














Outlets and Switches Specification

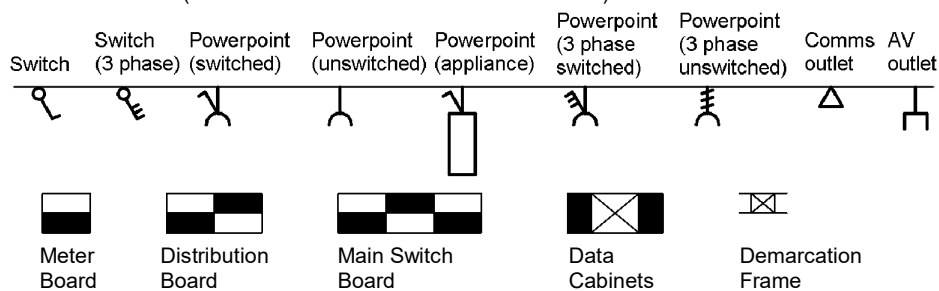
Object Styles Used

	Data Devices	For all data, communication and AV outlets including data cabinets
	Clearance Zones	Clearance zones for the cabinets
	Electrical Equipment	For all electrical boards
	Clearance Zones	Clearance zones for the cabinets
	Electrical Fixtures	For all powerpoints and powerpoint switches
	Lighting Devices	For all light switches
	Generic Annotations	Allows for amendments of the lineweights and colours of all the linework within the symbols and leaders.
	Data Symbols	
	Electrical Symbols	
	Symbol Leaders	
	Detail Items	Allows for amendments of the lineweights and colours of all the linework within the real-size electrical and data boards symbols.
	Data Boards	
	Electrical Boards	

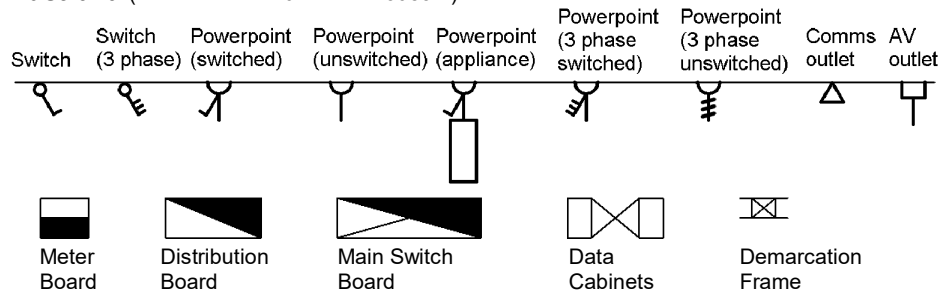
Symbolic Plan Representation

The symbolic representations can be edited to suit other standards.
This document uses the New Zealand plan symbols for graphical examples.

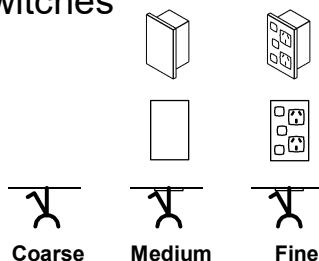
New Zealand (based on NZS/AS1102 and NZS/AS3085.1)



Australia (based on AS1102 and AS3085.1)

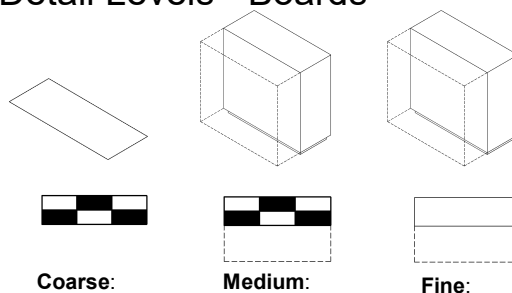


Detail Levels - All Outlets and Switches



The socket and switch details are created with model lines.
They will show on 3ds and elevations when the views visual style is set to wireframe, hidden, shaded, consistent colours or realistic and the detail level is set to "Fine"

Detail Levels - Boards

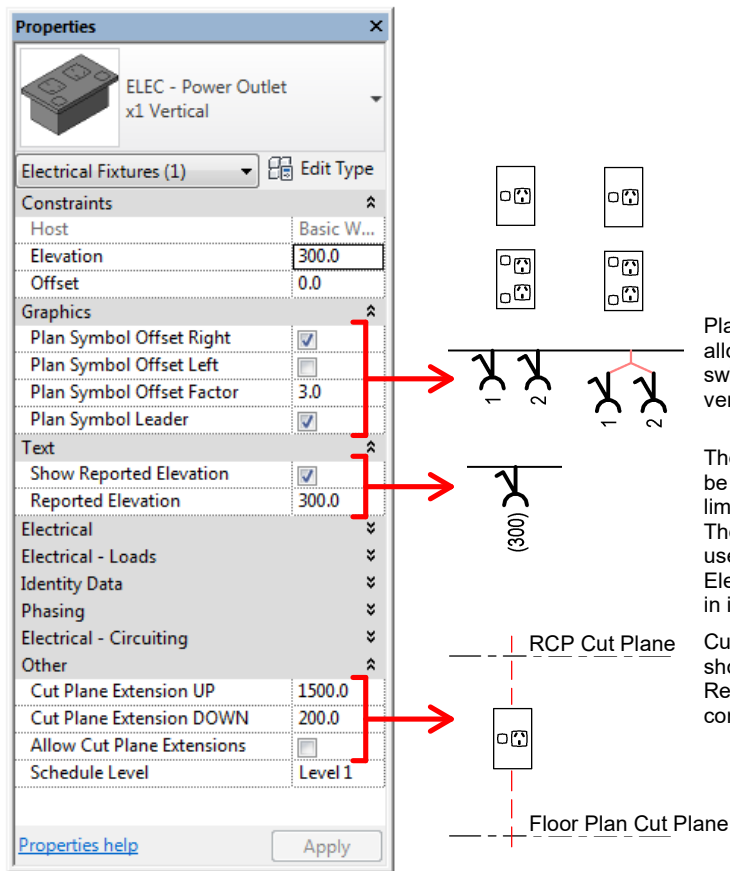


Coarse: Model and clearance zones show in Medium and Fine modes
Symbol shows in Medium and Coarse modes
Outline shows in 3d Coarse mode

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Common Instance Parameters

Refer to the Light Switches section for comprehensive additional parameter explanations

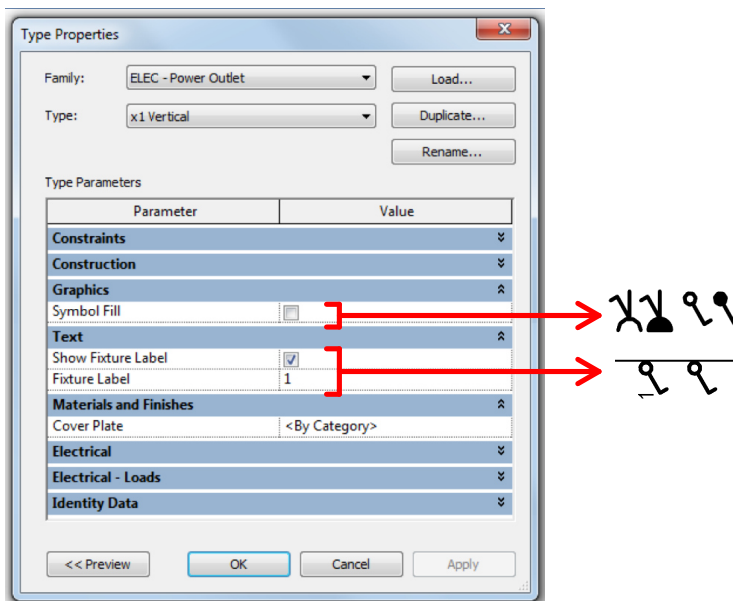


Plan Symbol Offsets and Leaders allow you to correctly document switches and outlets that are aligned vertically.

The Revit standard "Elevation" parameter cannot currently be used in labels, tags or schedules. To overcome this limitation use the "Reported Elevation" parameter. The RevitWorks Elevation Reporter add-in (for Premium users only) ensures that the "Elevation" and the "Reported Elevation" parameters are always synchronised. If this add-in is not loaded you will need to manually update it.

Cut Plane Extensions allow you to show low level components on your Reflected Ceiling Plans and high level components on your Floor Plans.

Common Type Parameters - (for all Outlets and Switches)



All outlets and switches come with symbol fill options allowing for more graphical differentiation where required.

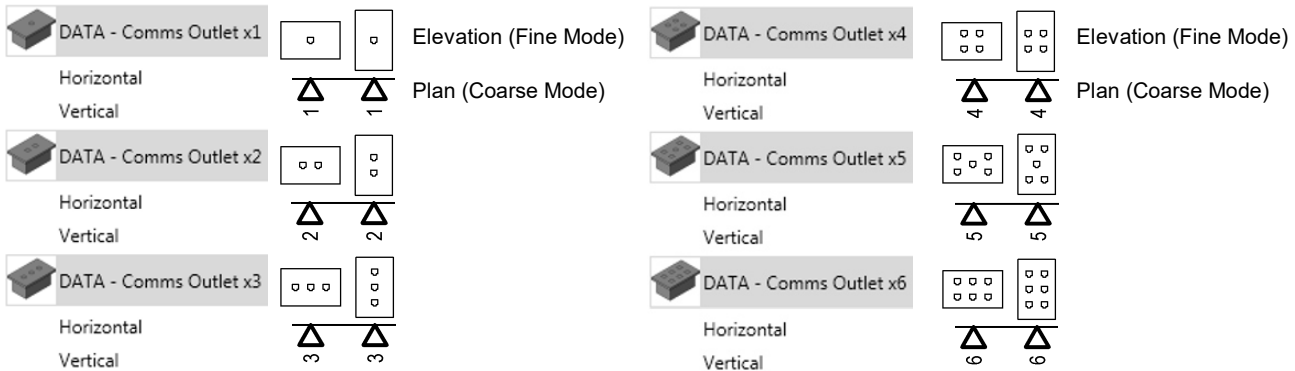
"Show Fixture Label" shows the "Fixture Label" text parameter as an annotation label within the family.

These labels are in a set position relative to the symbol and rotate with the family while staying readable.

Alternatively, you could turn this off and tag your family which gives greater flexibility in the positioning and orientation of the label.

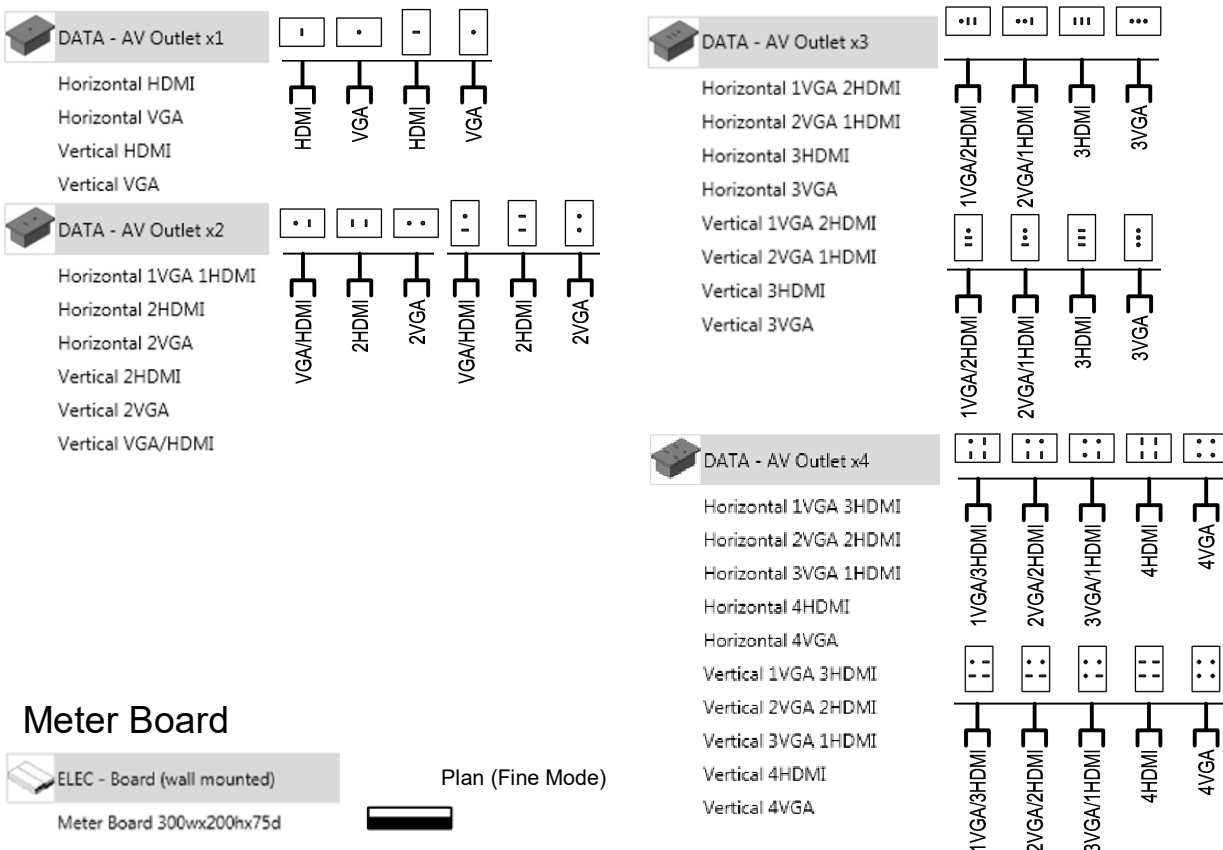
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Data Outlets



AV Outlets

Outlet ports shown symbolically (round or rectangular).
Duplicate and create new types as required.
(i.e. USB ports could be shown with the symbolic rectangular port etc.)

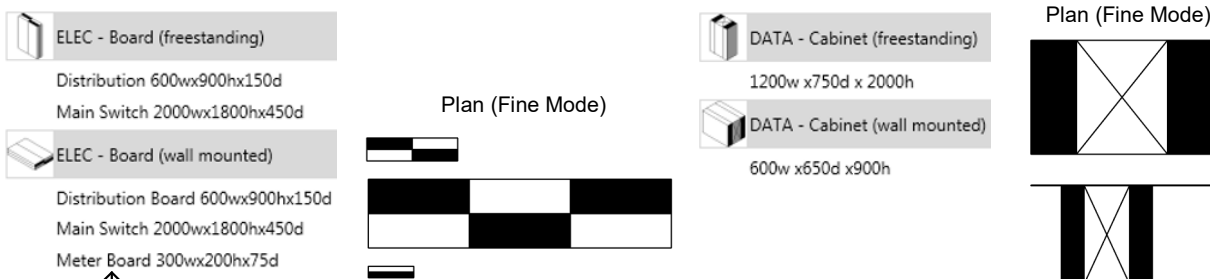


Meter Board



Electrical Boards and Data Cabinets (Premium only)


Refer page 1 for explanation of how symbols work at different detail levels.



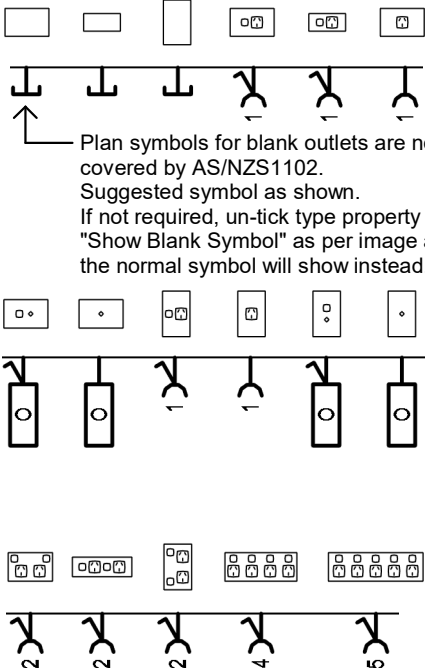
The "wall mounted" families are facebased allowing them to host to walls so they attach and move with them.
If placed on floors they will be tipped over; hence the inclusion of the "freestanding" components.

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Power Outlets

 **ELEC - Power Outlet**

- Blank Horizontal
- Blank Horizontal narrow
- Blank Vertical
- x1 Horizontal
- x1 Horizontal (narrow)
- x1 Horizontal (unswitched)
- x1 Horizontal Appliance Permanent
- x1 Horizontal Appliance Permanent (unswitched)
- x1 Vertical
- x1 Vertical (unswitched)
- x1 Vertical Appliance Permanent
- x1 Vertical Appliance Permanent (unswitched)
- x2 Horizontal
- x2 Horizontal (narrow)
- x2 Vertical
- x4 Horizontal
- x5 Horizontal



Plan symbols for blank outlets are not covered by AS/NZS1102. Suggested symbol as shown. If not required, un-tick type property "Show Blank Symbol" as per image and the normal symbol will show instead.

Elevation (Fine Mode)

Plan (Coarse Mode)

Graphics


Symbol Fill ☐

Switched ☐

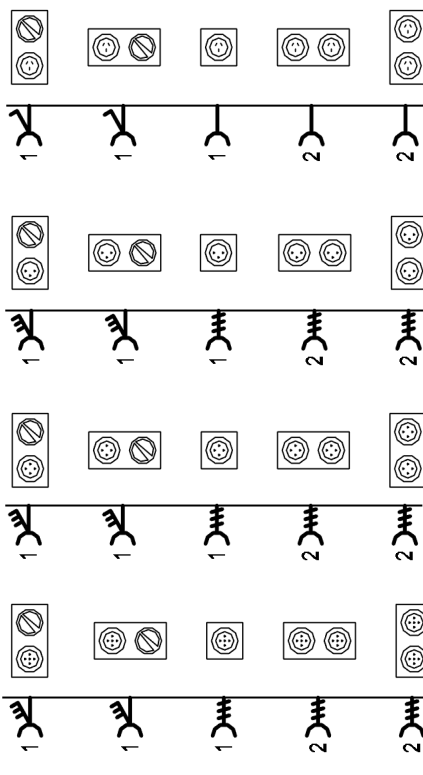
Show Blank Symbol ☒

Boxed Label ☐

Industrial Outlets (Premium only)

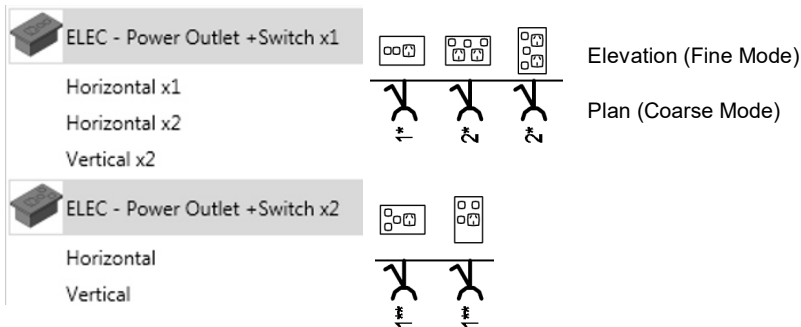
 **ELEC - Power Outlet Industrial**

- 1 Phase x1 (switch above)
- 1 Phase x1 (switch beside)
- 1 Phase x1 (unswitched)
- 1 Phase x2 Horizontal (unswitched)
- 1 Phase x2 Vertical (unswitched)
- 3 Phase 3pin x1 (switch above)
- 3 Phase 3pin x1 (switch beside)
- 3 Phase 3pin x1 (unswitched)
- 3 Phase 3pin x2 Horizontal (unswitched)
- 3 Phase 3pin x2 Vertical (unswitched)
- 3 Phase 4pin x1 (switch above)
- 3 Phase 4pin x1 (switch beside)
- 3 Phase 4pin x1 (unswitched)
- 3 Phase 4pin x2 Horizontal (unswitched)
- 3 Phase 4pin x2 Vertical (unswitched)
- 3 Phase 5pin x1 (switch above)
- 3 Phase 5pin x1 (switch beside)
- 3 Phase 5pin x1 (unswitched)
- 3 Phase 5pin x2 Horizontal (unswitched)
- 3 Phase 5pin x2 Vertical (unswitched)



Outlets and Switches Specification

Power Outlets (continued...)

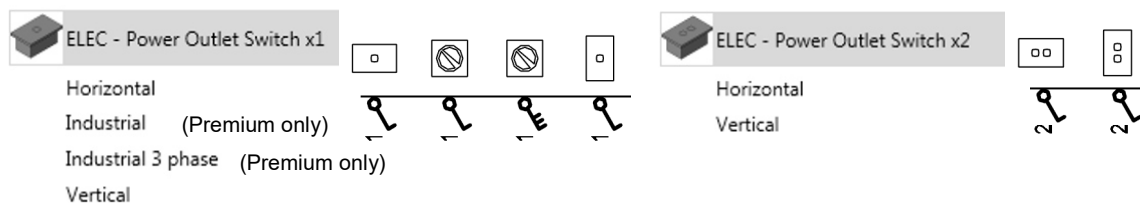


Outlet Switches

Refer to the next page for additional switching parameters

Power outlet switches are on the "Electrical Fixtures" category and the load classification parameters are preset to "Power"

Electrical - Loads	
Apparent Load	0.00 VA
1_Load Classification	Power

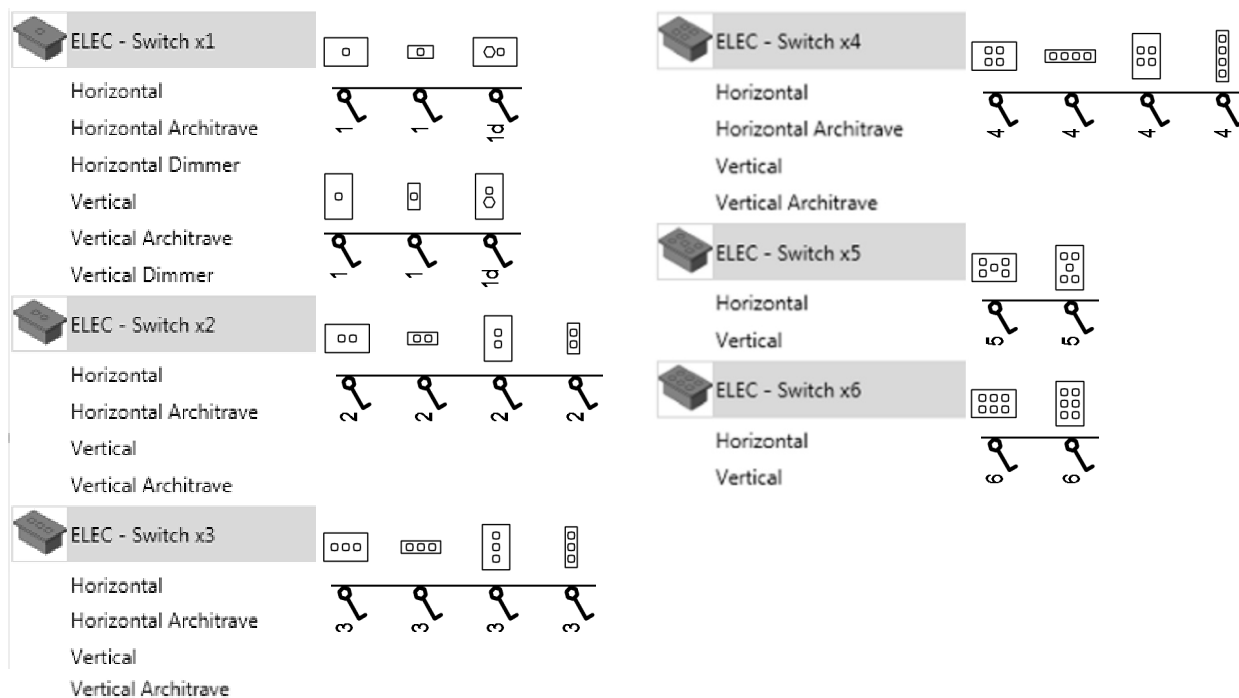


Light Switches

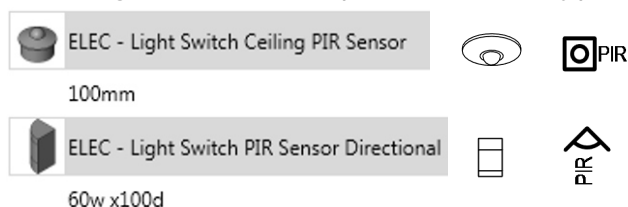
Refer to the next page for additional switching parameters

Light switches are on the "Lighting Devices" category and the load classification parameters are preset to "Lighting"

Electrical - Loads	
Apparent Load	0.00 VA
1_Load Classification	Lighting



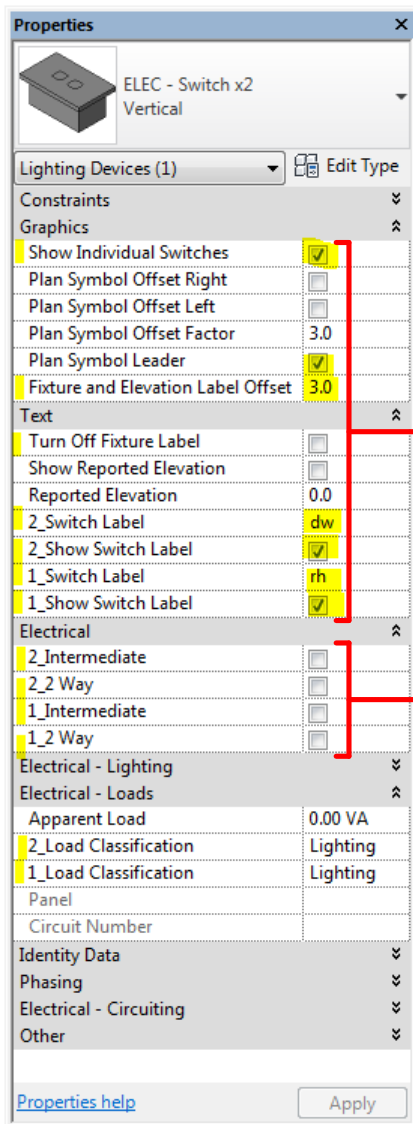
PIR Light Switches (Premium only)



Outlets and Switches Specification

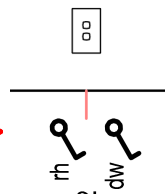
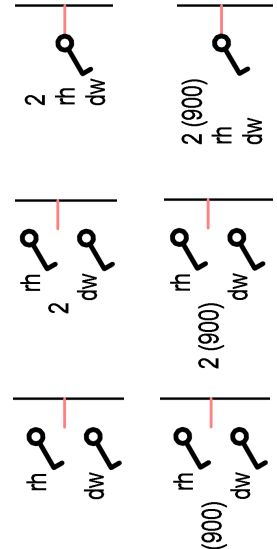
Additional Switching Instance Parameters

All switches have additional switching instance parameters to suit different documentation methodologies.
Refer Page 2 for common instance parameter explanations

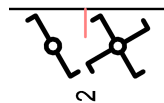


This example is based on a 2 gang switch.
The parameter concept carries through for all the other switches (i.e. 4 gang switches have "3_Switch Label" and "4_Switch Label" parameters etc)

Common switching /fixture labeling variants:



Individual switches can be shown, allowing them to be labeled separately....

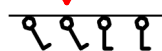


.... also allowing the type of circuit to be graphically shown (and/or combinations of both) if required

Additional Switching Type Parameters:



Distance between the individual switch symbols (project wide setting for this family) - setup correctly for your standard view scale



Allows for further graphical differentiation if required