How-to guide:
BOSCH VIDEO SYSTEMS
REVIT FAMILIES
Table of Content

01 Loading a Revit family for a Bosch camera
02 Selecting the mounting type
03 Viewing and editing the family data
04 Editing the camera height
05 Bosch camera accessories selection
06 Field of view properties
07 Field of view (graphics panel tabs)
08 Viewing camera data
09 3D view creation
1) Loading a Revit family for a Bosch camera

1. In the ribbon bar, select **Systems > Device > Security**.
2. To load a family, select **Yes**.
1) Loading a Revit family for a Bosch camera
   
   3. Browse to the family that you want to load and click **Open**.

   ![Image of the Load Family dialog box]

   The family is loaded into Revit.
1) Loading a Revit family for a Bosch camera

4. Left click to place the family in the desired location.
2) Selecting the mounting type

1. In the **Properties** viewlet select the family.

   A windows opens, showing the different mounting possibilities.
2) Selecting the mounting type

2. Select a mounting option.
   The selected mounting option is displayed in the project.
3) Viewing and editing the family data

1. Select the family.
3) Viewing and editing the family data

2. In the **Properties** viewlet select **Edit Type**.
   The **Type Properties** window opens and displays **Identity Data** information.
4) Editing the camera height

1. Select the family.
4) Editing the camera height

2. In the **Constraints** viewlet select **Level** to choose the level of the camera.
3. In the **Constraints** viewlet insert **Offset** value and enter the desired height of the camera.
5) Bosch camera accessories selection

1. In the **Properties** viewlet under **Construction** category click on the check box to select an accessory.
   In case of incompatibility, ERROR message will appear under **Mount Part Number**.
6) Field of view properties

1. In the **Properties** viewlet **Graphics** category insert the desired values for **Tilt** and **Pan**. In case the inserted value for **Tilt** is not applicable, the appropriate values will appear under **Actual Tilt**. 
6) Field of View Properties

2. In the **Properties** viewlet, **Graphics** category, insert the desired value in **FOV Desired Horizontal Angle**.

   In case the inserted value for FOV is not applicable, the appropriate value will appear under **FOV Actual Horizontal Angle**.
7) **Field of view (graphics panel tabs)**

<table>
<thead>
<tr>
<th>Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Desired pan</strong>: controls the FOV rotation on the floorplan/XY plan, using Z-axis as its center point</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Desired tilt</strong>: controls the FOV tilting angle XY plan</td>
</tr>
<tr>
<td>3.</td>
<td><strong>FOV Desired horizontal angle</strong>: controls the aperture angle for the FOV of the camera, and is restricted by the lens limitations</td>
</tr>
<tr>
<td>4.</td>
<td><strong>FOV Actual Horizontal angle</strong>: shows the current FOV angle based on Desired FOV horizontal angle and lens restrictions</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Lower FOV Limit Desired</strong>: the distance where the FOV Visualization is cut off below the camera</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Upper FOV Limit Desired</strong>: the distance where the FOV Visualization is cut off above the camera</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Pixels per foot</strong>: converts the units from metric to imperial</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Show Dori Field of view</strong>: controls the visibility for the DORI FOV, DORI FOV indicate the distance that camera is covering to Detect, Observe, Recognize, and Identify. By pulling the arrows of the DORI FOV, the user will be able to visualize the maximum coverage of the camera</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Show Manual Field of view</strong>: controls the visibility for the manual FOV</td>
</tr>
<tr>
<td>10.</td>
<td><strong>Target Resolution in Object Desired</strong>: controls the resolution, in pixels per meter, establishing a bound for the image resolution</td>
</tr>
<tr>
<td>11.</td>
<td><strong>Target resolution on object distance</strong>: displays in meters the distance limit for the identification of elements using the specific target resolution desired</td>
</tr>
<tr>
<td>12.</td>
<td><strong>Upright Mode</strong>: rotates the FOV from horizontal to vertical position, 90° rotation using the Y-axis as its center point</td>
</tr>
</tbody>
</table>
7) Field of view (graphics panel tabs)
8) Viewing camera data

1. In the **Properties** viewlet > **Identity Data** category, the **Accessory Description** shows the selected accessories for the camera.
2. Under **Camera Data** and **Number Data** insert a custom name for the 3D View that will be generated with Bosch add-in.
9) 3D view creation

1. Install Revit (Bosch_3D_View_Creator) add-in. The **Bosch** tap will appear in the **Ribbon**.
2. To generate a 3D view displaying the field of view for Bosch camera, click on Bosch create 3D view, then click on the camera. The 3D view will pop up on the screen.