AVA-88

Installation & User Guide

(For PC)

WELCOME

Congratulations on purchasing the AVA-88. The AVA-88 integrates multiple complicated control, automation and internet protocols into one simple plug-and-play device. It is a central controller that integrated and control of all wireless Z-wave devices used for home automation and keeps connect and control of your home easily, no matter where you are. Please take a few minutes to read this guide to set up your AVA-88 and Z-wave network smoothly.

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Chapter 1 Introduction

AVA-88 is a central controller that integrated and control of all wireless Z-wave devices used for home automation. It also provides Gateway to connect to Internet. Through Internet you can see all kinds of devices status of your home at any time and any place via your smartphone or PC. You can control the home devices such as lighting, air conditioning, door lock and unlock, you can also receive the alarm message of your home. Energy usage monitors of your home at any time is real-time recording to the cloud host, home alarm messages are immediately delivered to the cloud message monitoring center for the necessary treatment.

The AVA-88 controls switches, dimmers, motion sensors, temperature sensors and so on many Z-Wave devices. AVA-88 integrates complicated control, automation and internet protocols into one simple plug-and-play device. It provides an interface that allows you to manage your home easily, whether you are at home or not.

1.1 Key Features

- Provide one LAN port Router function
- Provide one USB 2.0 Host port, you can connect Zigbee USB Dongle or USB Hard Disk
- Provide WiFi IEEE 802.11b/g/n
- Provide compatible Z-Wave Plus communication protocol that connects all kinds of Z-Wave devices that includes window sensors, electric locks, lighting dimmer controls, energy usage monitor, air quality detector, temperature and humidity sensors, fire safety sensors.
- Provide a service platform to connect to the cloud service.
- Provide IP-Cam viewing interface
- Provide free download APP.

1.2 Technical Specifications

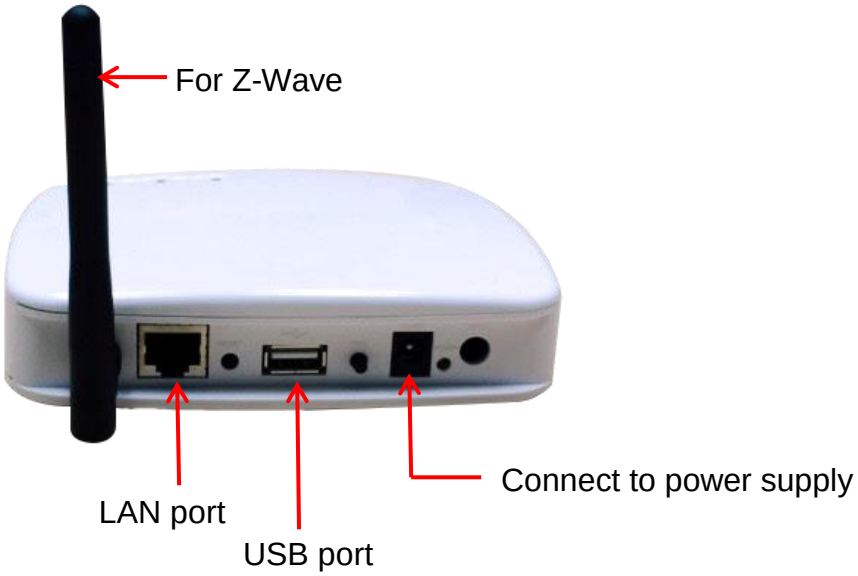
Technical Specifications	
Hardware Specifications	
USB Port	USB Host 2.0 x1
Ethernet port	RJ-45 10/100Mb , support 1 LAN
Physical and Environmental Characteristics	
Dimensions	137(W) x 101(H) x 30(D) mm
Weight	300g
Operating Temp.	■ Temp: 0°C~45°C (32°F~113°F)

& Humidity	■ Humidity: 10% ~ 90% relative humidity, non-condensing
Power Adaptor	■ INPUT: AC100V~240V, 50/60Hz ■ OUTPUT: DC 5V, 2.0A
outer casing	Plastic
Country of origin	Made in Taiwan
Software Specifications	
Protocol	Z-Wave
WiFi	IEEE 802.11b/g/n
HA Functions	Sense Control
	Lighting Control
	Door Lock Control
	Sensor Trigger Even
	Schedule setting
	Support mobile phone Push Notification
	Support Devices Place Location
	User account Management (admin and normal user)
	Support Remote update software
Z-Wave Capacity	Support 30 Z-Wave notes

1.3 Hardware Overview

1.3.1 Front Panel

1.3.2 Back Panel



DC 5V/2A: Connecting to AC adapter. Input AC 100V~240V, 50/60Hz;
Output DC 5V 2.0A

LAN: RJ-45 socket, complied with Ethernet 10/100base-T.

USB: USB 2.0 ports, USB Type A.

Chapter 2 Quick Install

After you've created your Z-Wave network, you'll need to install your AVA-88. Follow these steps:

2.1 Unpacking

Open the carton and unpack the items. Your package should include:

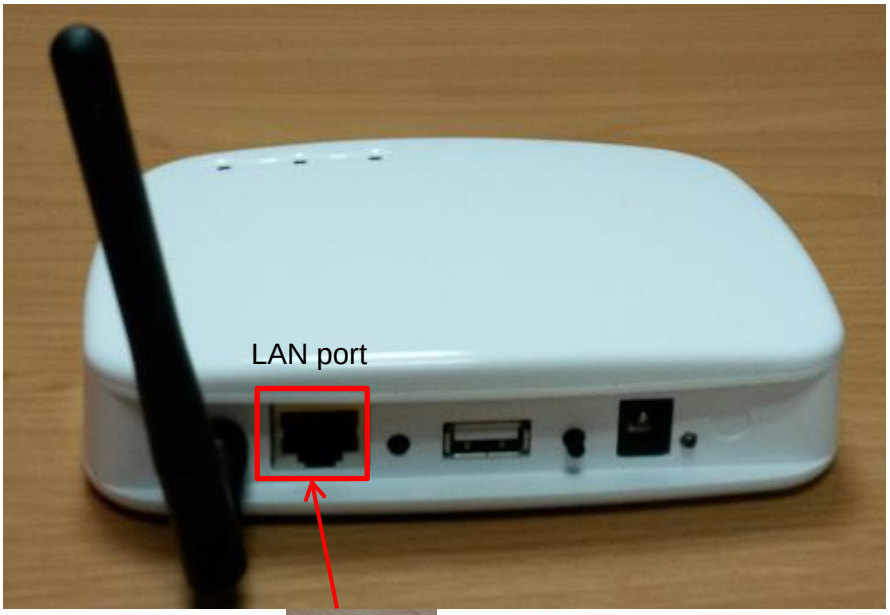
- ■ AVA-88 main unit x 1 pcs

If items are missing or damaged, notify your Avadesign representative. Keep the carton and packing material.

2.2 The Procedure of Connection

Step 1: Plug in DC power adapter to AVA-88.

Step 2: Connect the Ethernet cable to your AVA-88 LAN port.



Ethernet cable

Step 3: Plug in AC power cord to power source.

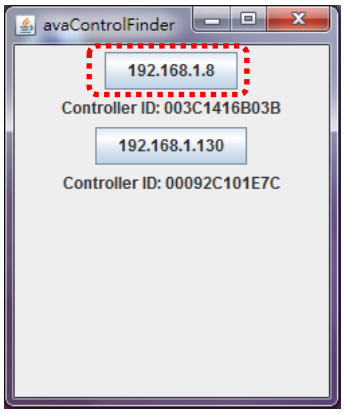
Step 4: AVA-88 begins the boot process automatically.

AVA-88 provides three kinds of operational platforms, Web page, Android and iOS, for users. Therefore user can configure the AVA-88 by his/her PC or smart phone or tablet. The web configuration guide is available in this manual. The installation guide for smart phone/tablet with Android system or iOS system, please refer to other document.

2.3 Find the IP address of your AVA-88

Please download the Java program file named avaControlFinderJava from the website of Avadesign Co., Ltd. http://www.avadesign.com.tw/support/support.html to your PC. Decompress the file and click it twice by left button of your mouse. Then you will see the IP address listing of all of your AVA-88 as below.

avaControl Finder

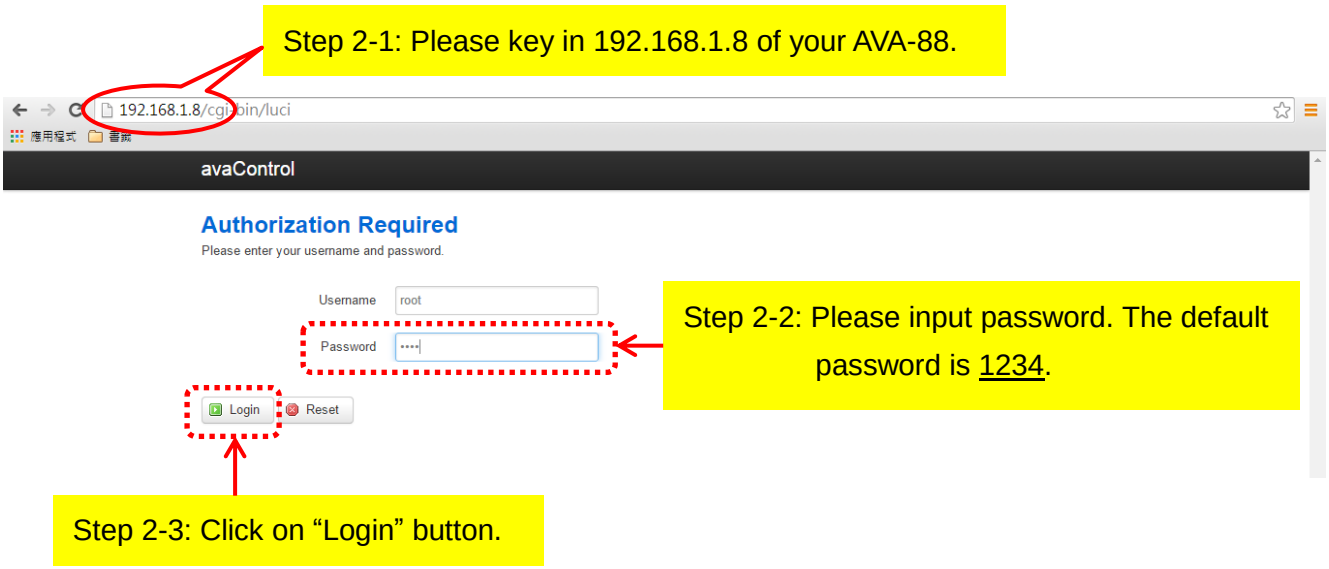


2.4 Setup Wi-Fi for your AVA-88 (optional)

If you want to use Wi-Fi, please following the setup procedure described as below.

Step 1: At first, connect Ethernet cable to LAN port of AVA-88.

Step 2: Type the IP address which getting from avaControl Finder as Sec. 2.3. For example: type 192.168.1.8 of the AVA-88 in the address bar and press Enter. The screen is shown as follows.

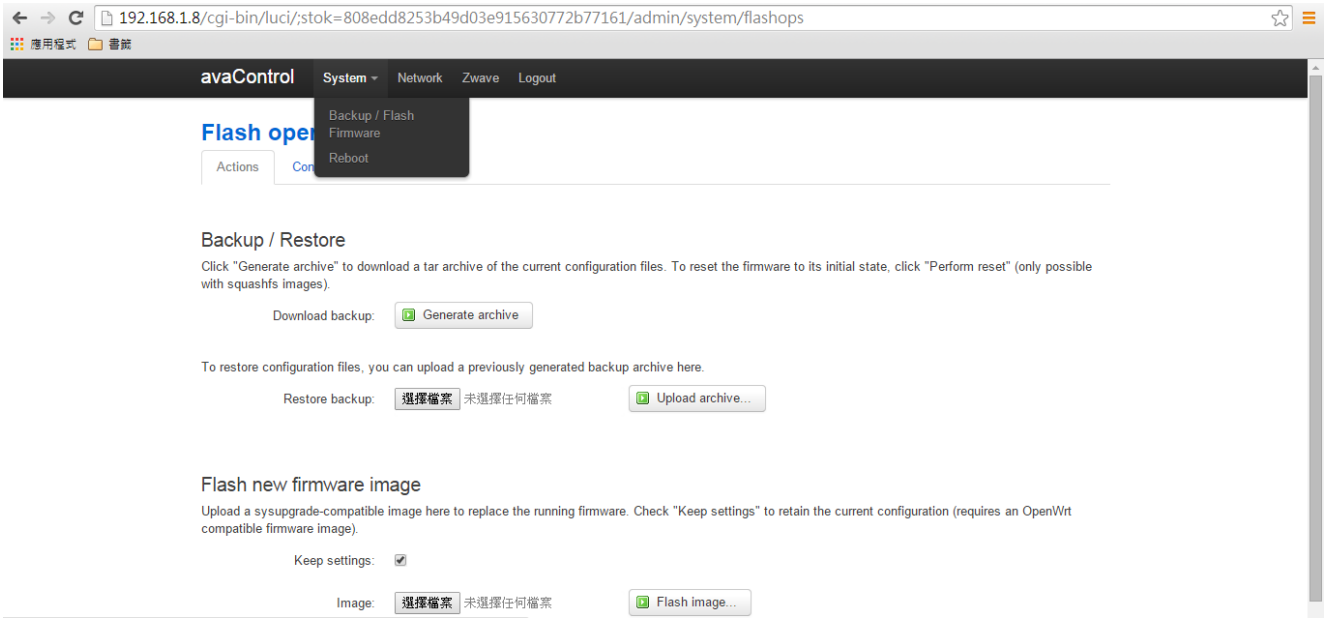


The username is root. Please input password: 1234 then click “Login” button on the screen. After login AVA-88, you will see the login page as shown below.

Step 3: Click on **Network** function in the top menu to setup your Wi-Fi network. The detailed is described at Sec. 2.4.2.

Step 4: When Wi-Fi network configure has finished, please take off the Ethernet cable from LAN port of AVA-88.

Login page



After Login user will see the screen as above, and there are four main categories in the top menu, user can click on each category to extend detail items.

- System
- Network
- Zwave
- Logout

The various configuration menus are explained below. You can select various function listed in the first line of web page display.

2.4.1 System

You can backup or flash firmware in this function. This function also provides reboot the system for you.

Backup / Restore

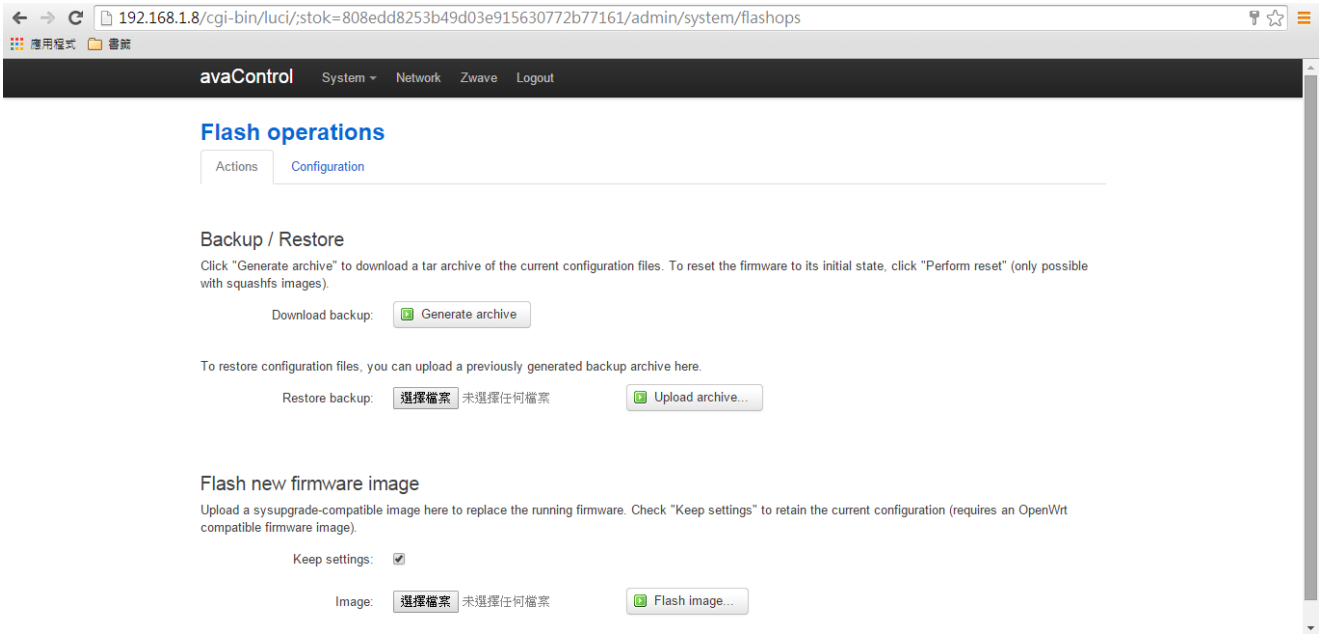
You can click on "Generate archive" button on the screen to download a tar archive of the current configuration files.

To restore configuration files, you also can upload a previously generated backup archive here.

Flash new firmware image

You can upload a sys upgrade-compatible image here to replace the running firmware.

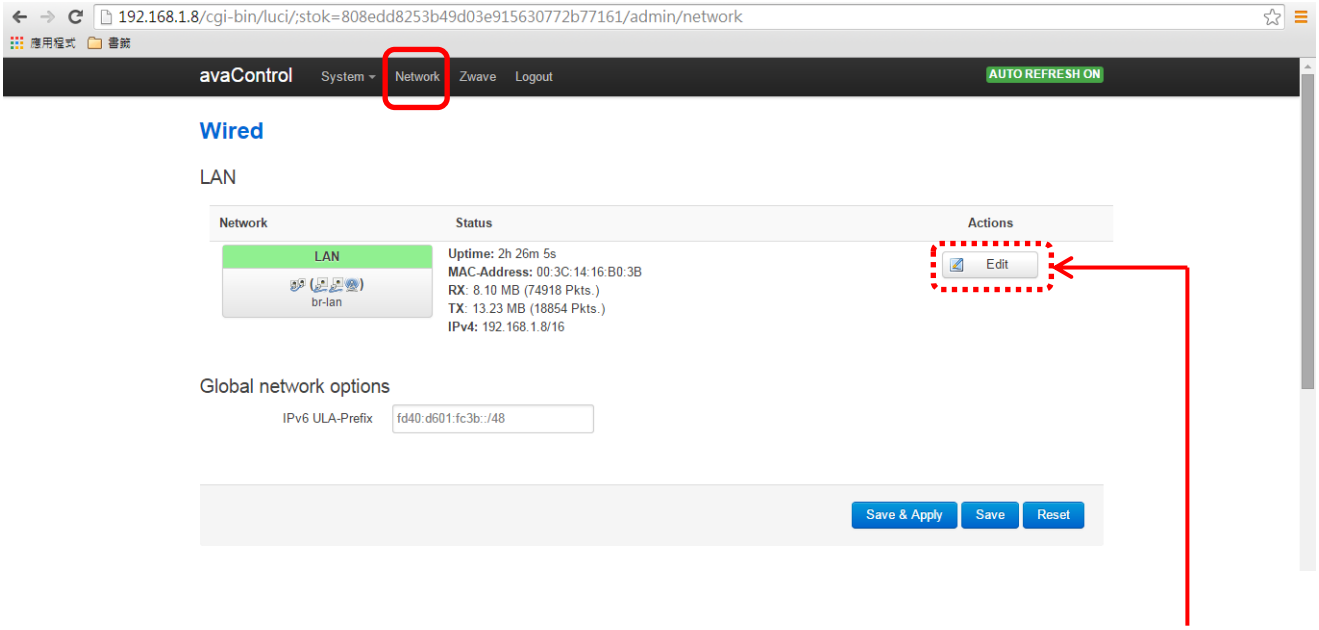
Backup/Flash Firmware



2.4.2 Network

The network function provides Wi-Fi network configuration for users.

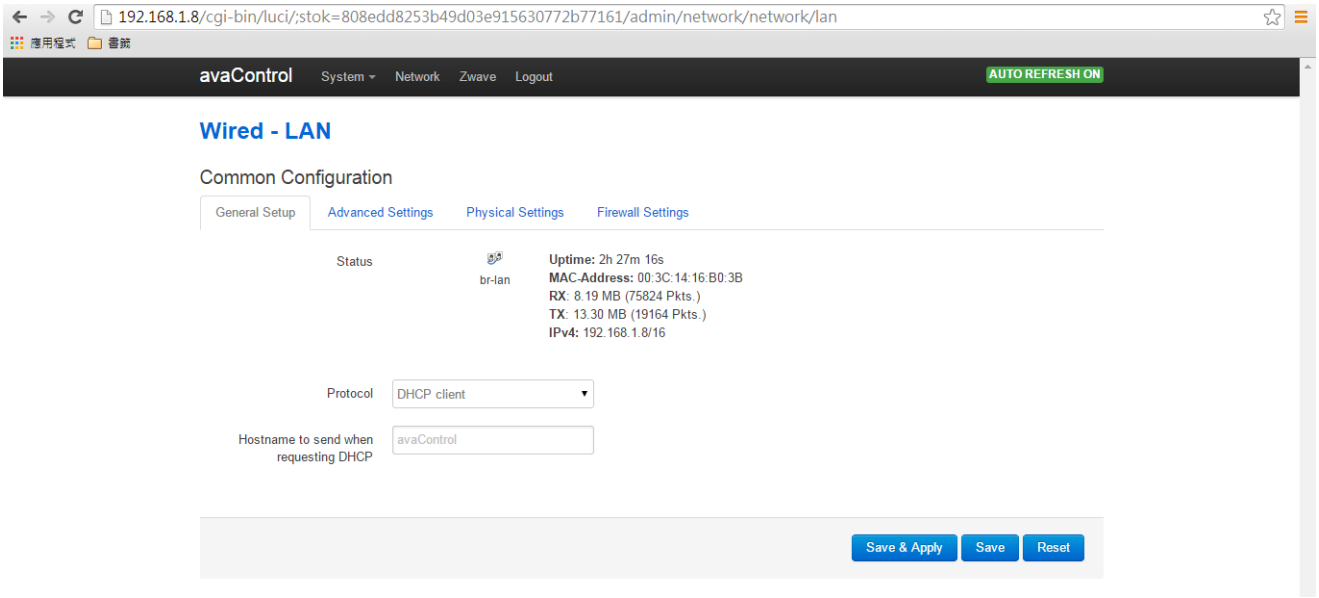
Network page



Click on “Edit” button, you can do general setup, or advanced settings, or physical settings and Firewall settings.

2.4.2.1 General Setup

General Setup

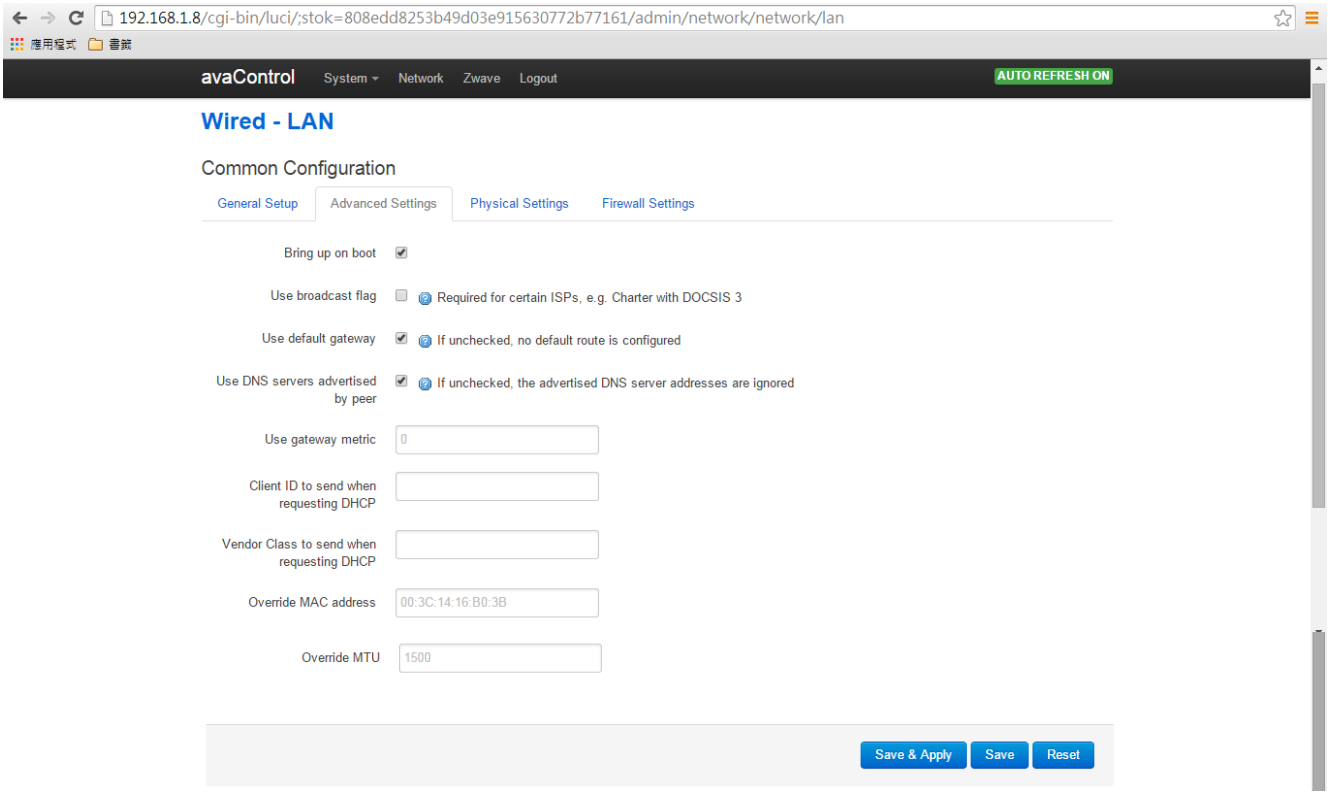


You can select which protocol you need. AVA-88 provides a protocol listing of static address, DHCP client, unmanaged, PPP, PPtP, PPPoE, PPPoATM, UMTS/GPRS/EV-DO and L2TP for your choice.

2.4.2.2 Advanced Settings

You can do advanced configuration by clicking on “Advanced Settings” function.

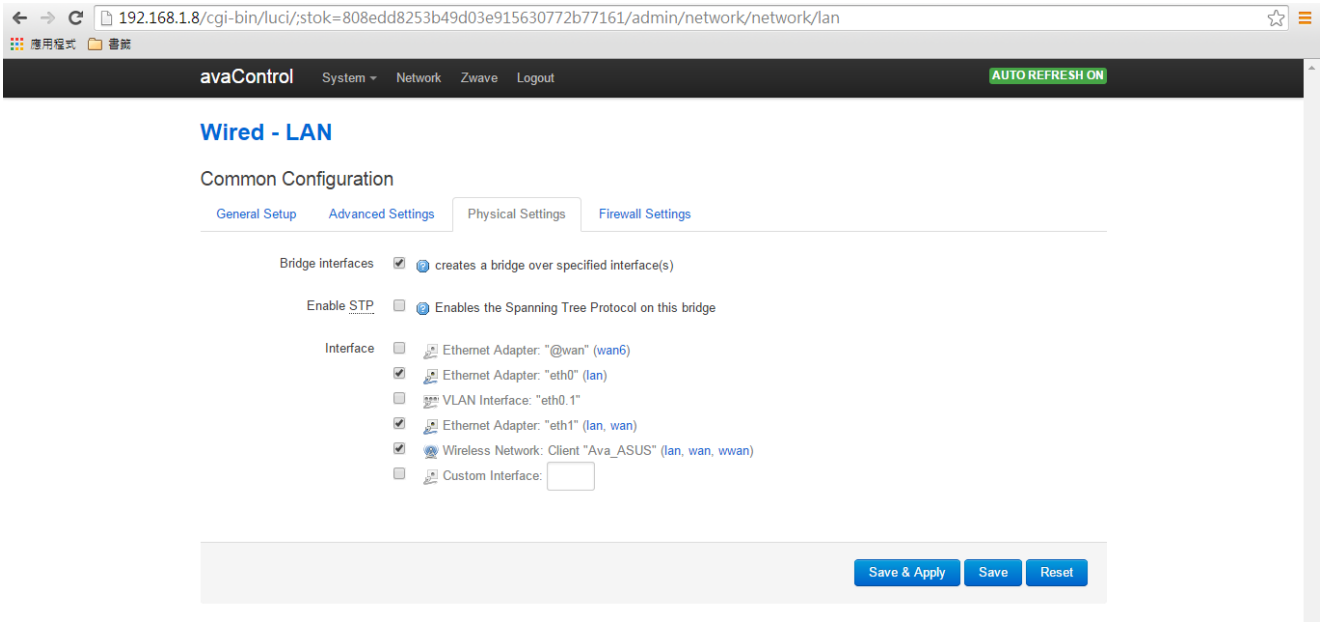
Advanced Settings



2.4.2.3 Physical Settings

You can create a bridge over specified interface and enables the Spanning Tree Protocol on this bridge. You also can select which interface you needed by clicking the check squares.

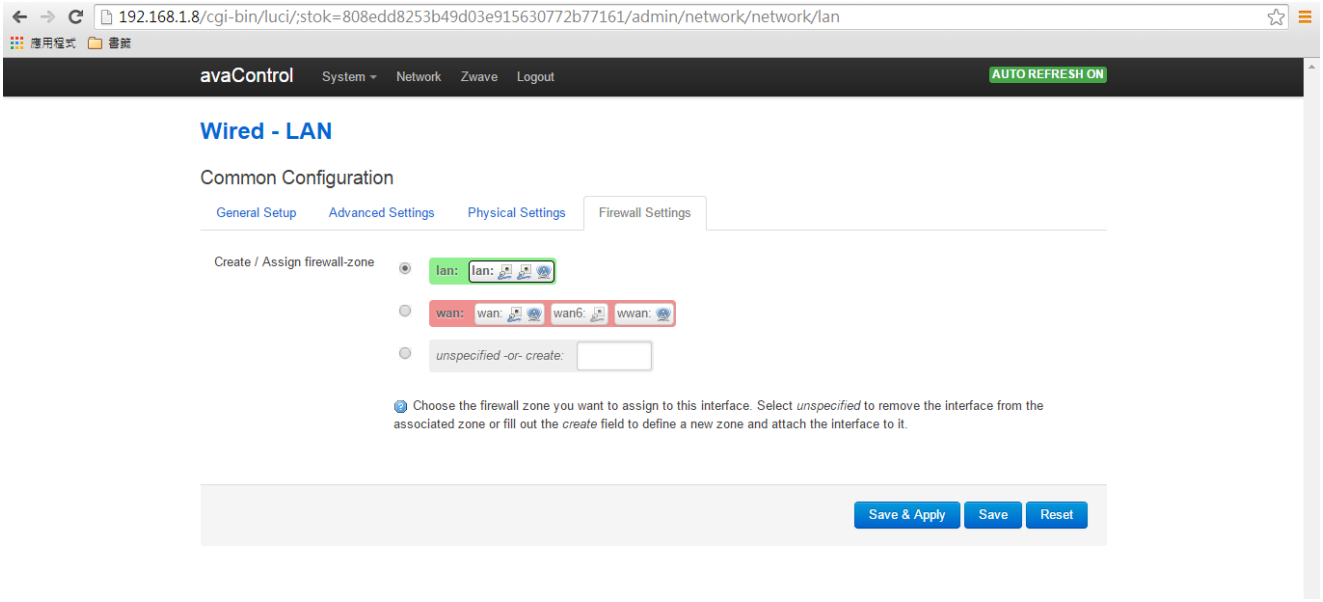
Physical Settings



2.4.2.4 Firewall Settings

Choose the firewall zone you want to assign to this interface by clicking on “Firewall Settings” function. Select “*unspecified*” to remove the interface from the associated zone or fill out ”*create*” field to define a new zone and attach the interface to it.

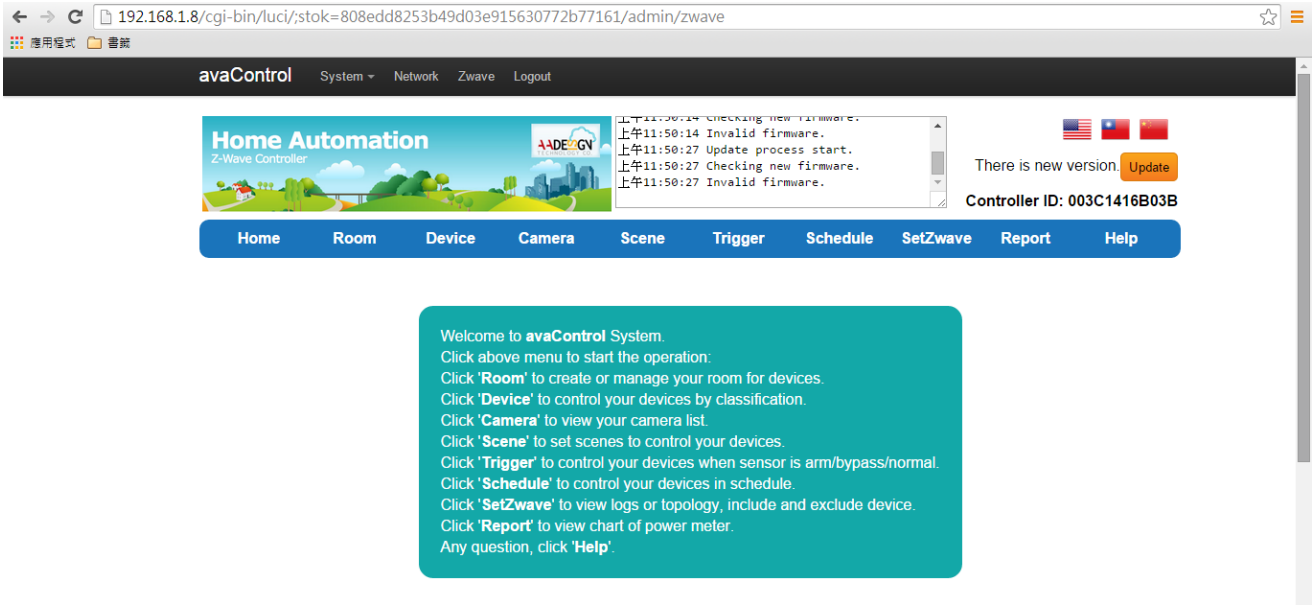
Firewall Settings



2.4.3 Zwave

You also can do Z-Wave devices setup by clicking on “Zwave” function. Please refer to Chapter 3 for the detailed description.

ZWave home page

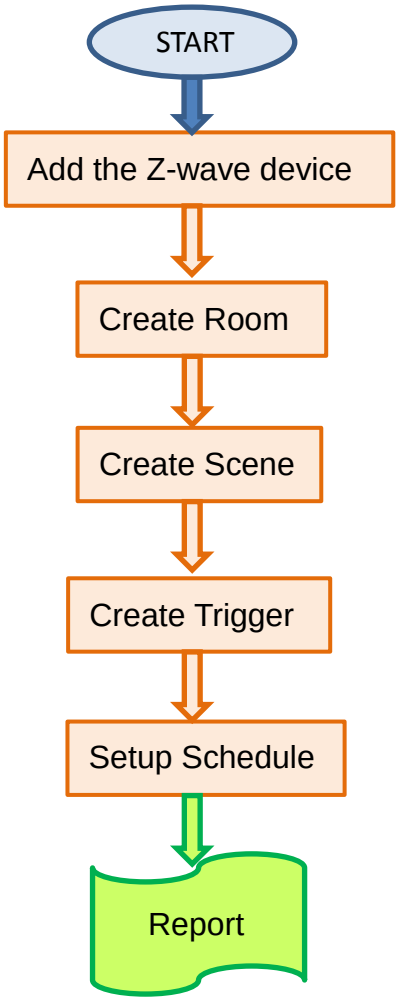


2.4.4 Logout

You can log out the system by clicking on “Logout” function.

2.5 Initial setup procedure for AVA-88 web configuration

In order to set proper functions for each Z-Wave device, you can follow this flow chart before you start to configure Z-Wave devices for AVA-88.



Function Name
in the top menu

SetZwave
Please refer to section 3.2

Room
Please refer to section 3.3

Scene
Please refer to section 3.5

Trigger
Please refer to section 3.6

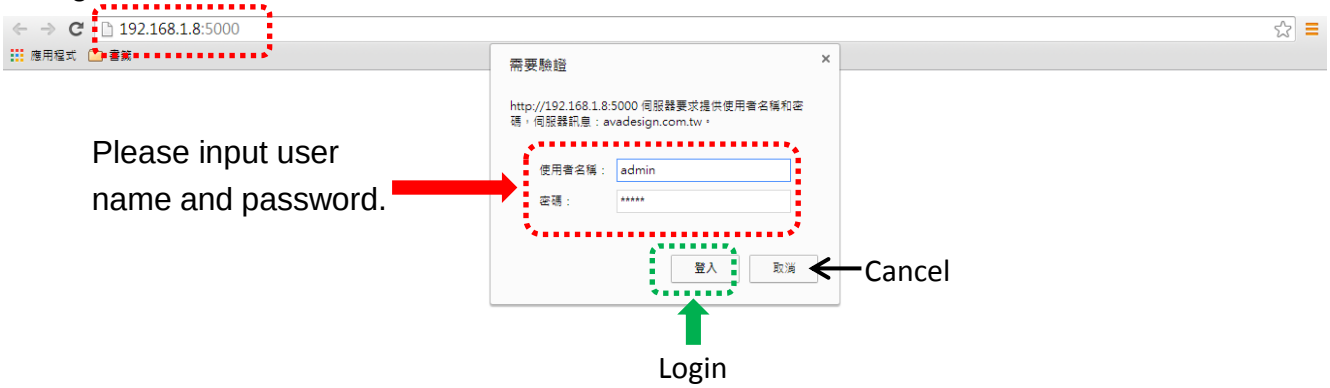
Schedule
Please refer to section 3.7

Report
Please refer to section 3.8

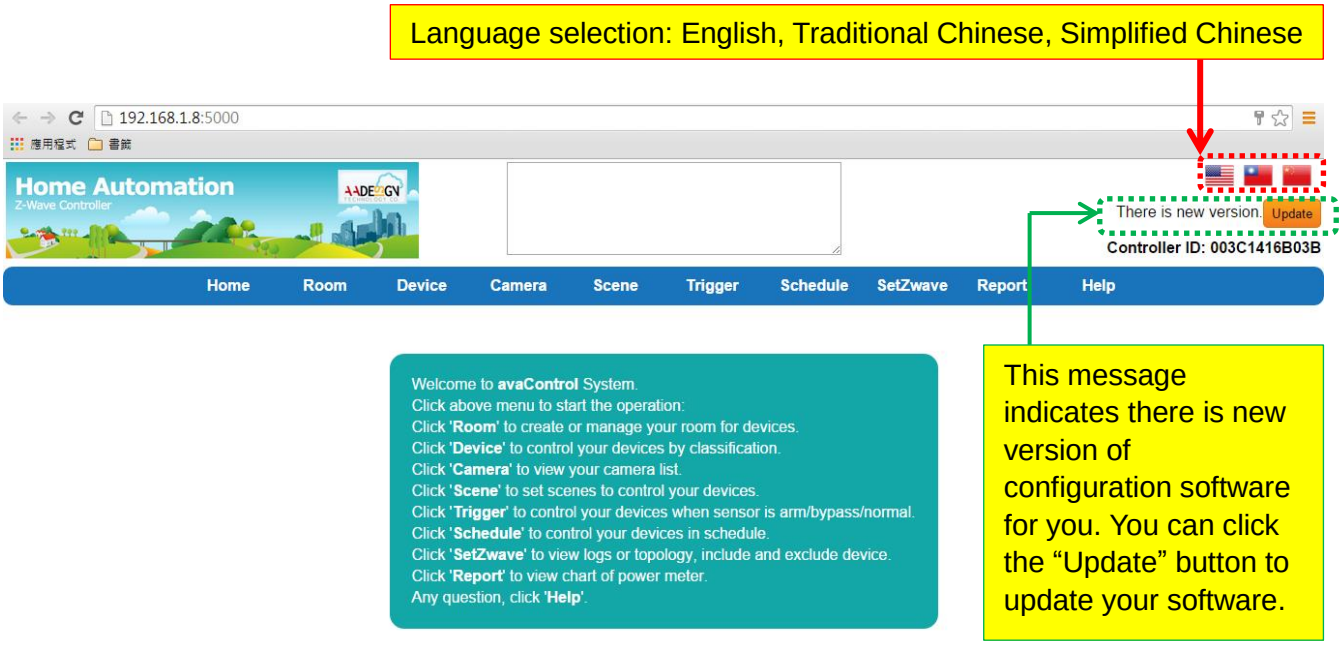
Chapter 3 Full web configurations

3.1 Enter web configure page

Move the cursor to the IP address of AVA-88 on the screen and click it that as shown the diagram of avaControl Finder at section 2.3. Then you will enter the web page for configuration as follows.

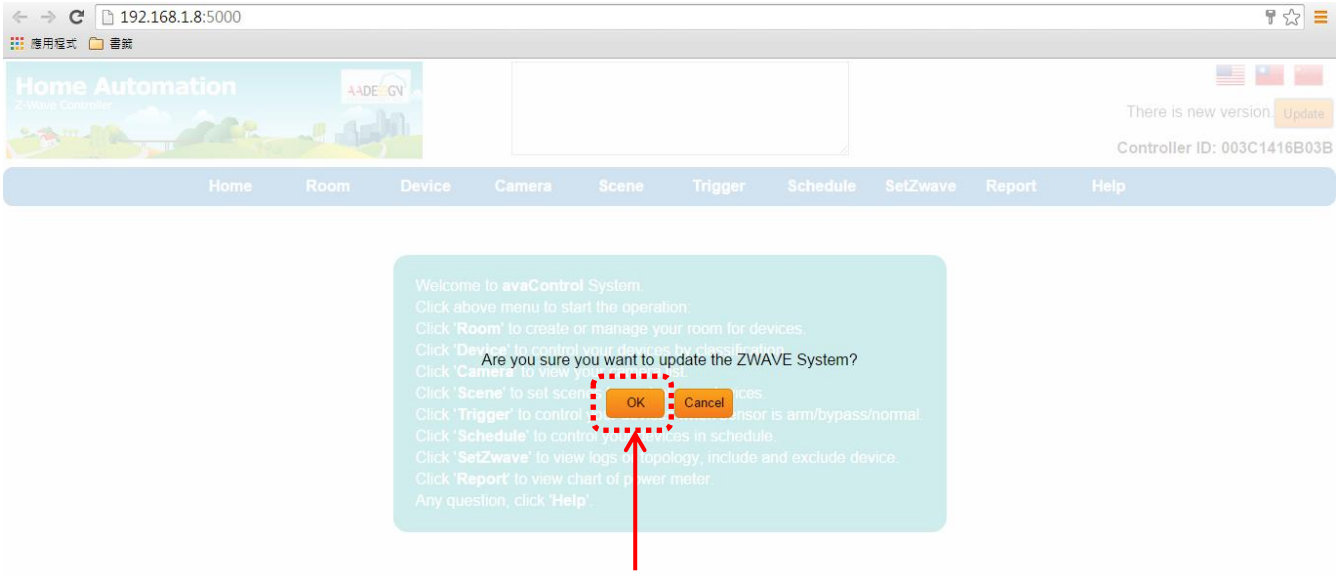


Please input with username: admin and password: admin then click “Login” button on the screen. After login AVA-88, you will see the home page as shown below.



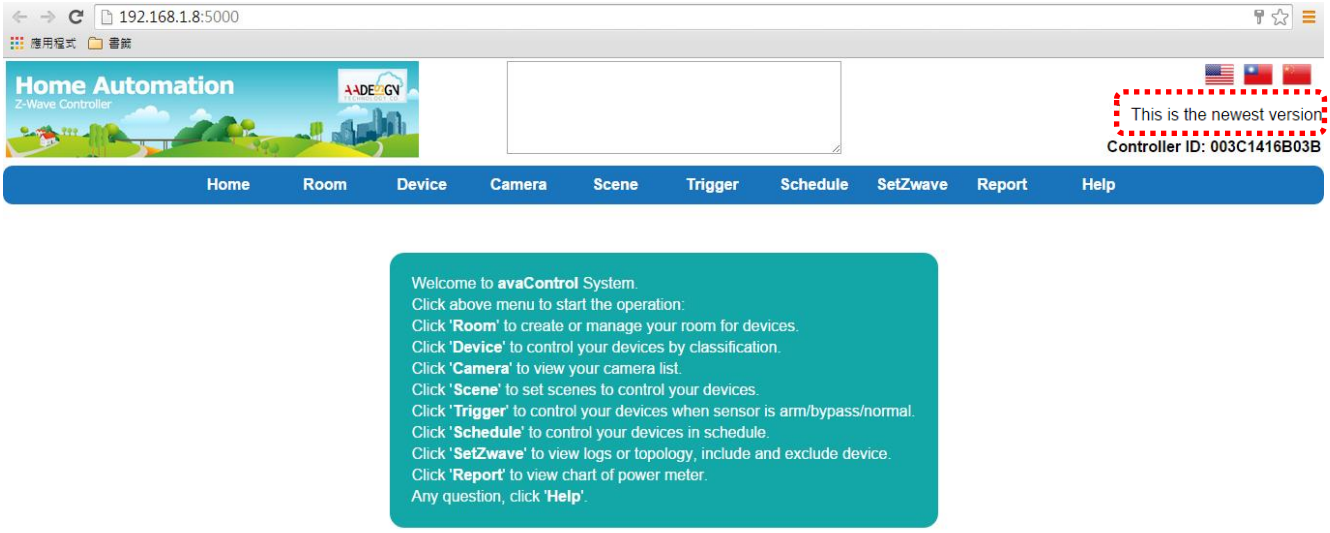
At right side of home page, you can see the national flag of different country for different language selection. Just click the national flag you will get which language you want. You also can see the orange color button with characters of update. Click “Update” button to update your configuration software. Finished the update procedure, you will see the screen as shown below. A message of “This is the newest version” displays on the screen now.

Update procedure



Please click on “OK” button to update the AVA-88 software.

Home Page



After Login AVA-88 user will see screen as above, and there are ten main categories, user can click on each category to extend detail items.

- Home
- Room
- Device
- Camera
- Scene
- Trigger
- Schedule
- SetZwave
- Report

- Help

The various configuration menus are explained below. You can select various function listed in the first line of Home page display.

3.2 SetZwave - Z-Wave device settings

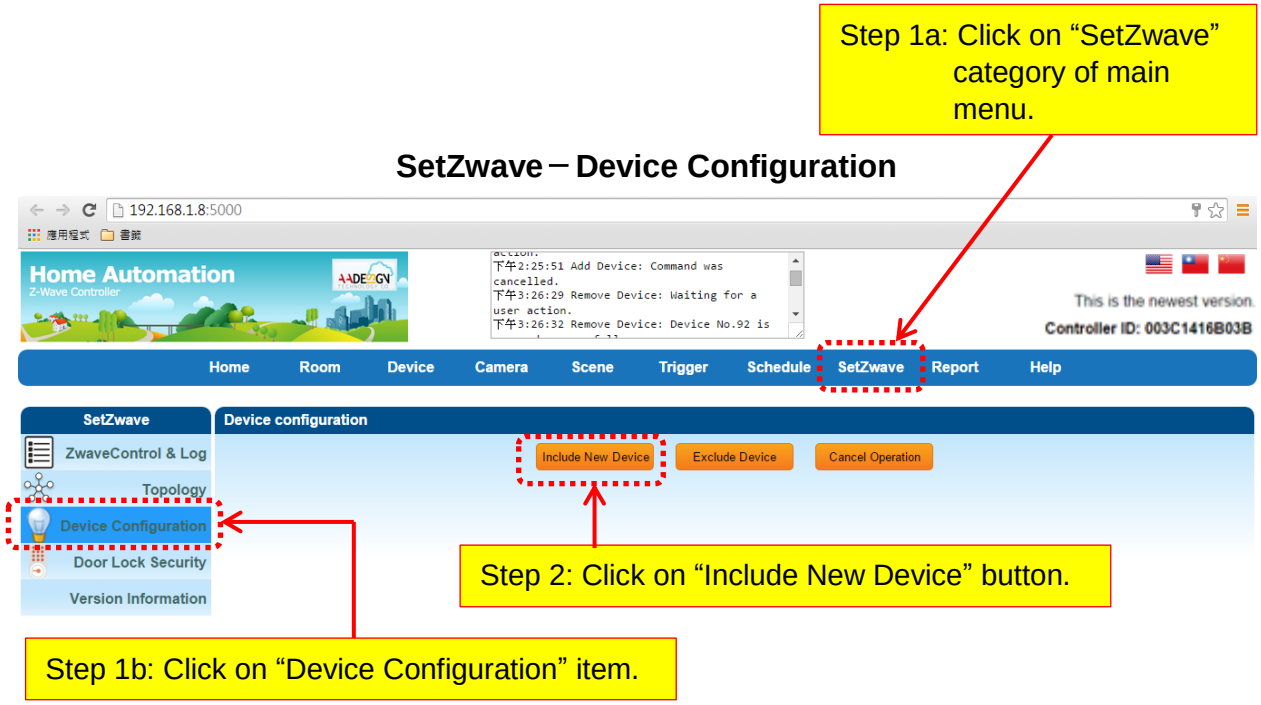
One of main functions of AVA-88 is control and monitoring the room. If you would like to implementation of these efforts require the help of Z-Wave devices in order to complete the task. At first, you need to add the new Z-Wave devices to AVA-88 for control and monitoring the room or remove the Z-wave device which not used.

3.2.1 The Z-Wave device configuration

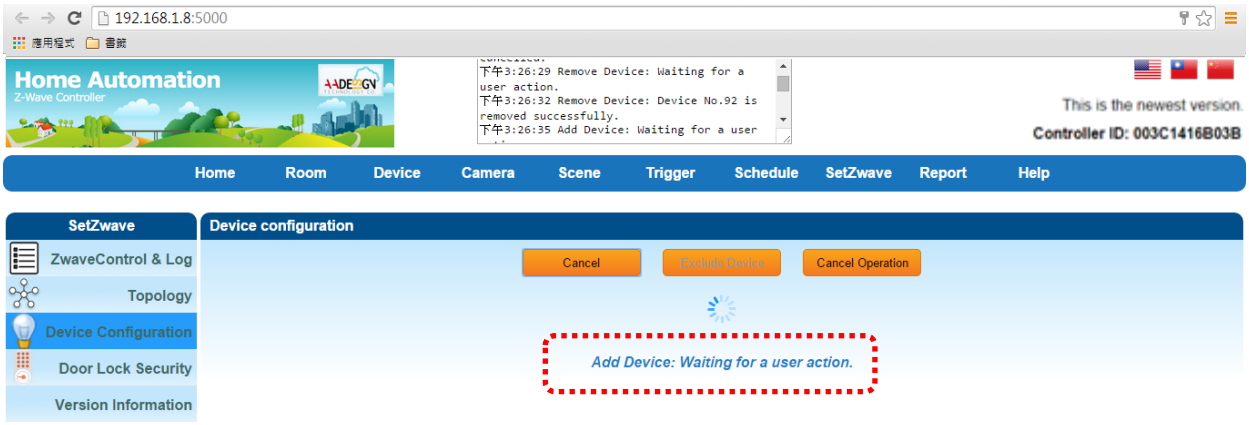
3.2.1.1 Add a Z-Wave device

You can add the Z-Wave device by clicking on the category of “SetZwave” in the menu bar. The procedure of adding the Z-wave device is described as follows.

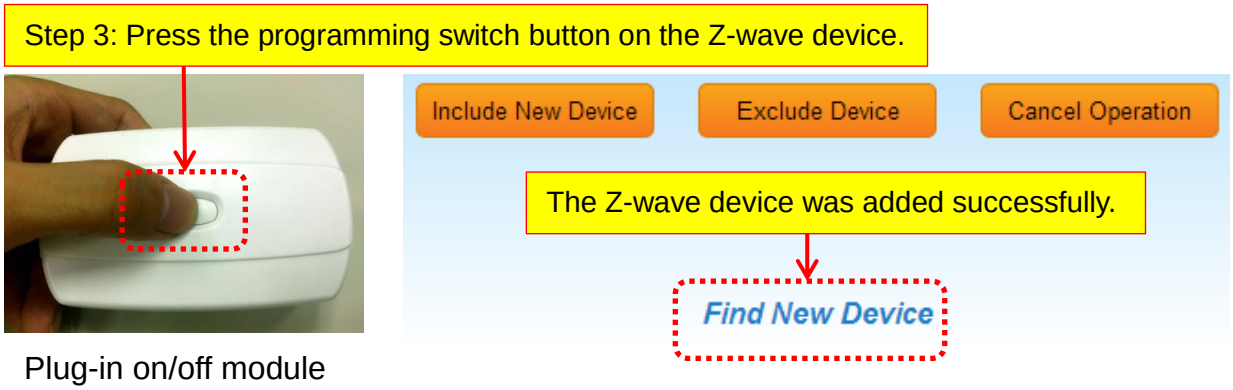
Step 1: Enter the "SetZwave" page and select "Device Configuration"



Step 2: Click on the "Include New Device", the screen will appear "Add Device: Waiting for a user action."



Step 3: Press the programming switch button on the Z-Wave device for connection. The location of programming switch button depends on the type of Z-Wave device that you use. Please refer to the user manual of the Z-Wave device.



Plug-in on/off module

p.s. You also can buy these Z-Wave devices such as Plug-in on/off module, Door sensor, PIR sensor, Wireless siren…etc. from Avadesign Technology.

Step 4: When your Z-Wave device has added successfully, the message of "Add Device: Command has completed successfully" will display on the screen.

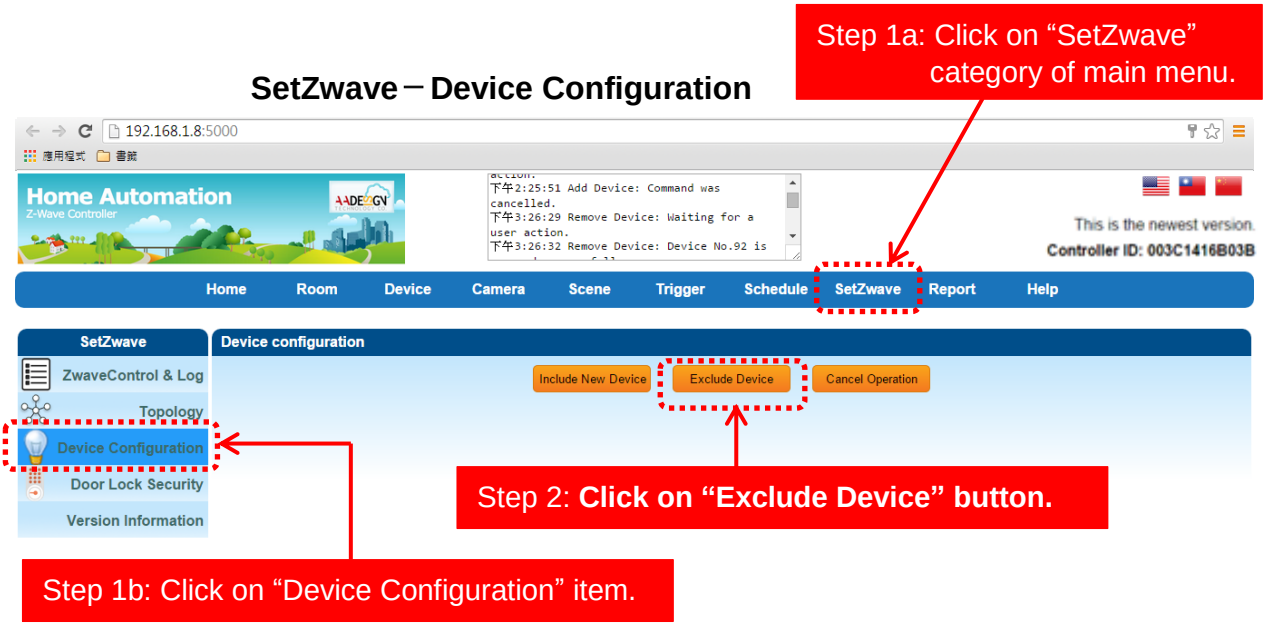
Step 5: When the new Z-Wave device was found, you can modify the name and room settings as shown below.

Step 6: Then click "device", the new Z-wave device is ready to use now.

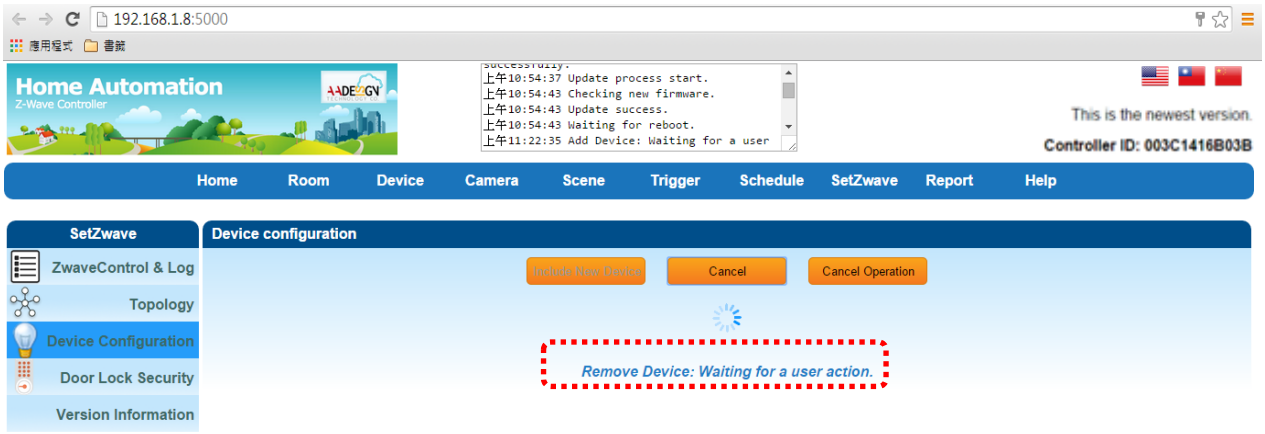
3.2.1.2 Remove a Z-Wave device

You also can remove the Z-Wave device by clicking on the category of “SetZwave” in the menu bar. The procedure of removing the Z-wave device is described as follows.

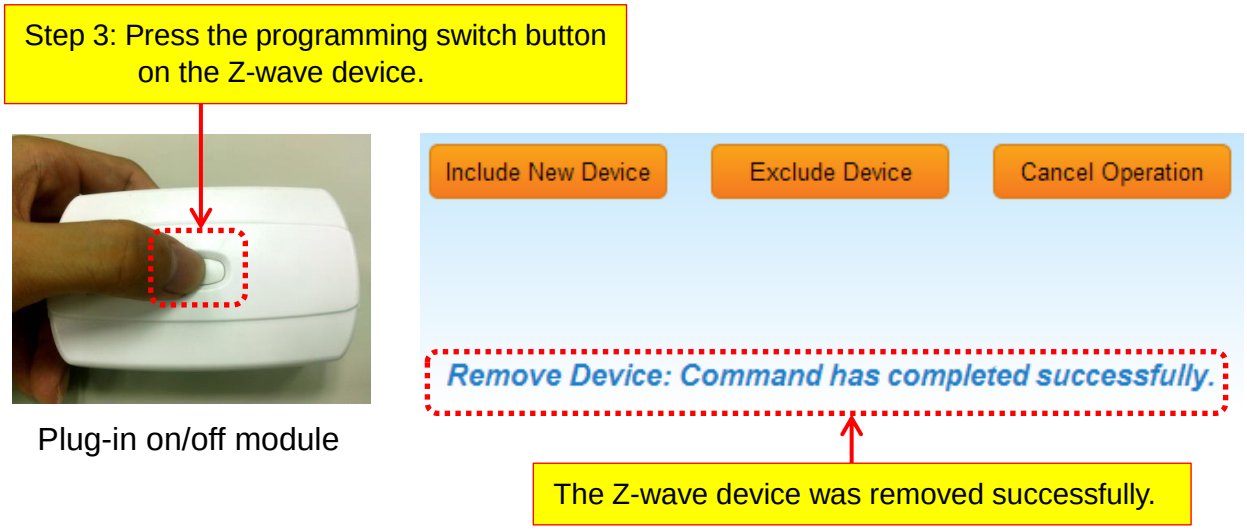
Step 1: Enter the "SetZwave" page and select "Device Configuration"



Step 2: Click on the "Exclude Device", the screen will appear "Remove Device: Waiting for a user action."



Step 3: Press the programming switch button on the Z-Wave device for removing. The location of programming switch button depends on the type of Z-Wave device that you use. Please refer to the user manual of the Z-Wave device.



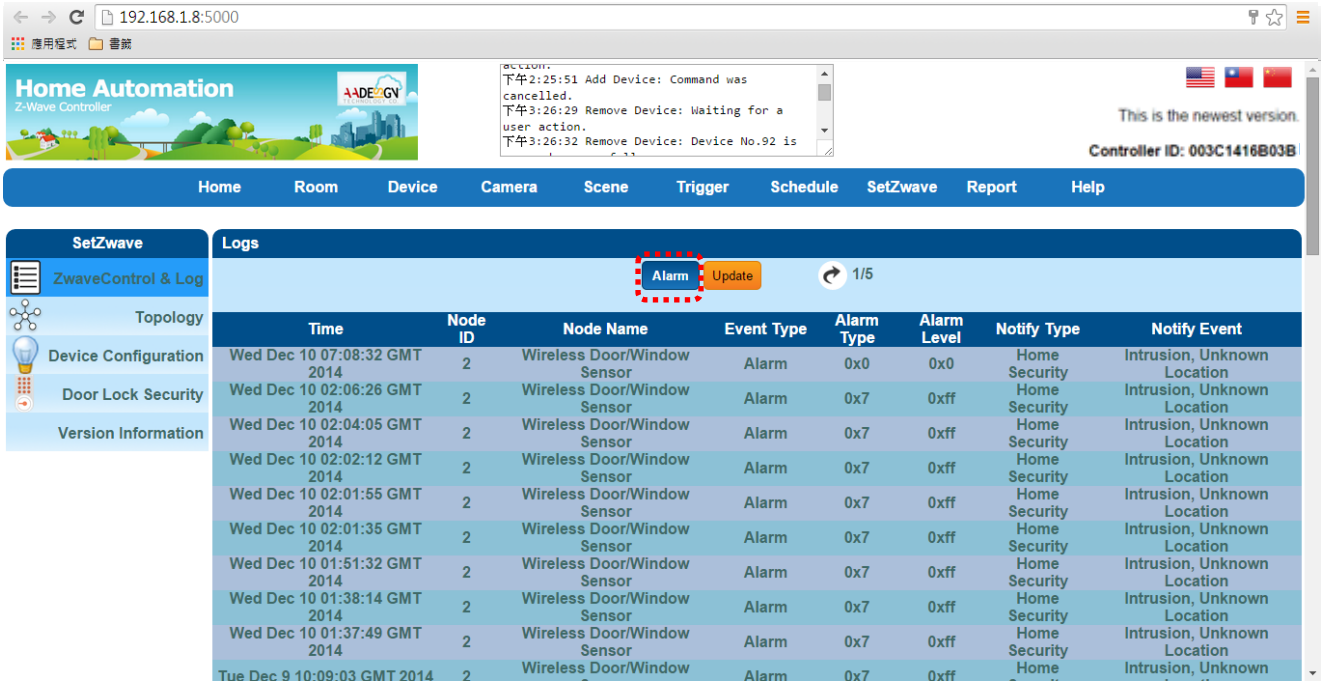
Plug-in on/off module

Step 4: When your Z-Wave device has removed successfully, the message of "Remove Device: Command has completed successfully" will display on the screen.

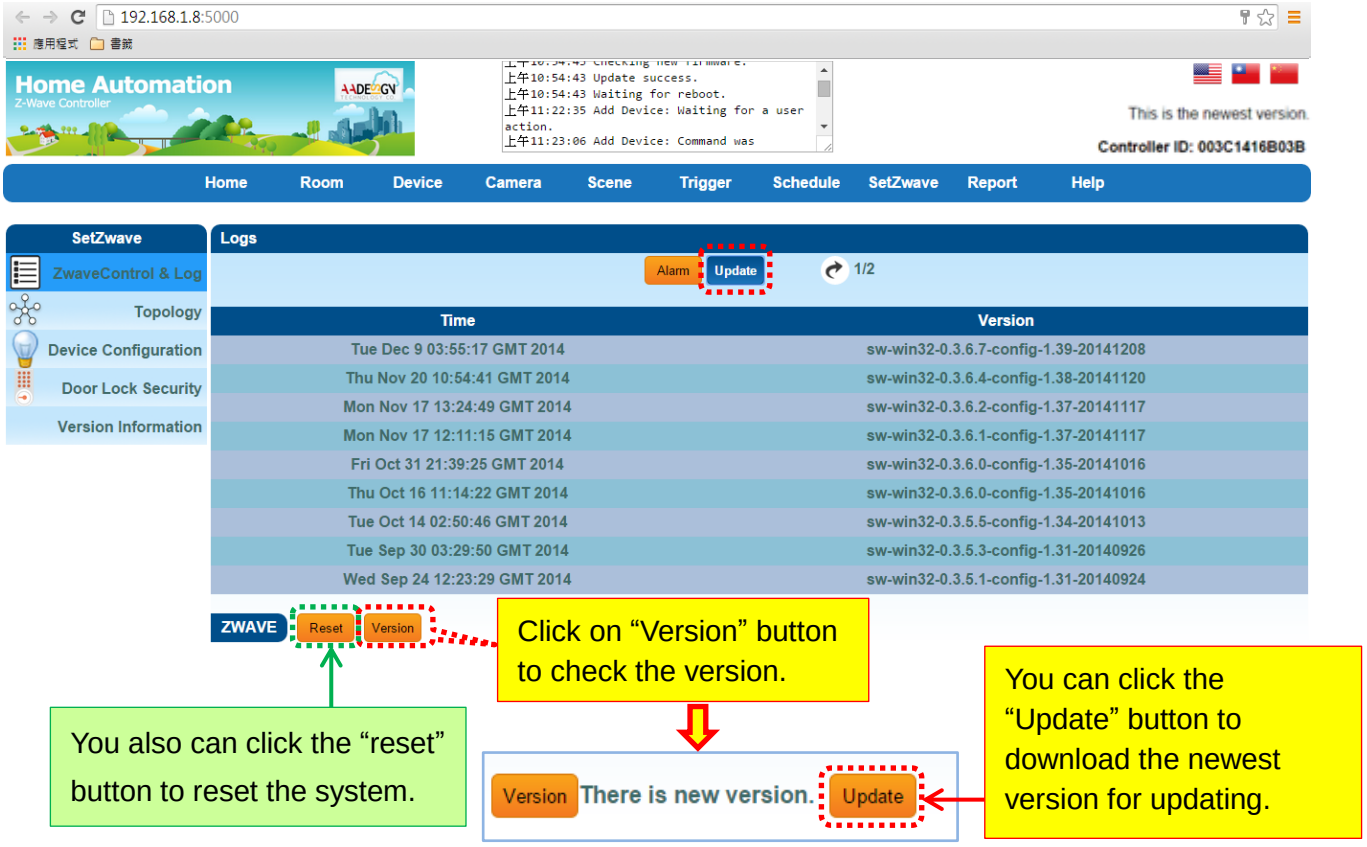
3.2.2 Z-Wave Control and Log

AVA-88 provides alarm records of all Z-Wave control devices for user as follows.

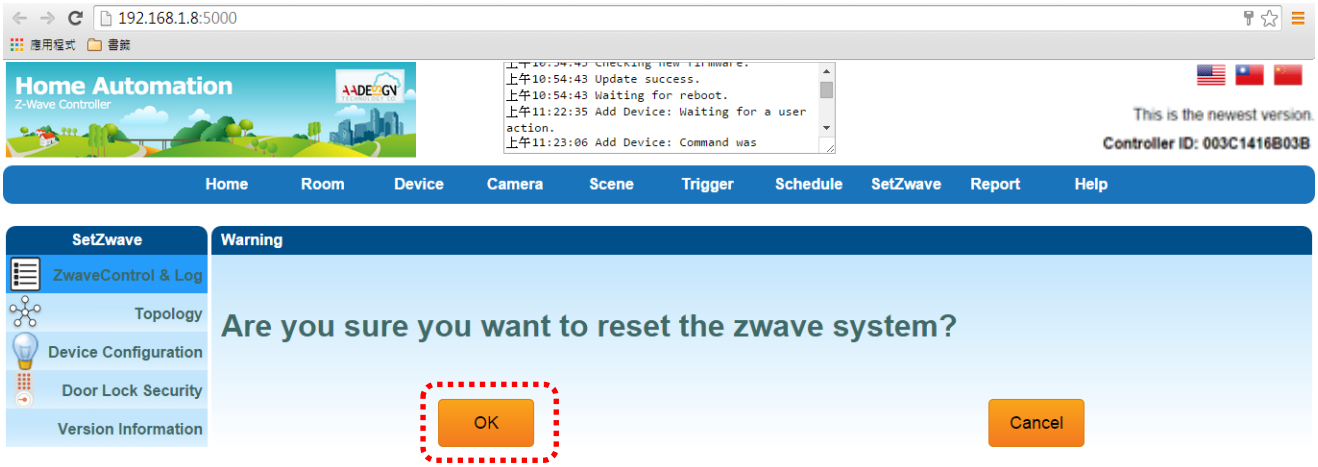
SetZwave – ZwaveControl & Log



When you click on “Update” button, you will see the listing of software version updated. Clicking on the “Version” button at the end of screen, the system will check the software version of AVA-88 for you automatically.



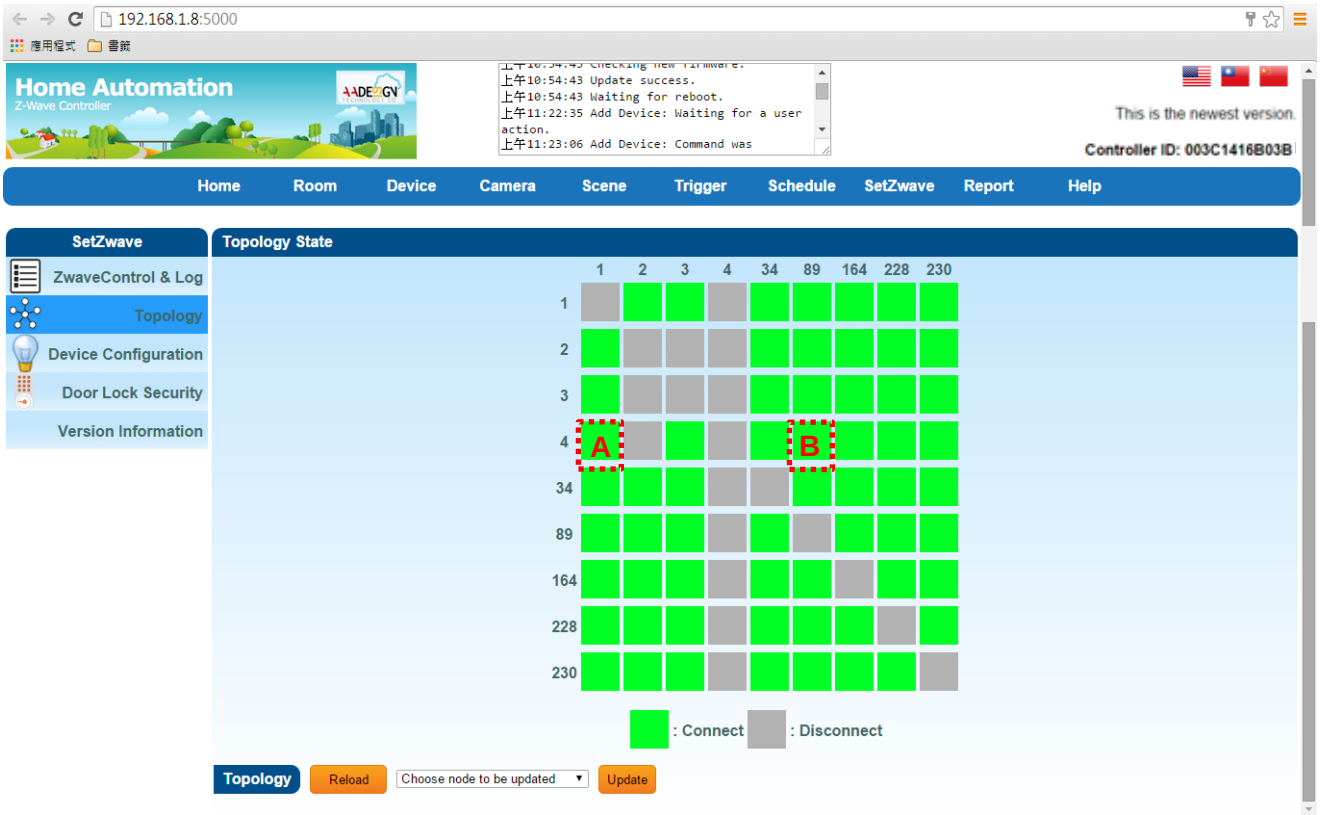
You also can click the “reset” button to reset the system shown as above diagram. Then you can click on “OK” button to reset the system or “Cancel” button to quit the reset process.



3.2.3 Topology

The topology diagram shows the connection relationship of AVA-88 and all of Z-wave devices. The small square at row 1 and column 1 represents the AVA-88. The small square at row 1 and column 2 represents a Z-Wave device. Applying the topology diagram, user can decide the control path of AVA-88 and each Z-Wave device. For example, the AVA-88 can control the remote device B indirectly by device A.

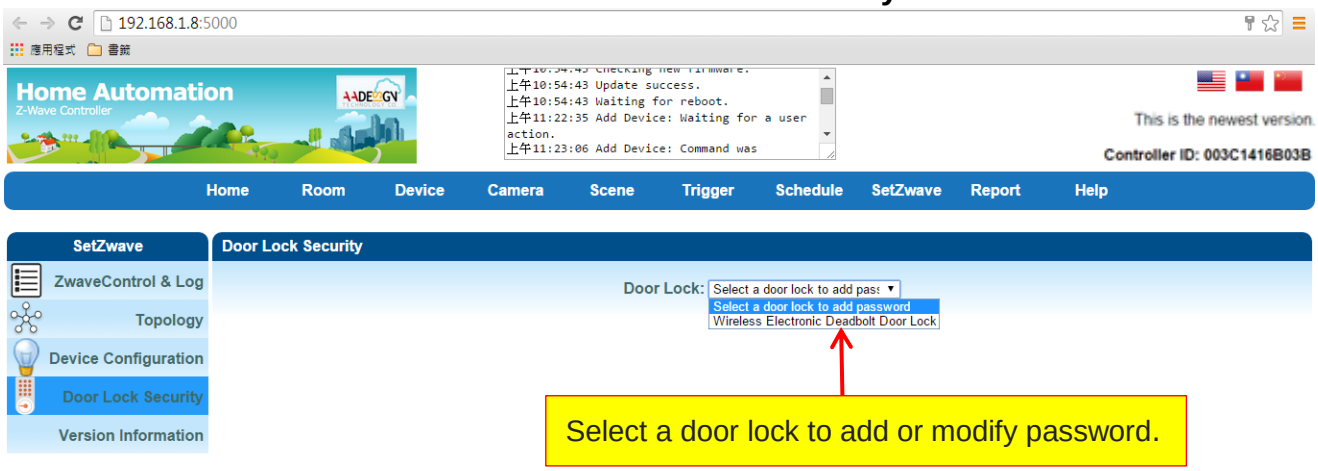
SetZwave－Topology



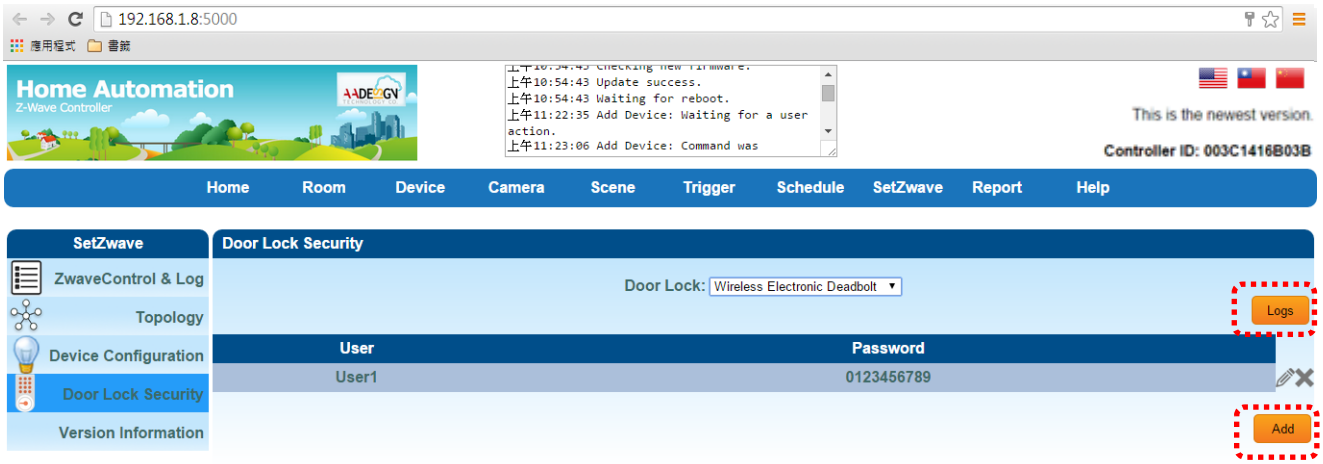
3.2.4 Door Lock Security

You can select a door lock to add password or modify password.

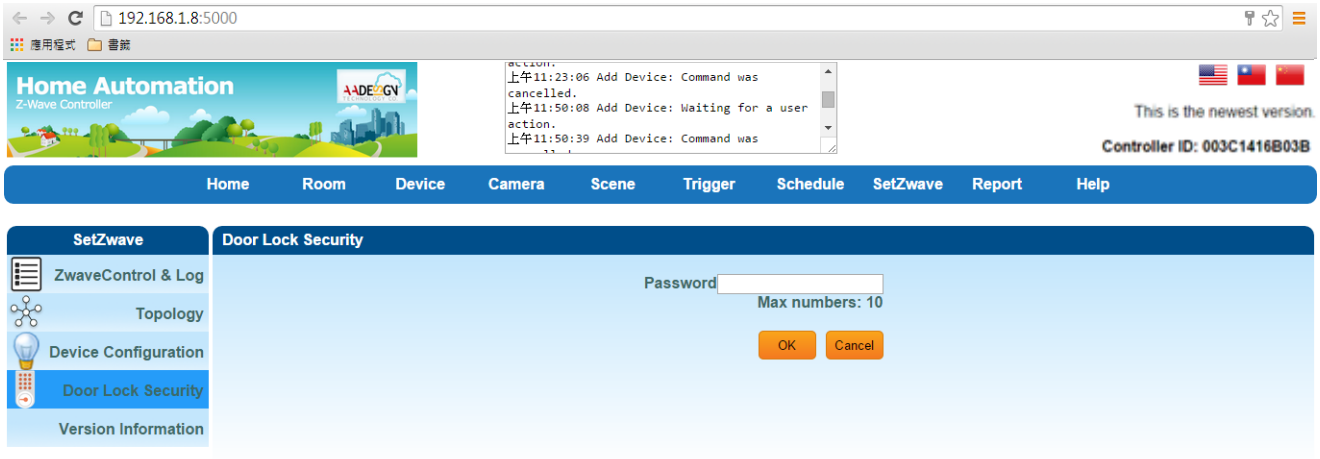
SetZwave – Door Lock Security



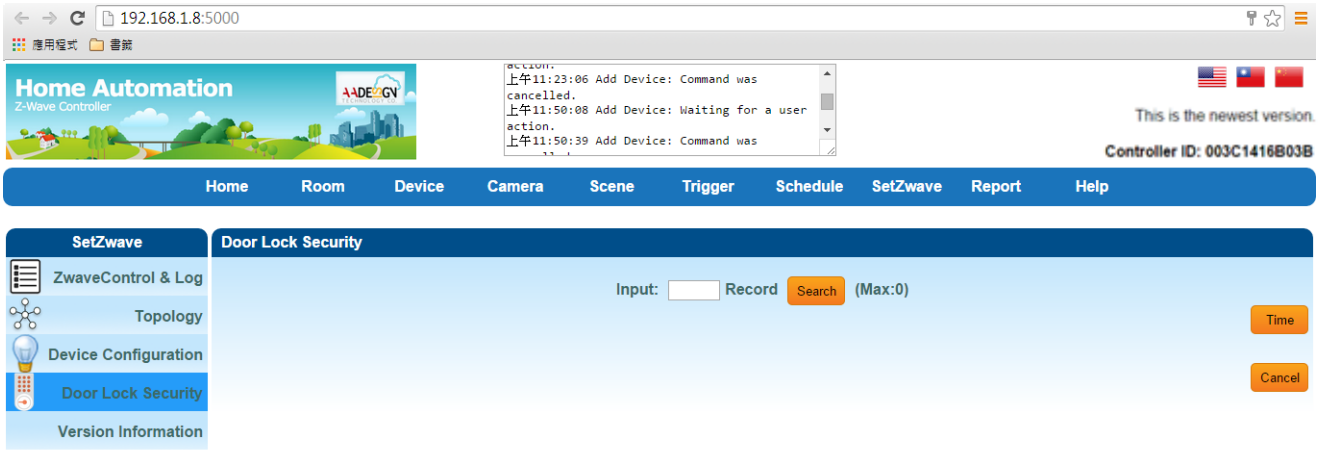
Then you will see the listing of user name and password. Clicking on the pen icon to modify the password. You also can click on the **X** symbol to delete the password.



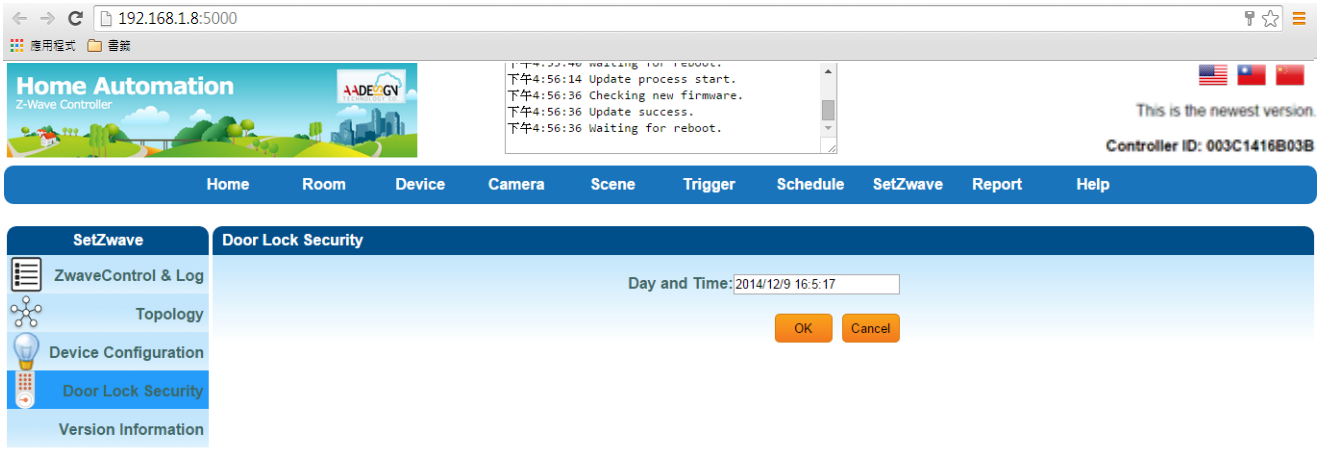
You can click on the “Add” button to add new password as below. The maximum length of password is 10 digits and you can input numeric 0 ~ 9.



You can click on the “Log” button to get the door lock records as below. The maximum number of logs is 5. Please input the record number that equal or less than 5 then click on “Search” button.



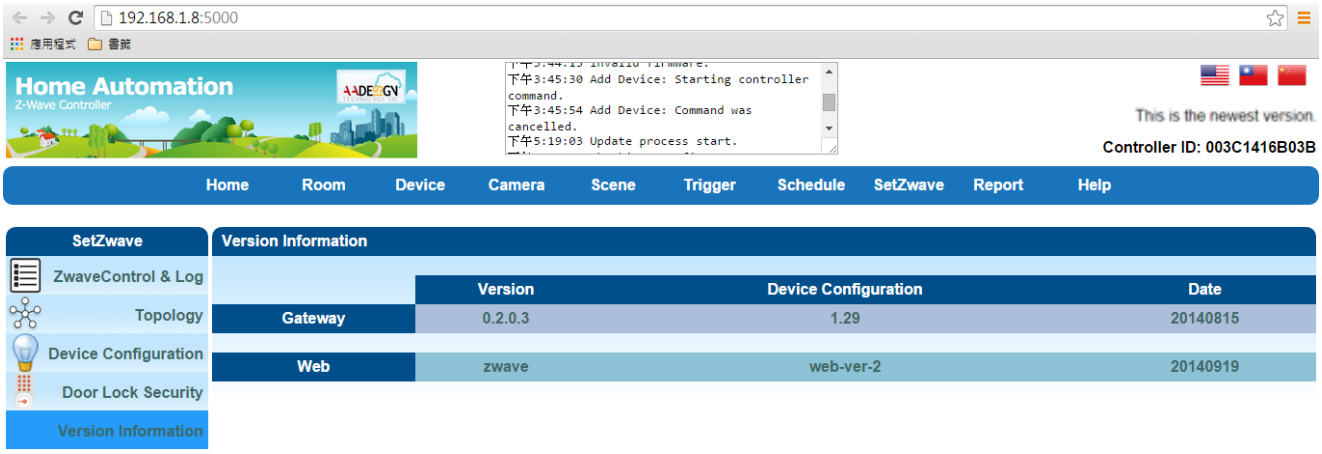
The “Time” button on the right side of screen is used for time setting by manually. You have to input the right date and time by yourself. When you replace the battery of Electric Deadbolt, please remember to modify the date and time here.



3.2.5 Version Information

Clicking on “Version Information” item, you will get the information of software version.

SetZwave－Version Information



3.3 Room setting

AVA-88 can classify and integrate all kinds of Z-Wave devices to do home automation includes room, scene, trigger, schedule and report.

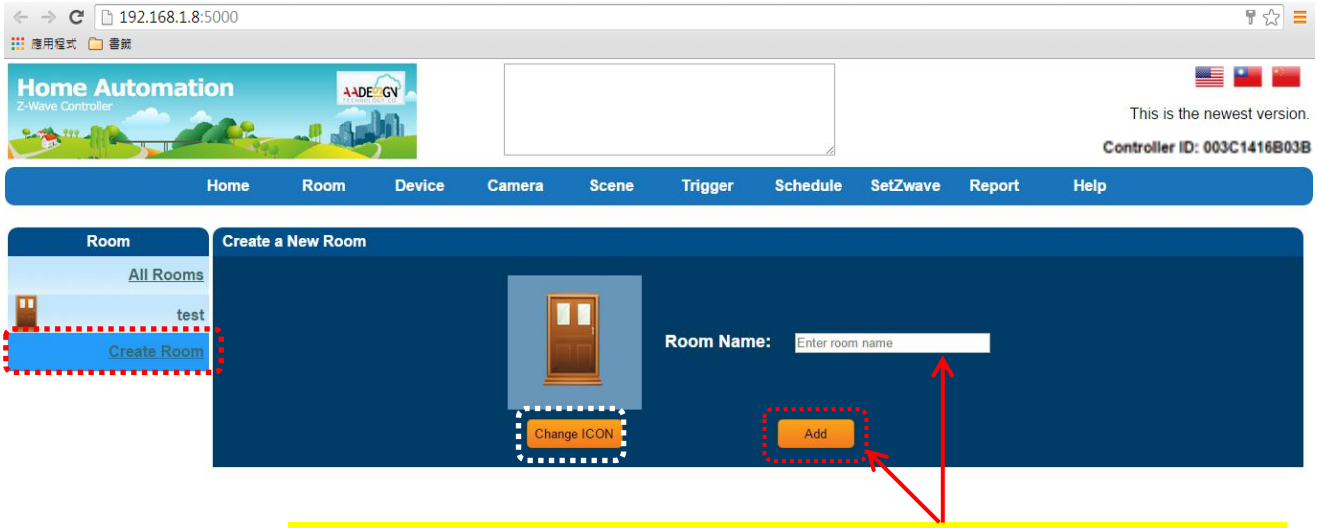
3.3.1 Create room

Create rooms to distribute Z-Wave devices

According to the different room in the family, you can distribute the Z-Wave devices to each room. And you can learn which room was invaded or controlled household appliances quickly.

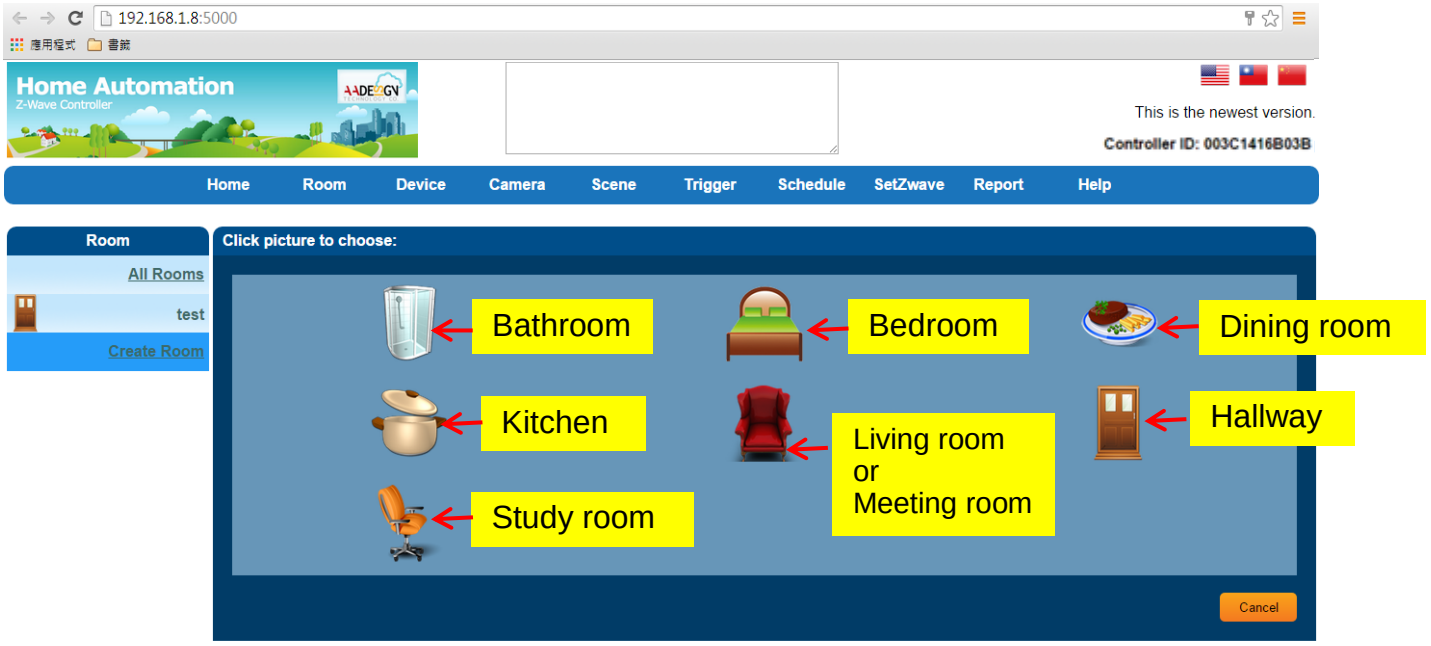
Now, you can create a new room by clicking on “Create Room” item. Then input the room name and click on “Add” button.

Room－Create Room

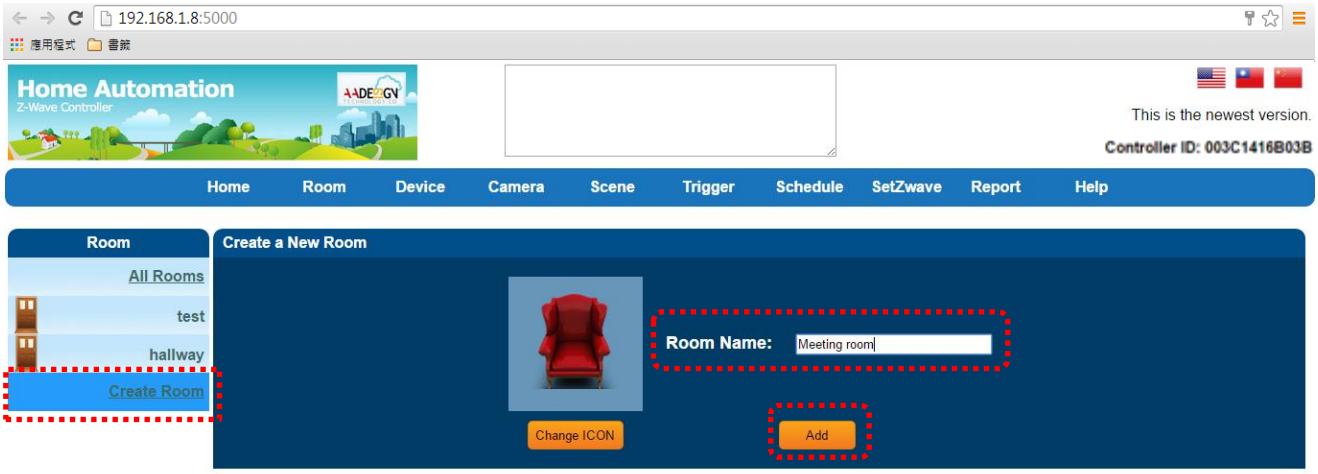


Please input the room name. Then click on “Add” button to create a new room.

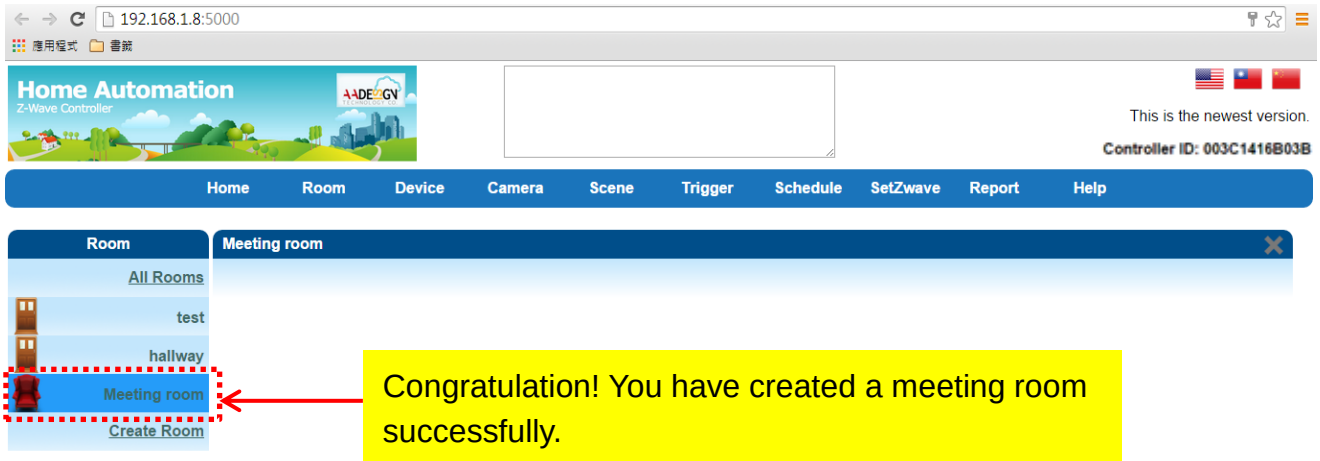
You also can change the icon of the room by clicking on “Change ICON” button. Then you will see some pictures that you can choose for the proper room as below screen.



If you change icon and input “meeting room” in the field of room name, and click on “Add” button.

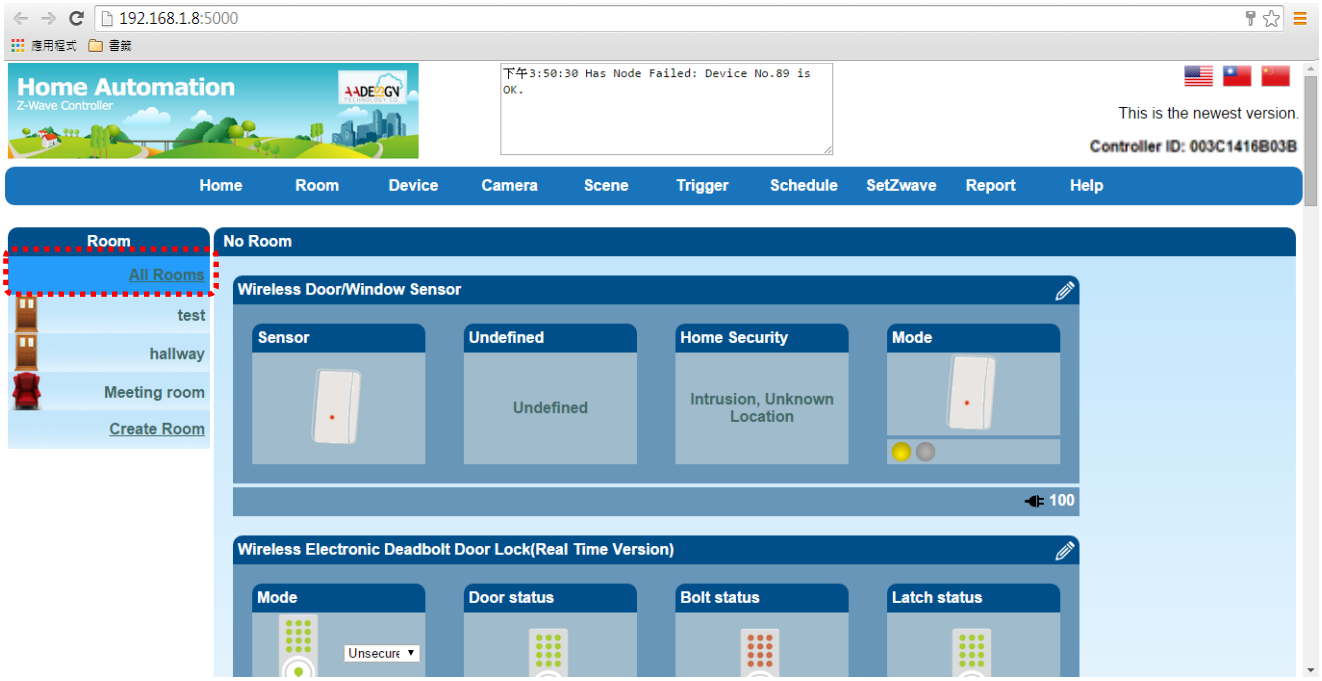


Then you will see the meeting room appear on the left side of screen.



3.3.2 All rooms

You can see the device status in each room easily by clicking on “All rooms” item.



3.4 Device setting

You can place the Z-wave device in the right room by selecting device function in the top menu and choosing a device which you want.

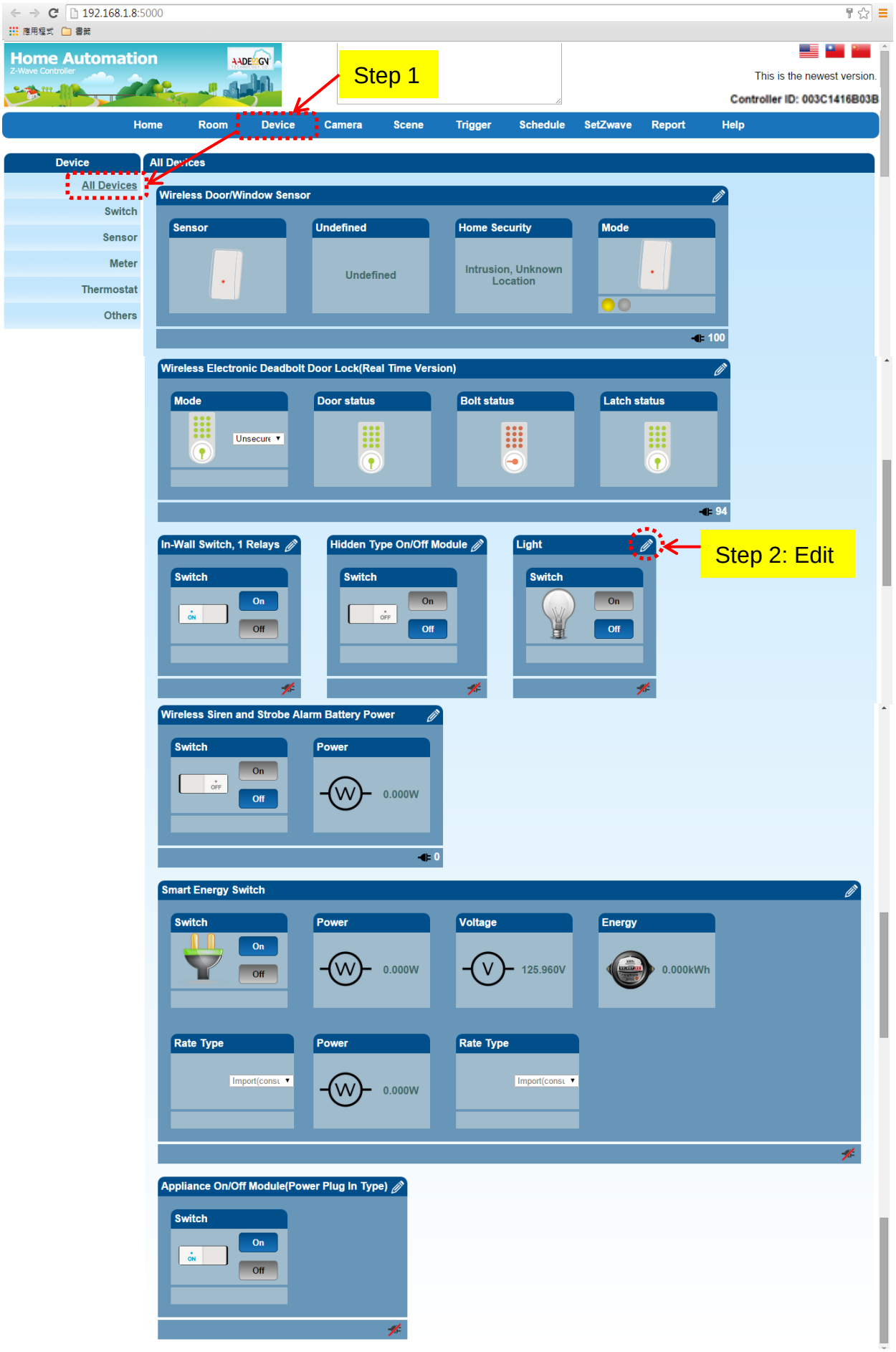
For example, you create a meeting room at section 3.3, and you would like to place light device in this room. The setting procedure is described as following:

Step 1: Select “Device” function and clicking on “All Devices” item to show all of the Z-Wave devices on the screen.

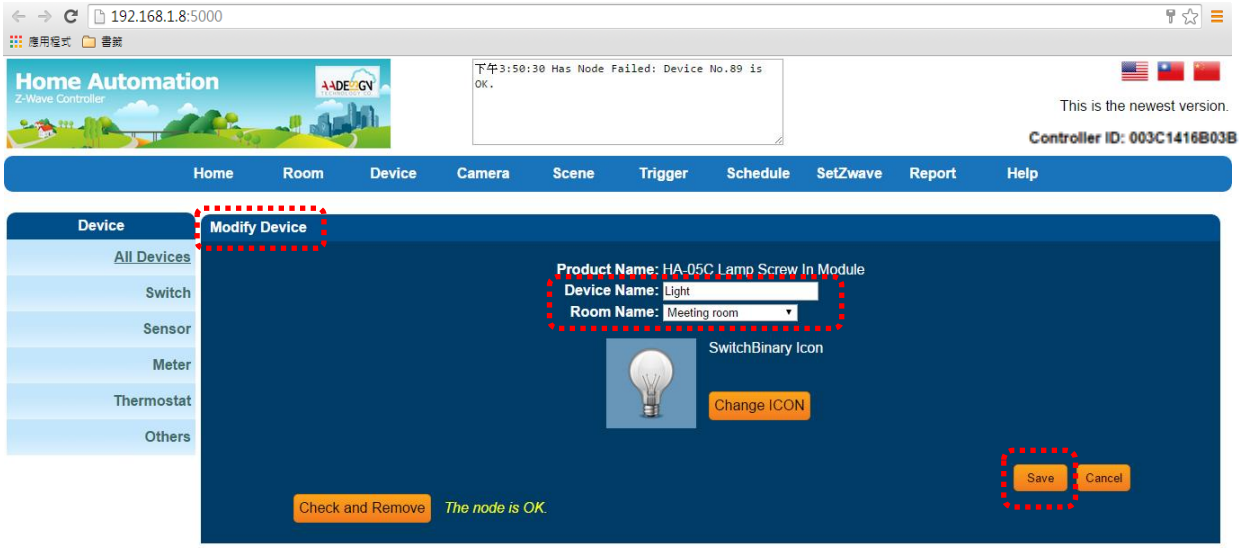
Step 2: Choose the device that you need and click on the icon of pen to edit the content of device. For example, you place light device in this room.

Please refer to the following screen.

Device – All Devices

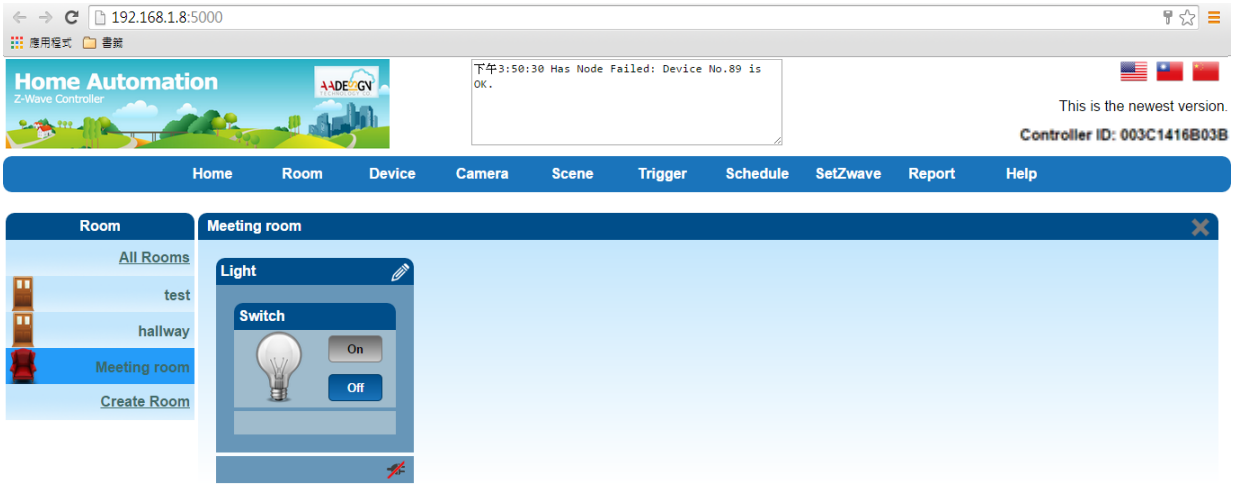


Step 3: Edit the content of light device. Please input the device name and room name. Then click on “Save” button to save the configuration. You also can check this node by clicking on “Check and Remove” button and the message of “The node is OK” displays on the screen.

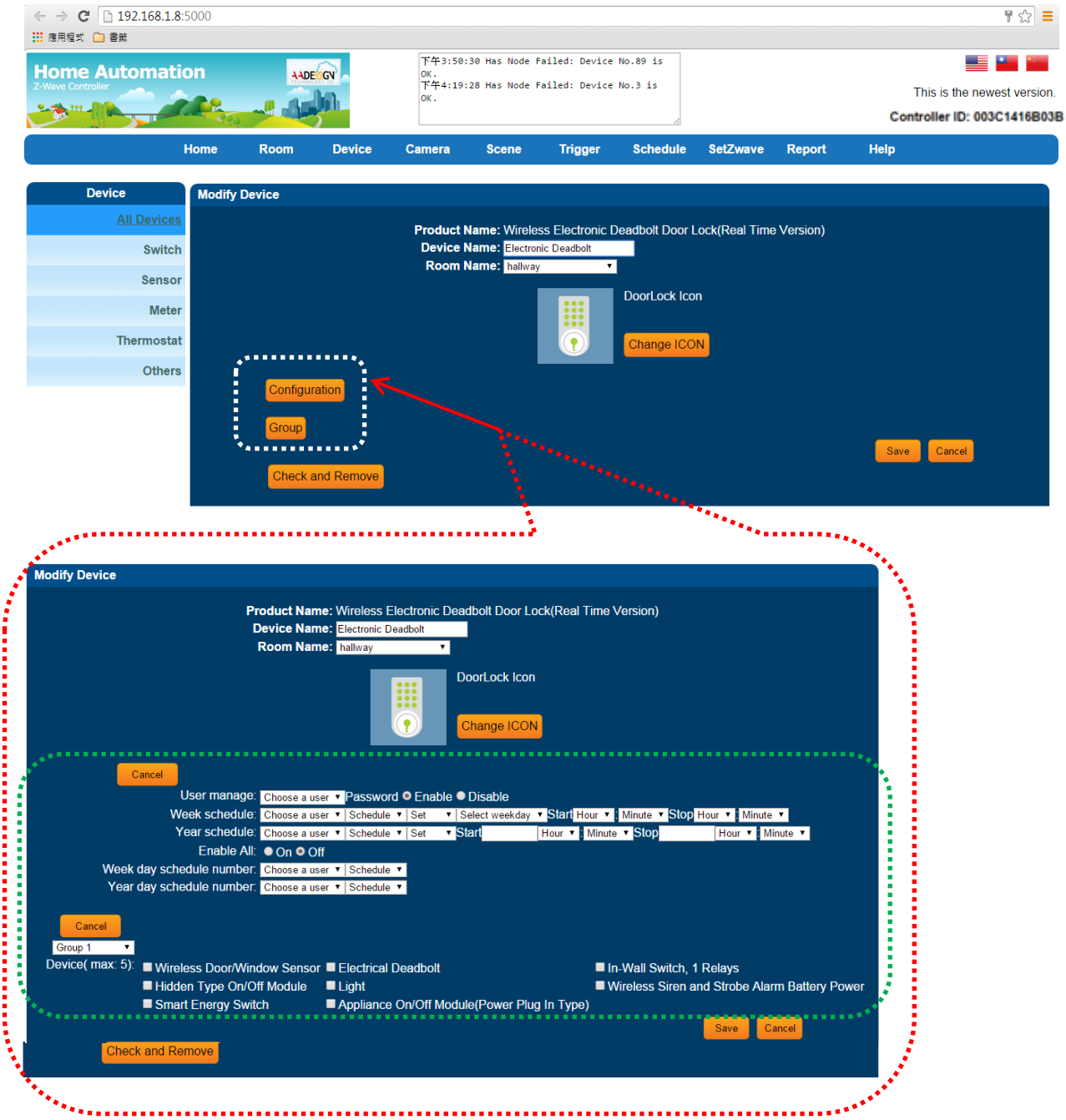


Step 4: Go back to “Room” function and click on “Meeting room” item, then you will see the light device

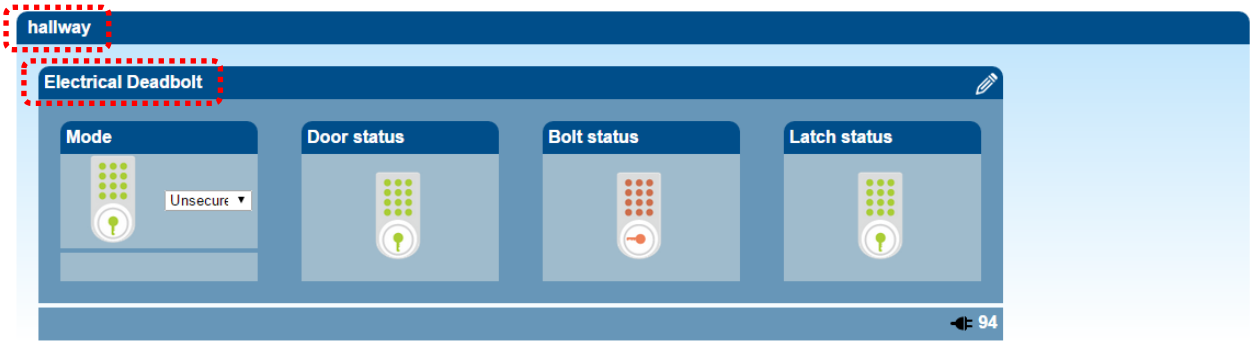
Room－Meeting room



Now, you can place another device to other room continuously. For example, you want to place electronic deadbolt in hallway. Please refer to the following screens.



Then you will find the electronic deadbolt in hallway now.



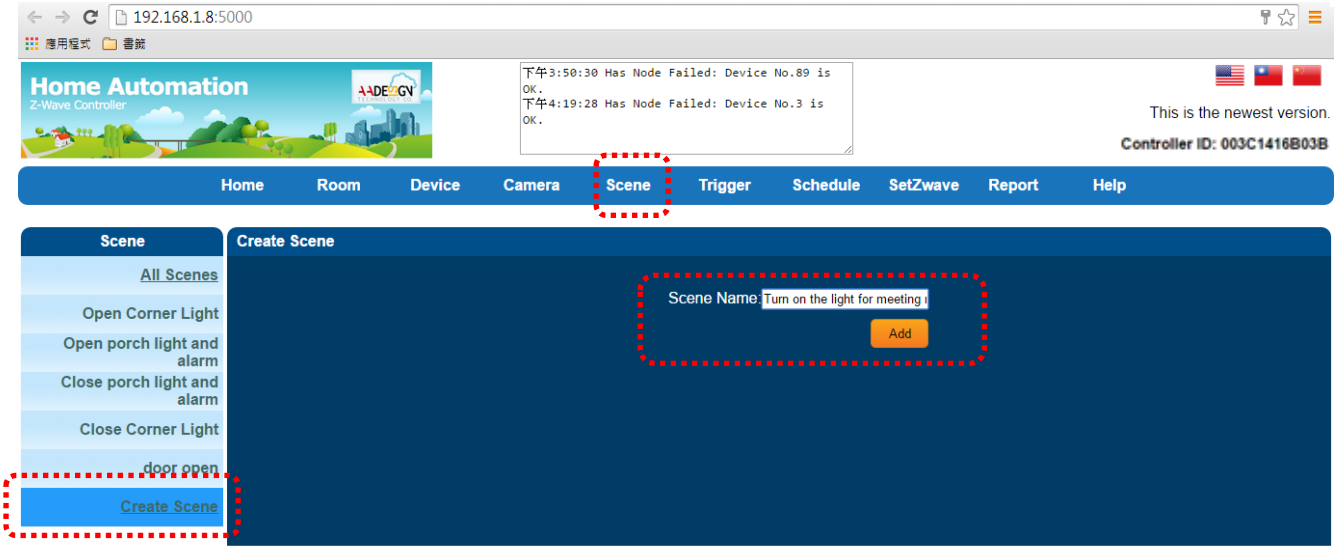
3.5 Scene Setting - Control Z-Wave devices

You can control and combine a number of Z-Wave devices together and execute a designed operation action by clicking one key only.

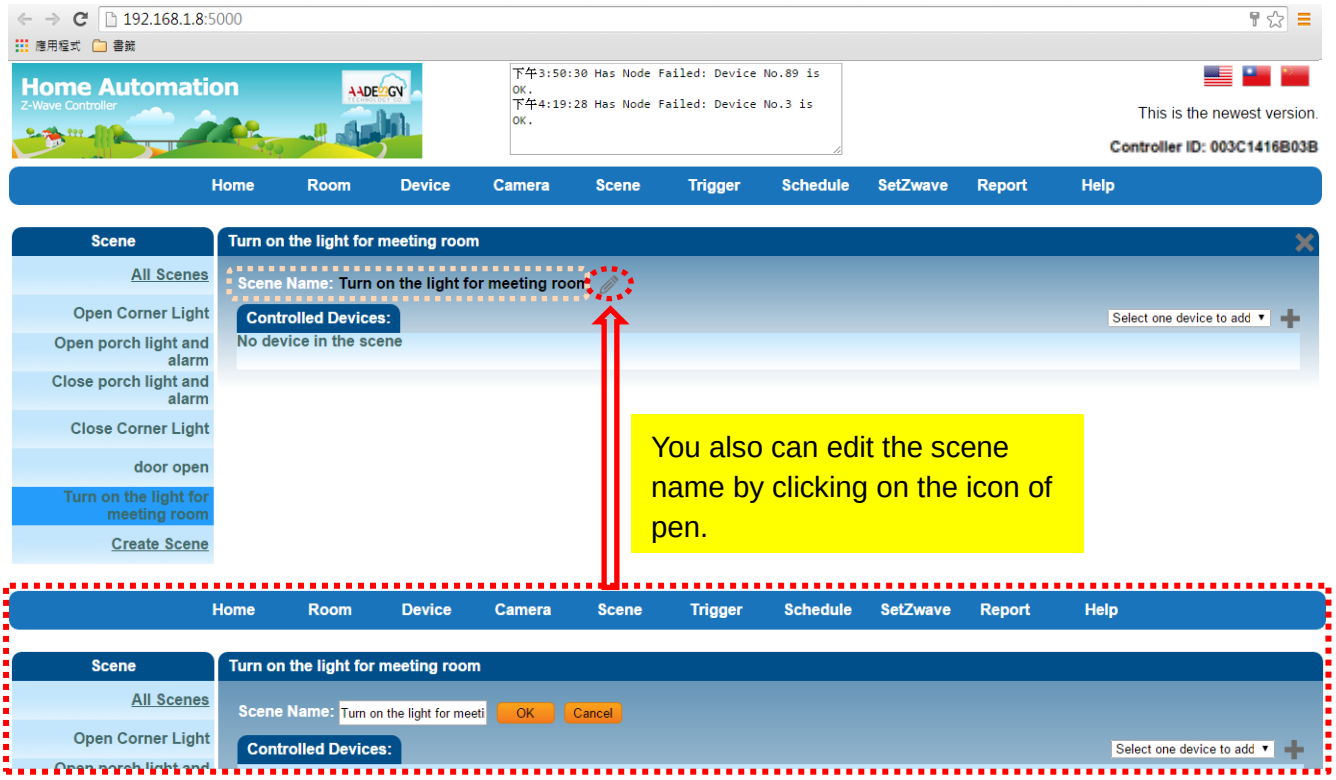
3.5.1 Create Scene

Step 1: Select "Scene" function in the top menu on the screen. Then click on “Create Scene” item. Please input the scene name and click on “Add” button.

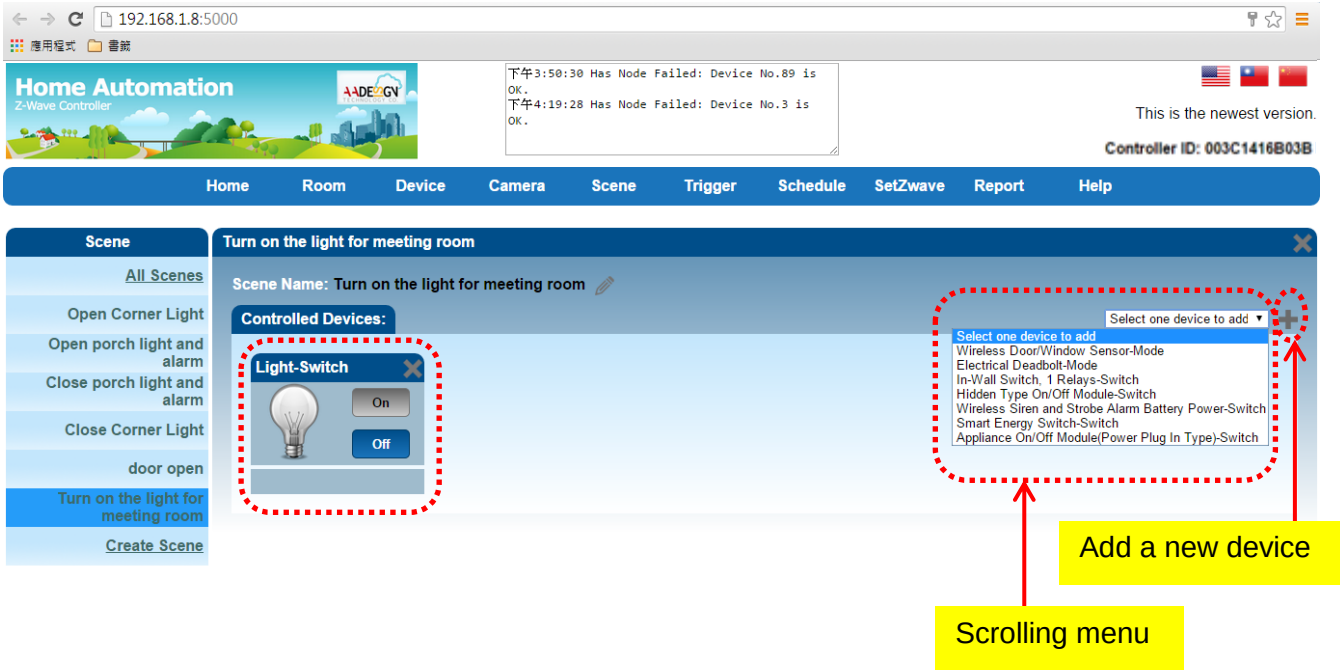
Scene – Create Scene



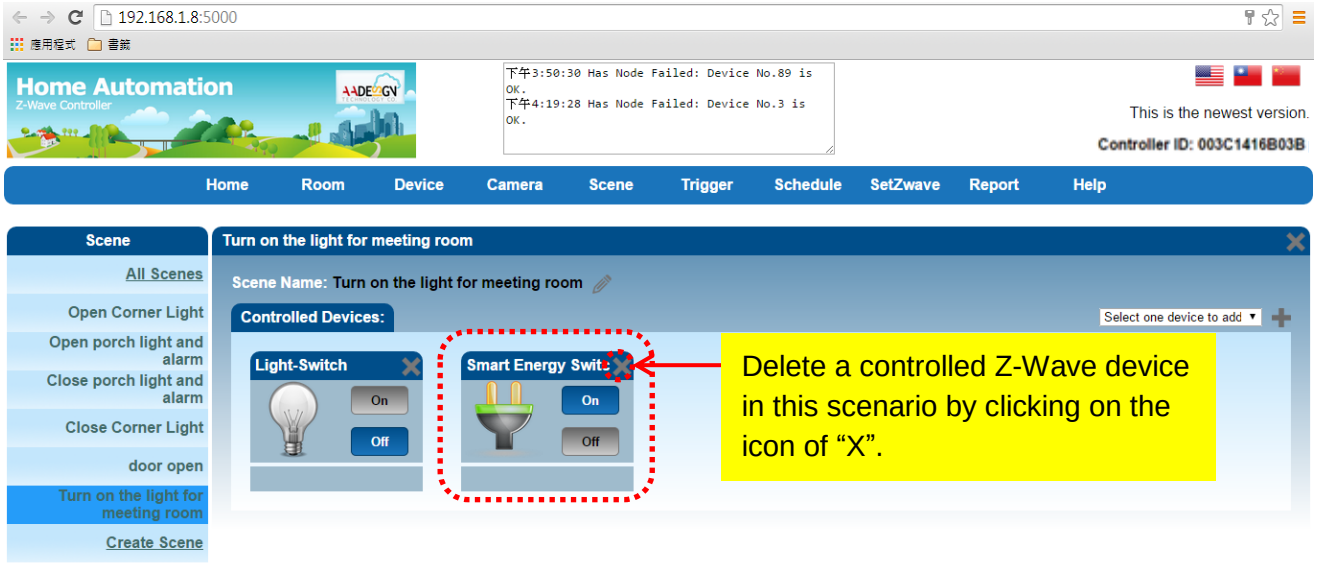
Step 2: Now, you can see the scene was created and named as “Turn on the light for meeting room”. You also can edit the scene name by clicking on the icon of pen.



Then add controlled Z-Wave devices in this scenario that shown as below. For example: you add a switch of light in this scenario.

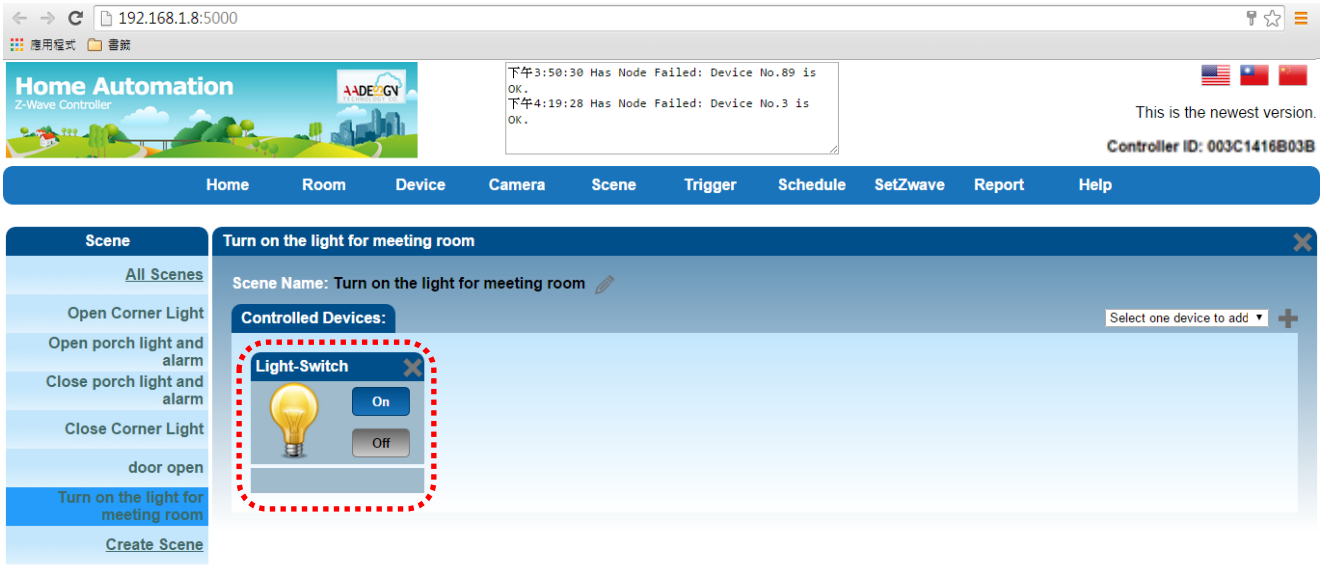


You can add more controlled Z-Wave devices in this scenario by selecting one device in the scrolling menu and clicking on the icon of plus sign on the screen. Then you will see a new controlled device display on the screen now.

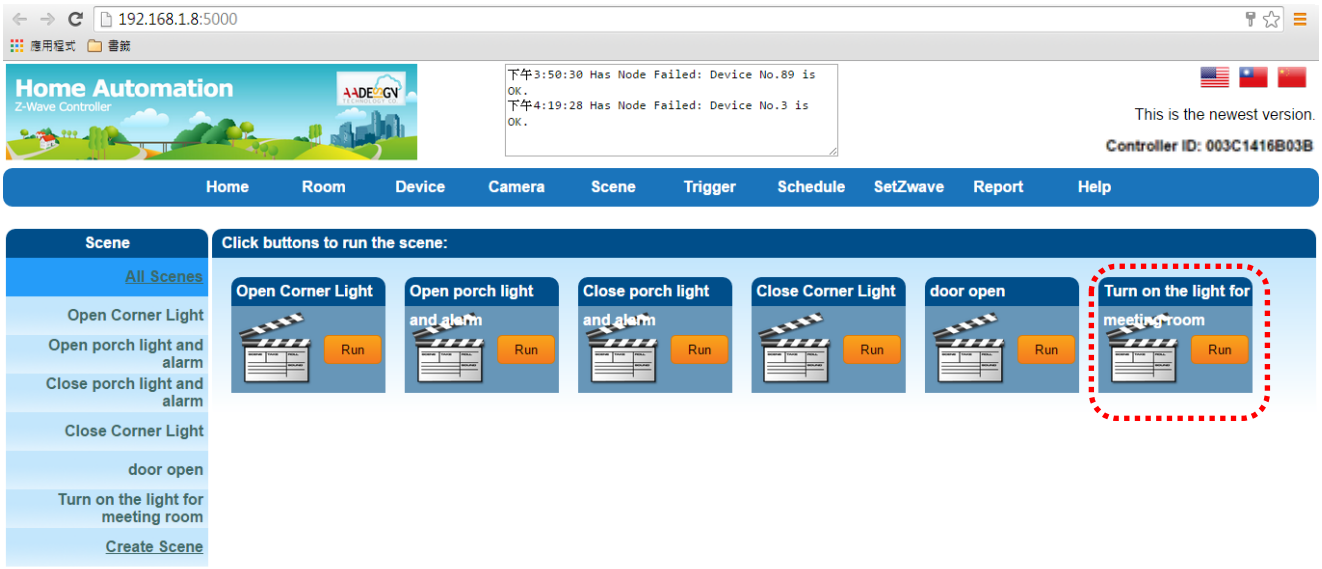


You also can delete a controlled Z-Wave device in this scenario by clicking on the icon of “X”. Then you will see this controlled device disappear on the screen now.

Step 3: Setting the proper action for each device. For example: you can turn on the light by clicking on “On” button. Then you will see the color of light has changed to bright yellow.

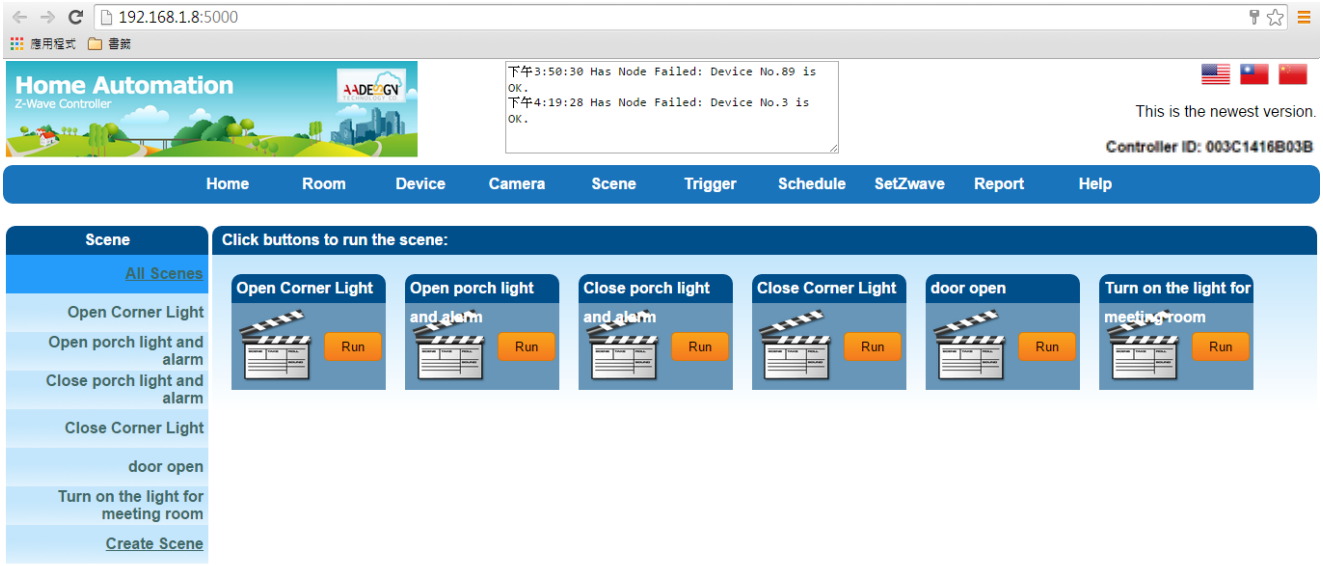


Step 4: You can click on “Run” button of the scene that has set by yourself. The corresponding Z-Wave device will be used.



3.5.2 All Scenes

You can see all of scenes by clicking on “All Scenes” item and select the scene that you want to execute.

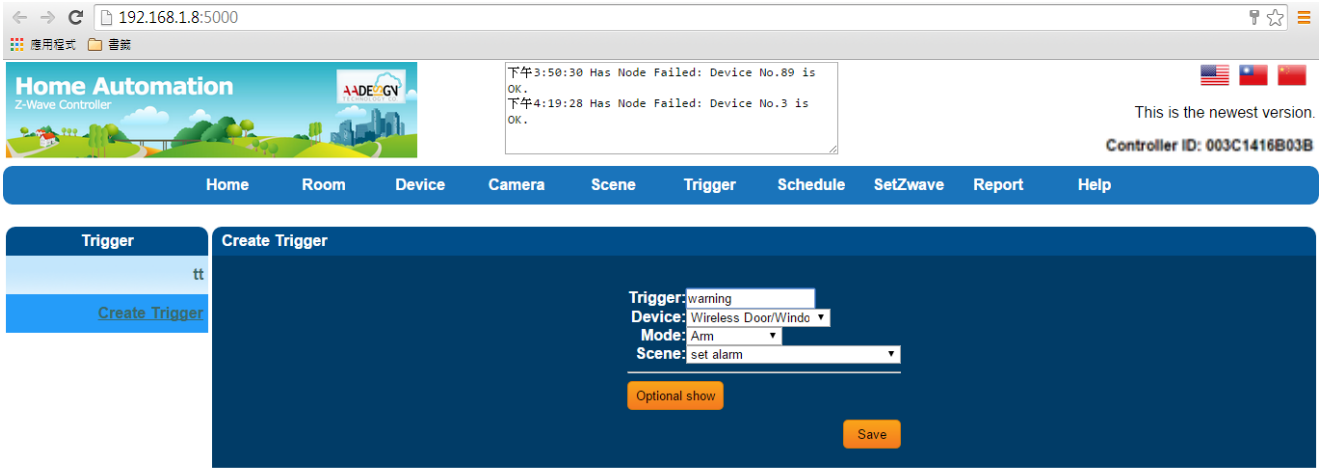


3.6 Trigger - Monitor the Z-Wave devices

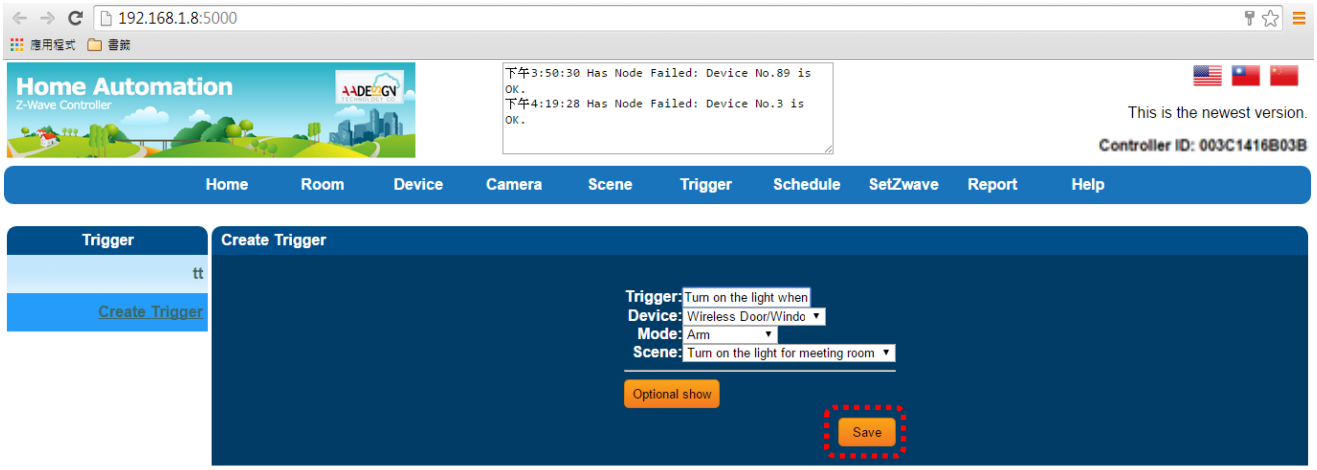
3.6.1 Create Trigger

The trigger function is used to monitor the setting of Z-wave devices, when an alarm is triggered to launch. Please refer to the following diagram for alarm setting.

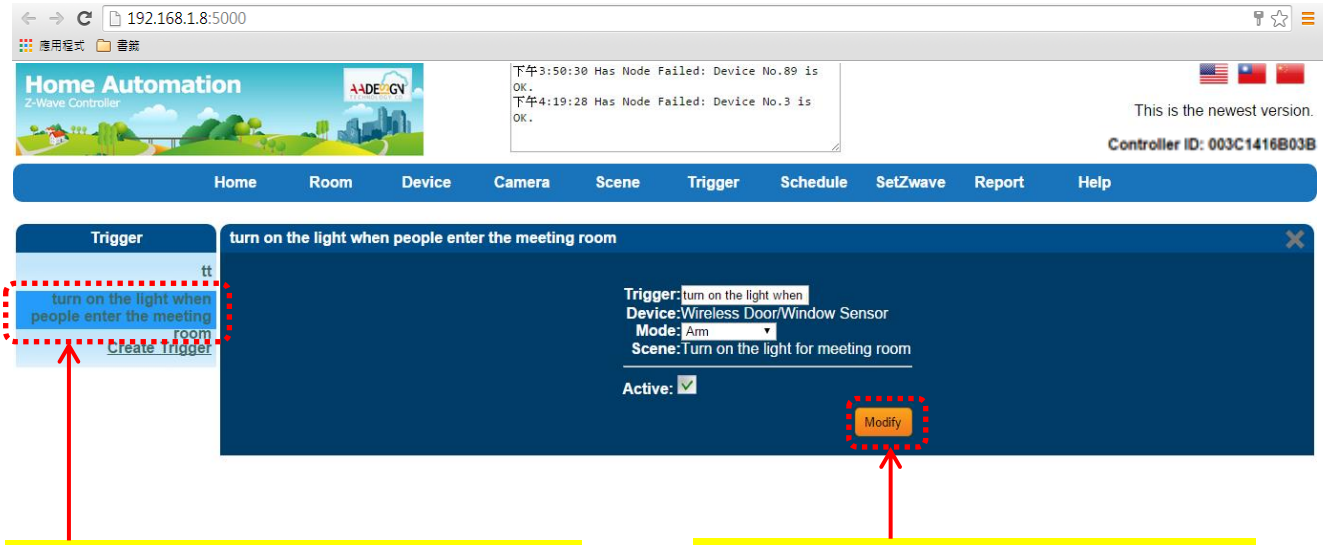
Trigger－Create Trigger



You also can combine both of trigger and scene functions setting. For example: when people enter the meeting room, the light will be turn on automatically. Input the trigger situation and select a scene by clicking on the scrolling menu.



Then press the “Save” button. You will see the screen as below.



A new trigger is created and displays on the left of screen.

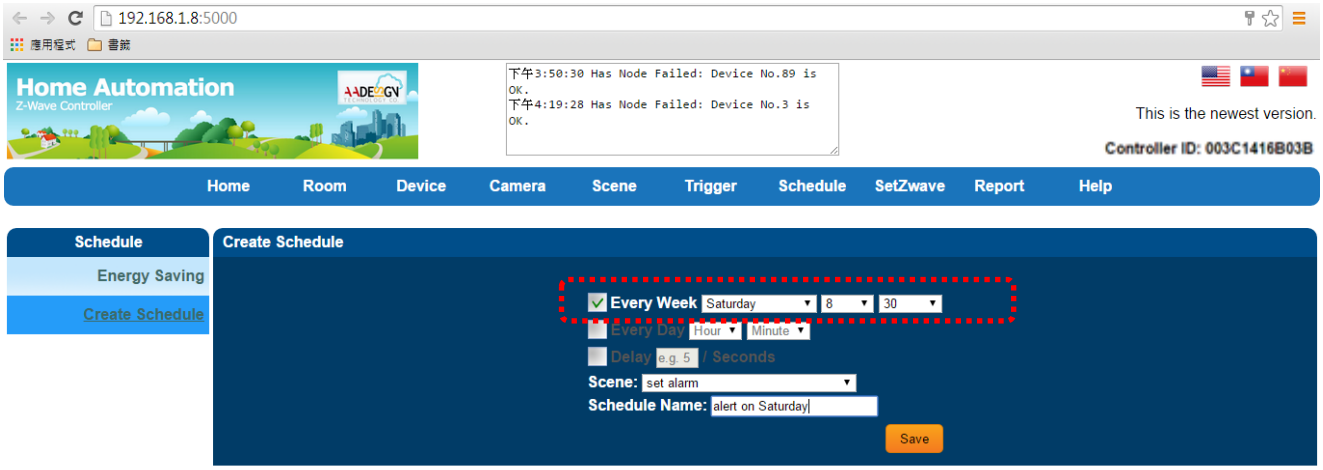
You also can modify the trigger and mode by clicking on “Modify” button.

3.7 Schedule – Arrangement for Z-Wave devices on schedule

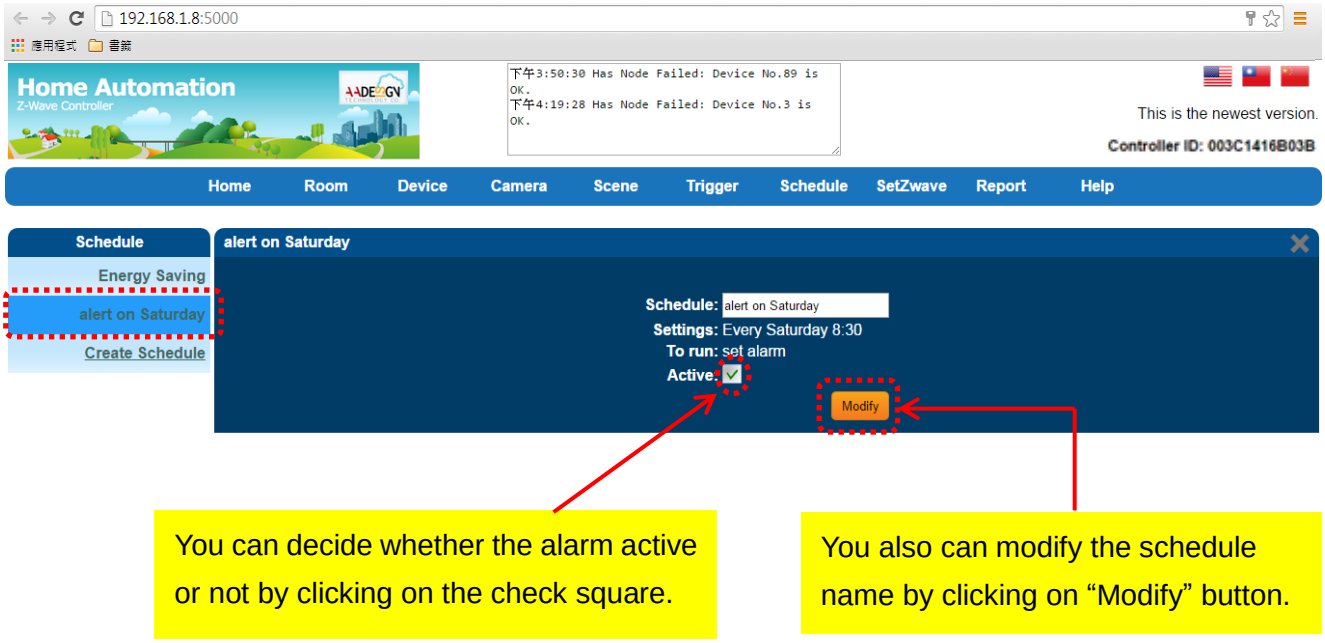
3.7.1 Create Schedule

You can set up a schedule to monitor the security of your home regularly. For example: When nobody at home on Saturday set up to open the Z-Wave device automatically for monitoring. Please click the check square of every week and select the day and time from the scrolling bar. And select the scene that you wanted and input the name of schedule. Then click on “Save” button to save the configuration of schedule.

Schedule－Create Schedule



Now you will find a new schedule of “alert on Saturday” is created and displayed on the screen.



You can decide whether the alarm active or not by clicking on the check square.

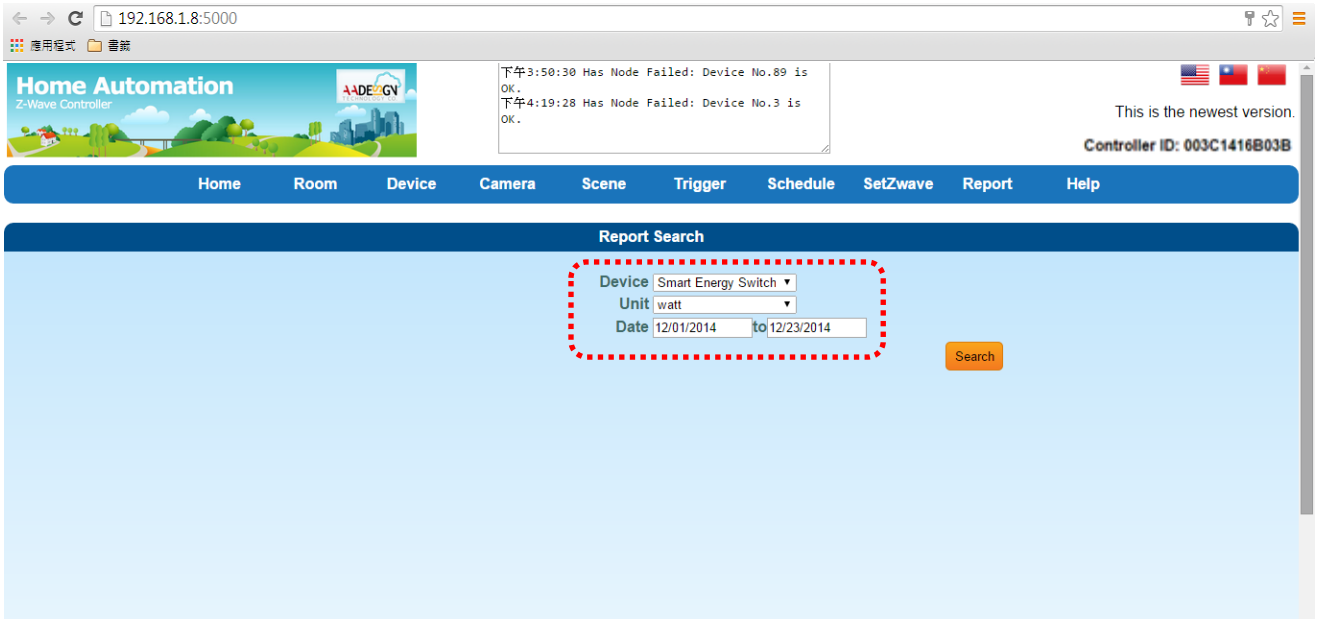
You also can modify the schedule name by clicking on “Modify” button.

3.8 Report

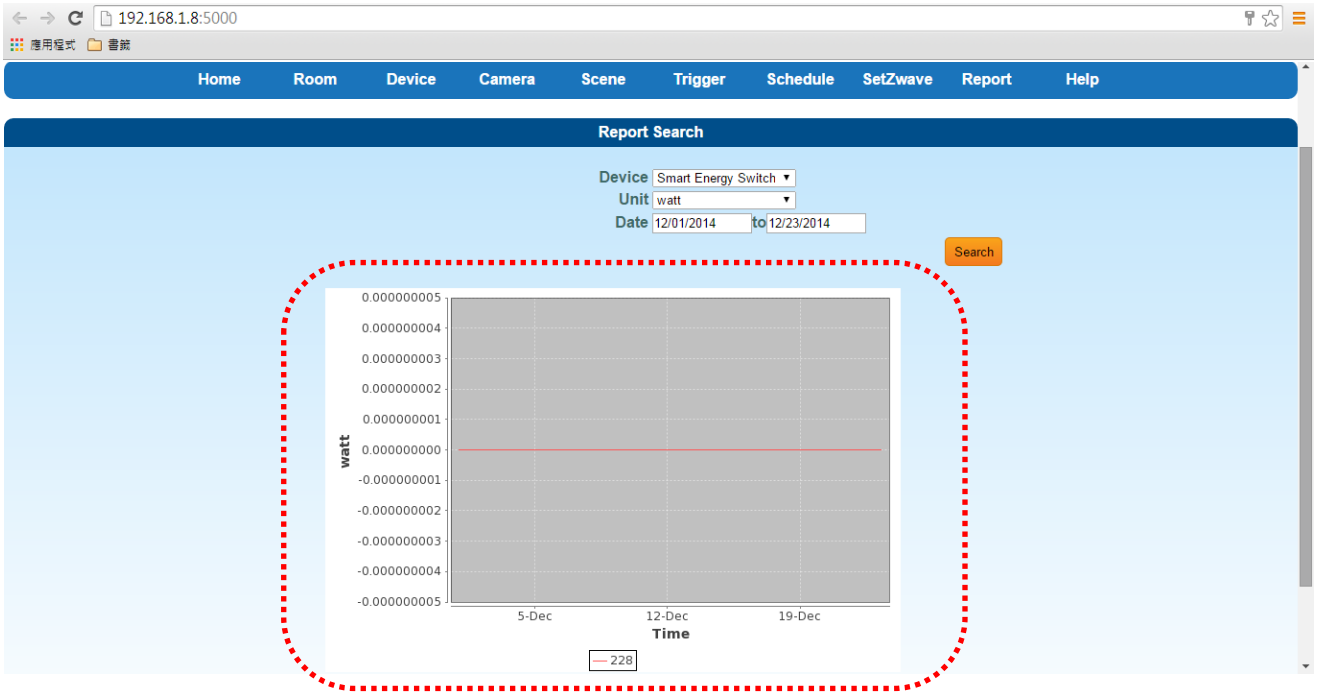
You can get the power consumption of the Z-Wave device by using the report function. This function requires purchase the Smart Energy Switch device to monitor the amount of current. You can see how much power was used at which time period as shown below.

Step 1: At first, select a device and unit. Then input time period.

Report



Step 2: Click on “Search” button. Please waiting for few seconds, then the result is displayed on the screen.



Amount of electricity consumption

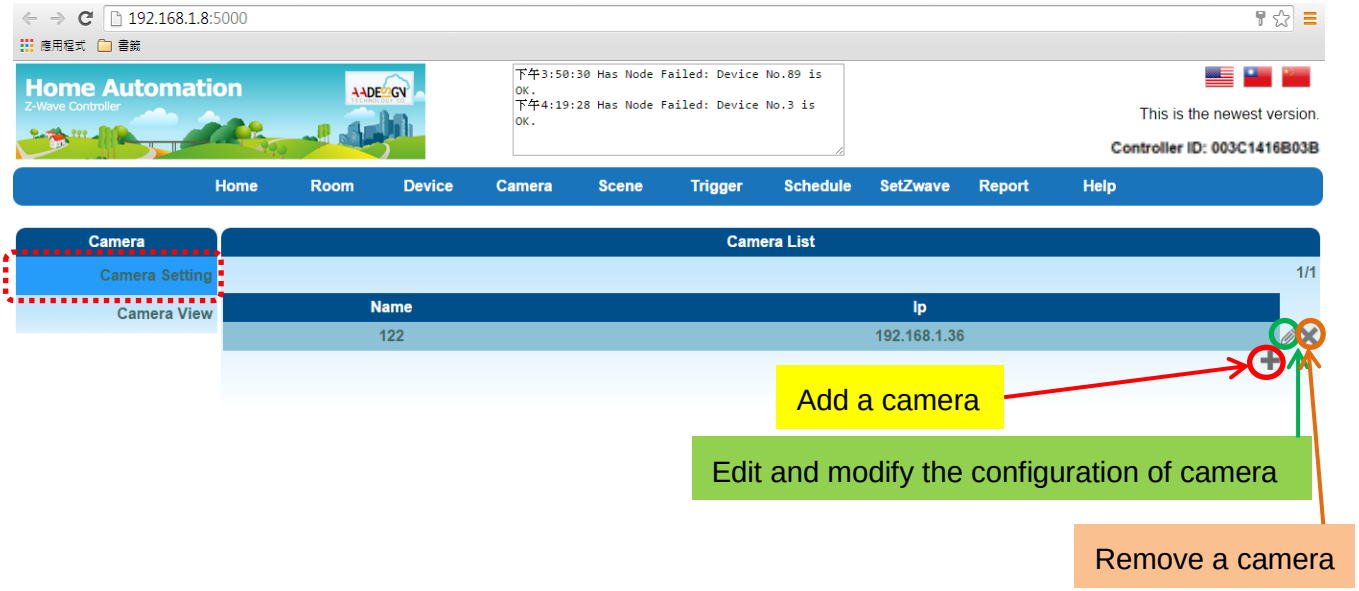
3.9 Camera

You can connect and control all of cameras in the house by the function of camera.

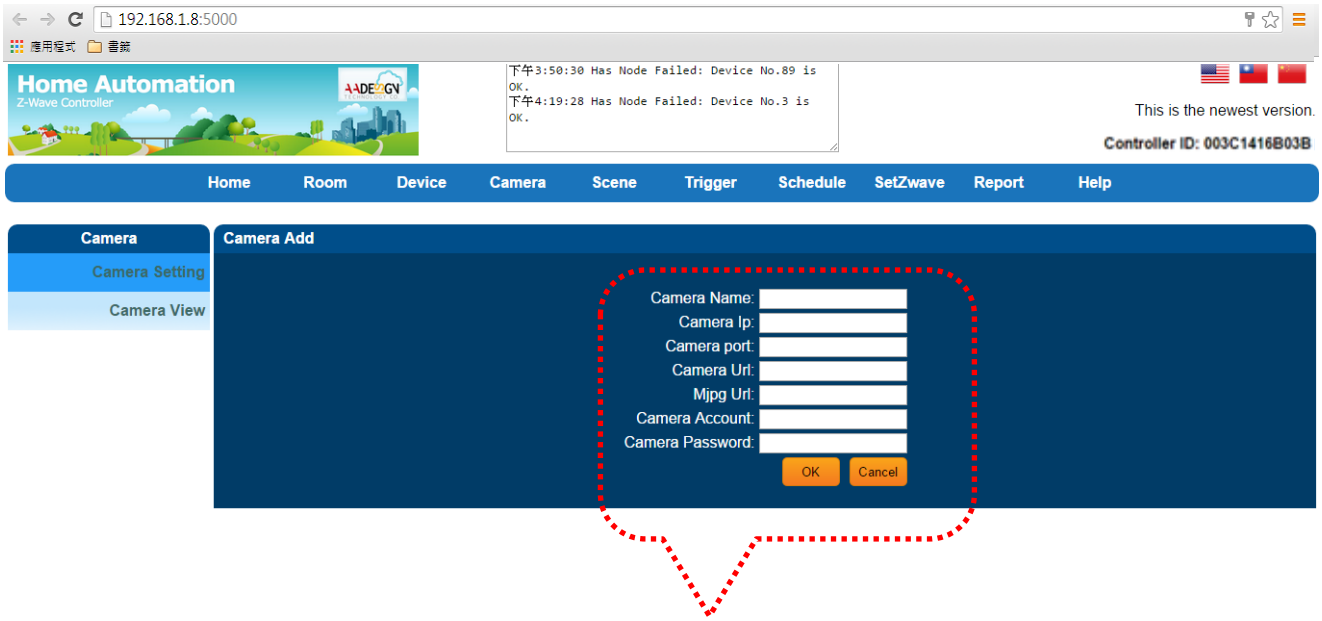
3.9.1 Camera Setting

You can add a camera by clicking on the icon of “+” or remove a camera by clicking on the icon of “X” or edit and modify the configuration of camera by clicking on the icon of pen as shown below.

Camera – Camera Setting



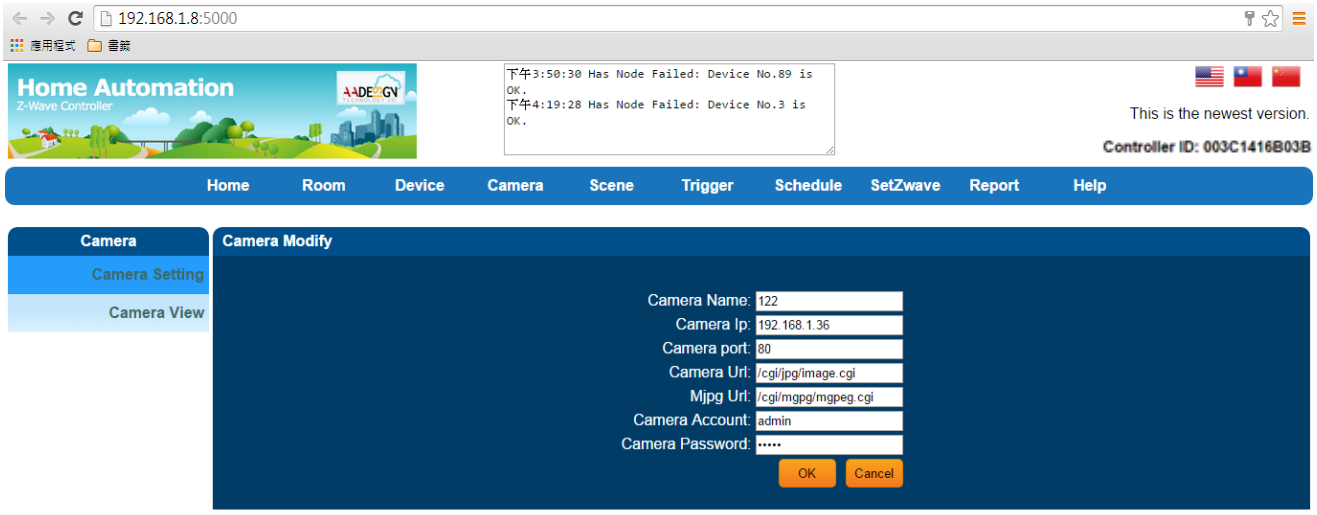
Add a Camera



Please input the camera name, IP address of camera, camera port, camera URL, MJPG URL, camera account and password. Then click on “OK” button to save the configuration.

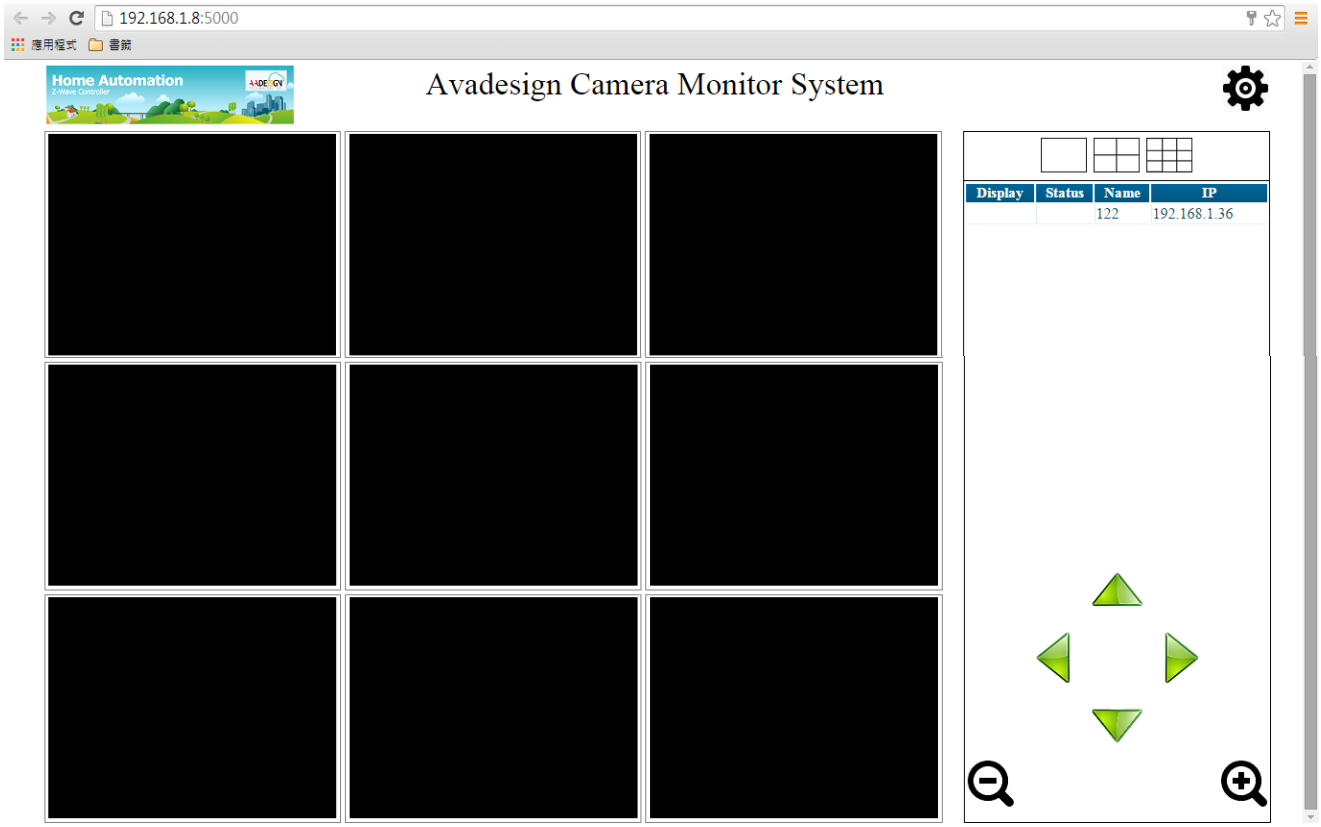
You also can edit and modify the configuration of camera as shown below.

Edit and Modify



3.9.2 Camera View

You can view the real-time image by clicking on “Camera View” or the camera name.



3.10 Help

The function of help in the top menu on the screen will assist you to understand how to set up and use the AVA-88 by hyperlink to Avadesign company web page to download those documents that you need.