BLIIOT BL206 Distributed Distributed Input Output Ethernet User Manual

BL206 BL206Pro
User Manual

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Shenzhen Beilai Technology Co.,Ltd
Website https://www.bliiot.com

Contents

BL206 Distributed Distributed Input Output Ethernet

Preface

Thanks for choosing BLIIoT Distributed I/O. These operating instructions contain all the information you need for operation of BL206 and BL206 Pro.

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Disclaimer

This document is designed for assisting user to better understand the device. As the described device is under continuous improvement, this manual may be updated or revised from time to time without prior notice. Please follow the instructions in the manual. Any damages caused by wrong operation will be beyond warranty.

Revision History

Update Date	Version	Description	Owner
2021-10-13	V1.0	First Edition	ZLF
2022-07-01	V1.1	Add Profinet, EtherCAT protocol, add platform, logic control functions	HYQ
2023-07-27	V1.1	Change Model name	HYQ
2023-10-24	V1.2	Add BL203, BL206, BL207 description	HYQ
2023-10-24	V1.2	User manual split by model	HYQ

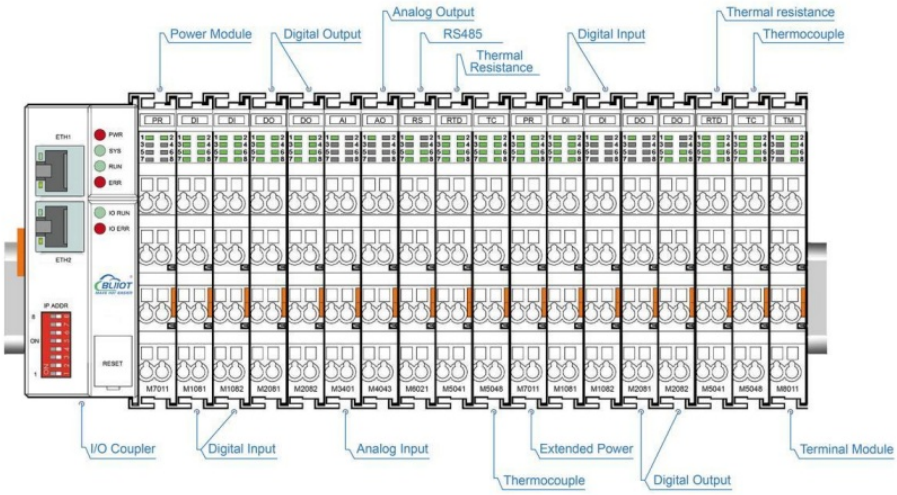
Product Introduction

1.1 Overview

The BL206Pro EdgeIO controller is a data acquisition and control system based on a powerful 32-bit microprocessor design with Linux operating system, supports Modbus, MQTT, OPC UA protocols for quick access to on-site PLC, DCS, PAS, MES, Ignition, and SCADA as well as ERP systems, as well as quick connectivity to a number of cloud platforms such as AWS Cloud, Thingsboard, Huawei Cloud, and Ali Cloud.

The I/O system supports programmable logic control, edge computing, and customized applications, it is widely applicable to a variety of IIoT and industrial automation solutions.

The BL206Pro distributed I/O system consists of 3 parts: Controller, I/O modules and terminal module.



The communication between the I/O and the field devices (eg PLC) takes place via the Ethernet port of the controller, and the communication between the controller and the I/O modules takes place via the local bus. The two Ethernet ports are internally integrated with a switch function, which can establish a linear topology without the need for additional switches or hubs.
The system needs to use the power module to provide 24VDC system voltage and 24VDC field voltage. Since two independent power supplies are used, the field voltage input interface and system voltage input interface of BL206Pro controller are electrically isolated from each other.
When assembling fieldbus node modules, each I/O module can be arranged in any combination, and it is not required to be grouped by module type.
A terminal module must be plugged into the end of a fieldbus node to ensure correct data transmission.

1.2 Typical Application

High reliability, easy expansion, easy setting, and convenient network wiring, these capabilities let users efficiently adapt the BL206Pro I/O system to a variety of complex industrial solutions.
The I/O system is widely applicable to a variety of industrial solutions, such as Internet of Things, smart factories, smart cities, smart medical care, smart homes, smart transportation, data center power environment monitoring, electric power, oil monitoring, automobiles, warehousing and logistics and other industries.

1.3 Features

- Each I/O system can have a maximum of I/O 32 modules.
- Support Modbus, MQTT, OPC UA protocols.
- Support Alibaba Cloud, Huawei Cloud, AWS Cloud, Thingsboard, Ignition, etc.
- Support programmable logic control, edge computing.
- The field side, the system side and the bus side are electrically isolated from each other.
- Support 2 X RJ45 interface, integrated switch function, can establish line topology, without the need for additional switches or hubs.
- Convenient wiring connection technology, screw-free installation.

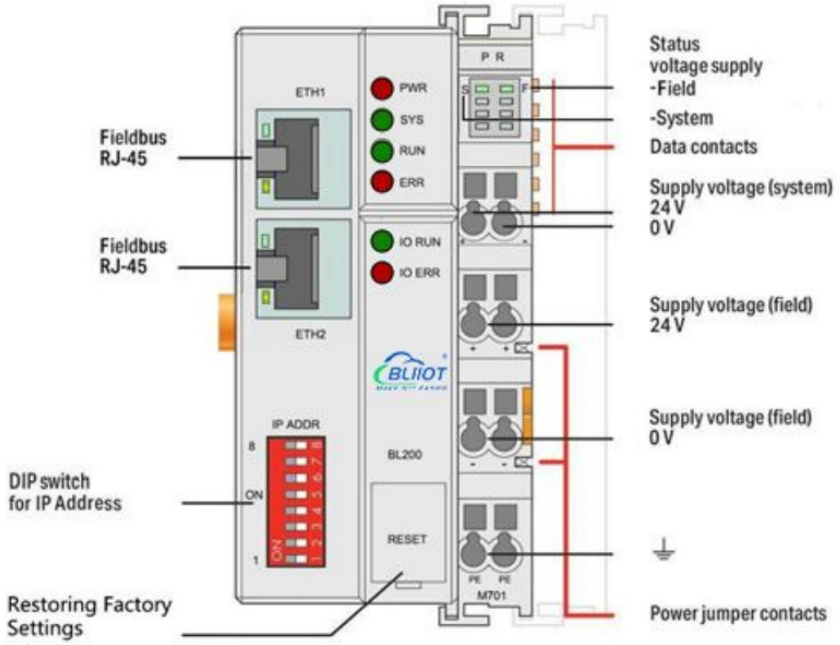
1.4 Model List

Description	Model	Channel	Type
Modbus-TCP I/O Coupler	BL200	/	/
Profinet I/O Coupler	BL201	/	/
EtherCAT I/O Coupler	BL202	/	/
Ethernet/IP I/O Coupler	BL203	/	/
OPC UA EdgeIO Controller	BL205	/	/
MQTT EdgeIO Controller	BL206	/	MQTT
MQTT+OPC UA+Modbus TCP	BL206Pro	/	MQTT, OPC UA, MQTT
BACnet/IP I/O Coupler	BL207	/	/
BACnet/IP+MQTT+OPC UA	BL207Pro	/	/
8CH DI	M1081	8	NPN (low level trigger)
8CH DI	M1082	8	PNP (high level trigger)
16CH DI	M1161	16	NPN (low level trigger)
16CH DI	M1162	16	PNP (high level trigger)
4CH DO	M2044	4	Relay
8CH DO	M2081	8	PNP
8CH DO	M2082	8	NPN
16CH DO	M2161	16	PNP
16CH DO	M2162	16	NPN
4CH AI Single-Ended	M3041	4	0-20mA/4-20mA
4CH AI Single-Ended	M3043	4	0-5V/0-10V
4CH AI Differential	M3044	4	0-5V/0-10V

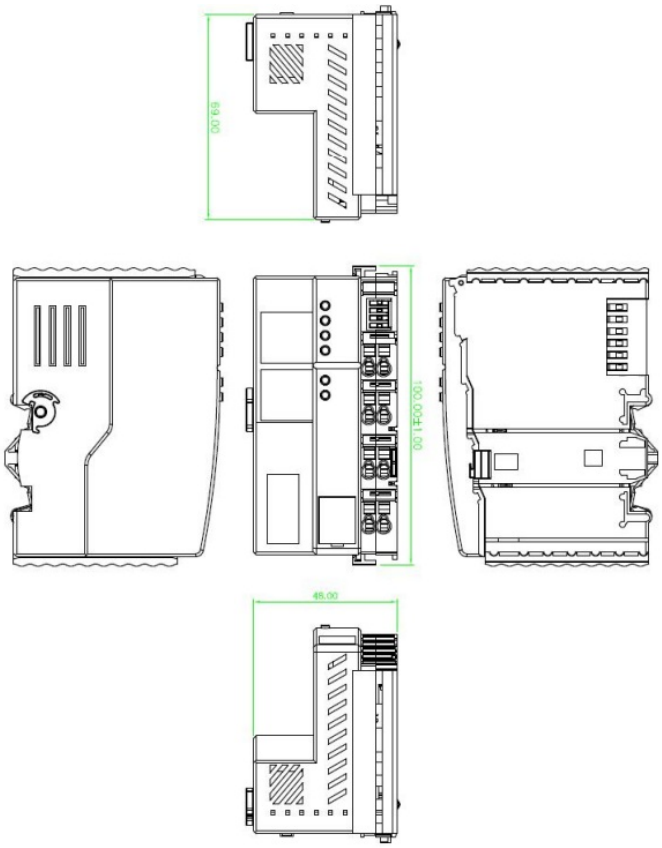
4CH AI Differential	M3046	4	±5V/±10V
4CH AO	M4041	4	0-20mA/4-20mA
4CH AO	M4043	4	0-5V/0-10V
4CH AO	M4046	4	±5V/±10V
2CH RTD	M5021	2	3Wire PT100
2CH RTD	M5022	2	3Wire PT1000
2CH RTD	M5023	2	4Wire PT100
2CH RTD	M5024	2	4Wire PT1000
4CH TC	M5048	4	TC(B/E/J/K/N/R/S/T)
2CH RS485	M6021	2	RS485
2CH RS232	M6022	2	RS232
1CH RS485, 1CH RS232	M6023	2	RS485+RS232
Power module	M7011	/	/
Terminal module	M8011	/	/

Hardware

2.1 I/O Controller

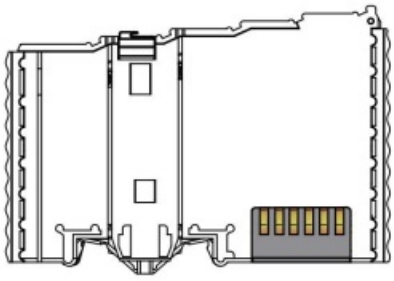


2.2 Dimension
Unit:mm



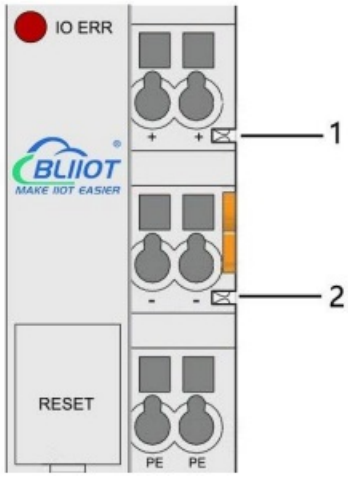
2.3 Data Contacts/Internal Bus

The communication between the I/O controller and the I/O modules, as well as the system power supply of the I/O modules are realized via the internal bus. The internal bus is made up of 6 data contacts, these gold-plated contacts are self-cleaning when connected.



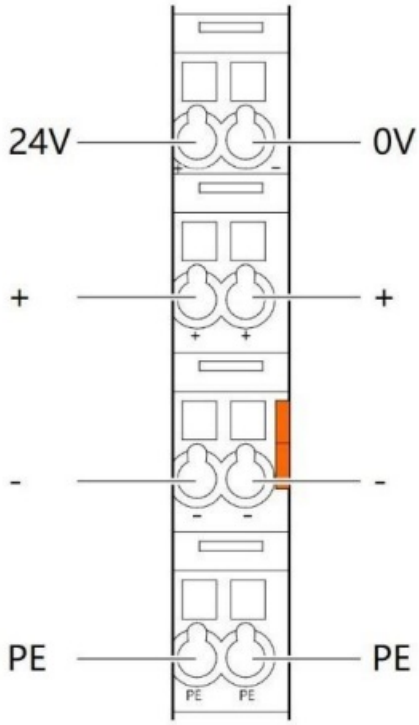
2.4 Power Jumper Contacts

The power module included with the controller has two self-cleaning power jumper contacts for powering the field side. This power supply has a maximum current of 10A across the contacts, current exceeding the maximum will damage the contacts. When configuring the system, it must be ensured that the above-mentioned maximum current is not exceeded. If it exceeds, a power expansion module needs to be inserted.



No.	Type	Description
1	Spring contact	Supply 24V to the field side
2	Spring contact	Supply 0V to the field side

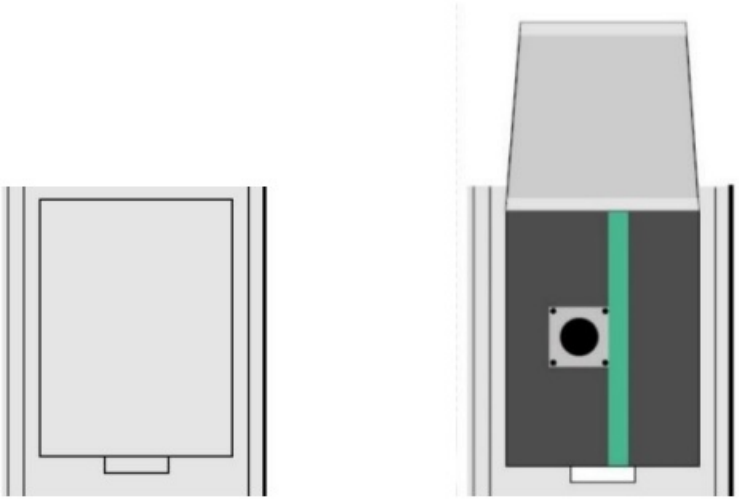
2.5 Terminal Point



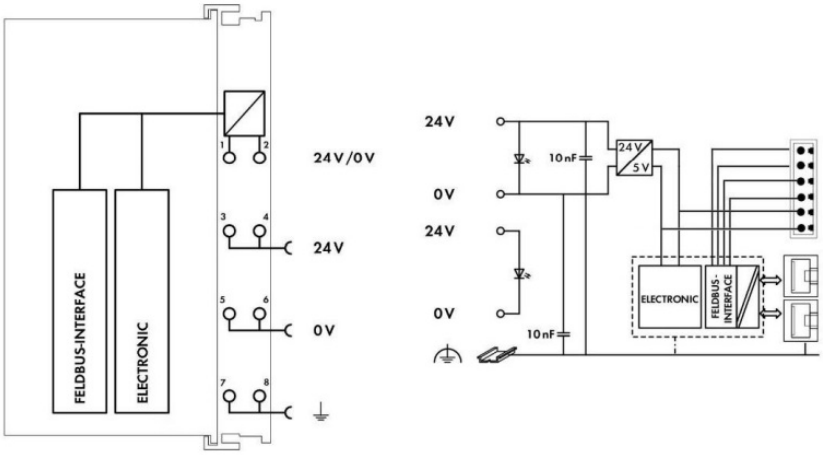
Name	Description
24V	System Power 24VDC
0V	System Power 0VDC
+	Connections Field Supply 24 VDC
+	Connections Field Supply 24 VDC
–	Connections Field Supply 0 VDC
–	Connections Field Supply 0VDC
PE	Grounding
PE	Grounding

2.6 Factory Reset
This reset button is used to restore the device configuration parameters to the factory state.
Operation steps:

1. When the device is running, open the flip cover;
2. Press and hold the button for more than 5 seconds, until all the LED lights go off, indicates reset successful, and then the device will automatically restart.



2.7 Electrical Schematic



Installation

3.1 Installation Sequence

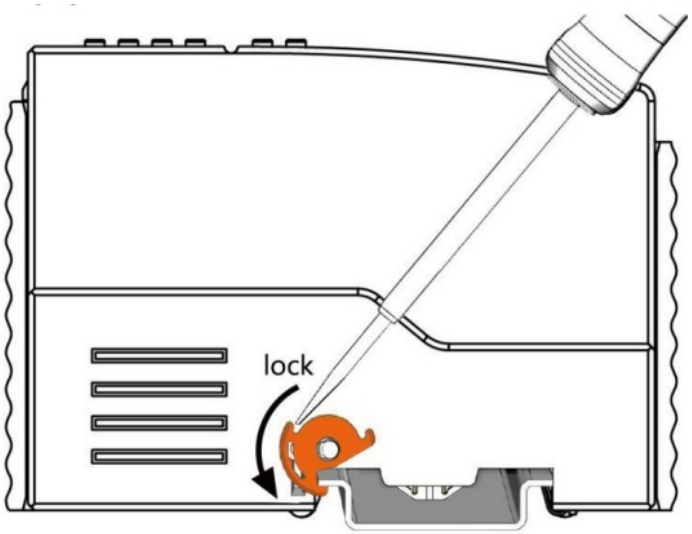
All distributed controllers and I/O modules from Beilai Technology must be mounted on a standard DIN 35 rail. Starting from the controller, the I/O modules are assembled from left to right, and the modules are installed next to each other. All I/O modules have grooves and power jumper contacts on the right side, to avoid assembly errors, I/O modules must be inserted from the right and top to avoid damage to the modules.

Utilizes a tongue and groove system to form a secure fit and connection. With the automatic locking function, the individual components are securely fixed on the rail after installation.

Don't forget to install the terminal module! Always plug a terminal module (eg TERM) into the end of the I/O module to ensure correct data transmission.

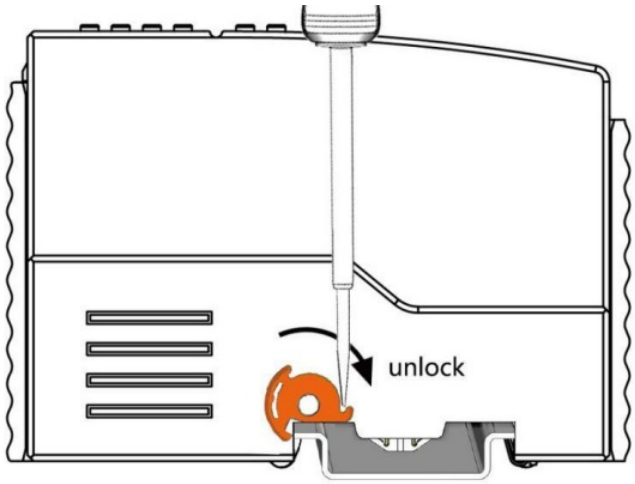
3.2 Install Controller

1. Snap the coupler onto the DIN rail first;
2. Use a tool such as a screwdriver to turn the locking cam until the locking cam engages the DIN rail.

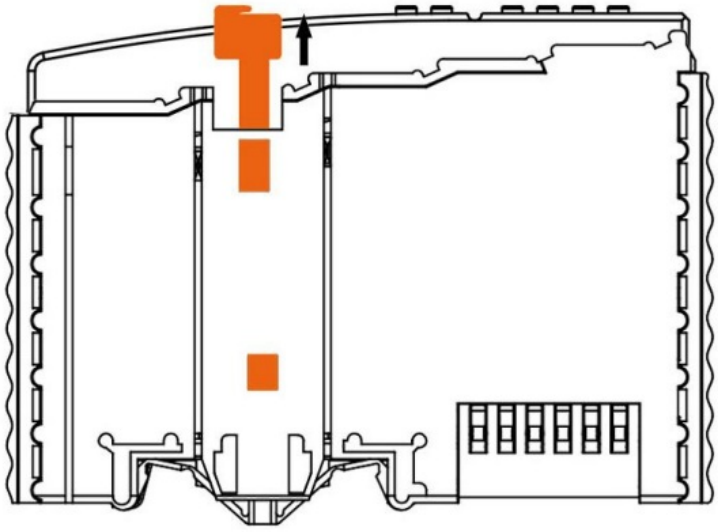


3.3 Remove Controller

1. Use a screwdriver to turn the locking disc cam until the locking cam no longer engages the rail.



2. Pull the release tab to remove the coupler from the assembly



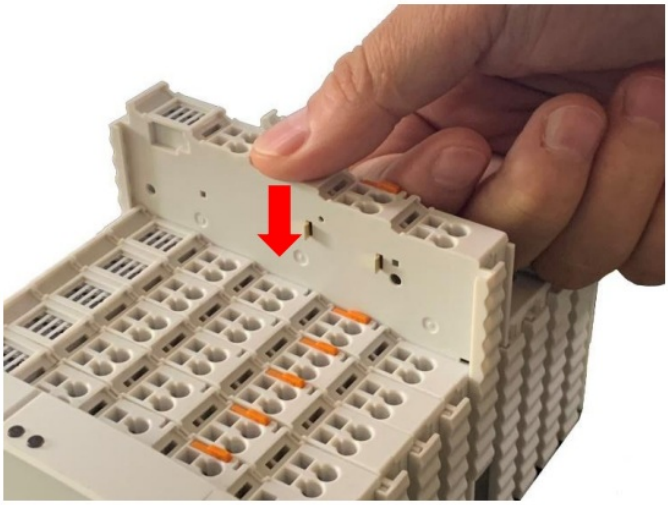
Data or power contacts are electrically disconnected from adjacent I/O modules when the controller is removed.

3.4 Insert I/O Modules

1. When inserting the module, make sure the tabs on the module line up with the grooves of the controller or other

I/O module to which it is attached.

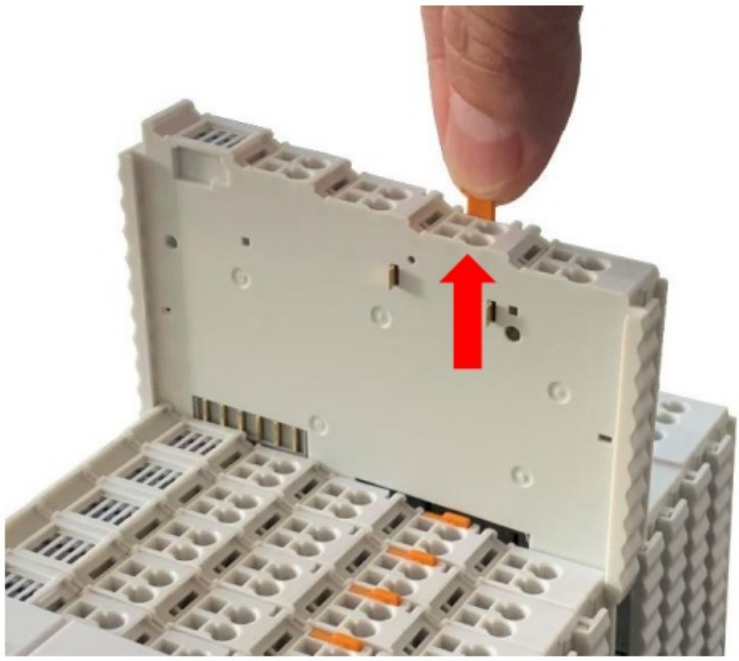
2. Press the I/O module into the assembly position until the I/O module snaps into the rail.



After the I/O module is installed, the electrical connection to the controller (or the previous I/O module) and the following I/O module is established via the data contacts and the power jumper contacts.

3.5 Remove I/O Modules

Pull up on the latch to remove the I/O module from the assembly.



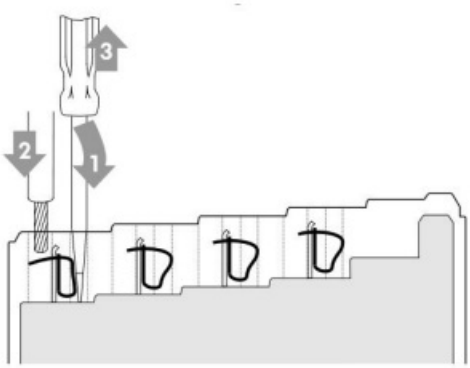
When the I/O module is removed, the electrical connection to the data or power jumper contacts is disconnection.

Device Connection

4.1 Wiring

CAGE CLAMP connection is suitable for solid, stranded and fine-stranded conductors.
Only one wire can be connected to each CAGE CLAMP. If there is more than one wire, it must be merged into a point before being connected.

1. Open the CAGE CLAMP by inserting the tool into the opening above the junction.
2. Insert the wire into the corresponding open connection terminal.
3. Once the tool is removed, the CAGE CLAMP closes and the wire is clamped firmly by the spring.

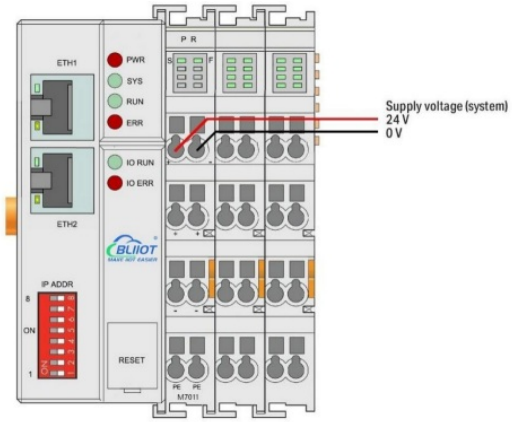


4.2 Power Supply

System and field voltages are supplied by power supply modules. The power supply module of the BL206Pro controller supplies power for the internal electronics of the controller and the I/O modules. If necessary (there are many I/O modules and the current is relatively high), it can also be provided through an independent power supply module.
The fieldbus interface (Ethernet interface), system and field are galvanically isolated from each other.

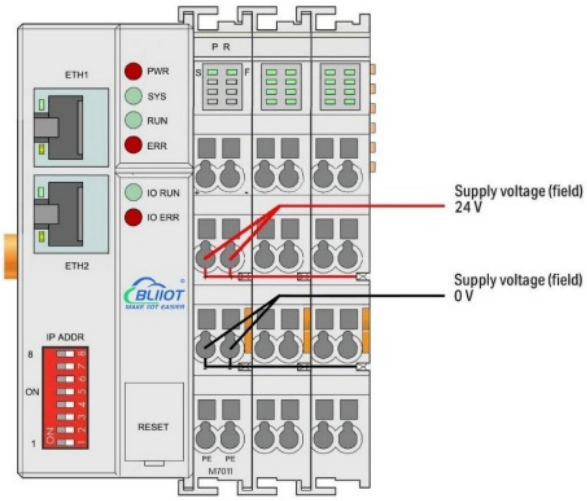
4.2.1 System Power

BL206Pro controller require 24V DC system power, which is connected from the terminal of the power supply module. The 5V bus voltage required inside the system is converted from the 24V system voltage.
The power supply module only has proper fuse protection, please provide proper overcurrent protection externally. Please pay attention to matching the output power of the power supply module and the load power to avoid excessive load current.



4.2.2 On-site Power Supply

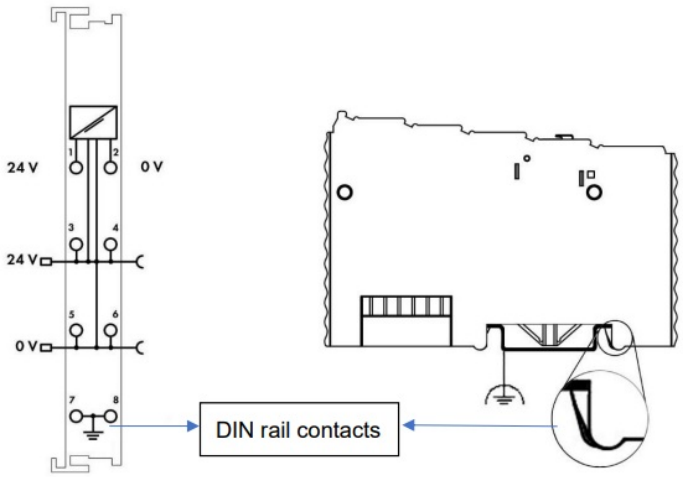
The power supply module supplies 24 VDC on the field side to power the sensors and actuators.
Field power supply only has proper fuse protection. Without overcurrent protection, electronic equipment can be damaged.



Field-side power is automatically output from the power jumper contact when the I/O module is connected. The continuous load current across the contacts of the power supply must not exceed 10 A.
The problem of excessive load power on the system side or on the field side can be solved by plugging in additional power supply modules. After plugging in an additional power supply module, a new voltage potential may appear on the field side.
In the case where electrical isolation is not required, the field power supply and the system power supply can use the same power supply.

4.2.3 Grounding

When installing the enclosure cabinet, the cabinet must be grounded, and the rail is electrically connected to the cabinet through screws to ensure that the rail is properly grounded. Grounding can increase resistance to electromagnetic interference. Some components in the I/O system have rail contacts that dissipate EMI onto the rail.



BL206 Series Controller

5.1 BL206 MQTT EdgeIO Controller

5.1.1 BL206 Overview

The BL206 controller supports MQTT protocol, and data can be uploaded to Alibaba Cloud, Huawei Cloud, AWS Cloud, Thingsboard, BLIIoT cloud, Custom MQTT cloud.

5.1.2 Technical Parameters

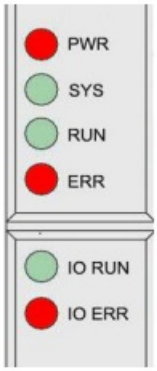
Name	Parameters	Description

System power	Input voltage(system)	24 VDC
	Input current(system)	MAX 500 mA@24VDC
	Power Efficiency	84%
	Internal bus voltage	5VDC
	Controller current consumption	MAX 300mA@5VDC
	I/O current consumption	MAX 1700mA@5VDC
	Isolation protection	500 V system/supply
Field power	Input voltage (field)	24 VDC
	Current carrying capacity (power jumper contacts)	MAX 10 ADC
Ethernet	Number	2 X RJ45
	Transmission medium	Twisted Pair STP 100 Ω Cat 5
	MAX cable length	100m
	Baud rate	10/100 Mbit/s
	Isolation protection	ESD contact 8KV, Surge 4KV(10/1000us)
System	Operating system	Linux
	CPU	300MHz
	RAM	64MB
	Flash	128MB
	Number of I/O modules	MAX 32
	Protocols	MQTT, HTTP, DHCP, DNS
Wiring	Method	CAGE CLAMP
	Wire diameter	0.08 mm² ⋯ 2.5 mm², AWG 28 ⋯ 14

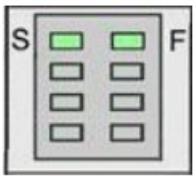
	Strip length	8 mm ⋯ 9 mm / 0.33 in
Environment	Working temperature	0 ⋯ 55 °C
	Storage temperature	-40 ⋯ 70 °C
	Relative humidity	5 ⋯ 95% no condensation
	Working altitude	0 ⋯ 2000 m
	Protection	IP20
Dimension	Width	48mm
	Length	100mm
	Height	69mm

Material	Color	Light gray
	Housing material	Polycarbonate, Nylon 6.6
	Fire load	1.239 MJ
	Weight	180g
Installation	Method	DIN-35
Certificated	EMC	EN 55022: 2006/A1: 2007 (CE &RE) Class B
		IEC 61000-4-2 (ESD) Level 4
		IEC 61000-4-3 (RS) Level 4
		IEC 61000-4-4 (EFT) Level 4
		IEC 61000-4-5 (Surge)Level 3
		IEC 61000-4-6 (CS)Level 4
		IEC 61000-4-8 (M/S) Level 4

5.1.3 Hardware Interface
5.1.3.1 LED Indicators



LED	Description	Color	Status	Meaning
PWR	Power indicator	Red	ON	Power connection successful
			OFF	No power
SYS	System indicator	Green	ON	System is abnormal
			OFF	System is running normally
RUN	Running indicator	Green	Flashing	System is running normally
			OFF	System is abnormal
ERR	Error indicator	Red	ON	Northbound protocol connection error
			OFF	No errors
I/O RUN	I/O Running indicator	Green	Flashing	I/O module is working normally
			OFF	Module not inserted
I/O ERR	I/O Error indicator	Red	ON	I/O module communication error
			OFF	No errors

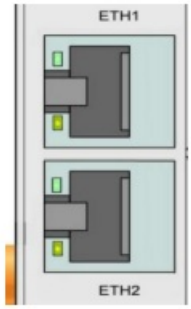


LED	Description	Color	Status	Meaning
S	System 24V power indicator	Green	ON	Power is OK
			OFF	No power
F	Field 24V power indicator	Green	ON	Power is OK
			OFF	No power

5.1.3.2 Ethernet Port

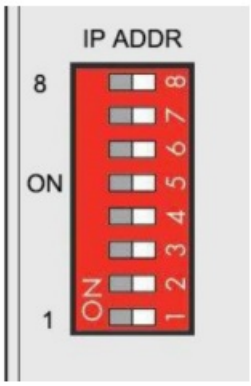
Connect to the Ethernet-based fieldbus through ETH2.

EHT1 is used to connect other nodes that need to be connected to the Ethernet.



5.1.3.3 IP Address Selection Switch

The 8-bit DIP switch is used to set the IP address. The encoding of DIP switches is done bit by bit, starting from DIP switch 1 with the least significant bit (2 0) to DIP switch 8 with the most significant bit (2 7), corresponding to decimal values: 0-255.



When the value of the DIP switch is 1111 1111 (decimal 255), the IP address is set according to the web page. The web page setting can specify the IP or set the automatic acquisition. When the web page is not set, the IP address is: 192.168.1.10 When the value of the DIP switch is 0000 0000 – 1111 1110 (decimal 0-254), determine the 3rd byte of the IP address, and the 1st, 2nd and 4th bytes are fixed bytes, namely 192.168.xxx.253

5.1.4 MQTT Identifiers

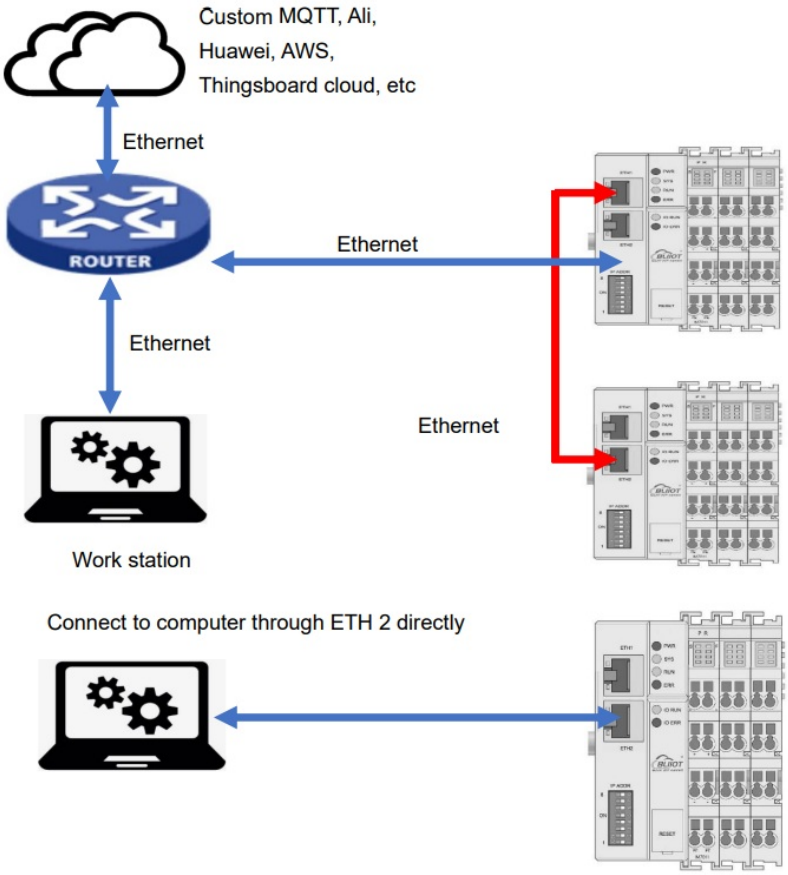
The MQTT identifier is REG+Modbus mapping address (such as the first DO module first DO: REG1000).

5.1.5 Controller Connection

The BL206 controller comes with 2 x RJ45 Ethernet ports, integrated switch function inside, work in store-and-forward operation mode, each port supports 10/100 Mbit transmission speed and full-duplex and half-duplex transmission mode.

The BL206 controller connect to the router Ethernet network via ETH2 only, while the EHT 1 is for connecting other nodes.

The internal integrated switch supports bypass mode, which can automatically start the bypass mode when the controller system fails, and automatically maintain the link between ETH1 and EHT2.
The wiring of these Ethernet ports conforms to the 100BaseTX specification, which specifies the use of category 5 twisted pair cable as the connecting cable. Cable types S/UTP (Screened unshielded twisted pair) and STP (shielded twisted pair) can be used up to a length of 100m.



5.1.6 Web Page Configuration
BL206 MQTT Controllerr built-in web server is a browser-based configuration utility.
When a node is connected to your network, you can access the web console by entering the IP address of the server in your web browser.
5.1.6.1 Preparation Before Configuration
To successfully access the BL206, it must be properly installed and connected to the computer. In addition, configure them with correct IP addresses to keep them in the same network segment.
5.1.6.1.1 Connect Computer and Controller

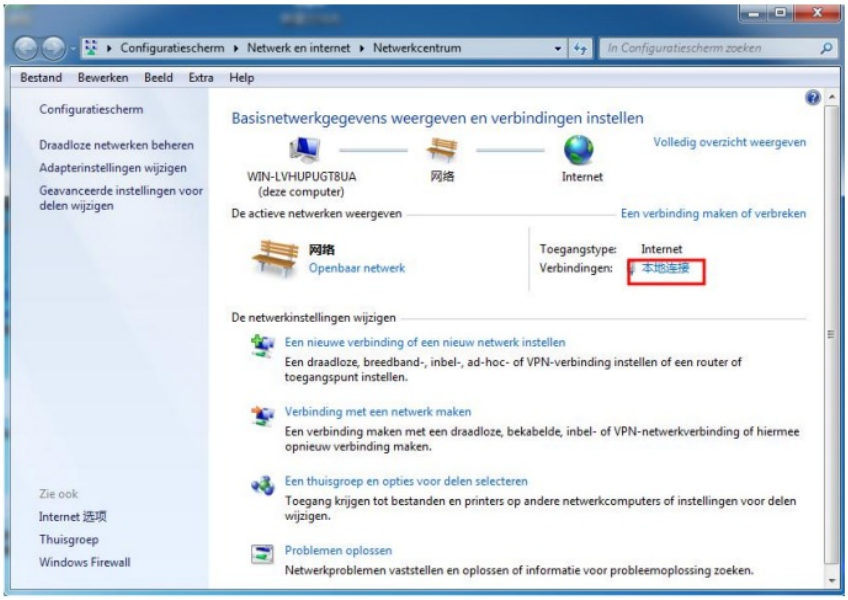
1. Mount the fieldbus node on a DIN35 rail. Follow the installation instructions in the “Installation” chapter.
2. Connect the 24 V power supply to the system power terminals.
3. The computer and the bus node can be connected in two ways, one is that the two are connected to the switch device of the local area network through the Ethernet port; the other is that the two are directly connected point-to-point. For detailed steps, follow the instructions in the “Controller Connection” chapter.
4. Turn on the power supply and start supplying power.
   The controller is initialized after power-up, creates process image according to the I/O modules configuration of the node.

5.1.6.1.2 Configure Computer IP Address

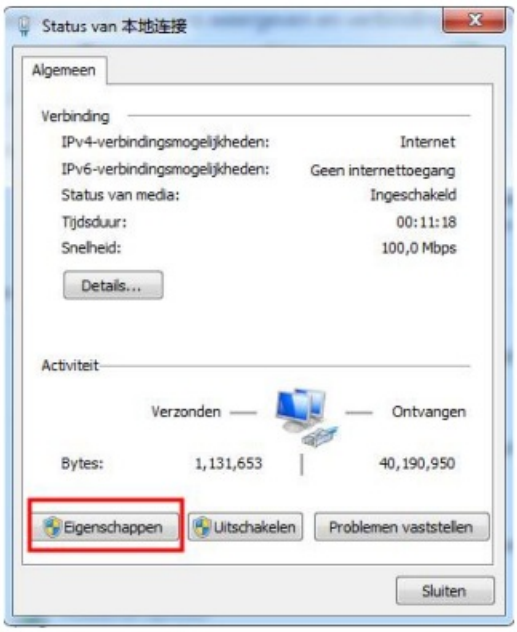
There are two ways to configure PC IP address. One is to turn on the automatic IP address option on the PC’s local connection to dynamically assign DHCP in the network. The other is to configure a static IP address with the

coupler node on the same network segment on the local connection of the PC.
Takes Windows 7 system as an example for configuration. Windows systems are all configured similarly.

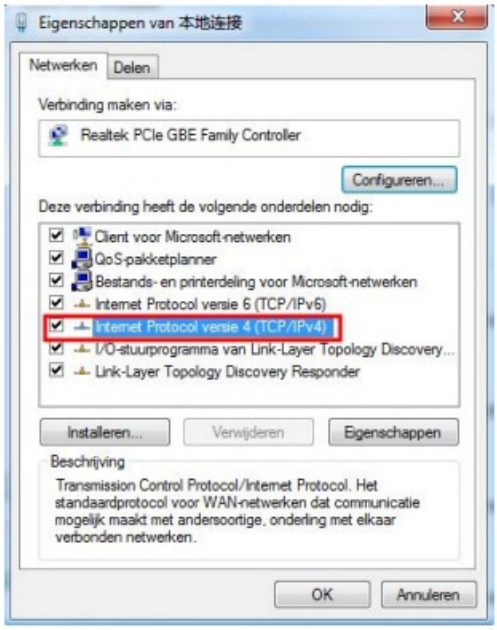
1. Click Start > Control Panel > Network and Sharing Center, and click local connection in the window that opens.



2. In the local connection status window, click Properties.

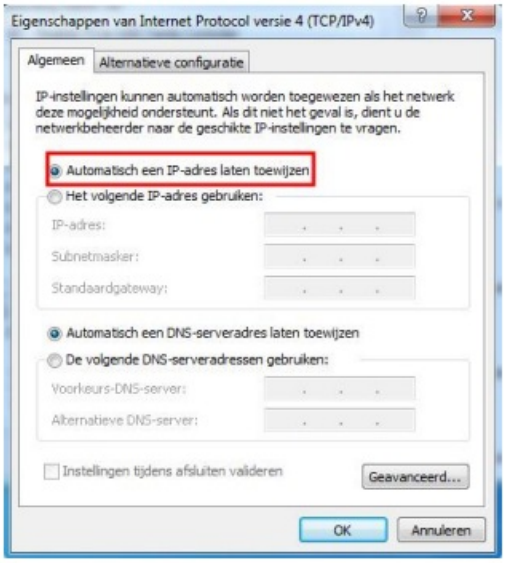


3. Double-click “Internet Protocol Version 4 (TCP/IPv4)” on the local connection properties page.



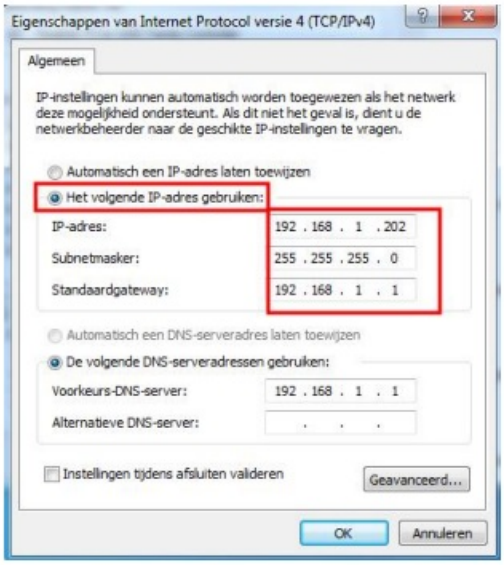
4. There are two ways to configure the IP address of the PC
   - Obtain IP address automatically (system default mode)

   To obtain an IP address automatically from a DHCP server, select “Obtain an IP address automatically”;



   - Set a static IP address

   Select “Use the following IP address” and set the correct values for the IP address, subnet mask and default gateway.



5.1.6.1.3 Configure Controller IP address

There are 2 ways to assign an IP address

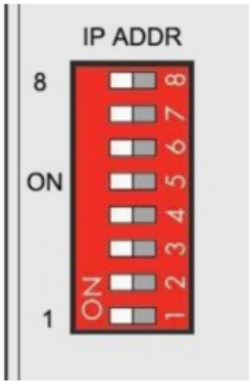
- Assignment via built-in web page (static IP or automatic IP assignment)
- Assign via DIP switch (static IP)

DIP address selector switch definition

Switch position ON = 1	Value	Definition
0000 0000 — 1111 1110	0-254	Enable the DIP selector switch assignment function and de termine the value of the 3rd byte. Example: 0010 0110 (22 decimal), the IP address is “192.1 68.22.253”.
1111 1111	255	Enable the function of specifying IP on the web page, or sel ect the function of DHCP automatic allocation. When the IP is not allocated through the web, the IP is 192.168.1.10.

5.1.6.1.3.1 Configuration via Web Page

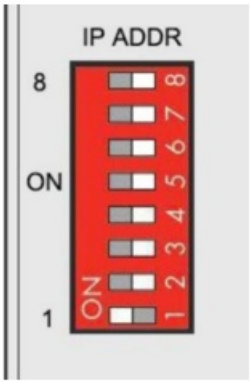
The controller can be set to an IP address via the “Settings > Local Settings” page after entering the page, or it can be set to be assigned automatically. Select static address, if not set IP address, the IP is 192.168.1.10



5.1.6.1.3.2 Assign IP via DIP Switch

Set the value of the DIP address selector switch to 0000 0000 – 1111 1110 (decimal 0 254), and the IP address

will be assigned by the DIP switch.
The IP address consists of fixed bytes and variable bytes. The 1st, 2nd and 4th bytes are fixed bytes, the DIP selector switch determines the 3rd byte, namely: 192.168.xxx.253
The controller assigns an IP address via a DIP switch, and the IP address set in this way is static.



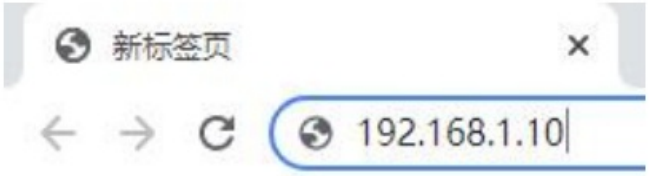
5.1.6.1.4 Factory Default Settings

Before logging into the web configuration page, it is necessary for you to understand the following default parameters,
IP: Determined according to the DIP switch, if the DIP switch is 1111 1111, the default IP is 192.168.1.10
If factory default DIP switch is 0000 0000 status, then the IP is 192.168.0.253

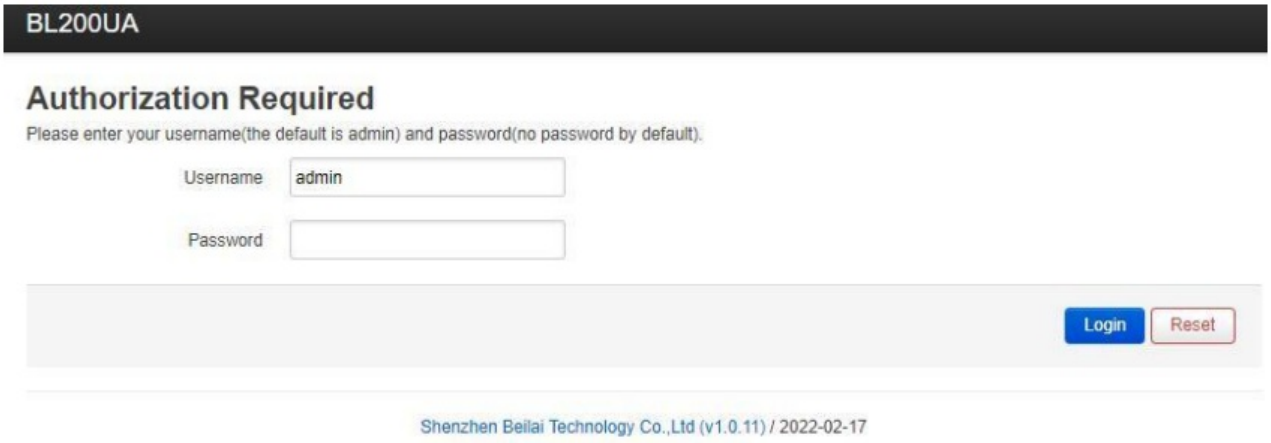
Item	Description
Username	admin
Password	Empty

5.1.6.2 Login Configuration Page

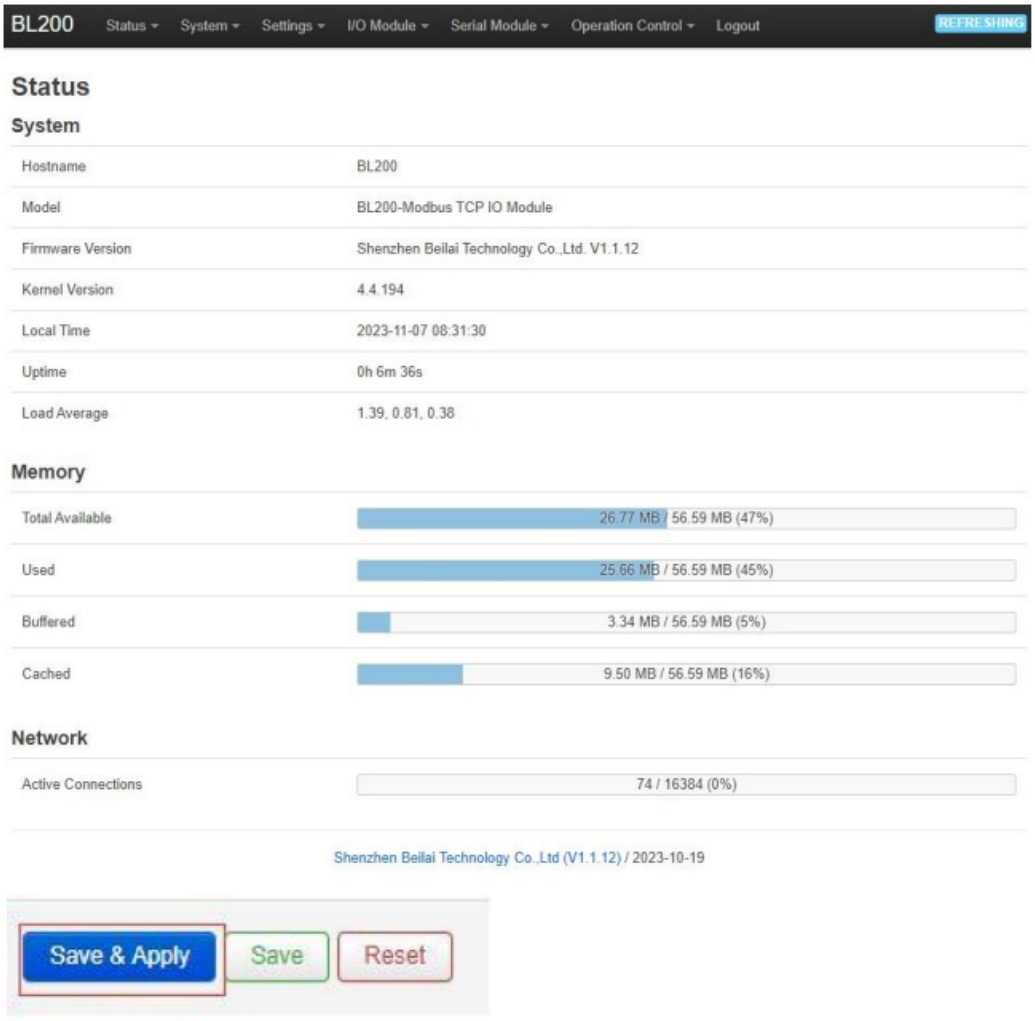
1. Open a browser on your computer, such as IE, Chrome, etc.
2. Enter the IP address of the controller node (192.168.1.10) in the address bar of the browser to enter the user login interface.

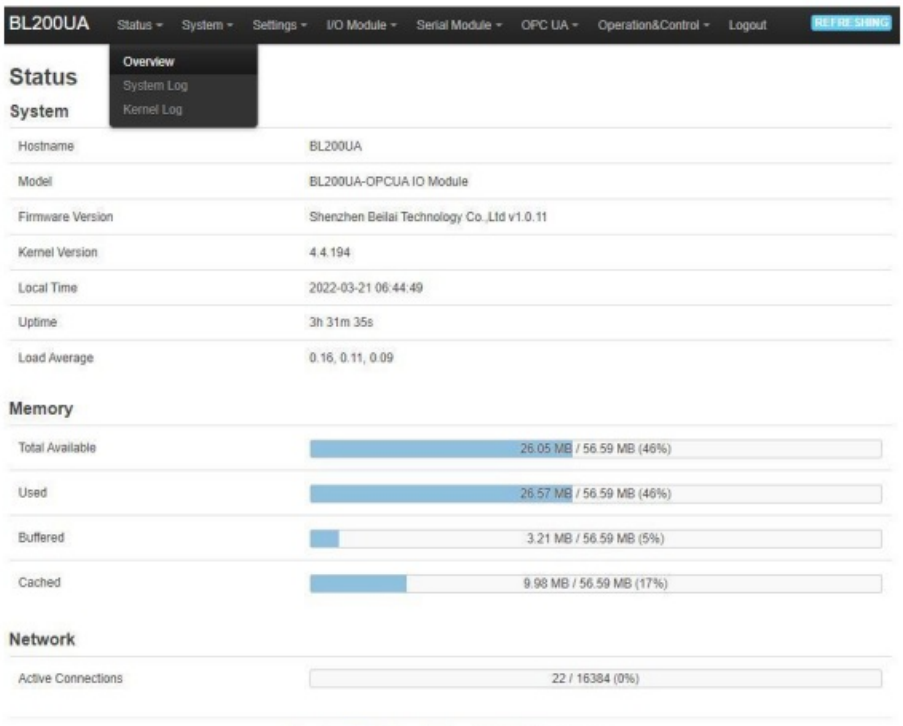


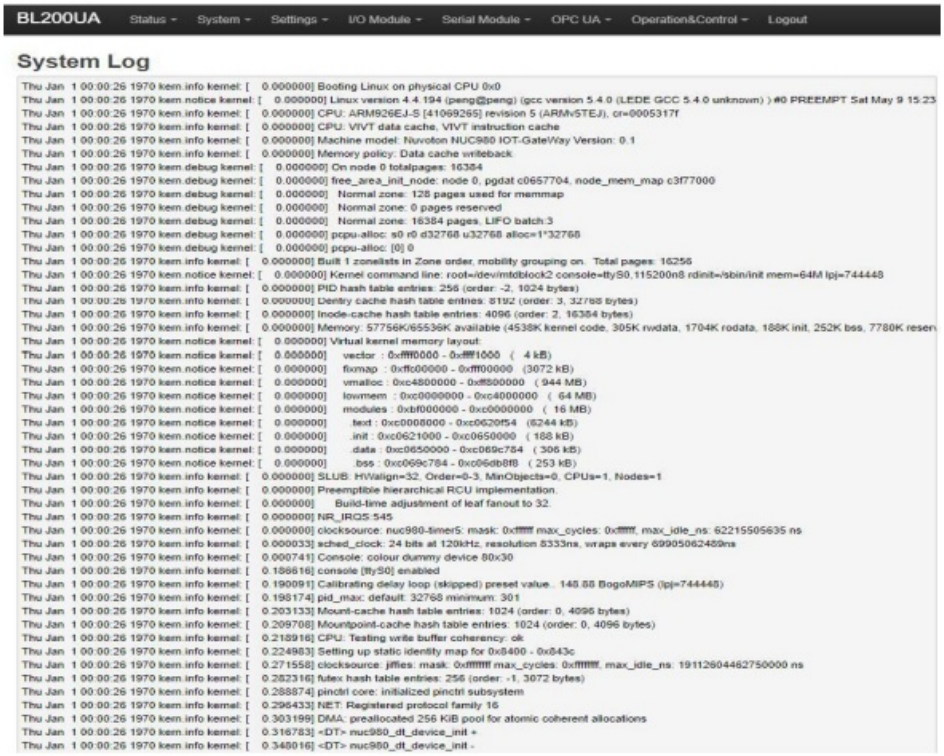
3. Enter “Username” and “Password” in the login interface, and then click Login.

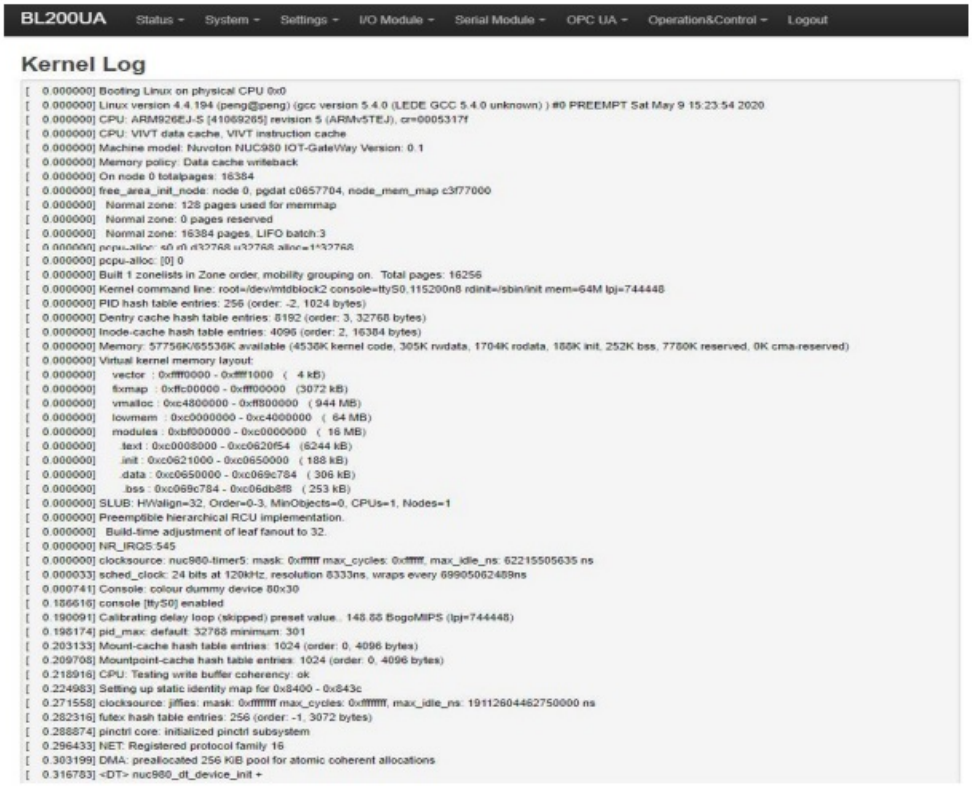


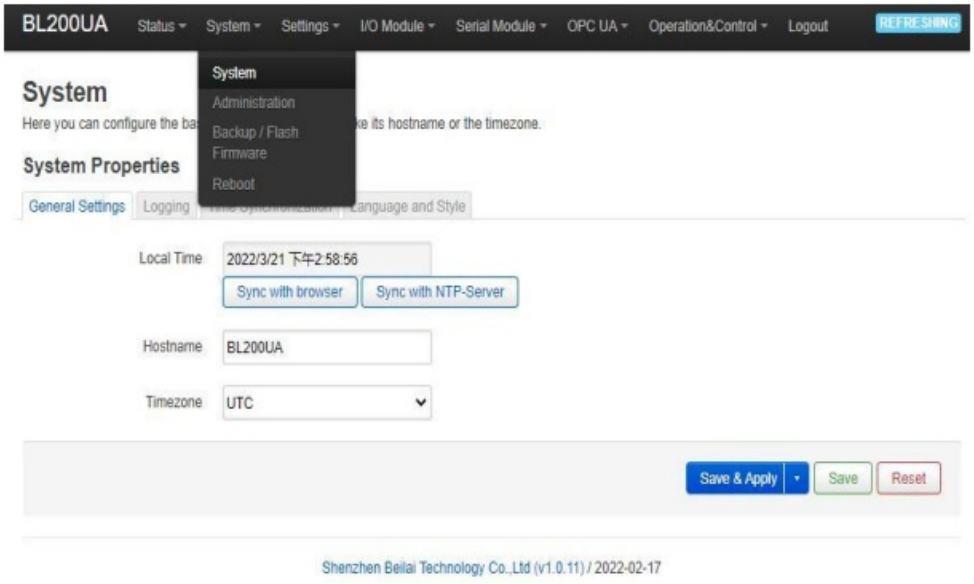
4. After successfully logging in to the web interface, the display is as follows

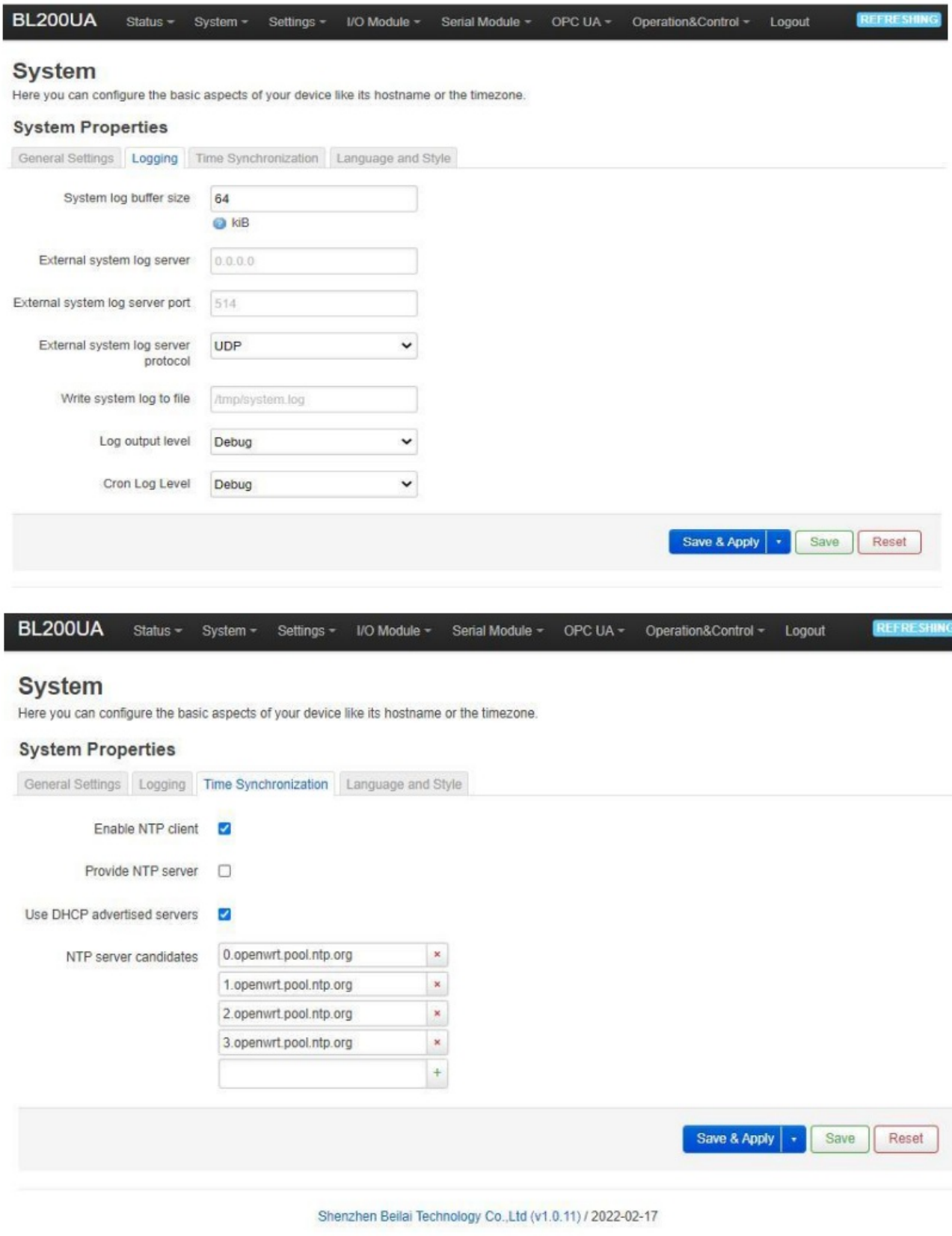


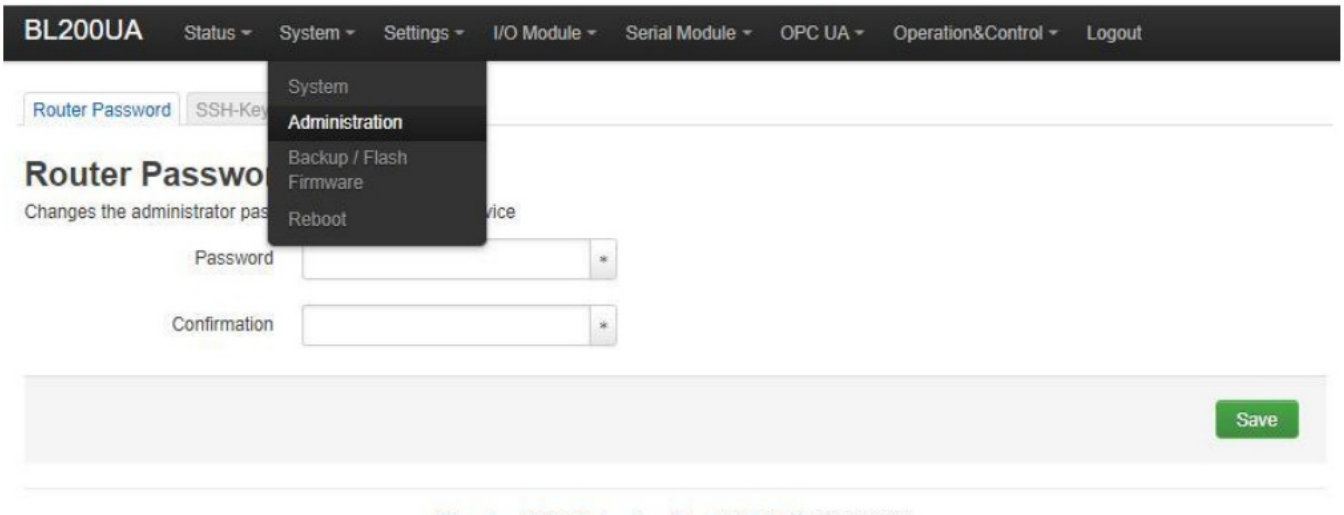

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
RETRESHING
Overview
System Log
Kernel Log
Status
System
Hostname
BL200UA
Model
BL200UA-OPCUA IO Module
Firmware Version
Shenzhen Beilai Technology Co.,Ltd v1.0.11
Kernel Version
4.4.194
Local Time
2022-03-21 06:44:49
Uptime
3h 31m 35s
Load Average
0.16, 0.11, 0.09
Memory
Total Available
26.05 MB / 56.59 MB (46%)
Used
26.57 MB / 56.59 MB (46%)
Buffered
3.21 MB / 56.59 MB (5%)
Cached
9.98 MB / 56.59 MB (17%)
Network
Active Connections
22 / 16384 (0%)
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17


BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
System Log
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Booting Linux on physical CPU 0x0
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] Linux version 4.4.194 (peng@peng) (gcc version 5.4.0 (LEDE GCC 5.4.0 unknown)) #0 PREEMPT Sat May 9 15:23
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] CPU: ARM926EJ-S [41069265] revision 5 (ARMv5TEJ), cr=0005317f
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] CPU: VIVT data cache, VIVT instruction cache
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Machine model: Nuvoton NUC980 IOT-GateWay Version: 0.1
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Memory policy: Data cache writeback
Thu Jan 1 00:00:26 1970 kern.debug kernel: [0.000000] On node 0 totalpages: 16384
Thu Jan 1 00:00:26 1970 kern.debug kernel: [0.000000] free_area_init_node: node 0, pgdat c0657704, node_mem_map c3f77000
Thu Jan 1 00:00:26 1970 kern.debug kernel: [0.000000] Normal zone: 128 pages used for memmap
Thu Jan 1 00:00:26 1970 kern.debug kernel: [0.000000] Normal zone: 0 pages reserved
Thu Jan 1 00:00:26 1970 kern.debug kernel: [0.000000] Normal zone: 16384 pages, LIFO batch:3
Thu Jan 1 00:00:26 1970 kern.debug kernel: [0.000000] pcpu-alloc: s0 r0 d32768 u32768 alloc=1*32768
Thu Jan 1 00:00:26 1970 kern.debug kernel: [0.000000] pcpu-alloc: [0] 0
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Built 1 zonelists in Zone order, mobility grouping on. Total pages: 16256
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] Kernel command line: root=/dev/mtdblock2 console=ttyS0,115200n8 rdinit=/sbin/init mem=64M lpj=744448
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] PID hash table entries: 256 (order: -2, 1024 bytes)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Dentry cache hash table entries: 8192 (order: 3, 32768 bytes)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Inode-cache hash table entries: 4096 (order: 2, 16384 bytes)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Memory: 57756K/65536K available (4538K kernel code, 305K rwdata, 1704K rodata, 188K init, 252K bss, 7780K reser
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] Virtual kernel memory layout:
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] vector : 0xffff0000 - 0xffff1000 (4 kB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] fixmap : 0xffc00000 - 0xfff00000 (3072 kB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] vmalloc : 0xc4800000 - 0xff800000 (944 MB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] lowmem : 0xc0000000 - 0xc4000000 (64 MB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] modules : 0xbf000000 - 0xc0000000 (16 MB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] .text : 0xc0008000 - 0xc0620f54 (6244 kB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] .init : 0xc0621000 - 0xc0650000 (188 kB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] .data : 0xc0650000 - 0xc069c784 (306 kB)
Thu Jan 1 00:00:26 1970 kern.notice kernel: [0.000000] .bss : 0xc069c784 - 0xc06db8f8 (253 kB)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] SLUB: HWalign=32, Order=0-3, MinObjects=0, CPUs=1, Nodes=1
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Preemptible hierarchical RCU implementation.
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] Build-time adjustment of leaf fanout to 32.
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] NR_IRQS:545
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000000] clocksource: nuc980-timer5: mask: 0xffffff max_cycles: 0xffffff, max_idle_ns: 622155505635 ns
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000033] sched_clock: 24 bits at 120kHz, resolution 8333ns, wraps every 69905062489ns
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.000741] Console: colour dummy device 80x30
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.186616] console [ttyS0] enabled
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.190091] Calibrating delay loop (skipped) preset value.. 148.68 BogoMIPS (lpj=744448)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.198174] pid_max: default: 32768 minimum: 301
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.203133] Mount-cache hash table entries: 1024 (order: 0, 4096 bytes)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.209708] Mountpoint-cache hash table entries: 1024 (order: 0, 4096 bytes)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.218916] CPU: Testing write buffer coherency: ok
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.224983] Setting up static identity map for 0x8400 - 0x843c
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.271558] clocksource: jiffies: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 19112604462750000 ns
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.282316] futex hash table entries: 256 (order: -1, 3072 bytes)
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.288874] pinctrl core: initialized pinctrl subsystem
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.296433] NET: Registered protocol family 16
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.303198] DMA: preallocated 256 KiB pool for atomic coherent allocations
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.316783] <DT> nuc980_dt_device_init +
Thu Jan 1 00:00:26 1970 kern.info kernel: [0.348016] <DT> nuc980_dt_device_init -

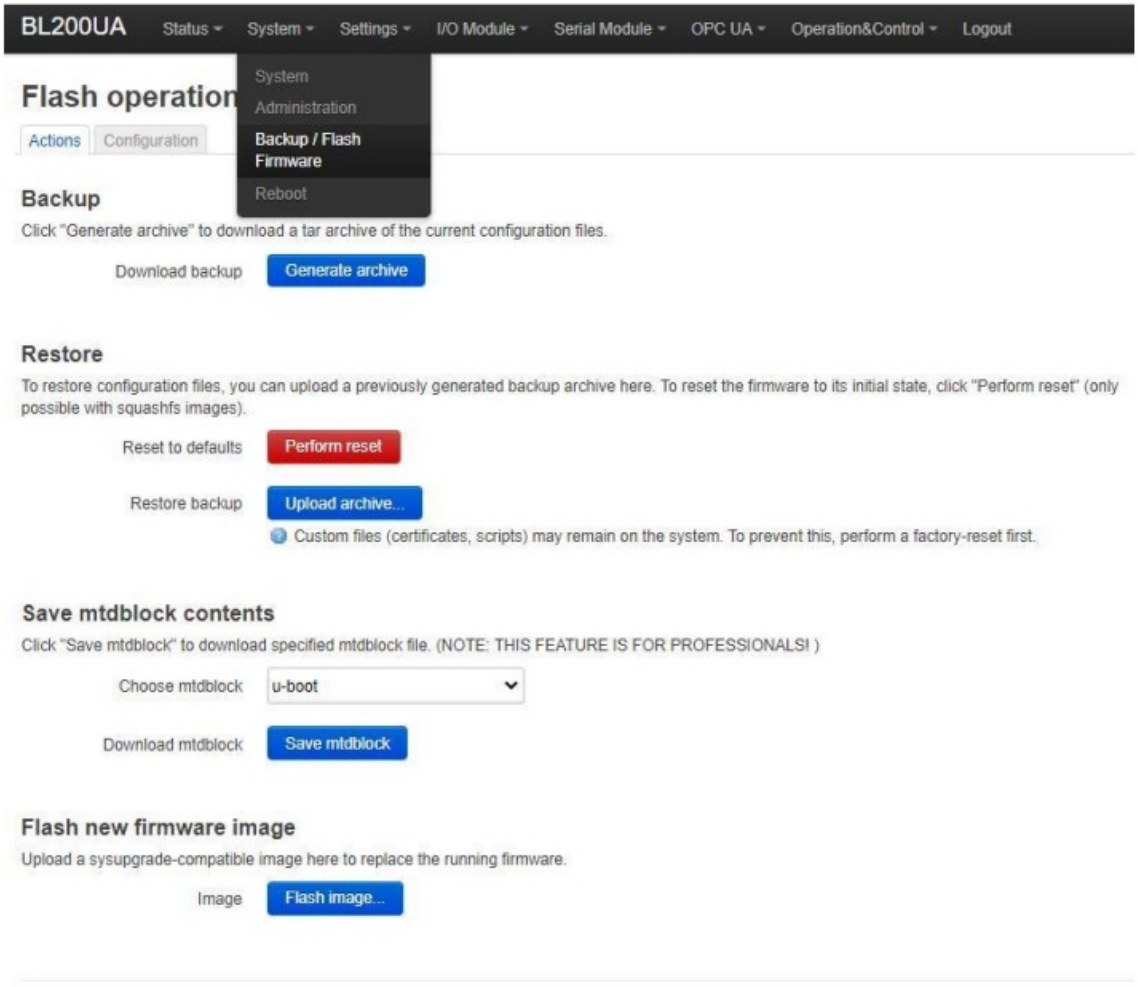

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
Kernel Log
[0.000000] Booting Linux on physical CPU 0x0
[0.000000] Linux version 4.4.194 (peng@peng) (gcc version 5.4.0 (LEDE GCC 5.4.0 unknown)) #0 PREEMPT Sat May 9 15:23:54 2020
[0.000000] CPU: ARM926EJ-S [41069265] revision 5 (ARMv5TEJ), cr=0005317f
[0.000000] CPU: VIVT data cache, VIVT instruction cache
[0.000000] Machine model: Nuvoton NUC980 IOT-GateWay Version: 0.1
[0.000000] Memory policy: Data cache writeback
[0.000000] On node 0 totalpages: 16384
[0.000000] free_area_init_node: node 0, pgdat c0657704, node_mem_map c3f77000
[0.000000] Normal zone: 128 pages used for memmap
[0.000000] Normal zone: 0 pages reserved
[0.000000] Normal zone: 16384 pages, LIFO batch:3
[0.000000] pcpu-alloc: s0 r0 d32768 u32768 alloc=1*32768
[0.000000] pcpu-alloc: [0] 0
[0.000000] Built 1 zonelists in Zone order, mobility grouping on. Total pages: 16256
[0.000000] Kernel command line: root=/dev/mtdblock2 console=ttyS0,115200n8 rdinit=/sbin/init mem=64M lpj=744448
[0.000000] PID hash table entries: 256 (order: -2, 1024 bytes)
[0.000000] Dentry cache hash table entries: 8192 (order: 3, 32768 bytes)
[0.000000] Inode-cache hash table entries: 4096 (order: 2, 16384 bytes)
[0.000000] Memory: 57756K/65536K available (4536K kernel code, 305K rwdata, 1704K rodata, 188K init, 252K bss, 7780K reserved, 0K cma-reserved)
[0.000000] Virtual kernel memory layout:
[0.000000] vector : 0xffff0000 - 0xffff1000 (4 kB)
[0.000000] fixmap : 0xffc00000 - 0xfff00000 (3072 kB)
[0.000000] vmalloc : 0xc4800000 - 0xff800000 (944 MB)
[0.000000] lowmem : 0xc0000000 - 0xc4000000 (64 MB)
[0.000000] modules : 0xbf000000 - 0xc0000000 (16 MB)
[0.000000] .text : 0xc0008000 - 0xc0620f54 (6244 kB)
[0.000000] .init : 0xc0621000 - 0xc0650000 (188 kB)
[0.000000] .data : 0xc0650000 - 0xc069c784 (306 kB)
[0.000000] .bss : 0xc069c784 - 0xc06db8f8 (253 kB)
[0.000000] SLUB: HWalign=32, Order=0-3, MinObjects=0, CPUs=1, Nodes=1
[0.000000] Preemptible hierarchical RCU implementation.
[0.000000] Build-time adjustment of leaf fanout to 32.
[0.000000] NR_IRQS:545
[0.000000] clocksource: nuc980-timer5: mask: 0xffffff max_cycles: 0xffffff, max_idle_ns: 62215505635 ns
[0.000033] sched_clock: 24 bits at 120kHz, resolution 8333ns, wraps every 69905062489ns
[0.000741] Console: colour dummy device 80x30
[0.186616] console [ttyS0] enabled
[0.190091] Calibrating delay loop (skipped) preset value.. 148.88 BogoMIPS (lpj=744448)
[0.196174] pid_max: default: 32768 minimum: 301
[0.203133] Mount-cache hash table entries: 1024 (order: 0, 4096 bytes)
[0.209708] Mountpoint-cache hash table entries: 1024 (order: 0, 4096 bytes)
[0.218916] CPU: Testing write buffer coherency: ok
[0.224983] Setting up static identity map for 0x8400 - 0x843c
[0.271558] clocksource: jiffies: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 19112604462750000 ns
[0.282316] futex hash table entries: 256 (order: -1, 3072 bytes)
[0.288874] pinctrl core: initialized pinctrl subsystem
[0.296433] NET: Registered protocol family 16
[0.303199] DMA: preallocated 256 KiB pool for atomic coherent allocations
[0.316783] <DT> nuc980_dt_device_init +

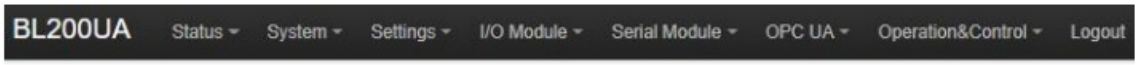

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
REFRESHING
System
Administration
Backup / Flash Firmware
Reboot
System
Here you can configure the ba
ke its hostname or the timezone.
System Properties
General Settings
Logging
Language and Style
Local Time
2022/3/21 下午2:58:56
Sync with browser
Sync with NTP-Server
Hostname
BL200UA
Timezone
UTC
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17


BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
REFRESHING
System
Here you can configure the basic aspects of your device like its hostname or the timezone.
System Properties
General Settings
Logging
Time Synchronization
Language and Style
System log buffer size
64
kiB
External system log server
0.0.0.0
External system log server port
514
External system log server protocol
UDP
Write system log to file
/tmp/system.log
Log output level
Debug
Cron Log Level
Debug
Save & Apply
Save
Reset
BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
REFRESHING
System
Here you can configure the basic aspects of your device like its hostname or the timezone.
System Properties
General Settings
Logging
Time Synchronization
Language and Style
Enable NTP client
Provide NTP server
Use DHCP advertised servers
NTP server candidates
0.openwrt.pool.ntp.org
1.openwrt.pool.ntp.org
2.openwrt.pool.ntp.org
3.openwrt.pool.ntp.org
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17


BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
System
Administration
Backup / Flash Firmware
Reboot
Router Password
SSH-Key
Router Passwo
Changes the administrator pas
vice
Password
Confirmation
Save
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17


BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
Router Password
SSH-Keys
SSH-Keys
Public keys allow for the passwordless SSH logins with a higher security compared to the use of plain passwords. In order to upload a new key to the device, paste an OpenSSH compatible public key line or drag a .pub file into the input field.
No public keys present yet.
Paste or drag SSH key file...
Add key
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17

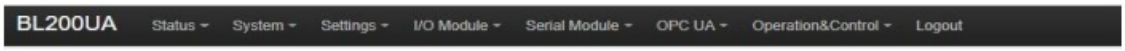

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
System
Administration
Backup / Flash Firmware
Reboot
Flash operation
Actions
Configuration
Backup
Click "Generate archive" to download a tar archive of the current configuration files.
Download backup
Generate archive
Restore
To restore configuration files, you can upload a previously generated backup archive here. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs images).
Reset to defaults
Perform reset
Restore backup
Upload archive...
Custom files (certificates, scripts) may remain on the system. To prevent this, perform a factory-reset first.
Save mtdblock contents
Click "Save mtdblock" to download specified mtdblock file. (NOTE: THIS FEATURE IS FOR PROFESSIONALS!)
Choose mtdblock
u-boot
Download mtdblock
Save mtdblock
Flash new firmware image
Upload a sysupgrade-compatible image here to replace the running firmware.
Image
Flash image...
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17



Reboot

Reboots the operating system of your device

Perform reboot



Device settings

Device settings

Modbus Device ID: 1

If not set or set to 0, the device ID in the Modbus command is ignored

Modbus TCP port: 502

Dial switch address: 192.168.1.253

The 3rd segment of IP address is determined by dial switch, restart the device and the modification will take effect

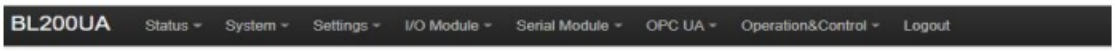
IP Address Type: Static Address

Set device IP address:

Subnet Mask: 255.255.255.0

Gateway address:

Save & Apply | Save | Reset



IO status

IO Slot	Module Name	Module Type	Channel Number	Modbus Address	24V Address-State	Soft Version	IO Status	Channel Status
1	M1081	DI	8	2000-2007	9001-Power On	5	Normal	Channel Status
2	M2082	DO	8	1000-1007	9002-Power On	5	Normal	Channel Status
3	M3041	AI	4	3000-3006	9003-Power On	5	Normal	Channel Status
4	M4044	AO	4	4000-4006	9004-Power On	5	Normal	Channel Status
5	M6021	COM	2	0-0	9005-Power On	5	Normal	Channel Status

IO status

IO Slot:1,Module Type:DI,Module Name:M1081

Channels	Modbus Address	Value
1	2000	Open
2	2001	Open
3	2002	Open
4	2003	Open
5	2004	Open
6	2005	Open
7	2006	Open
8	2007	Open

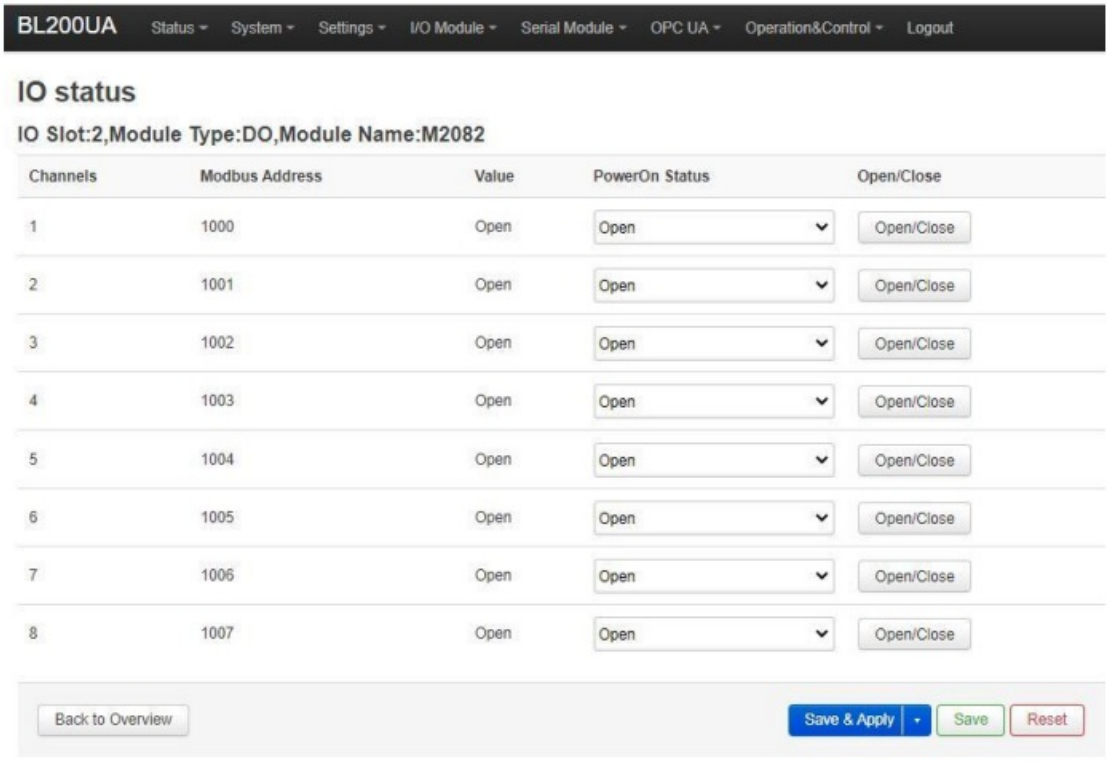
Fiter Time

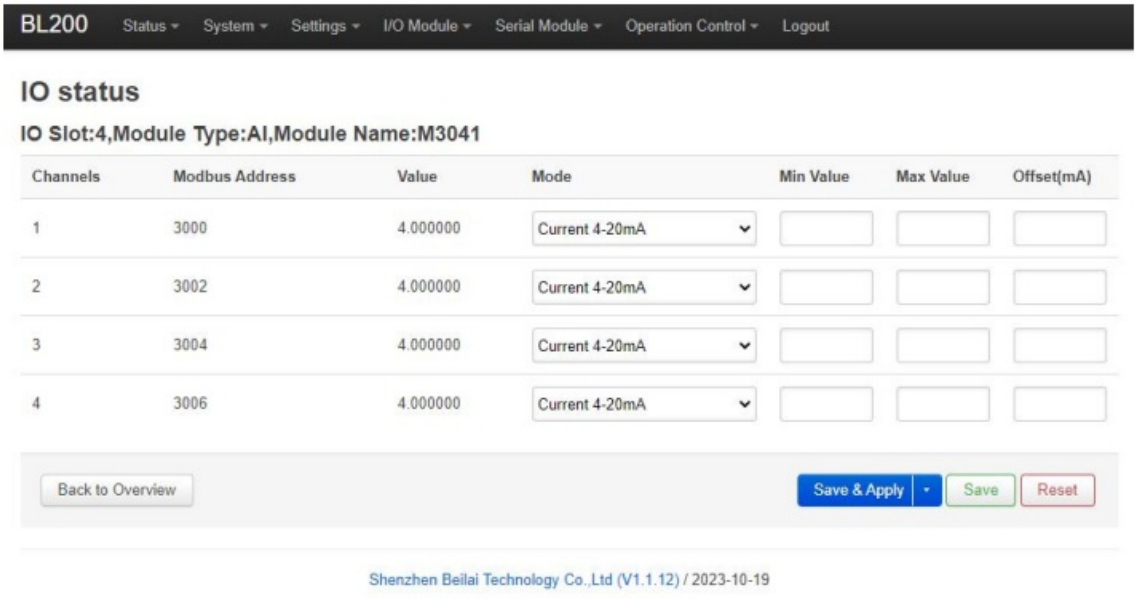
Fiter Time(ms) 1.6

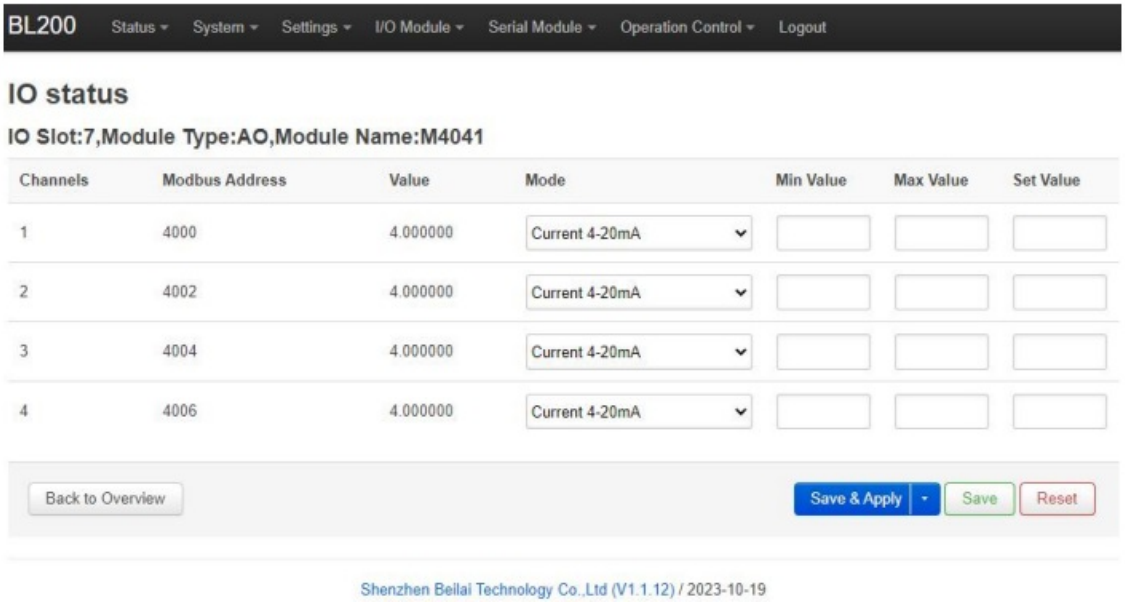
DI Count

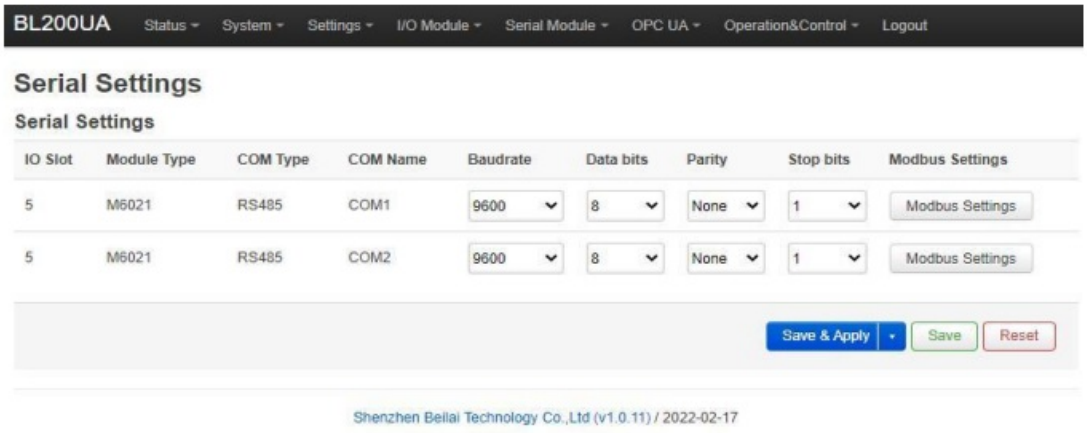
Channels	Modbus Address	Value	Conut Mode	Clear
1	5000	0	Rising Edge	Clear
2	5002	0	Rising Edge	Clear
3	5004	0	Rising Edge	Clear
4	5006	0	Rising Edge	Clear
5	5008	0	Rising Edge	Clear
6	5010	0	Rising Edge	Clear
7	5012	0	Rising Edge	Clear
8	5014	0	Rising Edge	Clear

Back to Overview Save & Apply Save Reset

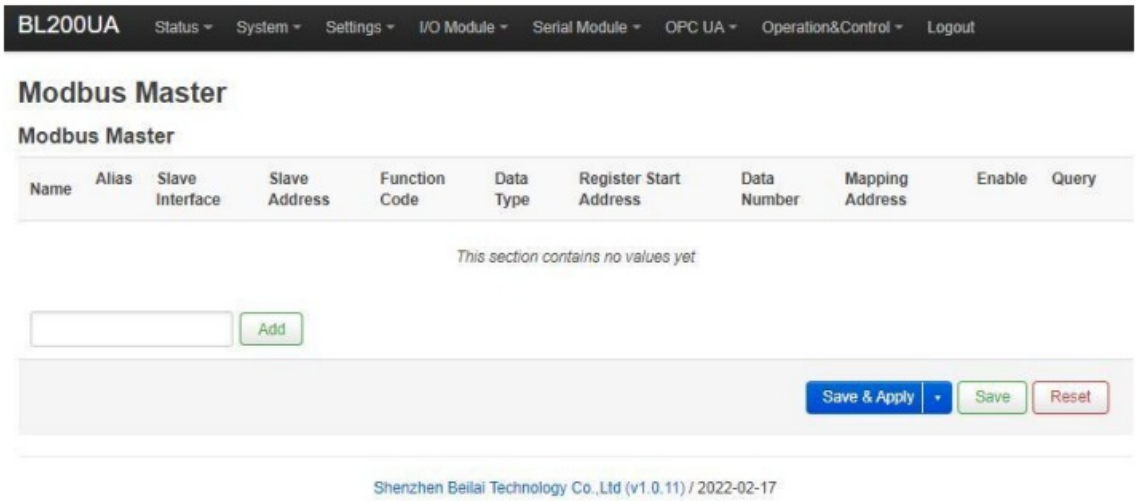

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
IO status
IO Slot:2,Module Type:DO,Module Name:M2082
Channels
Modbus Address
Value
PowerOn Status
Open/Close
1 1000 Open Open Open/Close
2 1001 Open Open Open/Close
3 1002 Open Open Open/Close
4 1003 Open Open Open/Close
5 1004 Open Open Open/Close
6 1005 Open Open Open/Close
7 1006 Open Open Open/Close
8 1007 Open Open Open/Close
Back to Overview
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17


BL200
Status
System
Settings
I/O Module
Serial Module
Operation Control
Logout
IO status
IO Slot:4,Module Type:AI,Module Name:M3041
Channels
Modbus Address
Value
Mode
Min Value
Max Value
Offset(mA)
1 3000 4.000000 Current 4-20mA
2 3002 4.000000 Current 4-20mA
3 3004 4.000000 Current 4-20mA
4 3006 4.000000 Current 4-20mA
Back to Overview
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19


BL200
Status
System
Settings
I/O Module
Serial Module
Operation Control
Logout
IO status
IO Slot:7,Module Type:AO,Module Name:M4041
Channels
Modbus Address
Value
Mode
Min Value
Max Value
Set Value
1 4000 4.000000 Current 4-20mA
2 4002 4.000000 Current 4-20mA
3 4004 4.000000 Current 4-20mA
4 4006 4.000000 Current 4-20mA
Back to Overview
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19

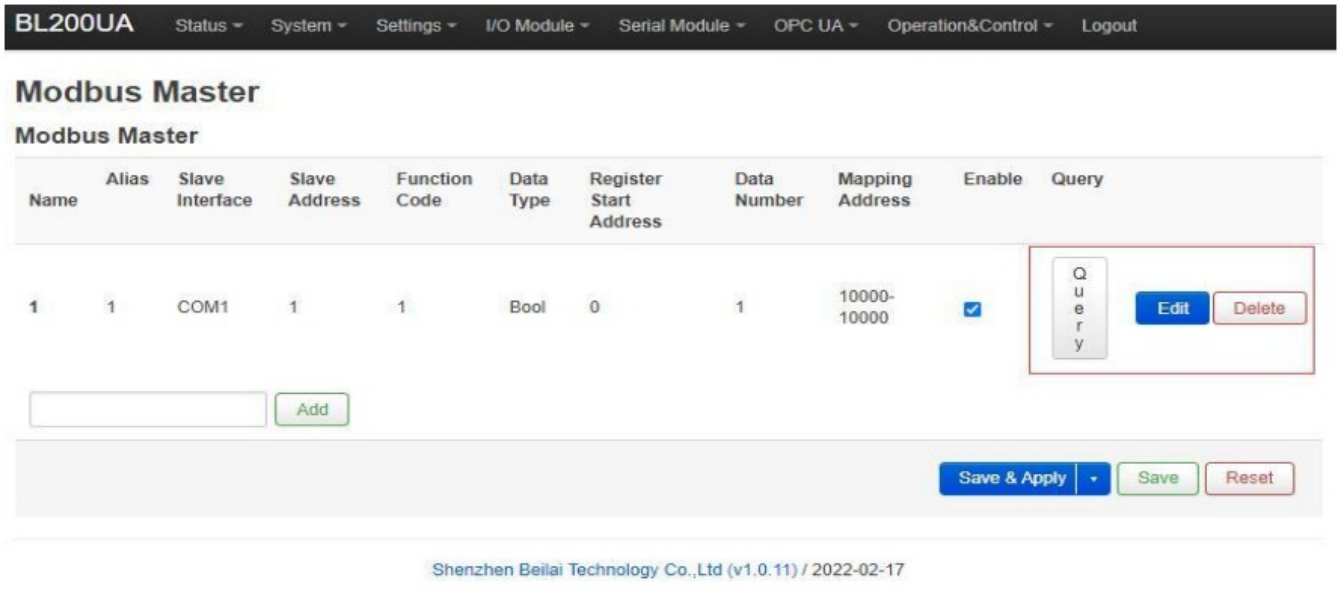

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
Serial Settings
Serial Settings
IO Slot
Module Type
COM Type
COM Name
Baudrate
Data bits
Parity
Stop bits
Modbus Settings
5
M6021
RS485
COM1
9600
8
None
1
Modbus Settings
5
M6021
RS485
COM2
9600
8
None
1
Modbus Settings
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17

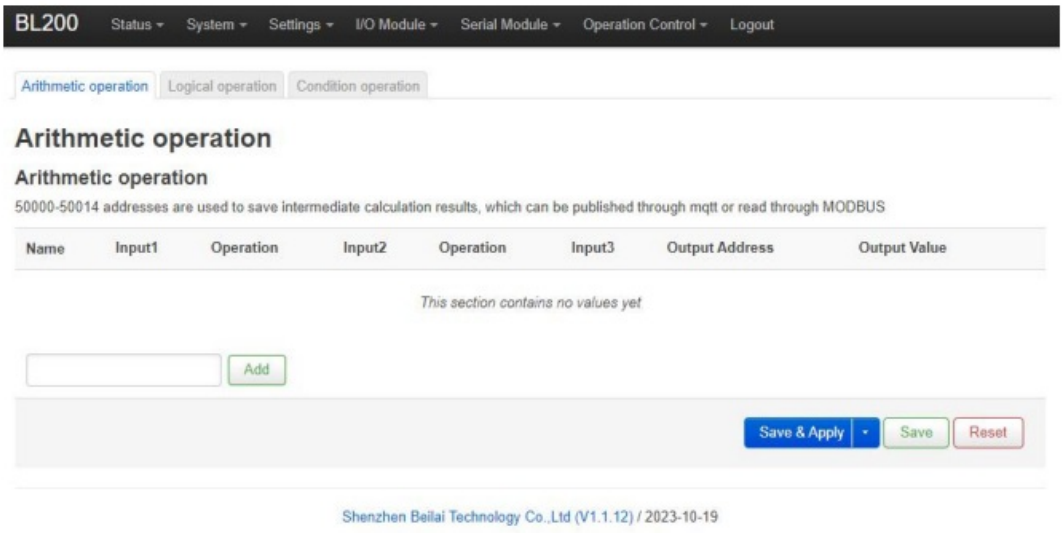

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
Modbus Master
Modbus Master
Name
Alias
Slave Interface
Slave Address
Function Code
Data Type
Register Start Address
Data Number
Mapping Address
Enable
Query
This section contains no values yet
Add
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17

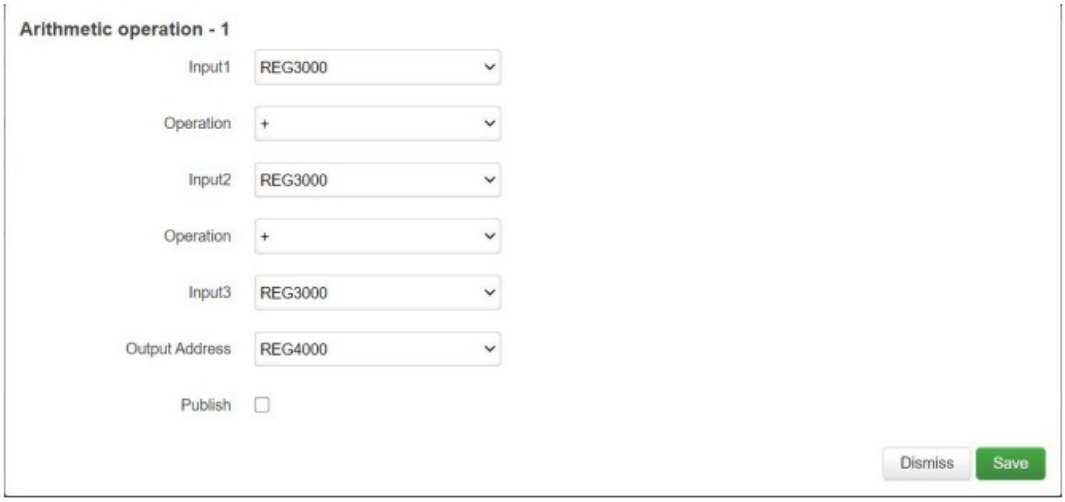

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
Modbus Master
Modbus Master
Name
Alias
Slave Interface
Slave Address
Function Code
Data Type
Register Start Address
Data Number
Mapping Address
Enable
Query
This section contains no values yet
Add
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17

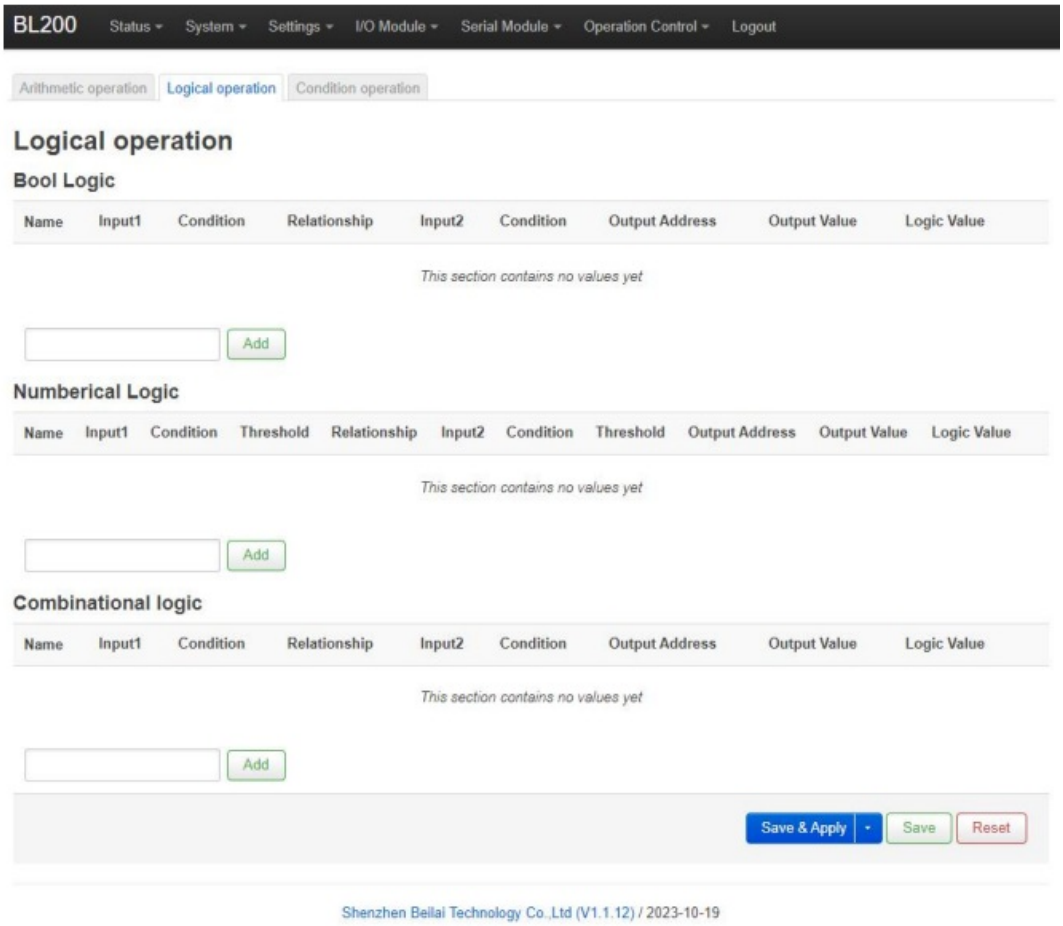
Modbus Master - 1

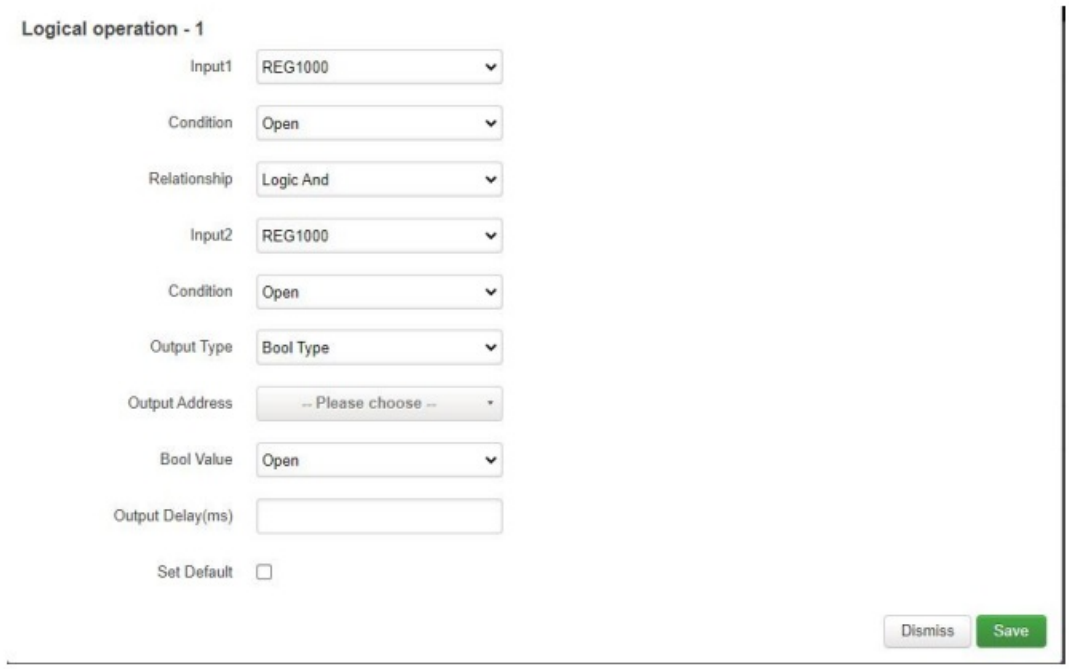
Alias	
Slave Interface	COM1
Slave Address	
Function Code	01-Digital Output
Register Start Address	0
Data Number	
Mapping address alloc	Auto
Polling period(s)	
	If not set, the default is 0.2s
Response timeout(s)	
	If not set, the default is 0.5s

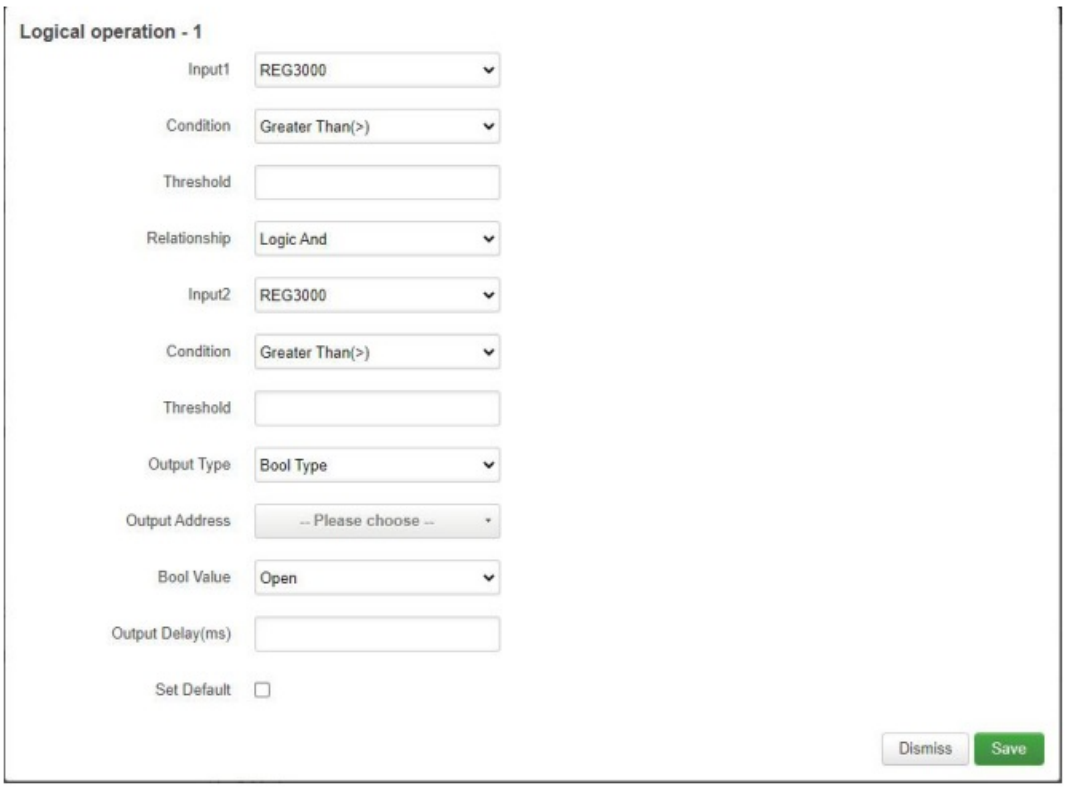



BL200
Status
System
Settings
I/O Module
Serial Module
Operation Control
Logout
Arithmetic operation
Logical operation
Condition operation
Arithmetic operation
Arithmetic operation
50000-50014 addresses are used to save intermediate calculation results, which can be published through mqtt or read through MODBUS
Name
Input1
Operation
Input2
Operation
Input3
Output Address
Output Value
This section contains no values yet
Add
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19


Arithmetic operation - 1
Input1
REG3000
Operation
+
Input2
REG3000
Operation
+
Input3
REG3000
Output Address
REG4000
Publish
Dismiss
Save

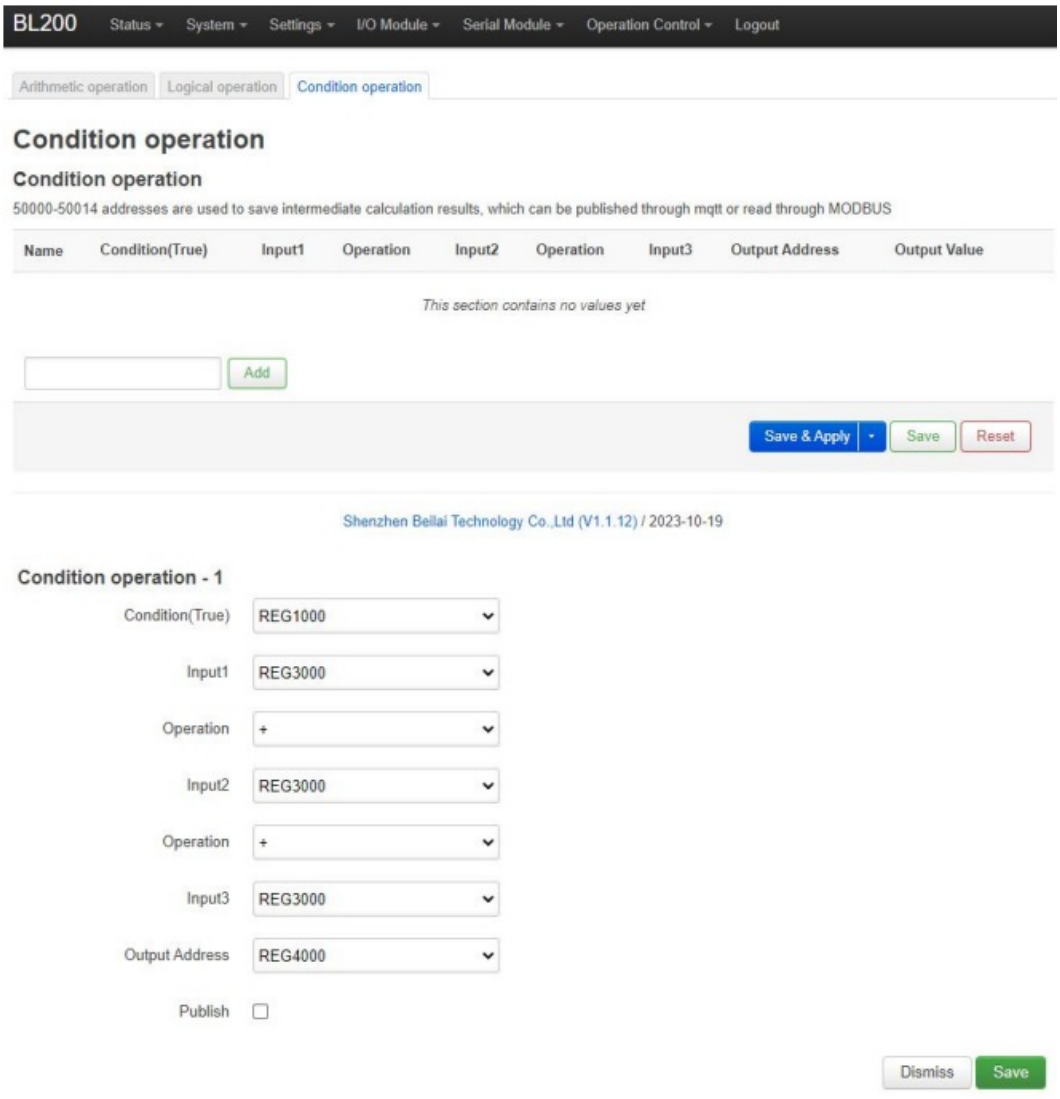

BL200
Status
System
Settings
I/O Module
Serial Module
Operation Control
Logout
Arithmetic operation
Logical operation
Condition operation
Logical operation
Bool Logic
Name
Input1
Condition
Relationship
Input2
Condition
Output Address
Output Value
Logic Value
This section contains no values yet
Add
Numberical Logic
Name
Input1
Condition
Threshold
Relationship
Input2
Condition
Threshold
Output Address
Output Value
Logic Value
This section contains no values yet
Add
Combinational logic
Name
Input1
Condition
Relationship
Input2
Condition
Output Address
Output Value
Logic Value
This section contains no values yet
Add
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19


Logical operation - 1
Input1
REG1000
Condition
Open
Relationship
Logic And
Input2
REG1000
Condition
Open
Output Type
Bool Type
Output Address
-- Please choose --
Bool Value
Open
Output Delay(ms)
Set Default
Dismiss
Save


Logical operation - 1
Input1
REG3000
Condition
Greater Than(>)
Threshold
Relationship
Logic And
Input2
REG3000
Condition
Greater Than(>)
Threshold
Output Type
Bool Type
Output Address
-- Please choose --
Bool Value
Open
Output Delay(ms)
Set Default
Dismiss
Save

Logical operation - 3

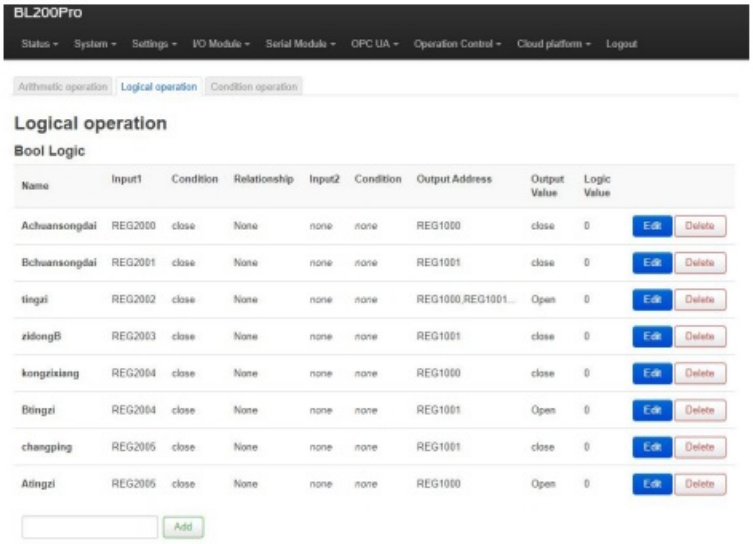
Input1	1
Condition	Is true
Relationship	Logic And
Input2	2
Condition	Is true
Output Type	Bool Type
Output Address	-- Please choose --
Bool Value	Open
Output Delay(ms)	
Set Default	☐

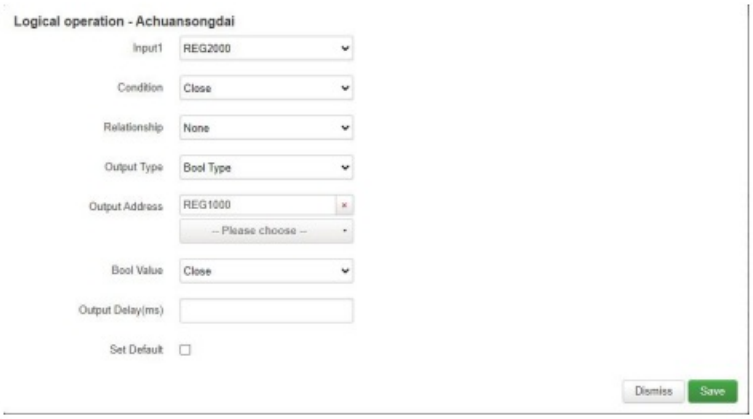


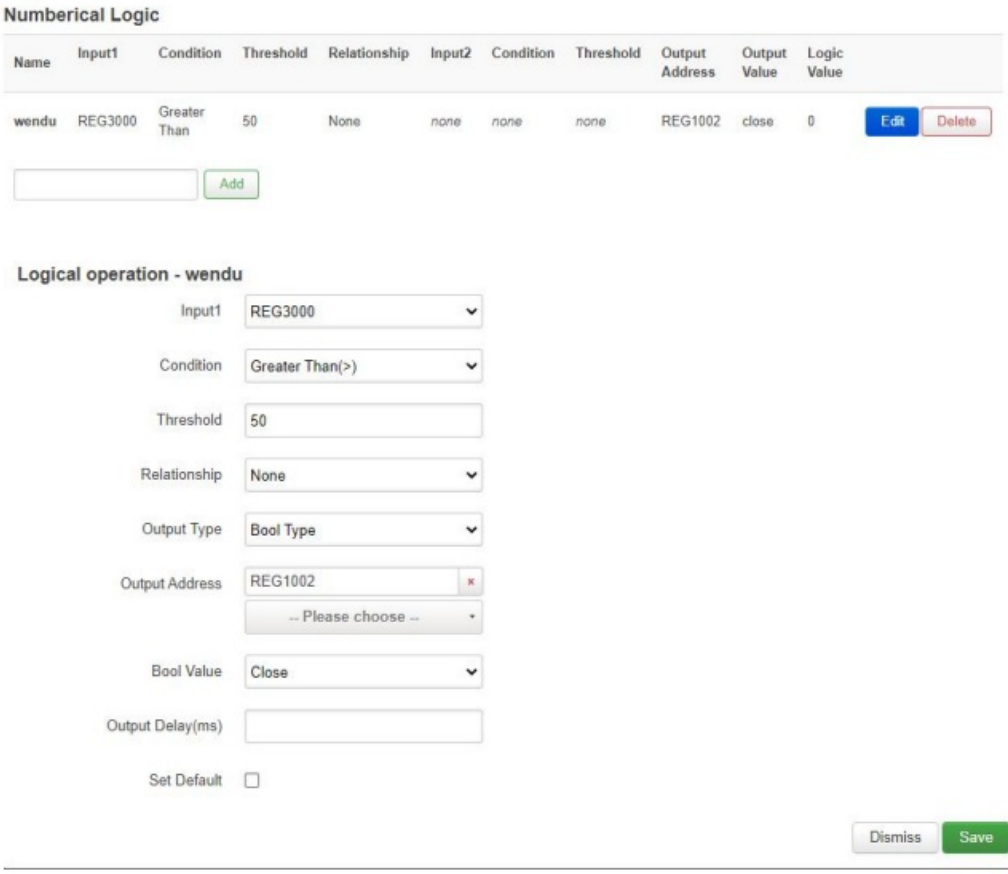
Condition operation - 1

Condition(True)	REG1000
Input1	REG3000
Operation	+
Input2	REG3000
Operation	+
Input3	REG3000
Output Address	REG4000
Publish	☐

Dismiss Save


BL200Pro
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation Control
Cloud platform
Logout
Arithmetic operation
Logical operation
Condition operation
Logical operation
Bool Logic
Name
Input1
Condition
Relationship
Input2
Condition
Output Address
Output Value
Logic Value
Achuansongdai REG2000 close None none none REG1000 close 0 Edit Delete
Bchuansongdai REG2001 close None none none REG1001 close 0 Edit Delete
tingzi REG2002 close None none none REG1000,REG1001... Open 0 Edit Delete
zidongB REG2003 close None none none REG1001 close 0 Edit Delete
kongzixiang REG2004 close None none none REG1000 close 0 Edit Delete
Btingzi REG2004 close None none none REG1001 Open 0 Edit Delete
changping REG2005 close None none none REG1001 close 0 Edit Delete
Atingzi REG2005 close None none none REG1000 Open 0 Edit Delete
Add


Logical operation - Achuansongdai
Input1 REG2000
Condition Close
Relationship None
Output Type Bool Type
Output Address REG1000
-- Please choose --
Bool Value Close
Output Delay(ms)
Set Default
Dismiss
Save


Numberical Logic
Name
Input1
Condition
Threshold
Relationship
Input2
Condition
Threshold
Output Address
Output Value
Logic Value
wendu REG3000 Greater Than 50 None none none none REG1002 close 0 Edit Delete
Add

Logical operation - wendu
Input1 REG3000
Condition Greater Than(>)
Threshold 50
Relationship None
Output Type Bool Type
Output Address REG1002
-- Please choose --
Bool Value Close
Output Delay(ms)
Set Default
Dismiss
Save

Combinational logic

Name	Input1	Condition	Relationship	Input2	Condition	Output Address	Output Value	Logic Value	
bj	zidongB	Is false	Logic And	wendu	Is true	REG1003	close	0	Edit Delete

Add

Logical operation - bj

Input1: zidongB

Condition: Is false

Relationship: Logic And

Input2: wendu

Condition: Is true

Output Type: Bool Type

Output Address: REG1003

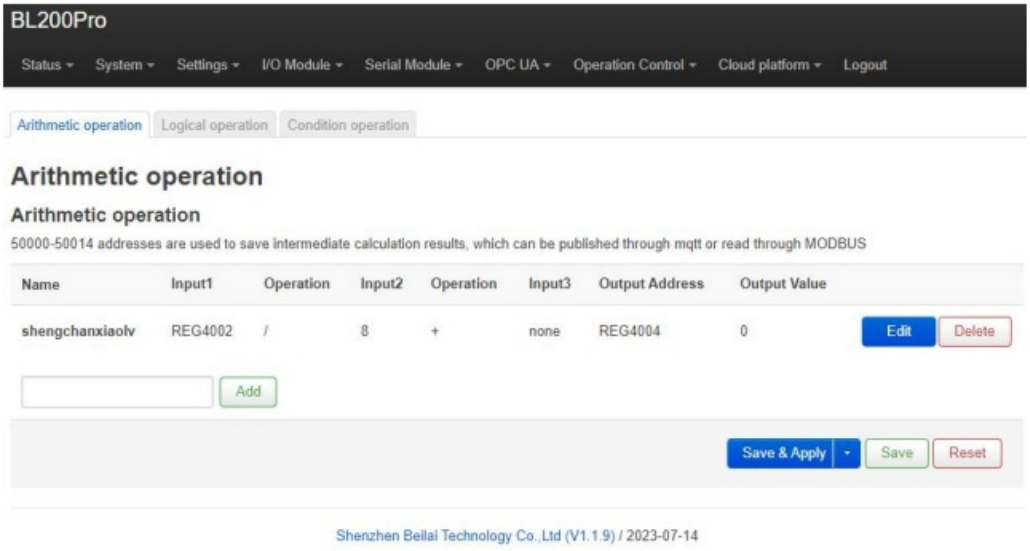
-- Please choose --

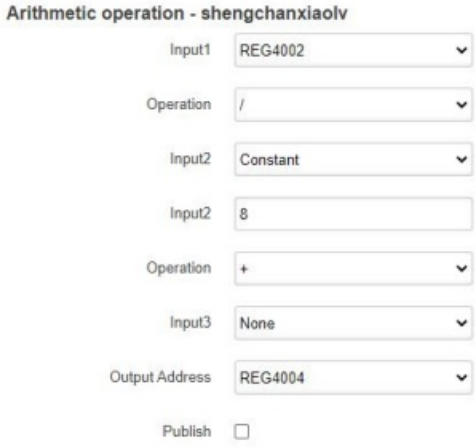
Bool Value: Close

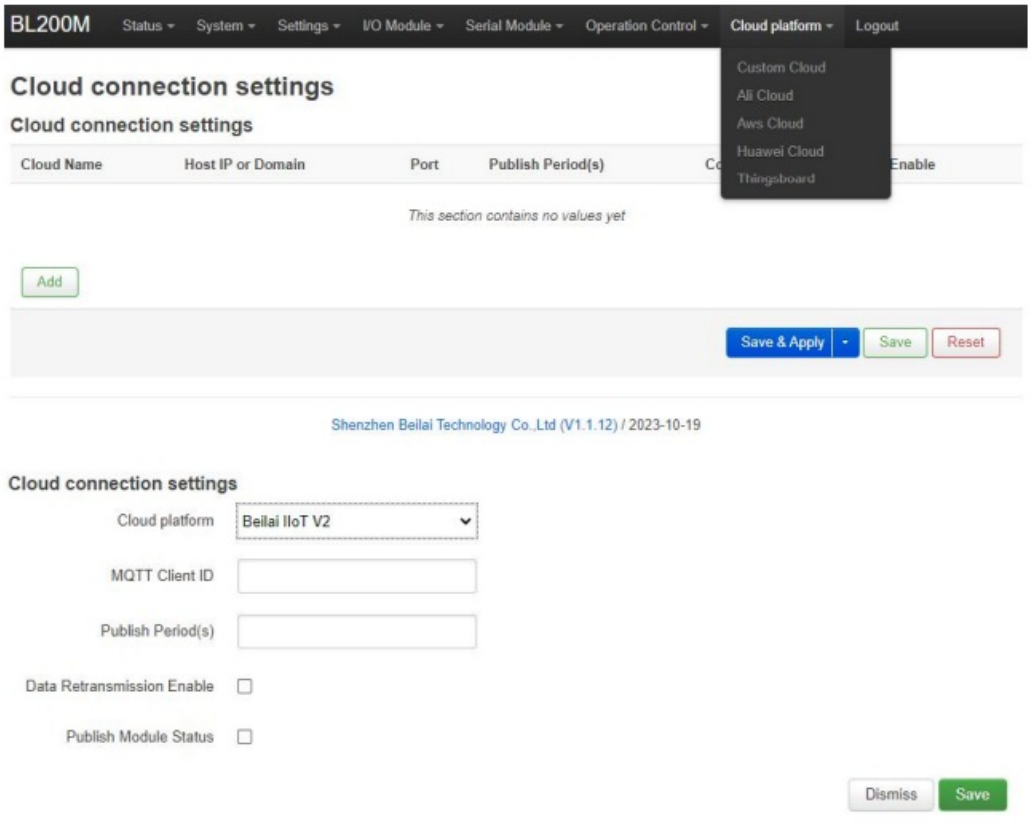
Output Delay(ms):

Set Default

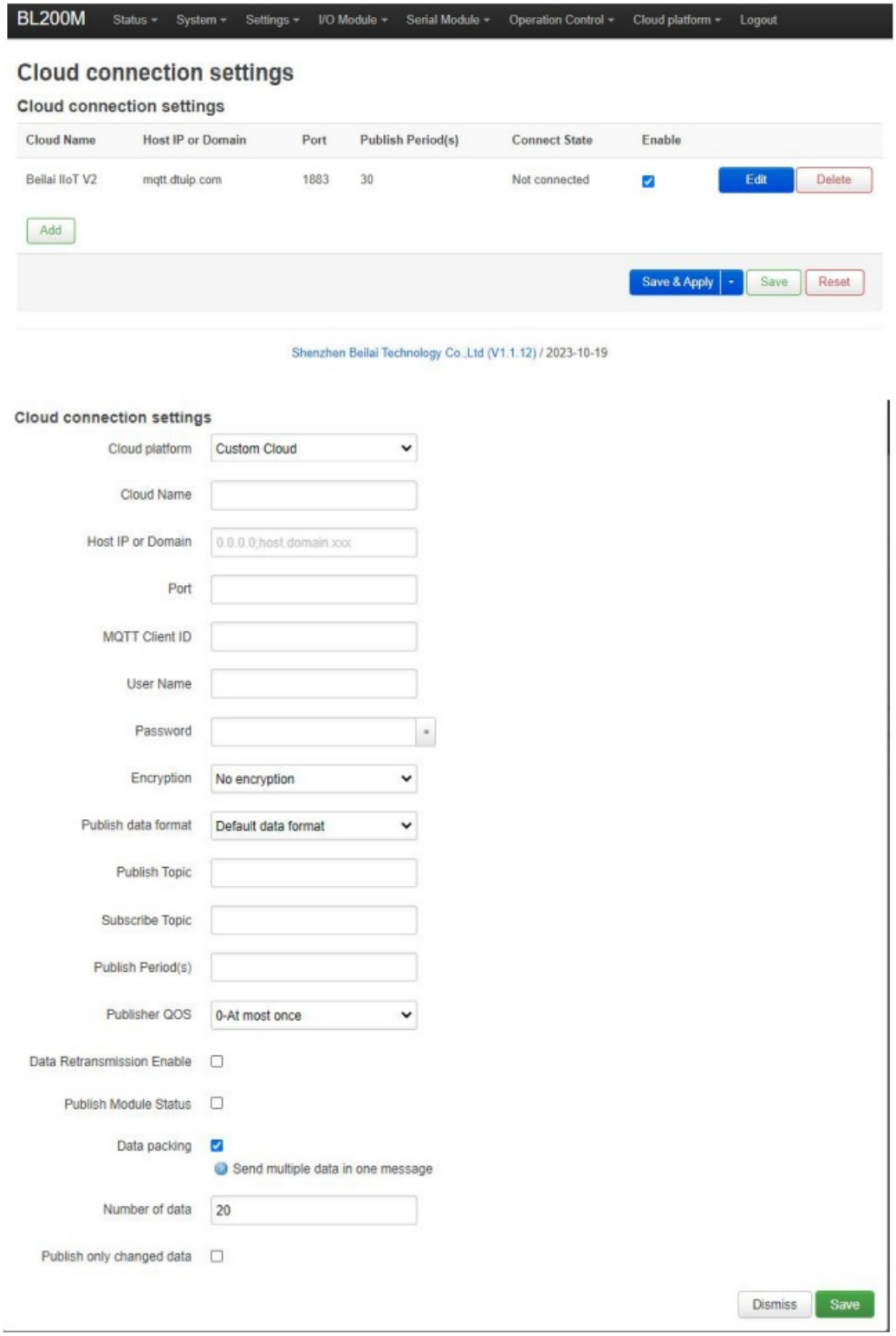
Dismiss Save


BL200Pro
Status System Settings I/O Module Serial Module OPC UA Operation Control Cloud platform Logout
Arithmetic operation
Logical operation
Condition operation
Arithmetic operation
Arithmetic operation
50000-50014 addresses are used to save intermediate calculation results, which can be published through mqtt or read through MODBUS
Name
Input1
Operation
Input2
Operation
Input3
Output Address
Output Value
shengchanxiaolv
REG4002
/
8
+
none
REG4004
0
Edit
Delete
Add
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.9) / 2023-07-14


Arithmetic operation - shengchanxiaolv
Input1
REG4002
Operation
/
Input2
Constant
Input2
8
Operation
+
Input3
None
Output Address
REG4004
Publish
Dismiss
Save


BL200M
Status System Settings I/O Module Serial Module Operation Control Cloud platform Logout
Custom Cloud
Ali Cloud
Aws Cloud
Huawei Cloud
Thingsboard
Cloud connection settings
Cloud connection settings
Cloud Name
Host IP or Domain
Port
Publish Period(s)
Enable
This section contains no values yet
Add
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19

Cloud connection settings
Cloud platform
Beilai IIoT V2
MQTT Client ID
Publish Period(s)
Data Retransmission Enable
Publish Module Status
Dismiss
Save


BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Cloud connection settings
Cloud connection settings
Cloud Name
Host IP or Domain
Port
Publish Period(s)
Connect State
Enable
Beilai IIoT V2
mqtt.dtuip.com
1883
30
Not connected
Edit
Delete
Add
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19
Cloud connection settings
Cloud platform
Custom Cloud
Cloud Name
Host IP or Domain
0.0.0.0;host.domain.xxx
Port
MQTT Client ID
User Name
Password
Encryption
No encryption
Publish data format
Default data format
Publish Topic
Subscribe Topic
Publish Period(s)
Publisher QOS
0-At most once
Data Retransmission Enable
Publish Module Status
Data packing
Send multiple data in one message
Number of data
20
Publish only changed data
Dismiss
Save

Publish data format: Custom data format

Publish Period(s): 10

Publisher QOS: 0-At most once

Data Retransmission Enable: ☑

Publish Module Status: ☑

Custom data format:

Data format example: ☑

Custom data format:

```
"使用'$'引用本机或MODBUS映射寄存器地址, 服务端使用'主题'+'/'(例如 '主题1/')作为发布主题来设置值"
"Use '$' to reference local or MODBUS mapping register address, use 'topic'+'/'(such as 'topic1/') as topic to set value"

{
 "topic1":{
      "property1": {
         "data1":"$REG1000",
         "data2":"$REG2000"
      },
      "property2": {
         "data1":"$REG3000",
         "data2":"$REG4000",
         "time":"$TIME"
```

BL200M | Status | System | Settings | I/O Module | Serial Module | Operation Control | Cloud platform | Logout

Ali cloud settings

Ali cloud settings

Enable: ☐

Authentication method: Device Serect

Product Key(ProductKey):

Device Name(DeviceName):

Device Serect(DeviceSerect):

Region ID: East China 2

Publish Period(s):

Publish only changed data: ☐

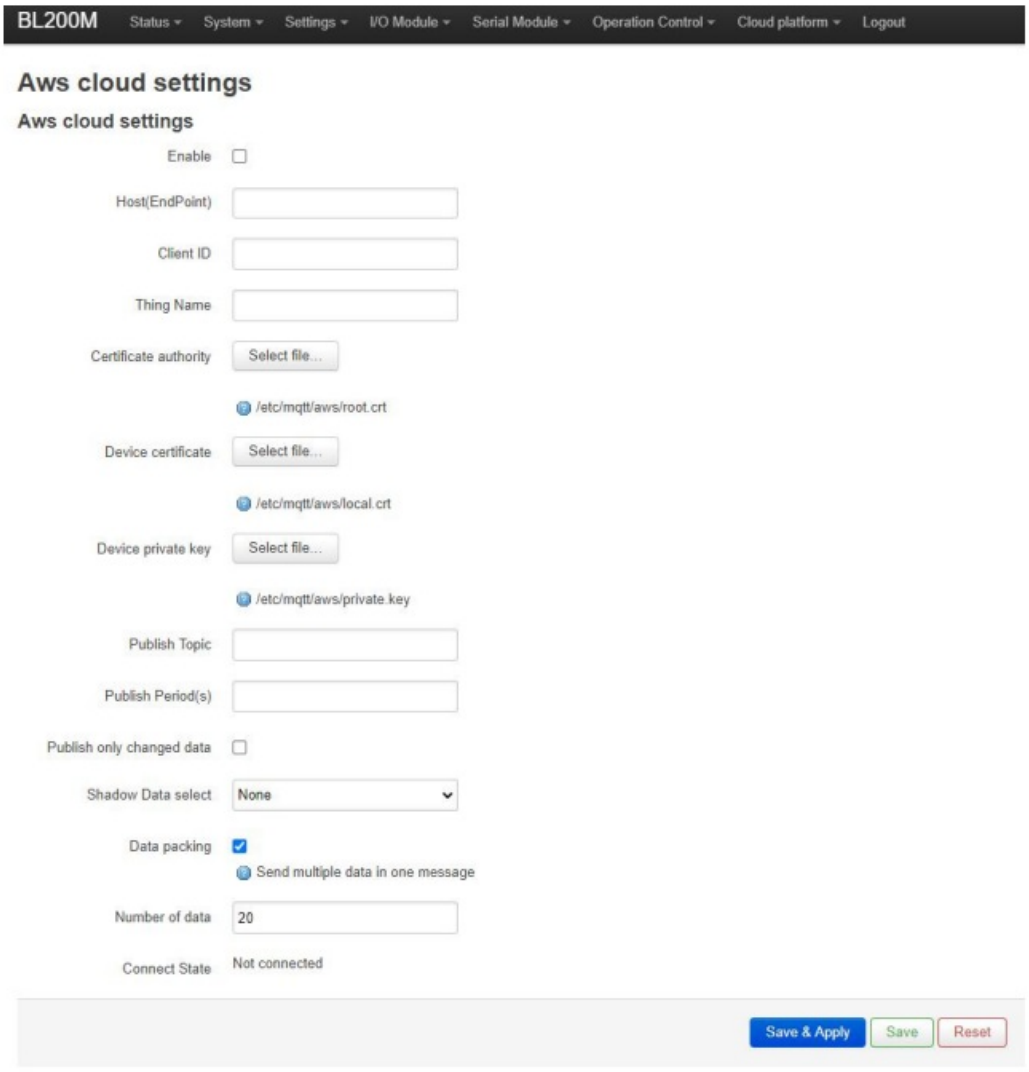
Data packing: ☑

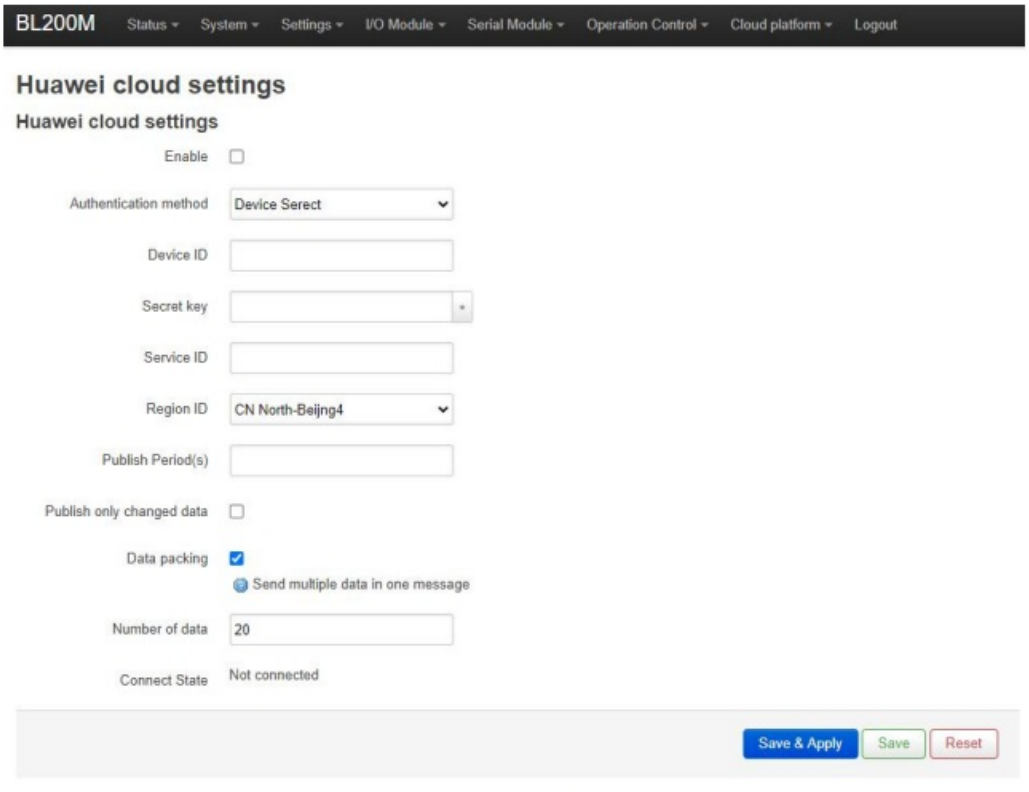
Send multiple data in one message

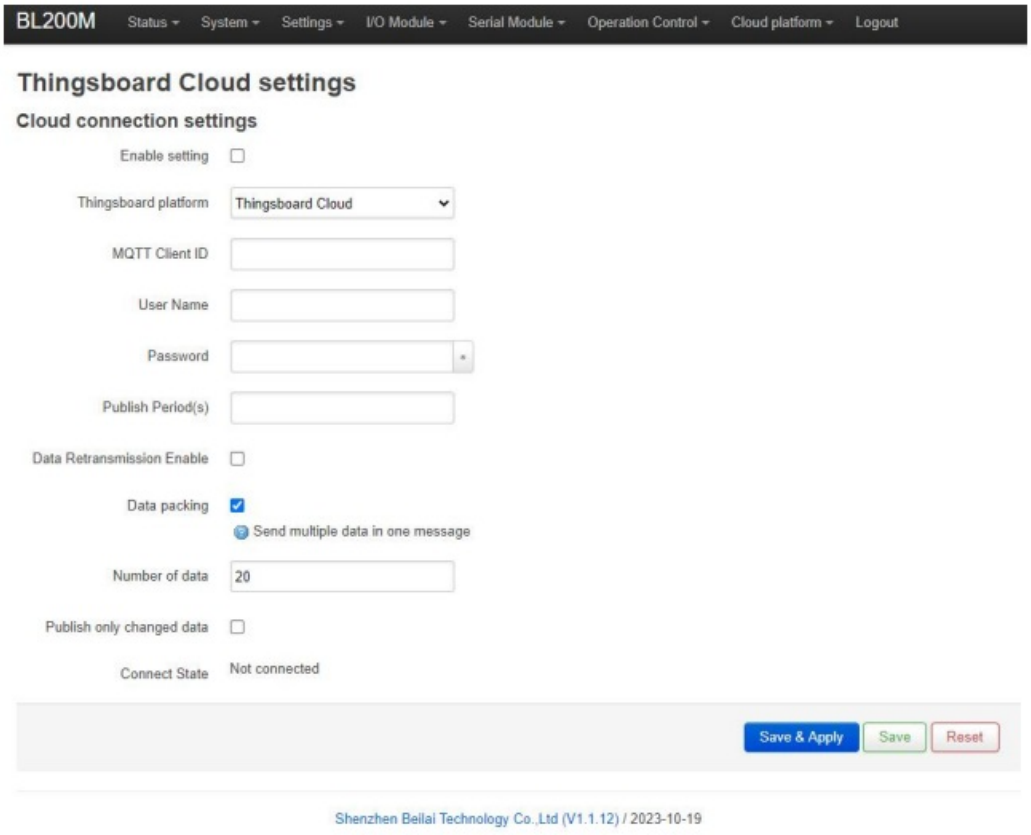
Number of data: 20

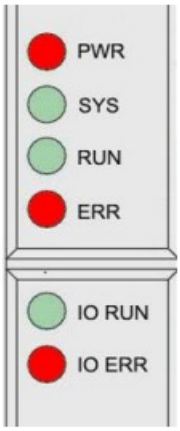
Connect State: Not connected

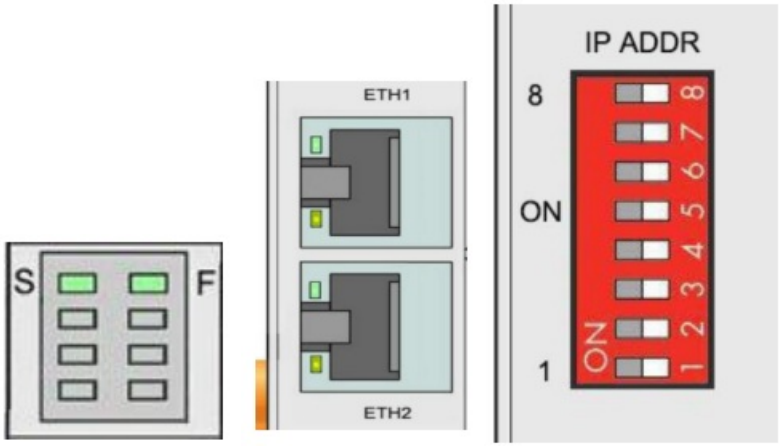
Save & Apply | Save | Reset

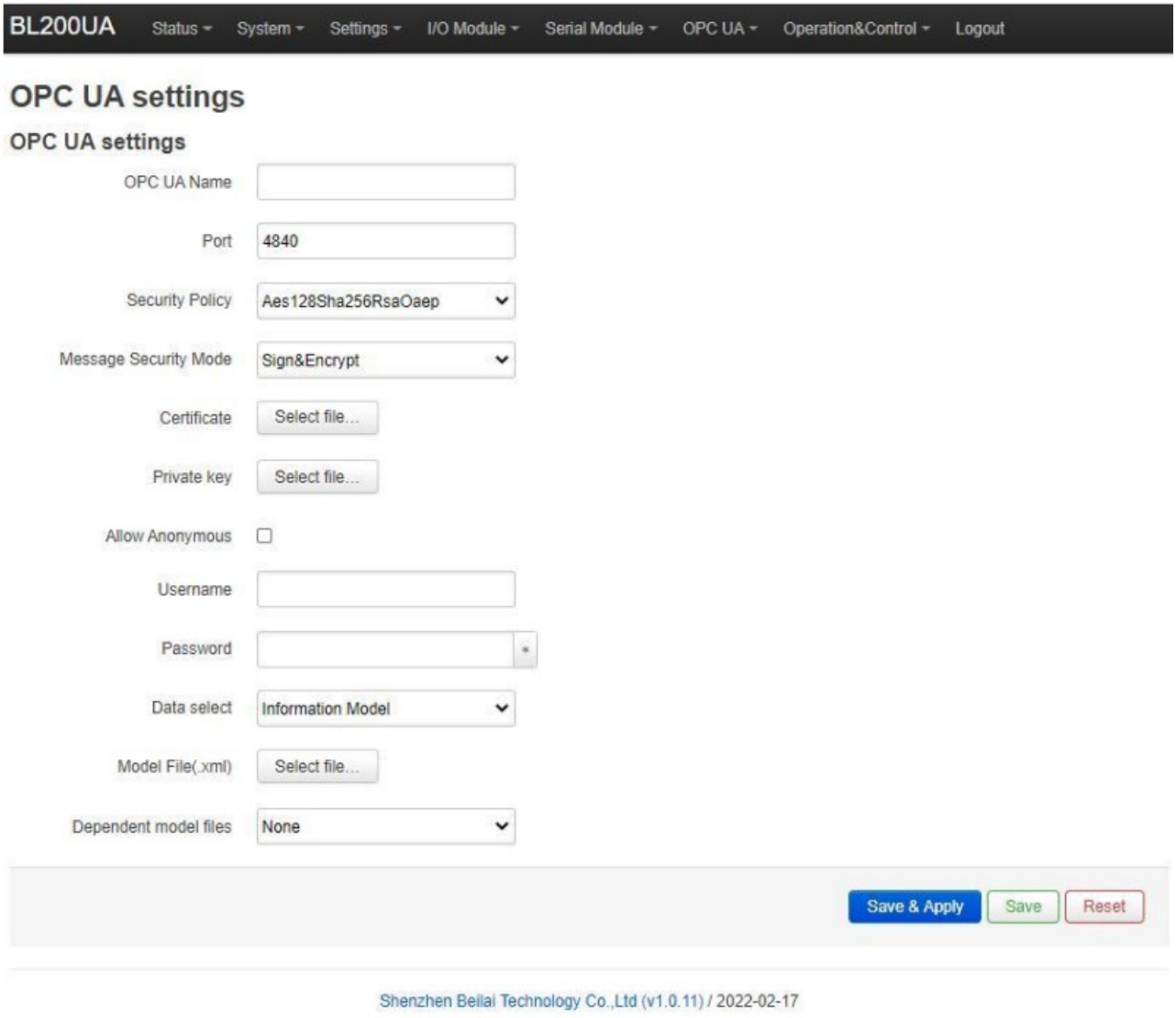

BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Aws cloud settings
Aws cloud settings
Enable
Host(EndPoint)
Client ID
Thing Name
Certificate authority
Select file...
/etc/mqtt/aws/root.crt
Device certificate
Select file...
/etc/mqtt/aws/local.crt
Device private key
Select file...
/etc/mqtt/aws/private.key
Publish Topic
Publish Period(s)
Publish only changed data
Shadow Data select
None
Data packing
Send multiple data in one message
Number of data
20
Connect State
Not connected
Save & Apply
Save
Reset

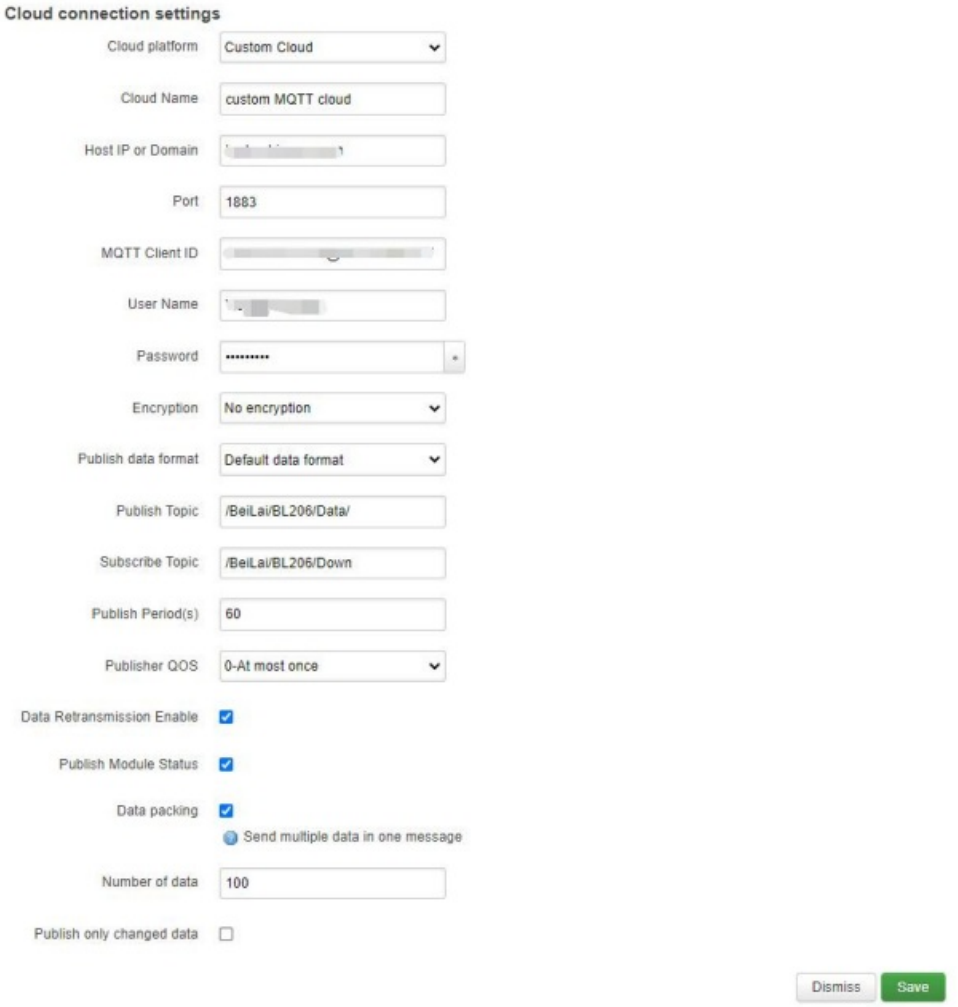

BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Huawei cloud settings
Huawei cloud settings
Enable
Authentication method
Device Serect
Device ID
Secret key
Service ID
Region ID
CN North-Beijng4
Publish Period(s)
Publish only changed data
Data packing
Send multiple data in one message
Number of data
20
Connect State
Not connected
Save & Apply
Save
Reset

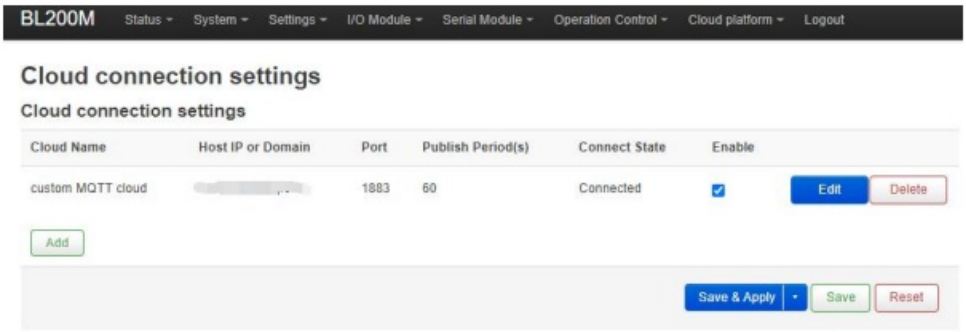

BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Thingsboard Cloud settings
Cloud connection settings
Enable setting
Thingsboard platform
Thingsboard Cloud
MQTT Client ID
User Name
Password
Publish Period(s)
Data Retransmission Enable
Data packing
Send multiple data in one message
Number of data
20
Publish only changed data
Connect State
Not connected
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19

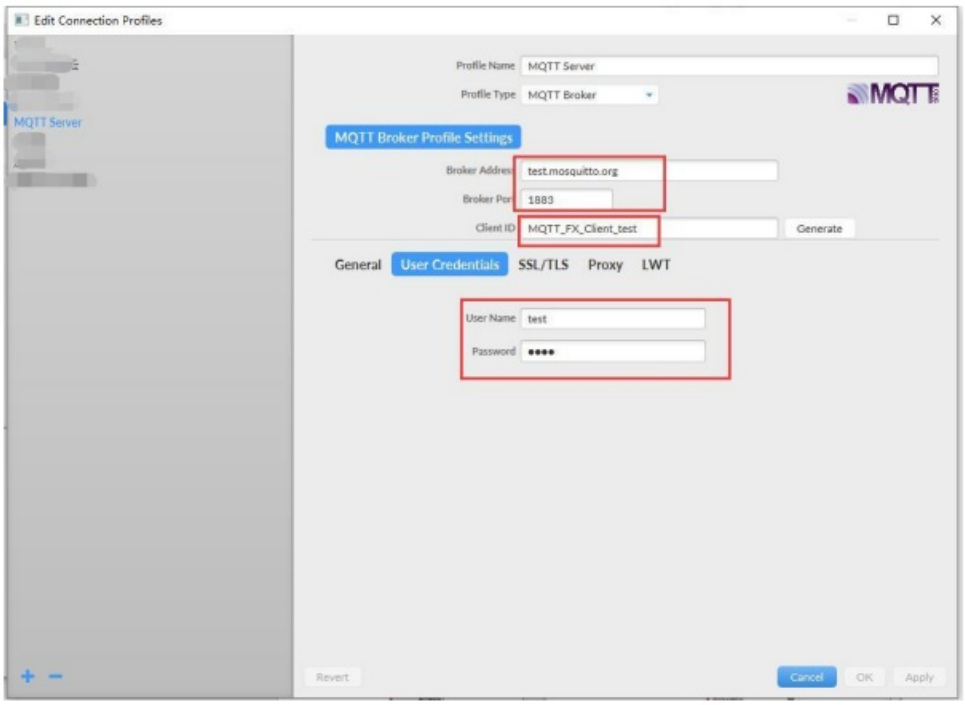

PWR
SYS
RUN
ERR
IO RUN
IO ERR

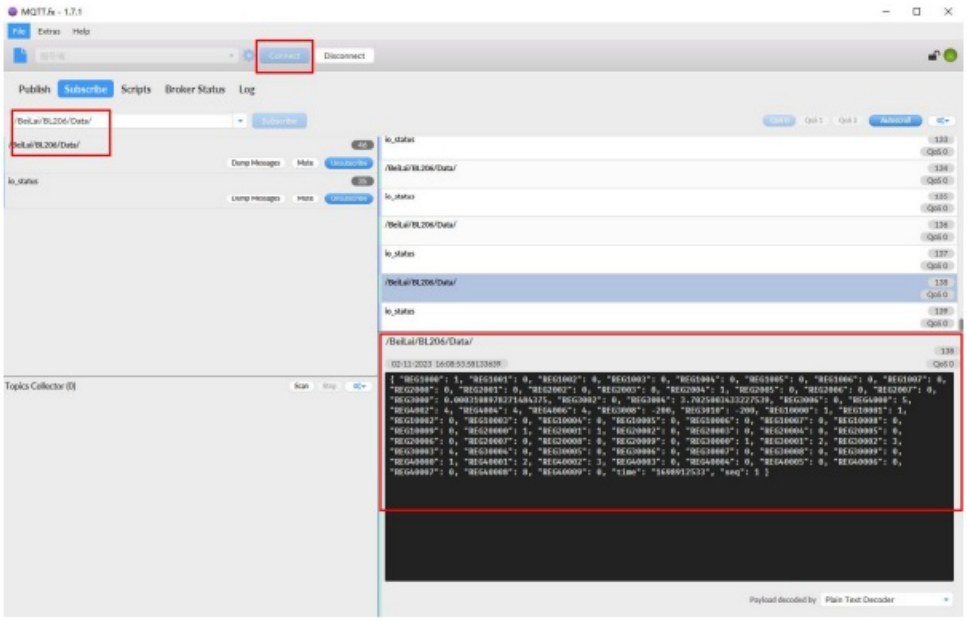

S
F
ETH1
ETH2
IP ADDR
8
ON
1
ON
1 2 3 4 5 6 7 8

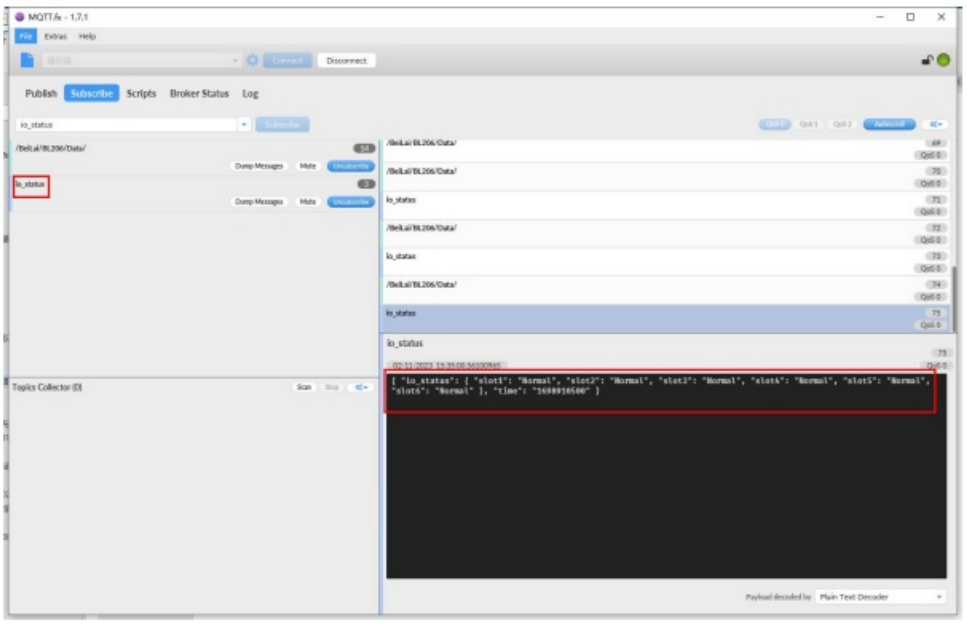

BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
OPC UA settings
OPC UA settings
OPC UA Name
Port
4840
Security Policy
Aes128Sha256RsaOaep
Message Security Mode
Sign&Encrypt
Certificate
Select file...
Private key
Select file...
Allow Anonymous
Username
Password
Data select
Information Model
Model File(.xml)
Select file...
Dependent model files
None
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (v1.0.11) / 2022-02-17

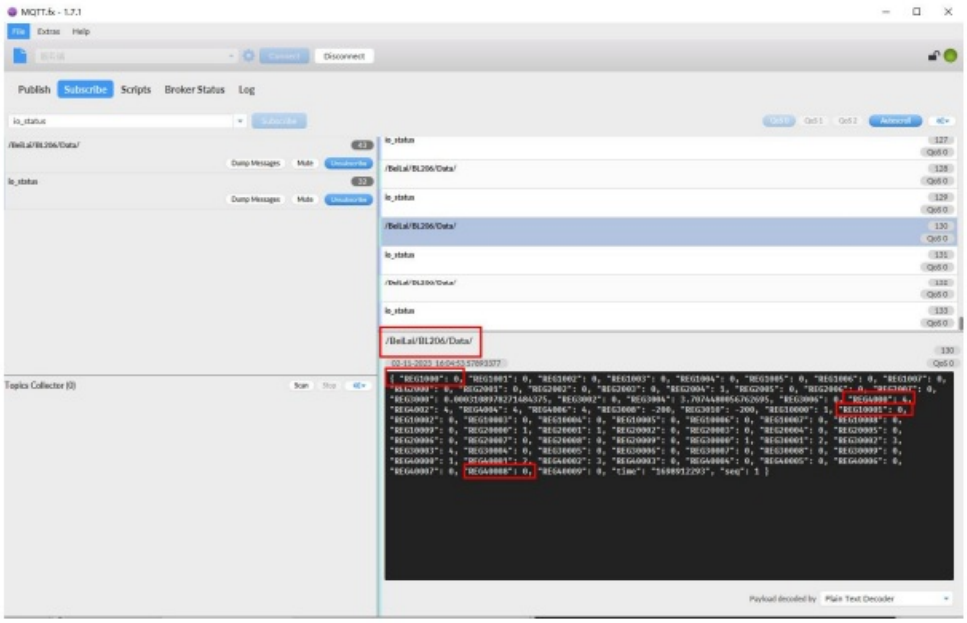

Cloud connection settings
Cloud platform
Custom Cloud
Cloud Name
custom MQTT cloud
Host IP or Domain
Port
1883
MQTT Client ID
User Name
Password
Encryption
No encryption
Publish data format
Default data format
Publish Topic
/BeiLai/BL206/Data/
Subscribe Topic
/BeiLai/BL206/Down
Publish Period(s)
60
Publisher QOS
0-At most once
Data Retransmission Enable
Publish Module Status
Data packing
Send multiple data in one message
Number of data
100
Publish only changed data
Dismiss
Save

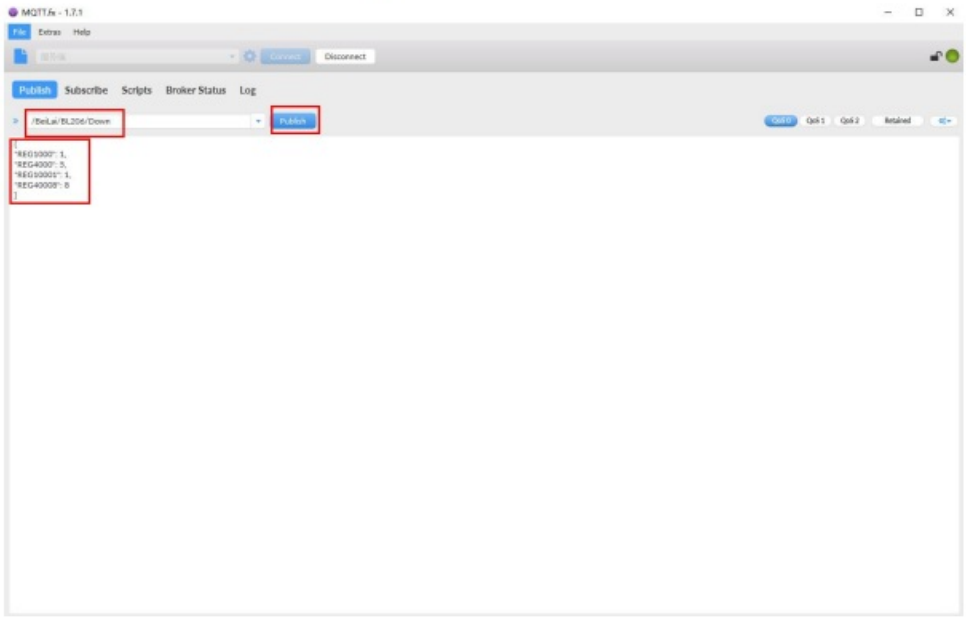

BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Cloud connection settings
Cloud connection settings
Cloud Name
Host IP or Domain
Port
Publish Period(s)
Connect State
Enable
custom MQTT cloud
1883
60
Connected
Edit
Delete
Add
Save & Apply
Save
Reset

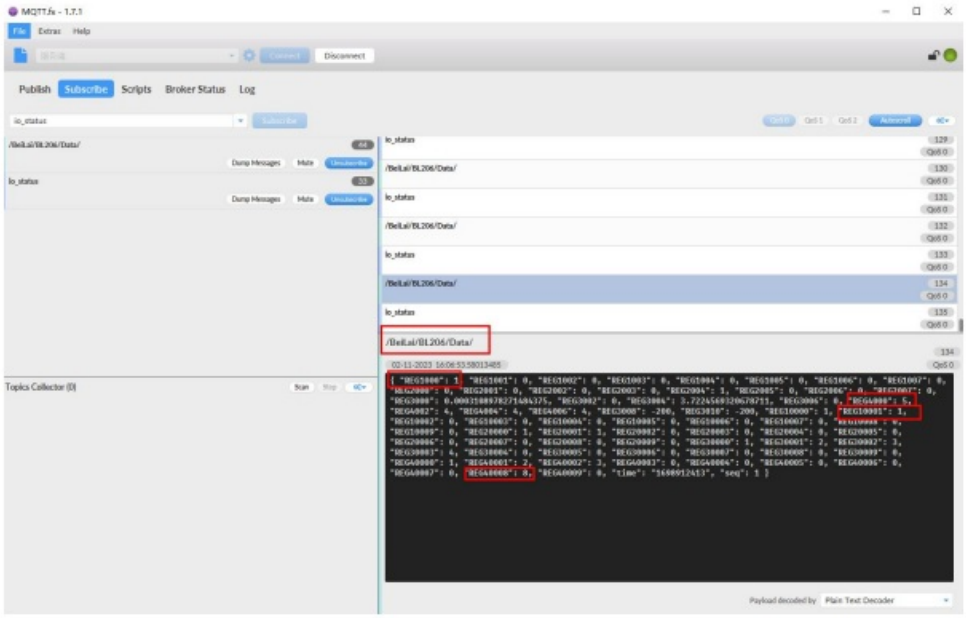

Edit Connection Profiles
MQTT Server
Profile Name
MQTT Server
Profile Type
MQTT Broker
MQTT Broker Profile Settings
Broker Address
test.mosquitto.org
Broker Port
1883
Client ID
MQTT_FX_Client_test
Generate
General
User Credentials
SSL/TLS
Proxy
LWT
User Name
test
Password
Revert
Cancel
OK
Apply

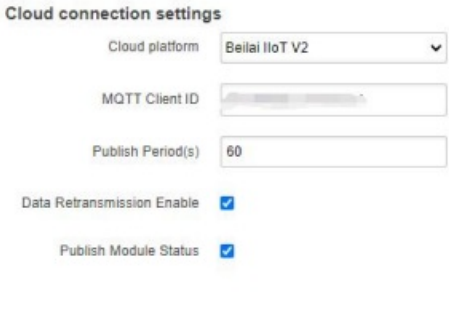

MQTT.fx - 1.7.1
Connect
Disconnect
Publish
Subscribe
Scripts
Broker Status
Log
/BeiLai/BL206/Data/
io_status
Topics Collector (0)
Plain Text Decoder

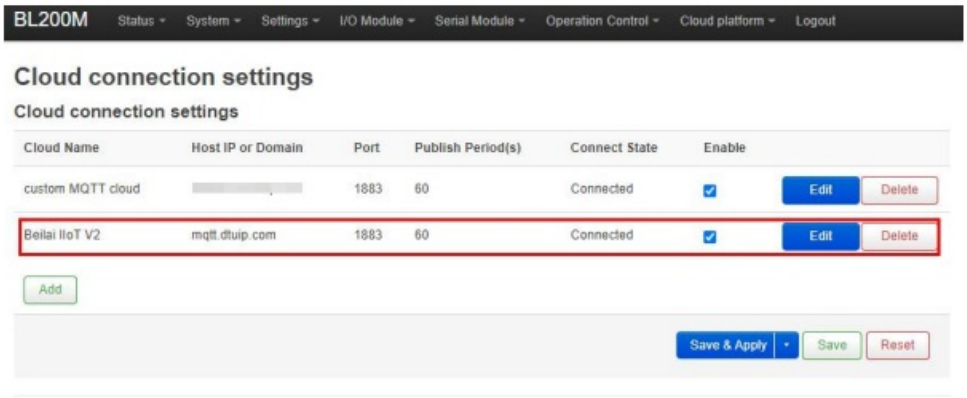

MQTT.fx - 1.7.1
Connect
Disconnect
Publish
Subscribe
Scripts
Broker Status
Log
io_status
/BeiLai/BL206/Data/
Topics Collector (0)
Plain Text Decoder

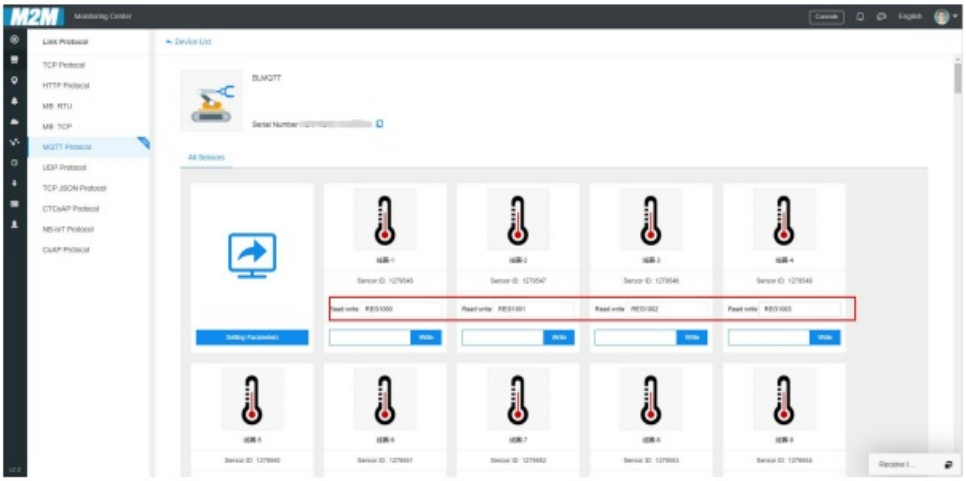

MQTT.fx - 1.7.1
Publish
Subscribe
Scripts
Broker Status
Log
/BeiLai/BL206/Data/
Topics Collector (0)

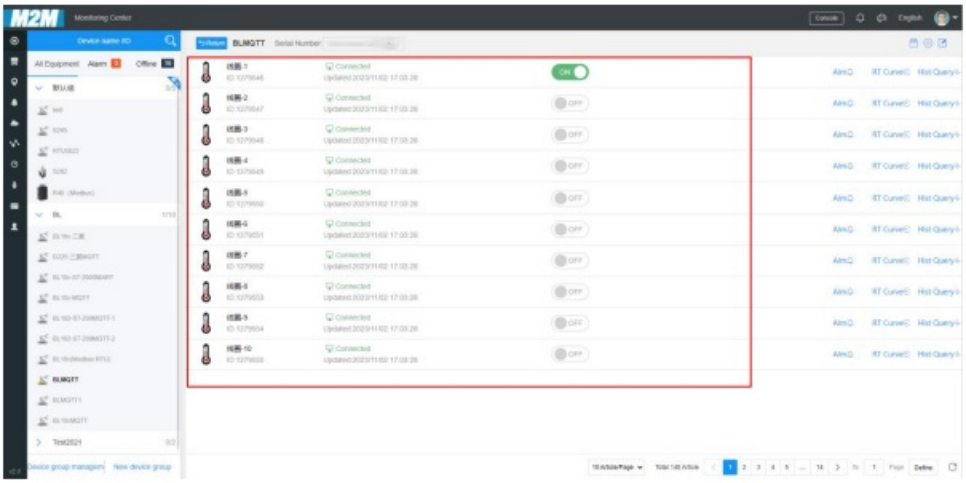

MQTT.fx - 1.7.1
Publish
Subscribe
Scripts
Broker Status
Log
/BeiLai/BL206/Down

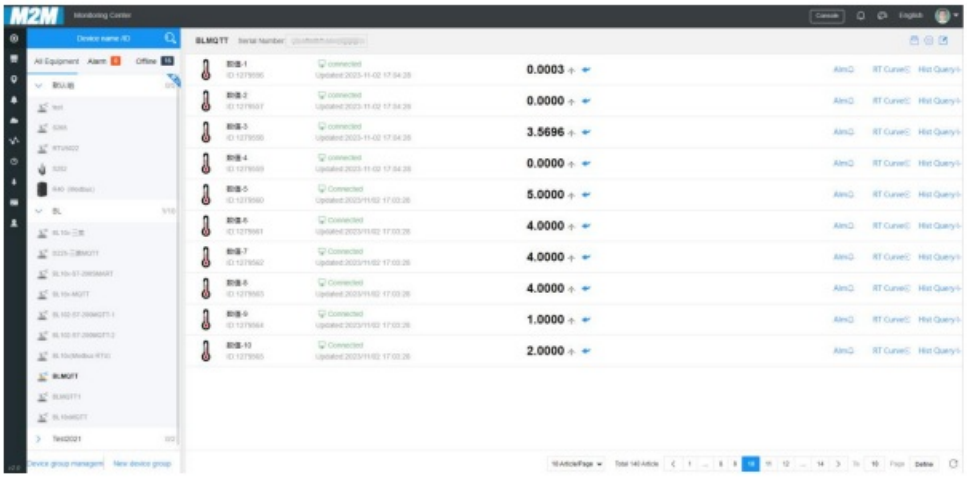

MQTT.fx - 1.7.1
Publish
Subscribe
Scripts
Broker Status
Log
/BeiLai/BL206/Data/
Topics Collector (0)


Cloud connection settings
Cloud platform
Beilai IIoT V2
MQTT Client ID
Publish Period(s)
60
Data Retransmission Enable
Publish Module Status
Dismiss
Save


BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Cloud connection settings
Cloud connection settings
Cloud Name
Host IP or Domain
Port
Publish Period(s)
Connect State
Enable
custom MQTT cloud
1883
60
Connected
Edit
Delete
Beilai IIoT V2
mqtt.dtuip.com
1883
60
Connected
Edit
Delete
Add
Save & Apply
Save
Reset


M2M
Monitoring Center
Link Protocol
TCP Protocol
HTTP Protocol
MB RTU
MB TCP
MQTT Protocol
LDP Protocol
TCP JSON Protocol
CTCoAP Protocol
MB-IoT Protocol
CoAP Protocol
Device List
BLMQTT
All Sensors


M2M
Monitoring Center
Device name/ID
All Equipment
Alarm
Offline
BLMQTT
Connected
ON
OFF



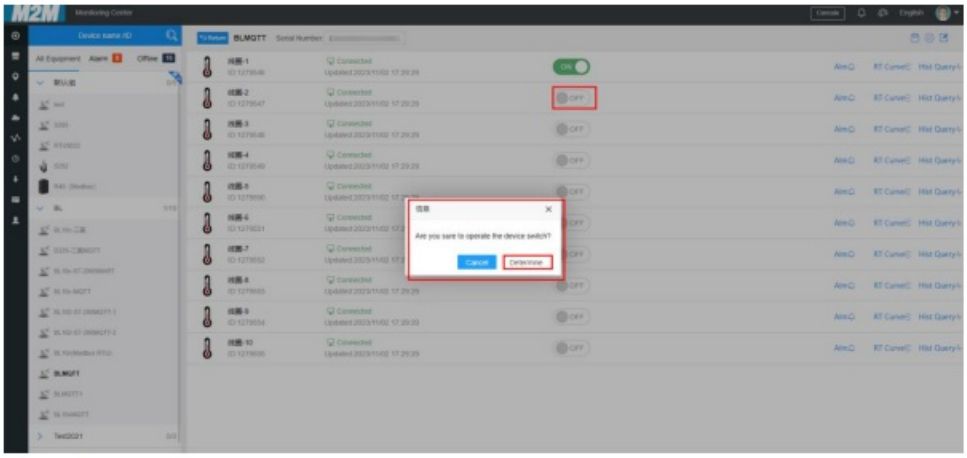
BL200M Status System Settings I/O Module Serial Module Operation Control Cloud platform Logout

IO status

IO Slot:1,Module Type:DO,Module Name:M2082

Channels	Modbus Address	Value	PowerOn Status	Open/Close
1	1000	Close	Open	Open/Close
2	1001	Open	Open	Open/Close
3	1002	Open	Open	Open/Close
4	1003	Open	Open	Open/Close
5	1004	Open	Open	Open/Close
6	1005	Open	Open	Open/Close
7	1006	Open	Open	Open/Close
8	1007	Open	Open	Open/Close

Back to Overview | Save & Apply | Save | Reset



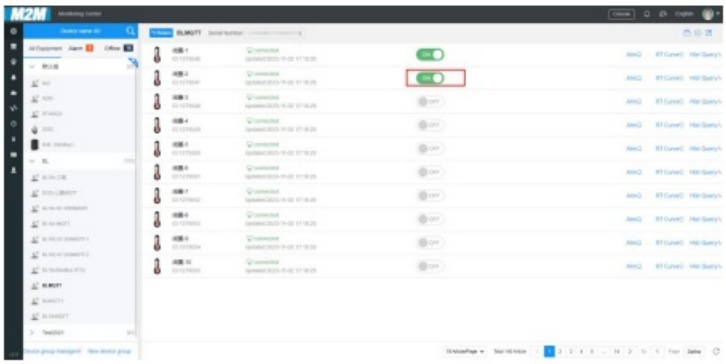
BL200M Status System Settings I/O Module Serial Module Operation Control Cloud platform Logout

IO status

IO Slot:1,Module Type:DO,Module Name:M2082

Channels	Modbus Address	Value	PowerOn Status	Open/Close
1	1000	Close	Open	Open/Close
2	1001	Close	Open	Open/Close
3	1002	Open	Open	Open/Close
4	1003	Open	Open	Open/Close
5	1004	Open	Open	Open/Close
6	1005	Open	Open	Open/Close
7	1006	Open	Open	Open/Close
8	1007	Open	Open	Open/Close

Back to Overview | Save & Apply | Save | Reset



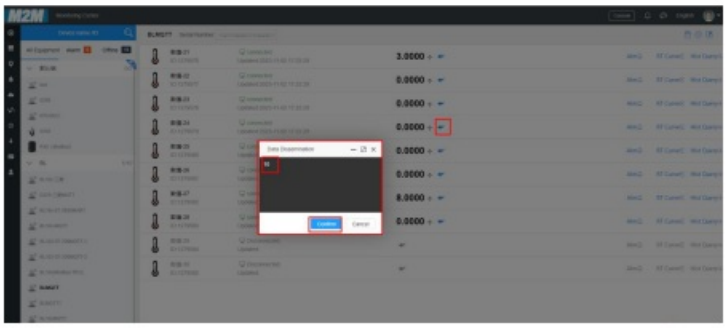
BL200M Status System Settings I/O Module Serial Module Operation Control Cloud platform Logout

Modbus Query

Configure Name	Slave Address	Function Code	Mapping Address	Register Address	Data Type	Data Value	COM Port
03	1	3	40000	0	INT16 AB	1	COM1
03	1	3	40001	1	INT16 AB	2	COM1
03	1	3	40002	2	INT16 AB	3	COM1
03	1	3	40003	3	INT16 AB	0	COM1
03	1	3	40004	4	INT16 AB	0	COM1
03	1	3	40005	5	INT16 AB	0	COM1
03	1	3	40006	6	INT16 AB	0	COM1
03	1	3	40007	7	INT16 AB	0	COM1
03	1	3	40008	8	INT16 AB	8	COM1
03	1	3	40009	9	INT16 AB	0	COM1

Back to Overview

Shenzhen Beikai Technology Co.,Ltd (V1.1.12) / 2023-10-19



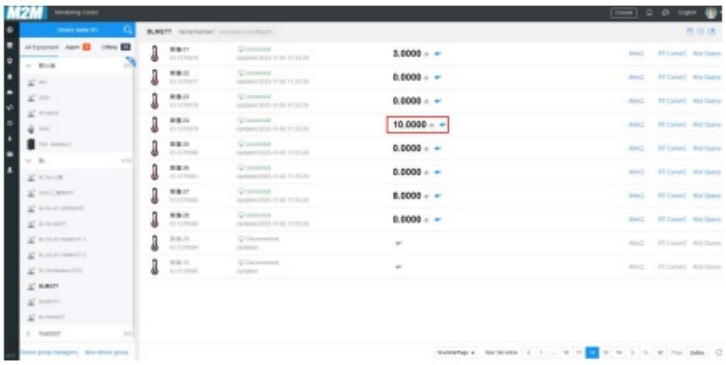
BL200M Status System Settings I/O Module Serial Module Operation Control Cloud platform Logout

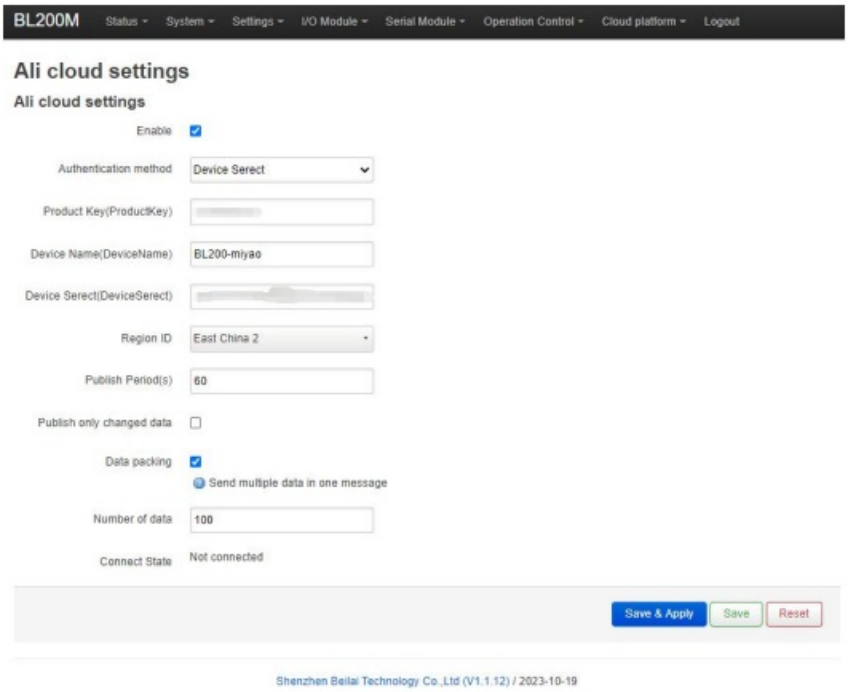
Modbus Query

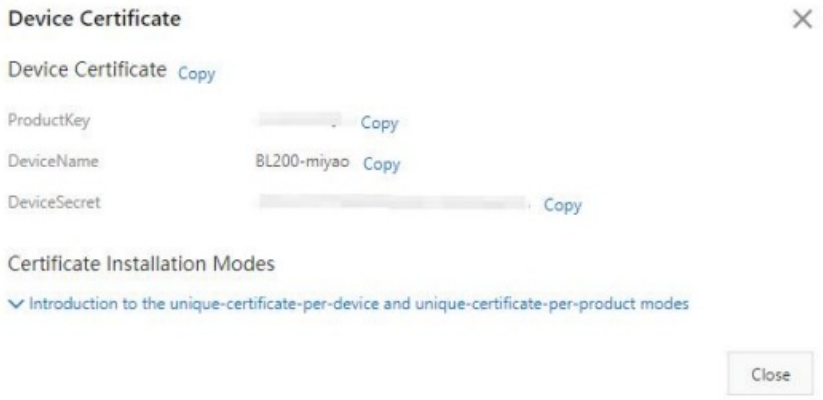
Configure Name	Slave Address	Function Code	Mapping Address	Register Address	Data Type	Data Value	COM Port
03	1	3	40000	0	INT16 AB	1	COM1
03	1	3	40001	1	INT16 AB	2	COM1
03	1	3	40002	2	INT16 AB	3	COM1
03	1	3	40003	3	INT16 AB	0	COM1
03	1	3	40004	4	INT16 AB	0	COM1
03	1	3	40005	5	INT16 AB	10	COM1
03	1	3	40006	6	INT16 AB	0	COM1
03	1	3	40007	7	INT16 AB	0	COM1
03	1	3	40008	8	INT16 AB	8	COM1
03	1	3	40009	9	INT16 AB	0	COM1

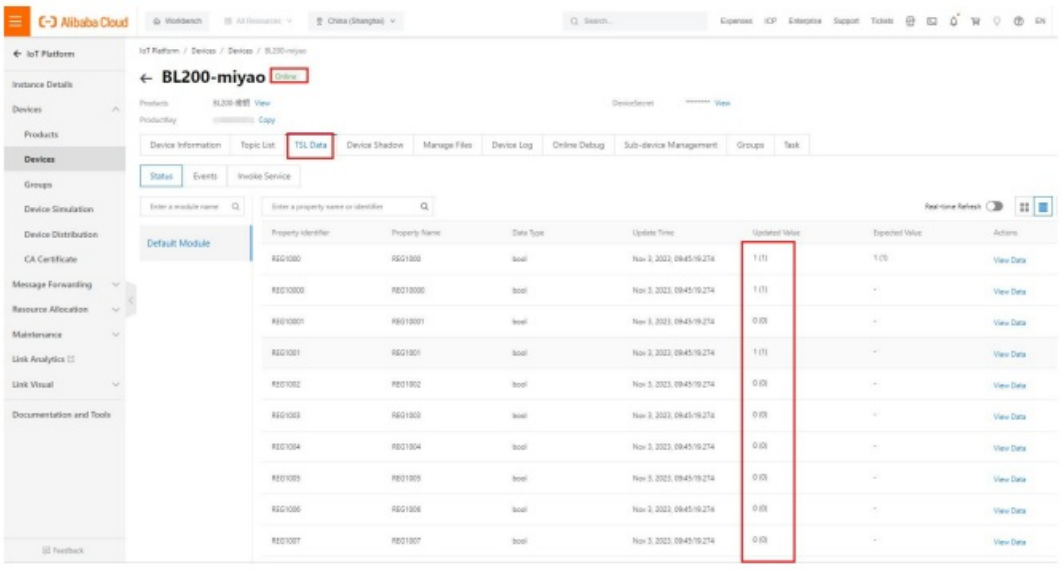
Back to Overview

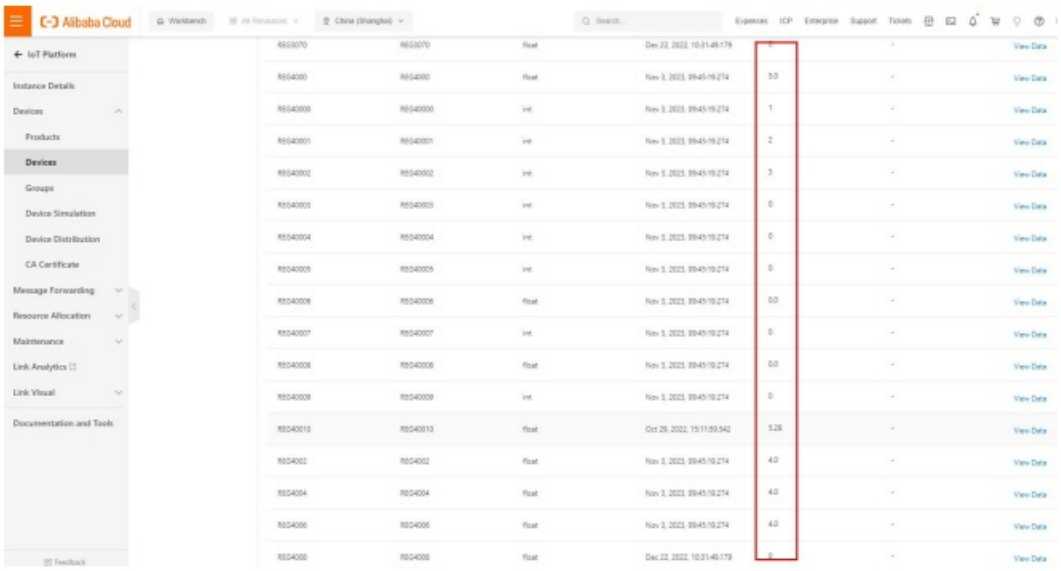
Shenzhen Beikai Technology Co.,Ltd (V1.1.12) / 2023-10-19

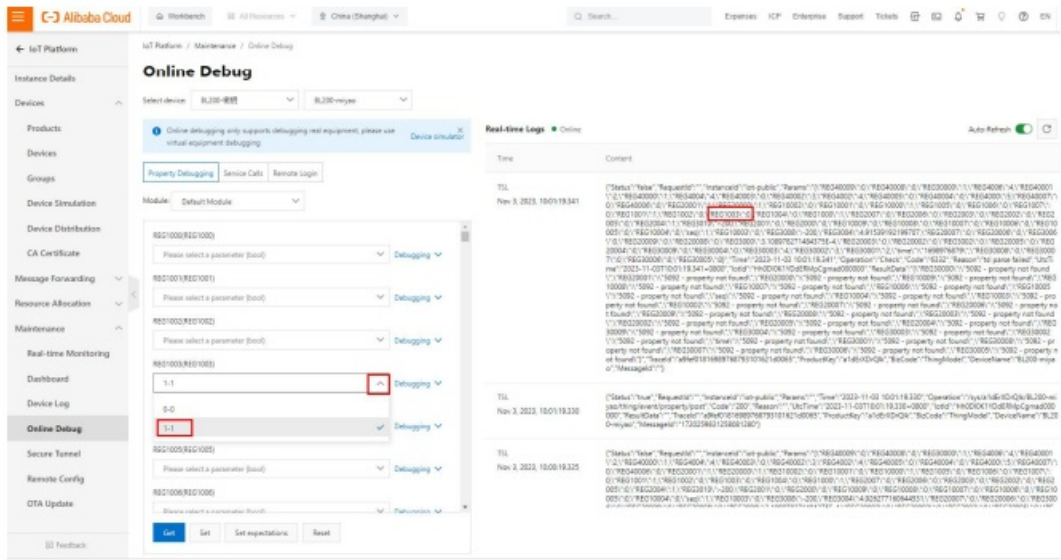


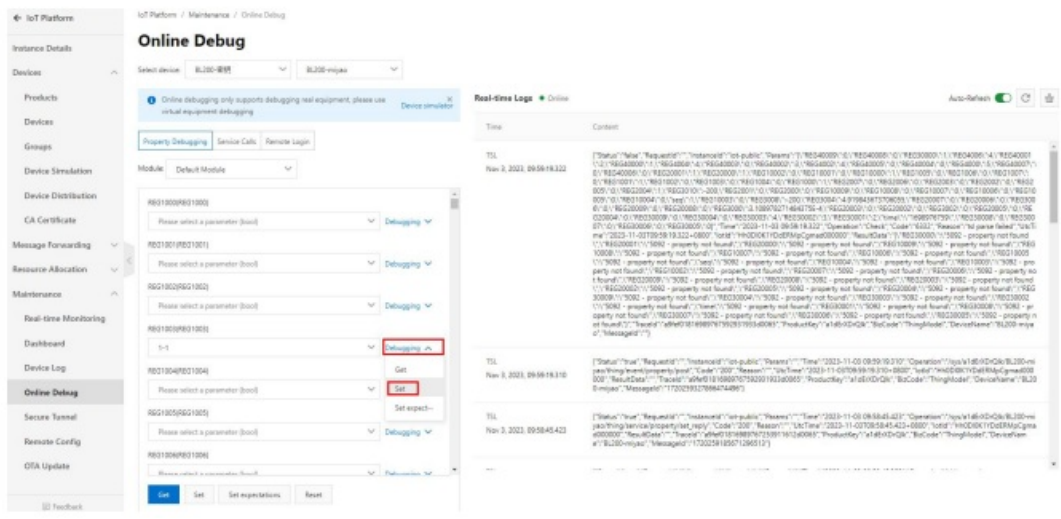

BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Ali cloud settings
Ali cloud settings
Enable
Authentication method
Device Serect
Product Key(ProductKey)
Device Name(DeviceName)
BL200-miyao
Device Serect(DeviceSerect)
Region ID
East China 2
Publish Period(s)
60
Publish only changed data
Data packing
Send multiple data in one message
Number of data
100
Connect State
Not connected
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19


Device Certificate
Device Certificate
Copy
ProductKey
Copy
DeviceName
BL200-miyao
Copy
DeviceSecret
Copy
Certificate Installation Modes
Introduction to the unique-certificate-per-device and unique-certificate-per-product modes
Close


Alibaba Cloud
IoT Platform
Instance Details
Devices
Products
Devices
Groups
Device Simulation
Device Distribution
CA Certificate
Message Forwarding
Resource Allocation
Maintenance
Link Analytics
Link Visual
Documentation and Tools
BL200-miyao
Online
Device Information
Topic List
TSL Data
Device Shadow
Manage Files
Device Log
Online Debug
Sub-device Management
Groups
Task
Status
Events
Invoke Service
Default Module







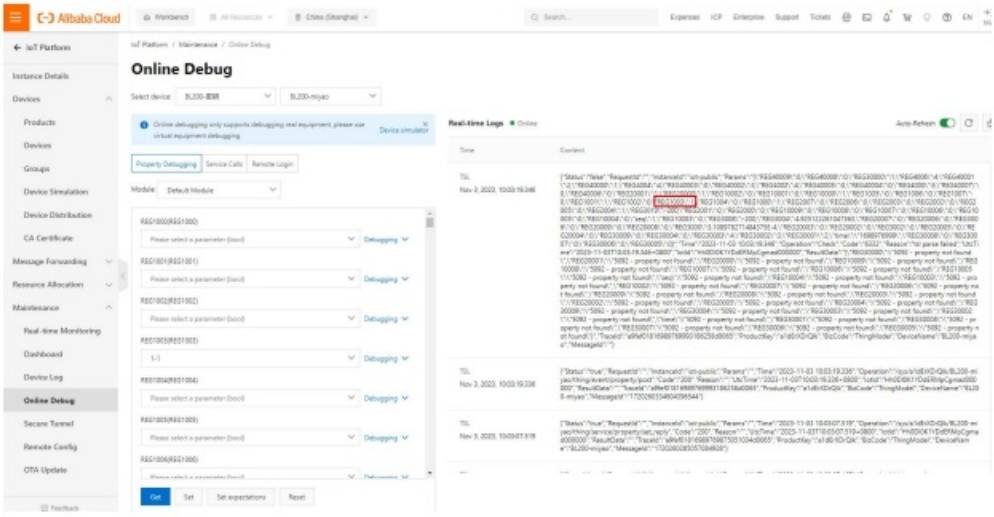
BL200M Status System Settings I/O Module Serial Module Operation Control Cloud platform Logout

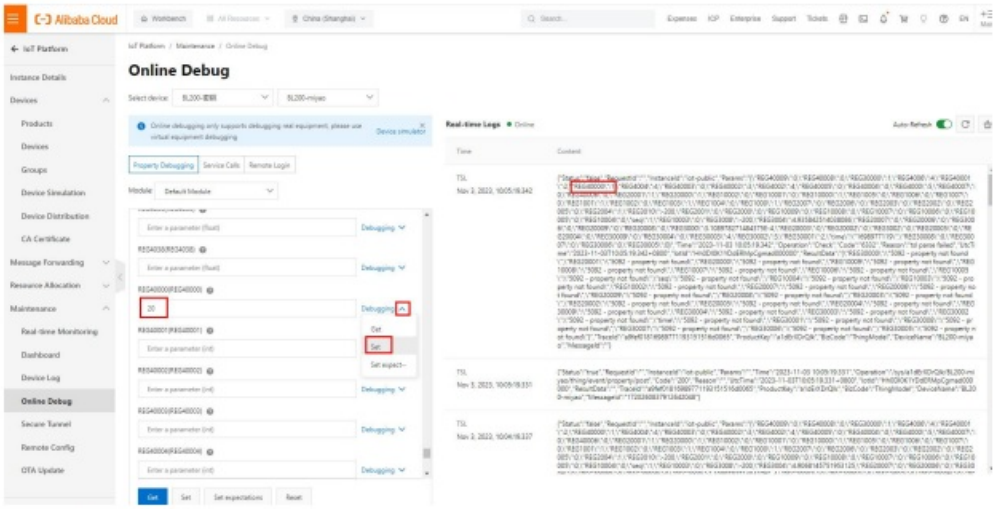
IO status

IO Slot:1,Module Type:DO,Module Name:M2082

Channels	Modbus Address	Value	PowerOn Status	Open/Close
1	1000	Close	Open	Open/Close
2	1001	Close	Open	Open/Close
3	1002	Open	Open	Open/Close
4	1003	Close	Open	Open/Close
5	1004	Open	Open	Open/Close
6	1005	Open	Open	Open/Close
7	1006	Open	Open	Open/Close
8	1007	Open	Open	Open/Close

Back to Overview Save & Apply Save Reset



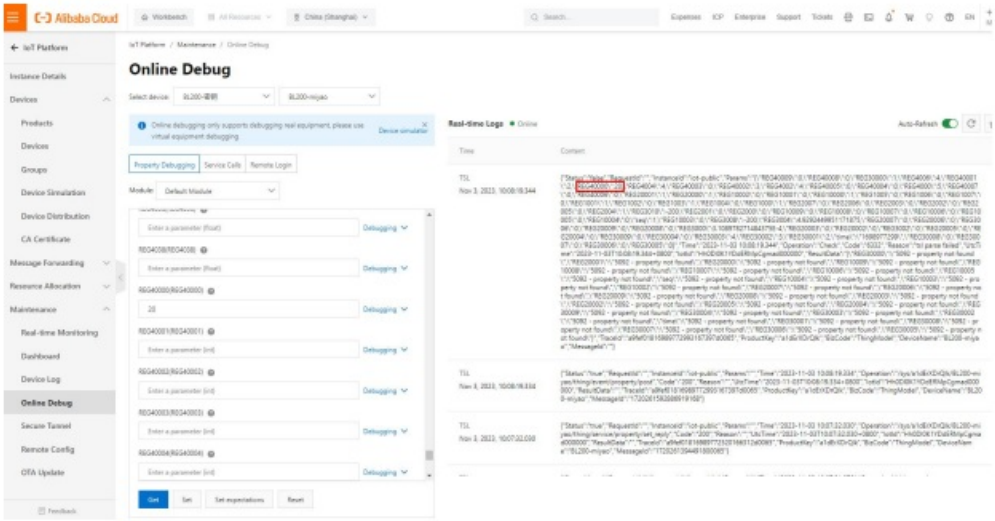


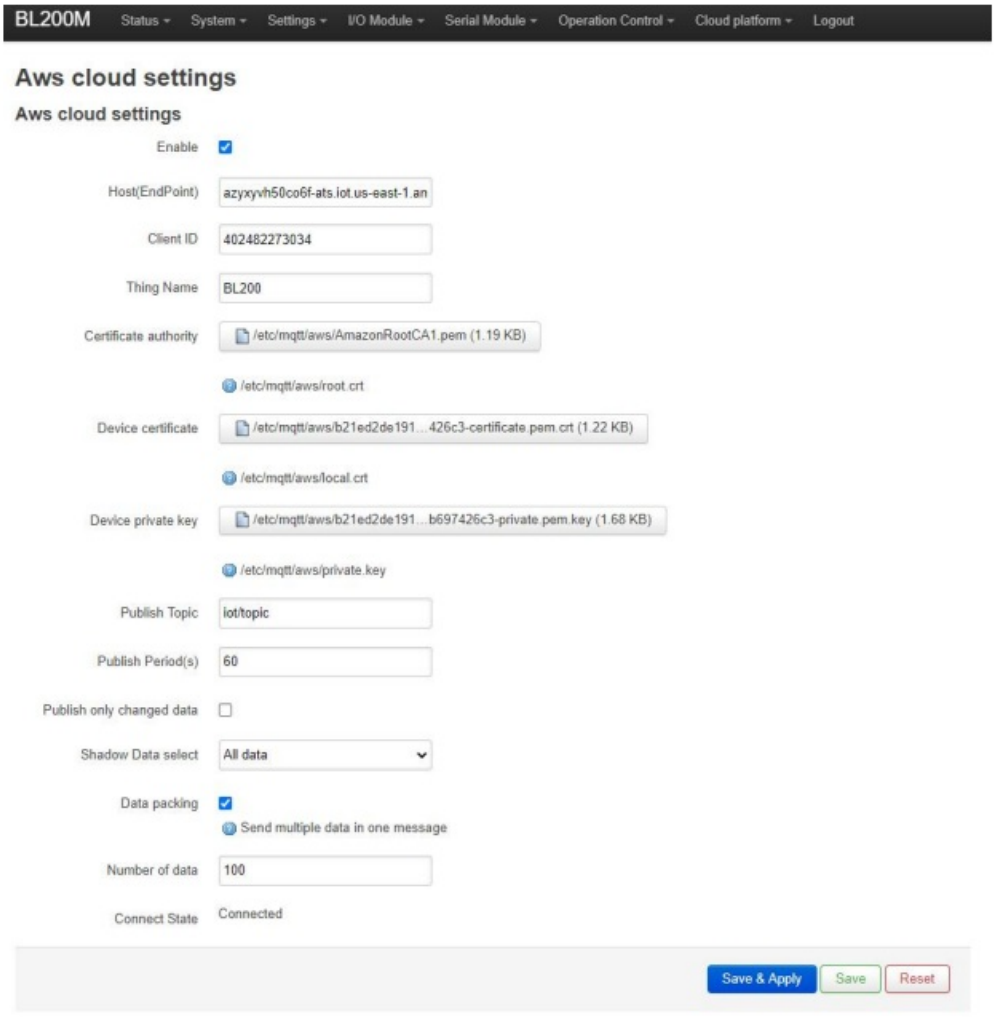
BL200M Status System Settings I/O Module Serial Module Operation Control Cloud platform Logout

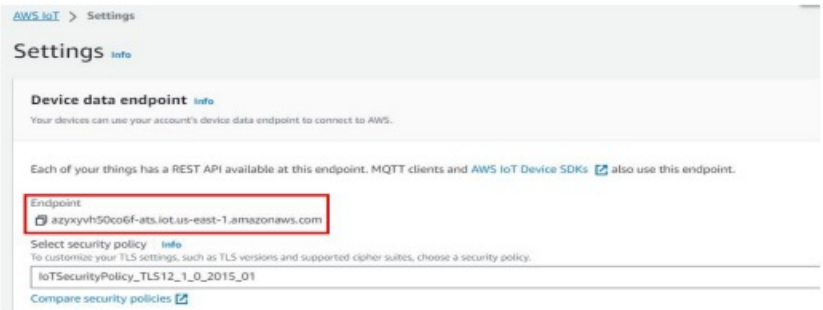
Modbus Query

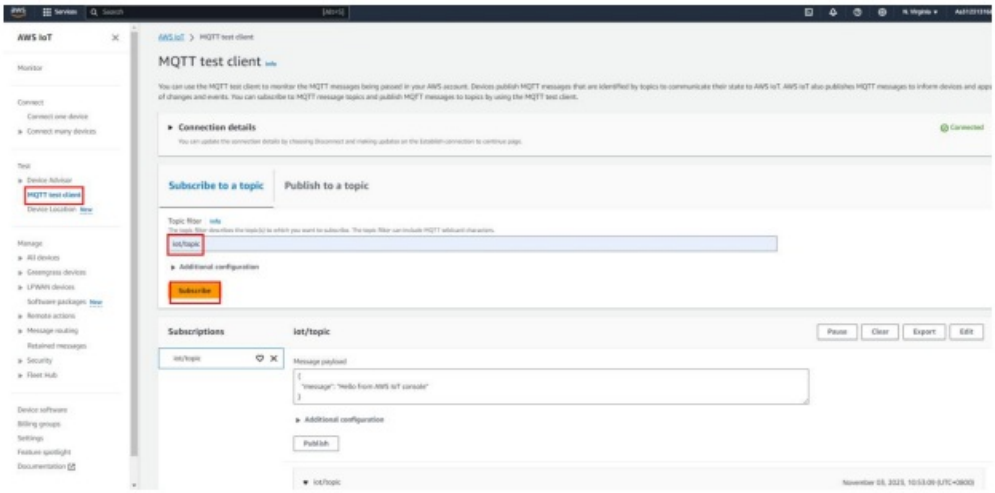
Configure Name	Slave Address	Function Code	Mapping Address	Register Address	Data Type	Data Value	COM Port
03	1	3	40000	0	INT16 AB	20	COM1
03	1	3	40001	1	INT16 AB	2	COM1
03	1	3	40002	2	INT16 AB	3	COM1
03	1	3	40003	3	INT16 AB	0	COM1
03	1	3	40004	4	INT16 AB	0	COM1
03	1	3	40005	5	INT16 AB	0	COM1
03	1	3	40006	6	INT16 AB	0	COM1
03	1	3	40007	7	INT16 AB	0	COM1
03	1	3	40008	8	INT16 AB	0	COM1
03	1	3	40009	9	INT16 AB	0	COM1

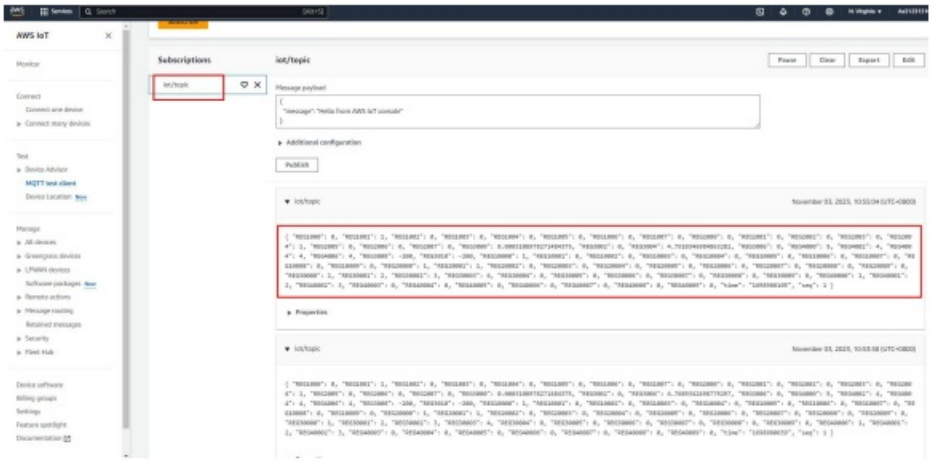
Back to Overview



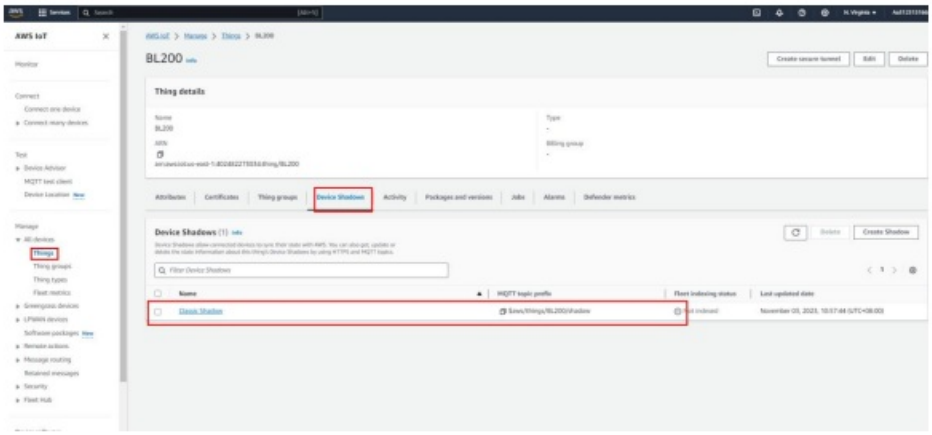

BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Aws cloud settings
Aws cloud settings
Enable
Host(EndPoint)
azyxyvh50co6f-ats.iot.us-east-1.an
Client ID
402482273034
Thing Name
BL200
Certificate authority
/etc/mqtt/aws/AmazonRootCA1.pem (1.19 KB)
/etc/mqtt/aws/root.crt
Device certificate
/etc/mqtt/aws/b21ed2de191...426c3-certificate.pem.crt (1.22 KB)
/etc/mqtt/aws/local.crt
Device private key
/etc/mqtt/aws/b21ed2de191...b697426c3-private.pem.key (1.68 KB)
/etc/mqtt/aws/private.key
Publish Topic
iot/topic
Publish Period(s)
60
Publish only changed data
Shadow Data select
All data
Data packing
Send multiple data in one message
Number of data
100
Connect State
Connected
Save & Apply
Save
Reset

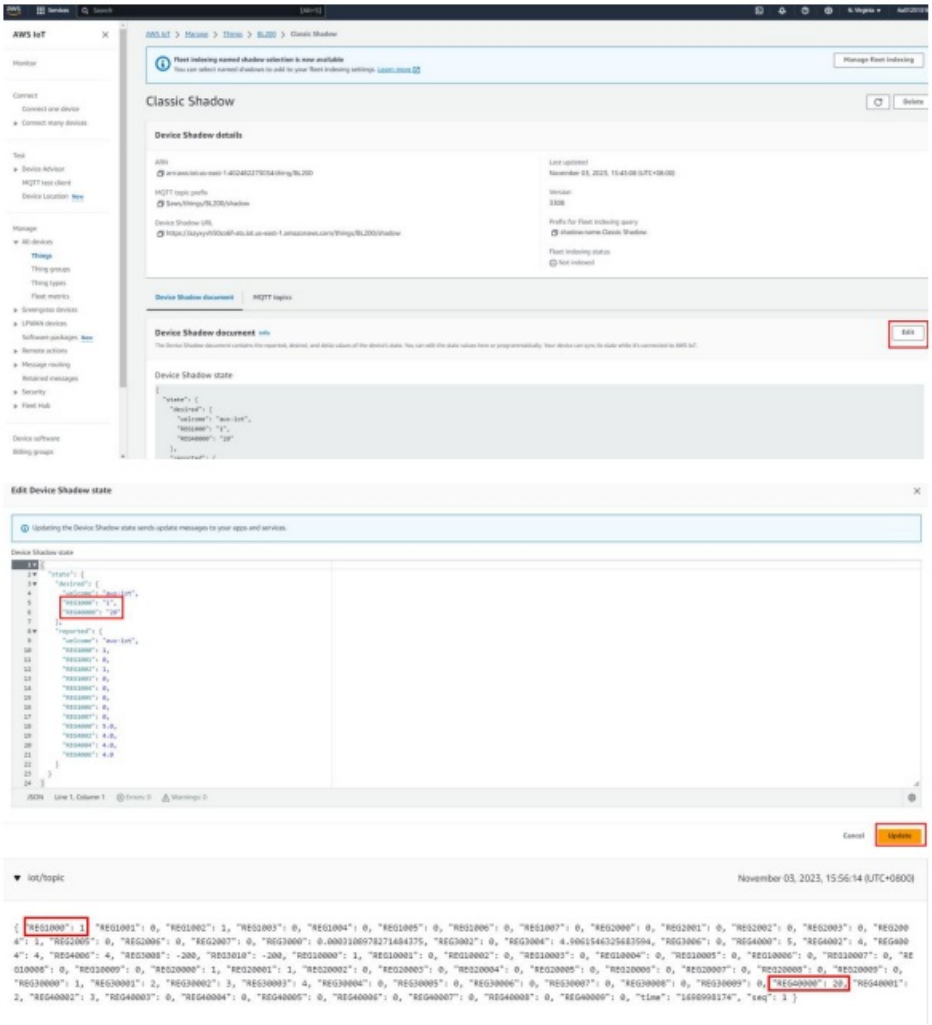

AWS IoT > Settings
Settings Info
Device data endpoint Info
Your devices can use your account's device data endpoint to connect to AWS.
Each of your things has a REST API available at this endpoint. MQTT clients and AWS IoT Device SDKs also use this endpoint.
Endpoint
azyxyvh50co6f-ats.iot.us-east-1.amazonaws.com
Select security policy Info
To customize your TLS settings, such as TLS versions and supported cipher suites, choose a security policy.
IoTSecurityPolicy_TLS12_1_0_2015_01
Compare security policies

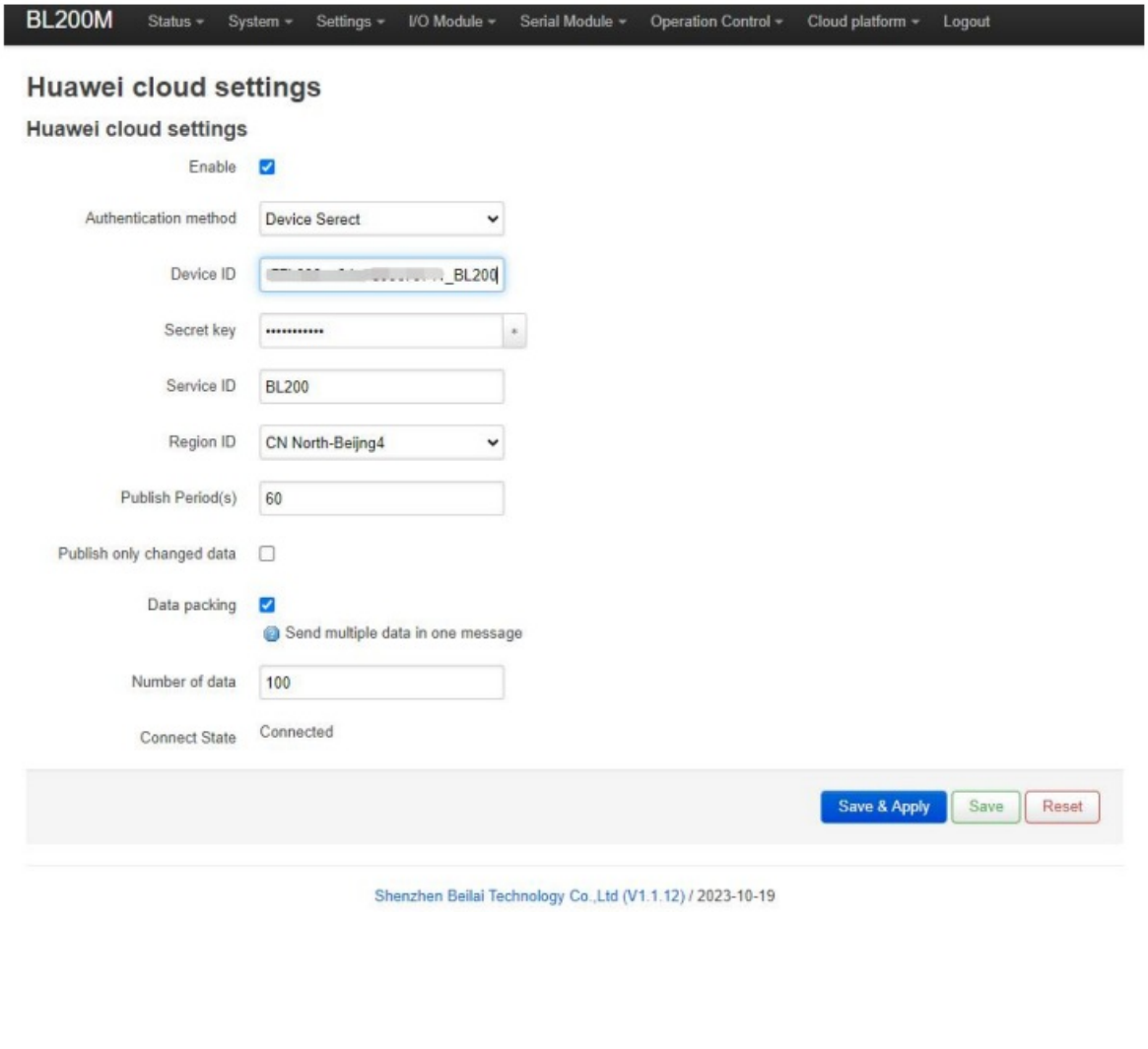

AWS IoT
MQTT test client
Connection details
Subscribe to a topic
Publish to a topic
iot/topic
Subscribe
Subscriptions
iot/topic
Pause
Clear
Export
Edit
Publish

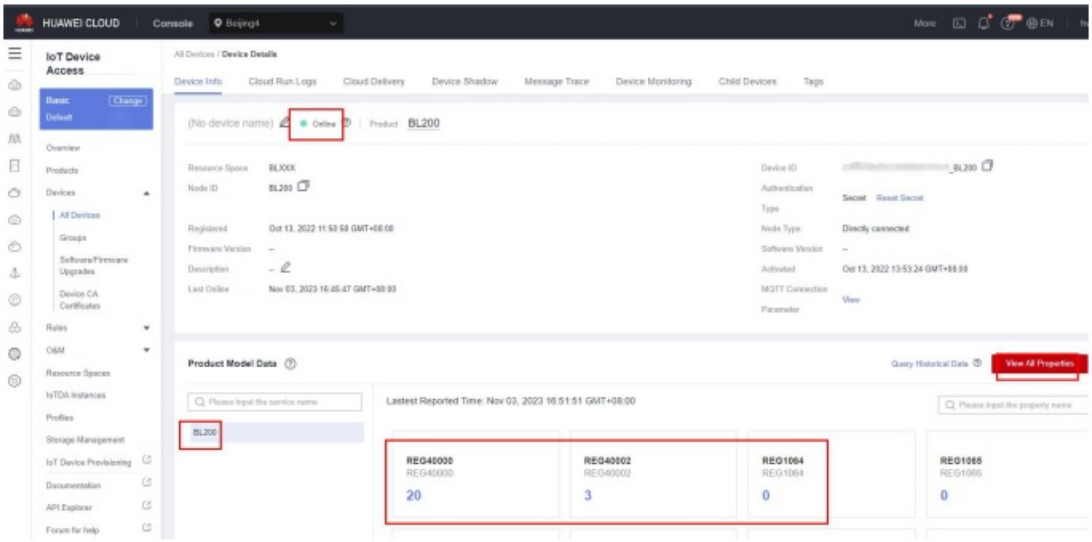


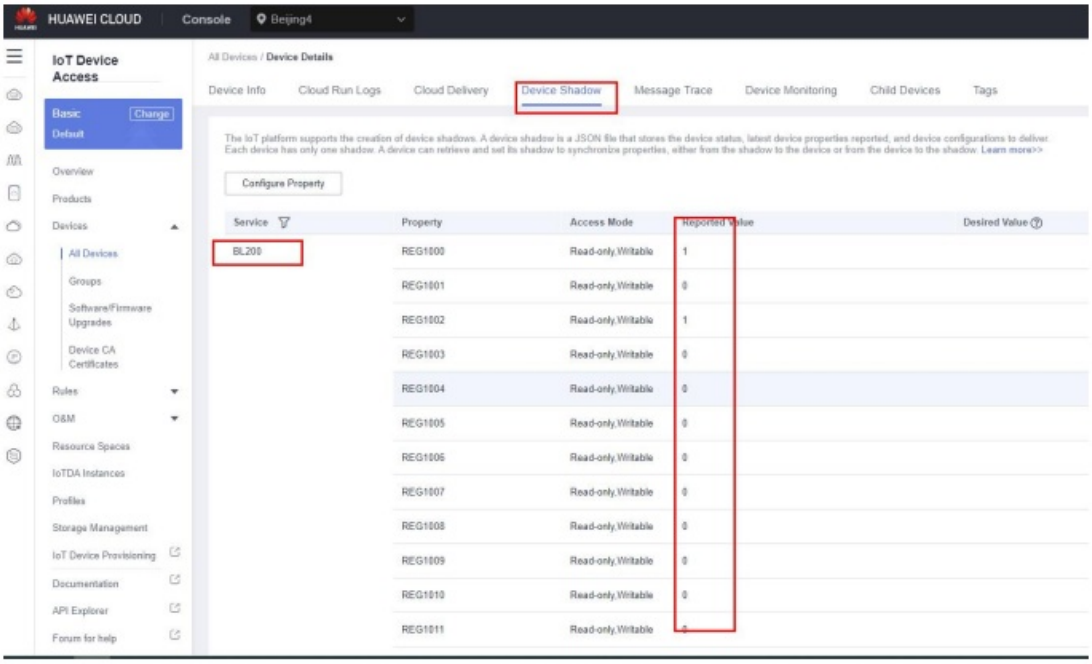
Shadow control REG1000 closed and slave REG40000 is changed from "1" to "20".

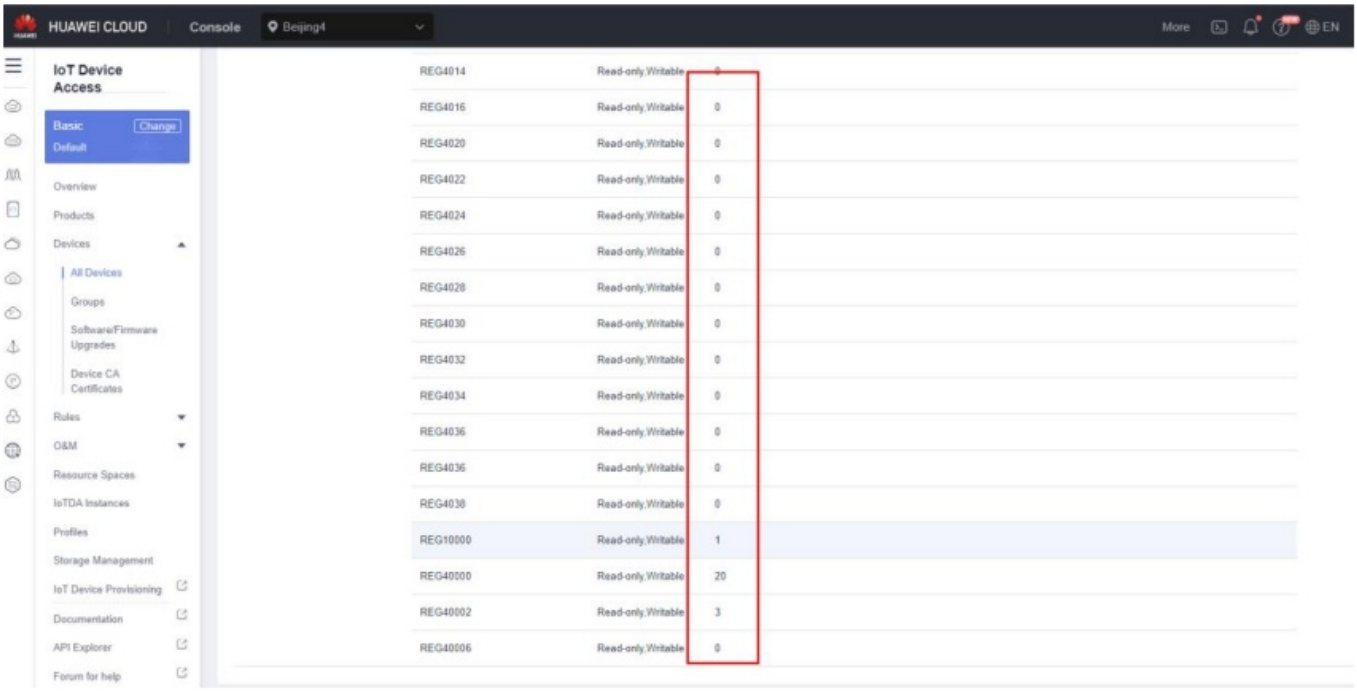


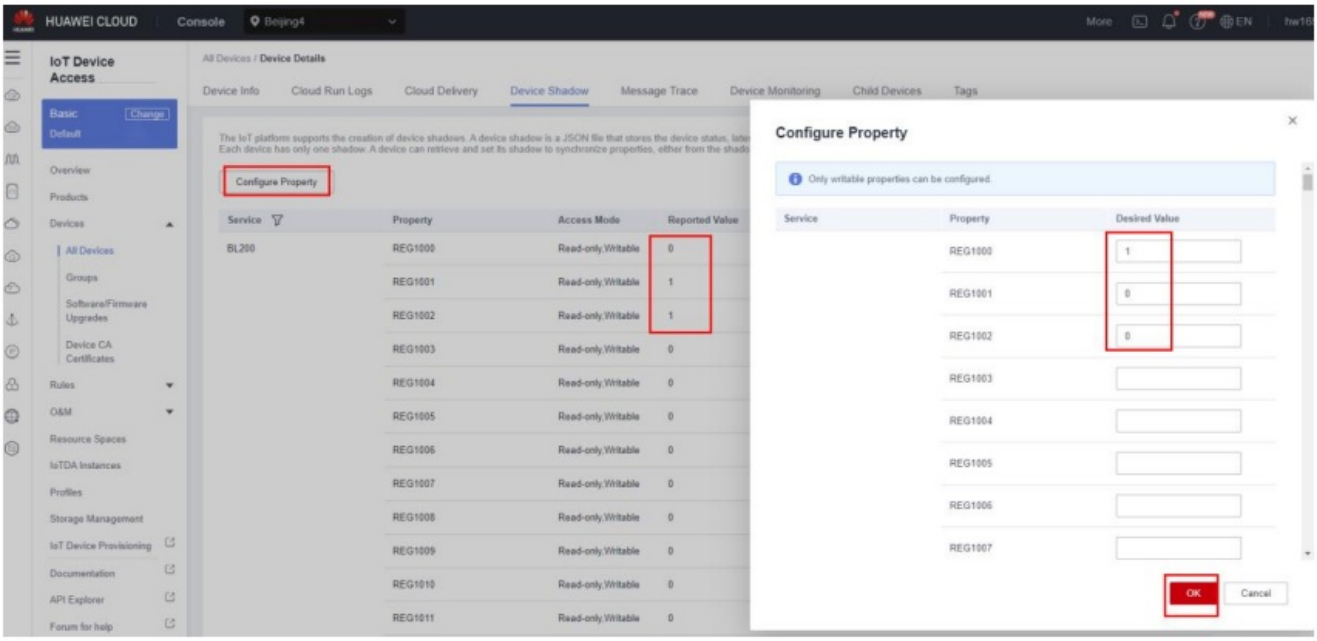

AWS IoT
Classic Shadow
Device Shadow details
Device Shadow document
Edit
Device Shadow state
Edit Device Shadow state
Cancel
Update
iot/topic
November 03, 2023, 15:56:14 (UTC+0800)

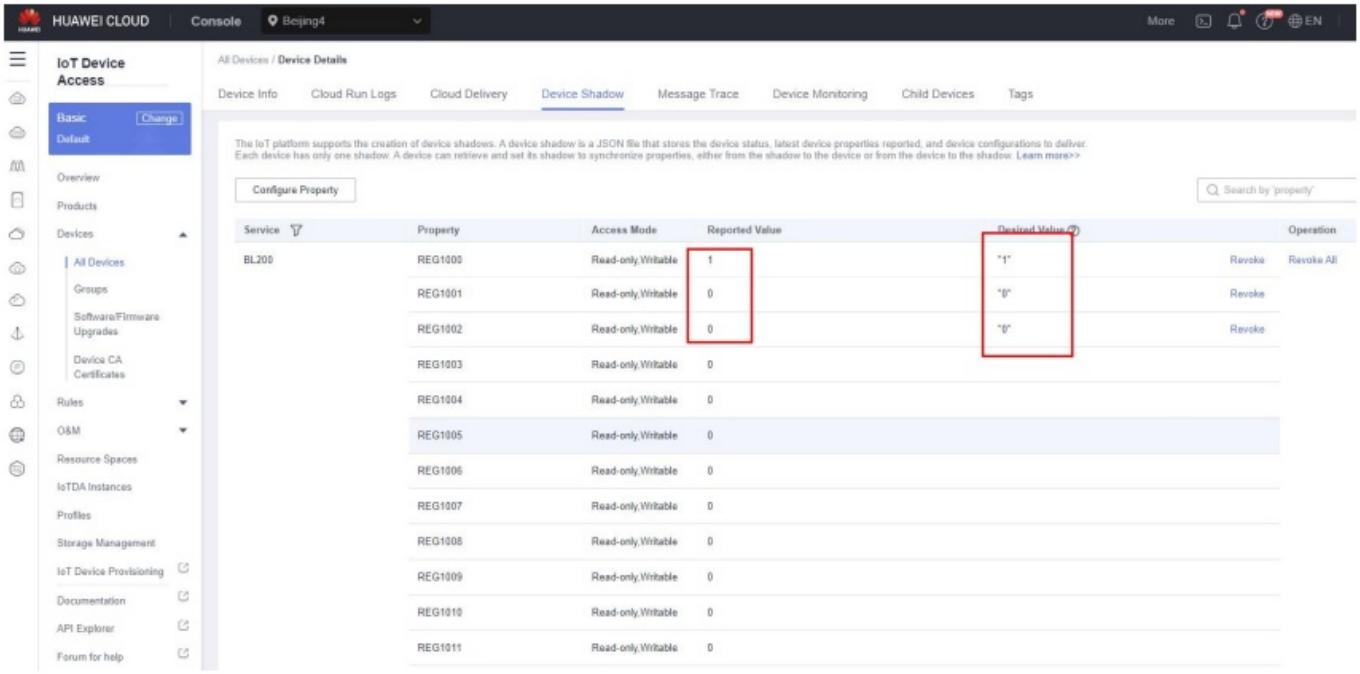

BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Huawei cloud settings
Huawei cloud settings
Enable
Authentication method
Device Serect
Device ID
_BL200
Secret key
Service ID
BL200
Region ID
CN North-Beijng4
Publish Period(s)
60
Publish only changed data
Data packing
Send multiple data in one message
Number of data
100
Connect State
Connected
Save & Apply
Save
Reset
Shenzhen Beilai Technology Co.,Ltd (V1.1.12) / 2023-10-19

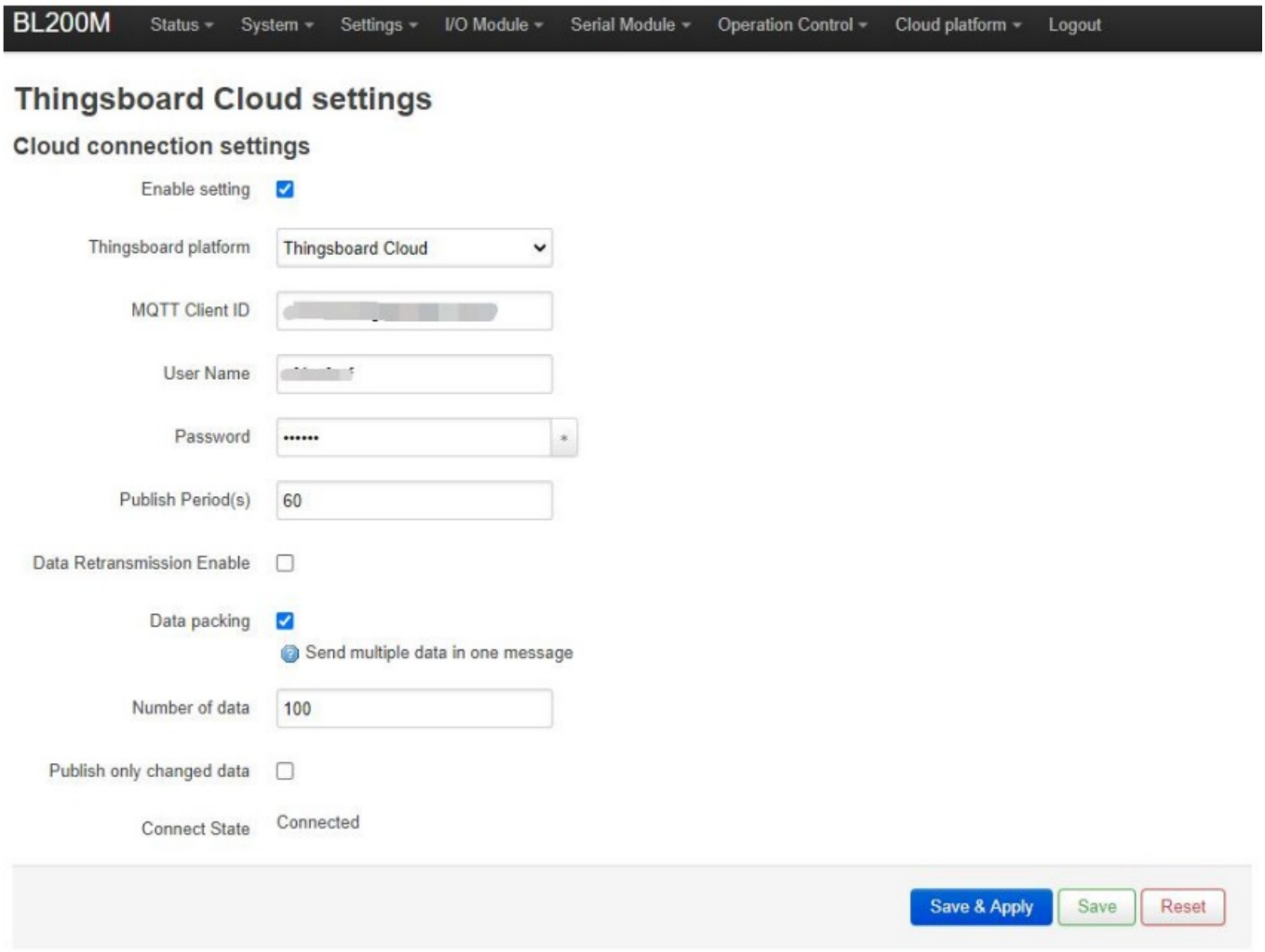

HUAWEI CLOUD
Console
Beijing4
IoT Device Access
Basic
Change
Default
Overview
Products
Devices
All Devices
Groups
Software/Firmware Upgrades
Device CA Certificates
Rules
O&M
Resource Spaces
IoTDA Instances
Profiles
Storage Management
IoT Device Provisioning
Documentation
API Explorer
Forum for help
All Devices / Device Details
Device Info
Cloud Run Logs
Cloud Delivery
Device Shadow
Message Trace
Device Monitoring
Child Devices
Tags
(No device name)
Online
Product
BL200
Product Model Data
Query Historical Data
View All Properties
Lastest Reported Time: Nov 03, 2023 16:51:51 GMT+08:00
BL200
REG40000
REG40000
20
REG40002
REG40002
3
REG1064
REG1064
0
REG1065
REG1065
0

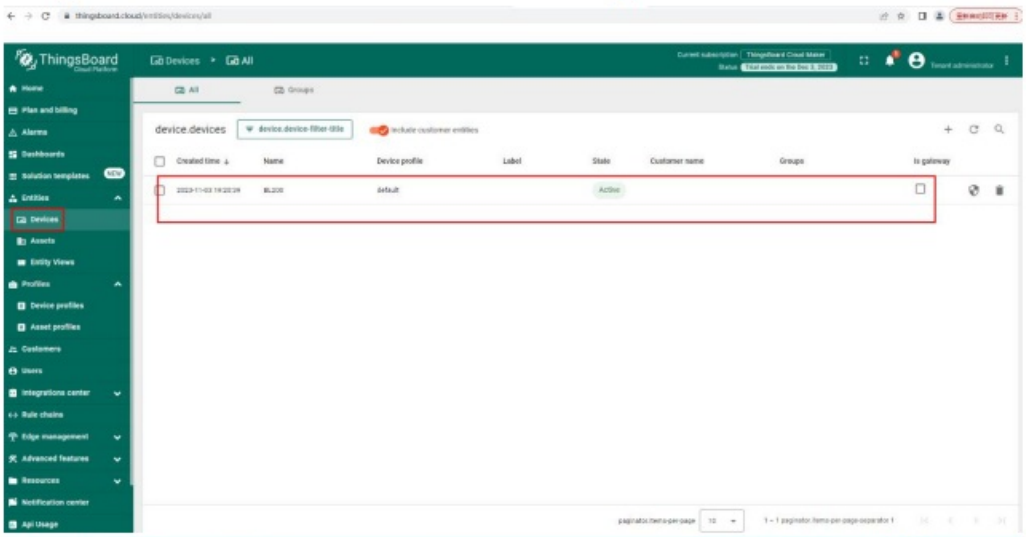

HUAWEI CLOUD
Console
Beijing4
IoT Device Access
Basic
Change
Default
Overview
Products
Devices
All Devices
Groups
Software/Firmware Upgrades
Device CA Certificates
Rules
O&M
Resource Spaces
IoTDA Instances
Profiles
Storage Management
IoT Device Provisioning
Documentation
API Explorer
Forum for help
All Devices / Device Details
Device Info
Cloud Run Logs
Cloud Delivery
Device Shadow
Message Trace
Device Monitoring
Child Devices
Tags
The IoT platform supports the creation of device shadows. A device shadow is a JSON file that stores the device status, latest device properties reported, and device configurations to deliver. Each device has only one shadow. A device can retrieve and set its shadow to synchronize properties, either from the shadow to the device or from the device to the shadow. Learn more>>
Configure Property
Service
Property
Access Mode
Reported Value
Desired Value
BL200
REG1000 Read-only,Writable 1
REG1001 Read-only,Writable 0
REG1002 Read-only,Writable 1
REG1003 Read-only,Writable 0
REG1004 Read-only,Writable 0
REG1005 Read-only,Writable 0
REG1006 Read-only,Writable 0
REG1007 Read-only,Writable 0
REG1008 Read-only,Writable 0
REG1009 Read-only,Writable 0
REG1010 Read-only,Writable 0
REG1011 Read-only,Writable 0

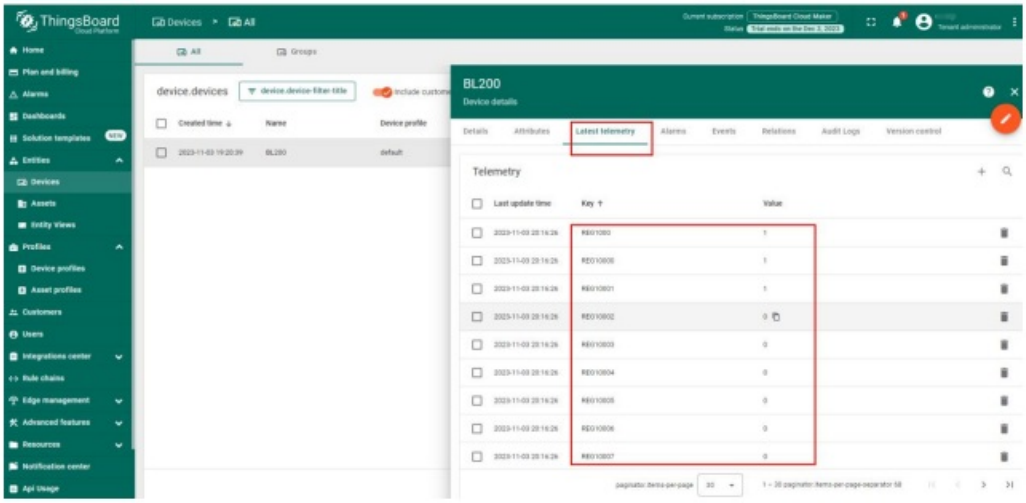

HUAWEI CLOUD
Console
Beijing4
More
EN
IoT Device Access
Basic
Change
Default
Overview
Products
Devices
All Devices
Groups
Software/Firmware Upgrades
Device CA Certificates
Rules
O&M
Resource Spaces
IoTDA Instances
Profiles
Storage Management
IoT Device Provisioning
Documentation
API Explorer
Forum for help
REG4014 Read-only,Writable 0
REG4016 Read-only,Writable 0
REG4020 Read-only,Writable 0
REG4022 Read-only,Writable 0
REG4024 Read-only,Writable 0
REG4026 Read-only,Writable 0
REG4028 Read-only,Writable 0
REG4030 Read-only,Writable 0
REG4032 Read-only,Writable 0
REG4034 Read-only,Writable 0
REG4036 Read-only,Writable 0
REG4036 Read-only,Writable 0
REG4038 Read-only,Writable 0
REG10000 Read-only,Writable 1
REG40000 Read-only,Writable 20
REG40002 Read-only,Writable 3
REG40006 Read-only,Writable 0


HUAWEI CLOUD
Console
Beijing4
More
EN
IoT Device Access
Basic
Change
Default
Overview
Products
Devices
All Devices
Groups
Software/Firmware Upgrades
Device CA Certificates
Rules
O&M
Resource Spaces
IoTDA Instances
Profiles
Storage Management
IoT Device Provisioning
Documentation
API Explorer
Forum for help
All Devices / Device Details
Device Info
Cloud Run Logs
Cloud Delivery
Device Shadow
Message Trace
Device Monitoring
Child Devices
Tags
Configure Property
Service
Property
Access Mode
Reported Value
BL200
REG1000
REG1001
REG1002
REG1003
REG1004
REG1005
REG1006
REG1007
REG1008
REG1009
REG1010
REG1011
Read-only,Writable
Configure Property
Only writable properties can be configured.
Service
Property
Desired Value
OK
Cancel


HUAWEI CLOUD
Console
Beijing4
More
EN
IoT Device Access
Basic
Change
Default
Overview
Products
Devices
All Devices
Groups
Software/Firmware Upgrades
Device CA Certificates
Rules
O&M
Resource Spaces
IoTDA Instances
Profiles
Storage Management
IoT Device Provisioning
Documentation
API Explorer
Forum for help
All Devices / Device Details
Device Info
Cloud Run Logs
Cloud Delivery
Device Shadow
Message Trace
Device Monitoring
Child Devices
Tags
The IoT platform supports the creation of device shadows. A device shadow is a JSON file that stores the device status, latest device properties reported, and device configurations to deliver.
Each device has only one shadow. A device can retrieve and set its shadow to synchronize properties, either from the shadow to the device or from the device to the shadow. Learn more>>
Configure Property
Search by 'property'
Service
Property
Access Mode
Reported Value
Desired Value
Operation
BL200
REG1000
REG1001
REG1002
REG1003
REG1004
REG1005
REG1006
REG1007
REG1008
REG1009
REG1010
REG1011
Read-only,Writable
"1"
"0"
Revoke
Revoke All


BL200M
Status
System
Settings
I/O Module
Serial Module
Operation Control
Cloud platform
Logout
Thingsboard Cloud settings
Cloud connection settings
Enable setting
Thingsboard platform
Thingsboard Cloud
MQTT Client ID
User Name
Password
Publish Period(s)
60
Data Retransmission Enable
Data packing
Send multiple data in one message
Number of data
100
Publish only changed data
Connect State
Connected
Save & Apply
Save
Reset


ThingsBoard
Devices
All
Groups
device.devices
Created time
Name
Device profile
Label
State
Customer name
Groups
Is gateway
Active
Home
Plan and billing
Alarms
Dashboards
Solution templates
Entities
Devices
Assets
Entity Views
Profiles
Device profiles
Asset profiles
Customers
Users
Integrations center
Rule chains
Edge management
Advanced features
Resources
Notification center
Api Usage


ThingsBoard
Devices
All
Groups
device.devices
Created time
Name
Device profile
BL200
Device details
Details
Attributes
Latest telemetry
Alarms
Events
Relations
Audit Logs
Version control
Telemetry
Last update time
Key
Value

BL200

Device details

Details | Attributes | Latest telemetry | Alarms | Events | Relations | Audit Logs | Version control

Telemetry

Last update time	Key	Value
2023-11-03 20:18:26	REG3010	-200
2023-11-03 20:18:26	REG4000	5
2023-11-03 20:18:26	REG40000	20
2023-11-03 20:18:26	REG40001	2
2023-11-03 20:18:26	REG40002	3
2023-11-03 20:18:26	REG40003	0
2023-11-03 20:18:26	REG40004	0
2023-11-03 20:18:26	REG40005	0
2023-11-03 20:18:26	REG40006	0

paginator.items-per-page 30 31 – 60 paginator.items-per-page-separator 68

BL200

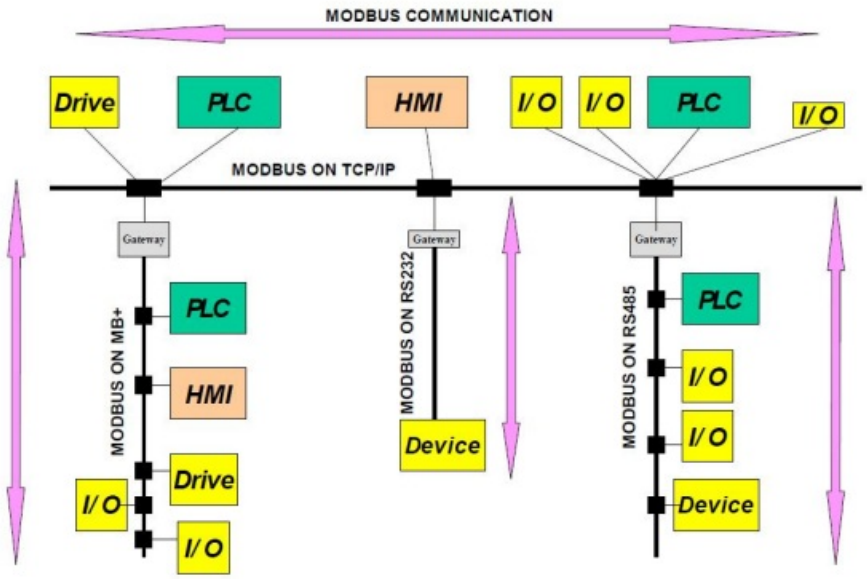
Device details

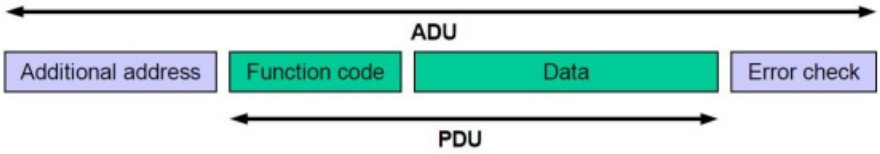
Details | Attributes | Latest telemetry | Alarms | Events | Relations | Audit Logs | Version control

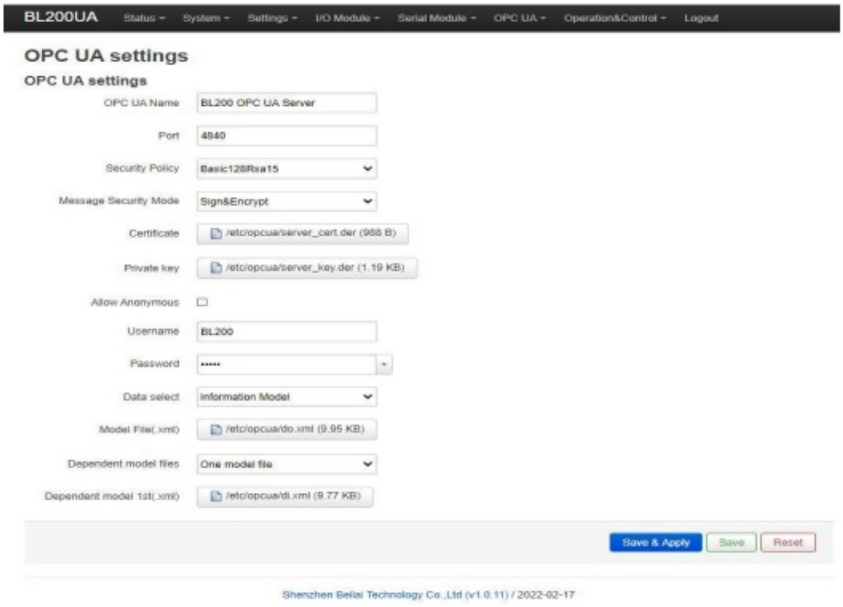
Telemetry

Last update time	Key	Value
2023-11-03 20:19:26	REG40007	0
2023-11-03 20:19:26	REG40008	0
2023-11-03 20:19:26	REG40009	0
2023-11-03 20:19:26	REG4002	4
2023-11-03 20:19:26	REG4004	4
2023-11-03 20:19:26	REG4006	4
2023-11-03 20:19:26	seq	1
2023-11-03 20:19:26	time	1699013966

paginator.items-per-page 30 61 – 68 paginator.items-per-page-separator 68




ADU
Additional address
Function code
Data
Error check
PDU


BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
OPC UA settings
OPC UA settings
OPC UA Name
BL200 OPC UA Server
Port
4840
Security Policy
Basic128Rsa15
Message Security Mode
Sign&Encrypt
Certificate
/etc/opcua/server_cert.der (988 B)
Private key
/etc/opcua/server_key.der (1.19 KB)
Allow Anonymous
Username
BL200
Password
Data select
Information Model
Model File(.xml)
/etc/opcua/do.xml (9.95 KB)
Dependent model files
One model file
Dependent model 1st(.xml)
/etc/opcua/di.xml (9.77 KB)
Save & Apply
Save
Reset
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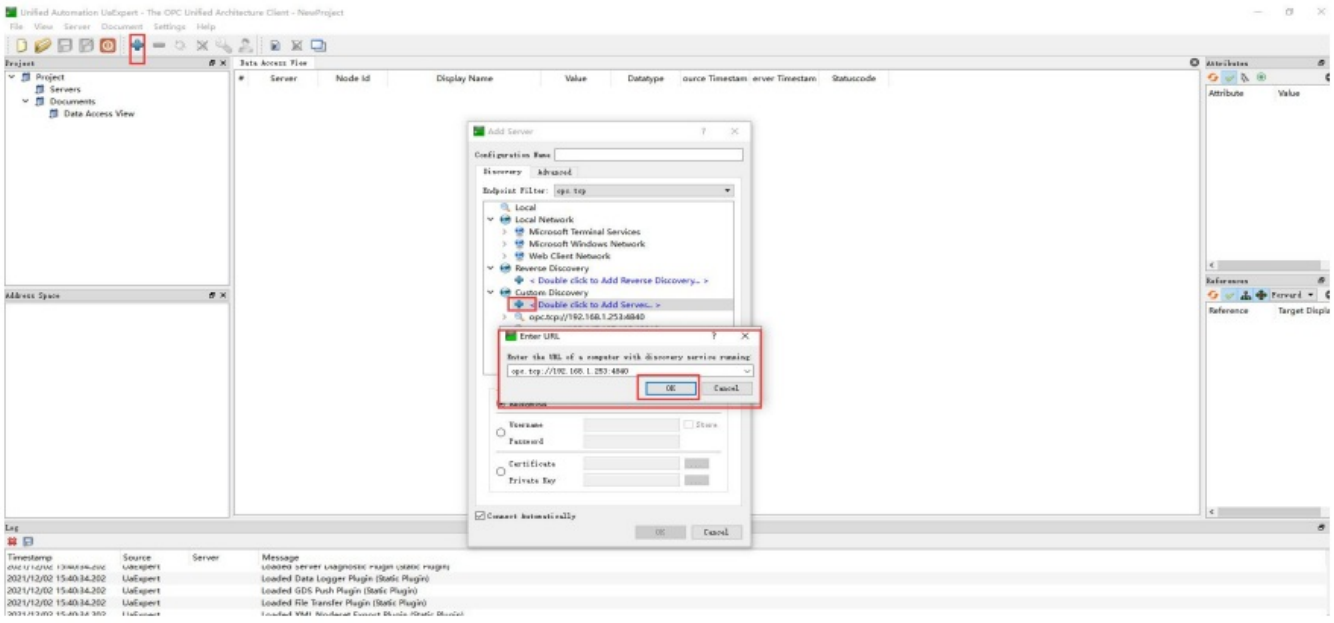
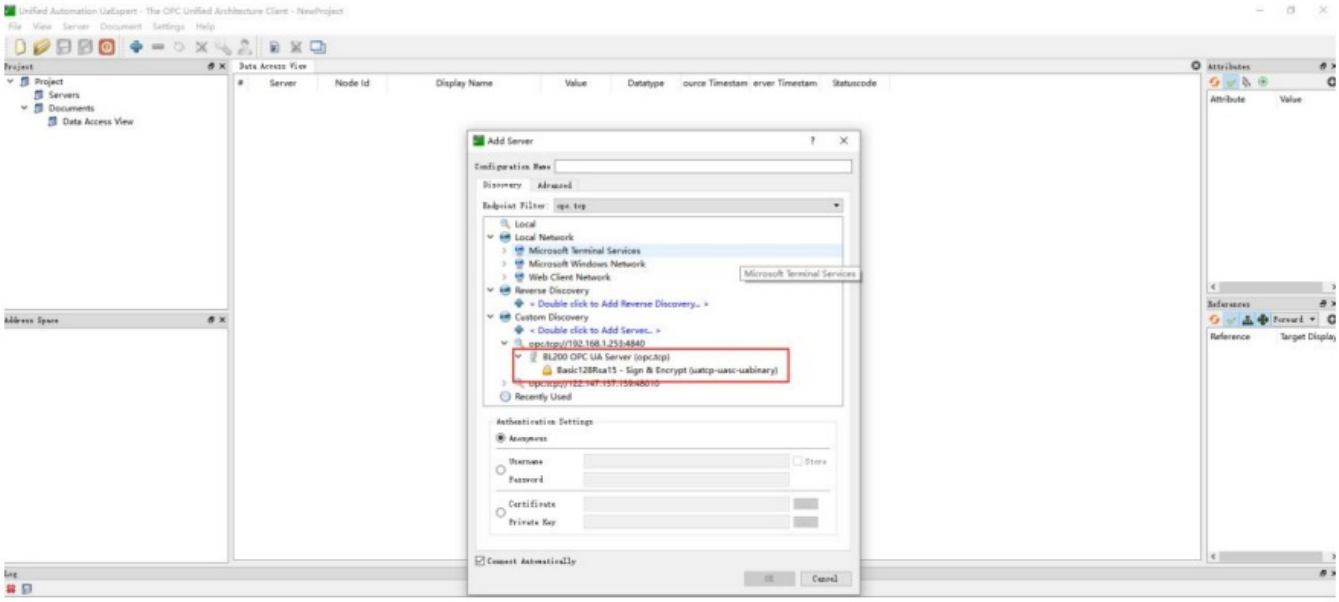
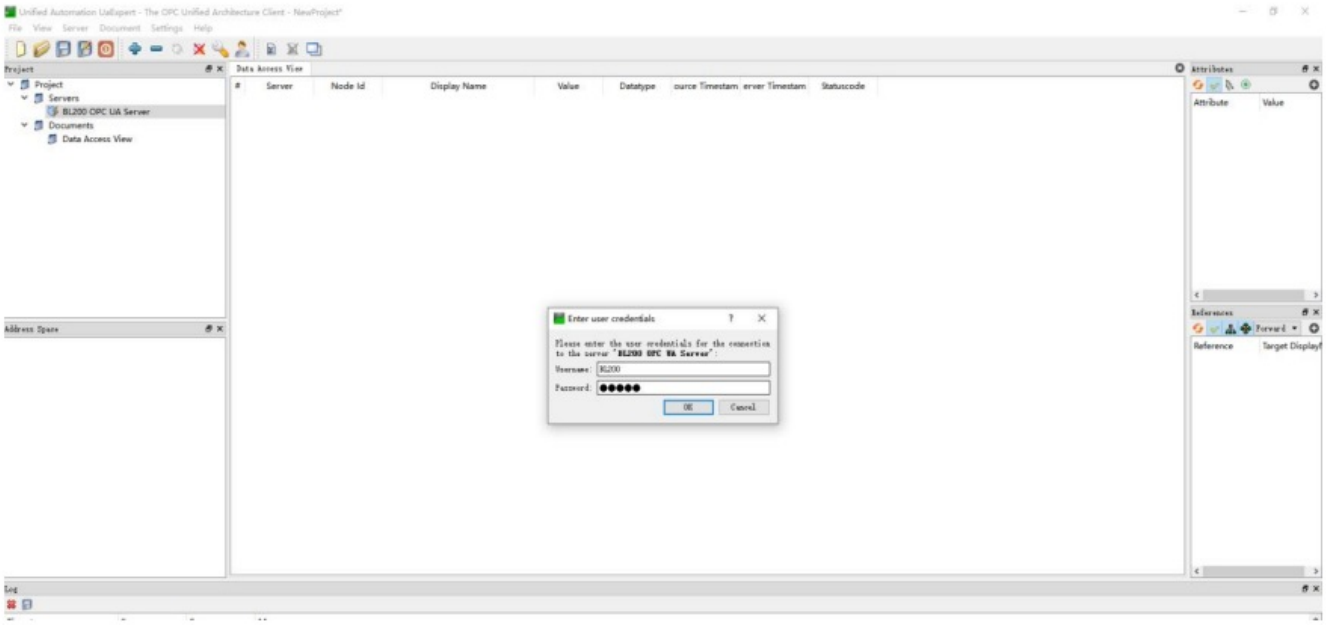
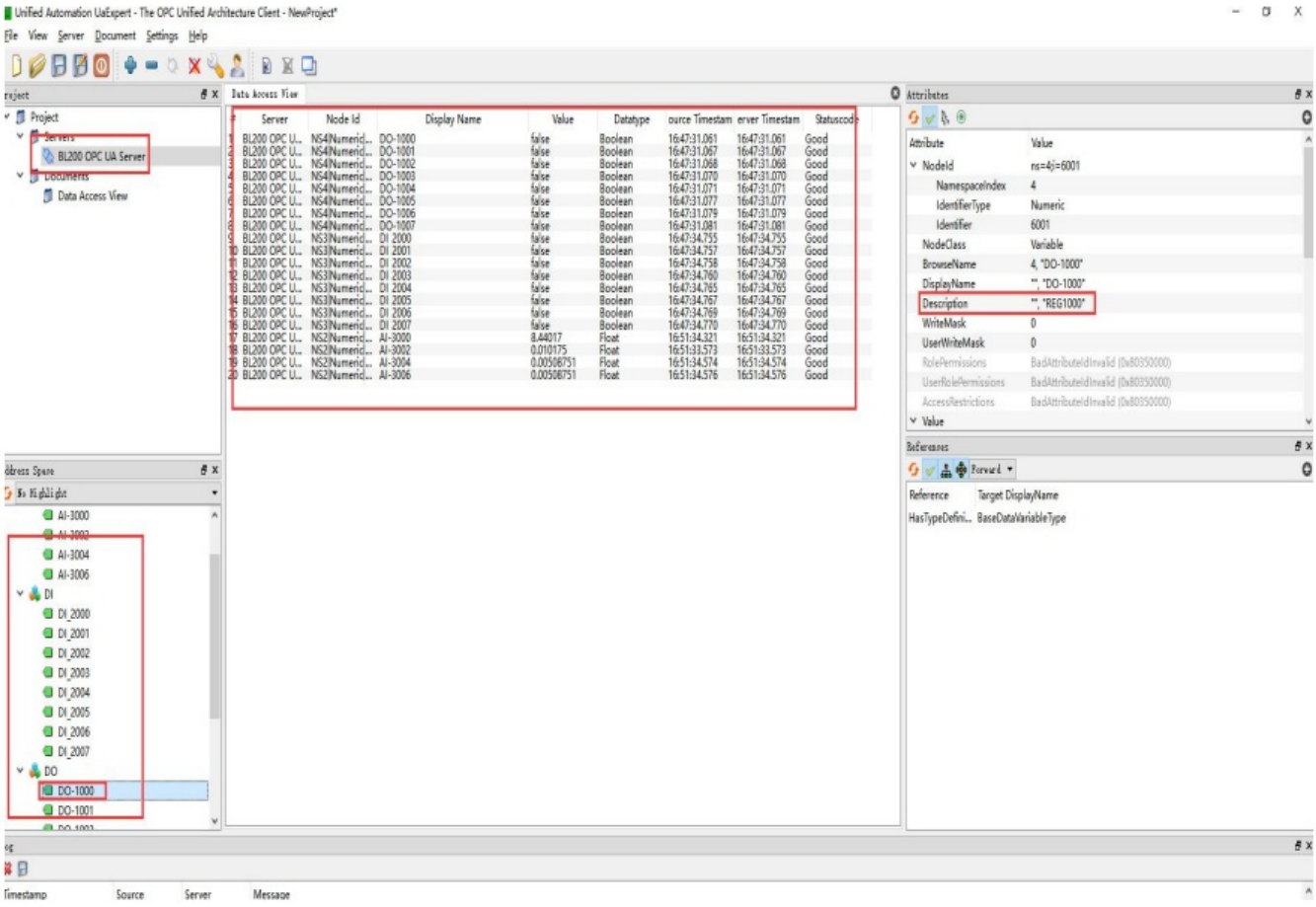

Unified Automation UaExpert - The OPC Unified Architecture Client - NewProject
Project
Servers
Documents
Data Access View
Add Server
Enter URL
OK
Cancel


Unified Automation UaExpert - The OPC Unified Architecture Client - NewProject
Project
Servers
Documents
Data Access View
Add Server
Microsoft Terminal Services
BL200 OPC UA Server (opc.tcp)
Basic128Rsa15 - Sign & Encrypt (uatcp-uasc-uabinary)
Recently Used
Authentication Settings
Anonymous
Username
Password
Certificate
Private Key
Connect Automatically
OK
Cancel


Enter user credentials
Please enter the user credentials for the connection to the server "BL200 OPC UA Server".
Username: BL200
Password:
OK
Cancel


UniFied Automation UaExpert - The OPC UniFied Architecture Client - NewProject*
File View Server Document Settings Help
Project
Servers
BL200 OPC UA Server
Documents
Data Access View
Data Access View
Server Node Id Display Name Value Datatype ource Timestam erver Timestam Statuscode
BL200 OPC U... NS4|Numeric... DO-1000 false Boolean 16:47:31.061 16:47:31.061 Good
BL200 OPC U... NS4|Numeric... DO-1001 false Boolean 16:47:31.067 16:47:31.067 Good
BL200 OPC U... NS4|Numeric... DO-1002 false Boolean 16:47:31.068 16:47:31.068 Good
BL200 OPC U... NS4|Numeric... DO-1003 false Boolean 16:47:31.070 16:47:31.070 Good
BL200 OPC U... NS4|Numeric... DO-1004 false Boolean 16:47:31.071 16:47:31.071 Good
BL200 OPC U... NS4|Numeric... DO-1005 false Boolean 16:47:31.077 16:47:31.077 Good
BL200 OPC U... NS4|Numeric... DO-1006 false Boolean 16:47:31.079 16:47:31.079 Good
BL200 OPC U... NS4|Numeric... DO-1007 false Boolean 16:47:31.081 16:47:31.081 Good
BL200 OPC U... NS3|Numeric... DI 2000 false Boolean 16:47:34.755 16:47:34.755 Good
BL200 OPC U... NS3|Numeric... DI 2001 false Boolean 16:47:34.757 16:47:34.757 Good
BL200 OPC U... NS3|Numeric... DI 2002 false Boolean 16:47:34.758 16:47:34.758 Good
BL200 OPC U... NS3|Numeric... DI 2003 false Boolean 16:47:34.760 16:47:34.760 Good
BL200 OPC U... NS3|Numeric... DI 2004 false Boolean 16:47:34.765 16:47:34.765 Good
BL200 OPC U... NS3|Numeric... DI 2005 false Boolean 16:47:34.767 16:47:34.767 Good
BL200 OPC U... NS3|Numeric... DI 2006 false Boolean 16:47:34.769 16:47:34.769 Good
BL200 OPC U... NS3|Numeric... DI 2007 false Boolean 16:47:34.770 16:47:34.770 Good
BL200 OPC U... NS2|Numeric... AI-3000 8.44017 Float 16:51:34.321 16:51:34.321 Good
BL200 OPC U... NS2|Numeric... AI-3002 0.010175 Float 16:51:33.573 16:51:33.573 Good
BL200 OPC U... NS2|Numeric... AI-3004 0.00508751 Float 16:51:34.574 16:51:34.574 Good
BL200 OPC U... NS2|Numeric... AI-3006 0.00508751 Float 16:51:34.576 16:51:34.576 Good
Attributes
Attribute Value
NodeId ns=4|i=6001
NamespaceIndex 4
IdentifierType Numeric
Identifier 6001
NodeClass Variable
BrowseName 4, "DO-1000"
DisplayName "", "DO-1000"
Description "", "REG1000"
WriteMask 0
UserWriteMask 0
RolePermissions BadAttributeIdInvalid (0x80350000)
UserRolePermissions BadAttributeIdInvalid (0x80350000)
AccessRestrictions BadAttributeIdInvalid (0x80350000)
Value
References
Forward
Reference Target DisplayName
HasTypeDefini... BaseDataVariableType
No Highlight
AI-3000
AI-3002
AI-3004
AI-3006
DI
DI_2000
DI_2001
DI_2002
DI_2003
DI_2004
DI_2005
DI_2006
DI_2007
DO
DO-1000
DO-1001
Timestamp Source Server Message

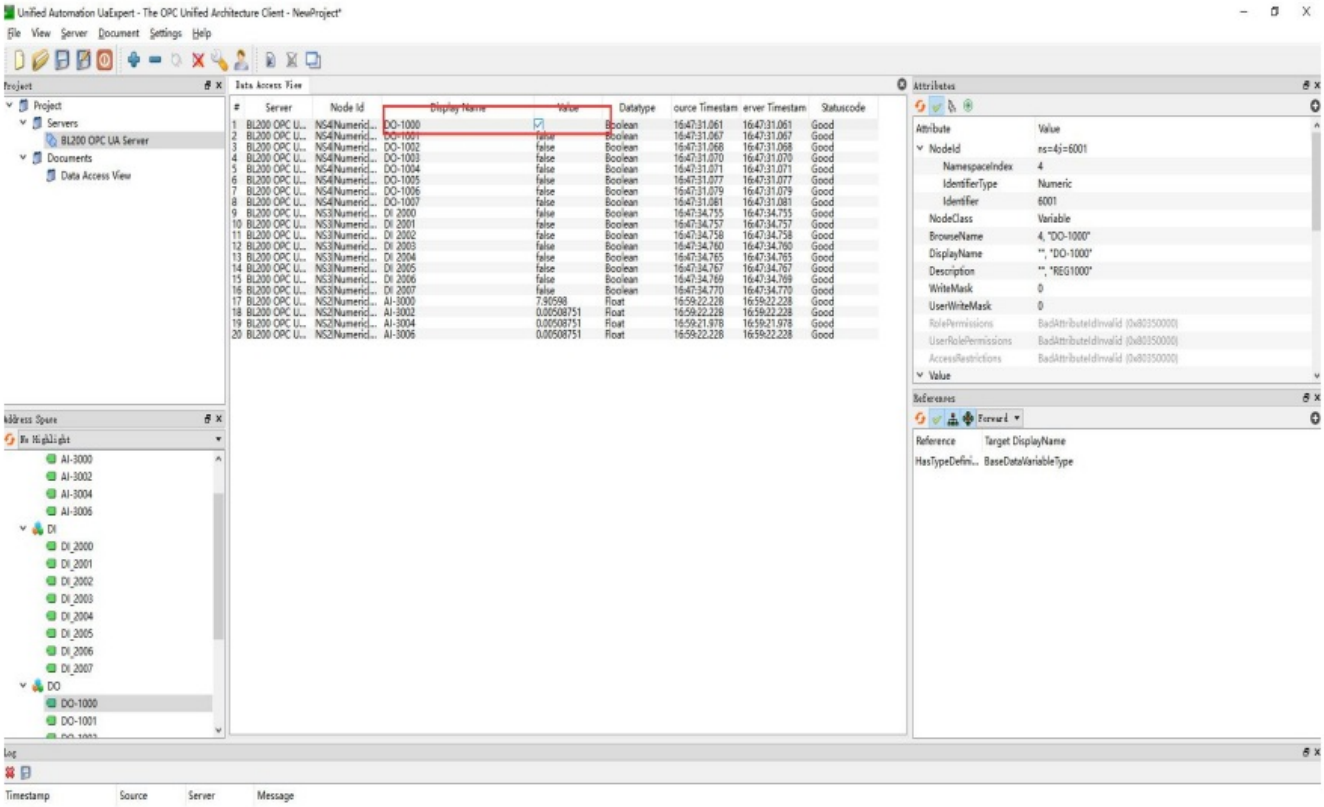
BL200UA Status System Settings I/O Module Serial Module OPC UA Operation&Control Logout

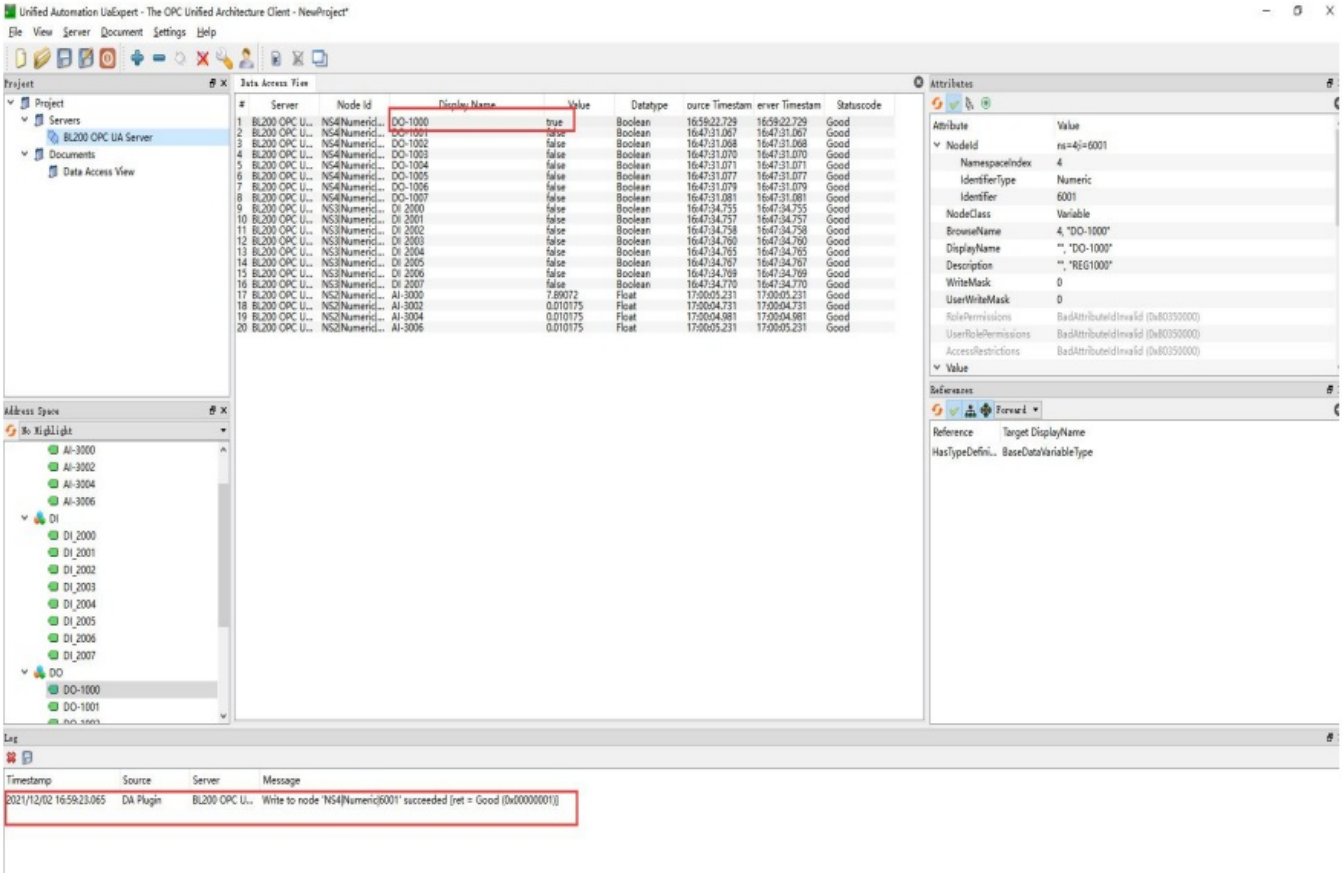
IO status

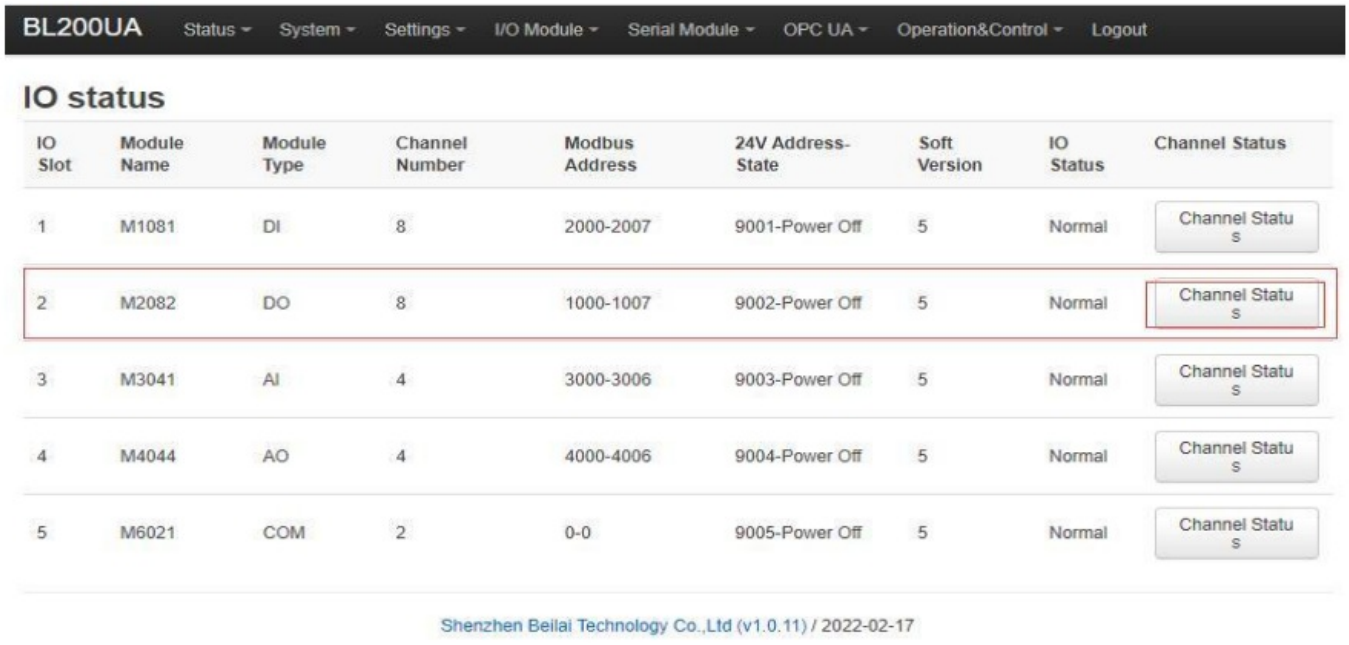
IO Slot:2,Module Type:DO,Module Name:M2082

Channels	Modbus Address	Value	PowerOn Status	Open/Close
1	1000	Open	Open	Open/Close
2	1001	Open	Open	Open/Close
3	1002	Open	Open	Open/Close
4	1003	Open	Open	Open/Close
5	1004	Open	Open	Open/Close
6	1005	Open	Open	Open/Close
7	1006	Open	Open	Open/Close
8	1007	Open	Open	Open/Close

Back to Overview | Save & Apply | Save | Reset




Unified Automation UaExpert - The OPC Unified Architecture Client - NewProject*
File View Server Document Settings Help
Project
Project
Servers
BL200 OPC UA Server
Documents
Data Access View
Data Access View
Server Node Id Display Name Value Datatype ource Timestam erver Timestam Statuscode
1 BL200 OPC U... NS4|Numeric|... DO-1000 true Boolean 16:59:22.729 16:59:22.729 Good
2 BL200 OPC U... NS4|Numeric|... DO-1001 false Boolean 16:47:31.067 16:47:31.067 Good
3 BL200 OPC U... NS4|Numeric|... DO-1002 false Boolean 16:47:31.068 16:47:31.068 Good
4 BL200 OPC U... NS4|Numeric|... DO-1003 false Boolean 16:47:31.070 16:47:31.070 Good
5 BL200 OPC U... NS4|Numeric|... DO-1004 false Boolean 16:47:31.071 16:47:31.071 Good
6 BL200 OPC U... NS4|Numeric|... DO-1005 false Boolean 16:47:31.077 16:47:31.077 Good
7 BL200 OPC U... NS4|Numeric|... DO-1006 false Boolean 16:47:31.079 16:47:31.079 Good
8 BL200 OPC U... NS4|Numeric|... DO-1007 false Boolean 16:47:31.081 16:47:31.081 Good
9 BL200 OPC U... NS3|Numeric|... DI 2000 false Boolean 16:47:34.755 16:47:34.755 Good
10 BL200 OPC U... NS3|Numeric|... DI 2001 false Boolean 16:47:34.757 16:47:34.757 Good
11 BL200 OPC U... NS3|Numeric|... DI 2002 false Boolean 16:47:34.758 16:47:34.758 Good
12 BL200 OPC U... NS3|Numeric|... DI 2003 false Boolean 16:47:34.760 16:47:34.760 Good
13 BL200 OPC U... NS3|Numeric|... DI 2004 false Boolean 16:47:34.765 16:47:34.765 Good
14 BL200 OPC U... NS3|Numeric|... DI 2005 false Boolean 16:47:34.767 16:47:34.767 Good
15 BL200 OPC U... NS3|Numeric|... DI 2006 false Boolean 16:47:34.769 16:47:34.769 Good
16 BL200 OPC U... NS3|Numeric|... DI 2007 false Boolean 16:47:34.770 16:47:34.770 Good
17 BL200 OPC U... NS2|Numeric|... AI-3000 7.89072 Float 17:00:05.231 17:00:05.231 Good
18 BL200 OPC U... NS2|Numeric|... AI-3002 0.010175 Float 17:00:04.731 17:00:04.731 Good
19 BL200 OPC U... NS2|Numeric|... AI-3004 0.010175 Float 17:00:04.981 17:00:04.981 Good
20 BL200 OPC U... NS2|Numeric|... AI-3006 0.010175 Float 17:00:05.231 17:00:05.231 Good
Attributes
Attribute Value
NodeId ns=4;i=6001
NamespaceIndex 4
IdentifierType Numeric
Identifier 6001
NodeClass Variable
BrowseName 4, "DO-1000"
DisplayName "", "DO-1000"
Description "", "REG1000"
WriteMask 0
UserWriteMask 0
RolePermissions BadAttributeIdInvalid (0x80350000)
UserRolePermissions BadAttributeIdInvalid (0x80350000)
AccessRestrictions BadAttributeIdInvalid (0x80350000)
Value
References
Forward
Reference Target DisplayName
HasTypeDefini... BaseDataVariableType
Address Space
To Highlight
AI-3000
AI-3002
AI-3004
AI-3006
DI
DI_2000
DI_2001
DI_2002
DI_2003
DI_2004
DI_2005
DI_2006
DI_2007
DO
DO-1000
DO-1001
Log
Timestamp Source Server Message
2021/12/02 16:59:23.065 DA Plugin BL200 OPC U... Write to node 'NS4|Numeric|6001' succeeded [ret = Good (0x00000001)]


BL200UA
Status
System
Settings
I/O Module
Serial Module
OPC UA
Operation&Control
Logout
IO status
IO Slot
Module Name
Module Type
Channel Number
Modbus Address
24V Address-State
Soft Version
IO Status
Channel Status
1 M1081 DI 8 2000-2007 9001-Power Off 5 Normal Channel Status
2 M2082 DO 8 1000-1007 9002-Power Off 5 Normal Channel Status
3 M3041 AI 4 3000-3006 9003-Power Off 5 Normal Channel Status
4 M4044 AO 4 4000-4006 9004-Power Off 5 Normal Channel Status
5 M6021 COM 2 0-0 9005-Power Off 5 Normal Channel Status
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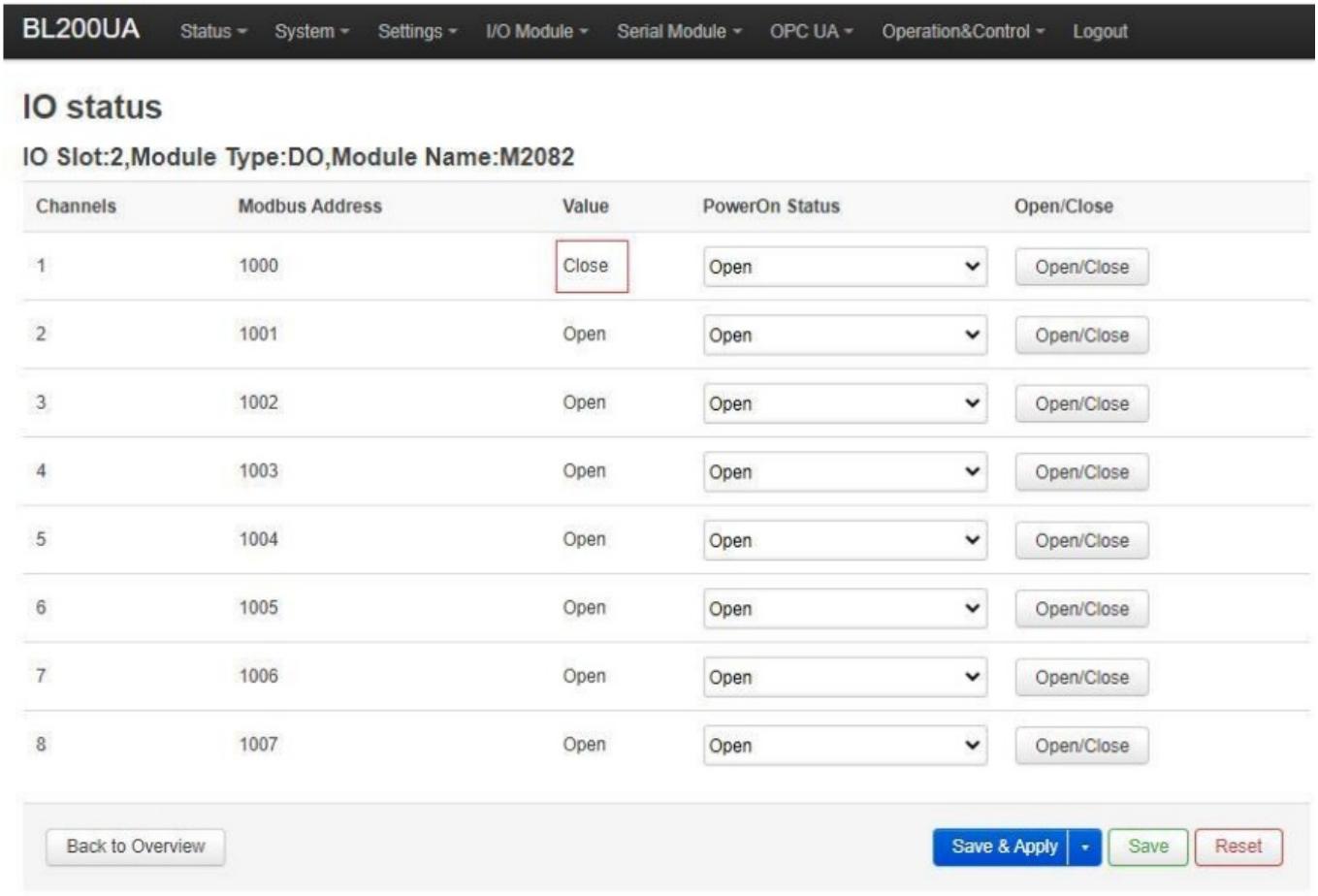

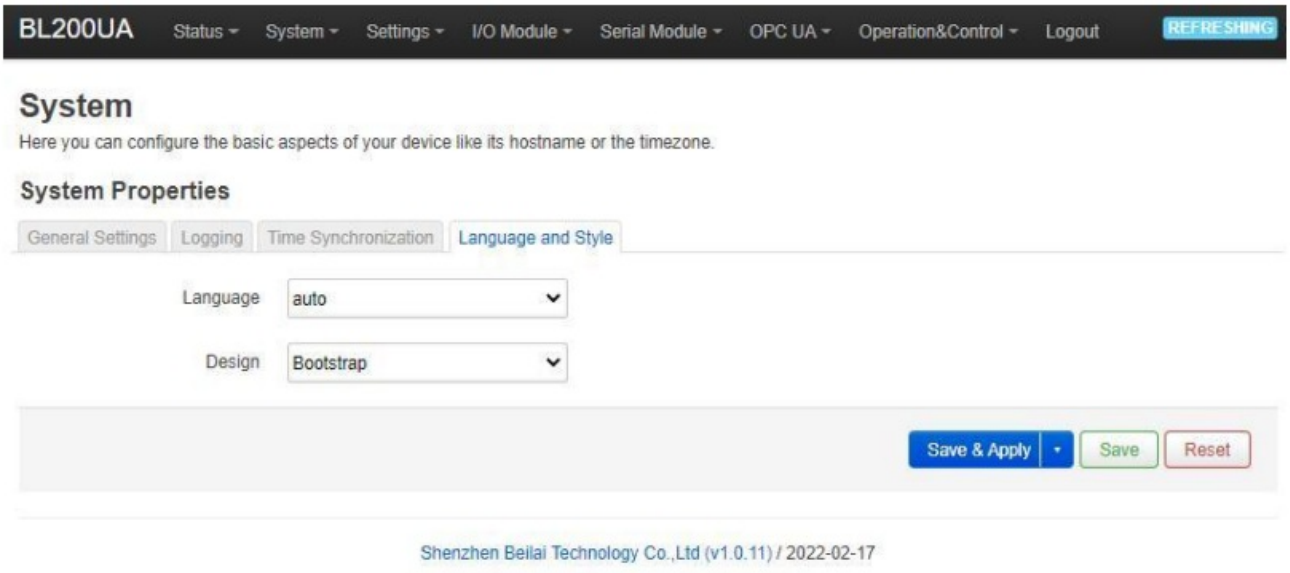

Documents / Resources

	**BLIIOT BL206 Distributed Distributed Input Output Ethernet** [pdf] User Manual BL206 Distributed Distributed Input Output Ethernet, BL206, Distributed Distributed Input Output Ethernet, Distributed Input Output Ethernet, Input Output Ethernet, Output Ethernet, Ethernet

References

- . Spend less. Smile more.
- IoT
- BLIIOT Focus on IoT IIoT Gateways, 4G Edge Routers, Edge Computers, I/O Modules
- User Manual