

# TRI MO

## QBISS SCREEN REVIT INSTRUCTIONS



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## 01: INTRODUCTION

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Trimo Qbiss Screen, is a modular facade system, with a number of different metal elements used for assemblage of a high quality ventilated facades. In Architectural sense, facade it self, has flat surface with recessed or flush joints between panel elements, which are structured as a thin pre-painted metal sheets on honeycomb core, with total thickness of 50mm.

Metal panel elements are suitable for Horizontal and Vertical Installation only, with some other installation variations within these limits.

Dimensional restrictions and other installation rules will be explained further in this document.

## 02: QBISS SCREEN FAMILIES LIST AND DESCRIPTION

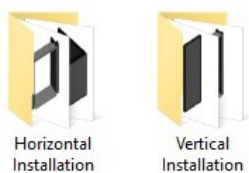
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### 02 a: Families Description:

Trimo Qbiss Screen Revit families are developed as custom curtain wall families, with variety of different settings and options added, so the best possible presentation of real life products is achieved in project. All families divided into two major groups of families based on their installation type (Horizontal And Vertical). These groups are made up of flat normal curtain wall panel families, as main part of facade system and their variations for wall corners and door/window inner linings and trims.

Curtain Panel families for both types of installation (Horizontal And Vertical), are named according to that division, as well as to their usage in project or placement in overall wall design. For some basic showcase purposes or some other types of usage in Revit, this allows us that some of these families do not need to be loaded into project.

All Qbiss Screen families (Panels And Accessories) are created in fashion where they all have developed subtypes, based on their second most important division (Joint Types). Any duplication by the user, or new type creation will not make any changes to actual product or their installation or joint type that is duplicated. Also, any try to change manufacturers information by user in project, or any other product specific information is disabled and protected in measure that software allows it.

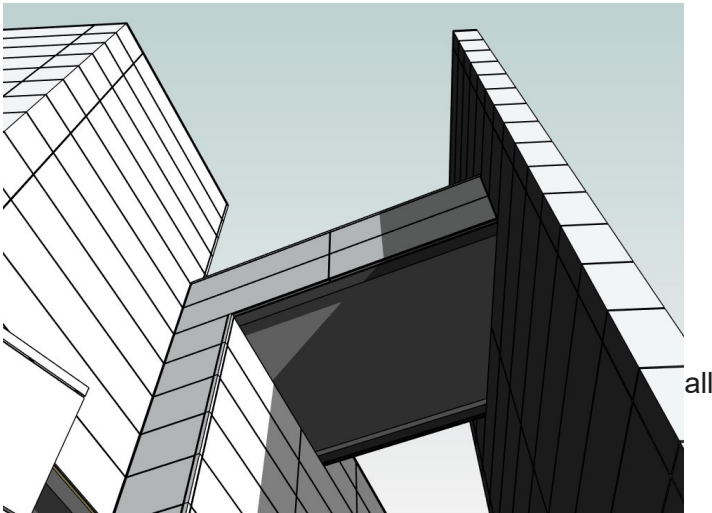


Familiesfolderstructure



Families NamingExample

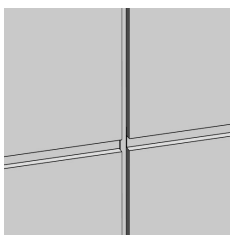
## 02 b: Horizontal Installation:



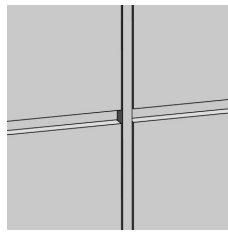
Horizontal Installation type refers to modular facade elements with overall look and feel of horizontally placed objects as shown on picture on the left. There are multiple differences between this type of installation and Vertical installation, that are best learned on manufacturers website or manufacturers technical documentation and catalogues. All panel variations (Normal, Corner...) are developed for types of joint conditions for easier and more obvious usage in project. In this fashion, and for better appearance in Revit they should not be combined with some other Joint type in Revitproject.

### Main Characteristics:

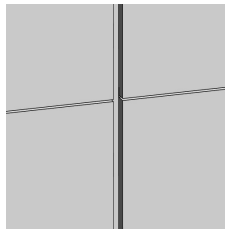
#### 01: 4 Joint Types



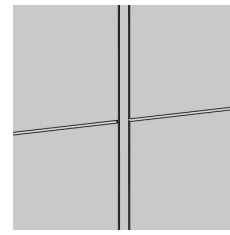
HR -B



HR-B-F



HR-FB



HR -FB-F

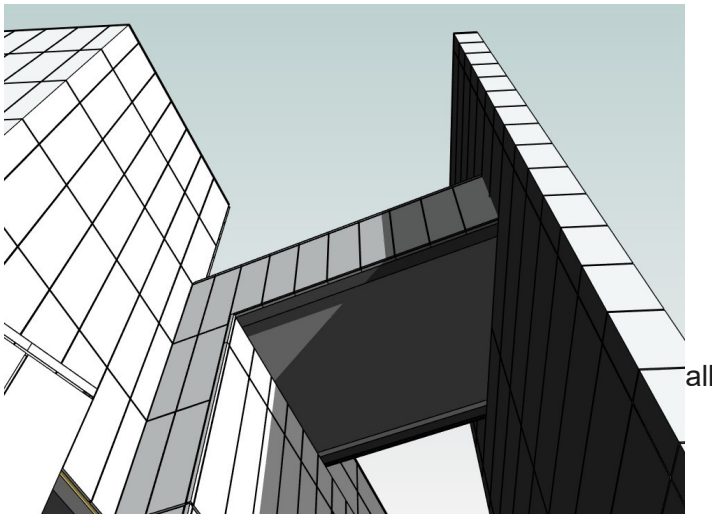
02: NormalPanel (Min-Max Width 600-1200mm)  
(Min-Max Length 550-6500mm)

03: LCornerPanel (Min-Max Width 600-1200mm)  
(Min-Max Length A SIDE 150-1000mm)  
(Min-Max Length B SIDE 150-1000mm)  
(Min Length A+B SIDE 550mm)  
(Min-Max Angle 60-175°)

04: UCornerPanel (Min-Max Width 600-1200mm)  
(Min Max Length A-C Side 150-1000mm)  
(Max Distance A to C Side 300mm)  
(Max Length B Side 1000mm)  
(Min-Max AB-BC Angle 90-135°)

05: Different cornering and connection options.

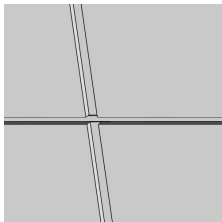
## 2 c: VerticalInstallation:



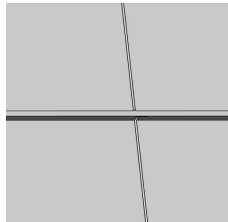
Vertical Installation type refers to modular facade elements with overall look and feel of vertically placed objects as shown on picture on the left. There are multiple differences between this type of installation and Horizontal installation, that are best learned on manufacturers website or manufacturers technical documentation and catalogues. All panel variations (Normal, Corner...) are developed for types of joint conditions for easier and more obvious usage in project. In this fashion, and for better appearance in Revit they should not be combined with some other Joint type in Revit project.

### Main Characteristics:

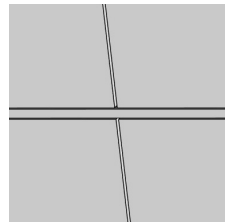
#### 01: 3 Joint Types



HR -B



HR-FB



HR -FB-F

02: Normal Panel (Min-Max Width 600-1200mm)  
(Min-Max Length 550-6500mm)

03: L Corner Panel (Min-Max Length 550-4000mm)  
(Min-Max Width A SIDE 150-820mm) (Min-Max Width B SIDE 150-820mm) (Max Width A+B SIDE 1200mm)

05: Different cornering and connection options.

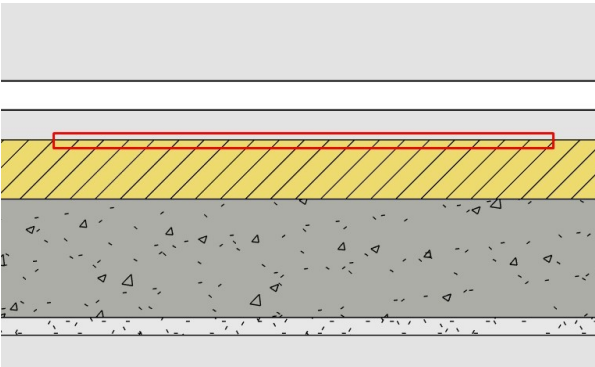
## 03: BASIC APPLICATION IN PROJECT

### 3 a: Best Way To Use InProject

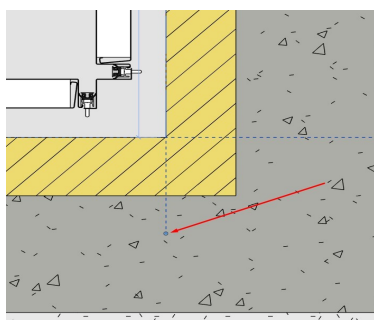
Easiest way to use and to design facades with Qbiss Screen products in Revit project is to draw predefined Revit curtain wall with Revit System panels, without any predefined grid lines distances and mullion placements. Connections between panels, filler strips, covers or some other definitions are already done in panel families so any desired configuration will be automatically added or defined with minimum tuning and adjustments of panel families. All grid lines and other options should be added manually by facade designer and after setup is done, Revit System panels will be replaced with Qbiss Screen panels (Horizontal or Vertical).

### 03 a: Generic Curtain Wall Drawing

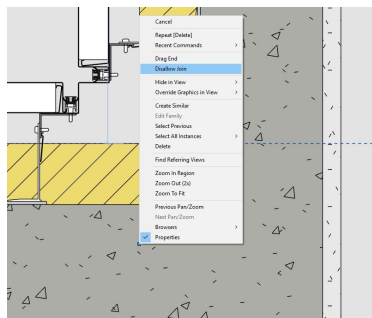
Drawing Curtain wall with Revit System panels, needs to be done by drawing the curtain wall on the Exterior edge of the host wall. Also length of the curtain wall should never go over the length of the exterior face of the host wall, especially on inner/outer corners or wall connection. As for the inner corners and wall connections, Revit will automatically extend curtain wall to center axis of host wall, so “dissallow join” option should be selected and wall needs to be adjusted again (see pictures below).



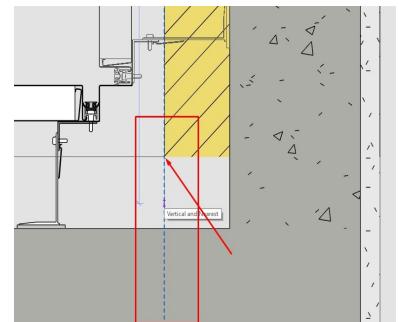
Drawing Curtain Walls



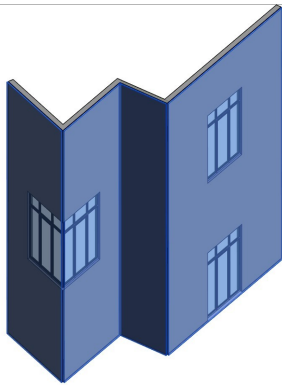
AutomaticExtension



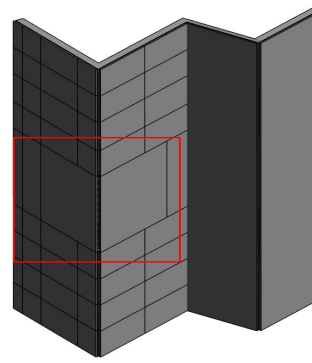
Automatic ExtensionFix



### 03 c: Adding Grids To Curtain Wall Based On Installation Type

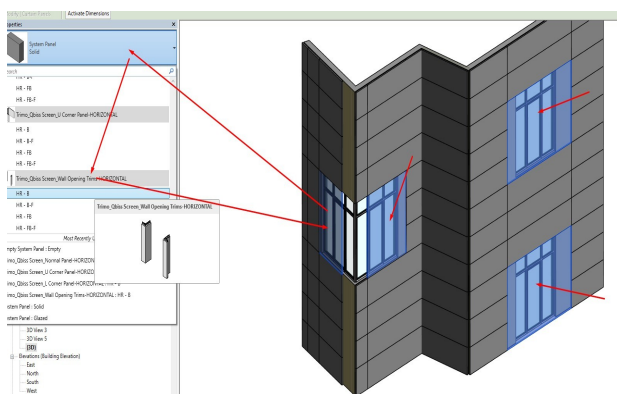


System Panels after drawing

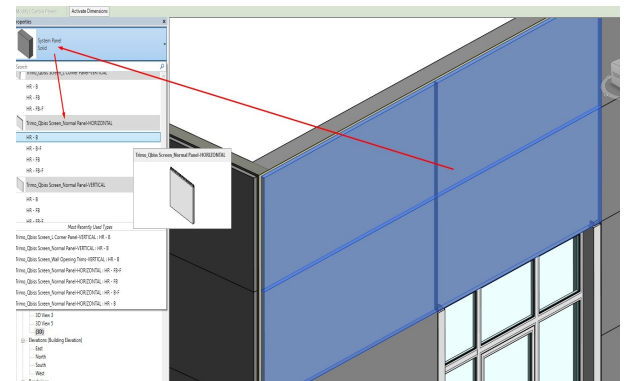


Curtain Grid For HORIZONTAL installation

### 03 d: Basic Qbiss Screen Panels Application

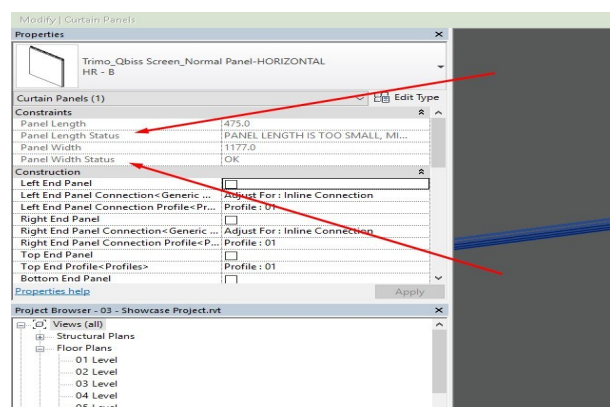
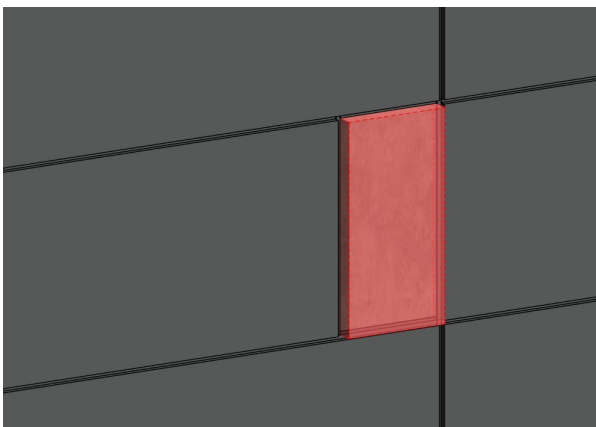


Replacement of panels with openings and panels.



### 3 e: Dimensions And Installation Status

All Qbiss Screen panels have their dimensional limitations. If some of dimensions exceeds manufacturing dimensions, Qbiss Screen panel will turn red as visual warning. Also, in properties tab in Constraints dialog there is a status of dimensions with warning text





## 04: WORKING WITH PANELS ON WALLS

### 4 a: Panel Adjustement On HostWalls

<b>Constraints</b>	
Panel Length	4857.5
Panel Length Status	OK
Panel Width	1177.0
Panel Width Status	OK
<b>Construction</b>	
Left End Panel	<input type="checkbox"/>
Left End Panel Connection<Generic ...	Adjust For : Inline Connection
Left End Panel Connection Profile<Pr...	Profile : 01
Right End Panel	<input type="checkbox"/>
Right End Panel Connection<Generic ...	Adjust For : Inline Connection
Right End Panel Connection Profile<P...	Profile : 01
Top End Panel	<input type="checkbox"/>
Top End Profile<Profiles>	Profile : 01
Bottom End Panel	<input type="checkbox"/>
Bottom End Profile<Profiles>	Profile : 01
<b>Materials and Finishes</b>	
Exterior Sheet Color	Colorcoat - Trimco - WHITE
Top Cover Color	Colorcoat - Trimco - WHITE
Base Cover Color	Colorcoat - Trimco - WHITE
<b>Dimensions</b>	
Total Thickness (Host Wall)	460.0
Total Thickness (Perpendicular Wall)	250.0
Insulation Thickness (Host Wall)	0.0
Insulation Thickness (Perpendicular W...	100.0
Area	5.859 m <sup>2</sup>
Width	4882.5
Height	1200.0

[Properties help](#) Apply

When selecting panel in project, in dimesnions dialog there are some parameters that needs to be adjusted so the panels are placed correctly on their host walls. These parameters are determing Thickness of insulation of host wall and perpendicular wall and total thicknesses of these walls. Some of the cornering and covering placement depends on these information.

### 04 a: Corners And Edges Adjustement

Qbiss Screen panels have multiple types of corners and edges application and different connections with other panels or walls on these corners and endings. In this fashion there are multiple cornering and ending profiles and corner L and U panels developed separately. L and U corner panels can be added as replacement panel for regular panels, same way as shown in “03 d: Basic Qbiss Screen Panels Application”.

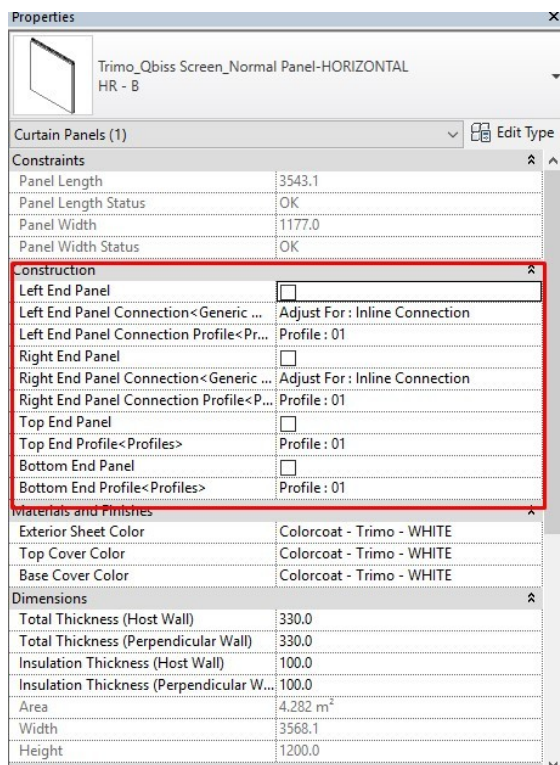
#### IMPORTANT:

Corner panels can only be added on LEFT end of the curtain wall.

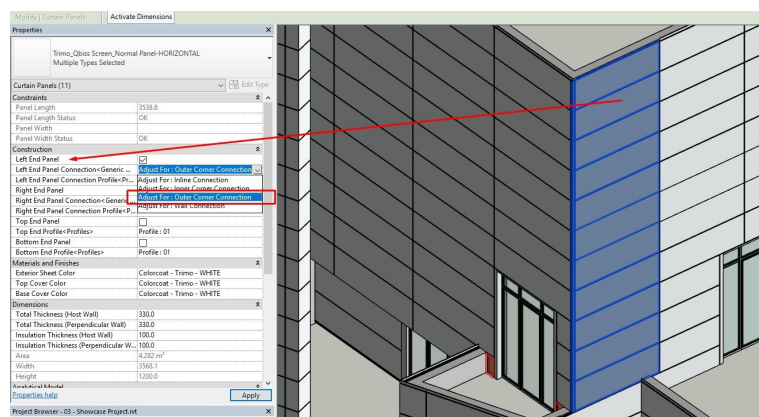
Grids for corner panels needs to be adjusted since their dimensions are added manually.



As for regular panels, their placement on corners and endings needs to follow some rules as well. Main rule is that only end and panels of the edges of the walls should be adjusted.



In Construction dialog there are some simple adjustments for panels and their placement on the wall.



This is example of adjustment on left edge of the curtain wall for outer corner. Left End Panel option is checked and outer corner connection is chosen on dropdown menu.

There are also Top End, Bottom End and Right End options that work the same way.

Also it is very important to remember, if we adjust Left End of the panels than we need to do same for the panels that

are connected to these "Left End Panels" they are placed on perpendicular curtain wall host

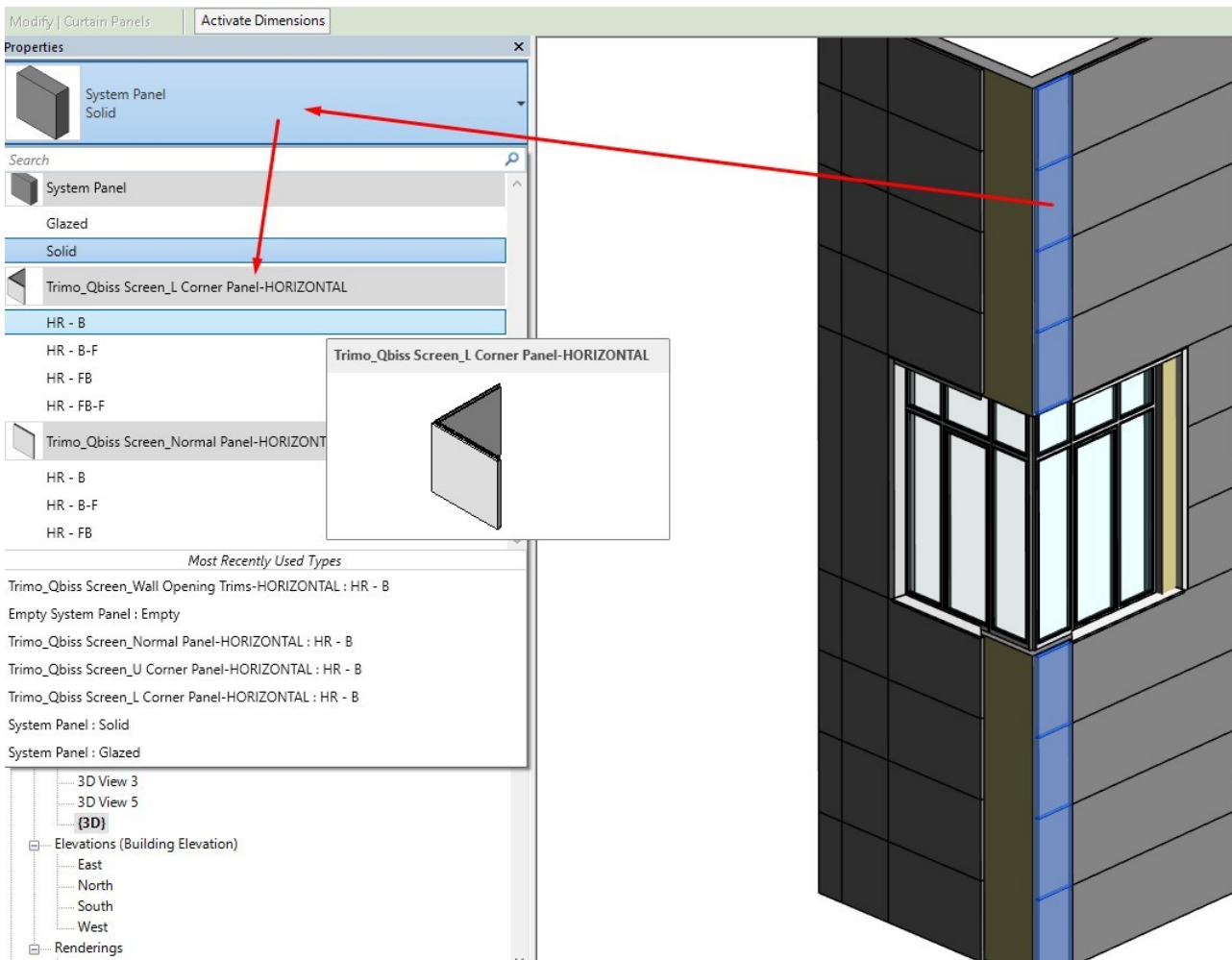


On default settings, these edge profiles and covers will not be visible in 2D or 3D. This is done so the drawing process is faster and more

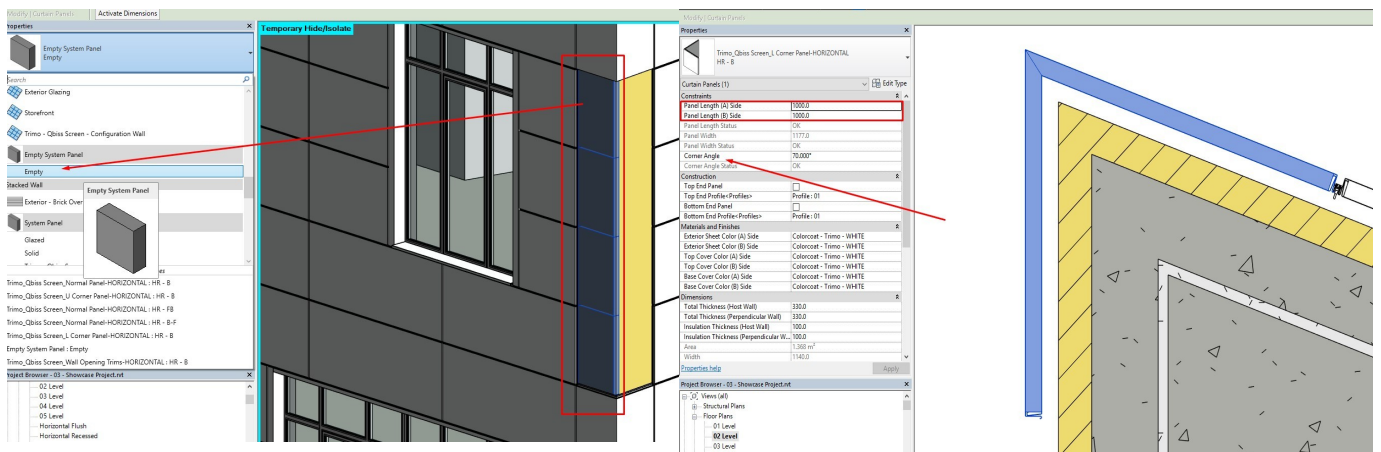
optimized. For these covers and edge profiles to be visible, we need to chose panel and in "Other" dialog check option Show Facing And Covers. It's best that this is done after drawing all facades so we can click on panel and in right mouse button selector choose "Select All Instances in Entire Project" and then check "Show Facing And Covers Option". Also all filer strips between panels will only then be visible in 2D and 3D.

## 04 a: Corner Panels

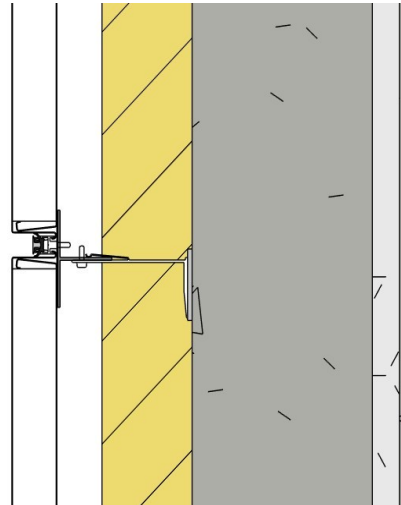
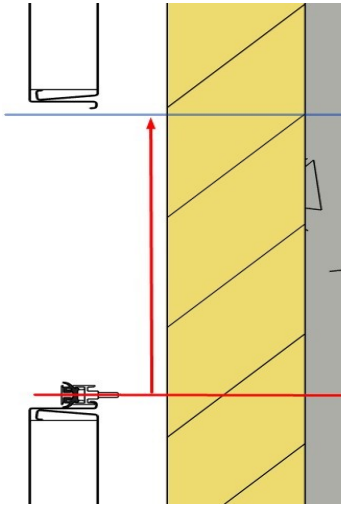
As mentioned above Corner Panels are added by replacing left end panel with Corner Panel.



On Wall that is perpendicular to wall on which we are placing Corner panels, we need to select empty System panel so the B side of L corner panels can be placed correctly and do not overlap with some other system or custom panel. Length (Horizontal Panels) / Width (Vertical Panels) on A/B Side of the panel can be adjusted (max 1000mm) and corner angle for panel.

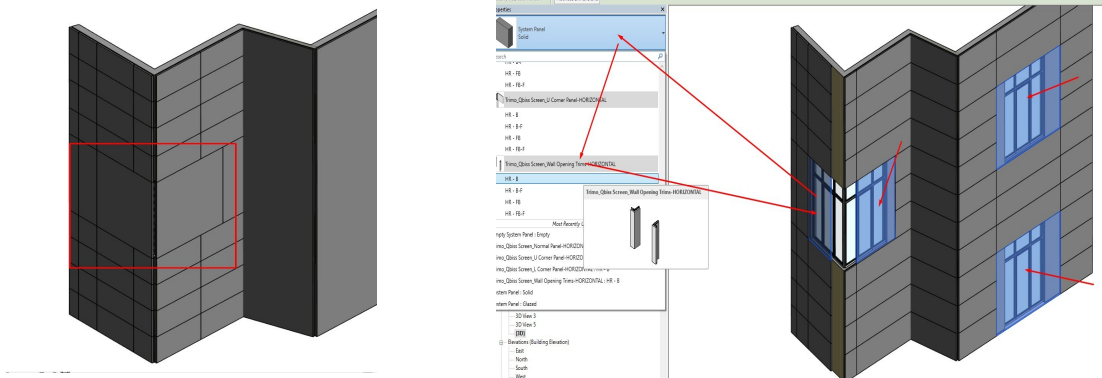


When adjustments are done, aling curtain grid to corner panel on both sides like on picture bellow to connect all panels on wall.



#### 04 d: Door And Window Trims

Door and Window openings work same way as other panels. See example bellow



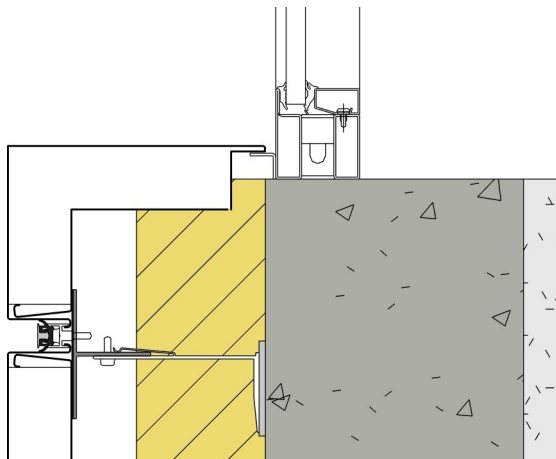
Placement of door and wall trims

Constraints	
Extend Length To Corner	0.0
Corner Angle	90.000°
Construction	
Inner Lining<Generic Models>	Adjust For : Window Opening
Left End Trim	<input type="checkbox"/>
Right End Trim	<input type="checkbox"/>
Add Top Cover	<input checked="" type="checkbox"/>
Add Base Cover	<input checked="" type="checkbox"/>
Materials and Finishes	
Exterior Sheet Color	Colorcoat - Trimo - WHITE
Top Cover Color	Colorcoat - Trimo - WHITE
Base Cover Color	Colorcoat - Trimo - WHITE
Dimensions	
Total Thickness (Host Wall)	250.0
Insulation Thickness (Host Wall)	100.0
Area	22.475 m <sup>2</sup>
Width	6243.0
Height	3600.0
Identify Data	

All door and wall trims have some adjustments for application.

These elements can be also used in corners as on the flat wall faces. For this Option Left/Right end Trim checkbox needs to be unchecked depending on corner placement. Also angle and

Extension to corner needs to be adjusted.  
Inner Lining Type dropdown menu where door are also



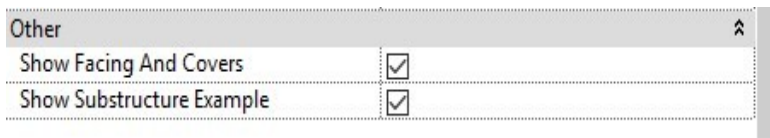
In Construction dialog there is a window can be chosen. There options to add top and base covers.

Also additional adjustment of curtain wall grid usually needs to be done, so the alignment of cover is fitted with door/window opening.

#### 04 e: Add Facing And Covers

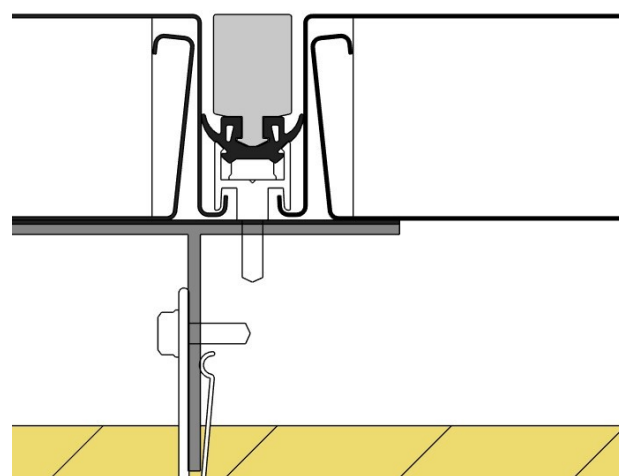
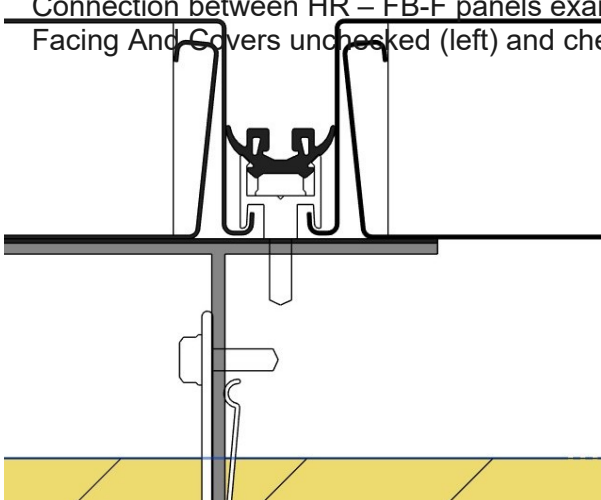
All panel types and assembly parts for Qbiss Screen have checkbox for showing all facing and covers in 2D and 3D. This Option is automatically unchecked for faster generation of panels and different profile adjustments in project. This option when checked will show filler strips, Corner covers and connections, top and base covers and profiles etc.

Option is placed in „Other“ dialog box in Properties Bar



Walls : Curtain Wall : Trim - Qbiss Screen - Configuration Wall

Connection between HR – FB-F panels example:  
Facing And Covers unchecked (left) and checked (right)



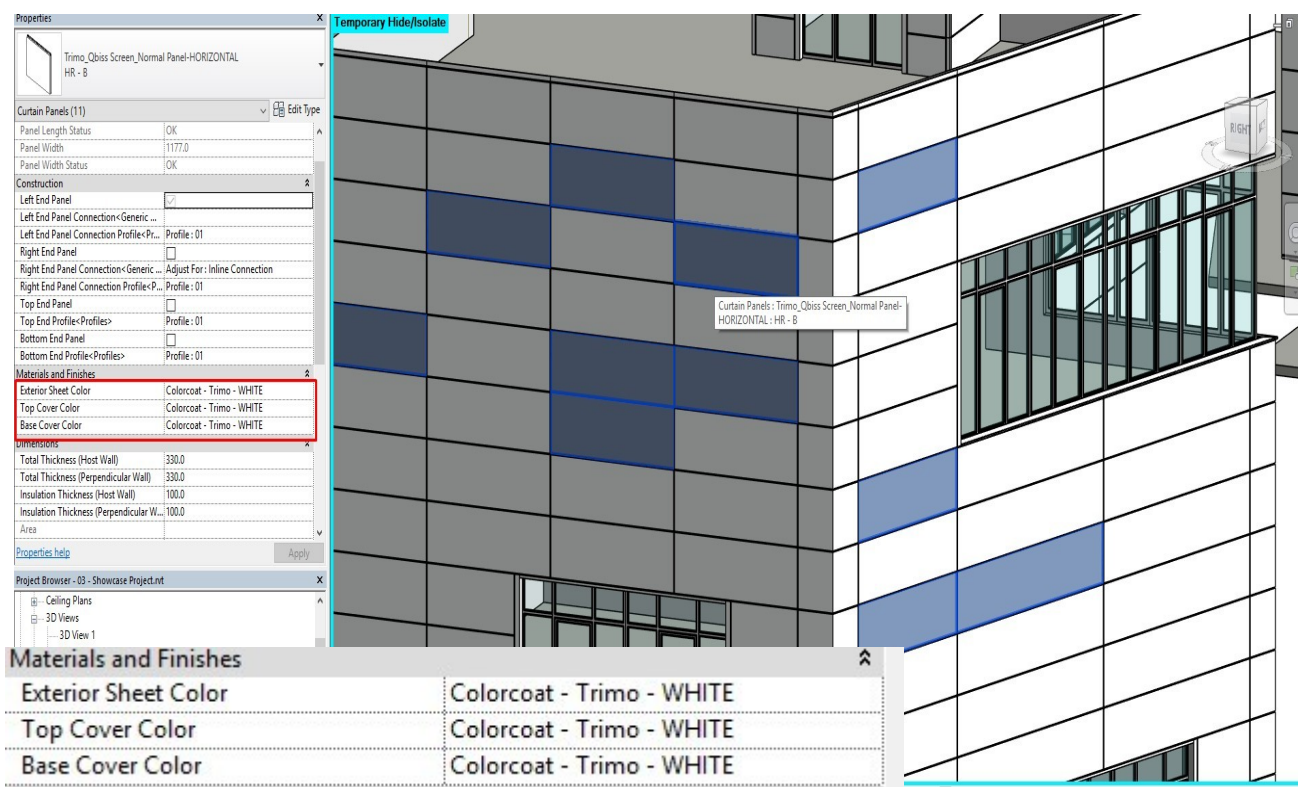


## 04 f: Colors AndMaterials

Exterior color for all panels can be chosen individually without creating types for different color panels in revit. This is done due to designing needs of color combinations of panels on large facade projects and design.

Default color on panels and other assembly parts is Trimo White, but it can easily be changed in some other color from Qbiss Screen Color palette. This palette is created as Revit material library "TrimoQbiss\_MaterialLibrary.adsklib" with 19 different colors.

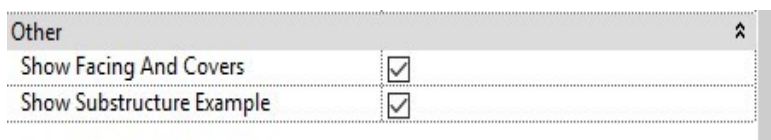
When applying materials choose any panel or opening trim on which you want to change color, or choose all panels with "Select all instances in project/view" option and change material in materials and finishes dialog box in properties tab. See pictures below

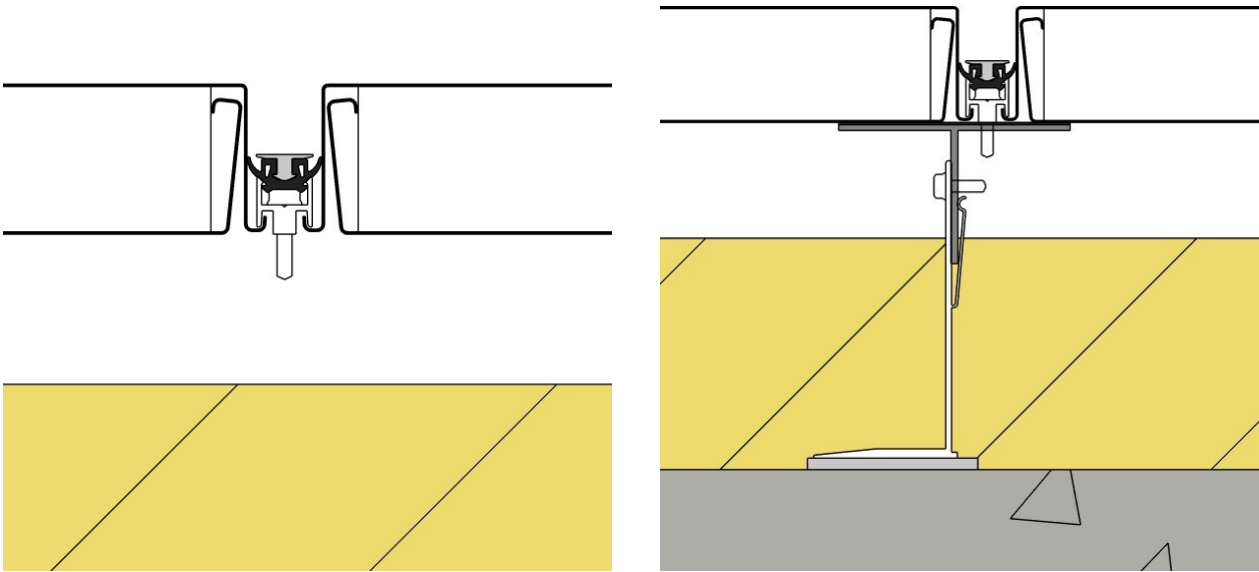


There are multiple parts of panel that can be changed if they are applied on that panel. Also Normal panels, Corner Panels and Door/Window trim objects needs to be selected separately of each other or option for changing materials or any other option will not be available.

## 04 g: Show Substructure Example

Qbiss Screen panels can be applied on different types of metal substructure, so default setting for panels is without substructure. In „Other“ dialog box in Properties Bar with "Show Facing And Covers" there is a check box "Show Substructure Example" which will show substructure example for Qbiss Screen panels only in 2D in Level Plans and Sections.



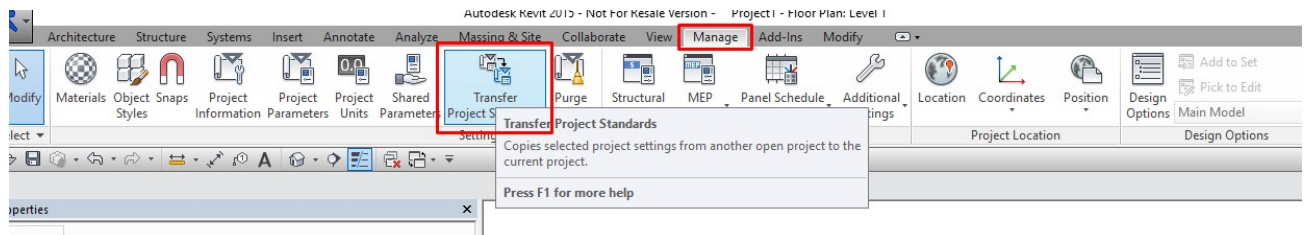


Show Substructure Example:  
Unchecked (left), Checked (right)

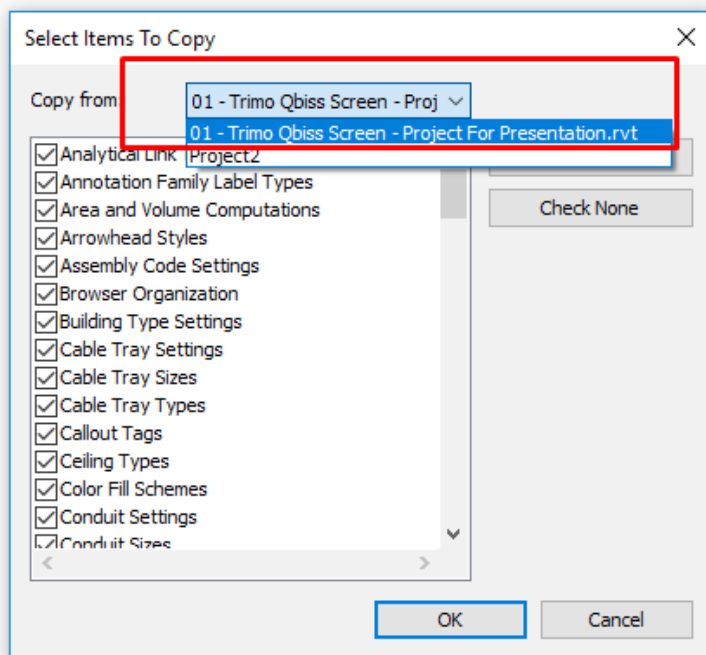
## 05: CREATING DEFAULT SCHEDULE

For creating default schedule, “01 - Trimo Qbiss Screen - Project For Presentation.rvt” project needs to be opened in same Revit. After that go to your working project and do following.

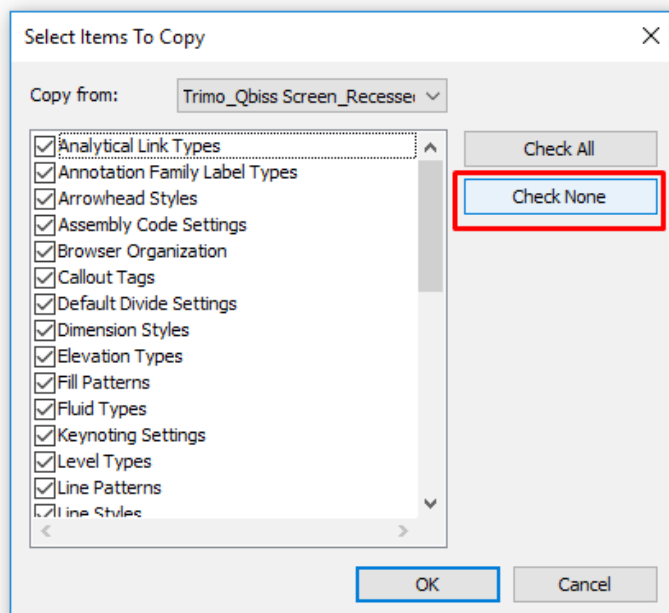
- 01: Go to Manage (Picture 1)
- 02: Select Transfer Project Standards (Picture 1)
- 03: Select “01 - Trimo Qbiss Screen - Project For Presentation.rvt” (Picture 2)
- 04: Click On Check None (Picture 3)
- 05: Scroll down and click on check box for View Templates (Picture 4)
- 06: Click OK
- 07: Default Trimo Schedule will appear in your Schedule/Quantities (Picture 5)



Picture 1

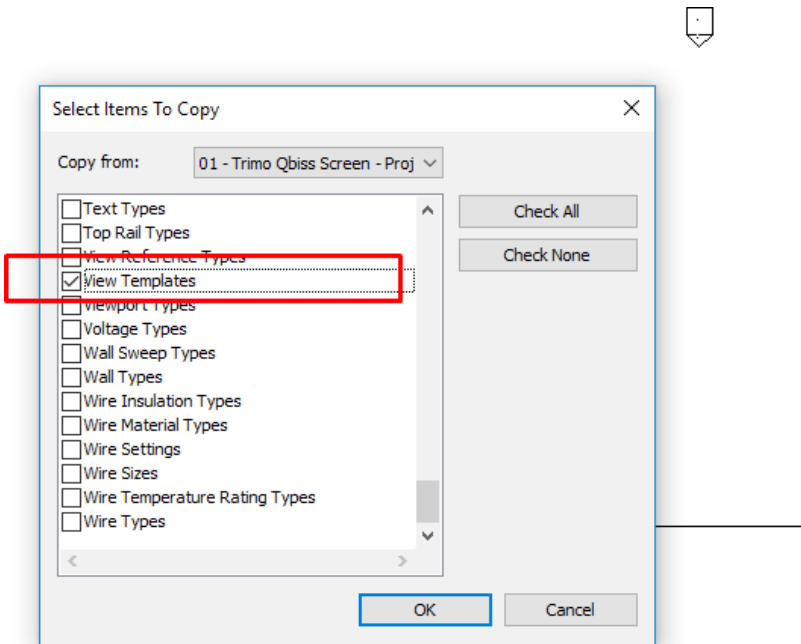


Picture2

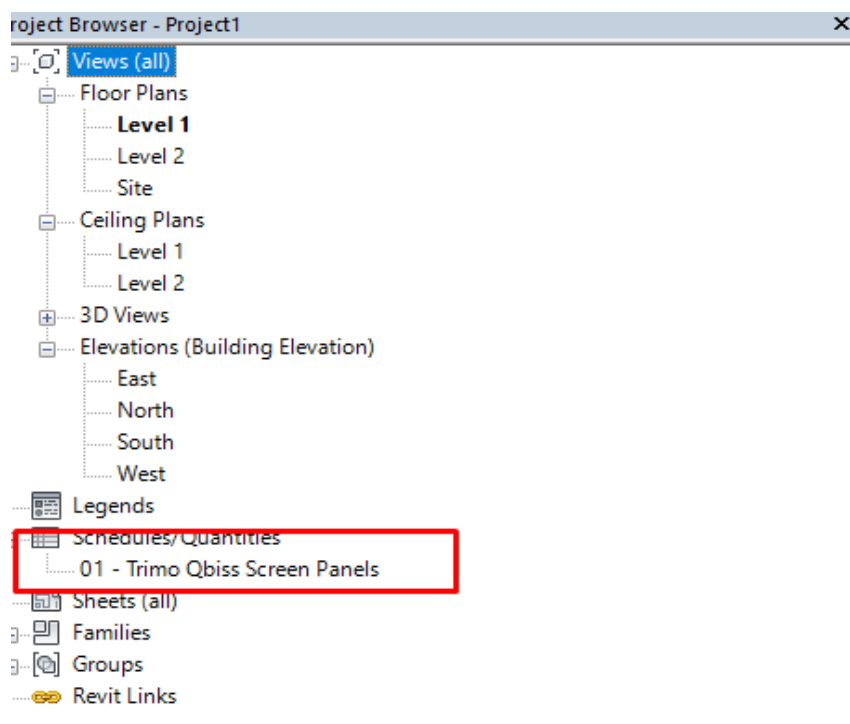


Picture3





Picture4



Picture5

Properties										
Modify Schedule/Quantities										
Schedule										
Schedule: 01 - Trimo Qbiss Screen Panels										
Entity Data										
New Template: <None>										
New Name: 01 - Trimo Qbiss Screen Panels										
Dependency: Independent										
Using Phase Filter: Show All										
Phase: New Construction										
Filter: Edit...										
Sorting/Grouping: Edit...										
Formatting: Edit...										
Appearance: Edit...										
Apply										
Object Browser - 01 - Trimo Qbiss Screen - Project For Presentation.rvt										
[30]										
Elevations (Building Elevation)										
Sections (Building Section)										
Legends										
Schedules/Quantities										
01 - Trimo Qbiss Screen Panels										
Sheets (all)										
01 - HR - B / Horizontal Installation - Regular Panels										
02 - HR - B / Horizontal Installation - Corner Options										
03 - HR - B / Vertical Installation - Regular Panels										
04 - HR - B / Vertical Installation - Corner Options										
05 - Horizontal Installation Configurations										
06 - Vertical Installation Configurations										
Families										
Annotation Symbols										
Cable Trays										
Ceilings										
Conduits										
Curtain Panels										
Curtain Systems										
Curtain Wall Mullions										
<01 - Trimo Qbiss Screen Panels>										
A B C D E F G H I J										
Manufacturer Model Type Comments Panel Width Panel Width (A) Side Panel Width (B) Side Panel Length Panel Length (A) Side Panel Length (B) Side Panel Length (AC) Side										
L Corner Panel HR - B / Horizontal Installation										
Trimo Horizontal Installation Panel L Corner Panel HR - B / Horizontal Installation 1177 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - B / Horizontal Installation 1177 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - B / Horizontal Installation 1177 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - B / Horizontal Installation 1177 500 500										
L Corner Panel HR - B / Horizontal Installation: 5										
L Corner Panel HR - B / Vertical Installation										
Trimo Vertical Installation Panel L Corner Panel HR - B / Vertical Installation 800 400 3575										
Trimo Vertical Installation Panel L Corner Panel HR - B / Vertical Installation 800 400 2375										
L Corner Panel HR - B / Vertical Installation: 2										
L Corner Panel HR - B-F / Horizontal Installation										
Trimo Horizontal Installation Panel L Corner Panel HR - B-F / Horizontal Installation 1177 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - B-F / Horizontal Installation 1177 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - B-F / Horizontal Installation 1177 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - B-F / Horizontal Installation 1177 500 500										
L Corner Panel HR - B-F / Horizontal Installation: 5										
L Corner Panel HR - FB / Horizontal Installation										
Trimo Horizontal Installation Panel L Corner Panel HR - FB / Horizontal Installation 1196 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - FB / Horizontal Installation 1196 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - FB / Horizontal Installation 1196 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - FB / Horizontal Installation 1196 500 500										
L Corner Panel HR - FB / Horizontal Installation: 5										
L Corner Panel HR - FB / Vertical Installation										
Trimo Vertical Installation Panel L Corner Panel HR - FB / Vertical Installation 800 400 3575										
Trimo Vertical Installation Panel L Corner Panel HR - FB / Vertical Installation 800 400 2375										
L Corner Panel HR - FB / Vertical Installation: 2										
L Corner Panel HR - FB-F / Horizontal Installation										
Trimo Horizontal Installation Panel L Corner Panel HR - FB-F / Horizontal Installation 1196 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - FB-F / Horizontal Installation 1196 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - FB-F / Horizontal Installation 1196 500 500										
Trimo Horizontal Installation Panel L Corner Panel HR - FB-F / Horizontal Installation 1196 500 500										
L Corner Panel HR - FB-F / Horizontal Installation: 5										
L Corner Panel HR - FB-F / Vertical Installation										
Trimo Vertical Installation Panel L Corner Panel HR - FB-F / Vertical Installation 800 400 3575										
Trimo Vertical Installation Panel L Corner Panel HR - FB-F / Vertical Installation 800 400 2375										