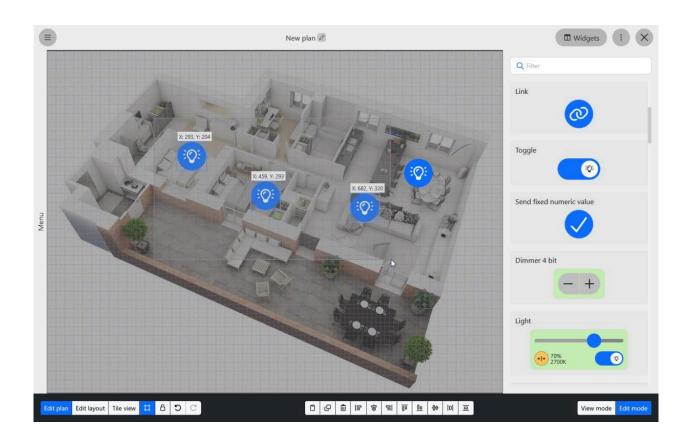








Visu manual



November, 2025

Applicable Visu version: 2025.11

Applicable LogicMachine firmware version: 2025.11 or newer

Technical support: forum.logicmachine.net

Copyright

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Table of contents

1. Introduction	3
2. Modes of Visu	3
3. Admin view	4
4. Menu panel	7
4.1. Plans Levels	7
4.1.1. Plans	7
4.1.2. Levels	9
4.2. Layouts	10
4.3. Custom widgets	11
5. Bottom toolbar	13
5.1. Widget control with toolbar	13
5.2. Tile view	16
6. Settings	17
6.1. Global appearance settings	17
6.1.1. General	17
6.1.2. Backgrounds	20
6.1.3. Widgets	22
6.1.4. Categories	24
6.2. General settings	26
6.3. Icons / Images	27
6.4. Custom CSS / JavaScript	28
6.5. Sync project to LM Cloud	28
6.6. Backup, Restore, Reset	29
6.7. Restore	29
6.8. Reset	29
7. Widgets	29
7.1. Switch	29
7.1.1. Switch configuration (Configuration)	31
7.1.1.1. Compact mode (Switch)	32
7.1.1.2. Plan view (Switch)	33
7.1.1.3. Tile view (Switch)	33
7.1.1.4. General settings (Switch)	34
7.1.2. Switch configuration Objects	34
7.1.3. Switch configuration Appearance	35
7.2. Creation of the custom widget	36
7.2.1. Custom widget configuration (Configuration)	39
7.2.2. Custom Widget configuration (Objects)	40
7.2.3. Custom widget configuration (Replace group addresses)	40
7.3. Slider	41
7.3.1. Slider configuration (Configuration)	42
7.4. Light	46

7.4.1. Light configuration (Configuration)	46
7.5. Trends	50
7.5.1. Trends configuration (Configuration)	50
7.6. Camera snapshot	54
7.6.1. Camera snapshot configuration (Configuration)	54
7.7. Frame	56
7.7.1. Frame widget configuration (Configuration)	56
7.8. Category	58

1. Introduction

Visu is the new visualization engine for LogicMachine, developed with a focus on flexibility and customization. It can be tailored to a wide range of applications, effectively replacing the previous Visualization, Mosaic and Touch applications.

2. Modes of Visu



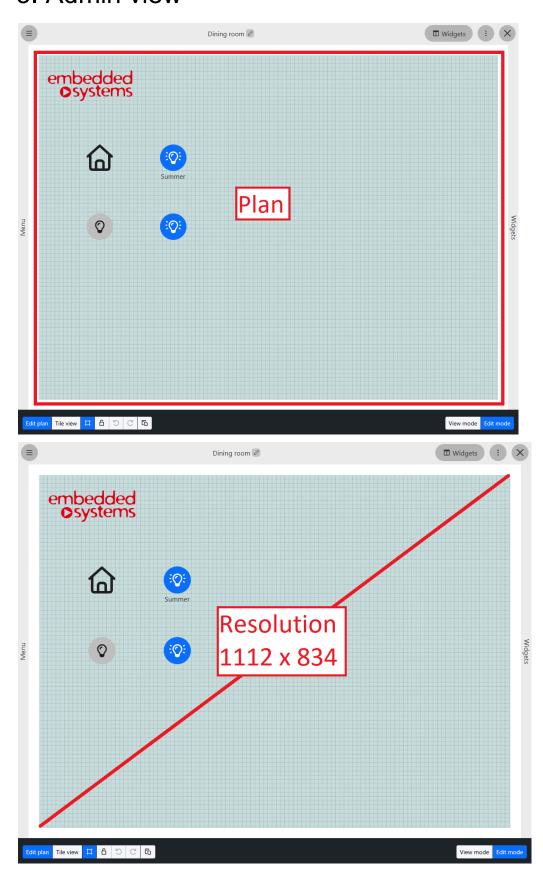
Admin view where the project is created.



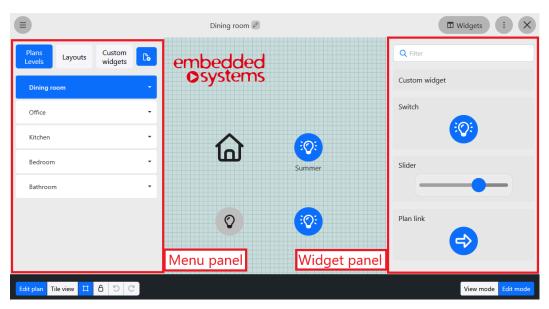
End user view to interact with the visualization.

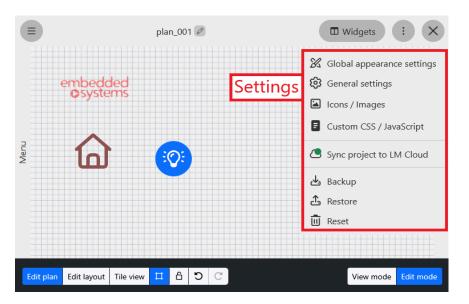
End users should not be given the access rights to Admin view.

3. Admin view





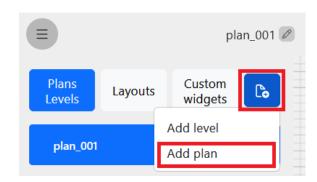


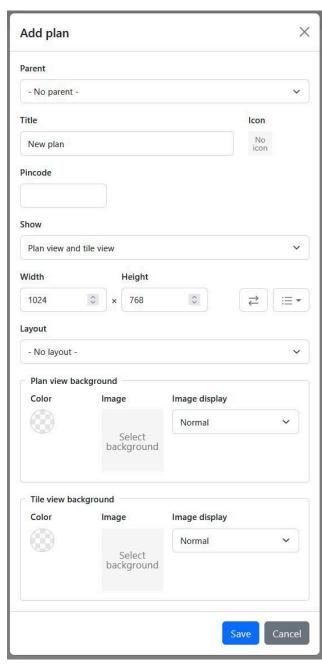


4. Main menu

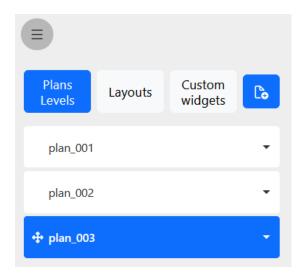
4.1. Plans / Levels

4.1.1. Plans



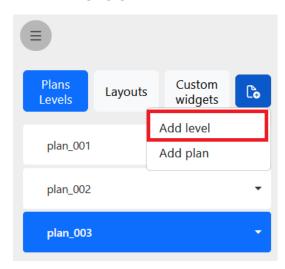


- Parent parent level or plan
- Title title (name) of the plan
- Pincode pincode, used to restrict access to the plan
- **Show** plan view (PC, Tablet) / tile view (Smartphones)
- Width / Height width and height of a plan, visualisation will be scaled accordingly to the screen size but the selected resolution ratio will be kept
- **Layout** layout attached to the plan. Commonly used for elements which are constant across many plans like logos, custom menu, etc
- Plan view background the color and image for plan view background
- Tile view background the color and image for tile view background



Plans and levels can be dragged & dropped to change the order.

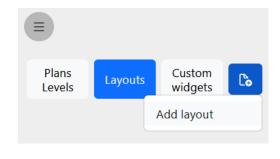
4.1.2. Levels

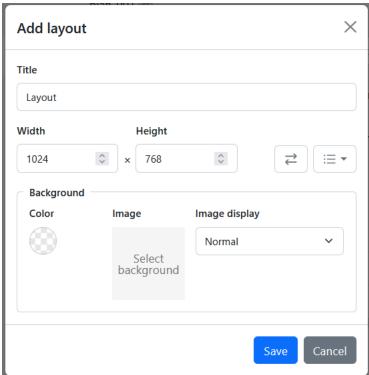


Levels act as separators for the main menu. When selecting a level the first child plan is displayed.

4.2. Layouts

Layout can be attached to the plan. Commonly used for elements which are constant across many plans like logos, custom menu, etc.

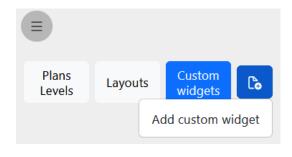


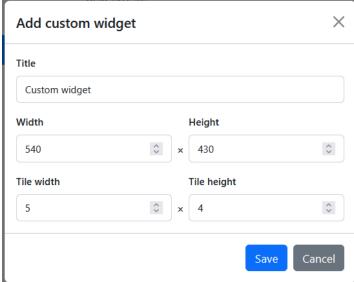


- Title title (name) of the layout
- **Width and Height** width, height of the layout. Generally should be the same as the attached plan's width and height.
- Background background of the layout, color and image can be selected

4.3. Custom widgets

A custom widget is typically a combination of several simpler widgets.

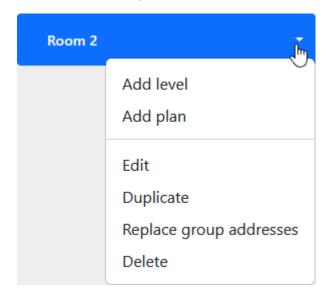


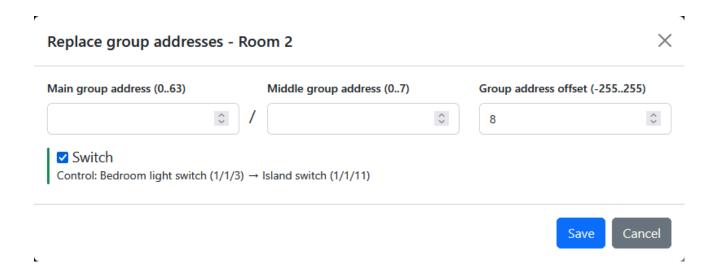


- Title title (name) of the custom widget
- Width width in pixels
- Height height in pixels
- Tile width width in Tile view units
- **Tile height** height in Tile view units

Note: if Tile view is used it is strongly recommended to use Tile width and Tile height. If widget width and height has a custom size then tile width and height will be automatically adjusted to the closest upper size.

4.4 Replace group addresses for plans, layouts and custom widgets



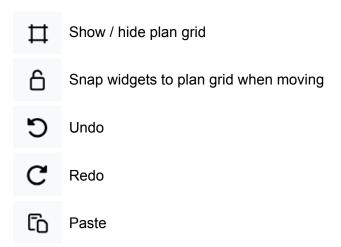


The replace group addresses option from the menu selection is not the same as the Custom widget option (see chapter 7.2.3) It allows real shifting Plans/Layouts/Widgets objects by a constant change to all selected objects. The shift functionality is exactly the same as in the ETS Paste special.

5. Bottom toolbar



• Edit plan / Edit layout / Tile view - toggles between editing the plan, layout and tile view. This field can change depending on the plan Show parameter or whether a layout is used.

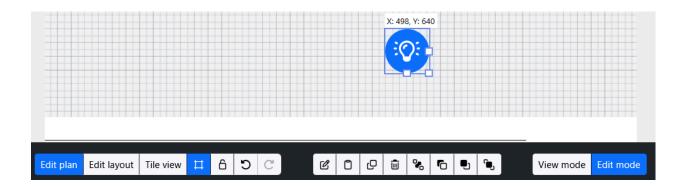


• View mode / Edit mode - toggles between editing the plan and viewing the plan.

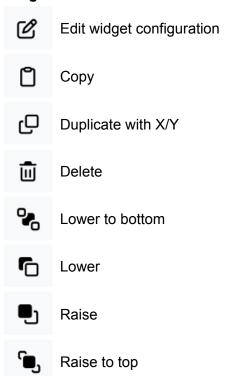
Note: **Undo/Redo** works only on the current plan. Navigating to a different plan deletes the undo history.

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5.1. Widget control toolbar

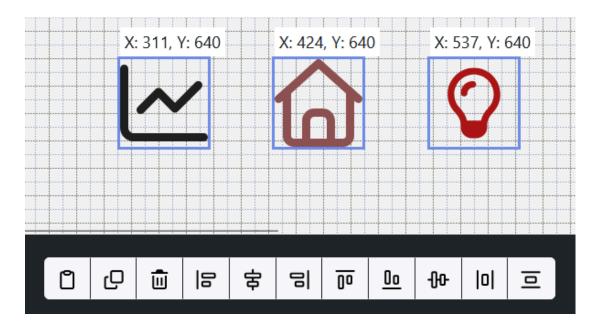


Widget controls:



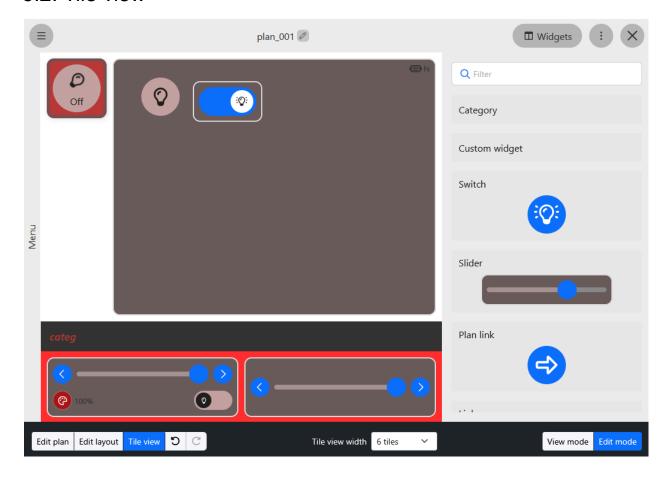
Lower/Raise buttons change widget stacking order - the sequence in which overlapping widgets are drawn on the screen.

Additional options are shown when several widgets are selected.



- 믕 Align left
- Align horizontal center
- 밂 Align right
- $\overline{\mathbb{Q}}$ Align top
- Ф Align vertical center
- 00 Align bottom
- 0 Distribute horizontally (when 3 or more widgets are selected)
- 三 Distribute vertically (when 3 or more widgets are selected)

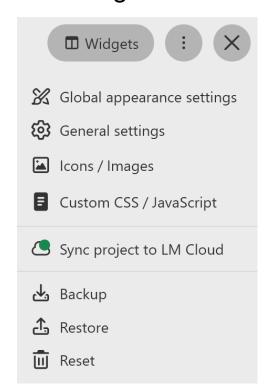
5.2. Tile view



Widgets can be rearranged by dragging and dropping.

Tile view width - current view width in tiles (Automatic, 1, 2, 3, ... 12 tiles) This option is intended to show how the Tile view will look on different screen sizes

6. Settings

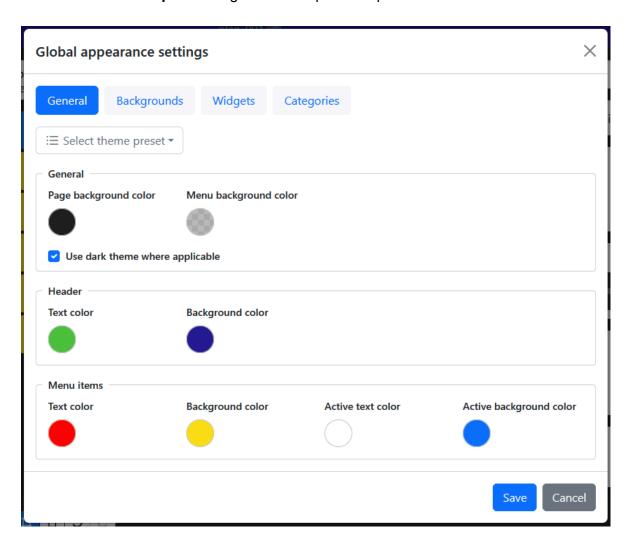


6.1. Global appearance settings

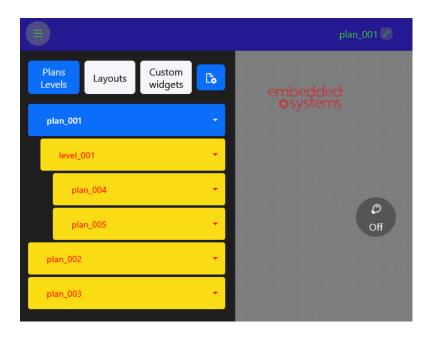
Global appearance allows setting default parameters for most visualization elements. These settings are overridden by local appearance settings in plans, custom widgets, widgets etc.

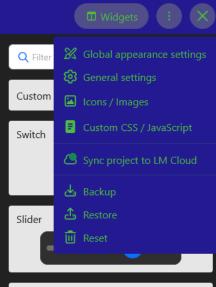
6.1.1. General

• Select theme preset - Light and dark pre-build presets are available.



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General:

- Page background color in this example it is black
- Menu background color in this example it is grey
- Use dark theme applies to pop-up windows and other common controls like inputs and select elements

Header:

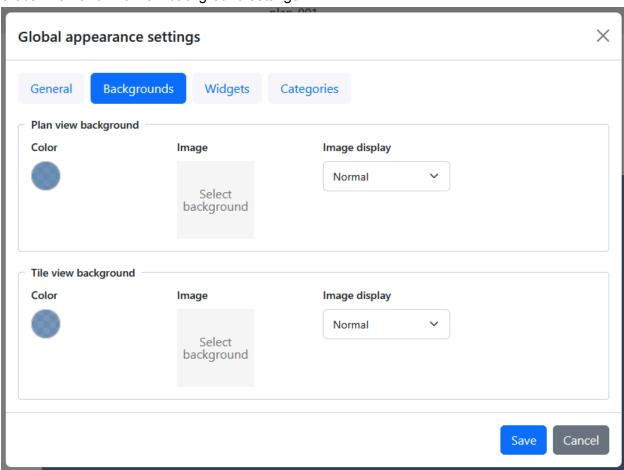
- Text color in this example it is green
- Background color in this example it is dark blue

Menu items:

- Text color in this example it is red
- Background color in this example yellow
- Active text color selected option color in this example it is white
- Active background color selected option background color in this example it is blue

6.1.2. Backgrounds

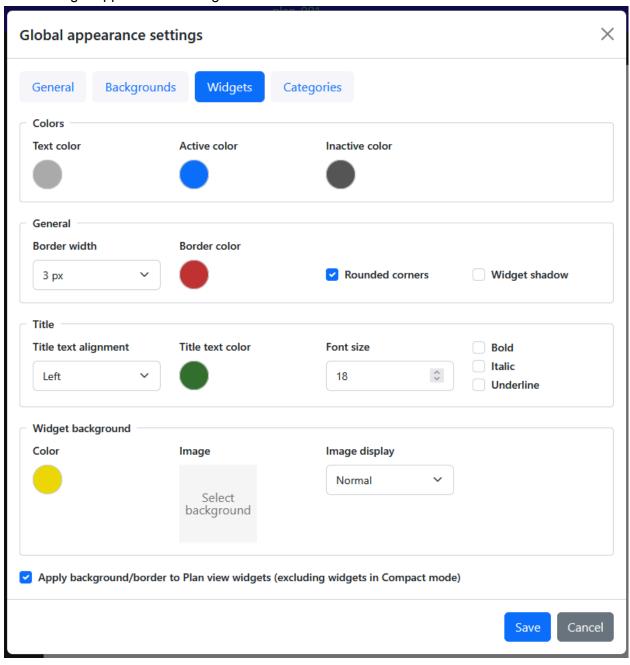
Global Plan and Tile view background settings.



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6.1.3. Widgets

Global widget appearance settings.



Apply background/border to Plan view widgets (excluding widgets in Compact mode)
 By default any background and border settings are not applied to plan view widgets



Colors:

- **Text color** status text in this example light grey (Off)
- Active color active color of the icon in this example blue
- Inactive color inactive color of the icon in this example dark grey

General:

- Border width in pixels
- Border color in this example it is red
- Rounded corners add rounded corners to the widget element
- Widget shadow display a shadow under the widget element

Title (only applies to Tile view):

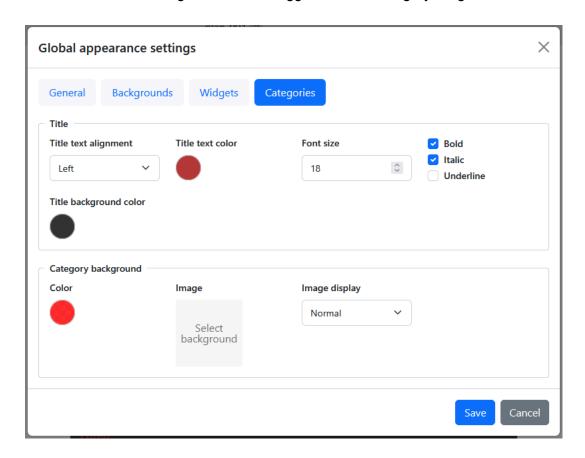
• Title text color - in this example green

Widget background:

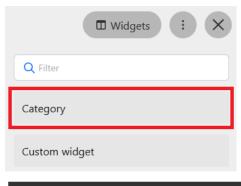
• Color - in this example yellow

6.1.4. Categories

Global settings for category widget. Categories are containers for several other widgets used in Tile view. After creation, widgets must be dragged into the category widget.

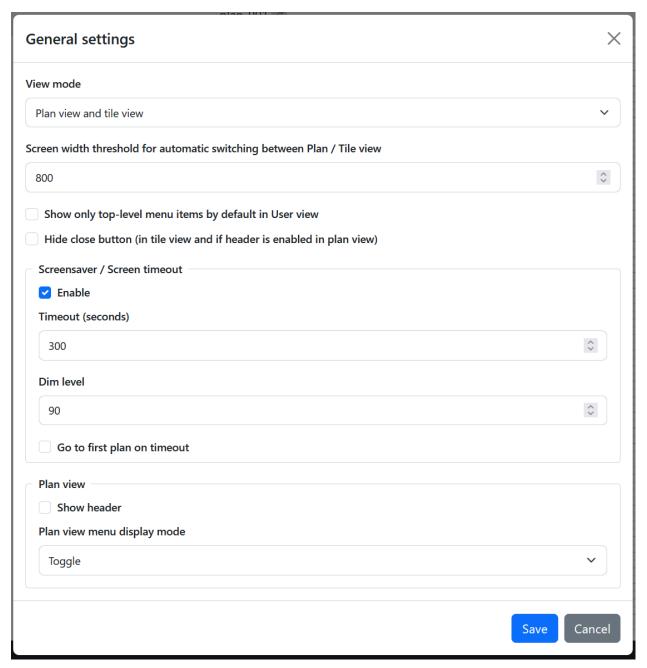


It essential to switch to Tile view and select widget - Category





6.2. General settings



- View mode defines globally which visualisation mode will be available to the end user
- Set screen width threshold for automatic switching between Plan / Tile view when both Plan and Tile view modes are enabled this parameter defines the screen width in pixels at which an automatic switching between views happens
- Show only top-level menu items by default in User view when enabled only top main menu levels will be displayed and all sub-levels will be collapsed
- Hide close button (in tile view and if header is enabled in plan view) hides the close button for User view. The close button by default is hidden on the Plan view as the header is not enabled by default

Screensaver / Screen timeout:

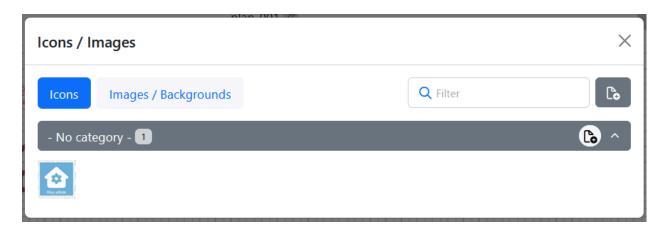
- **Timeout (seconds)** after no activity in the user view the screen saver will be shown based on the Dim level settings
- **Dim level** dimming level from 0% to 100%
- Go to first plan on timeout if enabled the first plan will be shown automatically when no user activity is detected

Plan view settings:

- Show header header on top of the screen will be displayed with plan name in the centre
- Plan view menu display mode controls how the main menu is displayed in Plan view:
 - **Toggle** automatically hidden after selecting the plan
 - Hidden menu is not visible
 - **Always show** menu is docked permanently

6.3. Icons / Images

Custom icons and Images can be uploaded. A zip file can be used to import several icons/images at once. Categories allow organizing icons/images into groups.



6.4. Custom CSS / JavaScript

Custom CSS and JavaScript allows further advanced customisation of visualisation. This option is only intended for advanced users which understand web development. Note that Custom JavaScript can only be used in user view but not in admin view.

Visu JavaScript reference: https://kb.logicmachine.net/misc/visu/

6.5. Sync project to LM Cloud



When using LM cloud all changes must be synchronized manually. After setting up the LM Cloud app the Sync project button should be used after any changes on the Visu.

6.6. Backup

Saves a backup of the current project as a zip file.

6.7. Restore

Restores a project backup from a zip file.

6.8. Reset

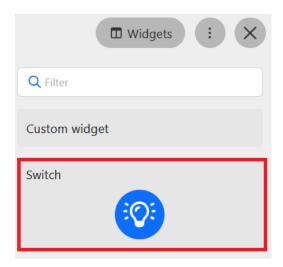
Resets the project, deletes all configuration and icons/images.

7. Widgets

Widgets can be displayed in 3 different modes:

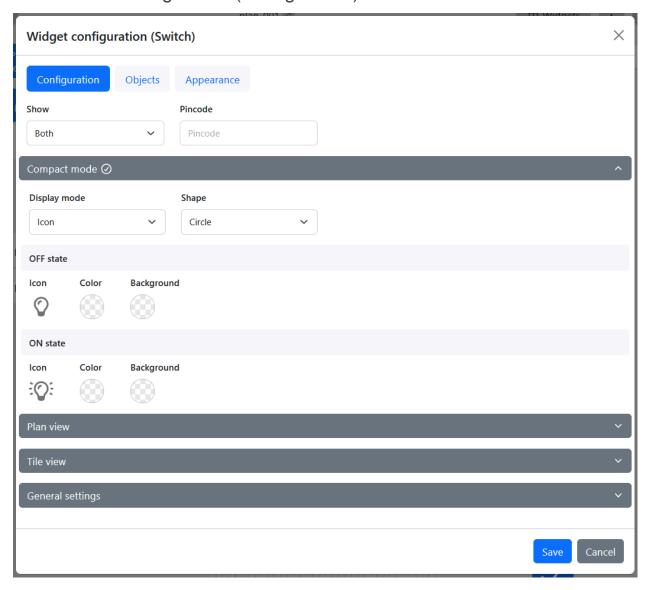
- Full mode this is the default mode for most widgets when the control is directly visible. The only difference is Custom widget which by default is displayed in Compact mode. To display a custom widget in full mode, compact mode must be disabled.
- Compact mode this mode converts the widget into a single icon and/or value text which must be pressed to show the control element. The icon/text works only as status.
- Pop-up mode Certain widgets like light, time, date, etc. have pre-designed pop-up views. This view cannot be modified. It can be only Light or Dark depending on the global theme.

7.1. Switch



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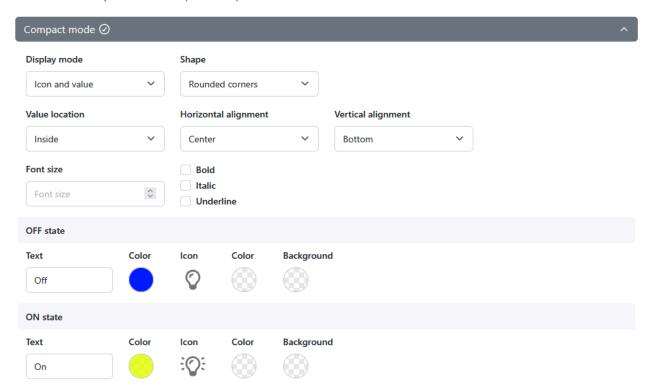
7.1.1. Switch configuration (Configuration)



- **Show** Plan view, Tile view, Both The option allows to define on which view the widget will be visible
- **Pincode** If set then the user will be asked for PIN each time the widget value is changed. The value is sent only once the correct PIN is entered. 4 digits is the minimum for the PIN.

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7.1.1.1. Compact mode (Switch)



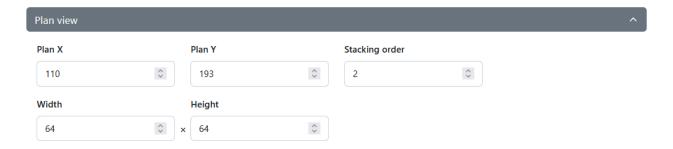
- Display mode Icon, Value, Icon and value. Different settings of Display mode will modify other parameters.
- Shape No shape, Circle, Rounded corners, Square
- Value location bottom, right, inside
- Horizontal alignment left, center, right (alignment of the value)
- Vertical alignment top, center, bottom, applicable when value location is "inside" or "right"

OFF/ON state:

- Text Custom text for the value
- Color Color of the text
- Icon Custom icon selection
- Color Custom color of the icon
- Background Custom color of the shape background.

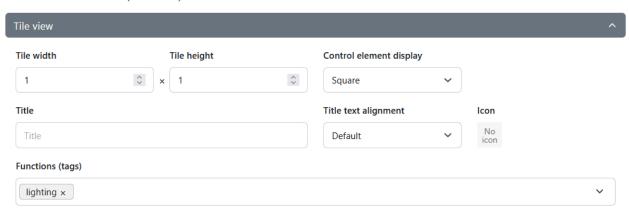


7.1.1.2. Plan view (Switch)



- Plan X, Plan Y coordinates from top left corner
- Stacking order the sequence in which overlapping widgets are drawn on the screen

7.1.1.3. Tile view (Switch)



- Control element display Square, Fill available space
- Title text alignment Default, Left, Center, Right

7.1.1.4. General settings (Switch)



- Read-only disable control, only possible to see the status of widget
- Switch mode:

Toggle: Toggles the value between On (1) and Off (0).

Start (1) / Stop (0): Sends '1' on press, then immediately reverts to '0'.

Start (0) / Stop (1): Sends '0' on press, then immediately reverts to '1'.

Send Off (0): Sends only the '0' value on press.

Send On (1): Sends only the '1' value on press.

7.1.2. Switch configuration Objects

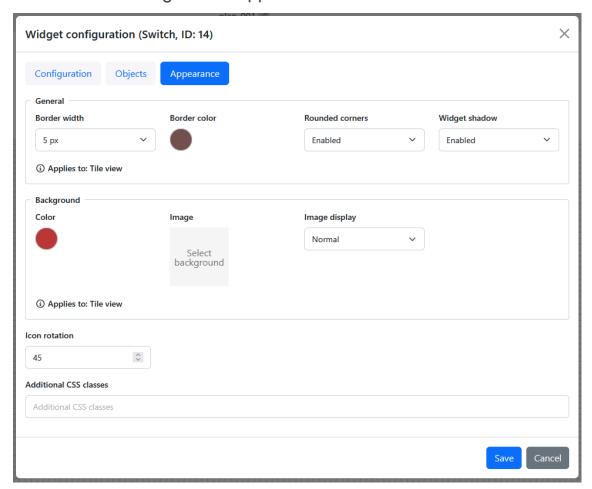


Objects marked with * are mandatory.

Objects are filtered for correct datatypes.

- Write to bus If selected value will be written to KNX TP bus, otherwise not. It will still be written to KNX IP.
- **Reload object list** updates the internal object list if changes were made after Visu admin was opened.

7.1.3. Switch configuration Appearance



Tile view:



Applies to Tile view:

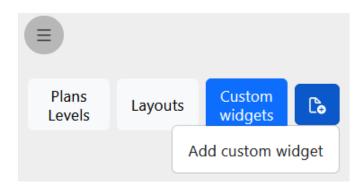
- Border width border width in pixels.
- Border color border color.
- Rounded corners Default / Disabled / Enabled .
- Widget shadow Default / Disabled / Enabled .
- Color background color.
- **Image** background image.
- Image display Normal / Repeat / Scale (fit) / Scale (fill)

Applies to Plan view and Tile view:

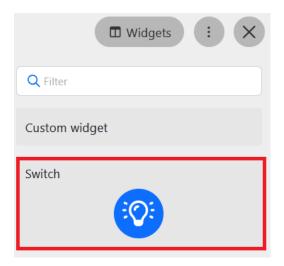
- Icon Rotation rotates the icon in degrees from -359° to +359°.
- Additional CSS classes additional classes to use with Custom CSS

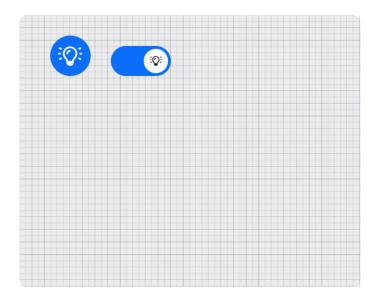
7.2. Creation of the custom widget

The Custom widget can be created under the Custom widget section in the Menu element. Custom widget must have smaller size then the plan on which widget is used.

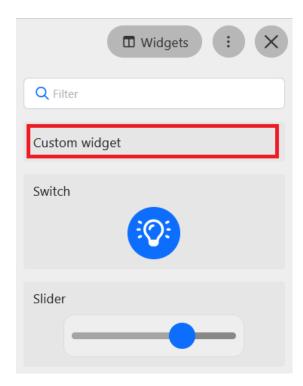


Any other widget can be added to the custom widget.

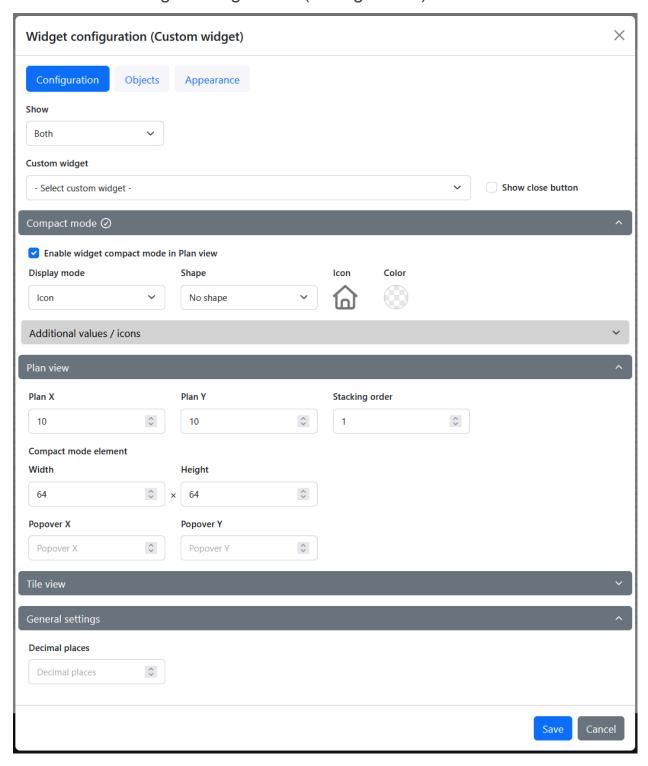




The widget is added to the plan by selecting the desired Plan/Layout and then Custom widget from the widget list.



7.2.1. Custom widget configuration (Configuration)



- Show Plan view, Tile view, Both widget can be visible only on Plan, Tile or Both views.
- Custom widget list of created custom widgets, selected widget will be added.



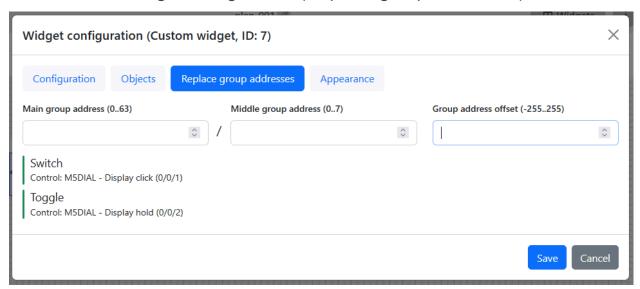
• Decimal places - sets the number of decimals if a floating point status object is used

7.2.2. Custom Widget configuration (Objects)



Status object is displayed if compact mode is enabled, this object is optional.

7.2.3. Custom widget configuration (Replace group addresses)

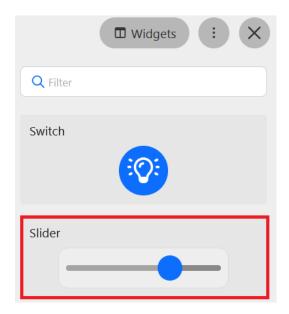


The replace group addresses function is different then the one in Menu options. It allows virtually shifting widgets objects by a constant change to all objects on the widget. As a base it uses original widget addresses and they are shifted/changed accordingly. The shift functionality is exactly the same as in the ETS Paste special. One widget can be used multiple times on the visualisation as

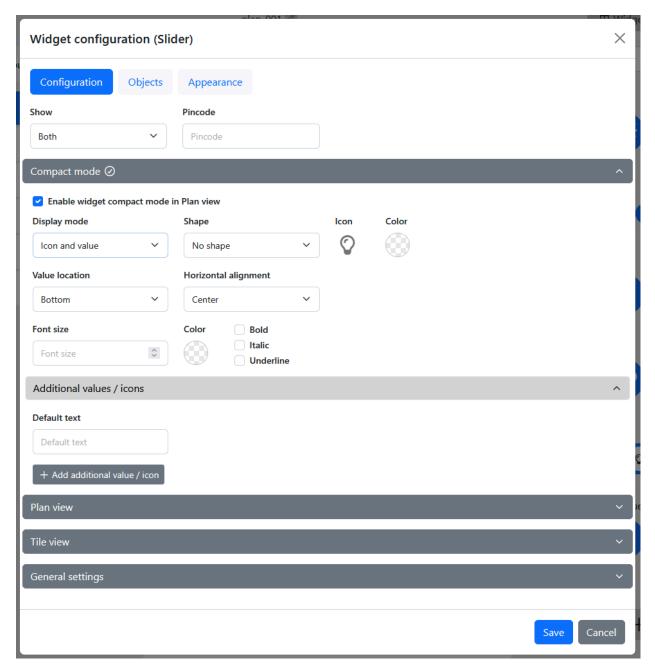
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each widget can have different shift/change settings. The original widget address is not changed as this change is virtual only.

7.3. Slider



7.3.1. Slider configuration (Configuration)



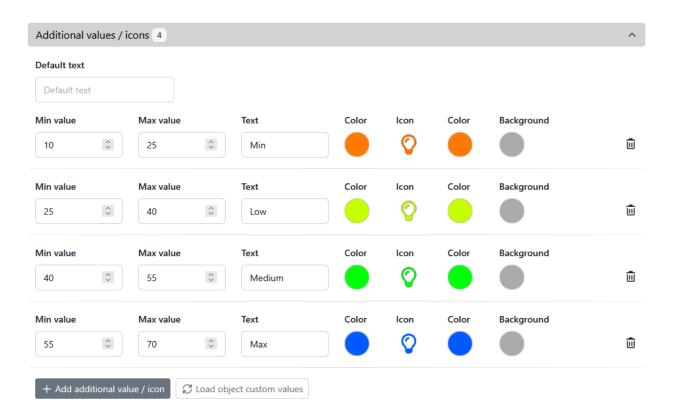
Compact mode:

If an icon and value are selected then additional options appear.

- Value location gives an opportunity to set the location of the value bottom, right, inside.
- Horizontal alignment left, center, right (alignment of the value)
- **Vertical alignment** appears if value location "inside" is selected top, center, bottom (alignment of the value)

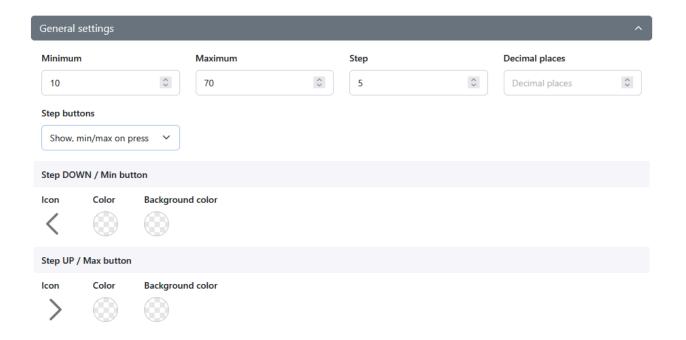
Additional values/icons - allows for creating different graphical state of icon and/or value based on object value.

Add additional values/icons- New range definition is created after selecting the button. After defining the first range, the next one will automatically create the next one based on the one just created. Depending on the Display mode, the configuration allows setting different values.

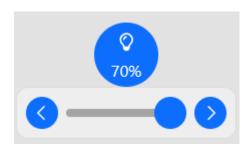


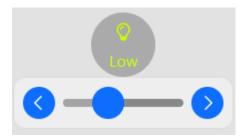
- Min value minimum value of slider's range (included)
- Max value excluded value of slider's range (excluded)
- Text text for specific slider's range
- Color color of text for specific slider's range
- Icon icon for specific slider's range
- Color icon's color for specific slider's range
- Background background's color for specific slider's range

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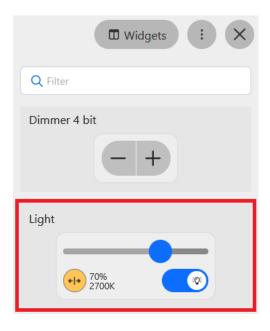


- Minimum lower limit of the slider range
- Maximum higher limit of the slider range
- Step Value on the slider will jump only based on the defined step
- Decimal places In case a floating object is used for widget status then decimal places can be defined accordingly
- Step buttons:
 - o Hide do now show step buttons
 - Show, min/max on press changes value to minimum or maximum on press
 - Show, step on press increases/decreases value by step

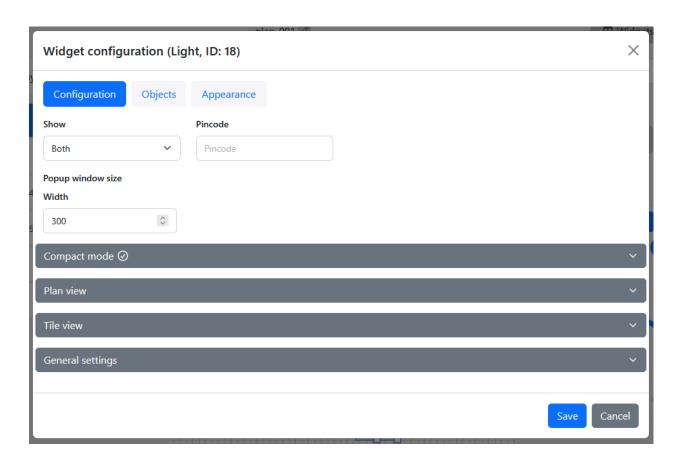


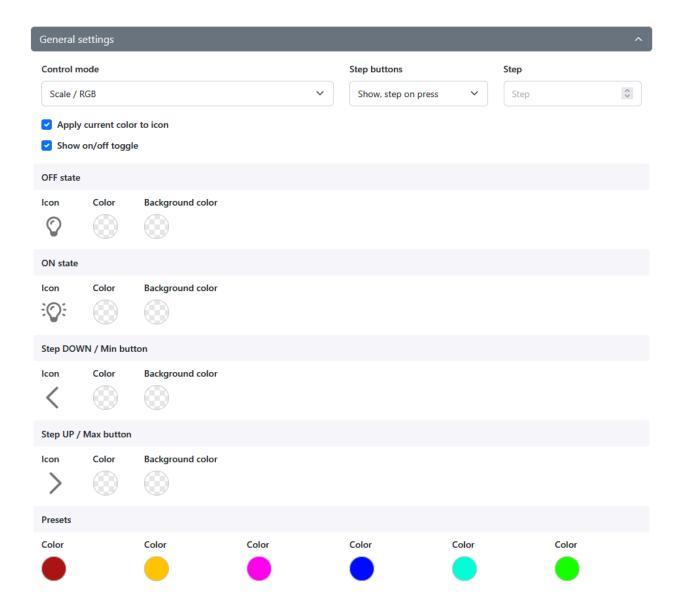


7.4. Light

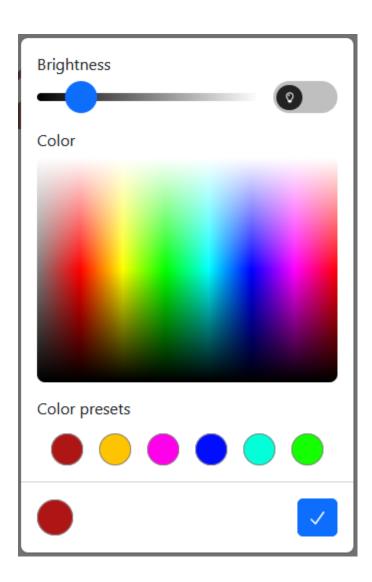


7.4.1. Light configuration (Configuration)

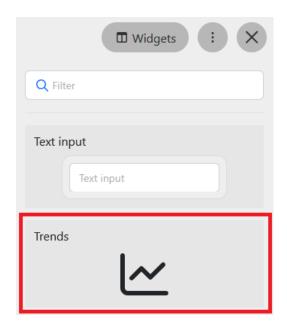




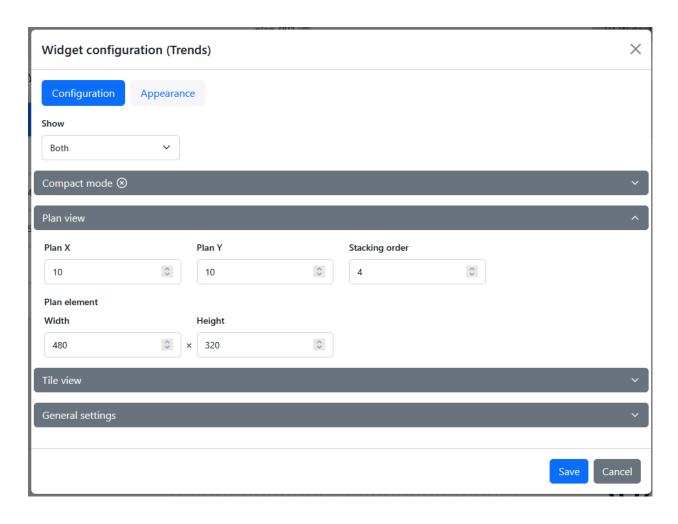
- Control mode: Scale; Scale / Color temperature; Scale / RGB; Scale / RGBW; Scale / Color temperature / RGB; Scale / Color temperature / RGBW. By changing the mode, the list of objects will change accordingly. There are different settings based on the mode too. They all follow the same structure of a Slider and Switch widgets.
- Apply current color to icon In compact mode the status icon will change color accordingly to selected color.
- Show on/off the toggle button is added, this option also adds a switch object in objects tab.
- **Presets** Selected colors will be displayed on the popup widget for a quick selection.

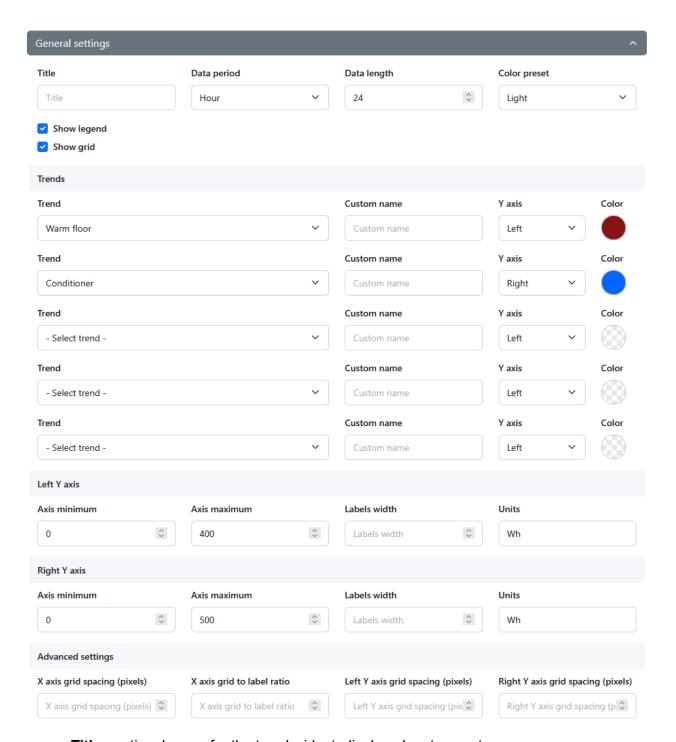


7.5. Trends



7.5.1. Trends configuration (Configuration)





- Title optional name for the trend widget, displayed on top centre.
- Data period Definition of trend period in Hour, Day or Month
- Data length Trend will display a fixed data length defined by Data period and Data length.
- **Color preset** Light, Dark and Custom preset is possible. When Custom is selected then manual definition of each element is possible.
- Show legend toggle the legend visibility
- Show grid Toggle the grid visibility

Trend widget allows displaying trends created in the LogicMachine Trends tab. Up to 5 trends per widget are possible.

Trends- selection of the trend from the previously created ones in the LogicMachine.

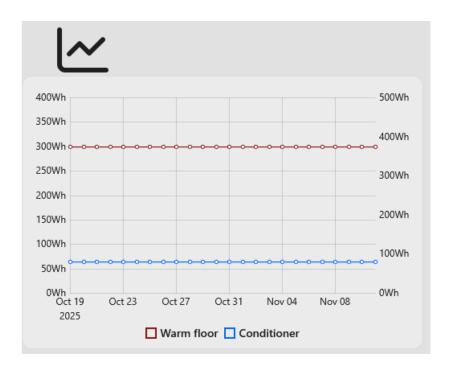
- Custom name- optional configuration to override trend name
- Y axis Two different Y axis ranges are possible (defined below), trends can be grouped to the left and right Y axis to better display its values.
- Color optional option to change trend color, if not used it will be done automatically.

Left/Right Y axis:

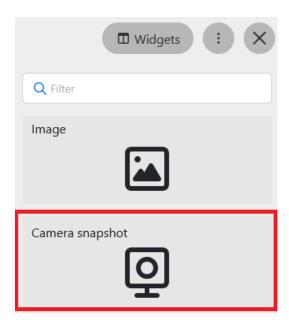
- **Axis minimum** lower range for the trends
- Axis maximum higher range of the trends
- Label width optional configuration to define Y axis value level size
- Units The unit will be displayed on the trend

Advanced settings:

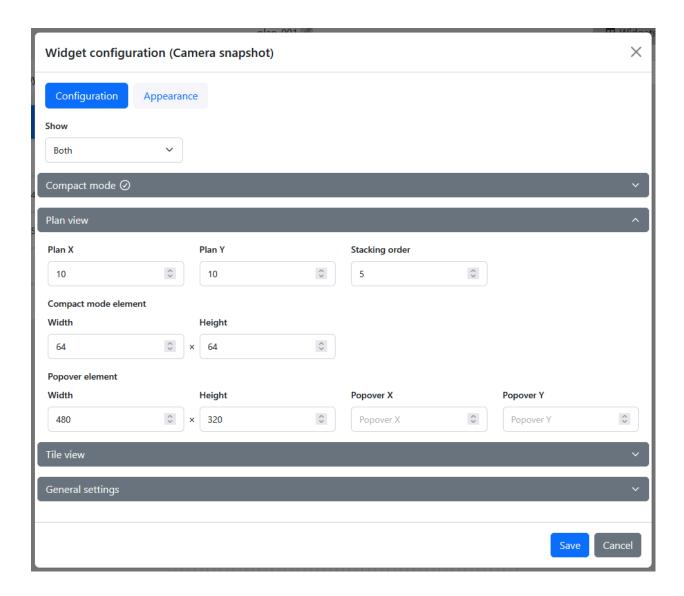
- X axis grid spacing (pixels) defines the distance between each X axis of the grid.
- X axis grid spacing (pixels) define how often the label will be shown next to the X axis on the grid.
- Left/Right Y axis grid spacing (pixels) defines the distance between each Y axis of the grid.

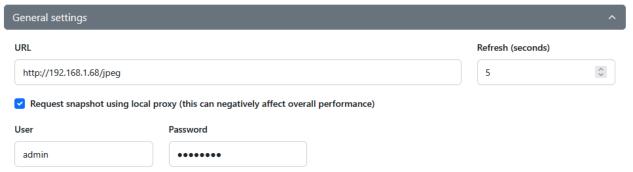


7.6. Camera snapshot



7.6.1. Camera snapshot configuration (Configuration)

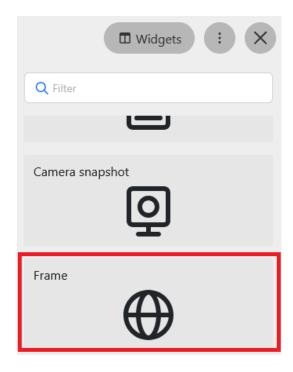




- URL Stream of jpeg image of the camera.
- Refresh(seconds) The image will be refreshed based on this parameter.
- Request snapshot using local proxy When selected the image will be processed through LogicMachine and then sent to the browser. This will significantly increase CPU consumption. This option should be used with cautions. A lower resolution image is recommended. There is a limit of 1MB for the image size.

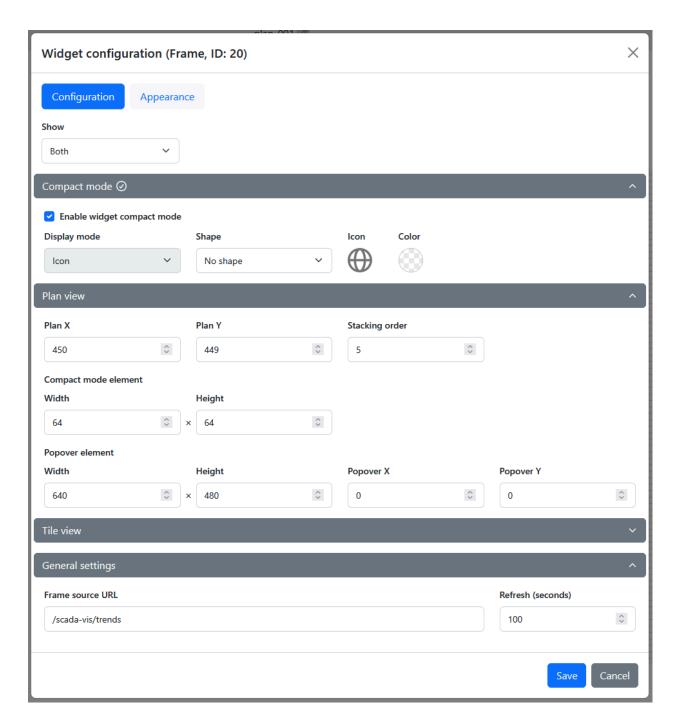
When cloud is used then the image is processed by LM proxy even if the option is not selected.

7.7. Frame



The Frame widget can be used to embed the interface of LogicMachine application directly into your dashboard.

7.7.1. Frame widget configuration (Configuration)



Frame source URL - The url source of a website to be displayed inside the frame. Local
apps can be displayed inside frame, when this is done there is no need for the IP/domain
Example url for trends: /scada-vis/trends

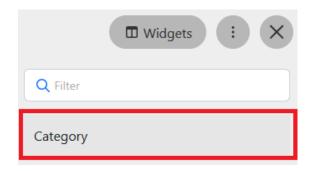
LogicMachine is not processing the content of the url, it only tells the browser where to look for the source. Cloud will only display the content of the frame if the same app is in the cloud or source is on the internet.

Refresh (seconds) - The frame can be automatically refreshed if needed.



7.8. Category

Categories are the containers within Tile view for several widgets. After creation, widgets must be dragged inside category widget. They are visible under Widgets in Tile view mode only.



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