

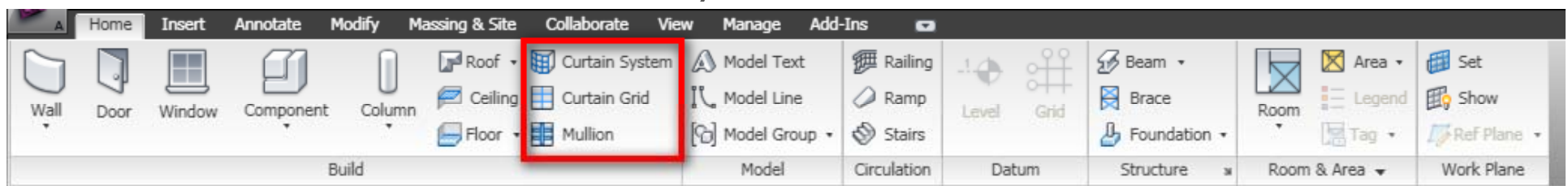
48-749 Parametric Modeling Curtain Wall System

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Curtain Wall Components

- ▶ A curtain wall system is composed of the following three components:
 - ▶ Curtain Grid
 - ▶ Mullions
 - ▶ Curtain Panel - at least a curtain panel to start from

Functions related to Curtain Wall System:



Home → Build → Curtain System

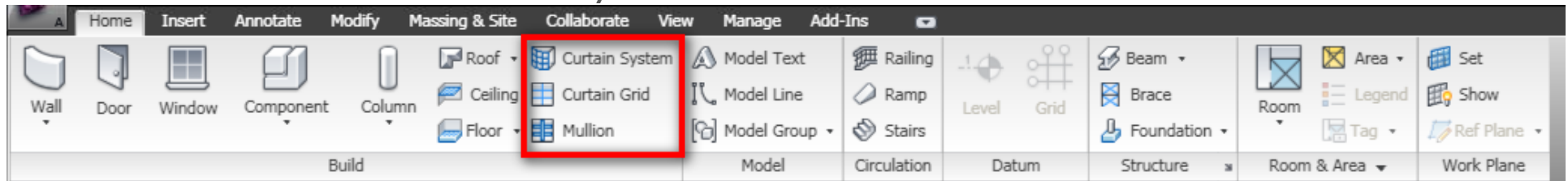
Home → Build → Curtain Grid

Home → Build → Curtain Mullion



Curtain Wall Components

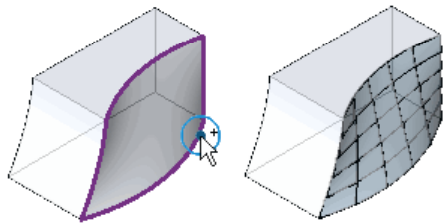
Functions related to Curtain Wall System:



Curtain System

Creates a curtain system on the face of a mass or generic model.

You cannot edit the profile of a curtain system. If you want to edit the profile on a vertical face, place a curtain wall.

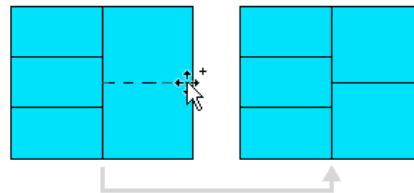


Press F1 for more help

Curtain Grid

Creates a grid line in a curtain wall or curtain system.

As you place curtain grids, they snap to evenly spaced intervals or to visible levels, grids, and reference planes. Each section of the curtain grid is filled with a separate curtain wall panel.

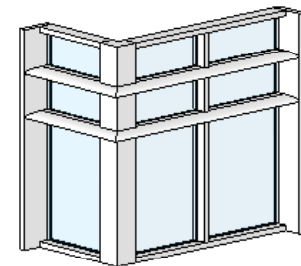


Press F1 for more help

Mullion

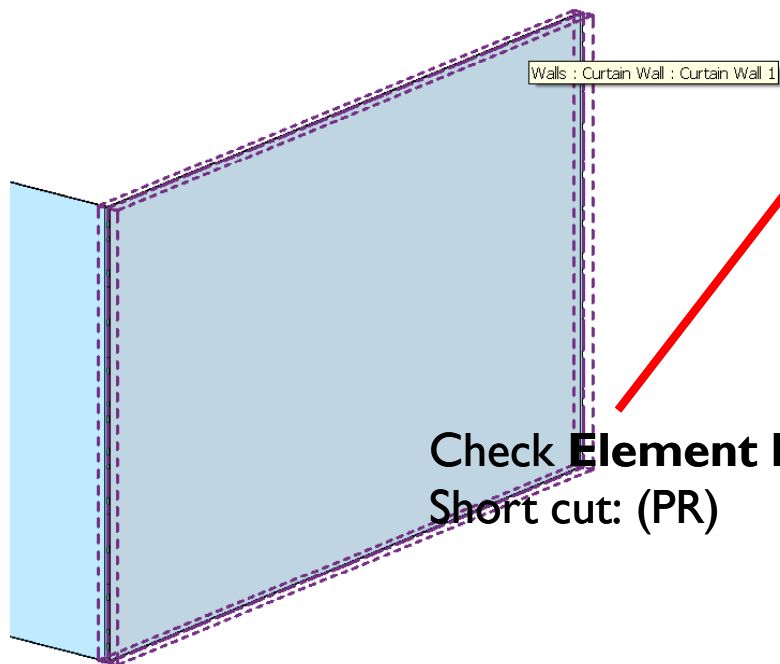
Creates a horizontal or vertical mullion on a curtain grid.

Specify the shape of mullions by loading a mullion profile into the project, or creating a custom profile. When you add mullions to a grid, the mullions resize to fit the grid.



Press F1 for more help

Create a Curtain Wall



Check **Element Properties**
Short cut: (PR)

Instance Properties

Family: System Family: Curtain Wall Load...
Type: Curtain Wall 1 Edit Type...

Instance Parameters - Control selected or to-be-created instance

Parameter	Value
Constraints	
Base Constraint	Level 1
Base Offset	0' 0"
Base is Attached	☐
Top Constraint	Unconnected
Unconnected Height	20' 0"
Top Offset	0' 0"
Curtain Grid Pattern	☒
Vertical Grid Pattern	
Number	4
Justification	Beginning
Angle	0.000°
Offset	0' 0"
Horizontal Grid Pattern	
Number	4
Justification	Beginning
Angle	0.000°
Offset	0' 0"
Structural	
Structural Usage	Non-bearing
Dimensions	
Length	32' 0"
Area	640.00 SF

OK Cancel

Curtain Wall Properties

- A. Curtain Panel
- B. Curtain Grid Pattern
- C. Curtain Mullions

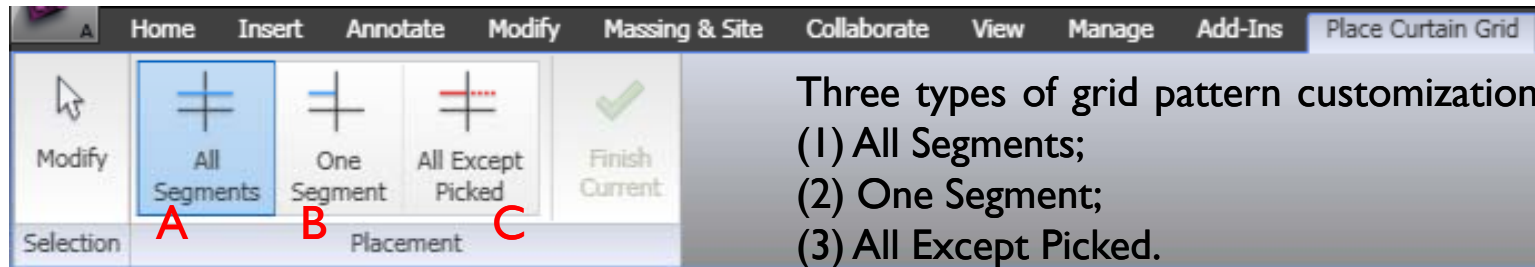
To specify/modify the values for each one of them, click on the value fields (none) and select the desired value from the pull-down menu.

The 'Type Properties' dialog box for a Curtain Wall is shown. It includes a 'Family' dropdown set to 'System Family: Curtain Wall' and a 'Type' dropdown set to 'Curtain Wall 1'. Below these are buttons for 'Load...', 'Duplicate...', and 'Rename...'. The 'Type Parameters' section contains a table with two columns: 'Parameter' and 'Value'.

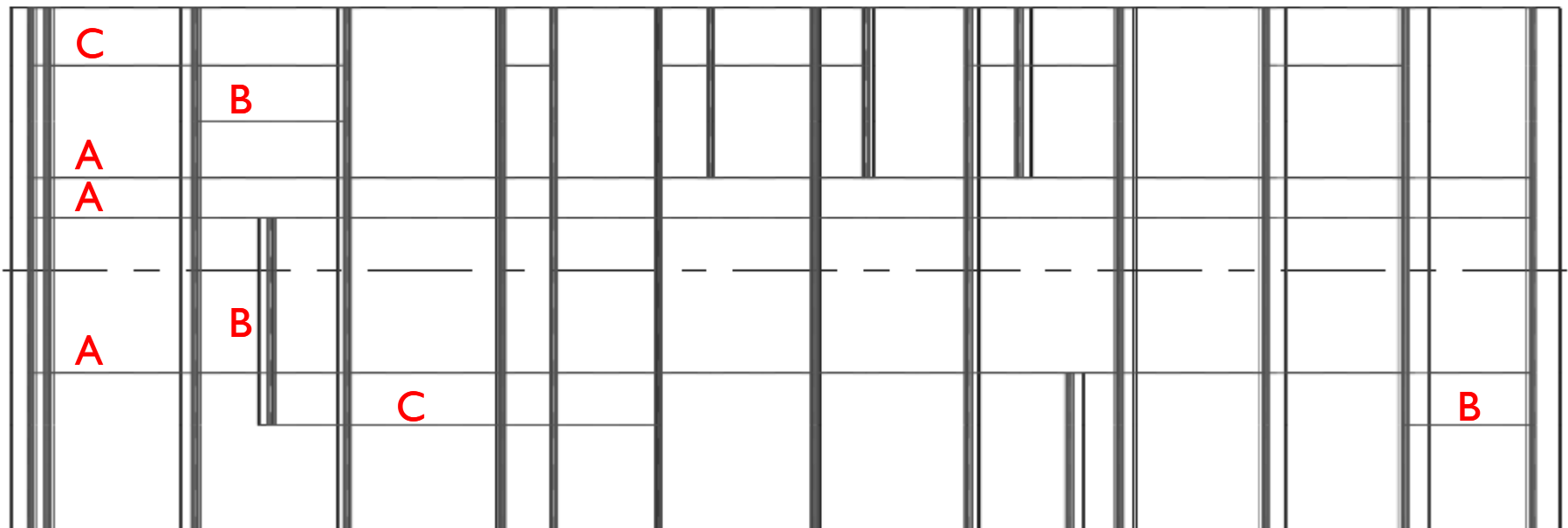
Parameter	Value
Construction	
Function	Exterior
Automatically Embed	☐
Curtain Panel	None
Join Condition	Not Defined
Vertical Grid Pattern	
Layout	None
Spacing	
Adjust for Mullion Size	☐
Horizontal Grid Pattern	
Layout	None
Spacing	
Adjust for Mullion Size	☐
Vertical Mullions	
Interior Type	None
Border 1 Type	None
Border 2 Type	None
Horizontal Mullions	
Interior Type	None
Border 1 Type	None
Border 2 Type	None
Identity Data	
Keyword	

At the bottom are buttons for '<< Preview', 'OK', 'Cancel', and 'Apply'. Red boxes and labels A, B, and C highlight specific sections: A points to the 'Curtain Panel' parameter, B points to the 'Vertical Grid Pattern' section, and C points to the 'Vertical Mullions' section.

Curtain Wall Components_Curtain Grid

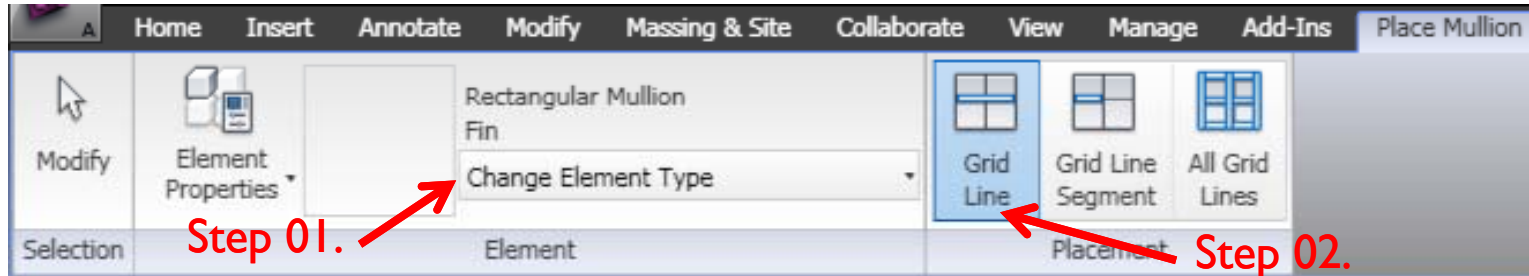


Three types of grid pattern customizations are given:
(1) All Segments;
(2) One Segment;
(3) All Except Picked.



Curtain Wall Components_Mullion(1)

- ▶ You can initiate a mullion elements by selecting the curtain grid elements in your project.



Step 01: Select the Mullion type

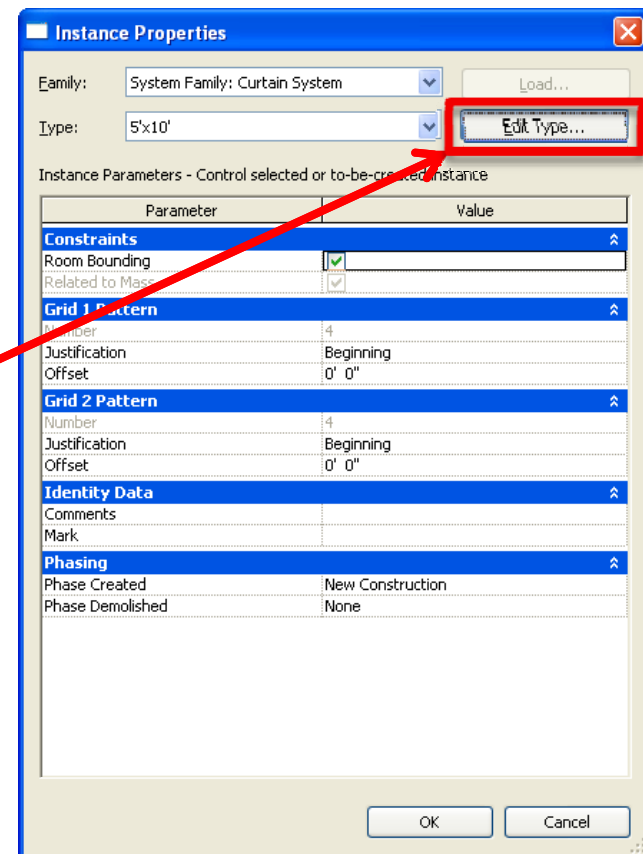
Step 02: Manually Placing a mullion element by Grid lines

Curtain Wall Components_Mullion(2-1)

- ▶ You can also assign the Mullion types by changing the Elements Properties of a Curtain System.

Step 01: Select the Curtain System you have created in your project.

Step 02: Click on Edit Type.. Button



Curtain Wall Components_Mullion(2-2)

Type Properties

Family: System Family: Curtain System Load...

Type: 3' x 2' Duplicate... Rename...

Type Parameters

Parameter	Value
Construction	
Curtain Panel	None
Join Condition	Not Defined
Grid 1 Pattern	
Layout	Fixed Distance
Spacing	3' 0"
Adjust for Mullion Size	☐
Grid 2 Pattern	
Layout	Fixed Distance
Spacing	2' 0"
Adjust for Mullion Size	☐
Grid 1 Mullions	
Interior Type	Rectangular Mullion : 2.5" x 5" rect
Border 1 Type	Rectangular Mullion : 2.5" x 5" rect
Border 2 Type	Rectangular Mullion : 2.5" x 5" rect
Grid 2 Mullions	
Interior Type	Rectangular Mullion : Fin
Border 1 Type	Rectangular Mullion : Fin
Border 2 Type	Rectangular Mullion : Fin
Identity Data	
Keynote	
Model	

<< Preview OK Cancel Apply

Step 03: Change the Mullion Profiles

Type Properties

Family: Rectangular Mullion Load...

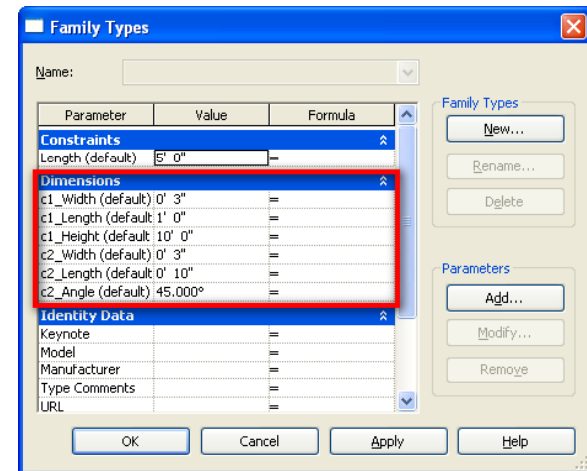
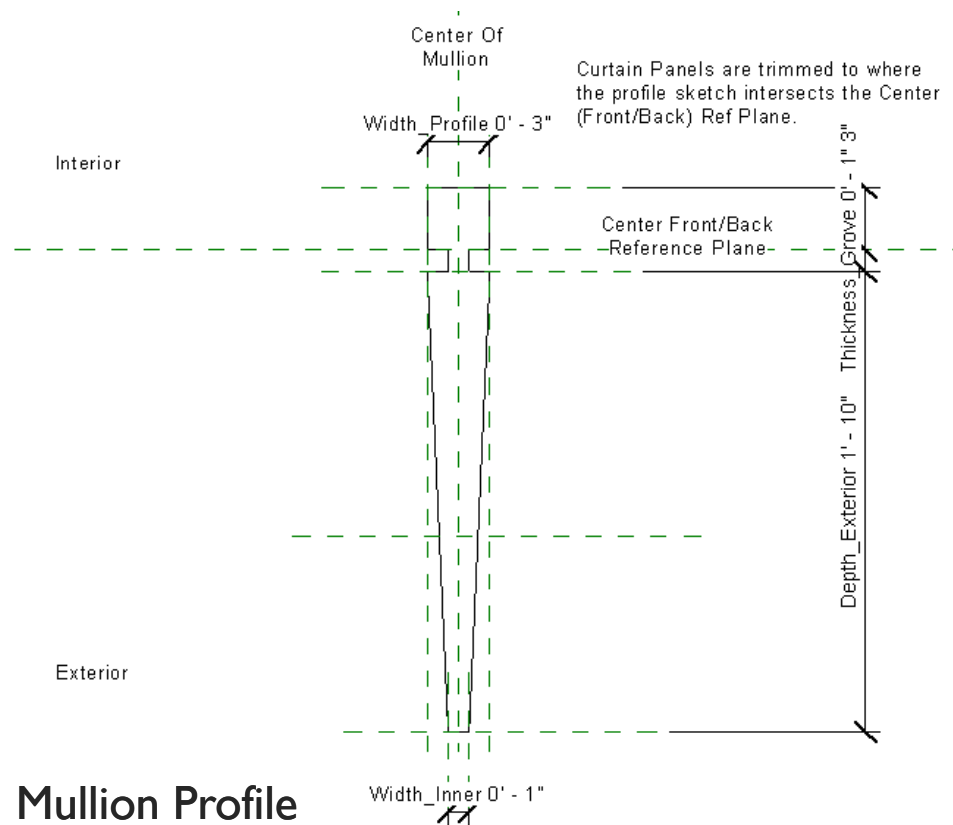
Type: Fin Duplicate... Rename...

Type Parameters

Parameter	Value
Constraints	
Angle	0.000°
Offset	0' 0"
Construction	
Profile	fin : fin
Position	Default
Corner Mullion	fin : fin
Thickness	System Mullion Profile: Circular System Mullion Profile: Rectangular
Materials and Finishes	
Material	Metal - Aluminum
Dimensions	
Width on side 2	0' 1 1/2"
Width on side 1	0' 1 1/2"
Identity Data	
Keynote	
Model	
Manufacturer	
Type Comments	
URL	
Description	
Assembly Description	
Assembly Code	

<< Preview OK Cancel Apply

Step 03: Update Mullion Profile



Associated Parameters

Curtain Wall by Customized Mullion Profiles

