

**ICP DAS**  
**IoTstar Dashboard**  
**Service**  
**User Manual**

[Version 1.0.8 - 2023/08/31]



**泓格科技**  
ICP DAS CO., LTD.

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## 1 Introduction

IoTstar is a software developed by ICP DAS for WISE/PMC/PMD controllers for use in a variety of Industrial IoT applications. IoTstar can be installed on a general PC platform and works as a Private IoT Cloud system, or on the VM (Virtual Machine) platform of Microsoft Azure, IBM Bluemix, Google Cloud or Amazon AWS, etc. and works as a Public IoT Cloud system. By using IoTstar to build a IoT Cloud system, it can provide 5 major services:

1. **Controller Remote Access Service** : Status Monitoring, System Setting, and Firmware Update for WISE/PMC/PMD controllers.
2. **Sensor Data Service** : Collect the data of the sensor connected to the controller and import the data into the Database on cloud.
3. **Sensor Data Visualization Service** : Review the data of the sensor connected to the controller through Dashboard interface.
4. **Sensor Data Report Service** : Provide statistical report for the data of the sensor connected to the controller.
5. **Bot Service with Mobile Phone** : Review the data of the sensor connected to the controller by mobile phone Bot service.

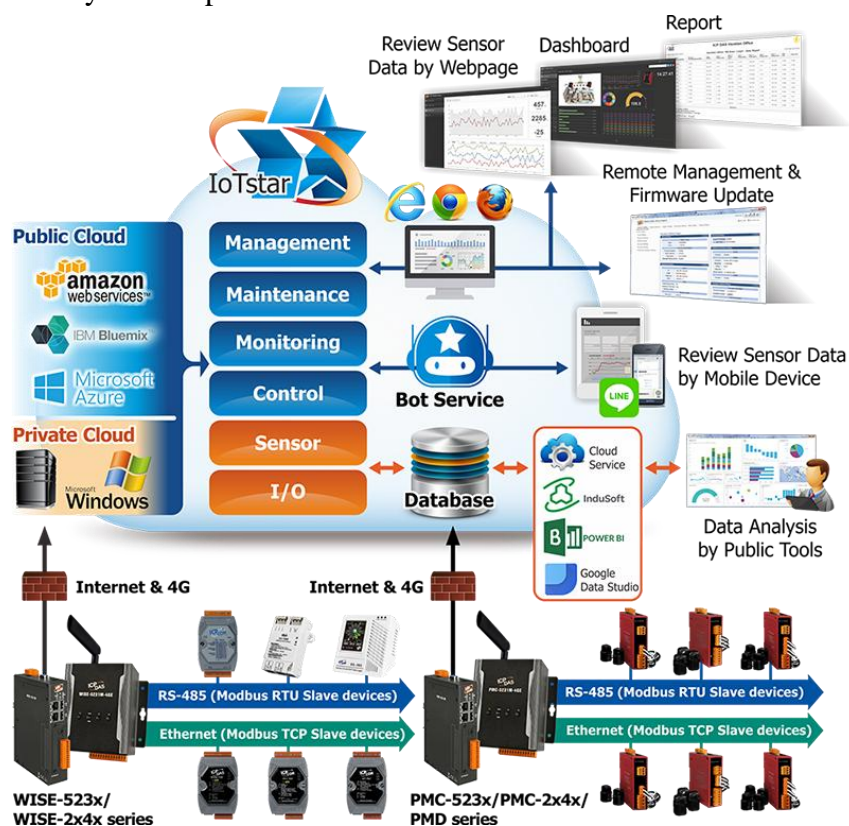


Figure 1-1: System Architecture of IoTstar

IoTstar Dashboard Service is an optional software package for IoTstar that provides users the Dashboard editor and a variety of Widget components. Based on the function which IoTstar Dashboard Service provide, the users can setup the Dashboard pages to review the Real-Time sensor data (and Power data) from the I/O modules (or Sensor) and Power Meter connected to WISE / PMC / PMD controllers, and instantly change the values of the DO/AO output channels of the I/O modules (or power meters) connected to WISE/PMC/PMD controllers .

Through the IoTstar Dashboard Service, users can quickly set up the Dashboard pages required for the review of real-time I/O channel data and interact with the I/O modules, sensors, power meters connected to WISE/PMC/PMD controllers and operators.

The following are the Widget components provided by IoTstar Dashboard Service.



**Figure 1-2: The Widget components IoTstar Dashboard Service provide**

The following is the examples of Dashboard built by IoTstar Dashboard Service:



Figure 1-3: Example by using IoTstar Dashboard Service(1)

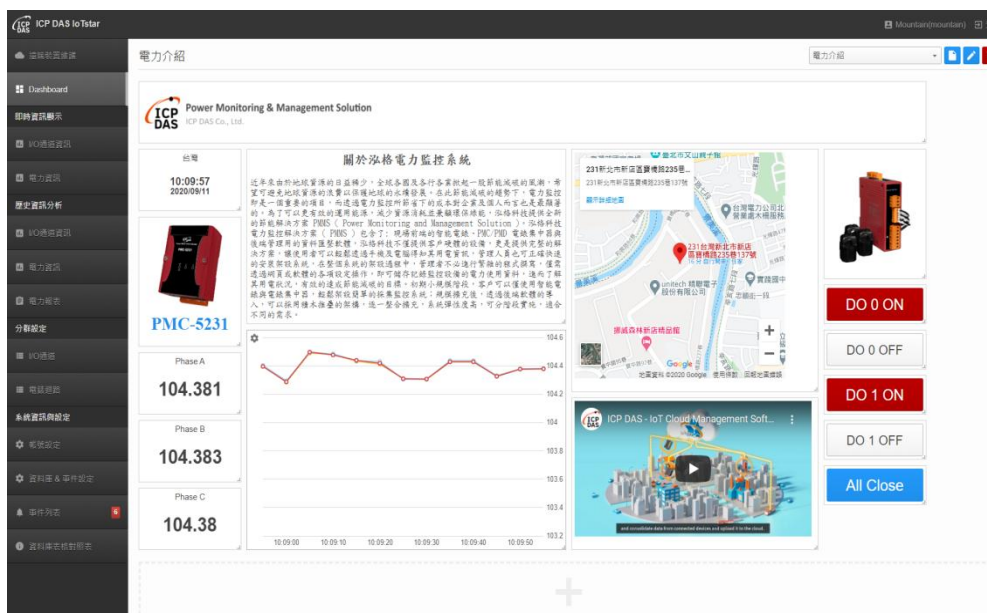


Figure 1-4: Example by using IoTstar Dashboard Service(2)





Figure 1-5: Example by using IoTstar Dashboard Service(3)

## 2 Before Installation

### 2.1 Precondition

Before using IoTstar Dashboard Service, you must first complete the setting of the following preconditions.

- ◆ Complete the installation of IoTstar, and complete the connection setting of IoTstar and WISE/PMC/PMD controllers.
- ◆ To ensure the front-end WISE/PMC/PMD controllers can connect to IoTstar correctly and actively, please make sure the PC (or platform) to install the IoTstar on must be “Static IP” setting.
- ◆ If user want to review the Dashboard pages which IoTstar Dashboard Service provide directly in the internet environment, please make sure the PC (or platform) to install the IoTstar on must be with “Public Static IP” or “Dynamic IP + DDNS” setting.

The requirement for IoTstar.

- ◆ IoTstar v2.0.0 or later version.

### 2.2 Enable IoTstar Dashboard Service(Trial service)

IoTstar v2.0.0 (and later version) includes the IoTstar Dashboard Service (Trial service). After you complete the installation of IoTstar v2.0.0 (or later version) and import the license file of IoTstar Dashboard Service(Trial service), the IoTstar will provide you a full-function trial service of IoTstar Dashboard Service for thirty days.

Following is the steps to enable IoTstar Dashboard Service (Trial service).

- i. Go to IoTstar official website **錯誤！超連結參照不正確。**  
<https://iotstar.icpdas.com/en/index.php>, and click the “Download” button on the main page.



- 
- ii. On the “Download” page, click the “Apply for trial” button of “Trial Service for Support Package” section to enter the IoTstar Trial Service

page.

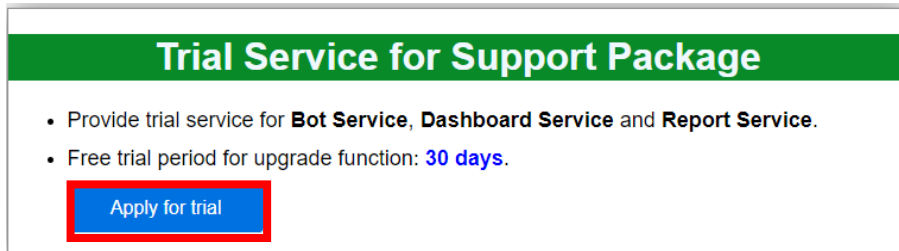



Figure 2-1: Apply for IoTstar Dashboard Service(Trial service)

- iii. On the IoTstar "Trial Service for Support Package" page, select the "Dashboard service" on the "Trial service option" field. For the "Hardware ID", please click the  button next to the "Hardware ID" field and follow the instructions on the Pop-up window to get the Hardware ID of the platform which IoTstar is installed and enter the Hardware ID you get in the "Hardware ID" field. Click the "Download Trial License" button. If the above information is correct. Users can obtain the IoTstar Dashboard Service (Trial service) License File.

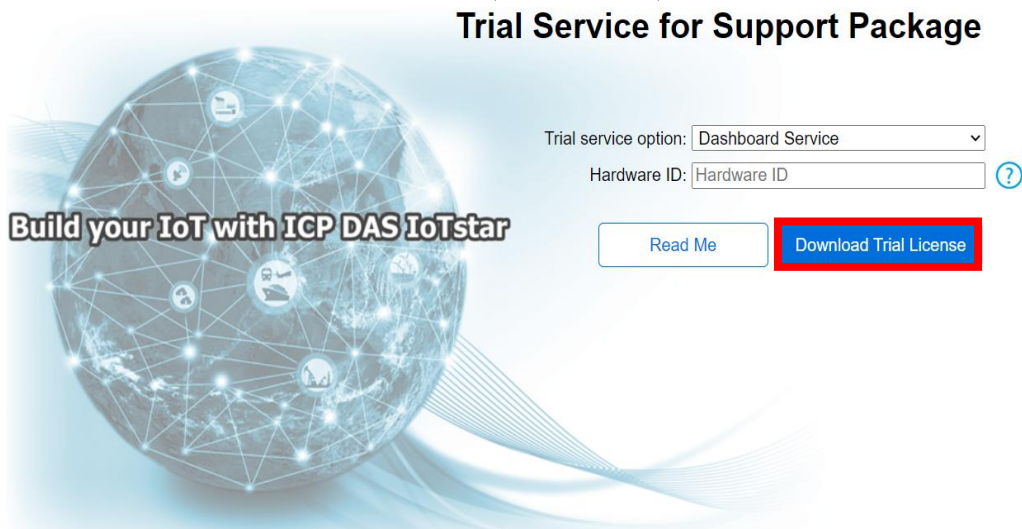
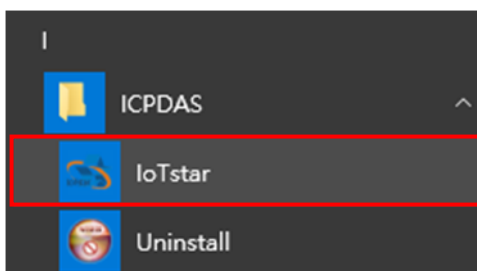
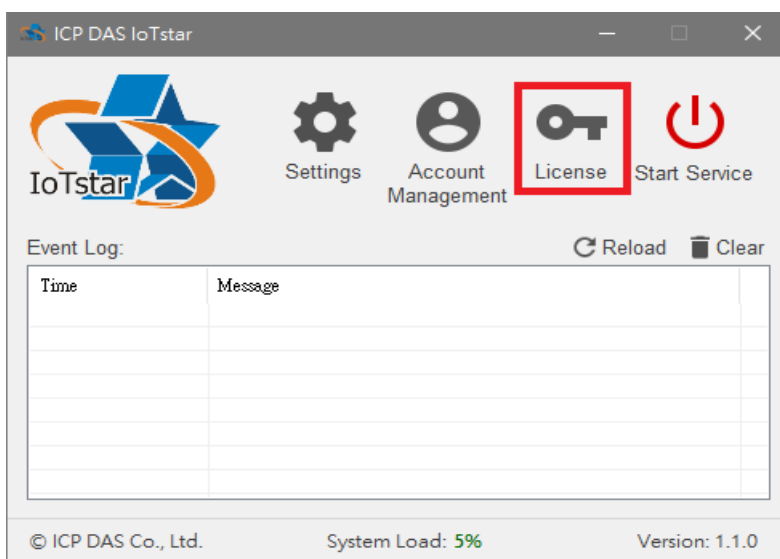


Figure 2-2: Download IoTstar Dashboard Service(Trial service) License

- iv. After you get the license file of IoTstar Dashboard Service (Trial service), click "Start Menu"→ "All apps"→ "ICPDAS"→ "IoTstar" to open the IoTstar system interface.



- v. Click the “License” button on the IoTstar system interface to enter the License setting window.



- vi. In the “License” setting window, click the “Browse...” button to find the location of the IoTstar Dashboard Service (Trial service) license file, and then click the “OK” button.

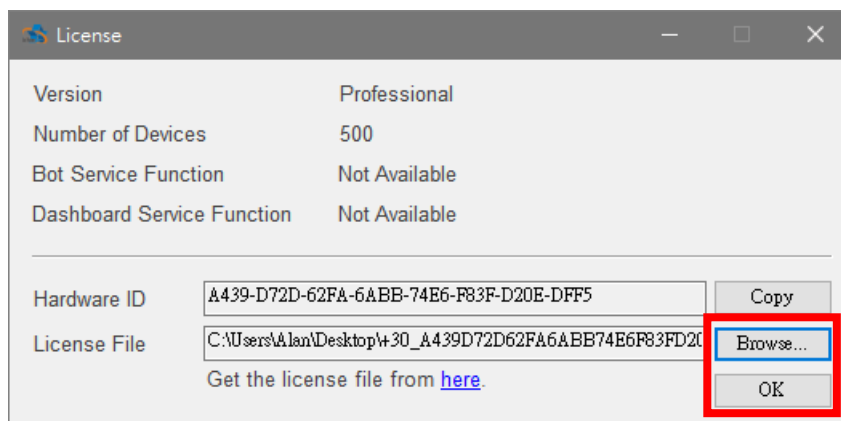


Figure 2-3: Import IoTstar Dashboard Service(Trial service) License

- vii. If the license file is valid, the expiration date of IoTstar Dashboard Service (Trial service) will be displayed.

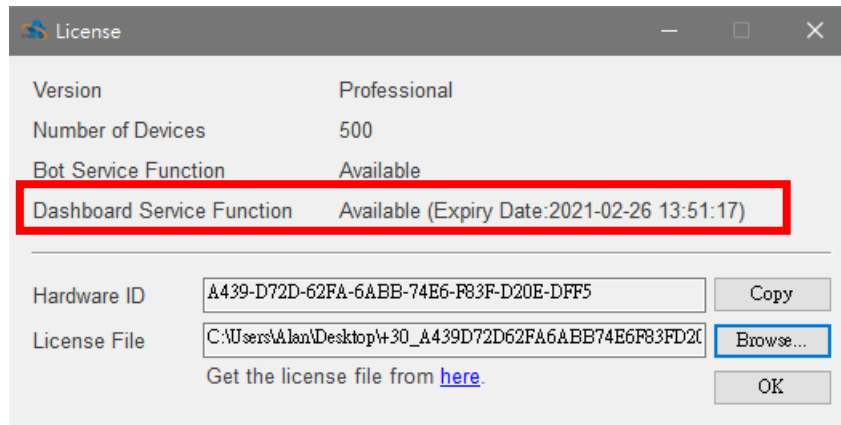


Figure 2-4: Status of Import IoTstar Dashboard Service(Trial service)

- viii. Return to IoTstar system interface, click "Start Service" to start IoTstar, then the IoTstar Dashboard Service (Trial service) will also be enabled at the same time.

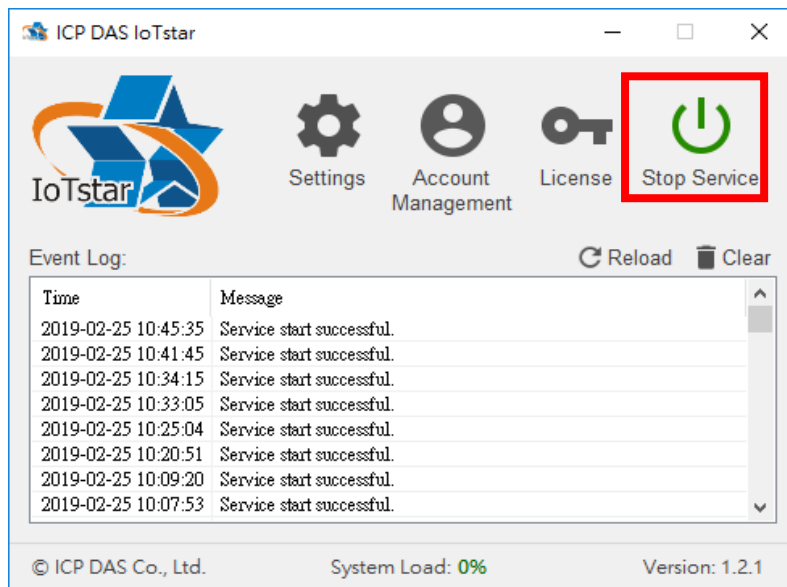


Figure 2-5: Start IoTstar Dashboard Service(Trial service)

### 2.3 Enable IoTstar Dashboard Service(Formal service)

To enable IoTstar Dashboard Service(Formal service), you have to install the IoTstar Professional version v2.0.0 (and later version) first, and then contact with ICP DAS to purchase the upgrade code to enable the IoTstar Dashboard

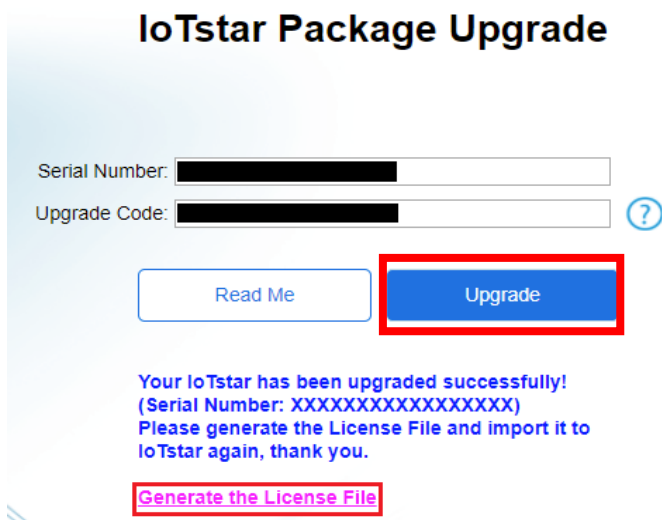
Service(Formal service). The following steps will introduce the process to enable the IoTstar Dashboard Service(Formal service).

- i Click the "Package Upgrade" button on the [IoTstar official webpage](#).



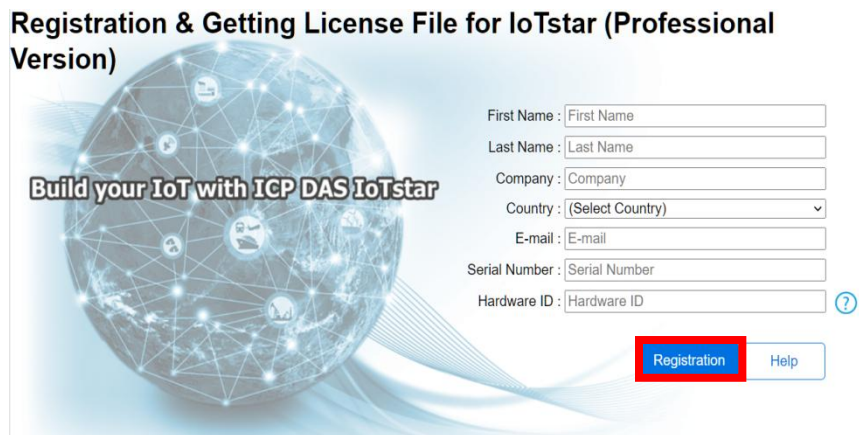
**Figure 2-6: Upgrade to IoTstar Dashboard Service(Formal service) (1)**

- ii Enter the Serial Number of IoTstar (Professional version) and the Upgrade Code of IoTstar Dashboard Service (Formal service), and click the "Upgrade" button to upgrade your IoTstar Serial Number with the authorization to use IoTstar Dashboard Service(Formal service). Click "Generate the License File" to go to the registration page.



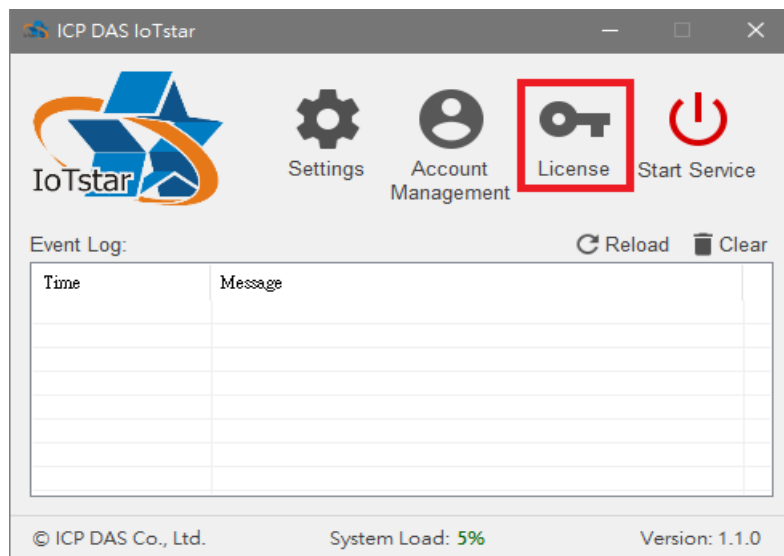
**Figure 2-7: Upgrade to IoTstar Dashboard Service(Formal service) (2)**

- iii Enter the required information and click the "Registration" button to get the new License File.



**Figure 2-8: Upgrade to IoTstar Dashboard Service(Formal service)(3)**

- iv After getting the License file for IoTstar Dashboard Service (Formal service), please open the IoTstar system interface, click "License" button to enter the License setting window.



- v Enter the License setting window, click "Browse" button to find the location of the IoTstar Dashboard Service (Formal service) license file, and then click the "OK" button.

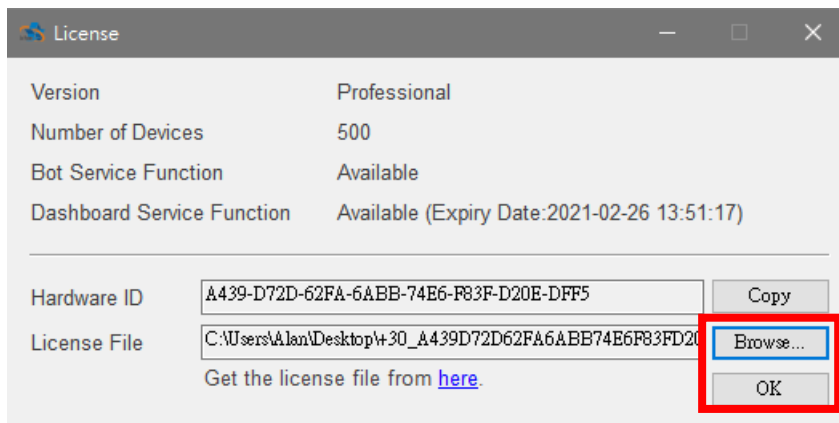


Figure 2-9: Import IoTstar Dashboard Service(Formal service) License

vi If the license file is valid, the status of IoTstar Dashboard Service (Formal service) will be displayed.

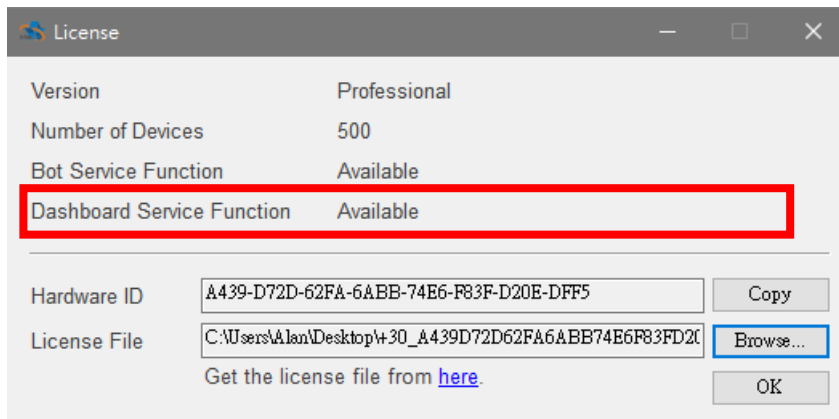


Figure 2-10: Status of IoTstar Dashboard Service (Formal service)

vii Return to IoTstar system interface, click "Start Service" to start IoTstar, then the IoTstar Dashboard Service (Formal service) will also be enabled at the same time.



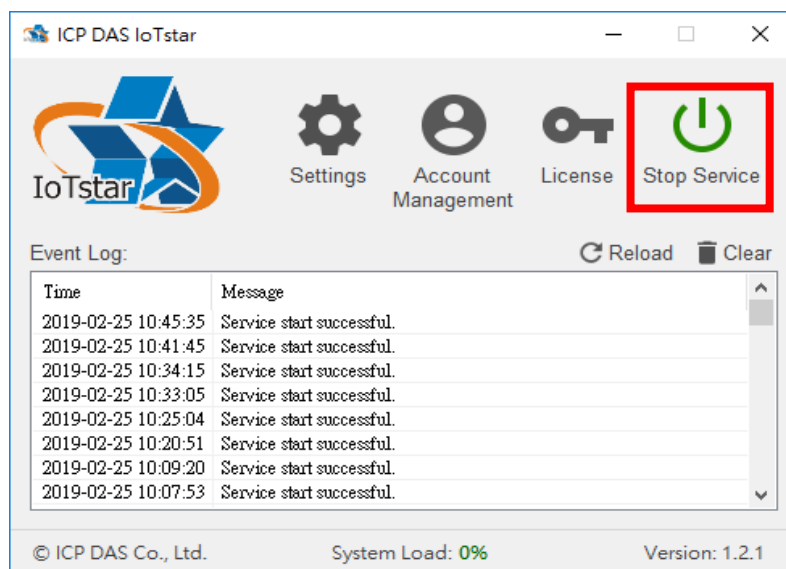


Figure 2-11: Start IoTstar Dashboard Service(Formal service)

### 3 Set up Dashboard of IoTstar Dashboard Service

When the installation of IoTstar v2.0.0 is completed and the IoTstar Dashboard Service is enabled, user can use the Dashboard Editor and Widgets provided by IoTstar Dashboard Service to set up the Dashboard pages to review the Real-Time I/O channel data (or Power data) from the I/O modules, sensor, or power meter connected to WISE / PMC / PM controllers, and instantly change the values of the DO/AO output channels of the I/O modules, sensor, or power meter.

Following is the description of the process to set up the Dashboard pages.

#### 3.1 Launch IoTstar Dashboard Service

Log in to IoTstar website, user can click on the "Dashboard Service" button on the "Data Display & Analysis" section of IoTstar Webpage to enter the IoTstar Dashboard Service page.

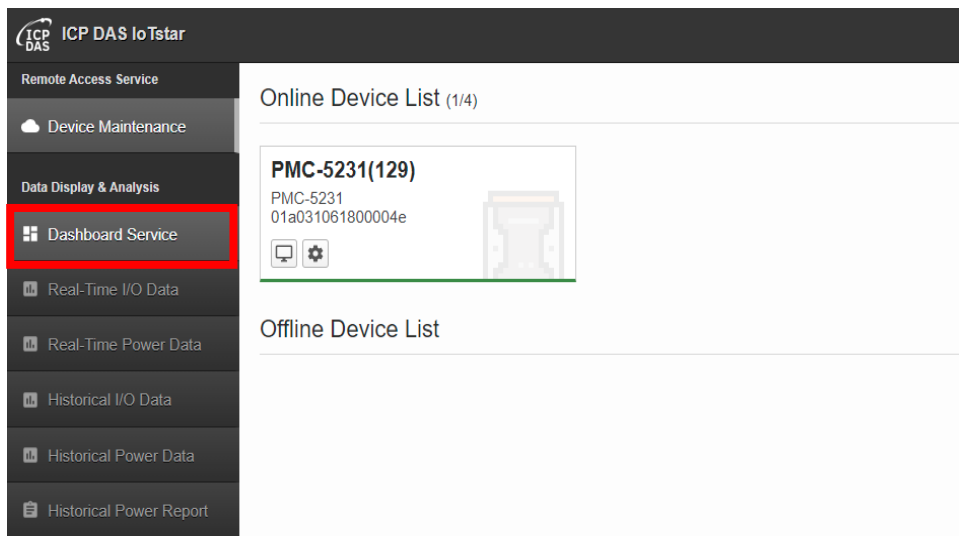


Figure 3-1: Launch IoTstar Dashboard Service

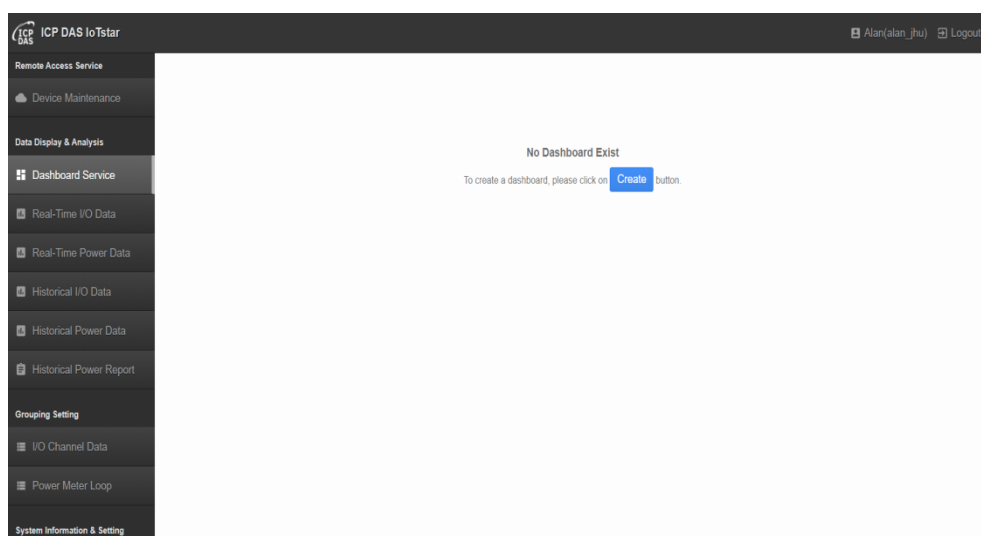
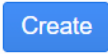



Figure 3-2: Enter IoTstar Dashboard Service Page

### 3.2 Create Dashboard

If user enters IoTstar Dashboard Service page for the first time, he can click the "Create"  button, and the system will create a new Dashboard for the user account. If user has previously built a Dashboard, he can click the "Create Dashboard"  button at the upper right of the IoTstar Dashboard Service page to create a new Dashboard.

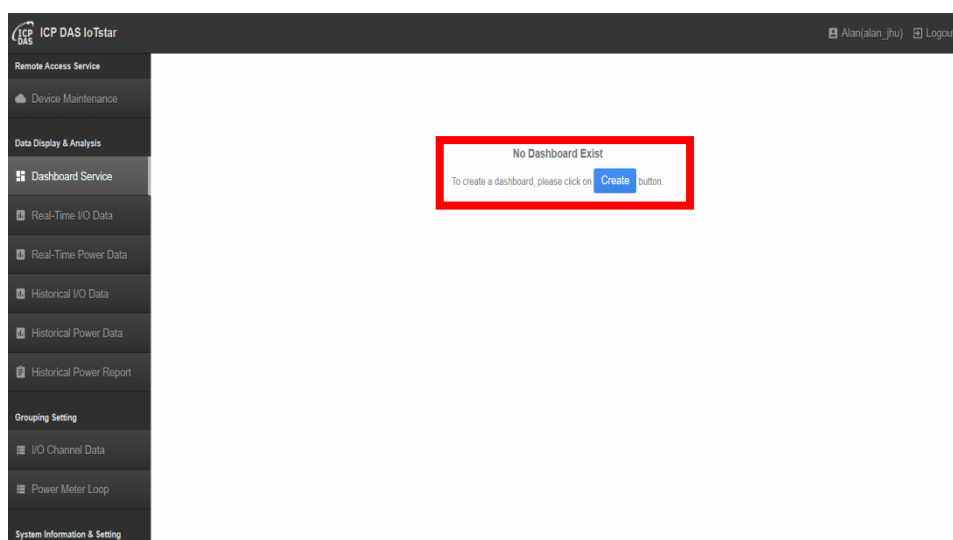
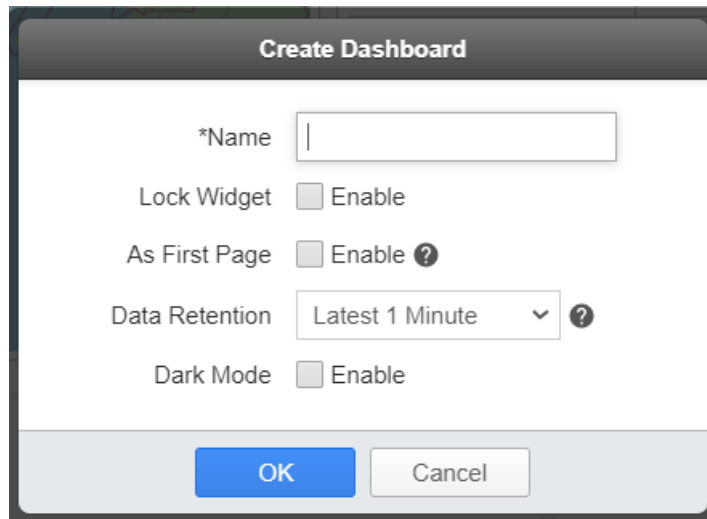


Figure 3-3: Create a Dashboard

Now, the "Create Dashboard" window will appear. The parameter setting interface of this window is described as follows:

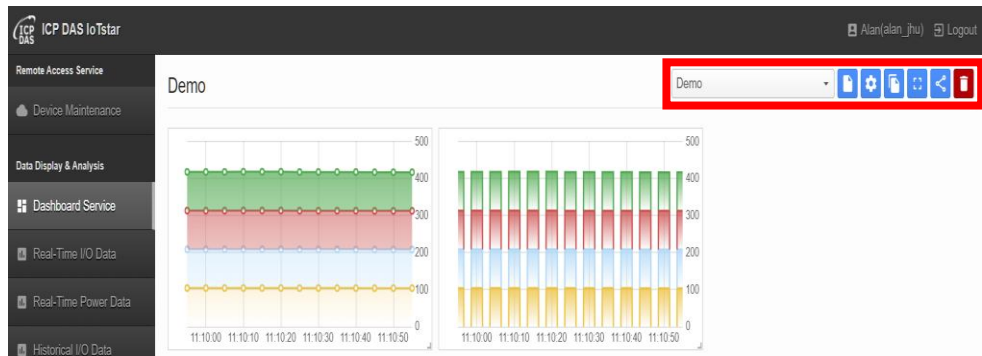


**Figure 3-4: "Create Dashboard" Window**


- Name: Input a nickname for the Dashboard.
- Lock Widget: Check "Enable" to lock the size and location of all widgets in the Dashboard.
- As First Page: Check "Enable" to assign the Dashboard as the home page of the IoTstar Dashboard Service for the user account.
- Data Retention: Assign the time period for the system to keep the most recent I/O channel data (power data) during this assigned time period, and the data can be displayed by the Widgets of the Dashboard. There are 5 options: Latest 30 seconds, Latest 1 minute, Latest 3 minutes, Latest 5 minutes and Latest 10 minutes.
- Dark Mode: Check "Enable" to assign the Dashboard to use "Dark Mode" for display.

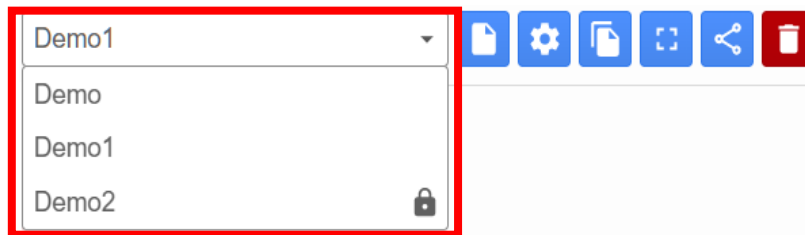
### 3.3 Change Dashboard Setting




After create Dashboard, the Dashboard setting interface will be shown on the upper right of IoTstar Dashboard Service page, The setting interface is described as follows:







**Figure 3-5: Dashboard List and related operations**

- **Dashboard List:** It lists the Dashboards created by the user account through IoTstar Dashboard Service. User can select the Dashboard page from the list, and then the service will switch to the selected Dashboard page for display. If the Dashboard page which enables the "As First Page" setting, it will be set as the first page of the list. In addition, if there is an icon  behind the name of the dashboard page, it means the dashboard is in the "Lock Widget" mode.



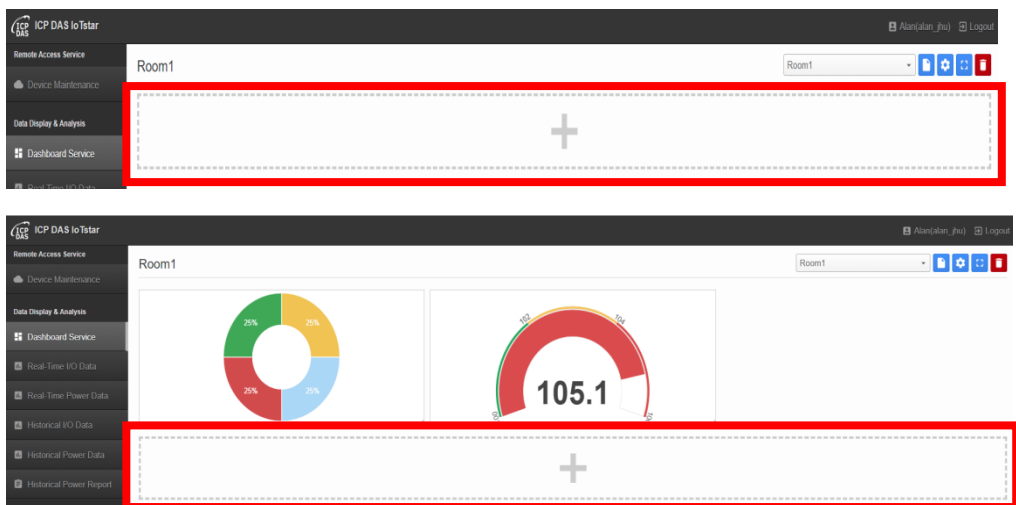
- **"Create Dashboard"**  Button: User can click this button to create a new Dashboard. The "Create Dashboard" window will be shown.
- **"Edit Dashboard"**  Button: User can click this button to edit the parameter of the Dashboard selected in the Dashboard List. The "Edit Dashboard" window will be shown.
- **"Copy Dashboard"**  Button: When user clicks the button, the system will create a new dashboard and copy all the settings from the dashboard selected in the "Dashboard List" to the new dashboard, and the default name of the new dashboard is "The name of selected Dashboard(Copy)".

- "Full Screen mode"  Button: User can click this button to display the Dashboard selected in the Dashboard List in the Full Screen mode. When the system is in Full Screen mode, user can click the  button to return to Normal mode.
- "Share Dashboard"  Button: After click this button, IoTstar will provide the URL link to share all dashboards in the Dashboard List. User now only needs to open the web browser and key in the URL link to directly enter the dashboard and interact with it, instead of opening the dashboard by logging in IoTstar with the account information. For more detail of the setting of dashboard sharing function, please refer to [3.6 Dashboard Sharing Setting](#).
- "Remove Dashboard"  Button: User can click this button to delete the Dashboard selected in the Dashboard List.

### 3.4 Edit Dashboard Content

IoTstar Dashboard Service provide the editing interface and variety of Widget for user to edit the content of Dashboard. Following is the steps for the Dashboard editing operation:

- Click the "+"  icon on the page of IoTstar Dashboard Service to add widget.



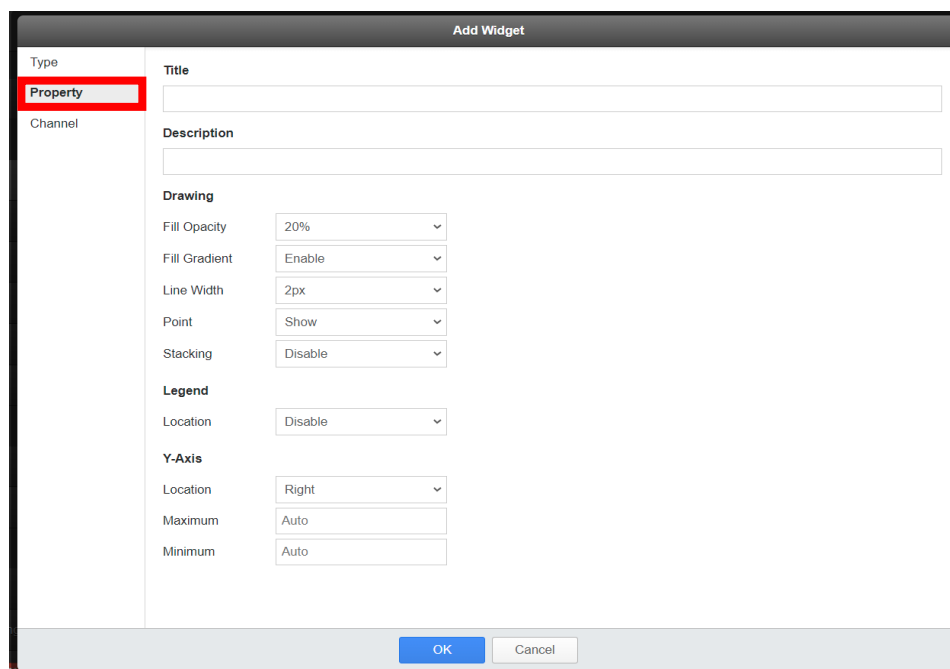
**Figure 3-6: Add Widget for Dashboard**

- ii. After clicking, the "Add Widget" window will open. Please click the "Type" button at the upper left of the "Add Widget" window to enter the "Widget Type" selection page where user can select the desired widget he want to add in the Dashboard.


**Figure 3-7: Type Selection Page of Widget**

- iii. After finish the Widget selection, please continue to click the "Property" button at the upper left of the "Add Widget" window to enter the "Property" setting page. User needs to set up the parameters of the selected Widget.

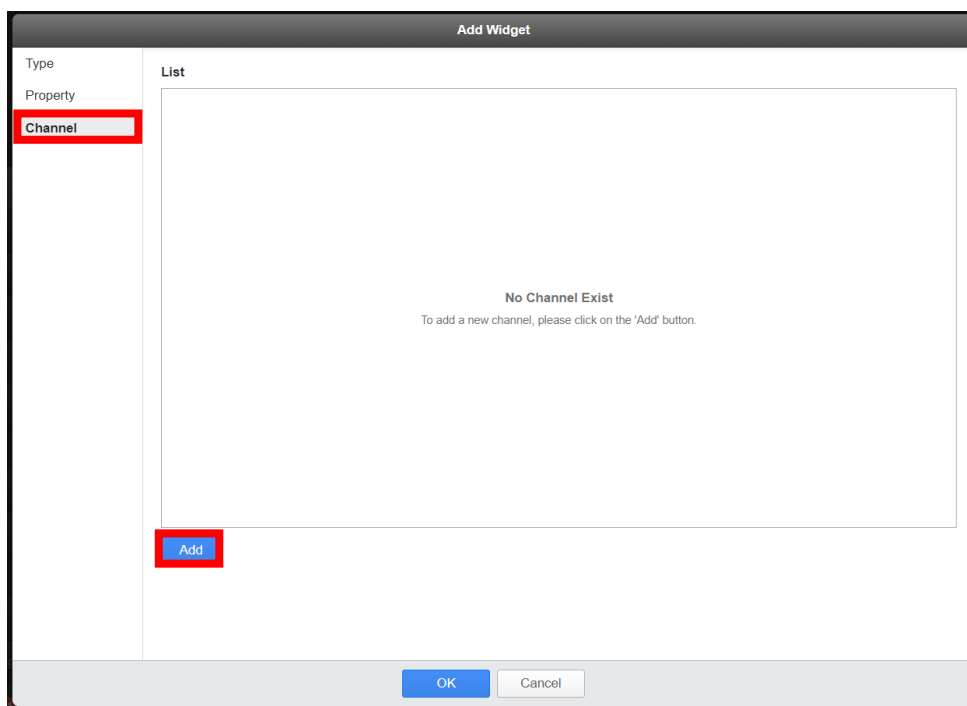
**Please Note:** For the description of the parameter of Widgets which IoTstar Dashboard Service provide, please refer to "4 Widget Provided by IoTstar Dashboard Service" chapter.



**Figure 3-8: Parameter Setting Page of Widget**

- iv. After finish the parameter setting, please continue to click the "Channel" button at the upper left of the "Add Widget" window to enter the "Channel" setting page. This page provides the interface for user to set up the I/O channel (or power data) that the Widget needs to bind, so that the corresponding Real-time I/O channel data (or power data) can be displayed by the Widget. Please click the "Add"  button at the bottom of the "Channel" setting page.





**Figure 3-9: Channel Setting Page of Widget**

- v. After clicking, the "Add Channel" window will be open. User can select the module (I/O module, sensor or power meter) to be bound with the Widget through the module list at the upper left of the page. After complete selection, the page will display the I/O channel list (or power meter) of the selected module, and then user can select the I/O channel (or power data) to be displayed through the Widget.

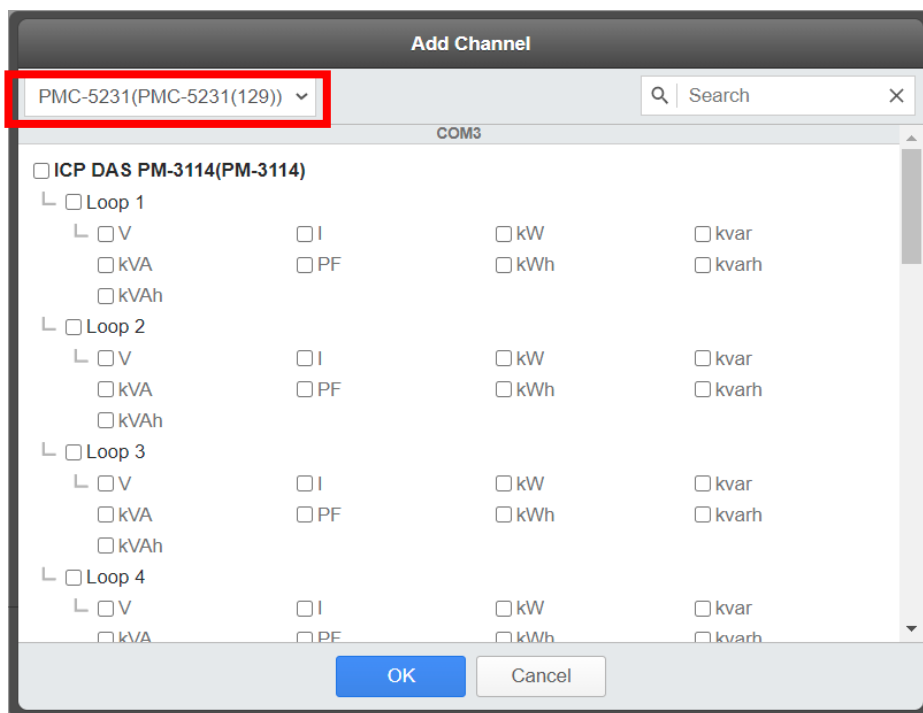
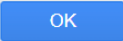


Figure 3-10: Channel Selection for Widget(1)

After selection, please click the "OK"  button.

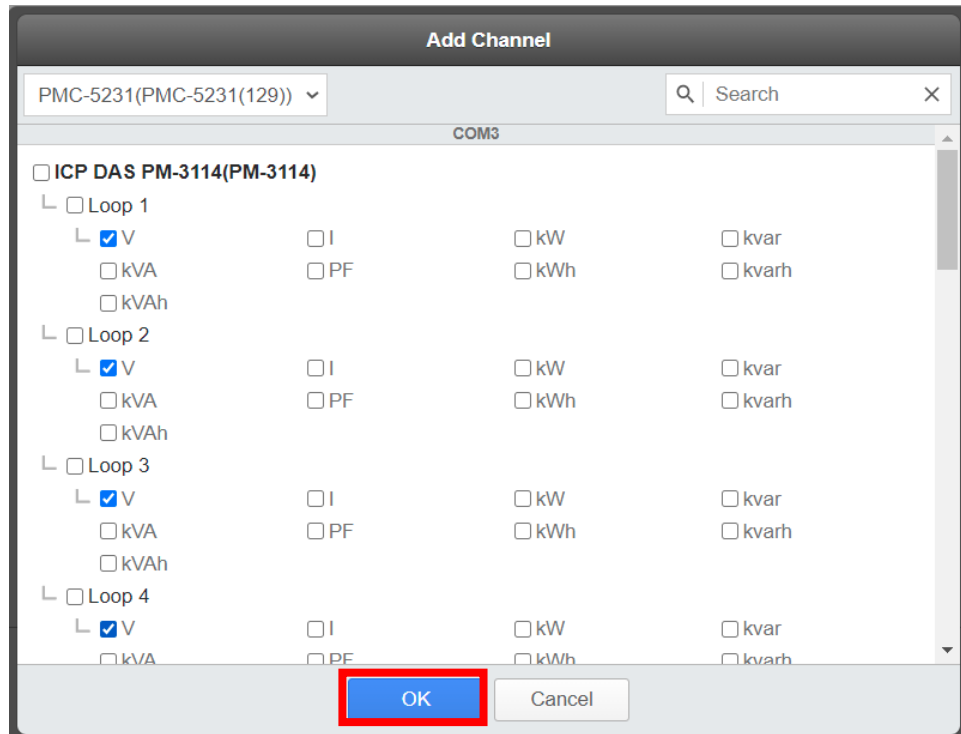



Figure 3-11: Channel Selection for Widget(2)

After selection, the "Channel" page will show the list of the I/O channels (or power data) currently bound to the Widget. If need, user can directly drag and drop the I/O channel (power data) in the list to adjust the arrangement of the I/O channels (power data) in the list. After complete the setting, please click the "Setting"  button on the right of the I/O channels (power data).

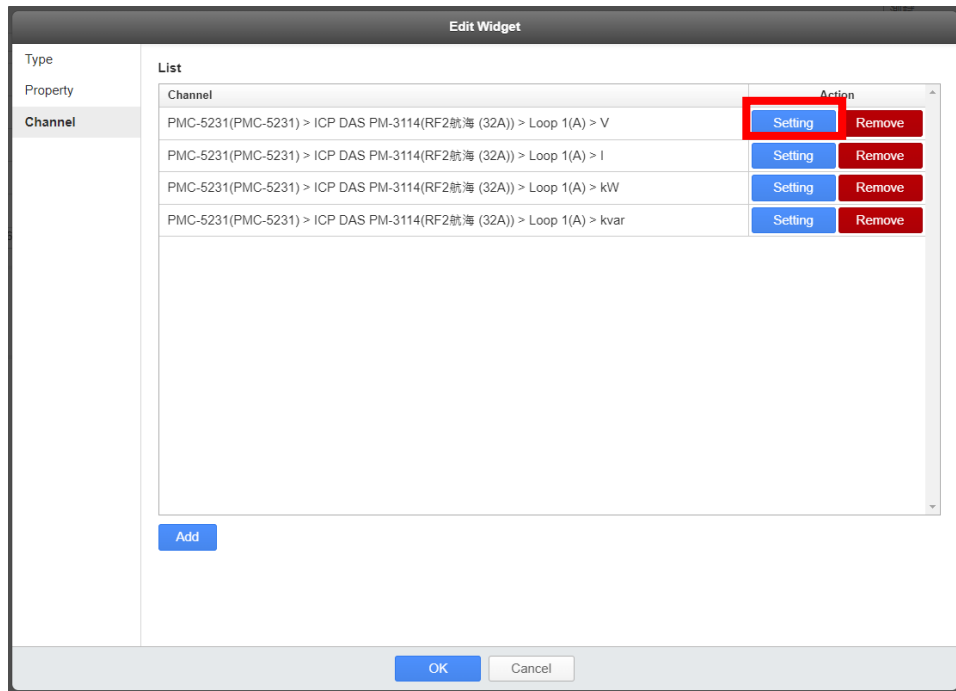




Figure 3-12: The Channel list bound with the Widget

- vi. After clicking the "Setting" button, system will enter the "Channel Setting" page, and user can click the "Browser" button in the "Icon" field to assign the corresponding icon file for this I/O channel (power data). In addition, user can also activate the "Dynamic Value Display" function for the I/O channel (power data). This function can dynamically adjust the color used for the value display or replace it with the specified corresponding text or picture according to the real-time value of the I/O channel (power data). To enable this function, please click the  button in the "Threshold" field to assign the threshold and its corresponding value display color (or text/picture to be used) for this I/O channel (power data). After complete the setting and system is running

status, if the real-time value of the I/O channel (power data) is greater than the threshold user assign, system will dynamically display the value of the I/O channel (power data) according to user's settings. However, if the real-time value of the I/O channel (power data) is not greater than any threshold user assign, system will apply the "Default" setting for the I/O channel (power data). Now if user complete the setting for the I/O channel (power data), please click the "OK"  button at the bottom of the page to return to the I/O channel (power data) list.

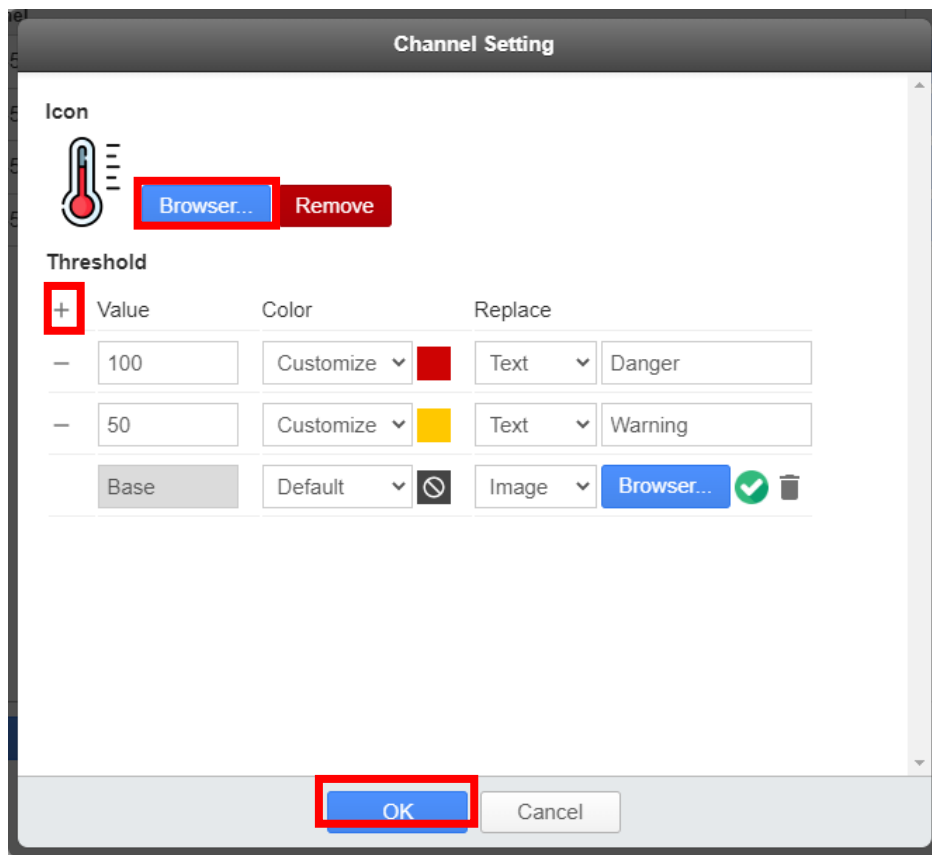



Figure 3-13: Channel Setting for Widget

- vii. After complete the I/O channel (or power data) setting, please click the "OK"  button at the bottom of the page, and the Widget will start to display the real-time data of the bound I/O channel (power data).

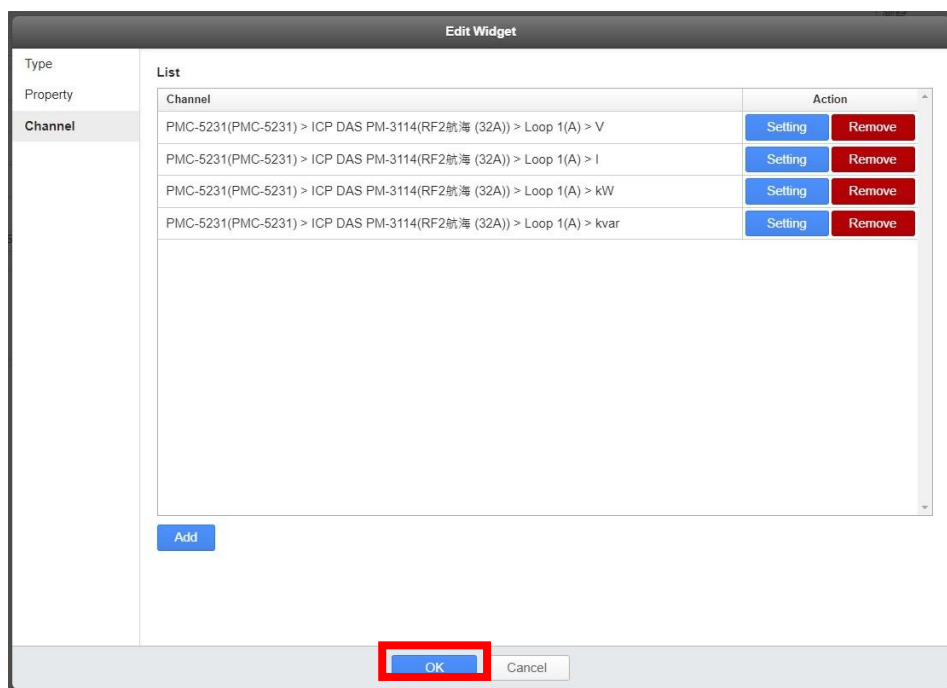


Figure 3-14: The Channel list bound with the Widget

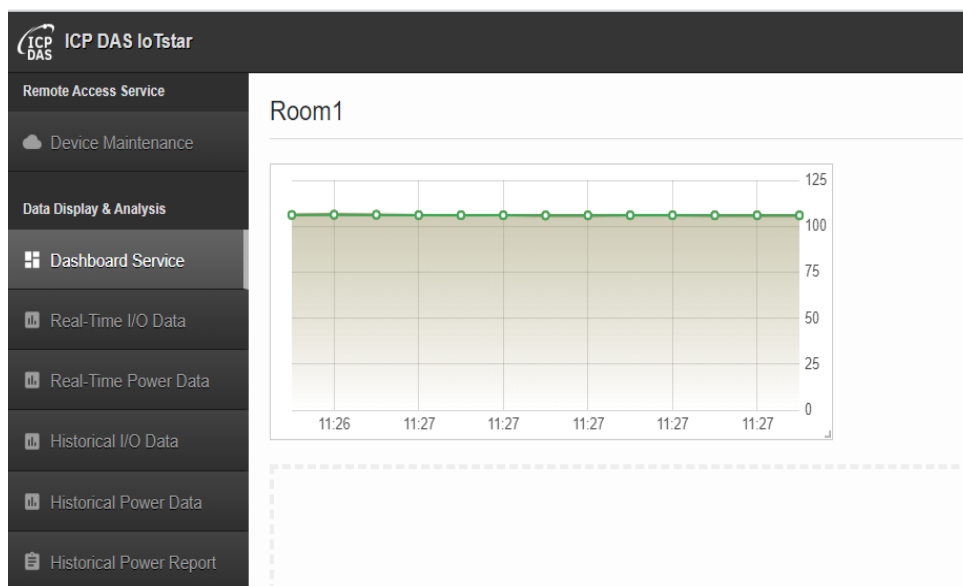
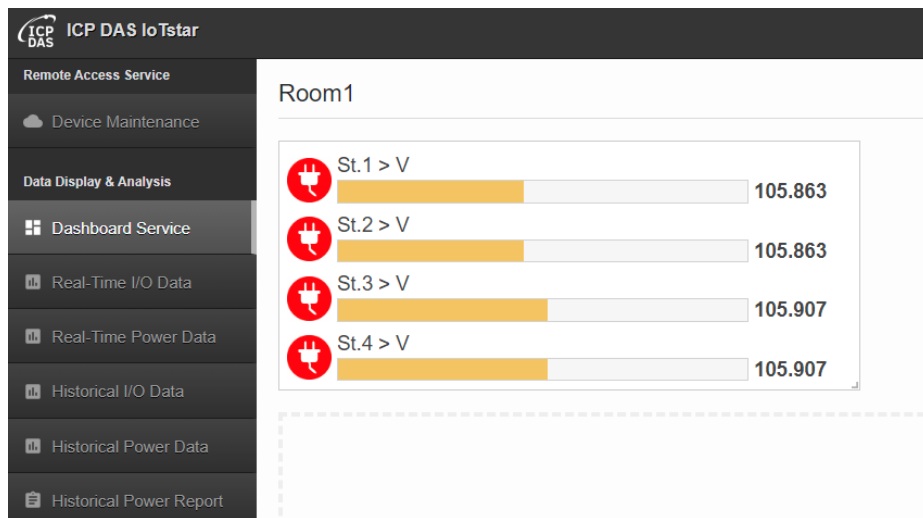


Figure 3-15: Data Display by Dashboard (Line Chart)




**Figure 3-16: Data Display by Dashboard (Plot Bar with Icon)**

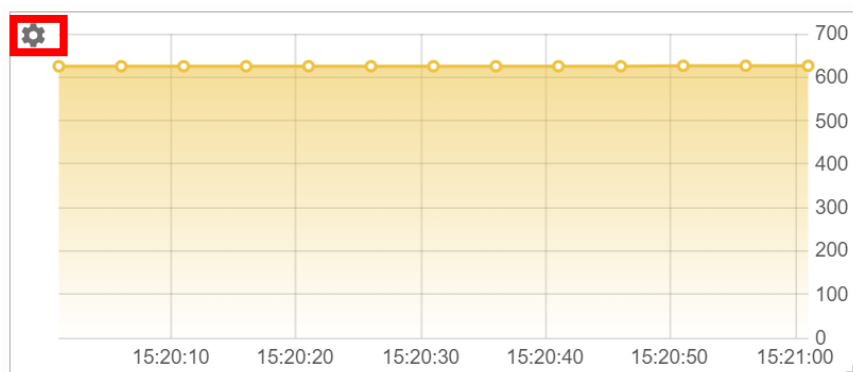
- viii. User can repeat the steps of "Step i~vi" to add the required Widgets to the Dashboard page in sequence.

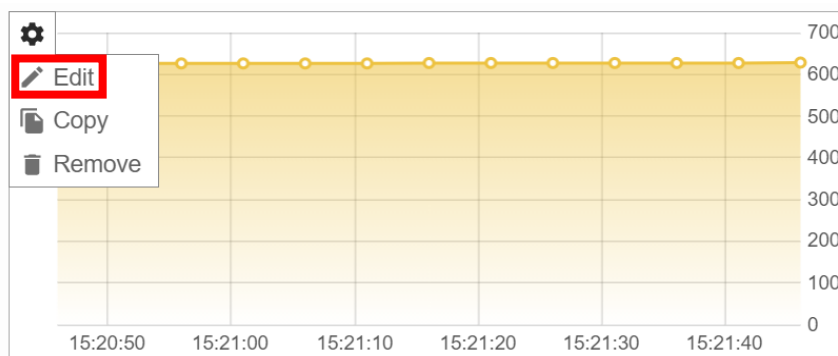
### 3.5 Change Widget Setting

If user needs to adjust the setting, location, size of Widget, or want to copy or delete the Widget from the Dashboard page, please refer to following information.

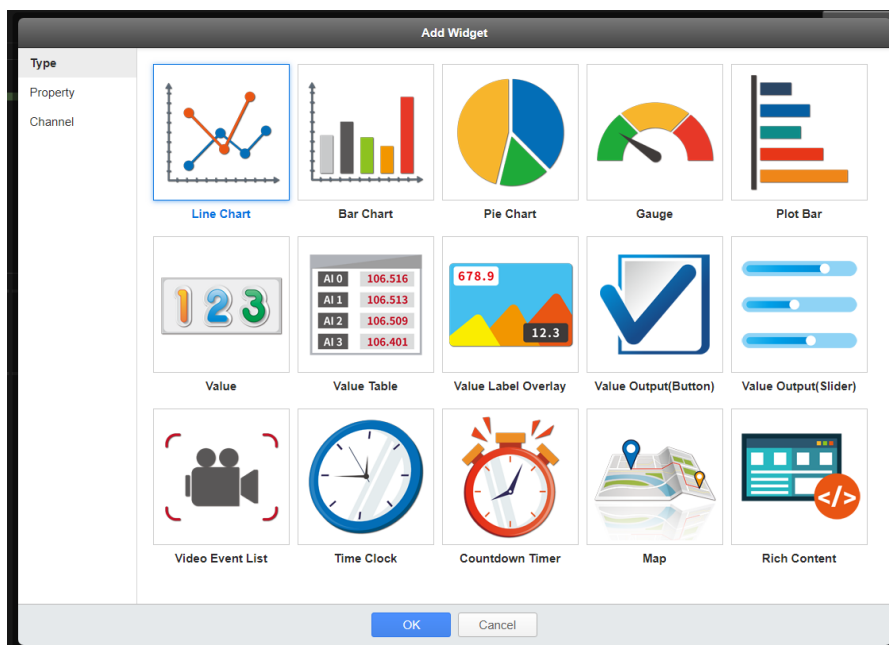
- Adjust Widget setting


Click the  button at the upper left of the Widget, then click the "Edit" button.

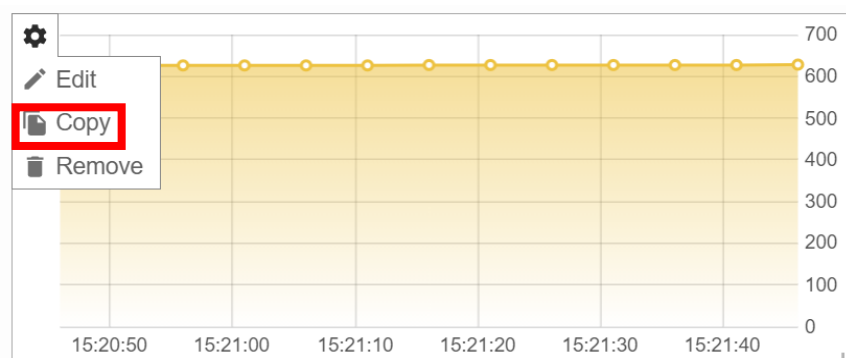
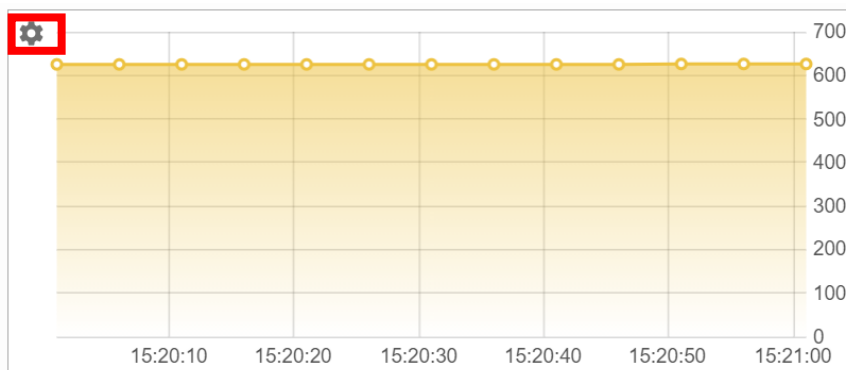




The "Edit Widget" window of the selected Widget will open. User can adjust the "Type", "Property" and "channel" settings of this Widget in sequence.




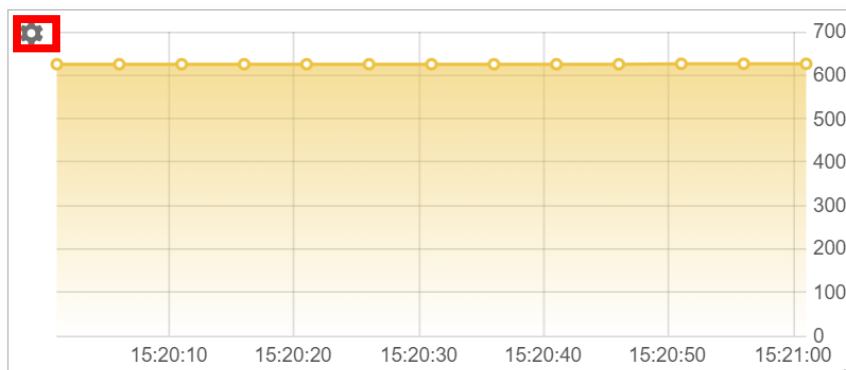
- Copy Widget  
Click the  button at the upper left of the Widget, then click the "Copy" button.



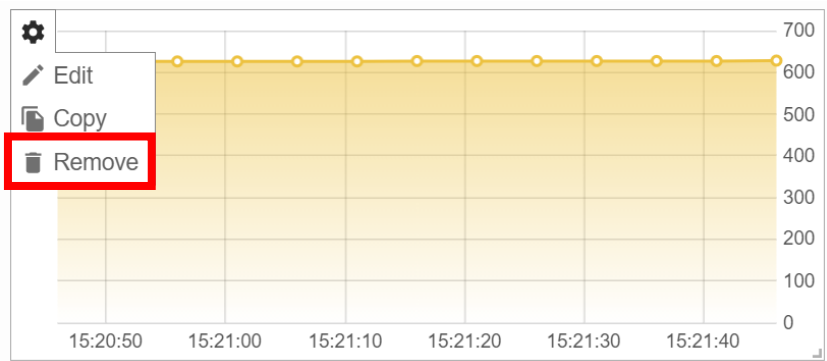
The system will create a new Widget with the same type as the selected Widget, and copy the settings from the selected Widget to the new Widget.

- Delete Widget

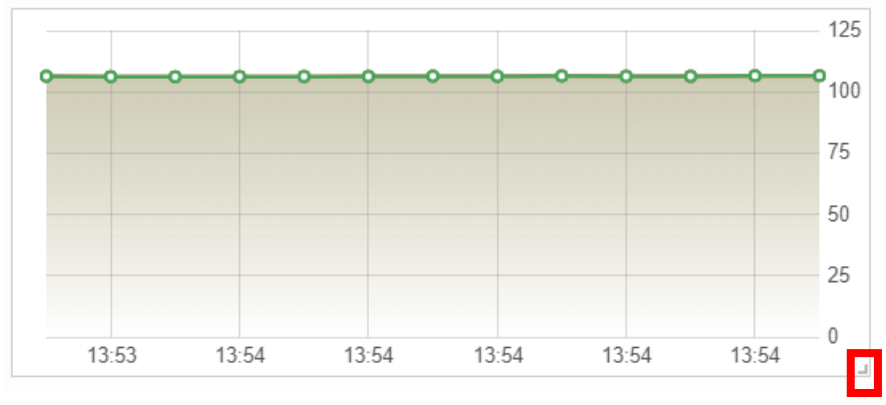
Click the  button at the upper left of the Widget, then click the "Remove" button to delete the Widget.








- Adjust Widget location  
 User can move the mouse to the top of the Widget, and drag the Widget by pressing the left button of the mouse to change the location of the Widget.
  
- Adjust Widget size  
 User can move the mouse to the lower right corner of Widget and drag the Widget by pressing the left button of the mouse to change the size of the Widget.




### 3.6 Dashboard Sharing Setting

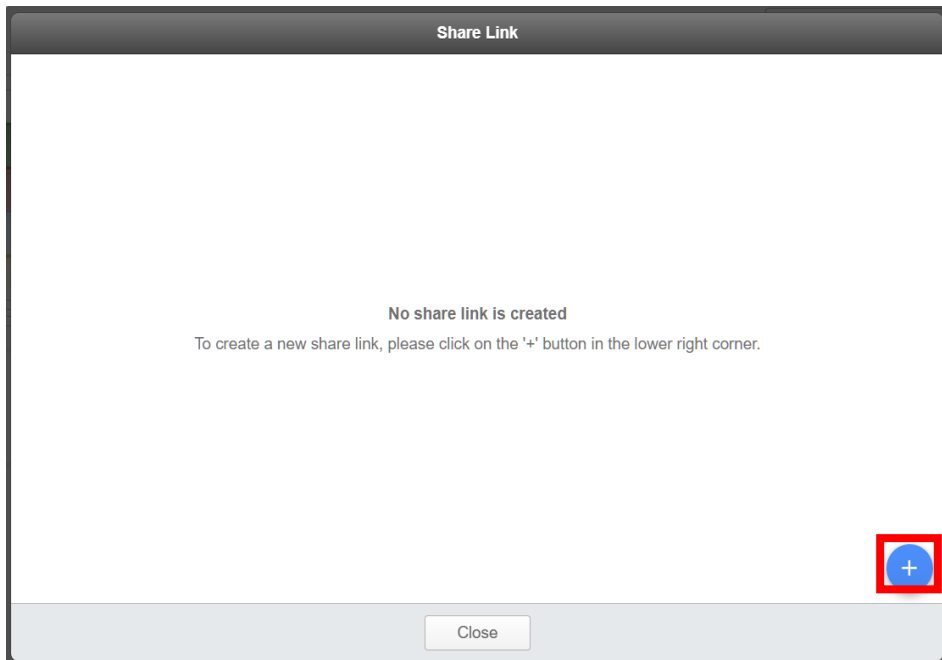
IoTstar provides the "Dashboard Sharing" function. After completing the setting, IoTstar will provide the URL link for the dashboard. User now only needs to open the web browser and key in the URL link to directly enter the dashboard and interact with it, instead of opening the dashboard by logging in IoTstar with the account information. About the setting of "Dashboard Sharing" function, please refer to the following steps:

Please note: IoTstar provide multiple sets of URL link for dashboard, and each URL link has its own setting which can share to users with different permissions to operate with the dashboard.

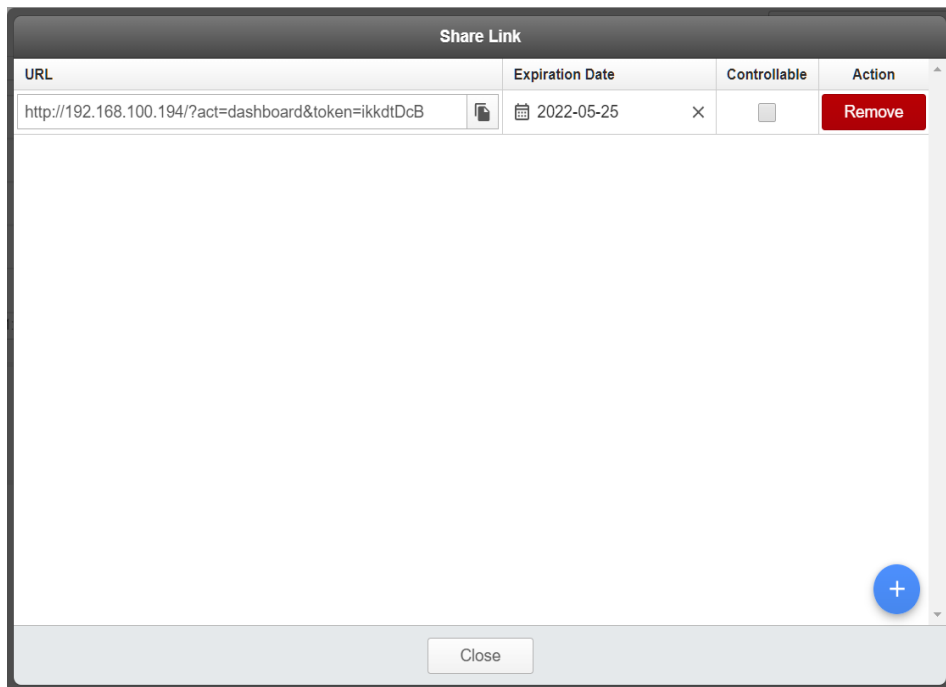
- i. Click the "Share  " button on the right of the Dashboard List to enter the "Share Link" setting page.





- ii. After entering the "Share Link" setting page, click the  button at the bottom right corner of the page to add the "Share link".

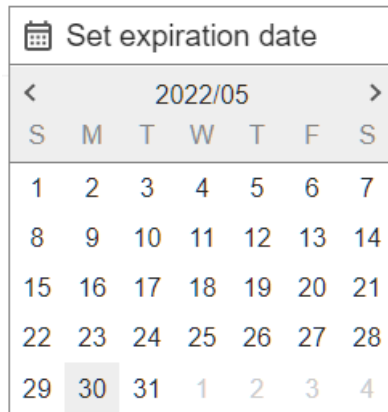


- iii. The "Share Link" page will display the setting of the newly added URL link. Following is the detail descriptions for each field of the setting.



**Figure 3-17: "Share Link" setting page**

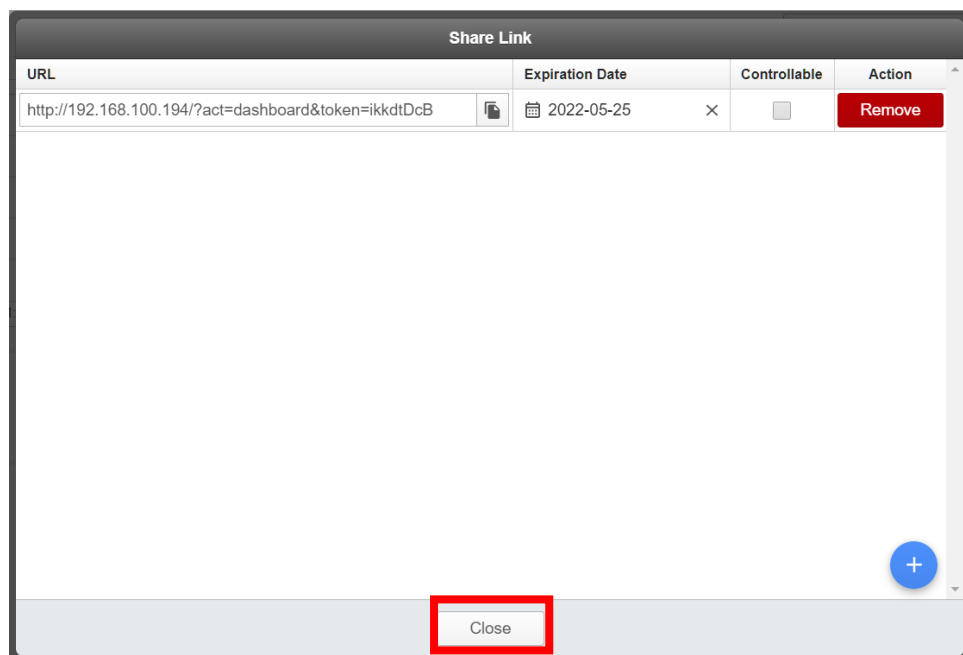
- **URL:** This field is used to display the URL link of the dashboard, users can directly open the web browser and key in the URL link to directly enter the dashboard page. The system provides a "Copy"  button next to the "URL" field, so user can copy the information of the URL link and save it. **Please note: The setting in the "URL" field is generated and provided by IoTstar. It cannot be edited or changed.**
- **Expiration Date:** This field is used to set up the expiration date of the URL link. After user clicks the  Set expiration date button, IoTstar will provide the calendar interface for user to set up the expiration date of the URL link.



Please note: The default setting of the expiration date is "No expiry date".

- Controllable: Checking the "Controllable" field means to enable the function of the "Value Output(Button)" and "Value Output(Slider)" widgets in the dashboards, otherwise it means to disable the function of "Value Output(Button)" and "Value Output(Slider)" widgets in the dashboards.
- Action: Click the "Remove" button to delete this URL link.

- iv. If there is the requirement for the setting of multiple sets of URL link, user can repeat "step ii~iii" to add others URL link in sequence.
- v. After completing all URL link settings, user can click the "Close" button at the bottom of the page to leave this page.



## 4 Widget Provided by IoTstar Dashboard Service

IoTstar Dashboard Service provide variety of Widgets for user to edit the Dashboard page for the display of real-time I/O channel data (or power data). For the description of the parameters of these Widgets, please refer to the following sections.

### 4.1 Line Chart

Line Chart can display the real-time I/O channel data (or power data) received by the Widget through the binding I/O channels (or power loop) according to the setting of "Data Retention" of the Dashboard. It provides an easy way for user to view the I/O channel data (or power data), and further more compare, analyze and observe the trend. Following is the description of



the parameters of Line Chart.

The screenshot shows the 'Add Widget' dialog box for a Line Chart. The dialog is divided into several sections:

- Title:** A text input field and a 'Size' dropdown menu set to '15px'.
- Description:** A text input field.
- Drawing:** A group of settings including:
  - Fill Opacity: 20%
  - Fill Gradient: Enable
  - Line Width: 2px
  - Point: Show
  - Stacking: Disable
- Legend:** Location: Disable
- Y-Axis:** Location: Right, Maximum: Auto, Minimum: Auto

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Figure 4-1: Parameter setting of Line Chart

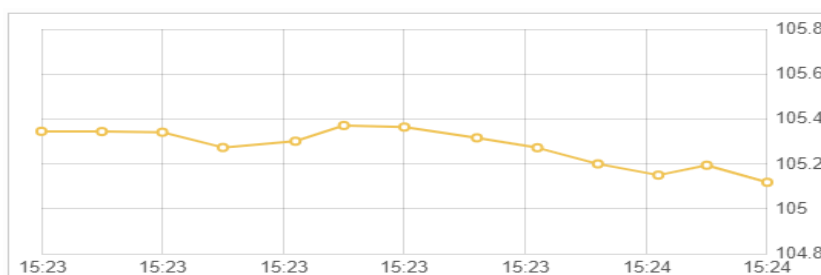
**Basic parameter**

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

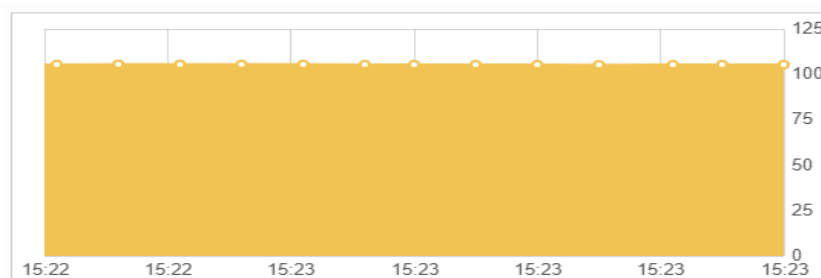
**Drawing parameter**

- Fill Opacity: For user to define the "Fill Opacity" for the Widget. There are 11 options: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100%.

➤ When "Fill Opacity" is 0%, the Widget is shown as below.

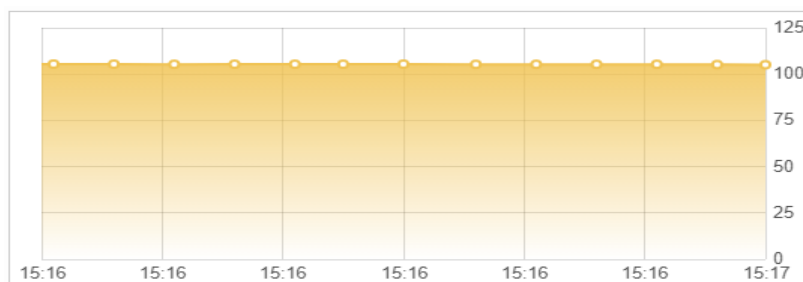


➤ When "Fill Opacity" is 100%, the Widget is shown as below.

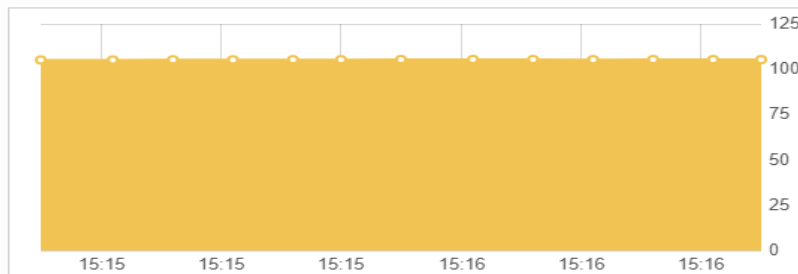


- Fill Gradient: For user to enable the "Fill Gradient" parameter of the Widget, or not.

➤ When "Fill Opacity" is 100% and enable "Fill Gradient", the Widget is shown as below.

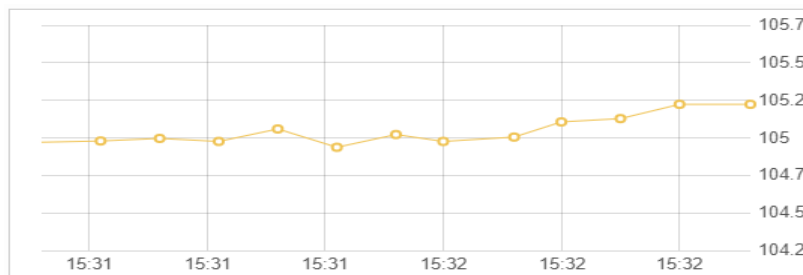


- When "Fill Opacity" is 100% and disable "Fill Gradient", the Widget is shown as below.

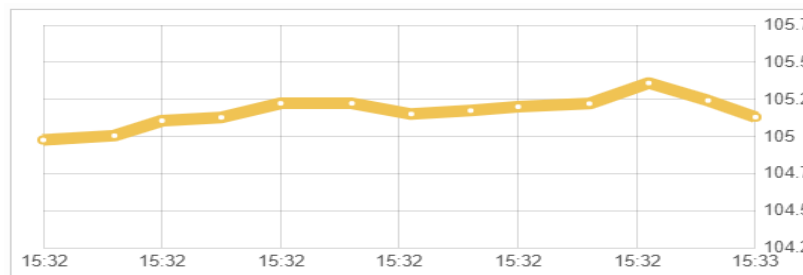


- Line Width: For user to set the line width of the Widget. There are 6 options: 0, 1, 2, 3, 5 and 10. The unit is Pixel(px).

- When " Line Width " is 1px, the Widget is shown as below.

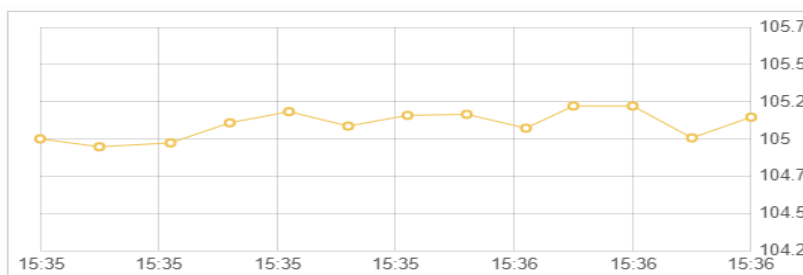


- When " Line Width " is 10px, the Widget is shown as below.

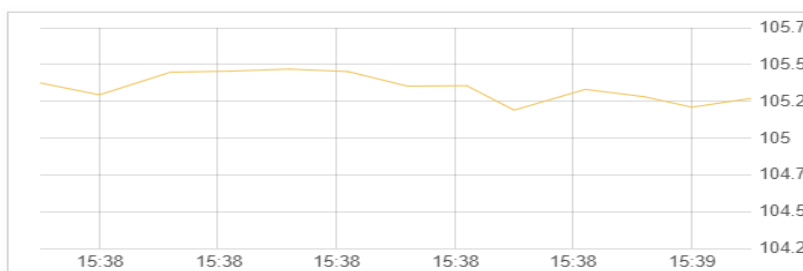


- Point: For user to set if the end points of the line segment of the Widget need to be shown, or not.

- Select "Show", the Widget is shown as below.

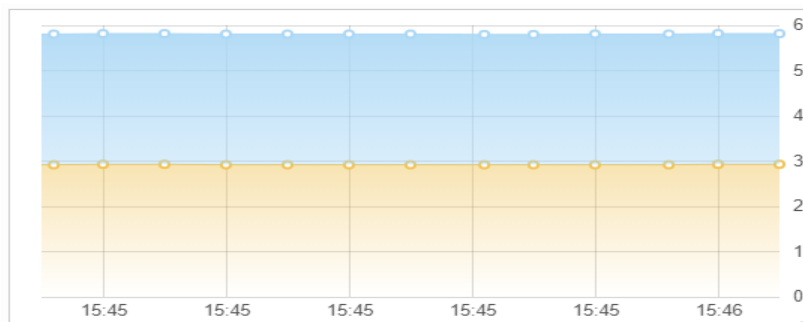


➤ Select "Hide", the Widget is shown as below.

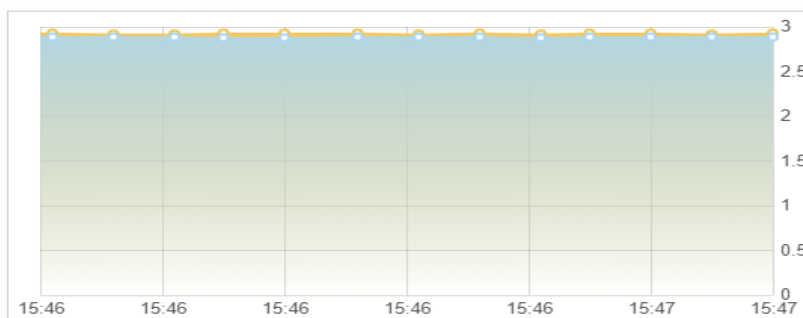


- Stacking: When the Widget is bound with multiple I/O channels (or power loops) at the same time, user can set the parameter to display the corresponding data of these I/O channels (or power loops) in the Stacking mode, or not.

➤ Select "Enable", the Widget is shown as below.



➤ Select "Disable", the Widget is shown as below.



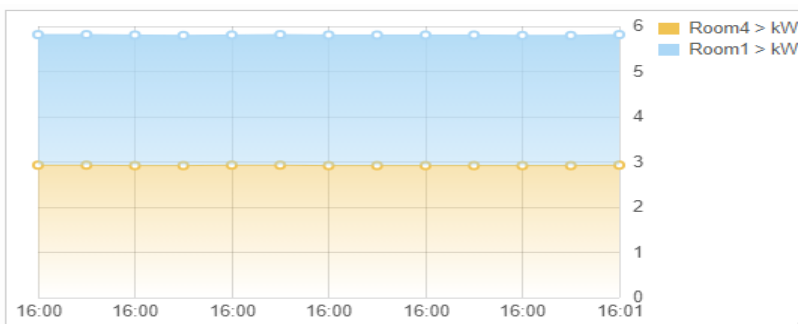


**Legend parameter**

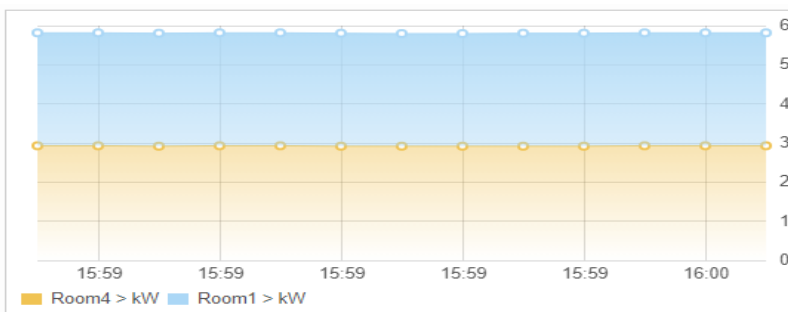
- Location: For user to define the location of the legend for the I/O channels (or power loops) bound to the Widget. If user select "Disable", the Widget will not show legend.

Please Note: Regarding the setting of legend for the corresponding I/O channel (or power loops), user can open the WISE/PMC/PMD Web page through the IoTstar's "Remote Access Service" to set up the name of the I/O channel of I/O modules (or the loop of power meters) which connect to WISE/PMC/PMD, and then download the new setting to WISE/PMC/PMD.

- Select "Right", the Widget is shown as below.

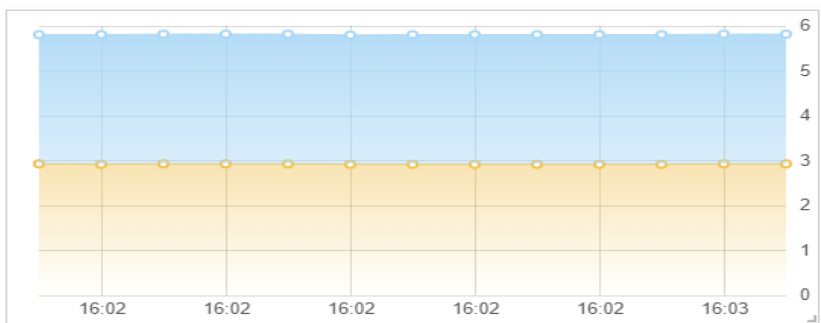


- Select "Bottom", the Widget is shown as below.

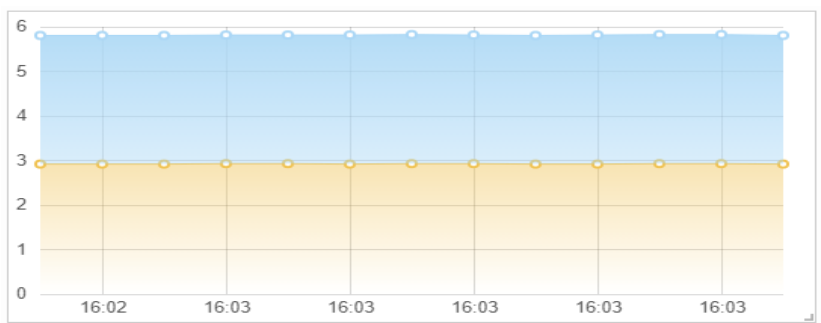


**Y-Axis parameter**

- Location: For user to define the location of the Y axis of the Widget.
  - Select "Right", the Widget is shown as below.



➤ Select "Left", the Widget is shown as below.



- **Maximum:** For user to define the maximum value of the Widget's Y axis. If there is no value be entered in this field, the maximum value of the Widget's Y-axis will be dynamically adjusted by the system.
- **Minimum:** For user to define the minimum value of the Widget's Y axis. If there is no value be entered in this field, the minimum value of the Widget's Y-axis will be dynamically adjusted by the system.

#### 4.2 Bar Chart

Bar Chart can display the real-time I/O channel data (or power data) received by the Widget through the binding I/O channels (or power loops) according to the setting of "Data Retention" of the Dashboard. It provides an easy way for user to view the I/O channel data (or power data), and further more compare, analyze and observe the trend. Following is the description of the

parameter of Bar Chart.



The screenshot shows the 'Add Widget' configuration window. It includes a sidebar on the left with 'Type', 'Property', and 'Channel' sections. The main configuration area contains the following fields and options:

- Title:** A text input field.
- Size:** A dropdown menu set to '15px'.
- Description:** A large text area for a brief description.
- Drawing:**
  - Fill Opacity: 20%
  - Fill Gradient: Enable
  - Line Width: 2px
  - Stacking: Disable
- Legend:**
  - Location: Disable
- Y-Axis:**
  - Location: Right
  - Maximum: Auto
  - Minimum: Auto

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

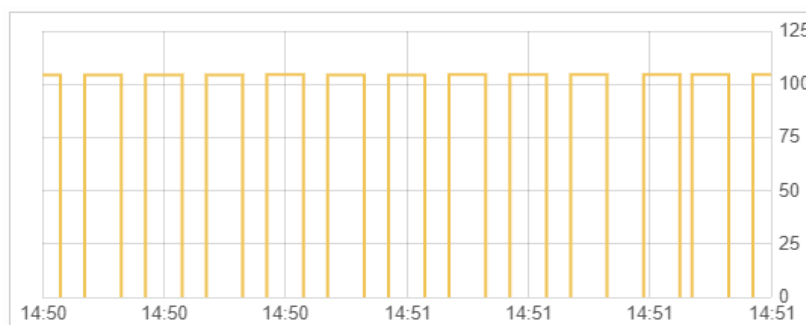
Figure 4-2: Parameter setting of Bar Chart

### Basic parameter

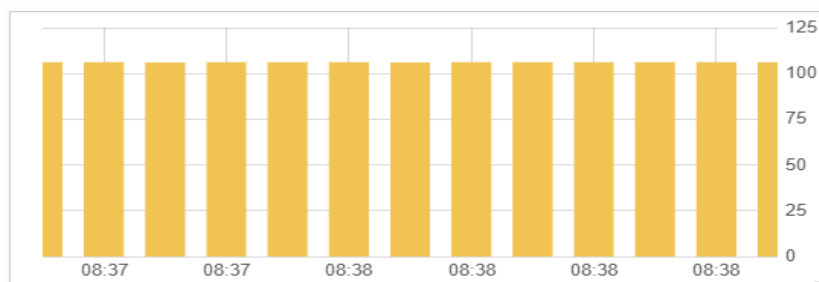
- **Title:** For user to define the name of the Widget and its size.
- **Description:** This field provides a space for the user to make a brief description of this Widget.

### Drawing parameter

- **Fill Opacity:** For user to define the "Fill Opacity" for the Widget. There are 11 options: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100%.
  - When "Fill Opacity" is 0%, the Widget is shown as below.

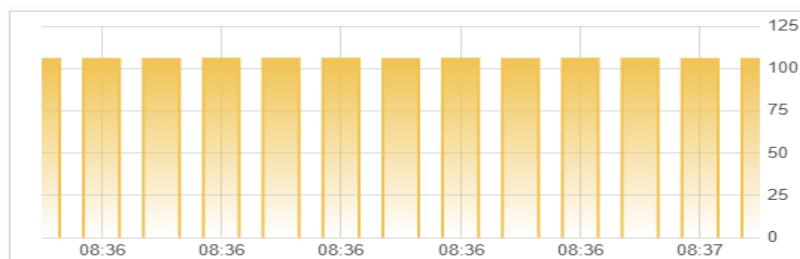


➤ When "Fill Opacity" is 100%, the Widget is shown as below.

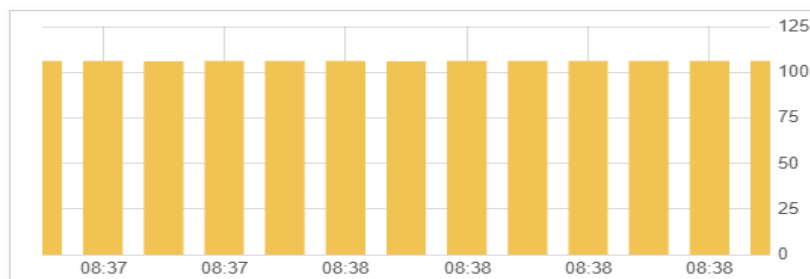


● Fill Gradient: For user to enable the "Fill Gradient" parameter of the Widget, or not.

➤ When "Fill Opacity" is 100% and enable "Fill Gradient", the Widget is shown as below.

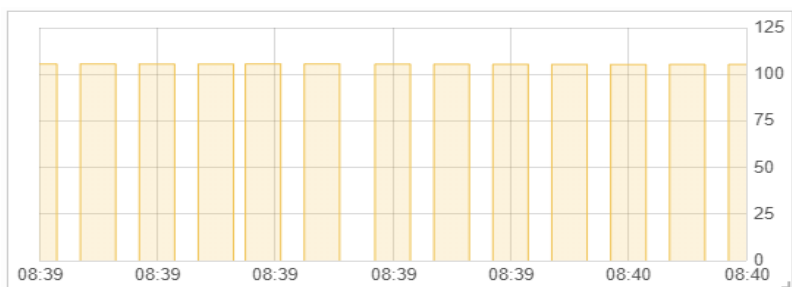


➤ When "Fill Opacity" is 100% and disable "Fill Gradient", the Widget is shown as below.

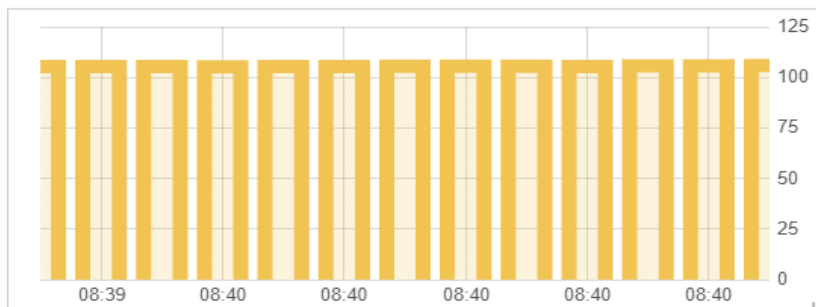


● Line Width: For user to define the line width of the Widget. There are 6 options: 0, 1, 2, 3, 5 and 10. The unit is Pixel(px).

➤ When " Line Width " is 1px, the Widget is shown as below.

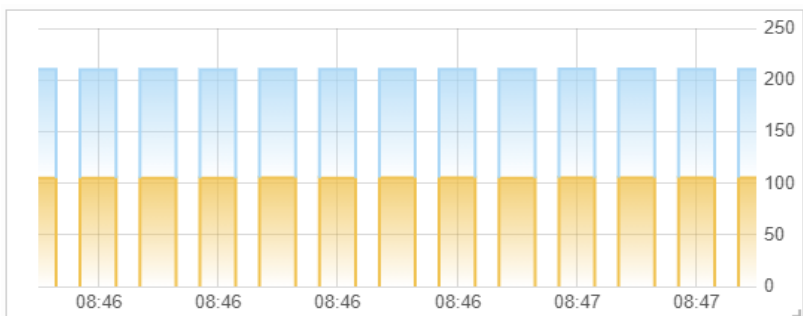


➤ When " Line Width " is 10px, the Widget is shown as below.

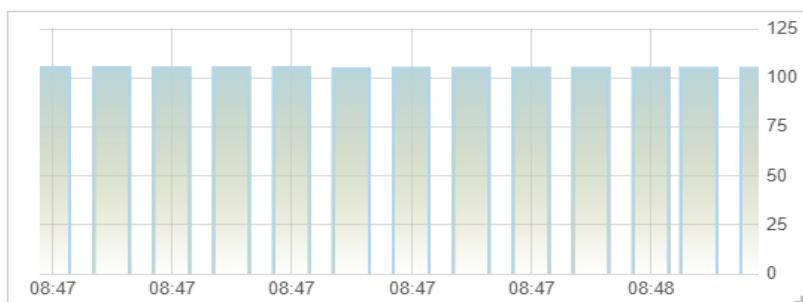


- Stacking: When the Widget is bound with multiple I/O channels (or power loops) at the same time, user can set the parameter to display the corresponding data of these I/O channels (or power loops) in the Stacking mode, or not.

➤ Select "Enable", the Widget is shown as below.



➤ Select "Disable", the Widget is shown as below.

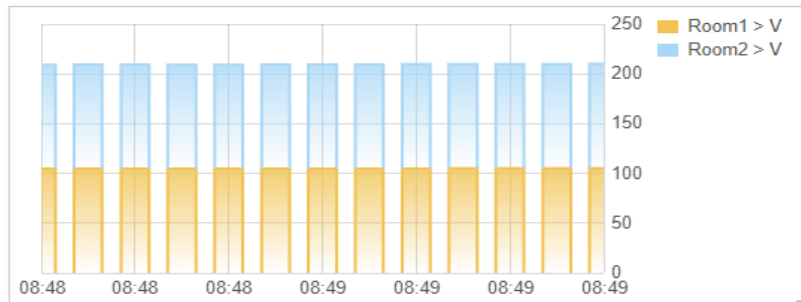


### Legend parameter

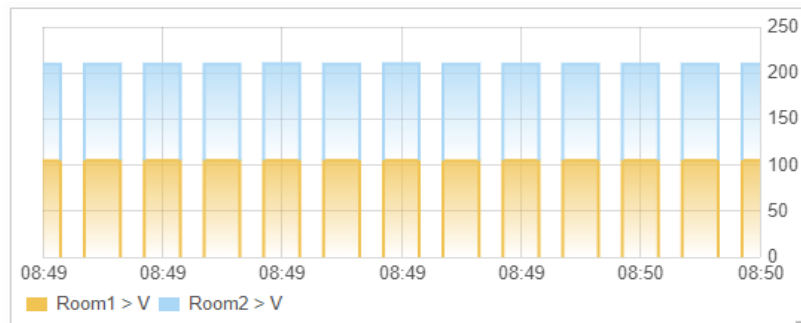
- Location: For user to define the location of the legend for the I/O channel (or power loop) bound to the Widget. If user select "Disable", the Widget will not show legend.

Please Note: Regarding the setting of legend for the corresponding I/O channel (or power loop), user can open the WISE/PMC/PMD Web page through the IoTstar's "Remote Access Service" to set up the name of the I/O channel of I/O modules (or the loop of power meters) which connect to WISE/PMC/PMD, and then download the new setting to WISE/PMC/PMD.

➤ Select "Right", the Widget is shown as below.

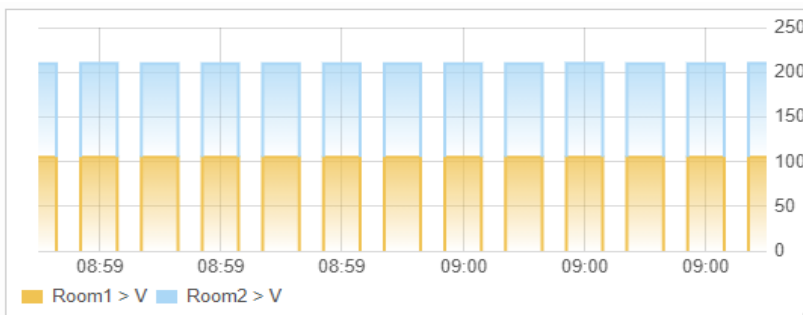


➤ Select "Bottom", the Widget is shown as below.

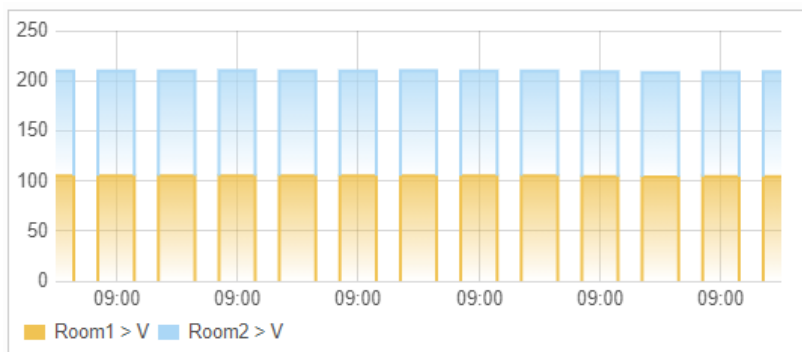


### Y-Axis parameter

- Location: For user to define the location of the Y axis of the Widget.
  - Select "Right", the Widget is shown as below.



➤ Select "Left", the Widget is shown as below.



- **Maximum:** For user to define the maximum value of the Widget's Y axis. If there is no value be entered in this field, the maximum value of the Widget's Y-axis will be dynamically adjusted by the system.
- **Minimum:** For user to define the minimum value of the Widget's Y axis. If there is no value be entered in this field, the minimum value of the Widget's Y-axis will be dynamically adjusted by the system.

### 4.3 Pie Chart

Pie Chart can receive the real-time I/O channel data (or power data) through the binding I/O channels (or power loops), and calculate the percentage of the total amount of each I/O channel data (or power data) in the Pie format. It provides an easy way for user to view the relationship between each I/O channel data (or power data). Following is the description of the parameter of



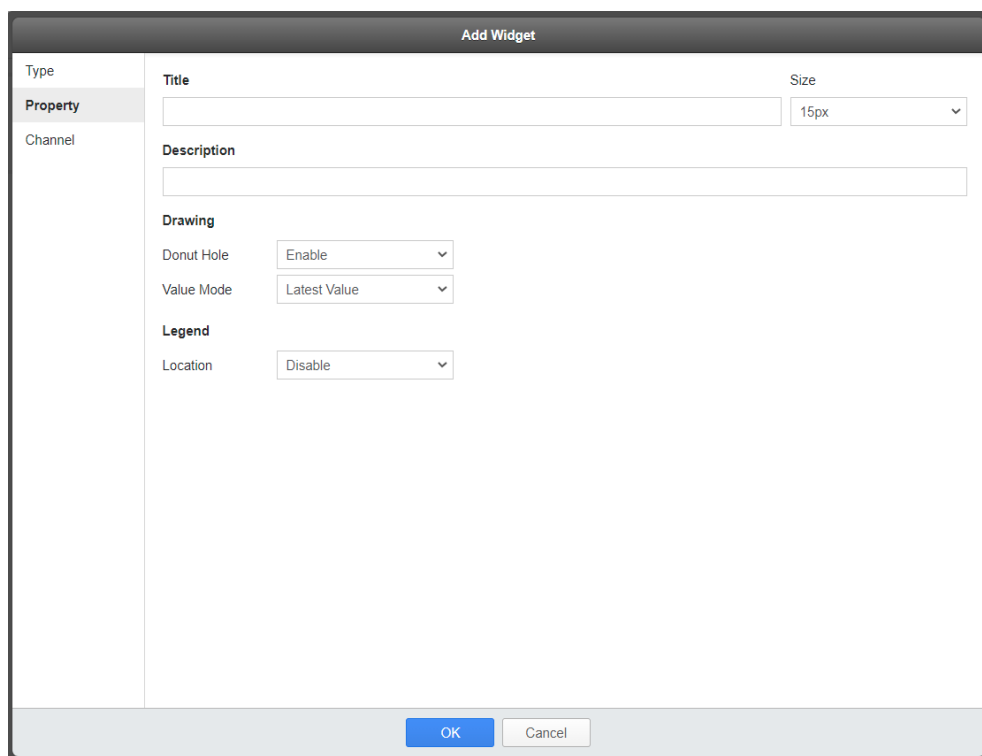


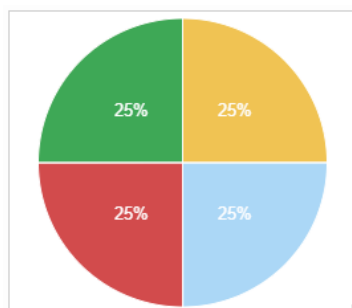
Figure 4-3: Parameter setting of Pie Chart

**Basic parameter**

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

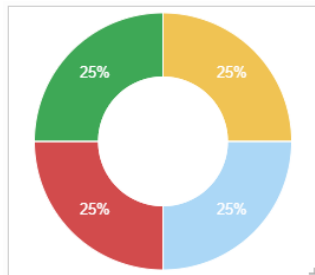
**Drawing parameter**

- Donut Hole: For user to define whether the Widget is hollow, or not.
  - When disable the "Donut Hole" setting, the Widget is shown as below.





- When enable the "Donut Hole" setting, the Widget is shown as below.



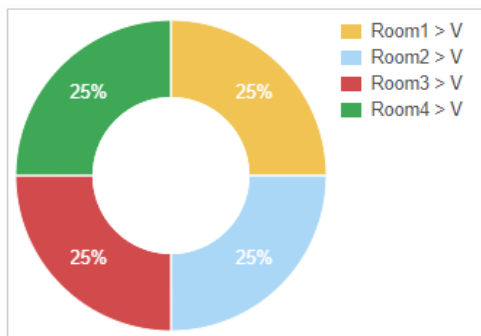
- Value Mode: For user to define the "Value Calculation" mode of the Widget.
  - When set to "Average Value", the Widget will be set according to the "Data Retention" setting of Dashboard, and dynamically calculate the average I/O channel data (or power data) of each binding I/O channel (or power loop), and then use these average value to calculate the percentage of the total amount of each I/O channel data (or power data).
  - When set to "Latest Value", the Widget will use the latest I/O channel data (or power data) of each binding I/O channel (or power loop) to calculate the percentage of the total amount of each I/O channel data (or power data).

### Legend parameter

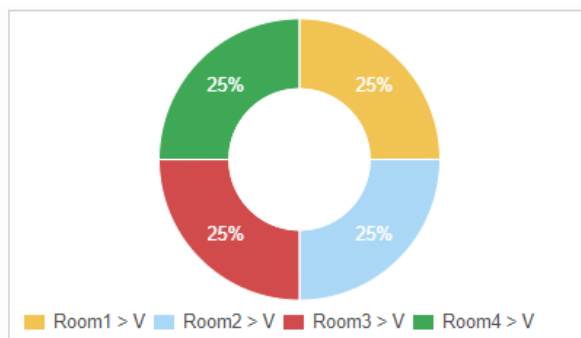
- Location: For user to define the location of the legend for the I/O channel (or power loop) bound to the Widget. If user select "Disable", the Widget will not show legend.

**Please Note:** Regarding the setting of legend for the corresponding I/O channel (or power loop), user can open the WISE/PMC/PMD Web page through the IoTstar's "Remote Access Service" to set up the name of the I/O channel of I/O modules (or the loop of power meters) which connect to WISE/PMC/PMD, and then download the new setting to WISE/PMC/PMD.

➤ Select "Right", the Widget is shown as below.



➤ Select "Bottom", the Widget is shown as below.



#### 4.4 Gauge

Gauge can display the real-time I/O channel data (or power data) through the binding I/O channels (or power loop). It also provides the setting of

Threshold. Following is the description of the parameter of Gauge.



The screenshot shows the 'Add Widget' configuration window. On the left, a sidebar lists 'Type', 'Property', and 'Channel'. The main configuration area includes:

- Title:** A text input field.
- Size:** A dropdown menu currently set to '15px'.
- Description:** A large text area for a brief description.
- Drawing:**
  - Value Mode:** A dropdown menu set to 'Latest Value'.
  - Marker:** A dropdown menu set to 'Enable'.
- Threshold:**
  - Minimum:** A text input field with '0'.
  - Color 1:** A color selection dropdown menu set to 'Green'.
  - Threshold 1:** A text input field with '50'.
  - Color 2:** A color selection dropdown menu set to 'Yellow'.
  - Threshold 2:** A text input field with '80'.
  - Color 3:** A color selection dropdown menu set to 'Red'.
  - Maximum:** A text input field with '100'.

At the bottom, there are 'OK' and 'Cancel' buttons.

Figure 4-4: Parameter setting of Gauge

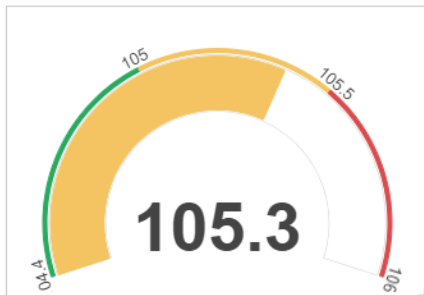
### Basic parameter

- **Title:** For user to define the name of the Widget and its size.
- **Description:** This field provides a space for the user to make a brief description of this Widget.

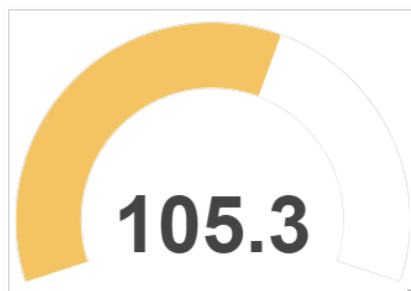
### Drawing parameter

- **Value Mode:** For user to define the "Value Calculation" mode of the Widget.
  - When set to "Average Value", the Widget will be set according to the "Data Retention" setting of Dashboard, and dynamically calculate the average I/O channel data (or power data) of each binding I/O channel (or power loop), and then use these average value to calculate the percentage of the total amount of each I/O channel data (or power data).
  - When set to "Latest Value", the Widget will use the latest I/O channel data (or power data) of each binding I/O channel (or power loop) to calculate the percentage of the total amount of each I/O channel data (or power data).

- **Marker:** For user to define whether the "Marker" of the Widget be shown, or not.
  - If it is "Enable", the Widget will show the "Marker" based on the setting of the "Threshold" section. The Widget is shown as below.



- If it is "Disable", The Widget is shown as below.



### Threshold parameter

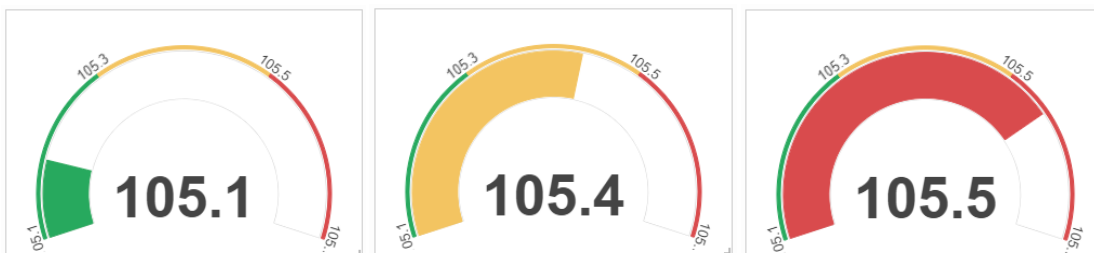
The Widget provides the Threshold function, user can set three threshold intervals and the corresponding colors for the function. When the I/O channel data (or power data) which the Widget receive belongs to a Threshold interval, the corresponding color of the Threshold interval will be used for drawing.

- **Minimum:** For user to set the minimum value of the Widget's Marker.
- **Color 1:** For user to define the corresponding color of the "Threshold interval 1" (Value between "Minimum ~ Threshold 1").
- **Threshold 1:** For user to define the value of "Threshold 1".
- **Color 2:** For user to define the corresponding color of the "Threshold interval 2" (Value between "Threshold 1 ~ Threshold 2").
- **Threshold 2:** For user to define the value of "Threshold 2".
- **Color 3:** For user to define the corresponding color of the "Threshold

interval 3" (Value between "Threshold 3 ~ Maximum").

- Maximum: For user to set the maximum value of the Widget's Marker.

After enable "Marker", and complete the Threshold setting, the Widget is shown as below.



#### 4.5 Plot Bar

Plot Bar can display the real-time I/O channel data (or power data) through the binding I/O channels (or power loop). Following is the description of the



parameter of Plot Bar.





Figure 4-5: Parameter setting of Plot Bar

**Basic parameter**

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

**Drawing parameter**

- Value Mode: For user to define the "Value Calculation" mode of the Widget.
  - When set to "Average Value", the Widget will be set according to the "Data Retention" setting of Dashboard, and dynamically calculate the average I/O channel data (or power data) of each binding I/O channel (or power loop), and then use these average value to calculate the percentage of the total amount of each I/O channel data (or power data).
  - When set to "Latest Value", the Widget will use the latest I/O channel data (or power data) of each binding I/O channel (or power loop) to calculate the percentage of the total amount of each I/O channel data (or power data).
- Icon: User can set up whether the I/O channel (or power value) bound with this component needs to display the "Icon" file, or not.
  - If it is "Enable", and the I/O channel (or power value) bound with an icon file. The Widget is shown as below.

Channel	Value
 St.1 > V	104.638 V
 St.2 > V	104.638 V
 St.3 > V	104.711 V
 St.4 > V	104.711 V

- If it is "Disable", the Widget is shown as below.

St.1 > V	 106.655 V
St.2 > V	 106.655 V
St.3 > V	 106.7 V
St.4 > V	 106.7 V

Please Note: This Widget provide the unit display function for the I/O channel data (or power data). About the unit of power data, it is provided by IoTstar. About the unit of I/O channel data, user can open the WISE Web page through the IoTstar's "Remote Access Service" to set up the unit of the I/O channel of I/O modules which connect to WISE, and then download the new setting to WISE.

#### 4.6 Value

Value Widget can display the real-time I/O channel data (or power data) through the binding I/O channels (or power loop). Following is the



description of the parameter of Value Widget.

The screenshot shows the 'Add Widget' configuration window. On the left, there is a sidebar with 'Type', 'Property', and 'Channel' sections. The main configuration area includes a 'Title' text input field, a 'Size' dropdown menu currently set to '15px', a 'Description' text area, and a 'Drawing' section with two dropdowns: 'Fill Opacity' set to '20%' and 'Fill Gradient' set to 'Enable'. At the bottom of the window are 'OK' and 'Cancel' buttons.

Figure 4-6: Parameter setting of Value Widget

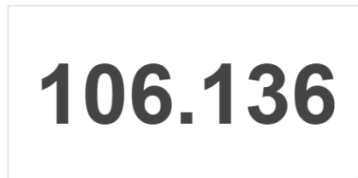
##### Basic parameter

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

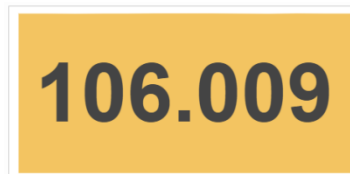
### Drawing parameter

- **Fill Opacity:** For user to define the "Fill Opacity" for the Widget. There are 11 options: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100%.

➤ When "Fill Opacity" is 0%, the Widget is shown as below.

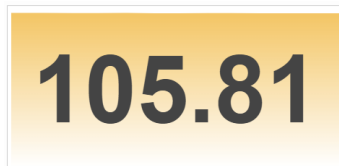


➤ When "Fill Opacity" is 0%, the Widget is shown as below.

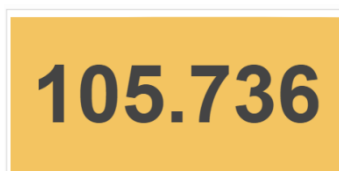


- **Fill Gradient:** For user to enable the "Fill Gradient" parameter of the Widget, or not.

➤ When "Fill Opacity" is 100% and enable "Fill Gradient", the Widget is shown as below.



➤ When "Fill Opacity" is 100% and disable "Fill Gradient", the Widget is shown as below.



## 4.7 Value Table

Different from the Value Widget which can only display single I/O channel data (or power data), the Value Table can display multiple I/O channels (or



power data) in the Table format. It is convenient for user to compare the multiple I/O channel data (or power data) at the same time. Following is the

description of the parameter of Value Table.







Figure 4-7: Parameter setting of Value Table

### Basic parameter

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

### Drawing parameter

- Icon: User can set up whether the I/O channel (or power value) bound with this component needs to display the "Icon" file, or not.
  - If it is "Enable", and the I/O channel (or power value) bound with an icon file. The Widget is shown as below.

Channel	Value
 St.1 > V	104.638 V
 St.2 > V	104.638 V
 St.3 > V	104.711 V
 St.4 > V	104.711 V


➤ If it is "Disable", the Widget is shown as below.

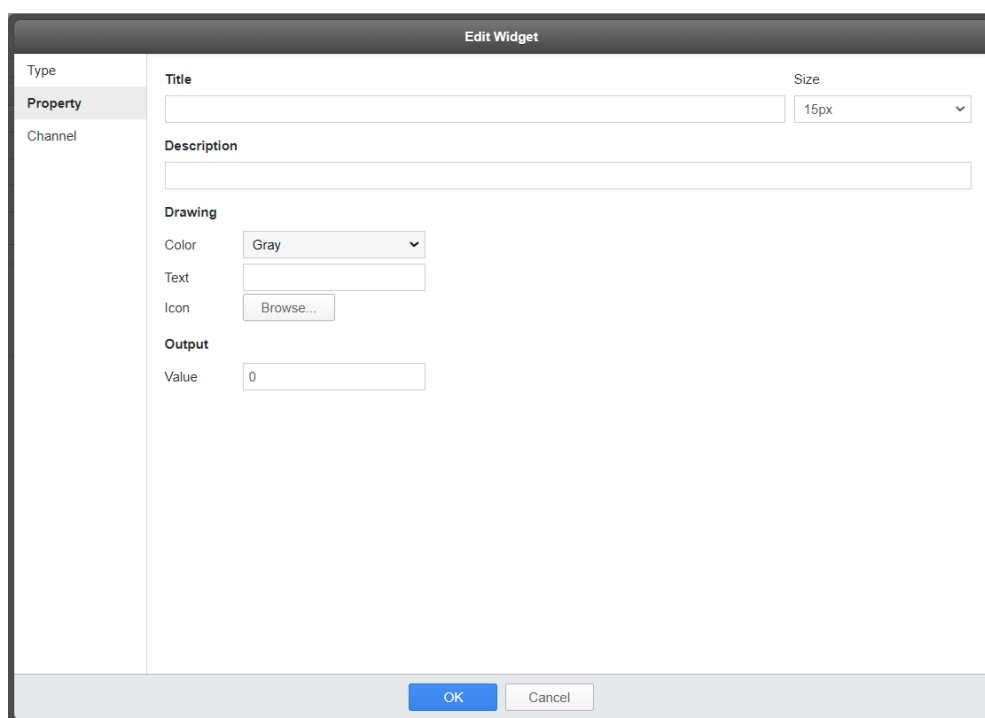
Channel	Value
St.1 > V	104.638 V
St.2 > V	104.638 V
St.3 > V	104.711 V
St.4 > V	104.711 V

Please Note: This Widget provide the unit display function for the I/O channel data (or power data). About the unit of power data, it is provided by IoTstar. About the unit of I/O channel data, user can open the WISE Web page through the IoTstar's "Remote Access Service" to set up the unit of the I/O channel of I/O modules which connect to WISE, and then download the new setting to WISE.

#### 4.8 Value Output(Button)

The Value Output(Button) Widget can be used to set up the output value of the DO/AO channel of I/O module connected to WISE/PMC/PMD, or the value of Internal Register of WISE/PMC/PMD by clicking the button. When user changes the value of the DO/AO channel or Internal Register through the Widget, the command will be transmitted to WISE/PMC/PMD through IoTstar. After WISE/PMC/PMD receive the command, WISE/PMC/PMD will execute the corresponding actions to change the output value of the DO/AO channel of the I/O module or the value of the WISE/PMC/PMD Internal Register. Following is the description of the

parameter of Value Output(Button) Widget. 



**Figure 4-8: Parameter setting of Value Output(Button) Widget**

### **Basic parameter**

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

### **Drawing parameter**

- Color: For user to set color of the Widget, it provides three colors (Gray, Blue, Red) for selection.
- Text: For user to set the text will be shown by the Widget.
- Icon: For user to set the icon will be shown by the Widget.

### **Output parameter**

- Value: For user to set the output value of the Widget.

Following is an example to change the Internal Register value of PMC by 2 Value Output(Button) Widgets. One is naming as "Door Close", the other is naming as "Door Open".

- The setting of "Door Close" Widget.

**Drawing**

Color: Blue ▼

Text:

Icon:

**Output**

Value:

Channel	Action
PMC-5231(PMC-5231(129)) > Internal Register > Internal Register 1	<span style="background-color: red; color: white; padding: 2px;">Remove</span>

- The setting of "Door Open " Widget.

**Drawing**

Color: Red ▼

Text:

Icon:

**Output**

Value:

Channel	Action
PMC-5231(PMC-5231(129)) > Internal Register > Internal Register 1	<span style="background-color: red; color: white; padding: 2px;">Remove</span>

- When user clicks on "Door Close" Widget, the Internal Register value of PMC will be change to 0.



- When user clicks on "Door Open" Widget, the Internal Register value of PMC will be change to 1.



#### 4.9 Value Output(Slider)

The Value Output(Slider) Widget can be used to dynamically set up the value of the DO/AO channel of I/O module connected to WISE/PMC/PMD, or the value of Internal Register of WISE/PMC/PMD by moving the round point of the slider. When user changes the value of the DO/AO channel or Internal Register through the Widget, the command will be transmitted to WISE/PMC/PMD through IoTstar. After WISE/PMC/PMD receive the command, WISE/PMC/PMD will execute the corresponding actions to change the value of the DO/AO channel of the I/O module or the value of the WISE/PMC/PMD Internal Register. Following is the description of the

parameter of Value Output(Slider) Widget.

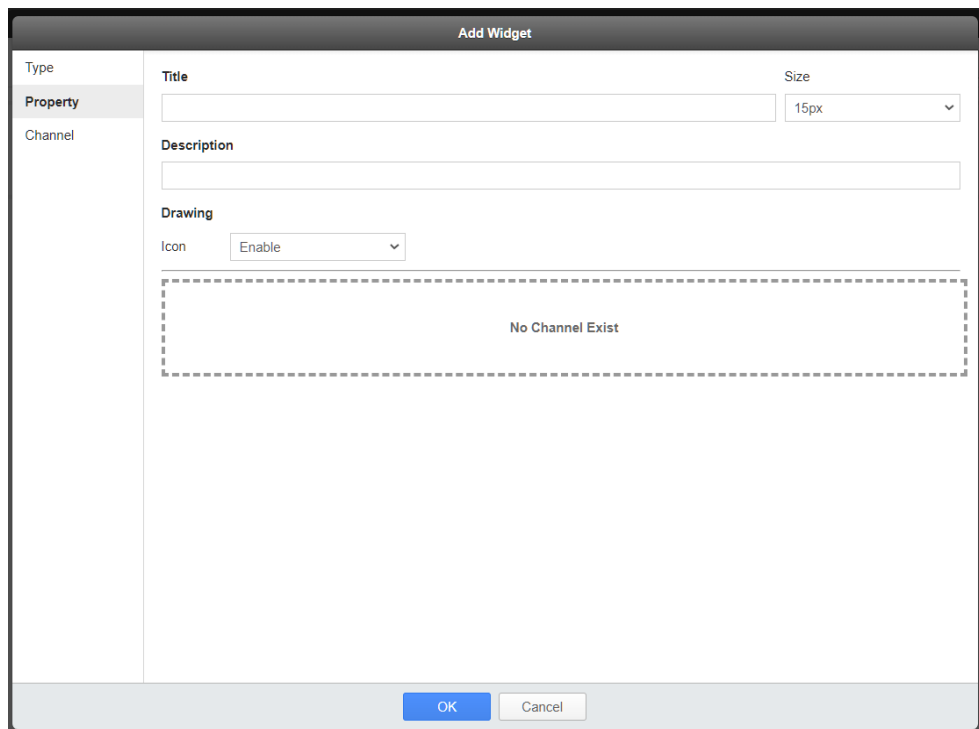


Figure 4-9: Parameter setting of Value Output(Slider) Widget

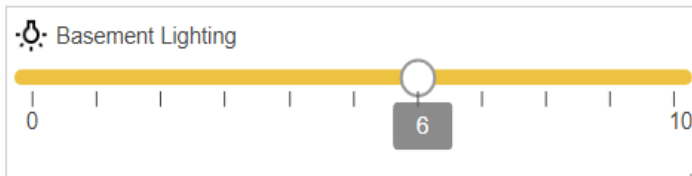
##### Basic parameter

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

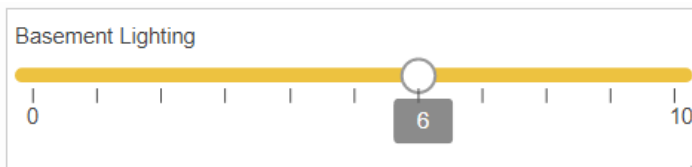
##### Drawing parameter

- **Icon:** User can set up whether the DO/AO channel (or internal register) bound with this component needs to display the "Icon" file, or not.

➤ If it is "Enable", and the DO/AO channel (or internal register) bound with an icon file. The Widget is shown as below.

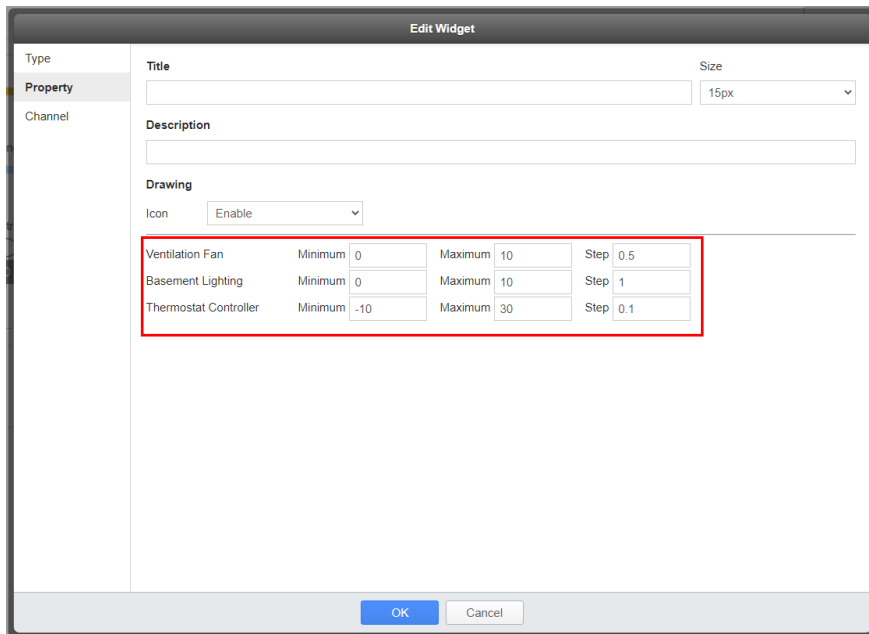


➤ If it is "Disable", the Widget is shown as below.



- **Channel List:**

The Channel List area is used to display all channels (or internal registers) bound with the widget. User can set up the parameters for each channel (or internal register) separately.



➤ **Minimum:** The minimum value setting of the slider for the bound

channel.

- **Maximum:** The maximum value setting of the slider for the bound channel.
- **Step:** The moving distance of the round point of the slider for the bound channel.

#### 4.10 Time Clock

The Time Clock is used to display the system time of the web Browser.



Following is the description of the parameter of Time Clock.

The screenshot shows the 'Edit Widget' dialog box for the Time Clock widget. The dialog is titled 'Edit Widget' and has a sidebar on the left with 'Property' selected. The main area contains the following fields:

- Title:** A text input field.
- Size:** A dropdown menu set to '15px'.
- Description:** A large text area.
- Display:** A section containing three dropdown menus:
  - Date Format:** Set to 'Disable'.
  - 24-Hour Time:** Set to 'Enable'.
  - Time Zone:** Set to 'Browser Time Zone'.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

**Figure 4-10: Parameter setting of Time Clock**

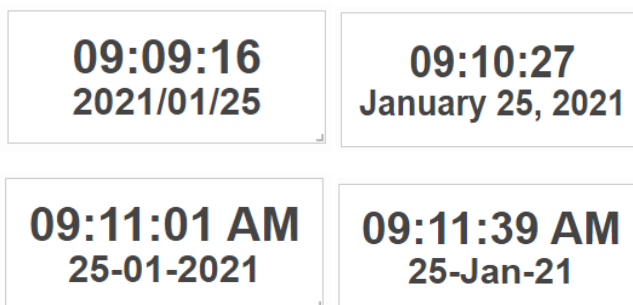
#### **Basic parameter**

- **Title:** For user to define the name of the Widget and its size.
- **Description:** This field provides a space for the user to make a brief description of this Widget.

#### **Display parameter**

- **Date Format:** For user to set the display format of the date. There are 9 options for selection. If user selects "Disable", the Widget will not show the date.
- **24-Hour Time:** For user to define whether to use the "24-hour clock" format to show the time information, or not.
- **Time Zone:** For user to set the Time Zone.

Following is the example of Time Clock.



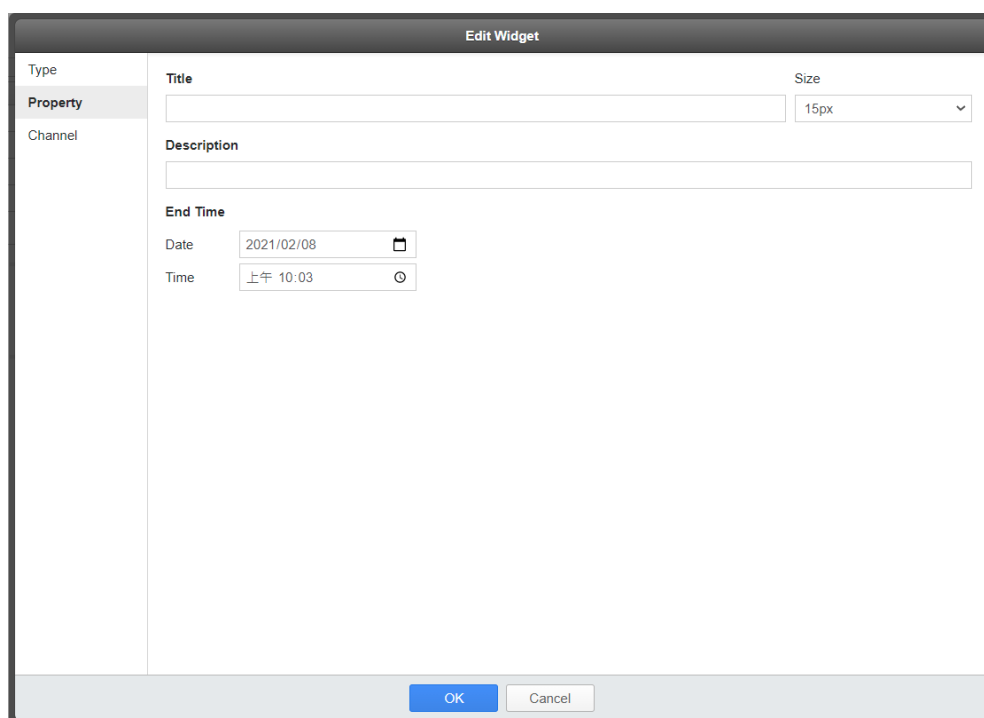
#### 4.11 Countdown Timer

The Countdown Timer is used to display the countdown from the target time user set to the system time of the web Browser. Following is the

description of the parameter of Countdown Timer.







The screenshot shows the 'Edit Widget' dialog box. On the left, there is a sidebar with 'Property' selected. The main area contains the following fields:

- Title:** A text input field.
- Size:** A dropdown menu set to '15px'.
- Description:** A text input field.
- End Time:** A section containing:
  - Date:** A date picker set to '2021/02/08'.
  - Time:** A time picker set to '上午 10:03'.

At the bottom of the dialog, there are 'OK' and 'Cancel' buttons.

Figure 4-11: Parameter setting of Countdown Timer

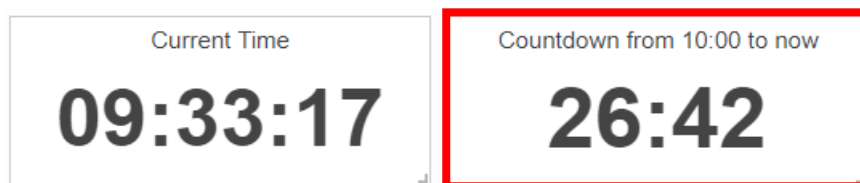
### Basic parameter

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

### "End Time" parameter

- Date: For user to set the target date.
- Time: For user to set the target time.

Following is the example of Countdown Timer.



## 4.12 Value Label Overlay

The Value Label Overlay Widget allows user to import image file, and add the I/O channel data (or power data) at the top of the image. In addition, it

also provides the Heatmap function. Following is the description of the parameter of Value Label Overlay Widget.

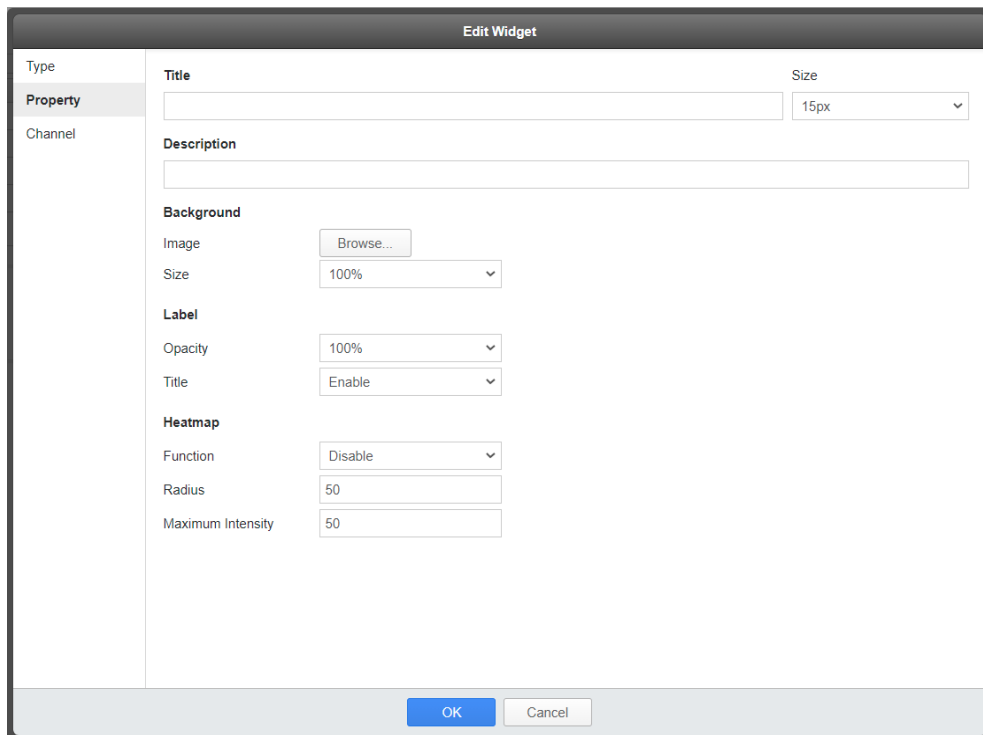


Figure 4-12: Parameter setting of Value Label Overlay Widget

**Basic parameter**

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

**Background parameter**

- Image: For user to set the image file that the Widget needs to import.
- Size: For user to set the display size of the image file in the "Preview" area.

**Label parameter**

- Opacity: For user to set the opacity of the data label on the image. There are 11 options: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%,

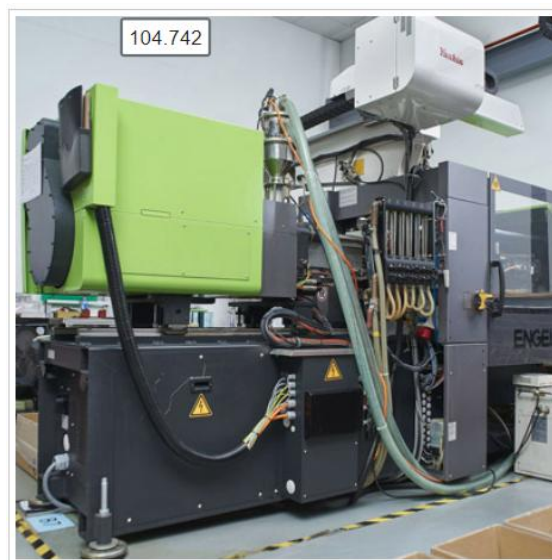
80%, 90% and 100%.

- Title: For user to set whether to display the title of data label on the image, or not.

Following is the example of "Opacity is 50%" and "enable Title shown".



Following is the example of "Opacity is 100%" and "disable Title shown".



### Heatmap parameter

- Function: For user to set whether to enable the Heatmap function, or

not.

- Radius: For user to set the influence radius of the Heatmap function.
- Maximum Intensity: For user to set the maximum intensity of the Heatmap function.

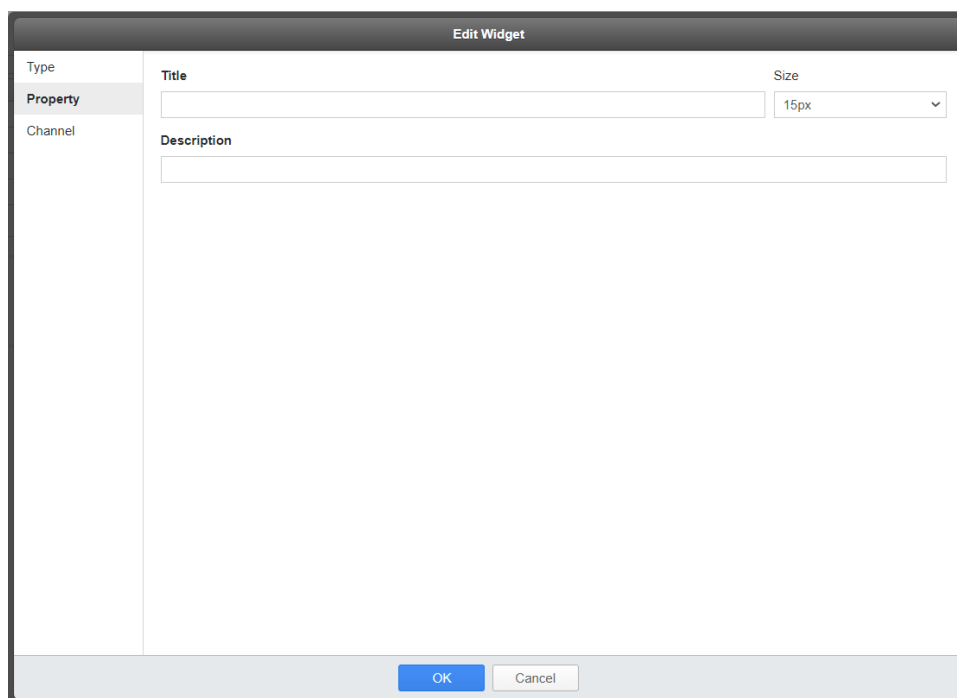
Following is an example of the Heatmap function for the CO2 concentration of the office.



#### 4.13 Video Event List

The Video Event List allows user to browse and review the video record files uploaded to IoTstar from the WISE controller (with ICP DAS iCAM IP Camera). Following is the description of the parameter of Video Event





**Figure 4-13: Parameter setting of Video Event List**

**Basic parameter**

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

Following is an example of Video Event List. This widget will list each video record files uploaded by WISE to IoTstar according to the date and time. User can directly click on the video file in the list, then the system will play the video record file.

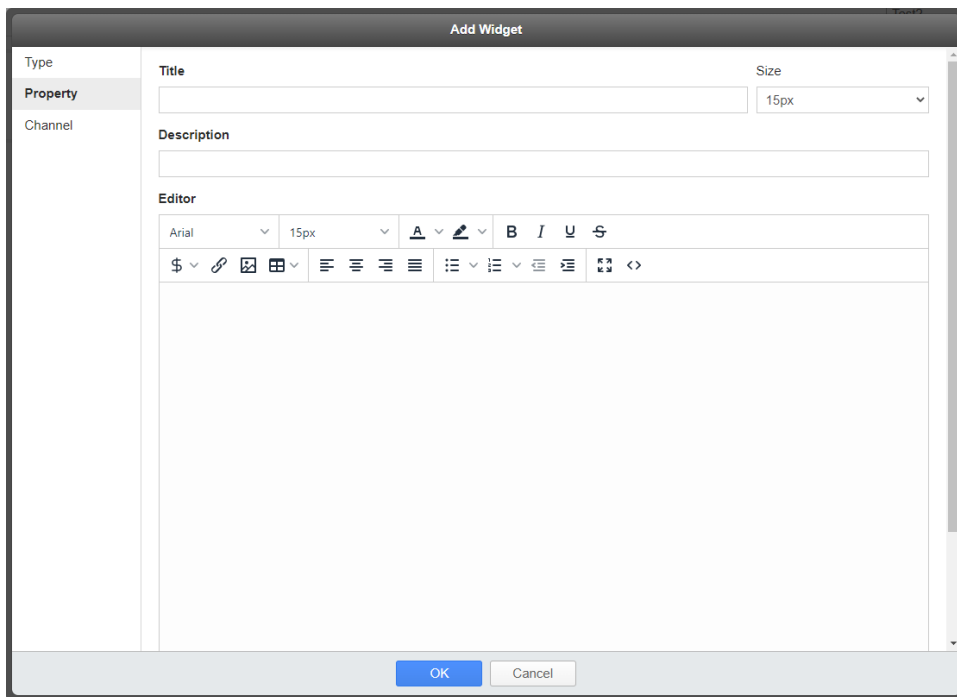
時間	裝置	訊息
09:02:26	WISE-5231(WISE-5231)	[規則 2] forward test
09:01:28	WISE-5231(WISE-5231)	[規則 1] forward test
09:01:07	WISE-5231(WISE-5231)	[規則 2] forward test
09:00:14	WISE-5231(WISE-5231)	[規則 2] forward test
08:56:15	WISE-5231(WISE-5231)	[規則 2] forward test
07:53:18	WISE-5231(WISE-5231)	[規則 2] forward test
07:53:04	WISE-5231(WISE-5231)	[規則 1] forward test

#### 4.14 Rich Content

The Rich Content Widget provides the WYSIWYG (What You See Is What You Get) editor for user. It allows user to edit the content that the Widget needs to display by himself (For example: import HTML code, import text, import Webpage, import image file, import video file, etc.). Following is

the description of the parameter of Rich Content Widget.





**Figure 4-14: Parameter setting of Rich Content Widget**

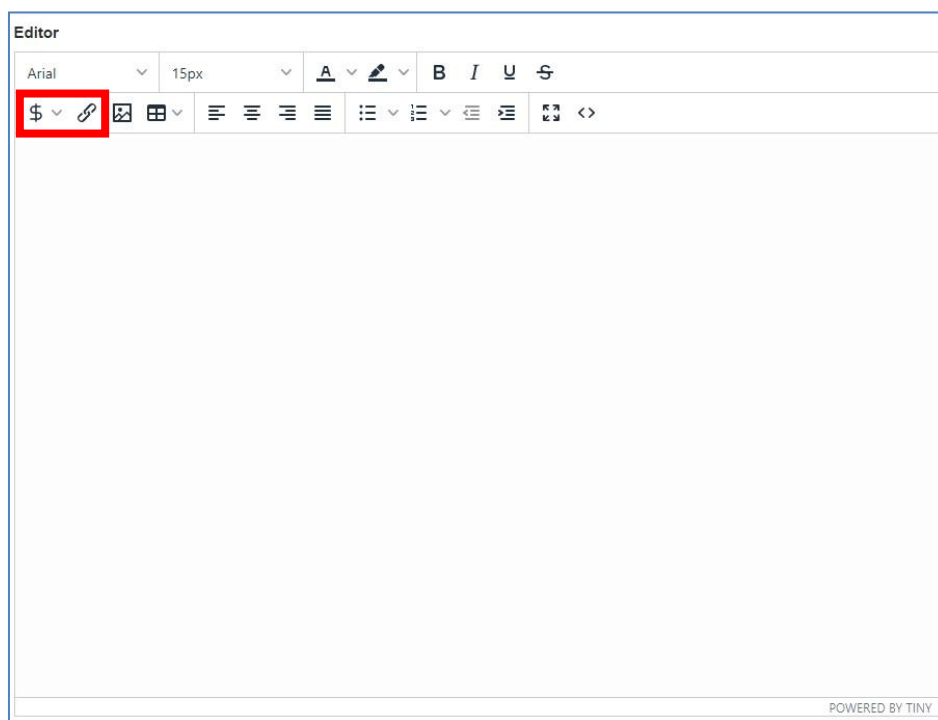
**Basic parameter**

- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

**Editor**

- Provide the WYSIWYG (What You See Is What You Get) editor for user to edit the content of the Widget. In addition, through the "channel data" \$ function which WYSIWYG editor provide, user can insert the selected I/O channel (or power data) for the dynamic real-time value display of I/O channel data (or power data) in the currently edited content. The WYSIWYG editor also provides "hyperlink" link icon function which allows user to directly click on the item to switch the Dashboard pages.

**Please Note:** The editor is powered by Tiny.



Following is an example for the Rich Content Widget, user can edit the content of the Widget by import HTML code, text, Webpage, image file and video file, etc.

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## 4.15 Map

User can display the map information to the Dashboard through the Map Widget. Following is the description of the parameter of Map Widget.



**Figure 4-15: Parameter setting of Map Widget**

### Basic parameter

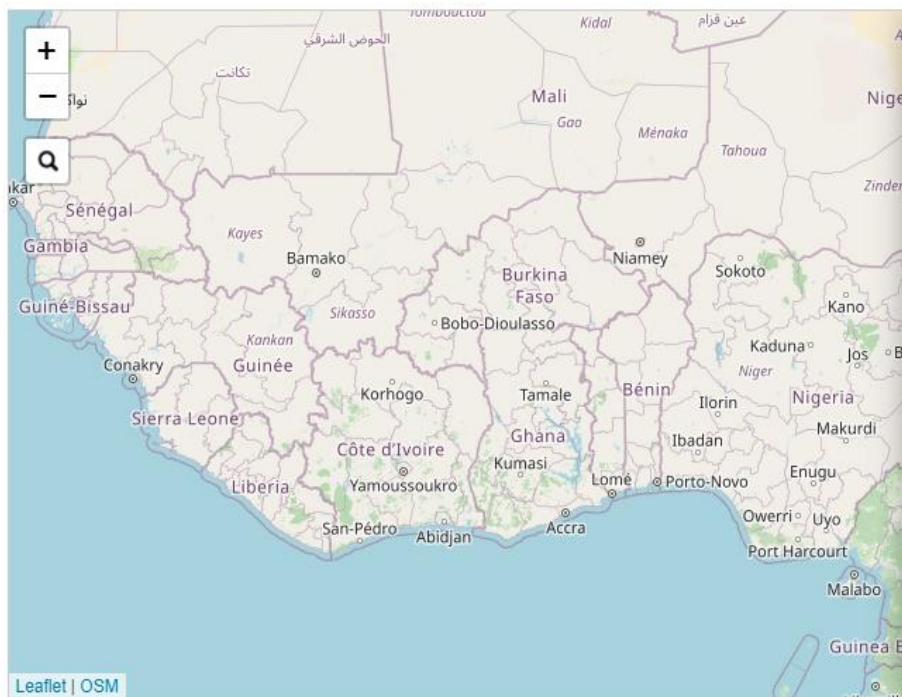
- Title: For user to define the name of the Widget and its size.
- Description: This field provides a space for the user to make a brief description of this Widget.

### Marker parameter

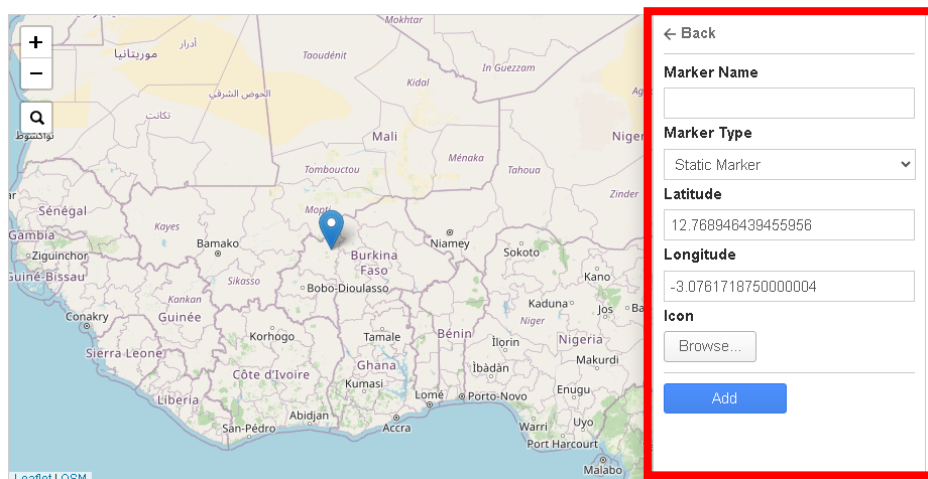
The Map widget provides two marker as "Static Marker" and "Dynamic Marker" for selection. The "Static Marker" is mainly used for the marker with fixed latitude and longitude value. About "Dynamic Marker", it can be assigned new latitude and longitude values to change its location dynamically. For marker setting, please refer to the following steps.

### Marker Type: Static Marker

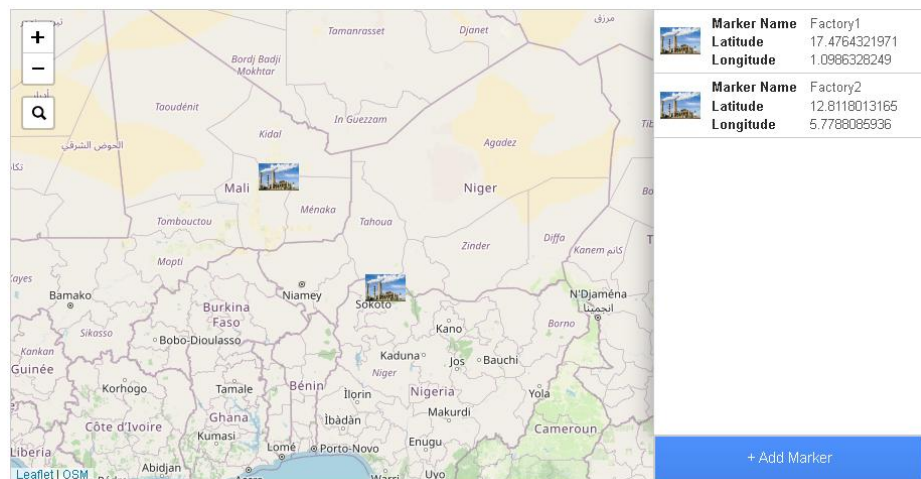
- i. User can move the mouse to the position of the map which need to be marked.



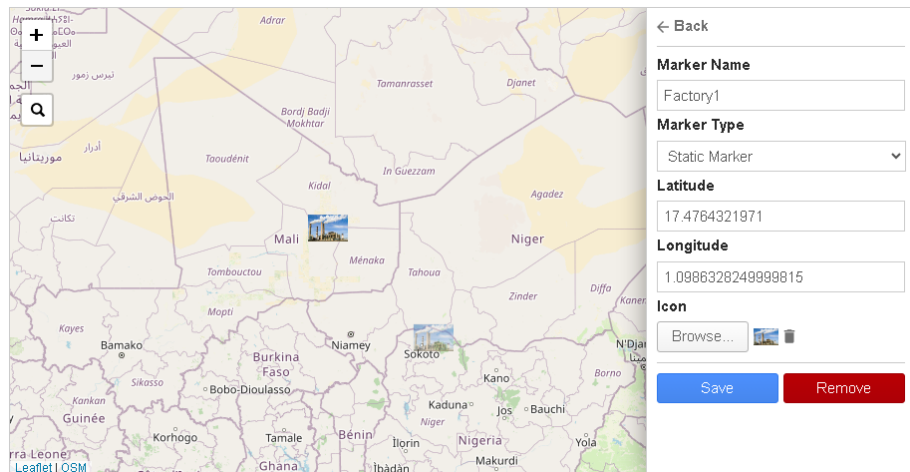
- ii. After confirming the position which need to be marked, click the left button of the mouse on the position or click the "Add Marker" button, then the Marker parameter window will be shown (The default "Marker Type" setting is "Static Marker"). If user wants to adjust the position of the marker, he can directly drag the marker to the new position or enter the new longitude and latitude values to change the maker's position. Following is the description of the parameters of the Marker parameter window.






- **Marker Name:** Set the name of the Marker.
  - **Marker Type:** Set the Marker as "Static Marker" or "Dynamic Marker".
  - **Latitude:** The system will display the latitude of the Marker, and the user can adjust the value by changing the latitude of the Marker directly (Google Maps format).
  - **Longitude:** The system will display the longitude of the Marker, and the user can adjust the value by changing the longitude of the Marker directly (Google Maps format).
  - **Icon:** Import the Icon file as the Icon of the Marker.
- iii. After complete the setting, please press "Add" button. The Marker will be shown in the map, and there is also the list of Marker for reference.



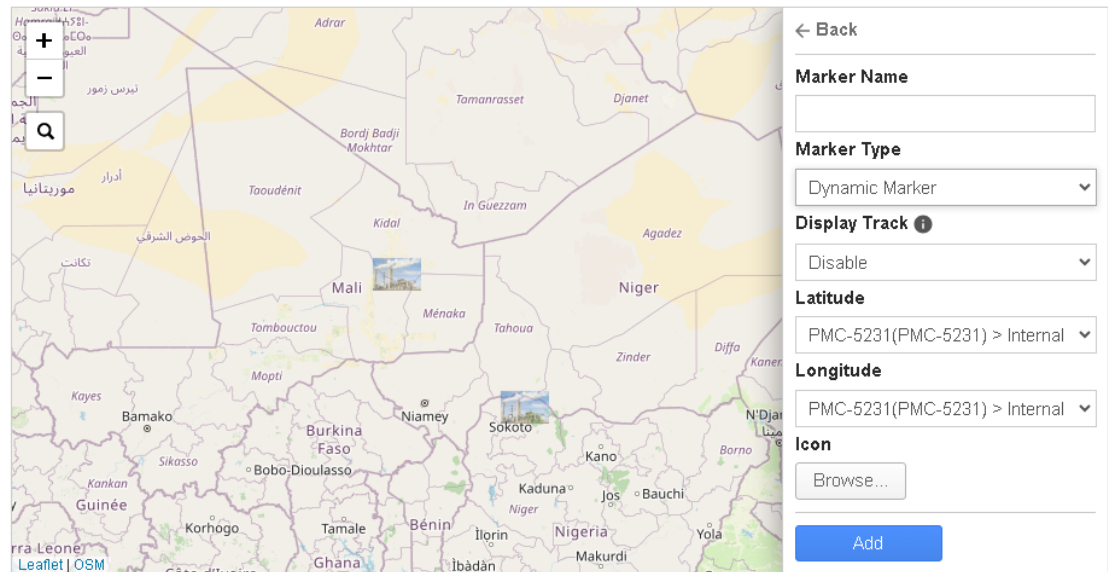
- iv. If user wants to modify the settings of the Marker, he can directly click on the Marker on the map (or on the list), and the Marker parameter window will be shown for user to modify its setting.



- v. After complete the setting of the Marker parameters, click the  button to save the new settings. If need, user can click the  button to ignore the new setting. To delete the Marker, please click the  button.

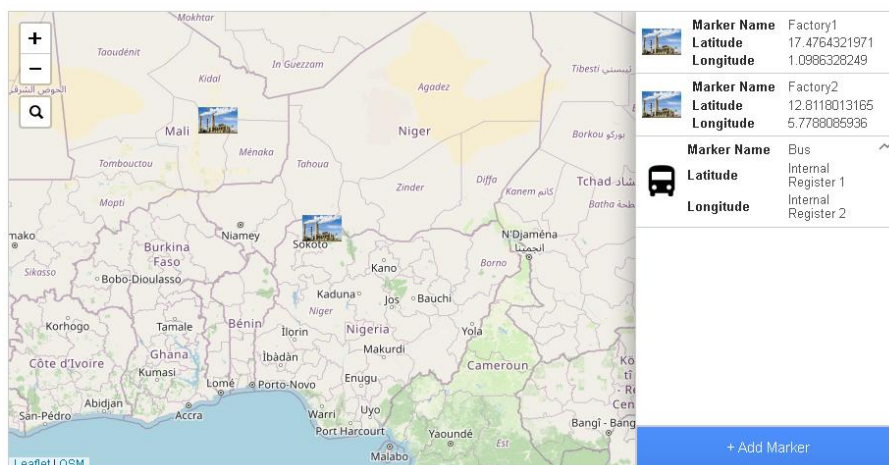
**Marker Type: Dynamic Marker**

- i. After confirming the position which need to be marked, click the left button of the mouse on the position or click the "Add Maker" button, the Marker parameter window will be shown (The default "Marker Type " setting is "Static Marker"), then select the "Dynamic Mark" in the "Mark Type" field. Following is the description of the parameter of the Marker parameter window.



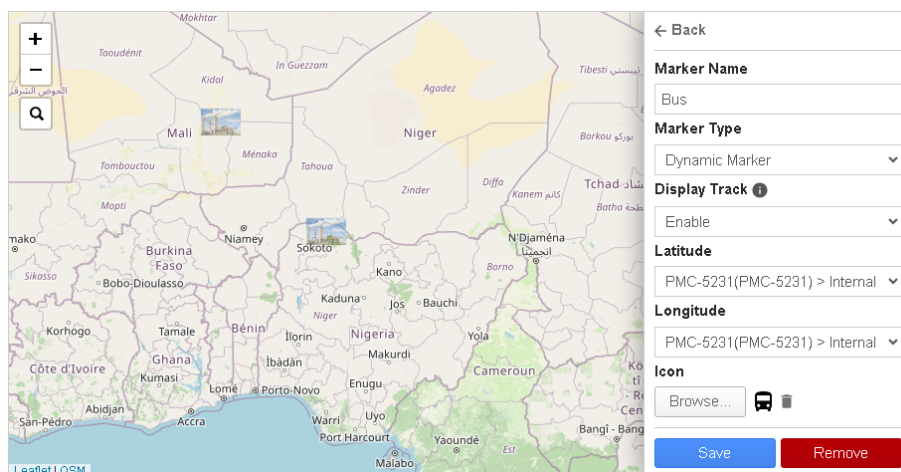
- **Marker Name:** Set the name of the Marker.
- **Marker Type:** Set the Marker as "Static Marker" or "Dynamic Marker".
- **Display Track:** If "Dynamic Marker" is selected in the "Marker Type" field, the "Display Track" field will be shown and provide two options as "Enable" and "Disable" for selection. If "Enable" is selected, the system will display the movement track of the "Dynamic Marker". **Please Note: About the retention of the movement track values, it is based on the setting of the "Dashboard Settings - Data Retention" field (Assign the time period to keep the most recent movement track value during the assigned time period.)**
- **Latitude:** Assign the data source for the marker's latitude value (Google Maps format).
- **Longitude:** Assign the data source for the marker's longitude value (Google Maps format).  
User can assign it from the I/O channel of sensor which WISE/PMC/PMD connect or the Internal Registers of WISE/PMC/PMD.
- **Icon:** Import the Icon file as the Icon of the Marker. User can assign it from the I/O channel of sensor which WISE/PMC/PMD connect or the Internal Registers of WISE/PMC/PMD.


- ii. After complete the setting, please press "Add" button, and the marker will be shown in the marker list.



Please note: Because the data source of dynamic marker's longitude and latitude values is from the I/O channel of sensor which WISE/PMC/PMD connect or the Internal Registers of WISE/PMC/PMD, so the markers will not be shown in the map during the setting phase.

- iii. If user wants to modify the settings of the Marker, he can directly click on the Marker on the list, and the Marker parameter window for the select maker will be shown for user to modify its setting.

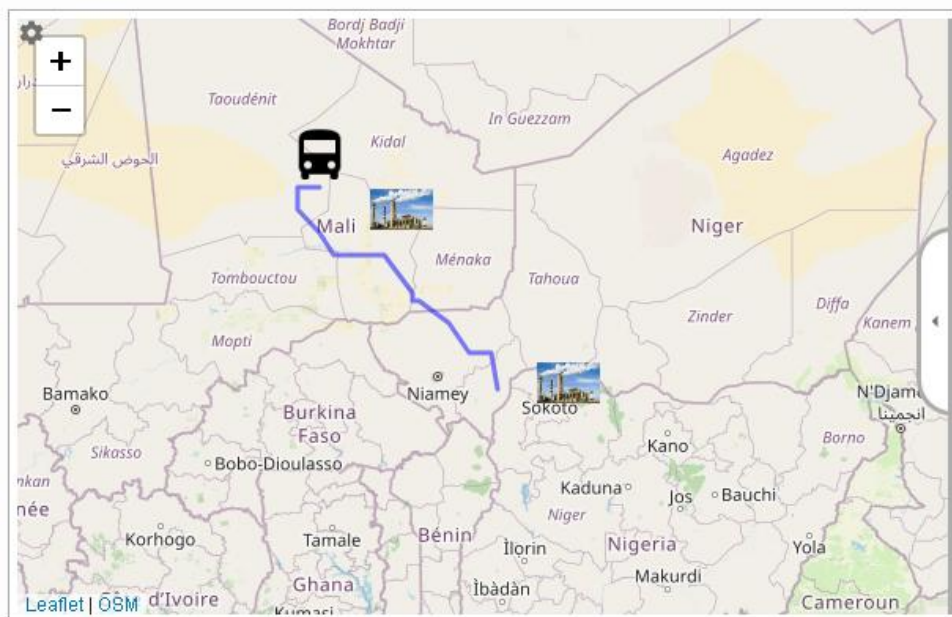


- iv. After complete the setting of the Marker parameters, click the  button to save the new settings. If need, user can click



the **← Back** button to ignore the new setting. To delete the Marker, please click the **Remove** button.

Following is an example for the Map Widget in the Dashboard.



When click the "Expand" button on the right side of the Map widget, it will display the list of Markers related to the Map widget. User can directly click the marker in the list, and the Map widget will automatically display the corresponding map content in such a way that the selected marker shown in the center of the Map. This function will be helpful to quickly verify the location of the selected marker in the map.

