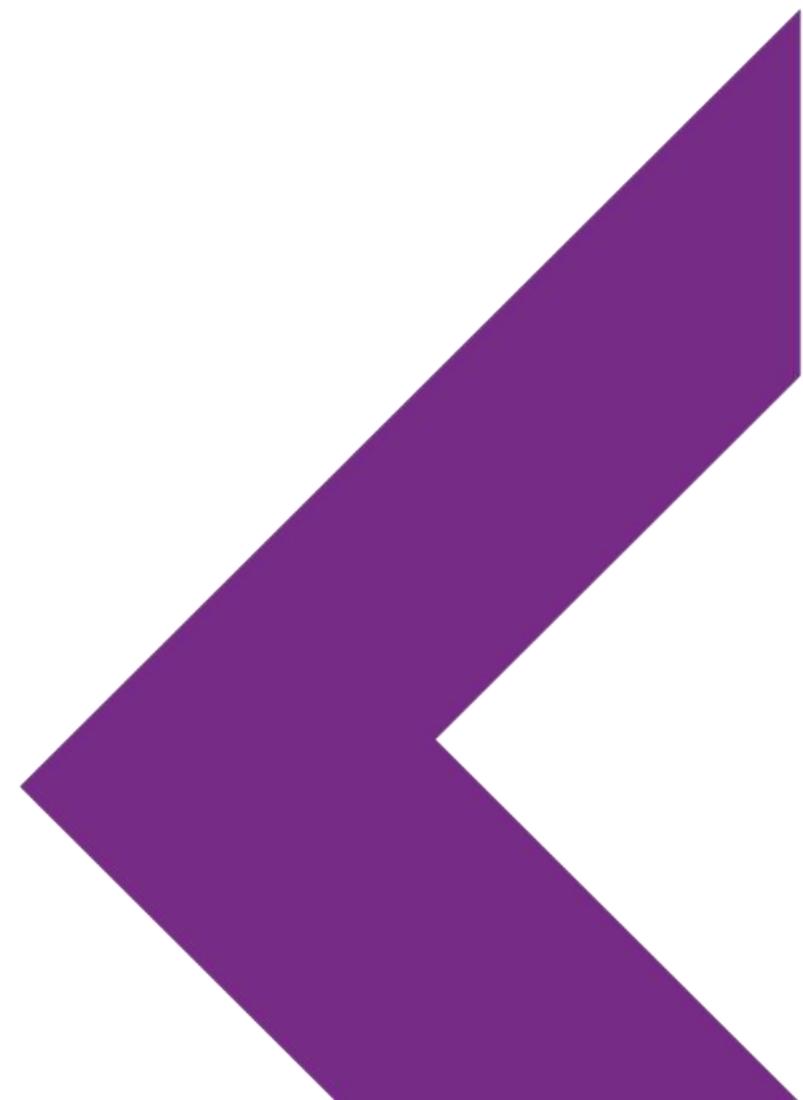


Buspro Gateway User Manual

Applicable for the debugging and configuration of Buspro Gateway via Buspro Setup Tool 2 and Buspro Studio software, as well as remote control by ON+ APP

Version: V1.0.0

Published on July 05, 2021



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1. Legal Statement & Update History

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1. Legal Statement

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2. 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	Jul 5, 2021



2. Comparison of Software

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1. Difference between Buspro Setup Tool 2 & Buspro Studio

Functional Comparison	Buspro Setup Tool 2	Buspro Studio
Sign into IOT Platform to Proceed Project Management	Unsupported	Support
Create Project on IOT Platform	Unsupported	Support
Create Template for Batch Debugging/Testing	Unsupported	Support
Offline Edit	Unsupported	Support

2. Preparation

During the configuration process of Buspro Gateway done on Buspro Setup Tool 2 & Buspro Studio, the following tools might be included:

- Buspro Gateway (Model: HDL-MGWIP.430)
- A computer with Buspro Setup Tool 2 or Buspro Studio
- ON+ Application
- Dedicated Buspro cables

***Note:**

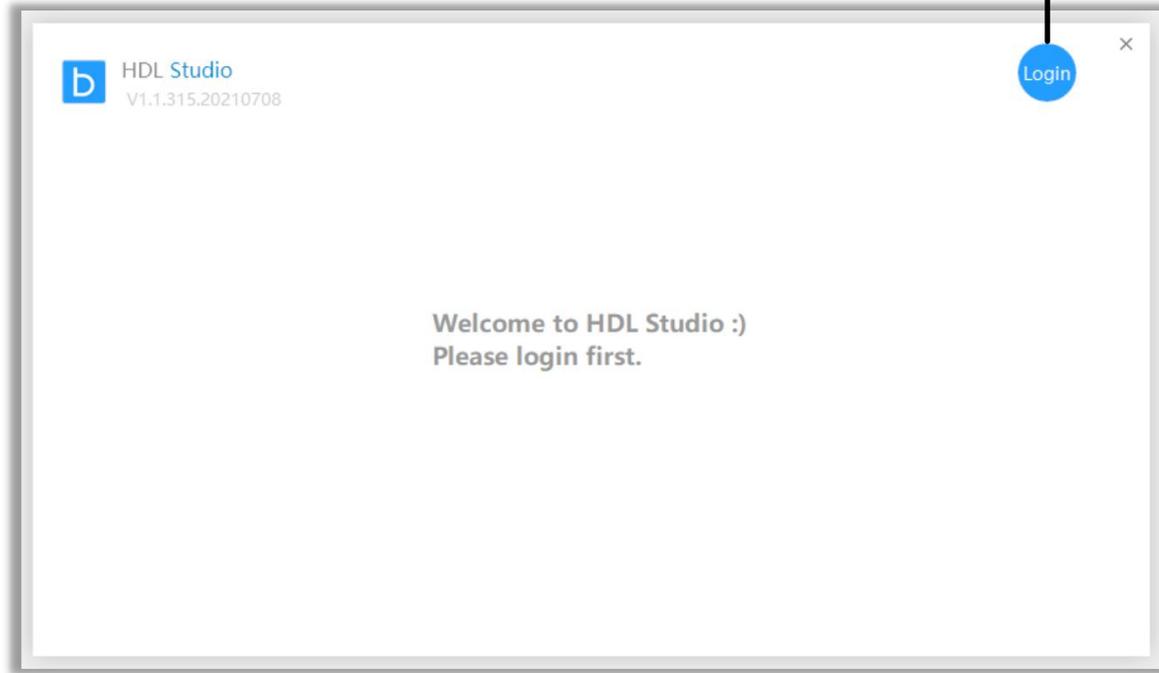
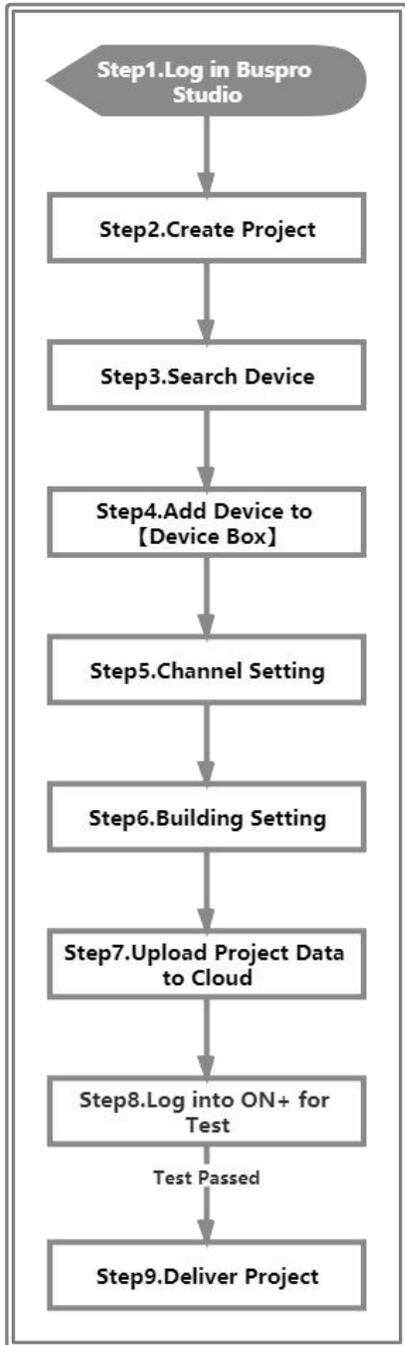
- As for Buspro Setup Tool 2, here it supports V10.05.180 and above.
- ON+ Application supports extranet and local control.
- Please refer to the data sheet attached to the product for the information of installation, wiring, specifications, etc.
- The pictures in this user manual are for reference only and the actual product should prevail.



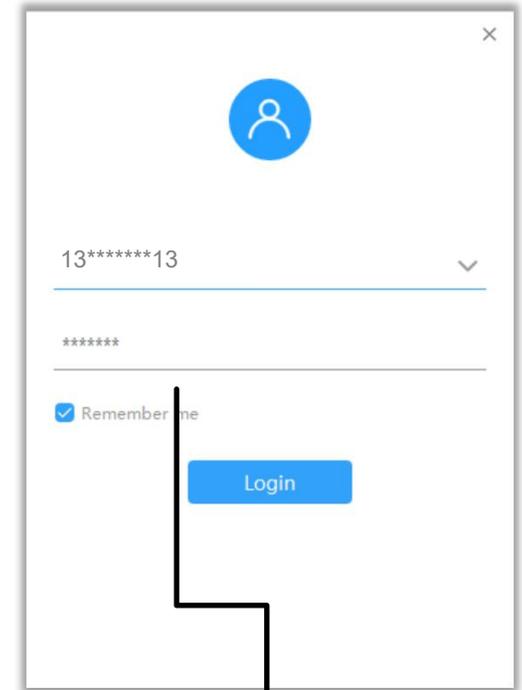
3. Buspro Studio Instruction

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- Search Device.....[13](#)
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Step 1 — Log in Buspro Studio

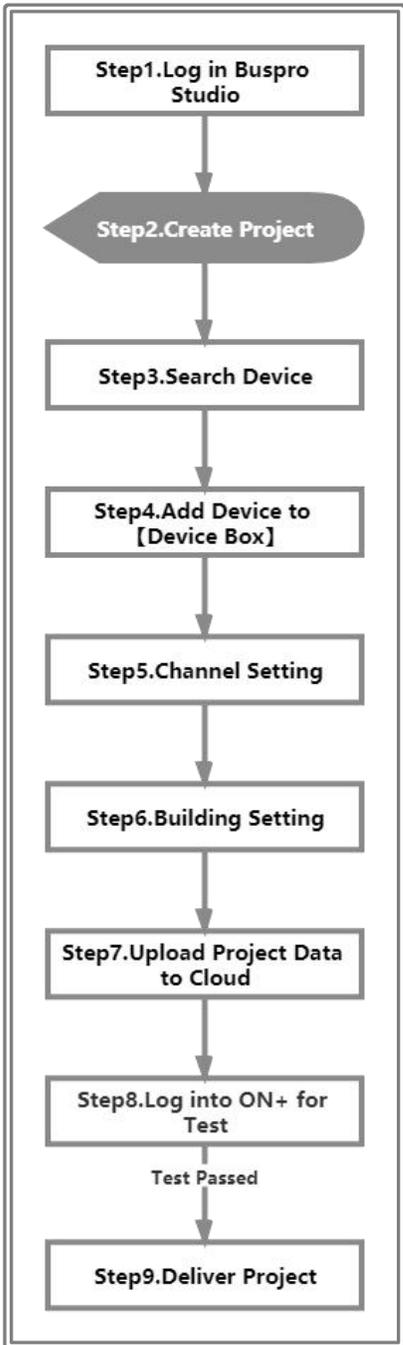


Click "Log in"



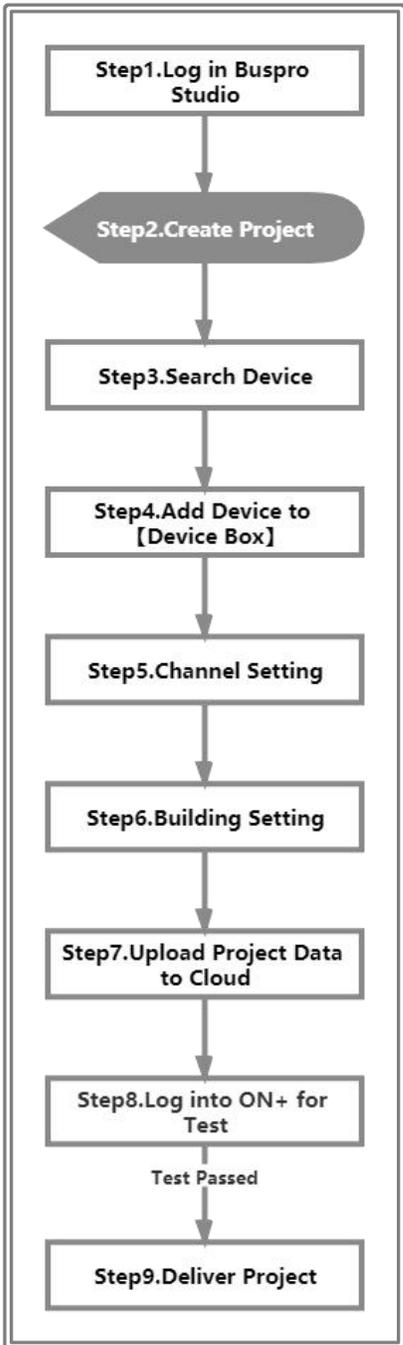
Input Account & Password

Step 2 — Buspro Studio can be used together with IOT platform, which enables to create and manage projects by Cloud. So there are two options for creating projects, as shown below:



	Option 1	Option 2
Where to Create	IOT Platform	Buspro Studio
Advantages	Manage and Control by IOT Platform	No need to log in/sign up, you can locally create and manage projects
Applicable for	Applicable for large-scale projects, batch residential projects	Applicable for single project, as well as for creating personal debugging/testing templates

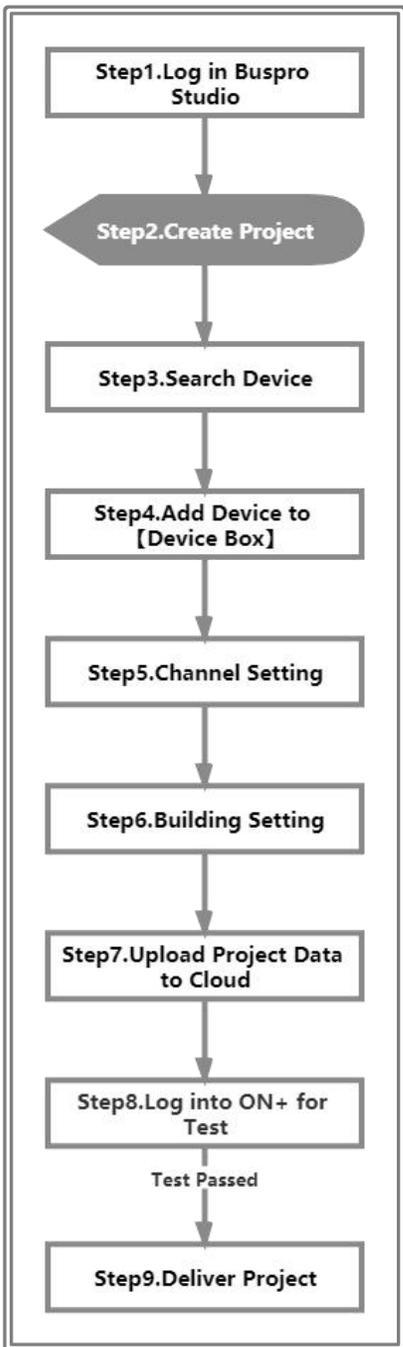
Option 1: Create by IOT Platform



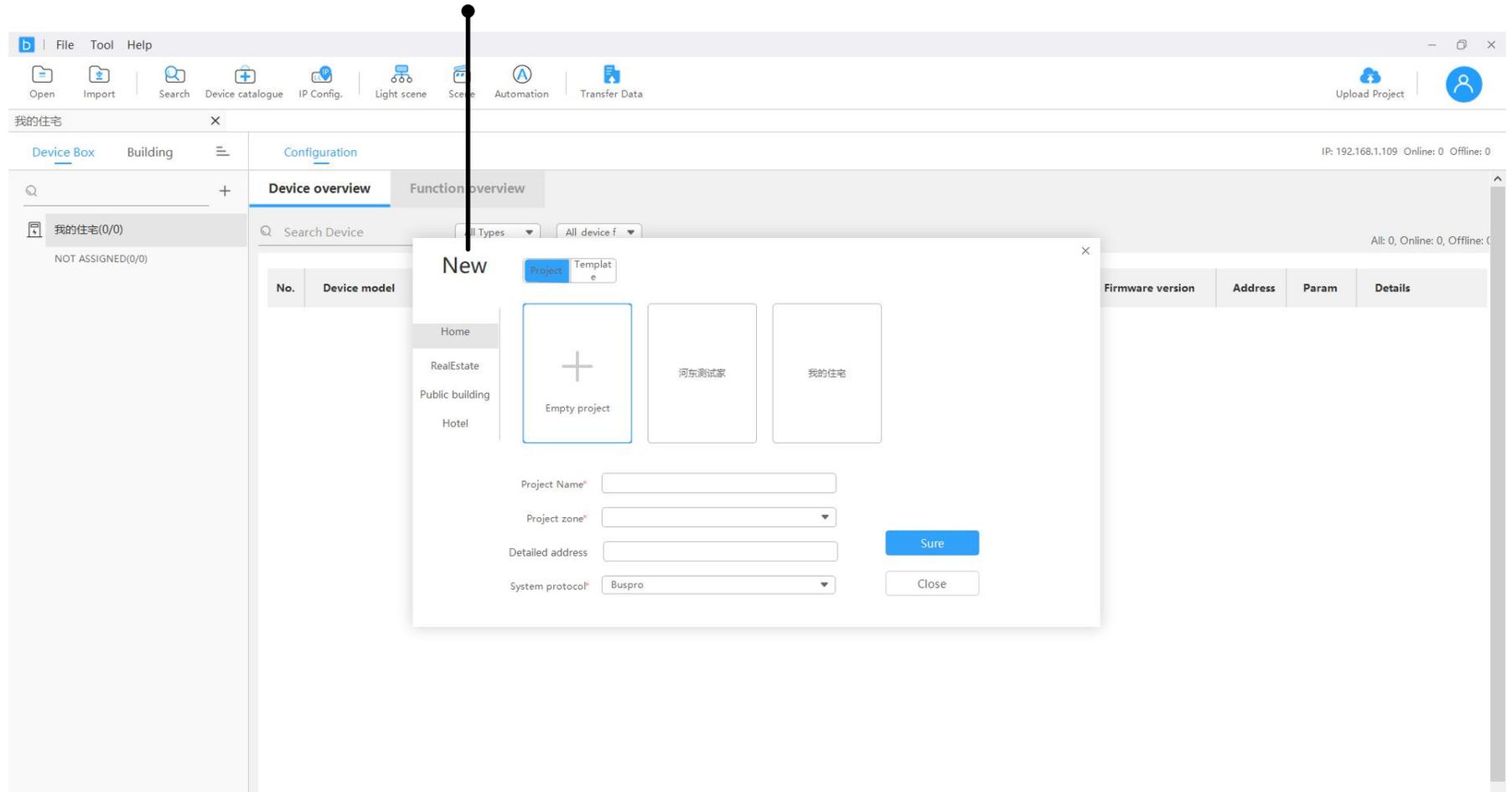
① Click head portrait, select “Personal Center”

② Select project, click “Open Project”

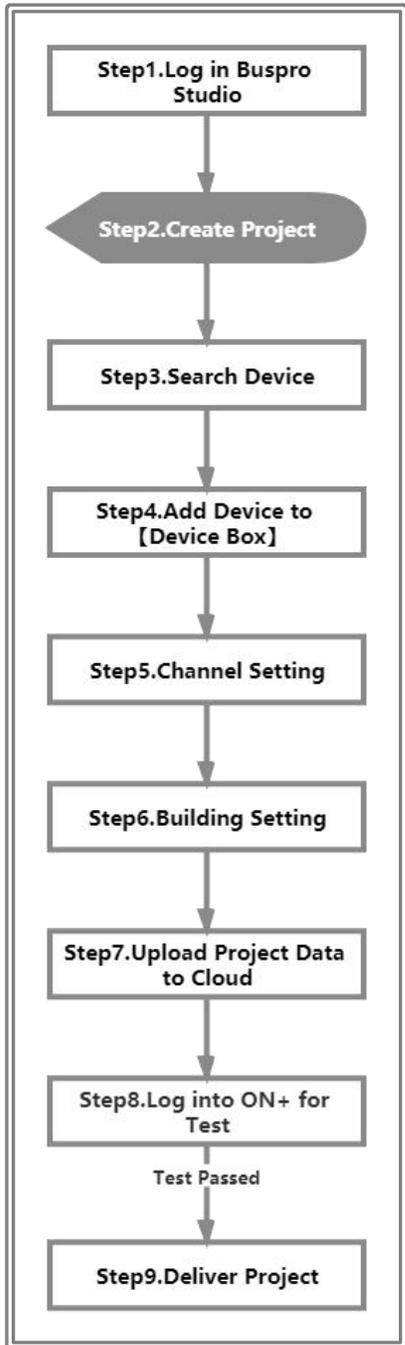
Option 2: Create by Buspro Studio



Click "New"



Step 2 — After adding project, proceed editing project information.



① Click “Empty Project”

Select project type

② Input project name, zone, address and system protocol.

Project Name* Home 1

Project zone* China/Guangdong/Guangzhou

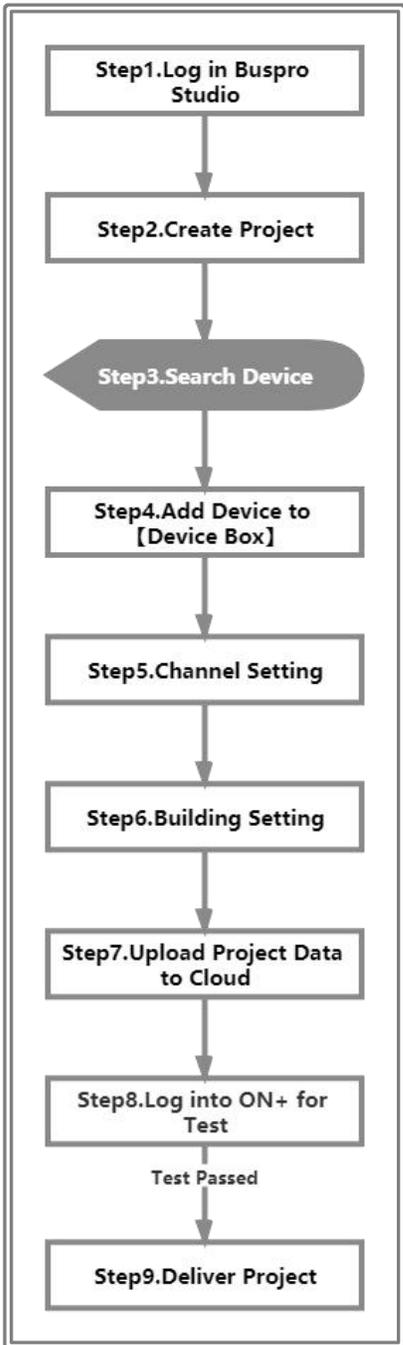
Detailed address

System protocol* Buspro

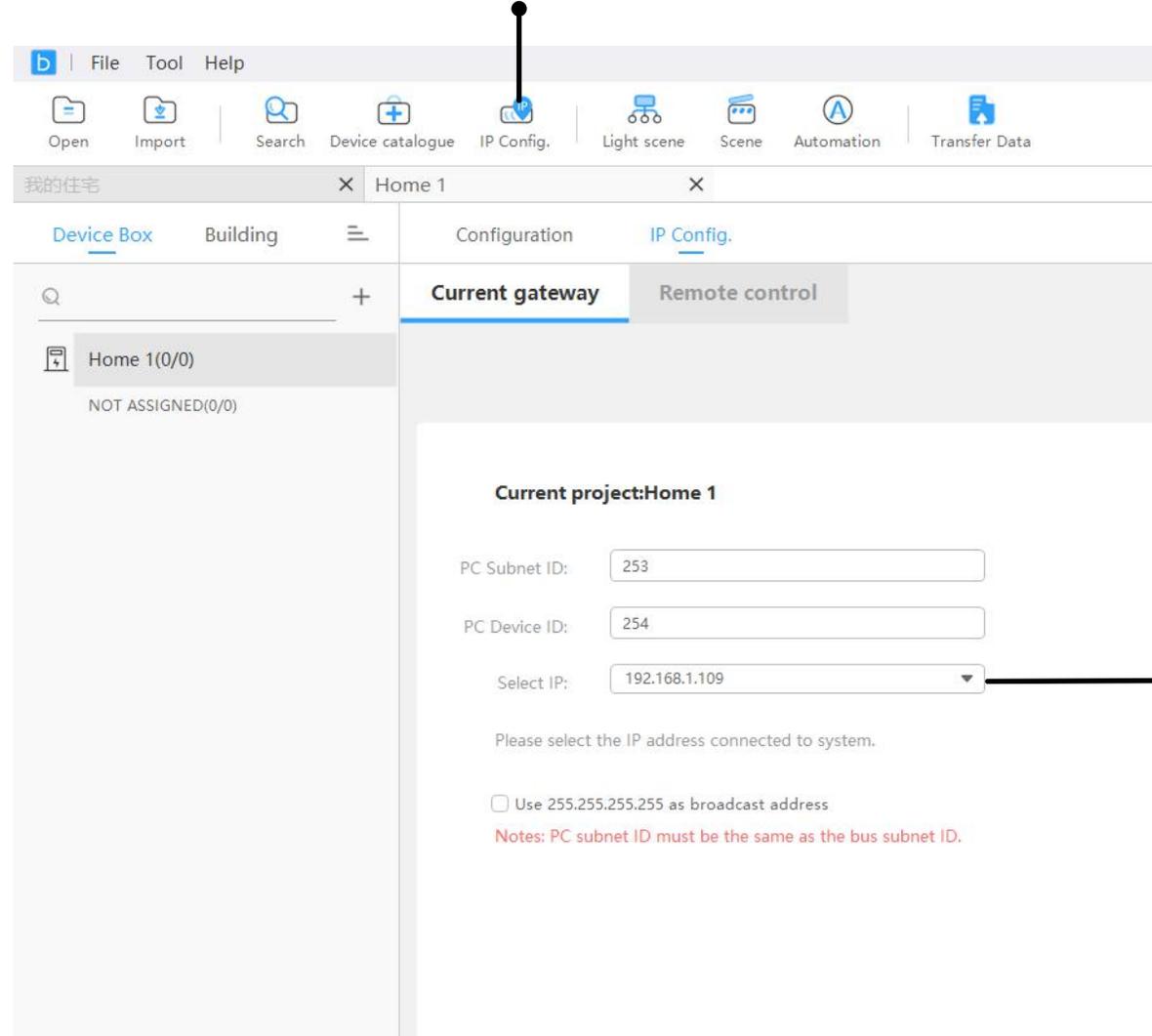
Sure

Close

Step 3 — Before searching device, please make sure current IP and device IP be kept at the same segment. If needed, you can revise as the followings:



① Click “IP Config.”



② Select IP

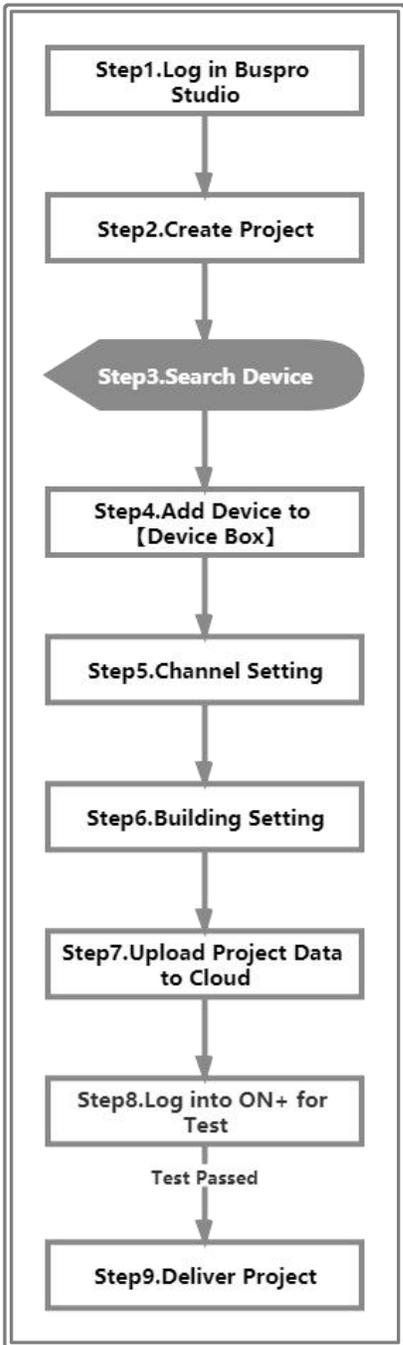
Step 3 — After making sure the current IP and device IP be kept at the same segment, proceed searching device.

① Click “Search”

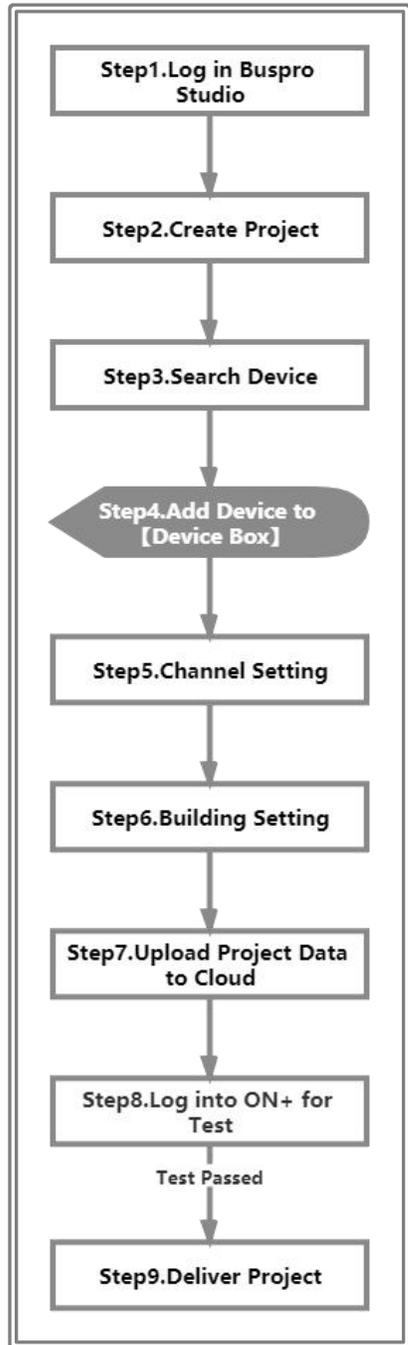
② Now all devices searched can be shown here

The screenshot shows the HDL software interface with a search results table. The table contains 17 rows of device information, including device models, names, remarks, types, subnet IDs, device IDs, and firmware versions. Each row has a checkbox for selection and buttons for 'Point device' and 'Modify address'.

No.	Device model	Device name	Device remark	Device Type	Subnet ID	Device ID	Firmware version	Operate
1	HDL-MGWIP.430	Link gateway	HDL-MGWIP.430	Gateways	6	0	UnRead	Modify address
2	HDL-MR0416.431	4CH 16A High Power Switc...		Switches	6	1	UnRead	Point device Modify address
3	SB-DN-SEC250K	Security Command Module		System Devices	6	2	UnRead	Point device Modify address
4	HDL-MCLog.431	Logic Automation Module		System Devices	6	3	UnRead	Point device Modify address
5	HDL-MAC01.431	Air-conditioning controller		HVAC	6	4	UnRead	Point device Modify address
6	HDL-MW02.431	2CH Motorized Curtain Con...		Shading	6	5	UnRead	Point device Modify address
7	SB-DN-RS232N	RS232<->curtain controller		Others	6	7	UnRead	Point device Modify address
8	HDL-MDLED0605.432	6CH 5A Intelligent LED Dim...		Dimmers	6	10	UnRead	Point device Modify address
9	HDL-MSP07M.4C	Surface Mount 7in1 Sensor		Sensors	6	11	UnRead	Point device Modify address
10	HDL-MSD04T.40	4 Zone Dry Contact Modul...		Dry contact	6	13	UnRead	Point device Modify address
11	HDL-MIRCD4.40	4CH IR Emitter with Current...		IR	6	14	UnRead	Point device Modify address
12	HDL-MPTL14.46-A	Modern Series DLP Touch P...		Control panels	6	16	UnRead	Point device Modify address
13				Others	6	17	UnRead	Point device Modify address
14	HDL-MPL8.48-A	Modern Series DLP Smart P...		Control panels	6	18	UnRead	Point device Modify address
15	HDL-MC64-DALI.431	64CH DALI Ballast Dimming...		Dimmers	6	19	UnRead	Point device Modify address
16	HDL-MD0403.432	4CH 3A Leading Edge Dim...		Dimmers	6	21	UnRead	Point device Modify address
17	HDL-MC-48IPDMX.431	48CH DMX Scene Controller		Dimmers	6	22	UnRead	Point device Modify address



Step 4 — Add device as your need.



① Select device

② Click “Add to project”

Search Device

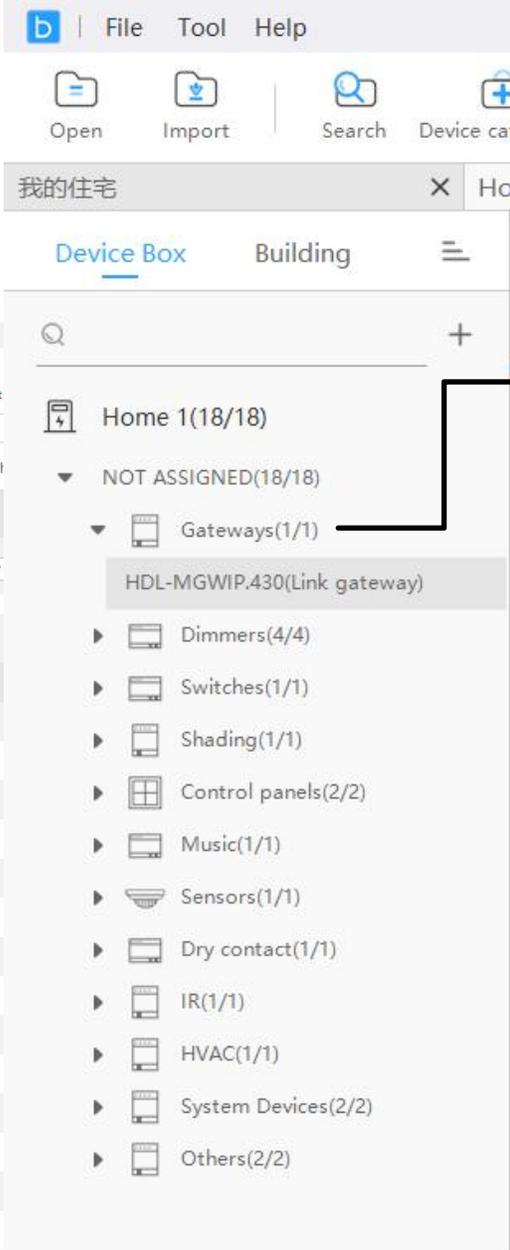
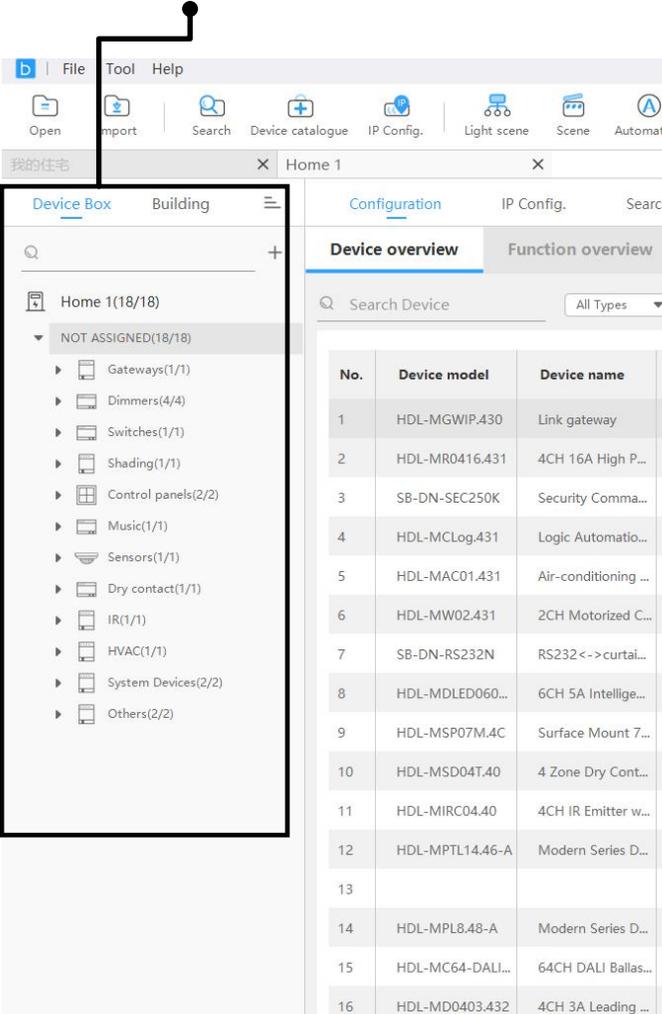
[Add to project](#) [Close](#)

No.	Device model	Device name	Device remark	Device Type	Subnet ID	Device ID	Firmware version	Operate	
<input checked="" type="checkbox"/>	1	HDL-MGWIP.430	Link gateway	HDL-MGWIP.430	Gateways	6	0	UnRead	Modify address
<input checked="" type="checkbox"/>	2	HDL-MR0416.431	4CH 16A High Power Switc...		Switches	6	1	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	3	SB-DN-SEC250K	Security Command Module		System Devices	6	2	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	4	HDL-MCLog.431	Logic Automation Module		System Devices	6	3	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	5	HDL-MAC01.431	Air-conditioning controller		HVAC	6	4	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	6	HDL-MW02.431	2CH Motorized Curtain Con...		Shading	6	5	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	7	SB-DN-RS232N	RS232<->curtain controller		Others	6	7	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	8	HDL-MDLED0605.432	6CH 5A Intelligent LED Dim...		Dimmers	6	10	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	9	HDL-MSP07M.4C	Surface Mount 7in1 Sensor		Sensors	6	11	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	10	HDL-MSD04T.40	4 Zone Dry Contact Modul...		Dry contact	6	13	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	11	HDL-MIRC04.40	4CH IR Emitter with Current...		IR	6	14	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	12	HDL-MPTL14.46-A	Modern Series DLP Touch P...		Control panels	6	16	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	13				Others	6	17	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	14	HDL-MPL8.48-A	Modern Series DLP Smart P...		Control panels	6	18	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	15	HDL-MC64-DALI.431	64CH DALI Ballast Dimming...		Dimmers	6	19	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	16	HDL-MD0403.432	4CH 3A Leading Edge Dim...		Dimmers	6	21	UnRead	Point device Modify address
<input checked="" type="checkbox"/>	17	HDL-MC-48IPDMX.431	48CH DMX Scene Controller		Dimmers	6	22	UnRead	Point device Modify address

Step 4 — Add device as your need.

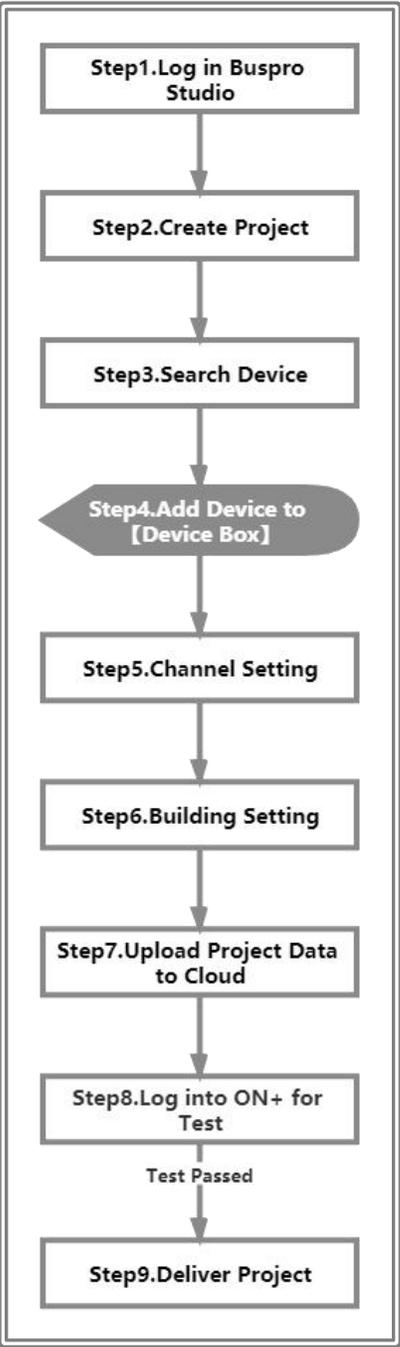
① Click “Device Box” to check all devices

*"Device Box" refers to electric boxes.



② Unfold to see each device.

*Under current version, it requires to click each device once so as to read device-related data and upload to “Building”.

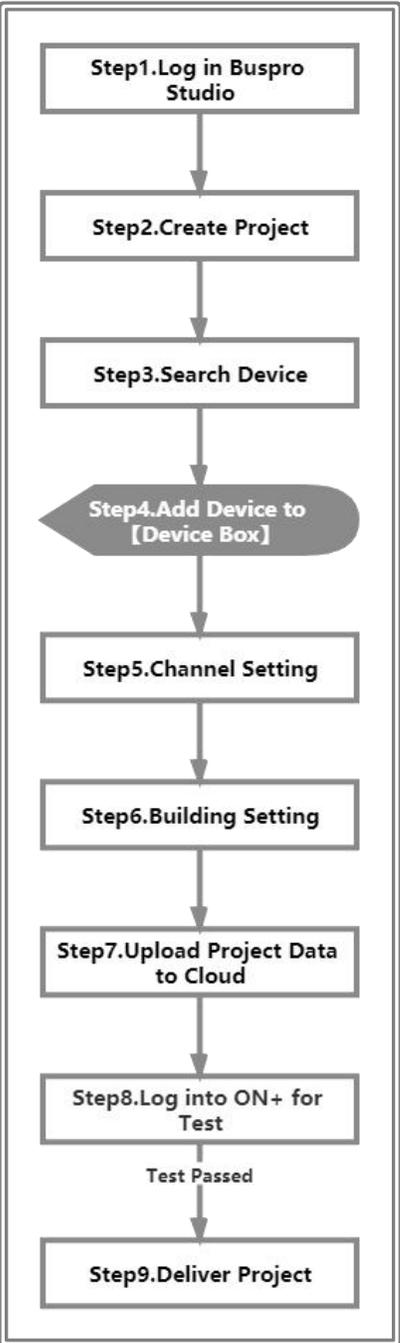


Step 4 — Add device as your need.

Click this gateway

The screenshot shows the HDL software interface for configuring a gateway device. The left sidebar lists various device categories, with 'HDL-MGWIP.430(Link gateway)' highlighted. The main configuration area is divided into several sections:

- Network address:** Includes fields for Host IP (192.168.1.111), Router IP (192.168.1.1), Mask (255.255.255.0), IP MAC (02.81.C8.7B.7B.63), DNS1 (202.96.128.166), and DNS2 (192.168.1.1).
- Connection:** Includes a dropdown for Connect type (MQTT), Project group, Project name, Designer, Website, and status indicators for Gateway and Cloud connections (both Online).
- Date and time:** Includes Date (2021/07/09), Time (16:36:4), and an Auto adjust button.
- Geographical position:** Includes Latitude and Longitude fields (both 000.00) and an Auto locate button.
- More:** Includes buttons for Pointing device, Clear data, Data backup, Recover data, and a Master checkbox.
- Project Information:** Includes Home id (0) and Gateway id (1408658396696109057).



Step 4 — Add device as your need.

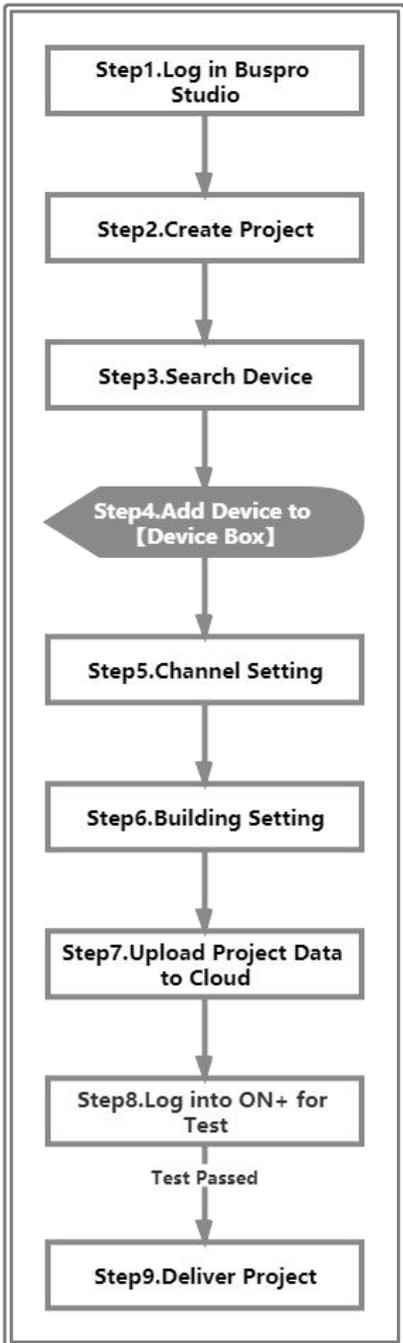
① “DHCP” is clicked by default

② Select “MQTT”

*Please note to make sure the connection status of gateway and Cloud is normal.

The screenshot shows the configuration page for a device. The 'Basic setting' tab is selected. The 'Network address' section has 'DHCP' checked. The 'Connection' section has 'MQTT' selected. The 'Date and time' section shows the date as 2021/07/09 and time as 16:36:4. The 'Geographical position' section shows latitude and longitude as 000.00. There are also buttons for 'Auto adjust', 'Auto locate', 'Pointing device', 'Clear data', 'Data backup', 'Recover data', and 'Master'. A 'Transfer Data' button is highlighted with a callout.

③ Click “Transfer Data”
*It requires extranet connection.



Step 5 — Channel setting

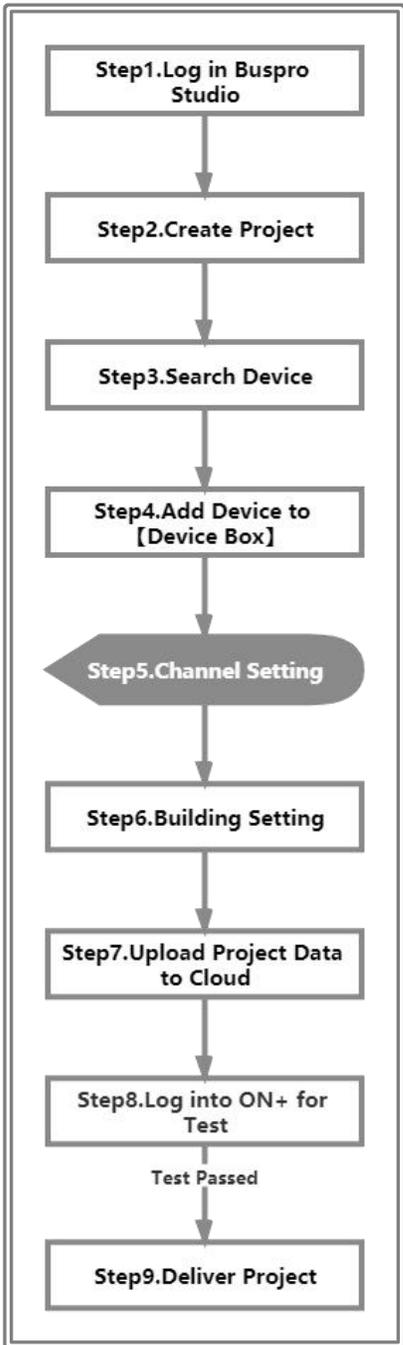
① Select the channel as needed

② Revise the channel name as needed, which corresponds to that shown in the function remark of ON+ APP.

③ Click “Transfer Data” after setting

The screenshot shows the 'Channel setting' configuration page in the HDL software. The interface includes a sidebar with a device tree, a main configuration area with a table of channels, and a top bar with navigation options. Three callout lines point to the 'CH name' column, the 'Transfer Data' button, and the 'Broadcast status' section.

CH No.	CH name	Building	Function	Lowest brightness (0-100%)	Highest brightness (0-100%)	Max dimming (0-100%)	Dimming curve	Test
1	r	NOT ASSIGNED	Lighting	0	100	100	Curve 1.0	⏻
2	g	NOT ASSIGNED	Lighting	0	100	100	Curve 1.0	⏻
3	b	NOT ASSIGNED	Lighting	0	100	100	Curve 1.0	⏻
4	调光器4	NOT ASSIGNED	Lighting	0	100	100	Curve 1.0	⏻
5	调光器5	NOT ASSIGNED	Lighting	0	100	100	Curve 1.0	⏻
6	调光器6	NOT ASSIGNED	Lighting	0	100	100	Curve 1.0	⏻



Step 5 — After channel setting, if you need to batch upload the device data, please proceed as below:

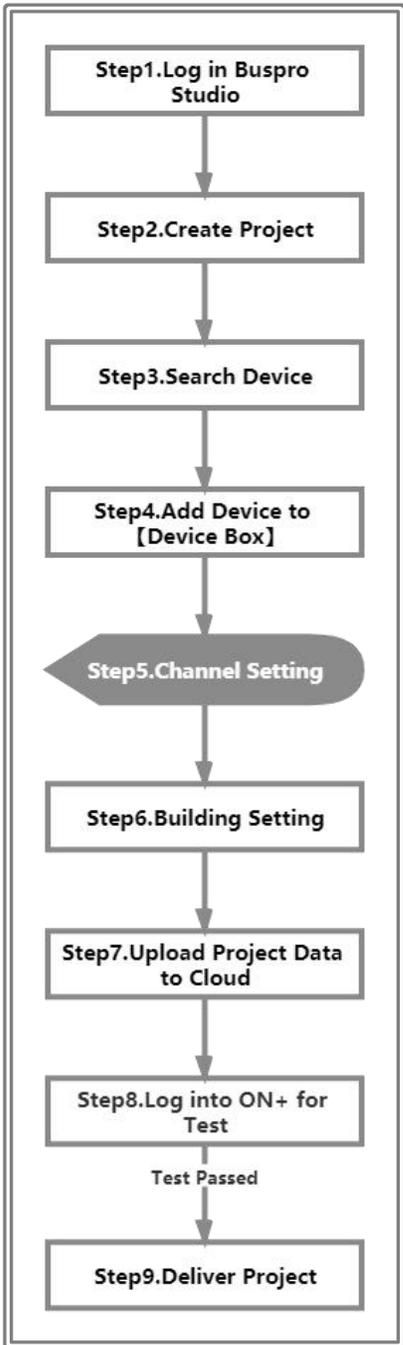
② Select the device as needed

① Click “Transfer Data”

③ Click “Sure upload”

The screenshot shows the HDL software interface. The 'Transfer Data' menu item is highlighted with a callout ①. The 'Sure upload' button is highlighted with a callout ③. A table of online devices is displayed below, with a callout ② pointing to the selection checkboxes.

All/None	No.	Device model	Device name	Device Type	Device remark	Subnet ID	Device ID	Address	Param	Status
<input checked="" type="checkbox"/>	1	HDL-MGWIP.430	Link gateway	Gateways	HDL-MGWIP.430	6	0	✓	✓	Waiting
<input checked="" type="checkbox"/>	2	HDL-MR0416.431	4CH 16A High Power Switc...	Switches		6	1	✓	✓	Waiting
<input checked="" type="checkbox"/>	3	SB-DN-SEC250K	Security Command Module	System Devices		6	2	✓	○	Waiting
<input checked="" type="checkbox"/>	4	HDL-MCLog.431	Logic Automation Module	System Devices		6	3	✓	○	Waiting
<input checked="" type="checkbox"/>	5	HDL-MAC01.431	Air-conditioning controller	HVAC		6	4	✓	✓	Waiting
<input checked="" type="checkbox"/>	6	HDL-MW02.431	2CH Motorized Curtain Con...	Shading		6	5	✓	✓	Waiting
<input checked="" type="checkbox"/>	7	HDL-MDLED0605.432	6CH 5A Intelligent LED Dim...	Dimmers		6	10	✓	✓	Waiting
<input checked="" type="checkbox"/>	8	HDL-MSP07M.4C	Surface Mount 7in1 Sensor	Sensors		6	11	✓	✓	Waiting
<input checked="" type="checkbox"/>	9	HDL-MSD04T.40	4 Zone Dry Contact Modul...	Dry contact		6	13	✓	✓	Waiting
<input checked="" type="checkbox"/>	10	HDL-MIRC04.40	4CH IR Emitter with Current...	IR		6	14	✓	✓	Waiting
<input checked="" type="checkbox"/>	11	HDL-MPTL14.46-A	Modern Series DLP Touch P...	Control panels		6	16	✓	✓	Waiting
<input checked="" type="checkbox"/>	12	HDL-MPL8.48-A	Modern Series DLP Smart P...	Control panels		6	18	✓	✓	Waiting
<input checked="" type="checkbox"/>	13	HDL-MC64-DALI.431	64CH DALI Ballast Dimming...	Dimmers		6	19	✓	✓	Waiting
<input checked="" type="checkbox"/>	14	HDL-MD0403.432	4CH 3A Leading Edge Dim...	Dimmers		6	21	✓	✓	Waiting
<input checked="" type="checkbox"/>	15	HDL-MC-48IPDMX.431	48CH DMX Scene Controller	Dimmers		6	22	✓	✓	Waiting
<input checked="" type="checkbox"/>	16	HDL-MZBOX.A50B.30	HomePlay Network Player	Music	homeplay	7	115	✓	✓	Waiting

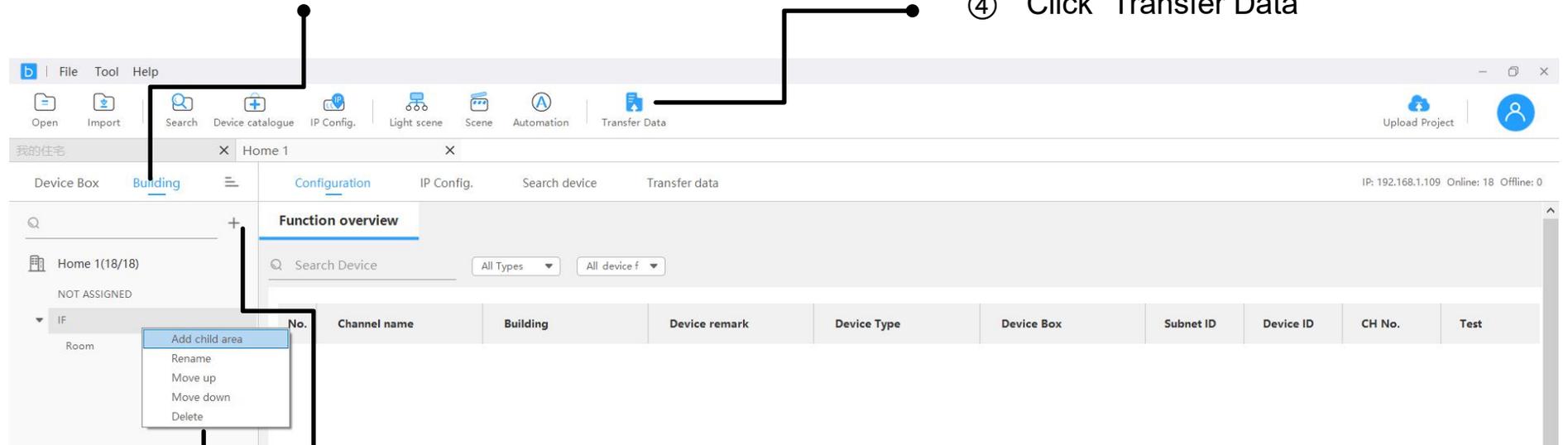


Step 6 — Building setting

① Select “Building”

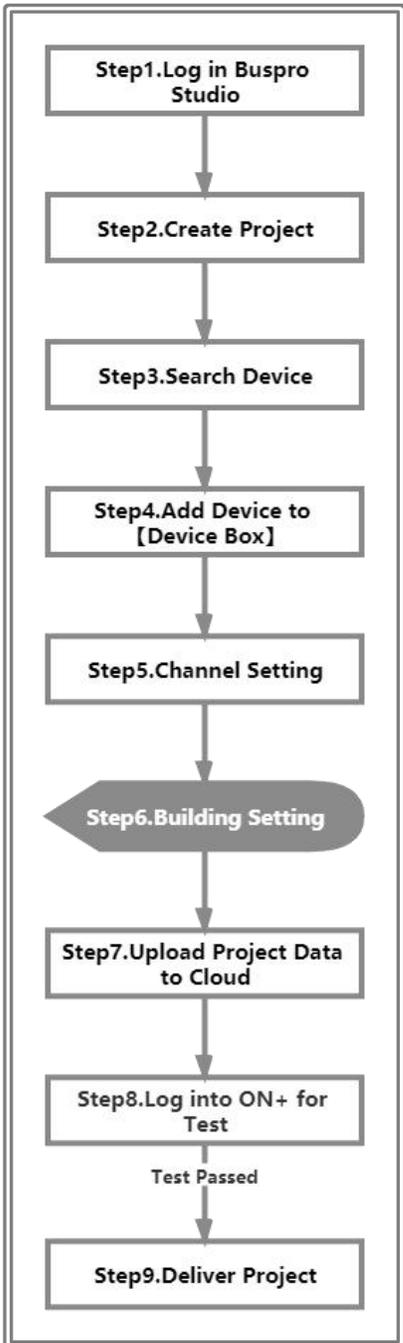
*”Building” refers to the function shown in ON+ APP.

④ Click “Transfer Data”



② Click 【+】 to create building

③ Click the new building → Right click to proceed adding sub-area → Double click to revise area name

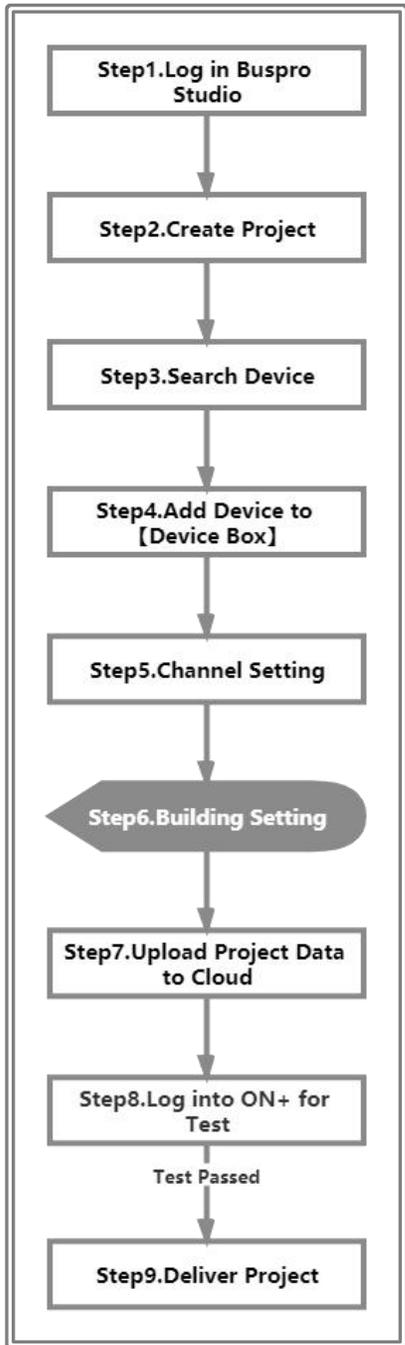


Step 6 — Building setting

Unfold to select the area as needed for the device

The screenshot shows the 'Function overview' section of the software. A table displays the following data:

No.	Channel name	Building	Device remark	Device Type	Device Box	Subnet ID	Device ID	CH No.	Test
1	r	IF		Dimmers	NOT ASSIGNED	6	10	1	<input type="checkbox"/>
2	g	IF-Room		Dimmers	NOT ASSIGNED	6	10	2	<input type="checkbox"/>
3	b	IF-Toilet		Dimmers	NOT ASSIGNED	6	10	3	<input type="checkbox"/>
4	调光器4	IF-Room		Dimmers	NOT ASSIGNED	6	10	4	<input type="checkbox"/>
5	调光器5	IF-Toilet		Dimmers	NOT ASSIGNED	6	10	5	<input type="checkbox"/>
6	调光器6	IF		Dimmers	NOT ASSIGNED	6	10	6	<input type="checkbox"/>



Step 6 — Building setting

After assigning area and configuration function, back to “Device Box” and proceed as below:

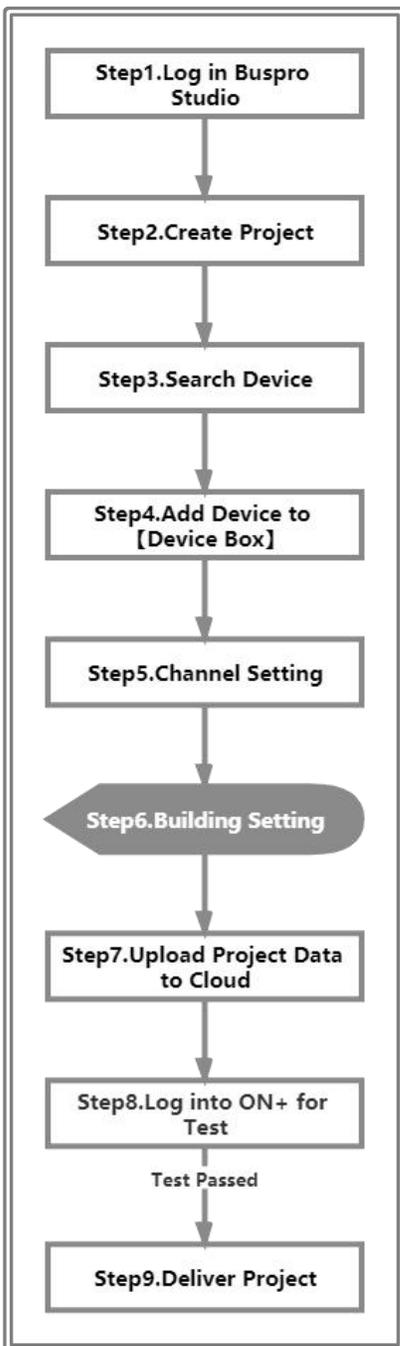
① Back to “Device Box” and select this gateway

② Select “Function”

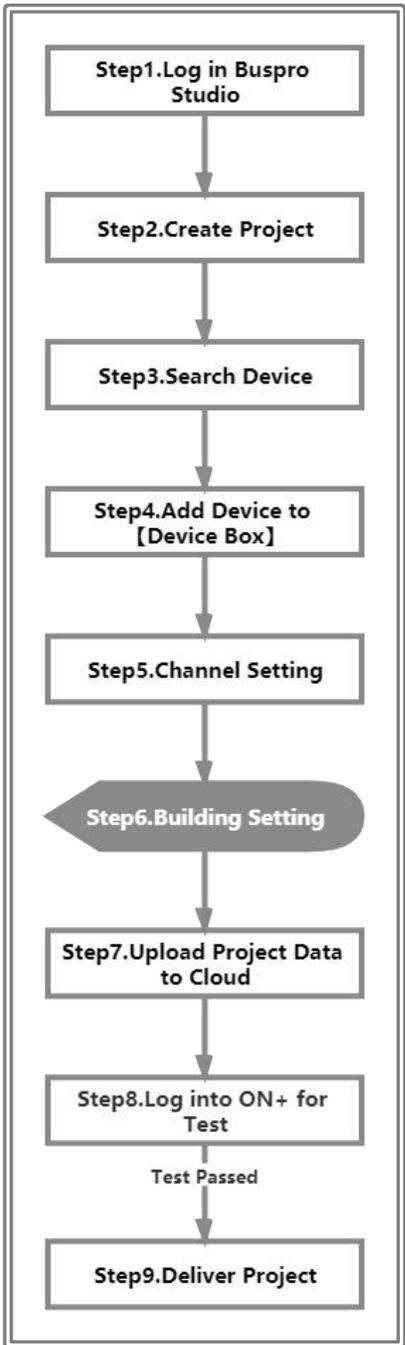
③ Click “Add”

The screenshot shows the HDL Buspro Studio software interface. The 'Functions' tab is selected, displaying a table of available functions for the selected gateway device. The table has the following columns: Select, No., Name, Zone, Type, Device name, Device Type, Device Box, Subnet ID, Device ID, and CH No. The 'HDL-MGWIP.430(Link gateway)' device is selected in the left sidebar.

Select	No.	Name	Zone	Type	Device name	Device Type	Device Box	Subnet ID	Device ID	CH No.
<input type="checkbox"/>										



Step 6 — Building setting



① Select the function you would like to upload to ON+ APP

Target library

Search: All Types Confirm to add

<input checked="" type="checkbox"/>	Function/Sce...	Building	Function	Test
<input checked="" type="checkbox"/>	r	IF	Lighting	<input type="checkbox"/>
<input checked="" type="checkbox"/>	g	IF-Room	Lighting	<input type="checkbox"/>
<input checked="" type="checkbox"/>	b	IF-Toilet	Lighting	<input type="checkbox"/>
<input checked="" type="checkbox"/>	调光器4	IF-Room	Lighting	<input type="checkbox"/>
<input checked="" type="checkbox"/>	调光器5	IF-Toilet	Lighting	<input type="checkbox"/>
<input checked="" type="checkbox"/>	调光器6	IF	Lighting	<input type="checkbox"/>
<input checked="" type="checkbox"/>		NOT ASSIGNED	Sensor	<input type="checkbox"/>
<input checked="" type="checkbox"/>		NOT ASSIGNED	Brightness Sen...	<input type="checkbox"/>
<input checked="" type="checkbox"/>		NOT ASSIGNED	PIR sensor	<input type="checkbox"/>

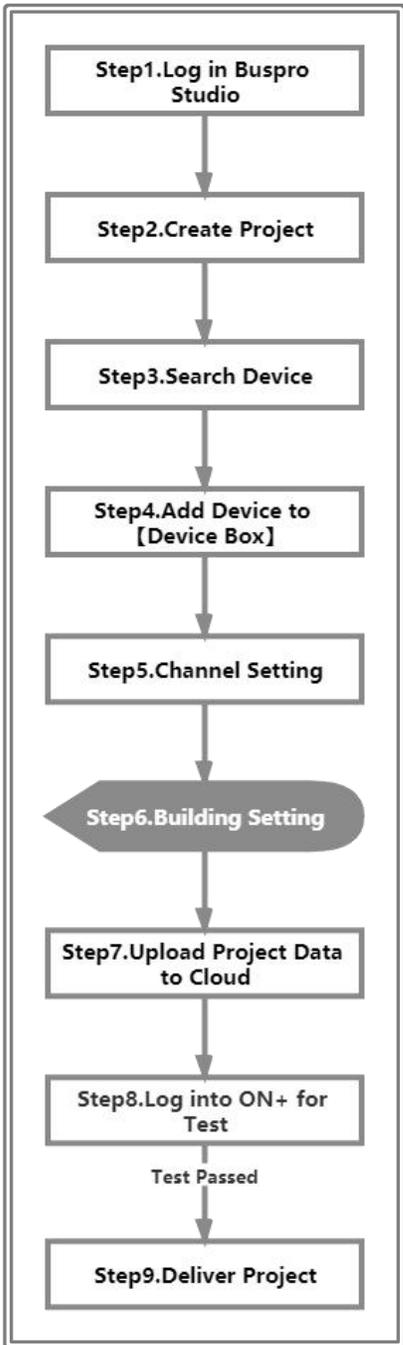
② Click "Confirm to add"

Step 6 — Building setting

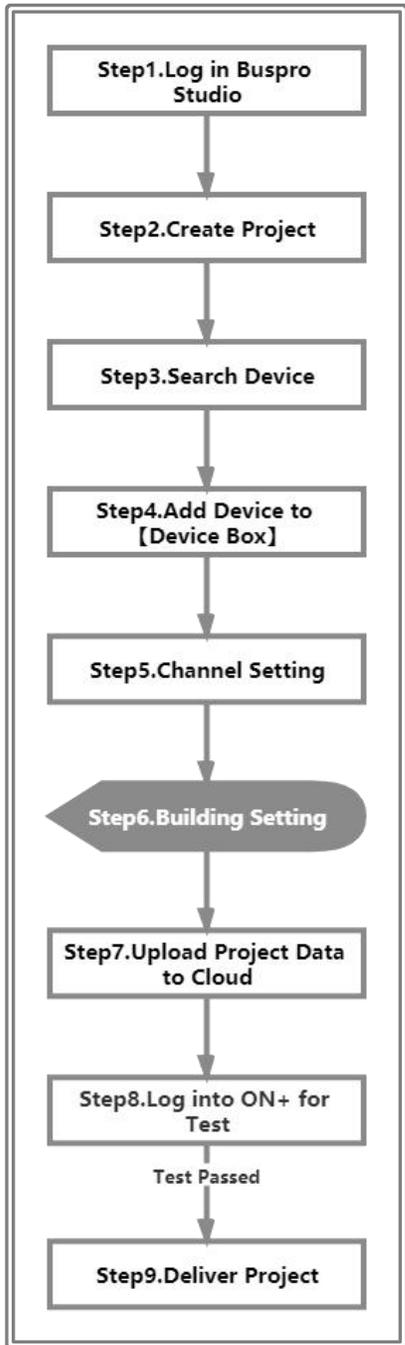
- ① Select the function you would like to upload to ON+ APP again
- ② Click “Transfer Data”

The screenshot shows the 'Functions' tab in the HDL software. The interface includes a navigation bar with options like 'atalogue', 'IP Config.', 'Light scene', 'Scene', 'Automation', and 'Transfer Data'. The main content area displays device information for 'HDL-MGWIP.430' and a table of functions.

Select	No.	Name	Zone	Type	Device name	Device Type	Device Box	Subnet ID	Device ID	CH No.
<input checked="" type="checkbox"/>	1	r	IF	Lighting		Dimmers	NOT ASSIGNED	6	10	1
<input checked="" type="checkbox"/>	2	g	IF-Room	Lighting		Dimmers	NOT ASSIGNED	6	10	2
<input checked="" type="checkbox"/>	3	b	IF-Toilet	Lighting		Dimmers	NOT ASSIGNED	6	10	3
<input checked="" type="checkbox"/>	4	调光器4	IF-Room	Lighting		Dimmers	NOT ASSIGNED	6	10	4
<input checked="" type="checkbox"/>	5	调光器5	IF-Toilet	Lighting		Dimmers	NOT ASSIGNED	6	10	5
<input checked="" type="checkbox"/>	6	调光器6	IF	Lighting		Dimmers	NOT ASSIGNED	6	10	6
<input checked="" type="checkbox"/>	7		NOT ASSIGNED			Sensors	NOT ASSIGNED	6	11	0



Step 6 — After completing the previous steps, proceed scene setting.



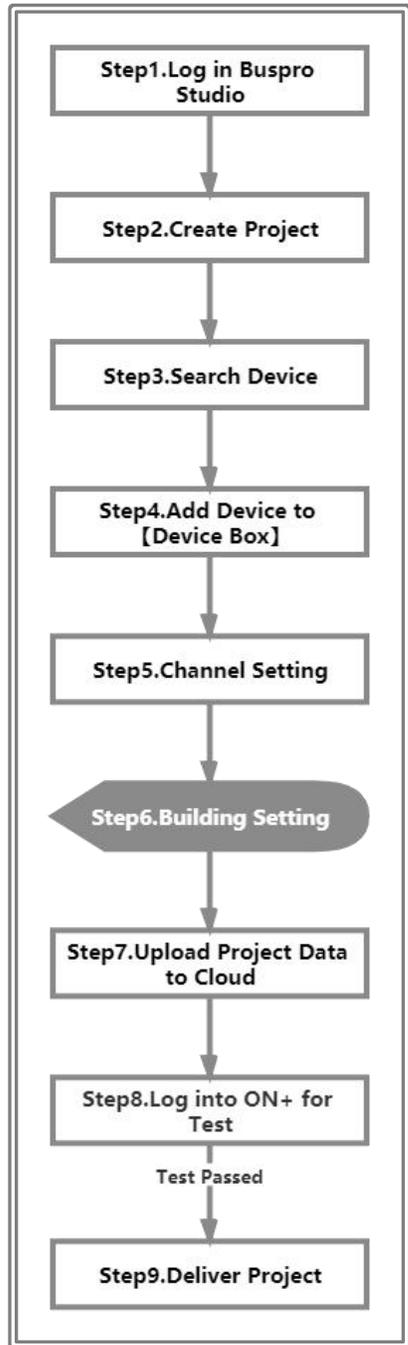
① Click "Scene"

② Revise the scene name and assign area as needed

Scene No.	Scene na...	Zone	Del...	Group	Test
1	Scene-1	NOT ASSI...	0	255	

③ Click "Add"

Step 6 — After completing the previous steps, proceed scene setting.

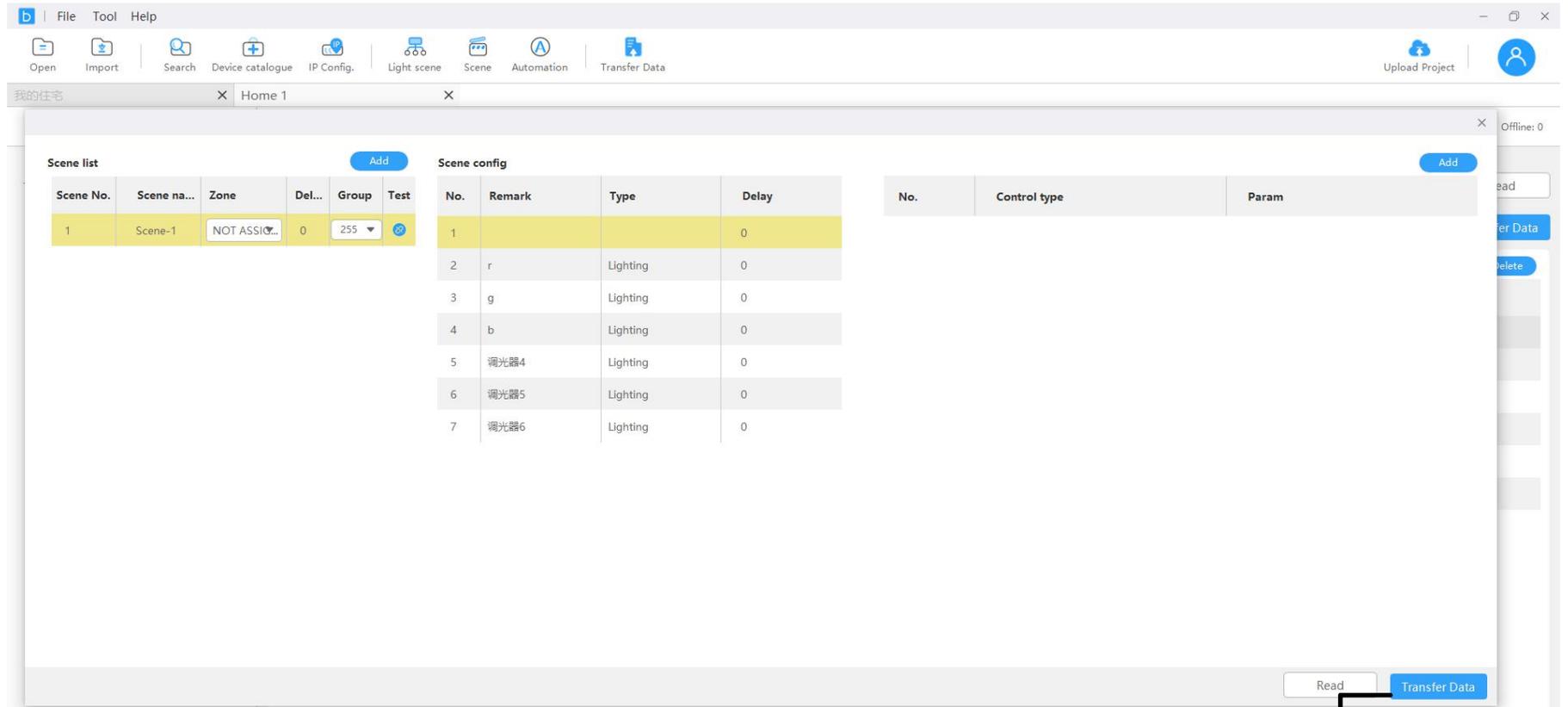
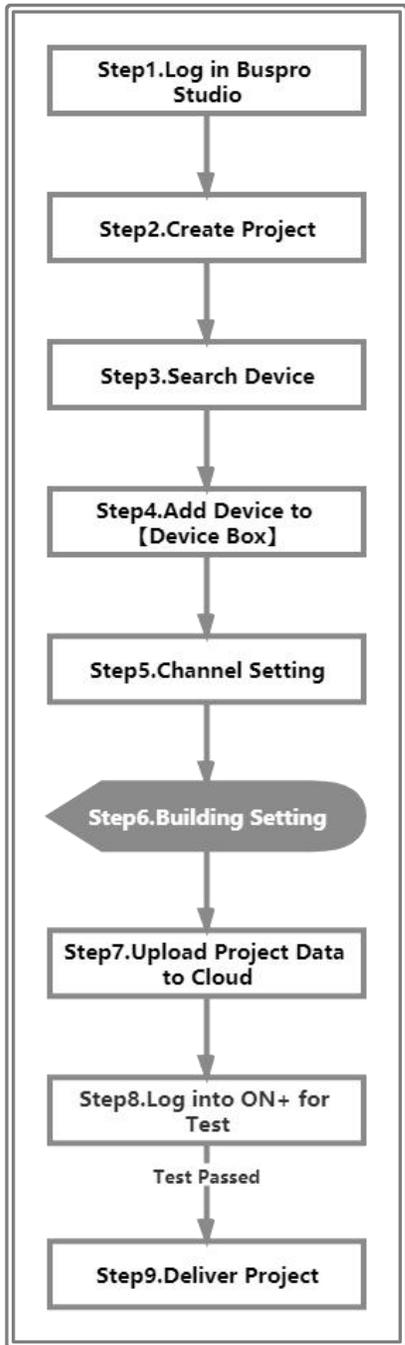


① Select function

Select	No.	Name	Type	Zone
<input checked="" type="checkbox"/>	1			NOT ASSIGNED
<input checked="" type="checkbox"/>	2	r	Lighting	NOT ASSIGNED
<input checked="" type="checkbox"/>	3	g	Lighting	NOT ASSIGNED
<input checked="" type="checkbox"/>	4	b	Lighting	NOT ASSIGNED
<input checked="" type="checkbox"/>	5	调光器4	Lighting	NOT ASSIGNED
<input checked="" type="checkbox"/>	6	调光器5	Lighting	NOT ASSIGNED
<input checked="" type="checkbox"/>	7	调光器6	Lighting	NOT ASSIGNED

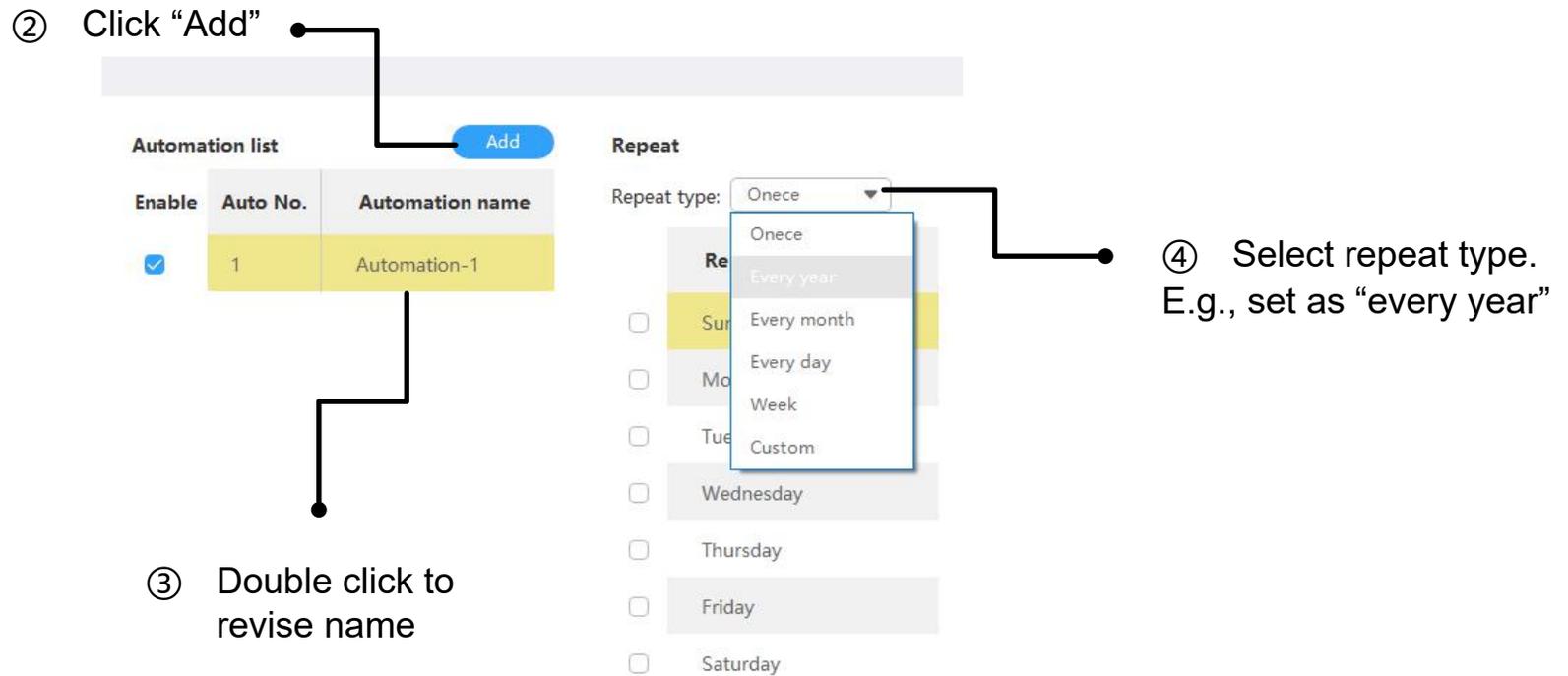
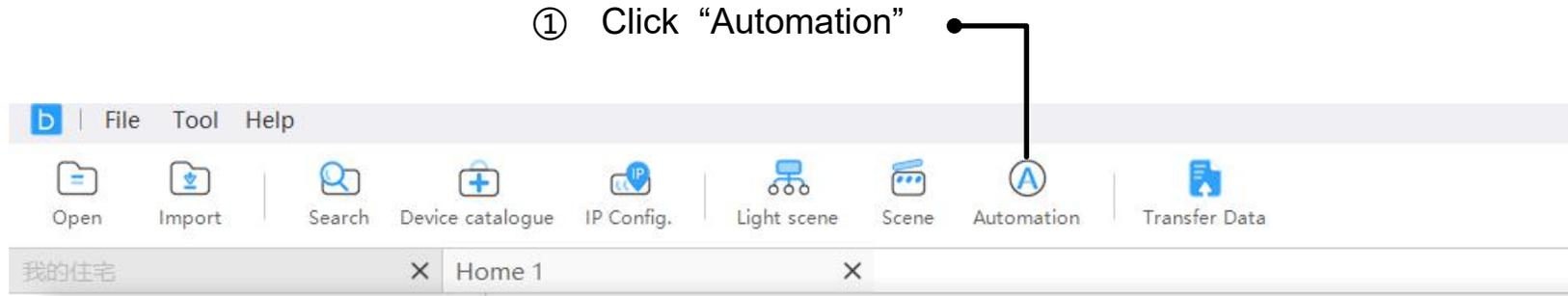
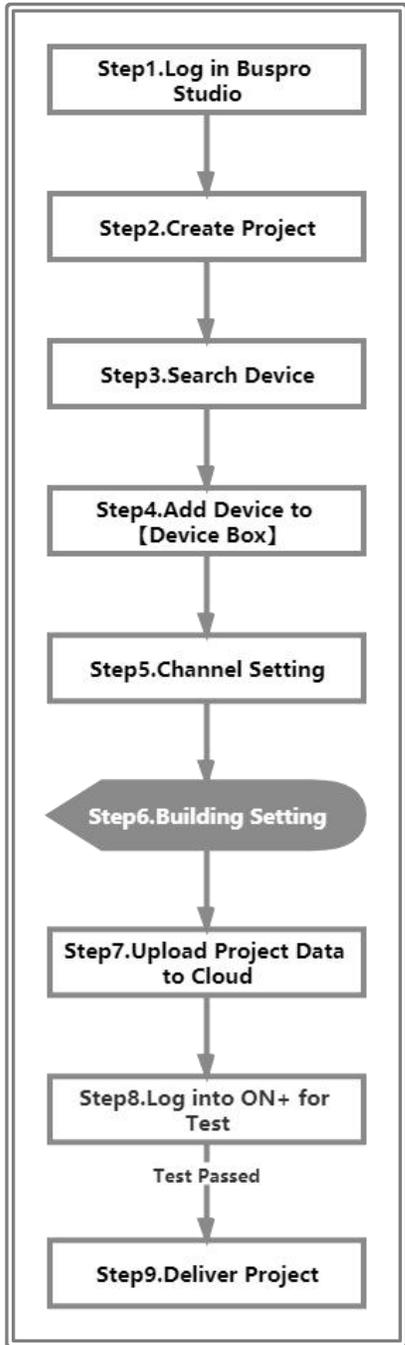
② Select the function status

Step 6 — After completing the previous steps, proceed scene setting.

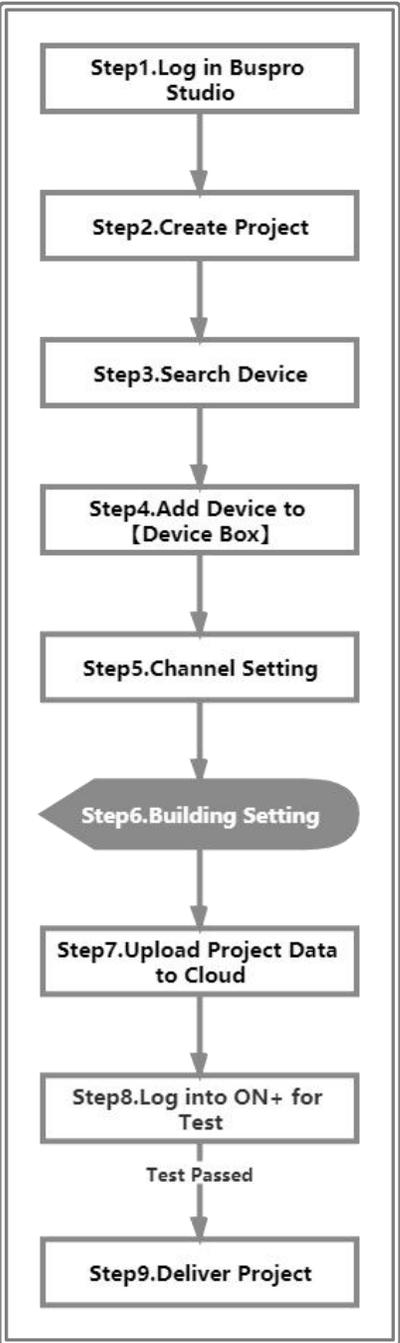


After scene setting, click “Transfer Data”.
When successfully uploading, close this page.

Step 6 — Automation setting



Step 6 — Automation setting



① Select logic relationship, "And" or "Or"

② Click "Input setting" to set conditions for execution

③ Click "Add"

④ Select function

⑤ Set the function status

Input setting Output setting

Logic relationship: And

N...	Type	Name	Control type	Value	Comparator
1			<input checked="" type="checkbox"/> Switch	OFF	N/A
2	Lighting	r		OFF	
3	Lighting	g		ON	

Function List

No.	Name	Type	Zone
<input checked="" type="checkbox"/>	1		NOT ASSIGNED
<input checked="" type="checkbox"/>	2	r	Lighting
<input checked="" type="checkbox"/>	3	g	Lighting
<input type="checkbox"/>	4	b	Lighting
<input type="checkbox"/>	5	调光器4	Lighting
<input checked="" type="checkbox"/>	6	调光器5	Lighting
<input type="checkbox"/>	7	调光器6	Lighting
<input checked="" type="checkbox"/>	8	DALI调光筒灯	Lighting
<input type="checkbox"/>	9		Lighting

Cancel Confirm

Step 6 — Automation setting

① After setting conditions, click “Output setting”, i.e. execution target.

N...	Type	Name	Control type	Value
1	Lighting	调光器4	<input checked="" type="checkbox"/> Switch	OFF
2	Lighting	调光器5	<input checked="" type="checkbox"/> Dimming	◀ 51% ▶

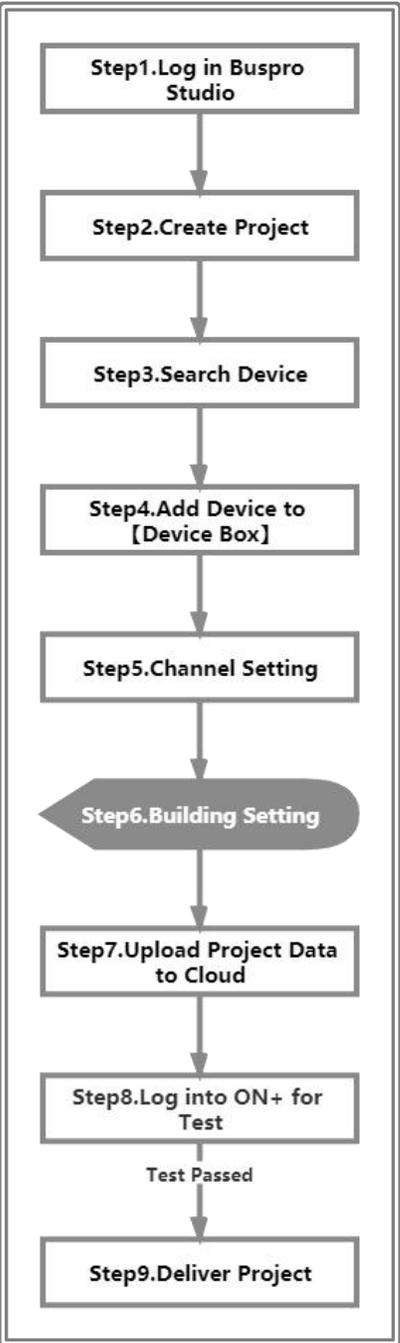
② Click “Add”

③ Set the function status

Enable	Auto No.	Automation name	Repeat item	N...	Type	Name	Control type	Value
<input checked="" type="checkbox"/>	1	Automation-1	<input type="checkbox"/> Sunday	1	Lighting	调光器4	<input checked="" type="checkbox"/> Switch	OFF
			<input type="checkbox"/> Monday	2	Lighting	调光器5	<input checked="" type="checkbox"/> Dimming	◀ 51% ▶
			<input type="checkbox"/> Tuesday					
			<input type="checkbox"/> Wednesday					
			<input type="checkbox"/> Thursday					
			<input type="checkbox"/> Friday					
			<input type="checkbox"/> Saturday					

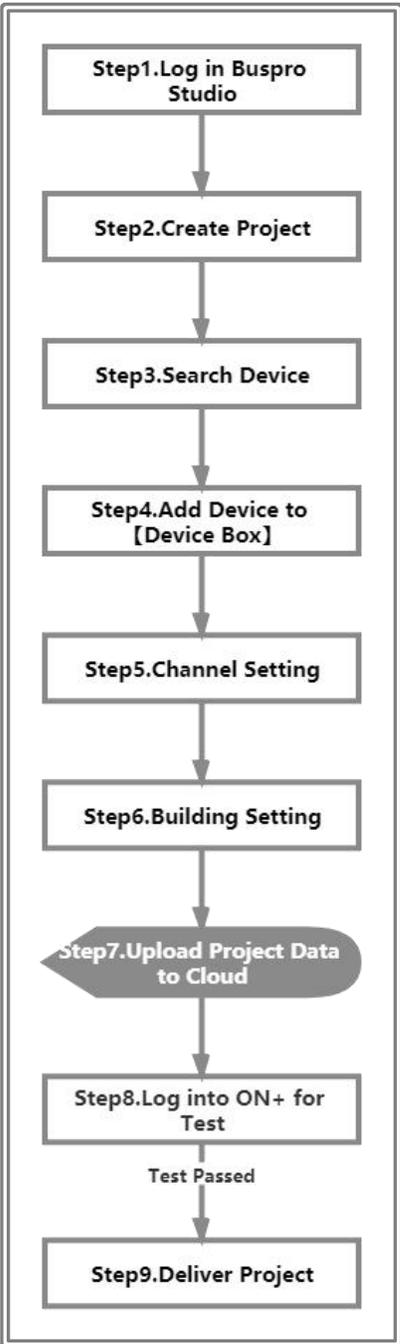
④ Click “Transfer Data” while completing setting

10% Uploading 10% Read **Transfer Data**

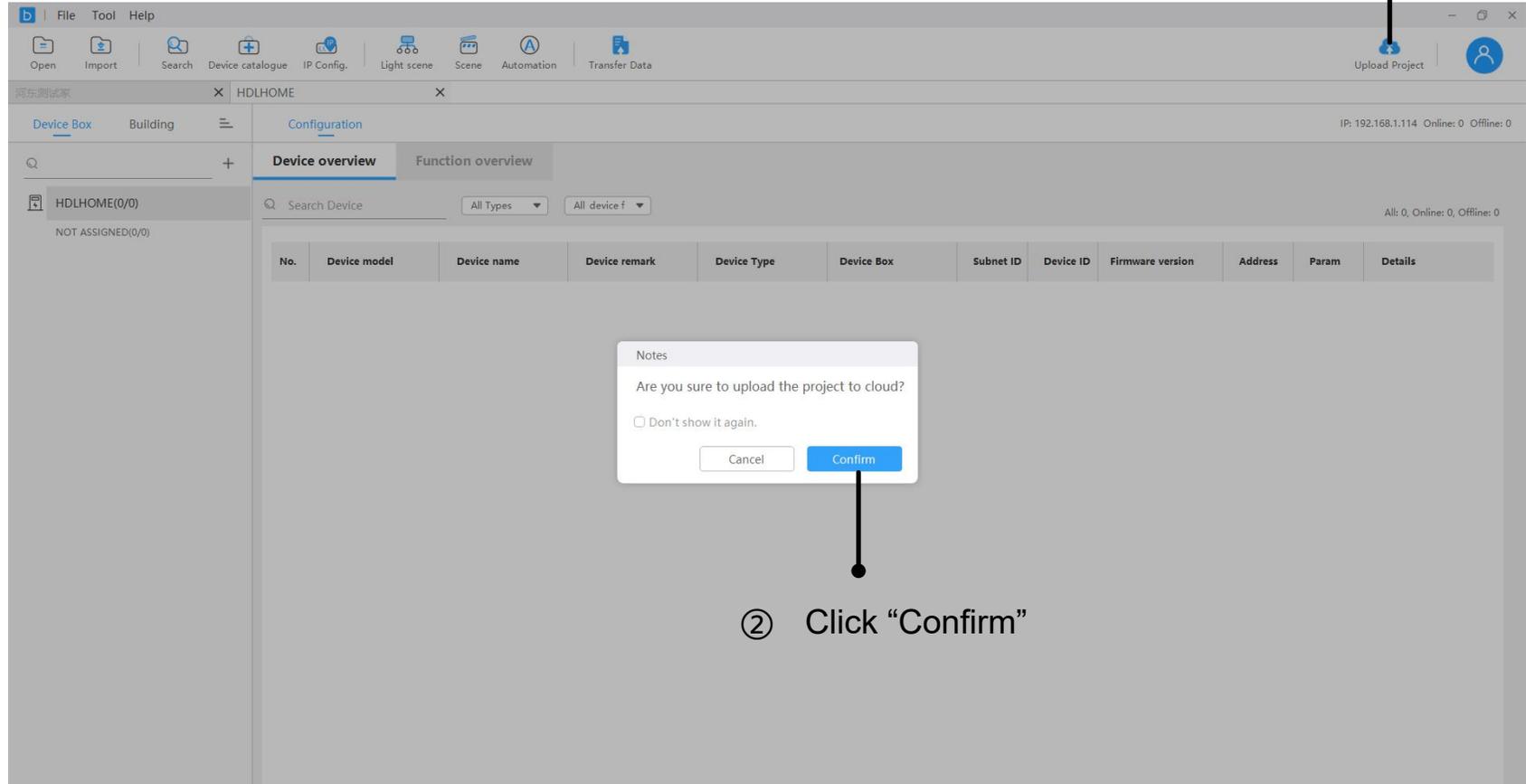


Step 7 — Upload data to Cloud after completing settings.

***It is OK to proceed settings when there is no external network; while uploading data to Cloud, please make sure there is valid extranet.**

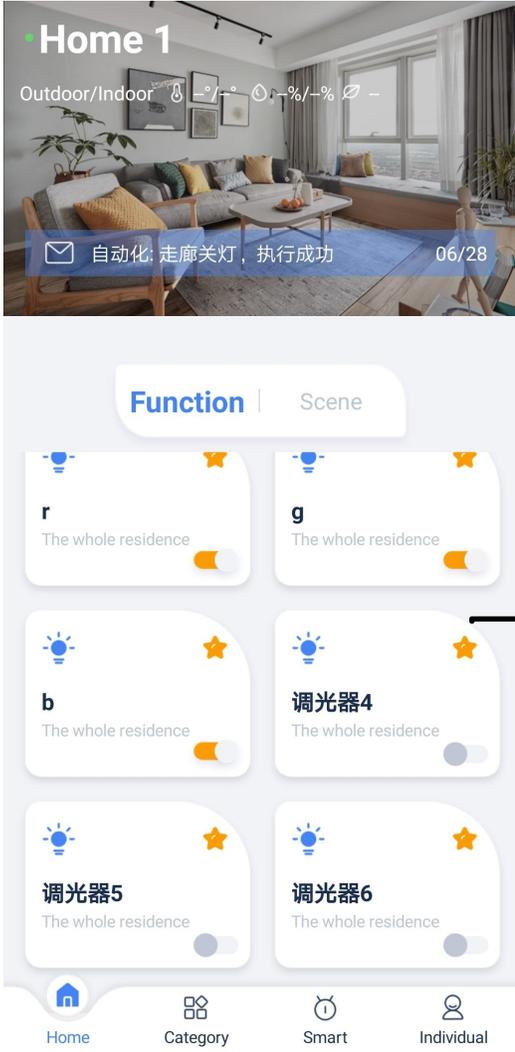
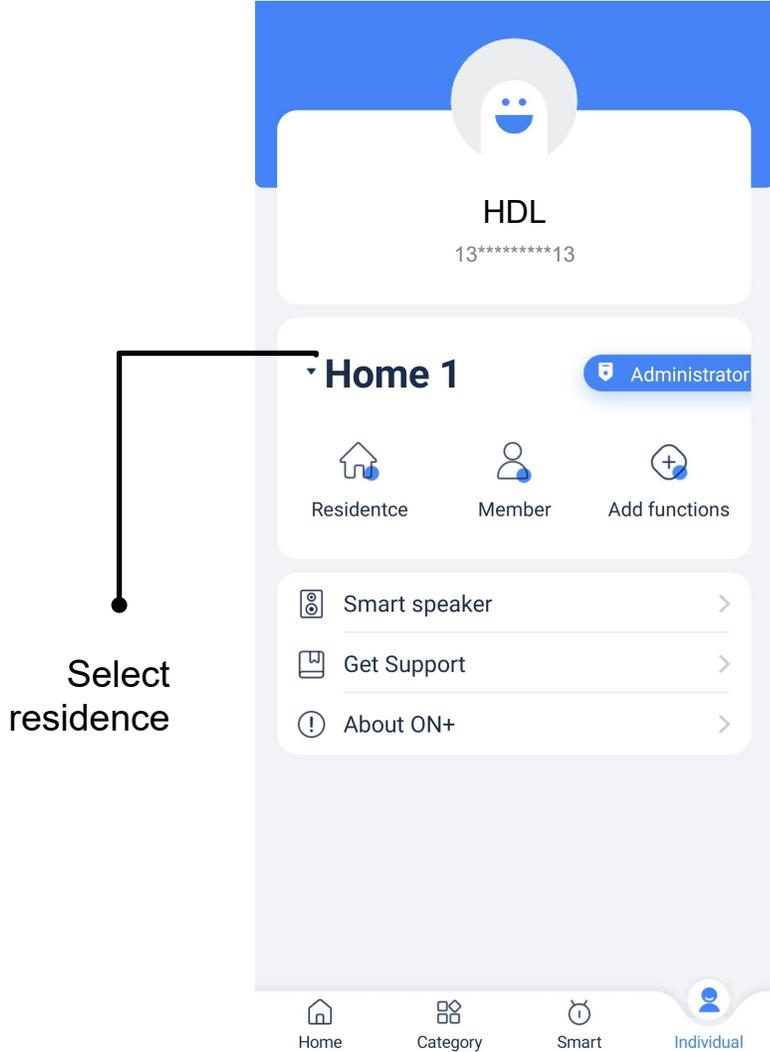
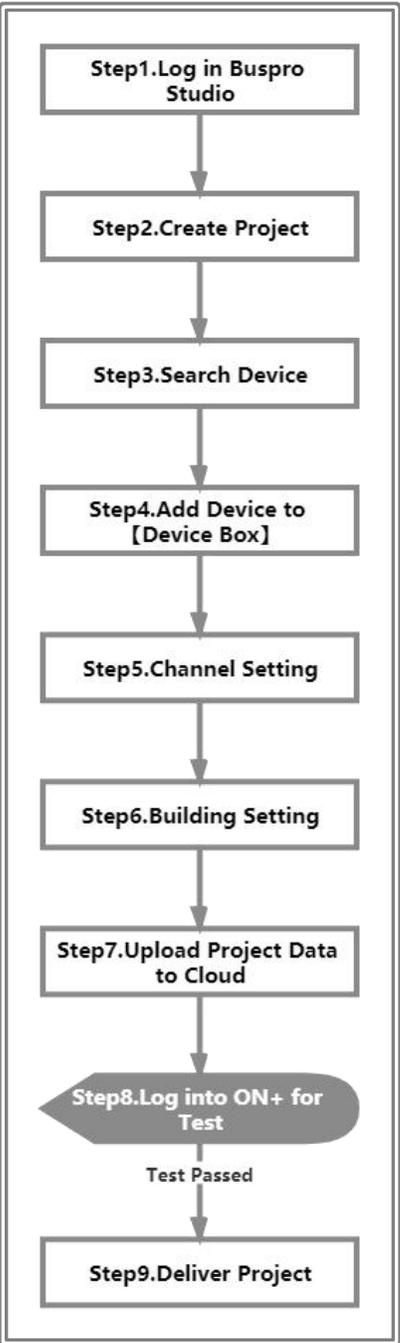


① Click “Upload Project”

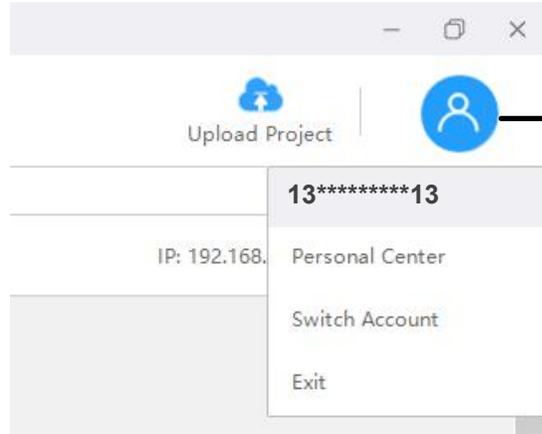
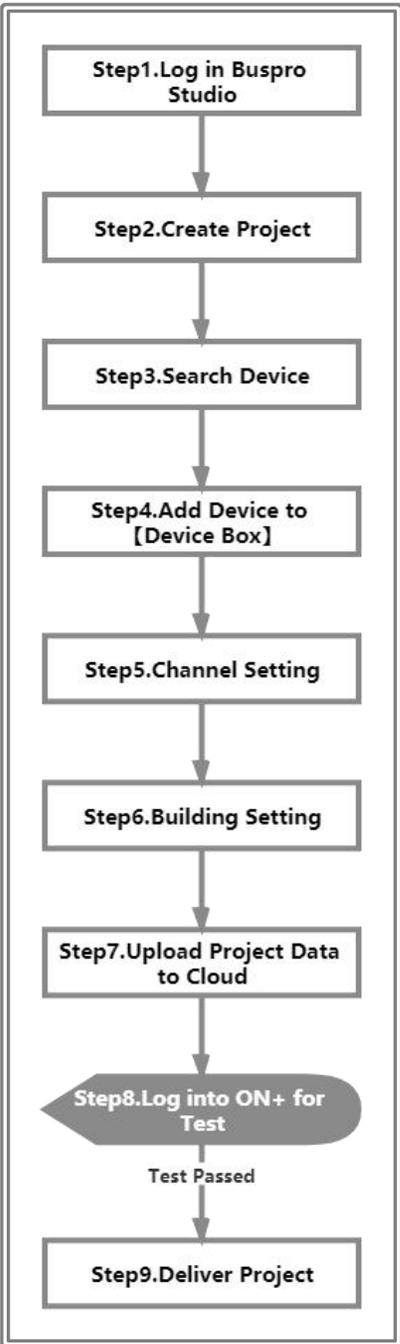


② Click “Confirm”

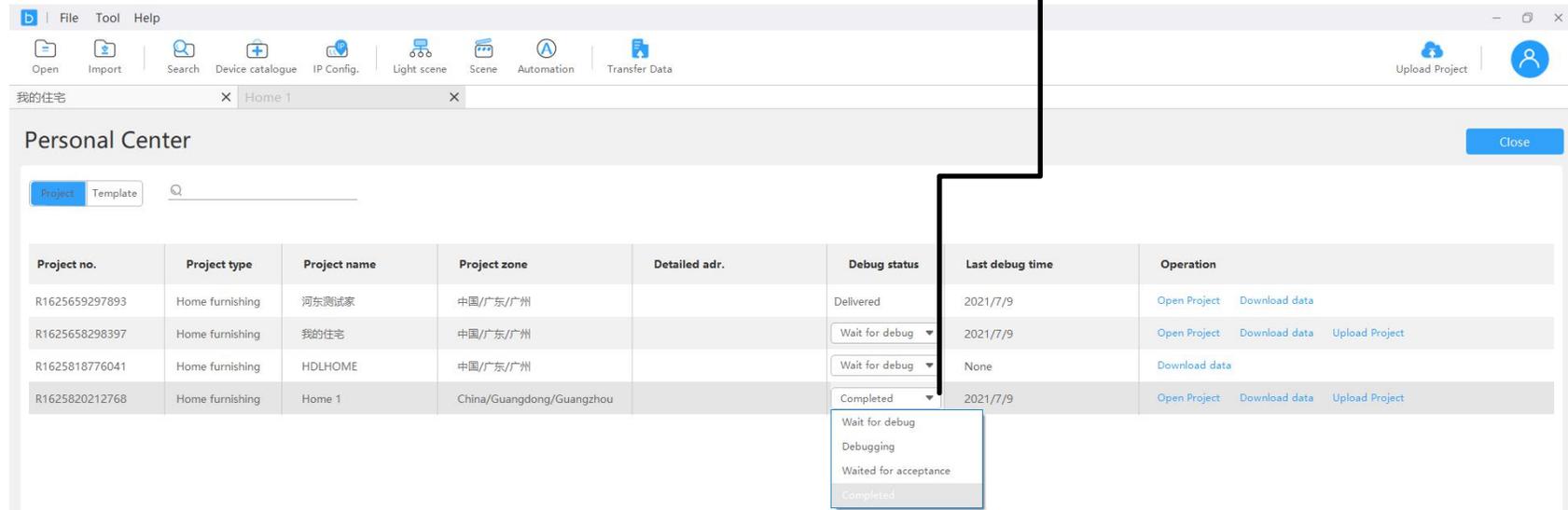
Step 8 — After uploading data, proceed logging in ON+ APP for testing.



Step 8 — Deliver project when test is passed.

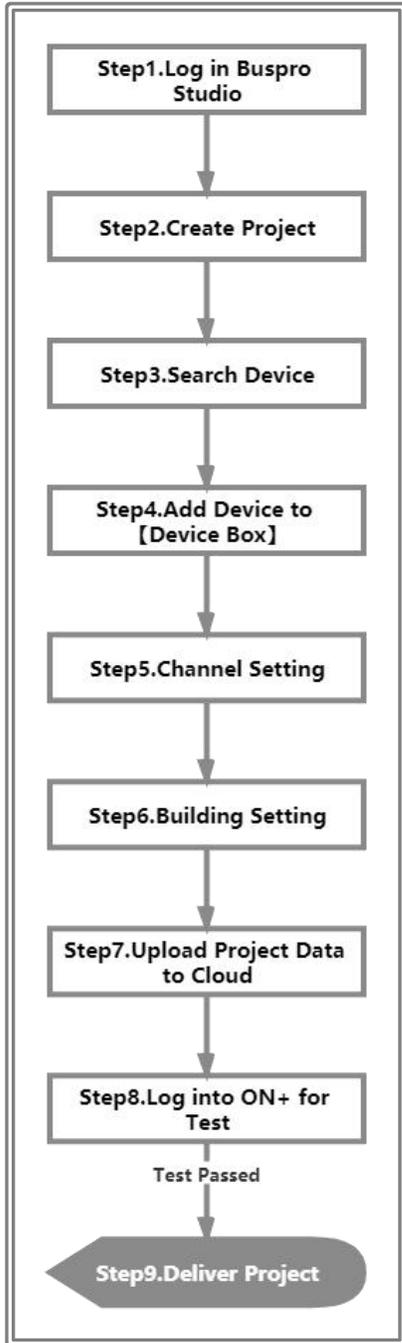


① Click head portrait, select “Personal Center”



② Select the project and set it as “Completed”.

Step 8 — Now please inform the relevant administrator to log in IOT platform and proceed project delivery.



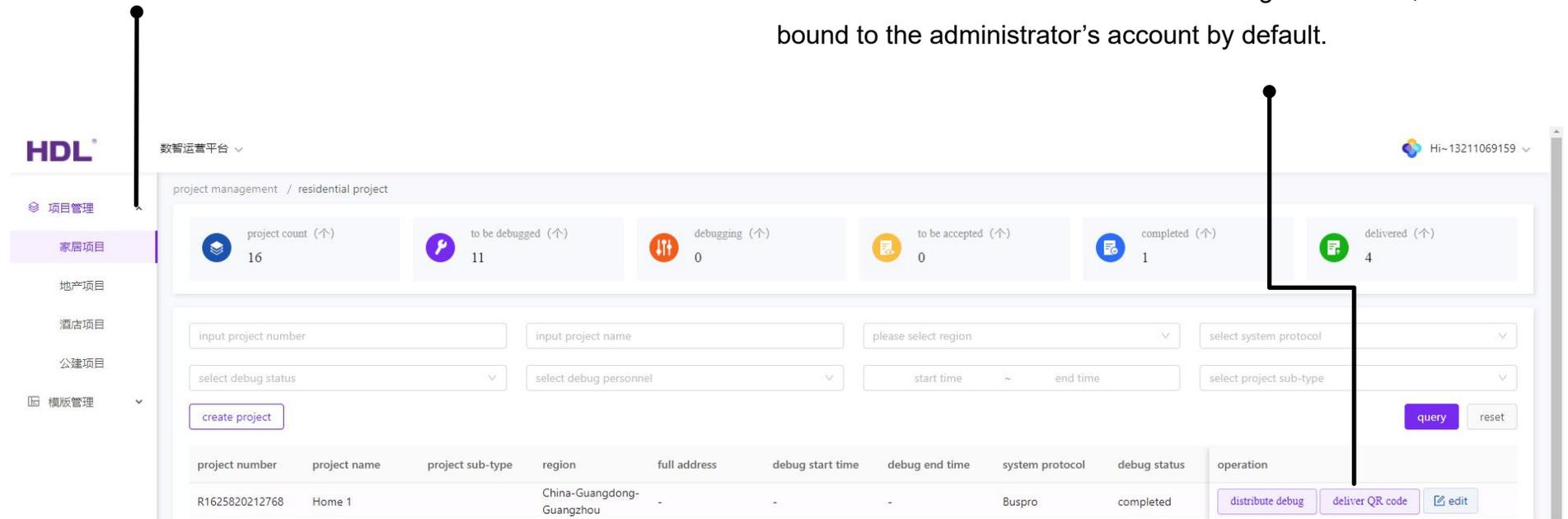
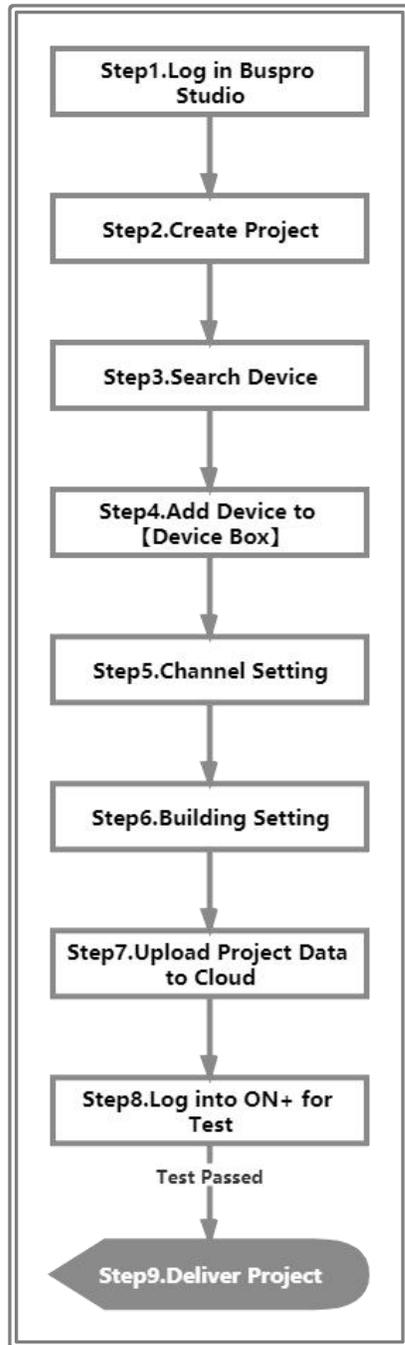
Click this tab

Step 8 — Now please inform the relevant administrator to log in IOT platform and proceed project delivery.

① Select “项目管理 (Project Management)”
→ Select residential type

② Select the project as needed, click “deliver QR code”. Show it to the residence owner for scanning (see next page for more details).

*The QR code is valid for the first scanning. Since then, it is bound to the administrator’s account by default.

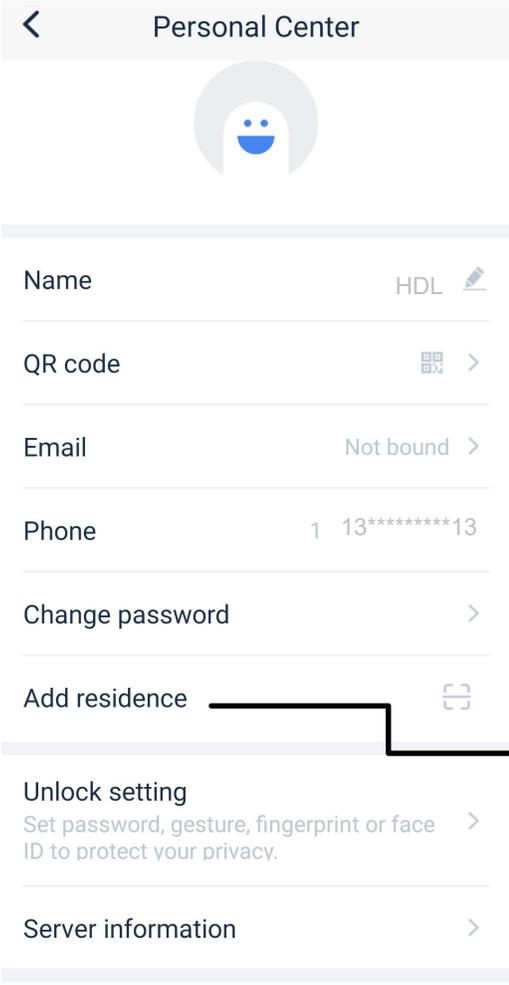
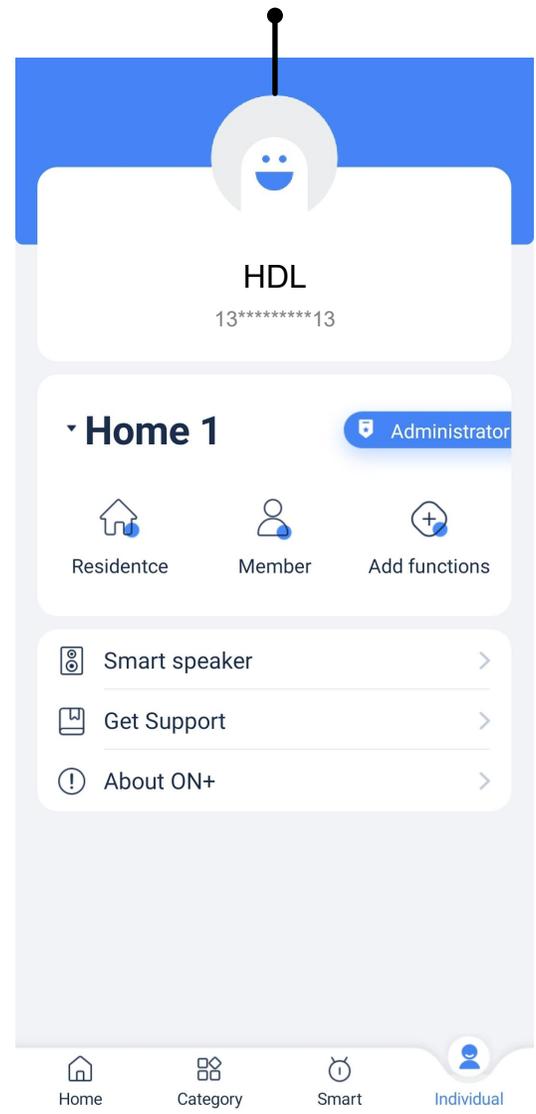


How to Scan Deliver QR Code

① After signing up, click "Add new residence"



② Click head portrait



③ Click "Add residence"

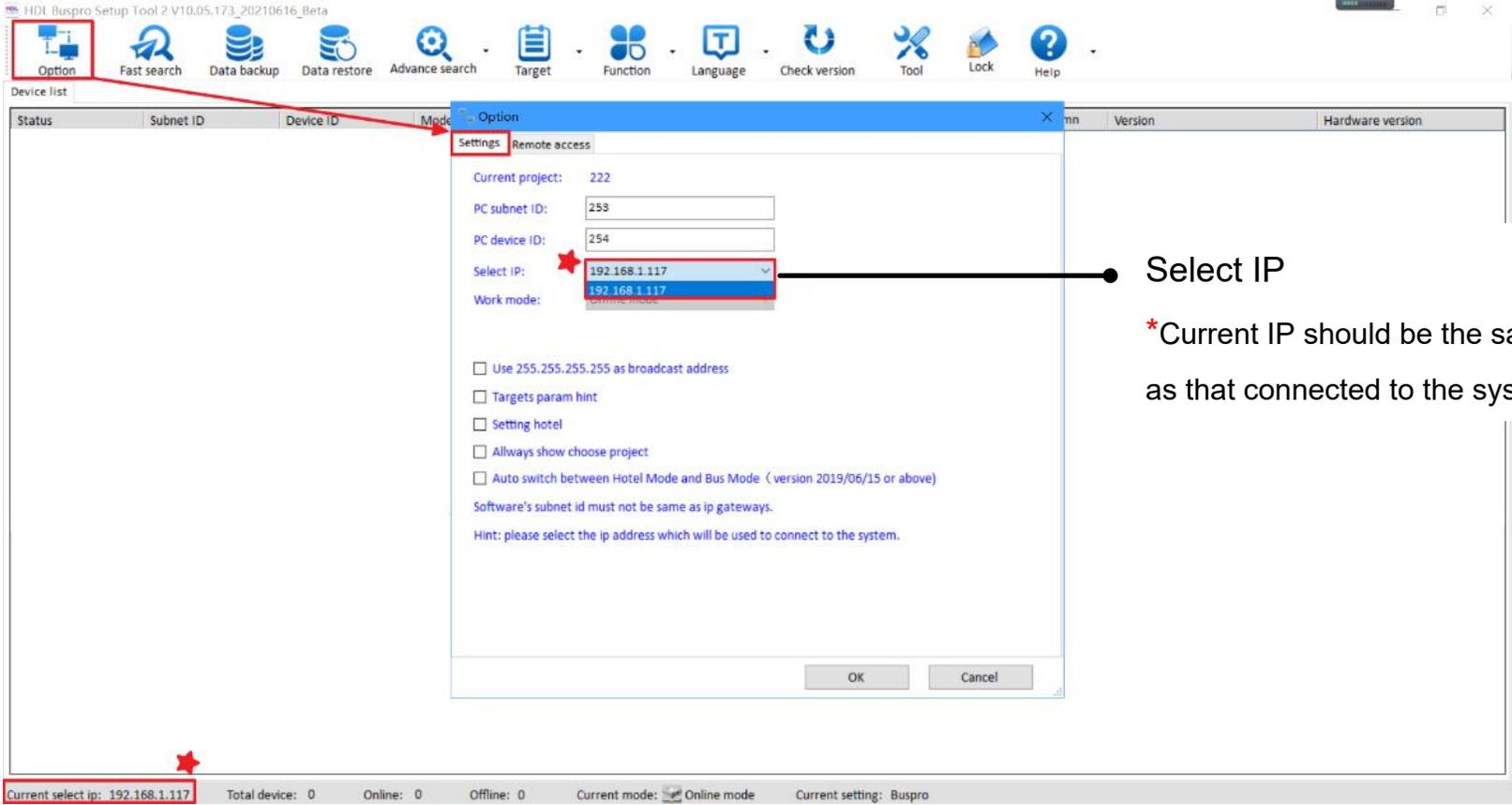
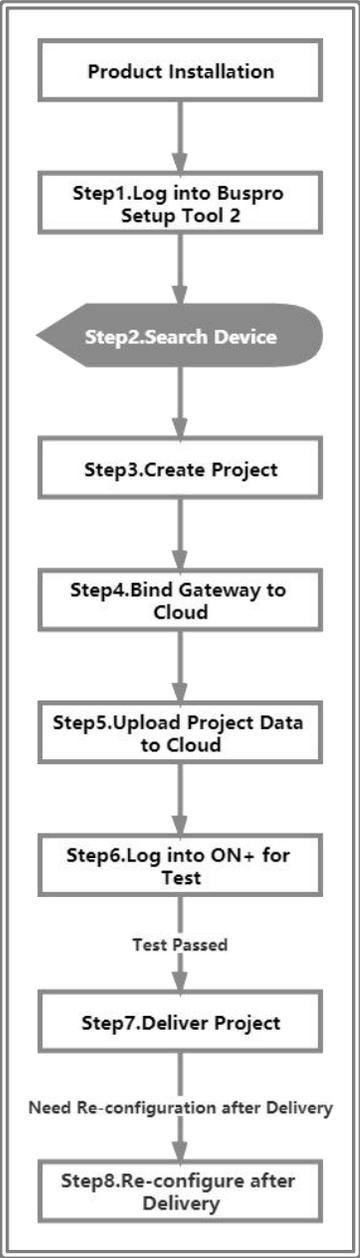
4. Buspro Setup Tool 2 Instruction

- Log into Buspro Setup Tool 2.....[39](#)
- Search Device.....[39](#)
- Create Project.....[41](#)
- Bind Gateway to Cloud.....[42](#)
- Upload Project Data to Cloud.....[54](#)
- Log into ON+ for Test.....[56](#)
- Deliver Project.....[59](#)
- Re-configure after Delivery.....[60](#)

Step 1 — Not Describe Here

Step 2 — Connect Buspro gateway to the system, and open Buspro Setup Tool 2 in the computer. Then proceed IP settings.

- ① Click “Option” to enter “Setting” page → Select IP, which will be used to connect to the system → Click “OK” to complete.



Select IP
 *Current IP should be the same as that connected to the system

Step 3 — Add residence as the followings:

Click "Option" → "Remote Access"

Select "MQTT 2.0"

Click the search icon, then you can see all residence created

Device list

Status	Subnet ID	Device ID	Model	Name	Description(double click this column)	Version	Hardware version
✓	1	0	HDL-MGWIP.43		Advance mesh	Unread	N/A
✓	1	1	Option		ing module	Unread	N/A
✓	1	2			ing module	Unread	N/A
✓	1	3				Unread	N/A
✓	1	5				Unread	N/A
✓	1	6				Unread	N/A
✓	1	7				Unread	N/A

Settings: Remote access

Type: MQTT 2.0

Account: 15*****06 Password: *****

Group name: [Search Icon] [Connect]

ID	Home Area	Home Name	Home ID
10	https://china-gate...	Test 1	13865477888...
11	https://china-gate...	123	13905531092...
12	https://china-gate...	1111	13905581234...
13	https://china-gate...	hello	13905830917...
14	https://china-gate...	Test 2	13984781447...
15	https://china-gate...	0603	14003198343...
16	https://china-gate...	Test 3	14051610186...
17	https://china-gate...	Test 4	14053689653...
18	https://china-gate...	meeting room	14053719104...

Home Name: meeting room | AGATEWAY | Add Home

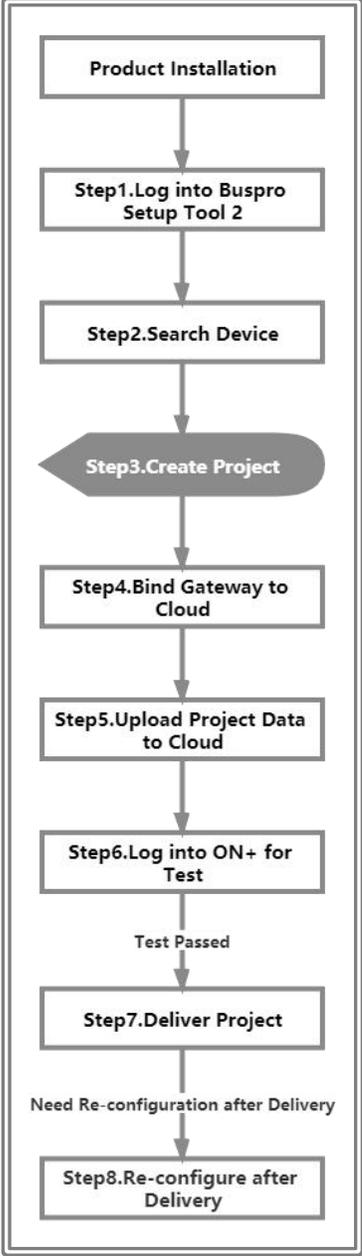
Current select ip: 192.168.1.117 Total device: 17 Online: 17 Offline: 0 Current mode: Online mode Current setting: Buspro

Please contact with salesman for agent account and password

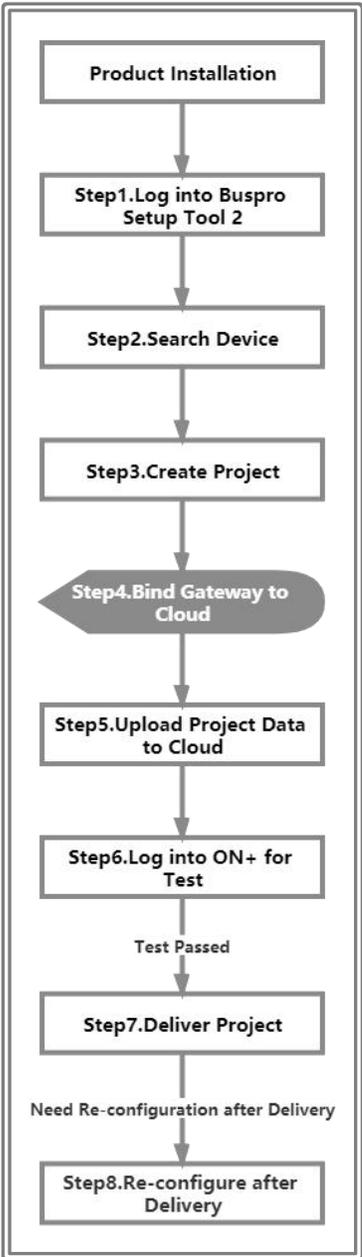
Click "Connect" to make the newly created residence be connected with gateway.

Input home name.

*After adding home, if the column "Home Area" is still blank, please click the search icon again to completely show the residence-related information.



Step 4 — Bind the gateway to Cloud as the followings:



② Click “Network Information”

③ Select “HDL MQTT”

④ Select Home

⑥ The data will be set to this gateway, if you confirm, click “OK” to complete.

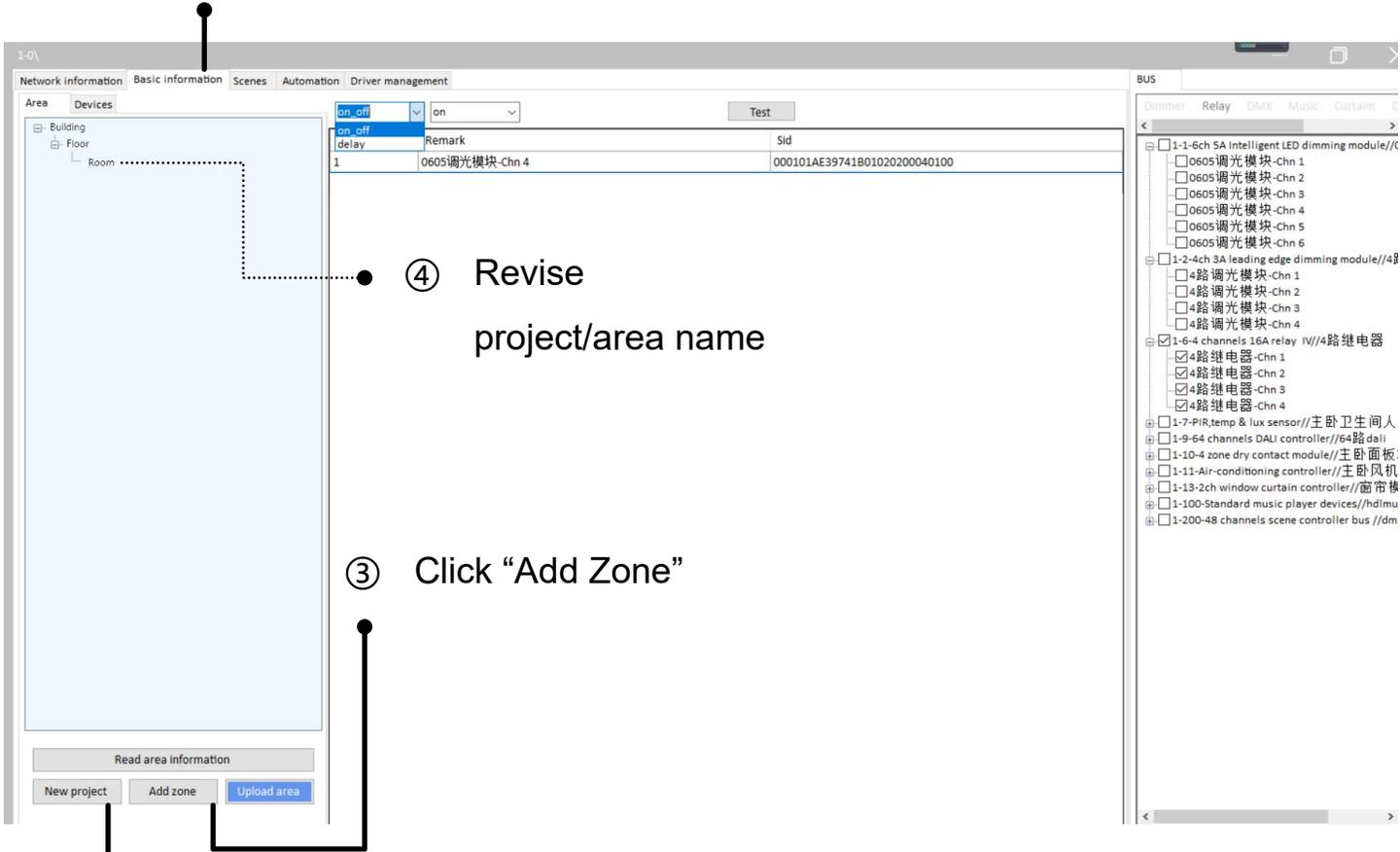
The screenshot shows the 'Network Information' configuration page for a device named 'HDL-MGWIP430'. The page includes fields for IP, Router IP, IP MAC, Mask IP, DHCP, DNS I, and DNS II. A 'Save' button is located below these fields. To the right, the 'Connection preferences' section is visible, with 'Type' set to 'HDL MQTT'. Below this, there are fields for 'User account', 'Group name', 'Project name', and 'Server Address'. A 'Select Home' dropdown menu is currently set to 'meeting room'. At the bottom of the page, there are sections for 'Date setting for timer' and 'Location' (Longitude and Latitude). A 'Save' button is also present at the bottom right of the main configuration area.

A red box highlights the 'Network Information' tab at the top of the window. A red box highlights the 'HDL MQTT' option in the 'Type' dropdown menu. A red box highlights the 'meeting room' option in the 'Select Home' dropdown menu. A red box highlights a confirmation dialog box that says: 'The remote configuration is modified successfully. Click refresh to view the remote status of the gateway.' with an 'OK' button.

⑤ Click “Save”

Step 4 — After binding the gateway to Cloud, proceed area setting as the followings:

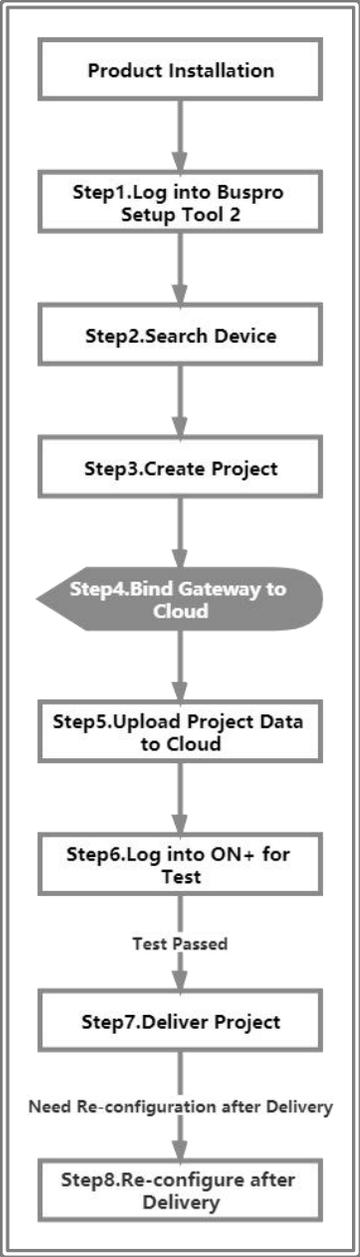
① Click “Basic Information” → “Area”



② Click “New Project”

③ Click “Add Zone”

④ Revise project/area name



Step 4 — After binding the gateway to Cloud, proceed area setting as the followings:

- ① Click and enter the “Devices” page, select the function.

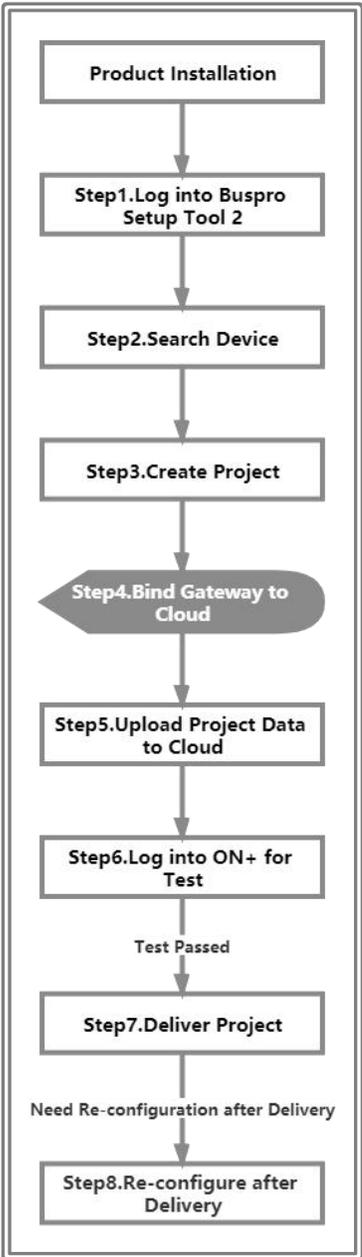
The screenshot shows the 'Devices' page in the HDL software. A table lists 10 devices. The 7th device, '4路继电器-Chn 1', is selected. A context menu is open over it, and the 'Area' option is highlighted. The right-hand side of the interface shows a tree view of the area hierarchy, with '(Room) Floor' selected.

ID	Remark	Sid	当前所属区域
1	0605调光模块-Chn 1	000101AE39741B01020200010100	
2	0605调光模块-Chn 2	000101AE39741B01020200020100	
3	0605调光模块-Chn 3	000101AE39741B01020200030100	
4	0605调光模块-Chn 4	000101AE39741B01020200040100	
5	0605调光模块-Chn 5	000101AE39741B01020200050100	
6	0605调光模块-Chn 6	000101AE39741B01020200060100	
7	4路继电器-Chn 1		(Room) Floor
8	4路继电器-Chn 2		
9	4路继电器-Chn 3		
10	4路继电器-Chn 4		

② Select device

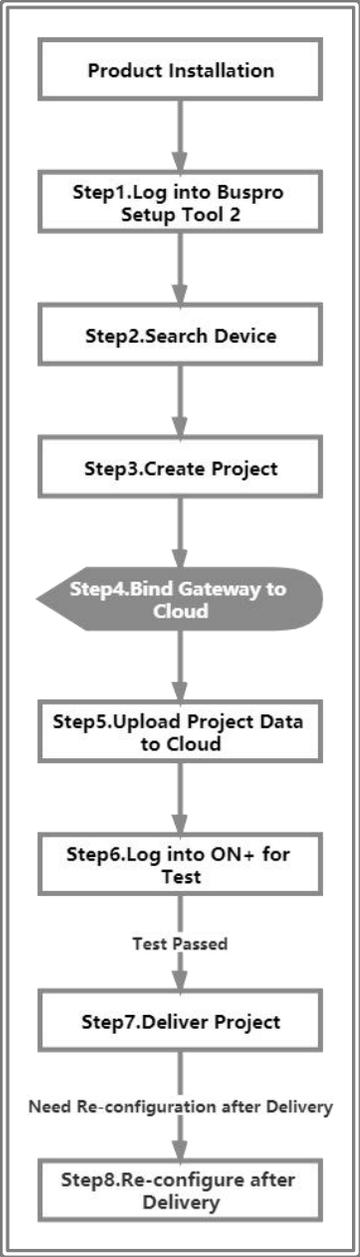
③ Right click and select area

The current area can be shown here.



Step 4 — After binding the gateway to Cloud, proceed area setting as the followings:

Back to the “Area” page, now the current area for the device you selected can be shown.



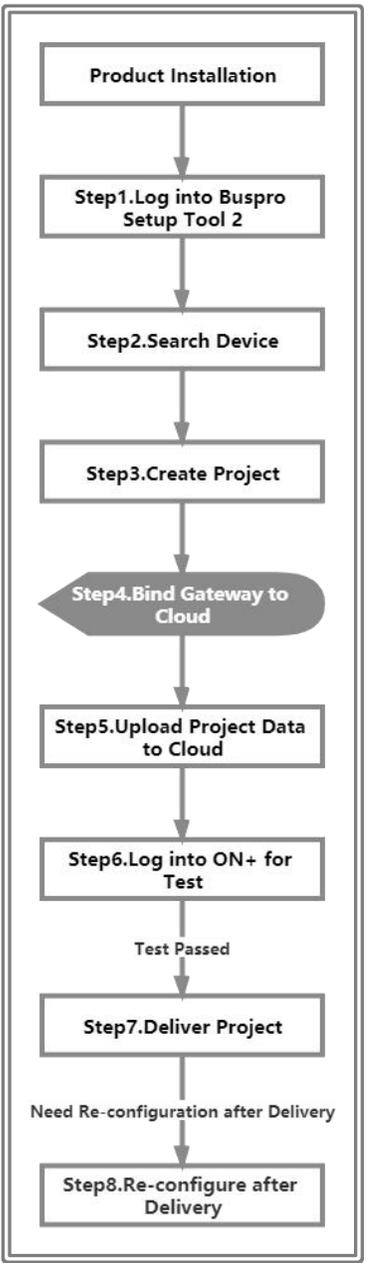
The screenshot shows the 'Area' page in the software. On the left, there is a tree view showing a hierarchy: Building > Floor > Room. In the center, there is a table with columns: on_off, delay, Remark, and Sid. The table contains two rows:

on_off	delay	Remark	Sid
on		0605调光模块-Chn 4	000101AE39741B01020200040100
		4路继电器-Chn 1	0001011E2A691B02020100010101

At the bottom of the interface, there are buttons for 'Read area information', 'New project', 'Add zone', and 'Upload area'. An arrow points to the 'Upload area' button. On the right side, there is a 'BUS' panel with a list of devices, including '1-1-6ch 5A Intelligent LED dimming module', '1-2-4ch 3A leading edge dimming module', and '1-6-4 channels 16A relay IV'. The '1-6-4 channels 16A relay IV' is checked.

Click “Upload Area”, then the area data will be uploaded to the gateway.

Step 4 — After binding the gateway to Cloud, proceed device setting as the followings:



Click “Devices”

Now the device added can be shown here.

on_off	brightness	fade_time	mark	Sid	当前所属区域
			调光模块-Chn 1	000101AE39741B01020200010100	
			0605调光模块-Chn 2	000101AE39741B01020200020100	
			0605调光模块-Chn 3	000101AE39741B01020200030100	
			0605调光模块-Chn 4	000101AE39741B01020200040100	
			0605调光模块-Chn 5	000101AE39741B01020200050100	
			0605调光模块-Chn 6	000101AE39741B01020200060100	
			4路继电器-Chn 1	0001011E2A691B020201000010101	
			4路继电器-Chn 2	0001011E2A691B020201000020101	
			4路继电器-Chn 3	0001011E2A691B020201000030101	
			4路继电器-Chn 4	0001011E2A691B020201000040101	

Select the device, right click and select “(加) Add”

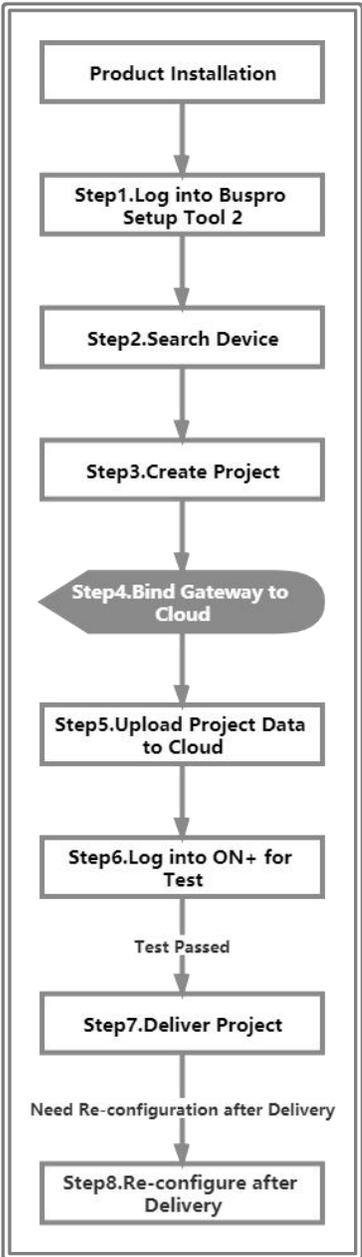
Click “Upload Devices and Functions List”, then the device you added can be uploaded to the gateway.

Step 4 — After binding the gateway to Cloud, proceed device testing as the followings:

- ① Click “Devices”
- ② Select function
- ③ Select device
- ④ Proceed functional configuration
- ⑤ Click “Test”
- ⑥ Right click to proceed functional configuration
- ⑦ Click “Upload Devices and Functions List”, then the device you added can be uploaded to the gateway.

The screenshot shows the 'Devices' management interface. At the top, there are tabs for 'Network Information', 'Basic Information', 'Scenes', 'Automation', and 'Device management'. Below these is a 'Devices' section with a tree view on the left and a table on the right. The table has columns for ID, Remark, Sid, and 当前所属区域. A context menu is open over row 7, showing options like 'Delete', 'Import Remark', 'Choose zone', and '切换类型'. A 'Test' button is visible above the table. On the right, a 'BUS' sidebar shows a tree of devices, with '1-6-4 channels 16A relay IV//4路继电器' selected. At the bottom, there are two buttons: 'Get devices and functions list' and 'Upload devices and functions list'.

ID	Remark	Sid	当前所属区域
1	0605调光模块-Chn 1	000101AE39741B01020200010100	
2	0605调光模块-Chn 2	000101AE39741B01020200020100	
3	0605调光模块-Chn 3	000101AE39741B01020200030100	
4	0605调光模块-Chn 4	000101AE39741B01020200040100	
5	0605调光模块-Chn 5	000101AE39741B01020200050100	
6	0605调光模块-Chn 6	000101AE39741B01020200060100	
7	4路继电器-Chn 1	000101AE39741B0102020100010101	
8	4路继电器-Chn 2	000101AE39741B0102020100020101	
9	4路继电器-Chn 3	000101AE39741B0102020100030101	
10	4路继电器-Chn 4	000101AE39741B0102020100040101	



Step 4 — After binding the gateway to Cloud, proceed scene setting as the followings:

① Click “Scenes” *As for “Group ID”, please skip to next page.

④ Complete scene configuration

ID	Remark	Delay(0-3600s)	group_id	Scene	ID	name	Functions	Delay(0-3600s)
1	party	1	1	1	1	4路继电器-Chn 4	on_off(on);	0
2					2	4路继电器-Chn 1	on_off(on);	0
3					3	4路继电器-Chn 2	on_off(on);	0
4					4	4路继电器-Chn 3	on_off(on);	0

② Click “Add Scene”

③ Revise the name

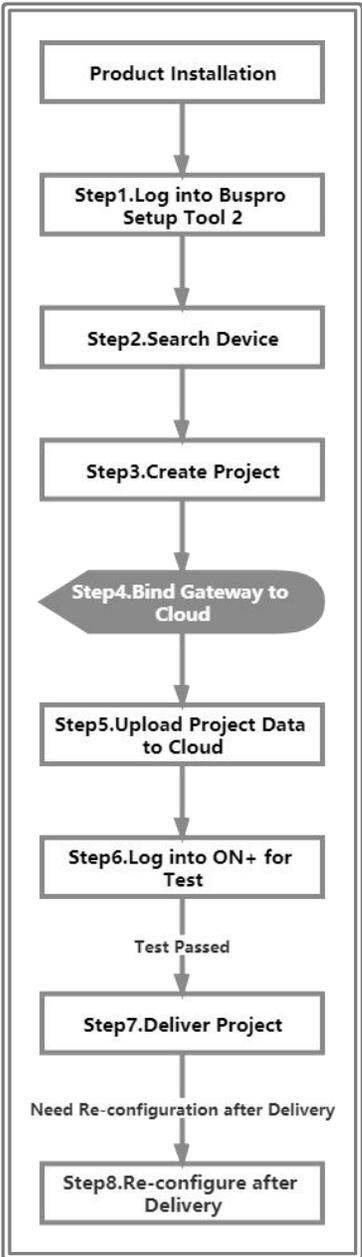
⑤ Click “Sure” to complete settings

⑥ Click “Upload Scene List”, then the scene you created can be uploaded to the gateway.

a) Select device, right click and select “(加) Add”

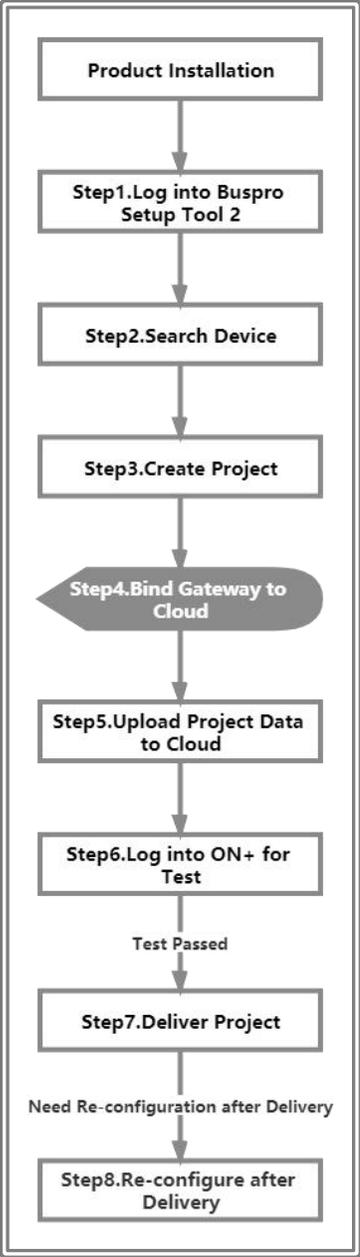
b) Proceed functional configuration

c) Set delay time



Step 4 — After binding the gateway to Cloud, proceed setting scene group ID as the followings:

If Scene 1 and 2 are set in the same group, they will be mutually exclusive, i.e., when Scene 1 has been triggered, once Scene 2 will automatically shut down.

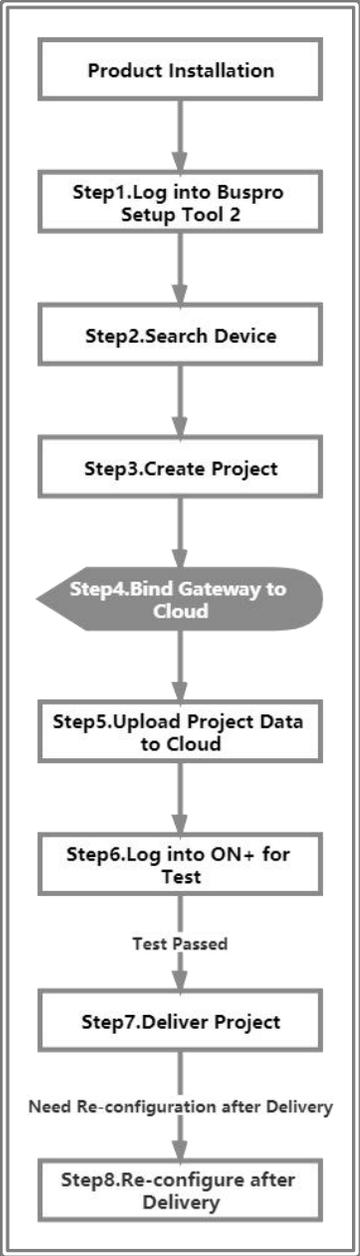


ID	Remark	Delay(0-3600s)	group_id	Scene	ID	name	Functions	Delay(0-3600s)
1	party	1	1	1	1	4路继电器-Chn 4	on_off(on);	0
2	Scene No:0002	1	1	2	2	4路继电器-Chn 1	on_off(on);	0
					3	4路继电器-Chn 2	on_off(on);	0
					4	4路继电器-Chn 3	on_off(on);	0

a) Please refer to steps on previous page to create Scene 2.

b) Set Scene 1 and Scene 2 in the same group "1". Once Scene 1 is triggered, the relevant device in Scene 2 will automatically turns off.

Step 4 — After scene settings, proceed scene testing as the followings:



The screenshot shows a software window with a table of scenes. A right-click context menu is open over the first row, with the 'Test' option selected. A text annotation points to this menu with the instruction: "Select scene → Right click and select 'Test'".

ID	Remark	Delay(0-3600s)	group_id	Scene	ID	name	Functions	Delay(0-3600s)
1	party	0	1	1	1	4路继电器-Chn 4	on_off(on);	0
					2	4路继电器-Chn 1	on_off(on);	0
					3	4路继电器-Chn 2	on_off(on);	0
					4	4路继电器-Chn 3	on_off(on);	0

GW Devices

- 0605调光模块-Chn 1
- 0605调光模块-Chn 2
- 0605调光模块-Chn 3
- 0605调光模块-Chn 4
- 0605调光模块-Chn 5
- 0605调光模块-Chn 6
- 4路继电器-Chn 1
- 4路继电器-Chn 2
- 4路继电器-Chn 3
- 4路继电器-Chn 4

SidName: [] []

Delay(0-3600s): 0 (s)

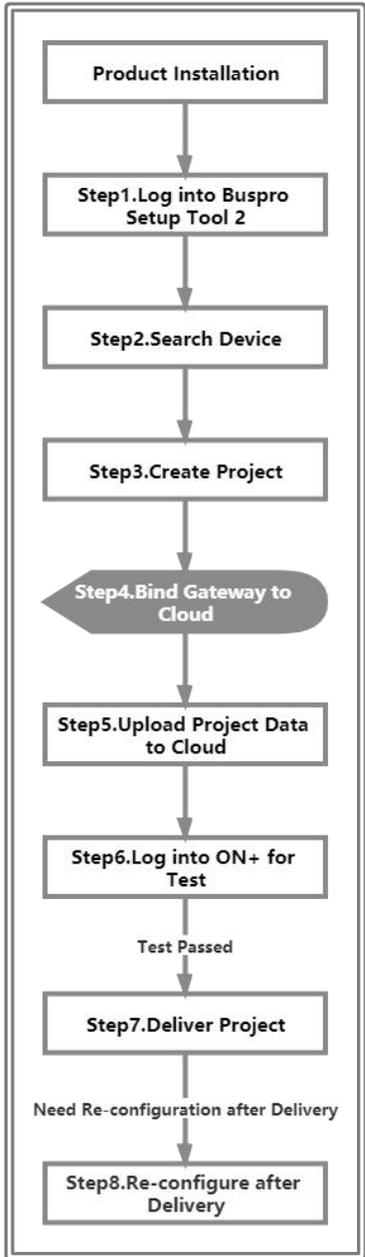
Sure

Get scenes list

Add scene Delete scene Upload scene list

Step 4 — After binding the gateway to Cloud, proceed automation setting.

As below example shown, create automation “the 4th of the month, from 10:30 to 11:30, automatically turn off ‘4路继电器-Chn 1’”.



③ Set time condition. E.g., select the 4th of the month, from 10:30 to 11:30

④ Select device

② Revise the name

④ Select automation relation

① Click “Add Single Automation”

⑧ Click “Upload Automation List”, then the automation created can be uploaded to the gateway.

⑤ Click “Add New Input”

⑦ Click “Add New Output”

⑥ Select device again, then proceed functional configuration

The screenshot shows the 'Automation' tab in the software. It includes a table of existing automations, a configuration area for a new automation (Type: Monthly, Choose day: 4, Range: 10:30 - 11:30), and a 'Cycle Items' list. The 'Input' section shows a relation of 'And' with a time condition 'timesection 10:30-11:30 ='. The 'Output' section shows a device '4路继电器-Chn 1' with an 'on_off' type set to 'off'. A 'GW Devices' panel on the right lists various devices, with '0605调光模块-Chn 1' selected. At the bottom, there are buttons for 'Add new input' and 'Add new output'.

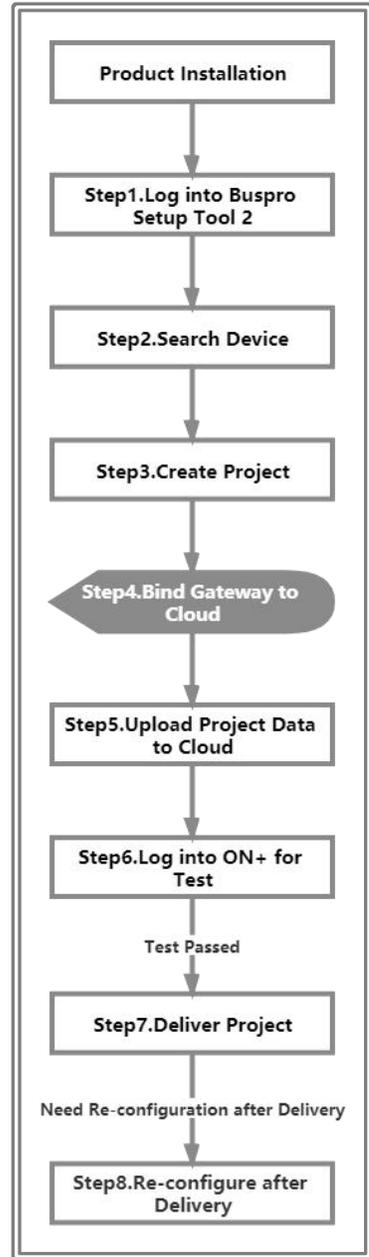
Step 4 — After binding the gateway to Cloud, click the tab “Driver Management” to check and manage driver.

HDL-LINK is core driver. Buspro is system software developed by HDL.

*Please DO NOT disable or uninstall them.

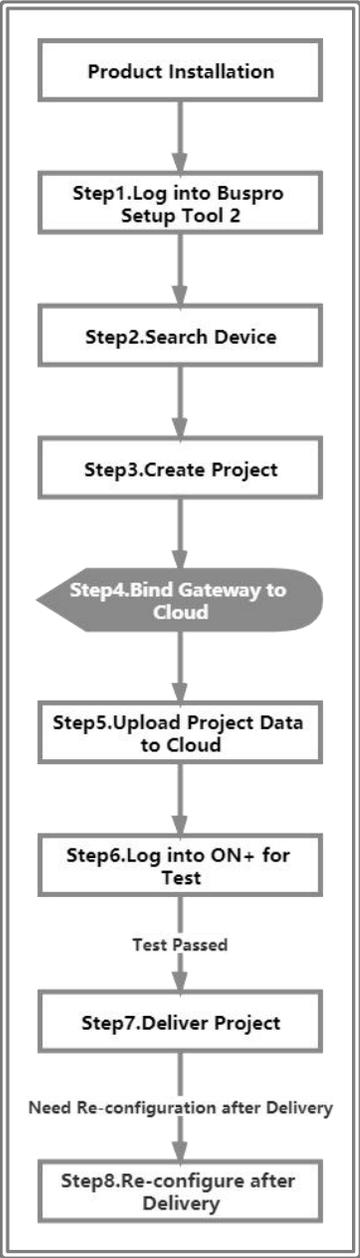
Green means that the driver runs normally; red means that the drivers fail to run because of software faults.

If needed, select one of the drivers then right click to choose “Driver Uninstall”.



Enable	Driver Name	Driver State	Version in Gateway	Driver Code
<input checked="" type="checkbox"/>	HDL-LINK	Green	HDL_V0.01U_2020/12/22_2051	040004FB
<input checked="" type="checkbox"/>	buspro	Red	HDL_V0.01_202012212200	03000000

Step 5 — Upload all data of the gateway to Cloud.

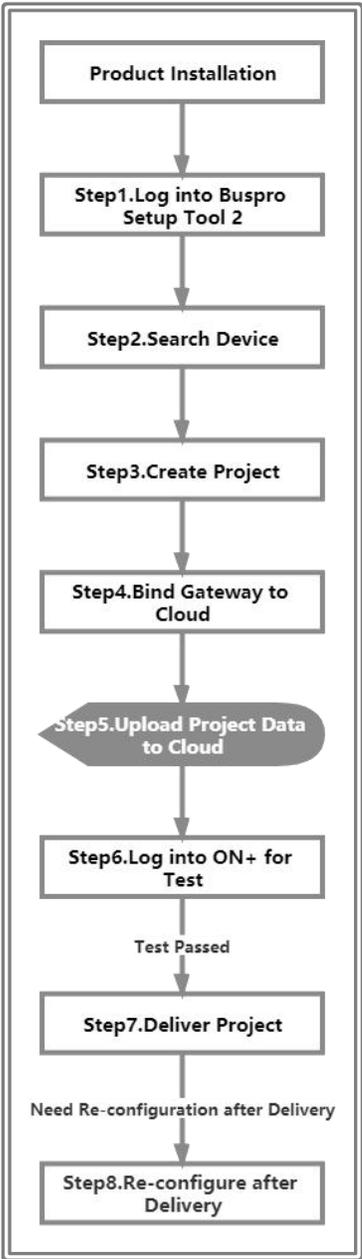


Status	Subnet ID	Device ID	Model	Name	Description(double click this column)	Version	Hardware version
✓	1	0	HDL-MGWIP.430		Advance mesh	Unread	N/A
✓	1	1	HDL-MDLED0605.432		h 5A Intelligent LED dimming module	Unread	N/A
✓	1	2	HDL-MD0403.432		h 3A leading edge dimming module	Unread	N/A
✓	1	3	HDL-MCLog.431		agic timer	Unread	N/A
✓	1	6	HDL-MR0416.431		hannels 16A relay IV	Unread	N/A
✓	1	7	HDL-MSP07M.4C		,temp & lux sensor	Unread	N/A
✓	1	9	HDL-MC64-DALI.431		channels DALI controller	Unread	N/A
✓	1	10	HDL-MSD04.40		one dry contact module	Unread	N/A
✓	1	11	HDL-MAC01.431		-conditioning controller	Unread	N/A
✓	1	12	HDL-MPL8.48-A		P panel with AC music clock floor he...	Unread	N/A
✓	1	13	HDL-MW02.431		h window curtain controller	Unread	N/A
✓	1	22	SB-DN-SEC250K		vanced security controller	Unread	N/A
✓	1	28	HDL-MPTL4C.48		anite Display	Unread	N/A
✓	1	120	HDL-MIRC04.40		frared signal emission,remote receiv...	Unread	N/A
✓	1	200	HDL-MC-48IPDMX.431	dmx彩色	48 channels scene controller bus	Unread	N/A
✓	11	100	HDL-MZBOX.A50B.30	hdlmusic	Standard music player devices	Unread	N/A

① Back to Buspro Setup Tool 2 homepage, right click the “Advance Mesh” and select “Upload Device to Cloud”

Current select ip: 192.168.1.117 Total device: 16 Online: 16 Offline: 0 Current mode: Online mode Current setting: Buspro

Step 5 — Upload all data of the gateway to Cloud.



Choose project

Project list(Double-click to open the selected project)

ID	Project name	Account	Last write time	Synchronized	User	status	GatewayID
5	0420-一端口	V2.0	2021/4/22 3:52:16	✓	13*****13	未交付	1384323158943596...
6	111	V2.0	2021/4/20 2:10:35	✓	13*****13	未交付	1384328612172136...
7	0420-A网关	V2.0	2021/4/20 3:08:55	✓	13*****13	未交付	1384343294589140...
8	空气质量传感器	V2.0	2021/4/23 1:43:18	✓	13*****13	未交付	1385408909043265...
9	展箱测试	V2.0	2021/4/26 2:15:04	✓	13*****13	未交付	1386504069307101...
10	尹某	V2.0	2021/4/26 5:08:48	✓	13*****13	未交付	1386547788823588...
11	123	V2.0	2021/5/7 6:24:31	✓	13*****13	未交付	1390553109267197...
12	1111	V2.0	2021/5/7 6:44:26	✓	13*****13	未交付	1390558123415023...
13	hello	V2.0	2021/5/7 8:23:39	✓	13*****13	未交付	1390583091750219...
14	泰兴HDL	V2.0	2021/5/29 3:15:46	✓	13*****13	未交付	1398478144745222...
15	0603	V2.0	2021/6/3 5:13:59	✓	13*****13	未交付	1400319834326032...
16	Lily-A	V2.0	2021/6/16 13:51:08	✓	13*****13	未交付	1405161018684739...
17	一端口住宅	V2.0	2021/6/17 3:37:26	✓	13*****13	未交付	1405368965318811...
18	meeting room	V2.0	2021/6/17 3:49:08	✓	13*****13	未交付	1405371910458417...
19	测试	V2.0	2021/6/17 6:00:00	✓	13*****13	未交付	1405404844976480...
20	20210617	V2.0	2021/6/17 6:00:54	✓	13*****13	未交付	1405405068667101...

Project name: Create new

已登录!

Work mode: Online mode

Account:

Password:

Login

Upload Download

Auto Login

Always show choose project



Current HomeId:

已成功上传到1405371910458417154

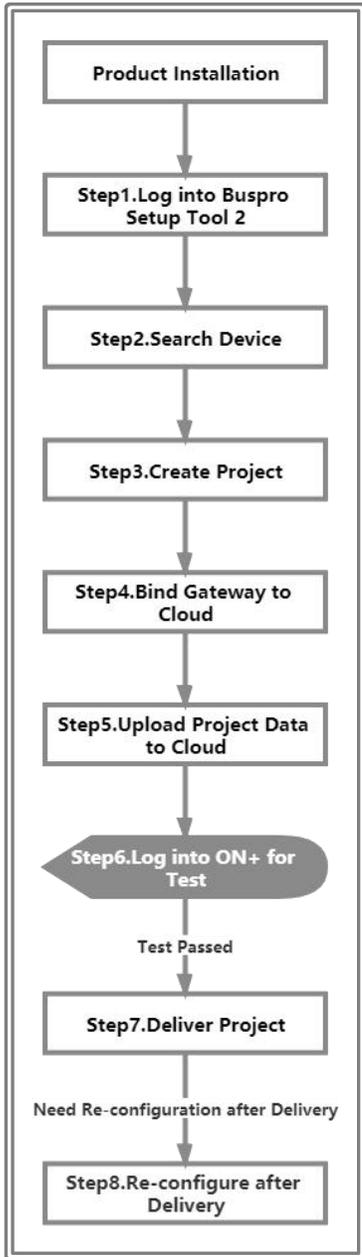
确定

② Contact with salesman for agent account and password.

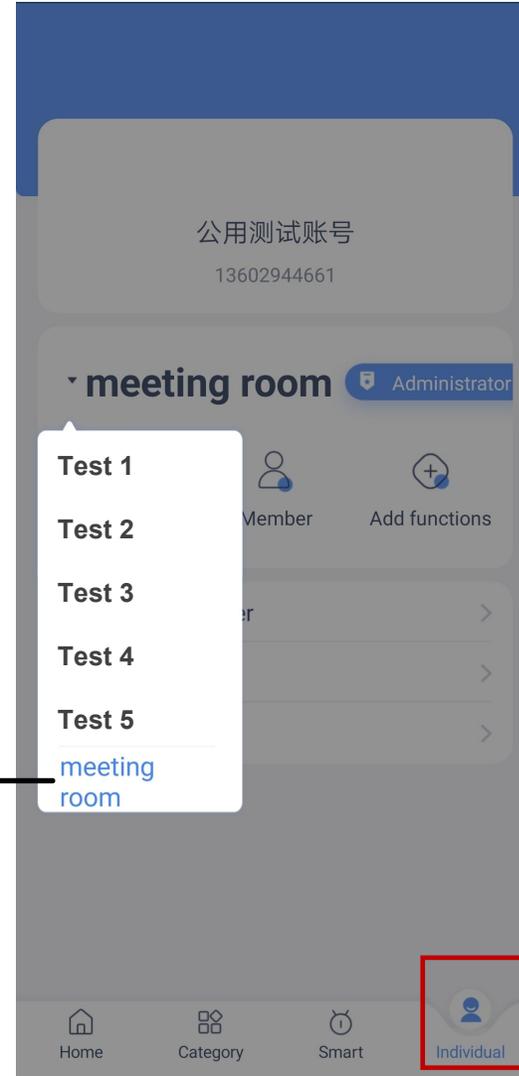
③ Select the project for residence you would like to upload, then click "Upload".

④ Click "确定(sure) to complete"

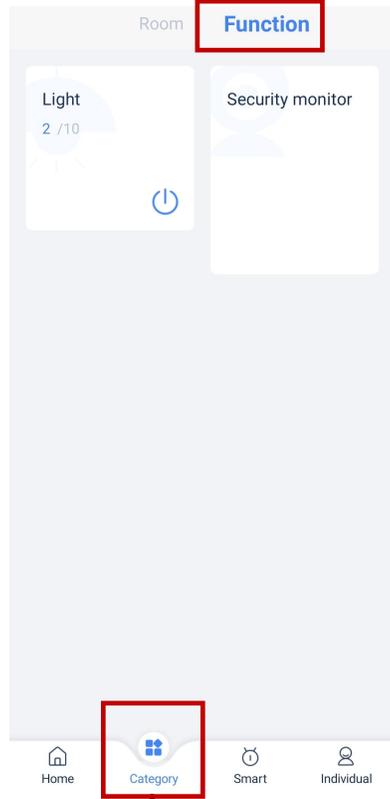
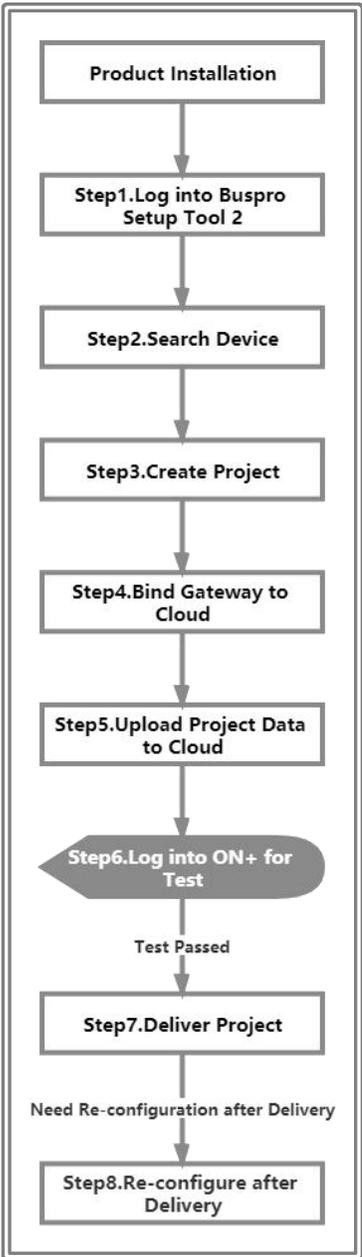
Step 6 — After uploading all data of the gateway to Cloud, you can use ON+ APP to proceed device configuration and remote control, as the below steps shown:



Click the tab “individual” to select your desired residence.



Step 6 — After uploading all data of the gateway to Cloud, you can use ON+ APP to proceed device configuration and remote control, as the below steps shown:



Click “Category” → “Function” → “Light” to proceed functional configuration and remote control for lighting and dimmer devices.



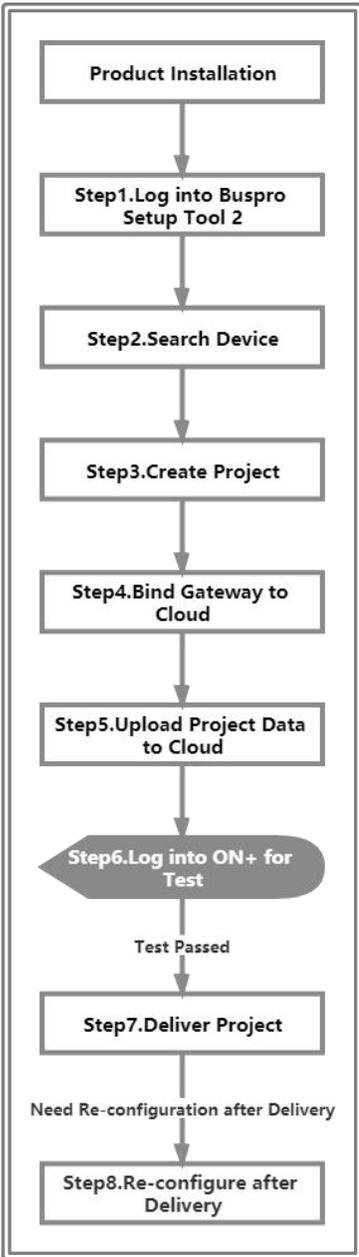
Click this icon to set the function as favorites

Click this icon to turn on/off

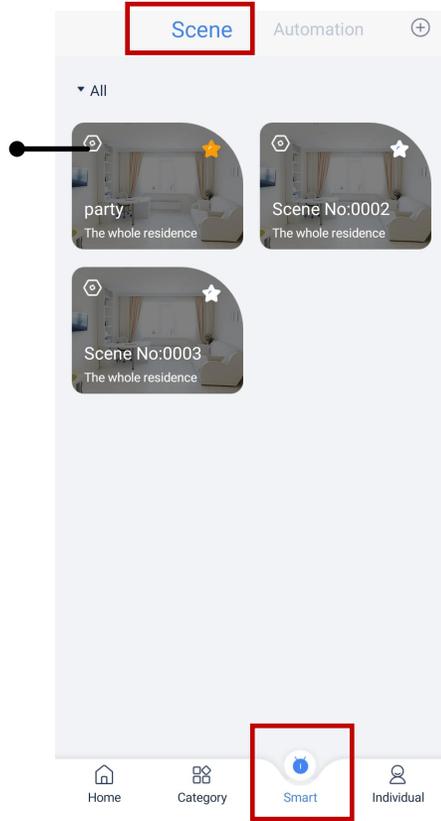


Click “Home” → “Function”, now you can see the function you set as favorites.

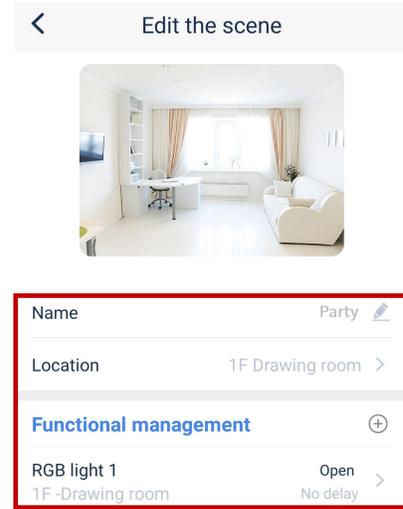
Step 6 — After uploading all data of the gateway to Cloud, you can use ON+ APP to proceed device configuration and remote control, as the below steps shown:



Click this icon to proceed scene editing

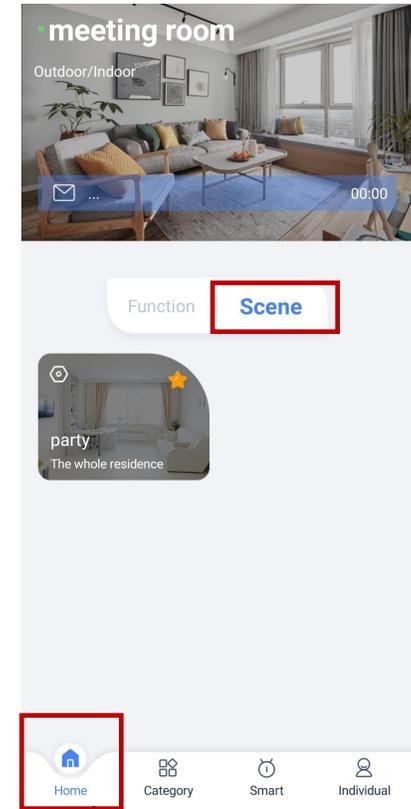


Click "smart" → "Scene", now you can see all of the scenes created



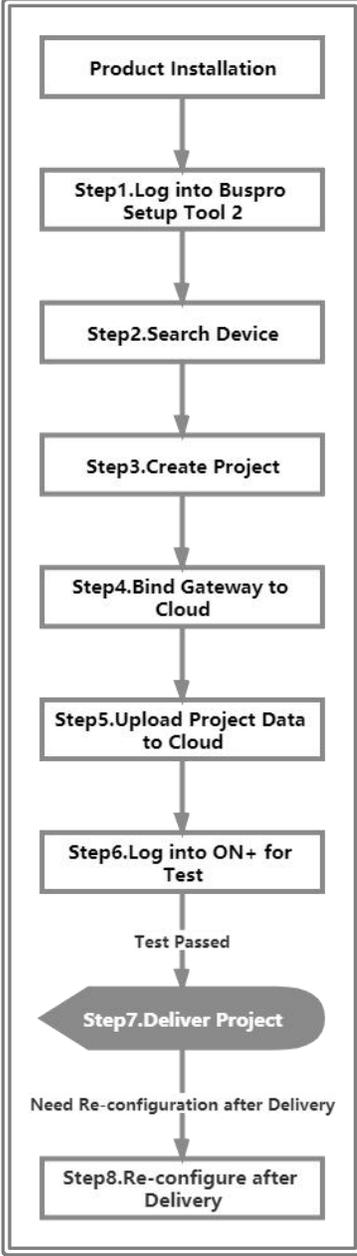
Delete

Edit Scene



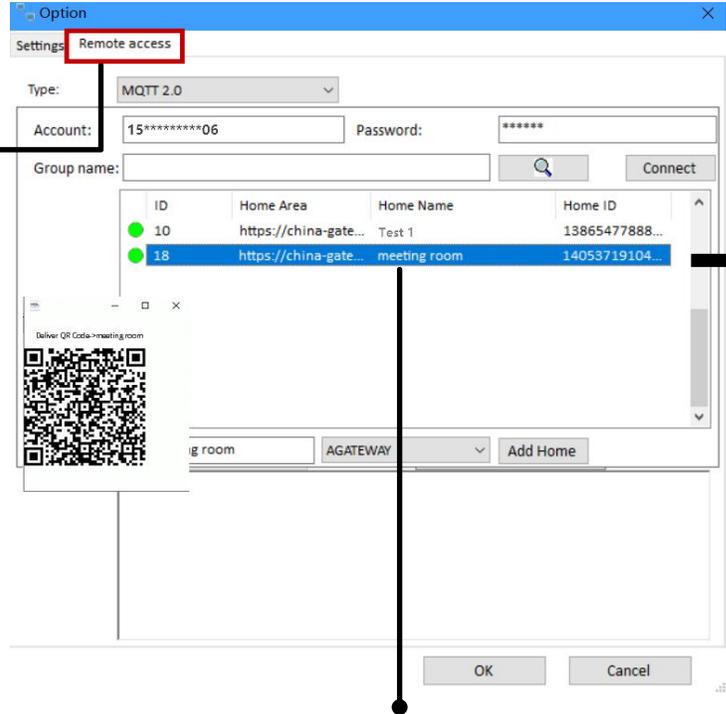
Click "Home" → "Scene", now you can see the scene you set as favorites.

Step 7 — Back to Buspro Setup Tool 2, proceed project delivery.



① Click “Option” → “Remote Access”

Before Delivery



② Select the project you would like to deliver, right click to get deliver QR code.

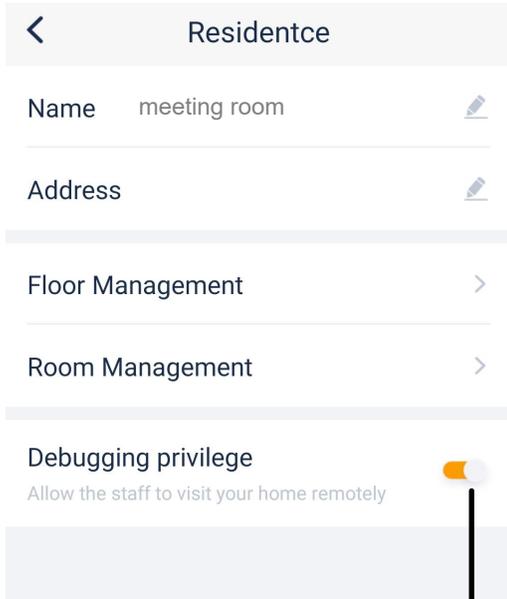
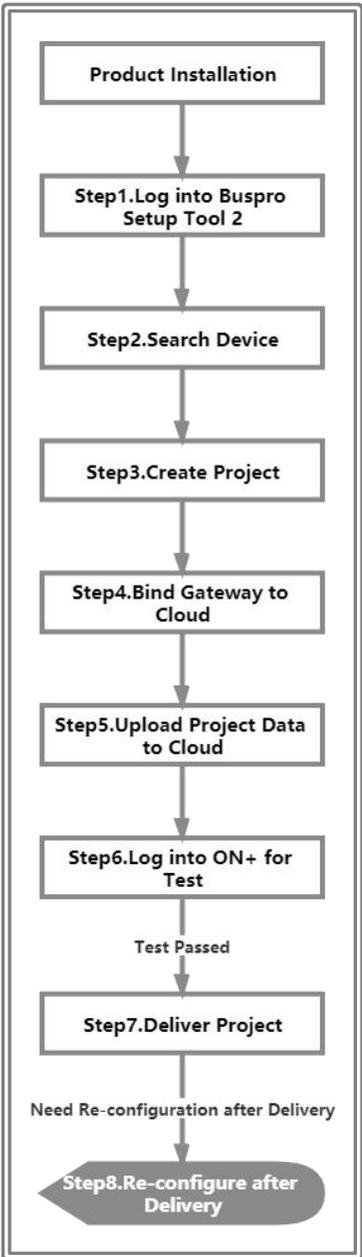
After Delivery



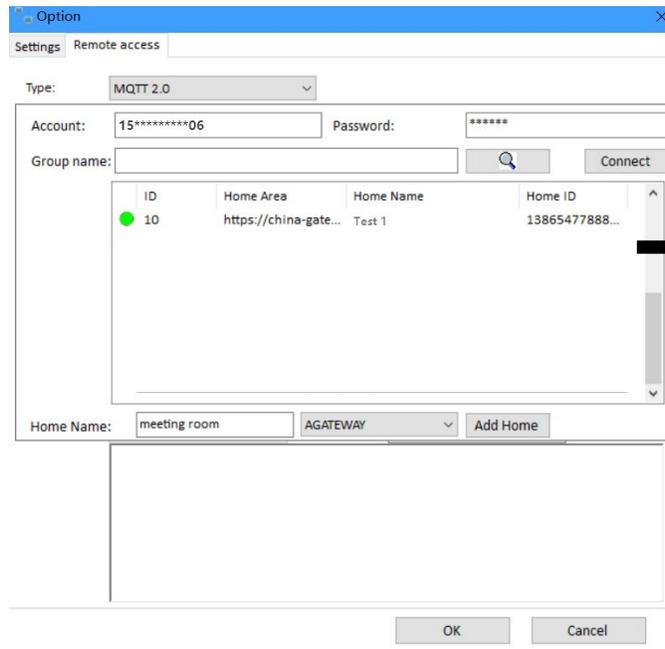
Once the code is scanned successfully by the owner, the project is formally delivered.
*The project delivered will not be shown in Buspro Setup Tool 2.

Step 8 — After project delivery, if needed, you can turn on the “Debugging privilege” via ON+ APP, then back to Buspro Setup Tool 2 to proceed debugging and re-configuration.

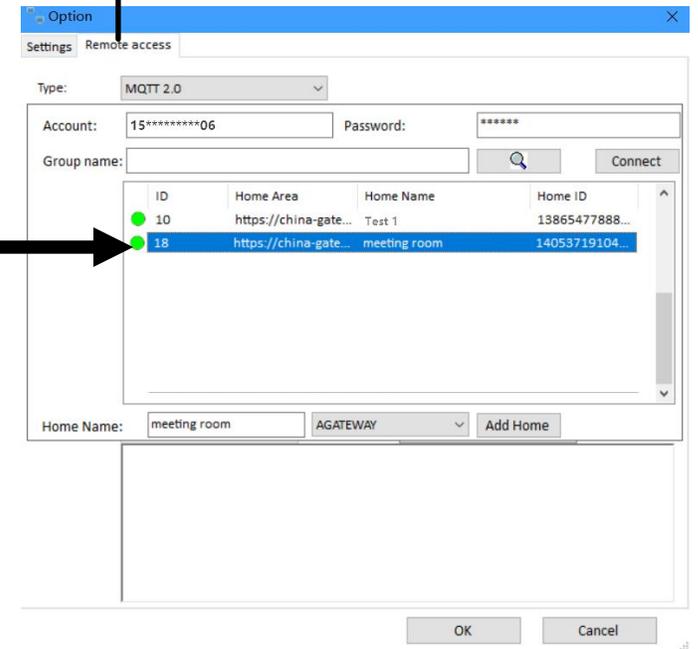
② Click “Option” → “Remote Access”, the project delivered can be shown again.



① Enter “Residence” → Turn on “Debugging privilege”



Before Turning on “Debugging privilege”



After Turning on “Debugging privilege”

*After turning on “Debugging privilege”, the authorization belongs to the previous debugging personnel by default; i.e., new personnel is still not allowed to proceed re-configuration for the project delivered.