



## **Serial device control**

### **---A new era of intelligent networking experience**

Abstract: Netvox using serial device control technology, integration of traditional docking equipment and ZigBee intelligence products to help users get the new experience on Internet of Things era.



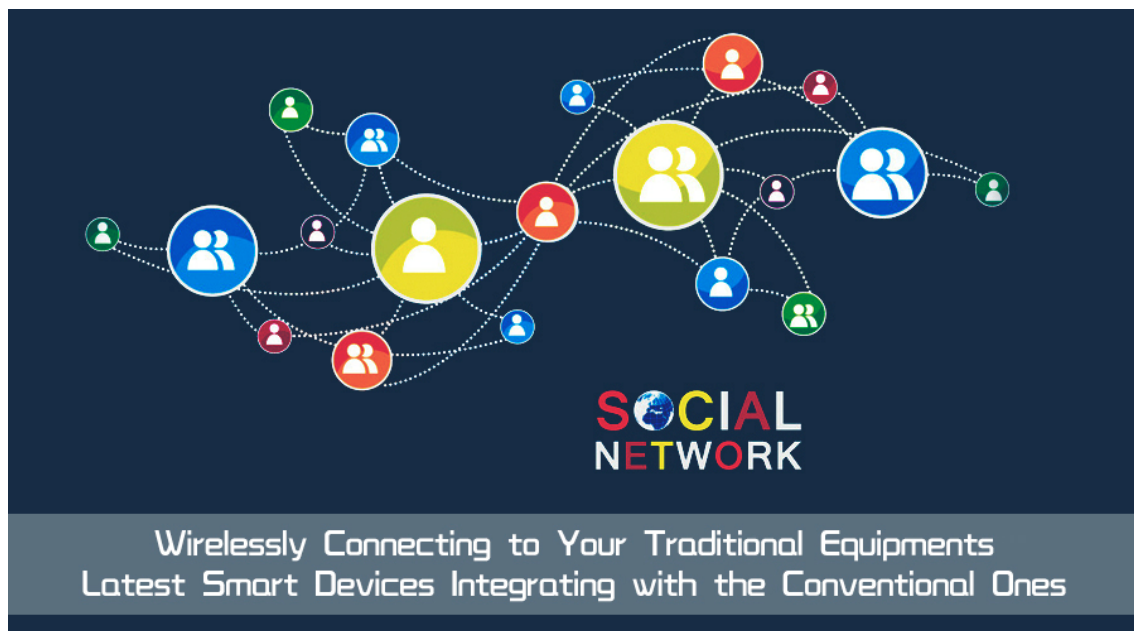
#### **Serial Device Control Overview**

ZigBee communication technology as an emerging era of things, whether it is from the data transmission rate, distance, or from the information transmission security, stability, scalability, privacy and other terms, are more incomparable in advantage than the commonly used in ordinary household Wifi and Bluetooth mode. The arrival era of Internet of things, and a wide variety of devices in a ZigBee network intelligence in themselves, bring about a new era of the new smart of experience as more and more users.

However, most of the family unit and has long been occupied by a large number of traditional equipments. These conventional devices with RS485 / RS232 / RS422 communication interface agreements, there is a problem can not access the ZigBee

protocol networks. Do we need them all to abandon all purchased new equipments and to conduct a thorough transformation of the entire environment? This is bound to waste great human and financial resources.

Today Netvox is using serial device control technology, the traditional RS485 / RS232 / RS422 devices (such as floor heating, central air conditioning, home video / audio class device, etc.), integrating with existing Netvox ZigBee agreement smart home products; to help users get the best experience on the latest product of Internet of things.



### **Serial device control principle**

Use support serial command control device (such as ZL01B etc.) ZigBee and RS485 / RS232 / RS422 signal transparent transmission technology to achieve docking. which is, Gateway App layer in accordance with the need to integrate communication device command format, wireless communication directly through the ZigBee wireless communication mode and support serial command control device (such as ZL01B), serial command control device as will reduced ZigBee signal to RS485 / RS232 / RS422 signal forwarded to the docking serial device can communicate with the docking device to communication interaction.



### **Serial Device Control Description**

Learn the simple principles of serial device control, well, how should we work specifically? Firstly, we need to set the target instruction template serial devices in the cloud management platform, and serial command control device requires support in the mode editor (such as ZL01B) to add networking.

Secondly, to select the screening serial control devices (such as ZL01B) in the cloud Butler APP, get the required serial device command templates and applications from the cloud, it could reach control purpose.

Details are as follows,

Cloud instruction as following,

(一)

Depending on the specific type of docking device is divided into the following two cases:

If a target device has been integrated (e.g. floor heating), control action name is preset and no need to fill, you only need the device according to the manufacturer's agreement, input the instruction code of the corresponding action.

The device name in template

|      |                                |
|------|--------------------------------|
| name | Please fill in the device name |
| type | Floor heating device ▼         |

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Custom command data

| Num | Control action | Instruction code                          |
|-----|----------------|---|
| 1   | Power On       | <input type="text" value="Please input"/> |
| 2   | Power Off      | <input type="text" value="Please input"/> |
| 3   | TEMP Setting   | <input type="text" value="Please input"/> |
| 4   | TEMP Display   | <input type="text" value="Please input"/> |
| 5   | Manual Mode    | <input type="text" value="Please input"/> |
| 6   | AUTO Mode      | <input type="text" value="Please input"/> |
| 7   | Lock Mode      | <input type="text" value="Please input"/> |

If the target device has not been integrated, according to the actual device information for custom new device type, input custom device name of the control action.

|      |   |
|------|---|
| type | <input type="text" value="Central AC"/> |
|------|---|

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Custom device action

| Num | Control action name                      | Function Name | Operate |
|-----|--|---------------|---------|
| 1   | <input type="text" value="Power On"/>    | Custom ▼      | Delete  |
| 2   | <input type="text" value="Power Off"/>   | Custom ▼      | Delete  |
| 3   | <input type="text" value="Strong Wind"/> | Custom ▼      | Delete  |
| 4   | <input type="text" value="Mild Wind"/>   | Custom ▼      | Delete  |

Then entering the corresponding command of the operation code.

The device name in template

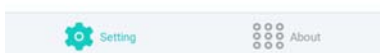
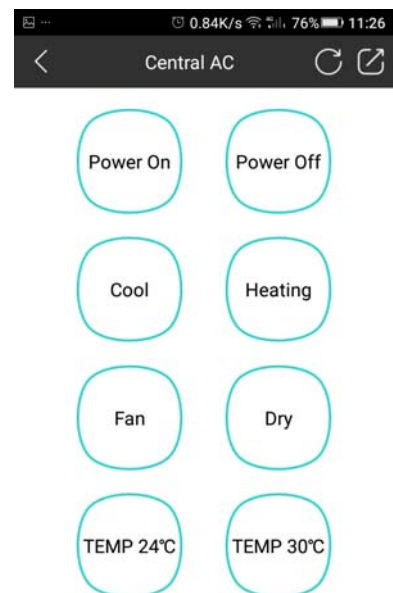
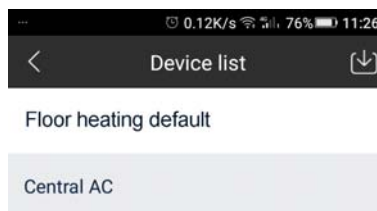
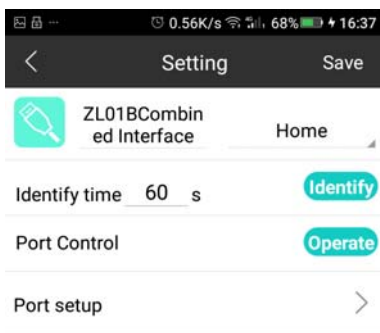
|      |   |
|------|---|
| name | <input type="text" value="Please fill in the device name"/> |
| type | Central AC <input type="button" value="v"/>                 |

Custom command data

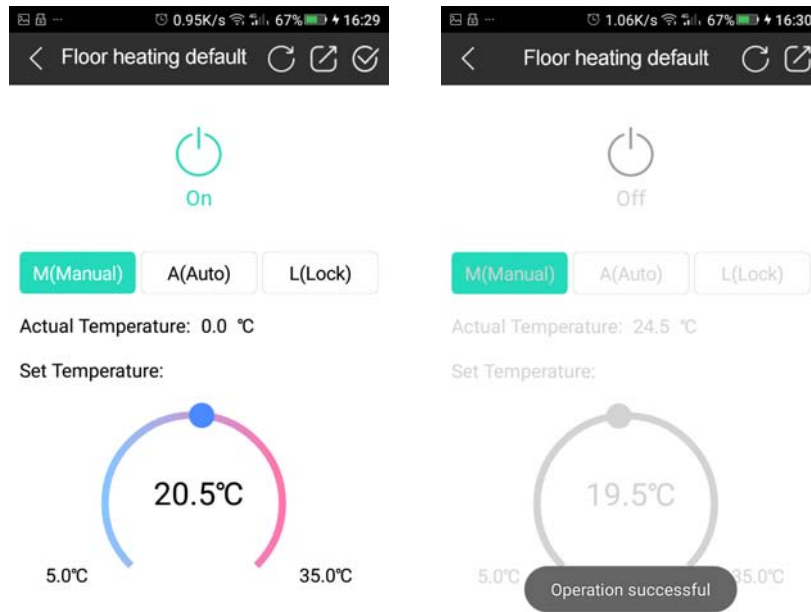
| Num | Control action | Instruction code                          |
|-----|----------------|---|
| 1   | Power On       | <input type="text" value="Please input"/> |
| 2   | Power Off      | <input type="text" value="Please input"/> |
| 3   | Strong Wind    | <input type="text" value="Please input"/> |
| 4   | Mild Wind      | <input type="text" value="Please input"/> |

### (B) Application of cloud Butler APP

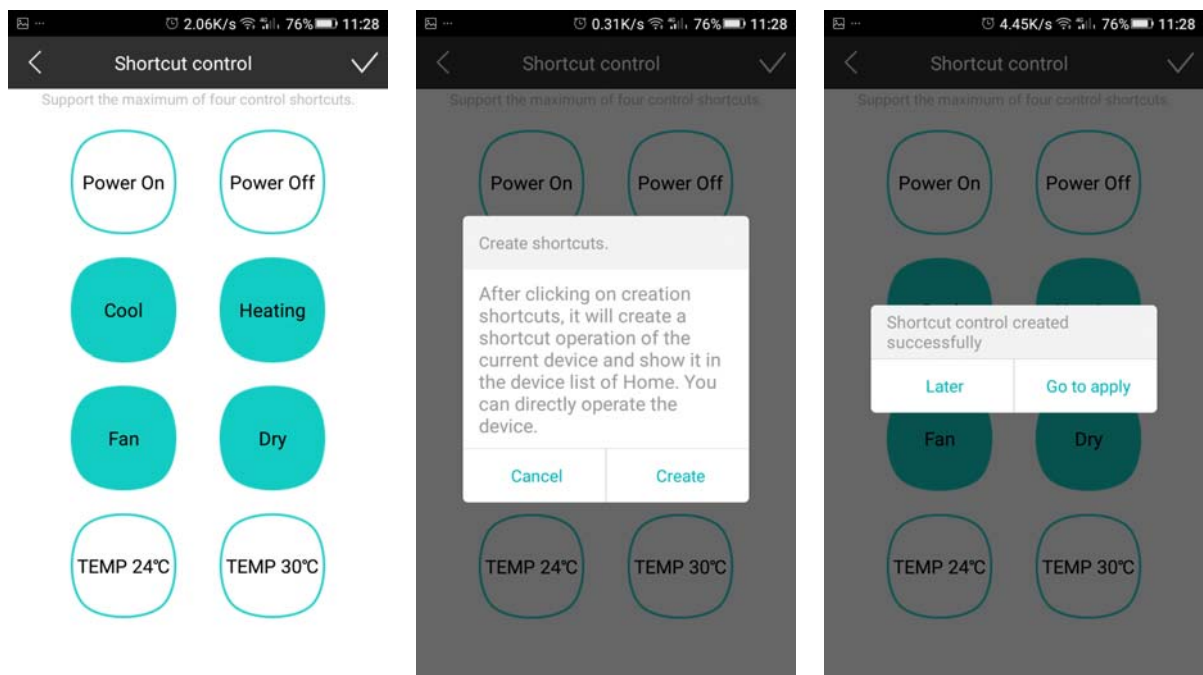
After completion of the above settings, log in cloud butler APP, can be set up - Device Management page, you can also more features - Serial control page, find the serial control device (such as ZL01B), select the corresponding target device to the instruction template and after application , will be able to control the serial devices in the cloud butler App.

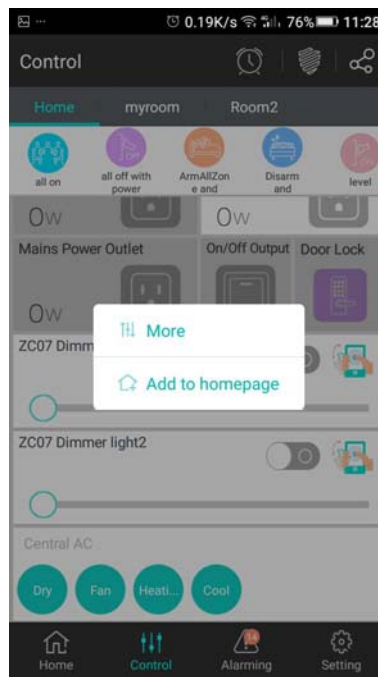


Which has been the integration of the device type (e.g. floor heating), you can view the user interface in APP and display status information. as follow:

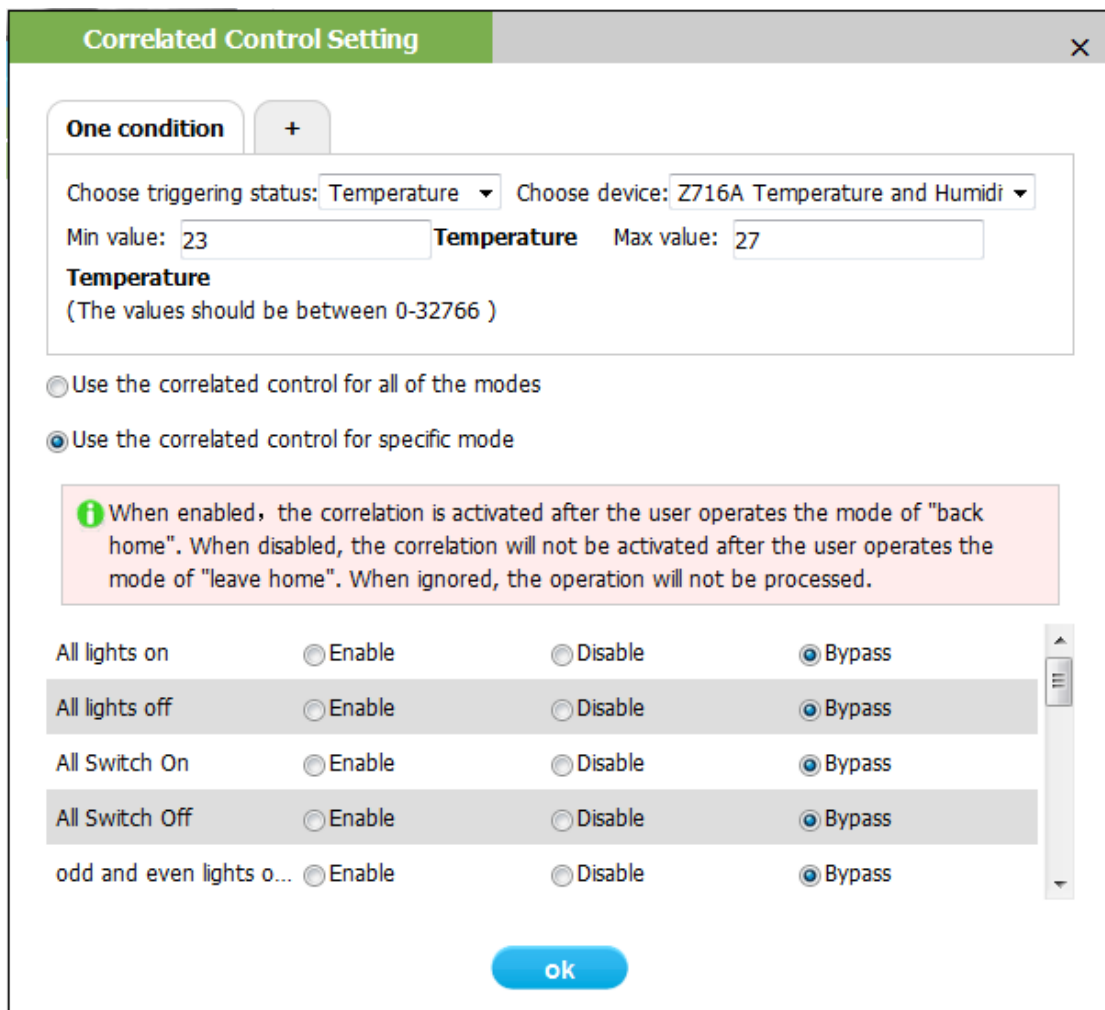


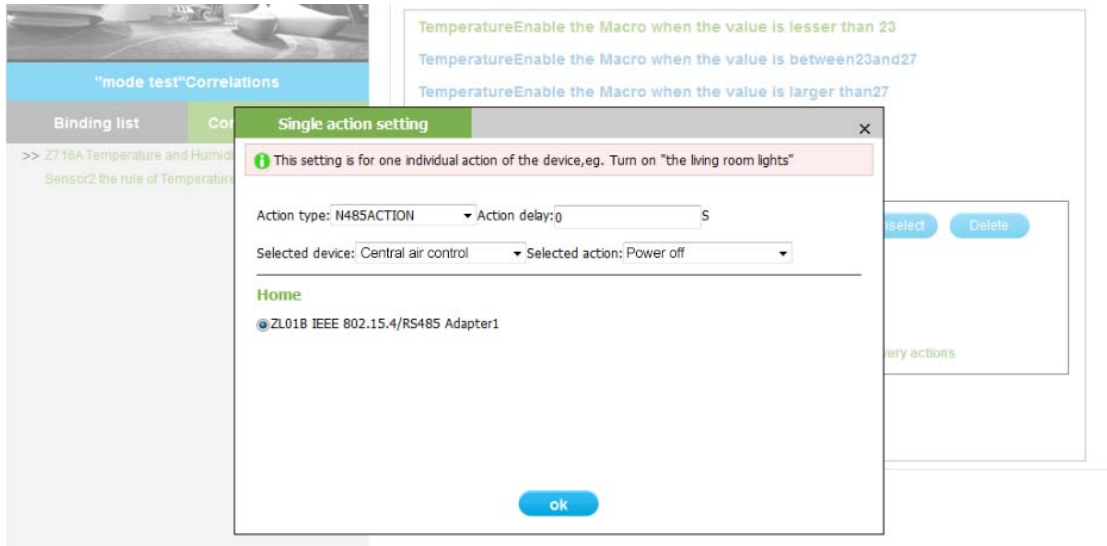
With the existing templates, users can select the four convenient buttons to control page or the home page to make user interface more simple and convenient.



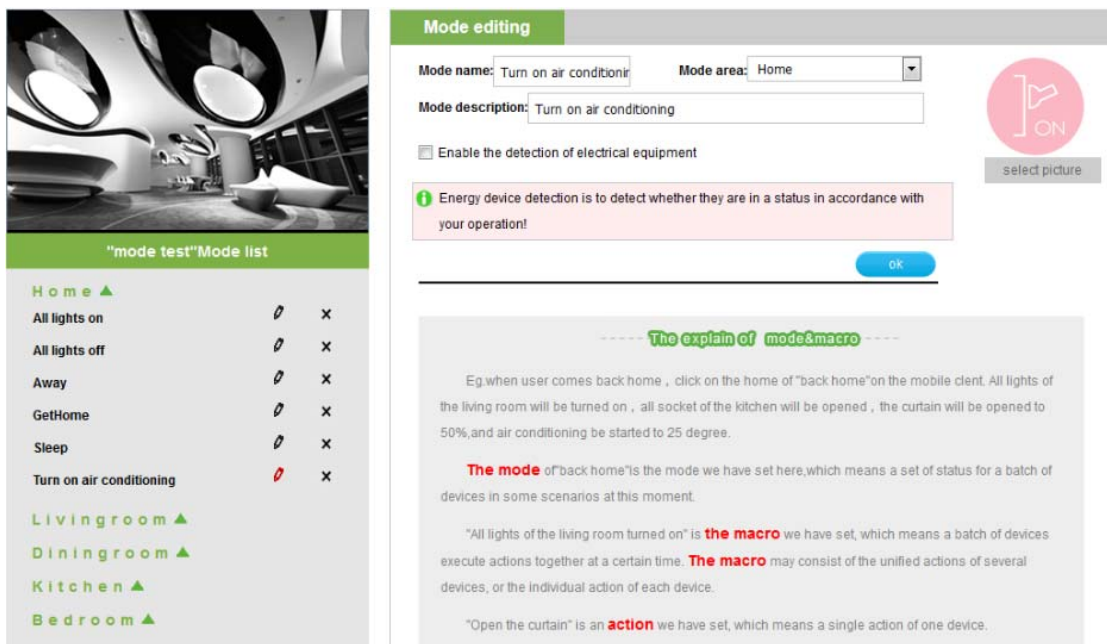


At the same time, you can set up joint control of serial devices. When setting Z716A as temperature and humidity sensor temperature is less than 23 degrees, triggering the serial port settings ZL01B to execute joint control of the central air-conditioning to be shut down.





Besides Single action, the user can edit the action set to the mode.



## Serial device control applications

Whether it is the field of security for home users in the smart home systems, or units of engine room surveillance, industrial control, medical equipment, and other areas of intellectual property, application serial device control technology will be everywhere.



Serial device control technology, makes complex wired devices become wireless, both to expand the application scene equipment, but also can improve the intelligence level of Netvox smart home. This not only saves a lot of labor hours, financial costs, but also makes the application of the system Internet of things continuously higher and better.

When a family or unit element need to apply the emerging smart system, we can use the serial port control technology to connect the existing old equipments to ZigBee network access, docking and integrating the new devices with the entire system, so as to bring the Internet of Things the new era of intelligence experience.



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Netvox Smart Butler



Netvox Smart Life

