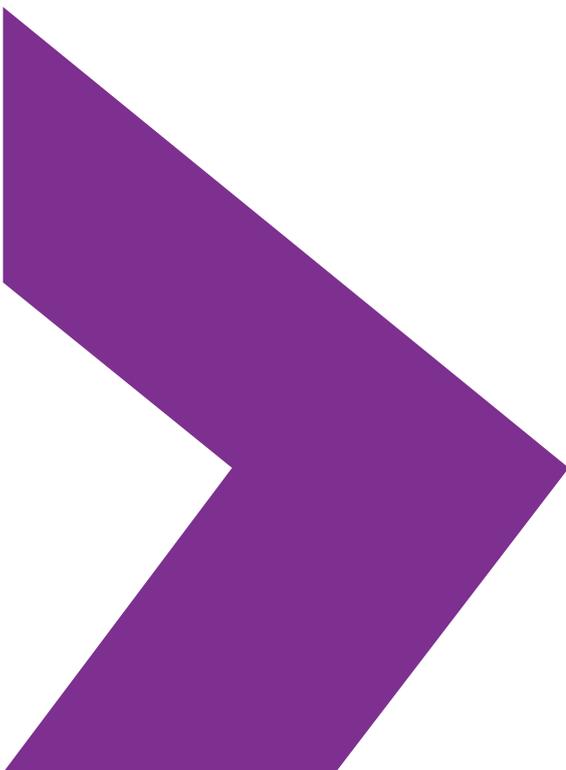


# HDL Studio

## User Manual



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# Update History

The form below contains the information of every update. The latest version contains all the updates of all former versions.

No.	Version	Update Information	Date
1	V1.0.0	Initial release	Dec. 1 <sup>st</sup> , 2021
2	V1.0.2	Updated parts of settings; Added instructions about project delivery.	Feb. 3 <sup>rd</sup> , 2023

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# Introduction

This manual offers the information about the configuration process of HDL Studio, as well as the relevant notes and tips.

## Applicable Readers

This manual is mainly suitable for the following engineers:

- Technical Support Engineer
- Maintenance Engineer

## Symbols and Icons

The following symbols and icons may be used in this manual as warning or alert.

Symbol	Definition
 Danger	It is used to warn of an emergency and dangerous situation, if not avoided, it will cause death or serious personal injury.
 Warning	It is used to warn of potentially dangerous situations, which, if not avoided, may result in death or serious personal injury.
 Caution	It is used to warn of potentially dangerous situations, which, if not avoided, may cause moderate or minor personal injury.
 Note	Used to transmit equipment or environmental safety warning information. If not avoided, it may cause equipment damage, data loss, equipment performance degradation, or other unpredictable results. "Note" does not involve personal injury.
 Tips	Used to highlight important/critical information, best practices, tips, etc. "Tips" is not safety warning information, and does not involve personal, equipment and environmental injury information.

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# 1. Overview

HDL Studio (Hereinafter referred to as "software") is mainly applicable for products configured with Buspro and Buspro Wireless, as well as applicable for HDL Zigbee devices and the projects configured with KNX gateways. It supports offline configuration, online debugging, remote search, trouble shooting, firmware updates and etc. The software is well developed with contemporary design and simplified functionality. It is configured with user-oriented interface layout to efficiently achieve precise debugging and setting.

This manual offers information about the configuration process of HDL Studio. The following tools might be included:

- A computer configured with HDL Studio software
- Buspro device
- Dedicated Buspro cable(s)

Key functions:

- Offline/online edit or debugging Buspro device
- Remote access
- Data backup/upload/download
- Device update
- IR learner
- Support Chinese/English

 Note:

- Please refer to the datasheet attached to the product for the information of installation, wiring, specifications, etc.
- The illustrations in this manual are for reference only and the actual product should prevail.

## 2. Settings

### 2.1. Log in

**Step 1** Open HDL Studio.

**Step 2** As shown in Fig. 2-1, input user name and password then click "Login" to enter main page.

⚠ Note: The user name and password refer to the ones you have use to register an account in IOT, please well prepare before logging in.

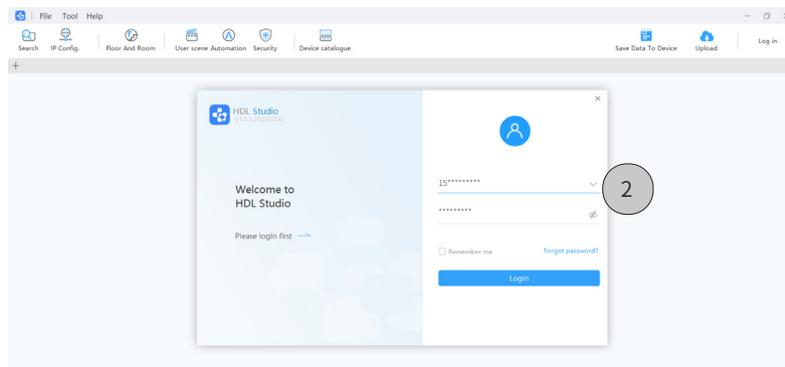


Fig. 2-1

## 2.2. Create or Open Project

### 2.2.1. Create Project

**Option 1:** As shown in Fig. 2-2.1, click "  " → "Project List" → "+New" → Input project information, including project name, project zone, detailed address and so on → Click "Sure" to complete.

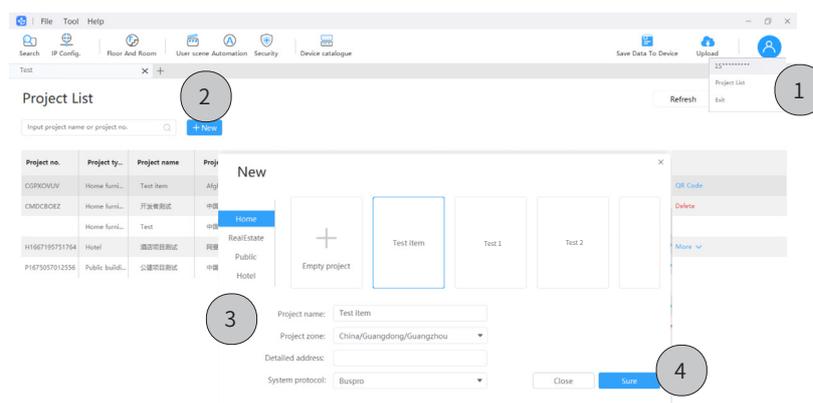


Fig. 2-2.1

Continued..

**Option 2:** As shown in Fig. 2-2.2, click "File" → "New" → Input project information, including project name, project zone, detailed address and so on → Click "Sure" to complete.

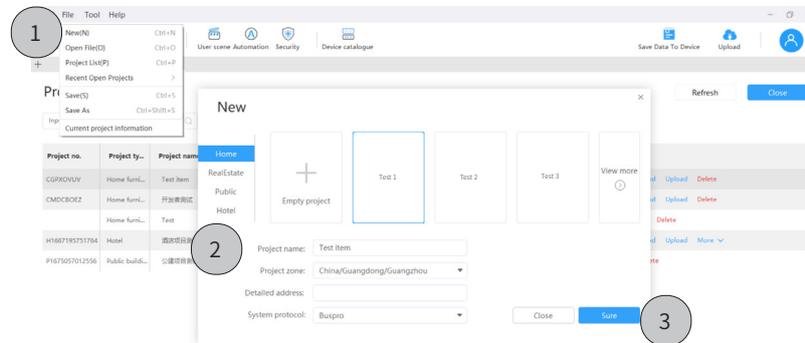


Fig. 2-2.2

## 2.2.2. Open Project

As shown in Fig. 2-2.3, click "👤" → "Project List" → Double click the project.

⚠️ Note: If the project has not been downloaded, please click "Download" then open it.

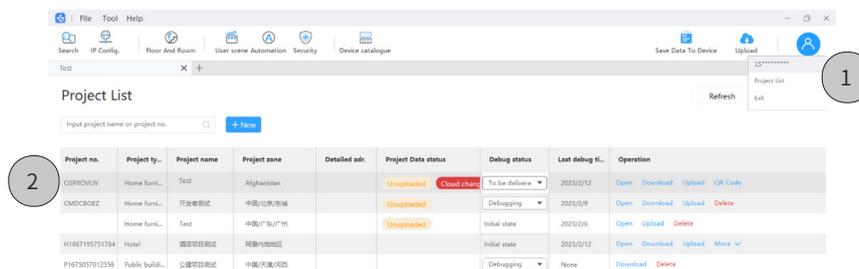


Fig. 2-2.3

## 2.2.3.Main Page

As shown in Fig. 2-2.4, the main page can be divided into three parts:

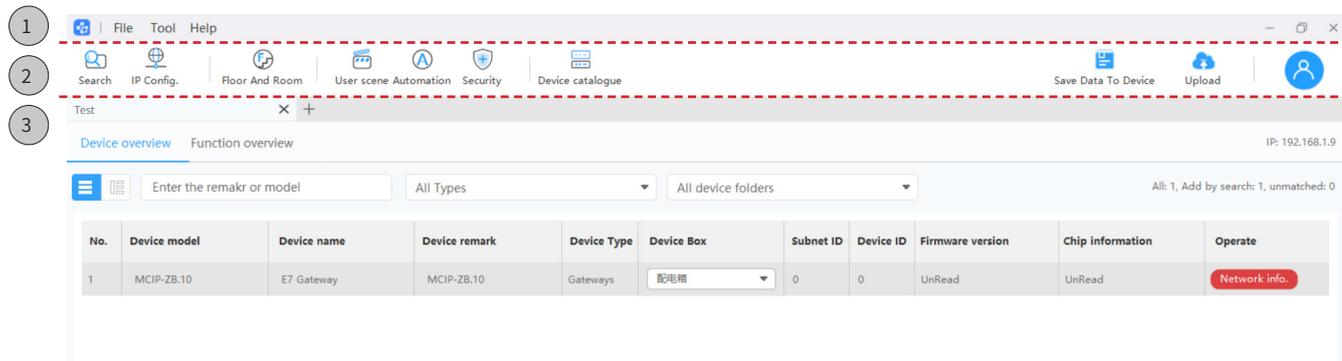


Fig. 2-2.4

### 1. Menu

- File: It refers to basic operation for project files, such as create or open projects; save or save as project files; check current project.
- Tool: It refers to basic debugging for devices, including but not limited to device searching, IP configuration, floor & room, save data to device, upload project, scenario mode, upgrading, hotel smart speaker and etc.
- Help: You can select language in Chinese or English, or check for updates and technical supports.

### 2. Tools

- Search: To search device and then add to current project if needed.
- IP Config.: To check and make gateway configuration, then proceed remote control if needed.
- Floor and Room: To set floor & room; to synchronize configuration to other house.
- User Scene / Automation / Security: It is available for setting only when advanced gateway is added into the project.
- Device catalogue: To check all types of devices and proceed debugging and configuration if needed.
- Save Data to Device: To upload the realtime device data which is being processed to Cloud.
- Upload project: To upload project file to Cloud.
- Personal Center: To check the projects authorized for current users to debug ; to exit current account.

**3. Project:** To show information about current project, including device, function, related configuration, test and so on.

## 2.3.Floor and Room

**Add area:** As shown in Fig. 2-3.1, click "Floor and Room" → "+Area".

 **Tips:** To proceed further setting, please right click and select.

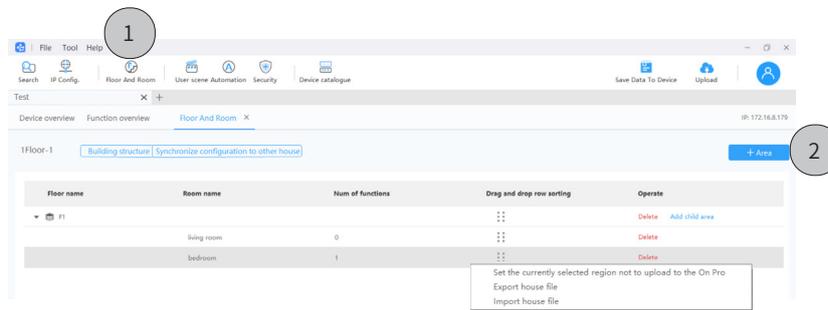


Fig. 2-3.1

**Add child area:** As shown in Fig. 2-3.2, click "Add child area" → Input or select the name of area → Click "Sure" to complete.

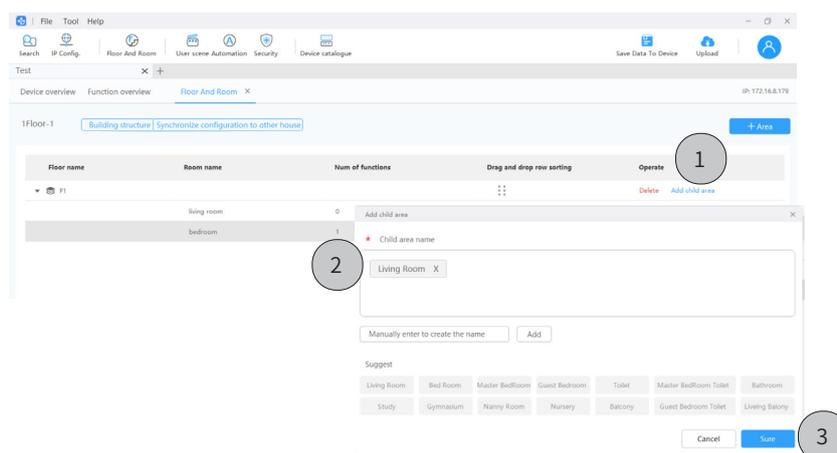


Fig. 2-3.2

**Synchronize configuration to other house:** As shown in Fig. 2-3.3, click "Synchronize configuration to other house" → Select house → Click "Sure" to complete.

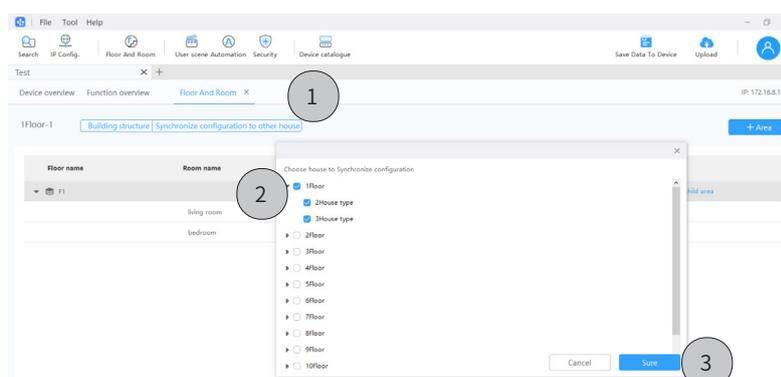


Fig. 2-3.3

## 2.4.Add Device

In this software, users can add online or offline devices.

### 2.4.1.Add Device Online

**Step 1** As shown in Fig. 2-4.1, in the page of current project, click "Search".

 **Tips:** To switch other area, please click "Structure" to proceed selecting or adding new house.

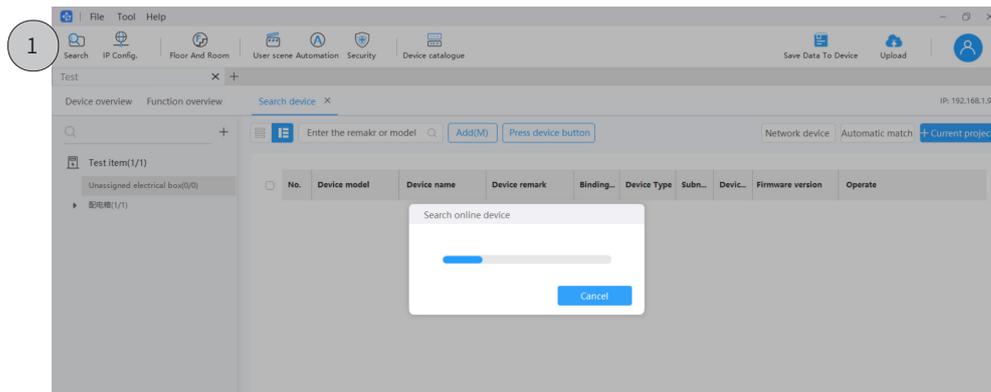


Fig. 2-4.1

**Step 2** As shown in Fig. 2-4.2, click the device.

**Step 3** Click "+Current project", then the device can be added to the current project.

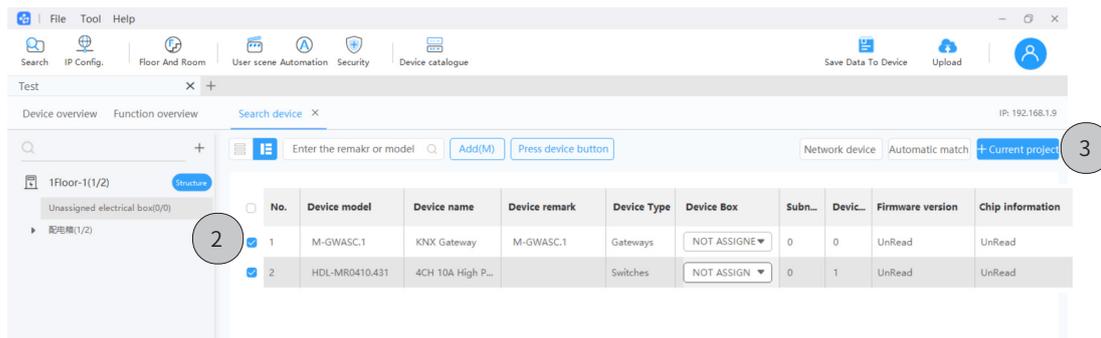


Fig. 2-4.2

## 2.4.2.Add Device Offline

**Step 1** As shown in Fig. 2-4.3, in the page of current project, click "Device catalogue".

 **Tips:** Regarding "Device catalogue", it mainly supports standard Buspro products. After adding device, users can proceed settings for scene / security / automation. Once the settings are complete, please note to proceed matching with the actual device on-site.

**Step 2** Set quantity.

**Step 3** Click "+Current project", then the device(s) can be added to the current project.

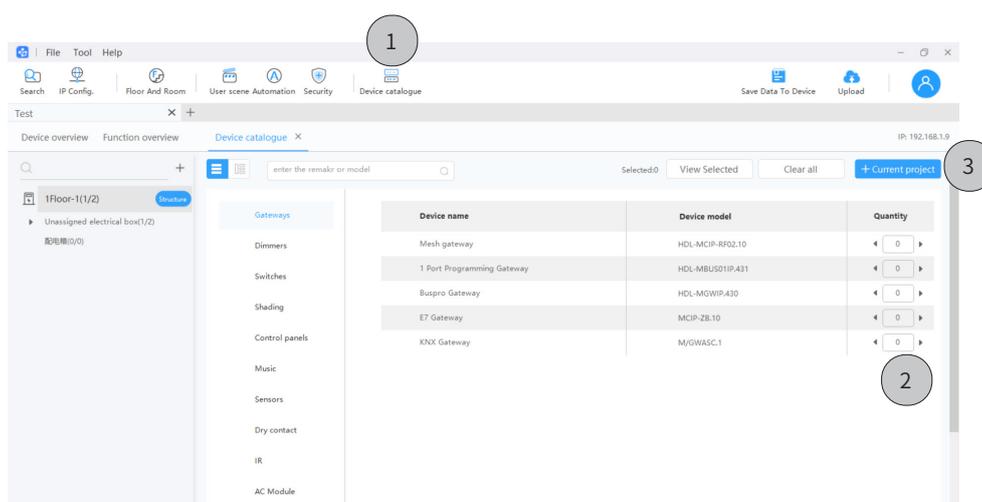


Fig. 2-4.3

**Step 4** As shown in Fig. 2-4.4, click "Search".

**Step 5** Click the device(s).

**Step 6** Click "Automatic match", then the device(s) can be automatically matched with the current project.

 **Tips:** Regarding "Automatic match", it means that for devices of the same model, HDL Studio will automatically process matching them with the project, which is based on subnet ID and device ID. Thus, for the desired matching results, please note to modify subnet ID and device ID in advance.

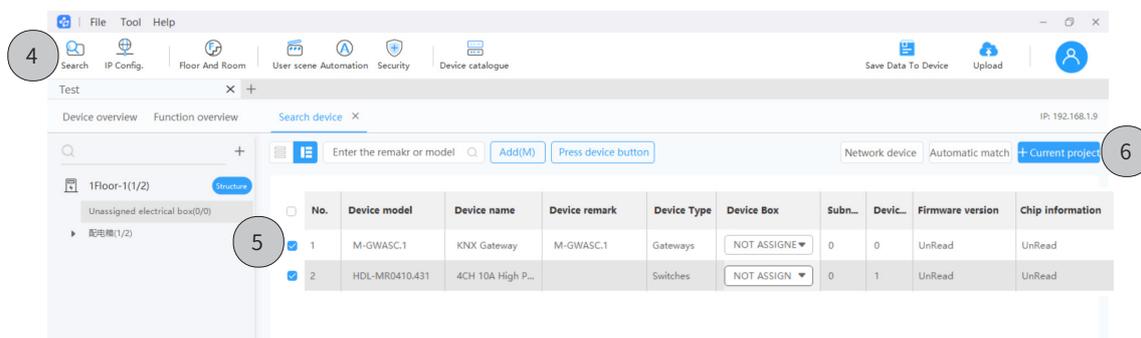


Fig. 2-4.4

## 2.5.Device Settings & Configuration

### 2.5.1.Electrical Box Setting

**Step 1** As shown in Fig. 2-5.1, click "+" to create electrical box.

 **Tips:** To revise the name of electrical box, please double click to proceed.

**Step 2** Click the tab of device type to enter the setting page.

**Step 3** From the drop-down list, select one of the electrical boxes for the device.

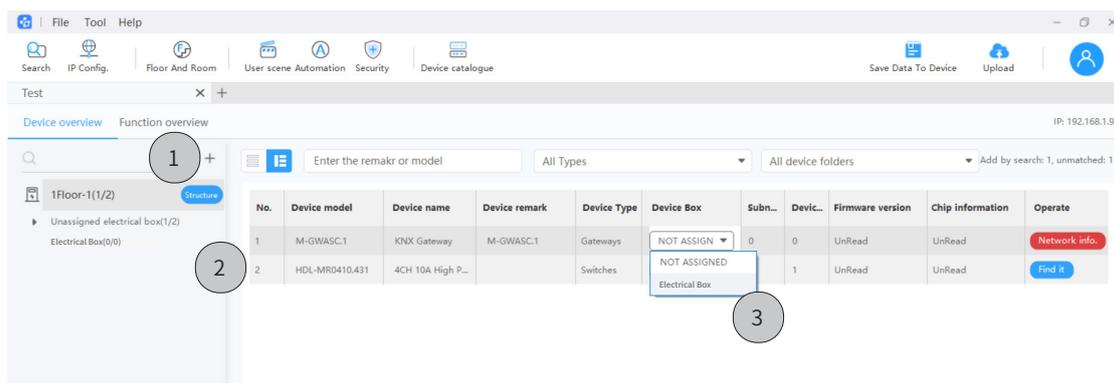


Fig. 2-5.1

### 2.5.2.Device Basic Setting

Double click the tab of device to enter the setting page.

As the example shown in Fig. 2-5.2, the settings for gateways mainly include Basic setting, Functions, Drivers, Device scene, User scene, Automation, Security, Read & Save data and etc.

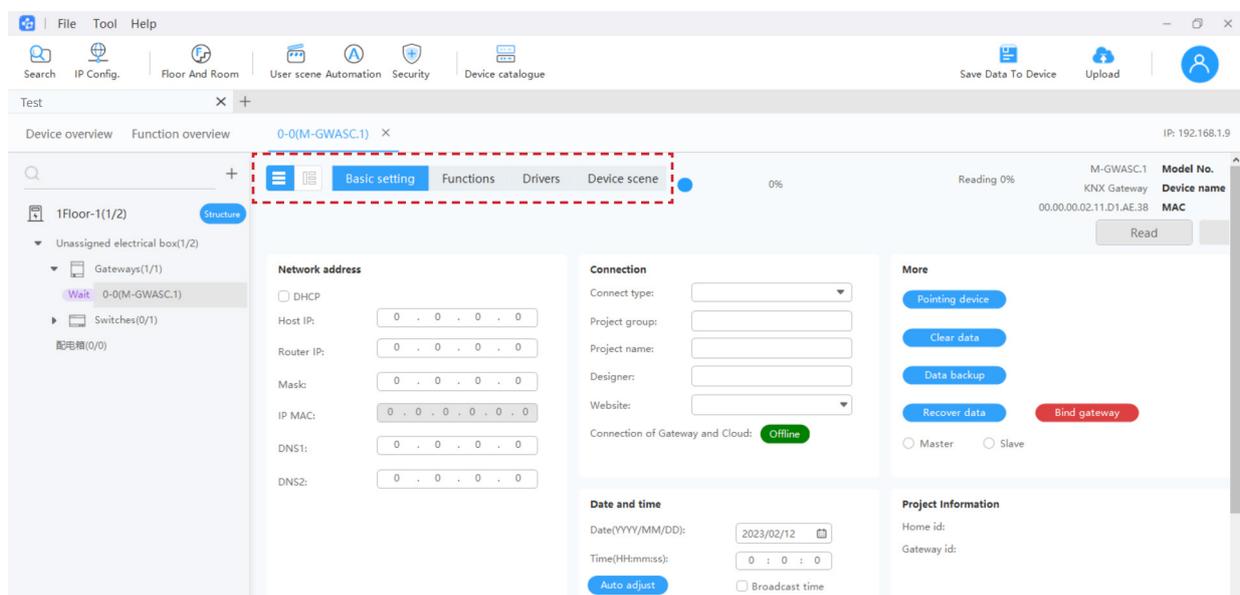


Fig. 2-5.2

As the example shown in Fig. 2-5.3, the settings for switches mostly include Channel setting, Light scene and sequence.

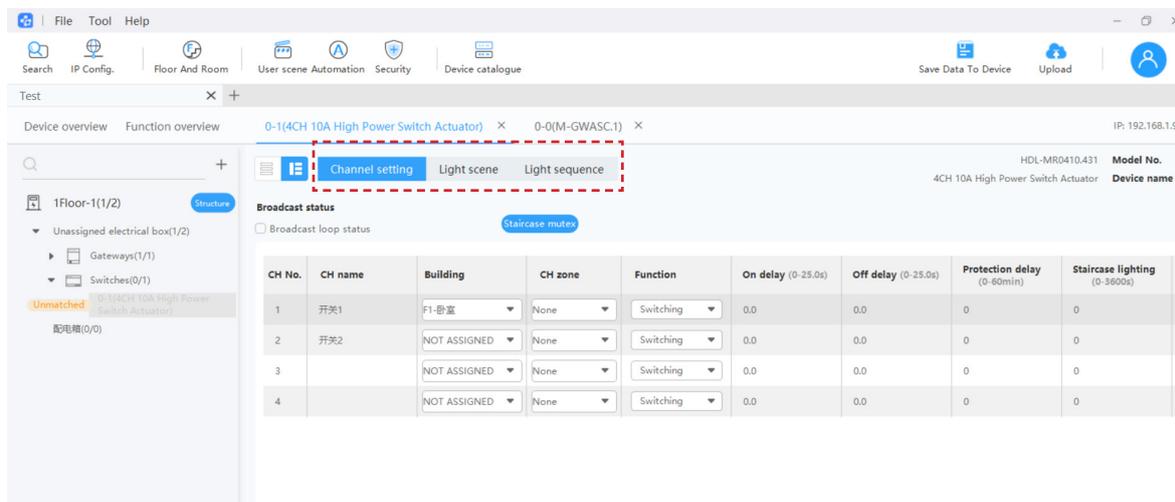


Fig. 2-5.3

## 2.5.3.Driver Setting

**Step 1.** As the example shown in Fig. 2-5.4, for the driver settings of gateways, click "Drives" to enter the setting page.

**Step 2.** Click "OTA/Download".

⚠ Note: Please make sure the software is in normal and stable network.

**Step 3.** Click to proceed configuration.

📖 Tips: Generally, the tab "Driver config" is applicable for adding the third-party devices.

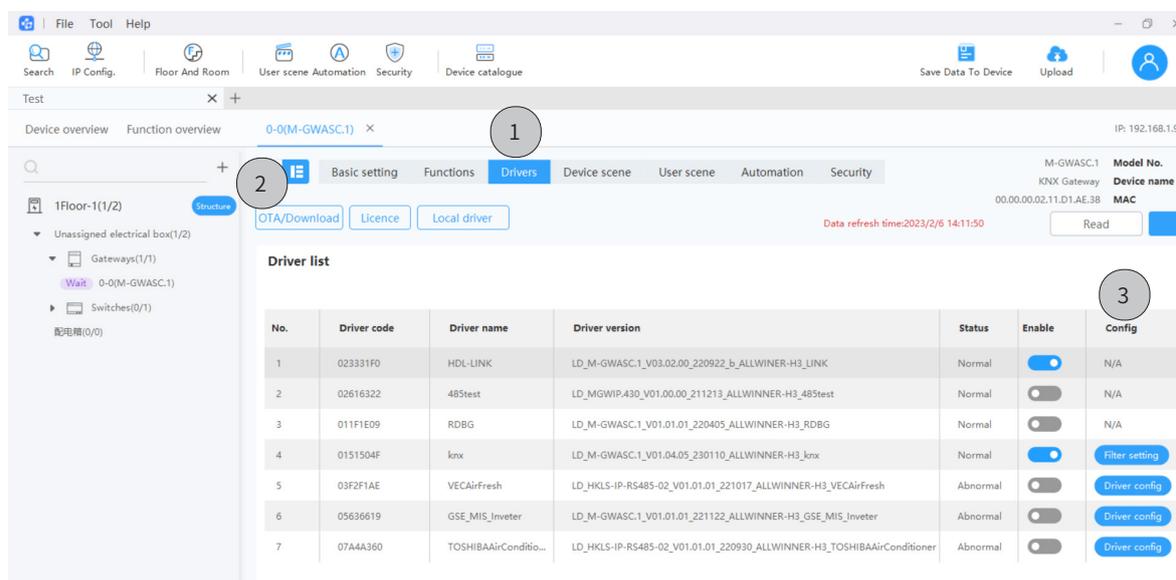


Fig. 2-5.4

## 2.5.4. Scene Setting

**Step 1** As shown in Fig. 2-5.5, click "User scene" to enter the setting page.

**Step 2** Click "Add" to create scene.

 **Tips:** To proceed further setting for the scene item, please right click and select.

**Step 3** Click "Add" to create execute action.

 **Tips:** To proceed further setting for the action, please right click and select.

**Step 4** Click "Save" to complete.

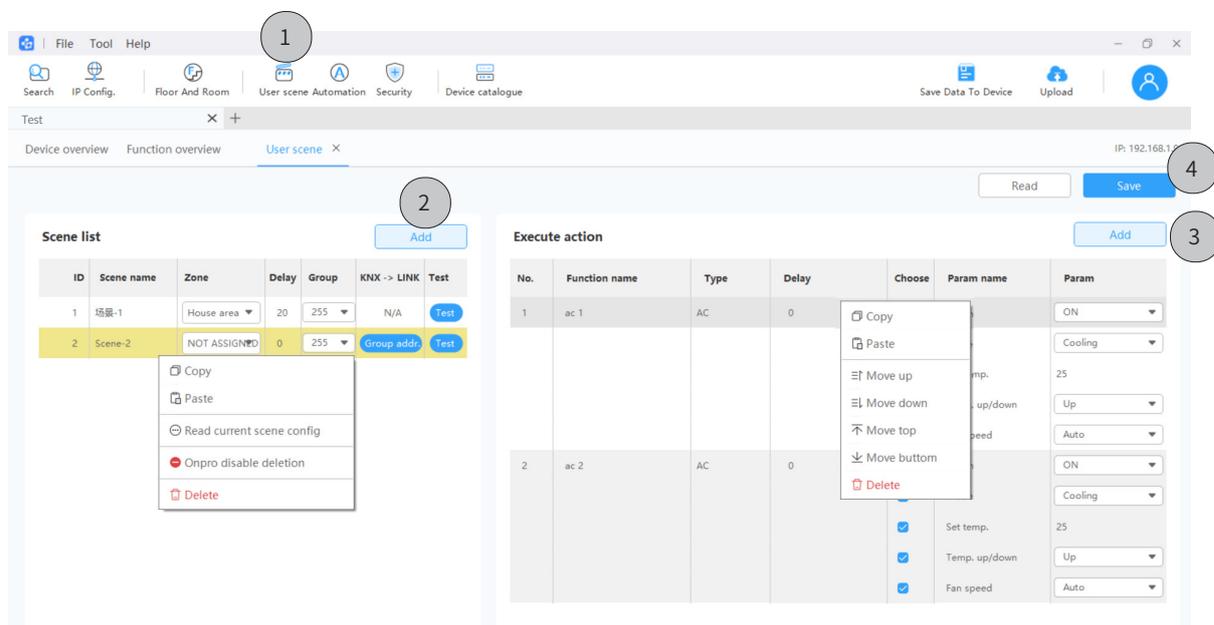


Fig. 2-5.5

## 2.5.5.Security Setting

**Step 1** As shown in Fig. 2-5.6, click "Security" to enter the setting page.

**Step 2** Click "Add" to create security item.

 **Tips:** To proceed further setting for the security item, please right click and select.

**Step 3** Click "Add" to create the condition and execution action.

 **Tips:** To proceed further setting for the items, please right click and select.

**Step 4** Click "Save" to complete.

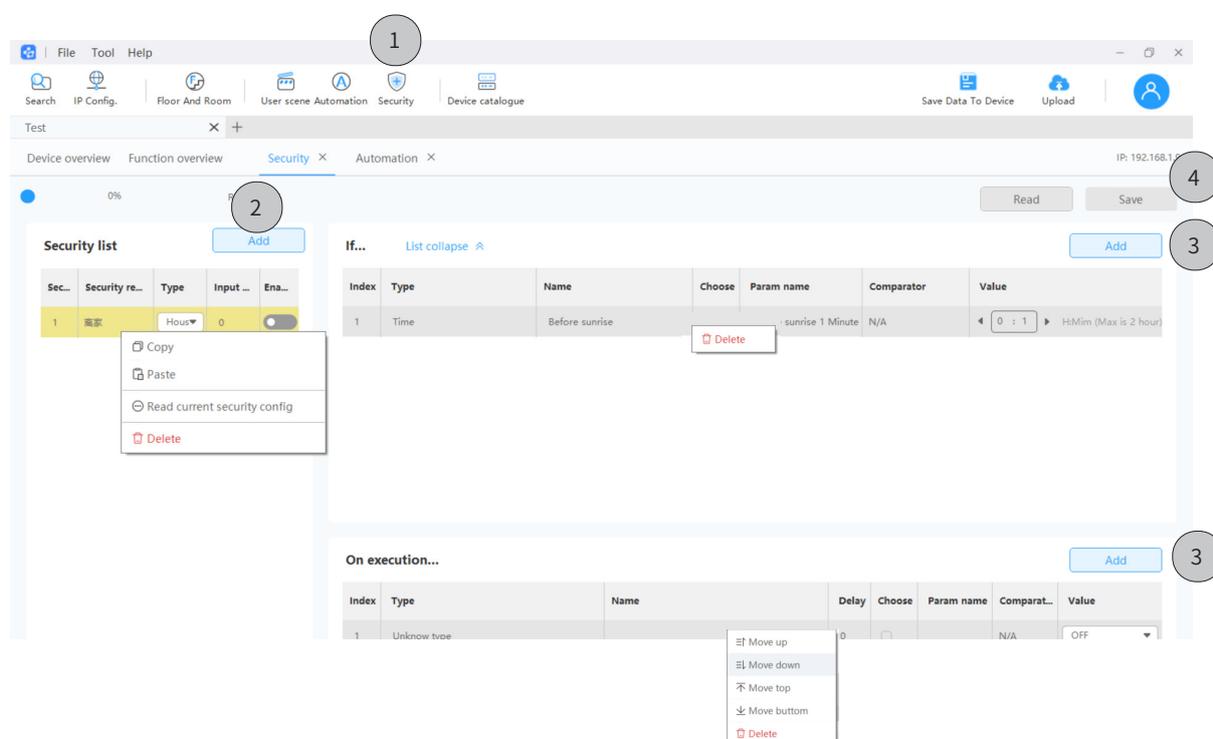


Fig. 2-5.6

## 2.5.6.Automation Setting

**Step 1** As shown in Fig. 2-5.7, click "Automation" to enter the setting page.

**Step 2** Click "Add" to create automation.

 **Tips:** To proceed further setting for the automation item, please right click and select.

**Step 3** Click "Add" to create the condition and repeat date.

**Step 4** Click "Add" to create execution action.

 **Tips:** To proceed further setting for the items, please right click and select.

**Step 5** Click "Save" to complete.

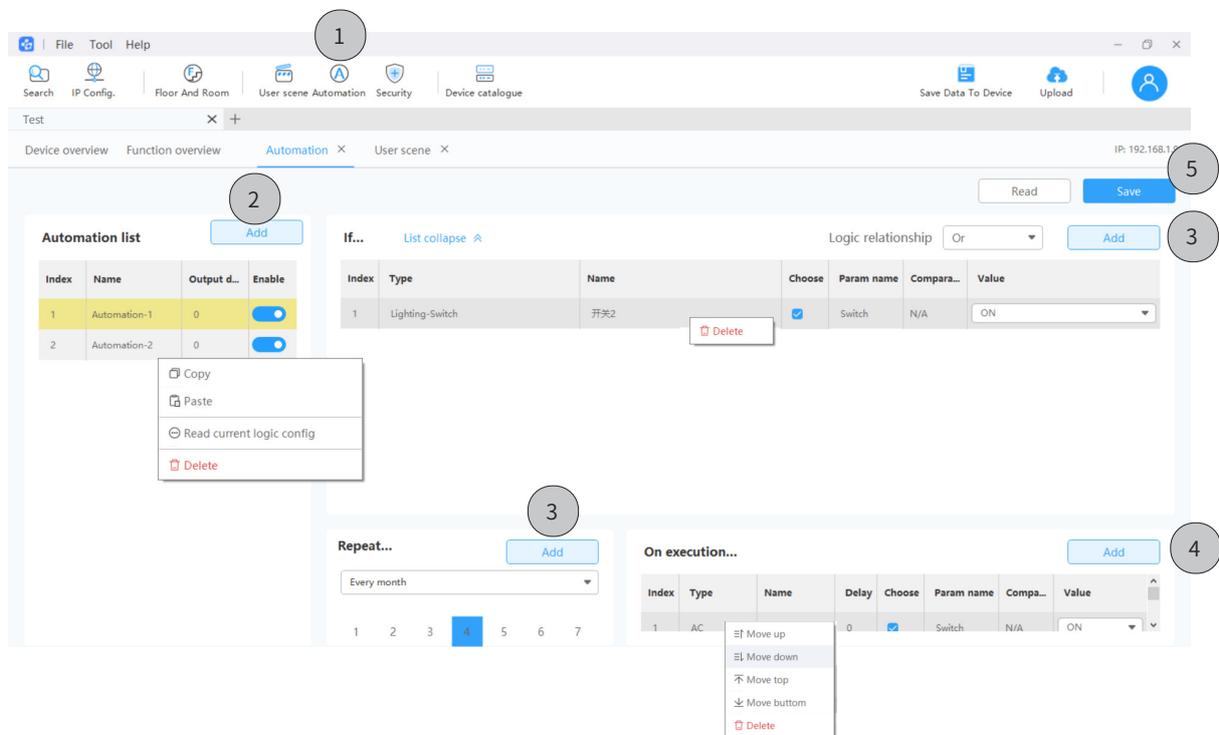


Fig. 2-5.7

## 2.6. Save Data to Device

**Step 1** As shown in Fig. 2-6.1, click "Save Data to Device".

**Step 2** Select the device.

**Step 3** Click "Sure save".

⚠ Note:

- For the devices added through "Device catalogue" (see Section 2.4.2) and already matched with the actual ones on-site, please note to proceed the steps above so as to save the data.
- If the device data have been re-set but not saved, please note to proceed the steps above to restore the data.
- The operations above will overwrite the device data. So, to restore the original settings, please note to click "Batch read" before proceeding further configuration.

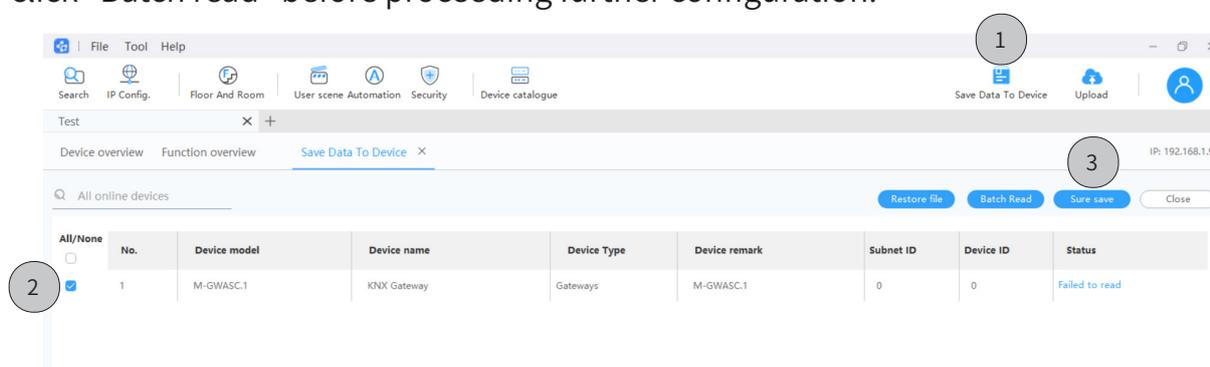


Fig. 2-6.1

## 2.7. Upload Project

**Step 1** As shown in Fig. 2-7.1, in the page of current project, click "Upload".

**Step 2** Click "Confirm".

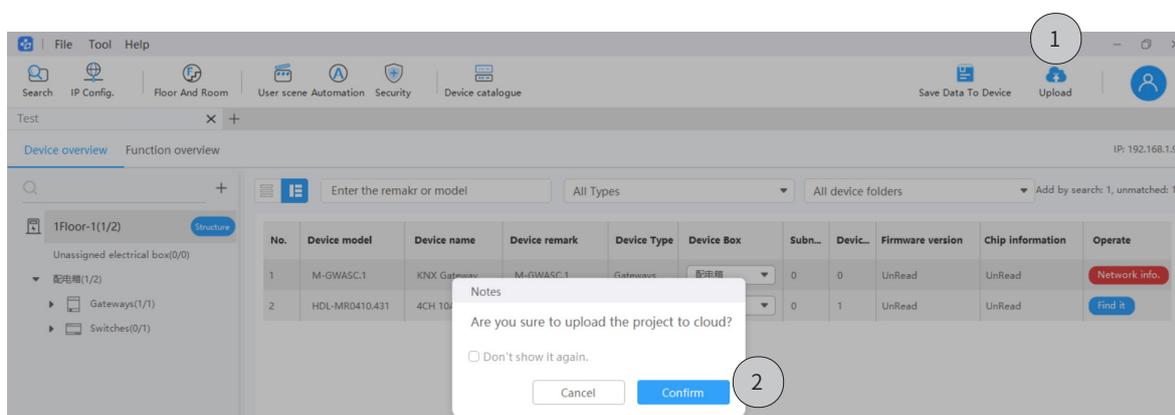
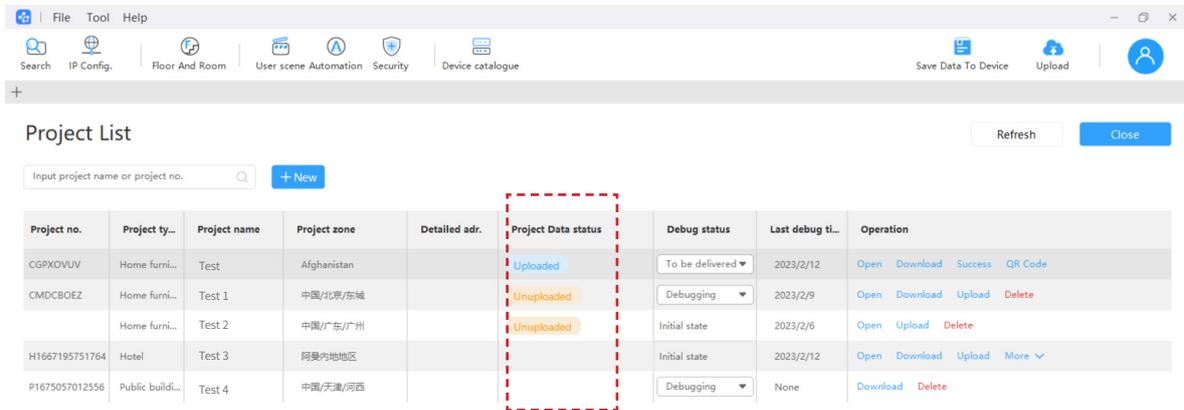


Fig. 2-7.1

Continued.....

 Tips: As shown in Fig. 2-7.2, for the home or public project, please check the upload status from the column "Project data status".

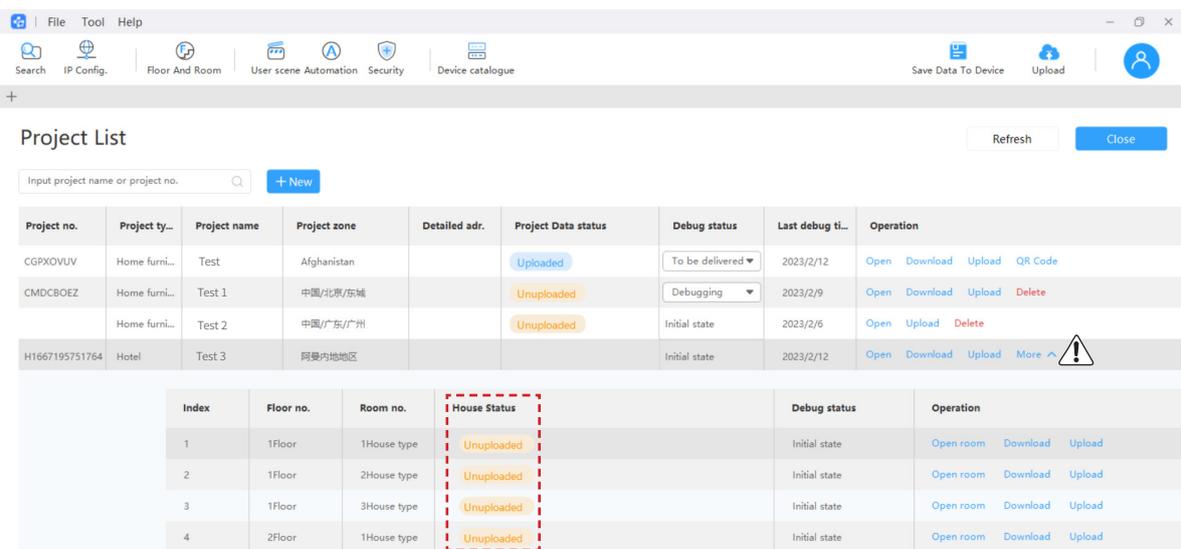


Project no.	Project ty...	Project name	Project zone	Detailed adr.	Project Data status	Debug status	Last debug ti...	Operation
CGPXOVUV	Home furni...	Test	Afghanistan		Uploaded	To be delivered	2023/2/12	Open Download Success QR Code
CMDCBOEZ	Home furni...	Test 1	中国/北京/东城		Unuploaded	Debugging	2023/2/9	Open Download Upload Delete
	Home furni...	Test 2	中国/广东/广州		Unuploaded	Initial state	2023/2/6	Open Upload Delete
H1667195751764	Hotel	Test 3	阿曼内地地区			Initial state	2023/2/12	Open Download Upload More
P1675057012556	Public buildi...	Test 4	中国/天津/河西			Debugging	None	Download Delete

Fig. 2-7.2

 Tips: As shown in Fig. 2-7.3, for the real estate or hotel project, please click "More" and unfold the house list, then check the upload status from the column "House status".

 Note: here it only shows the houses authorized for current users to debug.



Project no.	Project ty...	Project name	Project zone	Detailed adr.	Project Data status	Debug status	Last debug ti...	Operation
CGPXOVUV	Home furni...	Test	Afghanistan		Uploaded	To be delivered	2023/2/12	Open Download Upload QR Code
CMDCBOEZ	Home furni...	Test 1	中国/北京/东城		Unuploaded	Debugging	2023/2/9	Open Download Upload Delete
	Home furni...	Test 2	中国/广东/广州		Unuploaded	Initial state	2023/2/6	Open Upload Delete
H1667195751764	Hotel	Test 3	阿曼内地地区			Initial state	2023/2/12	Open Download Upload More 

Index	Floor no.	Room no.	House Status	Debug status	Operation
1	1Floor	1House type	Unuploaded	Initial state	Open room Download Upload
2	1Floor	2House type	Unuploaded	Initial state	Open room Download Upload
3	1Floor	3House type	Unuploaded	Initial state	Open room Download Upload
4	2Floor	1House type	Unuploaded	Initial state	Open room Download Upload

Fig. 2-7.3

## 2.8. Complete Debugging

 Tips: As shown in Fig. 2-8.1, for the home or public project, please select "To be delivered" from the column "Debug status".

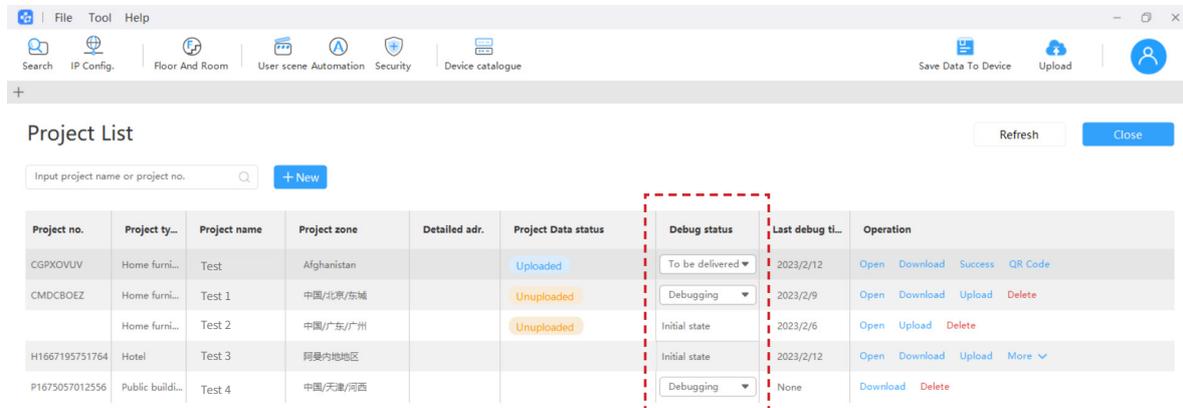


Fig. 2-8.1

 Tips: As shown in Fig. 2-8.2, for the real estate or hotel project, please click "More" and unfold the house list, then select "To be delivered" from the column "Debug status".

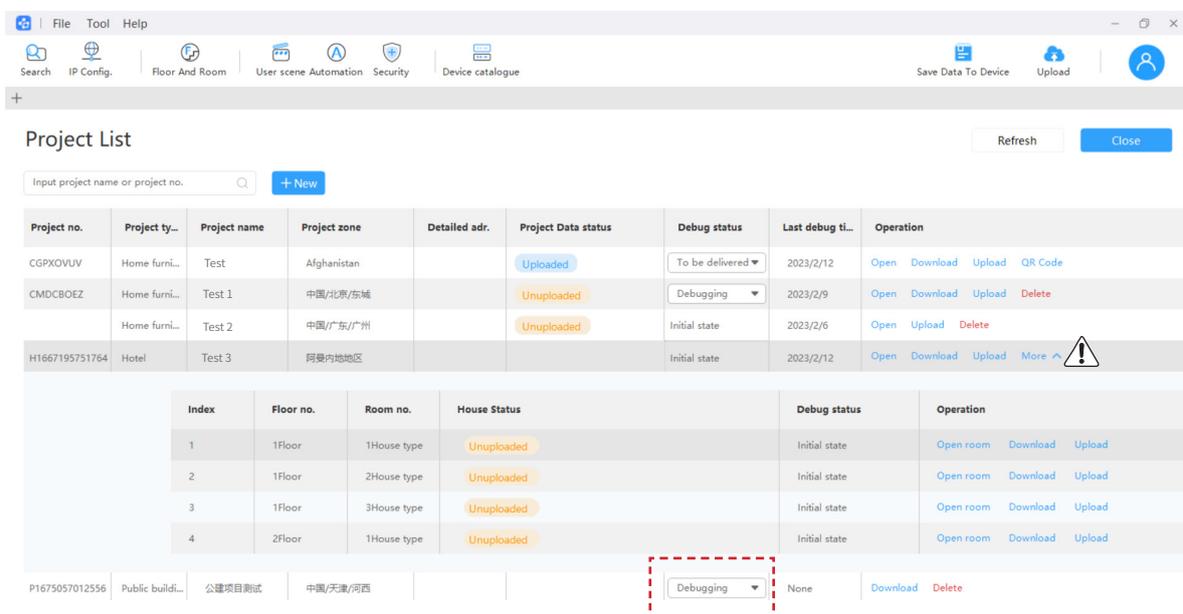


图 2-8.2

## 2.9.Deliver Project

**Option 1:** As shown in Fig. 2-9.1, make sure that the project has been set as "To be delivered" (see Section 2.8), then click "QR Code" and save to local. Once the end users scan the code, the project delivery is complete.

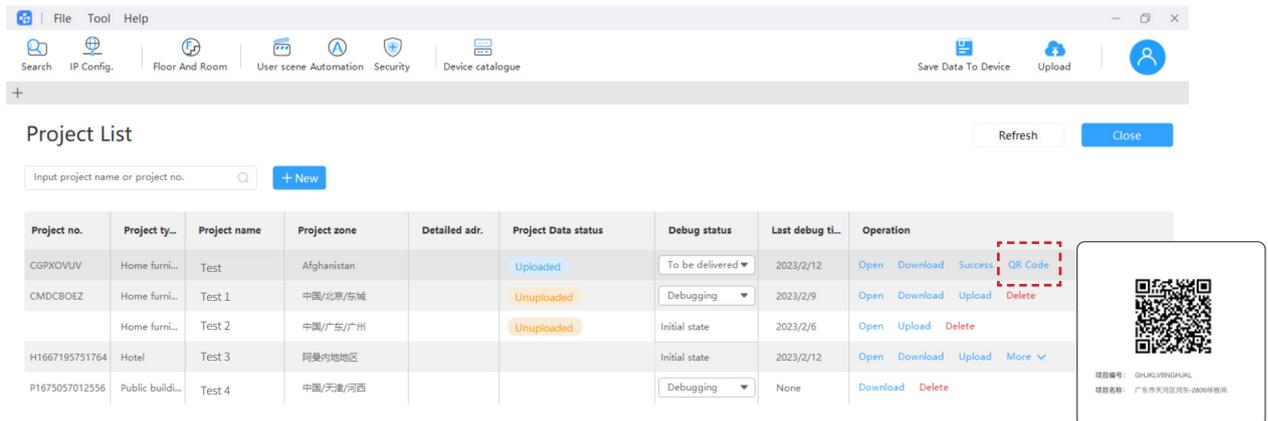


Fig. 2-9.1

**Option 1:** As shown in Fig. 2-9.2 make sure that the project has been set as "To be delivered" (see Section 2.8), then log into HDL AIoT to check and save QR code. Once the end users scan the code, the project delivery is complete.

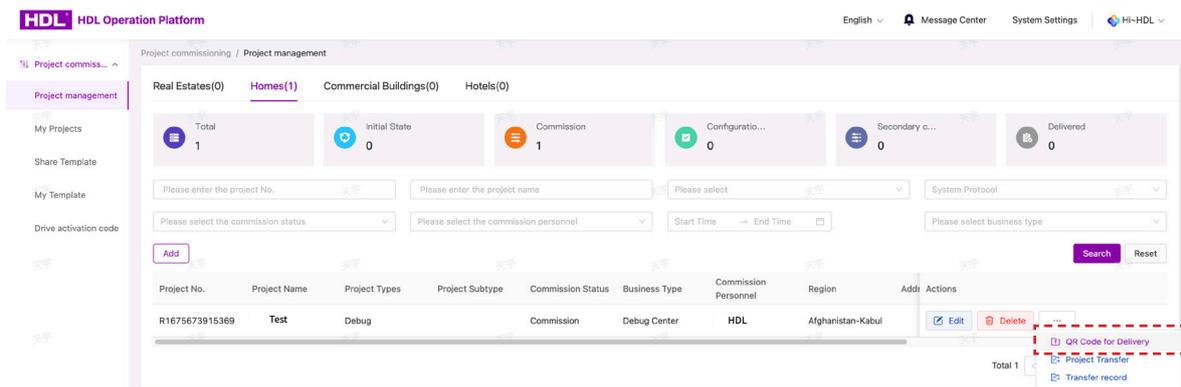


Fig. 2-9.2

## **Technical Support**

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Website: <https://www.hdlautomation.com>

