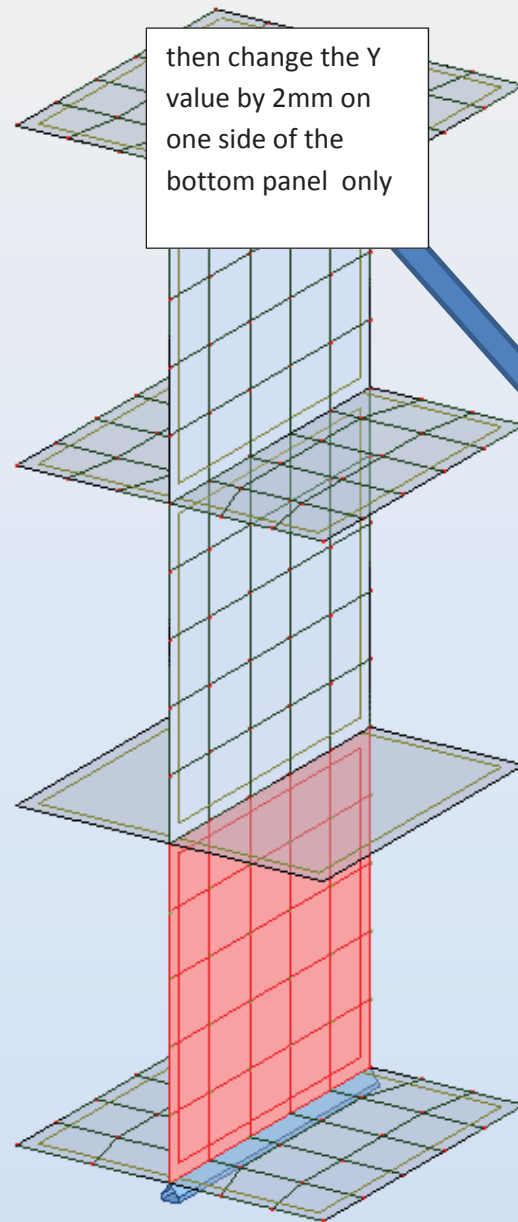


- Stones
 - Story 1
 - Undefined
- Objects of a model
 - Nodes 0/233
 - Floors 0/4
 - Panels 1/3**
 - Auxiliary objects

3 vertical panels, all have same geometry i.e. from $X = 0$ to 4, and $y = -2$ constant. Z varies per panel obviously.

Name	Value	Unit
List of panels	8	
General		
Name...	Panel 8	
Structure...	Panel	
Story...	Story 1	
Model		
Meshing t...
Mesh fre...	Yes	
Trapezoi...	Analyze	
Calculatio...	Shell	
Geometry		
Contour d...		
Area	...	(m2)
Object type		
P1	0.0 -2.000 4....	
P2	4.000 -2.002...	
Properties		
Thicknes...	CONR_200	
Material	CONCR	
Reinforce...	RC wall	
Linear rel...		



then change the Y value by 2mm on one side of the bottom panel only

Polyline - Contour

Object No. 8

Definition method

☐ Line
☐ Polyline
☒ Contour

Geometry

Add

0.000, -2.000, 4.000
4.000, -2.002, 4.000
4.000, -2.002, 0.000
0.000, -2.000, 0.000

Delete Delete all Modify

Parameters

Apply Close Help

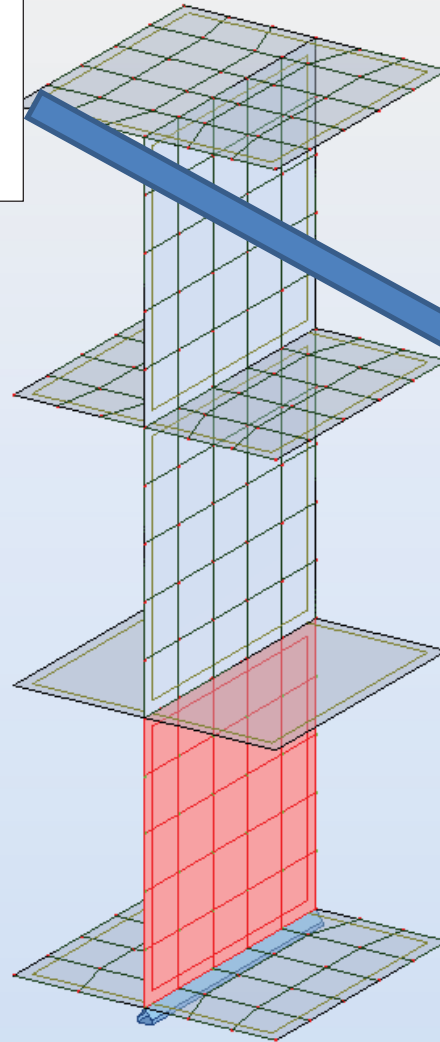
Objects

Objects	Number of...
Stories	
Story 1	
Undefined	
Objects of a model	
Nodes	0/233
Floors	0/4
Panels	1/3
Auxiliary objects	

Geometry Groups

Name	Value	Unit
List of panels	8	
General		
Name...	Panel_8	
Structure...	Panel	
Story...	Story 1	
Model		
Meshing t...	Coons	
Mesh fre...	Yes	
Trapezoi...	Analyze	
Calculatio...	Shell	
Geometry		
Contour d...		
Area	16.000	(m2)
Object type		
P1	0.0 -2.000 4....	
P2	4.000 -2.002...	
Properties		
Thicknes...	CONR_200	
Material	CONCR	
Reinforce...	RC wall	
Linear rel...		

Set model geometry to account for this expected error



Analysis Type

Analysis Types Structure Model Load to Mass Conversion Combination Sign Result F

Generation of finite elements

Generate nodes at intersections

☒ of diagonal bars ☒ of vertical/horizontal bars

Bars neglected in generation:

Objects and bars ignored in mesh generation:

Maximum length of a bar element for automatic division: 1 (m)

Use of a starting case for non-linear analyses

☐ Use ... as a starting one for selected non-linear cases

Case list:

Tolerance of structure model generation

☐ Automatic 0.1 (mm)

☒ User-defined 2 (mm)

Tolerance calculations

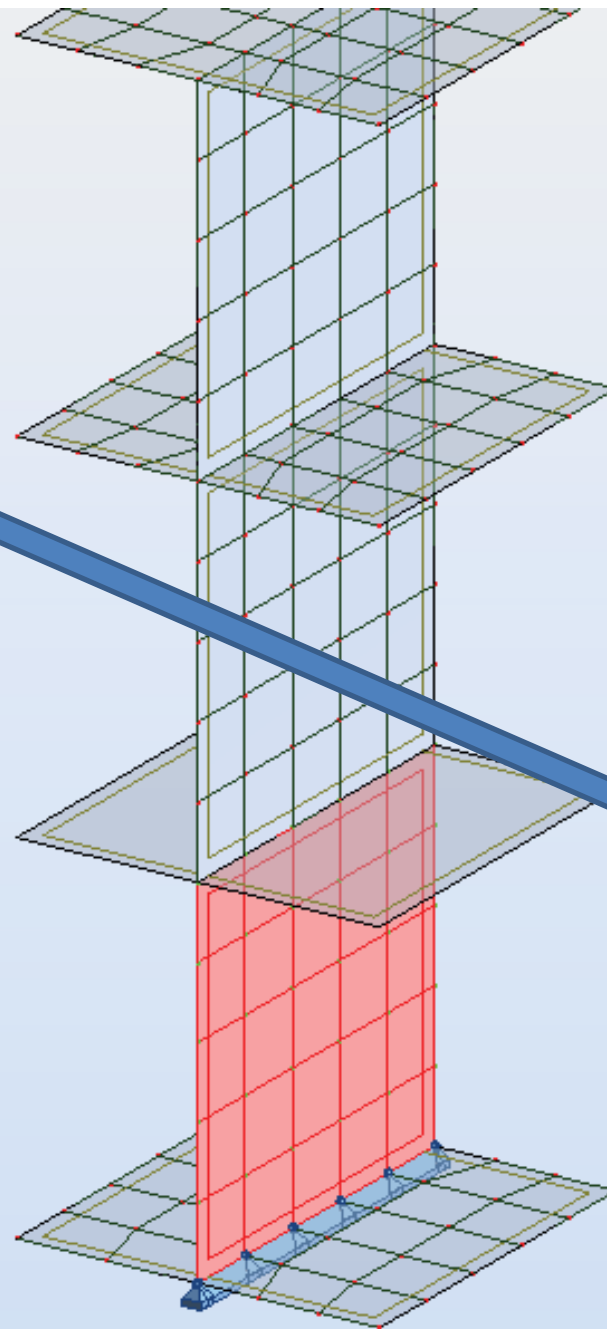
Generation of computational model

☒ Model generation

Calculations Close Help

+ Nodes 0/203
 + Floors 0/4
 - Panels 1/3
 Panel 8
 Panel 11
 Panel 12
 Auxiliary objects

After model calculation, bottom vertical panel now has the following co-ordinates (maybe as expected??)



Polyline - Contour

Object No. 8

Definition method

☐ Line
☐ Polyline
☒ Contour

Geometry

Add
 0.00, -2.000, 4.000
 4.000, -2.001, 4.000
 4.000, -2.002, 0.000
 0.000, -2.000, 0.000

Delete Delete all Modify

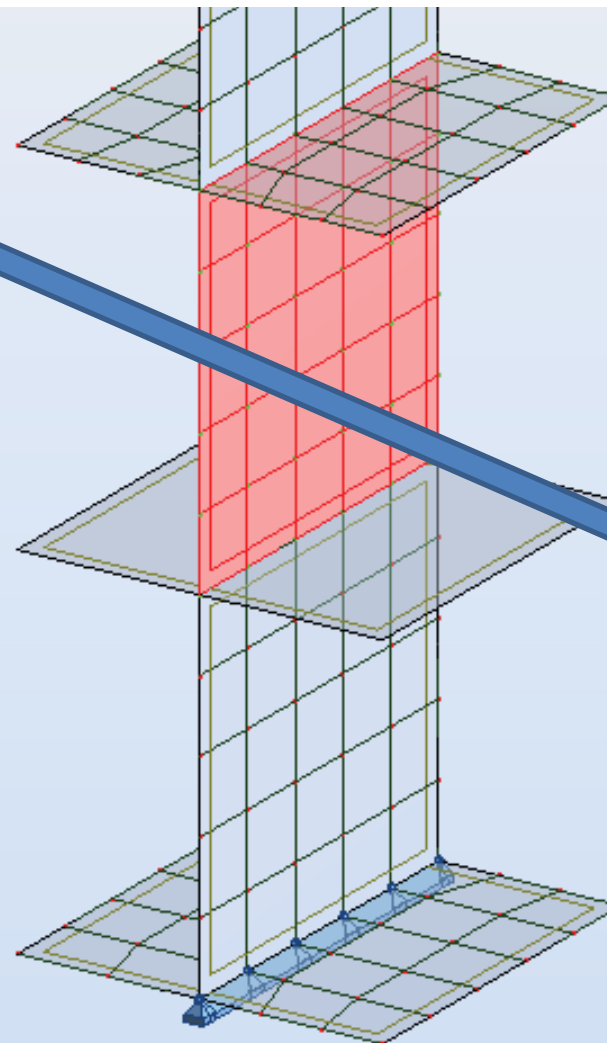
Parameters

Apply Close Help

Name	Value	Unit
List of panels	8	
General		
Name...	Panel_8	
Structure...	Panel	
Story...	Story 1	
Model		
Meshing t...	Coons	
Mesh fre...	Yes	
Trapezoi...	Analyze	
Calculatio...	Shell	
Geometry		
Contour d...		
Area	16.000	(m2)
Object type		
P1	0.0 -2.000 4....	
P2	4.000 -2.001...	
Properties		
Thicknes...	CONR_200	
Material	CONCR	
Reinforce...	RC wall	
Linear rel...		

Problem is middle vertical panel now has moved as well. (again, maybe as expected??). The problem is, if you have spent a significant amount of time getting this middle panel EXACTLY where you wanted it (meshing EXACTLY how you want it too), this is going to make a problem.

Name	Value	Unit
st of panels	11	
General		
Name...	Panel_11	
Structure...	Panel	
Story...	Story 1	
Model		
Meshing t...	Coons	
Mesh fre...	Yes	
Trapezoi...	Analyze	
Calculatio...	Shell	
Geometry		
Contour d...		
Area	16.000	(m2)
Object type		
P1	0.0 -2.000 8....	
P2	4.000 -2.000...	
Properties		
Thicknes...	CONR_200	?
Material	CONCR	
Reinforce...	RC wall	
Linear rel...		



Polyline - Contour

Object No. 11

Definition method

P1 Pn P2 ...

☐ Line
☐ Polyline
☒ Contour

Geometry

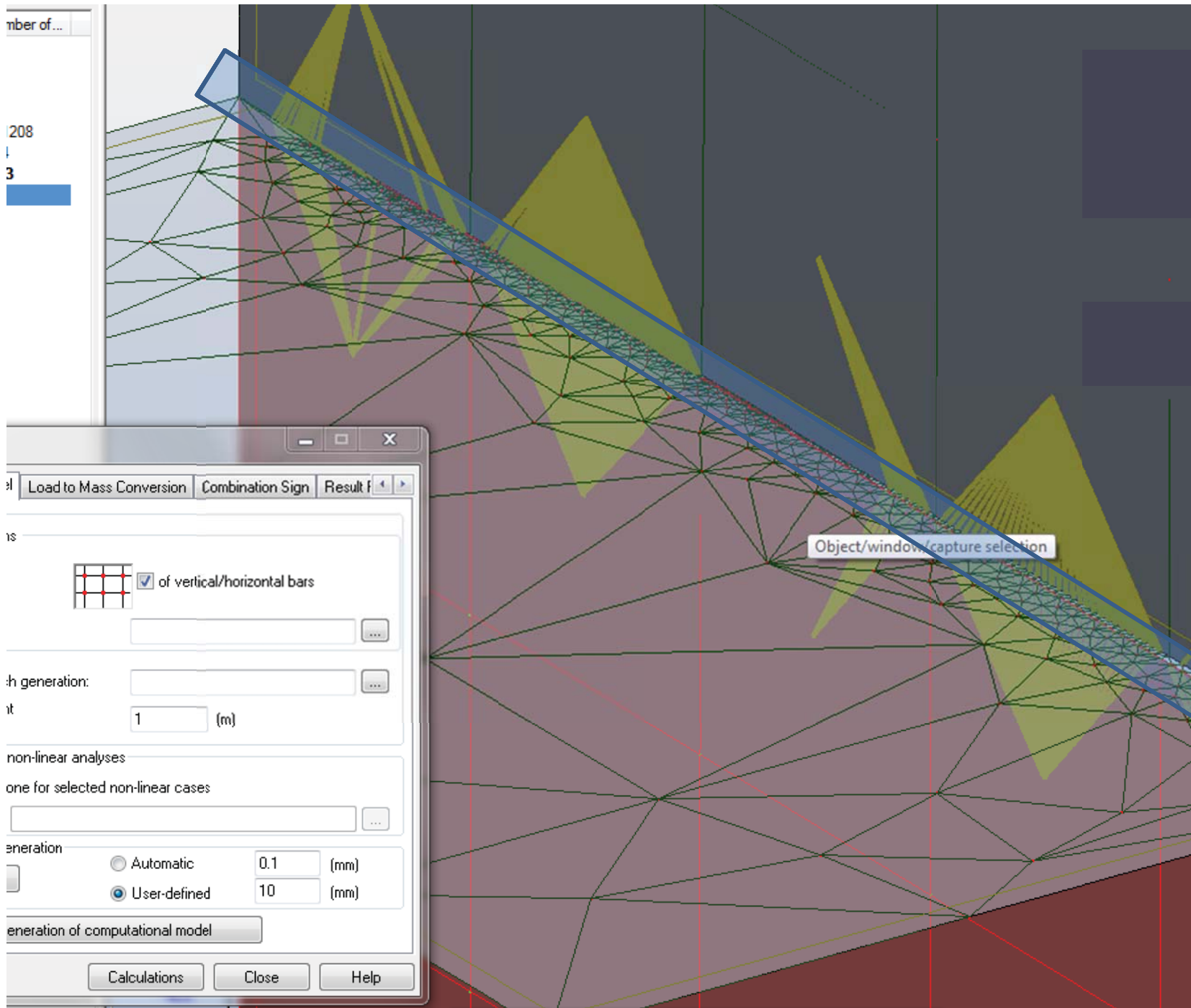
Add

8.000, -2.000, 8.000
4.000, -2.000, 8.000
4.000, -2.000, 4.000
0.000, -2.000, 4.000

Delete Delete all Modify

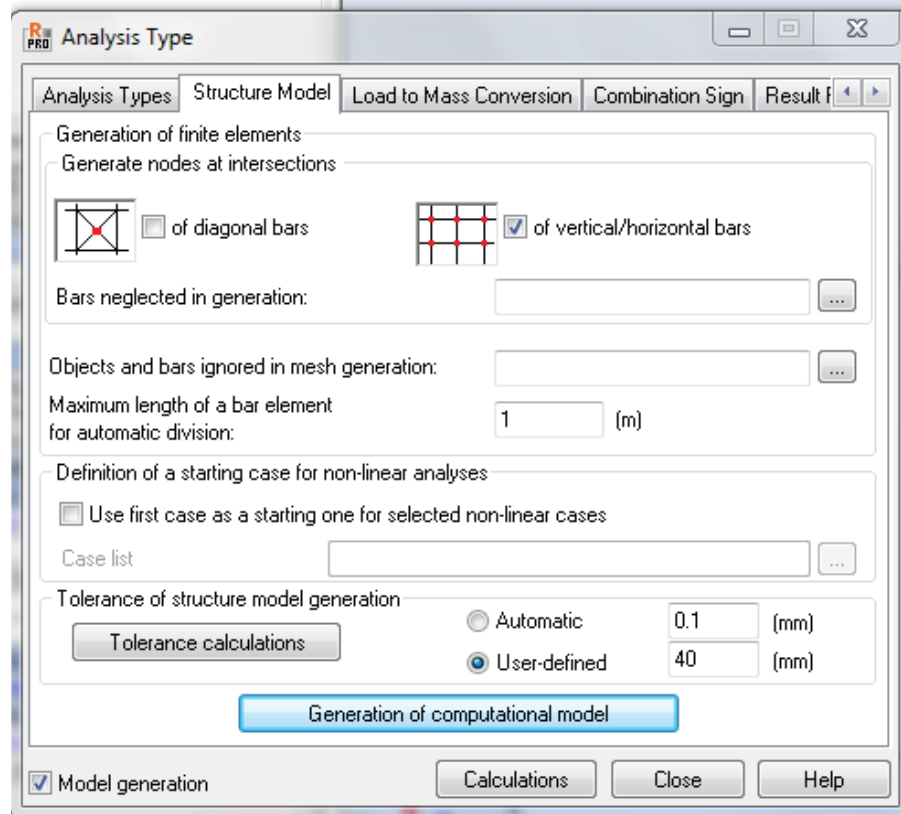
Parameters

Apply Close Help



This is an example using the same model but making the initial discrepancy 6mm. Then use 10mm user defined tolerance to achieve model based upon "tolerance of structure model generation". I now have a huge problem with my meshing. (Think on project with 100's of panels, it can take 30-40 minutes just to generate this mesh, which is not useable anyway).

Floors 0/4
Panels 1/3
Panel 8
Panel 11
Panel 12
any objects



Then I can change tolerance to say 40mm. Now check middle panel. So from an initially small discrepancy, in the BOTTOM panel, the middle panel (which originally had no geometric discrepancy) is now out 18mm.

