SHOP DRAWINGS – Smart Dimensions – Configuration

Modified on: Wed, 14 Jul, 2021 at 5:02 PM

Configurations

R Smart Dimensions X		
Configurations		
Dimension Elements in View		
Update Dimensions in View		
Delete Dimensions in View		
Modify Dimensions		
Dimension Selected Elements		
Update Dimensions		
Delete Dimensions		
Dimension Element		
Dimension Configuration		
R Smart Dimensions Configurations		- 🗆 X
Configuration : Assembly Front	Save Duplicate Rename Delete Create Net	ew Configuration Settings
Dimension Lines by Priority	Dimension 1 Dimension 2	€⊖
Structural Framing	Vertical Elements Element Sections	Diagonal Elements
25	Common Settings Text Note Settings	Horizontal Elements
	Grouping Filtering	
Point Based Elements	Group Elements by None Filter by :	
+	None V None	¥
	None v none	¥
Point & Face Based Details	Include	
	Include Grids	~
	Include Levels (Measure All Y Filter by :	
Hosted Point Based Details	Dimension Lines by Priority	
	Join Dimension Lines	
	Horizontal Elements	
Parts	Vertical Elements	
	Element Sections And	¥
	Filter by :	
Walls	Join Dimension Lines None	¥
	Category none	v
	Structural Framing 2	
Structural Columns	Point Based Elements)	
	Point & Face Based Details 1 Filter Material	
		UK Cancel

Configurations – predefine the settings for inserting dimensions. It is very versatile with thousands of different possibilities.

Configurations can be saved, duplicated, renamed, deleted, or created as new:

R Smart Din	nensions Configurations				– 🗆 X
Configuratio	n : Assembly Front		Y Save Duplicate Re	ename Delete Create New	/ Configuration Settings
Dimension Lin	nes by Priority		Dimension 1 Dimension 2		⊕⊝
	Structural Framing	^	Vertical Elements	Element Sections	Diagonal Elements
55			Common Settings	Text Note Settings	Horizontal Elements
			Grouping	Filtering	

Default path to configurations location:

C:\Users\user name\AppData\Roaming\Tools 4 Revit\Wall+2021 (or other product and version) Configurations\Shop Drawing Configurations\Smart Dimensions\

If needed, the content from this catalog can be copied to other users' computers. Also, the path can be changed in Wall+, Wall+M, Floor+, Floor+M, Roof+, Roof+M \rightarrow Configuration Files' Location.

Select the elements you want to dimension in this configuration. You can drag selected rows up and down to display the order of dimension lines:

Configurati	ion : Assembly Front	 Save Duplicate Re 	ename Delete Create Ne	ew Configuration Settings
Dimension L	ines by Priority	Dimension 1 Dimension 2		€e
Structural Framing		Vertical Elements	Element Sections	Diagonal Elements
		Grouping	lext Note Settings	Horizontal Elements
	Point Based Elements	Group Elements by None	 Filter by : 	
🔺 🛓	Tome based Liements	None	~ None	v
т		None	۲	¥
	Point & Face Based Details	Include		
		Include in Total Measure Include Grids	And	*
		Measure All	Y Filter by :	
	Hosted Point Based Details	Dimension Lines by Priority None		Y
		Join D	Dimension Lines none	v
		Horizontal Elements		
	Parts	Vertical Elements		
		Diagonal Elements	And	Y
		billigonal cicilicato	Filter by :	
\sim	Walls	Join Dimension Lines	None	v
		Category	none	v
		Structural Framing		
	Structural Columns	Point Based Element	ts)	
	v v	Point & Face Based	Details 1 Filter Material	

Good practice

1. Set to measure only elements that you have in the view. Do not select everything at once.

2. In order to gain familiarity with how the software works, change just a few settings and then apply the dimensions to check the results.

3. Use Smart Dimensions \rightarrow Dimension Elements in View to quickly check results. Once you are happy with the results, apply them with Wall+, Wall+M, Floor+, Floor+M, Roof+, Roof+M to get the correct position of notes and the final look.

Configuration Settings

R Smart Dimensions Configurations			- 🗆 X
Configuration : Assembly Front	Save Duplicate Re	ename Delete Create New	Configuration Settings
Dimension Lines by Priority	Dimension 1 Dimension 2		θΘ
Structural Framing	Vertical Elements Common Settings	Element Sections Text Note Settings	Diagonal Elements Horizontal Elements
	Grouping	Filtering	

Configuration Settings - settings for total dimension lines.

R	C	Configurati	on Settings	_ 🗆 🗙
Horizontal Dimension			Vertical Dimension	
Total Dimension >			Total Dimension >	
Total Dimension Side:	Тор	~	Total Dimension Side:	Right v
Dimension Type:	Linear - 3mm Arial	~	Dimension Type:	Linear - 3mm Arial V
First Dimension Offset:	1.5		First Dimension Offset:	1.5
Text Note			Text Note	
				OK Cancel

It gives the dimensions of all elements that are selected to be Included in Total Measure:

Dimension Lir	nes by Priority		Common Settings	Text Note Settings	Front View	Sectio
	Point & Face Based Details	^	Grouping			
	(Dim 1)		Group Elements by	None		~
				None		~
	Point & Face Based Details			None		~
\diamond	(Dim 2)		Dimension Type			
			Dimension Type	Linear - 3mm Arial		~
	Point & Face Based Details		Include			
\bigcirc			Include in Total Me	asure >		
			Include Grids Include Levels			
	Hosted Point Based Details		Measure All			~
			Dimension Lines by	Priority		
	Barta		Front View			
Îm	Parts		Section View			
			Join Dimension Line	95		
			C-+			

Here you can configure settings for total dimensions: where they should be placed, dimension type, and what text note value should be used.

First Dimension Offset – a factor multiplied by the value of the **Dimension Line Snap Distance** parameter to calculate distance of first dimension line from outer solid edge in the view.



NOTE: If you change the Configuration Settings, don't forget to click on Save in the common configuration.

Example with wood frame:

SHOP DRAWINGS - Smart Dimensions - Configuration : AGACAD



Example with metal frame:



Example with wood roof:

SHOP DRAWINGS – Smart Dimensions – Configuration : AGACAD

×



Example with metal roof:



Diagonal Dimension - Total Dimension - Adds a total diagonal dimension.

SHOP DRAWINGS – Smart Dimensions – Configuration : AGACAD

onfiguration	: Frame	Y Save Duplie	ate Rename Delete	Create New	Configuration Settin
ension Line	s by Priority	Common Settings Te	ext Note Settings Elements In Vie	ew	
*	Point Based Elements	Grouping Group Elements by	Гуре	Filtering Eikter by :	
	Structural Framing		None	v None v none	
	Point & Face Based Details	R Configuration Se Horizontal Dimension Total Dimension	ttings on IV	Vertical Dimension	
	Hosted Point Based Details	Total Dimension S Dimension T First Dimension Of	ide: Top /pe: Linear - 3mm Arial iset: 1.5	 Total Dimension Side: Dimension Type: First Dimension Offset: 	Right v Linear - 3mm Arial v 1.5
	Walls	Text N	lote	Text Note	
	Parts	Diagonal Dimensio	n Dimension Type: Linear - 31	mm Arial	v
					OK Cance

(https://agacad.com/wp-content/uploads/2021/02/9-add-a-diagonal-Total-Dimension-with-the-help-of-Smart-Dimensions.jpg)



Example with wood wall:

(https://agacad.com/wp-content/uploads/2021/02/10-total-diagonal-dimension.jpg)

Dimension settings

08/09/21, 09:28

Configuratio	on : Assembly Front	 Save Dupl 	icate Rename	Delete Create New	Configuration Setting
imension Lii	nes by Priority	Dimension 1 Dime	nsion 2		\oplus
F	Structural Framing	Vertical Eleme Common Sett	ents Elei ings Text	ment Sections Note Settings	Diagonal Elements Horizontal Elements
*	Point Based Elements	Group Elements by	None None	 Filter by : None none 	~
\bigcirc	Point & Face Based Details	Include Include in Total Mea Include Grids Include Levels	sure 🔽	And	×
	Hosted Point Based Details	Measure All Dimension Lines by	Priority	Filter by :	v
	Parts	Horizontal Element Vertical Elements Element Sections Diagonal Elements	s	And Filter by :	· · ·
	Walls	Join Dimension Lines Categor	s ry al Framing 1	None	v v
	Structural Columns	Structur	al Framing 2 used Elements Face Based Details 1) Filter Material	

Grouping – groups dimension lines by selected parameter. E.g. If you group by Framing Layer, then elements from every framing layer will be in a separate dimension line.

Dimension Lir	nes by Priority	Dimension 1 Dimension 2		$\oplus \ominus$
B	Structural Framing	Vertical Elements Common Settings	Element Sections Text Note Settings	Diagonal Elements Horizontal Elements
*	Point Based Elements	Grouping Group Elements by Framing L None	ayer Filter by : None	×
	Point & Face Based Details	Include Include in Total Measure 🔽 Include Grids	none And	~
	Hosted Point Based Details	Include Levels Measure All Dimension Lines by Priority	(Filter by : None	×
	Parts	Join Horizontal Elements Vertical Elements Element Sections Diagonal Elements	Dimension Lines none	~
	Walls	Join Dimension Lines Category Structural Framing	Filter by : None none	v
0	Structural Columns	Structural Framing Point Based Elemer Point & Face Based	2 ts) Details 1 Filter Materia	l

Filtering – you can filter what should be dimensioned by rules in this tab. It is possible to use different parameters from families.

At the bottom there is also an option to filter by the Material by Model Behavior parameter, which is inside the family.

Dimension Li	nes by Priority	Dimension 1 Dimensio	on 2		ĐΘ
53	Structural Framing	Vertical Elements Common Setting	s Element Is Text Note	e Sections	Diagonal Elements Horizontal Elements
*	Point Based Elements	Grouping Group Elements by N. N.	one × one ×	Filtering Filter by : None none	× ×
	Point & Face Based Details	Include Include in Total Measur Include Grids Include Levels		And (~
	Hosted Point Based Details	Measure All Dimension Lines by Price	ority Join Dimension Lines	Filter by : None	~
	Parts	Horizontal Elements Vertical Elements Element Sections Diagonal Elements		And	v
	Walls	Join Dimension Lines Category Structural F	Traming 1	Filter by : None none	* *
0	Structural Columns	Structural F Point Based Point & Fac	d Elements ce Based Details 1) Filter Material	

Example with wood frame: Here, dimensions are added automatically into frames where **Framing Layer = Frame**:

08/09/21, 09:28

		Configuration	
SHUP DRAWINGS -	- Smart Dimensions –	Confiduration	: AGACAD

Properties		×
M_Wall_Frame Stu LMBR 45x195	d	Ŧ
Structural Framing (Other) (1)	✓ 🗄 Edit T	ype
Elevation at Bottom	Varies	^
Identity Data		*
Build in Place		
FM Number of Connectors	0.000000	
Link to Connected Wall		
Assembly Name	W-4	
Image		
Comments		
Mark		
Framing Member	Stud	
Framing Member Type	Stud	
Framing Member Cut Length	3082.0	
Framing	Wall	
Framing Member Description	Stud	
FM SortMark	VS-2	
Framing Layer	Frame	
Framing Member Mark	VS	
FM HostMemberSortMark	W-4	
Framing Member Mass	9.199 kg	
Framing Member Volume	0.026 m³	
FM Module Type		
FM Module Mark		
FM Module Preassembled	\checkmark	
CNC Part Number		
CNC Part Name		
CNC Part Position		
FM Wood Grade		
FM Wall Layer		



Example with metal frame: Here, dimensions are added automatically into frames where **Framing Layer = Frame**:

08/09/21, 09:28

SHOP DRAWINGS - Smart Dimensions - Configuration : AGACAD

Properties			×	ി	Fra	me Front	×	0	Fram	e&She
M_MF Stud-Joist C10251-10			Ŧ		*	569.6				
Structural Framing (Other) (1)	~	Co Edit	Туре			98			╈	
Identity Data			* ^							
FM HostSortMark										l
FM Number of Connectors	0.000000									1
Assembly Name	W-4									
lmage										
Comments										
Mark						SB	P-1			
Framing Member	Stud			7	ğ	<u> </u>				
Framing Member Type	Stud			SS	R			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ť	
Framing Member Cut Length	2998.0					<u> </u>				
Framing	Wall									
Framing Member Description	Stud							2		
FM SortMark	VS-1							1	ΪŤ	
Framing Layer	Frame									
Framing Member Mark	VS							4	-	
FM HostMemberSortMark	W-4							õ	11	
Framing Member Mass	5.278 kg				T	Έ		_		
Framing Member Volume	0.001 m ³				-		- e	0		
Link to Connected Wall						ň	7			
Build in Place					ł					
Properties help		Арр	bly							

Example with metal roof: Here, dimensions are added automatically into frames where **Framing Layer** = **Frame**:



Dimension Lines by Priority – here you can arrange the order of how close the dimension line will be to the Host element. Click and drag the selected type of dimension lines to the top or bottom.

Part Openings

A new tab named 'Part Openings' will appear only after creating a new dimensioning configuration:

R Smart Dimensions Configurations					– 🗆 X			
Configuration : New Config v	Save Dup	olicate Rename	Delete	Create New 1	Configuration Settings			
Dimension Lines by Priority	Common Settings	Text Note Settings Fr	ont View Sec	tion View				
Parts	Grouping Group Elements by	None	~	Filtering Filter by :				
		None	v	None	¥			
Part Openings		None	*	none	Ŷ			
	Dimension Type							
	Dimension Type	Diagonal - 2.5mm Arial	v	And	Ŷ			
Windows	Include Include in Total Me	asure		(Filter by :				
Doors	Include Grids			None	Ŷ			
	Measure All		~	none v				
	Dimension Lines by	Priority		And				
					OK Cancel			

In this example, part openings have their individual dimensions that are not tied to Structural Framing elements:



(https://agacad.com/wp-content/uploads/2021/01/26.jpg)

For custom/complex dimensioning, training is needed; please contact us at support@agacad.com.