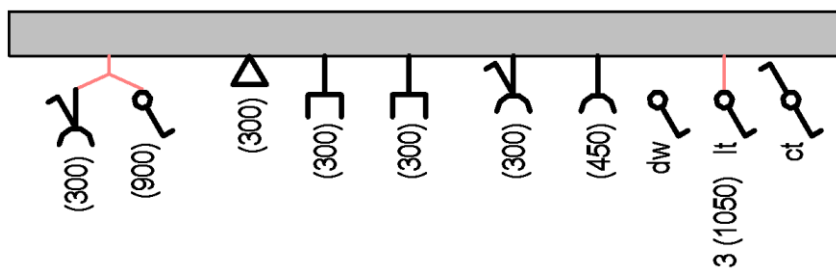


Using the RevitWorks Elevation Reporter

Help File for the RevitWorks Elevation Reporter

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Summary

The Revit out-of-the-box (OTTB) Elevation parameter (which is included with all Revit face-based and wall-based families) is unable to be used in a family label or included within family tags. This is a shortcoming of Revit which means that users cannot automatically document the mounting height of a Revit element above its associated floor level.

The RevitWorks Elevation Reporter ensures that a special “Reported Elevation” parameter in families is synchronised to the OTTB Elevation parameter. This Reporting Elevation parameter can then be scheduled, used in tags and shown within symbols.

Certain RevitWorks families have this functionality built-in (Outlets and Switches, Fire and Security components), but a user can also add this functionality to any Revit family that has an OTTB Elevation parameter.

General Use

Whenever a change is made to the instance of a family that has the special Reported Elevation parameter within it, the Elevation Reporter add-in will ensure that the Reported Elevation parameter stays synchronised with the OTTB Elevation parameter.

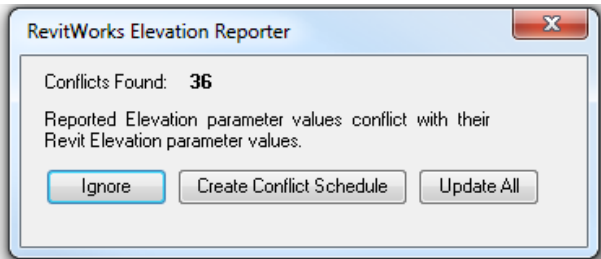
The Elevation Reporter requires no input from the user unless another user has worked on the project, does not have the Elevation Reporter installed and has then moved an element up or down. To overcome this possibility, whenever a user opens a project, “Reload Latest” or ‘Sync to Central” the Elevation Reporter will check to ensure all elements elevation parameters are still synchronised and report conflicts.

If all users within a project have the RevitWorks Elevation Reporter installed, the Reported Elevation parameter will always be synchronised with the OTTB Elevation parameter.

To stop the Elevation Reporter from synchronising or checking for conflicts, it will need to be un-installed, or the license released.

Project Startup

Whenever a user opens a project, “Reload Latest” or ‘Sync to Central” the Elevation Reporter will check to ensure the parameters are still synchronised. If conflicts are found, the following dialog box will pop-up:



Update All: (Recommended) The Elevation Reporter will synchronise all the conflicting Reported Elevation parameters to their relevant Elevation parameter.

Create Conflict Schedule: The Elevation Reporter will create a user-friendly schedule called “RevitWorks Conflict Schedule *(your_username)*” with level, room and space information allowing the user to select an instance and use the “Highlight In Model” button to investigate it within the model.

<RevitWorks Conflict Schedule_(your_username)>					
A	B	C	D	E	F
Family and Type	Room Number	Room Name	Space Number	Space Name	Reported Elevation
LEVEL 05					
ELEC - Power Outlet: x1 Vertical	5.02	Meeting	5.02	Meeting	300
ELEC - Power Outlet: Blank Vertical	5.02	Meeting	5.02	Meeting	300
ELEC - Power Outlet: x1 Vertical (unswitched)	5.03	Work Area	5.03	Open Plan	300
LEVEL 06					
ELEC - Light Switch x1: Vertical	5.02	Meeting	5.02	Meeting	900
ELEC - Light Switch x1: Vertical Dimmer	5.02	Meeting	5.02	Meeting	900
ELEC - Light Switch x1: Horizontal Dimmer	5.03	Work Area	5.03	Open Plan	900
ELEC - Light Switch x1: Horizontal Architrave	5.03	Work Area	5.03	Open Plan	900
ELEC - Light Switch x1: Vertical Architrave	5.03	Work Area	5.03	Open Plan	900

Notes:

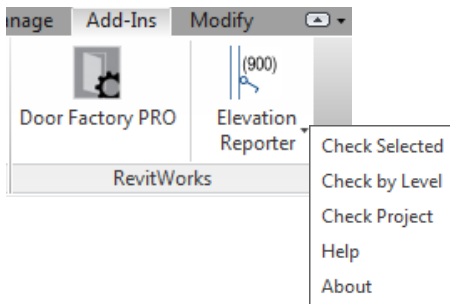
1. If a user wants to update a **single** element at this point they just need to make a change to the Reported Elevation parameter of the element – this will force a synchronise (i.e. change the Reported Elevation parameter value to ‘1” and it will update to the correct Elevation automatically).
2. If a user wants to update **all** elements at this point they will need to use one of the [Ribbon Tab Options](#).
3. When the elements have been updated they will disappear from this conflict schedule.
4. This schedule can be deleted at any stage: it is not required for the Elevation Reporter to work.

Ignore: The Elevation Reporter will do nothing (unless a later change is made to the instance of the family, which will then force the parameter to be synchronised at that point.)

If a user wants to update the elements after this they will need to use one of the [Ribbon Tab Options](#).

Ribbon Tab Options

The RevitWorks Elevation Reporter is accessible within the Revit Add-ins Tab and has the following pull-down commands:



Check Selected: Checks that the Reported Elevation parameter value matches the OOTB Elevation parameter value just for the elements selected.

Check by Level: Allows a user to choose a level in the project and then it checks that the Reported Elevation parameter value matches the OOTB Elevation parameter value for all elements on that Level.

Check Project: Checks that the Reported Elevation parameter value matches the OOTB Elevation parameter value for all elements within the project.

The above commands are only required if another user has worked on the project but does not have the Elevation Reporter installed and has then moved an element up or down. Refer to the [General Use](#) notes.

If any of the above three commands are selected and conflicts are found, the User then has the same options as per [Project Startup](#).

Help: Brings up this document

About: Allows a user to check for updates or release the license (if the license is required to be moved to another computer)

Adding the Elevation Reporter Parameters to other Families

If you require the RevitWorks Elevation Reporter to work with other non-RevitWorks families, you need to load two RevitWorks shared parameters into your families; either by editing your families and adding the Shared Parameters, or adding Project Shared Parameters to your project.

The two RevitWorks special shared parameters can be found within the following shared parameter file: (substitute *2017* for the correct Revit version number):

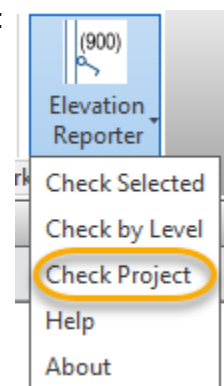
C:\ProgramData\RevitWorks\Elevation Reporter *2017*\RevitWorks_Elevation_Reporter_SP.txt

rwcalc_Elev Match: A hidden shared parameter used for internal purposes.

Reported Elevation: The parameter that is synced to the OOTB Elevation parameter.

Note that if you add the rwcalc_Elev Match as a Project Shared Parameter from within your project, it will not populate your Project Parameter list. It's there and will allow the Elevation Reporter to work, but because it's hidden, you can't see it!

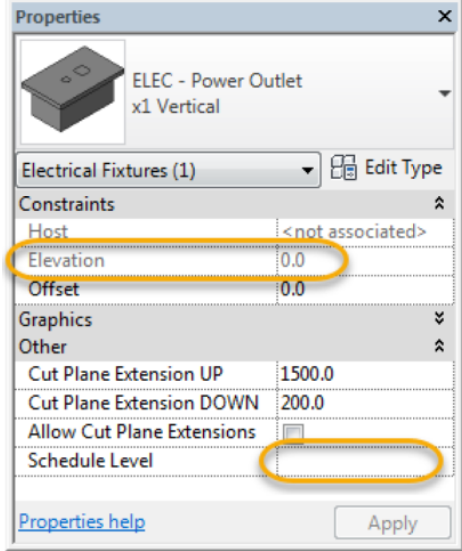
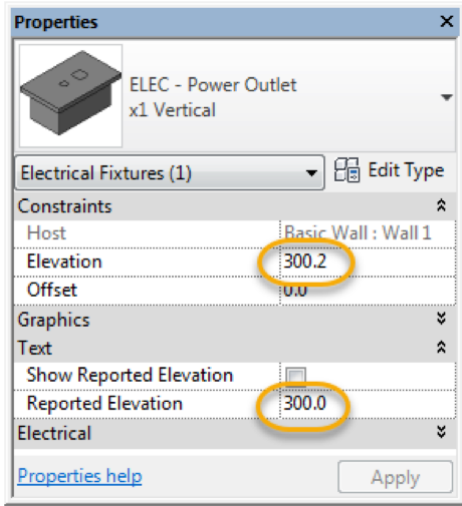
Once loaded do not forget to "Check Project" for it to synchronise all the elevation values:



Trouble Shooting

The RevitWorks Elevation Reporter synchronises the Reported Elevation Parameter with the Revit OOTB Elevation parameter, so if the OOTB Elevation parameter is in-correct, the Reported Elevation Parameter will be as well.

Please find below common causes of the OOTB Elevation parameter being incorrect:

<p>1. The elements OOTB Elevation parameter is greyed out</p> <p>This means the element has become disassociated with its Level.</p> <p>To fix, change it's 'Schedule Level' parameter to the correct Level.</p> <p>If the element is within a group, you will need to edit the group instance and then do the above.</p>	 <p>The screenshot shows the Properties window for an 'ELEC - Power Outlet x1 Vertical'. Under the 'Constraints' section, the 'Elevation' field is set to 0.0. The 'Schedule Level' field is greyed out. Other fields include 'Host' (not associated), 'Offset' (0.0), 'Cut Plane Extension UP' (1500.0), 'Cut Plane Extension DOWN' (200.0), and 'Allow Cut Plane Extensions' (unchecked).</p>
<p>2. The elements OOTB Elevation parameter is the wrong value.</p> <p>This means the element is referencing the wrong level. To fix, change it's 'Schedule Level' parameter to the correct level as per item 1. above</p>	
<p>3. The OOTB Elevation parameter is slightly different than the Reported Elevation Parameter</p> <p>The Reported Elevation parameter complies with the Project Units rounding settings, whereas the OOTB Elevation parameter doesn't.</p>	 <p>The screenshot shows the Properties window for an 'ELEC - Power Outlet x1 Vertical'. Under the 'Constraints' section, the 'Elevation' field is set to 300.2. Under the 'Text' section, the 'Reported Elevation' field is set to 300.0. The 'Host' field is set to 'Basic Wall : Wall 1'. Other fields include 'Offset' (0.0) and 'Show Reported Elevation' (unchecked).</p>

(end)