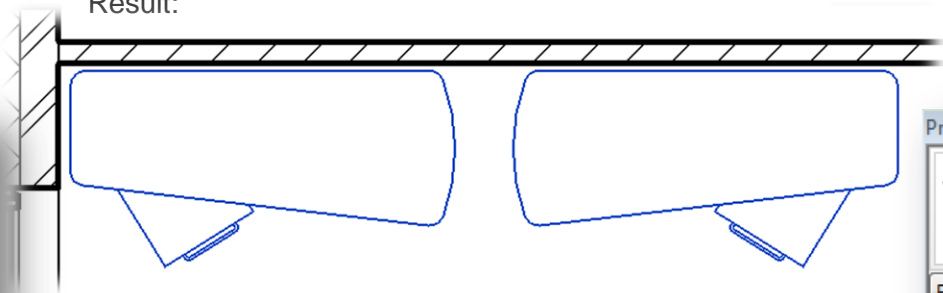
Not Flipped/Mirrored Flipped/Mirrored

Sort Mark

Write Flip/Mirror Orientation



Result:

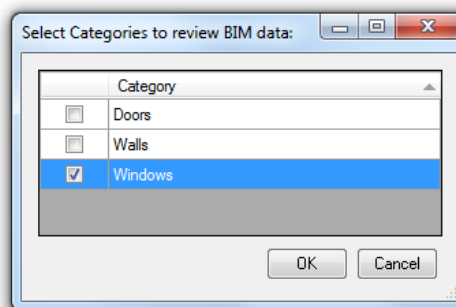
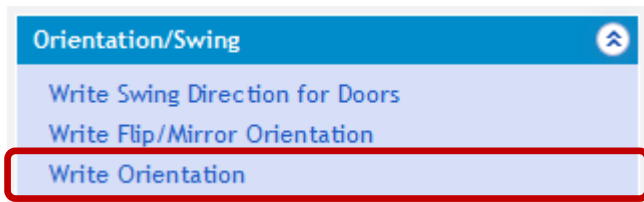


Sort Mark

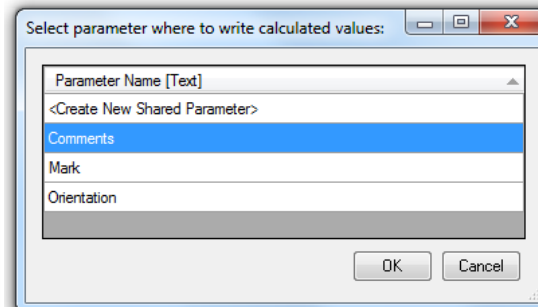
Write Orientation



Writes the orientation (north, south, west, east) of selected category's elements into user created or selected instance text parameter. The tool works with Doors, Walls and Windows categories:

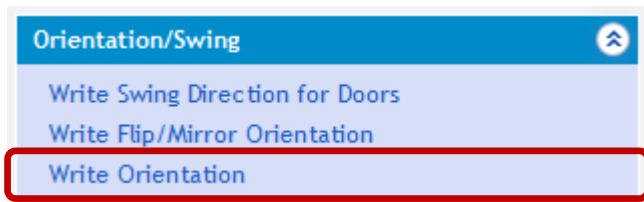


Select or create a new parameter which will represent the orientation value:

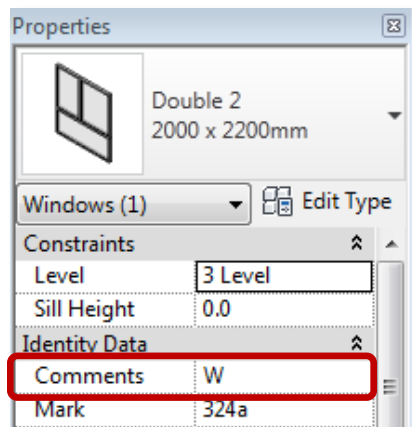


Sort Mark

Write Orientation



Result:

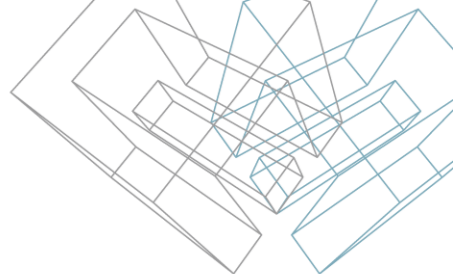


Newly created parameter is shared so it can be used in tags or schedules:

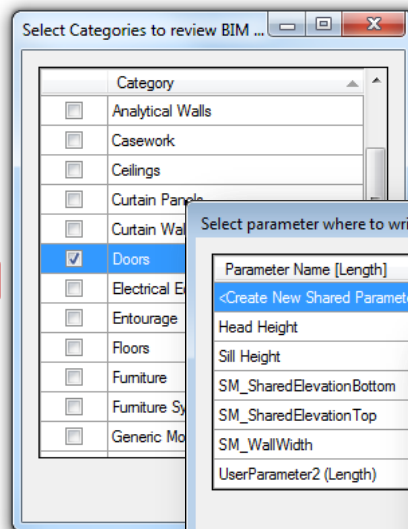
Window Schedule		
Family	Type	Comments
Triple 1	3300 x 1400mm	N
Double 1	2200 x 1400mm (1100)	N
Double 1	2200 x 1400mm (1100)	N
Double 1	2200 x 1400mm (1100)	N
Triple 2	2900 x 1400mm	E
Single 1	1100 x 1400mm	E
Triple 1	3300 x 1400mm	N
Triple 2	2900 x 1400mm	W
Triple 2	2900 x 1400mm	W
Double 1	2200 x 1400mm (1100)	W
Double 1	2200 x 1400mm (1100)	W
Double 1	2200 x 1400mm (1100)	W
Double 1	2200 x 1400mm (1100)	W

Sort Mark

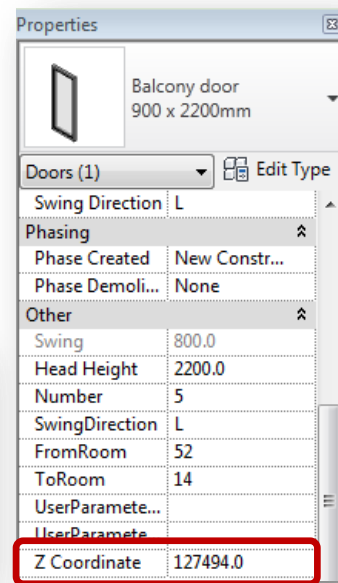
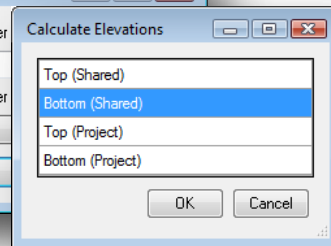
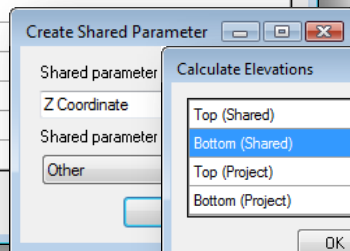
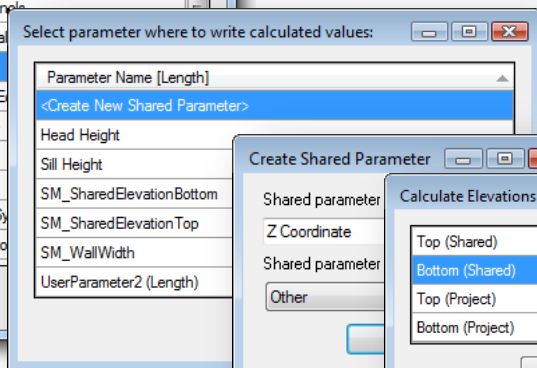
Calculate Elevations



Calculates the Z coordinate of selected elements and writes the value to selected parameter.



Shared Z coordinate of doors is written into the new instance length parameter.

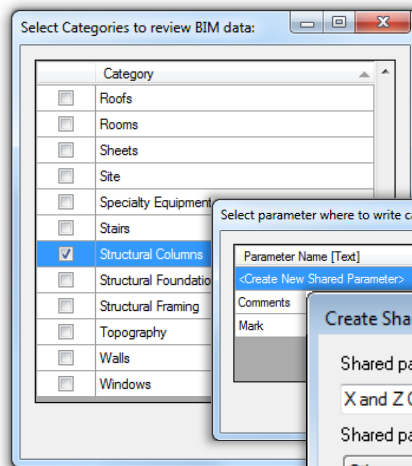


Sort Mark

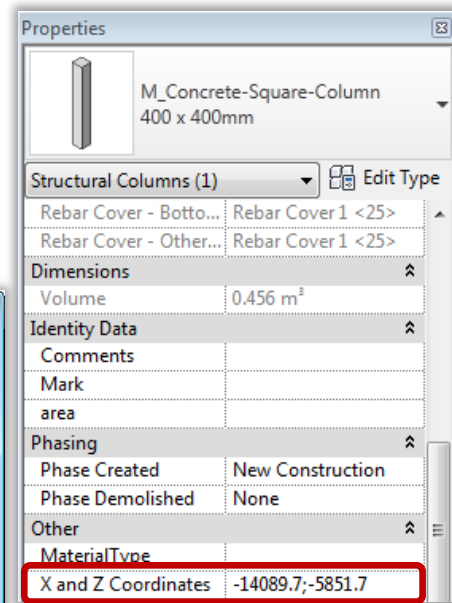
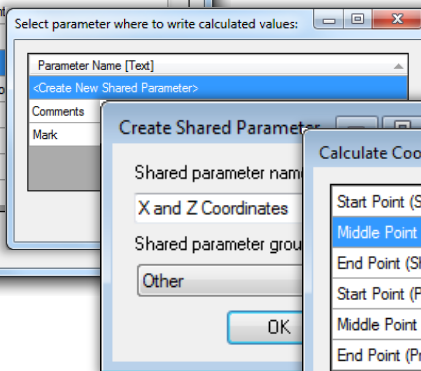
Calculate Coordinates



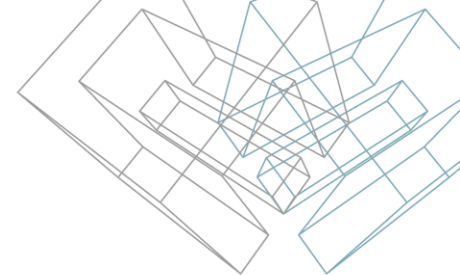
Calculates X and Y coordinates of selected elements and writes the values into selected parameter.



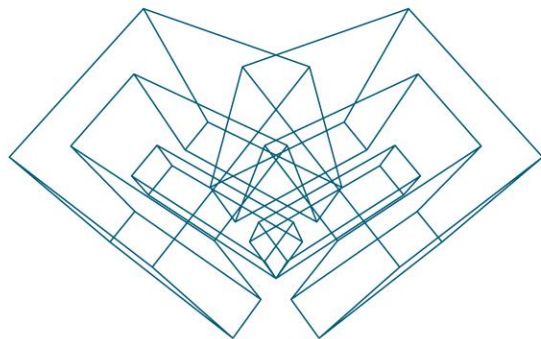
Shared coordinates of structural columns middle point are written into the new instance text parameter.



Sort Mark Benefits



- **Time-Saving Work Speed.** When using Revit on a daily basis, Sort Mark allows you to sort hundreds of elements, easily determine swing direction, orientation and shared elevation or coordinates of your doors/windows;
- **Optimization of work routines;**
- **Easy to Use.** You can sort/renumber grids and elements the way you want;
- **Reduction of Errors.** The Sort Mark tool never misses a thing;
- **Saved Settings for future projects.** Allows you to apply consistent element numbering to meet company standards.



AGA CAD Ltd

T: +370 618 55671 | E: info@aga-cad.com | W: www.aga-cad.com