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)

Automatically Load Standard Profile Types	^
Allow to Create new Types for Metal Profiles	

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	Â	
	v	

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.

Project Browser - Wall+2018 N	ew and Super Families_2 🗙				
M_WF Girder Beam M_WF Hunton I-Joist M_WF Hunton I-Plate					
M_WF Hunton I-S M_WF Invisible Ele M_WF Plate M_WF Plate M_WF 84x195 M_MBR 36x45 M_MBR 36×100	ement				
LMBR 36 LMBR 36 LMBR 36 LMBR 36 LMBR 45 LMBR 45 LMBR 45 LMBR 45 LMBR 45 LMBR 45 LMBR 45 LMBR 45 LMBR 45 LMBR 45	Duplicate Delete Copy to Clipboard Rename Select All Instances Create Instance Match Type Properties Search				

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 Walls	✓	^
Add Virtual External Layers for Interior Walls	\checkmark	~

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:

R Wall Link								- C	X
Basic Wall : Ext - FRAME-0	Family: Type:	Basic Wall Ext 2VerHorMixSiding - VHS	522-HN45-F	R-SFR45-SH12					
Basic Wall : Ext - FRAME-1	Total thickness:	243							
Basic Wall : Ext - FRAME-2	Layers			EXT	FER	RIOR SIDE			
	Function	Material	Thickness	Framing Layer		Framing Configuration	Frame	Frame Part	Split Parts
Basic Wall : Ext - FRAME-3	0 Finish2	by Category	28 mm	Vertical Siding	×	Finishing - Mixed Vertical and Horizontal Siding 👻	-		
Paris Walls Ext. EDAME 4	1 Finish1	Wood Vertical Siding	22 mm	Vertical Siding	×	Mixed Vertical and Horizontal Siding 🛛 🗸 🗸	~		
Basic Wall, Ext - HOAMIE-4	2 Finish1	Wood Vertical Nailers	45 mm	Vertical Nailer	~	Vertical Nailer Mix 🗸	~		
Basic Wall : Ext - FRAME-5	3 Structure	Wood	120 mm	Frame	~	Frame *	~		
	4 Substrate	Wood Secondary Frame	45 mm	Secondary Frame	~ [Secondary Frame 🗸 🗸	~		
Basic Wall : Ext - FRAME-6	5 Finish2	Wood Sheathing, Chipboard	12 mm	Sheathing	~	None ~			-
<hr/>	<								>
							Can	cel	ОК

Frame Floor Perpendicular by Slope Direction

(in Floor+, Floor+M)

ſ	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:

×	It Boundary Line It It It It Slope Arrow It It It It It
~	Span Direction 🗢 🖓 🖧 🍃
Mode	Draw
: 1	
1	
I	
	1
;	

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	✓	^
Already Framed	Skip Frame 🗸 🗸	
Framing Configuration Link Issues	Continue v	
		\sim

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. 08/09/21, 09:25

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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.



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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 with "Frame Wall" Command		^
Add Details with "Frame Wall" Command		
Exclude Parts by Wall Link with "Frame Wall" Command		
Split Parts with "Frame Wall" Command		
Number Elements with "Frame Wall" Command		
Use Short Update by Modify Framing	✓	
Automatically Delete Element if "Can't make type"		
Activate Types Filter		
Check for Wall Sweeps and Reveals		
Exclude "Build in Place" Elements for CNC Marking		~

Split Top/Bottom Plates/Rim Joists with "Frame Wall/Floor/Roof" Command – splits tom/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)

Split Top/Bottom Plates with "Frame Wall" Command	
Add Details with "Frame Wall" Command	
Exclude Parts by Wall Link with "Frame Wall" Comman	nd 🗌
Split Parts with "Frame Wall" Command	
Number Elements with "Frame Wall" Command	
Use Short Update by Modify Framing	✓
Automatically Delete Element if "Can't make type"	
Activate Types Filter	
Check for Wall Sweeps and Reveals	
Exclude "Build in Place" Elements for CNC Marking	

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:

R	Wall+. Default Framing	Parameters		
Material Class: Wood	~			
Configuration Type: Frame	~			
Configuration Name: Frame	~ Save	Save As Rename Delete		
	Configuration Settings Modify Configuration Set	ttings Elements Mark Definitions Modify Settings		
Common Settings	Use for all Framing Elements (except Openings)			
mm	Main Type of Studs	M_WF Stud : LMBR 45x120		
Wall Framing	Width (b)	4.5		
	Depth (h,d)	12		
Opening Framing	Main Type of Plates	M_WF Plate : LMBR 45x120 ~		

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

₩ Wall+. Add/Modify Details ×	R Wall+. Details Configuration		
Details Configuration	Configuration Name: Frame	✓ Si	ave Save As Rename Delete
Add Details		Details Details II Details III Details IV	
Modify Details	Details on Bridging/Blocking,		
Update Details		Іуре	M_SC_Anchor: D16
Delete Details	(TTT)	Width (b)	12.7
	Bridging/Blocking/Plate Hole	Depth (h,d)	12.7
		Define Depth (h,d) by Layer Thickness	
	Details on Stud	Insert Details	\checkmark
		If Studs are "Left" or "Right"	
	Additional Details	Flip Work Plane	
		Rotate 90°	

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:

R Wall+M. Default Fr	aming Parameters		- 🗆 X	
Material Class:	Steel	Ŷ		
Configuration Type:	Frame	Ý	4	
Configuration Name:	M_C+C	~	Save Save As Rename Delete	

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

🖽 Wall+M. Add/Modify Details 🛛 🗙	R Wall+M. Details Configuration		
Details Configuration	Configuration Name: M_C+C	* Save	Save As
Add Details		Details Details II Details III Details IV	
Modify Details	Details on Bridging/Blocking/Plate		
Update Details		Туре	M_SC_Clan
Delete Details	CTTT]	Width (b)	6.5
	Bridging/Blocking/Plate Holes	Depth (h,d)	102
	LLLE	Define Depth (h,d) by Layer Thickness	\checkmark
	Details on Stud	Insert Details	\checkmark
		If Studs are "Left" or "Right"	
	Additional Details	Flip Work Plane	
		Rotate 90°	
		Rotate 180°	

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:

08/09/21, 09:25

R Floor+M. Default F	raming Par	ameters	-		×
Material Class: Configuration Type:	Steel Frame	ب ب			
Configuration Name:	M_C+C	 Save Save As Rename 	Dele	te	
Common S Common S Floor Frami Opening Fr	Settings ing raming	Configuration Settings Modify Configuration Settings Elements Mark Definition Split Rim Joists with "Frame Floor" Command Image: Command image: Command	ns N	Aodify Se	ettings
		Save		Clo	ose

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

Details Configurat	tion			That aun
Add Details Modify Details	R Floor+M Details Configuration			- 🗆 X
Update Details	Configuration Name: M_C+C	ave As Rename Delete	Automatically Update	
Delete Details		Details Details II Details III Details IV		
	Details on Bridging/Blocking/Rim Joist	Туре	M_SC_Angle Bracket-35 : 200	× ^
		Width (b)	6	
	Bridging/Blocking/Rim Joist Holes	Depth (h,d)	203	
		Define Depth (h,d) by Layer Thickness	\checkmark	
	Details on Joist	Insert Details	\checkmark	
		If Studs are "Left" or "Right"		
	Additional Details	Flip Work Plane		
		Rotate 90°		~
				Save Close

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:

R		Floor+. Default Framing Parameters
Material Class: Configuration Type: Configuration Name:	Wood Frame M_Floor Wood Frame	 Save Save As Rename Delete
Common S	Contentings	onfiguration Settings Modify Configuration Settings Elements Mark Definitions Modify Settings
Floor Frami	ing	Split Rim Joists with "Frame Floor" Command Add Details with "Frame Floor" Command Split Parts with "Frame Floor" Command
Opening Fr	aming	Number Elements with "Frame Floor" Command Use Short Update by Modify Framing

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

🕼 Floor+. Add/Modify [Deta ×		
Details Configuration			
Add Details	R	Floor+. Details Cor	nfiguration
Modify Details Update Details	Configuration Name: M_Floor Wood Fr	ame Y Save	e Save As R
Delete Details	Details on Bridging/Blocking,	Details Details II Details III Details IV Type	M_WF_Support Clip :
0	Bridging/Blocking/Rim Joist I	Width (b) Depth (h,d) Define Depth (h,d) by Layer Thickness	5 150
	Details on Joist	Insert Details	
	Additional Details	Flip Work Plane Rotate 90°	

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)

Split Top/Bottom Plates with "Frame Wall" Command		
Add Details with "Frame Wall" Command		
Create Parts with "Frame Wall" Command		
Exclude Parts by Wall Link with "Frame Wall" Command 🗌		
Split Parts with "Frame Wall" Command		
Number Elements with "Frame Wall" Command		

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!

R		Link	Floo	r						- 🗆 🗙	
Floor : Floor 150	Family: Flo Type: Flo	or or 150+20SH+20FI-45B-20SH									
Floor : Floor 150 wiith Simson Hangers	Total thickness: 25	5									
Floor : Floor 150 wo Details	Layers EXTERIOR SIDE										
	Framing Layer	Framing Configuration		Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts	
Floor : Floor 150+20SH+20FI-45B-20SH	Flooring ×	M_Floor Flooring	~	Fixed Y	-				None V	v	
Floor Floor 200	Sheathing ×	None	×	Fixed ~			~		Floor Frame - 1 Top & 1 Bottom 🛛 👻		
	Frame ×	M_Floor Wood Frame	~	Fixed Y	✓				None Ý	✓	
Floor : Floor 200 wiith Simson Hangers	Secondary Frame 👻	M_Floor Secondary Frame	~	Fixed ~	-				None	✓	
	Sheathing ×	None	V	Fixed Y			-		Floor Frame - 1 Top & 1 Bottom 🛛 👻		
Floor : Floor 200 wo Details	<									>	
									Cancel	ОК	

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

08/09/21, 09:25

Properties					×			
	3D Viev	3D View						
3D View: {3D)}	~	🔠 Ec	dit Typ	be			
Graphics				*	^			
View Scale		1:50						
Scale Value	1:	50						
Detail Leve		Medium						
Parts Visibil	ity	Show Parts		~				
Visibility/Gr	aphics	Show Parts						
Graphic Dis	play O	Show Origi	nal					
Discipline		Show Both						
Show Hidde	en Lines	By Disciplir	ne					
Default Ana	alysis	None						
Sun Path								
Extents				*				
Crop View								
Crop Regio	n Visib							
Annotation	Crop							
Far Clip Act	ive				~			
Properties he	elp		A	pply				

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)

Split Top/Bottom Plates with "Frame Wall" Command		^
Add Details with "Frame Wall" Command	\checkmark	
Exclude Parts by Wall Link with "Frame Wall" Command		
Split Parts with "Frame Wall" Command		
Number Elements with "Frame Wall" Command		
Use Short Update by Modify Framing	\checkmark	
Automatically Delete Element if "Can't make type"		
Activate Types Filter		
Check for Wall Sweeps and Reveals		
Exclude "Build in Place" Elements for CNC Marking		~

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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											
EXTERIOR SIDE											
	Thickness Framing Layer Framing Configuration (Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts
	28 mm	Vertical Siding	×	Siding Finish 28x95 V	Fixed Y	✓				None V	~
Siding	22 mm	Vertical Siding	~	Vertical Siding Y	Fixed Y	✓				None	✓
ilers	45 mm	Horizontal Nailer	~	Horizontal Nailers b=45 ×	Fixed Y	✓				None	✓
	120 mm	Frame	~	Frame Y	Fixed Y	✓				None	✓
Frame	45 mm	Secondary Frame	v	Secondary Frame 🗸 🗸 🗸	Fixed ×	✓			✓	None	 ✓
Chipboar	12 mm	Sheathing II	v	None 🗸 🗸	Fixed ×			✓		Frame - 1 Ex & 1 In Layers 🛛 🗸	

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

R Wall+. Default Fran	ning Parameters									×
Material Class:	Wood	v								
Configuration Type:	Frame	Ŷ								
Configuration Name:	Frame	Ŷ	Save	Save As	Rename	Delete]			
Common S Wall Framin Opening Fr	ettings Configuration S Split Top/ Add Detai Create Par Exclude Par Split Parts Number E Use Short	ettings Modify Con Bottom Plates with "F Is with "Frame Wall" ets with "Frame Wall" arts by Wall Link with with "Frame Wall" Co lements with "Frame Update by Modify Fra	figuration Se Frame Wall" Command Command "Frame Wall ommand Wall" Comm aming	Command ['' Command ['' Command [nand [nts Mark Defin	itions Modif	y Settings	Configuratic	n Visibility	

(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 Type Total thi	ickness	Basic Wall Exterior - Wood Frame with 288	Sheetings-	Nailers-Siding											
ayers							EXTERIOR SIL	DE							
Fun	oction	Material	Thickness	Framing Layer	Framing Configuration	on	Configuration	on	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts	
) Finis	sh2	by Category	22 mm	Vertical Siding	Siding Finish 28x95	~	Fixed	×	-				None	1	
Finis	sh2	Wood - Siding	22 mm	Vertical Siding	Vertical Siding	v	Fixed	~	-				None v	✓	
Sub	strate	Wood - Nailers-2	45 mm	Horizontal Nailer	Horizontal Nailers b=	:45 ~	Fixed	¥	-				None	v	
Sub	strate	Wood - Nailers	45 mm	Vertical Nailer	Vertical Nailer	¥	Fixed	¥	1				None v	v	
Stru	cture	Wood - GL24h	120 mm	Frame	Frame	¥	Fixed	×	-				None	✓	
Sub	strate	Wood - Secondary Frame	45 mm	Secondary Frame	Secondary Frame	v	Fixed	v	1				None v	✓	
Finis	sh1	Wood - Sheathing - Plywor	12 mm	Sheathing	None	v	Variable	~			1		Frame - 1 Ex & 1 In Layers		

(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 Top/Bottom Plates with "Frame Wall" Command		
	Add Details with "Frame Wall" Command		
	Exclude Parts by Wall Link with "Frame Wall" Command		
	Split Parts with "Frame Wall" Command		
	Number Elements with "Frame Wall" Command		
	Use Short Update by Modify Framing	\checkmark	
	Automatically Delete Element if "Can't make type"		
	Activate Types Filter		
	Check for Wall Sweeps and Reveals		
	Exclude "Build in Place" Elements for CNC Marking		,

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.





View of the frame:



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

R					Lin	nk Wall									×
Basic Wall : 150	Family:	Basic Wall													
Basic Wall : 23-Kh(df)TISp-78_9_148_48_13	Total thickness:	A <u>S</u> eparate Modules 381													
Basic Wall : A_Complex Modules	Layers EXTERIOR SIDE														
Pasia Wally A. Complex Medules 11111	Function	Material	Thickness	Framing Layer	F	raming Configuration		Configuration	Fram	e Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Part	rts
Basic Wall : A_Complex Modules 11111	1 Finish2	Wood External Decoro	28 mm	Horizontal Siding	~ +	Horizontal Siding	¥	Fixed ~	-				None	~	
Basic Wall : A_Complex Modules 2	2 Finish2	Wood Horizontal Siding	22 mm	Horizontal Siding	× .	- None	¥	Fixed *	•				None	~	
	3 Finish1	Wood Vertical Nailers (28)	28 mm	Vertical Nailer	× -	- None	×	Fixed ~	•				None	-	
Basic Wall : A_Complex Modules 222222	4 Substrate	Wood Vertical Nailers (18)	18 mm	Vertical Nailer	× .	None	~	Fixed ~	-				None	-	
Basic Wall : A Separate Modules	5 Structure	Wood	200 mm	Frame	~ F	rame	~	Fixed ~	•			✓	None	-	
	6 Substrate	Rigid insulation	15 mm	None	× .	- None	~	Fixed *					None	v	
Basic Wall : A_Separate Modules 2	7 Substrate	Wood Secondary Frame	45 mm	Secondary Frame	× .	- None	¥	Fixed ~	•				None	~	
Pacis Wall Laza	8 Finish2	Sheathing(1)	12 mm	Sheathing	~ -	None	~	Fixed ~			-		Frame	v	
Dasic Wall . ada	9 Finish2	Sheathing(2)	12 mm	Sheathing	× -	None	~	Fixed ~			-		Frame - 1 Ex & 1 In Layers		
Basic Wall : aaaaaaaaaaaa				· · · · · · · · · · · · · · · · · · ·	_		å		-£		¢			<u></u>	
													Cancel	ОК	

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

08/09/21, 09:25

Properties		×
3D Viet	W	•
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 Origina	al
Discipline	Show Both	
Show Hidden Lines	By Discipline	
Default Analysis	None	
Sun Path		
Extents		*
Crop View		
Crop Region Visib		
Annotation Crop		
Far Clip Active		×
Properties help		Apply

Example in metal:

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



View of the frame:

FRAMING CONFIGURATION - Modify Settings : AGACAD



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

R Link Wall													-		×
Basic Wall : Ext - 16+102+16 C+C	Fa Tyj To Lay	mily: pe: tal thicknes vers	Basic Wall Ext - 16+102+16 C+C s: 153												
Basic Wall : Ext - 16+107+16 C+U Ext	1						EXTERIOR SIDE								
		Function	Material	Thickness	Framing Layer		Framing Configuration	Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Pa	neling C	onfigu
Basic Wall : Ext - 16+89+16 C+C_CH H4300	0	Finish2	by Category	0 mm	None	~	None	Fixed Y	~				None		
Paris Walls Ext. 15: 90: 16 C C CH V5	1	Finish1	Wood Sheathing, Chipboard	16 mm	Sheathing	×	None 🛛 🗸	Fixed Y			1		Frame - 1 Ex	B∢1 In La	yers
Basic Wall : Ext P 10+89+10 C+C_CH X5	2	Structure	Metal Stud Layer	120 mm	Frame	~	M_C+C Y	Fixed Y	✓			 Image: A start of the start of	None		
Basic Wall : Ext - 215 - Brick	3	Finish1	Wood Sheathing, Chipboard	16 mm	Sheathing II	۷	None 🗸 🗸	Fixed Y			v		Frame - 1 Ex	8:1 In La	iyers
Basic Wall : Fnd 440 Trench Blockwk V	<												Cancel	OI	×

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





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

R Link Floor								-	
Compound Ceiling : 600 x 1200mm grid	Family: Type:	Floor Floor 203 + SH20 - B100	-SH20						
Compound Ceiling : 600 x 600mm grid	Total thickness:	366							
Compound Ceiling : Plain	Layers				EXTERIOR S	IDE			
	Framing Layer	Framing Configuration	Configuration	Frame	Frame Part	Split Parts Sp	lit by S	Sheathing/Paneling Configuration	Exclude Parts
Floor : Floor 203	Flooring V	M_Floor Flooring V	Fixed ~	-				None	✓
Eloor - Eloor 203 - B100	Sheathing 🗡	None	Fixed ~			>		Floor Frame - 1 Top & 1 Bottom 👘 👻	<
	Frame Y	M_Floor Metal Frame 👻	Fixed Y	✓			- ·	None	✓
Floor : Floor 203 + SH20 - B100 -SH20	Batten ×	M_Floor Batten ×	Fixed Y	-				None	✓
	Sheathing Y	None	Fixed Y			7		Floor Frame - 1 Top & 1 Bottom 🔍	v
Floor : Floor 203- Web Stiffener	<								>
								Canaal	OK
								Cancel	UK

Example in wood:

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



View of the frame:

FRAMING CONFIGURATION - Modify Settings : AGACAD



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

R		Link	Floo	or						- 🗆 🗙
Floor : Floor 150	Family: FI	oor oor 150+20SH+20FI-45B-20SH								
Floor : Floor 150 wiith Simson Hangers	Total thickness: 2	55								
Floor : Floor 150 wo Details	Layers				EXTERI	OR SIDE				
	Framing Layer	Framing Configuration		Configuration	Frame	Frame Part	Split Parts	Split by	Sheathing/Paneling Configuration	Exclude Parts
Floor : Floor 150+20SH+20FI-45B-20SH	Flooring ~	M_Floor Flooring	~	Fixed ~	~				None	V
Eleor : Eleor 200	Sheathing ~	None	V	Fixed ~			✓		Floor Frame - 1 Top & 1 Bottom 🛛 👻	
	Frame v	M_Floor Wood Frame	~	Fixed Y	✓				None	✓
Floor : Floor 200 wiith Simson Hangers	Secondary Frame V	M_Floor Secondary Frame	*	Fixed ~	-				None	✓
	Sheathing ~	None	V	Fixed ~			✓		Floor Frame - 1 Top & 1 Bottom 🛛 🗸	
Floor : Floor 200 wo Details	<				£					>
V									Cancel	ОК

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)

	Split Ton/Bottom Plates with "Frame Wall" Command	
	Add Date its with "France Well" Command	
	Add Details with Frame Wall Command	
	Exclude Parts by Wall Link with "Frame Wall" Command	
	Split Parts with "Frame Wall" Command	
l	Number Elements with "Frame Wall" Command	
	Use Short Update by Modify Framing	✓
	Automatically Delete Element if "Can't make type"	
	Activate Types Filter	
	Check for Wall Sweeps and Reveals	
	Exclude "Build in Place" Elements for CNC Marking	

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+ \rightarrow Number Elements additionally.

Example with wood wall:

Properties		×
M_WF Stud LMBR 45x200		•
Structural Framing (Other) (1)	🗸 🔓 Edit Ty	pe
Framing Member Type	Stud	•
Framing	Wall	
Framing Member Description	Stud	
FM SortMark	VS-1	
Framing Layer	Frame	
Framing Member Mark	VS	
FM HostMemberSortMark	W-377	
Framing Member Mass		
Framing Member Volume	0.030 m³	
Framing Member Cut Length	3355.5	
FM Module Mark		
CNC Part Number		
CNC Part Name		Ì
FM Module Type		
FM Module Preassembled	✓	
CNC Part Position		
FM Wood Grade		
FM Wall Layer	Frame	
	γφπη	-



Example with metal wall:

FRAMING CONFIGURATION - Modify Settings : AGACAD

	Properties			×
Ĕ	Ø	M_MF C+C Stud C12051-15		•
	Structural F	Framing (Other) (1)	~ 🔂 Ed	it Type
	FM HostSo	ortMark		
	FM Numb	er of Connectors	0.000000	
	Image			6
	Comment	S		
	Mark			
	Framing N	1ember	Stud	
	Framing N	1ember Type	Stud	
	Framing N	lember Cut Length	2898.4	
	Framing		Wall	
	Framing N	lember Description	Stud	
	FM SortMa	ark	VS-14	
	Framing L	ayer	Frame	
	Framing N	1ember Mark	VS	
	FM HostN	1emberSortMark		
	Framing N	1ember Mass		
	Framing N	1ember Volume	0.001 m³	
	Link to Co	nnected Wall	\sim	
	Build in Pl	ace		
	CNC Part	Number		•
Sector Contraction of	Properties I	help	A	oply

Example with metal floor:

	Properties		×
Ĕ	M_MF C+C Stud C12051-15		
9	Structural Framing (Other) (1)	v 🔓 Edit Type	
	FM HostSortMark		
	FM Number of Connectors	0.000000	
	Image		
	Comments		
	Mark		
	Framing Member	Stud	
	Framing Member Type	Stud	
	Framing Member Cut Lengt	n 2898.4	
	Framing	Wall	
	Framing Member Description	n Stud	
	FM SortMark	VS-14	
	Framing Layer	Frame	L
	Framing Member Mark	VS	
	FM HostMemberSortMark		
	Framing Member Mass		
	Framing Member Volume	0.001 m²	
TO T	Link to Connected Wall		
ec	Build in Place		
	CNC Part Number	· · · · · · · · · · · · · · · · · · ·	1
	Properties help	Apply	

08/09/21, 09:25 Example with metal floor:



roperties			×
M_MF Stud-Joist C20376-15			•
Structural Framing (Other) (1)	~	📑 Edit Type	2
Comments			•
Mark			
Framing Member	Commo	n Joist 📃	
Framing Member Type	Joist		
Framing Member Cut Length	5845.7		
Framing	Floor		
Framing Member Description	Commo	n Joist	
FM SortMark	J-1		
Framing Layer	Frame		
Framing Member Mark	J		
FM HostMemberSortMark	F-5		
Framing Member Mass	26.232 k	9	
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	1

Example with wood floor:

Properties		x
M_WF Joist LMBR 45x150		•
Structural Framing (Other) (1)		Edit Type
Identity Data		* ^
FM HostSortMark		
FM Number of Connectors	0.000000	
Image	0	
Comments	0	
Mark	0	
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	τJ	
FM HostMemberSortMark	F5	
Framing Member Mass		
Framing Member Volume	0.004 m³	
CNC Part Number		
CNC Part Name		
FM Module Mark		
FM Wall Layer	Frame	v
Properties help		Apply

FRAMING CONFIGURATION - Modify Settings : AGACAD

P

Example with metal roof:

08/09/21, 09:25	FRAMING CONFIGURATION - Mod	dify Settings : AGACAD
	Properties	×
	M_MF Stud-Joist C20351-15	
	Structural Framing (Other) (1)	✓ 🖓 Edit Type
	FM Number of Connectors	0.000000
	Image	
	Comments	
	Mark	
	Framing Member	Common Joist
	Framing Member Type	Joist
	Framing Member Cut Length	3483.8
	Framing	Roof
	Framing Member Description	Common Joist
	FM SortMark	J-2
	Framing Layer	Frame
	Framing Member Mark	J
	FM HostMemberSortMark	Roof 203 - M_Roof Metal Panels
	Framing Member Mass	
	Framing Member Volume	0.0017 m ³
	CNC Part Number	
	CNC Part Name	•
	Properties help	Apply

Example with wood roof:

Properties	>	ζ	🔂 {3D}	🔂 {3D} 🔂 {3D}
M_Roof_Frame Common Joist LMBR 48x300			. /	
Structural Framing (Other) (1) 🗸 🖓 Edit	Туре			
Elevation at Top Varies		•		
Elevation at Bottom Varies				
dentity Data	\$			
FM Number of Connectors 0.000000			1	
Image				
Comments				
Mark				
FM HostMemberSortMark Roof 300 - Frame Panel	•			
Framing Layer Frame				
Framing Member Common Joist				
Framing Member Description Common Joist				
Framing Member Mark J				
Framing Member Type Joist				
Framing Member Volume 0.048 m ³				
Framing Roof				
Framing Member Cut Length 3599.70				
FM SortMark J-2				
Framing Member Mass				
CNC Part Number				

Use Short Update by Modify Framing

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

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.



https://helpdesk.agacad.com/support/solutions/articles/44002139159-framing-configuration-modify-settings



"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'.

R Wall+. Default Fran	ning Parameters	- 🗆	×
Material Class:	Wood	~	
Configuration Type:	Frame	v	
Configuration Name:	Frame Exterior	 Save Save As Rename Delete 	
Common S	Settings	Configuration Settings Modify Configuration Settings Elements Mark Definitions Modify Settings Configuration Visibility	y
Exclude Parts with "Fra Wall Framing Split Parts with "Fra		Exclude Parts by Wall Link with "Frame Wall" Command	
		Split Parts with "Frame Wall" Command	
		Number Elements with "Frame Wall" Command	
Opening Framing Enable "Update by Database" Separate Custom Joins by Fra		Use Short Update by Modify Framing	
		Enable "Update by Database" in Custom Joins	
		Separate Custom Joins by Frame Type	
L Connection	on	Automatically Delete Element if "Can't make type"	

(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:

R Wall+. Default Fram	ning Parameters						- 🗆 ×
Material Class:	Wood			v			
Configuration Type:	Frame			v			
Configuration Name:	Frame Exterior			V Save Save As Rename Delete			
	^	Window Framing	Door Framin	g Opening Framing Window - Window Join Framing Wind	low - Door Join	Framing	
Common S	ettings	🗋 🗙 🖬 Edit C	onfiguration	s			
		Non-structural W	alls. Width of	Openings:		_	
Wall Framin	ng	From	То	Configuration	Update by Database	Preassembled	Opening Element Preassembled
		0	1500	M_Window Non-bearing Framing ~	✓		
Opening Fra	aming	1500	10000	M_Window Non-bearing Framing 1501 ×	~		
L Connectio	on	Structural Walls. V	onfiguration Vidth of Oper	s nings:			
End Conner	ction	From	То	Configuration	Update by Database	Preassembled	Opening Element Preassembled
		0	1000	M_Window Bearing Framing v	✓		
		1000	10000	M_Window Bearing Framing 1001 v	✓		
V Connectio	on						
						Save	Close

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

Enable "Link to Configuration" in Custom Joins

FRAMING CONFIGURATION - Modify Settings : AGACAD

^	Configuration Settings	Modify (Configuration Settings
Common Settings	Elements Mark Definitions	Modify Settings	Configuration Visibility
Wall Framing Opening Framing L Connection	Split Top/Bottom Plates with "Fra Add Details with "Frame Wall" Co Create Parts with "Frame Wall" Co Exclude Parts by Wall Link with "F Split Parts with "Frame Wall" Com Number Elements with "Frame W	me Wall" Command	
End Connection V Connection T Connection	Use Short Update by Modify Fram Enable "Link to Configuration" in Automatically Delete Element if " Activate Types Filter Check for Wall Sweeps and Revea Exclude "Build in Place" Elements	ning ✓ Custom Joins ✓ Can't make type"	

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

	Vertical Stud Top Plate Bottom Plate Offsets				
Common Settings	Custom Join				^
Wall Framing	Predefined Layout Name: Default Configuration Save to Database	Juplicate	Delete		
	Select Layout from Database Configuration: Default Configuration	v	🖌 Link w	ith Confi	guration
m la constant	New Item Remove Item Move Up Move Down				_
Opening Framing	X-Position Count Type	Define	Rotate	Flip	Spacing
		Deptn	90-	Facing	
L Connection	1 Standard ^v M_WF Stud : LMBR 45x120 ^v				0 mm
	2 Standard ^v 1 → M_WF Stud : LMBR 45x120 ^v	✓	✓		0 mm
	- Symbolic Preview				
End Connection					
V Connection					
-					
T Connection					
					>

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

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

Split Top/Bottom Plates with "Frame Wall" Command	
Add Details with "Frame Wall" Command	✓
Exclude Parts by Wall Link with "Frame Wall" Command	1 🗌
Split Parts with "Frame Wall" Command	
Number Elements with "Frame Wall" Command	
Use Short Update by Modify Framing	✓
Automatically Delete Element if "Can't make type"	
Activate Types Filter	
Check for Wall Sweeps and Reveals	
Exclude "Build in Place" Elements for CNC Marking	

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

Active Types Filter

Split Top/Bottom Plates with "Frame Wall" Command		^
Add Details with "Frame Wall" Command	\checkmark	
Exclude Parts by Wall Link with "Frame Wall" Command		
Split Parts with "Frame Wall" Command		
Number Elements with "Frame Wall" Command		
Use Short Update by Modify Framing	\checkmark	
Automatically Delete Element if "Can't make type"		
Activate Types Filter		
Check for Wall Sweeps and Reveals		
Exclude "Build in Place" Elements for CNC Marking		~

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+:

FRAMING CONFIGURATION – Modify Settings : AGACAD

^	Modify Configuration Settings	Modify Settings	Configuration Visibility
Common Settings	Configuration Settings	Types Filter	Elements Mark Definitions
	Filter		^
Wall Framing	Filter by :		
	Type Name	*	
mille a second	contains	~	
Opening Framing	45		
	And	Ŷ	
L Connection		J	
	(
End Connection	- Filter		
	Filter by :		
V Connection	None	~	
Connection	none	Ŷ	
-			
T Connection	And	Ŷ	
	- Filter		
Ridge Stud	Filter by :		
	None	Ŷ	
Blocking/Nogging	none	~	
\sim			Y

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

^ ^	Vertical Stud Top Plate Bottom Plate	Offsets
Common Settings	Туре	M_WF Stud : LMBR 45x120 ~
	Width (b)	M_WF Stud : LMBR 45x120
Wall Framing		M_WF Stud : LMBR 45x150
	Depth (n,d)	M_WF Stud : LMBR 45x195
	Define Depth (h,d) by Layer Thickness	M_WF Stud : LMBR 45x198
Opening Framing	Add Stude	M_WF Stud : LMBR 45x200
	Add Studs	M_WF Stud : LMBR 45x250
	Align with Project Base Point	M_WF Stud : LMBR 45x28
L Connection	Stud Spacing	M_WF Stud : LMBR 45x300
		M_WF Stud : LMBR 45x350
	First/Last Spacing	M_WF Stud : LMBR 45x400
End Connection	Spacing	M_WF Stud : LMBR 45x45
	First/Last Spacing	M_WF Stud : LMBR 48x45
	Use for First	M_WF Stud : LMBR 70x45
V Connection	O Use for Last	M_WF Stud-Joist : LMBR 45x120
	O Use for Both	M_WF Stud-Joist : LMBR 45x150
		M_WF Stud-Joist : LMBR 45x200
T Connection		M_WF Stud-Joist : LMBR 45x300
		M_WF Stud-Joist : LMBR 45x350
		M_WF Stud-Joist : LMBR 45x400
1111		·

Example with Metal Framing Wall+:

FRAMING CONFIGURATION – Modify Settings : AGACAD

	^	Modify Configuration S	ettings	Modify Settings
Common Settings		Configuration Settings	Types Filter	Elements Mark Definitions
		- Filter		^
Wall Framing	1	Filter by :		
		Type Name	~	
mm		contains	¥	
Opening Framing		15		
L Connection		And	۷	
End Connection		(Filter]	
V Connection		None	۲ ۲	
T Connection	~	And	~	v

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

^	Vertical Stud Top Plate Bottom Plate	Offsets
Common Settings	Туре	M_MF C+ C Stud : C10251-15 ×
	Width (b)	M_MF C+C Stud : C10251-15
Wall Framing	Depth (h d)	M_MF C+C Stud : C12051-15
	Depth (n,d)	M_MF C+C Stud : C15276-15
	Define Depth (h,d) by Layer Thickness	M_MF C+C Stud : C20376-15
	Rotate 180°	M_MF C+C Stud : C25476-15
Opening raining		M_MF C+C Stud : C30576-15
	Add Studs	M_MF C+C_CH Plate : C15041-15
	Align with Project Base Point	M_MF C+C_CH Plate : C15050-15
L Connection	Alight with Project base Point	M_MF C+C_CH Stud : C08941-15
	Stud Spacing	M_MF C+C_CH Stud : C08950-15
	- First/Last Spacing	M_MF C+C_CH Stud : C15041-10
End Connection	Spacing	M_MF C+C_CH Stud : C15041-15
	spacing	M_MF C+C_CH Stud : C15050-10
	First/Last Spacing	
V Connection	Use for First	
	O Use for Last	
	 Use for Both 	
TConnection		
~		

Check for Wall Sweeps and Reveals

(in Wall+, Wall+M)

_				
		Split Top/Bottom Plates with "Frame Wall" Command		^
		Add Details with "Frame Wall" Command	✓	
		Exclude Parts by Wall Link with "Frame Wall" Command		
		Split Parts with "Frame Wall" Command		
		Number Elements with "Frame Wall" Command		
		Use Short Update by Modify Framing	\checkmark	
		Automatically Delete Element if "Can't make type"		
		Activate Types Filter		
		Check for Wall Sweeps and Reveals		
		Exclude "Build in Place" Elements for CNC Marking		~
	_			

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		^
Add Details with "Frame Wall" Command	\checkmark	
Exclude Parts by Wall Link with "Frame Wall" Command		
Split Parts with "Frame Wall" Command		
Number Elements with "Frame Wall" Command		
Use Short Update by Modify Framing		
Automatically Delete Element if "Can't make type"		
Activate Types Filter		
Check for Wall Sweeps and Reveals		
Exclude "Build in Place" Elements for CNC Marking		~

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:

08/09/21, 09:25		FRAM	ING CONFIGURATION – Modify Settings : AGACAD
Properties		×	
M_WF Stud LMBR 45x200		•	E
Structural Framing (Other) (1)	🗸 🔠 Edi	t Type	
Geometric Position		^ ^	
Start Extension	-22.5		
End Extension	-22.5		
yz Justification	Uniform		0.0
y Justification	Origin		
y Offset Value	0.0		
z Justification	Origin		
z Offset Value	0.0		
Construction		*	N N
#d	200.0		
Build in Place	✓		
Link to Connected Wall			
Assembly Mass			
Element Mass			
Assembly Created-Updated			
Details Created-Updated			
DC			
Properties help	Ар	ply	

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

Properties		×	
M_WF Stud LMBR 45x200		•	E
Structural Framing (Other) (1)	🗸 记 Edit T	ype	
Framing Member Mark	TC	^	
FM HostMemberSortMark			
Framing Member Mass			
Framing Member Volume	0.006 m³		
Framing Member Cut Length	725.0		
FM Module Mark	288		
CNC Part Number			
CNC Part Name			
FM Module Type	Window		0 V
FM Module Preassembled	✓		
CNC Part Position			
FM Wood Grade			
FM Wall Layer	Frame		
SDC			
Assembly Depth			
Assembly Length			
Assembly Height		~	
Properties help	Appl	у	

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

08/09/21, 09:25		FRAM	ING CONFIGURATION – Modify Settings : AGACAD
Properties		×	
M_WF Stud LMBR 45x200		•	
Structural Framing (Other) (1)	✓ 87	Edit Type	
Framing Member Mark	TC	^	
FM HostMemberSortMark			
Framing Member Mass			
Framing Member Volume	0.006 m³		
Framing Member Cut Length	725.0		201
FM Module Mark	288		
CNC Part Number			898.5
CNC Part Name			
FM Module Type	Window		
FM Module Preassembled	v		N N
CNC Part Position	2;100; 4;625		
FM Wood Grade			
FM Wall Layer	Frame		
SDC			
Assembly Depth			
Assembly Length			
Assembly Height			
Properties help	1	Apply	

Example with metal:

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



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

	Properties	×
T	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
A 11	Framing Member Mass	
574.0 52	Framing Member Volume	0.000 m³
	Link to Connected Wall	
-75	Build in Place	
2	CNC Part Number	
	CNC Part Name	
	FM Module Mark	
	FM Wall Layer	Frame
	FM Module Type	
	FM Module Preassembled	
	CNC Part Position	
	FM Wood Grade	
-	Phasing	*
	Phase Created	New Constr 🗸 🗸
	Properties help	Apply

Example with metal:



roperties		×
M_MF Stud-Joist C20376-15		-
Structural Framing (Other) (1)	~ {	🗄 Edit Type
z Justification	Center	^
z Offset Value	0.0	
Construction		\$
#d	20.30 cm	
Lock Position		
Link to Connected Wall	\checkmark	
Build in Place		
DC		
Details Created-Updated		
Materials and Finishes		*
Structural Material	<by category<="" td=""><td>/></td></by>	/>
Structural		*
Stick Symbol Location	Center of Geo	ometry
Start Connection	None	
End Connection	None	
Cut Length	5845.7	
Structural Usage	Other	
Camber Size		v
Properties help		Apply

Example with wood:

Properties	2
M_WF Joist LMBR 45x150	
Structural Framing (Other) (1)	V 🔠 Edit Type
Constraints	\$ /
Reference Level	Level 1
Start Level Offset	-115.0
End Level Offset	-115.0
Cross-Section Rotation	0.00°
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	150.0
Build in Place	✓
Link to Connected Wall	✓



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

Properties		×
M_WF Joist LMBR 45x150		•
Structural Framing (Other) (1)) 🗸 🖓 Edit Ty	pe
CNC Part Number		
CNC Part Name		Ì
FM Module Mark		
FM Wall Layer	Frame	
FM Module Type	Opening	
FM Module Preassembled	v	
CNC Part Position		
FM Wood Grade		
Phasing	*	
Phase Created	New Construction	
Phase Demolished	None	
Model Properties	*	
End Flange	45.0	Ĺ
End Slope	0.00°	Į.
Left	 ✓ 	Ĺ
Right	 ✓ 	
Rotated		
Rotated 180		
C1 . E1	45.0	
Start Flange	43.0	



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

08/09/21, 09:25

Properties		
M_WF Joist LMBR 45x150		
Structural Framing (Other) (1)	V 🖯 Edit	Туре
CNC Part Number		
CNC Part Name		
FM Module Mark	TJ R F5	
FM Wall Layer	Frame	
FM Module Type	Default Configur	
FM Module Preassembled	v	
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	✓	
Right	✓	
Rotated		
Rotated 180		
Start Flange	45.0	
Start Slope	0.00°	



Example with wood roof:

Properties		×	🔂 {3D}	🔂 {3D} 🔂 {3D}	分 {3D} 分 {3D} ★ ⊡ Level 1
M_Roof_Fram LMBR 48x300	e Common Joist	•			
Structural Framing (Other)	(1) 🗸 🔠 Edit Ty	pe			
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		\sim		
z Justification	Center				
z Offset Value	0.00				
Construction	*		18		
Build in Place					
Lock Position			× 0		
Lengthen_Start	0.00				
Lengthen_End	0.00				

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

08/09/21, 09:25

FRAMING CONFIGURATION – Modify Settings : AGACAD

Properties	×	🔂 {3D}	😭 {3D}	🗙 📋 Level 1
M_Roof_Frame 0 LMBR 48x300	Common Joist			
Structural Framing (Other) (1)) 🗸 🖓 Edit Type			
Framing	Roof			
Framing Member Cut Lengt	h 3599.70			
FM SortMark	J-2			
Framing Member Mass				
CNC Part Number				
CNC Part Name				
FM Module Mark				
FM Wall Layer	Frame	1/ /		
FM Module Type				
FM Module Preassembled				
CNC Part Position				
FM Wood Grade			\succ	
Phasing	\$			
Phase Created	Roof Panel Layout			
Phase Demolished	None	N 0		

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

M_Roof_Frame Common Joist LMBR 48x300 Structural Framing (Other) (1) FM SortMark J-2 Framing Member Mass CNC Part Number CNC Part Number FM Module Mark FM Module Mark FM Module Mark
Structural Framing (Other) (1) Image: Constraint of the structural for the structural form structural for the structural for the structural form structura
FM SortMark J-2 Framing Member Mass Image: CNC Part Number CNC Part Number Image: CNC Part Name FM Module Mark Image: CNC Part Name FM Module Nark Image: CNC Part Name
Framing Member Mass
CNC Part Number CNC Part Name FM Module Mark FM Wall layer Frame
CNC Part Name FM Module Mark FM Wall layer Frame
FM Module Mark FM Wall layer Frame
EM Wall Laver Frame
FM Module Type
FM Module Preassembled
CNC Part Position 2;160.29;285.03; 4;13.35;35.55;1221.62;2421.62;3621.62
FM Wood Grade
Phasing *
Phase Created Roof Panel Layout
Phase Demolished None
Model Properties
Delta_Z 0.00

Create Same Assemblies for Same Geometry

Create Same Assemblies for Same Geometry		^
Add Wall into Frame Assembly		
Add Windows\Doors\Openings into Frame Assembly		
Calculate Window\Door\Opening Mass		
Add details hosted on part into Frame Assembly		
Add details hosted on wall into Frame Assembly		
Calculate Assembly Mass	\checkmark	
Part Assembly Parameter	0.7	
Cut Bridging/Nogging with Opening Additional Void		~

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





Result:

Project Browser - Wall+2018 no bridging.rvt	× 🖪	W-2: (Detail View: Fra	ame Fror	nt - Wall+2018	no bridging.rvt	-							
Schedules/Quantities (all) Structural Framing Schedule	` <mark></mark>												,	W-2: Schedule: Assemb
			THP-2			THE					<assemb< td=""><td>ly Part List></td><td></td><td></td></assemb<>	ly Part List>		
		2	5 3	3 2		3 3			1	Α	В	с	D	E
Wall Framing Modules			HP HP			F F HP-2		125	Framing I	Member Type	Framing Member Description	FM SortMark	Count	Framing Member Mass
Wall Framing Schedule			<u>۹۲۳ ال</u>			HP-1		88						
Wall Framing Structural Connections - Mark De									W-2				-	
									Stud		Bottom Cripple	BC-1	3	11.69 kg
Wall Sheathing Schedule		7 7 2		ā.	2 2 2	2 7	7 2	8 8	Stud		Bottom Inmmer	BI-1	2	7.79 Kg
- In Sheets (all)				×		× "	~ ~		Stud		Top Cripple	TC-2	2	5.42 kg
E P Families	G-7	G-8 G-\$		3 0	3-4 G-8 G-3 ₇₅	5 G-1	G-8 G-5		Stud		Top Cripple	TC-3	2	7 14 kg
E [0] Groups			SP-1	-								TT-1	1	3.42 kg
- se Revit Links					W-2: Sc	hedule: Framing N	Iodules - Open	ngs - Wall+	2018 no bri	idging.rvt		TT-2	1	3.42 kg
Assemblies		3	5 5	5			-Eroming Mod				^	TS-1	2	20.72 kg
H−W-2		œ	8 8	- • •			SFI aming would	lies - Open	ings-			TS-2	2	21.02 kg
			BG-2		Α	В	C	D	E	1	F			85.48 kg
Detail View: Assembly Front					FM Module Mark	Framing Member	FM SortMark	Count	Cut Length	Framing M	ember Mass	P-1	6	87.68 kg
Detail View: Frame Front				+ +++								100.4		87.68 kg
- Detail View: Frame&Sheathing Front	*	8 9 8	1810	8 23	67		100.0	1.				HP-1	1	5.50 Kg
Schedule: Assembly Material Takeoff					67	Top Cripple	TC-3	2	800	7.14 kg		HP-3	1	8 45 kg
Schedule: Assembly Part List				~ .	67:2					7.14 kg		HP-4	1	8.45 kg
Schedule: Frame	1:25		100 100 V-0 100	ee, <	288	Bottom Cripple	BC 1	2	790	11.69 kg		SP-1	1	8.00 kg
Schedule: Framing Modules - Openings					288	Ton Crinnle	TC-1	1	770	3.42 kg		THP-1	1	6.04 kg
Schedule: Sheathing					288	Top Cripple	TC-2	2	770	6.84 kg		THP-2	1	8.94 kg
Sheet: W-2 -1 - Assembly					288: 6					21.95 kg				61.05 kg
Sheet: W-2 -2 - Frame					BT W-2 288							KP-1	2	30.69 kg
	-				BT W-2 288	Bottom Trimmer	BT-1	2	780	7.79 kg				
					DT 111 0 000 0					7 70 1				

Example with metal:

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







Result:

08/09/21, 09:25 ⊡ [□] Views (all)



FRAMING CONFIGURATION - Modify Settings : AGACAD



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



Result:



FRAMING CONFIGURATION – Modify Settings : AGACAD



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









Add Wall into Frame Assembly

Sheet: Roof 300 - Frame Panel_12 -2 - Sheet

(in Wall+, Wall+M)

Add Floor into Frame Assembly

(in Floor+, Floor+M)

Add Roof into Frame Assembly

(in Roof+, Roof+M)

Create Same Assemblies for Same Geometry	
Add Wall into Frame Assembly	
Add Windows\Doors\Openings into Frame Assembly	
Calculate Window\Door\Opening Mass	
Add details hosted on part into Frame Assembly	
Add details hosted on wall into Frame Assembly	✓
Calculate Assembly Mass	✓
Part Assembly Parameter	0.7
Cut Bridging/Nogging with Opening Additional Void	

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

Add Windows/Doors/Openings into Frame Assembly

Create Same Assemblies for Same Geometry	✓	^
Add Wall into Frame Assembly		
Add Windows\Doors\Openings into Frame Assembly		
Calculate Window\Door\Opening Mass		
Add details hosted on part into Frame Assembly		
Add details hosted on wall into Frame Assembly		
Calculate Assembly Mass		
Part Assembly Parameter	0.7	
Cut Bridging/Nogging with Opening Additional Void		~

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		•
Add Wall into Frame Assembly		
Add Windows\Doors\Openings into Frame Assembly		
Calculate Window\Door\Opening Mass		
Add details hosted on part into Frame Assembly	✓	
Add details hosted on wall into Frame Assembly	✓	
Calculate Assembly Mass	✓	
Part Assembly Parameter	0.7	
Cut Bridging/Nogging with Opening Additional Void		,

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

Create Same Assemblies for Same Geometry	✓	^
Add Wall into Frame Assembly		
Add Windows\Doors\Openings into Frame Assembly		
Calculate Window\Door\Opening Mass		
Add details hosted on part into Frame Assembly	\checkmark	
Add details hosted on wall into Frame Assembly	✓	
Calculate Assembly Mass		
Part Assembly Parameter	0.7	
Cut Bridging/Nogging with Opening Additional Void		~

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

Create Same Assemblies for Same Geometry	✓
Add Wall into Frame Assembly	
Add Windows\Doors\Openings into Frame Assembly	
Calculate Window\Door\Opening Mass	
Add details hosted on part into Frame Assembly	✓
Add details hosted on wall into Frame Assembly	\checkmark
Calculate Assembly Mass	
Part Assembly Parameter	0.7
Cut Bridging/Nogging with Opening Additional Void	

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+** \rightarrow **Create Assembly**.

Example with wall:

Properties				×
	Structural Framing W-3	Assembly		•
Assemblies	(1)	~	🔠 Edit Typ	be
Construction	l .			*
Assembly N	lass			
Element Ma	ass			
Assembly C	Created-Updated			
Details Crea	ated-Updated			
DC				
Identity Data	a			^
Naming Ca	tegory	Structural F	raming	
Image				
Comments				
Mark		W-1		
Framing Me	ember	Assembly		
Framing Me	ember Type	Assembly		
Framing		Wall		
Framing Me	ember Description	Assembly		
FM SortMa	rk			
Framing La	yer	Frame		
Framing Member Mark		AS		
FM HostMe	emberSortMark	W-1		
Framing Me	ember Mass	801.885 kg		
Framing Me	ember Volume	0.927 m³		
SDC		Frame Exa	mple	
Assembly D	Depth			
Assembly L	ength			
Assembly H	leight			
Assembly A	Area			



Example with floor:





Example with metal roof:

FRAMING CONFIGURATION - Modify Settings : AGACAD

Properties	×
M_MF Stud-Joist C20351-15	-
Structural Framing (Other) (1)	✓ 2 Edit Type
Mark	^
Framing Member	Common Joist
Framing Member Type	Joist
Framing Member Cut Length	4074.2
Framing	Roof
Framing Member Description	Common Joist
FM SortMark	J-2
Framing Layer	Frame
Framing Member Mark	J
FM HostMemberSortMark	Roof 203 - M_Roof Metal Panels
Framing Member Mass	15.864 kg
Framing Member Volume	0.0020 m ³
CNC Part Number	4
CNC Part Name	
FM Module Mark	
FM Wall Layer	Frame
FM Module Type	· · · · · · · · · · · · · · · · · · ·
Properties help	Apply

Example with wood roof:

Properties					
	Structural Framing Assembly Roof 300 - Frame Panel_12				
Assemblies	s (1)	√			
Comment	ts				
Mark		Roof 300 - Frame Panel_12			
FM HostN	/lemberSortMark	Roof 300 - Frame Panel_12			
Framing L	.ayer	Frame			
Framing N	Member	Assembly			
Framing N	Member Description	Assembly			
Framing N	Member Mark	AS			
Framing N	Vember Type	Assembly			
Framing N	Member Volume	0.416 m³			
Framing		Roof			
FM SortM	lark				
Framing N	Member Mass	224.236 kg			
Assembly	Area				
Assembly	Volume				
Assembly	Width				
Assembly	Depth				
Assembly	Length				
Assembly	Height				
Phasing		*			
Phase Cre	ated	Roof Panel Layout			
Phase Der	molished	None			

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

08/09/21,0)9:25				FRAMI	NG CONF	IGURATION	– Modify	Settings	: AGAC	AD	
File	Architecture	Structure	Systems	Insert	Annotate	Analyze	Massing &	Site Col	laborate	View	Manag	ge Add-li
Modify	Materials		E■・ E■・ 翻・ S	J Iditional Settings	© _ • -	Des	ign Main Mo	del	Ŧ	Manage Links		Phases
Select 👻		Settin	gs		Project Loca	tion	Design (Options		Manage F	Project	Phasing S
Modify	Structural Fra				Mate	rial Brow	ser - Wood	- C24			?	×
Properties										_		
		Search				٩.	Identity Gra	aphics Ap	pearanc	e Physica	al 🕂	
	M_Wall_F	Project N	Aterials: All	•>		i »	0 C24					ъ× с
	LIVIBR 45	N	ame			-	Informatio	n 🧳				
Structural	Framing (Ot	P	teel Carbon				Rasic There					
Structura	al Material	- ·	leei, carbon				Thermal Fx.	refficient	0.00001	inv °C		-
Structural		S S	teel, Chrome	e Plated				o cirrene inc	0,00001			
Stick Syn	nbol Location						 Mechanica 	I				
End Con	nection	Si Si	tructure, Ste	el Bar Joist	Layer			Behavior	lsotrop	ic		-
Cut Leng	jth						Young's	Modulus	11 000,0	MPa		÷
Structura	al Usage	V	inyl Compos	sition Tile			Poiss	on's Ratio	0,00			÷
Enable A	nalytical Mod						Shear	Modulus	5 500,0	MPa 🔰		÷
Build in F	ns Place True		/hite					Density	349,76 k	:g/m³		÷
Visible			lood				Strength					
h_True			/000				burengen					
nz Properties	<u>; help</u>	v	/ood - C24									
Project Bro	owser - Wood	v	/ood - Cherr	у								
□ D	etail Views (D ····· W-4-Secor	v	/ood - Dime	nsional Lur	nber							
Đ ⊕ W	rafting Views /alkthroughs	•	• 🗏			~						
⊡ Ee ⊡ ⊞ Sc	gends hedules/Qua	P							ОК	Can	cel	Apply
				_				_				

Part Assembly Parameter

Create Same Assemblies for Same Geometry	\checkmark	^
Add Wall into Frame Assembly		
Add Windows\Doors\Openings into Frame Assembly		
Calculate Window\Door\Opening Mass		
Add details hosted on part into Frame Assembly		
Add details hosted on wall into Frame Assembly		
Calculate Assembly Mass		
Part Assembly Parameter	0.7	
Cut Bridging/Nogging with Opening Additional Void		~

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

Create Same Assemblies for Same Geometry	✓	^
Add Wall into Frame Assembly		
Add Windows\Doors\Openings into Frame Assembly		
Calculate Window\Door\Opening Mass		
Add details hosted on part into Frame Assembly	\checkmark	
Add details hosted on wall into Frame Assembly	\checkmark	
Calculate Assembly Mass	\checkmark	
Part Assembly Parameter	0.7	
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)