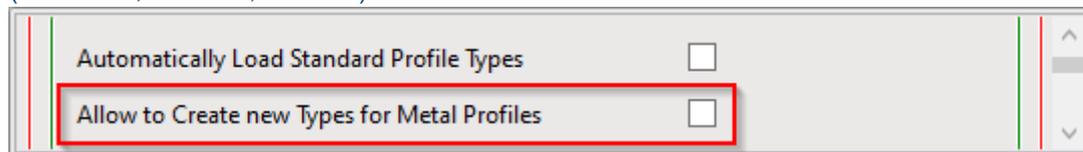


FRAMING CONFIGURATION – Modify Settings

Modified on: Wed, 1 Sep, 2021 at 7:04 PM

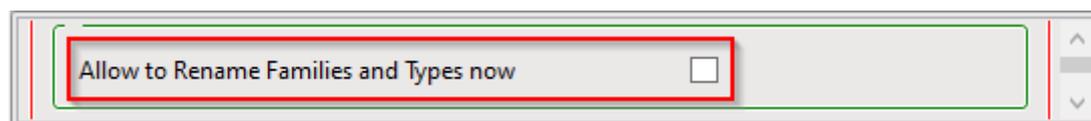
Allow to Create new Types for Metal Profiles

(in Wall+M, Floor+M, Roof+M)



Allow to Create new Types for Metal Profiles - creates new types automatically if there is no such in the project. If this option is ticked off then the program will give a message and ask if the new type should be really created.

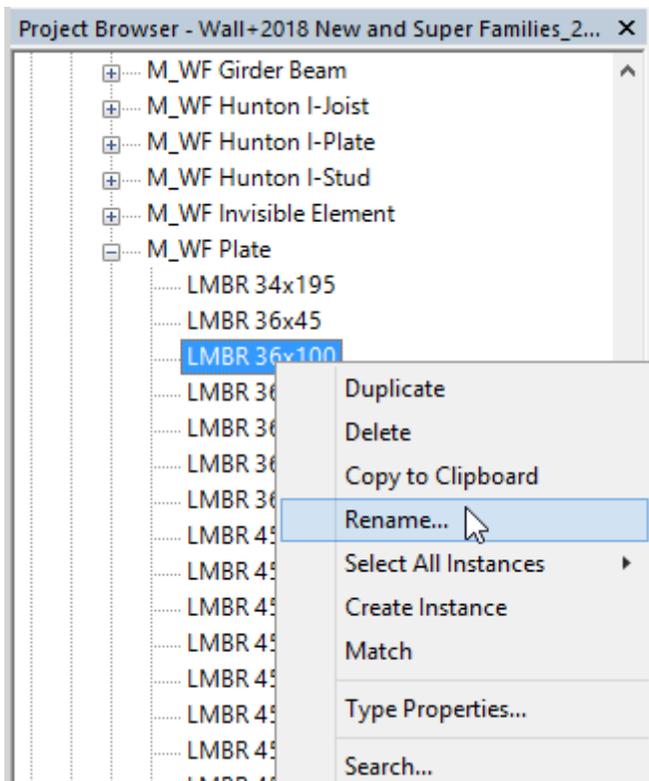
Allow to Rename Families and Types now



Allow to Rename Families and Types now – feature allows you to rename framing families and types, which are used in framing configuration.

Steps:

1. Tick **Allow to Rename Families and Types now**.
2. Click **Save** – to save all predefined configurations, including names and types of all families used.
3. Rename needed families or types in the project.



4. Open **Framing Configuration** → **Modify Settings**.

5. Untick **Allow to Rename Families and Types now**.

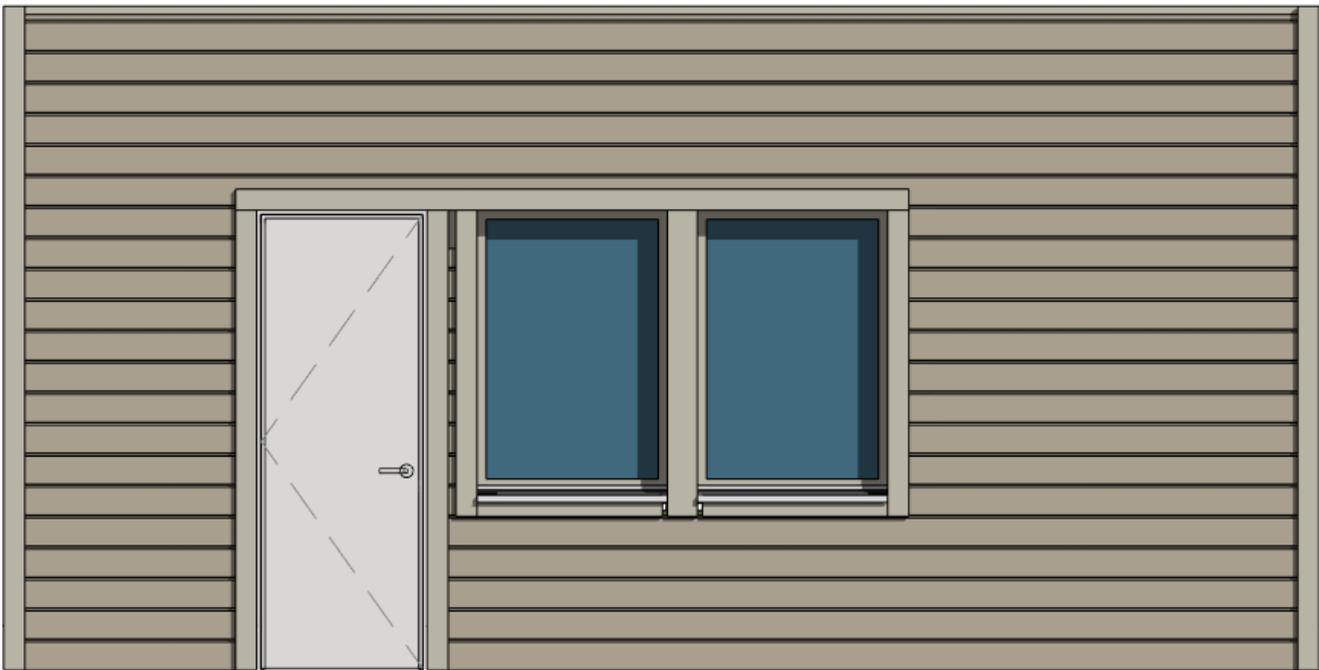
6. Click **Save** – to save all predefined configurations, including renamed families and types.

Add Virtual External Layer for Exterior/Interior Walls

(in Wall+, Wall+M)



Add Virtual External Layer for Exterior/Interior Walls – adds virtual layers for exterior/interior walls that are mostly used for siding finishing/decorations.



You'll see Virtual Layers in the **Link Wall** dialog:

Wall Link

Family: Basic Wall
 Type: Ext 2VerHorMixSiding - VHS22-HN45-FR-SFR45-SH12
 Total thickness: 243

Layers

EXTERIOR SIDE							
Function	Material	Thickness	Framing Layer	Framing Configuration	Frame	Frame Part	Split Parts
0	Finish2	by Category	28 mm	Vertical Siding	Finishing - Mixed Vertical and Horizontal Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	Finish1	Wood Vertical Siding	22 mm	Vertical Siding	Mixed Vertical and Horizontal Siding	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Finish1	Wood Vertical Nailers	45 mm	Vertical Nailer	Vertical Nailer Mix	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Structure	Wood	120 mm	Frame	Frame	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Substrate	Wood Secondary Frame	45 mm	Secondary Frame	Secondary Frame	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Finish2	Wood Sheathing, Chipboard	12 mm	Sheathing	-- None --	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Cancel OK

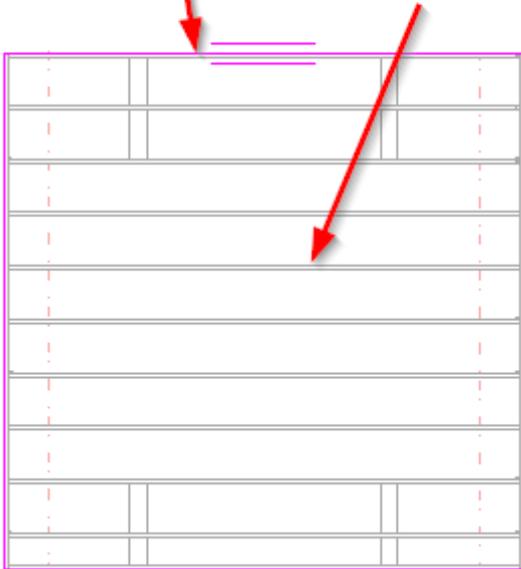
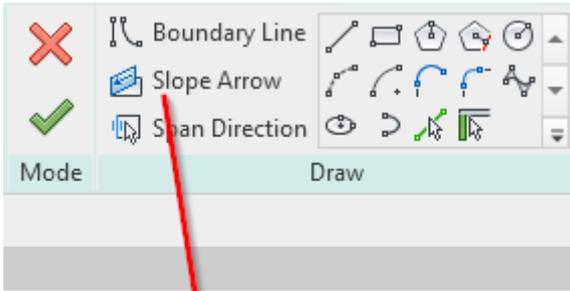
Frame Floor Perpendicular by Slope Direction

(in Floor+, Floor+M)

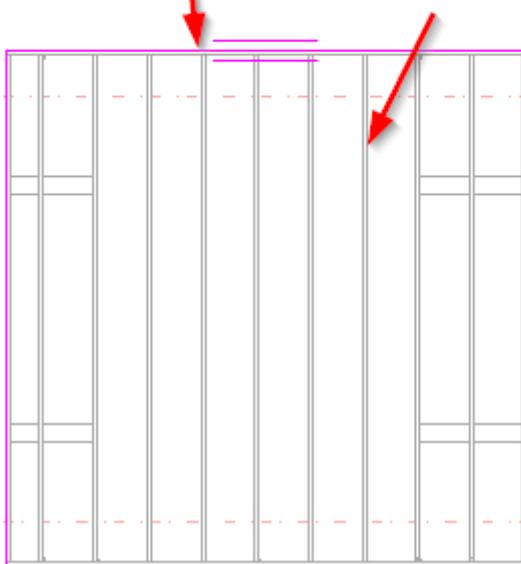
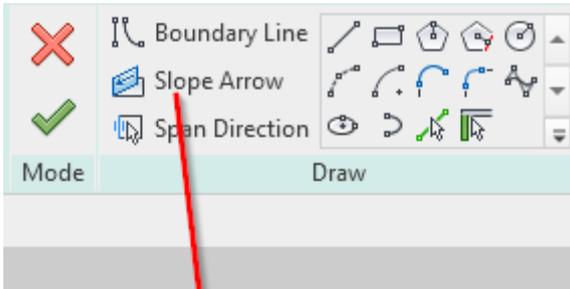
Frame Floor by Span Direction
 Frame Floor Perpendicular to Slope Direction

Frame Floor Perpendicular by Slope Direction – if ticked then common joists will be created perpendicularly to floor slope direction.

Example with floor:



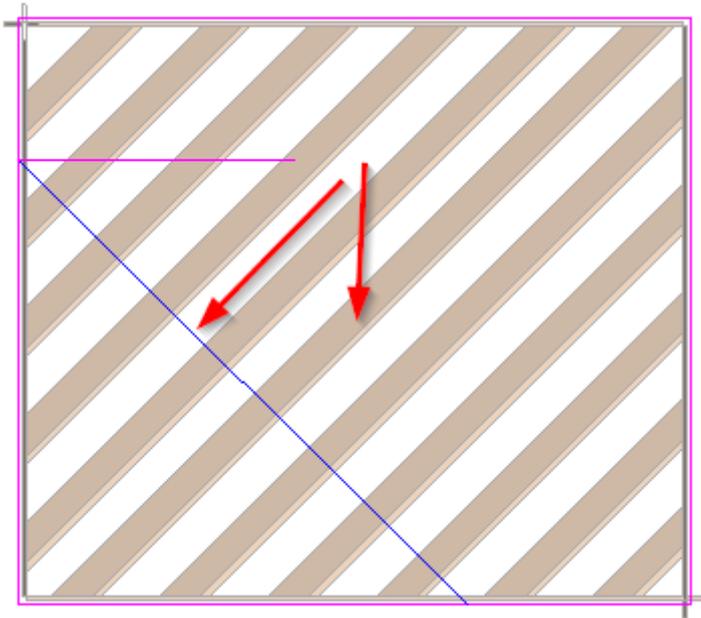
If there is Slope Arrow used in the floor creation then the joists will be perpendicular to it:



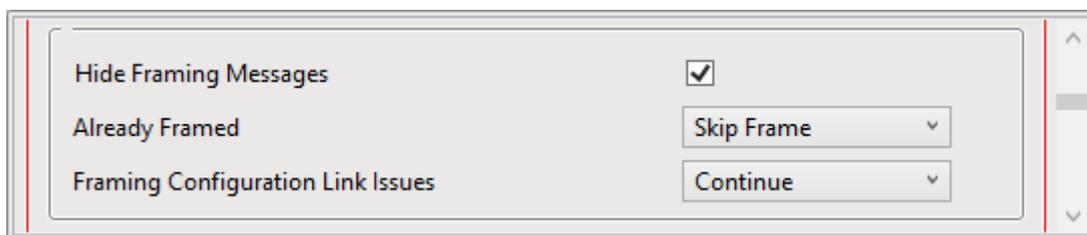
Example with roof:



If there is Slope Arrow used in the roof creation then the joists will be perpendicular to it:

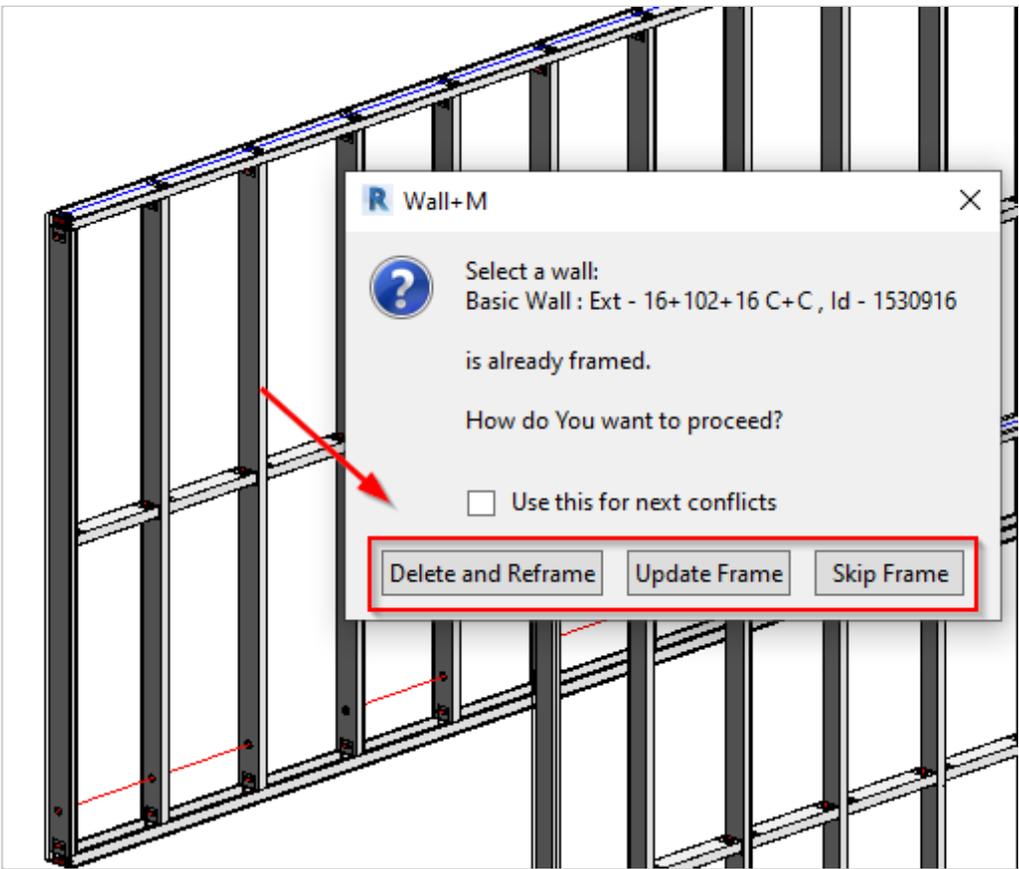


Hide Framing Messages

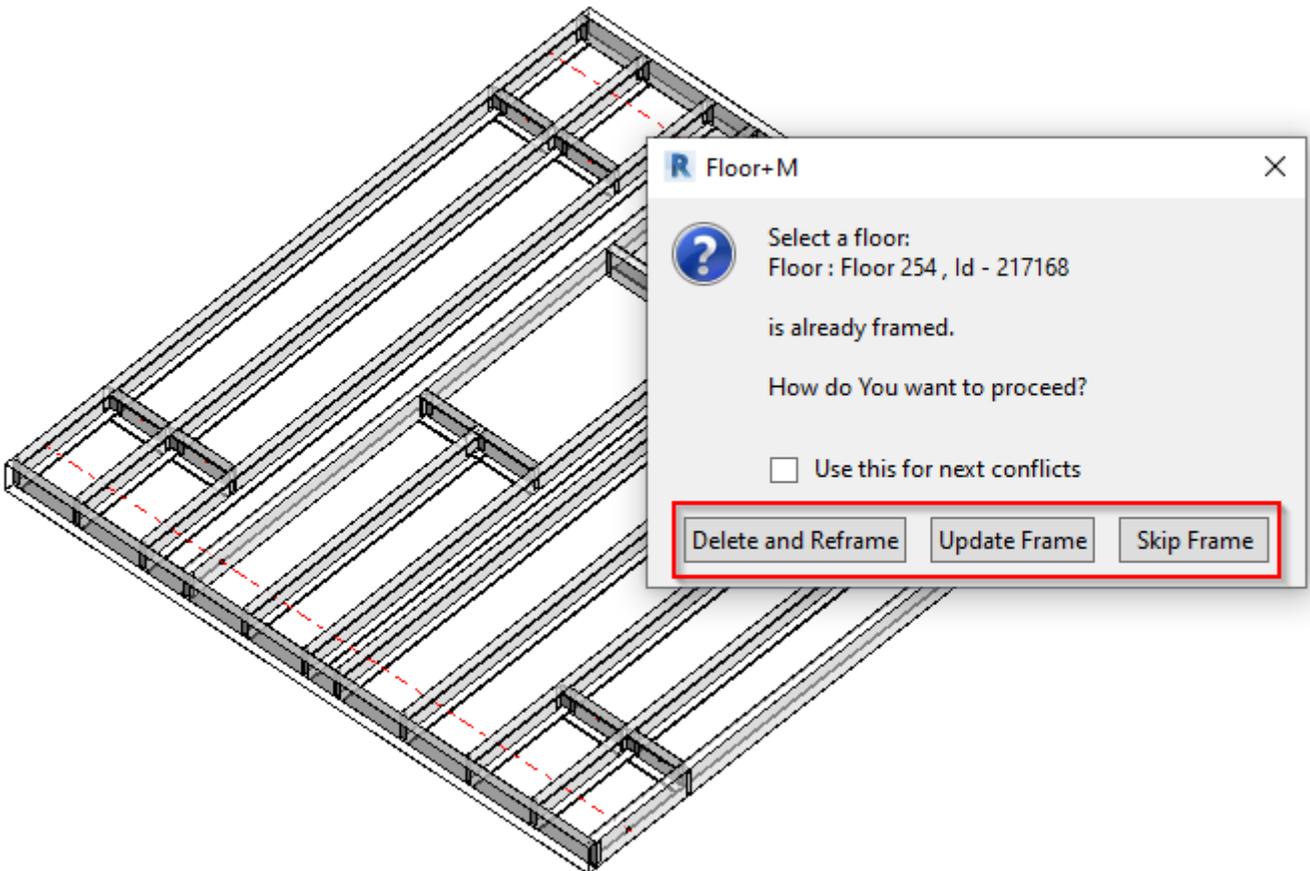


Hide Framing Messages – hides different framing messages after using **Frame Wall** function on walls that have already been framed.

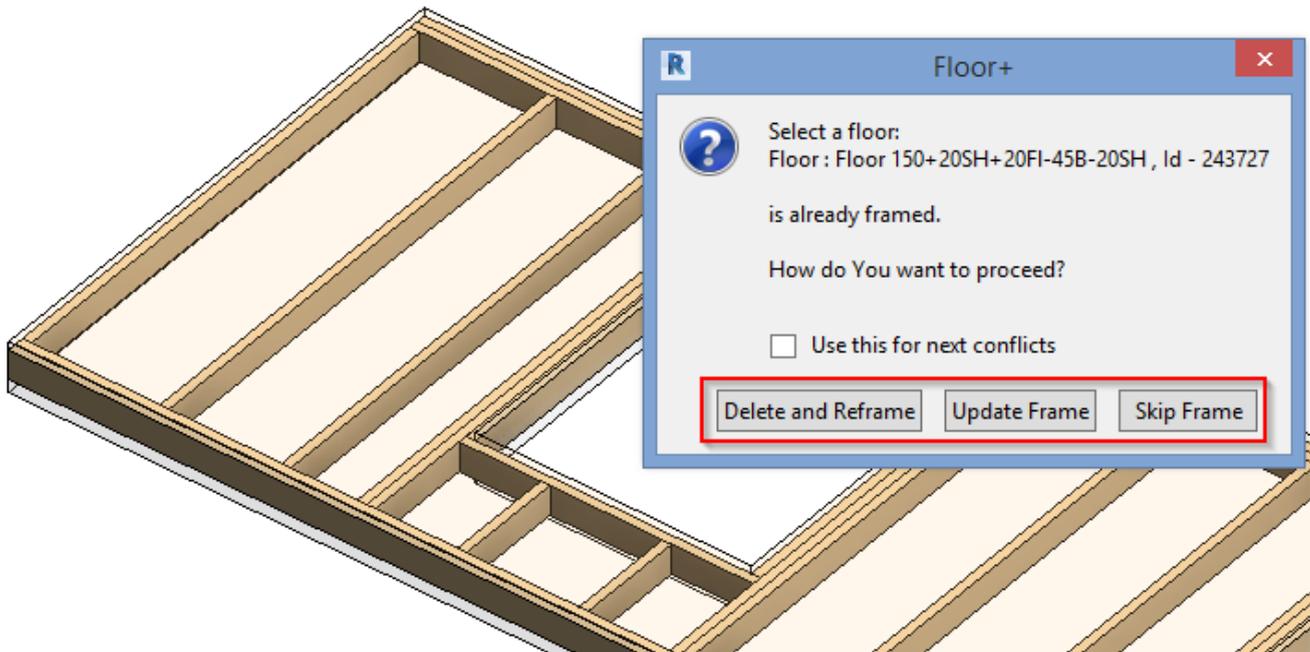
*Example: You click **Frame Wall** on an already-framed wall. There are three options: **Delete and Reframe**, **Update Frame**, and **Skip Frame**. Using **Hide Framing Messages** you can automatically select the option that needs to be done with such walls, and you will not see this option again. It is extremely useful working in a project with many walls.*



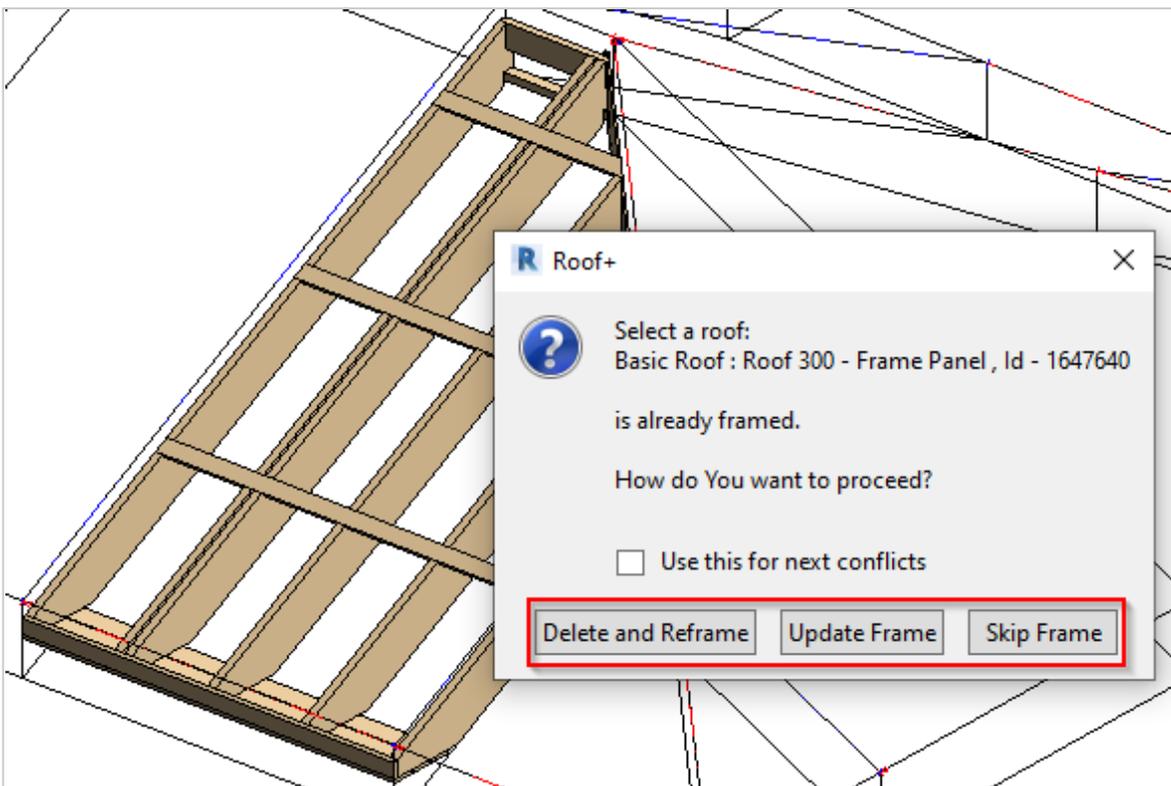
*Example: You click **Frame Floor** on an already-framed floor. There are three options: **Delete and Reframe**, **Update Frame**, and **Skip Frame**. Using **Hide Framing Messages** you can automatically select the option that needs to be done with such floors, and you will not see this option again. It is extremely useful when working in a project with many floors.*



*Example: You click **Frame Floor** on an already-framed floor. There are three options: **Delete and Reframe**, **Update Frame**, and **Skip Frame**. Using **Hide Framing Messages** you can automatically select the option that needs to be done with such floors, and you will not see this option again. It is extremely useful when working in a project with many floors.*



Example with roof:



Split Top/Bottom Plates with "Frame Wall" Command

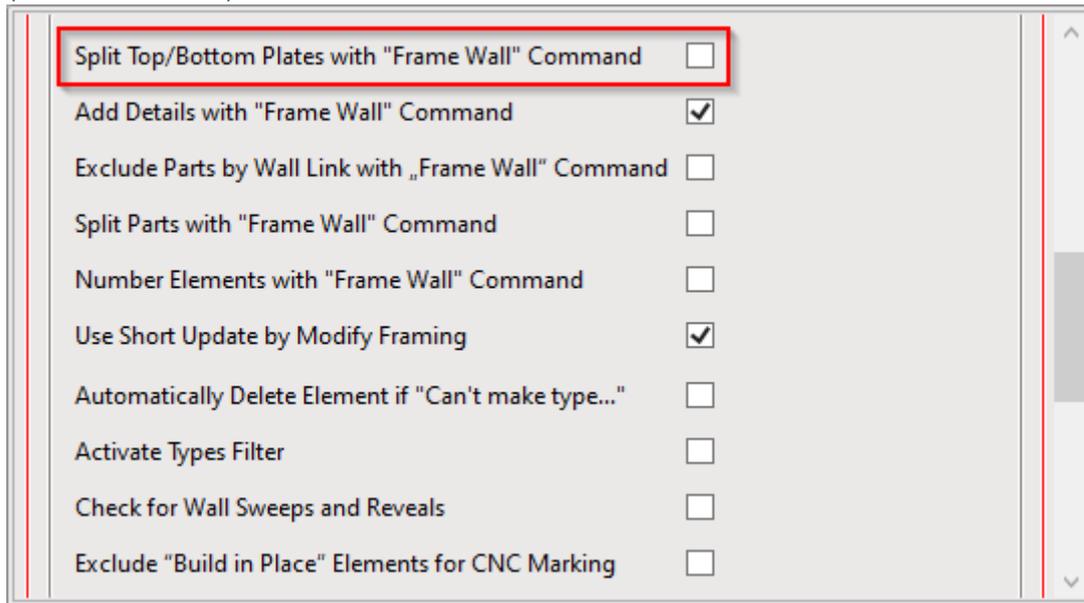
(in Wall+, Wall+M)

Split Rim Joists with "Frame Floor" Command

(in Floor+, Floor+M)

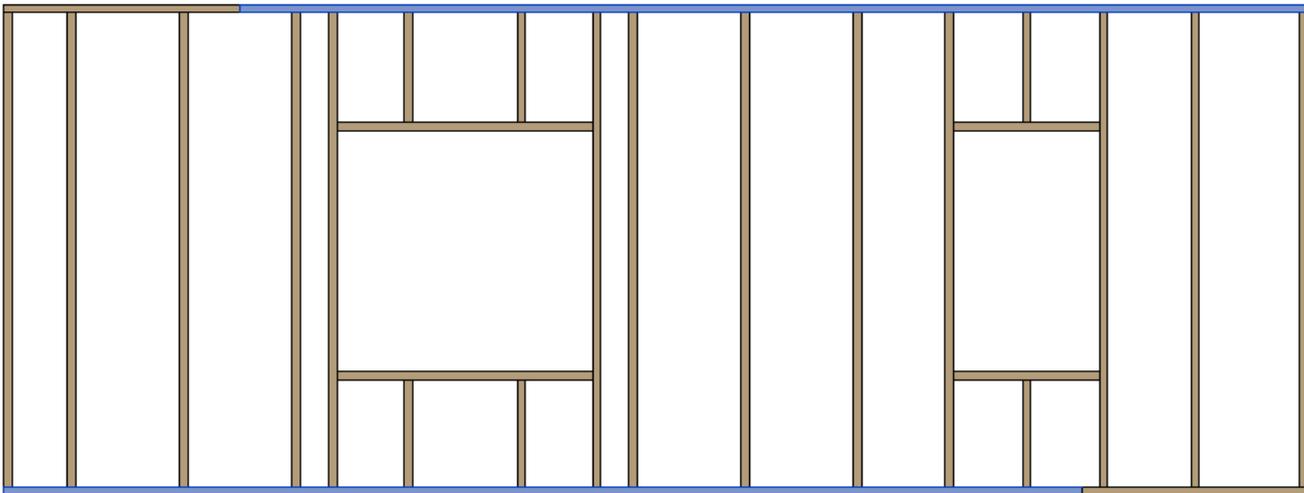
Split Rim Joists with "Frame Roof" Command

(in Roof+, Roof+M)

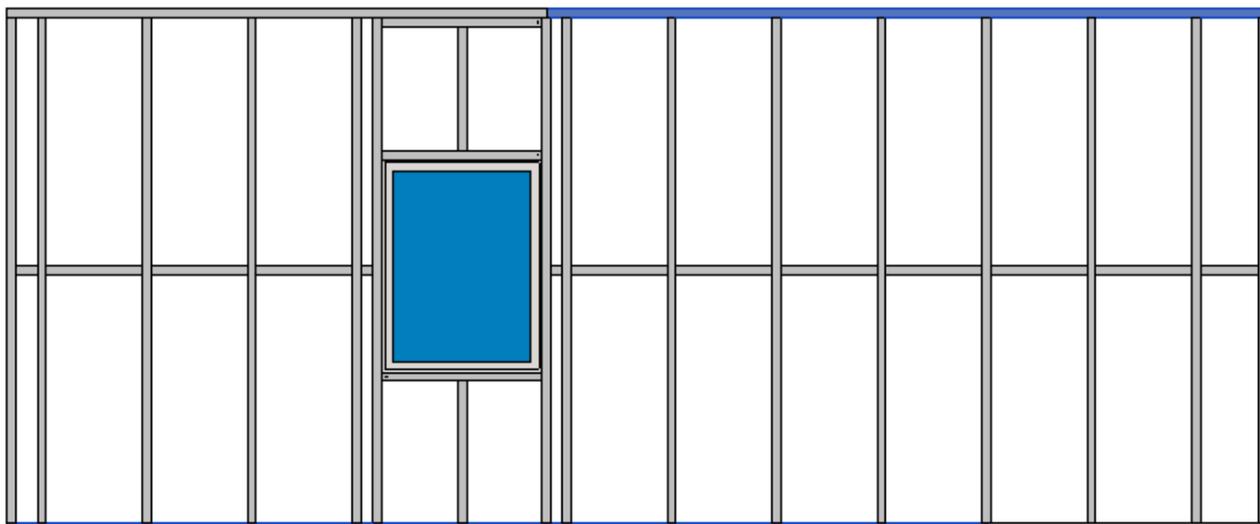


Split Top/Bottom Plates/Rim Joists with "Frame Wall/Floor/Roof" Command – splits top/bottom plates or rim joists automatically after using **Frame Wall**, **Frame Floor** or **Frame Roof**.

Example in wood:



Example in metal:



Add Details with "Frame Wall" Command

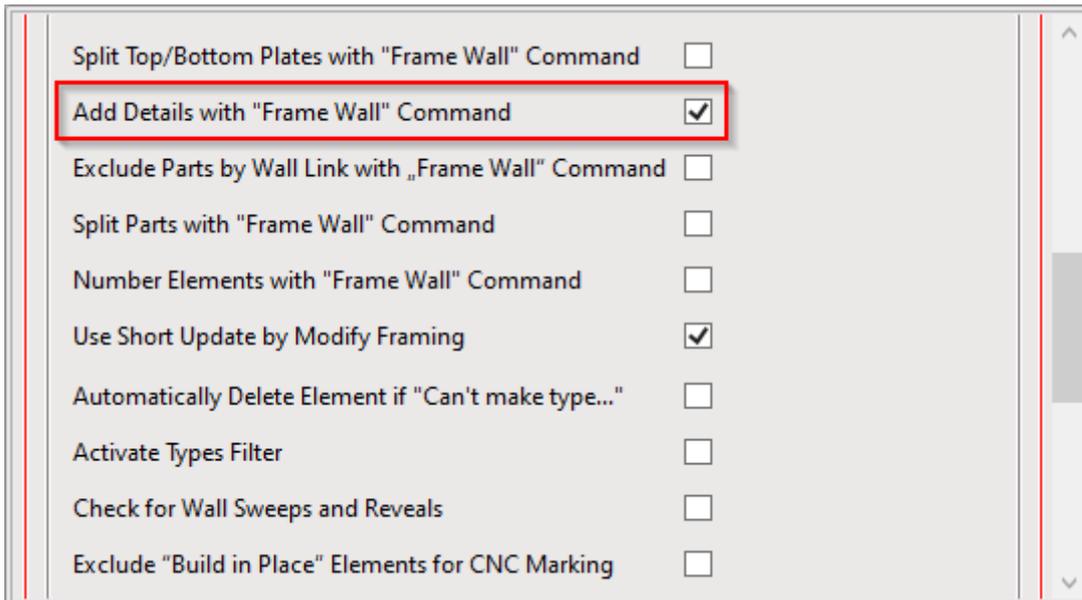
(in Wall+, Wall+M)

Add Details with "Frame Floor" Command

(in Floor, Floor+M)

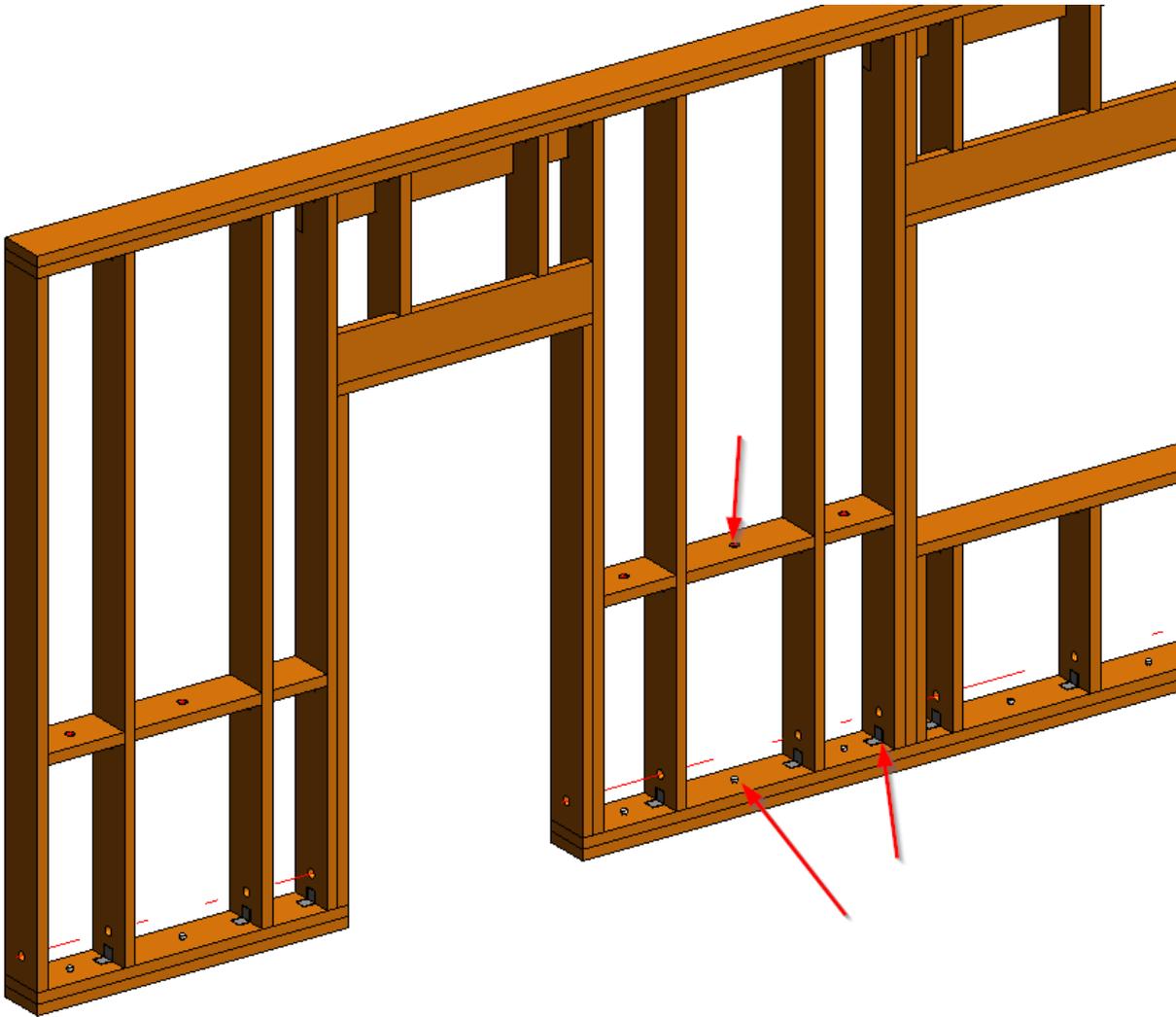
Add Details with "Frame Roof" Command

(in Roof+, Roof+M)



Add Details with "Frame Wall/Floor/Roof" Command – adds details automatically after using **Frame Wall**, **Frame Floor** or **Frame Roof**. You will not need to use **Add Details** additionally.

Example in wood: The wall was framed, and the details were added automatically:



Mandatory condition: Name of Wall Framing and name of Details Configuration must be the same!

Framing Configuration name:

Wall+. Default Framing Parameters

Material Class: Wood

Configuration Type: Frame

Configuration Name: **Frame** [Save] [Save As] [Rename] [Delete]

Configuration Settings | Modify Configuration Settings | Elements Mark Definitions | Modify Settings

Use for all Framing Elements (except Openings)

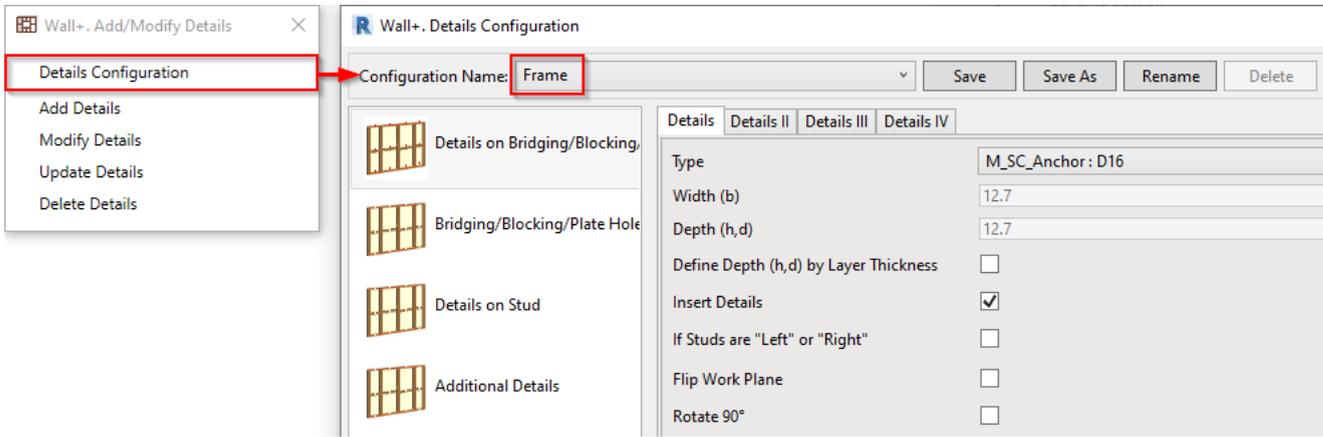
Main Type of Studs: M_WF Stud : LMBR 45x120

Width (b): 4.5

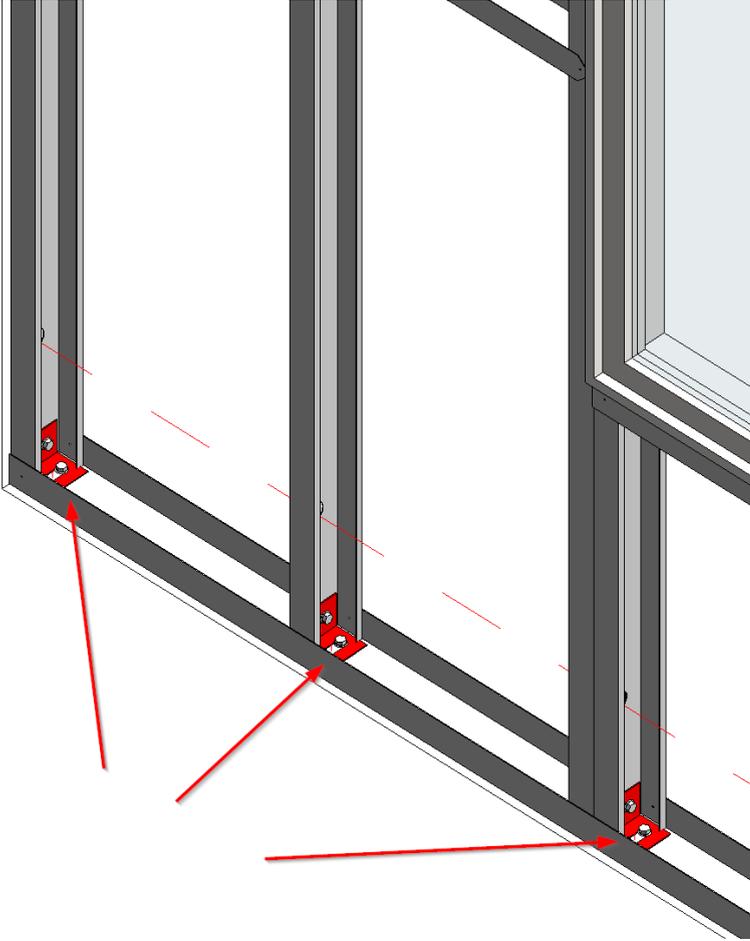
Depth (h,d): 12

Main Type of Plates: M_WF Plate : LMBR 45x120

Name of **Details Configuration** is the same as that of the **Framing Configuration**:

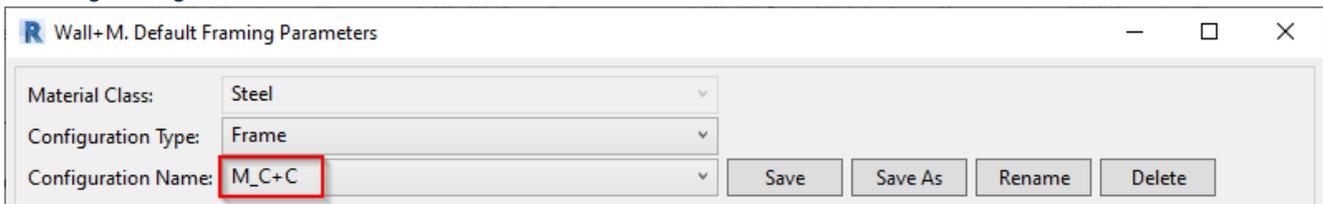


Example in metal: The wall was framed, and the details were added automatically:

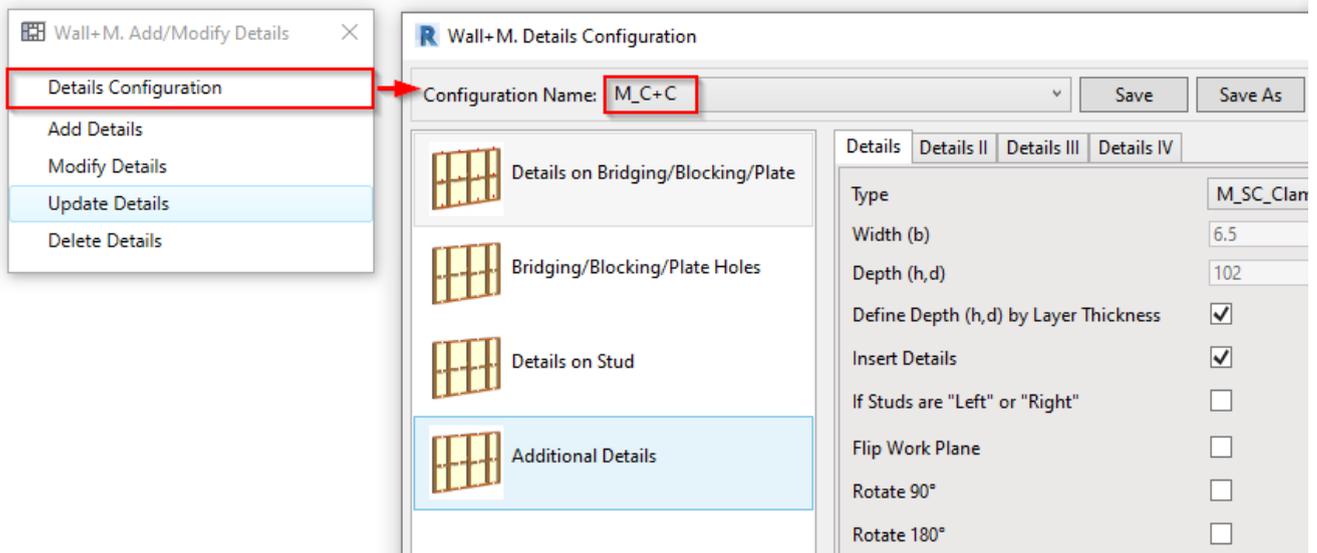


Mandatory condition: Name of Wall Framing and name of Details Configuration must be the same!

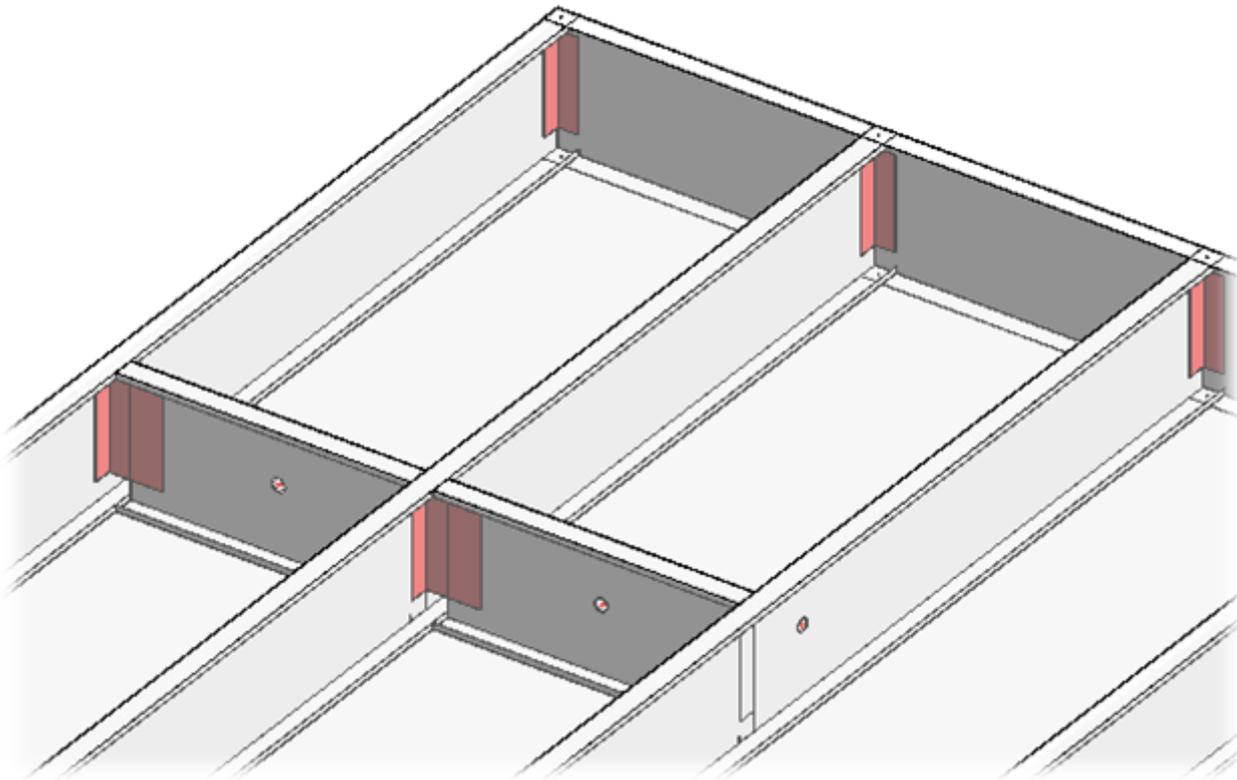
Framing Configuration name:



Name of Details Configuration is the same as that of the Framing Configuration:

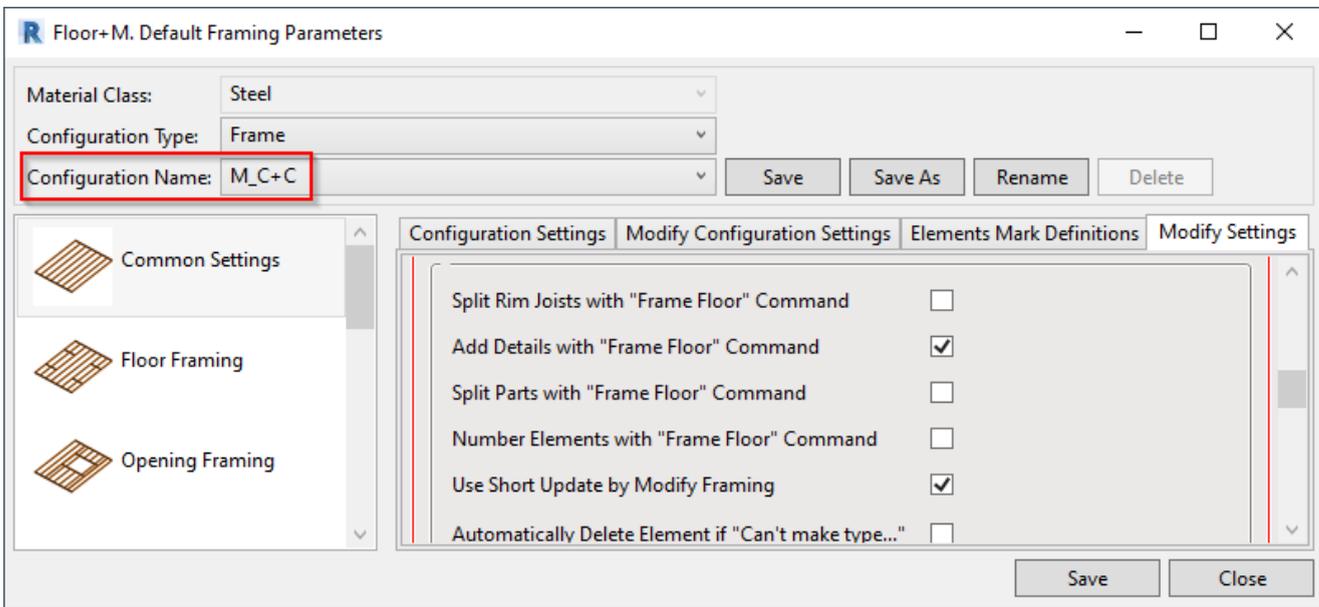


Example in metal: The floor was framed, and the details were added automatically:

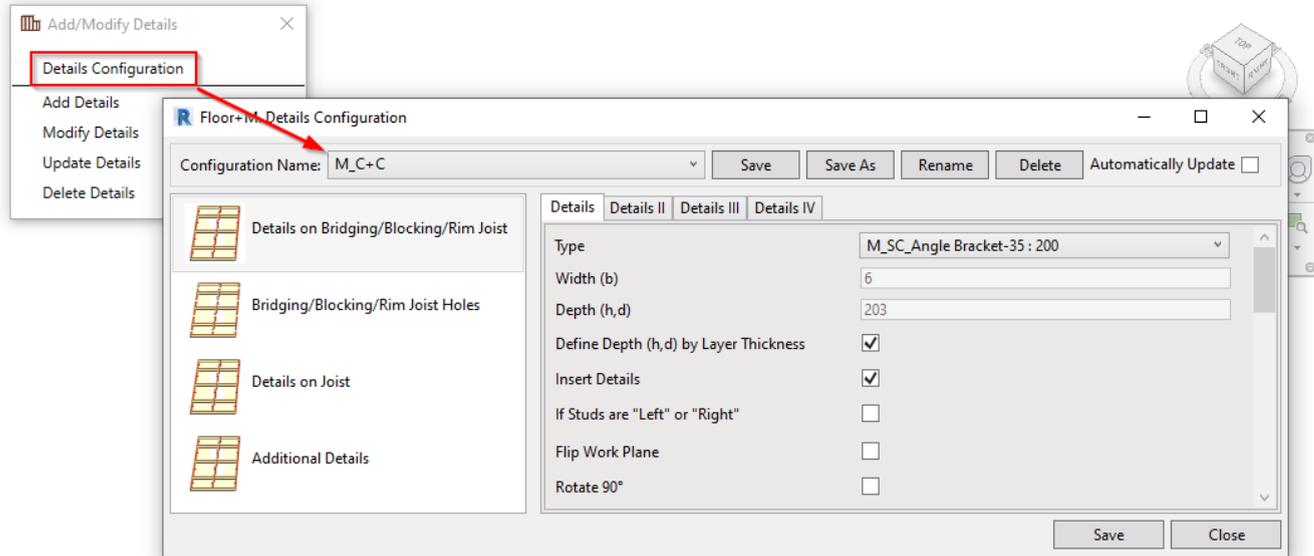


Mandatory condition: Name of Floor Framing and name of Details Configuration must be the same!

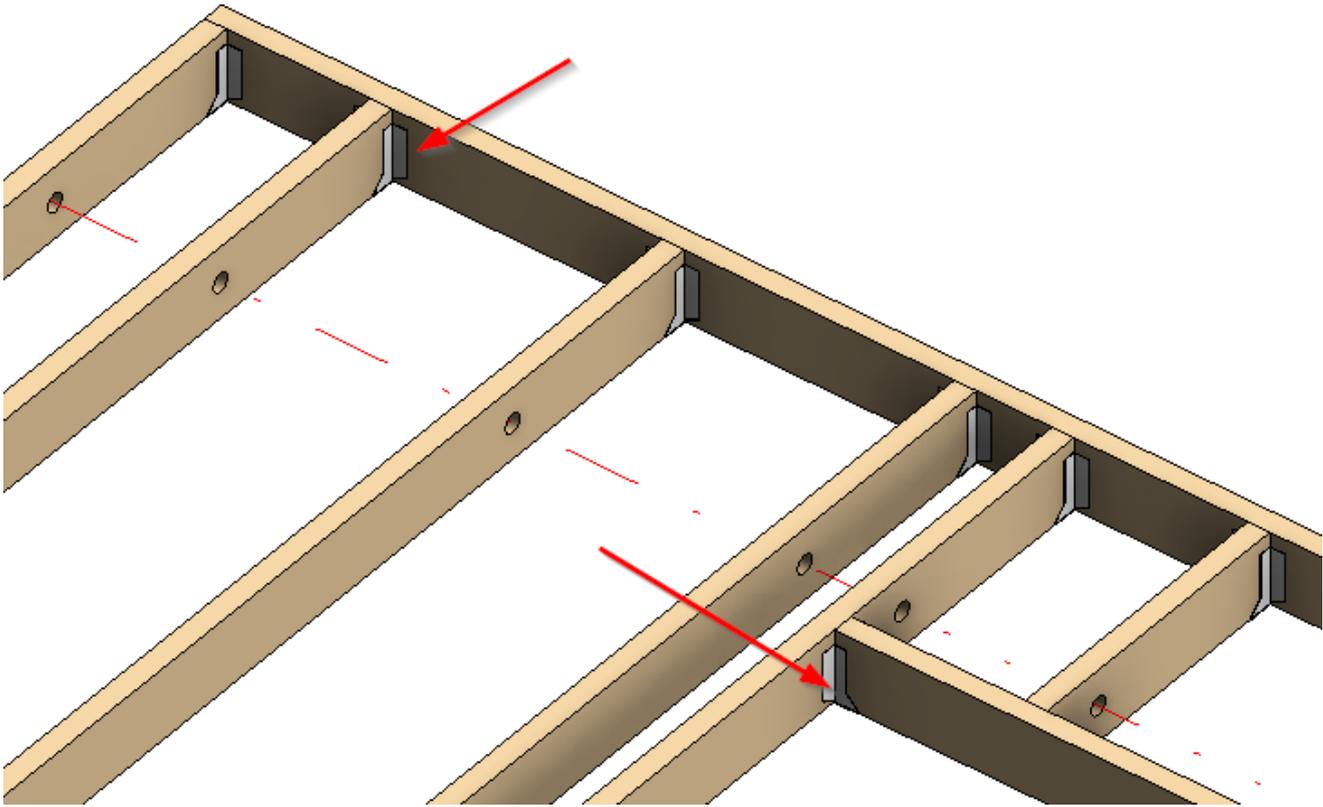
Framing Configuration name:



Name of Details Configuration is the same as that of the Framing Configuration:

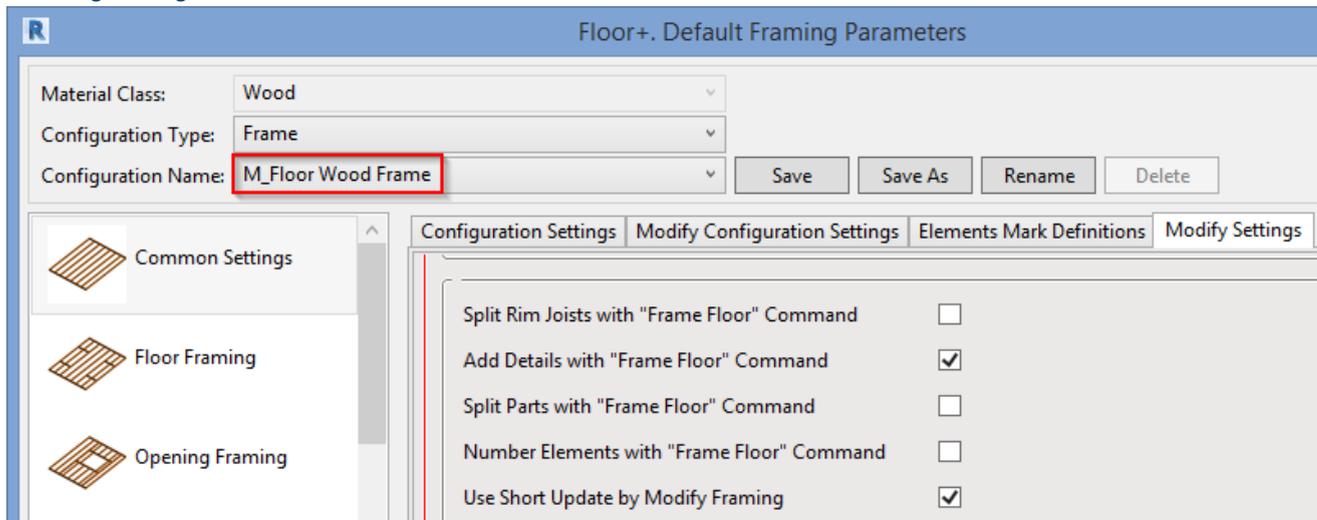


Example in wood: The floor was framed, and the details were added automatically:

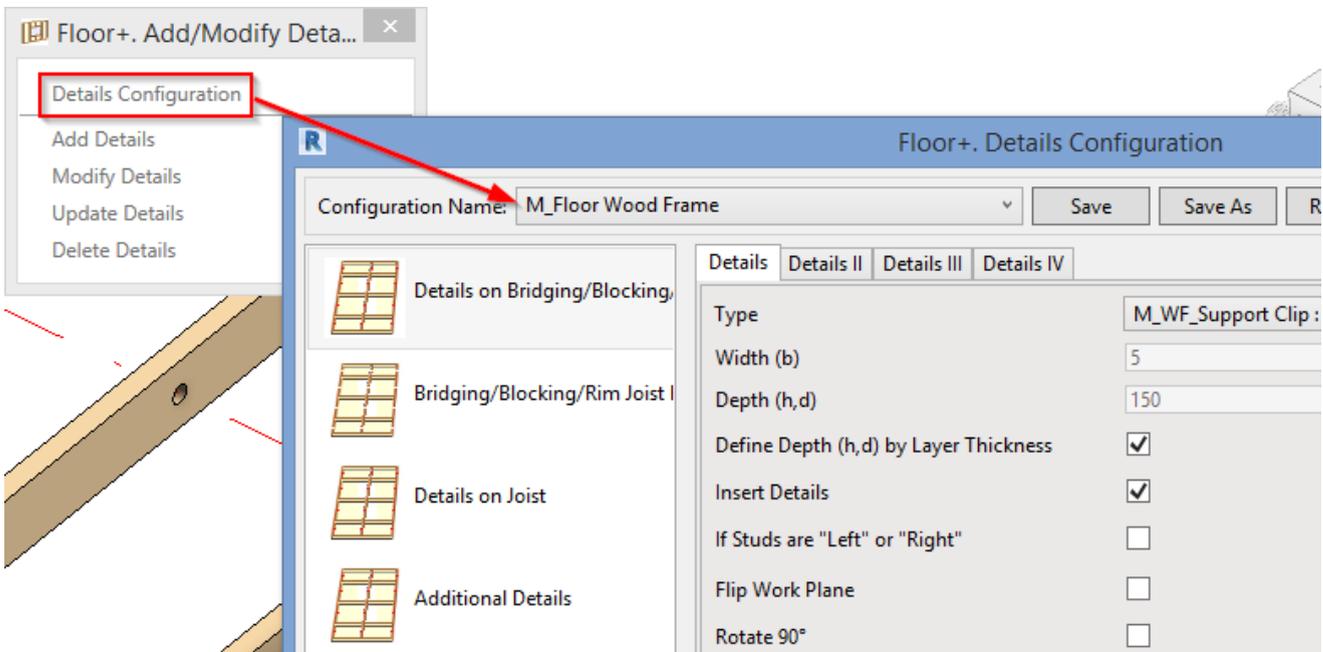


Mandatory condition: Name of Floor Framing and name of Details Configuration must be the same!

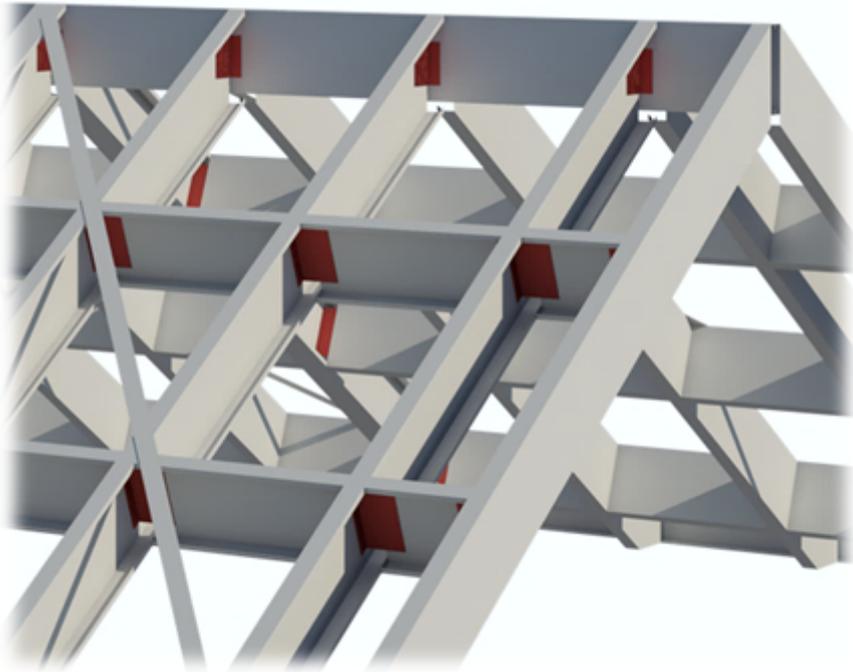
Framing Configuration name:



Name of Details Configuration is the same as that of the Framing Configuration:



Example: The roof was framed, and the details were added automatically:



Mandatory condition: Name of Roof Framing and name of Details Configuration must be the same!

Create Parts with "Frame Wall" Command

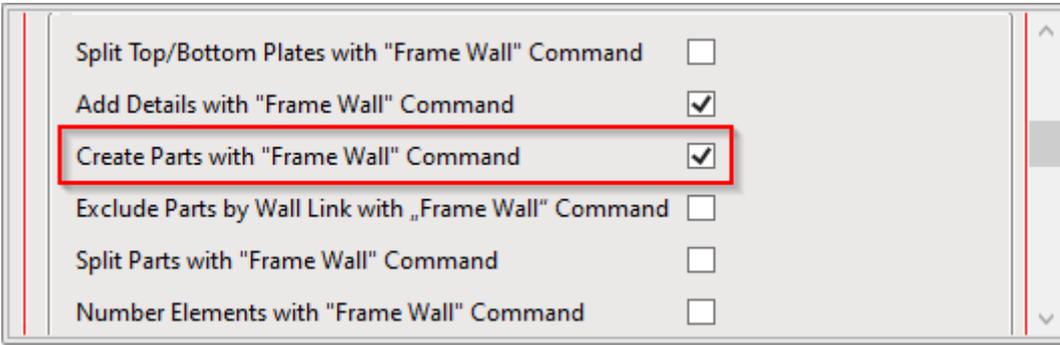
(in Wall+, Wall+M)

Create Parts with "Frame Floor" Command

(in Floor, Floor+M)

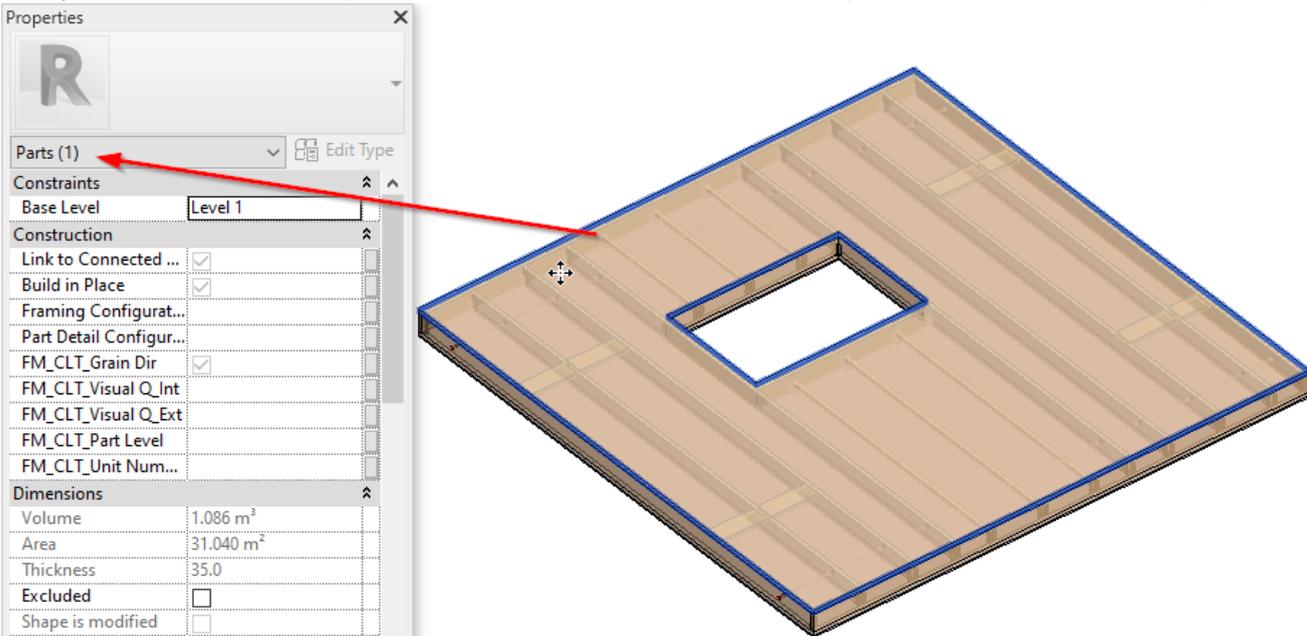
Create Parts with "Frame Roof" Command

(in Roof+, Roof+M)

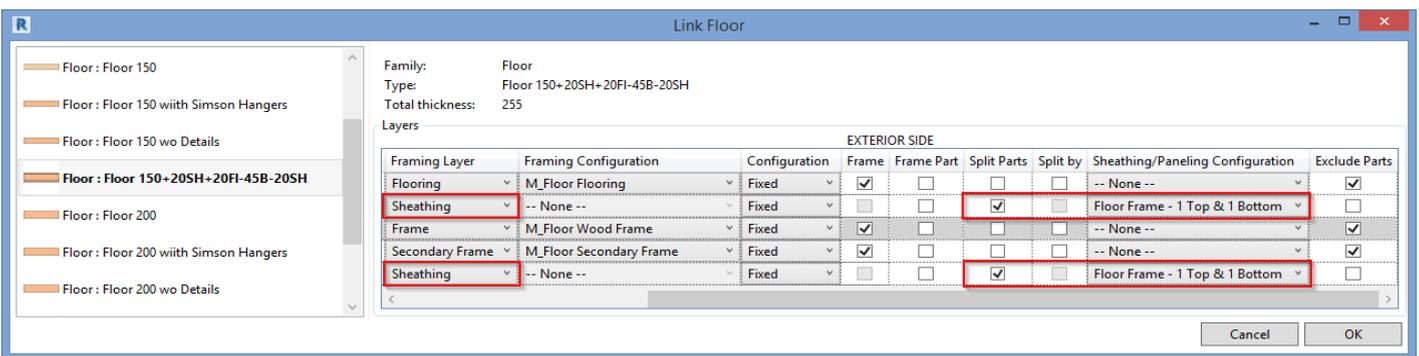


Create Parts with "Frame Wall/Floor/Roof" Command – creates parts after framing the wall, floor or roof with **Frame Wall, Frame Floor** or **Frame Roof**.

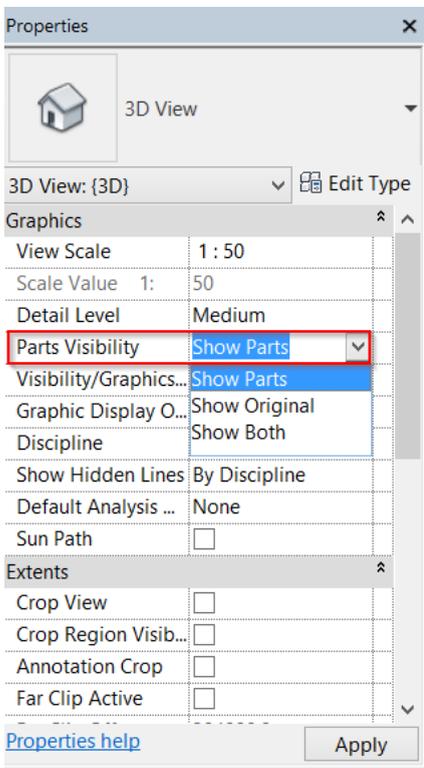
*Example in wood: After clicking **Frame Floor** on the floor, the frame and parts are created automatically:*



Mandatory condition: Parts will be created if the floor will have a link with sheathing configuration!



*Note: Don't forget to switch on **Show Parts** or **Show Both** near **Parts Visibility** in **View Properties** in order to see parts:*



Exclude Parts by Wall Link with "Frame Wall" Command

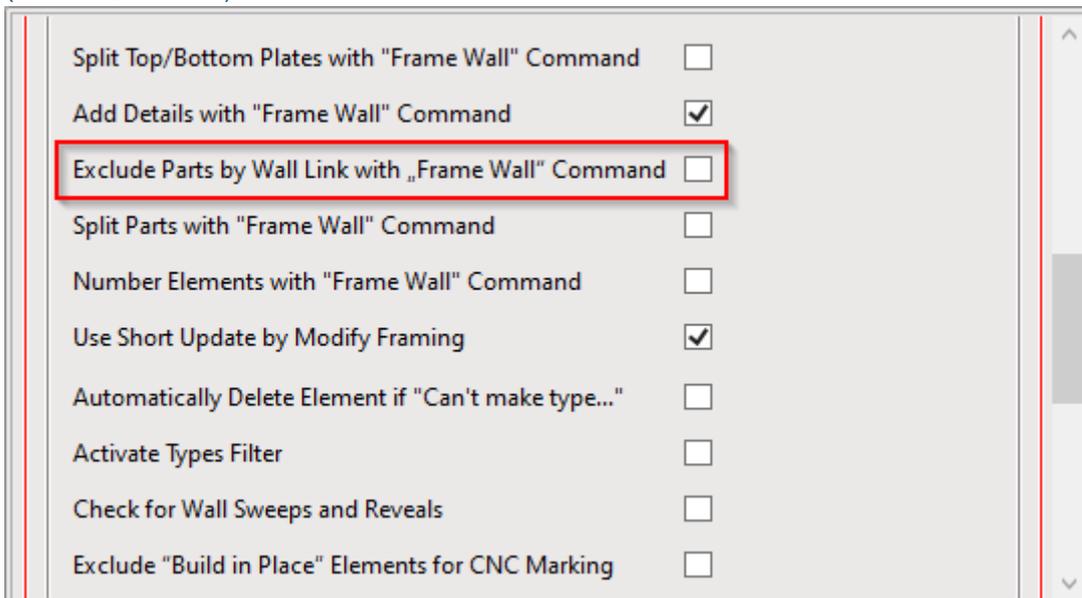
(in Wall+, Wall+M)

Exclude Parts by Floor Link with "Frame Floor" Command

(in Floor+, Floor+M)

Exclude Parts by Roof Link with "Frame Roof" Command

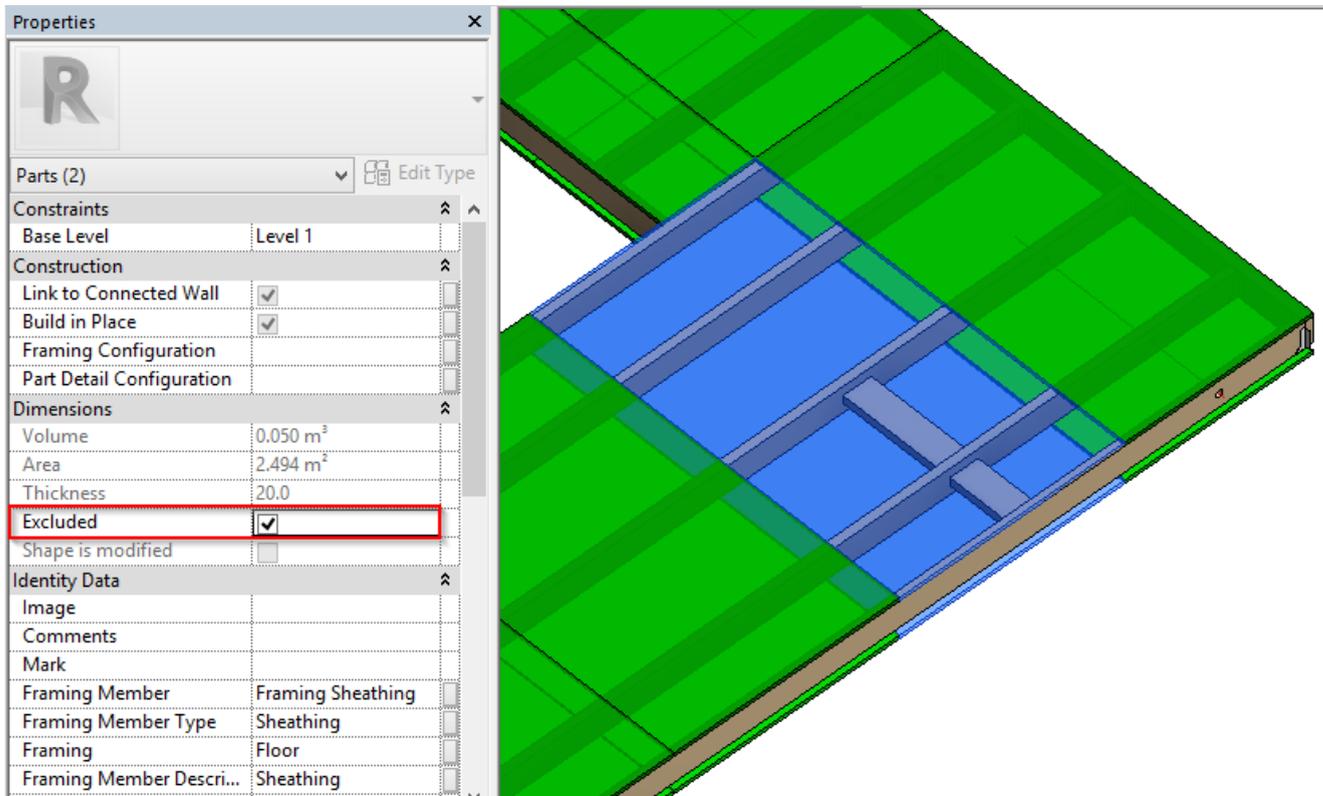
(in Roof+, Roof+M)



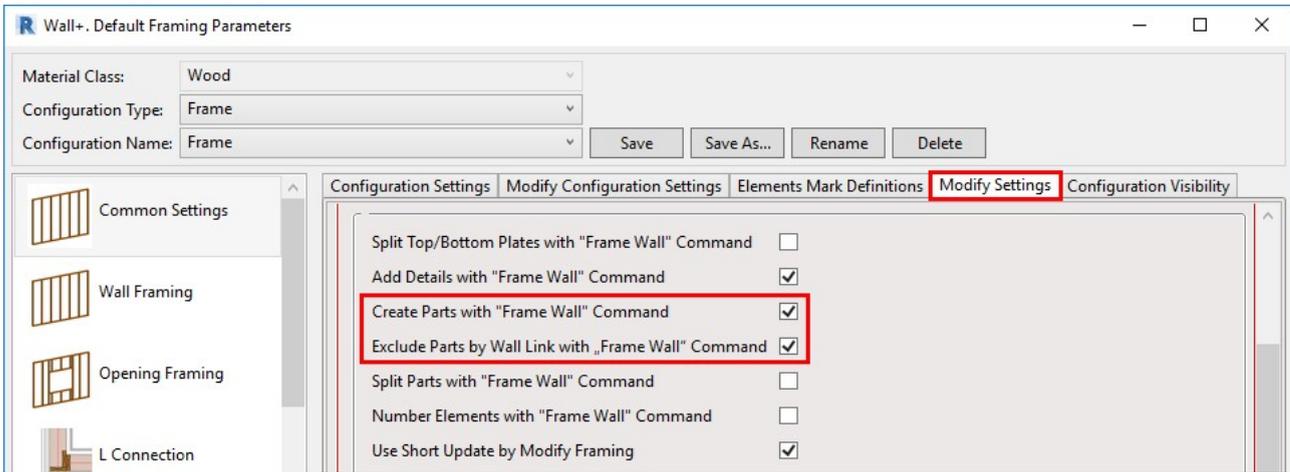
Exclude Parts by Wall/Floor/Roof Link with "Frame Wall/Floor/Roof" Command – excludes parts after framing the wall, floor or roof with **Frame Wall**, **Frame Floor** or **Frame Roof**. Without this feature parts can be excluded after **Split Parts** command. Parts which should be excluded are predefined in **Wall/Floor/Roof Link**:

Family	Basic Wall									
Type	Ext 1VerSiding - VS22-HN45-FR-SFR45-SH12									
Total thickness	243									
Layers	EXTERIOR SIDE									
	Thickness	Framing Layer	Framing Configuration	Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts
	28 mm	Vertical Siding	Siding Finish 28x95	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
Siding	22 mm	Vertical Siding	Vertical Siding	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
Nailers	45 mm	Horizontal Nailer	Horizontal Nailers b=45	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
	120 mm	Frame	Frame	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
Frame	45 mm	Secondary Frame	Secondary Frame	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
Chipboard	12 mm	Sheathing II	-- None --	Fixed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Frame - 1 Ex & 1 In Layers	<input type="checkbox"/>

You can exclude parts from the project so that they will not be included in material takeoffs, schedules, and other lists or calculations.



Create or exclude parts with "Frame Wall" Command



(<https://agacad.com/wp-content/uploads/2021/01/15.jpg>).

If ticked ON, then the parts will be created or excluded with the 'Frame Wall' command, based on the settings in the Wall Link:

Family		Basic Wall									
Type		Exterior - Wood Frame with Sheatings-Nailers-Siding									
Total thickness		288									
Layers											
EXTERIOR SIDE											
Function	Material	Thickness	Framing Layer	Framing Configuration	Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts
0	Finish2	by Category	22 mm	Vertical Siding	Siding Finish 28x95	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
1	Finish2	Wood - Siding	22 mm	Vertical Siding	Vertical Siding	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
2	Substrate	Wood - Nailers-2	45 mm	Horizontal Nailer	Horizontal Nailers b=45	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
3	Substrate	Wood - Nailers	45 mm	Vertical Nailer	Vertical Nailer	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
4	Structure	Wood - GL24h	120 mm	Frame	Frame	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
5	Substrate	Wood - Secondary Frame	45 mm	Secondary Frame	Secondary Frame	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
6	Finish1	Wood - Sheathing - Plywox	12 mm	Sheathing	-- None --	Variable	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Frame - 1 Ex & 1 In Layers	<input type="checkbox"/>

(<https://agacad.com/wp-content/uploads/2021/01/16.jpg>).

Split Parts with "Frame Wall" Command

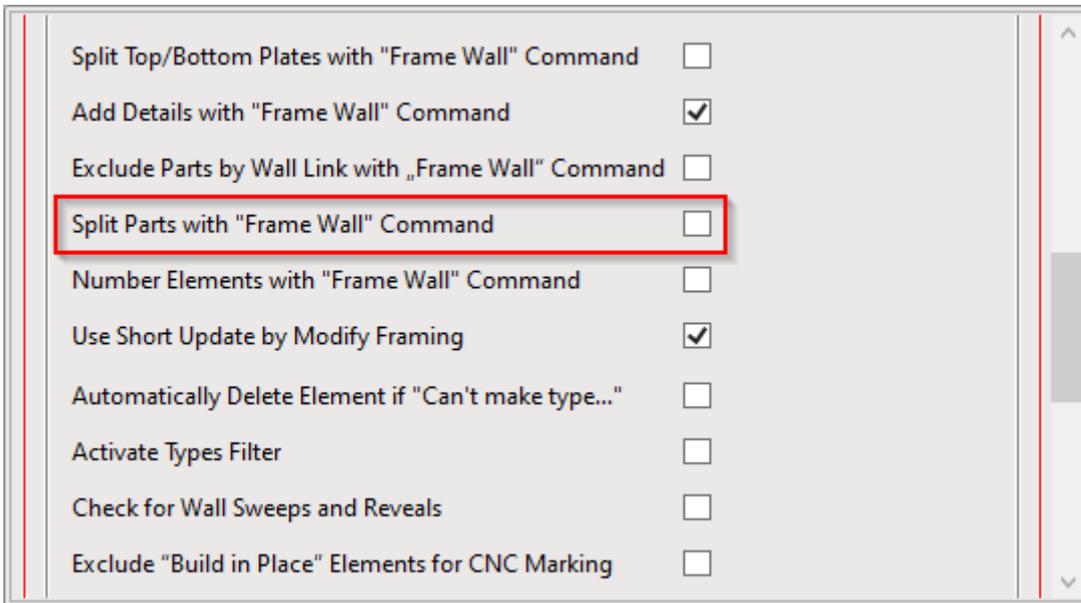
(in Wall+, Wall+M)

Split Parts with "Frame Floor" Command

(in Floor+, Floor+M)

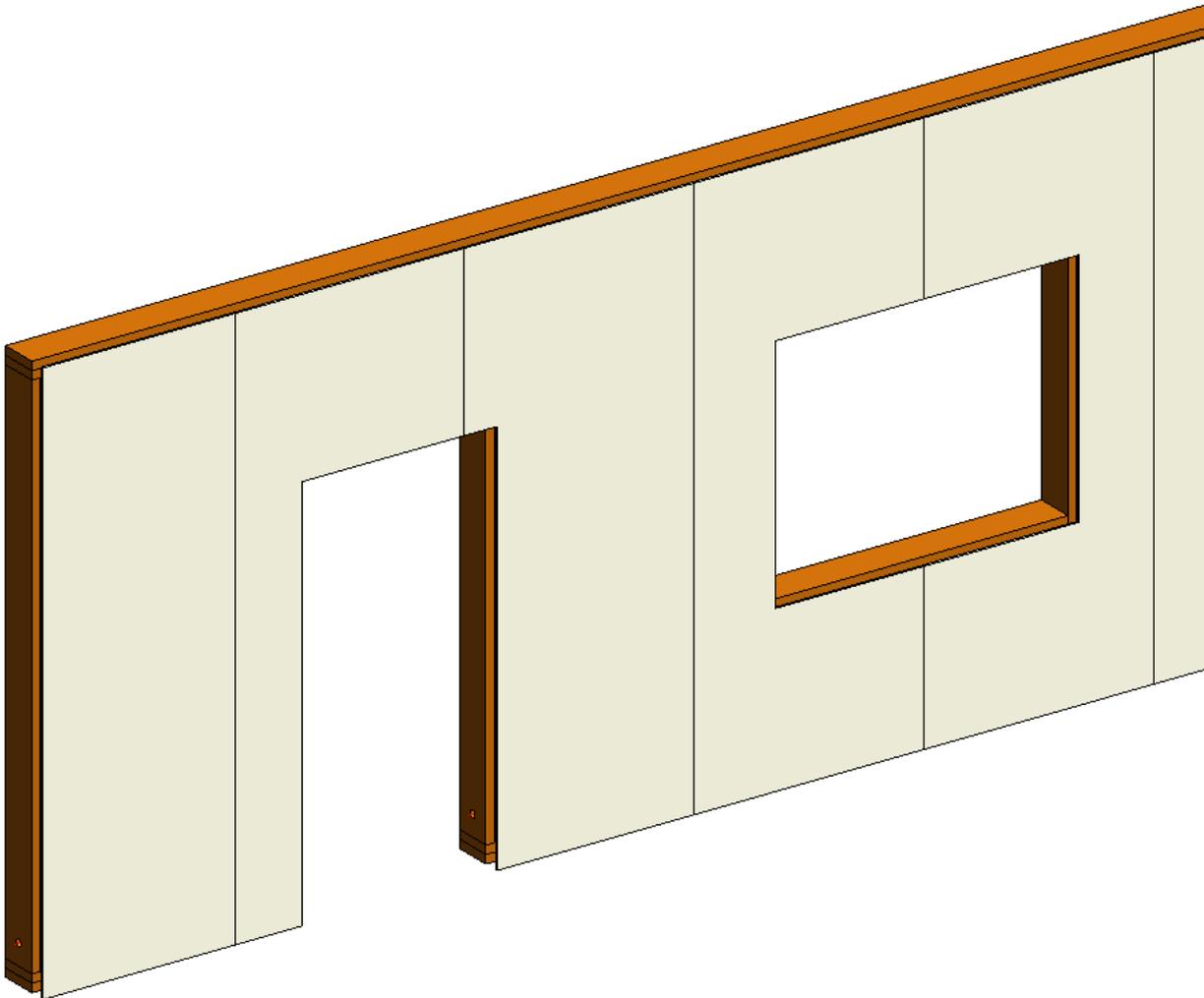
Split Parts with "Frame Roof" Command

(in Roof+, Roof+M)

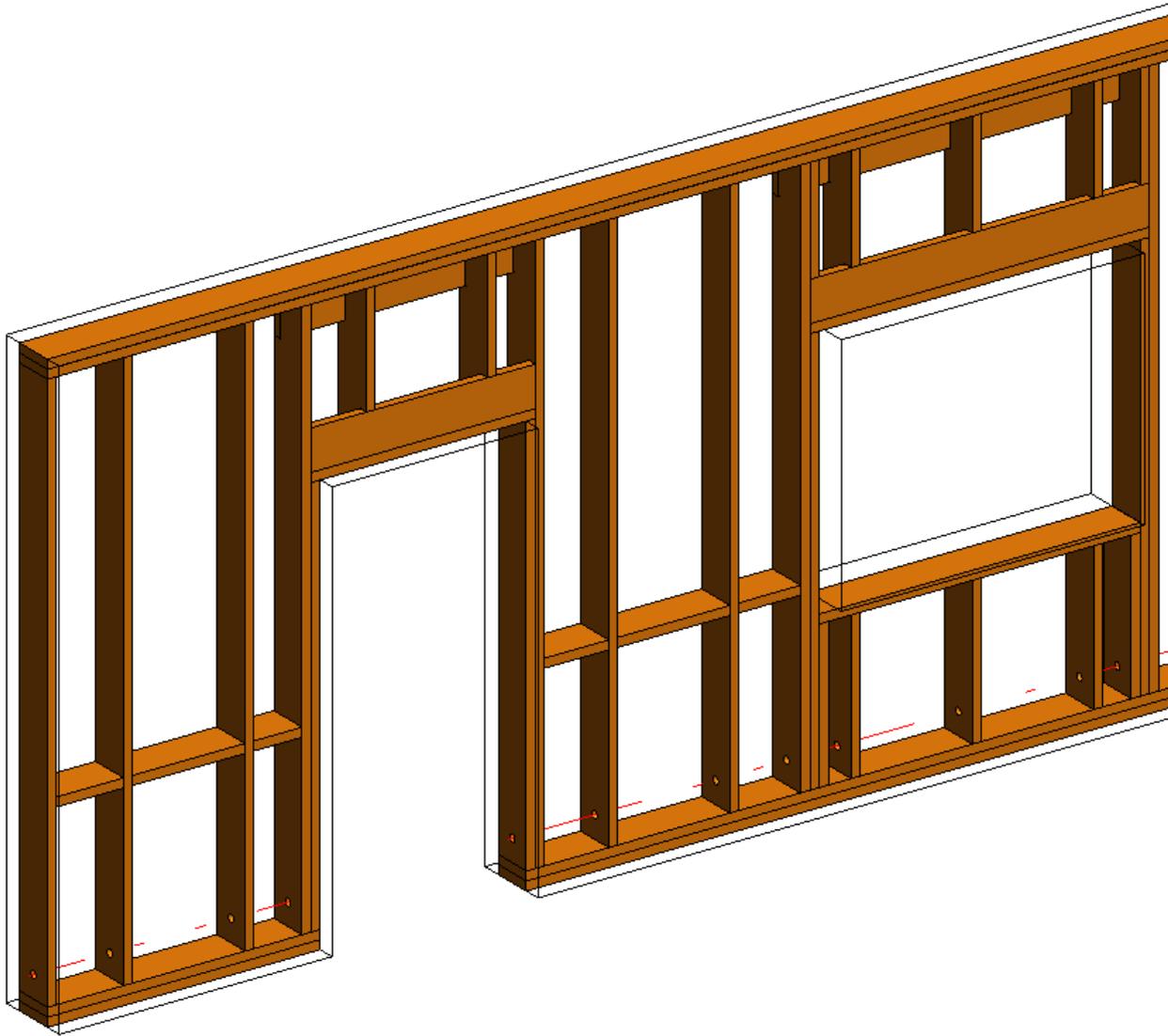


Split Parts with "Frame Wall/Floor/Roof" Command – splits parts automatically after using **Frame Wall**, **Frame Floor** or **Frame Roof**. You will not need to use **Split Parts** additionally.

*Example in wood: After clicking **Frame Wall** on the wall, the frame and parts are created automatically:*



View of the frame:



Mandatory condition: Parts will be split if the wall will have a link with sheathing configuration!

Link Wall

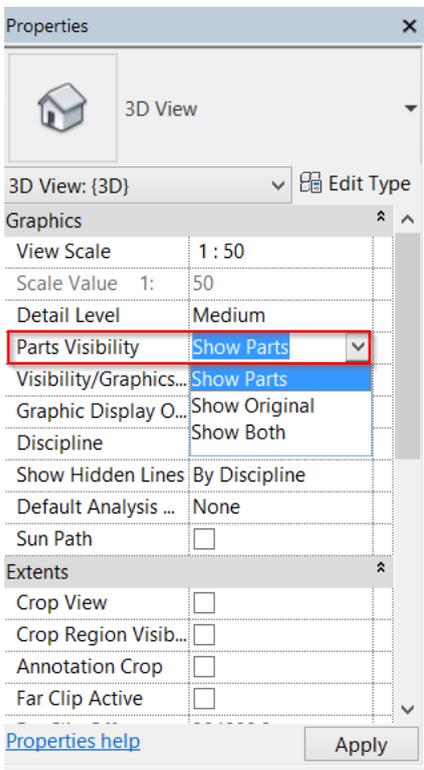
Family: Basic Wall
 Type: ASeparate Modules
 Total thickness: 381

Layers

EXTERIOR SIDE												
Function	Material	Thickness	Framing Layer	Framing Configuration	Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts	
1	Finish2	Wood External Decoro	28 mm	Horizontal Siding	Horizontal Siding	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>	
2	Finish2	Wood Horizontal Siding	22 mm	Horizontal Siding	-- None --	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>	
3	Finish1	Wood Vertical Nailers (28)	28 mm	Vertical Nailer	-- None --	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>	
4	Substrate	Wood Vertical Nailers (18)	18 mm	Vertical Nailer	-- None --	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>	
5	Structure	Wood	200 mm	Frame	Frame	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>	
6	Substrate	Rigid insulation	15 mm	None	-- None --	Fixed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>	
7	Substrate	Wood Secondary Frame	45 mm	Secondary Frame	-- None --	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>	
8	Finish2	Sheathing(1)	12 mm	Sheathing	-- None --	Fixed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Frame	<input checked="" type="checkbox"/>	
9	Finish2	Sheathing(2)	12 mm	Sheathing	-- None --	Fixed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Frame - 1 Ex & 1 In Layers	<input type="checkbox"/>	

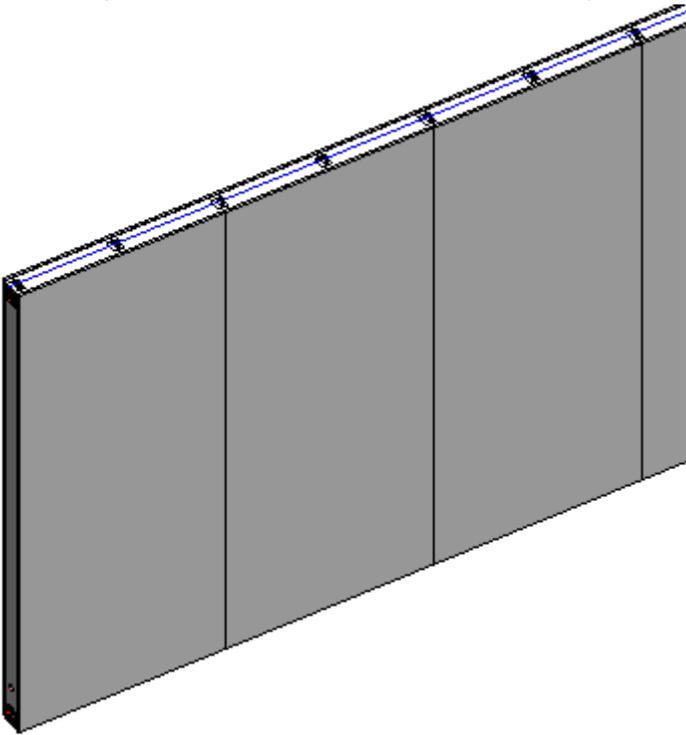
Cancel OK

Note: Don't forget to switch on **Show Parts** or **Show Both** near **Parts Visibility** in **View Properties** in order to see parts:

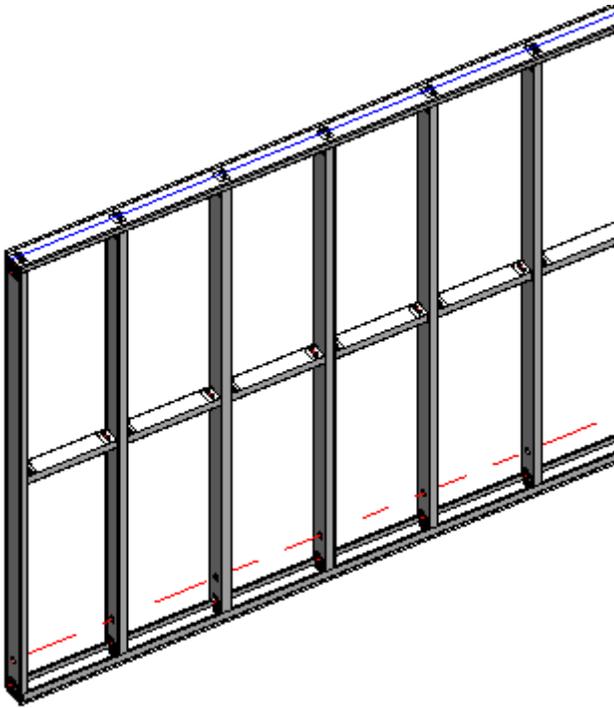


Example in metal:

*after clicking **Frame Wall** on the wall, the frame and parts are created automatically:*



View of the frame:



Mandatory condition: Parts will be split if the wall will have a link with sheathing configuration!

Link Wall

Family: Basic Wall
 Type: Ext - 16+102+16 C+C
 Total thickness: 153

Layers

EXTERIOR SIDE										
Function	Material	Thickness	Framing Layer	Framing Configuration	Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configu
0	Finish2	by Category	None	-- None --	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --
1	Finish1	Wood Sheathing, Chipboard	Sheathing	-- None --	Fixed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Frame - 1 Ex & 1 In Layers
2	Structure	Metal Stud Layer	Frame	M_C+C	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-- None --
3	Finish1	Wood Sheathing, Chipboard	Sheathing II	-- None --	Fixed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Frame - 1 Ex & 1 In Layers

Cancel OK

Note: Don't forget to switch on **Show Parts** or **Show Both** near **Parts Visibility** in **View Properties** in order to see parts:

Properties

3D View

3D View: (3D) Edit Type

Graphics

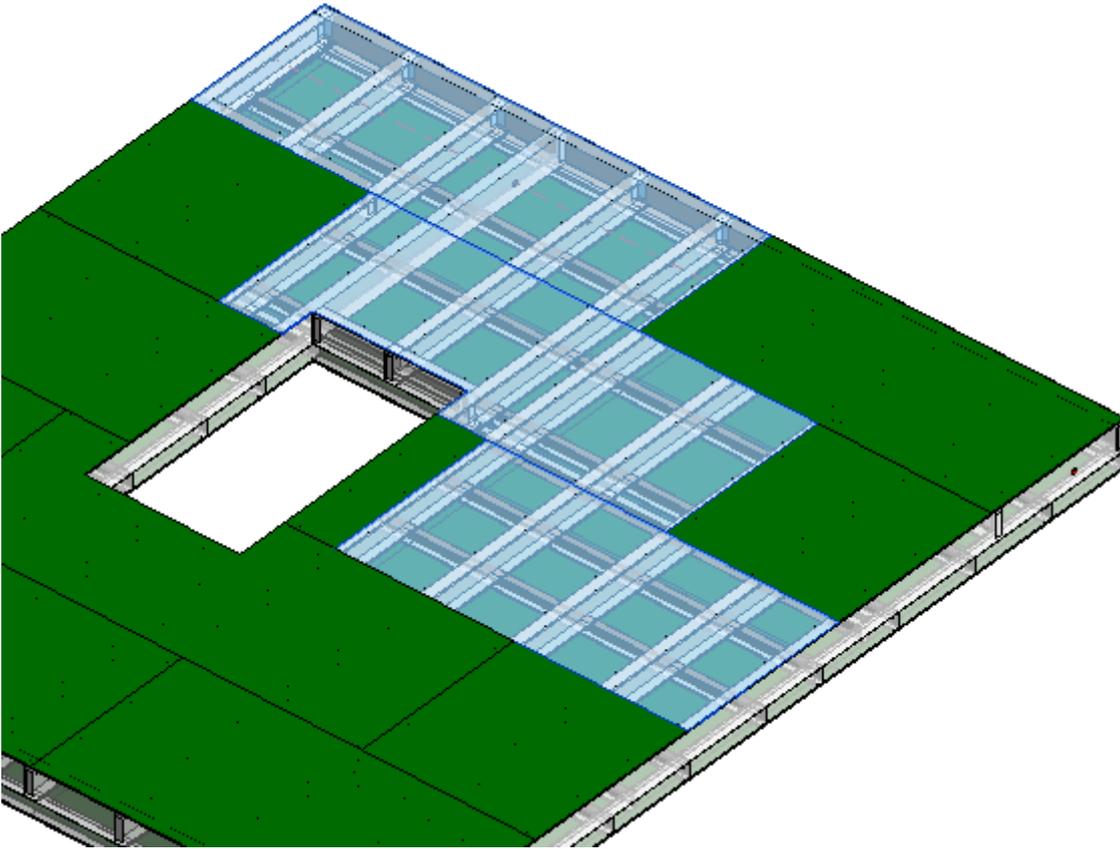
View Scale	1 : 50
Scale Value 1:	50
Detail Level	Medium
Parts Visibility	Show Parts
Visibility/Graphics...	Show Parts
Graphic Display O...	Show Original
Discipline	Show Both
Show Hidden Lines	By Discipline
Default Analysis ...	None
Sun Path	<input type="checkbox"/>

Extents

Crop View	<input type="checkbox"/>
Crop Region Visib...	<input type="checkbox"/>
Annotation Crop	<input type="checkbox"/>
Far Clip Active	<input type="checkbox"/>

Properties help Apply

*Example in metal: After clicking **Frame Floor** on the floor, the frame and parts are created automatically:*



View of the frame:



Mandatory condition: Parts will be split if the floor will have a link with sheathing configuration!

Link Floor

Family: Floor
Type: Floor 203 + SH20 - B100 -SH20
Total thickness: 366

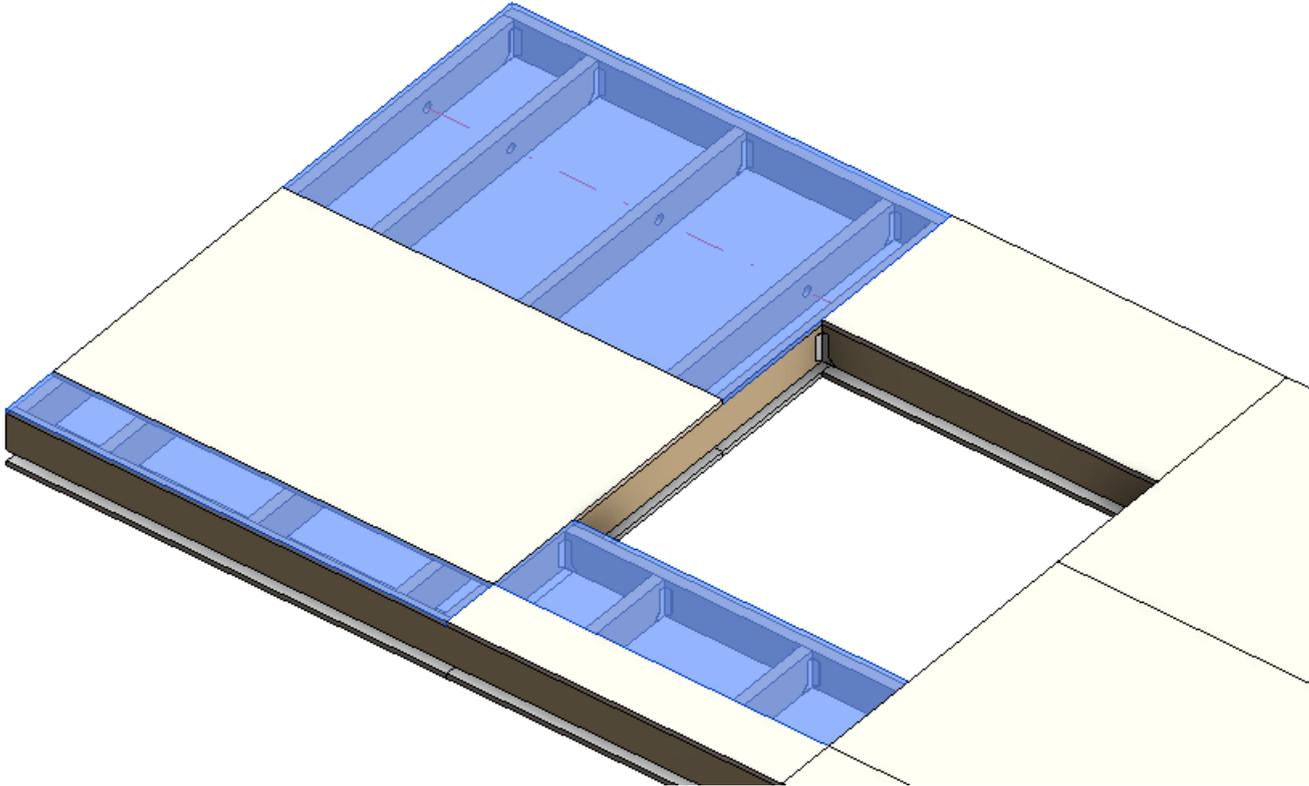
Layers

EXTERIOR SIDE								
Framing Layer	Framing Configuration	Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts
Flooring	M_Floor Flooring	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
Sheathing	-- None --	Fixed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Floor Frame - 1 Top & 1 Bottom	<input checked="" type="checkbox"/>
Frame	M_Floor Metal Frame	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
Batten	M_Floor Batten	Fixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-- None --	<input checked="" type="checkbox"/>
Sheathing	-- None --	Fixed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Floor Frame - 1 Top & 1 Bottom	<input checked="" type="checkbox"/>

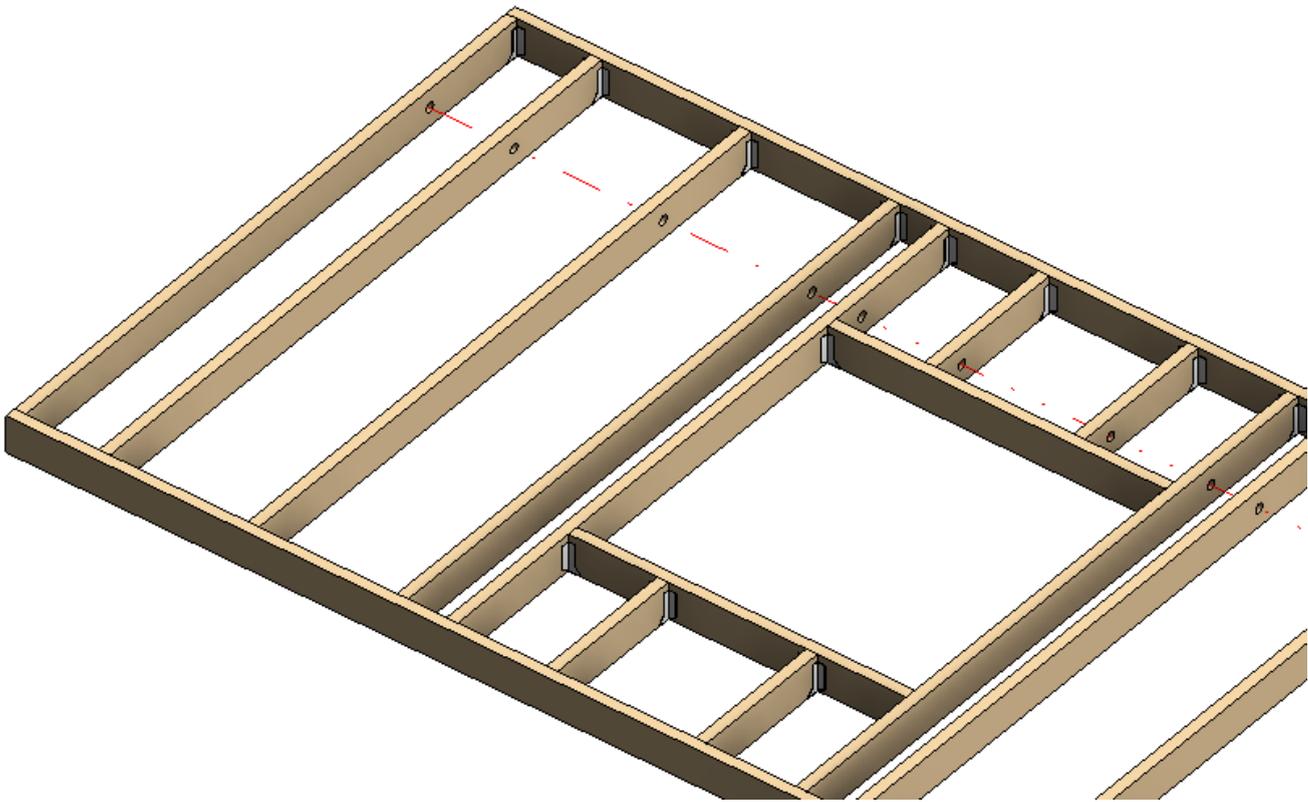
Cancel OK

Example in wood:

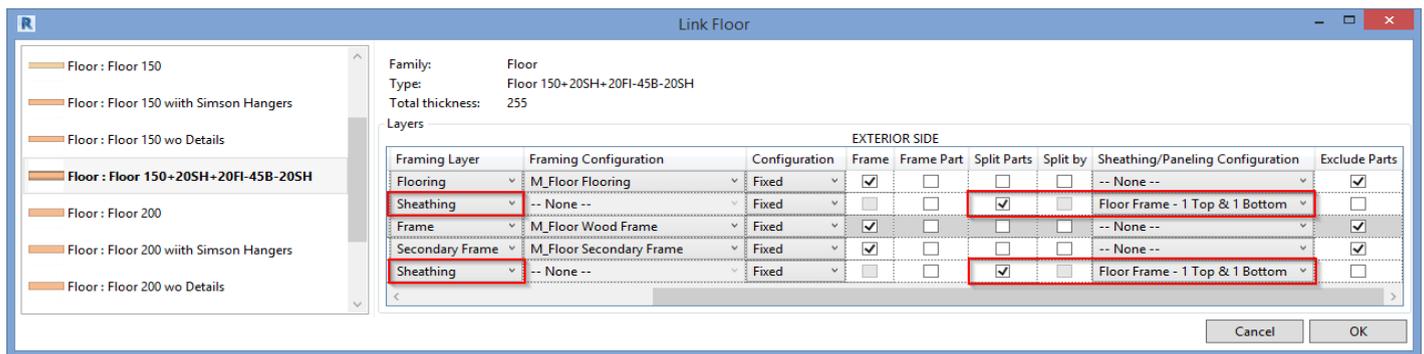
*After clicking **Frame Floor** on the floor, the frame and parts are created automatically:*



View of the frame:



Mandatory condition: Parts will be split if the floor will have a link with sheathing configuration!



Number Elements with "Frame Wall" Command

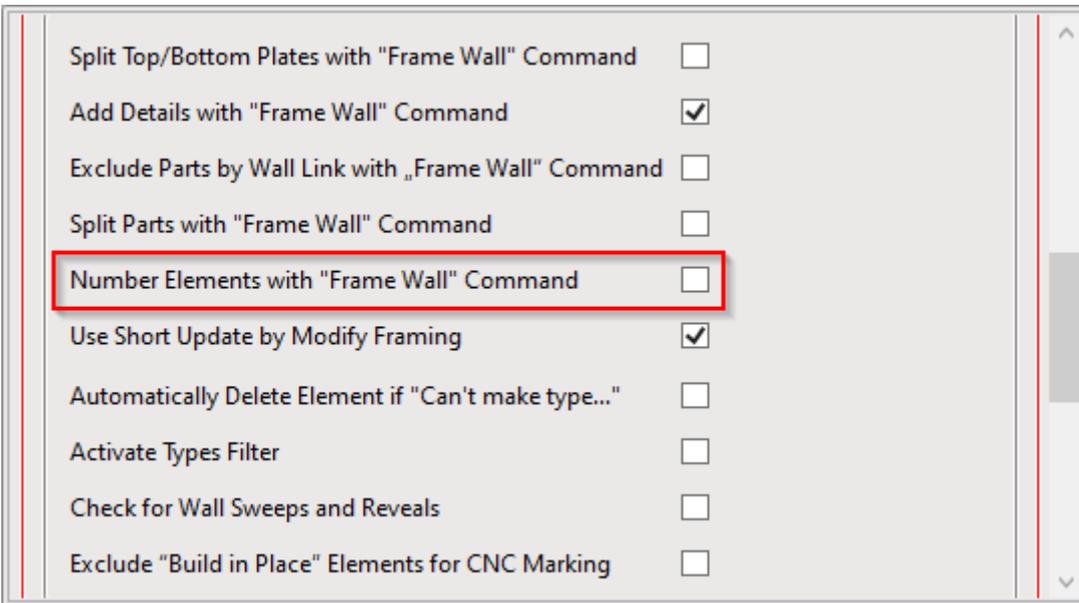
(in Wall+, Wall+M)

Number Elements with "Frame Floor" Command

(in Floor+, Floor+M)

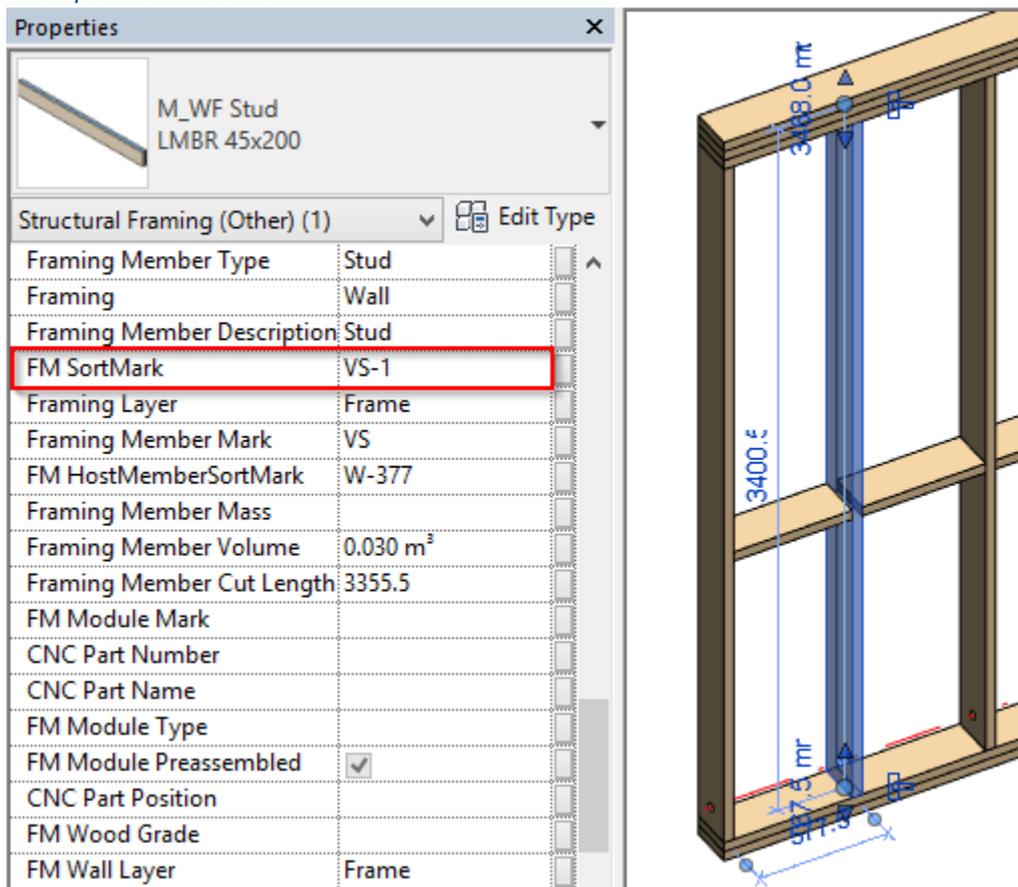
Number Elements with "Frame Roof" Command

(in Roof+, Roof+M)

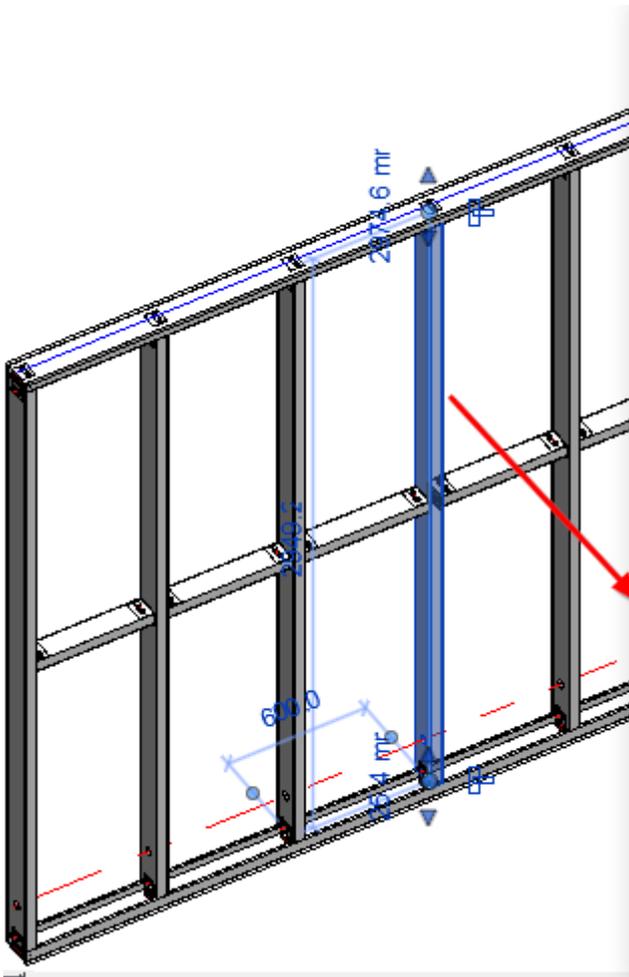


Number Elements with "Frame Wall/Floor/Roof" Command – numbers elements automatically after using **Frame Wall**, **Frame Floor** or **Frame Roof** and writes result to **FM SortMark** instance parameter. You will not need to use **Wall+**, **Floor+** or **Roof+** → **Number Elements** additionally.

Example with wood wall:



Example with metal wall:

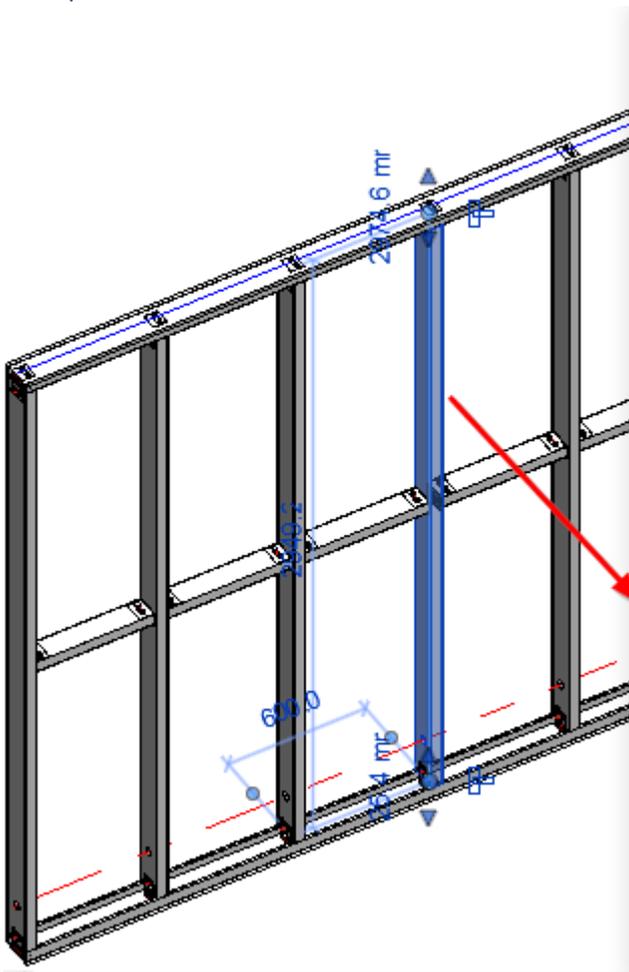


The image shows a 3D perspective view of a wall framing system. The wall is composed of vertical studs and horizontal joists. A red arrow points from a vertical stud in the 3D model to the 'FM SortMark' field in the properties panel. The properties panel is titled 'Properties' and contains the following information:

M_MF C+C Stud C12051-15	
Structural Framing (Other) (1)	Edit Type
FM HostSortMark	
FM Number of Connectors	0.000000
Image	
Comments	
Mark	
Framing Member	Stud
Framing Member Type	Stud
Framing Member Cut Length	2898.4
Framing	Wall
Framing Member Description	Stud
FM SortMark	VS-14
Framing Layer	Frame
Framing Member Mark	VS
FM HostMemberSortMark	
Framing Member Mass	
Framing Member Volume	0.001 m ³
Link to Connected Wall	<input checked="" type="checkbox"/>
Build in Place	<input checked="" type="checkbox"/>
CNC Part Number	

Buttons: [Properties help](#), [Apply](#)

Example with metal floor:

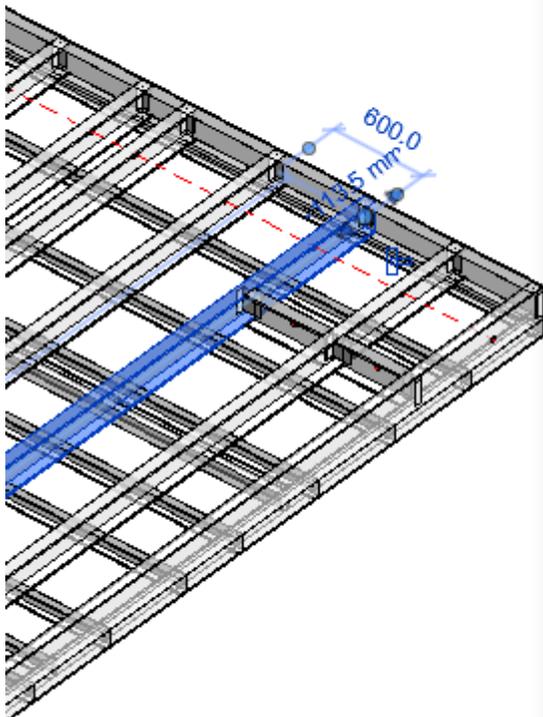


The image shows a 3D perspective view of a wall framing system with a metal floor. The wall is composed of vertical studs and horizontal joists. A red arrow points from a vertical stud in the 3D model to the 'FM SortMark' field in the properties panel. The properties panel is titled 'Properties' and contains the following information:

M_MF C+C Stud C12051-15	
Structural Framing (Other) (1)	Edit Type
FM HostSortMark	
FM Number of Connectors	0.000000
Image	
Comments	
Mark	
Framing Member	Stud
Framing Member Type	Stud
Framing Member Cut Length	2898.4
Framing	Wall
Framing Member Description	Stud
FM SortMark	VS-14
Framing Layer	Frame
Framing Member Mark	VS
FM HostMemberSortMark	
Framing Member Mass	
Framing Member Volume	0.001 m ³
Link to Connected Wall	<input checked="" type="checkbox"/>
Build in Place	<input checked="" type="checkbox"/>
CNC Part Number	

Buttons: [Properties help](#), [Apply](#)

Example with metal floor:



Properties

M_MF Stud-Joist
C20376-15

Structural Framing (Other) (1) Edit Type

Comments	
Mark	
Framing Member	Common Joist
Framing Member Type	Joist
Framing Member Cut Length	5845.7
Framing	Floor
Framing Member Description	Common Joist
FM SortMark	J-1
Framing Layer	Frame
Framing Member Mark	J
FM HostMemberSortMark	F-5
Framing Member Mass	26.232 kg
Framing Member Volume	0.003 m ³
CNC Part Number	
CNC Part Name	
FM Module Mark	
FM Wall Layer	Frame
FM Module Type	

[Properties help](#) Apply

Example with wood floor:

Properties

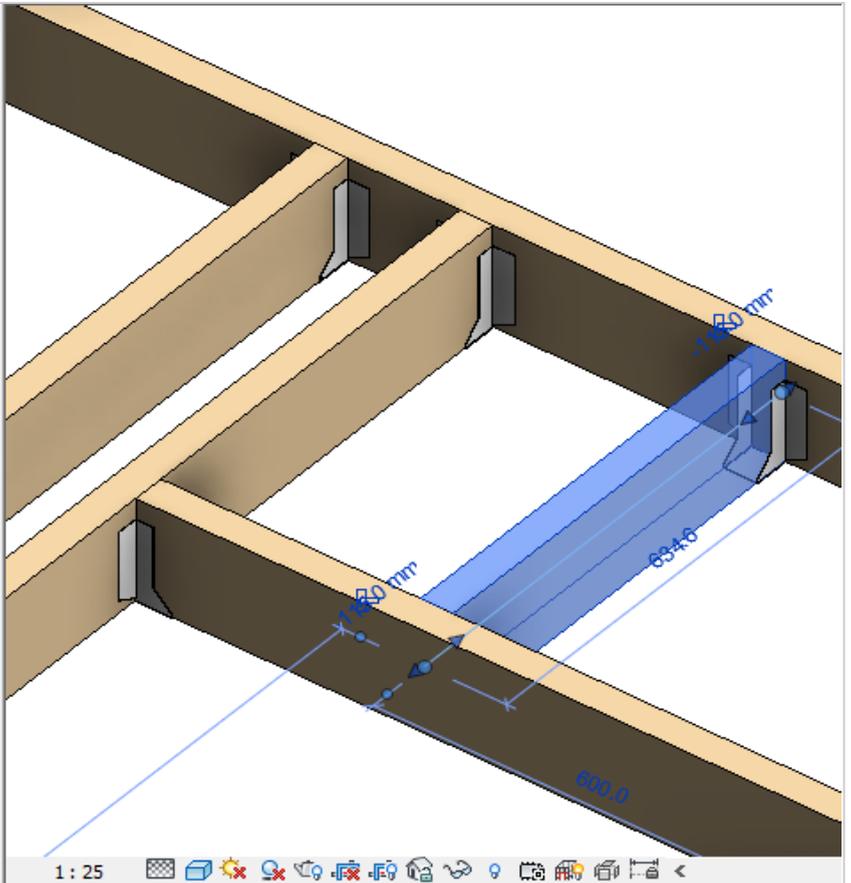
M_WF Joist
LMBR 45x150

Structural Framing (Other) (1) Edit Type

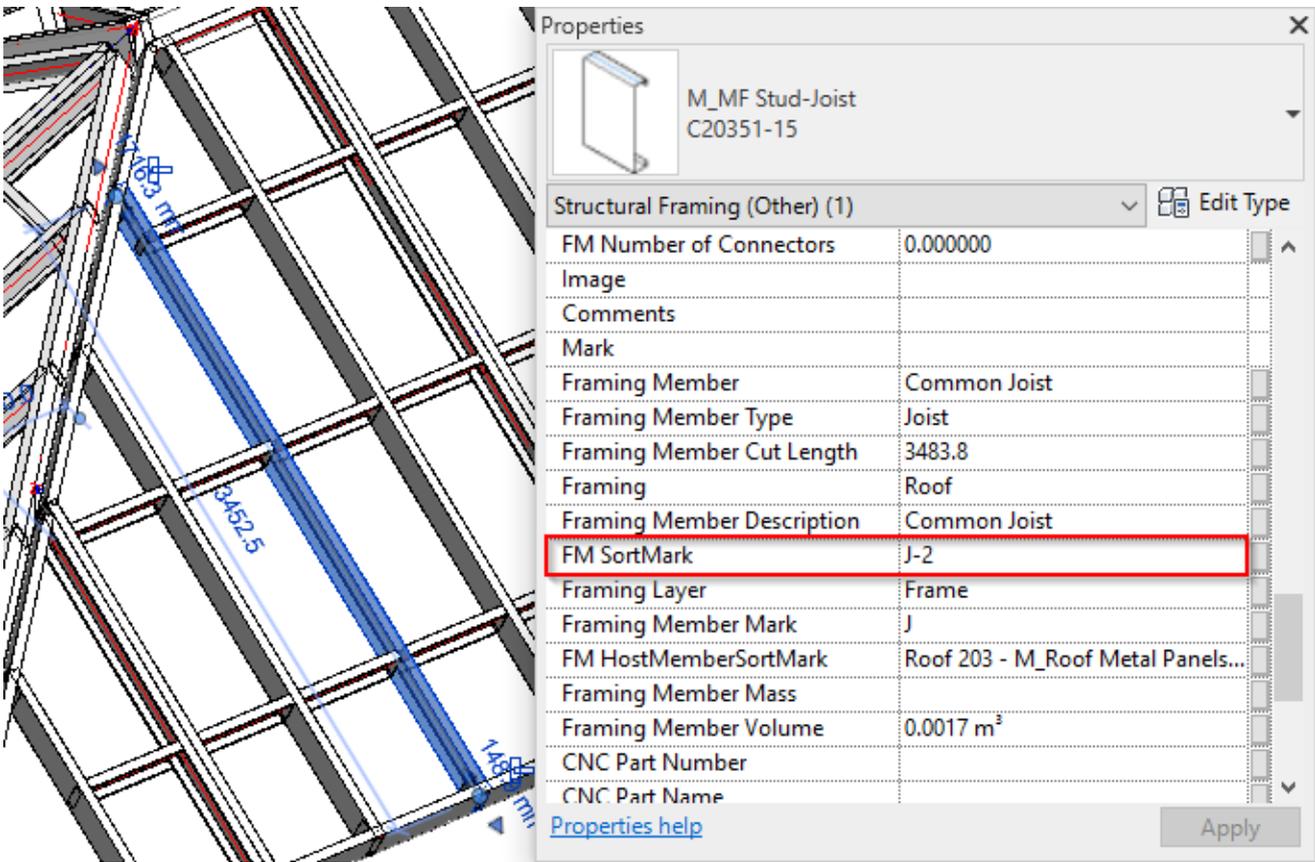
Identity Data

FM HostSortMark	
FM Number of Connectors	0.000000
Image	
Comments	
Mark	
Framing Member	Tail Joist
Framing Member Type	Joist
Framing Member Cut Length	589.6
Framing	Floor
Framing Member Description	Tail Joist
FM SortMark	TJ-2
Framing Layer	Frame
Framing Member Mark	TJ
FM HostMemberSortMark	F5
Framing Member Mass	
Framing Member Volume	0.004 m ³
CNC Part Number	
CNC Part Name	
FM Module Mark	
FM Wall Layer	Frame

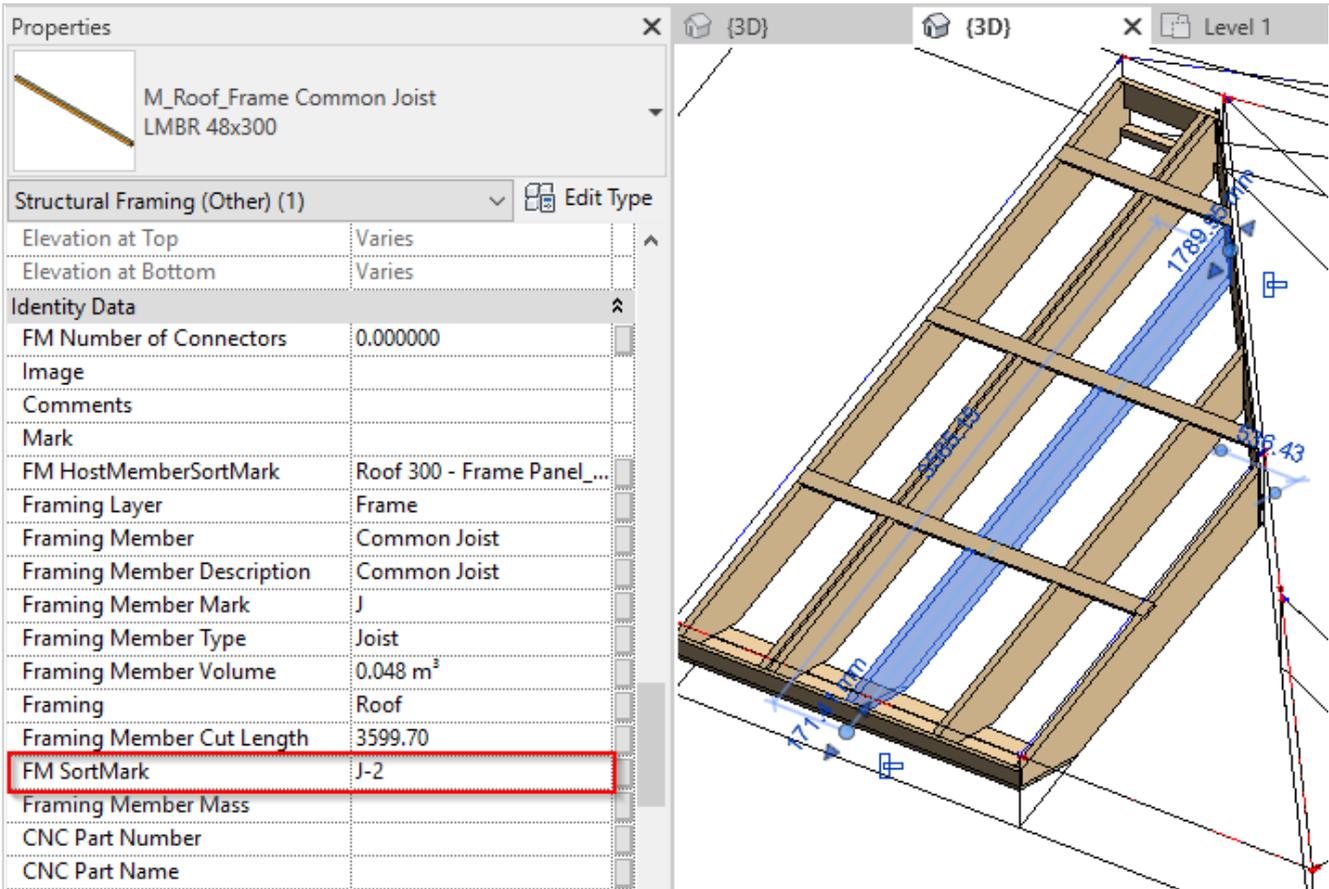
[Properties help](#) Apply



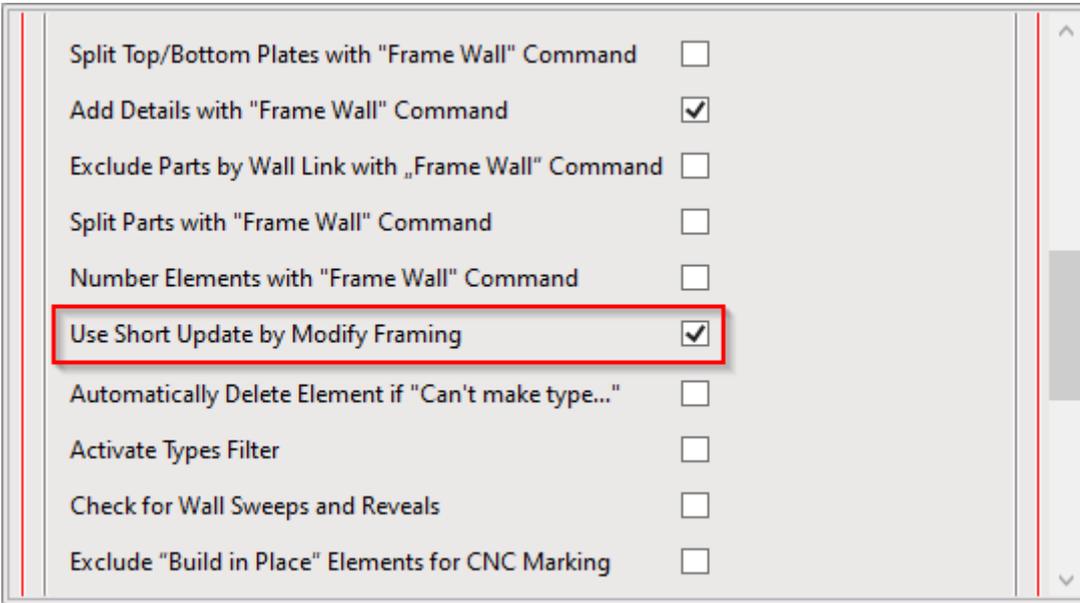
Example with metal roof:



Example with wood roof:



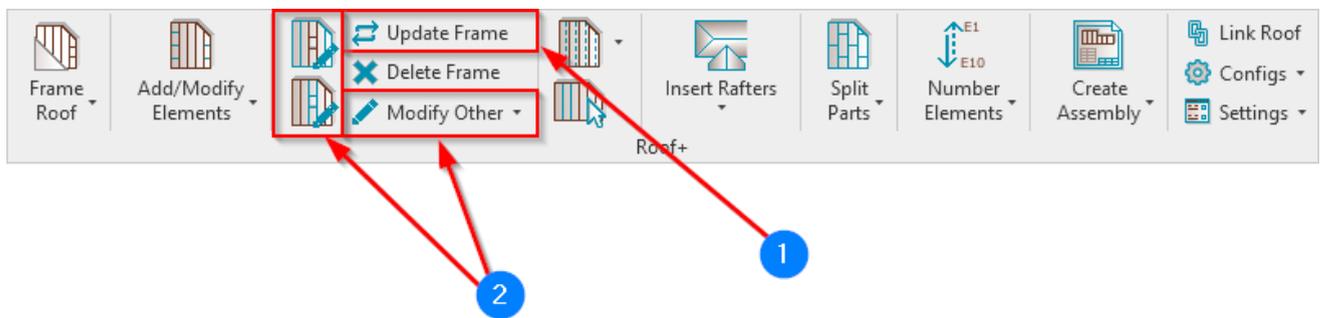
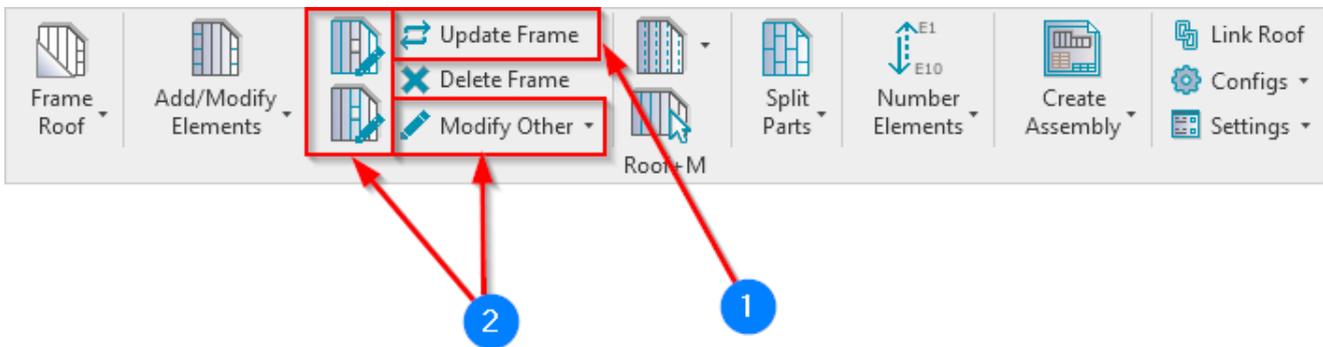
Use Short Update by Modify Framing

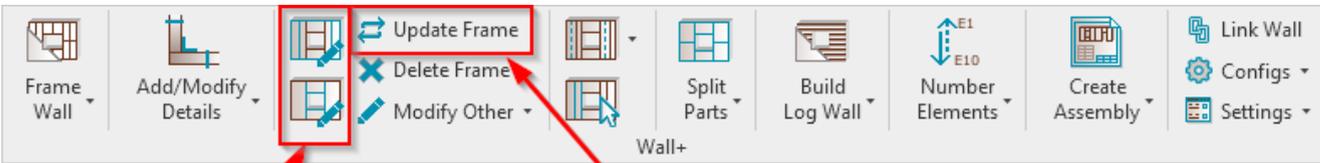


Use Short Update by Modify Framing – while modifying openings, connections, etc., **Wall+**, **Floor+** or **Roof+** will update just selected opening or connection, without updating whole wall. This option saves time during the updating process.

In such a case, the regular **Update Frame** function will work like a long update, which will update the whole wall and during the modification process only a short update will be used.

- 1 - Long Update
- 2 - Short Update





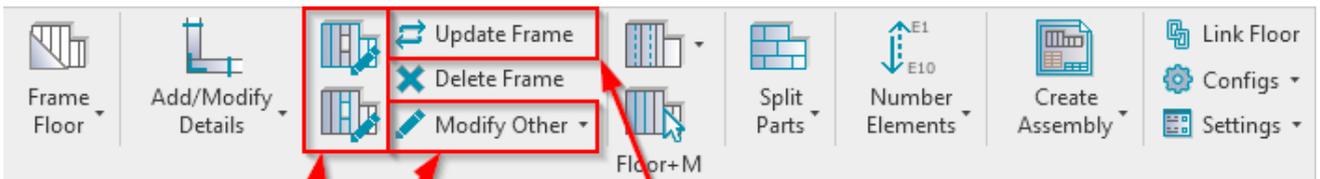
Short Update

Full Update



Short Update

Full Update



2

1

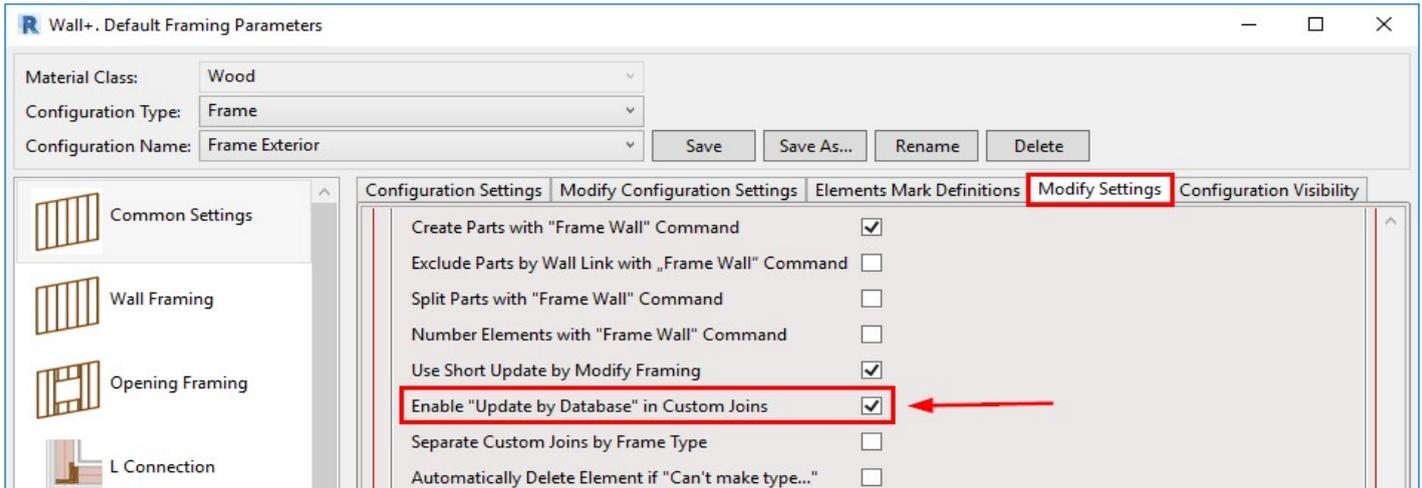


2

1

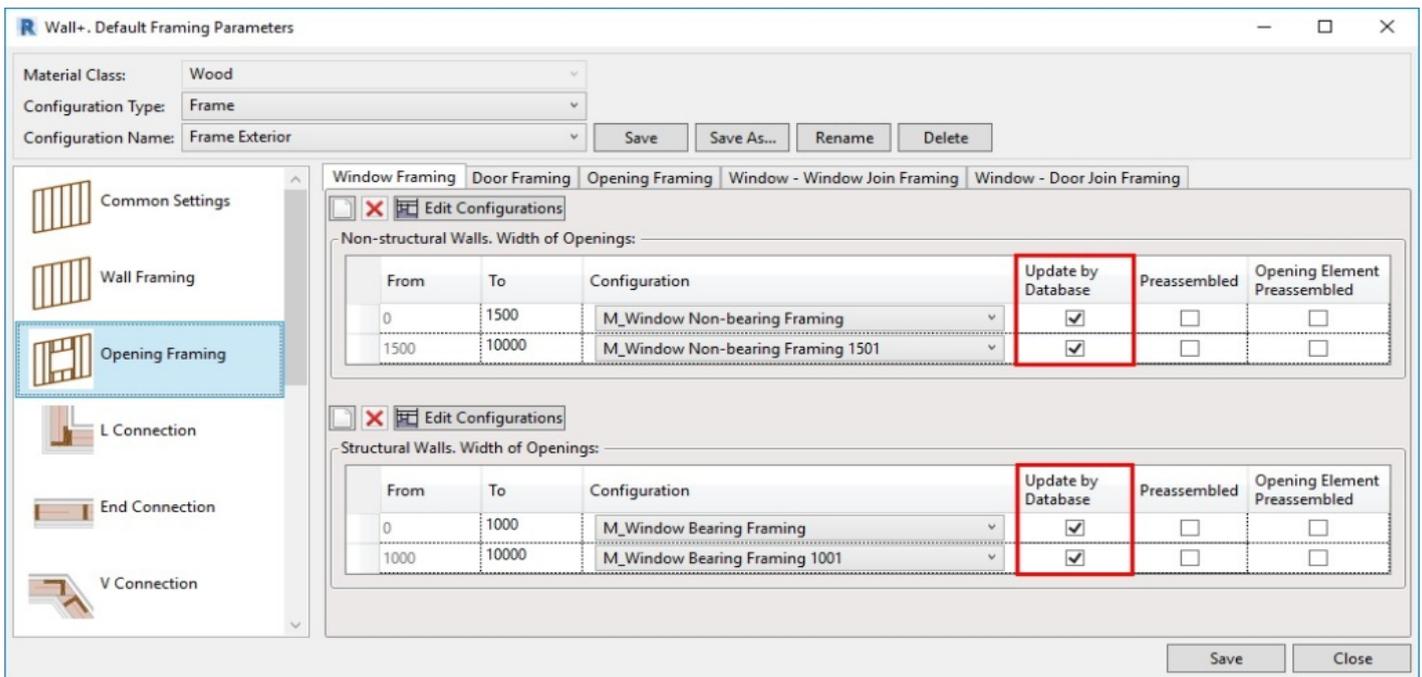
“Update by Database” in Custom Joins

Link configurations together throughout all parts of your framing configurations to reflect changes made to any one database configuration. You can find this setting in the Modify Settings tab. Tick '**Enable "Update by Database" in Custom Joins**' in Custom Joins'.



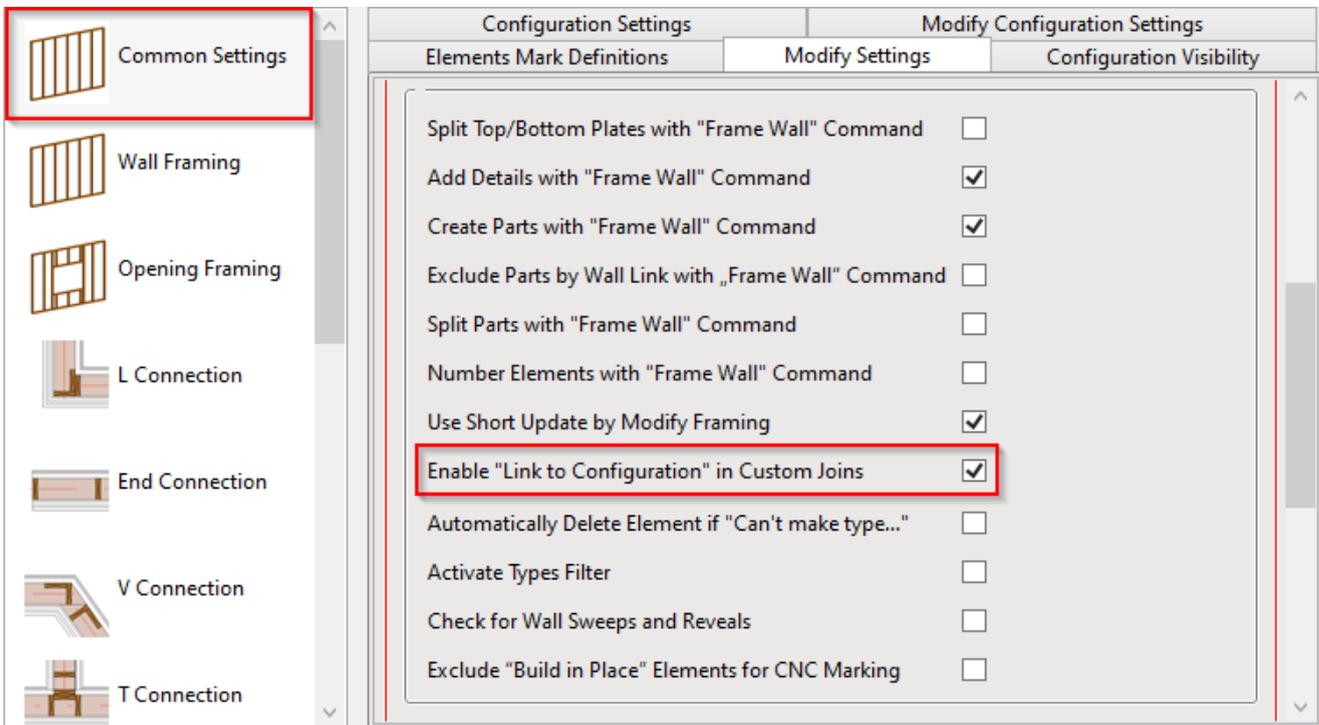
(<https://agacad.com/wp-content/uploads/2021/01/4.jpg>)

Then, a new column – **Update by Database** – will appear in all Custom Joins. Below, for example, you can see the new column in the Window Framing tab:

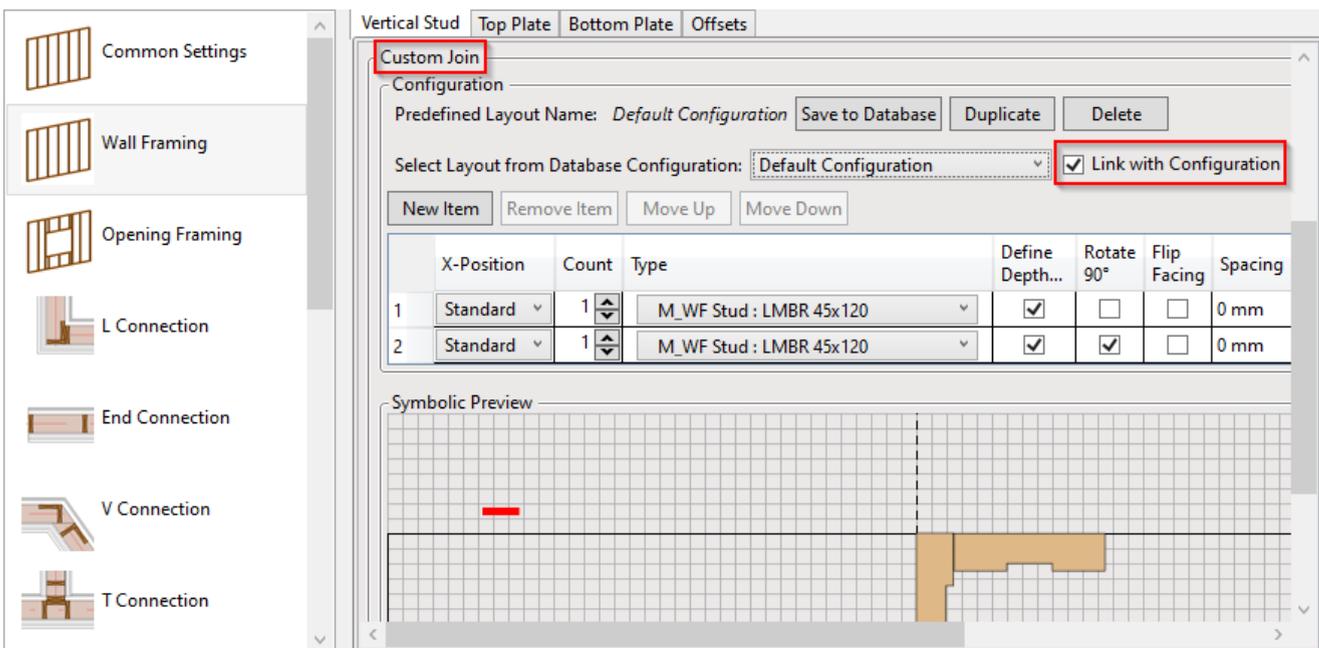


(<https://agacad.com/wp-content/uploads/2021/01/5.jpg>)

Enable "Link to Configuration" in Custom Joins

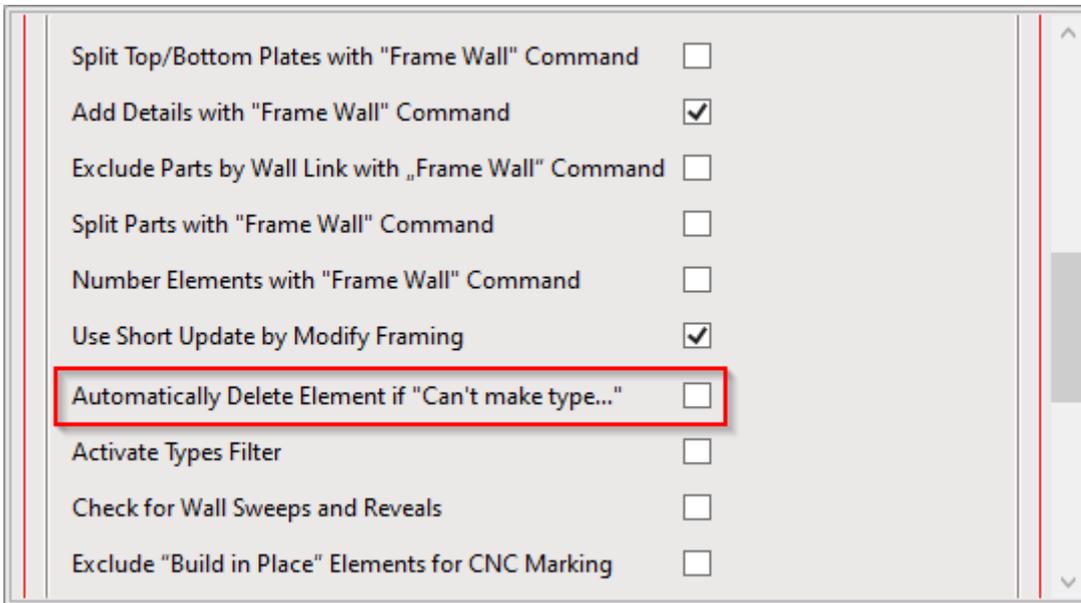


Enable "Link to Configuration" in Custom Joins – enables "Link to Configuration" button in every dialog with custom joints.



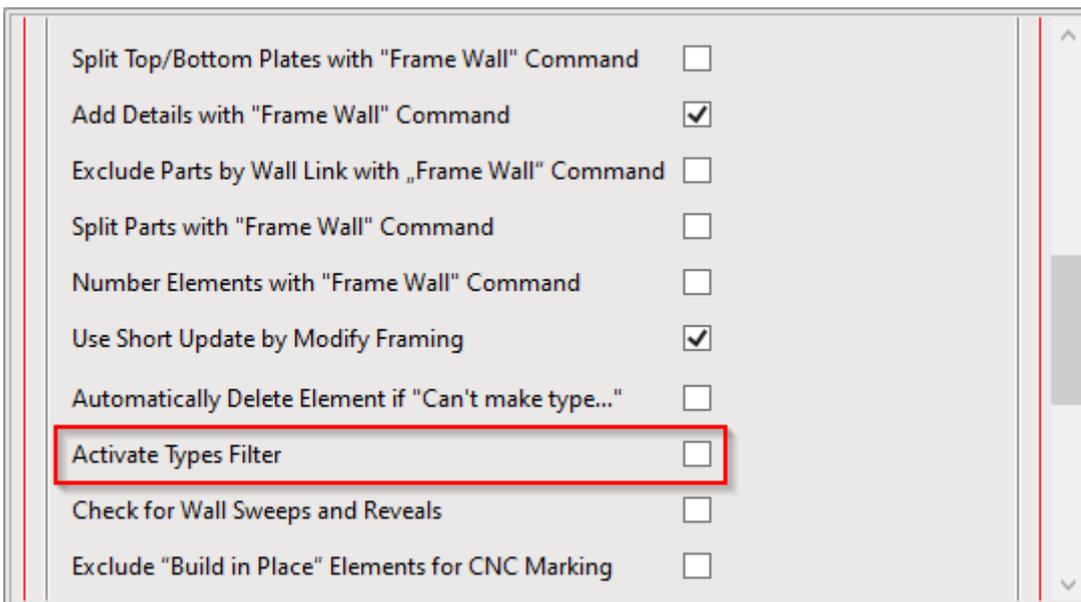
Read more about Custom Join here >> (<https://agacad.freshdesk.com/support/solutions/articles/44001990031-custom-join>).

Automatically Delete Element if "Can't make type..."



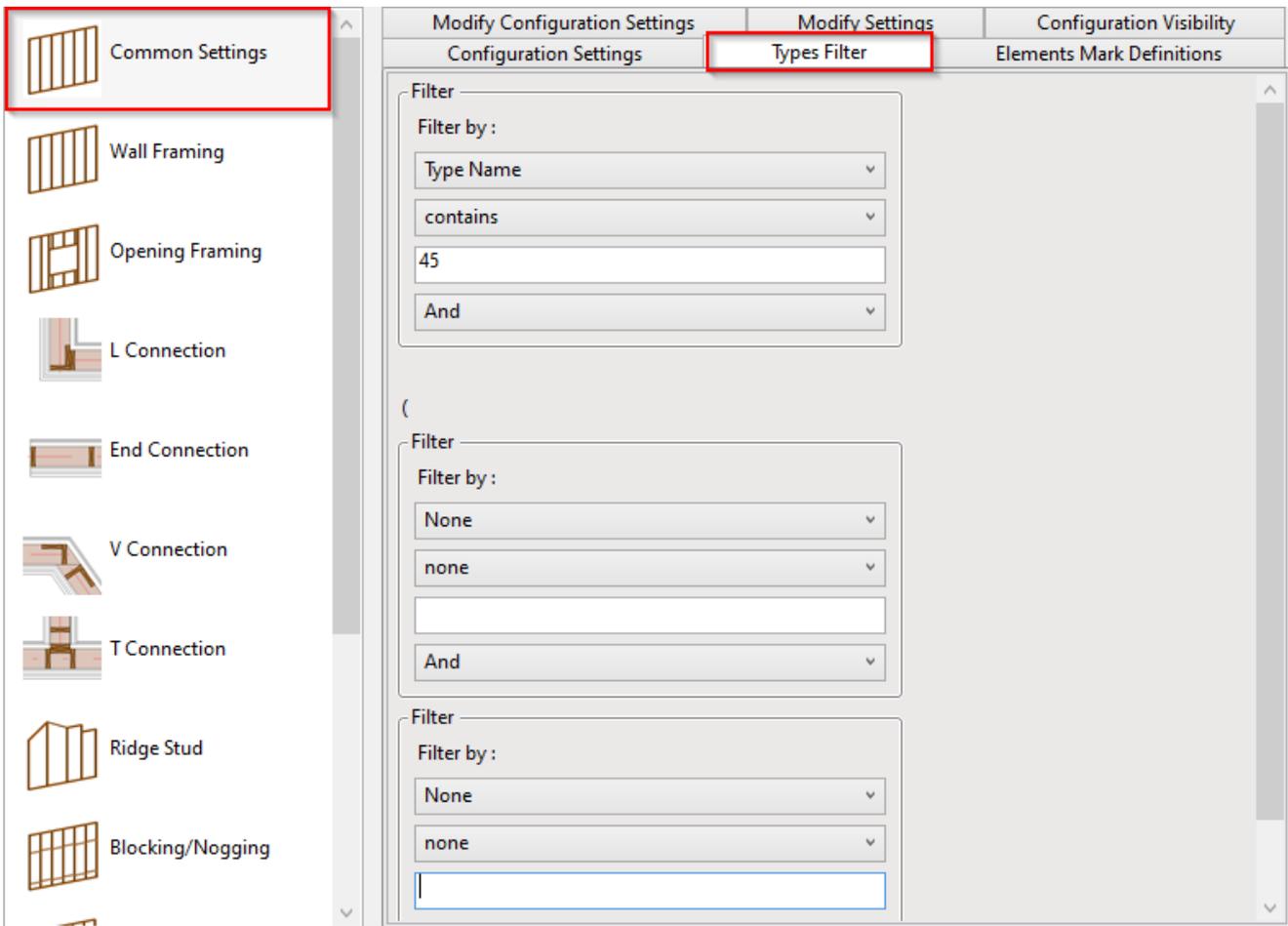
Automatically Delete Element if "Can't make type..." – deletes elements automatically when there is no possibility to create type.

Active Types Filter

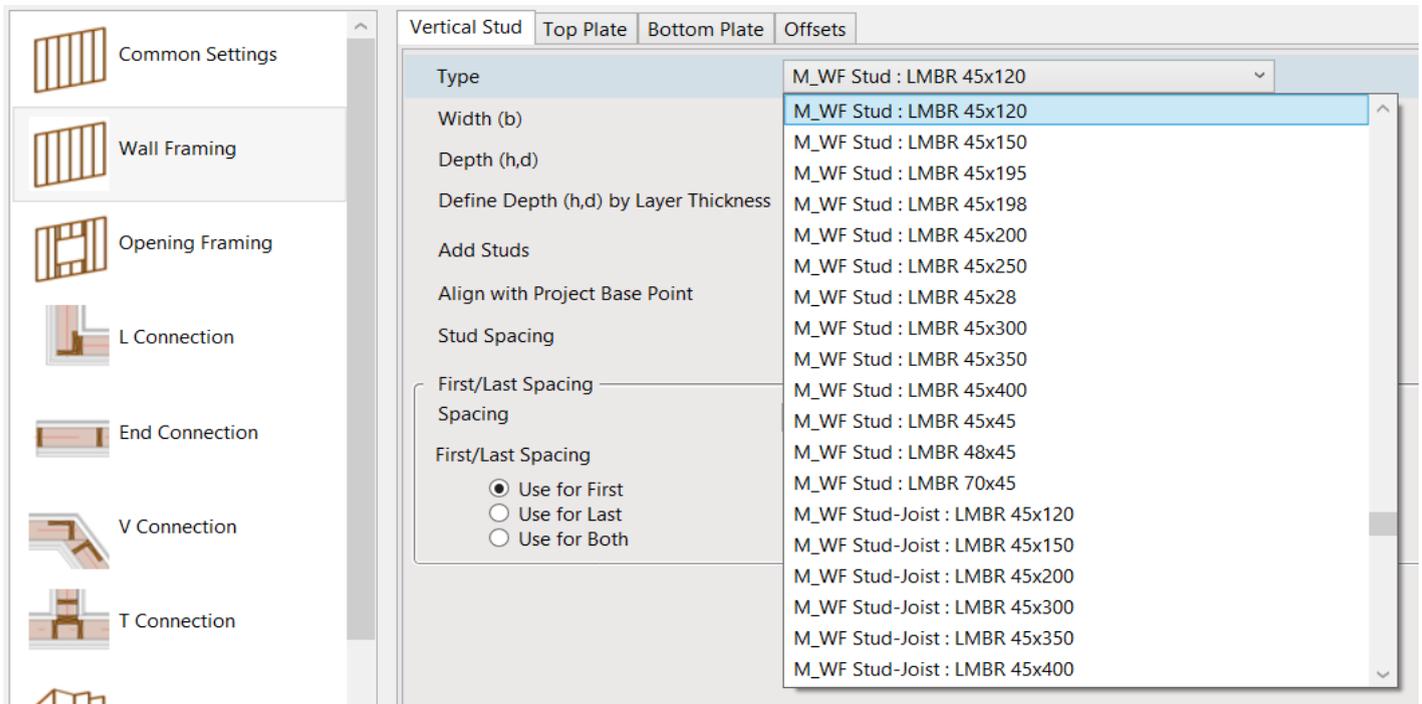


Active Types Filter – an additional **Types Filter** dialog where you can add your rules for filtering framing elements. It can help you select and find the right types for wall/floor/roof framing.

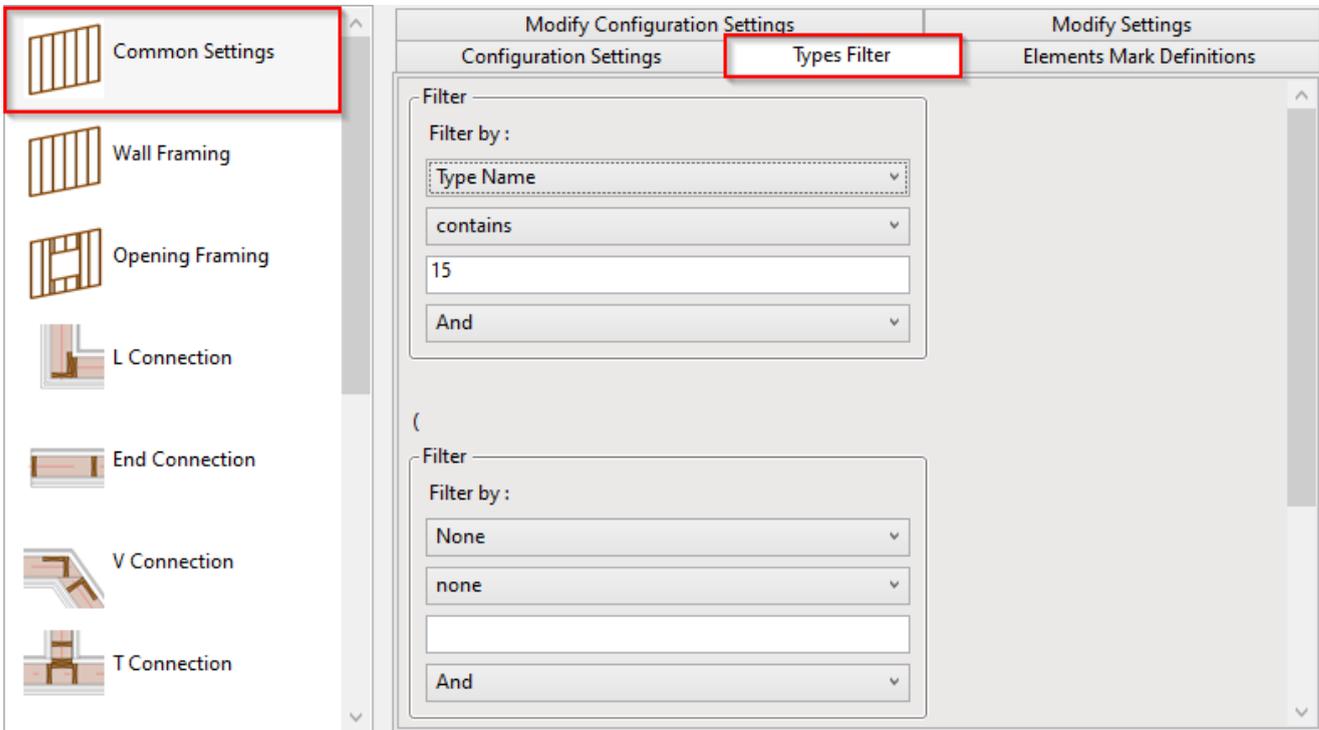
Example with Wood Framing Wall+:



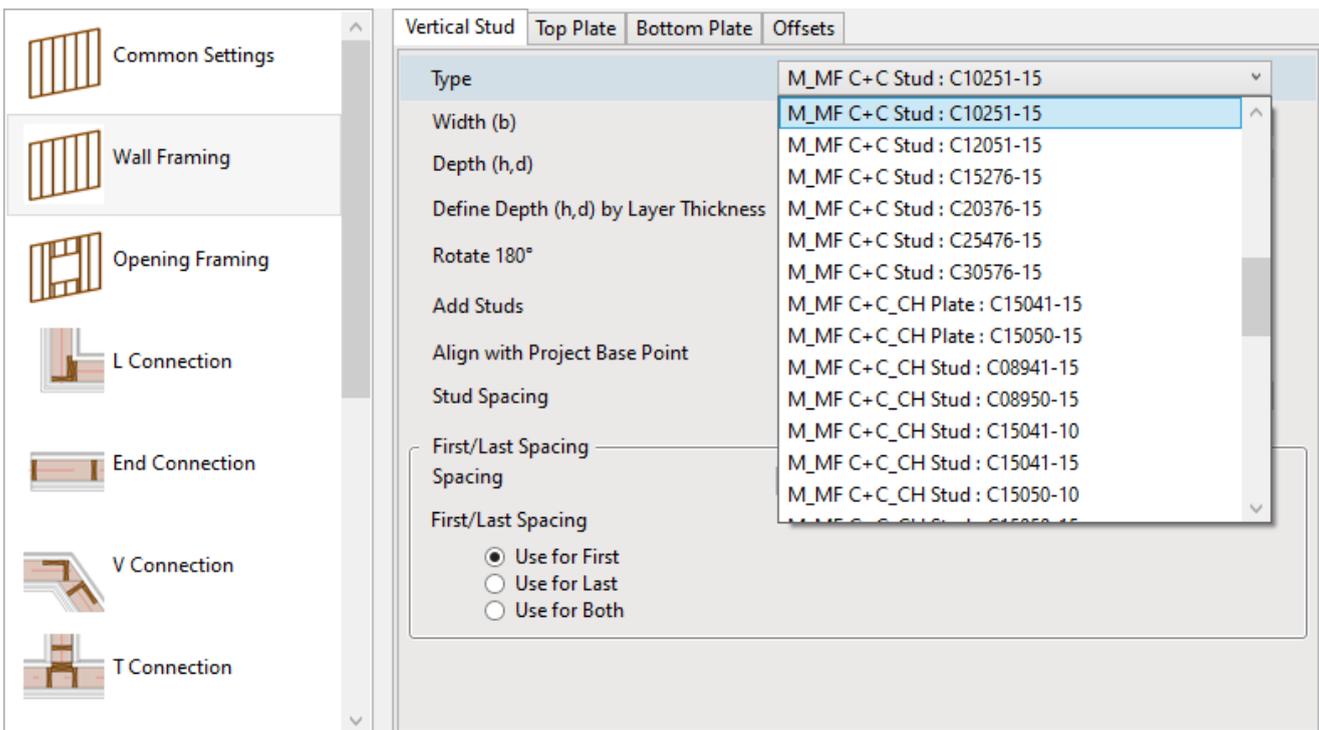
In such case **Wall+** will show only the types which fit the filter:



Example with Metal Framing Wall+:



In such case **Wall+M** will show only the types which fit the filter:



Check for Wall Sweeps and Reveals

(in Wall+, Wall+M)

Split Top/Bottom Plates with "Frame Wall" Command	<input type="checkbox"/>
Add Details with "Frame Wall" Command	<input checked="" type="checkbox"/>
Exclude Parts by Wall Link with „Frame Wall" Command	<input type="checkbox"/>
Split Parts with "Frame Wall" Command	<input type="checkbox"/>
Number Elements with "Frame Wall" Command	<input type="checkbox"/>
Use Short Update by Modify Framing	<input checked="" type="checkbox"/>
Automatically Delete Element if "Can't make type..."	<input type="checkbox"/>
Activate Types Filter	<input type="checkbox"/>
Check for Wall Sweeps and Reveals	<input type="checkbox"/>
Exclude "Build in Place" Elements for CNC Marking	<input type="checkbox"/>

Check for Wall Sweeps and Reveals – tries and analyse wall sweeps and reveals for wall framing.

Exclude "Build in Place" Elements for CNC Marking

Split Top/Bottom Plates with "Frame Wall" Command	<input type="checkbox"/>
Add Details with "Frame Wall" Command	<input checked="" type="checkbox"/>
Exclude Parts by Wall Link with „Frame Wall" Command	<input type="checkbox"/>
Split Parts with "Frame Wall" Command	<input type="checkbox"/>
Number Elements with "Frame Wall" Command	<input type="checkbox"/>
Use Short Update by Modify Framing	<input checked="" type="checkbox"/>
Automatically Delete Element if "Can't make type..."	<input type="checkbox"/>
Activate Types Filter	<input type="checkbox"/>
Check for Wall Sweeps and Reveals	<input type="checkbox"/>
Exclude "Build in Place" Elements for CNC Marking	<input type="checkbox"/>

Exclude "Build in Place" Elements for CNC Marking – Build in Place elements will not be used in CNC numbering. Only prefabricated elements will be used in CNC.

Example with wood:

If **Build in Place** parameter is ticked, then the element will be not used in CNC:

Properties

M_WF Stud
LMBR 45x200

Structural Framing (Other) (1) Edit Type

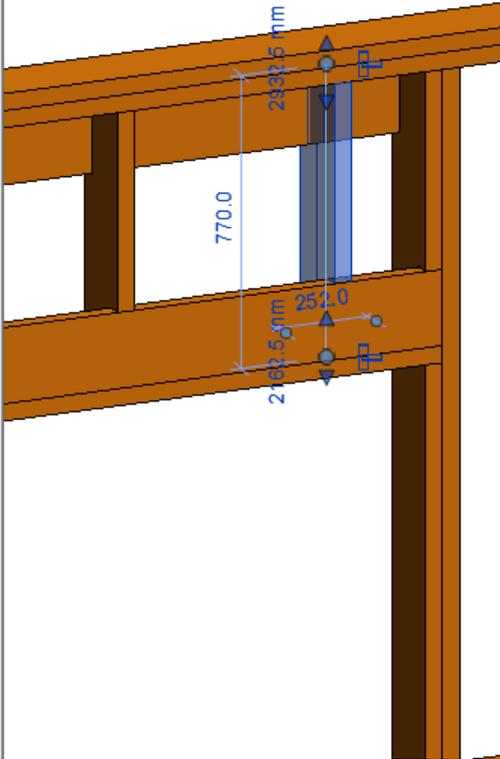
Geometric Position

Start Extension	-22.5
End Extension	-22.5
yz Justification	Uniform
y Justification	Origin
y Offset Value	0.0
z Justification	Origin
z Offset Value	0.0

Construction

#d	200.0
Build in Place	<input checked="" type="checkbox"/>
Link to Connected Wall	<input type="checkbox"/>
Assembly Mass	
Element Mass	
Assembly Created-Updated	
Details Created-Updated	
DC	

[Properties help](#) Apply



CNC Part Position instance parameter is empty after using **Write Positions for CNC Marking** function:

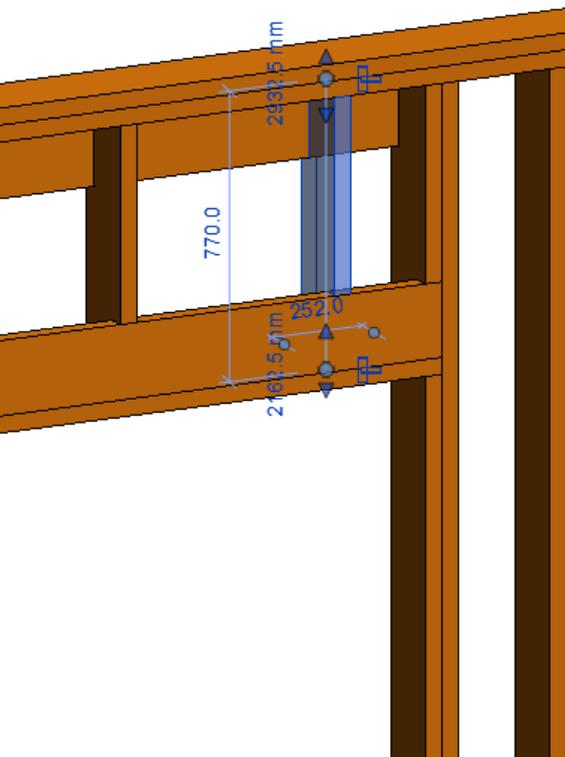
Properties

M_WF Stud
LMBR 45x200

Structural Framing (Other) (1) Edit Type

Framing Member Mark	TC
FM HostMemberSortMark	
Framing Member Mass	
Framing Member Volume	0.006 m ³
Framing Member Cut Length	725.0
FM Module Mark	288
CNC Part Number	
CNC Part Name	
FM Module Type	Window
FM Module Preassembled	<input checked="" type="checkbox"/>
CNC Part Position	
FM Wood Grade	
FM Wall Layer	Frame
SDC	
Assembly Depth	
Assembly Length	
Assembly Height	

[Properties help](#) Apply



For not **Build in Place** elements **CNC Part Position** is filled up:

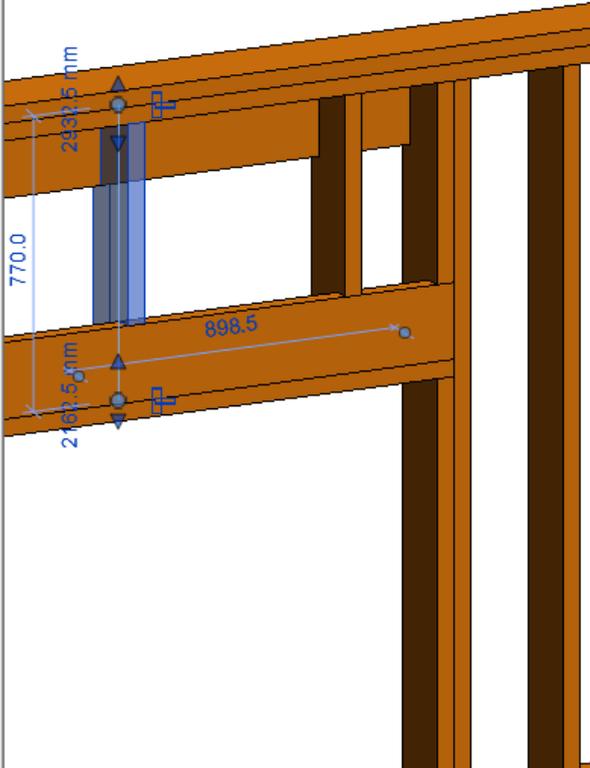
Properties

M_WF Stud
LMBR 45x200

Structural Framing (Other) (1) Edit Type

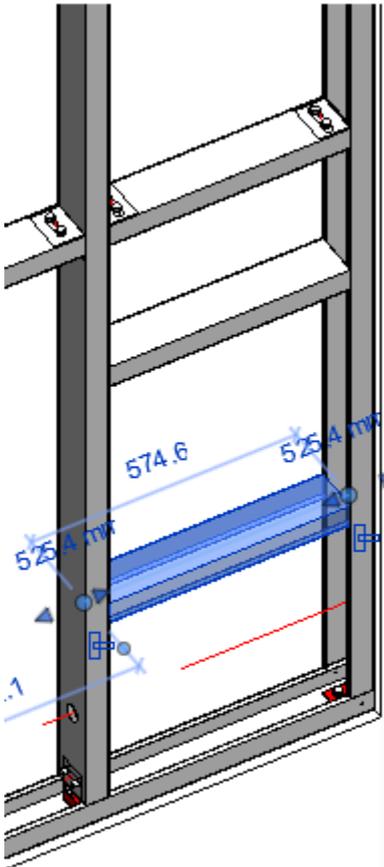
Framing Member Mark	TC
FM HostMemberSortMark	
Framing Member Mass	
Framing Member Volume	0.006 m ³
Framing Member Cut Length	725.0
FM Module Mark	288
CNC Part Number	
CNC Part Name	
FM Module Type	Window
FM Module Preassembled	<input checked="" type="checkbox"/>
CNC Part Position	2;100; 4;625
FM Wood Grade	
FM Wall Layer	Frame
SDC	
Assembly Depth	
Assembly Length	
Assembly Height	

Properties help Apply



Example with metal:

If **Build in Place** parameter is ticked, then the element will be not used in CNC:



Properties

M_MF C+C Plate
C10251-15

Structural Framing (Other) (1) Edit Type

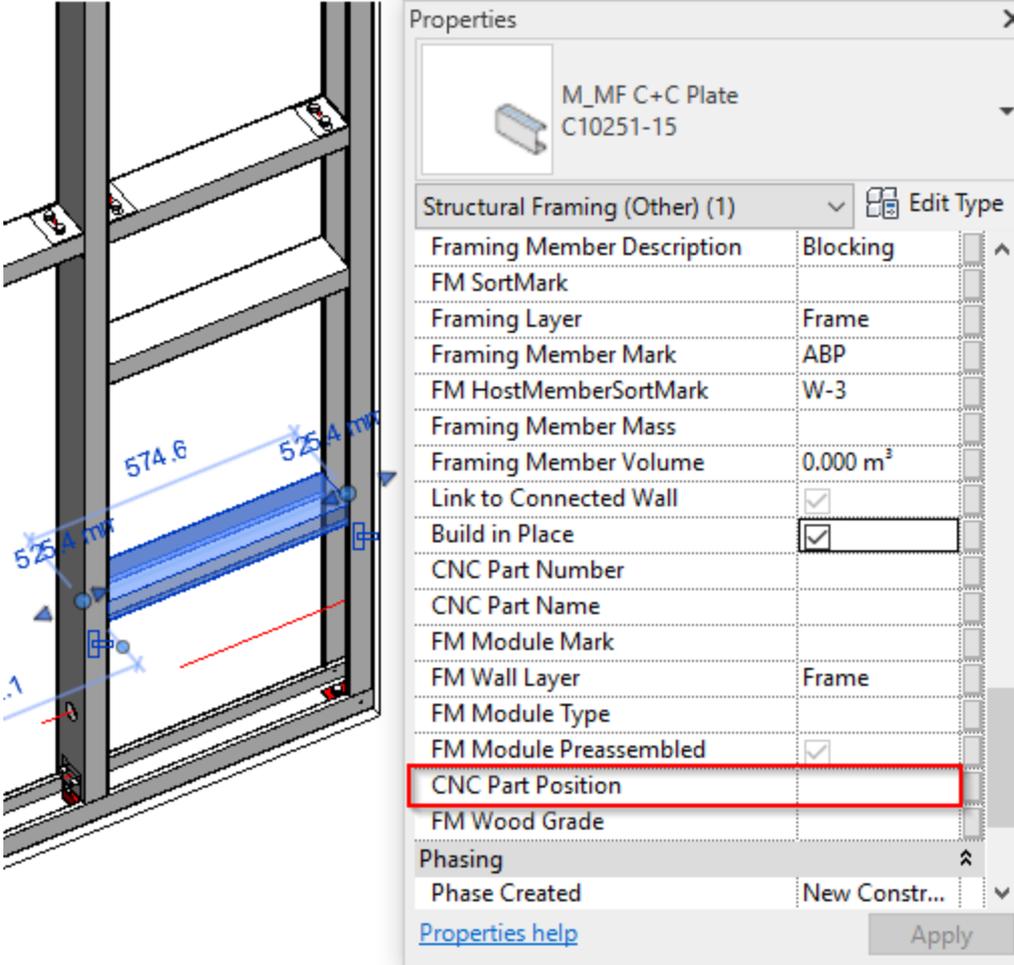
Framing Member Description	Blocking
FM SortMark	
Framing Layer	Frame
Framing Member Mark	ABP
FM HostMemberSortMark	W-3
Framing Member Mass	
Framing Member Volume	0.000 m ³
Link to Connected Wall	<input checked="" type="checkbox"/>
Build in Place	<input checked="" type="checkbox"/>
CNC Part Number	
CNC Part Name	
FM Module Mark	
FM Wall Layer	Frame
FM Module Type	
FM Module Preassembled	<input checked="" type="checkbox"/>
CNC Part Position	
FM Wood Grade	

Phasing

Phase Created New Constr...

Properties help Apply

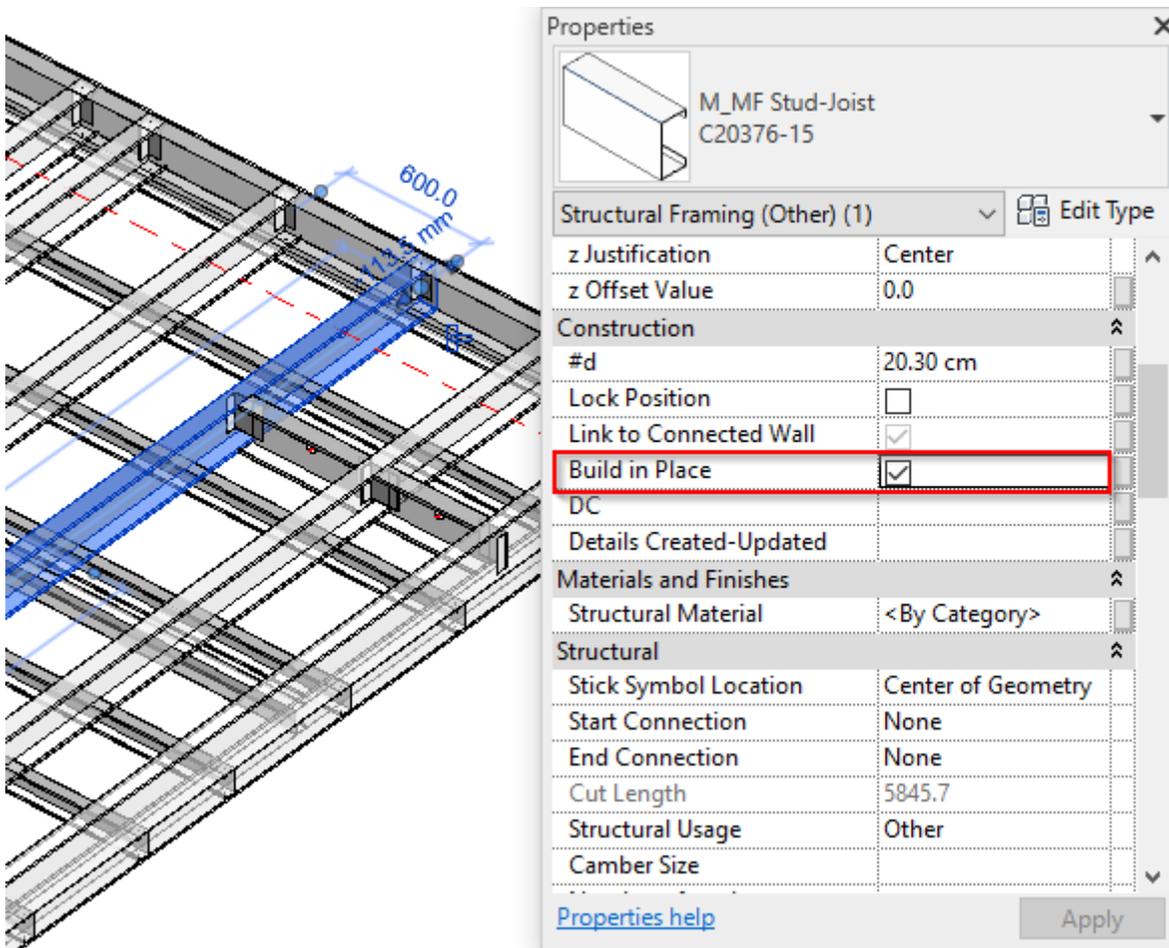
CNC Part Position instance parameter is empty after using **Write Positions for CNC Marking** function:



The screenshot shows a 3D model of a window frame with a blue blocking member. Dimensions are indicated: 574.6 mm for the width and 525.4 mm for the height. The Properties panel on the right is for 'M_MF C+C Plate C10251-15'. The 'CNC Part Position' field is highlighted with a red box and is currently empty.

Property	Value
Structural Framing (Other) (1)	Blocking
Framing Member Description	Blocking
FM SortMark	
Framing Layer	Frame
Framing Member Mark	ABP
FM HostMemberSortMark	W-3
Framing Member Mass	
Framing Member Volume	0.000 m ³
Link to Connected Wall	<input checked="" type="checkbox"/>
Build in Place	<input checked="" type="checkbox"/>
CNC Part Number	
CNC Part Name	
FM Module Mark	
FM Wall Layer	Frame
FM Module Type	
FM Module Preassembled	<input checked="" type="checkbox"/>
CNC Part Position	
FM Wood Grade	
Phasing	
Phase Created	New Constr...

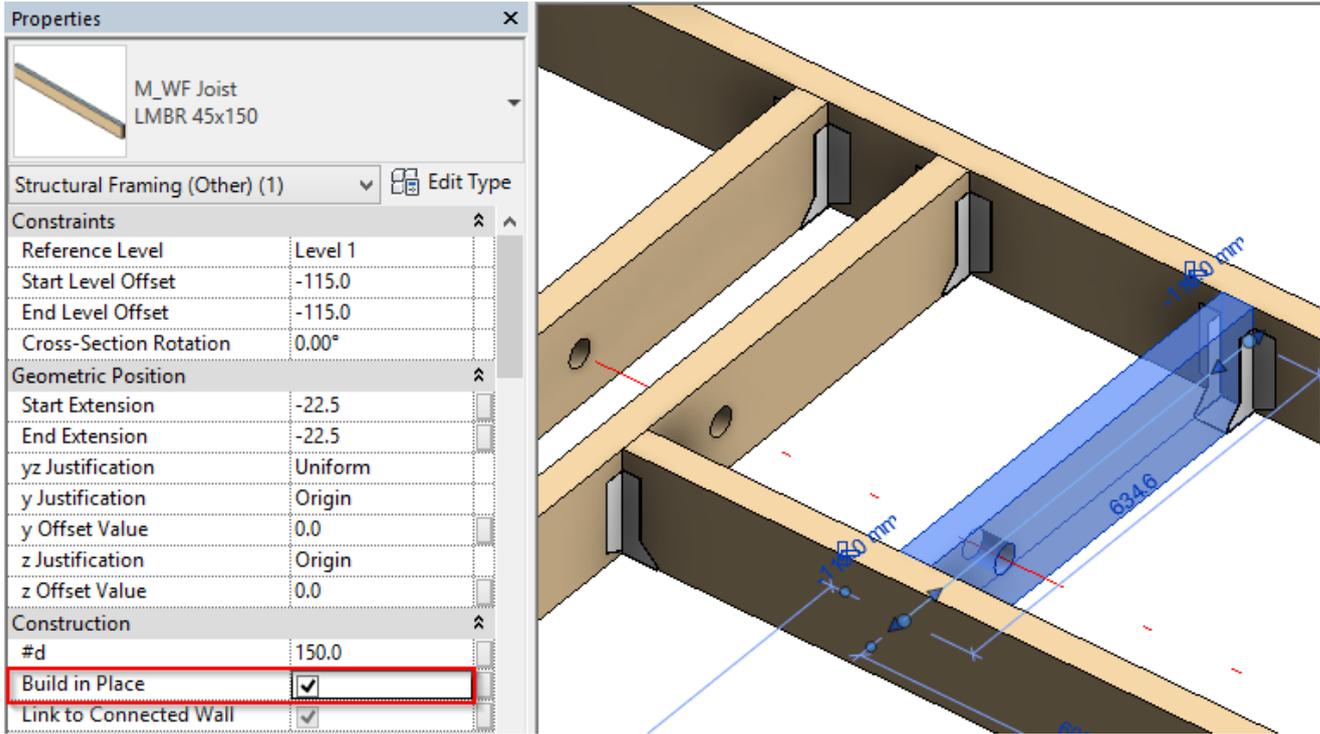
Example with metal:



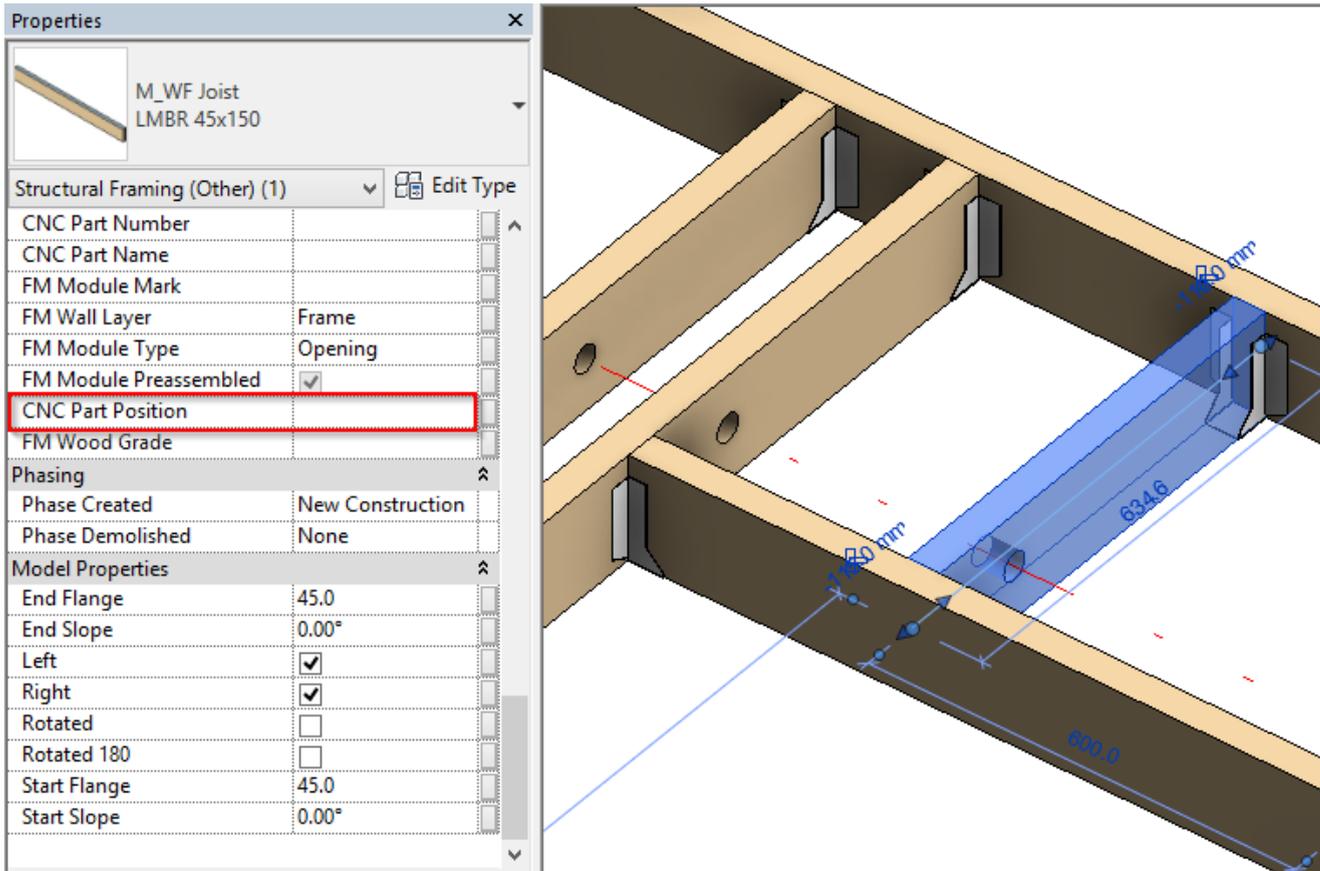
The screenshot shows a 3D model of a metal stud-joist in a frame. Dimensions are indicated: 600.0 mm for the width and 112.5 mm for the height. The Properties panel on the right is for 'M_MF Stud-Joist C20376-15'. The 'Build in Place' field is highlighted with a red box and is checked.

Property	Value
Structural Framing (Other) (1)	
z Justification	Center
z Offset Value	0.0
Construction	
#d	20.30 cm
Lock Position	<input type="checkbox"/>
Link to Connected Wall	<input checked="" type="checkbox"/>
Build in Place	<input checked="" type="checkbox"/>
DC	
Details Created-Updated	
Materials and Finishes	
Structural Material	<By Category>
Structural	
Stick Symbol Location	Center of Geometry
Start Connection	None
End Connection	None
Cut Length	5845.7
Structural Usage	Other
Camber Size	

Example with wood:



CNC Part Position instance parameter is empty after using **Write Positions for CNC Marking** function:



For prefabricated (i.e. not **Build in Place**) elements, **CNC Part Position** is filled in:

Properties

M_WF Joist
LMBR 45x150

Structural Framing (Other) (1) Edit Type

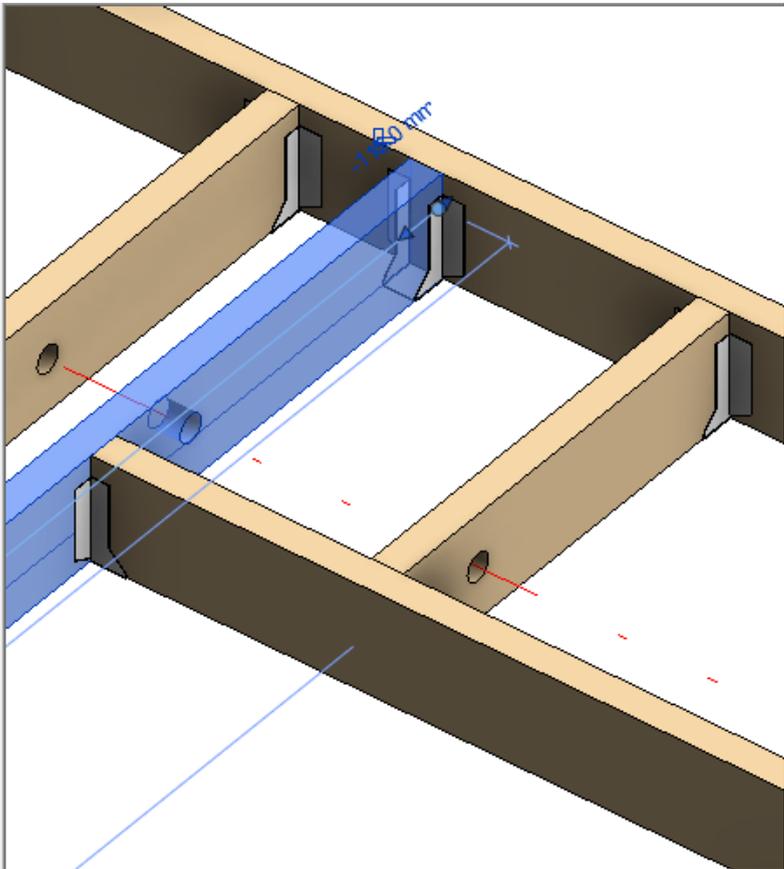
CNC Part Number	
CNC Part Name	
FM Module Mark	TJ R F5
FM Wall Layer	Frame
FM Module Type	Default Configur...
FM Module Preassembled	<input checked="" type="checkbox"/>
CNC Part Position	3;612;1957
FM Wood Grade	

Phasing

Phase Created	New Construction
Phase Demolished	None

Model Properties

End Flange	45.0
End Slope	0.00°
Left	<input checked="" type="checkbox"/>
Right	<input checked="" type="checkbox"/>
Rotated	<input type="checkbox"/>
Rotated 180	<input type="checkbox"/>
Start Flange	45.0
Start Slope	0.00°



Example with wood roof:

Properties

M_Roof_Frame Common Joist
LMBR 48x300

Structural Framing (Other) (1) Edit Type

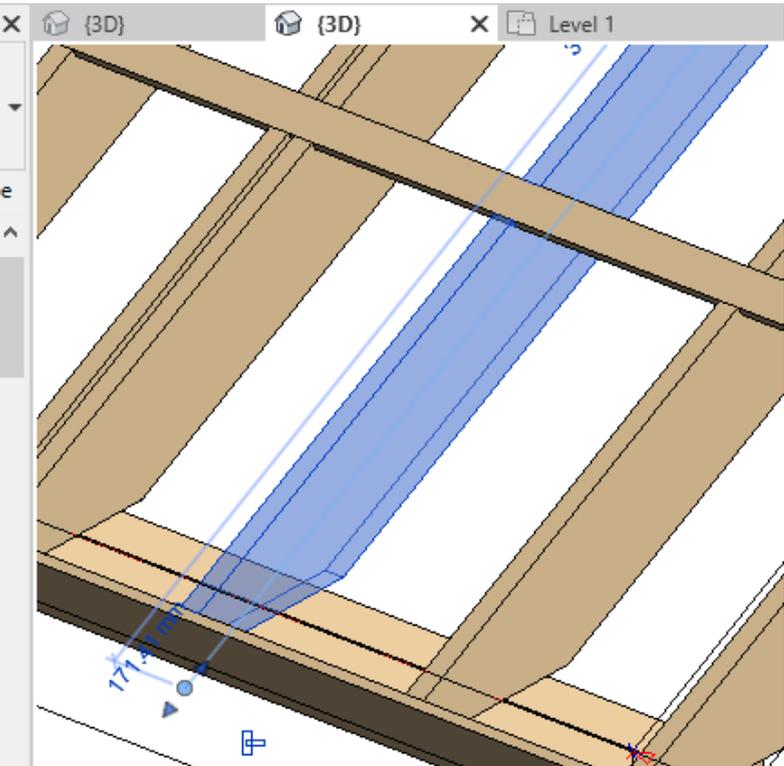
Reference Level	Roof
Start Level Offset	171.41
End Level Offset	1789.95
Cross-Section Rotation	0.00°

Geometric Position

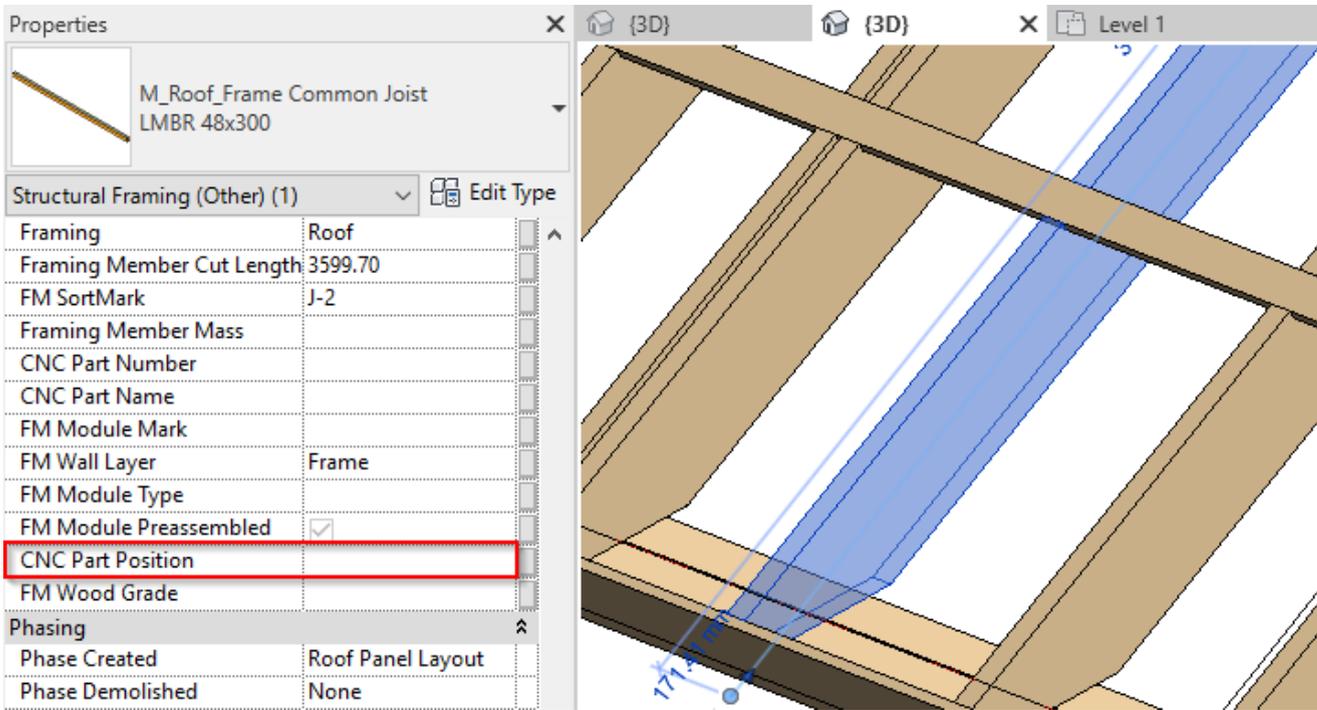
Start Extension	0.00
End Extension	6.00
yz Justification	Uniform
y Justification	Origin
y Offset Value	0.00
z Justification	Center
z Offset Value	0.00

Construction

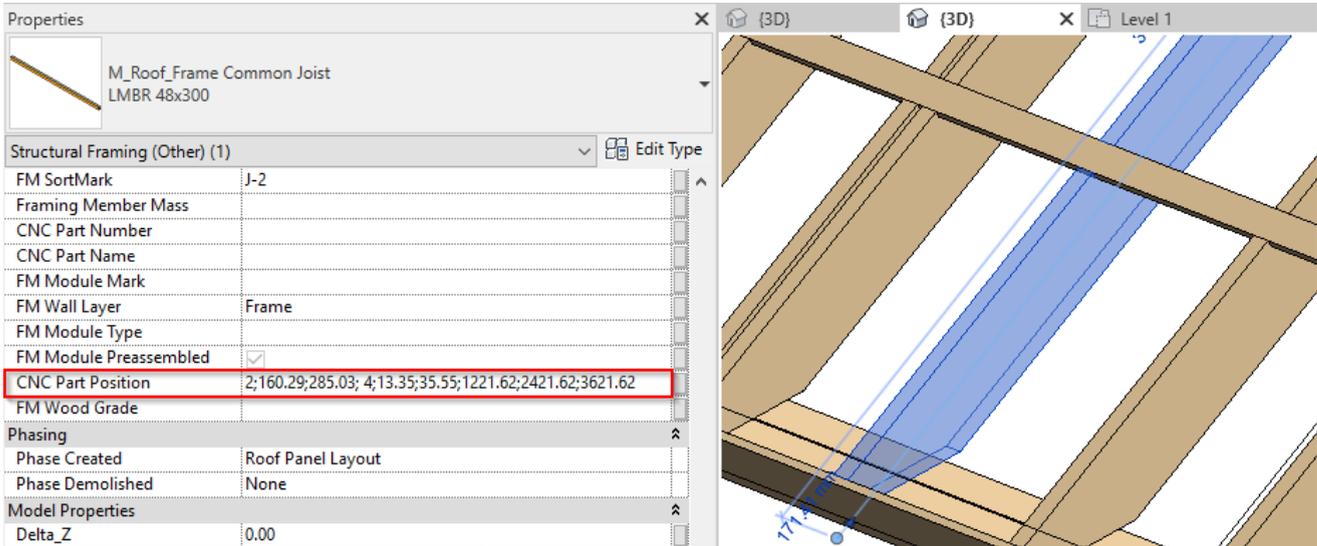
Build in Place	<input checked="" type="checkbox"/>
Lock Position	<input type="checkbox"/>
Lengthen_Start	0.00
Lengthen_End	0.00



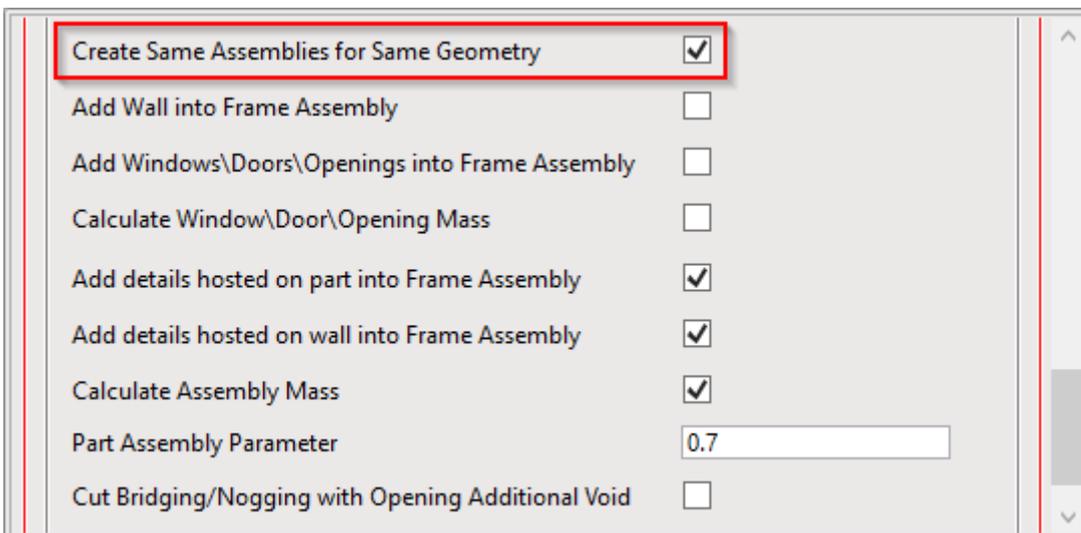
CNC Part Position instance parameter is empty after using **Write Positions for CNC Marking** function:



For not **Build in Place** elements **CNC Part Position** is filled up:

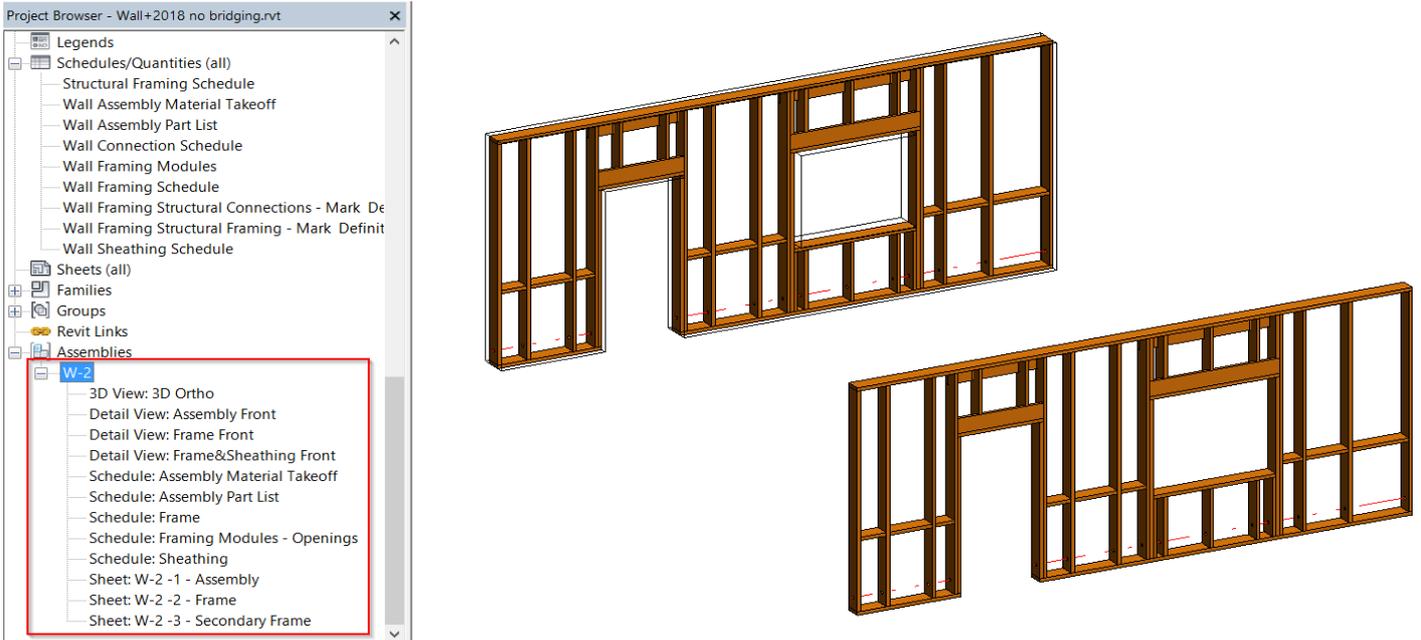


Create Same Assemblies for Same Geometry

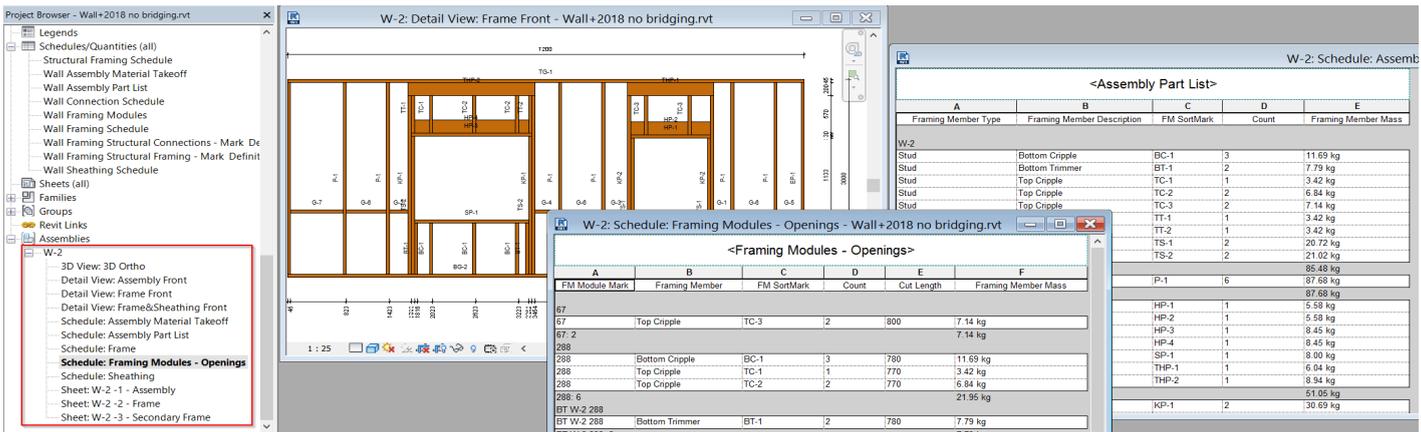


Create Same Assemblies for Same Geometry – creates same assemblies for walls with identical framing geometry.

Example with wood: There are two wall frames with the same geometry but only one assembly with shop drawings is created:

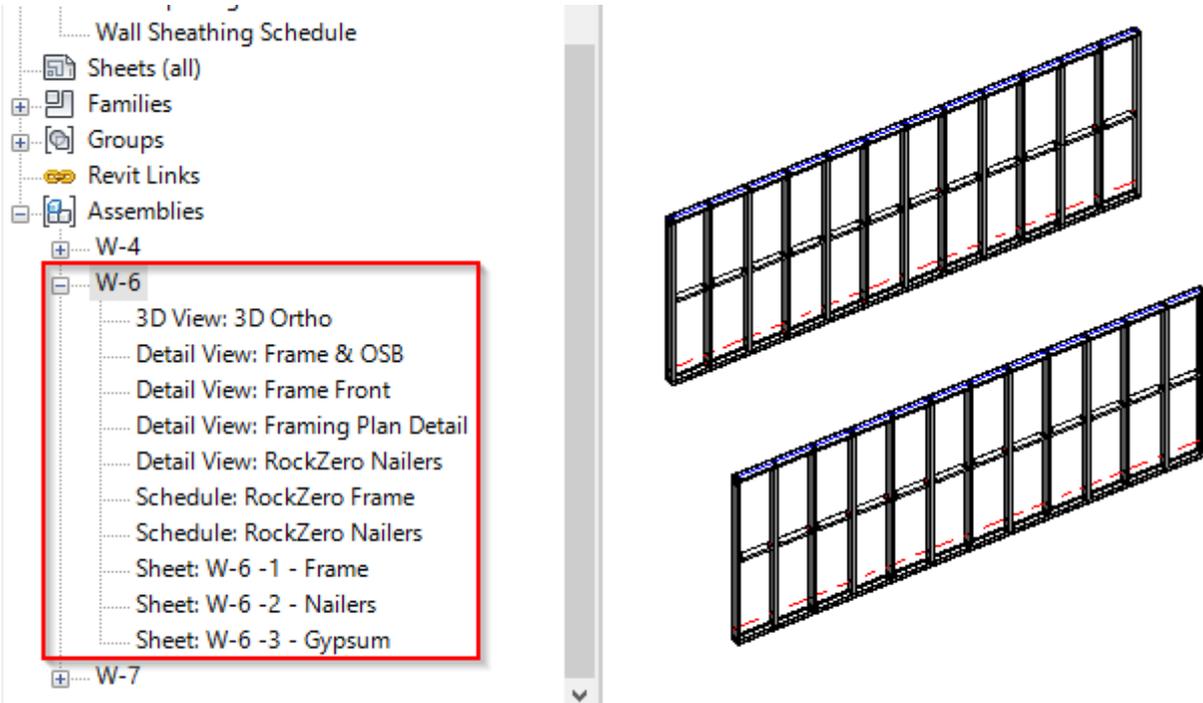


Result:

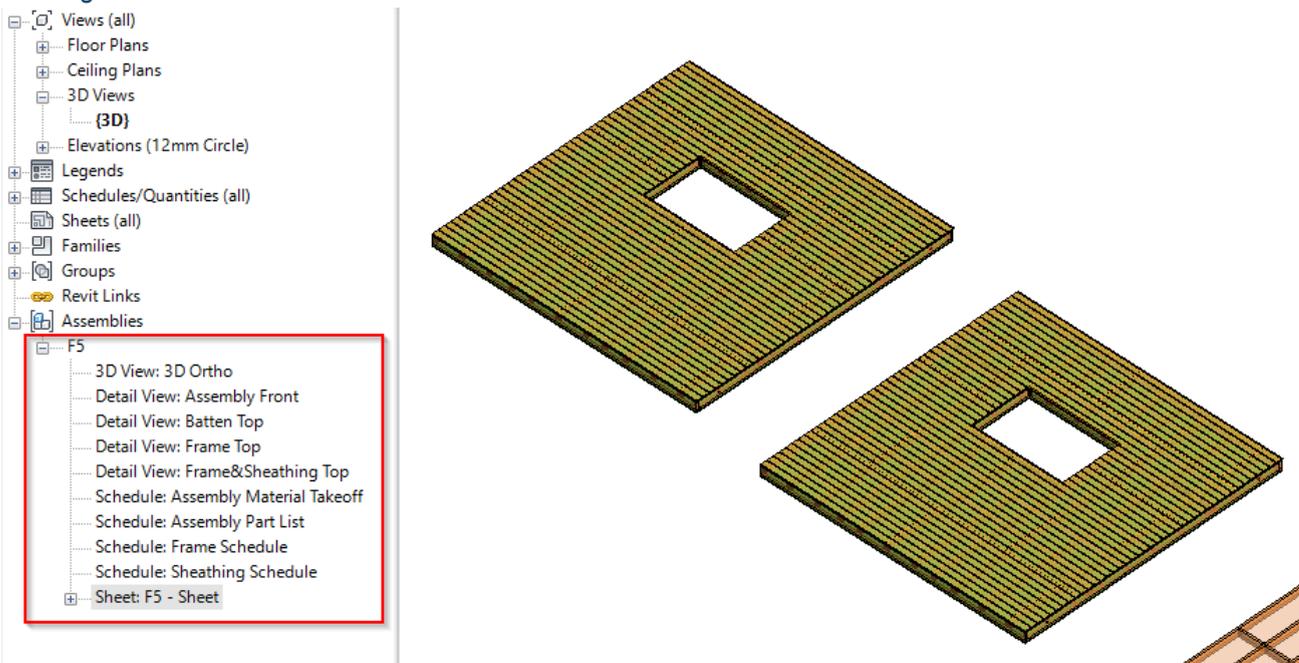


Example with metal:

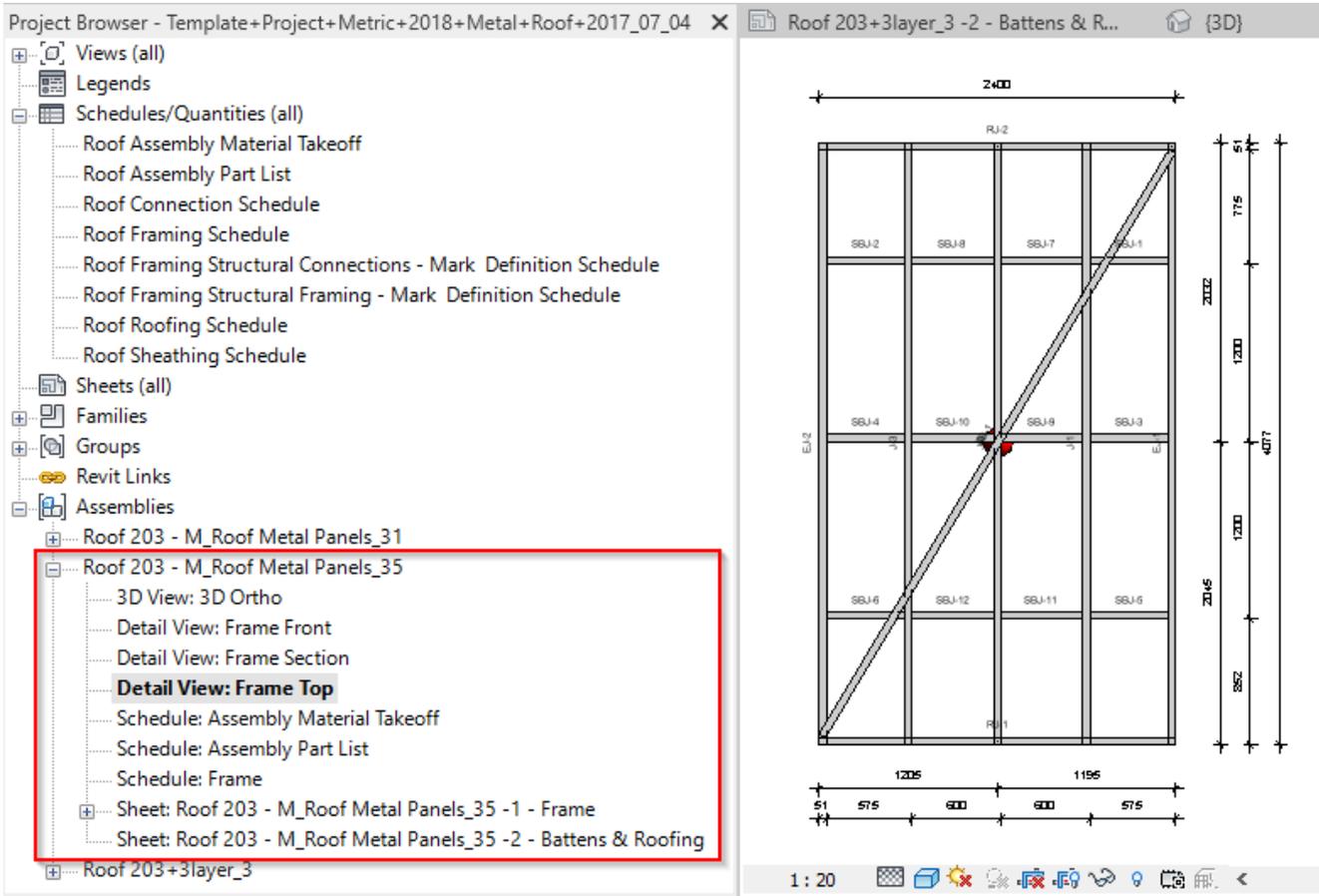
there are two wall frames with the same geometry but only one assembly with shop drawings is created:



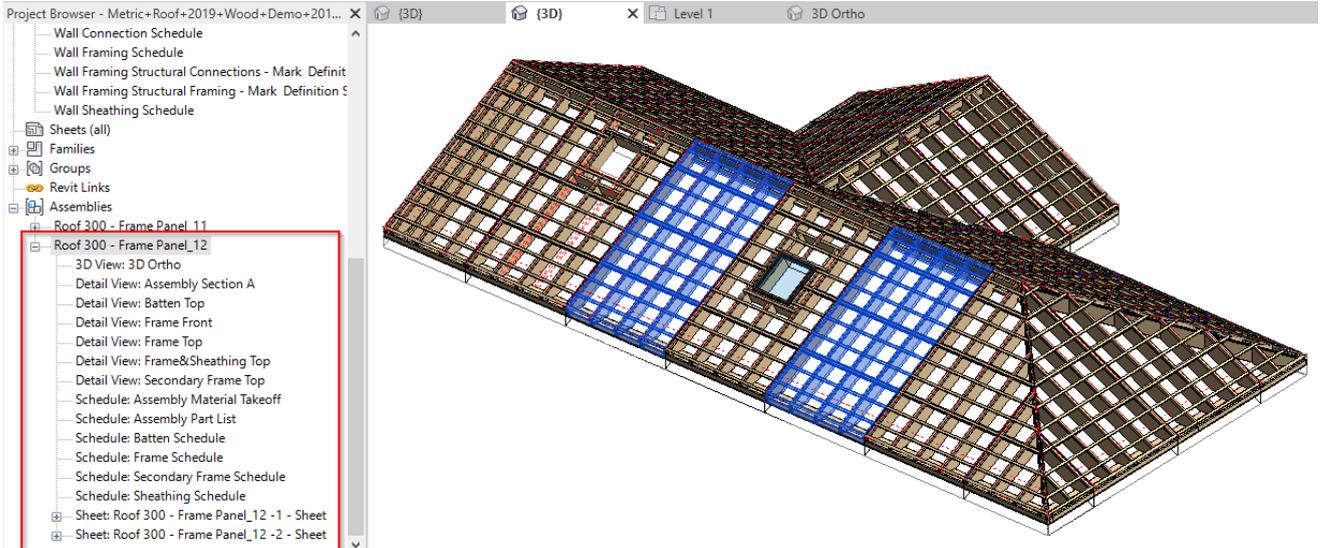
Example with wood floor: There are two floor frames with the same geometry but only one assembly with shop drawings is created:



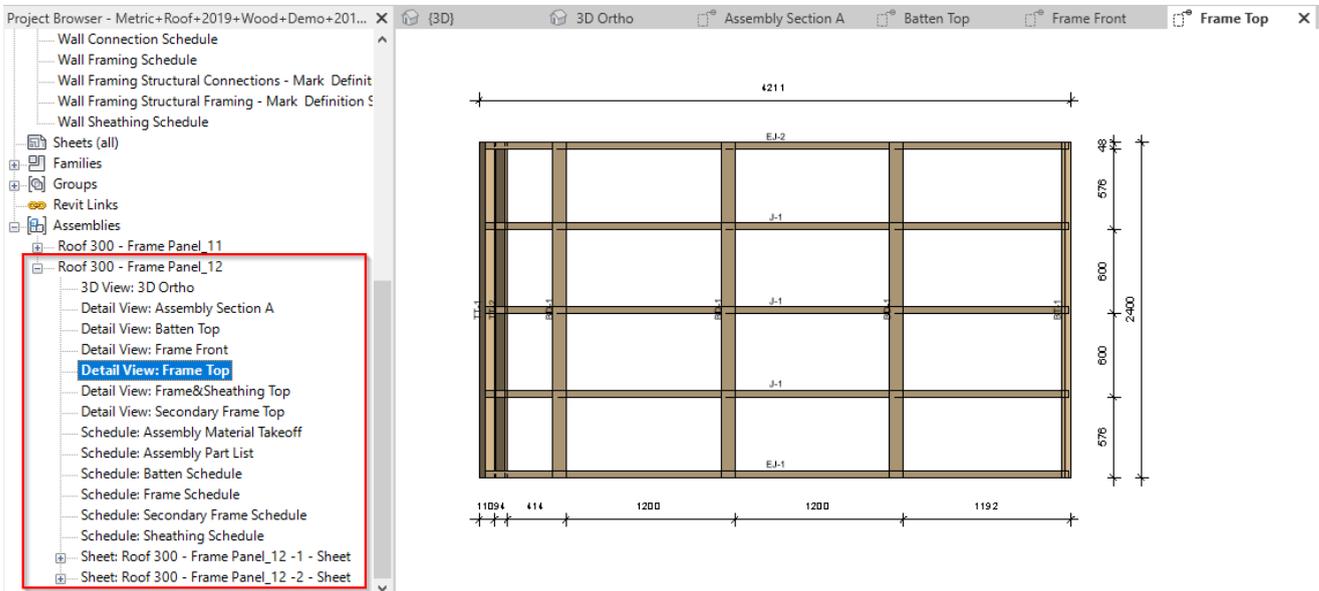
Result:



Example: There are two roof frames with the same geometry but only one assembly with shop drawings is created:



Result:



Add Wall into Frame Assembly

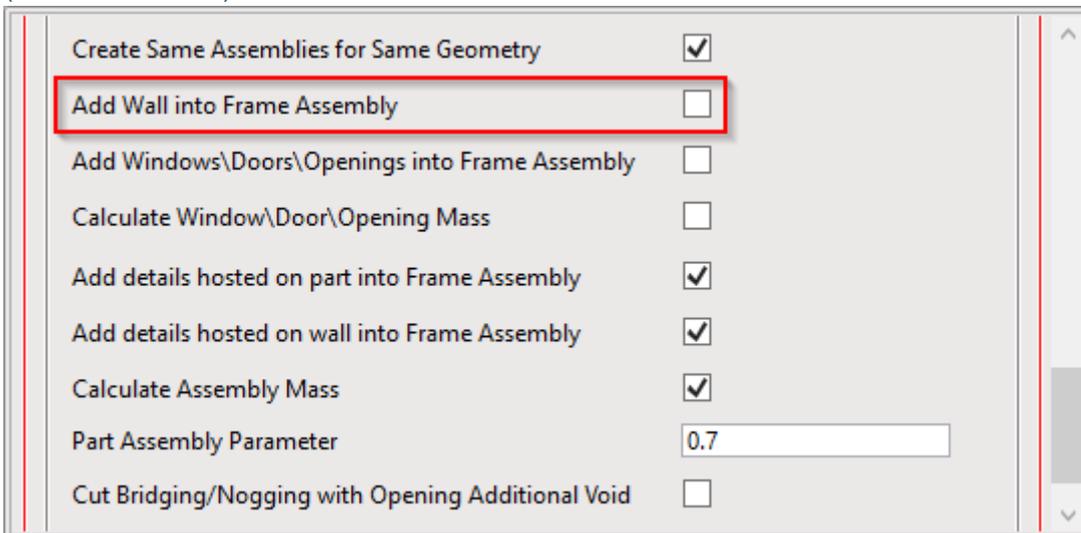
(in Wall+, Wall+M)

Add Floor into Frame Assembly

(in Floor+, Floor+M)

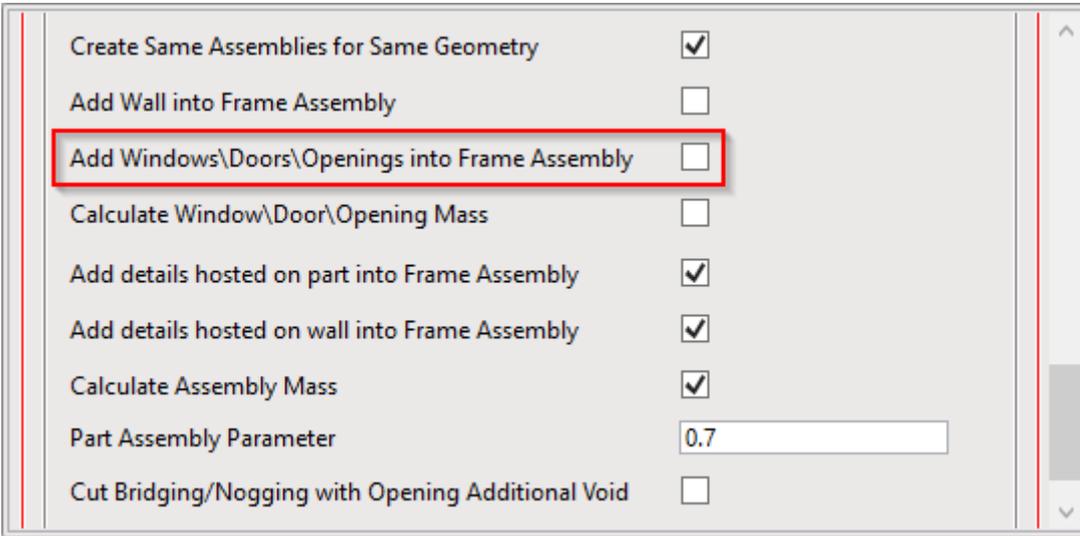
Add Roof into Frame Assembly

(in Roof+, Roof+M)

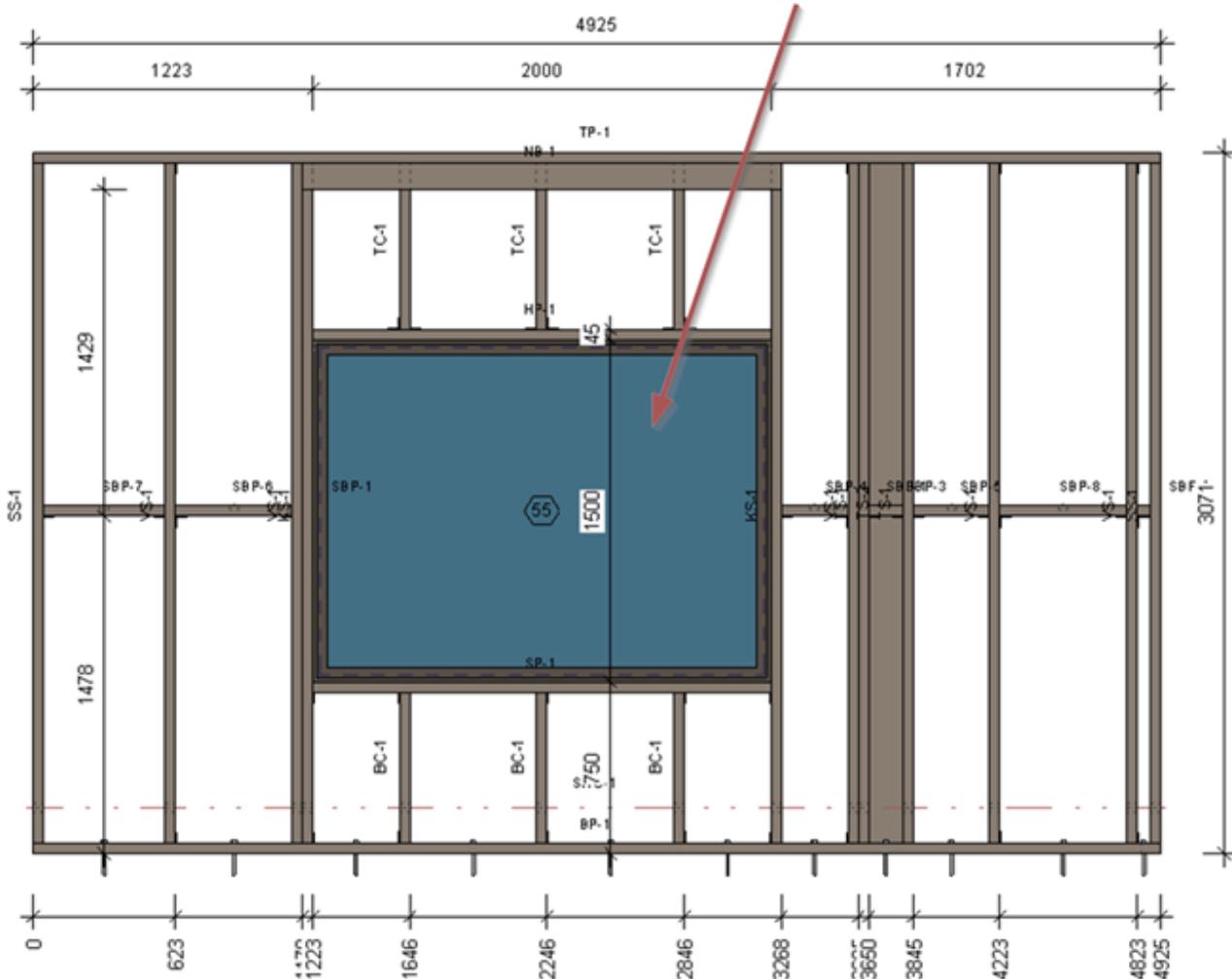


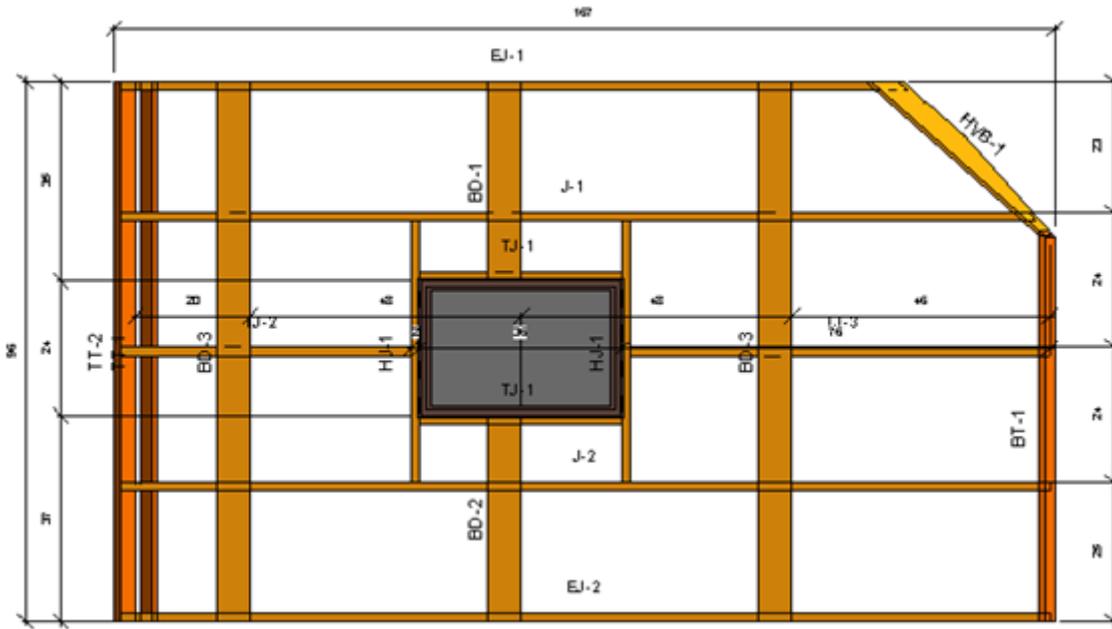
Add Wall/Floor/Roof into Frame Assembly – adds wall/floor/roof element into assembly with shop drawings.

Add Windows/Doors/Openings into Frame Assembly



Add Windows/Doors/Openings into Frame Assembly – adds windows, doors or openings into frame assembly with shop drawings. In such case, window will be assembled together with a frame. It can also be tagged in the assembly views.



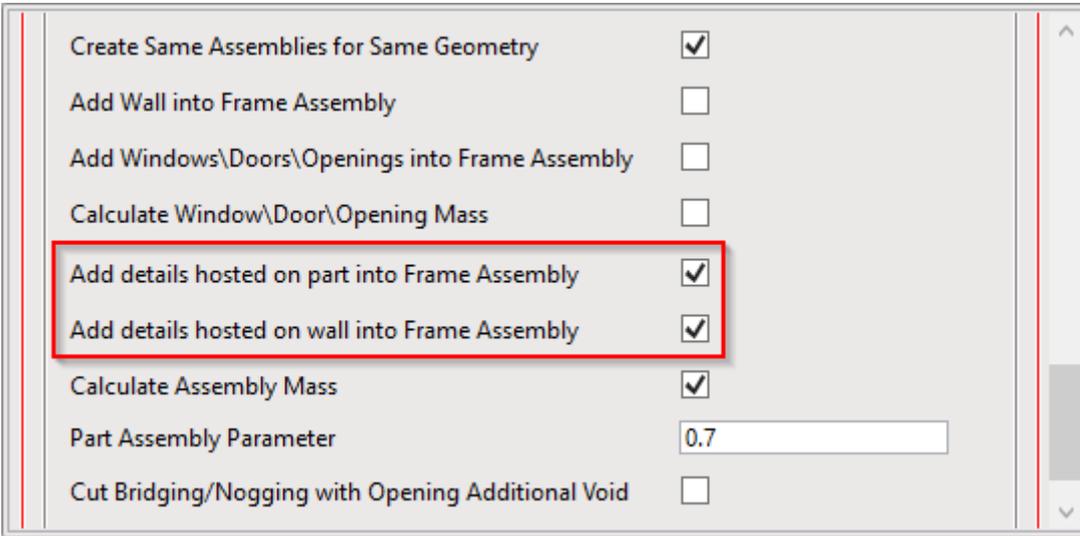


Calculate Window/Door/Opening Mass

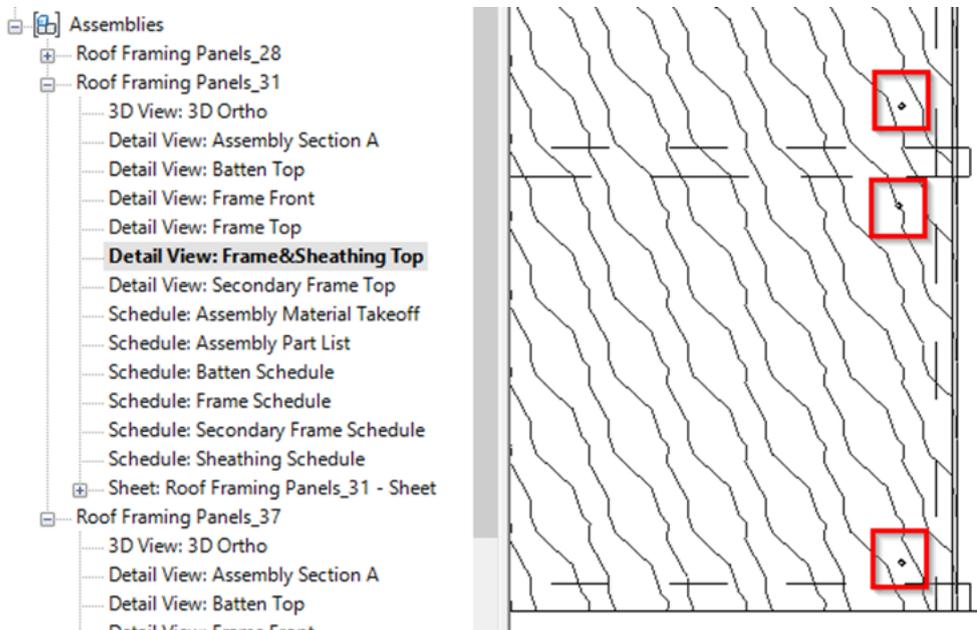
Create Same Assemblies for Same Geometry	<input checked="" type="checkbox"/>
Add Wall into Frame Assembly	<input type="checkbox"/>
Add Windows\Doors\Openings into Frame Assembly	<input type="checkbox"/>
Calculate Window\Door\Opening Mass	<input type="checkbox"/>
Add details hosted on part into Frame Assembly	<input checked="" type="checkbox"/>
Add details hosted on wall into Frame Assembly	<input checked="" type="checkbox"/>
Calculate Assembly Mass	<input checked="" type="checkbox"/>
Part Assembly Parameter	<input type="text" value="0.7"/>
Cut Bridging/Nogging with Opening Additional Void	<input type="checkbox"/>

Calculate Window/Door/Opening Mass – adds window, door or opening weight into the common weight/mass of assembly.

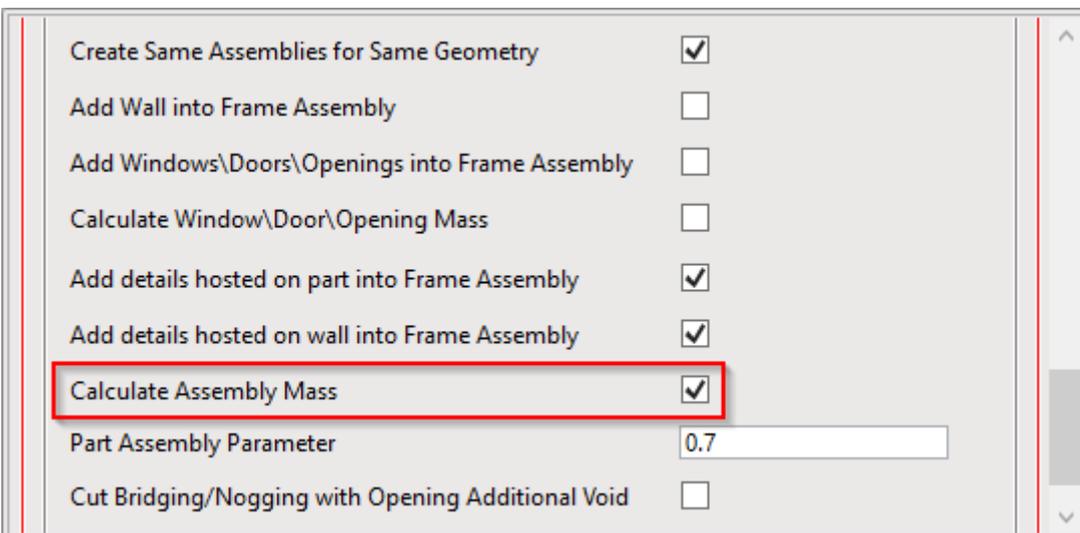
Add details hosted on part/wall/floor/roof into Frame Assembly



Add details hosted on part/wall/floor/roof into Frame Assembly – includes details, which were in wall, floor, roof or wall part, into assembly with shop drawings.



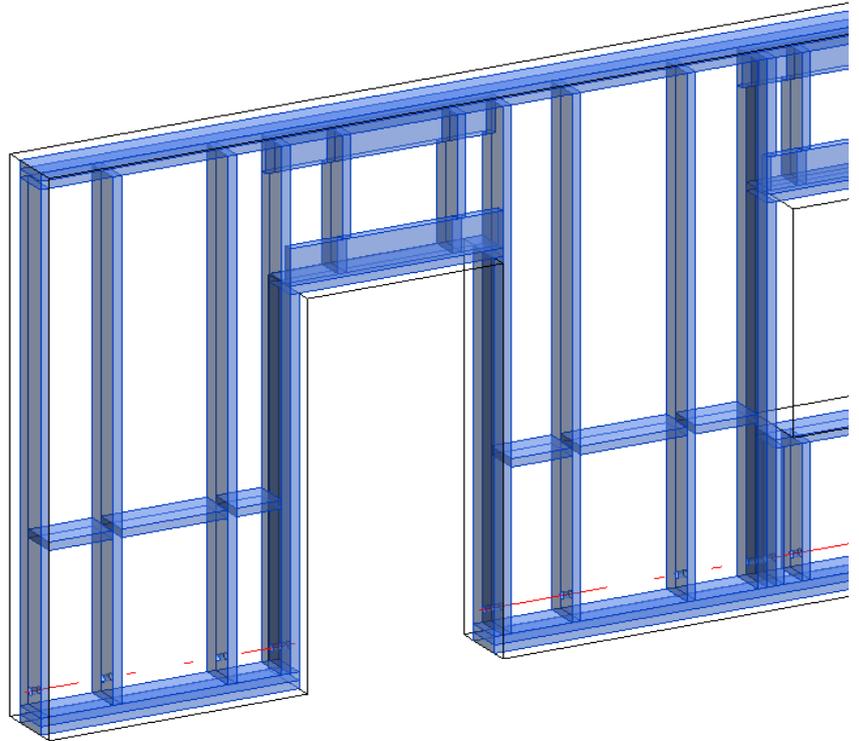
Calculate Assembly Mass



Calculate Assembly Mass – calculates and enters mass value in the assembly **Framing Member Mass** parameter. Mass will be calculated after creating assembly with **Wall+**, **Floor+** or **Roof+** → **Create Assembly**.

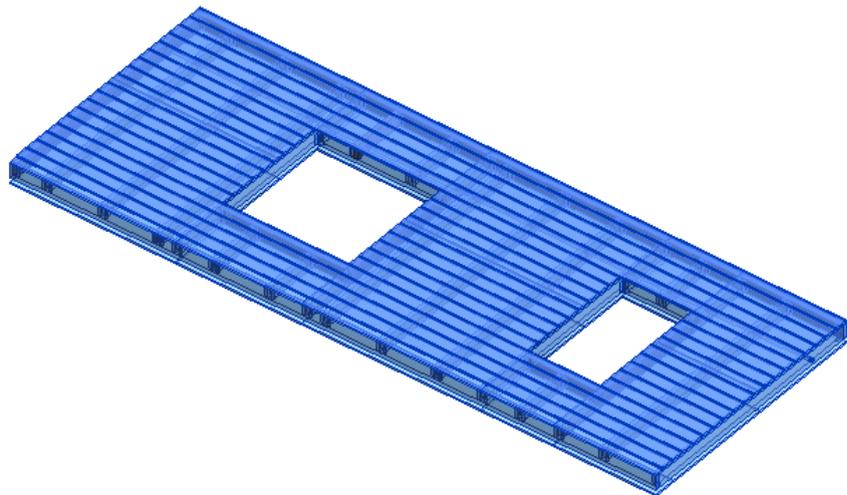
Example with wall:

Properties	
Structural Framing Assembly W-3	
Assemblies (1) Edit Type	
Construction	
Assembly Mass	
Element Mass	
Assembly Created-Updated	
Details Created-Updated	
DC	
Identity Data	
Naming Category	Structural Framing
Image	
Comments	
Mark	W-1
Framing Member	Assembly
Framing Member Type	Assembly
Framing	Wall
Framing Member Description	Assembly
FM SortMark	
Framing Layer	Frame
Framing Member Mark	AS
FM HostMemberSortMark	W-1
Framing Member Mass	801.885 kg
Framing Member Volume	0.927 m ³
SDC	Frame Example
Assembly Depth	
Assembly Length	
Assembly Height	
Assembly Area	

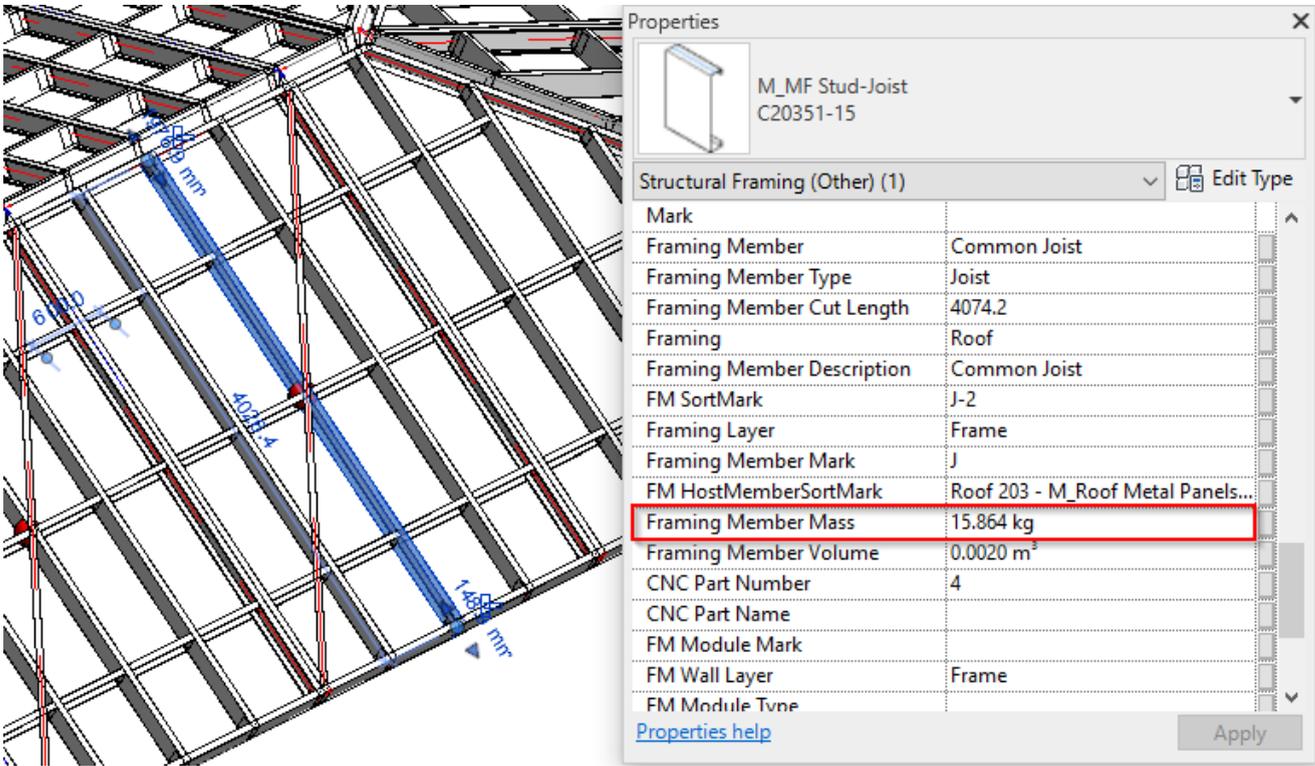


Example with floor:

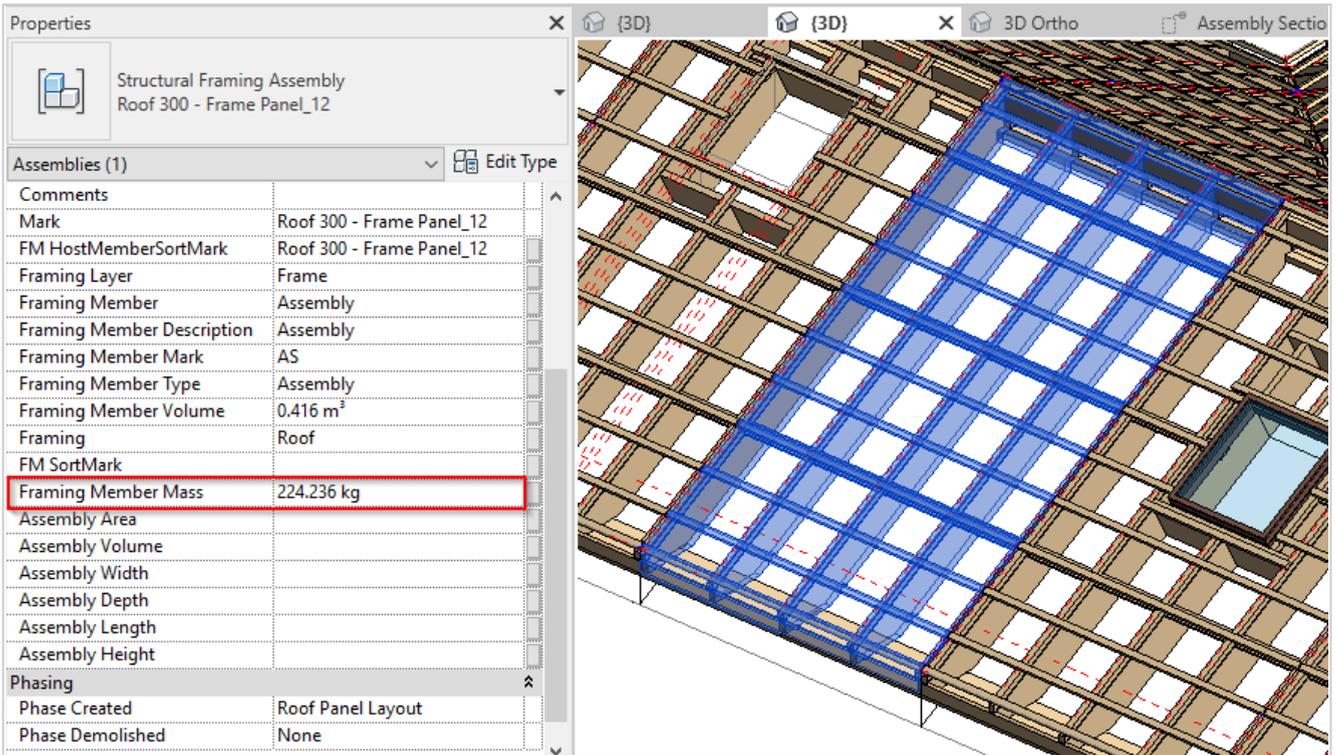
Properties	
Structural Framing Assembly F5	
Assemblies (1) Edit Type	
Identity Data	
Naming Category	Structural Framing
Image	
Comments	
Mark	F5
Framing Member	Assembly
Framing Member Type	Assembly
Framing	Floor
Framing Member Description	Assembly
FM SortMark	
Framing Layer	Frame
Framing Member Mark	AS
FM HostMemberSortMark	F5
Framing Member Mass	797.681 kg
Framing Member Volume	0.656 m ³



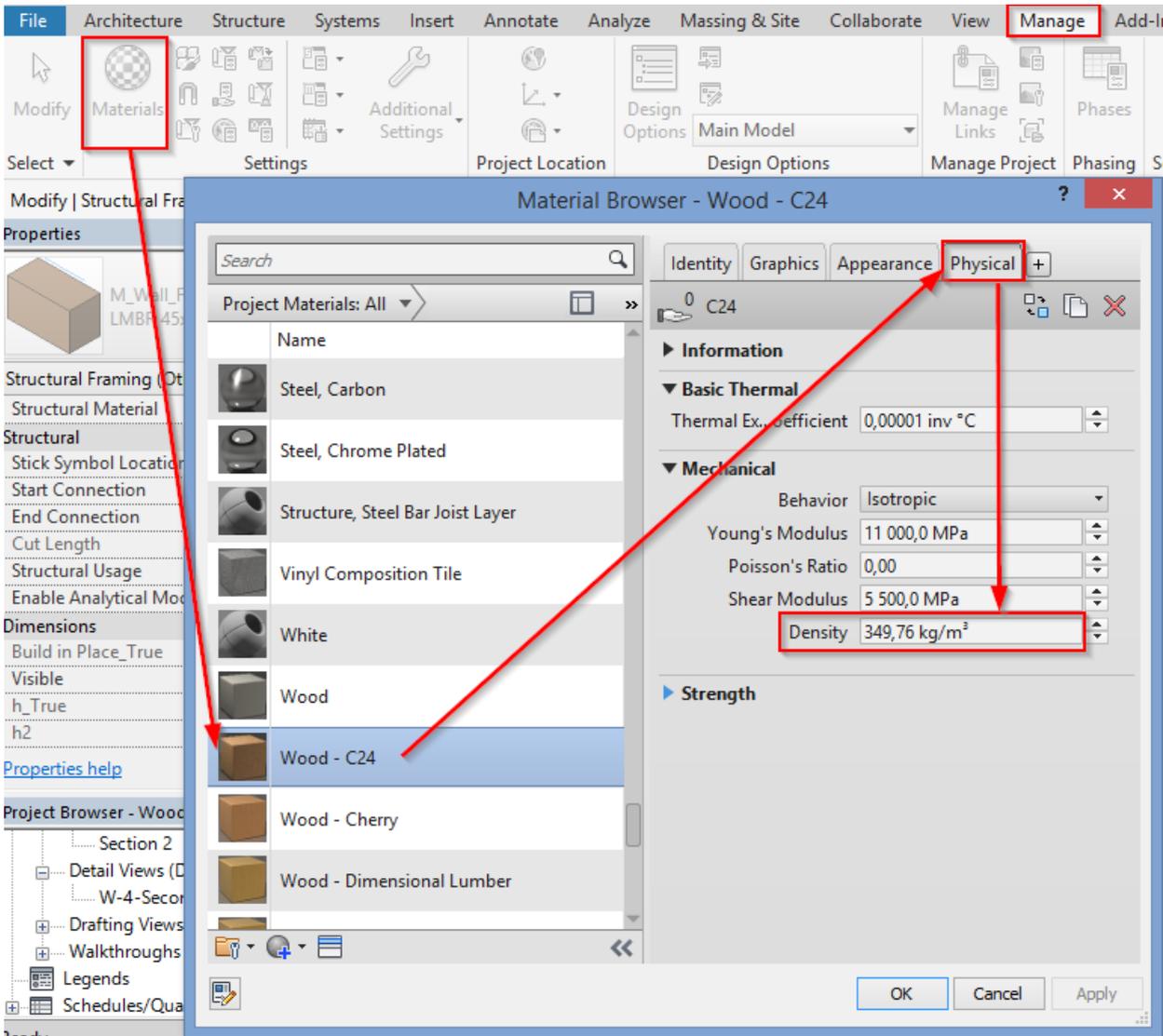
Example with metal roof:



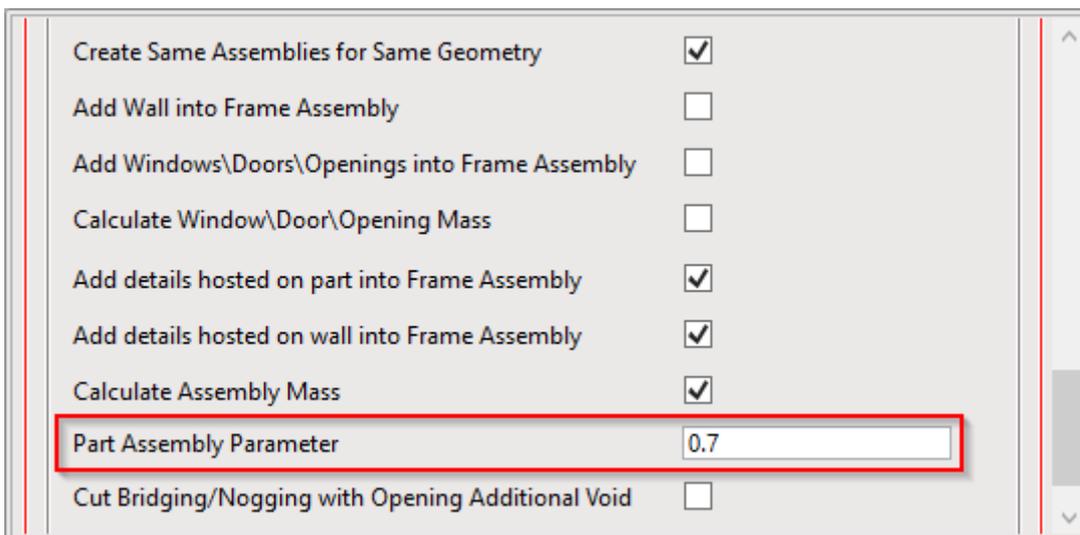
Example with wood roof:



Mandatory condition for mass calculation: all elements must have **Material** with **Physical** properties assigned with **Density** parameter:



Part Assembly Parameter



Part Assembly Parameter – setting is used while creating parts. It defines the overlap between the parts from different layers.



Examples:

Part area 100% overlaps the main part



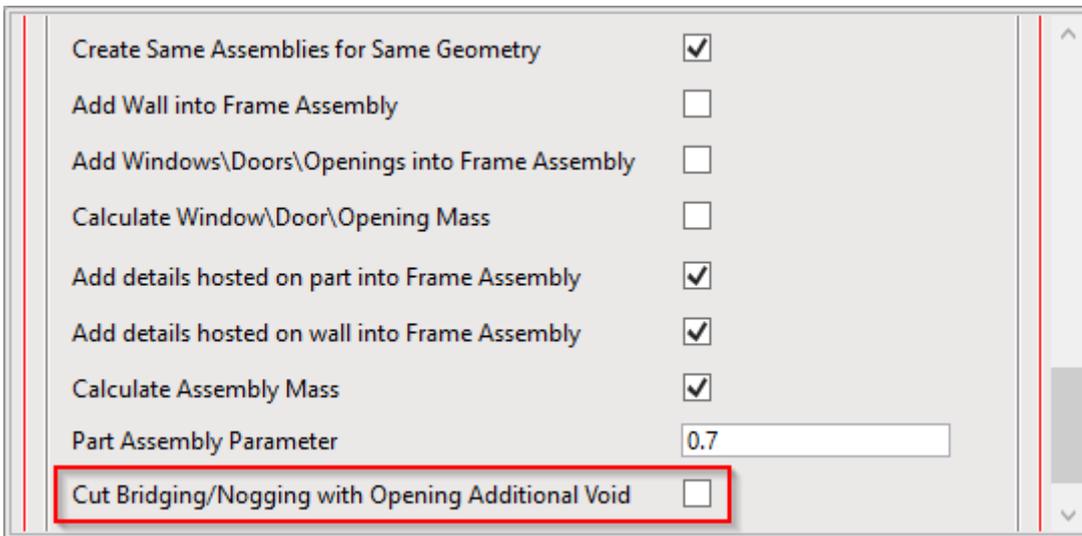
Main Part

Part area 50% overlaps the main part



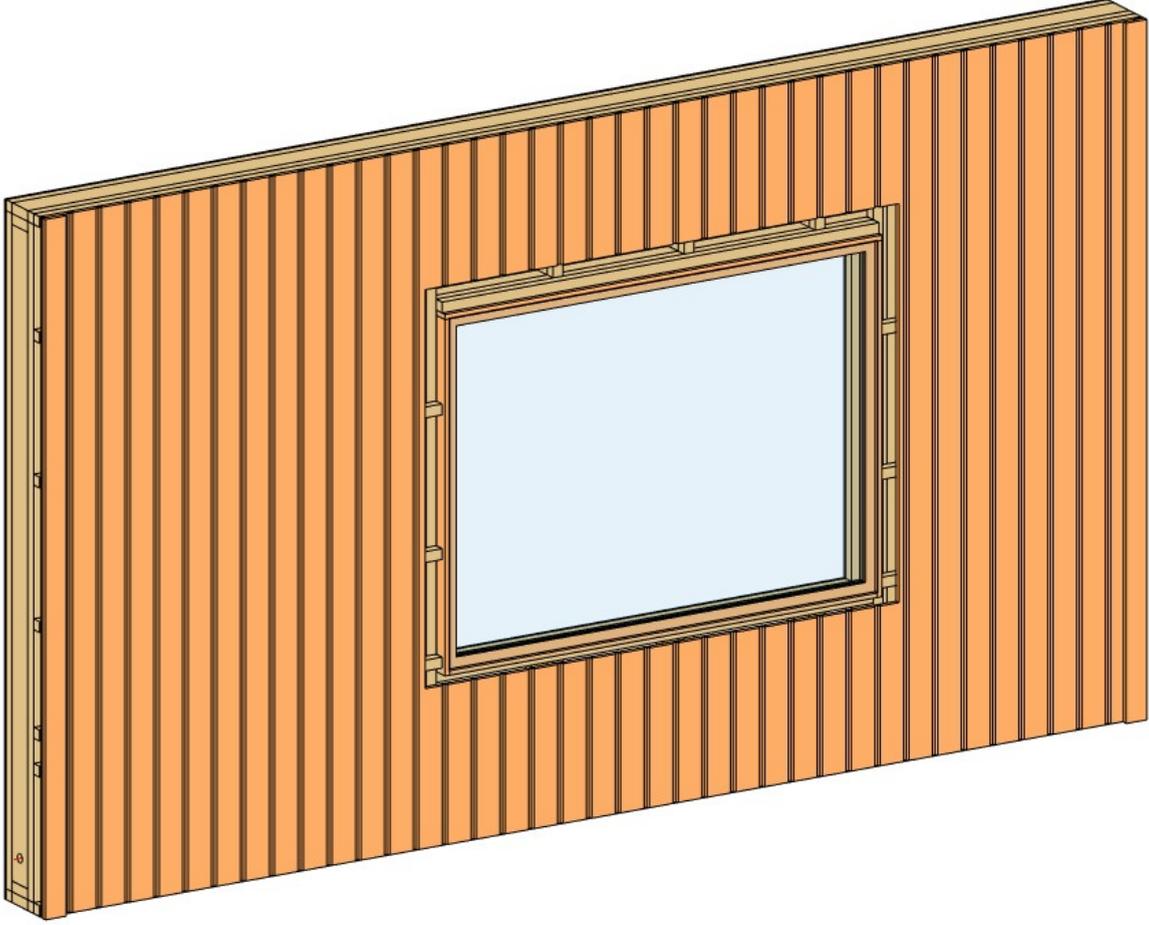
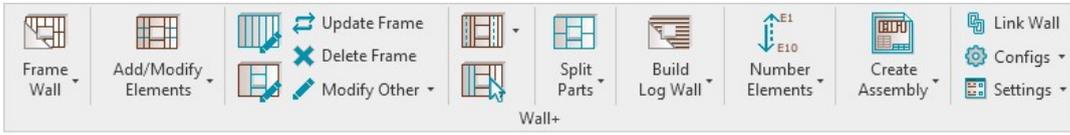
Main Part

Cut Bridging/Nogging with Opening Additional Void



Cut Bridging/Nogging with Opening Additional Void – cuts bridging/nogging with the void from the opening. This is especially used for sidings.

In this example, the Siding Boards have been cut by an additional void:



(<https://agacad.com/wp-content/uploads/2021/02/3-Siding-Boards-cut-by-additional-Void.jpg>)