Revit family files

Short User Guide

XAL GmbH
Auer-Welsbach-Gasse 36
8055 Graz

xal.com

XAL's Revit Family Files
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XAL's Revit family files represent real life products which are manufactured in specific dimensions, colors and functions with exact ordering codes, and they should not be customized because they are not intended to be generic customizable families.

Type Catalogs

Use "Type catalog" from extracted zip file to filter and select only required family types in the project based on their parameter values such as Color, Initial Color Temperature or Control.

Specify Types

Family: BO 55 track.rfa

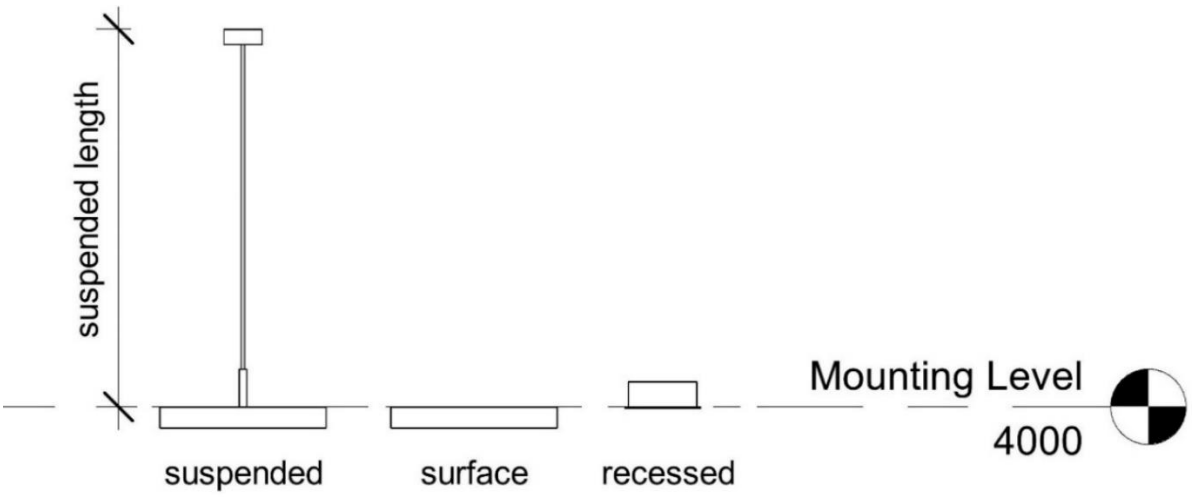
Types:

Type	Product Color Primary	Initial Color Temperature	Control
	(all)	(all)	(all)
BO 55 track, white, 3000 K, flood, non DIM, 180-7312517F	XAL_TRAFFIC_WHITE	3000 K	non DIM
BO 55 track, white, 3000 K, medium, non DIM, 180-7312517M	XAL_TRAFFIC_WHITE	3000 K	non DIM
BO 55 track, white, 3000 K, spot, non DIM, 180-7312517S	XAL_TRAFFIC_WHITE	3000 K	non DIM
BO 55 track, black, 3000 K, flood, non DIM, 180-7312518F	XAL_JET_BLACK	3000 K	non DIM
BO 55 track, black, 3000 K, medium, non DIM, 180-7312518M	XAL_JET_BLACK	3000 K	non DIM
BO 55 track, black, 3000 K, spot, non DIM, 180-7312518S	XAL_JET_BLACK	3000 K	non DIM
BO 55 track, white, 3000 K, flood, DALI-2, 180-7312537F	XAL_TRAFFIC_WHITE	3000 K	DALI-2
BO 55 track, white, 3000 K, medium, DALI-2, 180-7312537M	XAL_TRAFFIC_WHITE	3000 K	DALI-2
BO 55 track, white, 3000 K, spot, DALI-2, 180-7312537S	XAL_TRAFFIC_WHITE	3000 K	DALI-2
BO 55 track, black, 3000 K, flood, DALI-2, 180-7312538F	XAL_JET_BLACK	3000 K	DALI-2
BO 55 track, black, 3000 K, medium, DALI-2, 180-7312538M	XAL_JET_BLACK	3000 K	DALI-2
BO 55 track, black, 3000 K, spot, DALI-2, 180-7312538S	XAL_JET_BLACK	3000 K	DALI-2
BO 55 track, white, 4000 K, flood, non DIM, 180-7312617F	XAL_TRAFFIC_WHITE	4000 K	non DIM

NOTE: If type catalog is used to load family in the project, type images and symbols images will not be connected properly with family types due to known Revit bug, so it is recommended to load all family types without selecting any type in the type catalog and then delete unnecessary ones if type and symbol images are desirable in scheduling/ordering lists.

Positioning of Revit files in the project

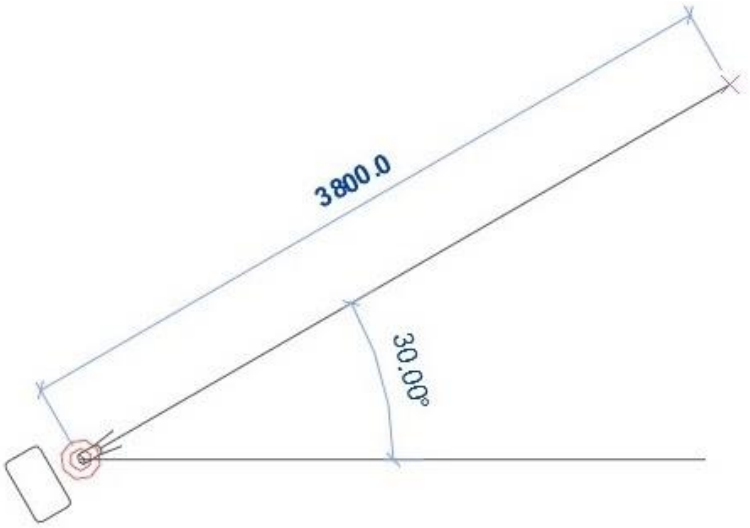
These Revit family files are constructed to provide lighting plans effectively and in the most cases only mounting level is known so they are constructed as level-based families as this level represents their main position when they are inserted in the project environment.



"Flip Work Plane" option with parameters "Elevation from Level" or "Offset from Host" and rotation of family file on the ceiling plan can be used to position family properly in your Revit project.

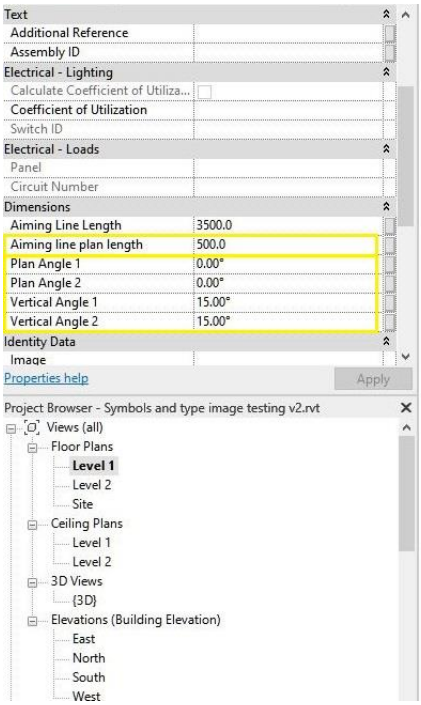
Lighting fixtures with a single light source

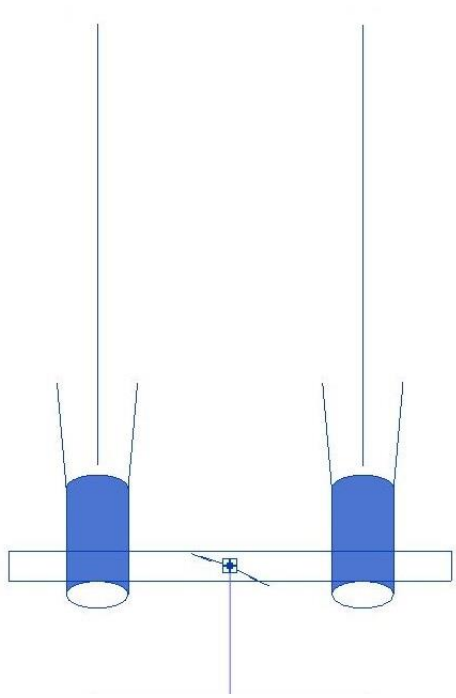
Single lighting fixtures which have pointing direction (spotlights, wall washer, wall washer floor) are constructed as line-based family which enable lighting designer to aim light source immediately when Revit file is placed at certain point in the project. Vertical angle is controlled with “Vertical Angle” parameter and 3D aiming line can help to determine required vertical angle.



Lighting fixtures with multiple light sources

Lighting fixtures with multiple light sources are not constructed as line-based families because everything in the line-based family would rotate together so length of plan aiming line, vertical and plan angles are controlled via instance parameters shown on image below. 3D aiming lines can help to determine required vertical angles.

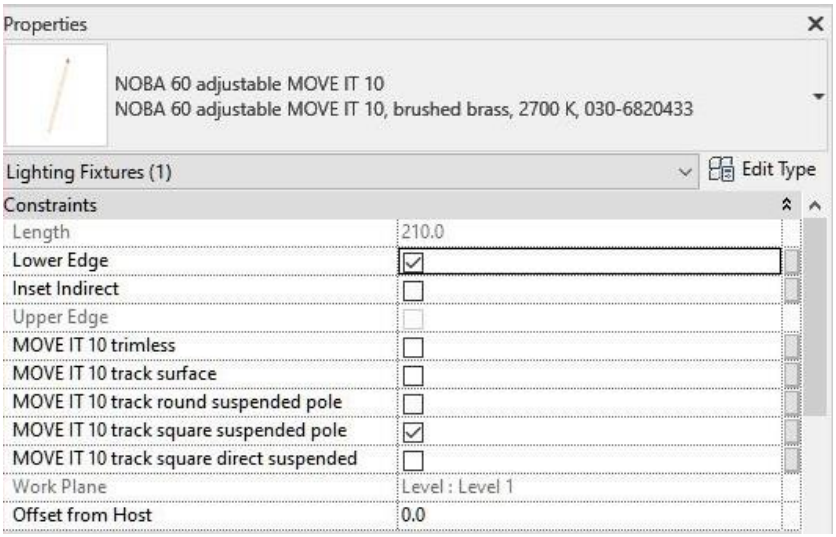




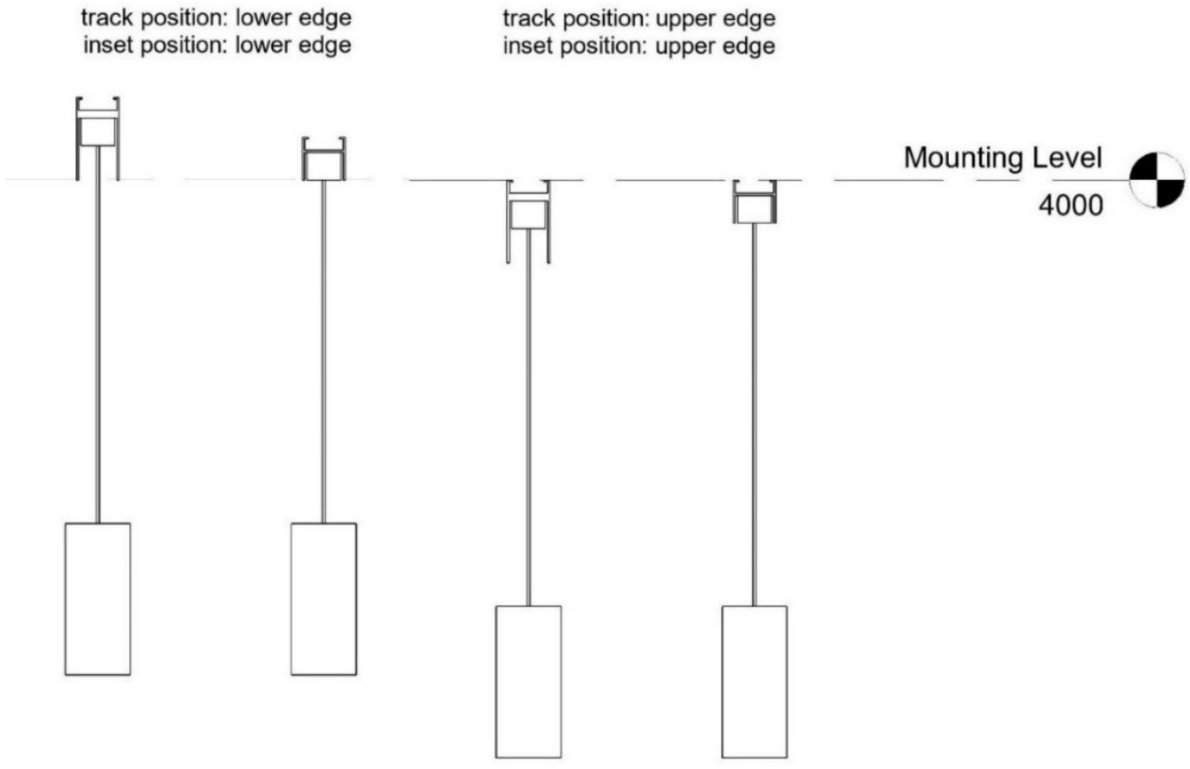
Track lighting fixtures (insets)

In case of lighting fixtures manufactured for tracks, they are also constructed on ways mentioned above, but with additional instance parameters for lower and upper edge because sometimes reference in the project is bottom line of the track and sometimes the top line. If proper Revit track files constructed from our side are used, insets will aways be positioned correctly in the track.

Inset should have proper instance parameter related to corresponding mounting track checked and both of them (track and inset) should have the same “Lower Edge” checked or unchecked.

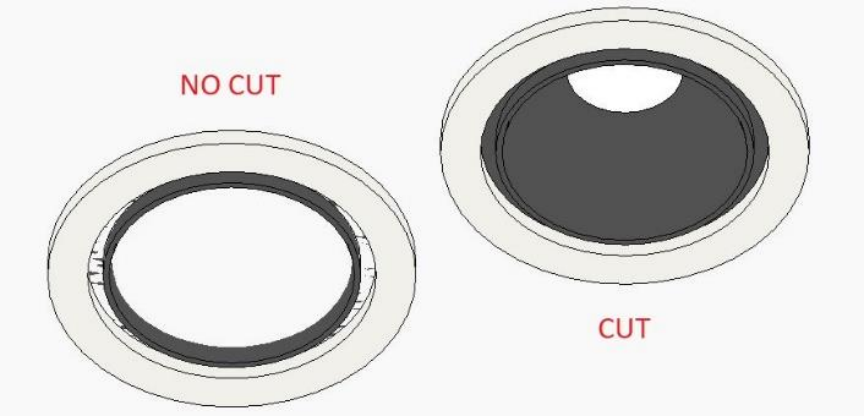


Example (note that inset is always in the correct position)

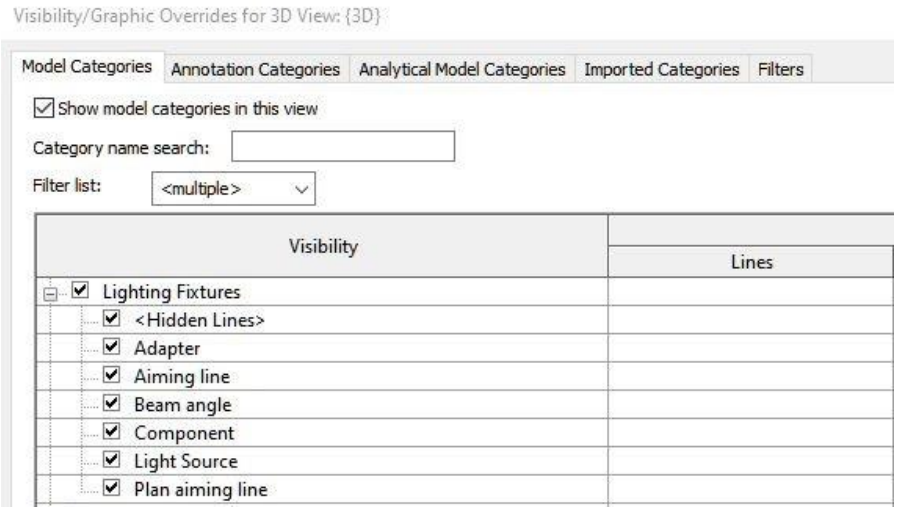


Important:

Use “Cut Geometry” option to make a cut opening in the ceiling when recessed lights are placed in your project because it is not automatically created with level-based or line-based families.



Adapter, Aiming line and Plan aiming line can be turned on/off in Visibility/Graphic options.



Also, make sure that **all .ies files** are copied to the corresponding folder, as the connection between the 'Photometric Web File' parameter and the .ies file location is sometimes lost. By clicking on three dots in this parameter, you can establish connection again to enable proper lighting in rendering. (usually: C:\ProgramData\Autodesk\RVT 20XX\IES)